

GENERAL NOTES - STRUCTURAL

1. General Information:

- A. The contractor shall verify dimensions and conditions before construction and notify the engineer of any discrepancies, inconsistencies, or difficulties affecting the work before proceeding.
- B. The contractor shall coordinate all disciplines, verifying size and location of all openings, whether shown on structural drawings or not, as called for on architectural, mechanical, or electrical drawings. In the case of work in an existing building the contractor shall scan existing structure to locate all rebar in the area of the new core/opening using ground penetrating radar and notify the engineer of record for review prior to commencing. Conflicts, inconsistencies, or other difficulties affecting structural work shall be called to the architect or engineer's attention for direction before proceeding.
- C. All design and construction work for this project shall conform to the requirements of the following governing design codes:
1. International Building Code (IBC 2018) as amended by the City of Lee's Summit, Missouri
 2. Minimum Design Loads for Buildings and Other Structures (ASCE7-16)
 3. Specification for Structural Steel Buildings (AISC 360-16)
 4. Member Design Basis is Allowable Stress Design (ASD)
 5. Connection Design Basis is Allowable Stress Design (ASD)
 6. Structural Welding Code (AWS D14.1-17)
 7. Building Code Requirements for Structural Concrete (ACI 318-14)
 8. Building Code Requirements for Masonry Structures (TMS 402-16)
 9. North American Specification for the Design of Cold-Formed Steel Structural Members (AIS1 510-16)
 10. National Design Specification (NDS) for Wood Construction with 2018 Supplements (ANSI/AWC NDS-2018)
 11. Special Design Provisions for Wind and Seismic (AWG SDPWS-2015)
- D. These drawings are for this specific project and no other use is authorized.

2. Structural Design Load Criteria:

- A. Dead Loads:
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| Floor, Apartment | = 35 psf |
| Floor, Balcony | = 55 psf |
| Floor, Corridor | = 30 psf |
| Roof | = 25 psf |
| Stair, Wood | = 25 psf |
- B. Live Loads:
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| Floor, Apartment | = 40 psf |
| Floor, Balcony | = 60 psf |
| Floor, Corridor (Serving Apartment) | = 40 psf |
| Floor, Corridor (Serving Public) | = 100 psf |
| Floor, Public (Clubhouse) | = 100 psf |
| Floor, Storage | = 125 psf |
| Roof | = 20 psf |
| Roof, MEP Equipment Zone | = 45 psf |
| Stair | = 100 psf |
- C. Snow = Pg= 20 psf, Pf=14psf,Is = 1.0
Ce=1.0, Ct=1.0, Drift per ASCE/SEI 7-16
- D. Lateral Loads:
1. Wind V= 109 mph, exposure C
Occupancy [Risk] Category II, W=1.0
GCp=+/-0.18
Design wind pressures to be used for the design of exterior component and cladding materials on the designated zones of wall and roof surfaces shall be per section 30.7.1 and Table 30.7.2 of ASCE/SEI 7-16. Tabulated pressures shall be multiplied by effective area reduction factors, exposure adjustment factors, and topographic factors where applicable.
 2. Seismic = Sa = 0.101g, S1 = 0.069g
Occupancy [Risk] Category II, Ie=1.0
Site Classification C, Sds=0.088g, Sd1=0.069g
Seismic Design Category B
Equivalent Lateral Force Procedure
Above Podium:
A.17 - Light framed walls with shear panels of all materials
R = 2, Omega = 2.5; Cd = 2; V = 0.001W
Podium:
A.2 - Ordinary Reinforced Concrete Shearwalls
R = 4; Omega = 4; Cd = 2.5; V = 0.001W
- E. This project is designed to resist the most critical effects resulting from the load combinations of section 1605.3 of the 2018 International Building Code.

3. Concrete:

- A. All concrete for foundations (grade beams, footings and piers) shall develop minimum ultimate compressive strength of 3600 psi in 28 days, but not less than 500 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 6 gallons of water per 100 pounds of cement and not over 4 inches of slump (except piers which shall have a 6" slump).
- B. All concrete for interior flat work and walls (including wall columns) shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 550 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5.5 gallons of water per 100 pounds of cement and not over 4 inches of slump.
- C. All concrete for exterior flatwork shall have a minimum design compressive strength of 4500 psi in 28 days, with not less than 560 pounds of cement per cubic yard of concrete, not over 5 gallons of water per 100 pounds of cement, with 6% +/- 1% air entrainment, and a maximum of 4 inches of slump.
- D. All concrete for elevated decks and columns shall develop a minimum ultimate compressive design strength of 5000 psi in 28 days, but not less than 400 pounds of cement shall be used per cubic yard of concrete regardless of strength obtained, not over 5.5 gallons of water per 100 pounds of cement and not over 4 inches of slump.
- E. The preceding minimum mix requirements may have water-reducing admixtures conforming to ASTM C494 added to the mix at manufacturer's dosage rates for improved workability.
- F. The preceding minimum mix requirements may have up to 15% maximum of the cement content replaced with an approved ASTM C618 Class C fly ash, provided the total minimum cementitious content is not reduced.
- G. Combined aggregate (coarse plus fine) for all concrete shall be well graded from coarsest to finest with not more than 15 percent and not less than 8 percent retained on an individual sieve, except that less than 8 percent may be retained on coarsest sieve and on No. 50 and finer sieves. Submit this gradation report with the concrete mix design shop drawings.
- H. All interior concrete slabs on grade shall be placed over 15 mil, Class A Vapor Barrier per ASTM E1745 with less than 0.01 perms, tested after mandatory conditioning. All joints shall be lapped and sealed per manufacturer's recommendations. All penetrations, as well as damaged vapor barrier material shall also be sealed per manufacturer's recommendation prior to concrete placement. Install barrier per manufacturer recommended details at all discontinuous edges (at interior columns, exterior edge of slab, etc.) to ensure terms of warranty are followed. The vapor barrier shall be placed over free-draining granular material as prescribed by the project soils report.
- I. All concrete is reinforced concrete unless specifically called out as unreinforced. Reinforce all concrete not otherwise shown with same steel as in similar sections or areas. Any details not shown shall be detailed per ACI 315 and meet requirements of ACI 318, current editions.
- J. Contractor shall verify that all concrete inserts, reinforcing and embedded items are correctly located and rigidly secured prior to concrete placement.
- K. No aluminum items shall be embedded in any concrete.

4. Reinforcing Steel:

- A. All reinforcing steel shall conform to the requirements of ASTM A615 or A706 grade 60 steel. Welded plain wire fabric shall be supplied in sheets and conform to the requirements of ASTM A185.
- B. Clear minimum coverage of concrete over reinforcing steel shall be as follows:
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|--------------------------------|--------|
| Concrete placed against earth: | 3" |
| Formed concrete against earth: | 2" |
| Slabs: | 1" |
| Beams or Columns: | 1-1/2" |
| Other | 2" |
- C. All coverage shall be nominal bar diameter minimum.
- D. All dowels shall be the same size and spacing as adjoining main bars (splice lap 48 bar diameters or 24" minimum unless noted otherwise).
- E. At corners of all walls, beams, and grade beams supply corner bars (minimum 2'-0" in each direction or 48 bar diameters) in outside face of wall, matching size and spacing of horizontal bars. Where there are no vertical bars in outside face of wall, supply 3 - #4 vertical support bars for corner bars.
- F. Bars marked continuous and all vertical steel shall be lapped 48 bar diameters (2'-0" minimum) at splices and embedments, unless shown otherwise. Splice top bars near midspan and splice bottom bars over supports, unless noted otherwise.

- F. At all holes in concrete walls and slabs, add 2 - #5 bars (opening dimension plus 96 diameters long) at each of four sides and add 2 - #5 x 5'-0" diagonally at each of four corners of hole. Openings in 8" thick walls are reinforced similar, but with 1 - #5 instead of 2 - #5, respectively.
- G. Unless otherwise covered on architectural plans or specifications, vertical control joints in concrete wall shall be spaced at a maximum of 20'-0" on center and coordinated with the architect. Every other horizontal wall reinforcing bar shall be discontinuous at control joints except heavy top and bottom bars unless noted otherwise. Provide base seal waterstop style number 772 by Greenstreak Inc. or approved equal) on dirt face side of wall at all walls below grade.
- H. Accessories shall be as specified in latest edition of the ACI Detailing Handbook and the concrete Reinforcing Steel Institute Design Handbook. Maximum accessory spacing shall be 4'-0" on center, and all accessories on exposed surfaces are to have plastic coated feet.
- I. All slabs and stairs not shown otherwise shall be 6" thick with #4 bars at 12" on center each way. All exterior porches and stoops not otherwise detailed may be constructed in any standard manner, solid or hollow, but must be reinforced with #4 bars at 12" on center each way minimum. Porches shall be dowelled to adjacent walls or grade beams with #4 bars at 12" on center, hooked or embedded 48 diameters into both members. Slope porches 1/8" per foot for drainage unless noted otherwise.
- J. Allow 2 tons of reinforcing bars #4 or larger to be used as directed in the field for special conditions by the engineer of record (labor for placing same to be included).

5. Structural Steel:

- A. All structural steel beams and columns shall be ASTM A992, grade 50 steel and all miscellaneous steel shall be ASTM A36 grade steel. Hollow Structural Sections (HSS) shall be ASTM A500, grade B. Fabrication and erection shall be in accordance with AISC 303-05 "Code of Standard Practice for Steel Buildings and Bridges" in the 13th Edition of the AISC Steel Construction Manual.
- B. All welding shall conform to the recommendations of the AWS.
- C. All exterior steel and connections, and brack relief angles shall be hot-dip galvanized.
- D. All bolts not otherwise specified shall be 3/4" diameter high strength (ASTM A325-N). All bolts shall be fully pretensioned. All beam connections shall be designed per the AISC Manual of Steel Construction "Framed Beam Connections" for the indicated reactions or at least 0.4 x beam total shear capacity, Vn/Omega, shown in the maximum total uniform load tables, whichever is greater; and, shall account for eccentricity when the bolt line is more than 2" from the center of the support. All connections must be two bolt minimum. Connection design and shop drawing preparation shall be completed under the direct supervision of a professional engineer licensed in the state the project is located and shop drawings and connection calculations shall bear his seal.
- E. All anchor bolts shall be 3/4" diameter, ASTM F1554, Grade 36 unless noted otherwise. Washers of minimum size and thickness for the given anchor diameter in Table 14-2 of the AISC Steel Construction Manual shall be provided at every column anchor bolt. Washers shall have a standard size hole for the anchor bolt. At building perimeter columns and columns at braced frames washers shall be welded all around to the column base plate with 3/16" fillet weld.
- F. Handrails, guards and grab bars shall be designed to meet the requirements of the 2018 IBC. Refer to specifications for more explicit requirements. Submit structural calculations sealed by a licensed engineer in the state of the project location.

6. Foundations:

- A. The soil investigation was prepared by Terracon Consultants, Inc., and the project number is 02225094 and the telephone number is 913-492-7777.
- B. Spider findings, grade beams, and retaining walls are designed to bear on undisturbed soil or geotechnical approved structural fill capable of safely sustaining 2500 psf.
- C. Retaining structures are designed for an active lateral load of 51 pcf equivalent fluid pressure and an at-rest lateral load of 72 pcf based on geotechnical approved clay backfill.
- D. Contractor shall provide for dewatering at excavations from either surface water or seepage.
- E. All concrete in the structural portion retaining the backfill shall have attained its design strength prior to being backfilled.
- F. All basement walls shall not be backfilled until the first floor slab or wood decking is installed or the wall is temporarily braced by the contractor and the concrete has reached its design strength.
- G. Moisture content in soils beneath building foundations should not be allowed to change after footing excavations and after grading for slabs on grade are completed. If subgrade materials become desiccated or softened by water content specified for engineered fill. Do not place concrete on frozen ground.

7. Concrete Masonry Units:

- A. Concrete block used in exterior walls or load bearing walls shall meet the requirements of ASTM C90 and have a minimum net compressive strength of 2150 psi and laid up using type N mortar such that fm equals 1500 psi. Mortar shall be volume proportion based on concrete and cement. Proportioning shall be completed by box measure. Any block in contact with earth shall be normal weight units, laid using type "S" mortar and grouted solid.
- B. The contractor shall provide adequate temporary bracing for all masonry walls during construction.
- C. All concrete block shall have 9 gage (or larger) horizontal joint reinforcing (ladder or truss) per architectural drawings and specifications (16" maximum vertical spacing).
- D. Cavity wall construction shall be reinforced as designed for specific concrete block used. The horizontal joint reinforcing shall be of the ladder or truss style per specification and continuous between brick and block, as prescribed by the architectural drawings.
- E. Concrete block shall be reinforced as follows in 8" walls:
1. Vertical reinforcing shall be as indicated on S0.05, on center, at each corner, at each door and window jamb, each side of control joints and in the end void of each length of wall. Lap splices for masonry vertical reinforcing shall be 48 bar diameters or 24" minimum.
 2. Horizontal reinforcing:
A. Horizontal joint reinforcing as noted above.
B. Continuous horizontal bars shall be included per section or detail in bond beam or optional running bond beam where noted. Where bond beams are continuous at corners of walls, supply corner bars matching size of horizontal bars (minimum 2'-0" or 40 bar diameters in each direction).
- F. Grout, where noted above, shall have a minimum design ultimate compressive strength of 2500 psi at 28 day test and 3/8" maximum aggregate size.
- G. Unless otherwise covered on architectural plans or specifications, vertical control joints in masonry construction shall be 3/8" wide, full height of wall. Joints shall be spaced at a maximum of 24'-0" on center and coordinated with the architect. All horizontal joint reinforcing shall be discontinuous at control joints in masonry. All bond beam horizontal reinforcing shall be continuous through control joints.

8. Post-Installed Anchors:

- A. Post-installed anchors shall be used only where specified on the drawings unless approved in writing by the engineer of record. See drawings for anchor diameter, spacing and embedment. Performance values of the anchors shall be obtained for specified products using appropriate design procedures and/or standards as required by the governing building code. Anchors installed in concrete shall have an ICC-ES Evaluation Service Report. Special inspection is required for all post installed anchors. The contractor shall coordinate an on-site meeting with the post installed anchor manufacturer field representative to educate the construction team on the anchor installation guidelines and requirements.
- B. Mechanical anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ACI 308.2 and ICC-ES AC193. All anchors shall be installed per the anchor manufacturer's written instructions.
- C. Adhesive anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ICC-ES AC308. All anchors shall be installed per the anchor manufacturer's written instructions.
- D. Mechanical anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC01. All anchors shall be installed per the anchor manufacturer's written instructions.
- E. Adhesive anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC508. All anchors shall be installed per the anchor manufacturer's written instructions.
- F. Anchors used in hollow concrete masonry shall have been tested and qualified in accordance with ICC-ES AC106 or ICC-ES AC58 as appropriate. All anchors shall be installed per the anchor manufacturer's written instructions with appropriate screen tubes used for adhesives.

9. Timber and Wood Framing:

- A. Quality and construction of wood framing members and their fasteners for load supporting purposes not otherwise indicated on the drawings shall be in accordance with the 2018 International Building Code.
- B. All studs and top and bottom plates shall be Douglas Fir No. 2 grade or Southern yellow pine No. 2 grade, visually grade unless noted otherwise, with an allowable fiber stress in bending of 900 psi minimum and an elastic modulus of 1,400,000 psi unless noted otherwise. All joist, truss members and headers to be No. 2 grade DF (unless noted otherwise) All lumber for exterior decks and balconies shall be preservative-treated Southern yellow pine No. 2 grade, visually grade unless noted otherwise.
- C. Bridging of stud bearing walls and shear walls shall be solid, matching sheathing joints.
- D. Joist blocking and bridging shall be solid wood or cross bridging of either wood or metal straps. Spacing, in any case, shall not exceed 8'-0".
- E. Wood members and sheathing shall be fastened with number and size of fasteners not less than that set forth in Table 2304.9.1 of the 2018 International Building Code. Floor sheathing shall be APA rated tongue and groove Stud-Floor, exposure 1, glued and nailed with 10d nails or #10 screws at 6" on center to supports at edges and 12" on center field. Roof diaphragms shall be edge screwed with #10 screws at 6" on center and screwed to intermediate framing and/or blocking members with #10 screws at 12" on center unless noted on the drawings.
- F. Sill plates shall be bolted to concrete slabs with 1/2" diameter bolts at 32" on center (UNO, Re: shearwall sched). Provide plate washers at sill plate anchors for shearwalls per shearwall sched. Plates in direct contact with concrete or masonry shall be treated lumber.
- G. All hangers, ties and connections shown are based on Simpson Strong Tie as the basis of design, provide Simpson Strong Tie or an approved equal. Joist hangers shall be equal to "LUS" for wood application and "LB" for steel weld-on application. Roof truss ties shall be equal to "H2.5A" and tie the roof truss to the top plate (provide 2" H2.5A". Diagonally across from each other when uplift load shown in truss shop submittal exceeds 545 lbs). Roof girder ties shall be equal to a "LGT2", "LGT3" or "LGT4" (ie dependent on number of piles) and tie the truss girder to the top track. Provide "H2.5A" at the top of each stud to top plate when the top track has roof truss attached.
- H. Service condition - dry with moisture content at or below 19% in service.
- I. Laminated strand lumber (LSL) shall have an allowable flexural stress (Fb) of 1,700 psi (reduced by size factor) and an elastic modulus (E) of 1,300,000 psi.
- J. Laminated veneer lumber (LVL) shall have an allowable flexural stress (Fb) of 2,600 psi (reduced by size factor) and an elastic modulus (E) of 1,900,000 psi.
- K. Parallel Strand Lumber (PSL) shall have an allowable flexural stress (Fb) of 2,300 psi (reduced by size factor) and an elastic modulus (E) of 2,000,000 psi. (E) = 2,200,000 psi for members > 18")
- L. Pre-engineered wood trusses shall be designed in accordance with the Truss Plate Institute's national design standard for metal-plate connected wood truss construction (ANSI/TPI-1 latest edition). Trusses shall be designed and manufactured by an authorized member of the Wood Truss Council of America (WTCOA). Truss design shall conform to specified codes, allowable stress increases, deflection limitations and other applicable criteria of the governing code.
- M. Shop drawings showing complete erection and fabrication details and calculations (including connections) shall be submitted to the project architect / engineer for review prior to fabrication and/or erection. Calculations shall bear the seal of a professional engineer, registered in the state of the project location. Shop drawings shall also be submitted to the local government controlling agency when requested by that agency.
- N. All trusses shall be securely braced both during erection and permanently, as indicated on the approved truss design drawings and in accordance with TPI's commentary and recommendations for handling, installing and bracing metal-plate connected wood trusses (HIB-91, booklet) and the latest edition of ANSI/TPI-1.
- O. The truss manufacturer shall supply all hardware and fasteners for joining truss members together and fastening truss members to their supports. Metal connector plates shall be manufactured by a member of the Wood Truss Council of America (WTCOA) and shall be 20 gauge minimum. Connector plates shall meet or exceed ASTM A653, grade 33, with ASTM A924 galvanized coating designation G60.
- P. Shipment, handling, and erection of trusses shall be by experienced, qualified persons and shall be performed in a manner so as not to endanger life or property. Apparent truss damage shall be reported to the truss manufacturer for evaluation prior to erection. Cutting or alteration of trusses is not permitted.
- Q. Roof Truss Design Criteria:
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|------------------------|--|
| Top Chord Dead Load | = 15 psf. |
| Top Chord Live Load | = 20 psf. (Plus Rooftop Equipment) |
| Top Chord Total Load | = 20 psf or 14 psf plus Drift |
| Bottom Chord Dead Load | = 10 psf |
| Bottom Chord Live Load | = 0 psf |
| Live Load Deflection | = L/360 |
| Total Load Deflection | = L/300 (1" MAX) |
| Corridor Trusses Only | = 250 #1 Point Load at any location on the top and bottom chord (no concurrent with each other or typical live load - concurrent with MEP equipment) |

- R. Roof Truss Design Criteria:
- | | |
|------------------------|-----------------------|
| Top Chord Dead Load | = 30 psf |
| Top Chord Live Load | = Per General Note 5B |
| Bottom Chord Dead Load | = 10 psf |
| Live Load Deflection | = L/480 (1/2" MAX) |
| Total Load Deflection | = L/360 (3/4" MAX) |
- S. Roof trusses shall be designed per IBC 2018 for net uplift resulting from wind loading based on component and cladding loading. Reference details 1, 2, 2A, 2B, 3, 3A, 3B, 4 and 5 on S0.20/for net uplift holdown detail and requirements.
- T. Refer to sheet S0.05 for wood shrinkage recommendations.
- U. Construction bracing shall be provided by the contractor as required to keep the building and studs plumb.
- V. Structural members shall not be cut for pipes, etc., unless specifically detailed. Notching and boring of studs and top of plates shall conform to the provisions of section 2308.9.10 and 2308.9.11 of the IBC. Where top plates or sole plates are cut for pipes, angel tie with minimum 0.058 inches thick and 1 1/2" inches wide shall be fastened to each plate across and to each side of the opening with not less than (6) 16d nails, in accordance section 2308.9.8 of the IBC.
- W. All fasteners for wood to wood connections and wood connectors shall be as indicated in structural drawings or manufacturer literature to achieve full capacity of connection. Submittal must show that alternative will not reduce the capacity of the connection.

10. Shop Drawing Review:

- A. Bob D. Campbell and Company, Inc. will review the General Contractor's (GC) shop drawings and related submittals (as indicated below) with respect to the ability of the detailed work, when complete, to be a properly functioning integral element of the overall structural system designed by Bob D. Campbell and Company, Inc.
- B. Prior to submittal of a shop drawing or any related material to Bob D. Campbell and Company, Inc., the GC shall:
- 1) Review each submission for conformance with the means, methods, techniques, sequences and operations of construction and safety precautions and programs incidental thereto, all of which are the sole responsibility of the GC.
 - 2) Review and approve each submission.
 - 3) Stamp each submission as approved.
- C. Bob D. Campbell and Company, Inc. shall assume that no submission comprises a variation unless the GC advises Bob D. Campbell and Company, Inc. with written documentation.

LEGEND:

- SPAN DIRECTION OF DECK - TYPE PER SCHED ON S0.01
- ① HSS 6x6x1/4 COLUMN SIZE
- BASE PLATE MARK - SEE SCHEDULE ON SHEET S0.04
- A# BEAM OR HEADER PER SCHED ON S0.02
- A#-BU UPSET BEAM OR HEADER PER SCHED ON S0.02
- # BEARING WALL TYPE PER SCHED ON S0.02
- A SHEARWALL HOLDDOWN TYPE PER SCHED ON S0.03
- #B NUMBER OF RESPECTIVE JACKING STUDS IN A STUD PACK. REFER TO DETAIL 6 ON S1.11
- # NUMBER OF WALL STUDS IN STUD PACK EQUAL TO KING & JAMB STUDS FROM HEADER ABOVE - TYP @ ALL LOCATIONS WITHIN A PILASTER
- SW# SHEARWALL TYPE PER SCHED ON S0.03

- D. Shop drawings and related material (if any) required are indicated below. Should Bob D. Campbell and Company, Inc. require more than ten (10) working days to perform the review, Bob D. Campbell and Company, Inc. shall so notify the GC.
- 1) Structural steel shop drawings including erection drawings and piece details. Include connection submittals and miscellaneous framing.
 - 2) Miscellaneous anchors shown on the structural drawings.
 - 3) Elevations of all reinforced concrete masonry walls at a scale of no smaller than 3/8"=1'-0" showing all required reinforcing.
 - 4) Grout mix designs (for CMU).
 - 5) Construction and control joint plans and/or elevations.
 - 6) Wood truss design and calculations and detailed erection and fabrication drawings.
 - 7) Wood shearwall holdown system.
- E. Bob D. Campbell and Company, Inc. shall review shop drawings and related materials with comments provided that each submission has met the above requirements. Bob D. Campbell and Company, Inc. shall return without comment unrequired material or submissions without GC approval stamp.

11. Structural Special Inspection:

- A. The structural design for this project is based on completion of special inspections during construction in accordance with section 1704 of the International Building Code. The owner shall employ one or more qualified special inspectors to provide the required special inspections.
- B. The special inspector shall furnish inspection reports to the building official, owner, architect and structural engineer, and any other designated person.
- C. All discrepancies shall be brought to the immediate attention of the contractor for correction; then, if uncorrected, to the proper design authority, building official and structural engineer.
- D. The special inspector shall submit a final signed report stating that the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions of the building code.
- E. The following inspections and tests are required with the frequency (continuous or periodic) as defined within the referenced section or standard listed below. The General Contractor shall provide notification to the inspector when items requiring inspection are ready to be inspected and provide access for those inspections.
1. Shop Fabrication - structural steel per Section 1704.2.5 unless AISC certified shop
 2. Shop Fabrication - pre-engineered wood trusses per Section 1704.2.5 unless TPI certified shop
 3. Steel Construction per Section 1705.2 and the quality assurance requirements of AISC 341 Chapter J (as referenced in AISC 360)
 4. Concrete Construction per Section 1705.3 and Table 1705.3
 - a. Reinforcing Steel Placement
 - b. Reinforcing Steel Welding
 - c. Cast in Place Anchors
 - d. Post Installed Anchors
 - e. Design Mix Verification
 - f. Concrete Sampling and Testing
 - g. Concrete Placement
 - h. Concrete Curing
 - i. Formwork Shape, Location and Dimensions
 5. Masonry Construction per Section 1705.4 and the quality assurance requirements of TMS 402/ACI303/ASCE5 and TMS602/AS301./ASCE6 Level B
 6. Wood Lateral System (periodic)
 - a. Wood shearwalls (include sheathing, rim board and bottom plate attachments)
 - b. Portal frames
 - c. Shear wall and portal frame holdowns
 - d. Shear wall tension rod system
 7. Wood Gravity Framing and Placement (adjust frequency of random sampling where indicated as required)
 - a. Heavy timber/SC/Lglulam beams and supports (periodic)
 - b. Headers and jams (random sampling)
 - c. Bearing walls (random sampling)
 - d. Connector/hardware installation (random sampling)
 - e. Floor and roof trusses (random sampling)

12. Structural Observation:

- A. The general contractor shall notify the engineer of record and allow for safe access to the appropriate items requiring structural observation.
- B. The engineer of record shall be notified such that the following items can be observed:
- a. Reinforcement at Elevated Concrete Floors/Roofs
Reinforcement is placed and 48 hours (min) before a pour
 - b. Structural Steel Framing
 - i. Erection is completed, prior to covering steel
 - c. Wood Framed Floors
 - i. Floor/Roof is erected, prior to MEP system routing
 - ii. MEP routing is completed and all hardware installed - prior to insulating or sheathing.
- C. At the discretion of the engineer of record a site observation report will be issued to the general contractor and architect of record.
- D. The structural observations are performed at the discretion of the engineer of record and are not required per the IBC for this project.

13. Copyright and Disclaimer:

- A. All drawings in the structural set (S-series drawings) are the copyrighted work of Bob D. Campbell and Company, Inc. These drawings may not be photographed, traced, or copies in any manner without the written permission of Bob D. Campbell and Company, Inc. Exception: (Original) drawings may be printed for distribution to the owner, architect, and general contractor for coordination, bidding, and construction. Subcontractors may not reproduce these drawings for any purpose or in any manner.
- B. For any purpose or in any manner.
1. Christopher A. Beverlin, P.E., registered engineer and a representative of Bob D. Campbell and Company, Inc., do hereby accept professional responsibility as required by the professional registration laws of this state for the structural design drawings consisting of S-series drawings. I hereby disclaim responsibility for all other drawings in the construction document package, they being the responsibility of other design professionals whose seals and signed statements may appear elsewhere in the construction document package.

STRUCTURAL DECK & SLAB SCHEDULE	
MARK	DESCRIPTION
FD-1	1/2" GYPCRETE ATOP 23/32" T&G APA-RATED STURD-I FLOOR, EXP 1 SHEATHING.
CD-1	SHEATHING SHALL BE GLUED AND NAILED W/ 8d RING SHANK NAILS OR #10 SCREWS @ 6"o.c. @ EDGES & 12"o.c. AT FIELD.
CD-2	3" CONCRETE SLAB (4000psi) REINFORCE WITH 6x6 - W2.9xW2.9 WWF ATOP WATERPROOFING MEMBRANE (RE: ARCH.) ATOP 15/32" EXT. GRADE PLYWOOD SHEATHING SLOPE TO DRAIN PER ARCH. RE: NOTE 6 BELOW.
SOG-1	6" (MIN) CONCRETE SLAB (4,500psi, AIR-ENTRAINED) REINFORCE WITH #4 @ 12"oc LONGITUDINAL AT #4 12"oc TRANSVERSE BOTTOM. T/SLAB EL. = PER PLAN.
SOG-2	4" CONC. SLAB (4000psi) REINFORCE WITH 6x6-W2.9xW2.9 WWF ATOP 15 mil VAPOR BARRIER ATOP 6" OF 3/4" CLEAN GRANULAR LEVELING COURSE, ATOP SUITABLE SUBGRADE
SOG-3	4" CONC. SLAB (4500psi, AIR ENTRAINED) REINFORCE WITH 6x6-W2.9xW2.9 WWF ATOP 6" OF 3/4" CLEAN GRANULAR LEVELING COURSE, ATOP SUITABLE SUBGRADE MATERIAL PER GEOTECH SPECIFICATIONS. T/SLAB EL. = PER PLAN, SLOPE TO DRAIN.
RD-1	6" CONC. SLAB (4500psi, AIR ENTRAINED) REINFORCE WITH #4 @ 12"oc EA WAY ATOP 6" OF 3/4" CLEAN GRANULAR LEVELING COURSE, ATOP SUITABLE SUBGRADE MATERIAL PER GEOTECH SPECIFICATIONS. T/SLAB EL. = PER PLAN.
	19/32" APA-RATED, EXP 1 SHEATHING ATTACHED WITH #10 SCREWS @ 6"o.c. AT EDGES & 12"o.c. AT FIELD. (ATTACH WITH #8 SCREWS AT SAME SPACING AT FLAT ROOF AREAS)

- NOTES:
1. FD = FLOOR DECK TYPE
 2. CD = CONCRETE DECK TYP.
 3. SOG = SLAB-ON-GRADE TYP.
 4. RD = ROOF DECK TYP.
 5. PROVIDE 1" DEEP TOOLED CONTROL JOINT (TRANSVERSE DIRECTION) AT MID-SPAN OF SINGLE BAY BALCONY OR AT THIRD POINTS OF DOUBLE BALCONY (6'-0" MAX SPACING). FILL JOINT WITH SEALANT.

CONCRETE FOOTING SCHEDULE

BRG PRESSURE (PSF):	CONCRETE (PSI):	REBAR (KSI):
2,500	3500	60
TYPE	FOOTING SIZE (FT.) THICKNESS (IN.)	QTY/size OF BARS
3	3'-0" x 3'-0" x 18"	#4 @ 6"oc EA WAY BOTTOM
3A	3'-0" x 3'-0" x 32"	#4 @ 6"oc EA WAY TOP & BOTTOM
3/6	3'-0" x 6'-0" x 32"	#4 @ 6"oc EA WAY TOP & BOTTOM
4	4'-0" x 4'-0" x 18"	#4 @ 6"oc EA WAY BOTTOM
4A	4'-0" x 4'-0" x 32"	#4 @ 6"oc EA WAY TOP & BOTTOM
4x2	4'-0" x 2'-0" x 12"	#4 @ 6"oc EA WAY BOTTOM
5	5'-0" x 5'-0" x 18"	#4 @ 6"oc EA WAY BOTTOM
6	6'-0" x 6'-0" x 18"	#4 @ 6"oc EA WAY BOTTOM

NOTE:

1. EXTERIOR FOOTINGS OR FOOTING AT GRADE BEAM SHALL MATCH GRADE BEAM DEPTH AND BE PLACED WITH GRADE BEAM. PROVIDE SPECIFIED REBAR TOP AND BOTTOM WITH STANDSTAYS TO SUPPORT MATS.
2. EXTERIOR FOOTINGS ON COULMBS SHALL BE CENTER LINES PER PLAN. UNO.
3. SPREAD FOOTINGS LOCATED AT INTERIOR SHALL BE POURED MONOLITHIC W/ THE SLAB AS A THICKENED PORTION OF SLAB UNLESS THEY HAVE A STEEL COLUMN BEARING ATOP.
4. SPREAD FOOTINGS LOCATED AT INTERIOR WITH STEEL COLUMNS BEARING ATOP SHALL BE LOCATED AT 99'-0".

Abbreviations

ACE	PL	PLATE
AG	PLF	POUNDS PER LINEAR FOOT
VERIFY	PJP	PARTIAL JOINT PENETRATION
	PSF	POUNDS PER SQUARE FOOT
	PSI	POUNDS PER SQUARE INCH
NIZE(D)	QTY	QUANTITY
AL	RAD	RADIUS
ONTAL	RD-S	ROOF DECK TYPE
W STRUCTURAL SECTION	REF	REFERENCE
FACE	REINF	REINFORCEMENT
ION JOINT	REQD	REQUIRED
INATION	REV	REVISION
OR	RLL	ROOF LIVE LOAD
	RTU	ROOF TOP UNIT
	SC	SLIP CRITICAL
000 LBS)	SCHED	SCHEDULE(D)
	SECT	SECTION
ER SQUARE FOOT	SHT	SHEET
ER SQUARE INCH	SIM	SIMILAR
S	SJ	SAW JOINT
OPMENT LENGTH	SL	SNOE LOAD
AD	SOG	SLAB-ON-GRADE
LEG HORIZONTAL	SOS-H	SLAB-ON-GRADE TYPE
LEG VERTICAL	SPCG	SPACING
UDINAL	SPEC	SPECIFICATION
LOTTED HOLE TRANSVERSE	SPRT	SUPPORT
WEIGHT	SQ	SQUARE
ORCE	SS	STAINLESS STEEL
	SSLT	SHORT-SLOTTED HOLE TRANSVERSE
UM	STD	STANDARD
ICAL	STIFF	STIFFENER
ACTURER	STIR	STIRRUP
UM	STL	STEEL
LANEOUS	STRUCT	STRUCTURE, STRUCTURAL
RY	SW	SHEARWALL
FACE	T/	TOP OF
IDE	THRU	THROUGH
SCALE	TOF	TOP OF FOOTING
AL WEIGHT	TOS	TOP OF STEEL, TOP OF SLAB
INTER	TRANS	TRANSVERSE
DE FACE	UNO	TYPICAL
ITE	UNO	UNLESS NOTED OTHERWISE
	V	SHEAR FORCE
SIZED HOLE	VERT	VERTICAL
ORCE	W/	WITH
ER ACTUATED FASTENER	W/O	WITHOUT
ST	WF	WIDE FLANGE
PER CUBIC FOOT	WL	WIND LOAD
INGEINERED METAL BUILDING	WP	WORK POINT
INDULAR	WWF	WELDED WIRE FABRIC

SHEARWALL SCHEDULE							
SHEARWALL TYPE		FLOOR					PLATE CONNECTION (SILL TO RIM BOARD & RIM BOARD TO TOP PLATE) (RE: NOTES 6 & 7)
		BASEMENT WALLS	1st FLOOR WALLS	2nd FLOOR WALLS	3rd FLOOR WALLS	4th FLOOR WALLS	
SW1-5	MATERIAL & THICKNESS	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	3rd FLR - 20d NAILS @ 8"oc 2nd FLR - 20d NAILS @ 8"oc 1st FLR - 120d NAILS @ 4"oc
	NAIL SIZE & SPACING	8d NAILS 4/12	8d NAILS 4/12	8d NAILS 4/12	8d NAILS 6/12	8d NAILS 6/12	
	SHEAR FORCE	532 plf	532 plf	532 plf	364 plf	364 plf	
SW1-4a	MATERIAL & THICKNESS		7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	3rd FLR - 20d NAILS @ 8"oc 2nd FLR - 20d NAILS @ 8"oc
	NAIL SIZE & SPACING		8d NAILS 4/12	8d NAILS 4/12	8d NAILS 6/12	8d NAILS 6/12	
	SHEAR FORCE		532 plf	532 plf	364 plf	364 plf	
SW1-4b	MATERIAL & THICKNESS	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED		3rd FLR - 20d NAILS @ 8"oc 2nd FLR - 20d NAILS @ 8"oc 1st FLR - 120d NAILS @ 4"oc
	NAIL SIZE & SPACING	8d NAILS 4/12	8d NAILS 4/12	8d NAILS 6/12	8d NAILS 6/12		
	SHEAR FORCE	532 plf	532 plf	364 plf	364 plf		
SW1-3	MATERIAL & THICKNESS		7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED		3rd FLR - 20d NAILS @ 8"oc 2nd FLR - 20d NAILS @ 8"oc 1st FLR - 20d NAILS @ 4"oc
	NAIL SIZE & SPACING		8d NAILS 4/12	8d NAILS 6/12	8d NAILS 6/12		
	SHEAR FORCE		532 plf	364 plf	364 plf		
SW2-5	MATERIAL & THICKNESS	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	5/8" GYPSUM SHEATHING ONE SIDE, w/ EDGES BLOCKED	5/8" GYPSUM SHEATHING ONE SIDE, w/ EDGES BLOCKED	3rd FLR - 20d NAILS @ 8"oc 2nd FLR - 20d NAILS @ 8"oc 1st FLR - 120d NAILS @ 4"oc
	NAIL SIZE & SPACING	8d NAILS 4/12	8d NAILS 4/12	8d NAILS 6/12	6d NAILS @ 4/4	6d NAILS @ 7/7	
	SHEAR FORCE	532 plf	532 plf	364 plf	175 plf	145 plf	
SW2-4	MATERIAL & THICKNESS		7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	5/8" GYPSUM SHEATHING ONE SIDE, w/ EDGES BLOCKED	5/8" GYPSUM SHEATHING ONE SIDE, w/ EDGES BLOCKED	3rd FLR - 20d NAILS @ 8"oc 2nd FLR - 20d NAILS @ 8"oc
	NAIL SIZE & SPACING		8d NAILS 4/12	8d NAILS 6/12	6d NAILS @ 4/4	6d NAILS @ 7/7	
			532 plf	364 plf	175 plf	145 plf	
SW3-5	MATERIAL & THICKNESS	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	5/8" GYPSUM SHEATHING ONE SIDE, w/ EDGES BLOCKED	5/8" GYPSUM SHEATHING ONE SIDE, w/ EDGES BLOCKED	5/8" GYPSUM SHEATHING ONE SIDE, w/ EDGES UNBLOCKED	3rd FLR - 20d NAILS @ 8"oc 2nd FLR - 20d NAILS @ 8"oc 1st FLR - 20d NAILS @ 4"oc
	NAIL SIZE & SPACING	8d NAILS 6/12	8d NAILS 6/12	6d NAILS @ 4/4	6d NAILS @ 7/7	6d NAILS @ 7/7	
	SHEAR FORCE	364 plf	364 plf	175 plf	145 plf	115 plf	
SW3-4 SW3-3	MATERIAL & THICKNESS		7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	5/8" GYPSUM SHEATHING ONE SIDE, w/ EDGES BLOCKED	5/8" GYPSUM SHEATHING EACH SIDE w/ EDGES BLOCKED	5/8" GYPSUM SHEATHING EACH SIDE w/ EDGES UNBLOCKED	NO 4th FLOOR AT SW3-3
	NAIL SIZE & SPACING		8d NAILS 6/12	6d NAILS @ 4/4	6d NAILS 7/7	6d NAILS 7/7	
	SHEAR FORCE		364 plf	175 plf	145 plf	115 plf	
SW4-4	MATERIAL & THICKNESS		(2) 5/8" GYPSUM SHEATHING ONE SIDE w/ EDGES BLOCKED	(2) 5/8" GYPSUM SHEATHING ONE SIDE w/ EDGES BLOCKED	(2) 5/8" GYPSUM SHEATHING ONE SIDE w/ EDGES BLOCKED	(2) 5/8" GYPSUM SHEATHING ONE SIDE w/ EDGES BLOCKED	3rd FLR - 20d NAILS @ 8"oc 2nd FLR - 20d NAILS @ 8"oc 1st FLR - 120d NAILS @ 4"oc
	NAIL SIZE & SPACING		BASE PLY: 6d COOLER NAILS @ 9/9 FACE PLY: 8d COOLER NAIL @ 7/7	BASE PLY: 6d COOLER NAILS @ 9/9 FACE PLY: 8d COOLER NAIL @ 7/7	BASE PLY: 6d COOLER NAILS @ 9/9 FACE PLY: 8d COOLER NAIL @ 7/7	BASE PLY: 6d COOLER NAILS @ 9/9 FACE PLY: 8d COOLER NAIL @ 7/7	
	SHEAR FORCE		250 plf	250 plf	250 plf	250 plf	
SW5 SW5-1 SW5-2	MATERIAL & THICKNESS	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED	7/16" OSB SHEATHING ONE SIDE, w/ EDGES BLOCKED				SW5 @ 1ST FLOOR ONLY SW5-1 @ BSMT LEVEL ONLY SW5-2 @ BOTH LEVELS
	NAIL SIZE & SPACING	8d NAILS 6/12	8d NAILS 6/12				
	SHEAR FORCE	364 plf	364 plf				
SW6 SW6-1 SW6-2	MATERIAL & THICKNESS	5/8" GYPSUM SHEATHING ONE SIDE, w/ EDGES BLOCKED	5/8" GYPSUM SHEATHING ONE SIDE, w/ EDGES BLOCKED				SW6 @ 1ST FLOOR ONLY SW6-1 @ BSMT LEVEL ONLY SW6-2 @ BOTH LEVELS
	NAIL SIZE & SPACING	6d NAILS @ 4/4	6d NAILS @ 4/4				
	SHEAR FORCE	175 plf	175 plf				



NOTES:

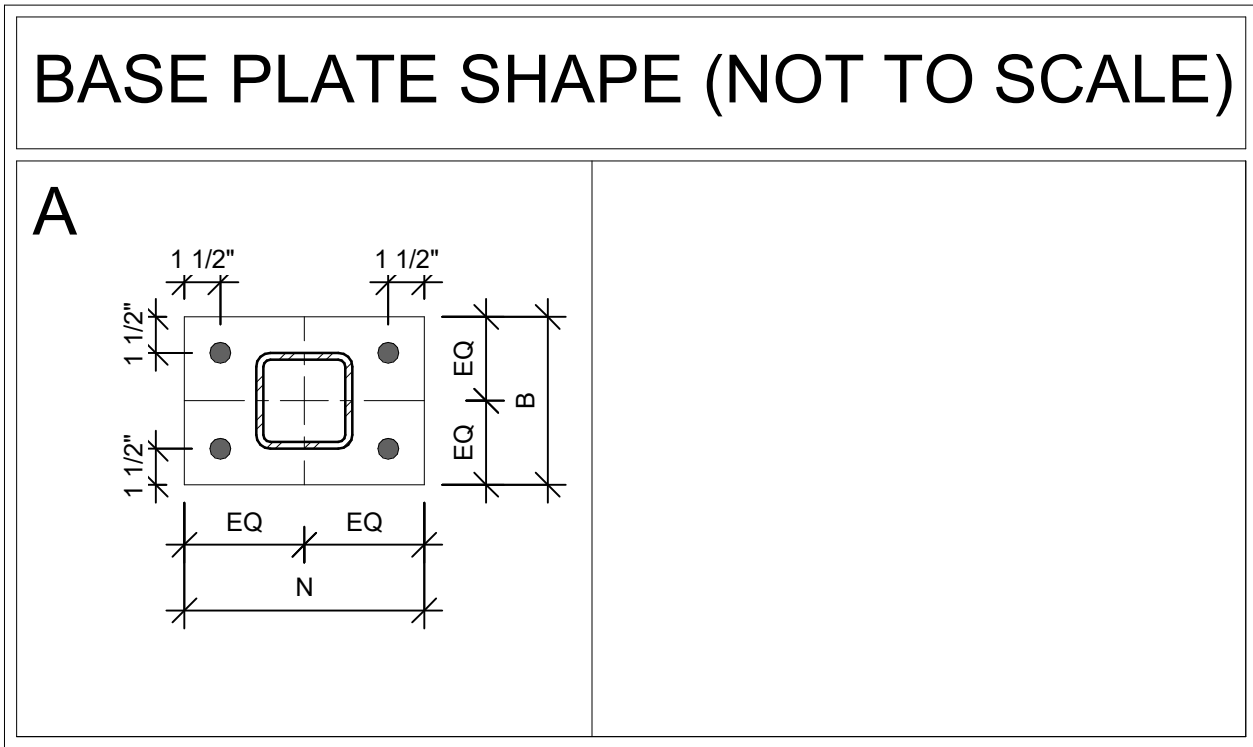
1. HOLD-DOWN TYPES ARE BASED UPON CONTINUOUS THREADED RODS UTILIZING THE SIMPSON ATS SYSTEM.
2. 3/8" RODS SHALL HAVE A MINIMUM TENSILE CAPACITY OF 6,975 LBS.
3. 3/4" RODS SHALL HAVE A MINIMUM TENSILE CAPACITY OF 9,600 LBS.
4. 1"Ø RODS SHALL HAVE A MINIMUM TENSILE CAPACITY OF 17,080 LBS.
5. REFER TO SECTION DETAILS ON S0.03 FOR TYPICAL HOLD-DOWN DETAILS.
6. ALL HOLD-DOWN TYPES NOTED IN THE LISTED SECTION OF THREADED ROD TO MATCH STUD SIZE & GRADE NOTED IN WALL SCHEDULE. HOLD-DOWN STUDS ARE IN ADDITION TO BEARING WALL OR HEADER JAMB STUDS - PROVIDE ADDITIONAL STUDS AS REQ'D TO MEET QUANTITY NOTED IN SCHED. OFFSET STUD PACK 3" TYPICAL FROM CENTERLINE OF THREADED ROD. PROVIDE SQUASH BLOCKS WITHING FLOOR PLATE DEPTH (TRUSS DEPTH) ALIGNED WITH STUD PAKS. QUANTITY OF SQUASH BLOCK TO MATCH QUANTITY OF STUDS BELOW.
7. PROVIDE SIMPSON 1/8"X3" WELDING TO STEEL WIDE FLANGE POURING CONDUIT.
8. PROVIDE PLATE WASHER AND NUT CAPABLE OF DEVELOPING CAPACITY OF ROD AT EACH FLOOR.
9. PROVIDE TAKE-UP DEVICE AT EACH FLOOR CAPABLE OF ACCOMMODATING THE SHRINKAGE INDICATED IN DETAIL 1/50/21
10. PROVIDE COUPLING TAKE-UP DEVICE AS REQUIRED.
11. PROVIDE DISCRETE DOWNING LOCATIONS OFF ALL HOLD-DOWNS AND HARDWARE FOR REVIEW BY THE EOR PRIOR TO INSTALLATION.
12. THE HOLE THRU THE TOP AND SILL PLATES SHALL BE EQUAL TO THE ROD DIAMETER PLUS 1/4".



14 SECTION PERMIT SET

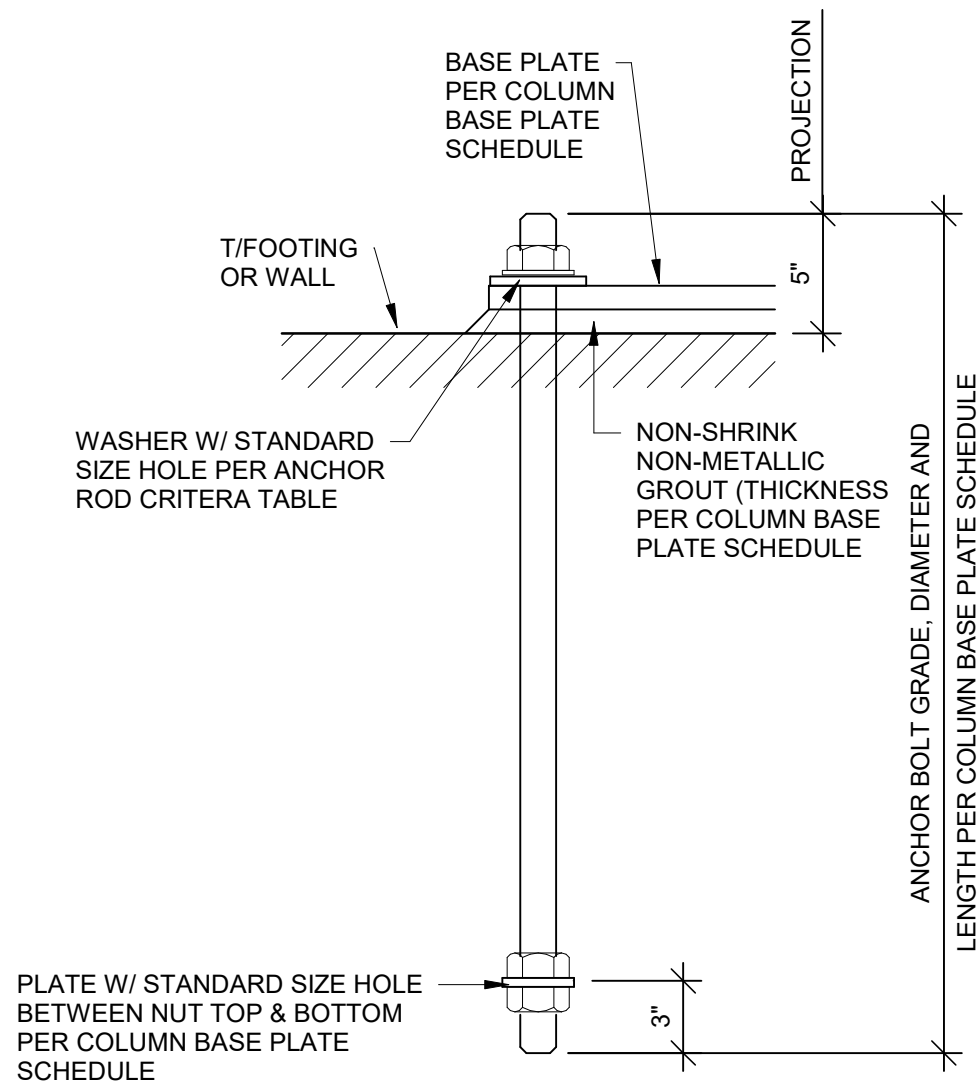
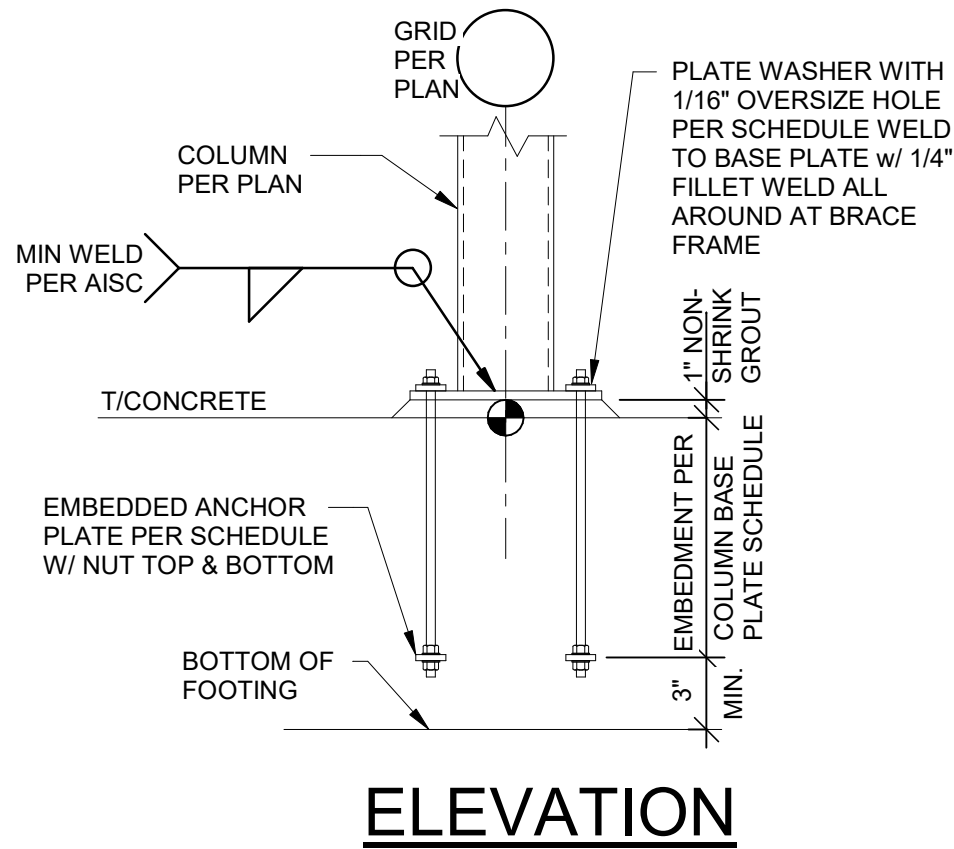
DATE:
3/24/2023
JOB NO.
696521
DRAWN BY
CAB/JLF
SHEET NO

S0.03



COLUMN BASE PLATE SCHEDULE					
TYPE	COLUMN	BASE PLATE (xByxN)	SHAPE	ANCHOR BOLTS	EMBEDMENT
1	PER PLAN	3/4"x11"x11"	A	4- 3/4" DIA.	12"
2	PER PLAN	3/4"x12"x12"	A	4- 3/4" DIA.	12"
NOTES:					
1. SEE PLAN FOR ORIENTATION OF COLUMNS.					
2. PROVIDE PLATE WASHER & EMBEDDED PLATE PER SCHEDULE @ ALL ANCHOR BOLTS.					
3. U.N.O. ALL THREADED ROD A.B's SHALL BE F1554 (36ksi) MATERIAL.					

COLUMN BASE PLATE ANCHOR-ROD CRITERIA				
ANCHOR-ROD DIAMETER.	MAX. HOLE DIAMETER.	MIN. WASHER SIZE.	MIN. WASHER THICKNESS	EMBEDDED ANCHOR PLATE SIZE
3/4"	1 5/16"	2"	1/4"	1/2"x2 1/2"x2 1/2"



1 TYPICAL ANCHOR BOLT

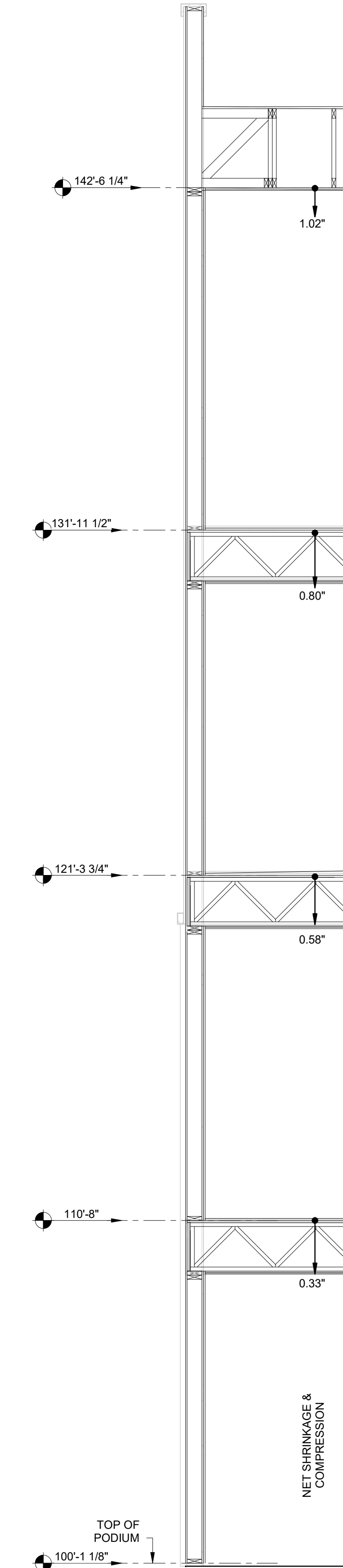
1 1/2" = 1'-0"



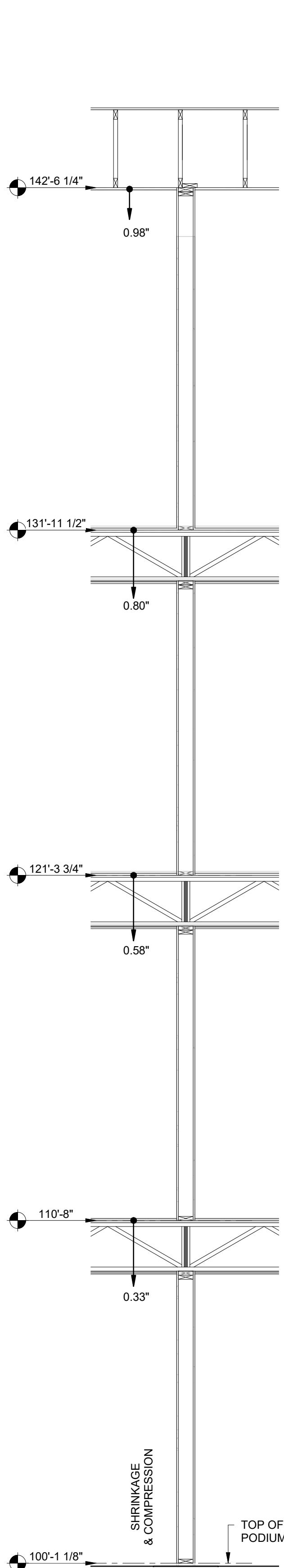
A NEW DEVELOPMENT:

RESIDENCES AT BLACKWELL

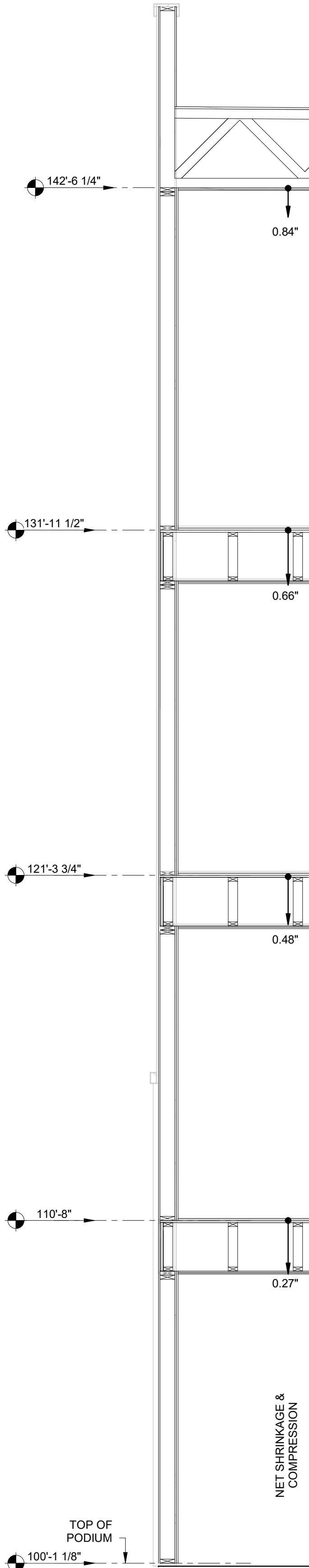
50 Highway & Blackwell, Lee's Summit, MO



1 EXTERIOR LOAD-BEARING
3/8" = 1'-0"



2 INTERIOR LOAD-BEARING
3/8" = 1'-0"



3 EXTERIOR NON-LOAD-BEARING
3/8" = 1'-0"

Wood Shrinkage Notes:

Bob D. Campbell & Company takes no responsibility for the naturally-occurring shrinkage that will occur in a wood structure or the impact the movement will have on the architectural, mechanical, electrical and plumbing systems that are designed by others. The analysis provided below are estimated values in accordance with IBC Section 2304.3.3 and indicate the systems and/or routing of the systems shall be designed to accommodate the movement. Failure to follow the considerations below can result in a failure of the impacted components within the system.

- Estimated values are based on the following moisture content in the framing
- MC at delivery to site = 19%
 - Average Outdoor EMC (Time of Systems Being Installed) = 13%
 - Average Indoor EMC (During Building Life) = 8%

Reference wall sections on this sheet for estimated cumulative values per floor.

The following is a list of recommendations to minimize potential issues related to wood shrinkage and veneer expansion. Veneer expansion is seasonable and variable depending on sun exposure. The majority of wood shrinkage will occur in the first 24 months of occupancy with minor seasonal variations.

- MEP System Considerations
 - Postpone MEP installation as long as possible to allow as much dead load to be applied--allowing construction gaps to close.
 - Provide oversized and vertically slotted holes at pipe horizontal penetration and notches. Refer to typical notching and cutting of stud wall detail for additional considerations on size limitations.
 - Plumbing pipe and electrical conduit joints and connections shall be flexible and allow for expansion/contraction to prevent a rigid assembly.
 - Hangers and necessary rigid connections shall be adjusted prior to completion of construction or closing of wall/ceiling assembly.
 - Horizontal vent penetrations through exterior veneers shall be provided with double flashing.
 - All sheet metal vertical down spouts shall have intermediate slip joints.
 - Roof drains shall utilize adjustable fittings that are adjusted back to the roof finish sheathing elevation at the completion of construction and then shall be adjusted as required to maintain proper drainage.
- Architectural System Considerations
 - At stucco, EIFS and thin set veneer systems provide horizontal expansion joints, slip joints with appropriate flashing, this includes transitions between changes in veneer material.
 - At brick and stone veneers provide veneers ties designed to accommodate differential movement.
 - Refer to architectural window and door head and sill; parapet; and horizontal material changes for specific horizontal gap requirements between materials.
 - Around rigid (concrete/CMU) stair and elevator towers and at fire separation walls provide adjustable thresholds or transitions.
- Construction Tolerance Considerations
 - All studs shall be cut level, square and tight to top and bottom plates to reduce any additional shortening of the building due to nesting.
 - All wood structural panels on the walls shall have a 1/2" relief gap at each floor level to reduce the potential for bulging.
 - All floor sheathing shall have 1/8" gaps around all four sides at time of install to allow for expansion.
 - All shearwall holdown shall be checked and retighten immediately prior to sheathing of the walls. If a continuous rod system is utilized for holdowns or uniform uplift anchors, the take-up devise pins shall be verified to have been pulled prior to sheathing the walls.
 - Delay placement of gyp topping around rigid (concrete/CMU) stair and elevator towers until completing of construction.
- Material Storage and Protection
 - All stored material shall remain covered and elevated from the elements to reduce the potential for an increase in moisture content.
 - Do not allow water to pond on the floor sheathing. Provide drain holes in the floor sheathing as required to relieve any water that might temporary pond.
- Post Occupancy Consideration
 - Recommend a review of roof drains every 3 months for the first 24 months of occupancy and then annually and adjusted as needed.
 - Recommend a review of vertical joints at exterior doors, windows and at changes in materials. Caulked as needed as shrinkage occurs and original joint fails.
 - Remedial self-leveling work may be required around concrete or CMU stair and elevator towers as needed as shrinkage occurs.



A NEW DEVELOPMENT:
RESIDENCES AT BLACKWELL
50 Highway & Blackwell, Lee's Summit, MO

REVISIONS:

SLAB NOTES

- 14

A5

19'-9"

TOTAL LENGTH OF BAR IN FEET AND INCHES

SIZE OF BAR AND LOCATION IN SLAB AS NOTED BELOW

TOTAL NUMBER OF EXTRA BARS IN STRIP DEFINED ON PLAN
- A.

#5 EXTRA BOTTOM BARS WITH 1" CLEAR COVER BOTTOM. (PLACE WITH 1" CLEAR COVER BOTTOM MAT BARS.)
- B.

#5 EXTRA BOTTOM BARS WITH 1 5/8" CLEAR COVER BOTTOM. (PLACE WITH 1 5/8" CLEAR COVER BOTTOM MAT BARS.) PLACE ON TOP OF PERPENDICULAR (1" CLEAR COVER) BOTTOM MAT AND 7A" BARS.
- C.

#5 TOP BARS WITH 1 5/8" CLEAR COVER WHERE TWO LAYERS OF BARS OCCUR AND 1" CLEAR COVER WHERE ONE LAYER OF BARS OCCUR ON IHC @4'-0" o.c. AND #5 SUPPORT BARS @4'-0" o.c.
- D.

#5 TOP BARS WITH 1" CLEAR COVER TOP. PLACE ON TOP OF "C" BARS WHERE THEY OCCUR OR OTHERWISE PLACE ON IHC AT 4'-0" o.c. AND #5 SUPPORT BARS AT 4'-0" o.c.
- E.

#5 TOP BARS WITH 1" CLEAR COVER TOP. PLACE ON IHC AT 4'-0" o.c. AND #5 SUPPORT BARS AT 4'-0" o.c.
4.

REINFORCING SHALL BE SPLAYED AROUND OPENINGS LESS THAN 18" WIDE. REINFORCING SHALL BE CUT AT OPENINGS GREATER THAN 18" WIDE WITH EQUAL CONTINUOUS BARS ADDED ONE-HALF EACH SIDE OF OPENING. PROVIDE REINFORCING PER GENERAL NOTE 4F AT ALL OPENINGS LARGER THAN 8".
5.

STRIP LINES ARE LOCATED AT 1/4 POINTS BETWEEN COLUMN CENTERLINES UNLESS NOTED ON PLAN OTHERWISE.
6.

SEE DETAIL 2/S3.10 FOR PLACING PATTERN FOR TOP REINFORCING BARS OVER INTERIOR COLUMN AS NOTED.
7.

TOP BARS SHOWN STAGGERED ON PLAN SHALL BE STAGGERED WHEN PLACED. THE END OF EVERY OTHER BAR TO BE PLACED AT RELATIVE STRIP LINE. UNLESS NOTED ON PLAN.
8.

BOTTOM BARS ARE SHOWN THUS

 TOP BARS ARE SHOWN THUS

=====

 TOP BARS SHOWN ON PLAN THUS

=====

 SHALL HAVE A STANDARD ACI 90 DEG. HOOK.
9.

UNLESS SHOWN ON "S" SERIES DRAWINGS, NO HOLES LARGER THAN TEN INCH DIAMETER SHALL BE PLACED THROUGH SLAB. NOT MORE THAN ONE, SIX TO EIGHT INCH DIAMETER HOLES, OR TWO FOUR INCH DIAMETER HOLES, OR THREE TWO INCH DIAMETER OR SMALLER HOLES SHALL BE PLACE WITHIN 20" OF THE FACE OF THE COLUMNS. CAMBER ALL SPANS BETWEEN 16'-0" AND 24'-0" (CENTERLINE TO CENTERLINE OF SUPPORTS) FOR L/600 MINIMUM AT MIDSPAN (WITH L = SPAN IN INCHES) (I.E., 3/8 AT MIDSPAN FOR 18'-0" SPAN. CAMBER ALL SPANS LONGER THAN 24'-0" FOR L/480 (I.E., 3/4" AT MIDSPAN FOR 30'-0" SPAN.) DO NOT CAMBER SLAB IN COURTYARD AREA WHEN DRAIN IS LOCATED AT CENTER OF SPAN.
11.

AT TERMINATION OF COLUMN STRIP AT COLUMN, WALL, BEAM, PROVIDE 90 DEGREE STANDARD ACI HOOKED END AT (4) BOTTOM BARS NEAREST COLUMN CENTERLINE PER 6/S3.10

REBAR DEVELOPMENT LENGTH AND LAP SPLICE SCHEDULE														
CONCRETE STRENGTH = 5000 psi					CONCRETE STRENGTH = 4000 psi					CONCRETE STRENGTH = 3500 psi				
CASE BAR SIZE	DEVELOPMENT LENGTH OR CLASS A LAP		CLASS B LAP		CASE BAR SIZE	DEVELOPMENT LENGTH OR CLASS A LAP		CLASS B LAP		CASE BAR SIZE	DEVELOPMENT LENGTH OR CLASS A LAP		CLASS B LAP	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS		TOP BARS	OTHER BARS	TOP BARS	OTHER BARS		TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	24	24	24	24	#3	24	24	24	24	#3	24	24	26	24
#4	24	24	29	24	#4	25	24	33	25	#4	27	24	35	27
#5	28	24	36	28	#5	31	24	41	31	#5	33	26	43	33
#6	34	26	43	34	#6	37	29	49	37	#6	40	31	52	40
#7	49	38	63	49	#7	54	42	71	54	#7	58	45	75	58
#8	56	43	72	56	#8	62	48	81	62	#8	66	51	86	66
#9	63	48	81	63	#9	70	54	91	70	#9	75	58	97	75
#10	71	54	92	70	#10	79	61	102	79	#10	84	65	109	84
#11	78	60	102	78	#11	87	67	113	87	#11	93	72	121	93

- NOTES:
1.

UNLESS SPECIFICALLY INDICATED OTHERWISE, USE THE MINIMUM LENGTH FOR A CLASS B LAP SPLICE OR THE MINIMUM DEVELOPMENT LENGTH INDICATED IN THE TABLES ABOVE MULTIPLIED BY THE APPLICABLE FACTOR(S) LISTED BELOW.
2.

WHERE THE CLEAR SPACING BETWEEN BARS LAP SPliced OR EMBEDDED AT ANY SECTION IS LESS THAN 2 BAR DIAMETERS, OR WHERE THE BAR COVER IS LESS THAN OR EQUAL TO THE BAR DIAMETER. INCREASE THE INDICATED BAR SPLICE OR DEVELOPMENT LENGTH BY 50%.
3.

TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
4.

MECHANICAL COUPLERS MAY BE SUBSTITUTED FOR TENSION LAP SPliced BARS PROVIDED THAT THEY MEET THE REQUIREMENTS OF ACI 318-11, 12.14.
5.

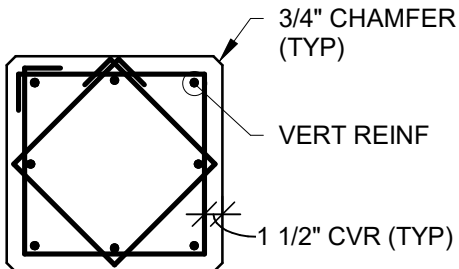
AT LOCATIONS WHERE REINFORCING WITHIN A STRUCTURAL ELEMENT WILL BE SPliced, ALTERNATING SPICES SHALL BE STAGGERED A MINIMUM OF THE CLASS B SPLICE LENGTH UNLESS INDICATED OTHERWISE.

CONCRETE COLUMN SCHEDULE	
COLUMN SIZE	REINFORCEMENT
18x18	(8) #8 VERTICAL (2) #3 TIES @ 12"oc

- NOTES:
- 1)

PROVIDE (4) SETS OF TIES AT 3"oc TOP & BOTTOM OF EACH COLUMN
- 2)

ALL COLUMNS TO CENTER ON GRIDLINE AND PIER/FOUNDATION U.N.O.



18"x18"
COLUMN

1 COLUMN DETAILS
3/4" = 1'-0"

A NEW DEVELOPMENT:

RESIDENCES AT BLACKWELL
50 Highway & Blackwell, Lee's Summit, MO



DRAWING RELEASE LOG

REVISIONS:

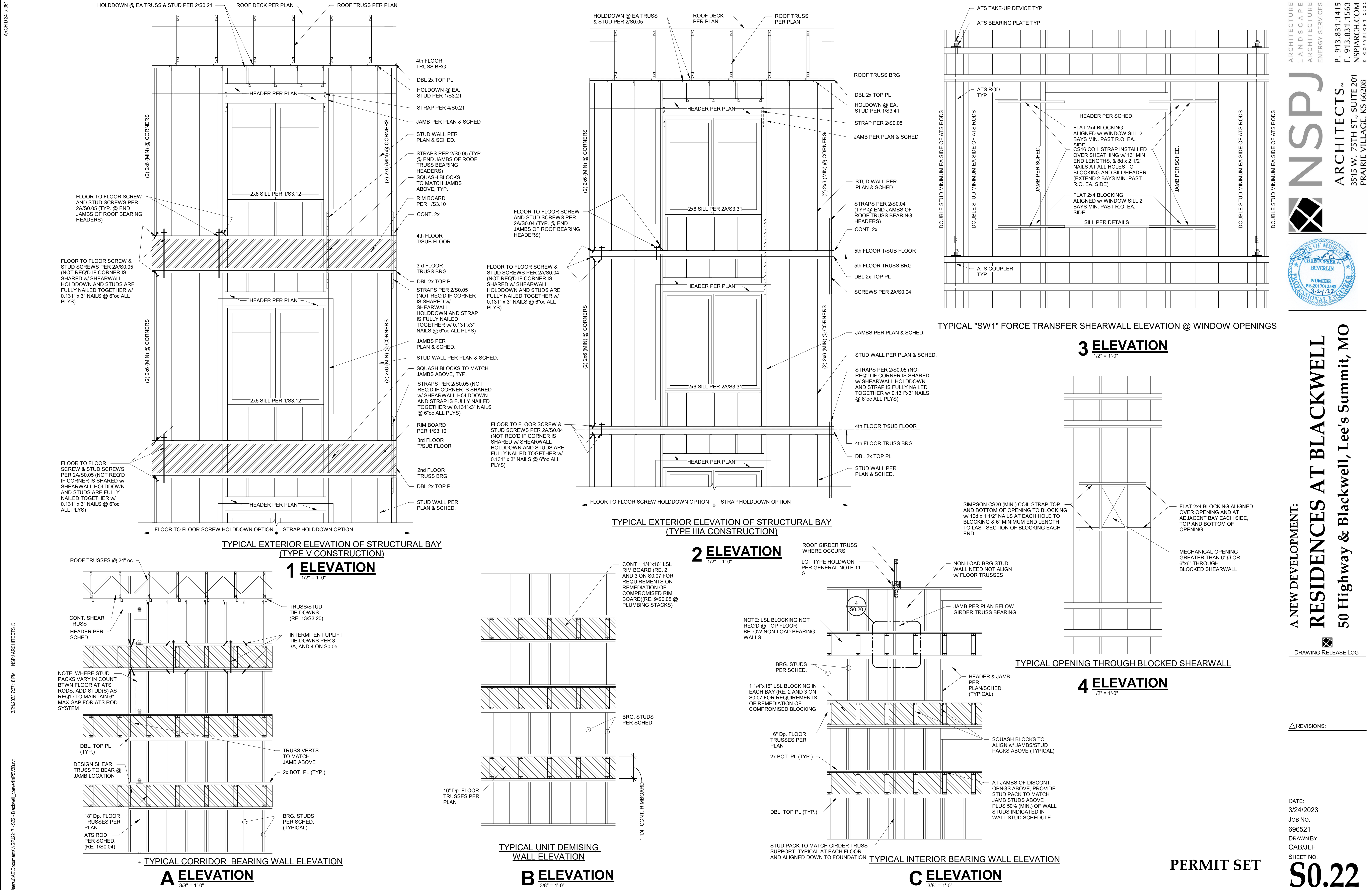
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3/24/2023
JOB NO.
696521
DRAWN BY:
CAB/JLF
SHEET NO.

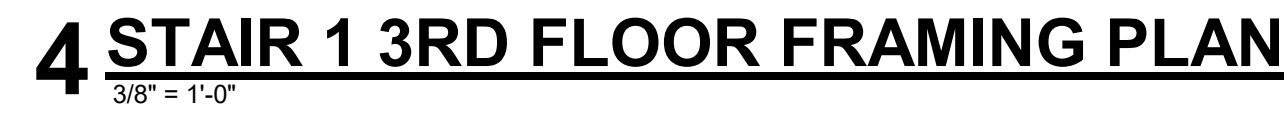
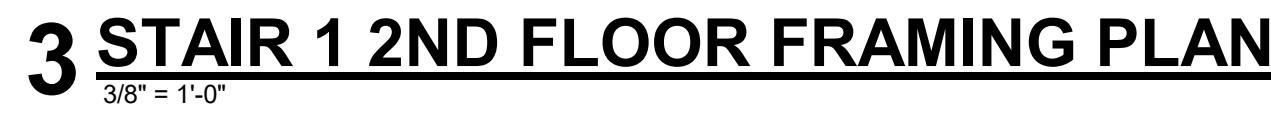
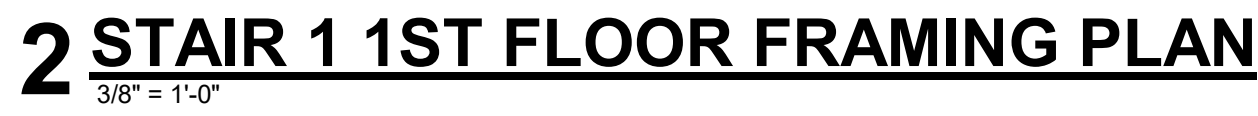
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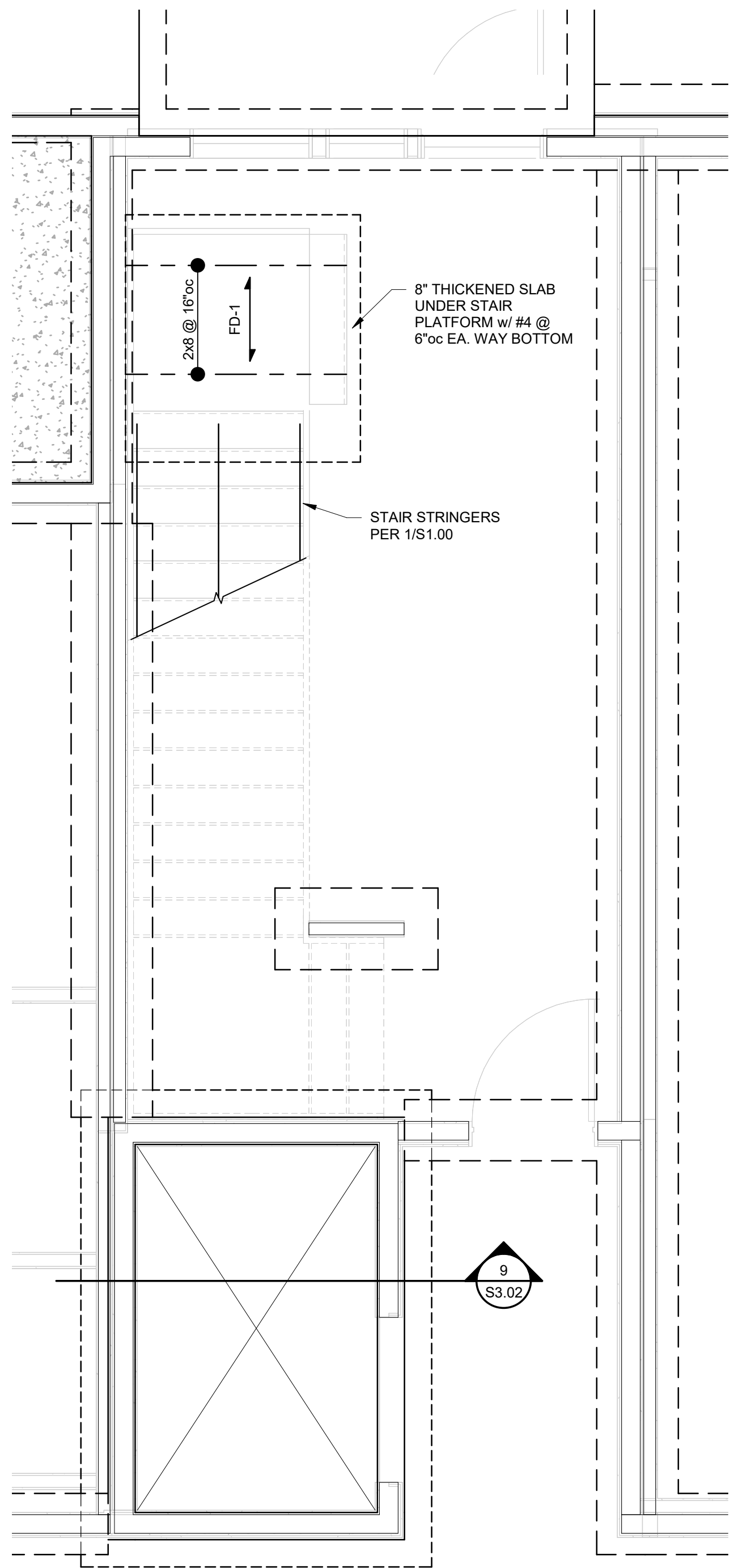
S0.10

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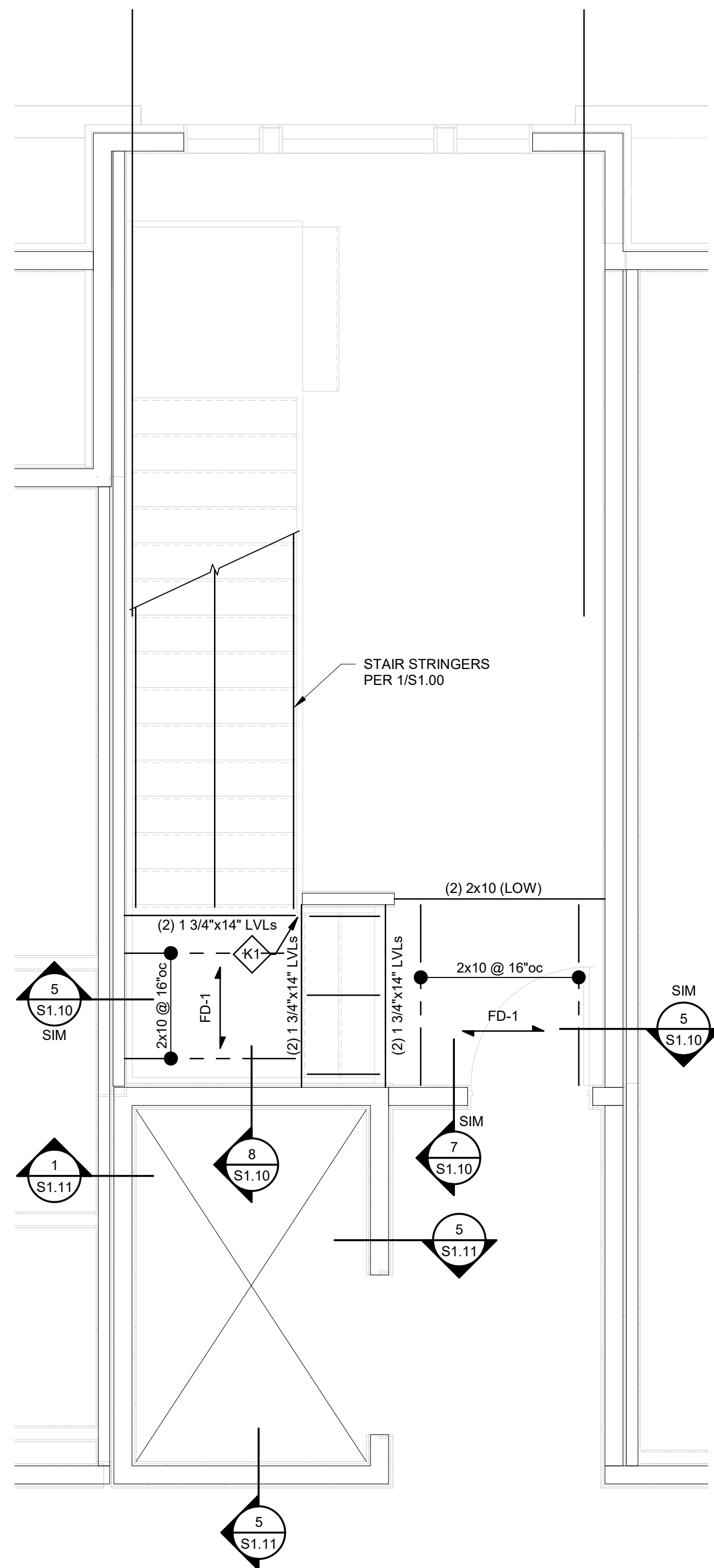




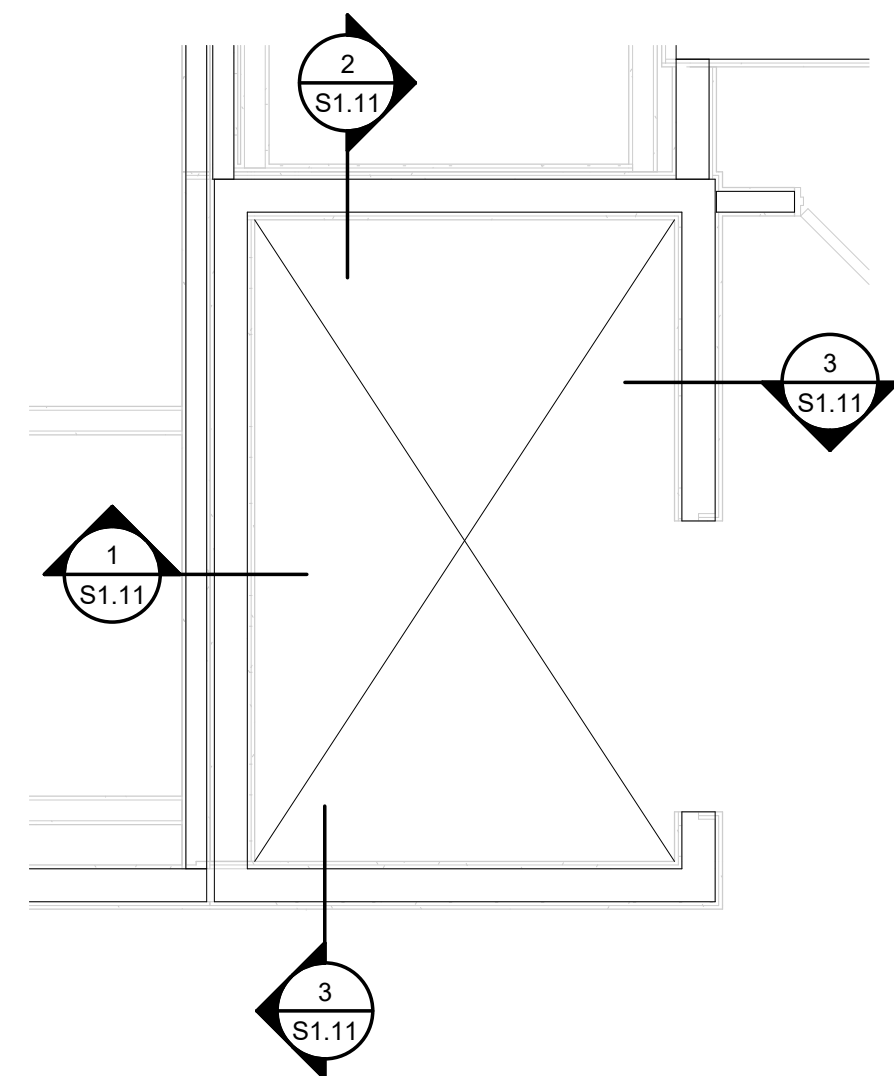




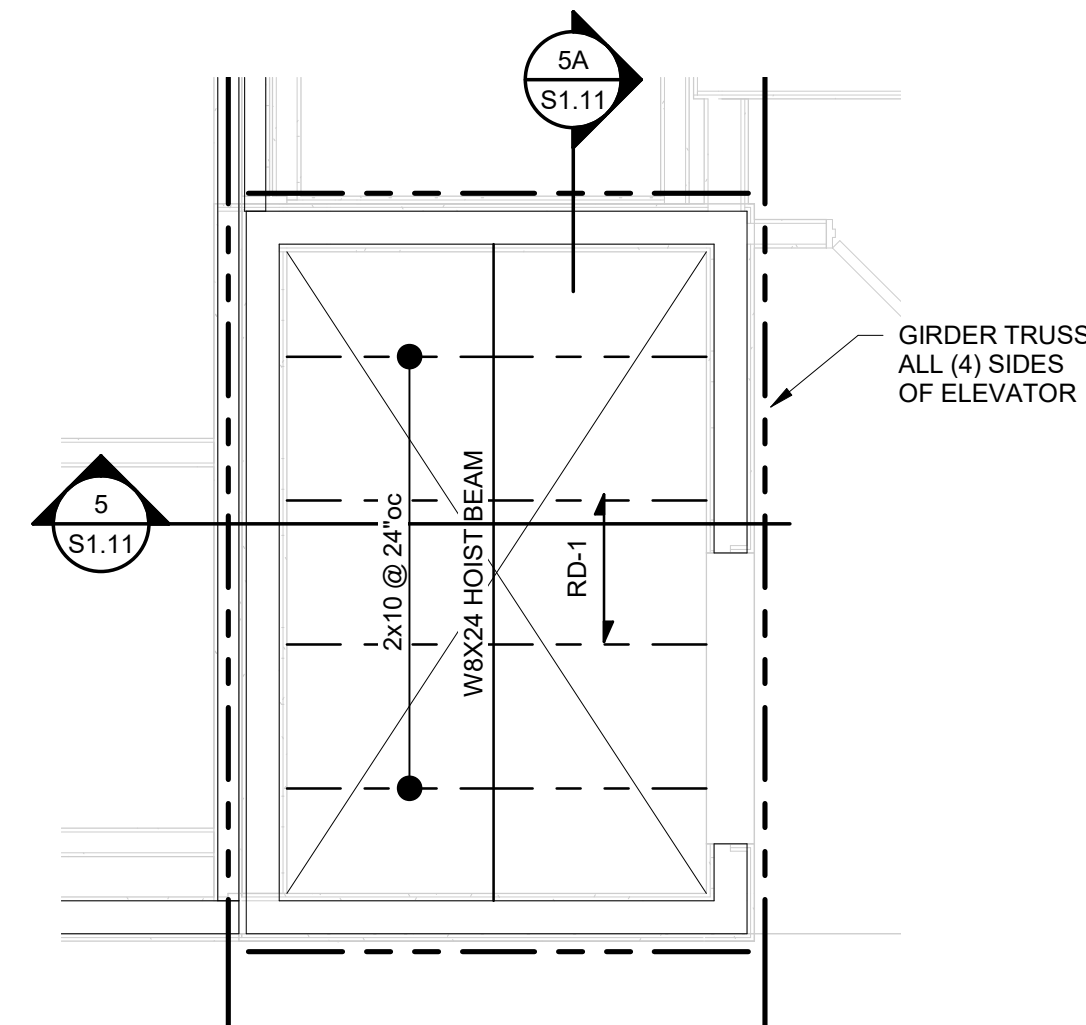
1 STAIR 2 & ELEVATOR LOWER LEVEL FRAMING PLAN
3/8" = 1'-0"



2 STAIR 2 & ELEVATOR 1ST FLOOR FRAMING PLAN
3/8" = 1'-0"

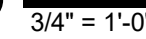
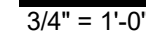
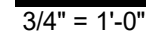
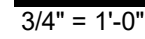
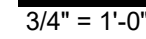


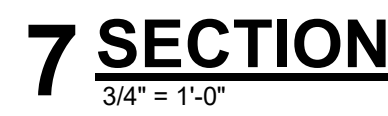
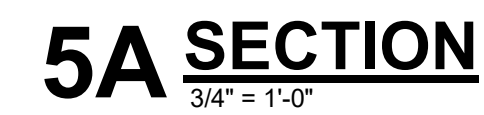
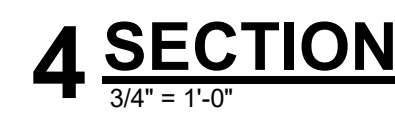
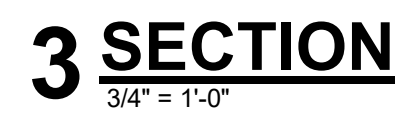
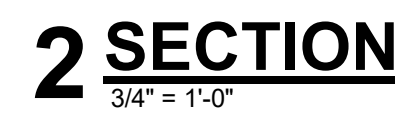
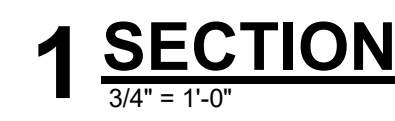
3 ELEVATOR 2ND/3RD/4TH FLOOR FRAMING PLAN
3/8" = 1'-0"

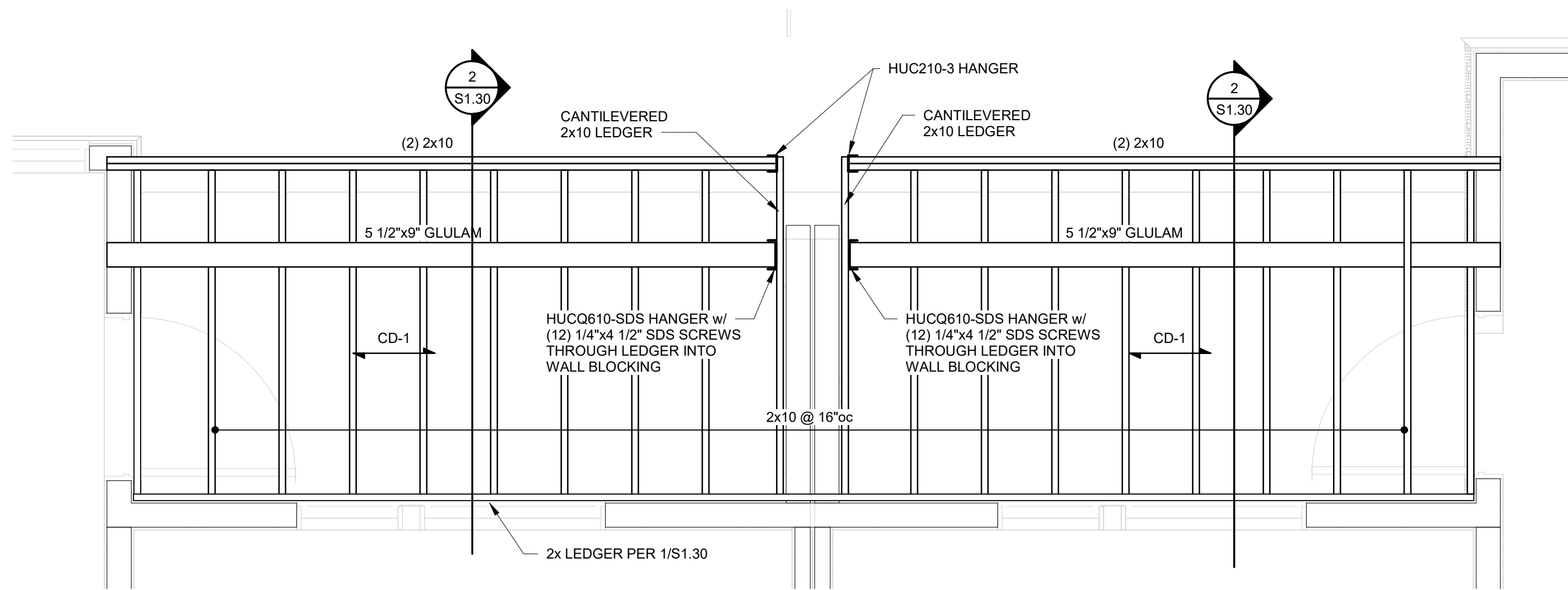


4 ELEVATOR ROOF FRAMING PLAN
3/8" = 1'-0"

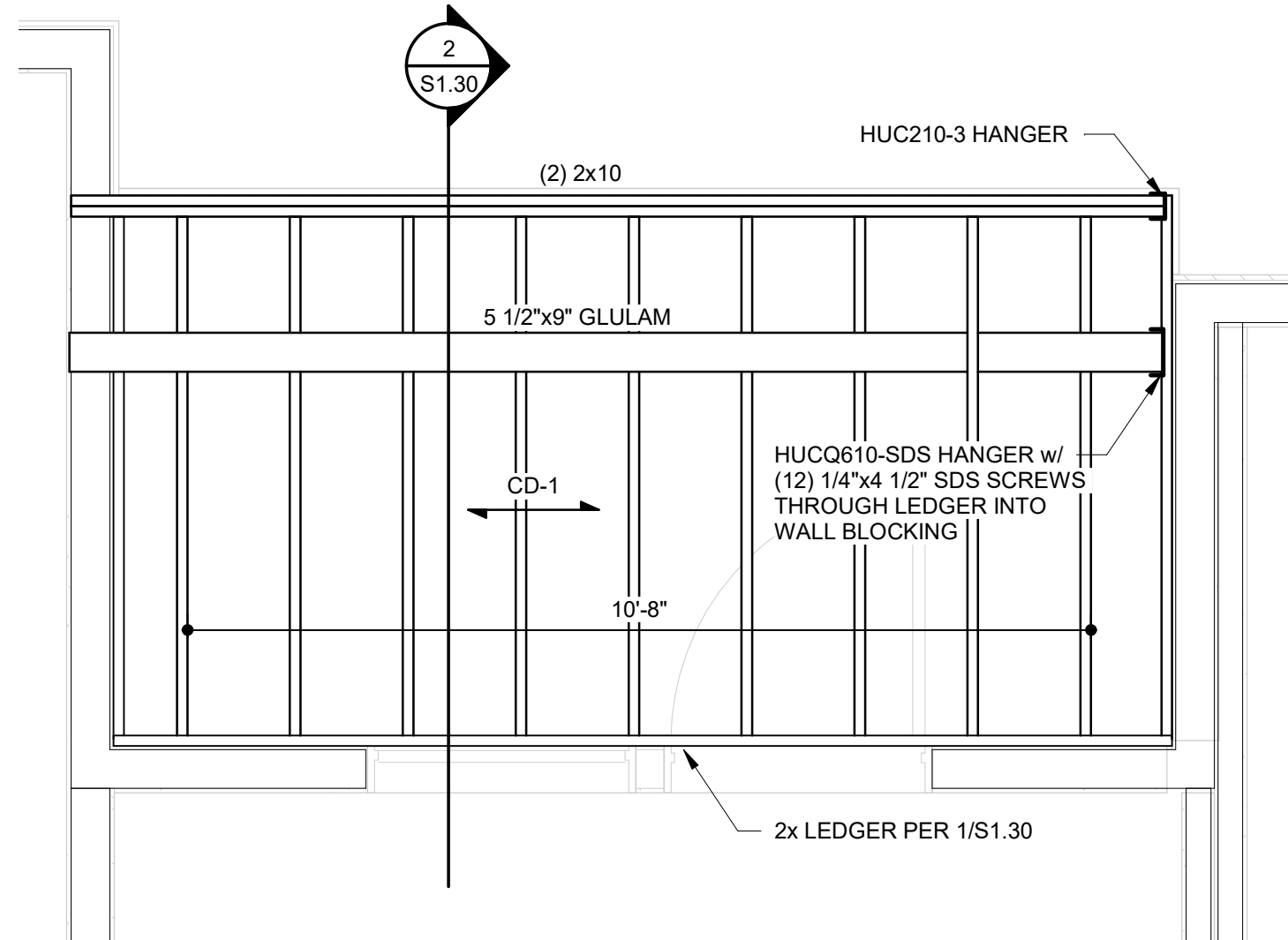

$$3/4" = 1'-0"$$

$$3/4'' = 1'' - 0''$$

$$3/4'' = 1'-0''$$


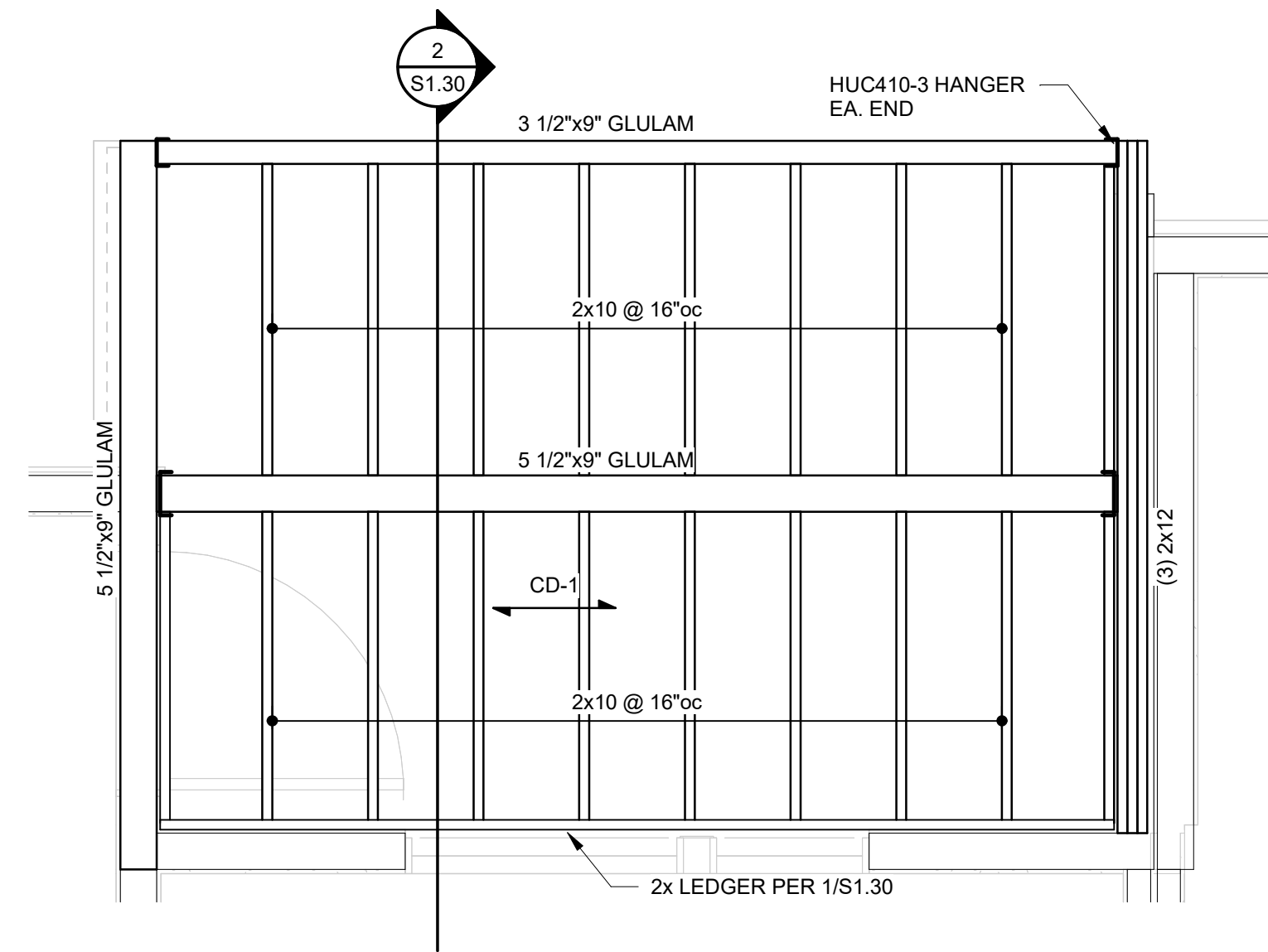




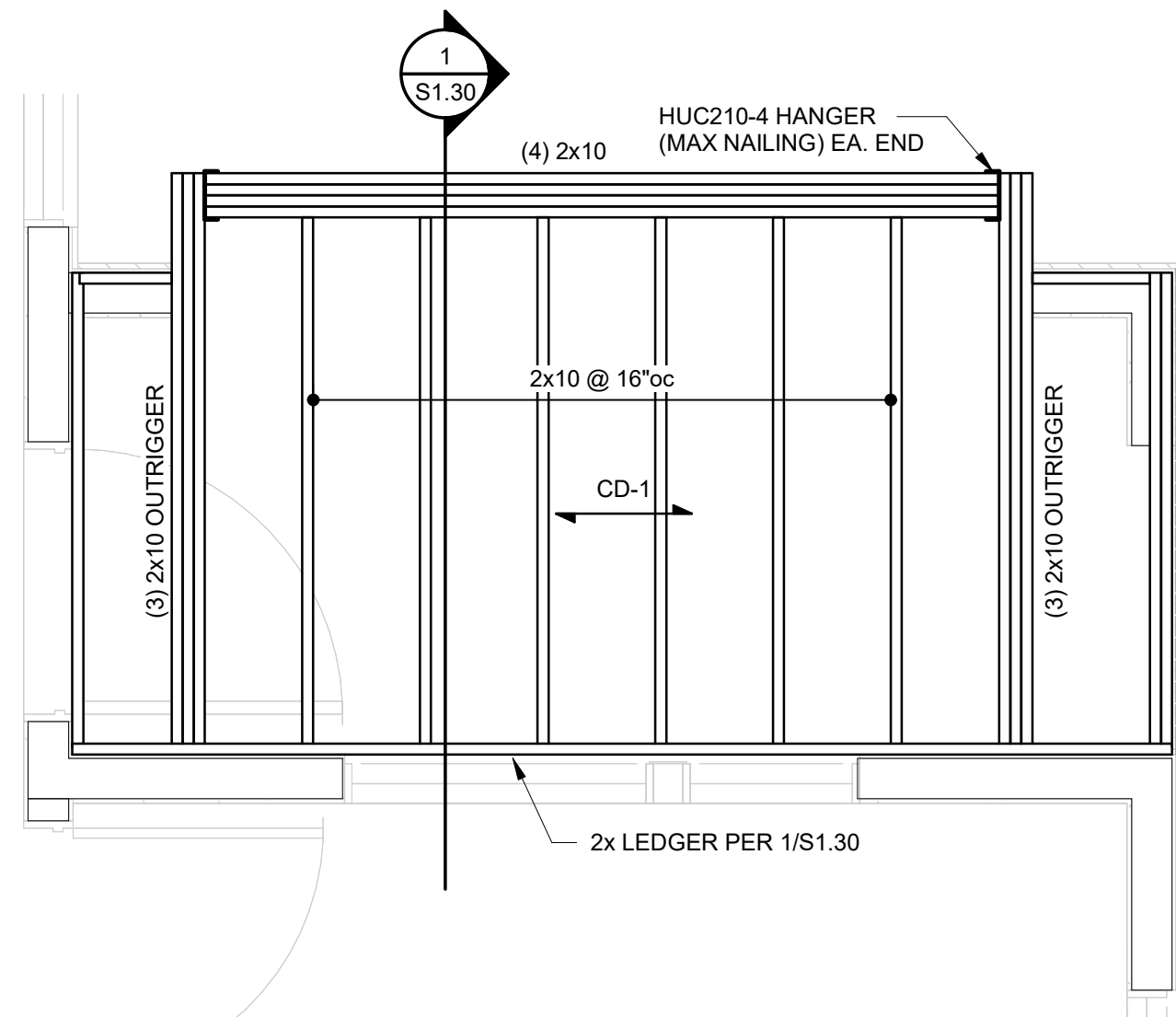
1 BALCONY FRAMING PLAN
1/2" = 1'-0"



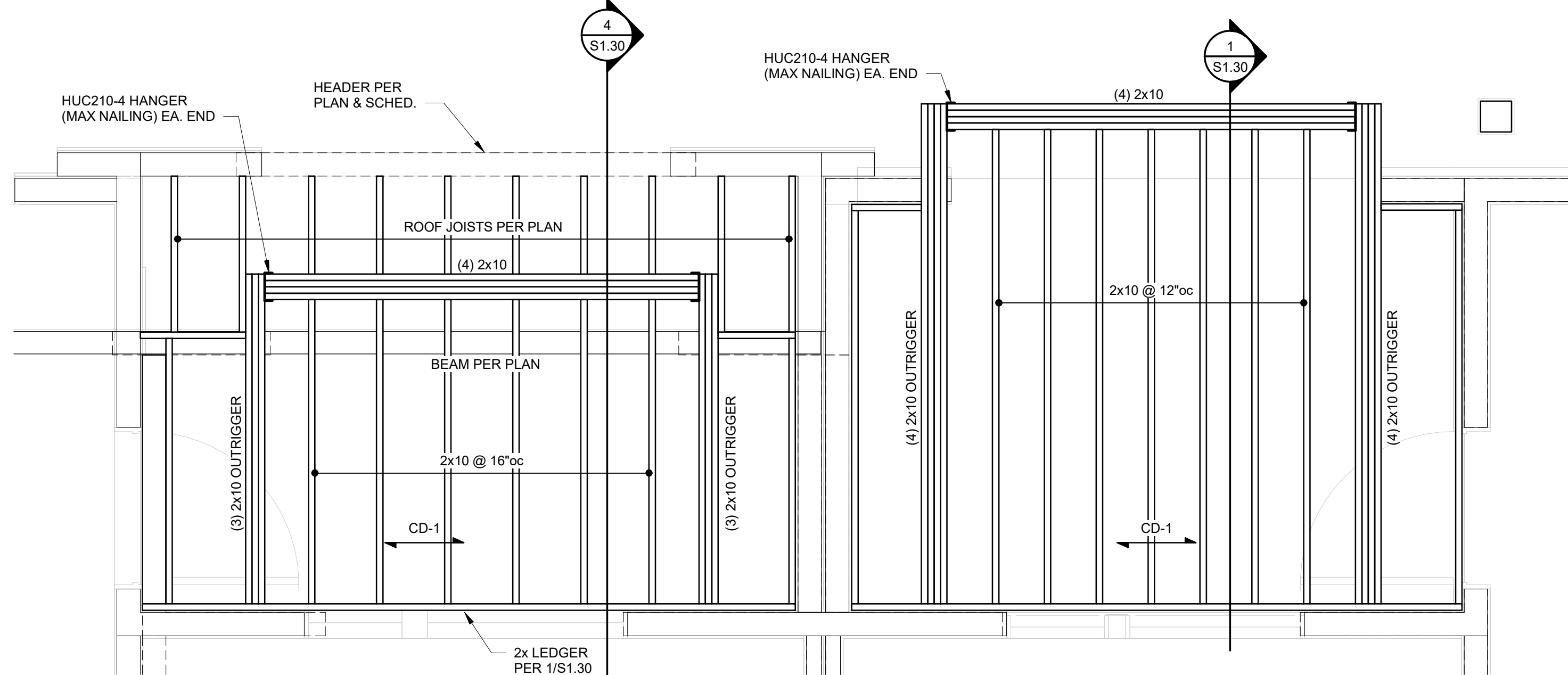
2 BALCONY FRAMING PLAN
1/2" = 1'-0"



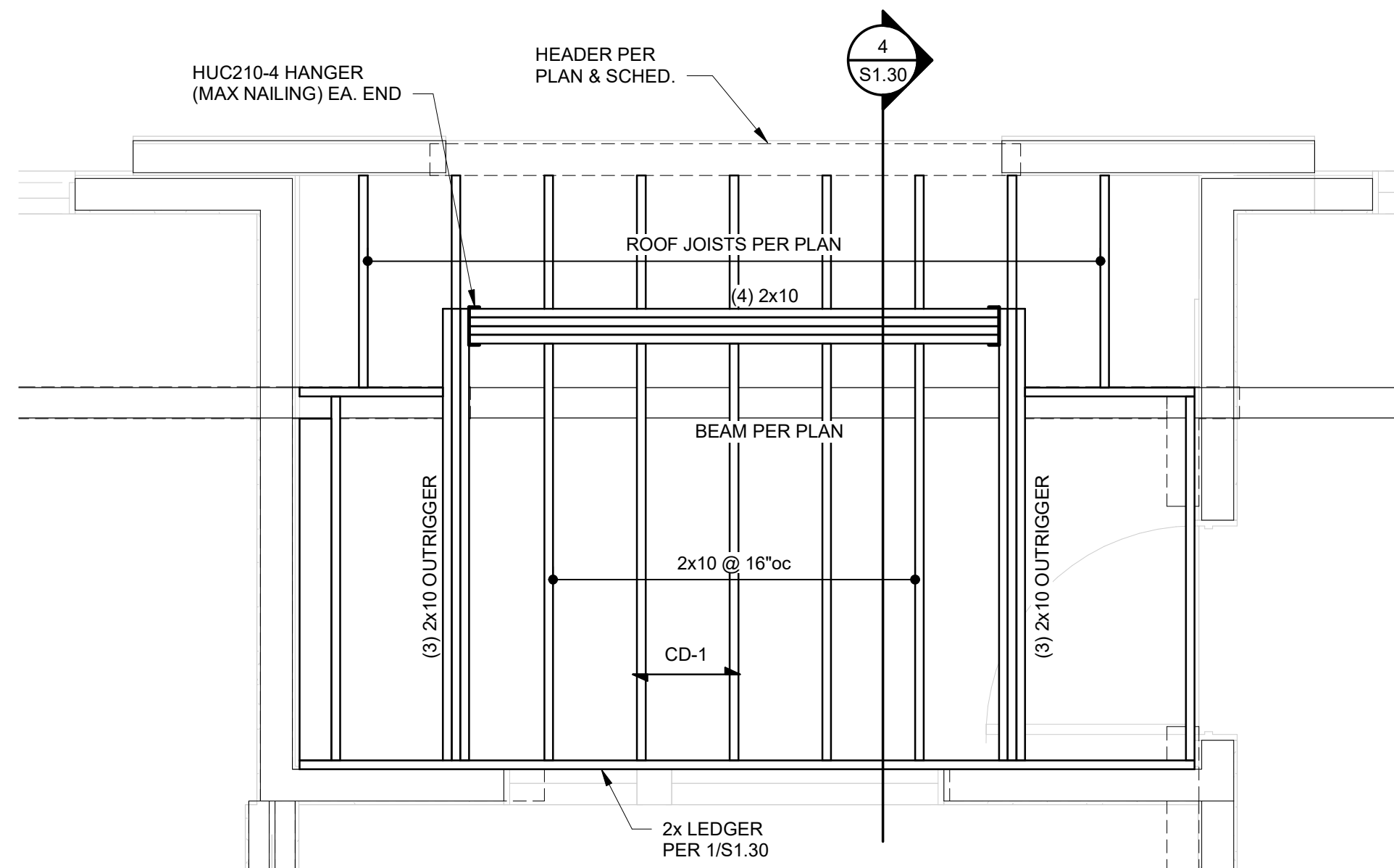
3 BALCONY FRAMING PLAN
1/2" = 1'-0"



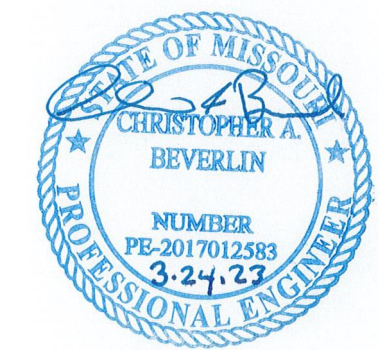
4 BALCONY FRAMING PLAN
1/2" = 1'-0"

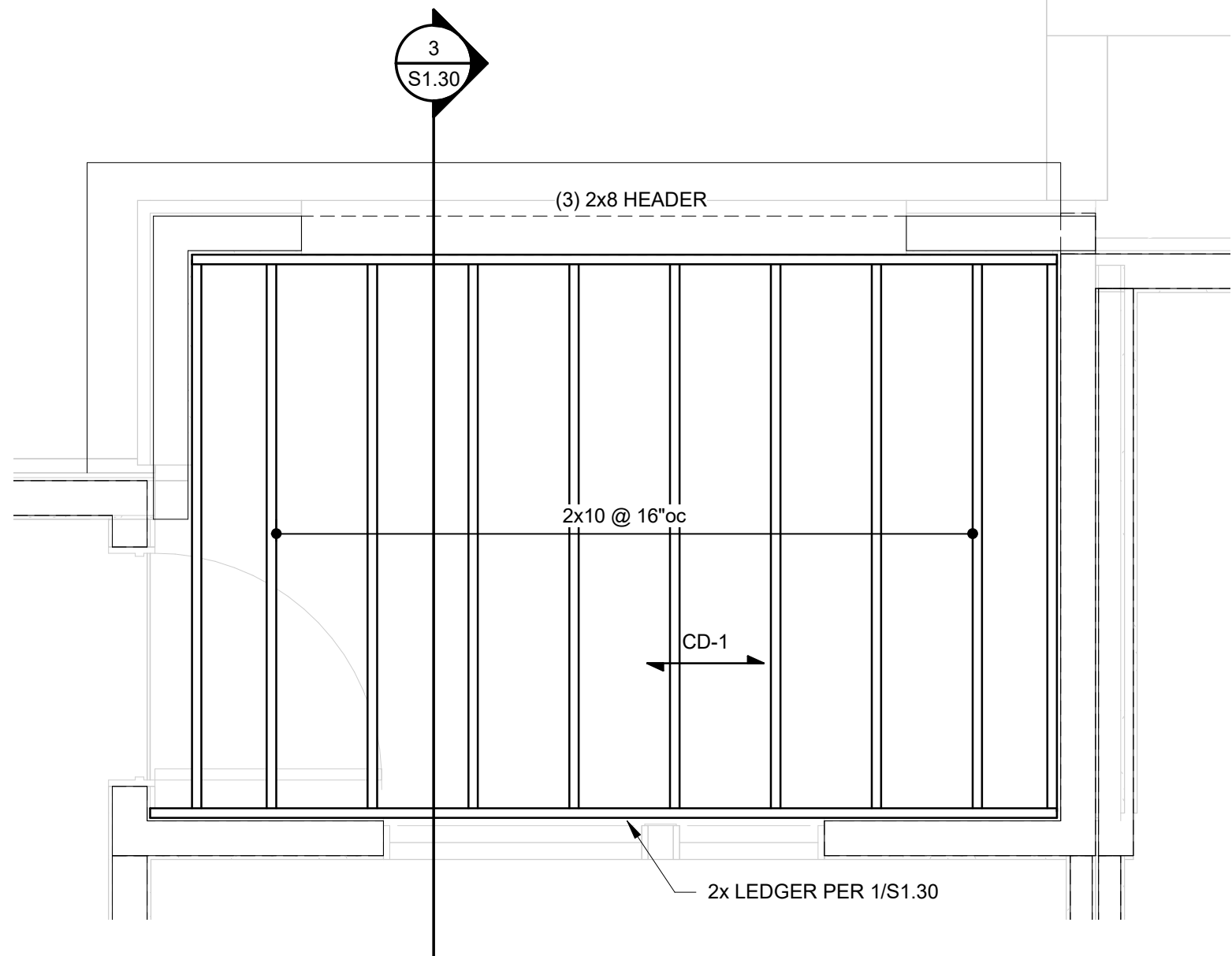


5 BALCONY FRAMING PLAN
1/2" = 1'-0"

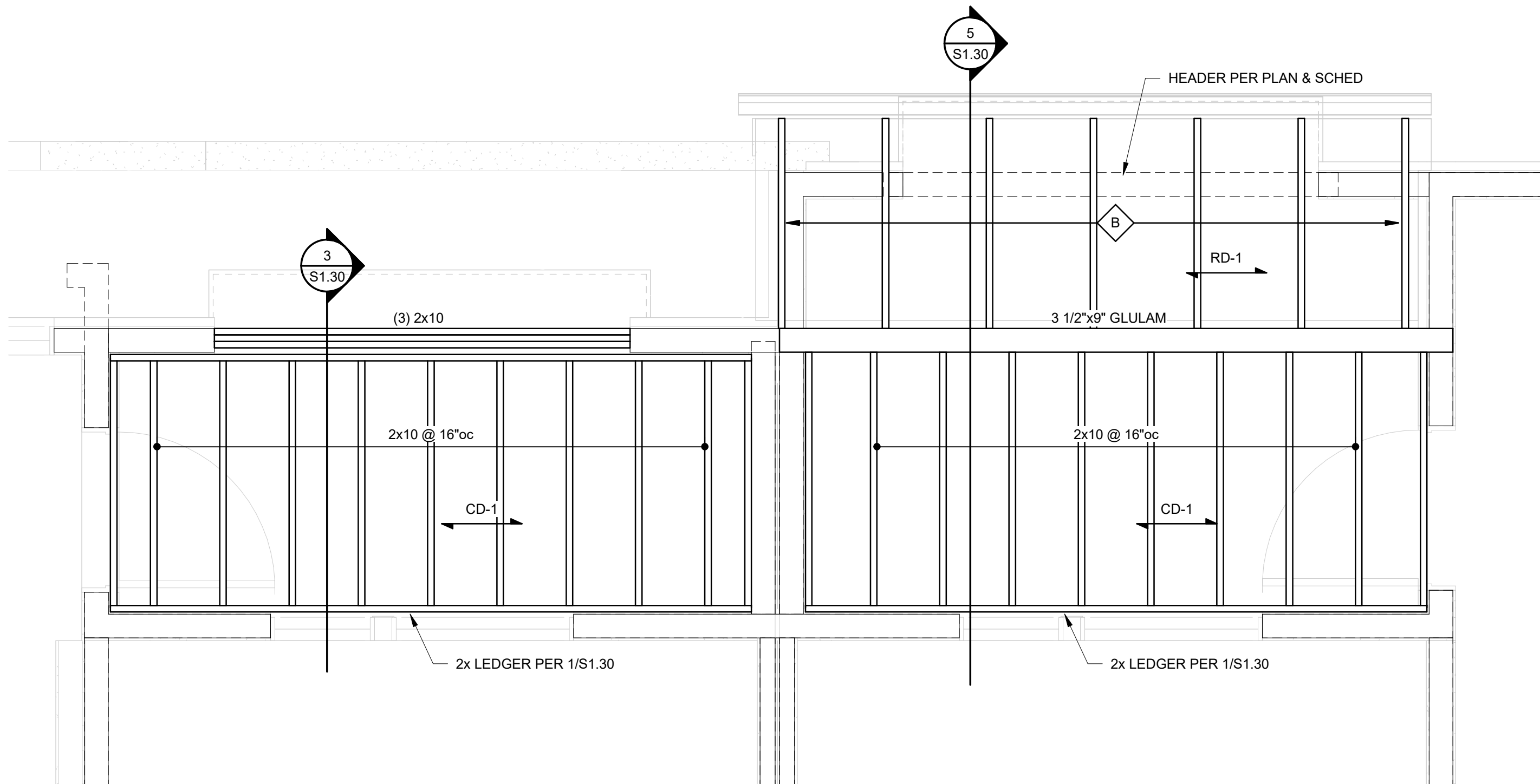


6 BALCONY FRAMING PLAN
1/2" = 1'-0"

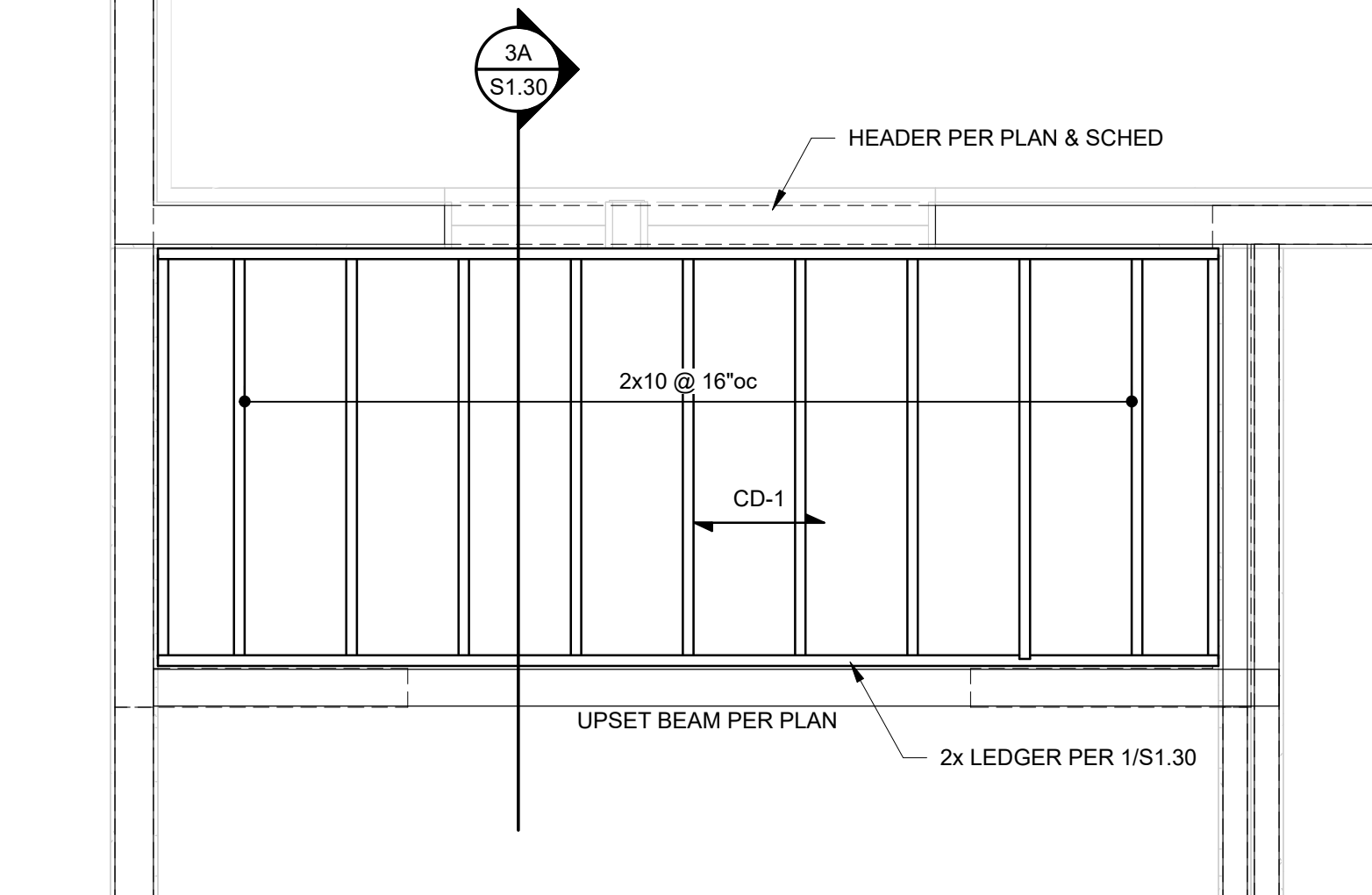




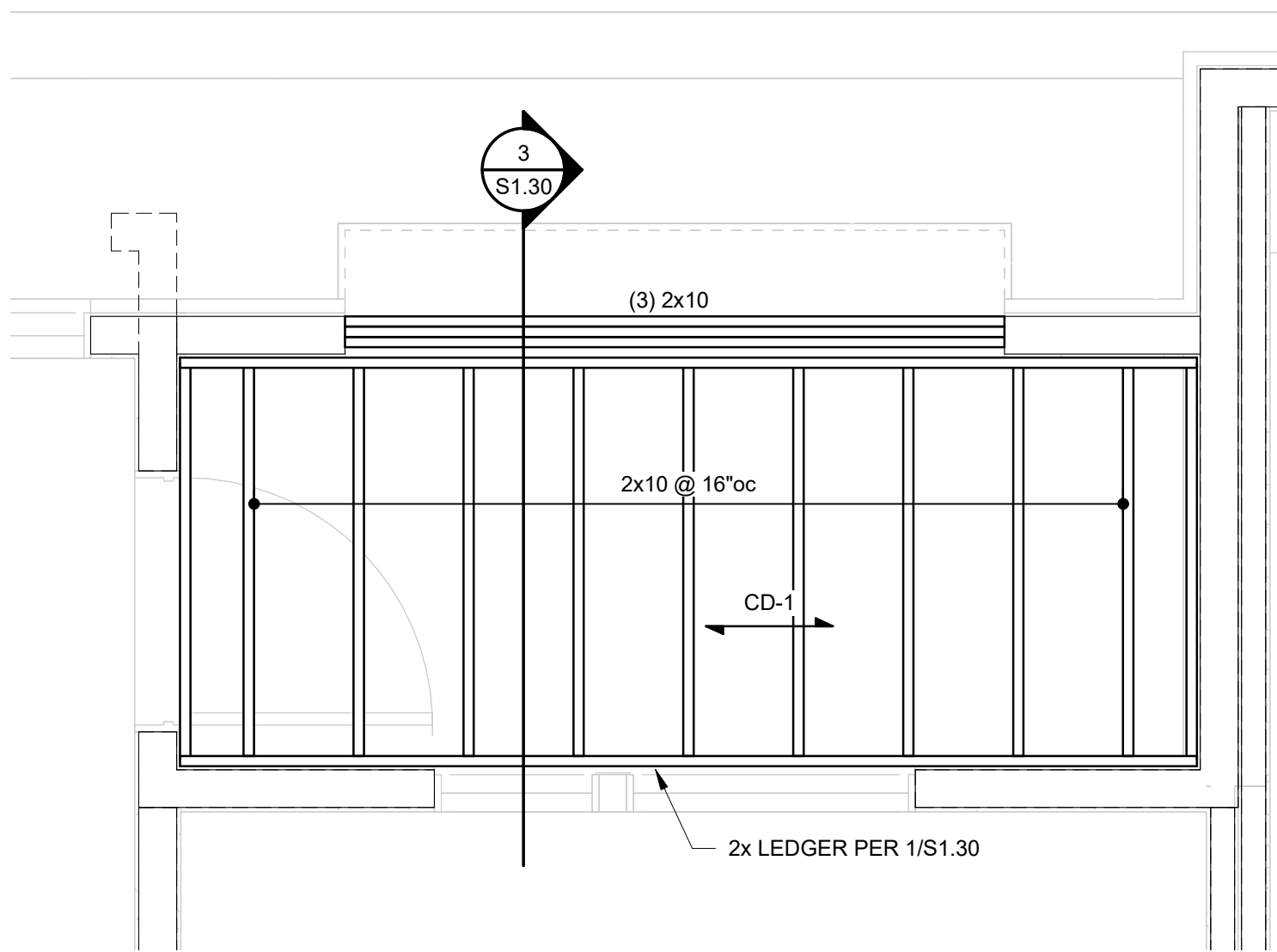
1 BALCONY FRAMING PLAN
1/2" = 1'-0"



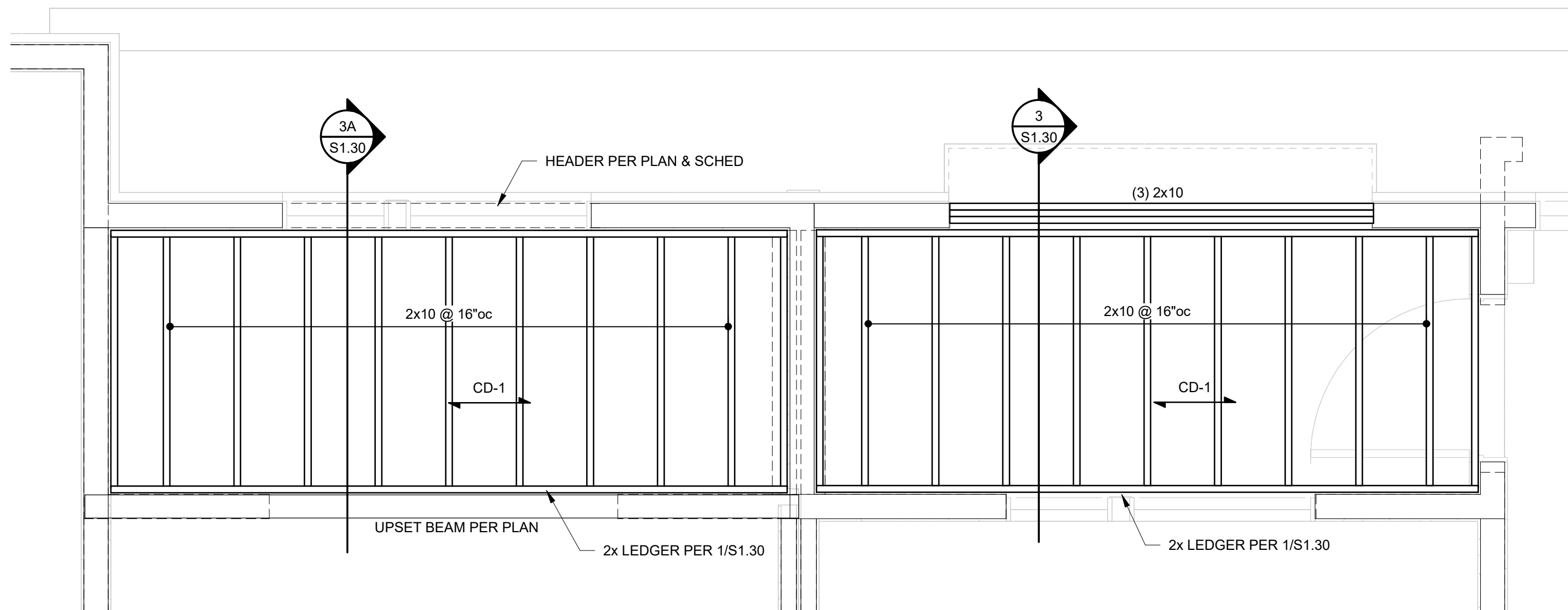
2 BALCONY FRAMING PLAN
1/2" = 1'-0"



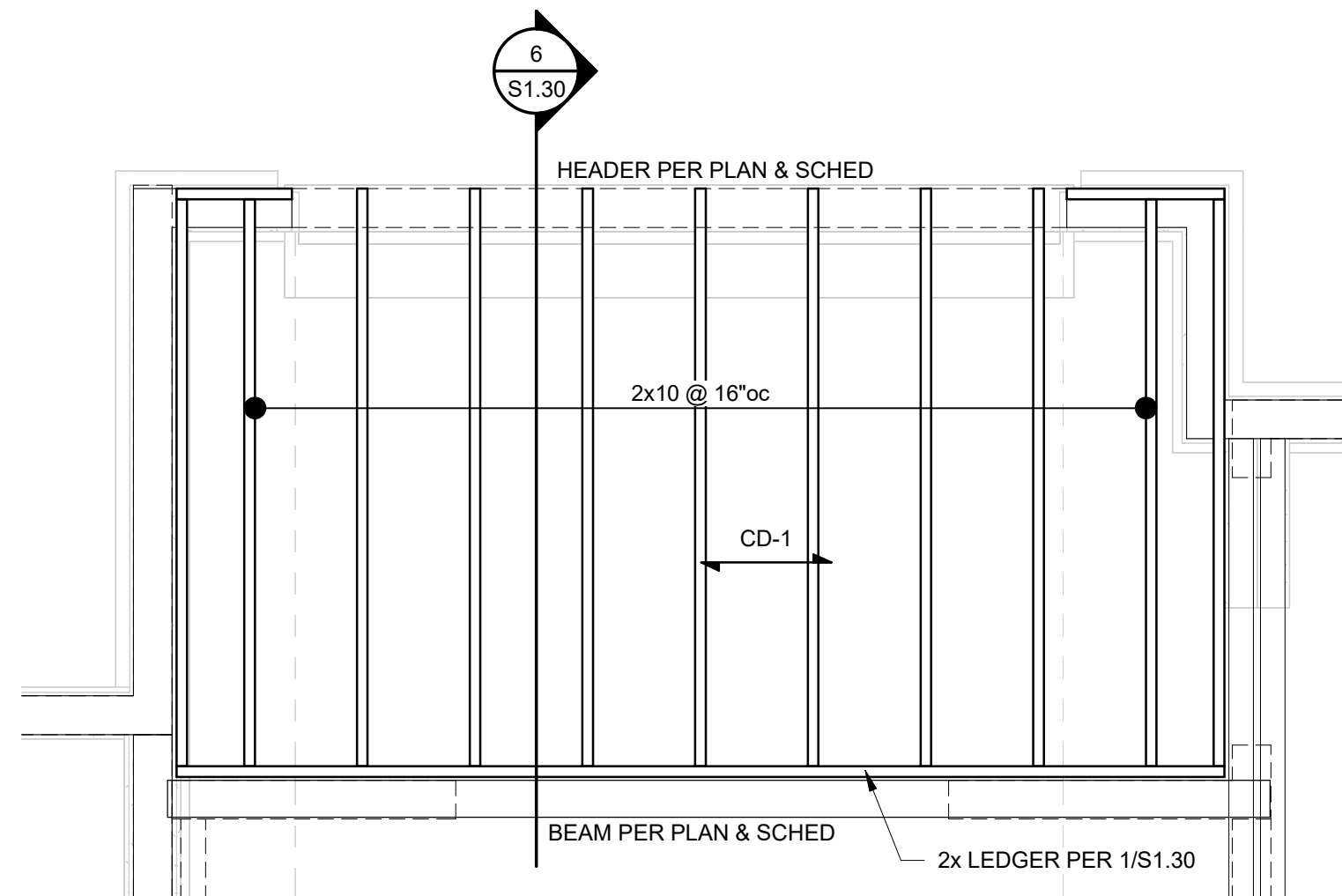
3 BALCONY FRAMING PLAN
1/2" = 1'-0"



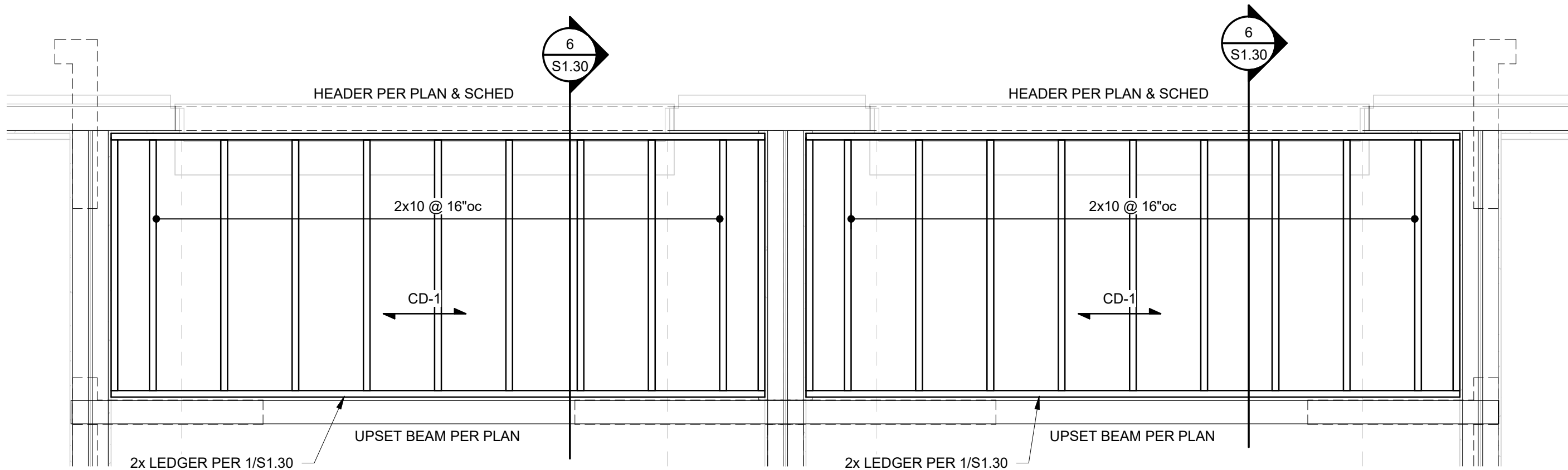
4 BALCONY FRAMING PLAN
1/2" = 1'-0"



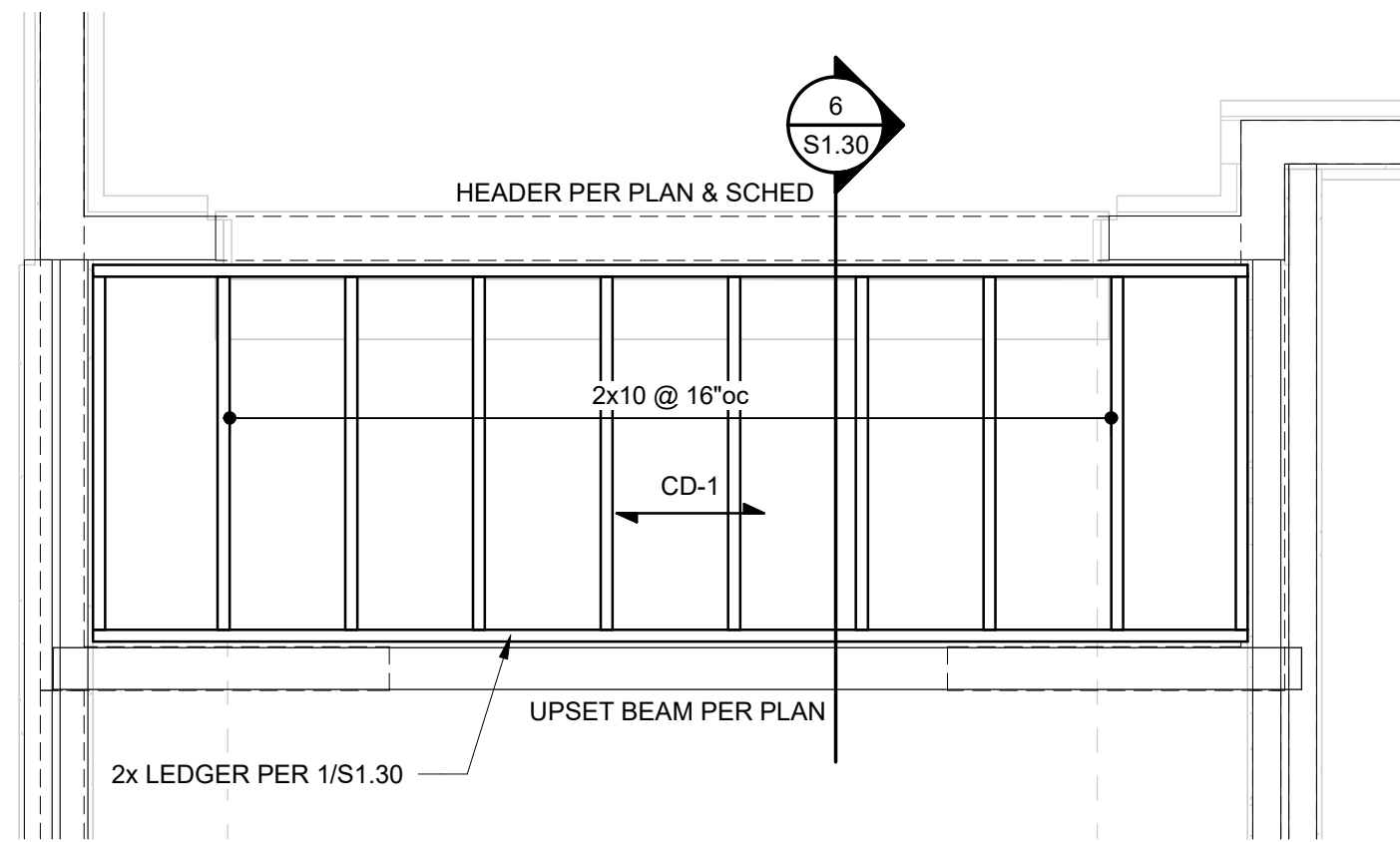
5 BALCONY FRAMING PLAN
1/2" = 1'-0"



6 BALCONY FRAMING PLAN
1/2" = 1'-0"

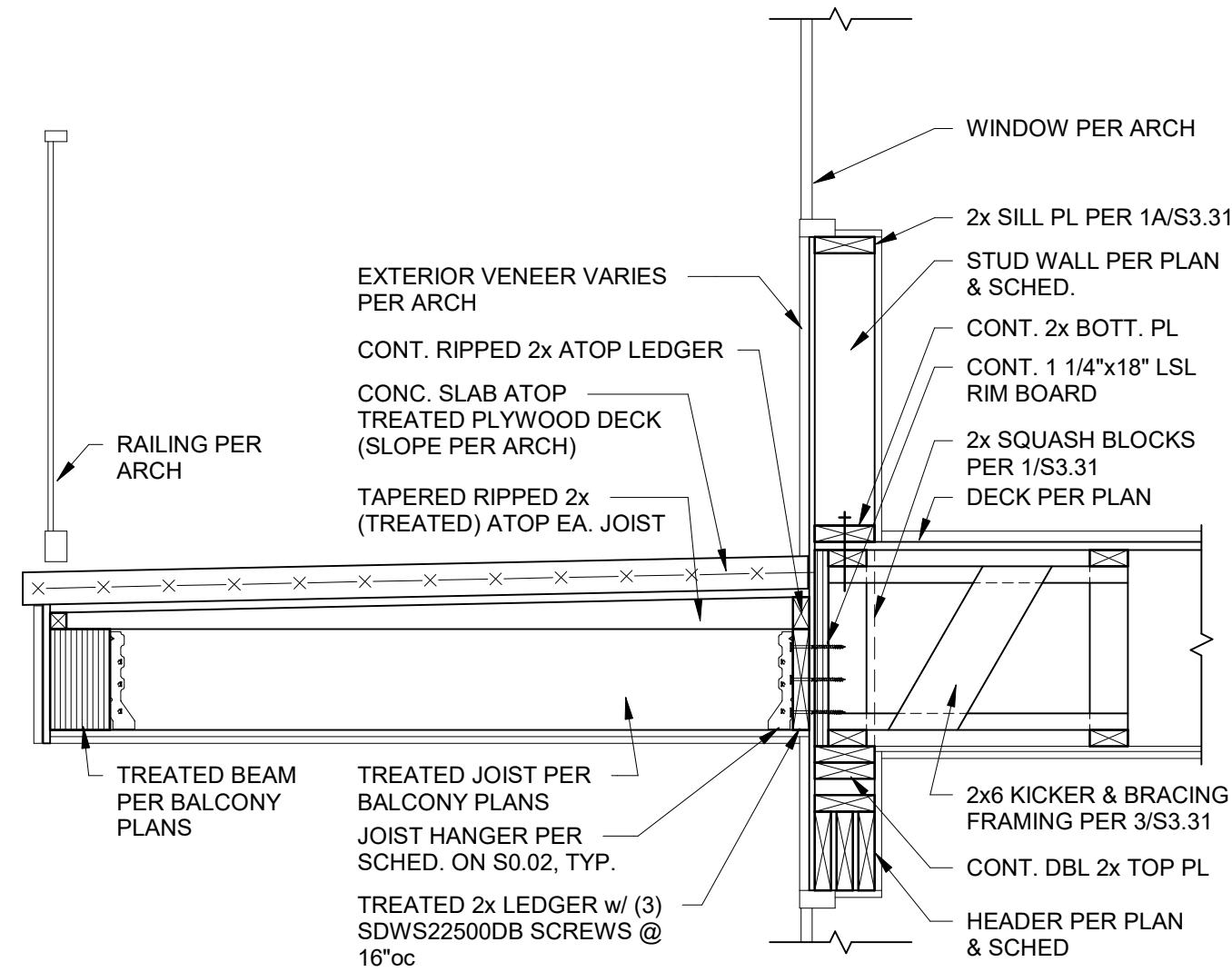


7 BALCONY FRAMING PLAN
1/2" = 1'-0"

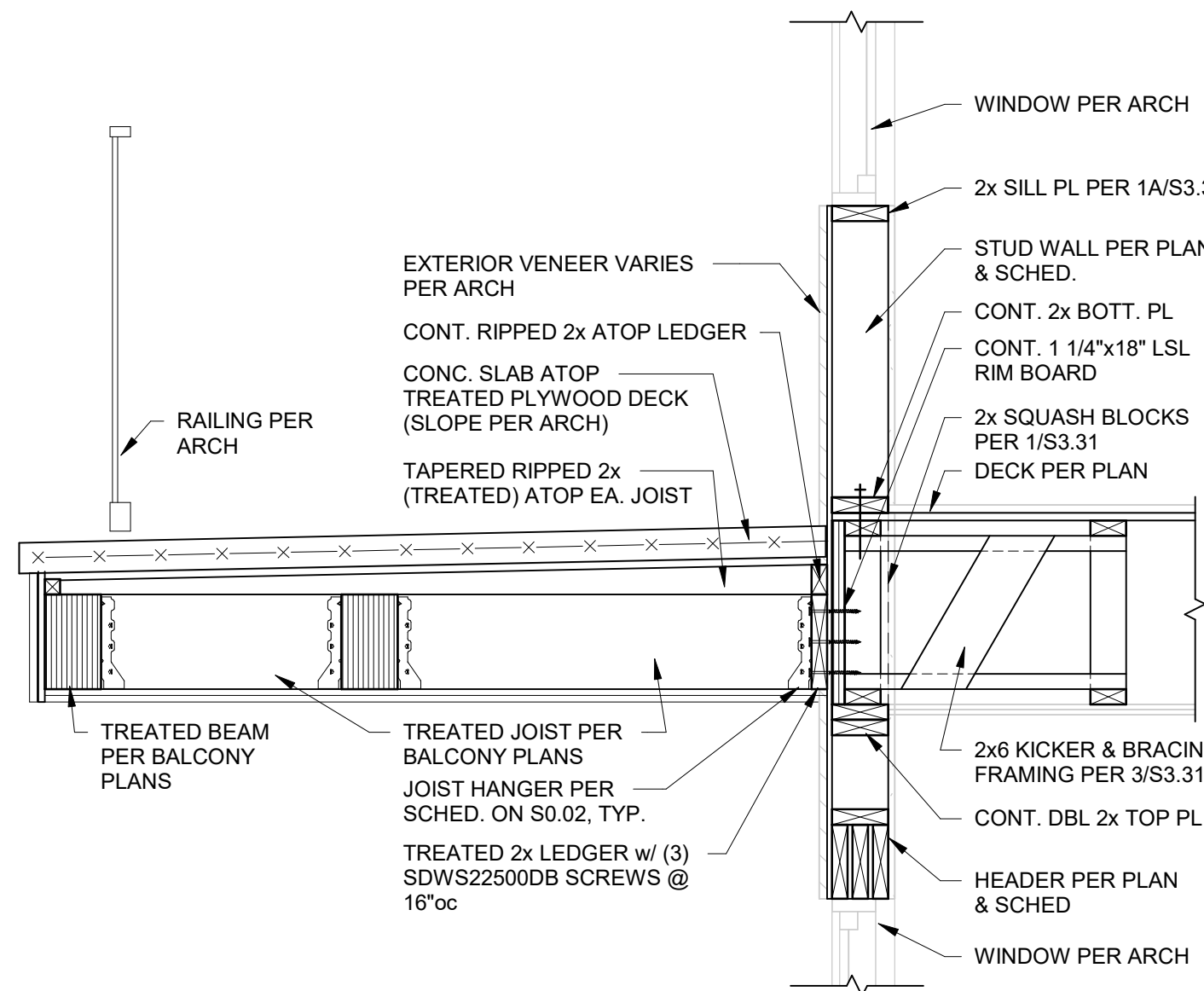


8 BALCONY FRAMING PLAN
1/2" = 1'-0"

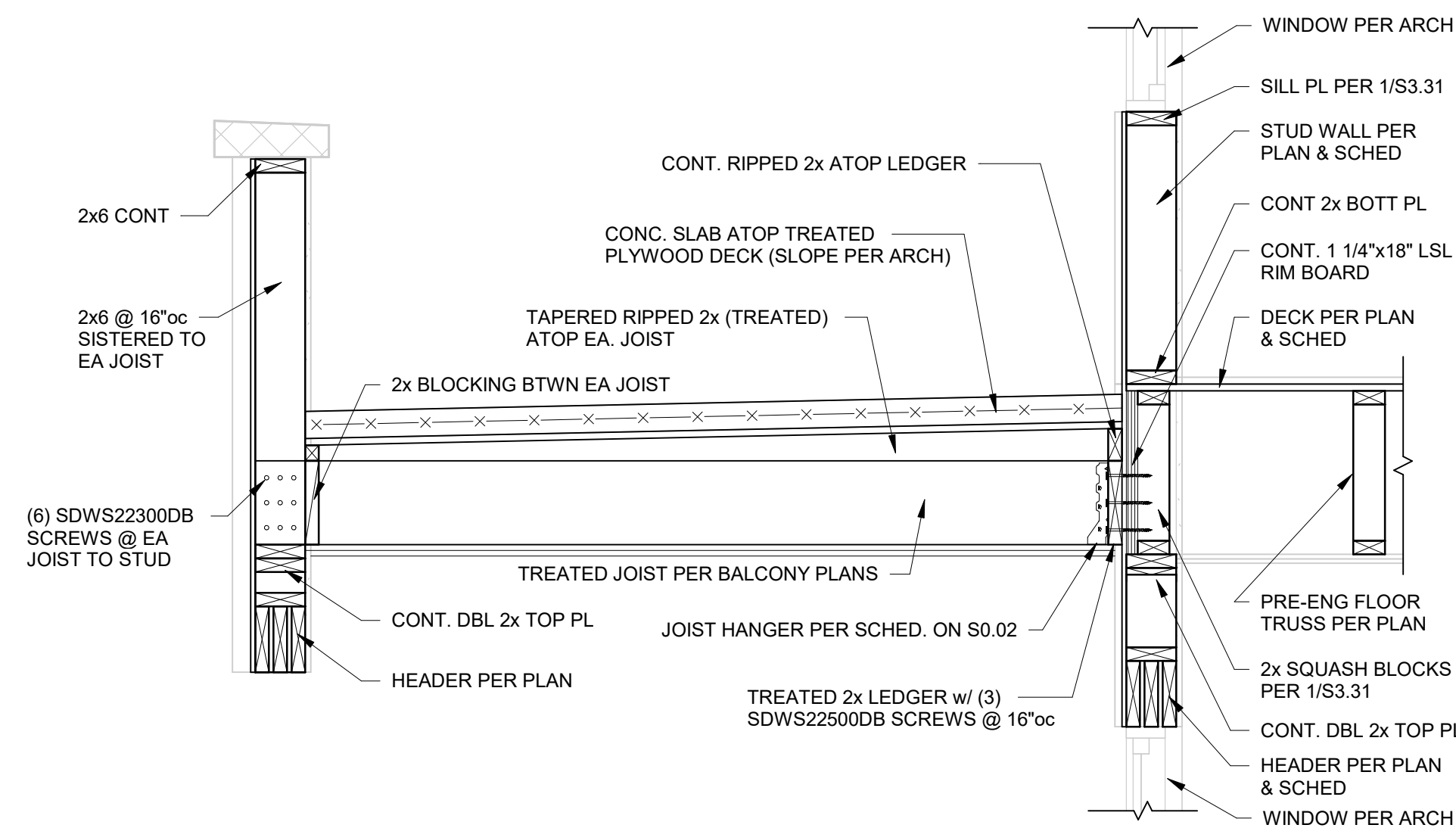
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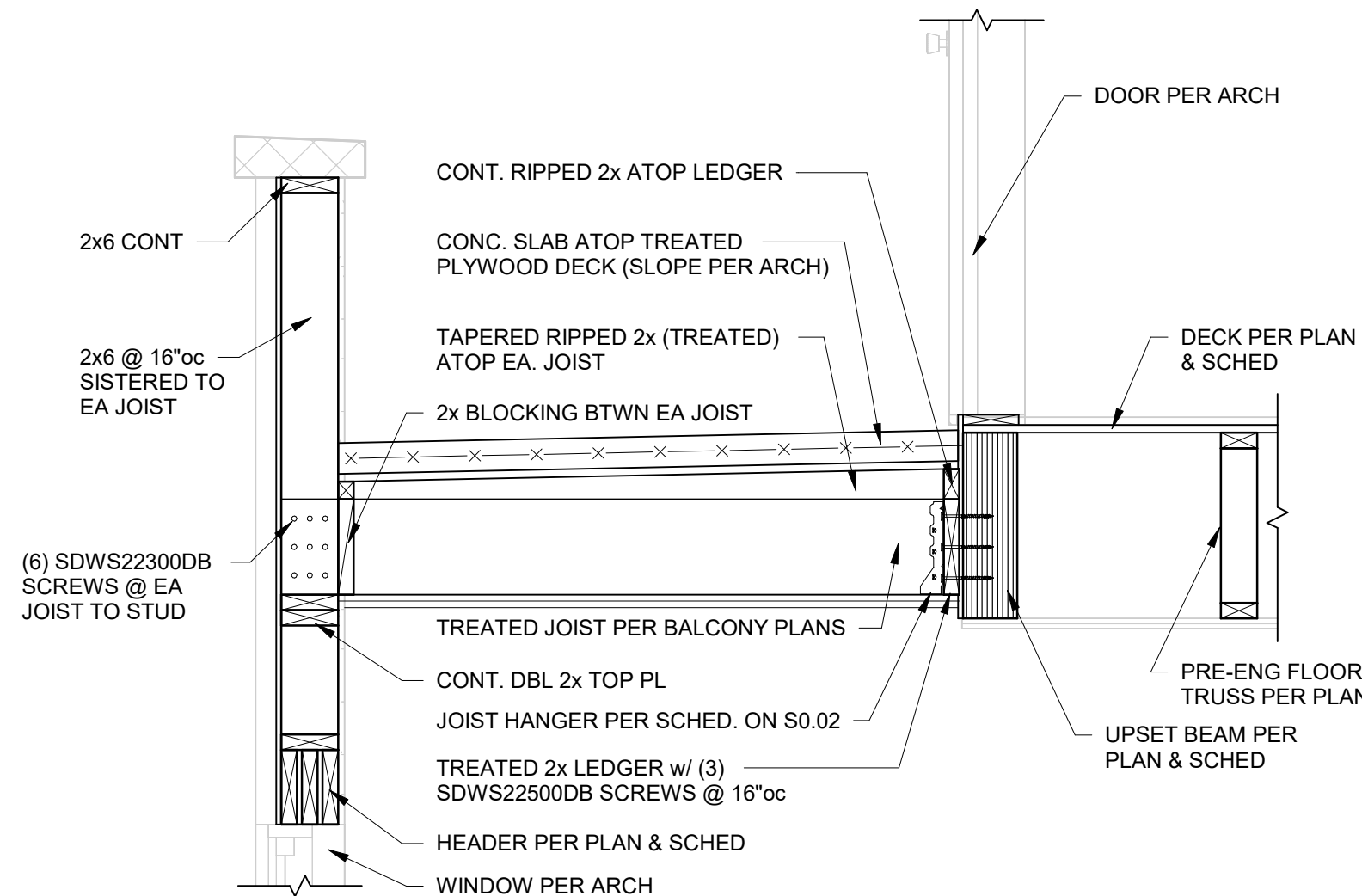
1 SECTION
3/4" = 1'-0"



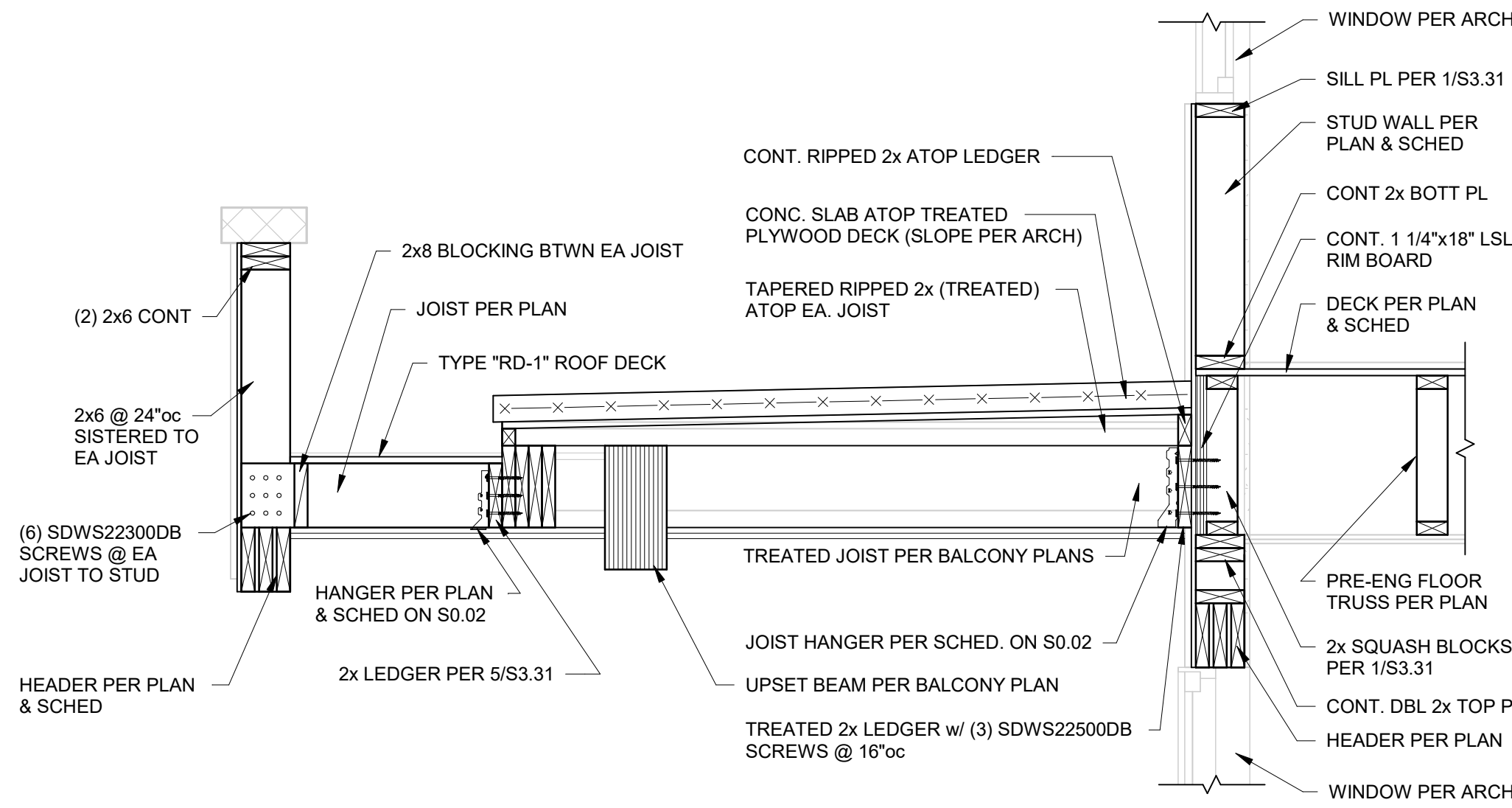
2 SECTION
3/4" = 1'-0"



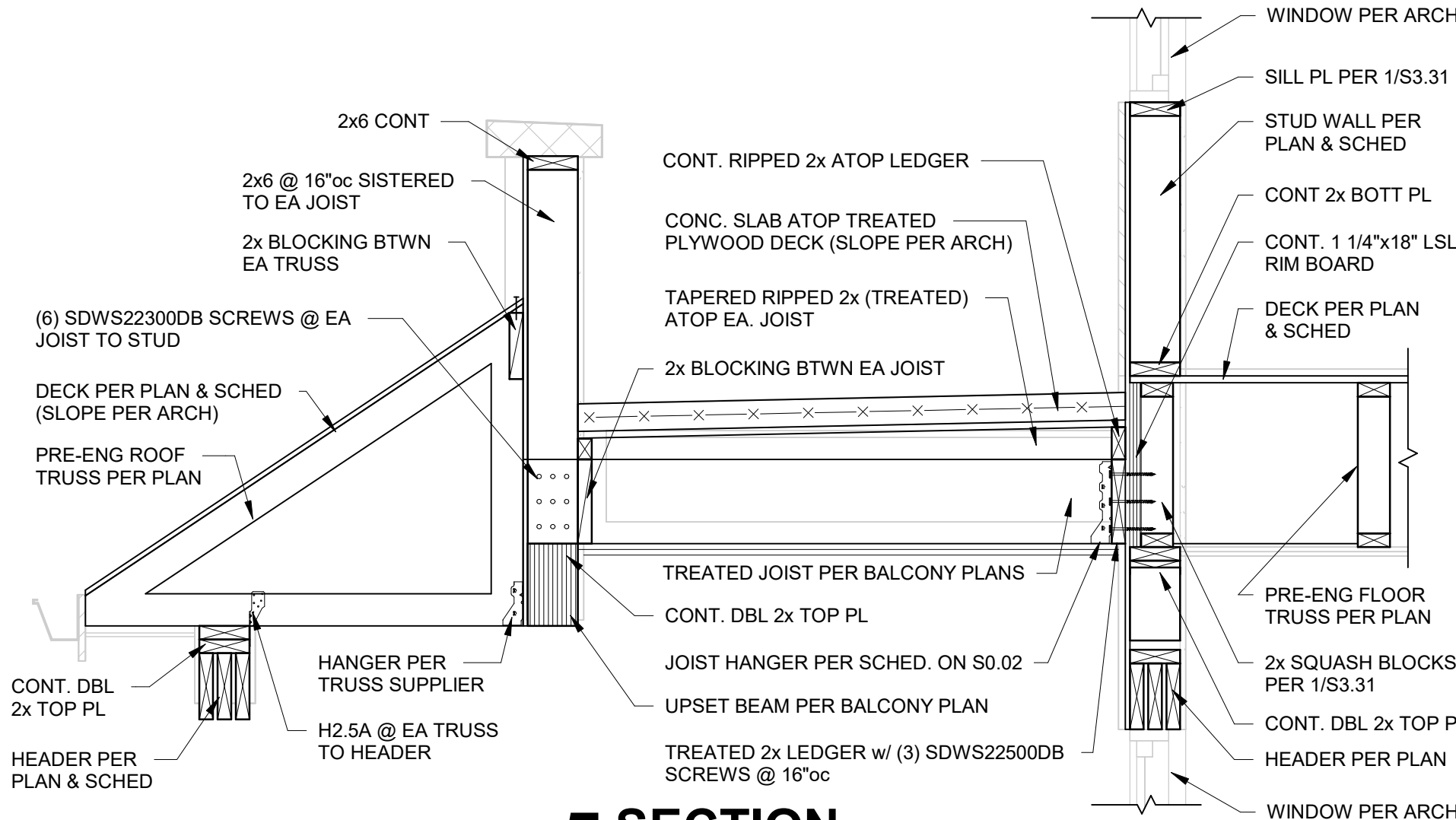
3 SECTION
3/4" = 1'-0"



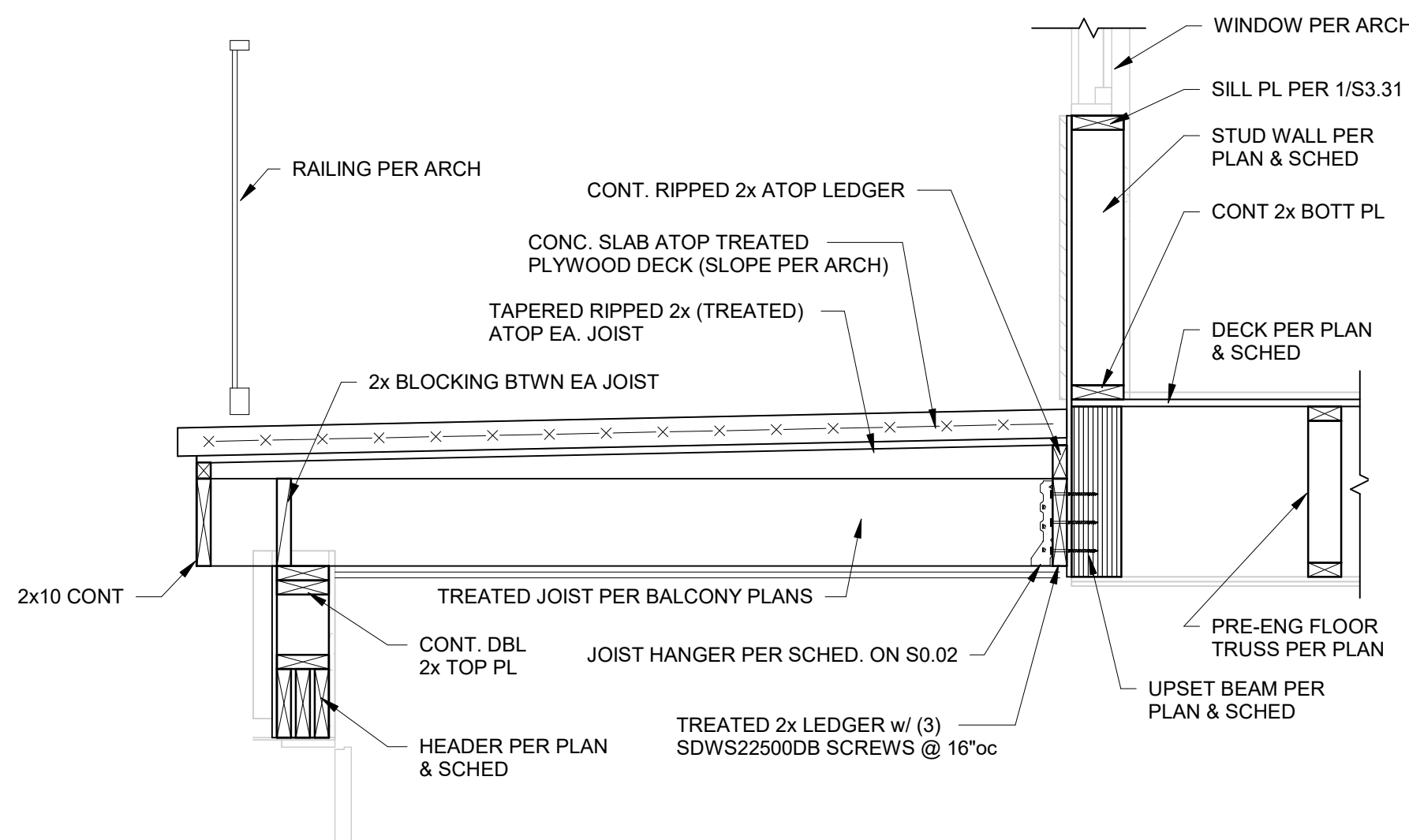
3A SECTION
3/4" = 1'-0"



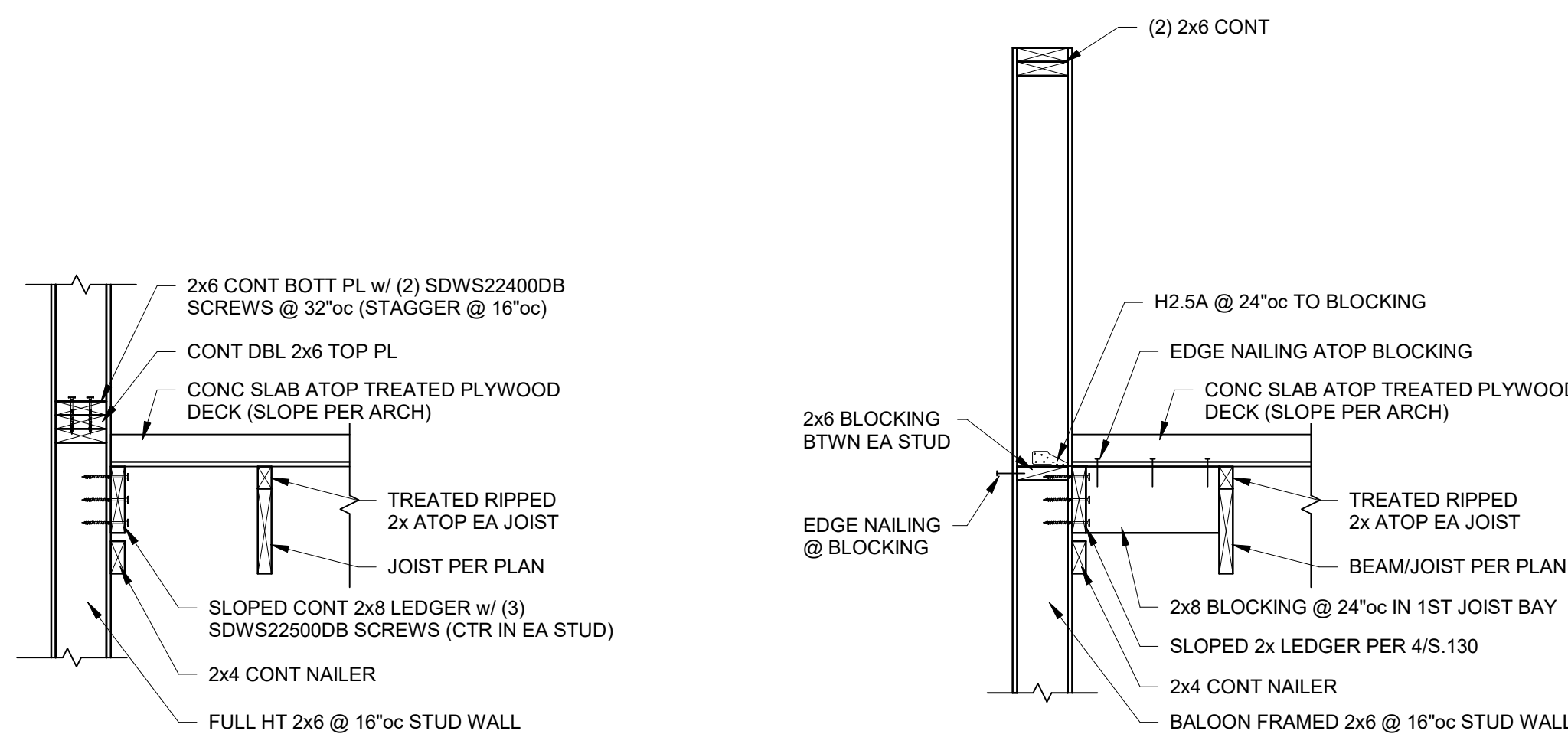
4 SECTION
3/4" = 1'-0"



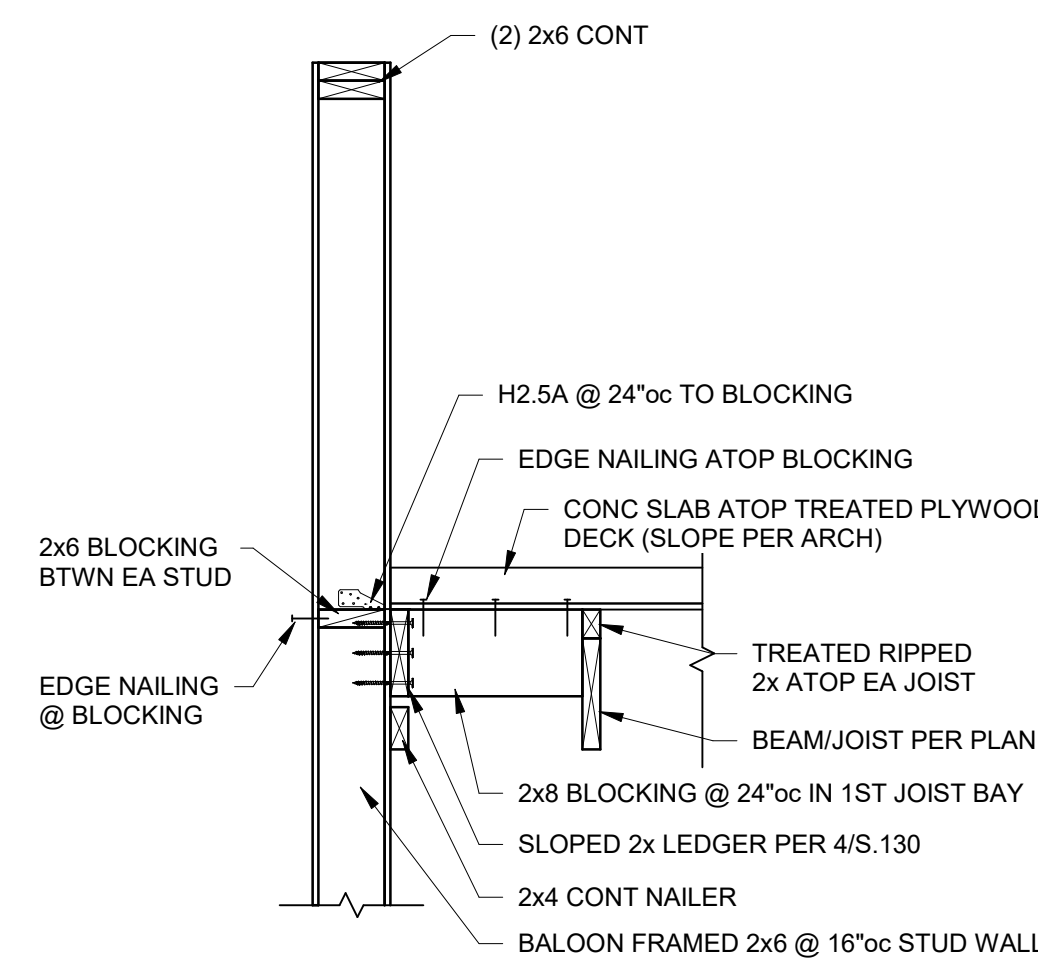
5 SECTION
3/4" = 1'-0"



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



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



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

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CHRISTOPHER A. BEVERLIN
NUMBER
PE-20170123503
4-24-23
PROFESSIONAL ENGINEER

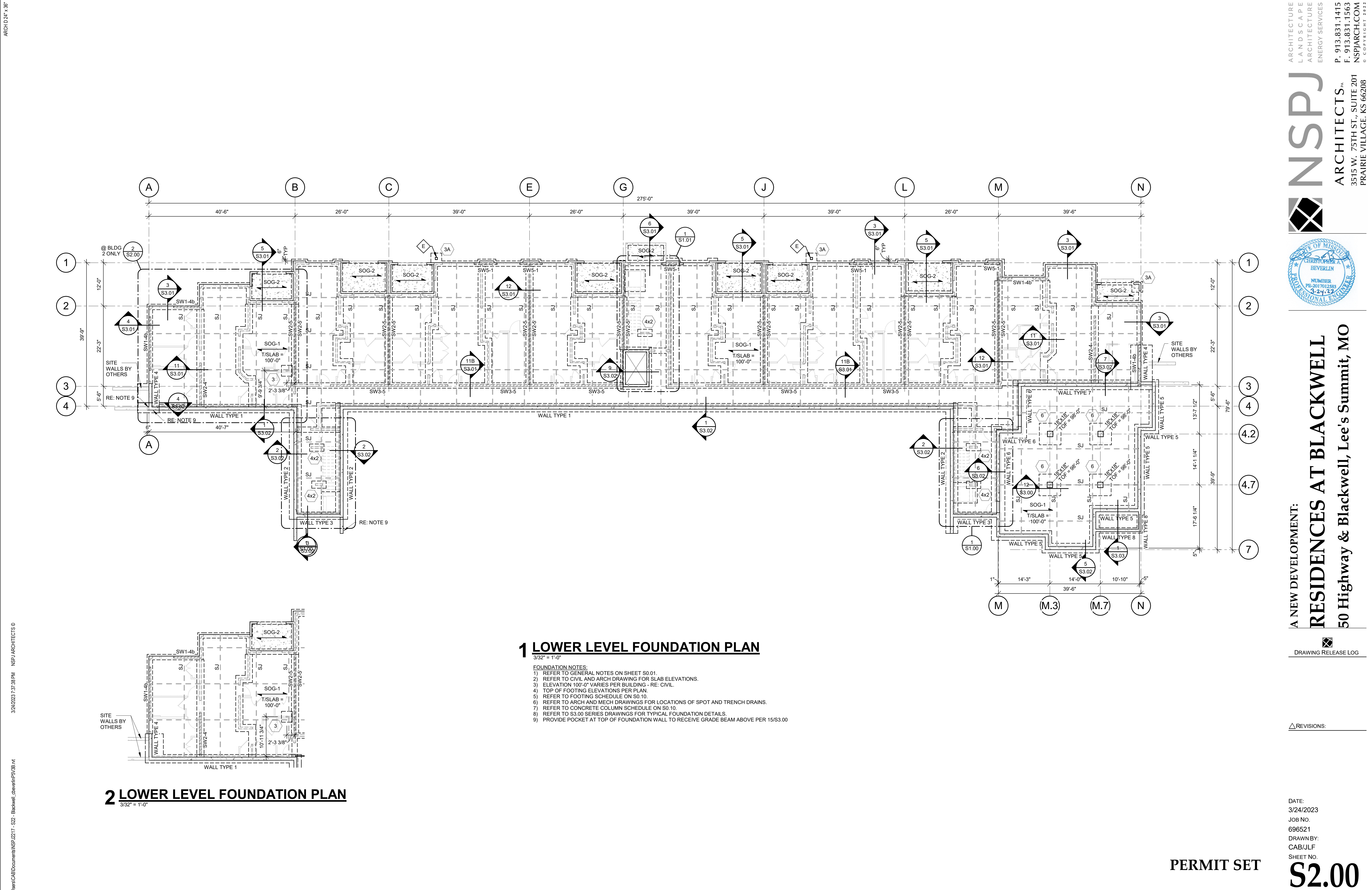
A NEW DEVELOPMENT:
RESIDENCES AT BLACKWELL
50 Highway & Blackwell, Lee's Summit, MO

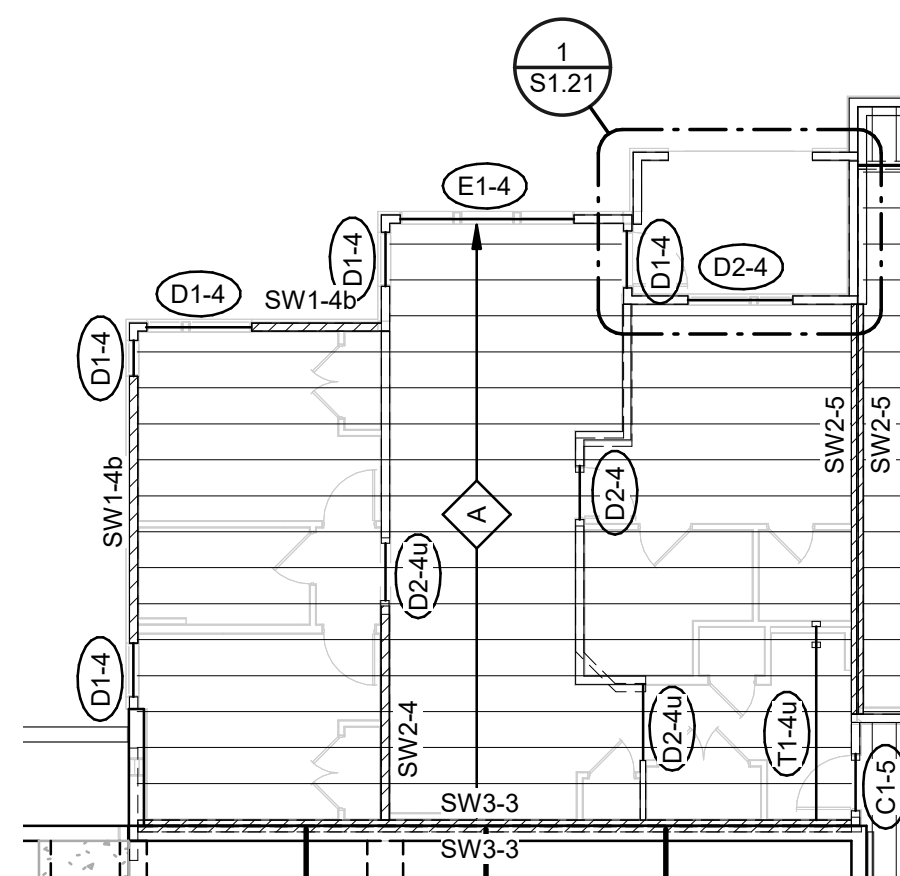
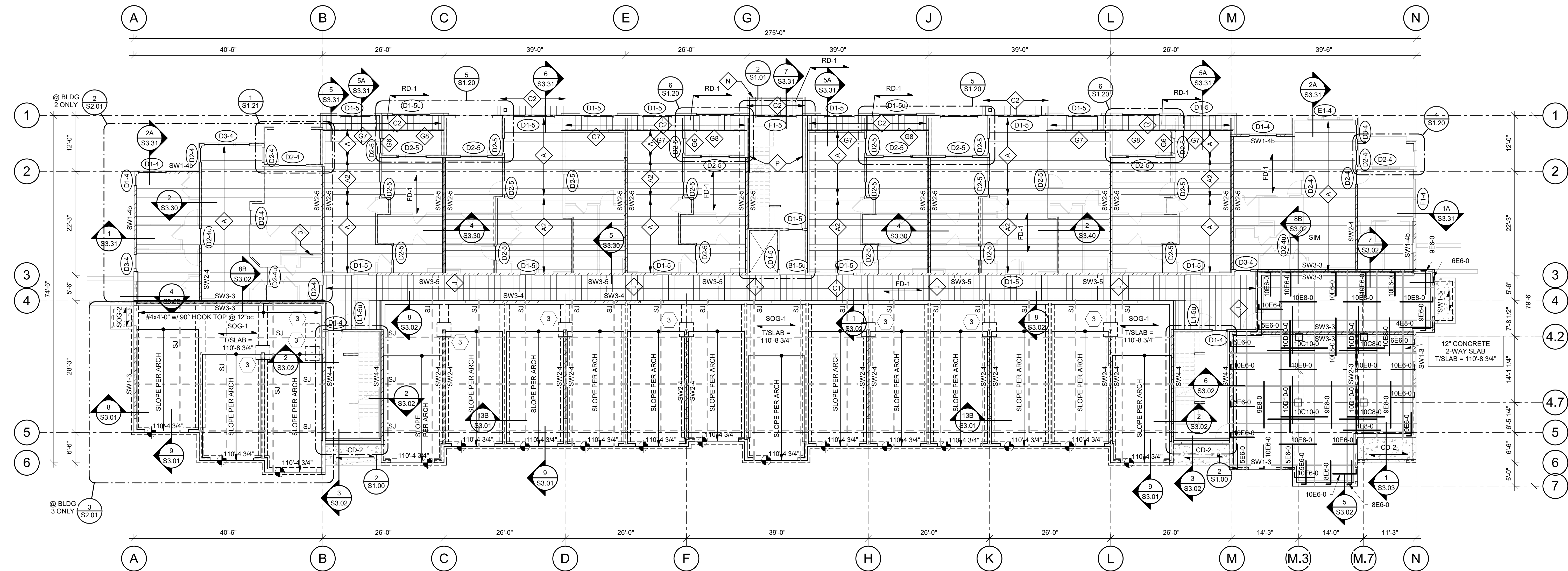
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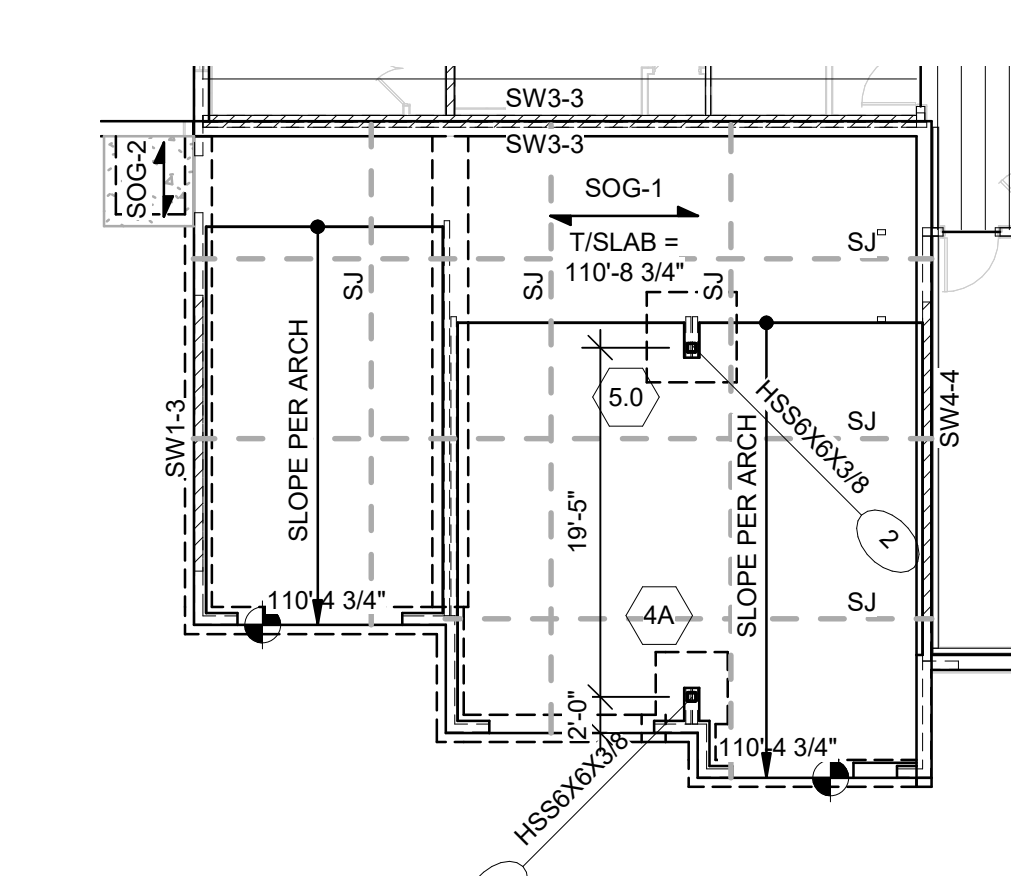
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SHEET NO.
S1.30





2 1ST FLOOR FRAMING PLAN
3/32" = 1'-0"



3 1ST FLOOR FOUNDATION PLAN
3/32" = 1'-0"


1 1ST FLOOR FRAMING & FOUNDATION PLAN

3/32" = 1'-0"

FOUNDATION NOTES:

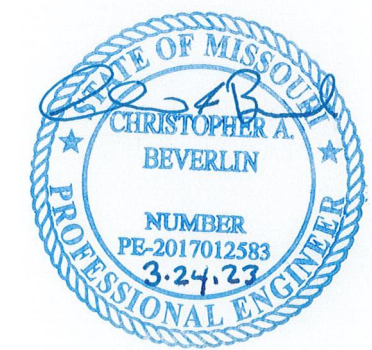
- 1) REFER TO GENERAL NOTES ON SHEET S0.01.
- 2) REFER TO CIVIL AND ARCH DRAWING FOR SLAB ELEVATIONS.
- 3) ELEVATION 100'-0" VARIES PER BUILDING - RE: CIVIL.
- 4) TOP OF FOOTING ELEVATIONS PER PLAN.
- 5) REFER TO FOOTING SCHEDULE ON S0.10.
- 6) REFER TO ARCH AND MECH DRAWINGS FOR LOCATIONS OF SPOT AND TRENCH DRAINS.
- 7) REFER TO CONCRETE COLUMN SCHEDULE ON S0.10.
- 8) REFER TO S3.00 SERIES DRAWINGS FOR TYPICAL FOUNDATION DETAILS.
- 9) PROVIDE POCKET AT TOP OF FOUNDATION WALL TO RECEIVE GRADE BEAM ABOVE PER 15/S3.00.

WOOD FLOOR FRAMING NOTES:

- 1) REFER TO GENERAL NOTES ON SHEET S0.01
- 2) REFER TO STUD BEARING WALL SCHEDULE TO SHEET S0.02
- 3) REFER TO HEADER/BEAM SCHEDULE ON SHEET S0.02
- 4) REFER TO SHEARWALL SCHEDULE ON SHEET S0.03
- 5) REFER TO STAIR FRAMING PLANS ON SHEET S2.00
- 6) REFER TO BALCONY FRAMING PLANS ON SHEET S1.20
- 7) REFER TO S3.30-SERIES DRAWINGS FOR ADDITIONAL FLOOR FRAMING DETAILS NOT INDICATED HERE
- 8) PROVIDE TRUSS SPACE DIRECTLY ABOVE AND CENTERED OVER HVAC CLOSETS; REFER TO ARCH & MEP DRAWINGS FOR EXACT LOCATIONS
- 9)  - STORAGE AREA: DESIGN FOR LL PER GENERAL NOTE 2.B ON S0.01
- 10) TOP OF STEEL ELEVATION FOR STEEL BEARING ON WOOD MEMBERS SHALL BE FIELD COORDINATED BY THE CONTRACTOR & ARCHITECTURAL ROUGH OPENING SCHEDULE.

CONCRETE FRAMING NOTES:

- 1) REFER TO GENERAL NOTES ON SHEET S0.01.
- 2) REFER TO CIVIL AND ARCH DRAWINGS FOR SLAB ELEVATIONS.
- 3) REFER TO ARCH AND MEP DRAWINGS FOR LOCATIONS OF SPOT AND TRENCH DRAINS.
- 4) REFER TO CONCRETE COLUMN SCHEDULE ON S0.10.
- 5) REFER TO STRUCTURAL SLAB (PODIUM SLAB) NOTES ON S0.10.
- 6) ELEVATIONS AND SLAB STEPS INDICATED OCCUR IN THE STRUCTURAL SLAB. REFER TO ARCH FOR SLOPES OF TOPPING SLAB.
- 7) ALL ADDITIONAL REINFORCEMENT (PER PLAN) SHALL PROJECT TO OPPOSITE FACE OR STRIP & LAP WITH SAME SIZE BAR.



A NEW DEVELOPMENT:
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50 Highway & Blackwell, Lee's Summit, MO

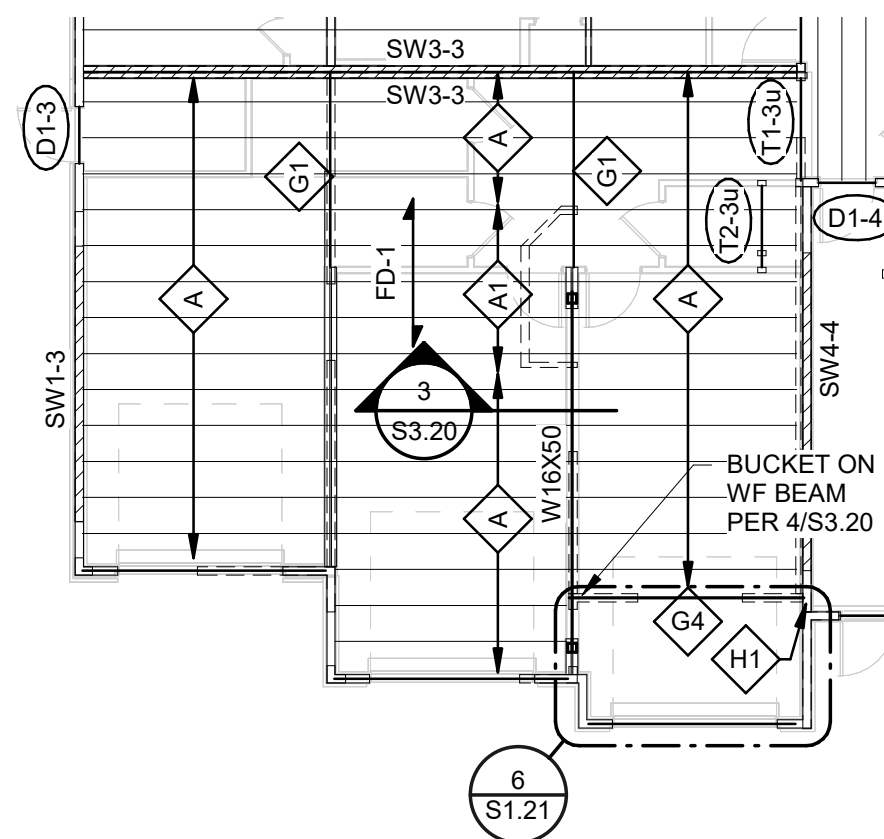
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DATE:
3/24/2023
JOB NO.
696521
DRAWN BY:
CAB/JLF
SHEET NO.

PERMIT SET

S2.01


$$3/32'' = 1'-0''$$

WOOD FLOOR FRAMING NOTES:

- 1) REFER TO GENERAL NOTES ON SHEET S0.01
- 2) REFER TO STUD BEARING WALL SCHEDULE TO SHEET S0.02
- 3) REFER TO HEADER/BEAM SCHEDULE ON SHEET S0.02
- 4) REFER TO SHEARWALL SCHEDULE ON SHEET S0.02
- 5) REFER TO STAIR FRAMING PLANS ON SHEET S2.00
- 6) REFER TO BALCONY FRAMING PLANS ON SHEET S1.20
- 7) REFER TO S3.30-SERIES DRAWINGS FOR ADDITIONAL FLOOR FRAMING DETAILS NOT INDICATED HERE
- 8) PROVIDE IT'S A R/S JOIST DIRECTLY 600 AND CENTERED OVER HVAC CLOSETS. REFER TO ARCH & MEP DRAWINGS FOR EXACT LOCATIONS
- 9)  - STORAGE AREA DESIGN FOR LL PER GENERAL NOTE 2.B ON S0.01
- 10) TOP OF STEEL ELEVATION FOR STEEL BEARING ON WOOD MEMBERS SHALL BE FIELD COORDINATED BY THE CONTRACTOR & ARCHITECTURAL ROUGH OPENING SCHEDULE.

**A NEW DEVELOPMENT:
RESIDENCES AT BLACKWELL**
50 Highway & Blackwell, Lee's Summit, MO

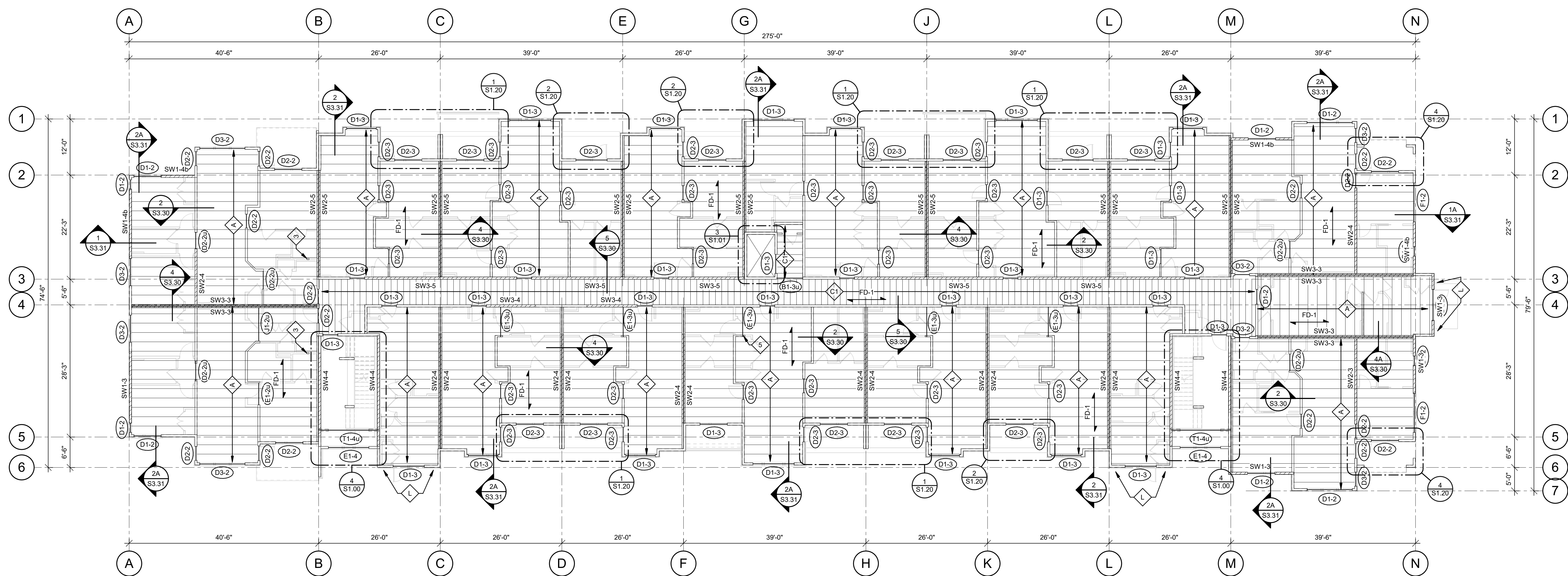
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3/24/2023
JOB NO.
696521
DRAWN BY:
CAB/JLF
SHEET NO.

S2.02


$$3/32'' = 1'-0''$$

WOOD FLOOR FRAMING NOTES:

- 1) REFER TO GENERAL NOTES ON SHEET S0.01
- 2) REFER TO STUD BEARING WALL SCHEDULE TO SHEET S0.02
- 3) REFER TO HEADER/BEND SCHEDULE ON SHEET S0.02
- 4) REFER TO SHEARWALL SCHEDULE ON SHEET S0.03
- 5) REFER TO STAIR FRAMING PLANS ON SHEET S2.00
- 6) REFER TO BALCONY FRAMING PLANS ON SHEET S1.20
- 7) REFER TO S3.30-SERIES DRAWINGS FOR ADDITIONAL FLOOR FRAMING DETAILS NOT INDICATED HERE
- 8) PROVIDE TRUSS SPACE DIRECTLY ABOVE AND CENTERED OVER HVAC CLOSETS; REFER TO ARCH & ENG DRAWINGS FOR EXACT LOCATIONS
- 9) **STORAGE AREA DESIGN FOR LL PER GENERAL NOTE 2.B ON S0.01**
- 10) **TOP OF STEEL ELEVATION FOR STEEL BEARING ON WOOD MEMBERS SHALL BE FIELD COORDINATED BY THE CONTRACTOR & ARCHITECTURAL ROUGH OPENING SCHEDULE.**

STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER
PE-2017012583
3-24-23
PROFESSIONAL ENGINEER

**A NEW DEVELOPMENT:
RESIDENCES AT BLACKWELL
50 Highway & Blackwell, Lee's Summit, MO**

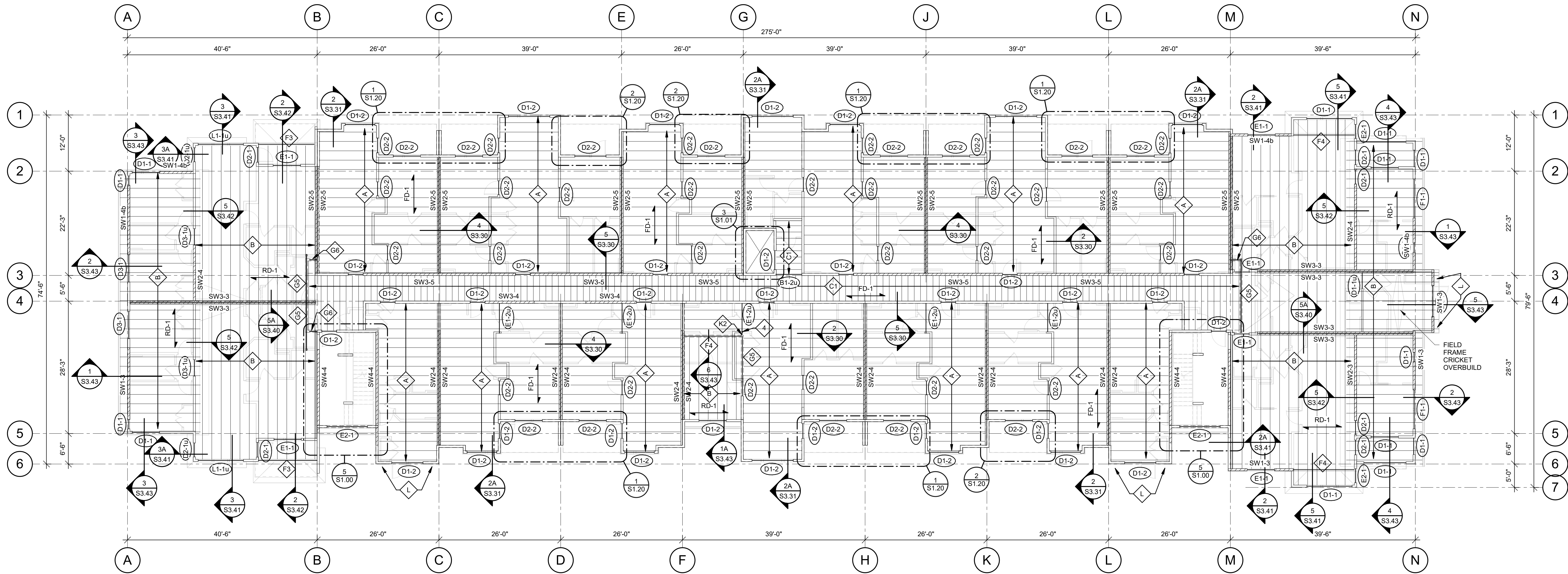

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DATE:
3/24/2023
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SHEET NO.


S2.03

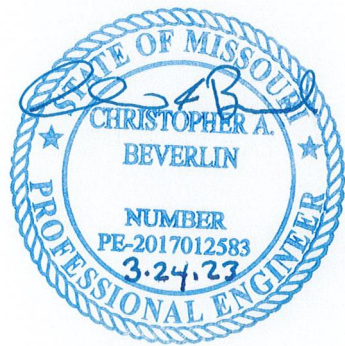


4TH FLOOR FRAMING PLAN

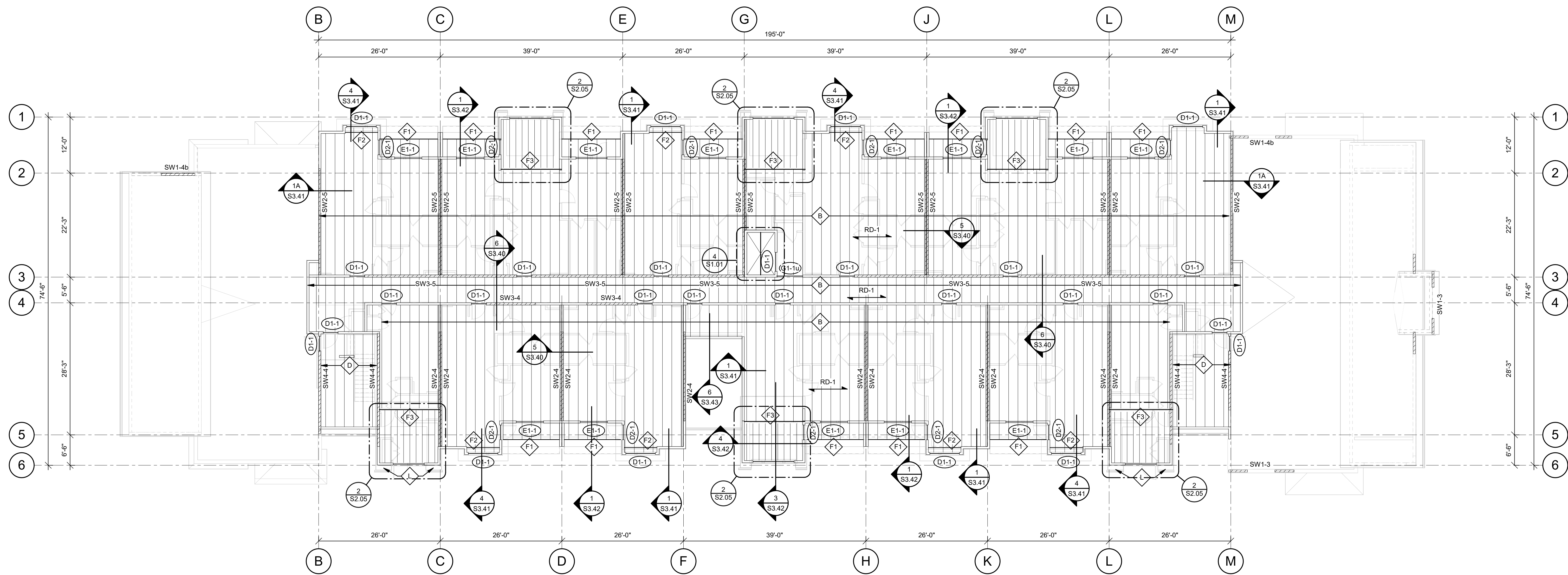
3/32" = 1'-0"

WOOD FLOOR FRAMING NOTES:

- 1) REFER TO GENERAL NOTES ON SHEET S0.01
- 2) REFER TO STUD BEARING WALL SCHEDULE TO SHEET S0.02
- 3) REFER TO HEADER/BEAM SCHEDULE ON SHEET S0.02
- 4) REFER TO SHEARWALL SCHEDULE ON SHEET S0.03
- 5) REFER TO STAIR FRAMING PLANS ON SHEET S2.00
- 6) REFER TO BALCONY FRAMING PLANS ON SHEET S1.20
- 7) REFER TO S3.30-SERIES DRAWINGS FOR ADDITIONAL FLOOR FRAMING DETAILS NOT INDICATED HERE
- 8) PROVIDE TRUSS SPACE DIRECTLY ABOVE AND CENTERED OVER HVAC CLOSETS; REFER TO ARCH & MEP DRAWINGS FOR EXACT LOCATIONS
- 9)  - STORAGE AREA. DESIGN FOR LL PER GENERAL NOTE 2.B ON S0.01
- 10) TOP OF STEEL ELEVATION FOR STEEL BEARING ON WOOD MEMBERS SHALL BE FIELD COORDINATED BY THE CONTRACTOR & ARCHITECTURAL ROUGH OPENING SCHEDULE.




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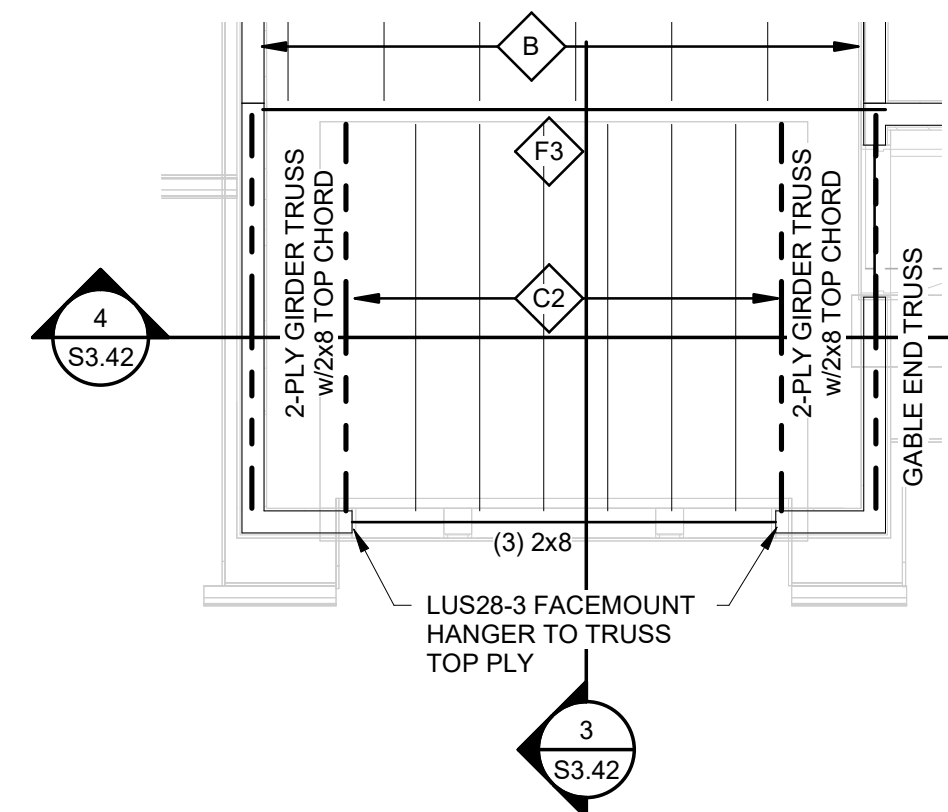


1 ROOF FRAMING PLAN

$$\frac{3}{32}'' = 1'-0'$$

WOOD ROOF FRAMING NOTES

- 1) REFER TO GENERAL NOTES ON SHEET S0.01
- 2) REFER TO STUD BEARING WALL SCHEDULE TO SHEET S0.02
- 3) REFER TO HEADER/BEAM SCHEDULE ON SHEET S0.02
- 4) REFER TO SHEARWALL SCHEDULE ON SHEET S0.02
- 5) PROVIDE (3) STUD (MINIMUM) ALIGNED UNDER EACH END OF GIRDER TRUSS (CONTINUOUS FOUNDATION) - FINAL QUANTITY TO MATCH NUMBER OF PILES OF GIRDER TRUSS. PROVIDE SIMPSON LSTA-STYLE HOLDOWN AT EACH END OF GIRDER TRUSS.
- 6) REFER TO S40.0-SERIES DRAWINGS FOR ADDITIONAL ROOF FRAMING DETAILS NOT INDICATED HERE.
- 7) PROVIDE UNIFORM UPLIFT SCREWS AT UPPER FLOOR PER DETAILS 2, 2A, 3, 3A, 3B, 4 AND 5 ON SHEET S0.20.
- 8) PRE-ENGINEERED TRUSSES TO HAVE A MINIMUM DEPTH OF 24". SLOPE TOP CHORD PER ARCHITECTURAL DRAWINGS.
- 9)  INDICATES AREA ON ROOF THAT IS REQ'D TO BE DESIGNED FOR MEP EQUIPMENT ZONE PER GENERAL NOTE "7.2" ON SHEET S0.01
- 10) TOP OF GIRTEL ELEVATION TO BE FIELD BEARING ON WOOD MEMBERS SHALL BE FIELD COORDINATED BY THE CONTRACTOR & ARCHITECTURAL ROUGH OPENING SCHEDULE.
- 11) PRE-ENG TRUSSES TO HAVE SLOPING TOP CHORD WITH MINIMUM TRUSS DEPTH OF 24".



2 ROOF FRAMING PLAN

$$1/4'' = 1'-0''$$

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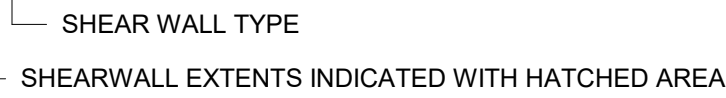
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NOTES:

- 1) REFER TO GENERAL NOTES ON SHEET S0.01.
- 2) REFER TO COLUMN AND STUD BEARING WALL SCHEDULES ON SHEET S0.02.
- 3) REFER TO SHEAR WALL & HOLDOWN SCHEDULES ON SHEET S0.03.
- 4) SHEARWALLS/HOLDOWNS DESIGNATED AS FOLLOWS:



- HOLDOWN TYPE MARK: (1) HOLDOWN TYPICAL EACH END OF SHEARWALL (OF TYPE INDICATED) U.N.O. PER SHEARWALL SCHED. RE: SCHED. FOR ADDT'L SPECIFIC REQ'S

- 5) ALL EXTERIOR WALLS NOT SPECIFICALLY DESIGNATED AS A STRUCTURAL SHEARWALL SHALL BE SHEATHED w/ 7/16" OSB w/ 8d NAILS @ 6"oc EDGES @ 12"oc FIELD.
- 6) REFERENCE TO DETAILS 15 THRU 15D ON \$0.20 FOR SILL PLATE AND RIM BOARD ATTACHMENT AT EXTENTS OF SHEARWALLS.

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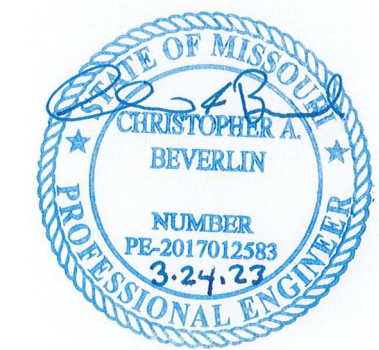
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CLUBHOUSE HEADERS/BEAMS SCHEDULE			
MARK	HEADER	JAMB TYPE #	NOTES
D1	(3) 2x8	1 JACK / 1 KING	
D2	(3) 2x8	1 JACK / 2 KING	
E1	(3) 2x10	1 JACK / 1 KING	
E2	(3) 2x10	1 JACK / 2 KING	
F1	(3) 2x12	1 JACK / 2 KING	
F2	(3) 2x12	2 JACK / 2 KING	
J1	(3) 1 3/4"x7 1/8" LVL	2 JACK / 2 KING	
N1	(3) 1 3/4"x11 1/4" LVL		
Q1	(3) 1 3/4"x14" LVL		HGU5.50-SDS (H=14") HANGER @ BEAM CONNECTION
S1	(3) 1 3/4"x16" LVL	3 KING	
T1	(2) 1 3/4"x18" LVL	3 KING	
U1	(3) 1 3/4"x18" LVL	3 KING	
V1	(4) 1 3/4"x18" LVL	3 KING	
X1	(5) 1 3/4"x18" LVL	4 KING @ WALL / SIMPSON EG9 HANGER TO Y1 BEAM	ATTACH PLIES TOGETHER w/ 3 ROWS OF 1/4"x8" SDS SCREWS @ 12"oc FROM EA SIDE - MATCH EDGE DISTANCE PER 5A/S0.02
Y1	(3) 1 3/4"x24" LVL	4 KING	

CLUBHOUSE 1ST FLOOR FRAMING PLAN

3/16" = 1'-0"

WOOD FLOOR FRAMING NOTES:

- 1) REFER TO GENERAL NOTES ON SHEET S0.01
- 2) REFER TO STUD BEARING WALL SCHEDULE TO SHEET S0.02
- 3) REFER TO HEADER/BEAM SCHEDULE ON SHEET S0.02
- 4) REFER TO SHEARWALL SCHEDULE ON SHEET S0.03
- 5) REFER TO STAIR FRAMING PLANS ON SHEET S2.00
- 6) REFER TO BALCONY FRAMING PLANS ON SHEET S1.20
- 7) REFER TO S3.30-SERIES DRAWINGS FOR ADDITIONAL FLOOR FRAMING DETAILS NOT INDICATED HERE
- 8) PROVIDE TRUSS SPACE DIRECTLY ABOVE AND CENTERED OVER HVAC CLOSETS; REFER TO ARCH & ENG DRAWINGS FOR EXACT LOCATIONS
- 9)  - STORAGE AREA DESIGN FOR LL PER GENERAL NOTE 2.8 ON S0.01
- 10) TOP OF STEEL ELEVATION FOR STEEL BEARING ON WOOD MEMBERS SHALL BE FIELD COORDINATED BY THE CONTRACTOR & ARCHITECTURAL ROUGH OPENING SCHEDULE.



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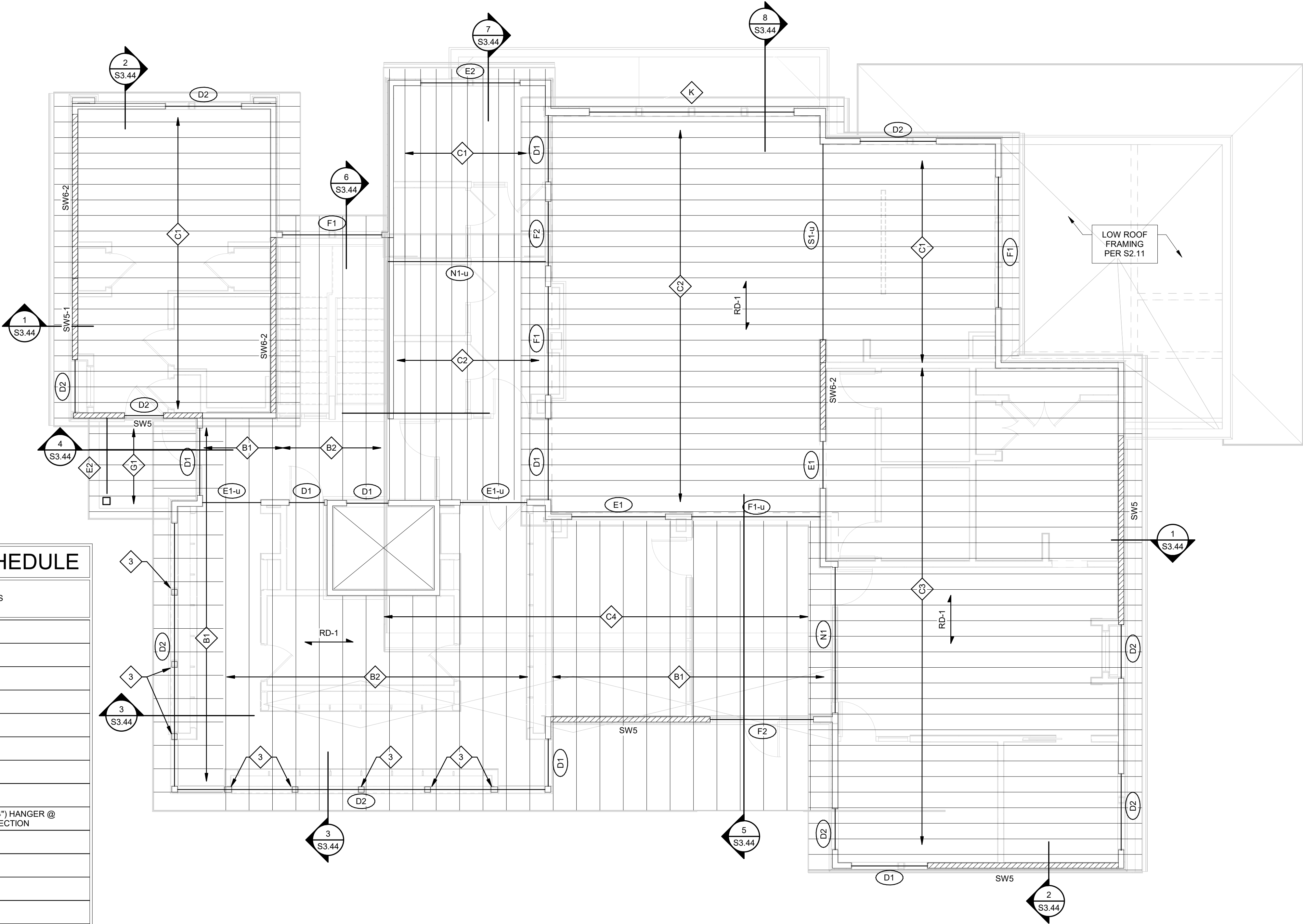
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CLUBHOUSE PLAN NOTES	
A	18" DEEP PRE-ENGINEERED FLOOR TRUSSES @ 24"oc MAX
A1	18" DEEP PRE-ENGINEERED FLOOR TRUSSES @ 16"oc MAX
A2	24" DEEP PRE-ENGINEERED ROOF TRUSSES @ 24"oc MAX (SLOPE TOP CHORD PER ARCH)
B1	2x12 @ 16"oc JOISTS
B2	(2) 2x12 @ 12"oc JOISTS
C1	2x10 @ 24"oc JOISTS
C2	(2) 2x10 @ 16"oc JOISTS
C3	(2) 2x10 @ 12"oc JOISTS
C4	2x10 @ 24"oc JOISTS OVERBUILD ABOVE
D	STAIR STRINGERS PER 1/S1.10
E	8x8 WOOD COLUMN ATOP SIMPSON ABU88Z W/ (2) 5/8"Øx6"Lg SIMPSON TITEN HD SCREW ANCHORS
E1	(3) 2x10 CONT W/ XX POST CAP @ EA COLUMN
E2	(3) 2x8 CONT W/ XX POST CAP @ COLUMN & HUC26-3 HANGER FACEMOUNTED TO SHEATHING W/ (3) 2x6 KING STUDS ALIGNED W/ BEAM
F	STEEL BUCKET PER 4/S3.20
G1	2x8 JOISTS @ 16"oc. TAPER JOIST PER 4/S3.42 W/ SLOPE PER ARCH
G2	2x6 JOISTS @ 16"oc. TAPER JOIST PER 1/S3.44
H	HUCQ612-SDS HANGER
J	UPSET (3) 1 3/4"x11 1/4" BEAM. PROVIDE CONTINUOUS BLOCKING FOR EXTENTS OF EXTERIOR WALL ABOVE BTWN T/B EAM AND B/DECK.
K	(4) 2x8 HIGH & LOW w/ (2) TOP PL & 2x8 BOT T PL w/ 1 JACK / 3 KING EA END w/ (4) 2x8 JACKS AT INTERIOR JAMBS. AT LOW HEADER INTERIOR JAMBS TO HAVE OUTER PLIES INTERRUPTED.

CLUBHOUSE HEADERS/BEAMS SCHEDULE			
MARK	HEADER	JAMB TYPE #	NOTES
D1	(3) 2x8	1 JACK / 1 KING	
D2	(3) 2x8	1 JACK / 2 KING	
E1	(3) 2x10	1 JACK / 1 KING	
E2	(3) 2x10	1 JACK / 2 KING	
F1	(3) 2x12	1 JACK / 2 KING	
F2	(3) 2x12	2 JACK / 2 KING	
J1	(3) 1 3/4"x7 1/8" LVL	2 JACK / 2 KING	
N1	(3) 1 3/4"x11 1/4" LVL		
Q1	(3) 1 3/4"x14" LVL		HGU5.50-SDS (H=14") HANGER @ BEAM CONNECTION
S1	(3) 1 3/4"x16" LVL	3 KING	
T1	(2) 1 3/4"x18" LVL	3 KING	
U1	(3) 1 3/4"x18" LVL	3 KING	
V1	(4) 1 3/4"x18" LVL	3 KING	
X1	(5) 1 3/4"x18" LVL	4 KING @ WALL / SIMPSON EG9 HANGER TO Y1 BEAM	ATTACH PLIES TOGETHER w/ 3 ROWS OF 1/4"x8" SDS SCREWS @ 12"oc FROM EA SIDE - MATCH EDGE DISTANCE PER 5A/S0.02
Y1	(3) 1 3/4"x24" LVL	4 KING	

- NOTES:
- JAMB STUDS SHALL MATCH SIZE & GRADE OF WALL STUDS U.N.O.
 - WHERE BEAM IS NOTED "-u", ALL JAMB STUDS NOTED WILL EXTEND TO DOUBLE TOP PLATE.
 - ALL EXTERIOR LUMBER TO BE TREATED AGAINST MOISTURE. REFER TO NOTE 12.T ON SHEET S0.01 FOR FIRE RETARDANT TREATED HEADER AND STUD REQUIREMENTS.
 - PROVIDE SQUASH BLOCKS AT TRUSSES & BLOCKING FRAMING WHERE JAMBS OR STUD PACKS ARE DISCONT AND IN TRUSS CAVITY. QUANTITY TO MATCH JAMB OR STUD PACK ABOVE.
 - PROVIDE 1/2" PLYWOOD SPACER PLATES AT INTERIOR HEADERS CONSTRUCTED WITH 2x LUMBER.
 - AT CONTRACTOR'S OPTION, PROVIDE GLULAM IN LIEU OF PSL OF EQUAL OR GREATER STRENGTH.
 - REFER TO DETAIL 4/S0.02 FOR MULTIPLY MEMBER CONNECTION REQUIREMENTS.
 - ATTACH JAMB & KING STUDS TOGETHER PER CONNECTION TYPE 24 ON NAILING SCHEDULE ON S0.01.



1 CLUBHOUSE ROOF FRAMING PLAN

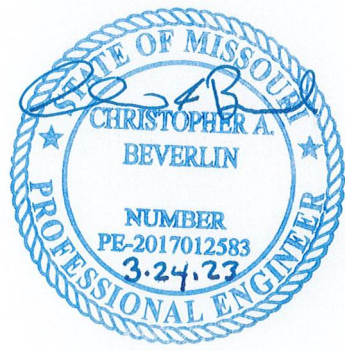
3/16" = 1'-0"

WOOD ROOF FRAMING NOTES:

- REFER TO GENERAL NOTES ON SHEET S0.01
- REFER TO STUD BEARING WALL SCHEDULE TO SHEET S0.02
- REFER TO HEADER/B EAM SCHEDULE ON SHEET S0.02
- REFER TO SHEARWALL SCHEDULE ON SHEET S0.03
- PROVIDE (3) STUD (MINIMUM) ALIGNED UNDER EACH END OF GIRDER TRUSS (CONTINUOUS FOUNDATION) - FINAL QUANTITY TO MATCH NUMBER OF PLIES OF GIRDER TRUSS. PROVIDE SIMPSON LSTA-STYLE HOLDOWN AT EACH END OF GIRDER TRUSS
- REFER TO S3.40-SERIES DRAWINGS FOR ADDITIONAL ROOF FRAMING DETAILS NOT INDICATED HERE.
- PROVIDE UNIFORM UPLIFT SCREWS AT UPPER FLOOR PER DETAILS 2, 2A, 3, 3A, 3B, 4 AND 5 ON SHEET S0.20.
- PRE-ENGINEERED TRUSSES TO HAVE A MINIMUM DEPTH OF 24". SLOPE TOP CHORD PER ARCHITECTUAL DRAWINGS.
- INDICATES AREA ON ROOF THAT IS REQ'D TO BE DESIGNED FOR MEP EQUIPMENT ZONE PER GENERAL NOTE "2.B" ON SHEET S0.01
- TOP OF STEEL ELEVATION FOR STEEL BEARING ON WOOD MEMBERS SHALL BE FIELD COORDINATED BY THE CONTRACTOR & ARCHITECTURAL ROUGH OPENING SCHEDULE.
- PRE-ENG TRUSSES TO HAVE SLOPING TOP CHORD WITH MINIMUM TRUSS DEPTH OF 24".

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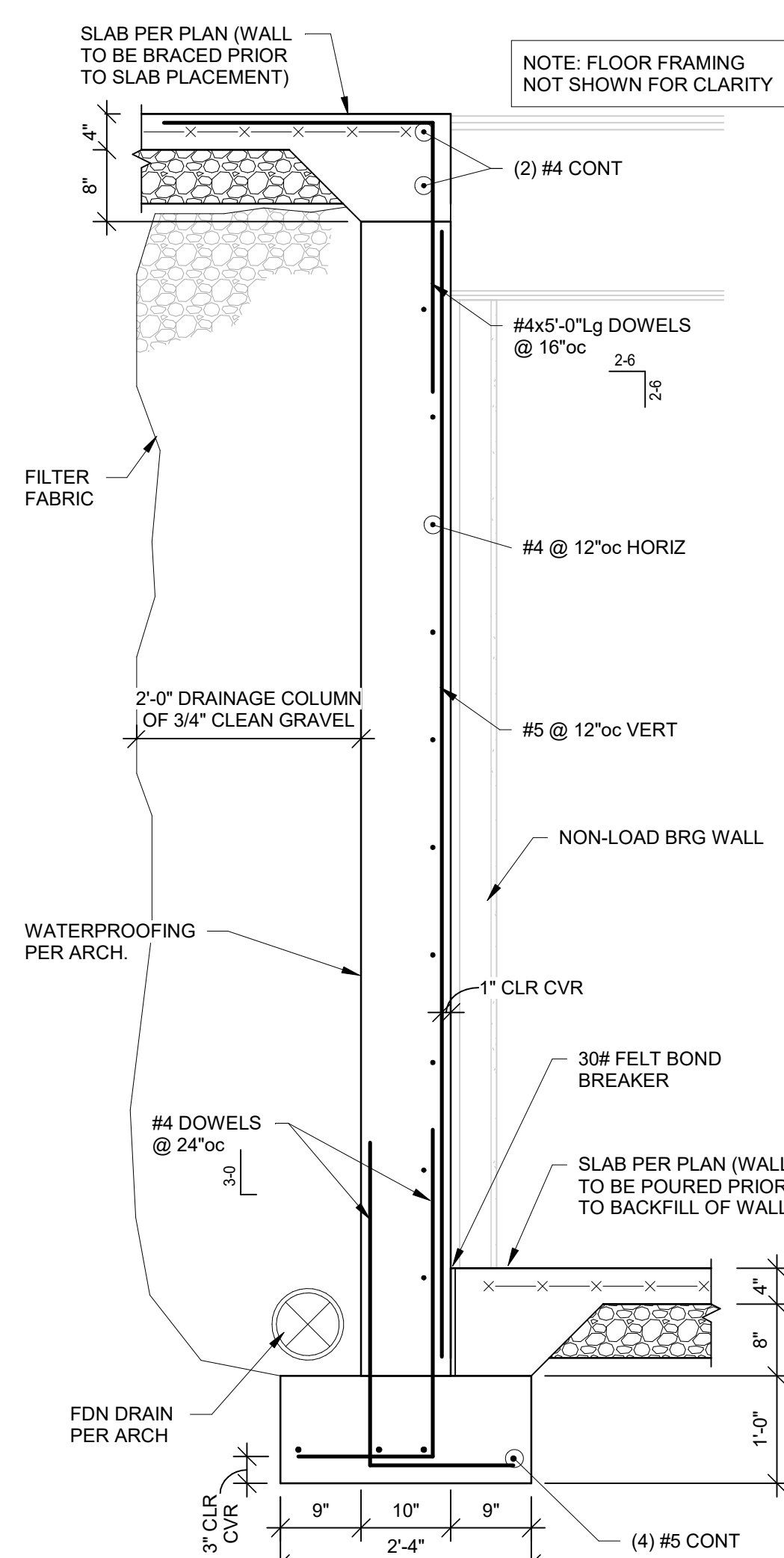
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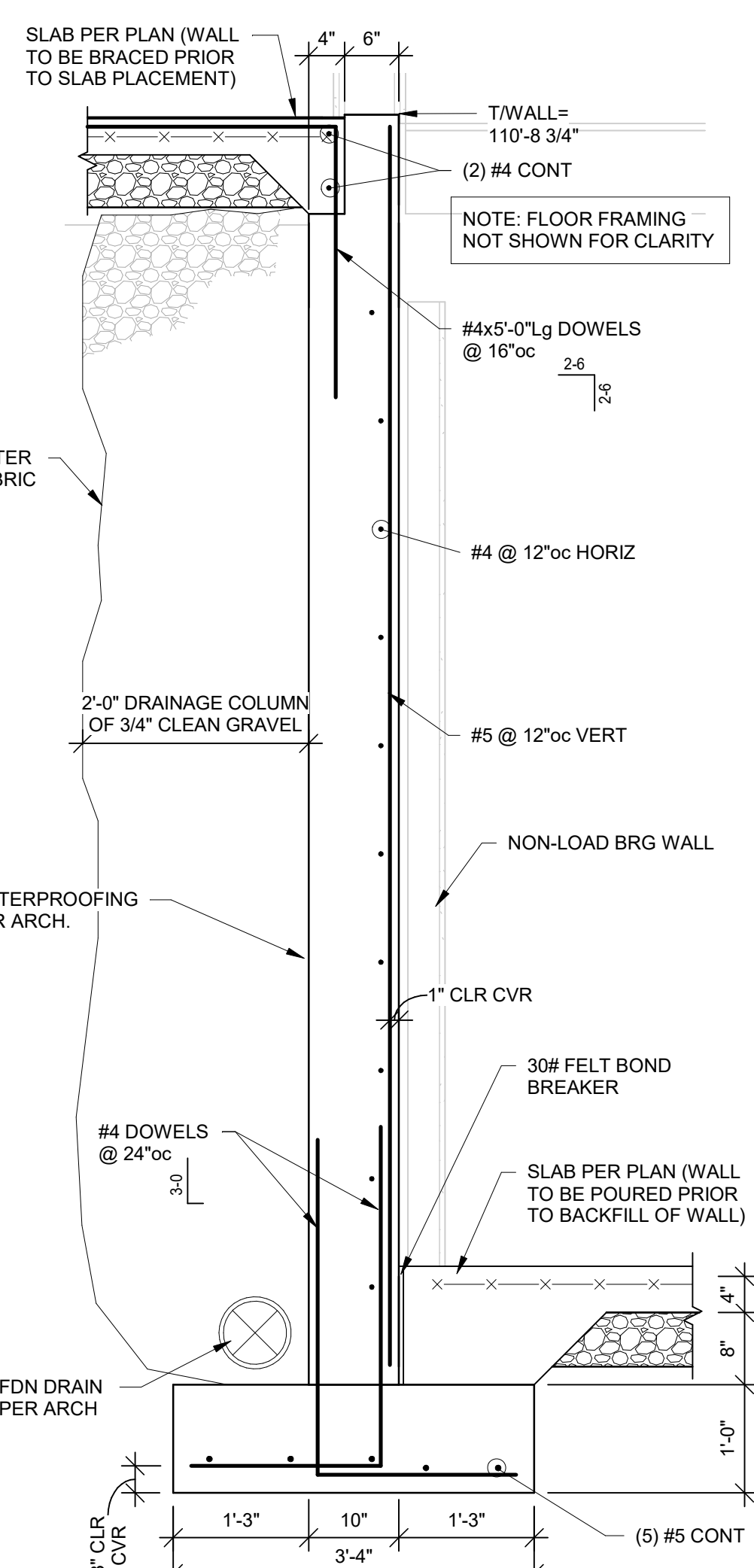
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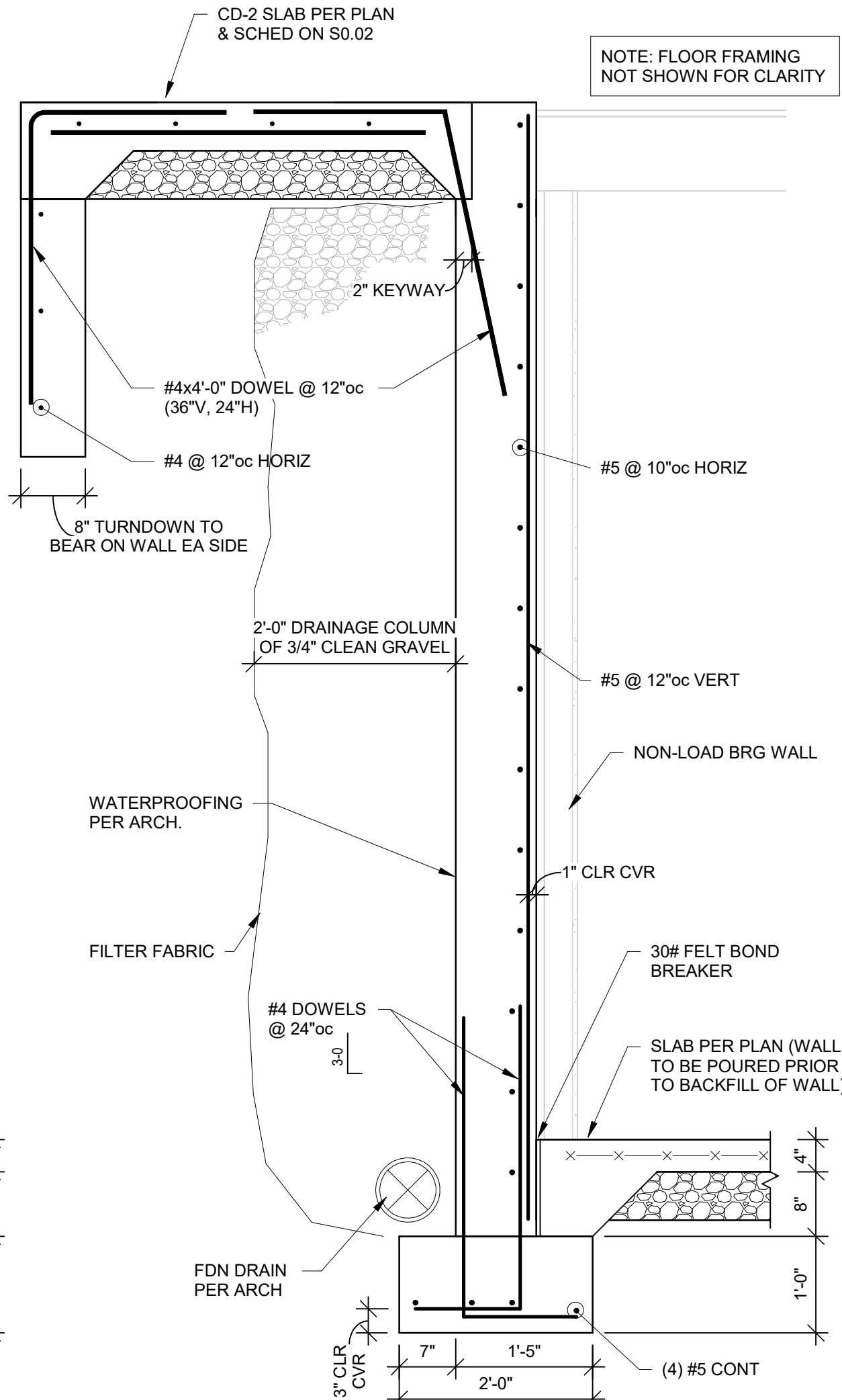
WALL TYPE 1

1 SECTION

$\frac{3}{4}" = 1'-0"$



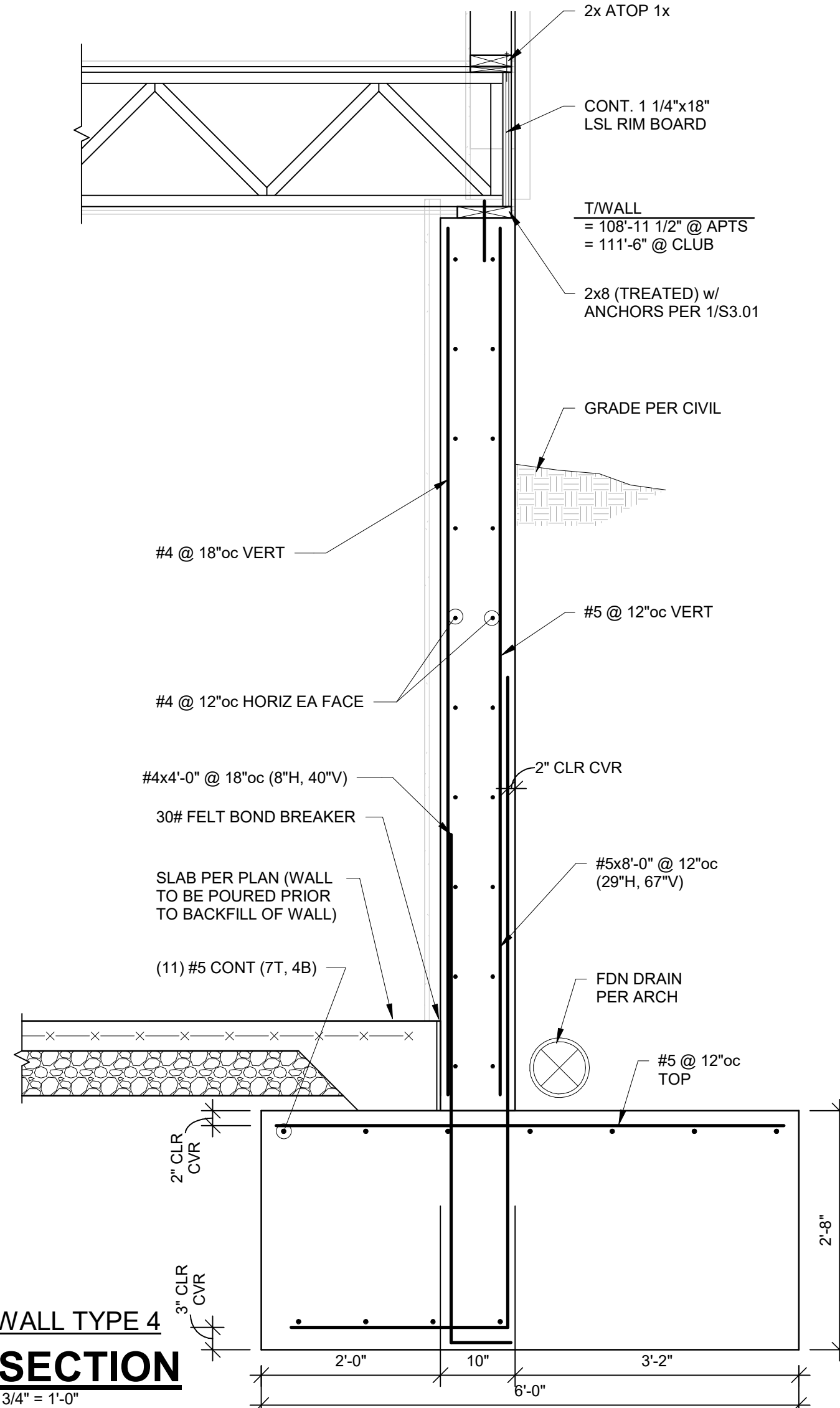
WALL TYPE 2
2 SECTION
3/4" = 1'-0"



WALL TYPE 3

3 SECTION

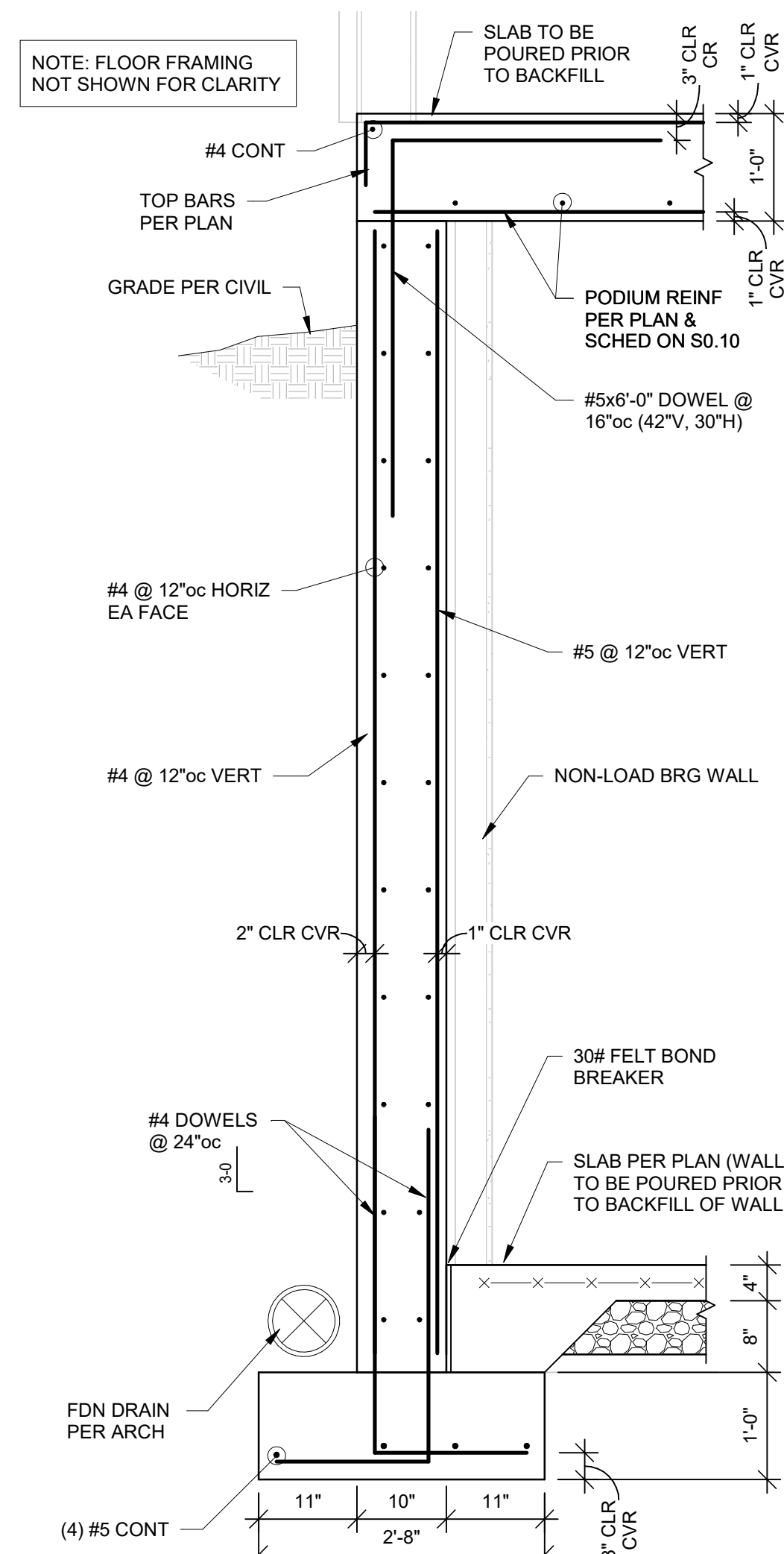
$\frac{3}{4}" = 1'-0"$



WALL TYPE 4

4 SECTION

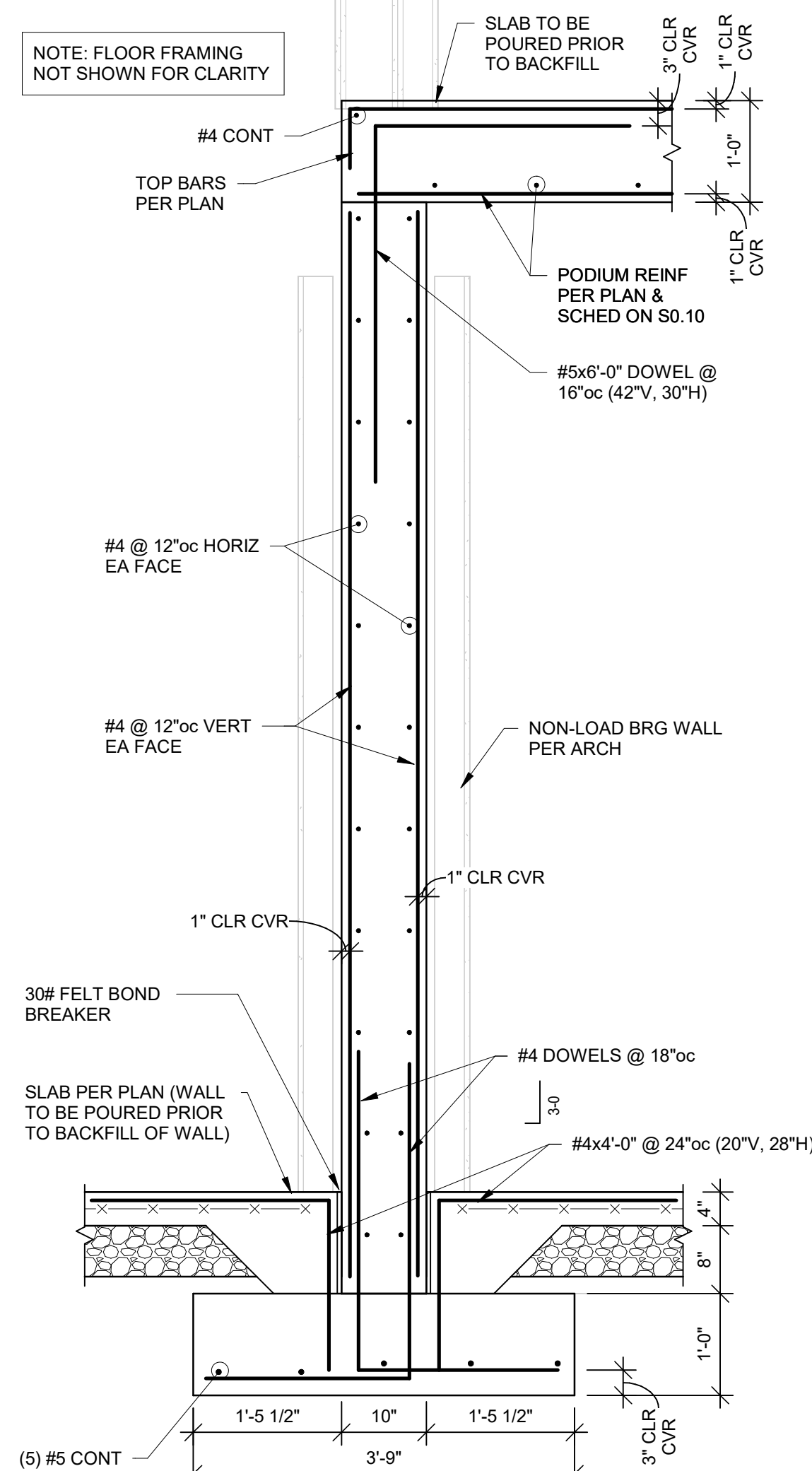
$\frac{3}{4}" = 1'-0"$



WALL TYPE 5

5 SECTION

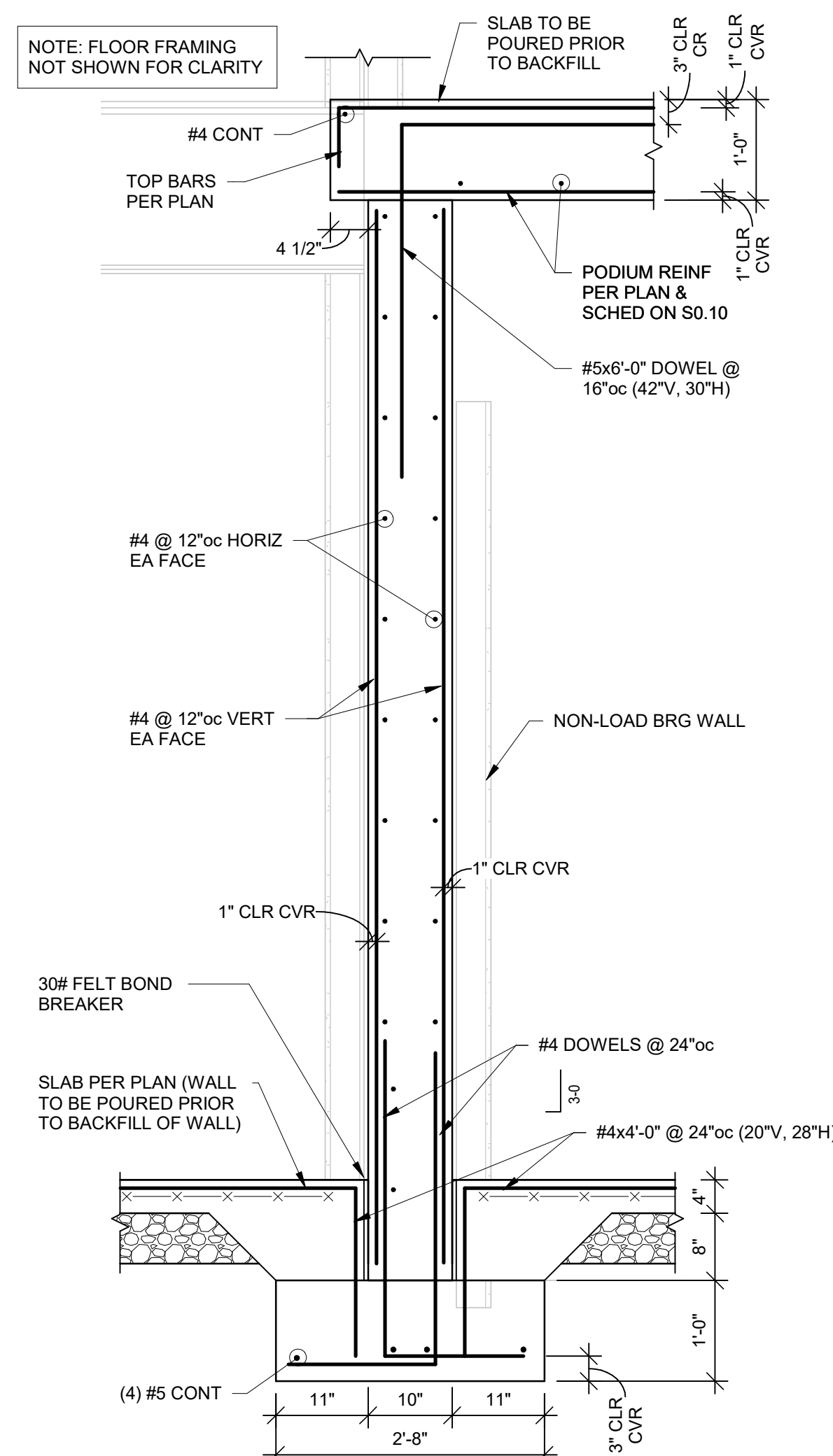
$\frac{3}{4}" = 1'-0"$



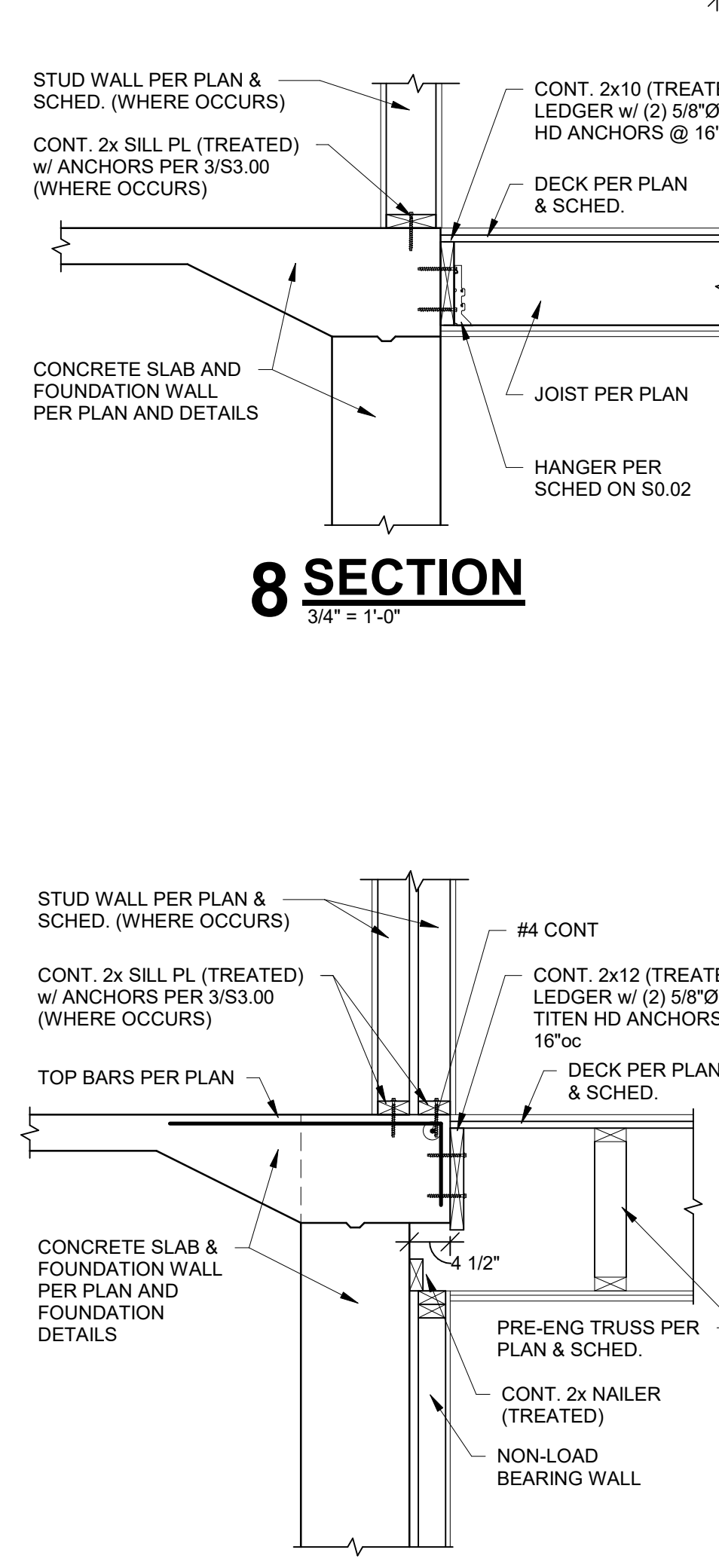
WALL TYPE 6

6 SECTION

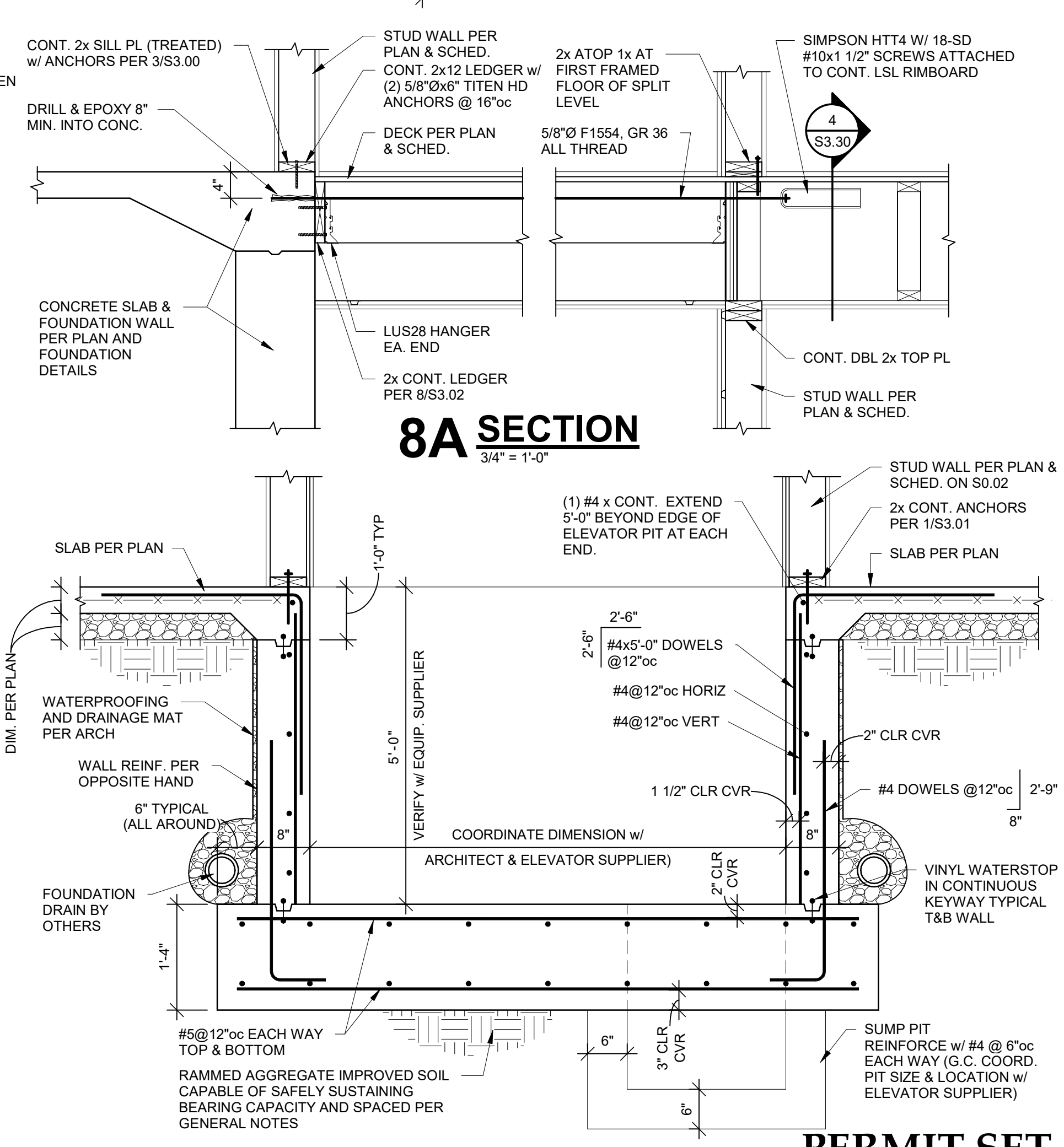
$\frac{3}{4}" = 1'-0"$



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



8B SECTION



9 SECTION

PERMIT SET



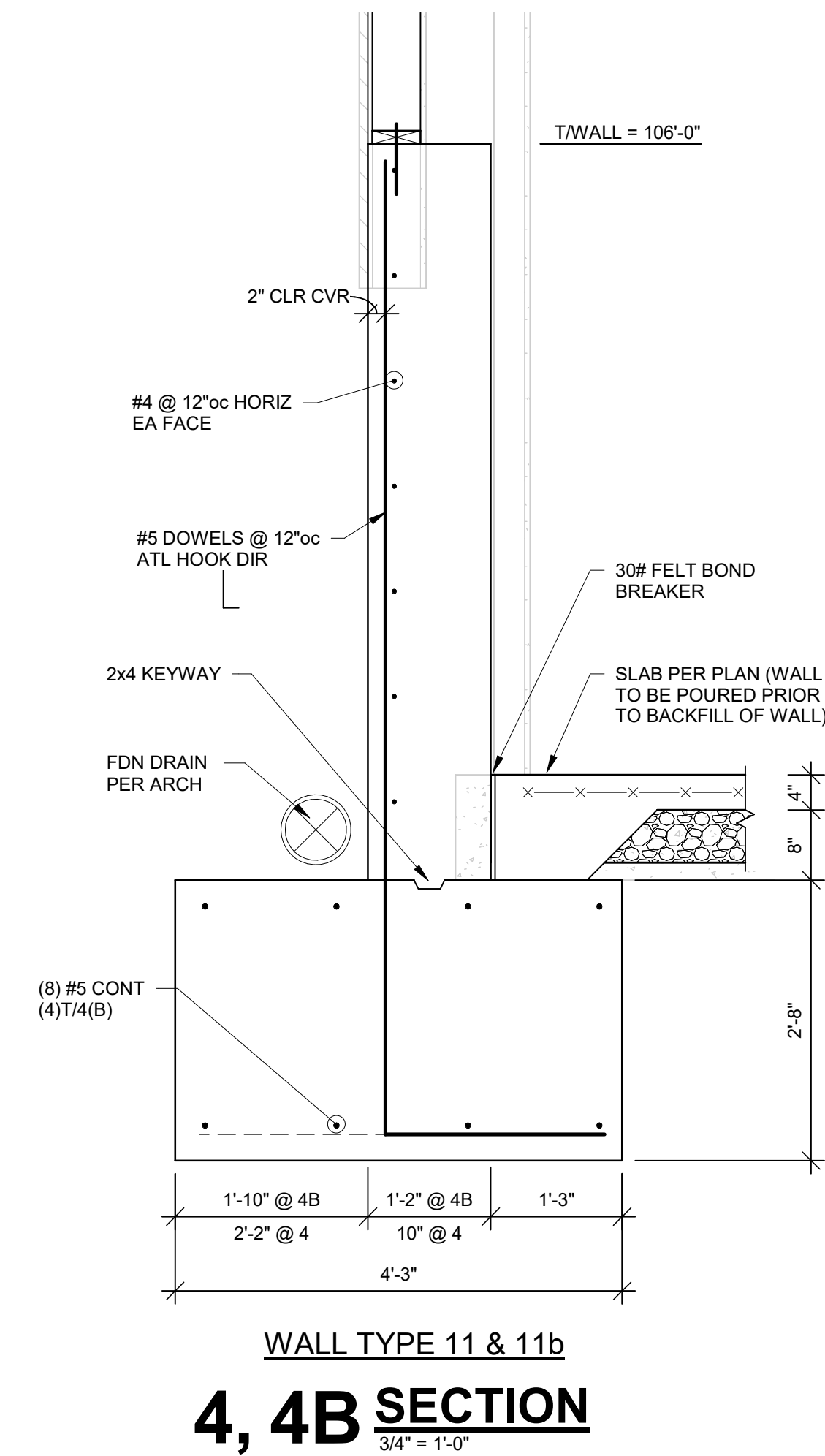
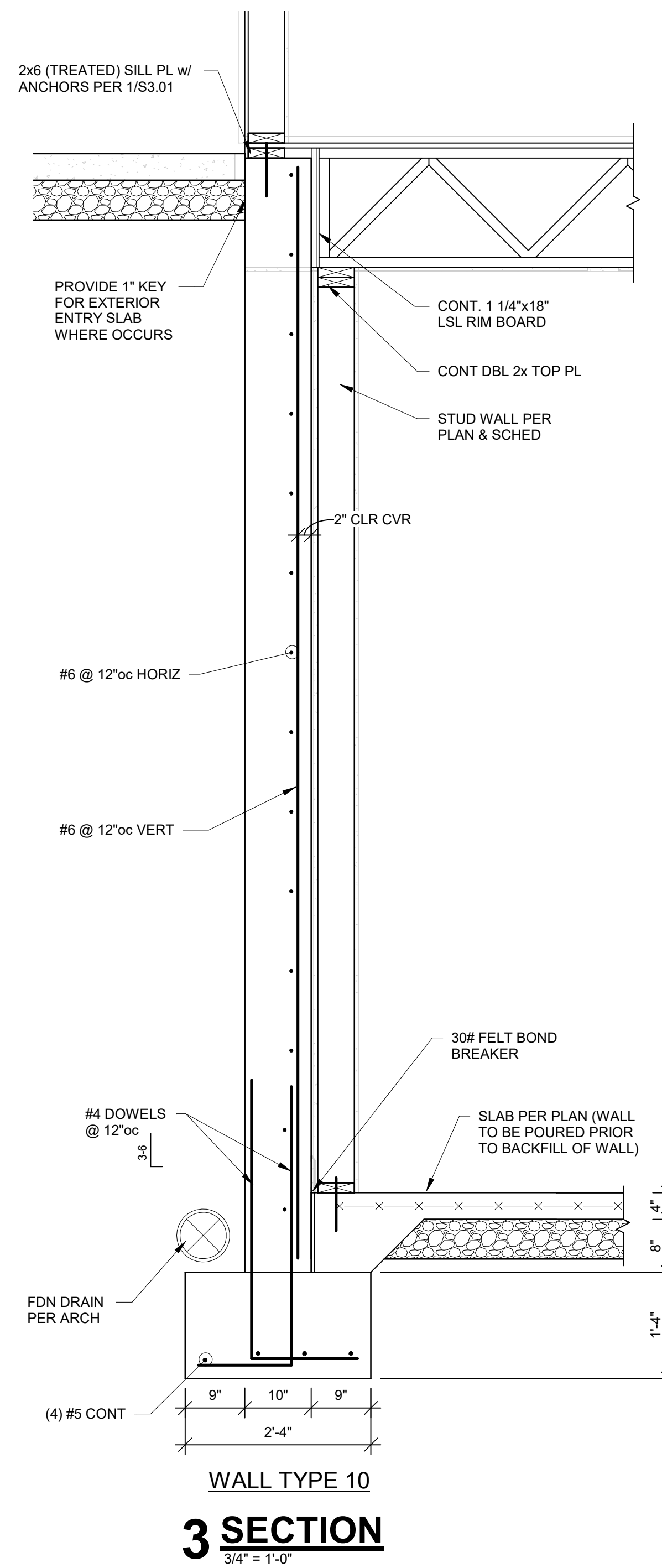
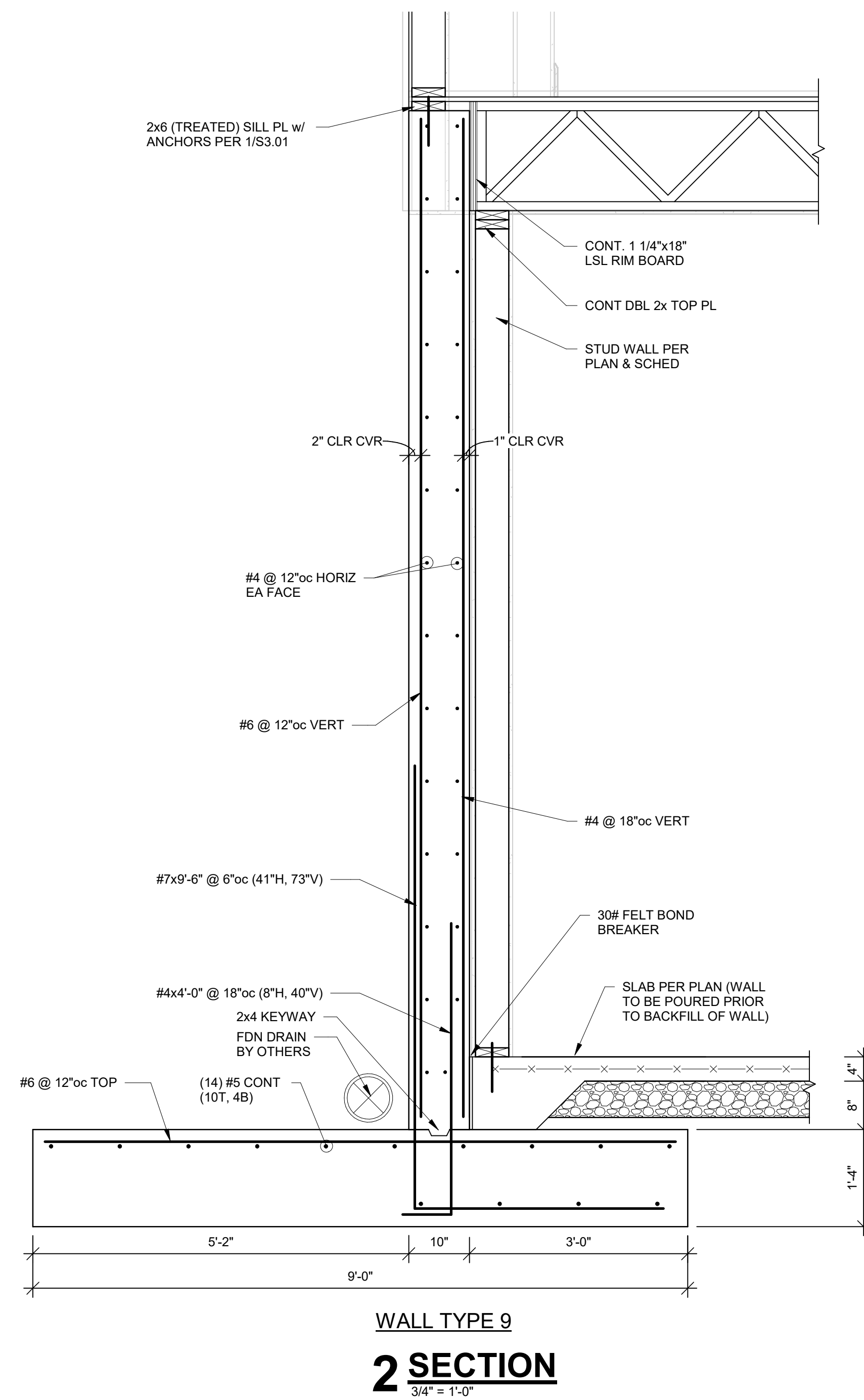
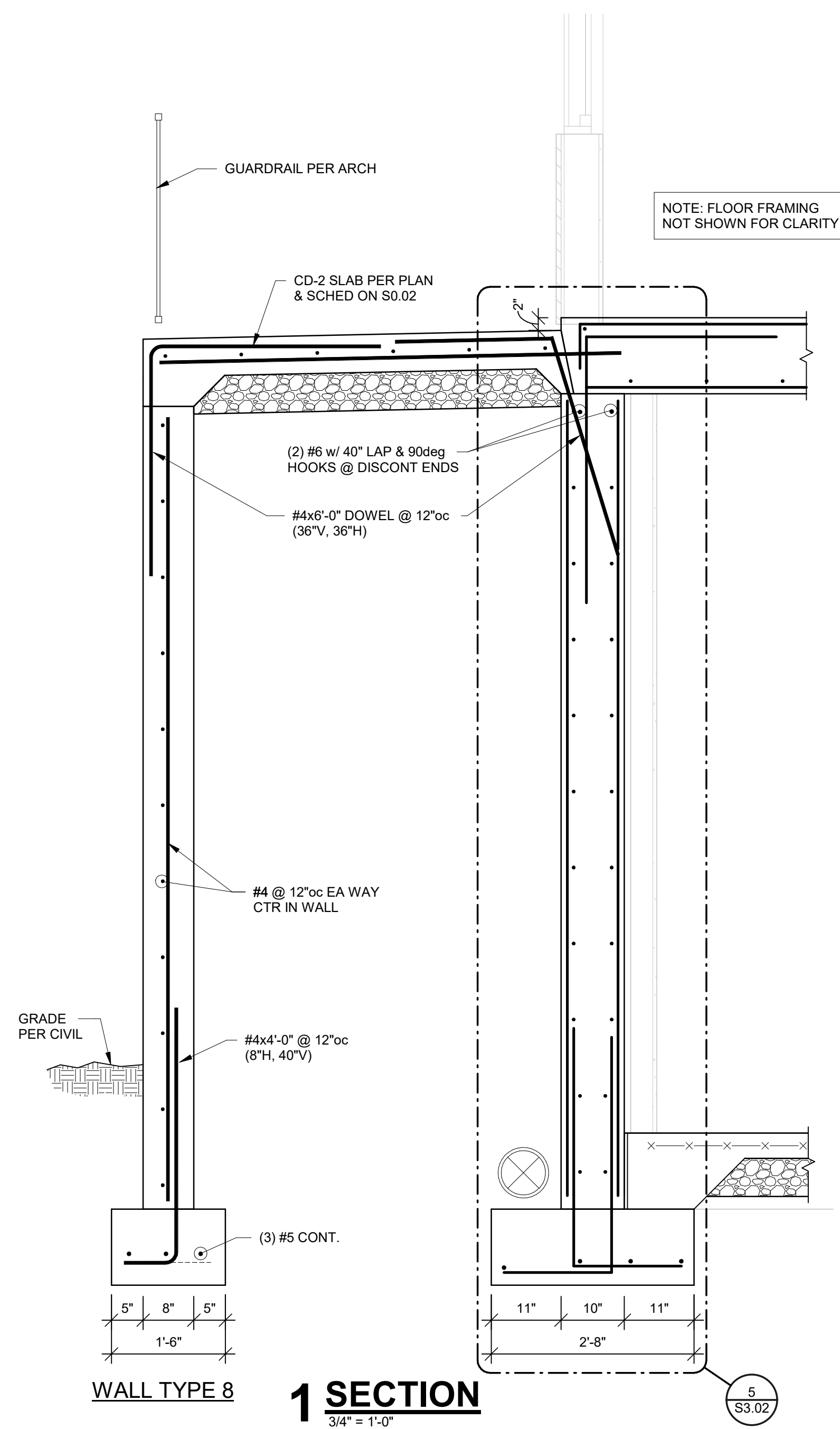
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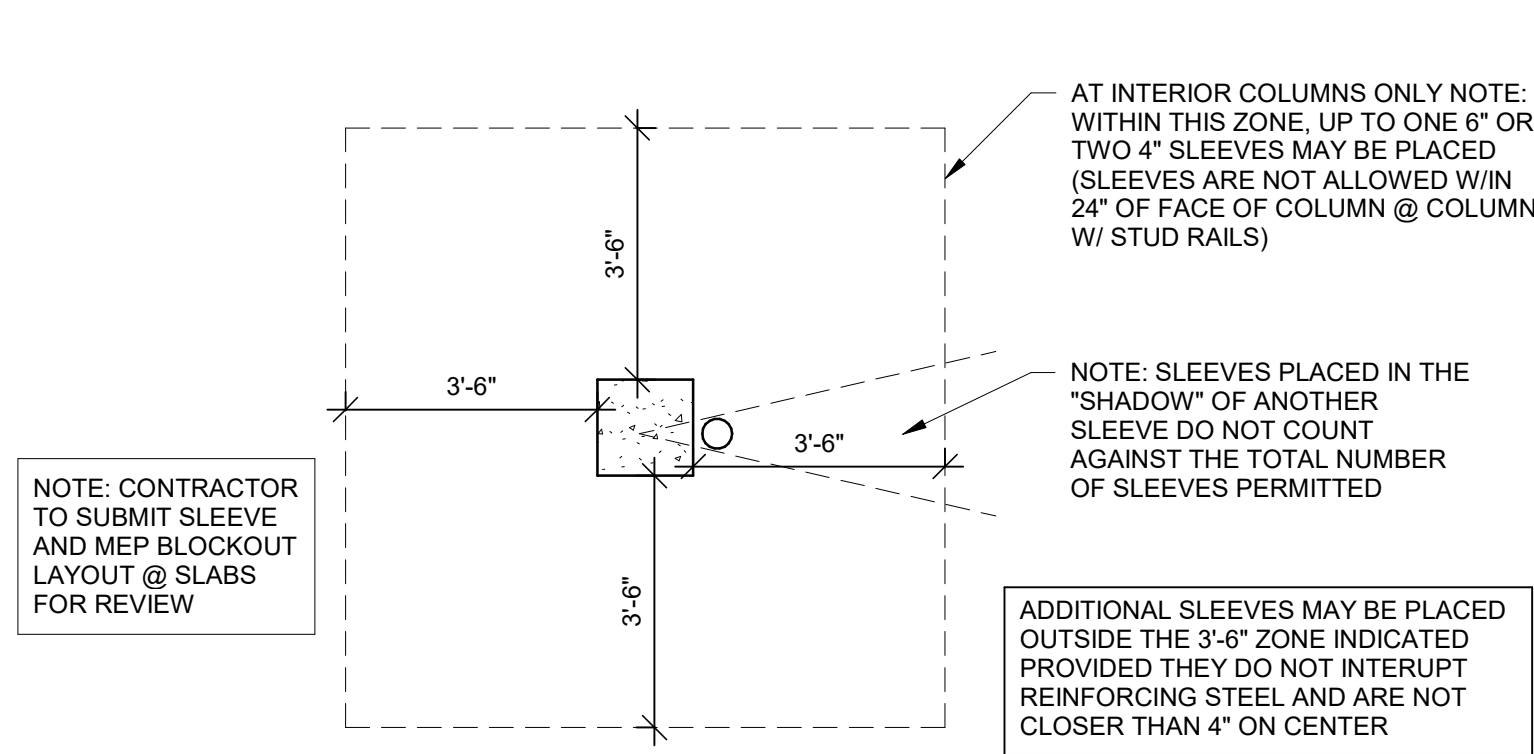

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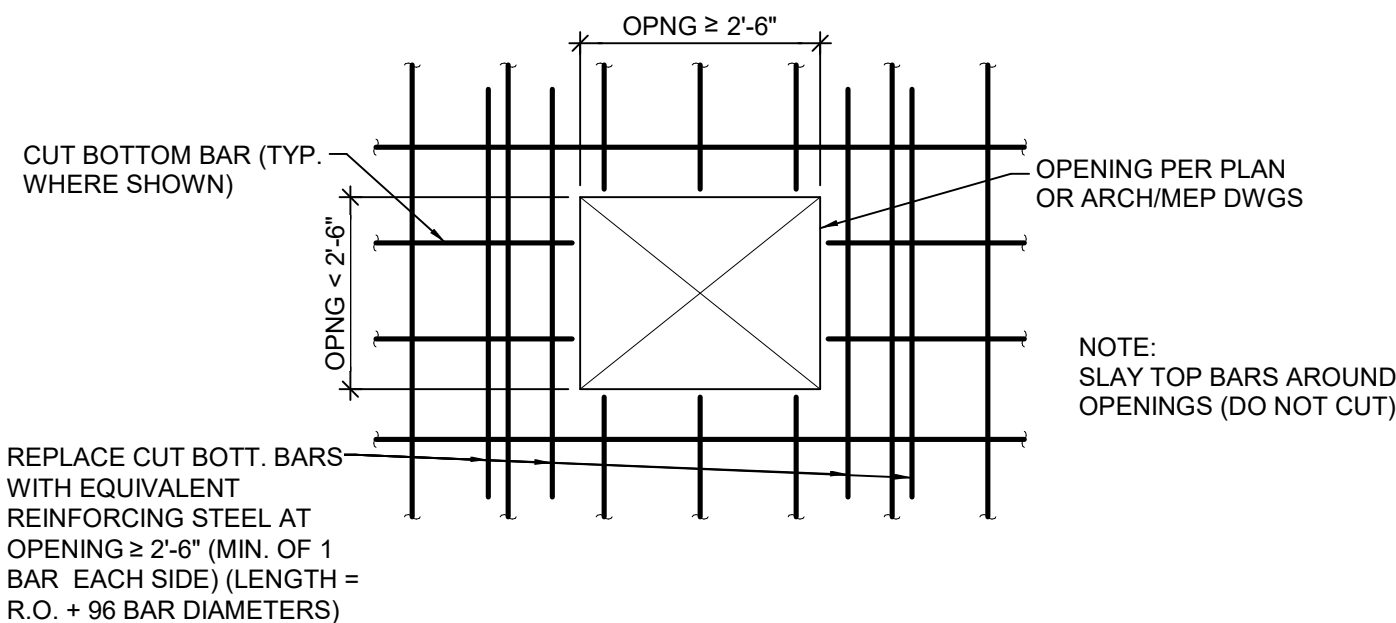
S3.02





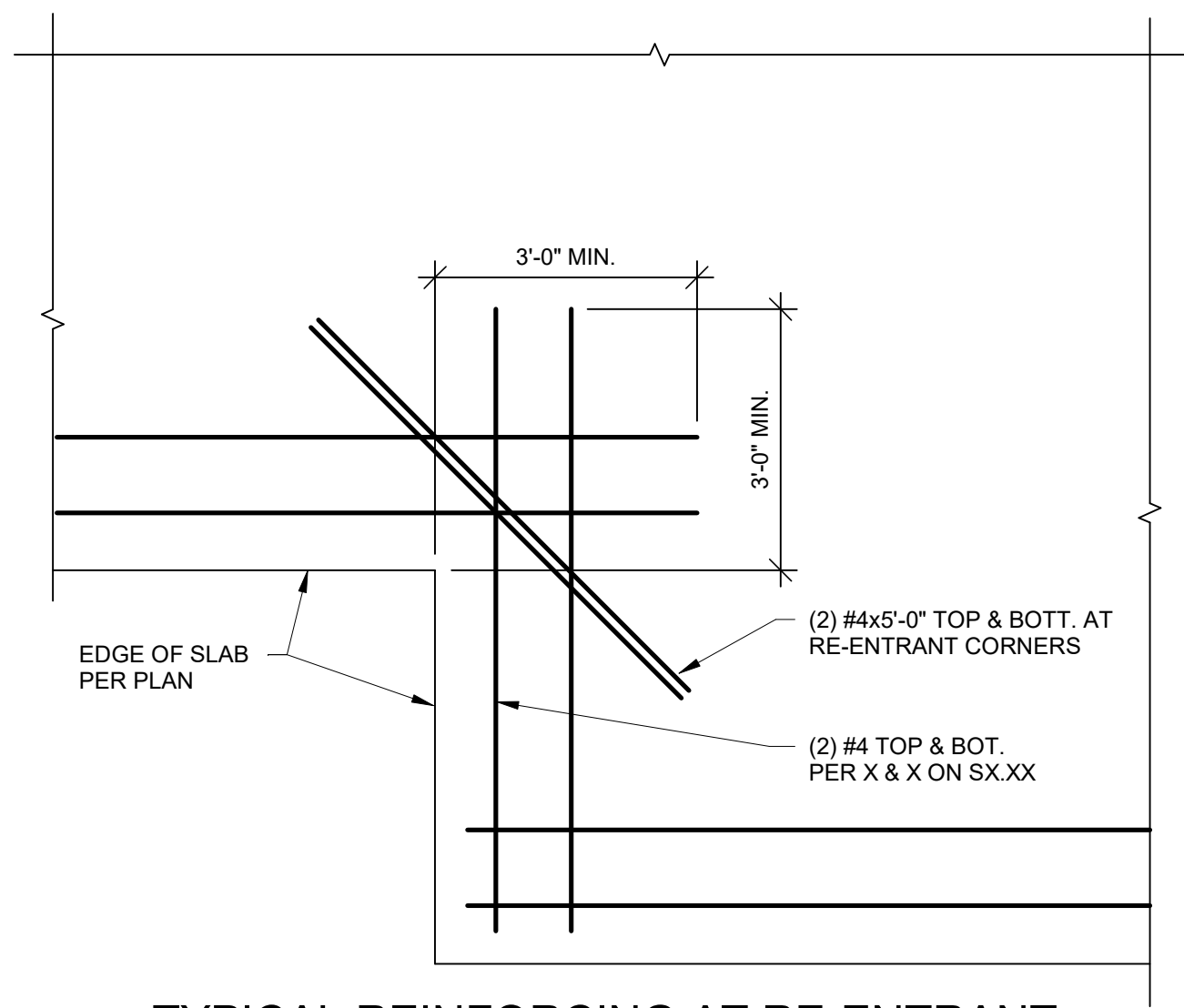
TYPICAL SLEEVE IN PODIUM SLAB RESTRICTIONS

1 DETAIL
3/8" = 1'-0"



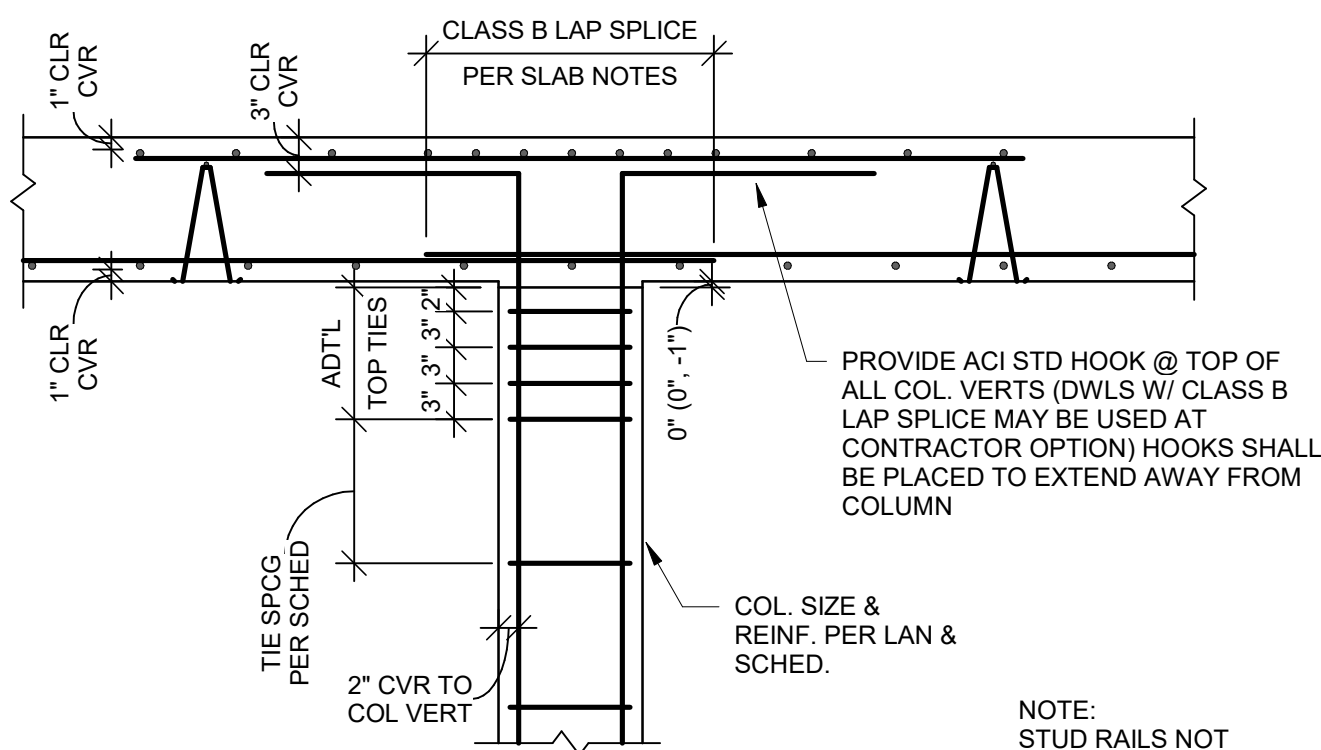
TYPICAL BOTTOM REINFORCING AT INTERIOR OPENING IN PODIUM

5 DETAIL
1/2" = 1'-0"



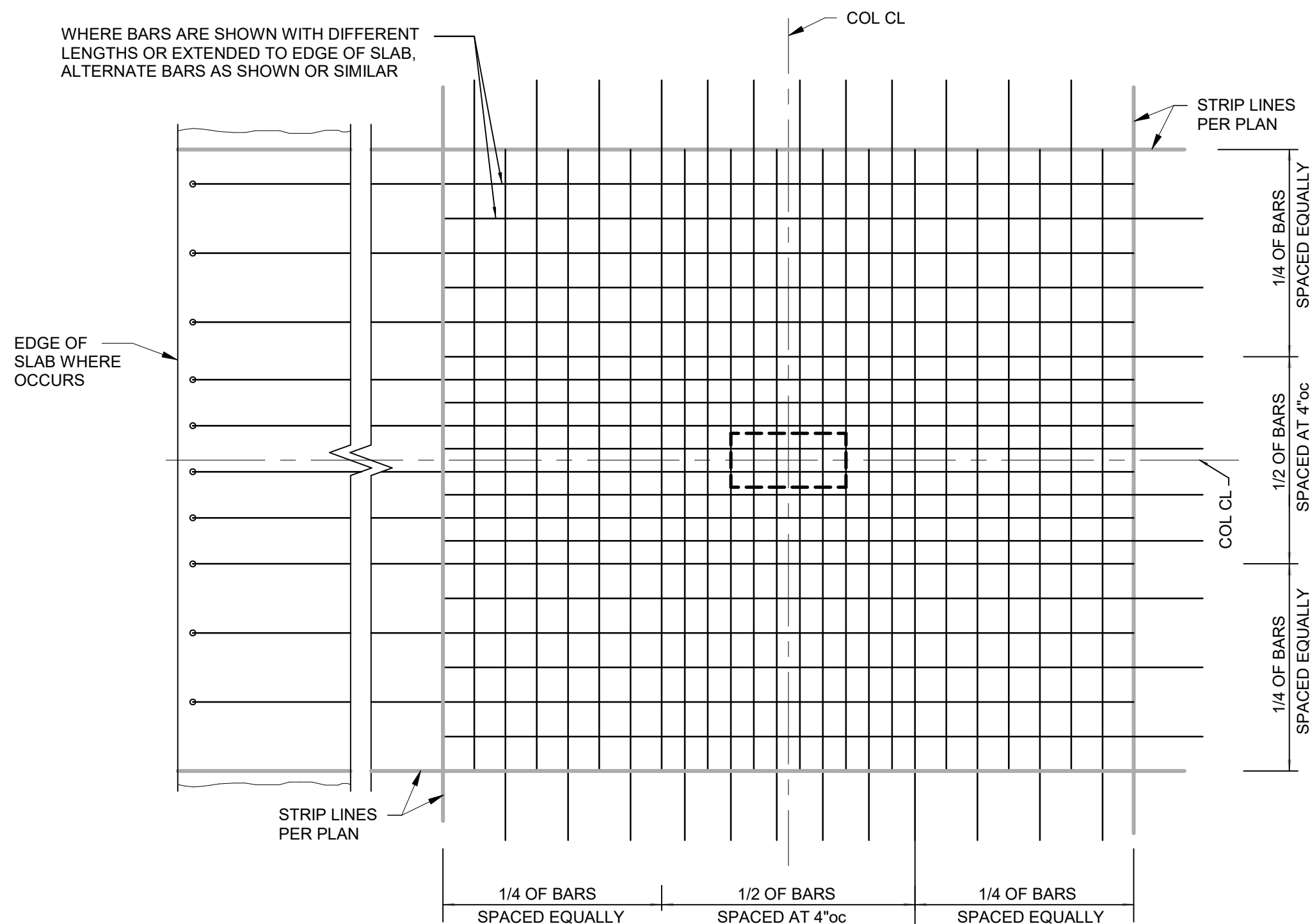
TYPICAL REINFORCING AT RE-ENTRANT CORNERS OF ELEVATED SLAB

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

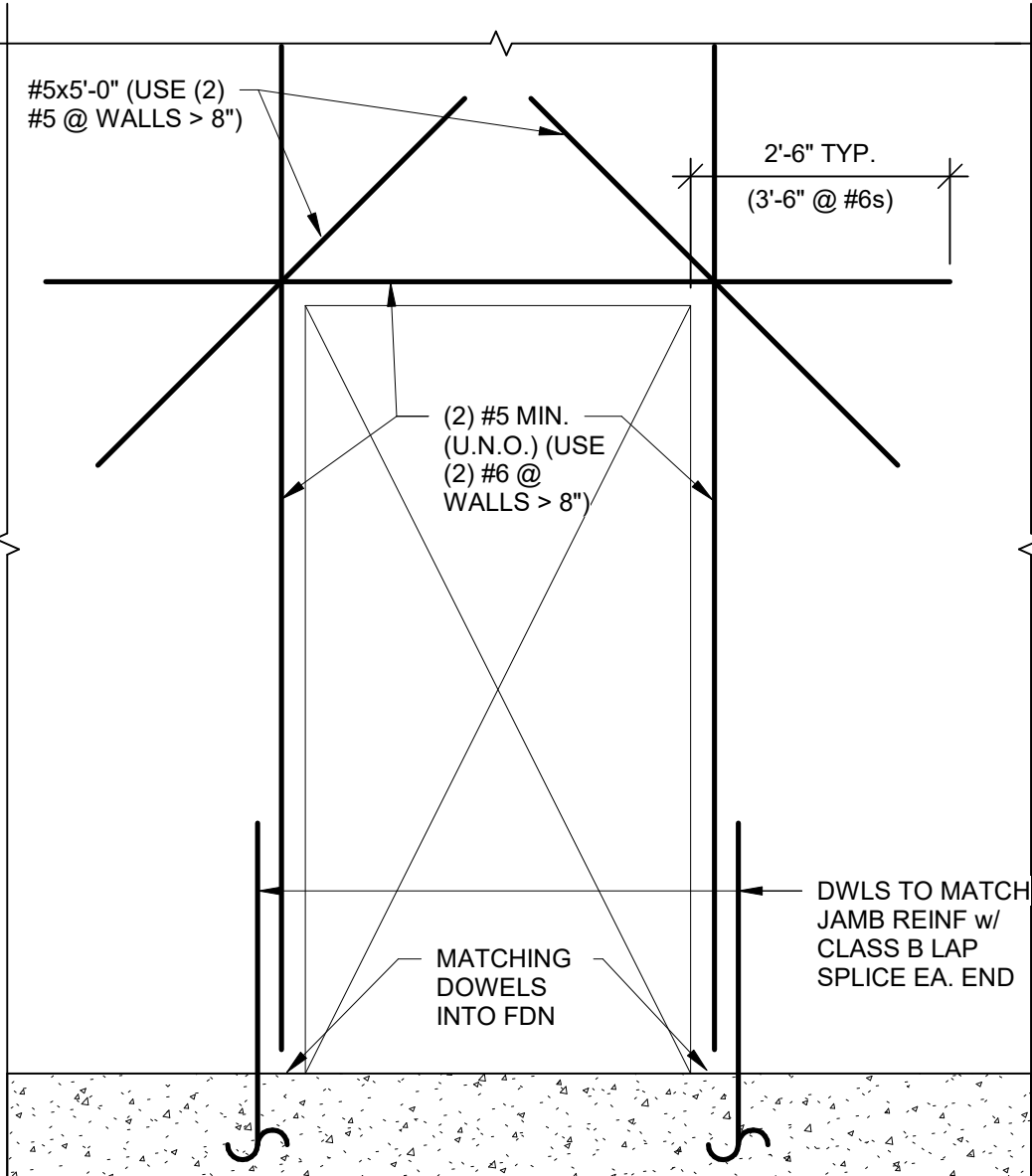


TYPICAL INTERIOR COLUMN

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



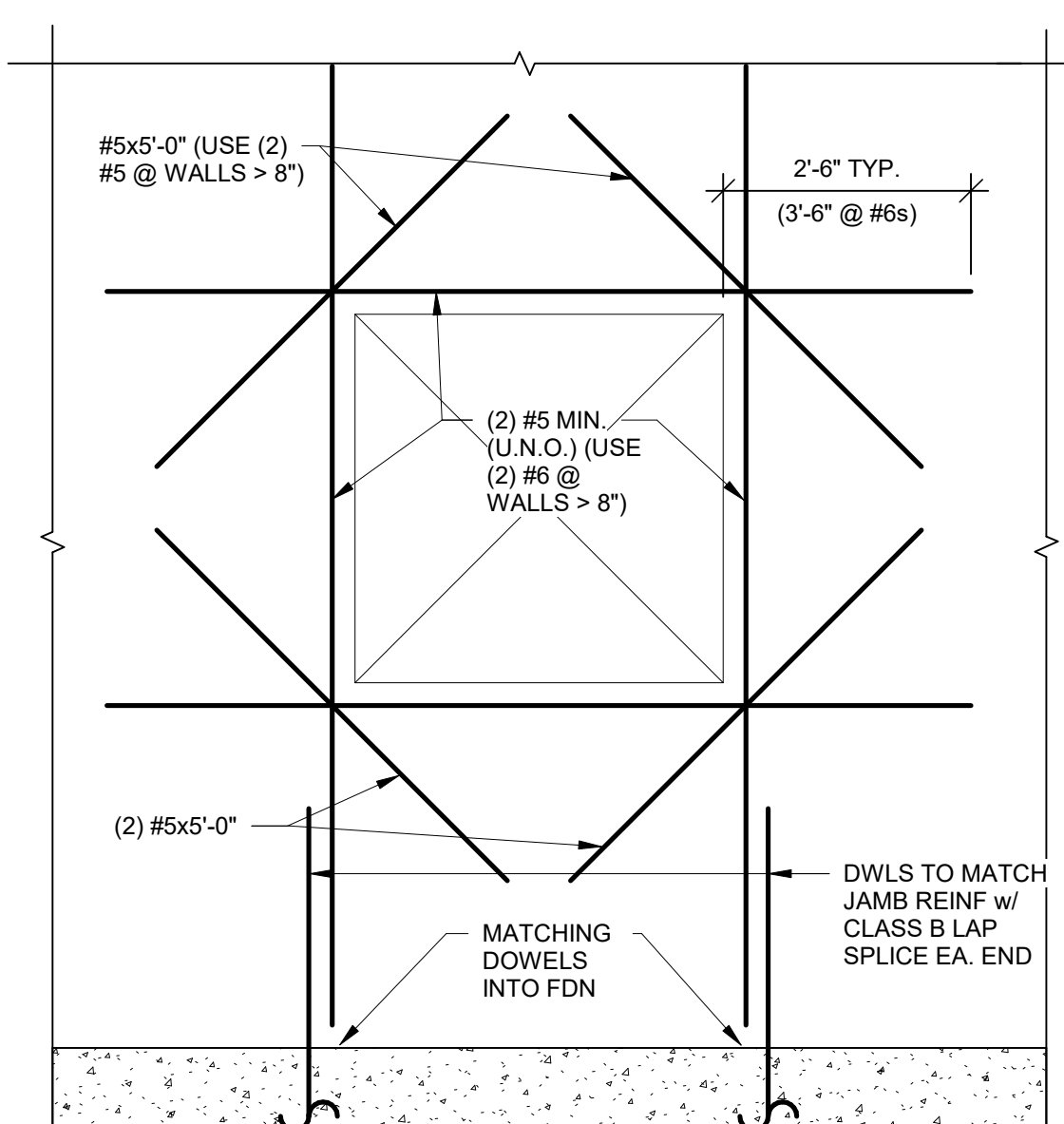
2 TYPICAL TOP BAR LAYOUT OVER INTERIOR COLUMN
3/8" = 1'-0"



TYPICAL WALL OPENING REINFORCING

- NOTE:
- THIS DETAIL APPLIES TO OPENINGS \leq 4'-0"oc
 - DO NOT LOCATE VERTICAL WALL CONSTRUCTION JOINTS W/IN 5'-0" OF OPENINGS
 - THIS DETAIL DOES NOT APPLY TO OPENINGS DIRECTLY BELOW POINT LOADS OR W/IN SHEARWALLS

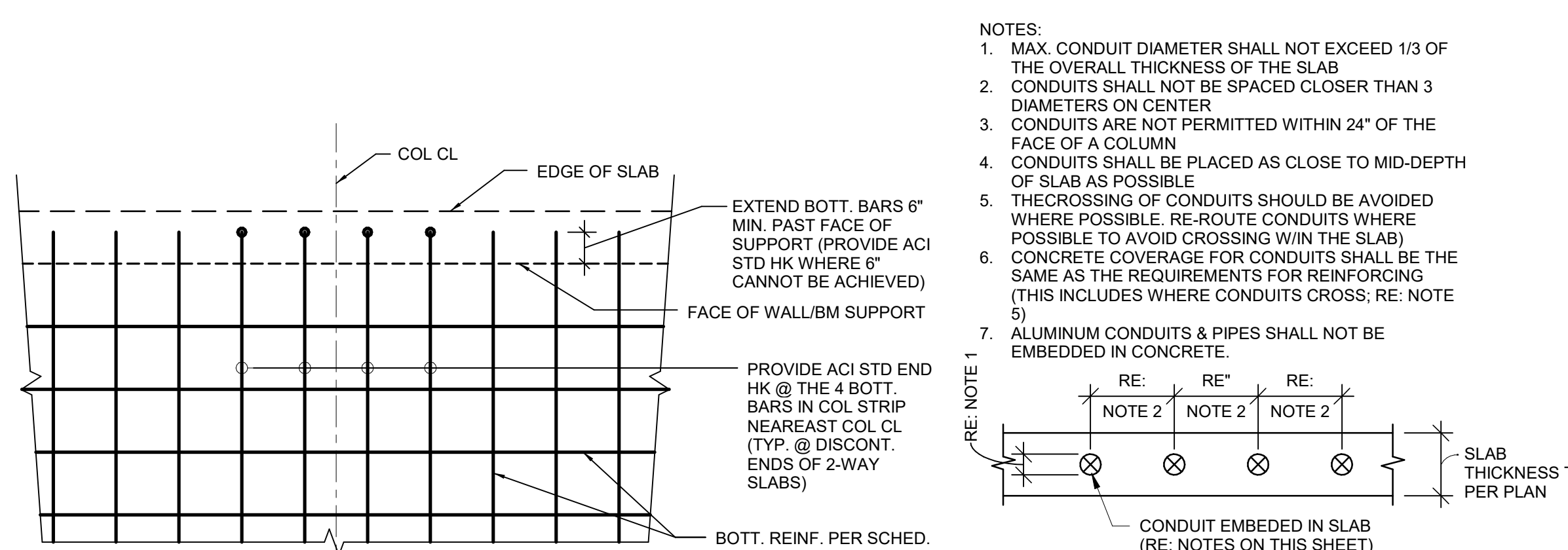
9 ELEVATION
3/4" = 1'-0"



TYPICAL WALL OPENING REINFORCING

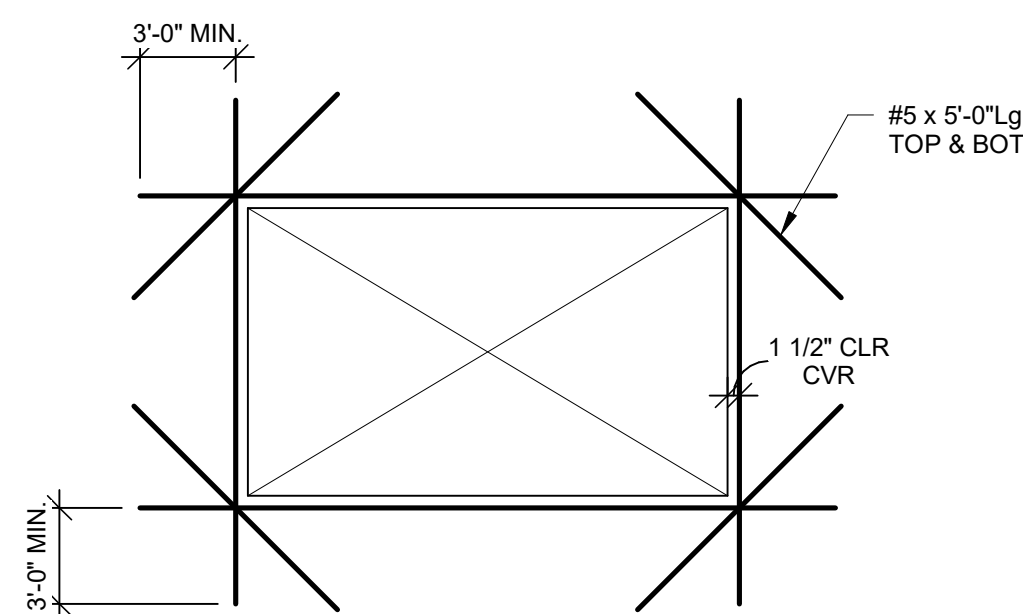
- NOTE:
- THIS DETAIL APPLIES TO OPENINGS \leq 4'-0"oc
 - DO NOT LOCATE VERTICAL WALL CONSTRUCTION JOINTS W/IN 5'-0" OF OPENINGS
 - THIS DETAIL DOES NOT APPLY TO OPENINGS DIRECTLY BELOW POINT LOADS OR W/IN SHEARWALLS

10 ELEVATION
3/4" = 1'-0"



TYP. BOTT. REINF. DETAIL @ PERIMETER OF 2 WAY SLABS

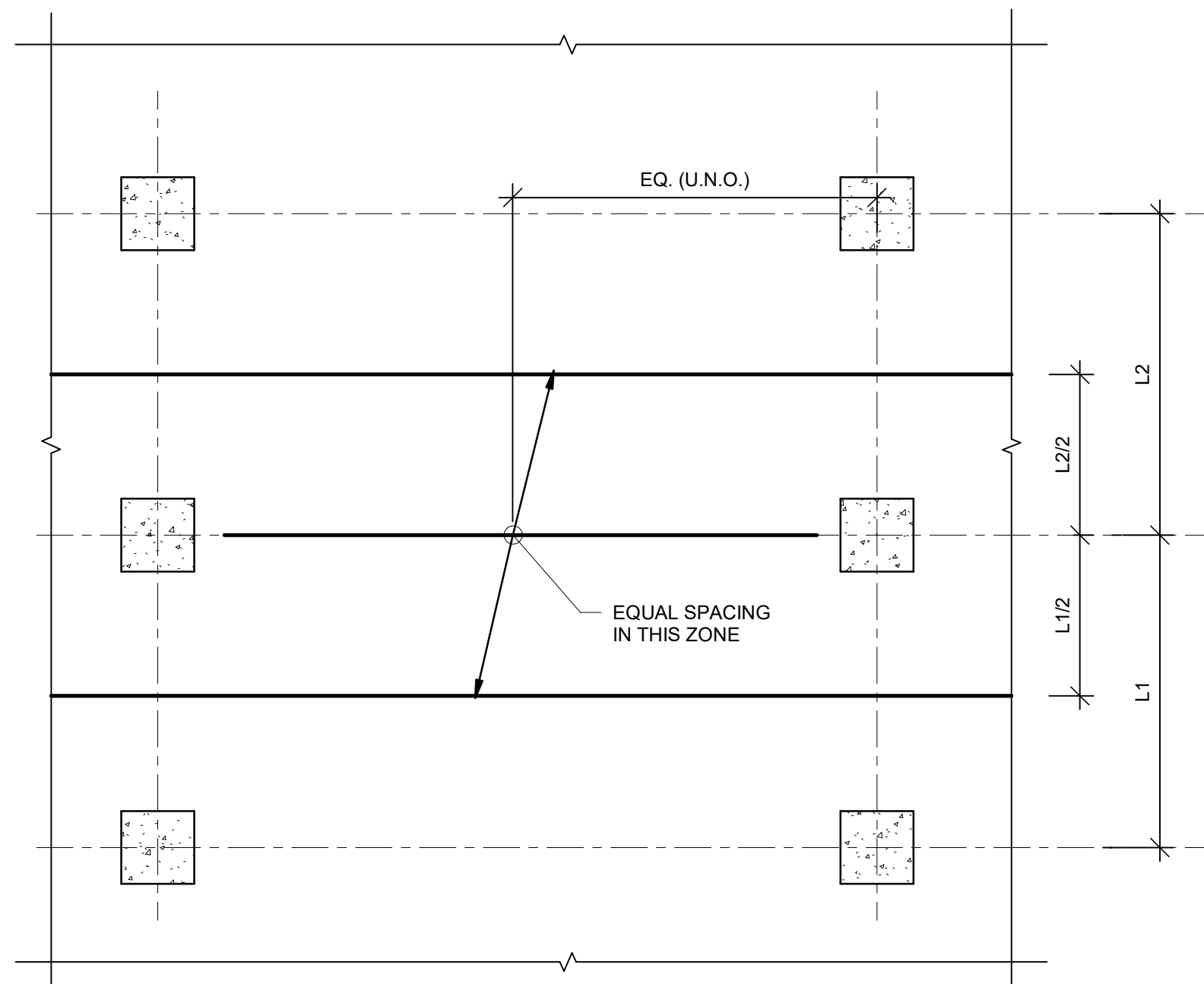
3 DETAIL
1/2" = 1'-0"



MAX. OPENING DIM.	REINFORCING
12" TO 18"	(1) #5 EA. SIDE
18" TO 2'-6"	(1) #5 EA. SIDE
2'-6" & LARGER	(2) #5 TOP & BOT. EA. SIDE

- NOTES:
- ALL OPENINGS LARGER THAN 12" SHALL BE TRIMMED AS SHOWN.
 - THIS REINF. IS IN ADDITION TO REINF. SHOWN ON PLANS
 - FOR MULTIPLE OPENINGS SEE7/S3.10

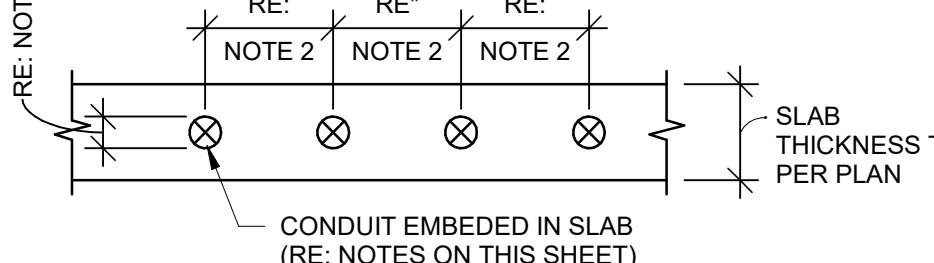
6 DETAIL
1/2" = 1'-0"



TYPICAL MIDSPAN BOTTOM BAR PLACEMENT (WHERE SHOWN ON PLAN, U.N.O.)

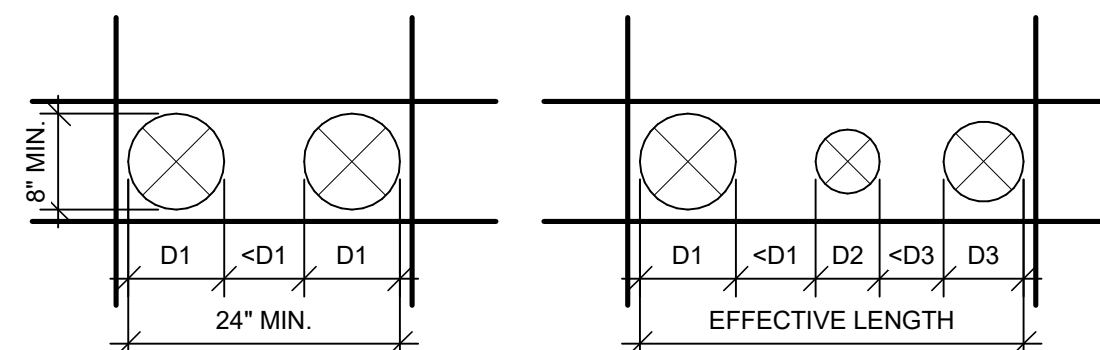
11 SECTION
3/4" = 1'-0"

- NOTES:
- MAX. CONDUIT DIAMETER SHALL NOT EXCEED 1/3 OF THE OVERALL THICKNESS OF THE SLAB
 - CONDUITS SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS ON CENTER
 - CONDUITS ARE NOT PERMITTED WITHIN 24" OF THE FACE OF A COLUMN
 - CONDUITS SHALL BE PLACED AS CLOSE TO MID-DEPTH OF SLAB AS POSSIBLE
 - THE CROSSING OF CONDUITS SHOULD BE AVOIDED WHERE POSSIBLE. RE-ROUTE CONDUITS WHERE POSSIBLE TO AVOID CROSSING W/IN THE SLAB
 - CONCRETE COVERAGE FOR CONDUITS SHALL BE THE SAME AS THE REQUIREMENTS FOR REINFORCING (THIS INCLUDES WHERE CONDUITS CROSS; RE: NOTE 5)
 - ALUMINUM CONDUITS & PIPES SHALL NOT BE EMBEDDED IN CONCRETE.



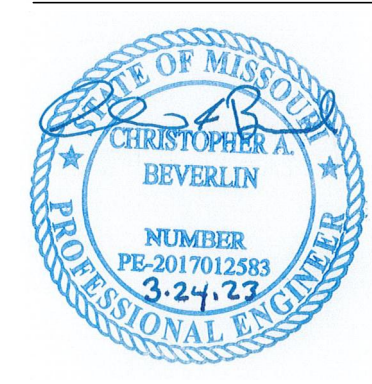
TYPICAL CONDUIT EMBEDMENT IN SLAB

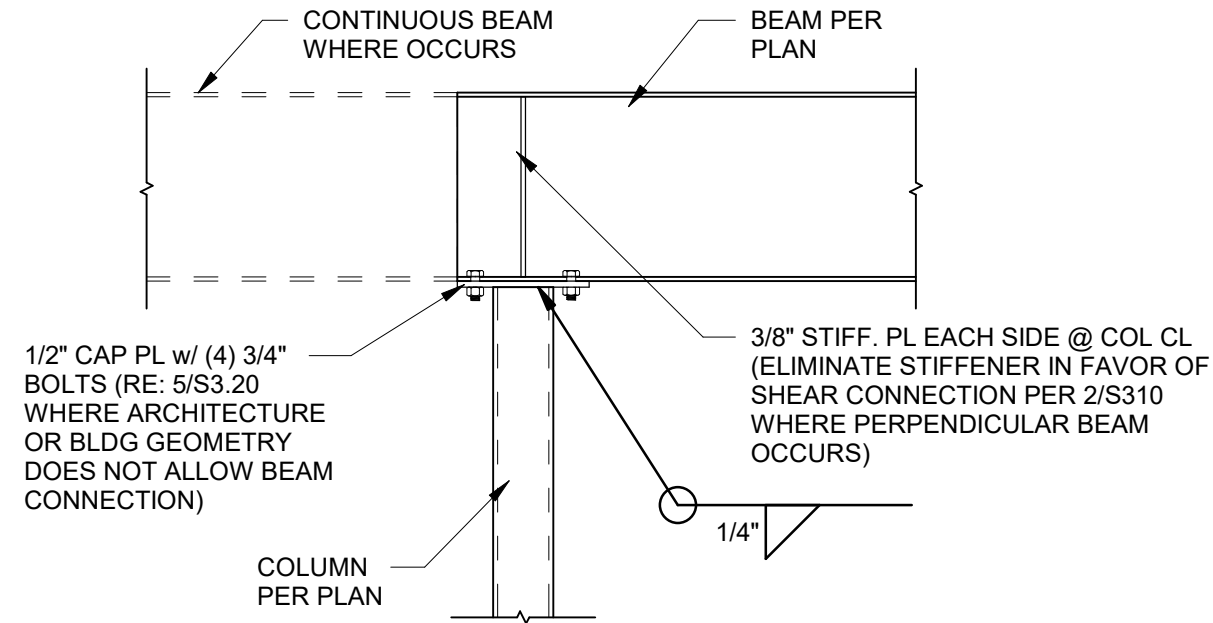
4 DETAIL
3/4" = 1'-0"



- OPENINGS WHICH ARE CLOSER TO ONE ANOTHER THAN THE DIAMETER OF THE LARGER OF THE TWO ARE CONSIDERED TO FORM A COMBINED OPENING:
- IF THE COMBINED OPENING IS LESS THAN 12" NO TRIM BARS ARE REQ'D
 - IF THE COMBINED OPENINGS IS MORE THAN 12", BUT LESS THAN 24", PROVIDE (1) #5 (TOP & BOT.) W/ 2'-0" EMBEDMENT PAST OPENING
 - IF COMBINED OPENING IS LARGER THAN 24" SEE 6/S3.10

7 SECTION
1/2" = 1'-0"

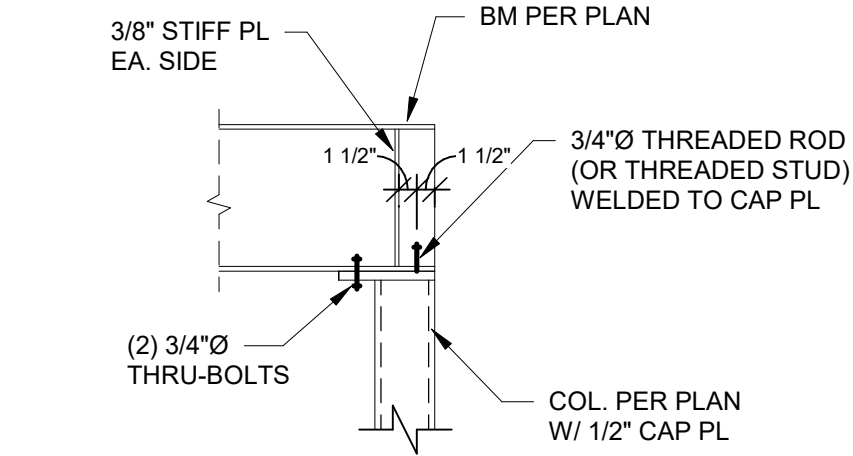




TYPICAL BEAM TO COLUMN CONNECTION

1 DETAIL

3/4" = 1'-0"

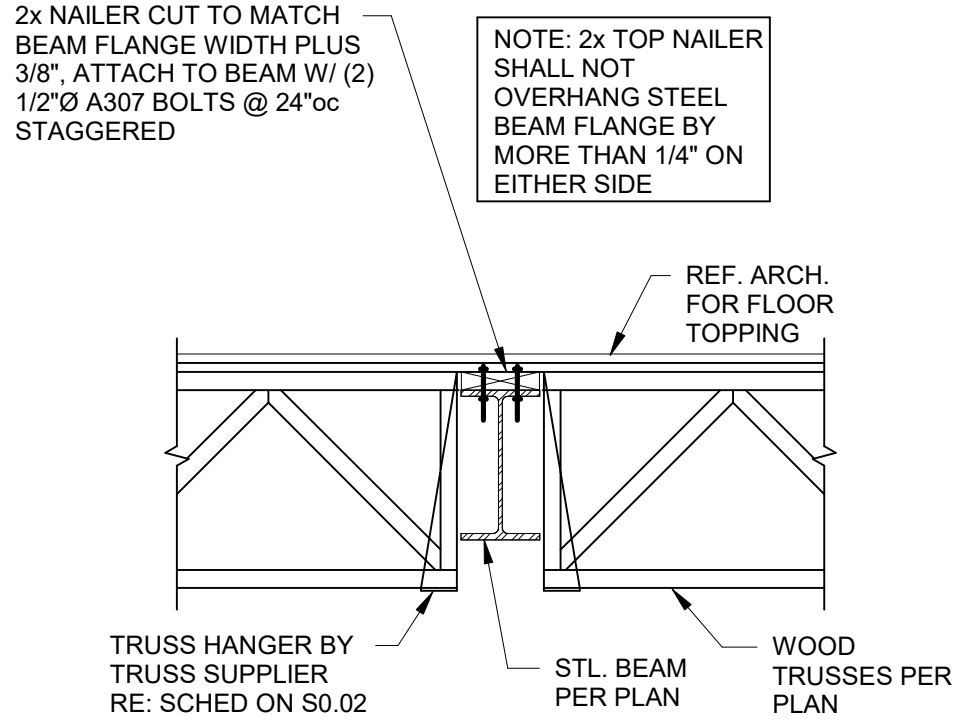


TYPICAL BEAM TO COLUMN CONNECTION @ DISCONTINUOUS BEAMS

2 SECTION

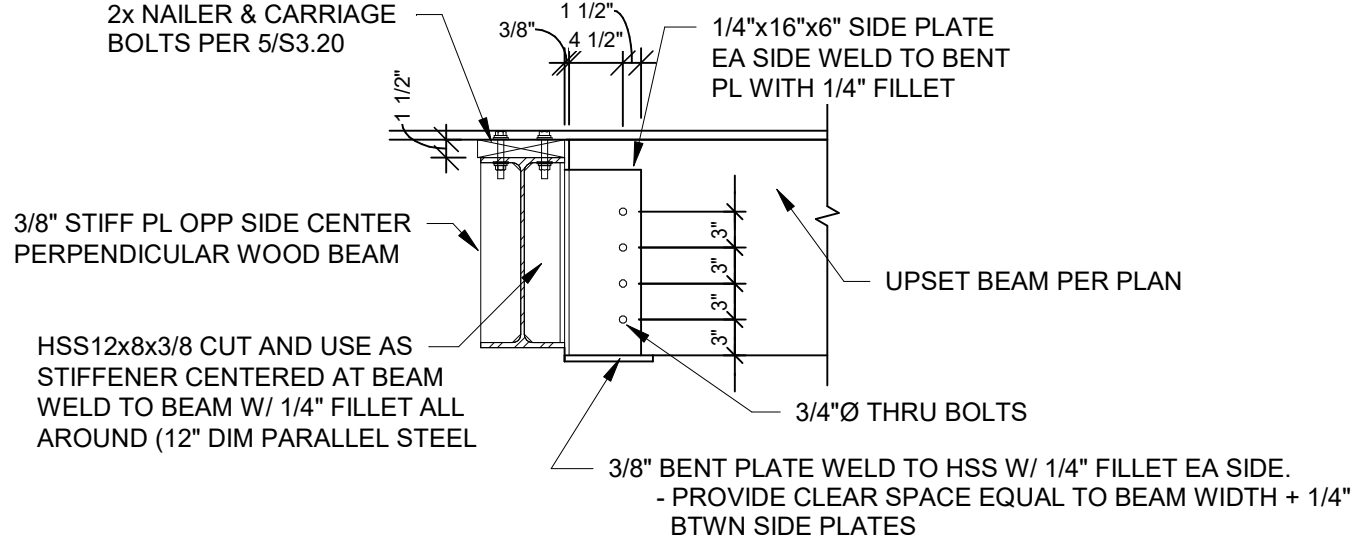
3/4" = 1'-0"

NOTE: WOOD FRAMING NOT SHOWN FOR CLARITY



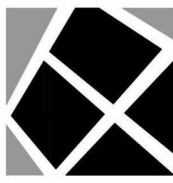
3 SECTION

3/4" = 1'-0"



4 SECTION

3/4" = 1'-0"



A NEW DEVELOPMENT:
RESIDENCES AT BLACKWELL
50 Highway & Blackwell, Lee's Summit, MO



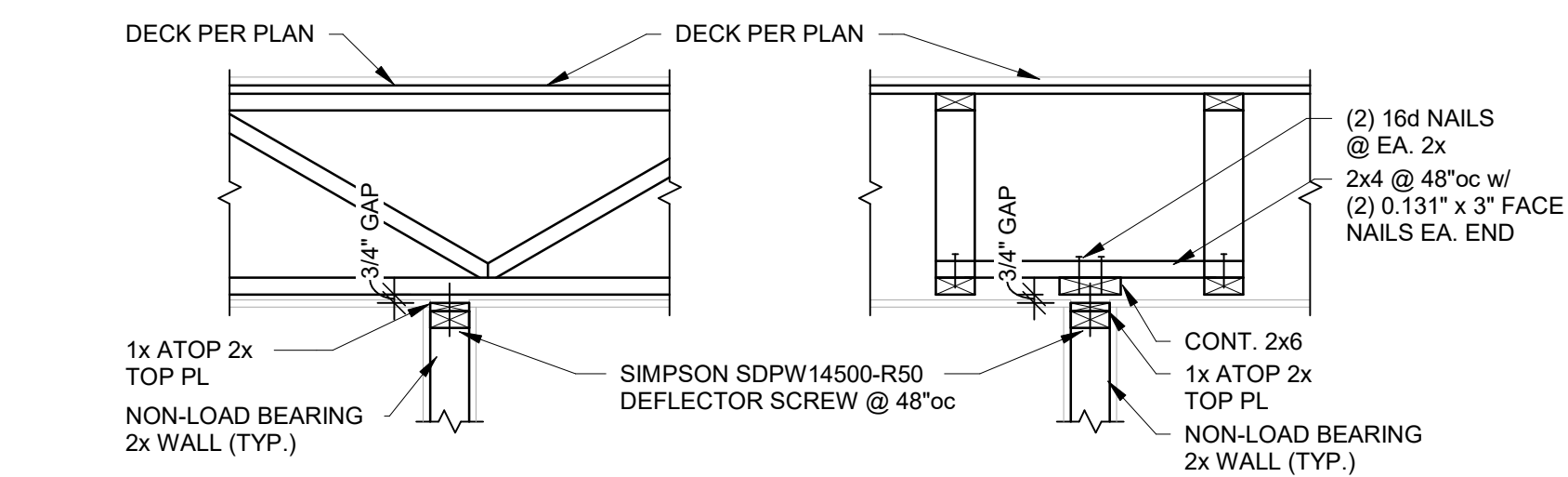
DRAWING RELEASE LOG

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DATE:
3/24/2023
JOB NO.
696521
DRAWN BY:
CAB/JLF
SHEET NO.

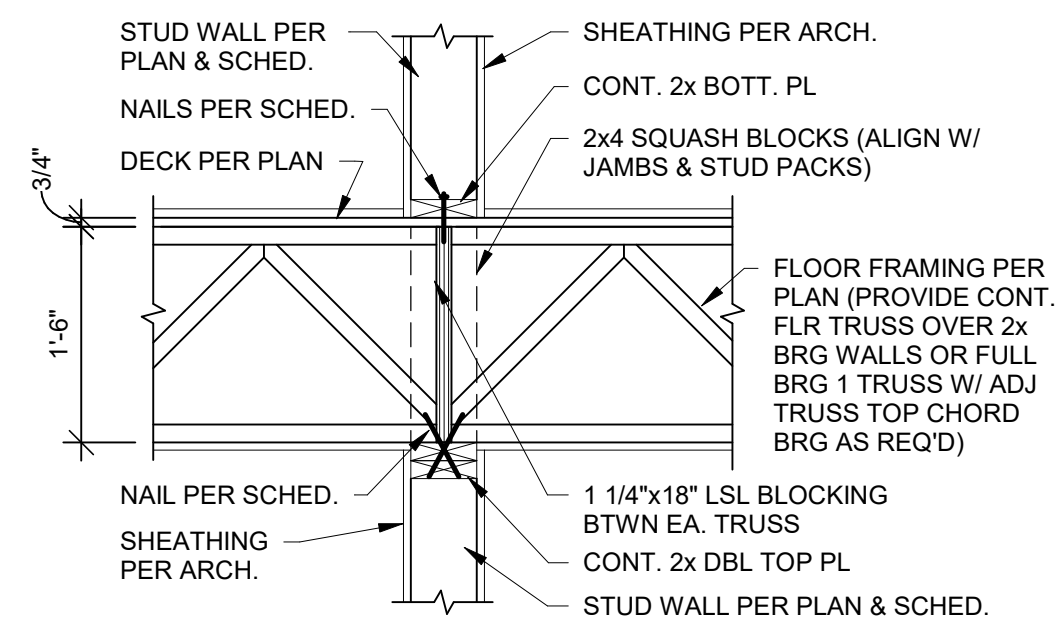
PERMIT SET

S3.20

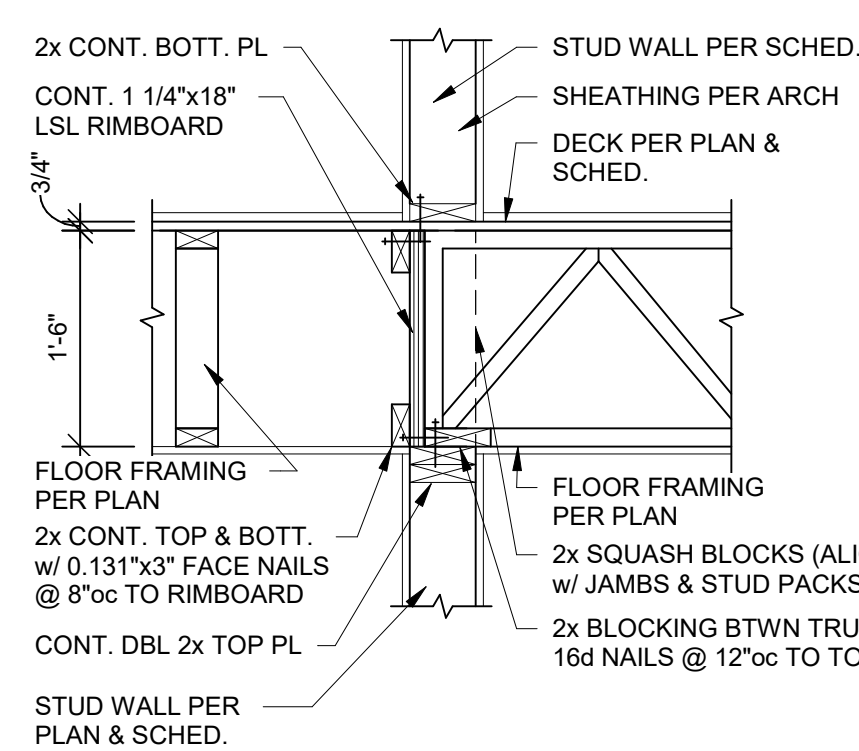


TYPICAL FLOOR TRUSS FRAMING AT NON-LOAD BEARING WALLS

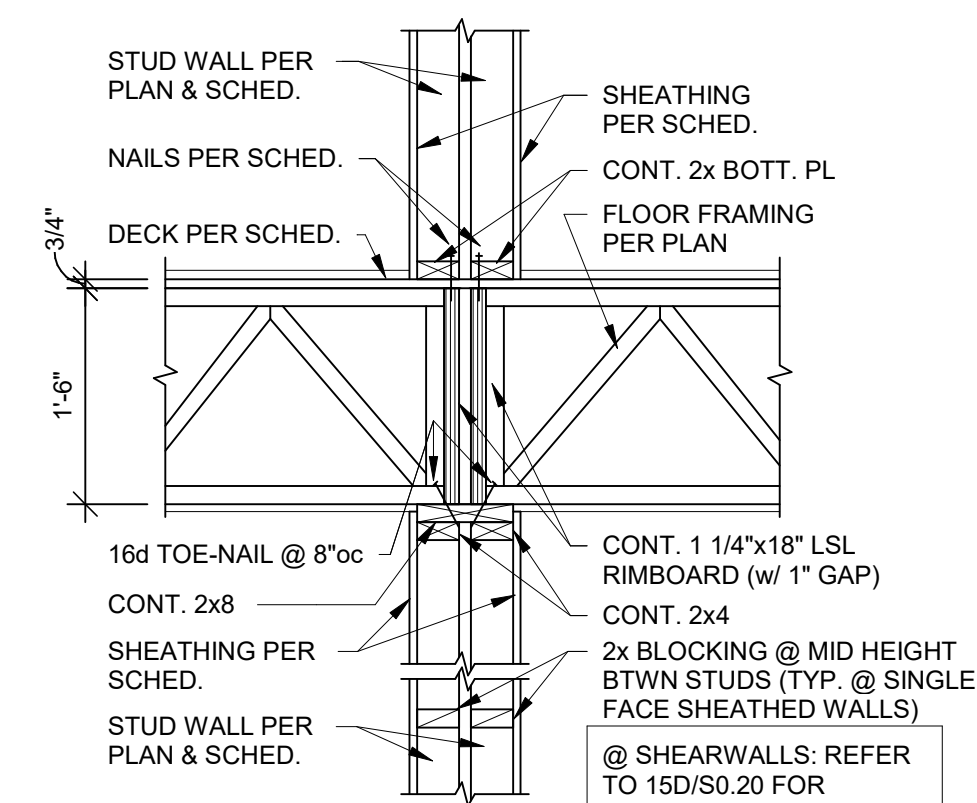
1 SECTION



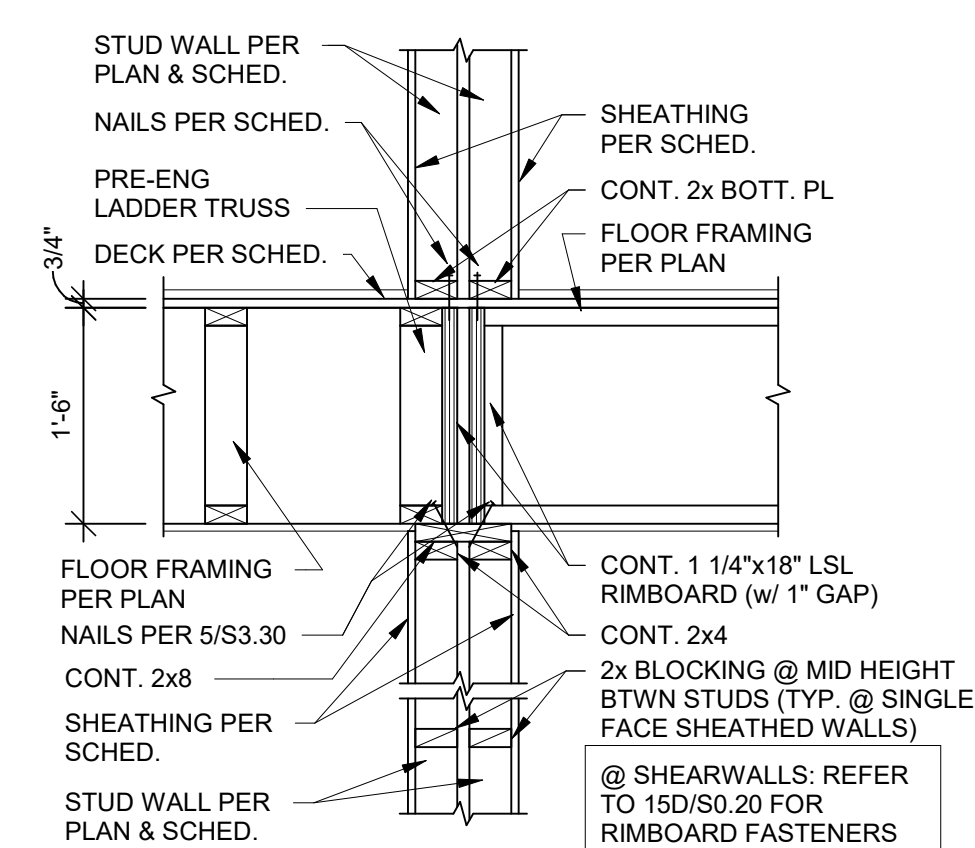
2 SECTION



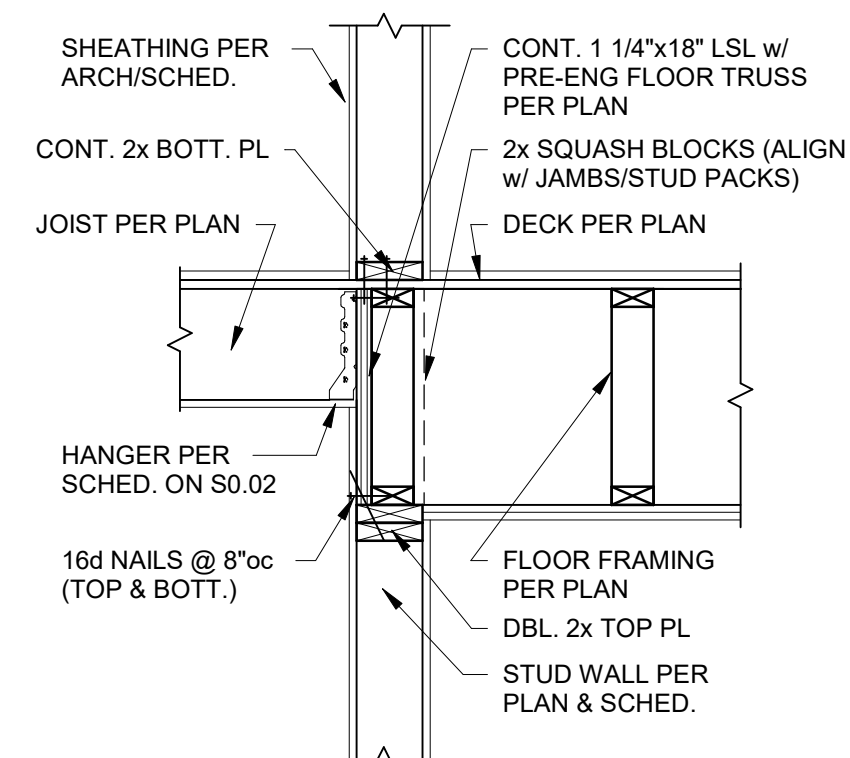
3 SECTION



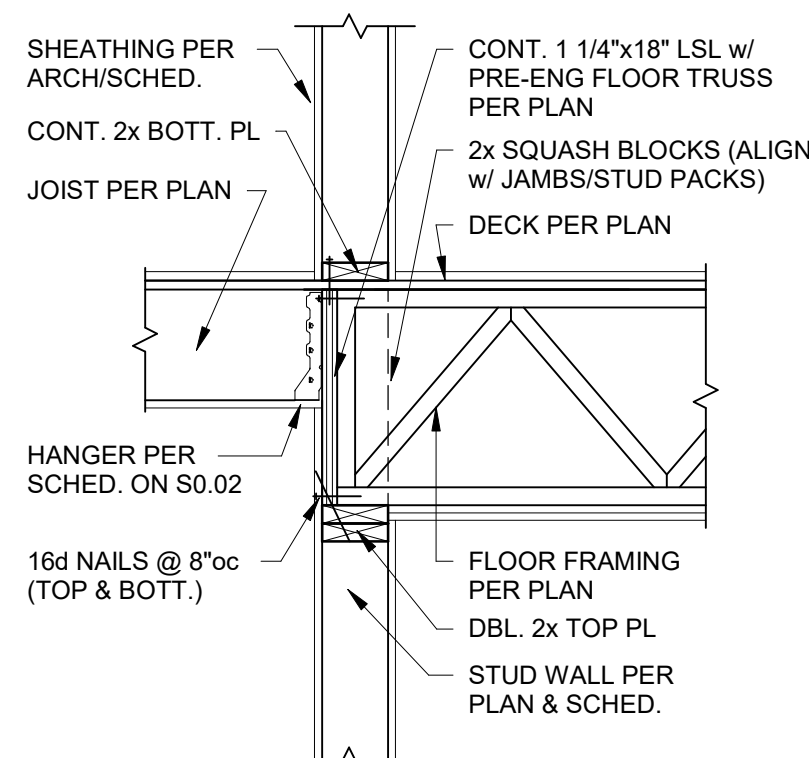
4 SECTION



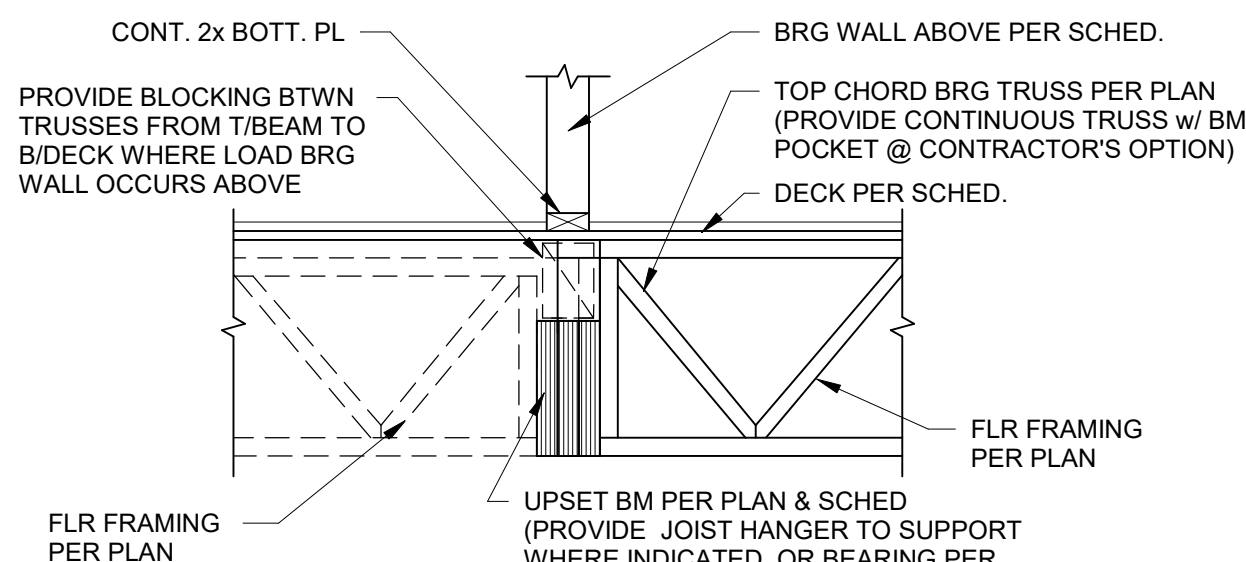
4A SECTION
3/4" = 1'-0"



5 SECTION

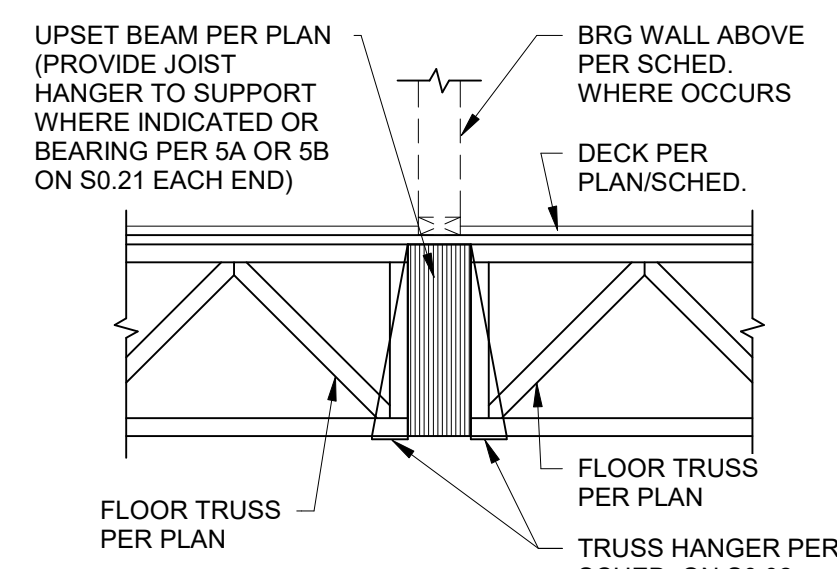


5A SECTION



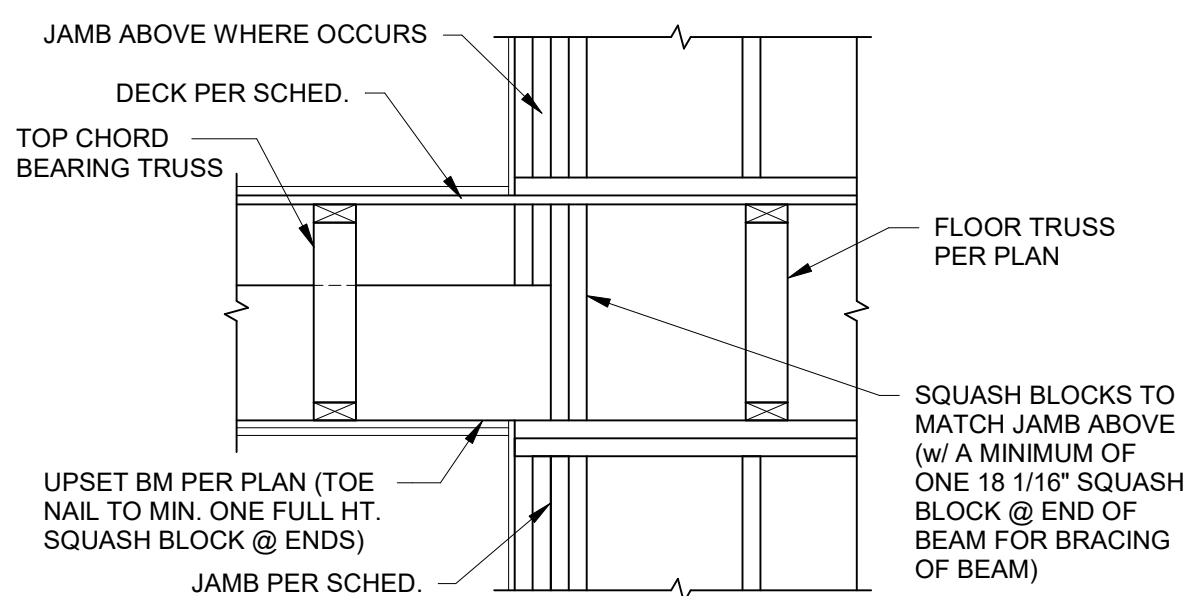
TYPICAL PARTIAL DDEPTH UPSET BEAM

6 SECTION



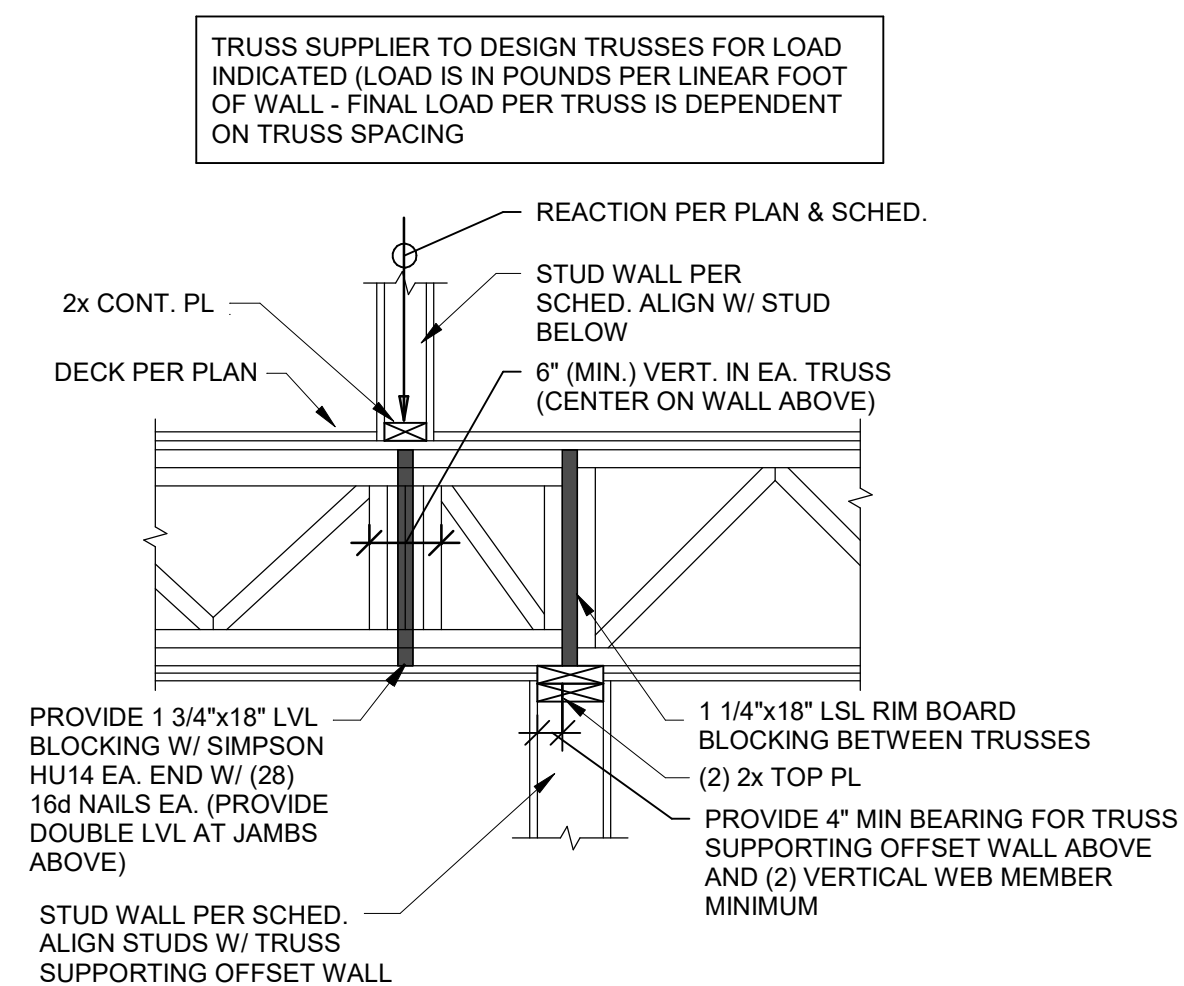
TYPICAL FULL DEPTH UPSET BEAM

7 SECTION

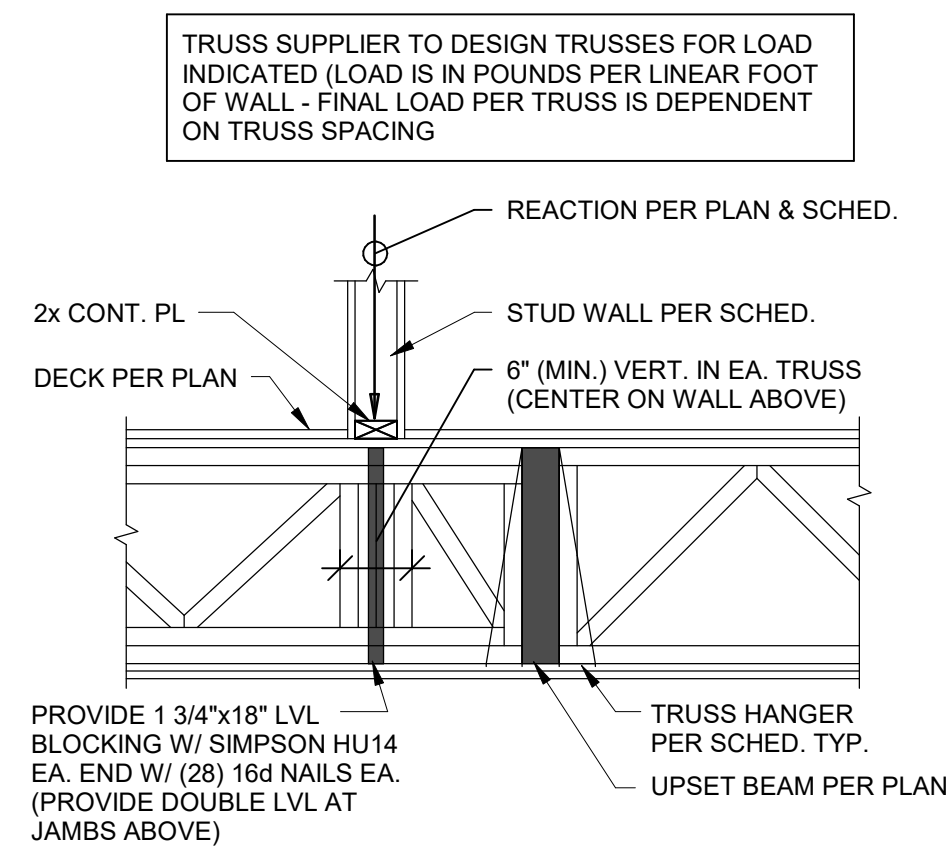


TYPICAL UPSET BEAM BEARING

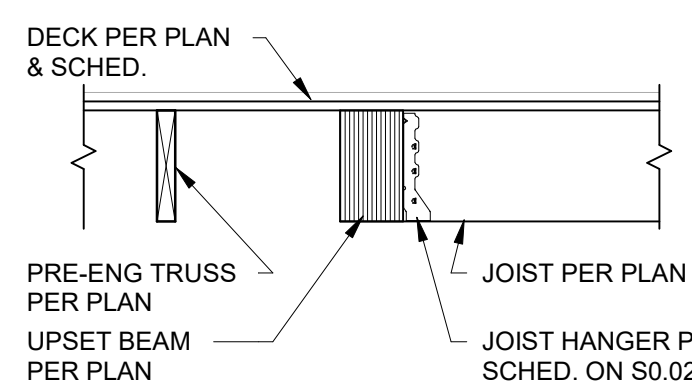
8 SECTION



9 SECTION

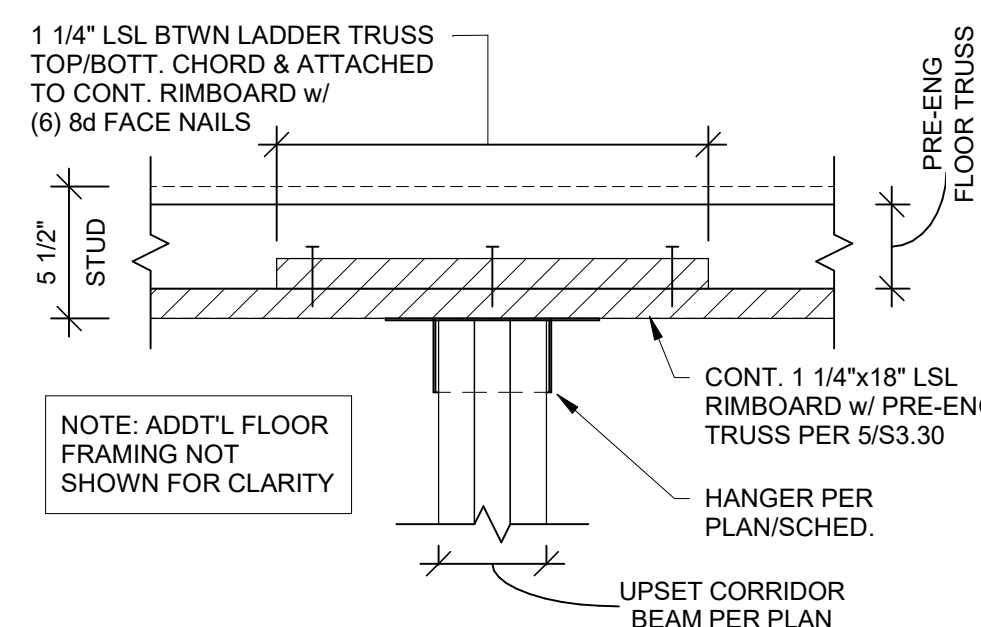


9A SECTION
3/4" = 1'-0"

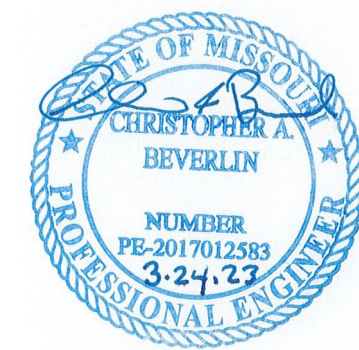
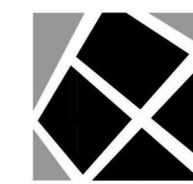


TYPICAL UPSET CORRIDOR BEAM

10 SECTION



10A PLAN DETAIL



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50 Highway & Blackwell, Lee's Summit, MO



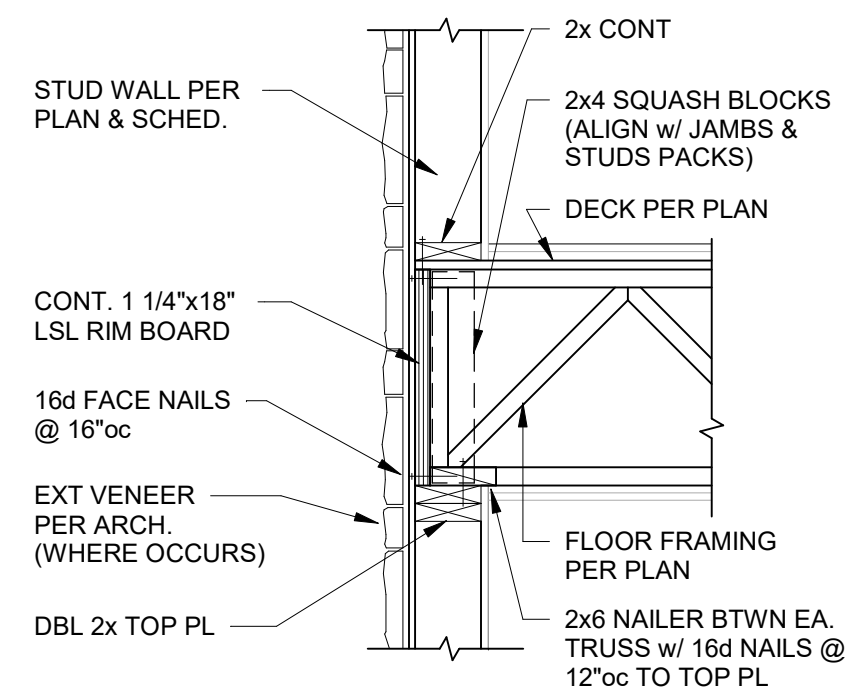
DRAWING RELEASE LOG

△ REVISIONS:

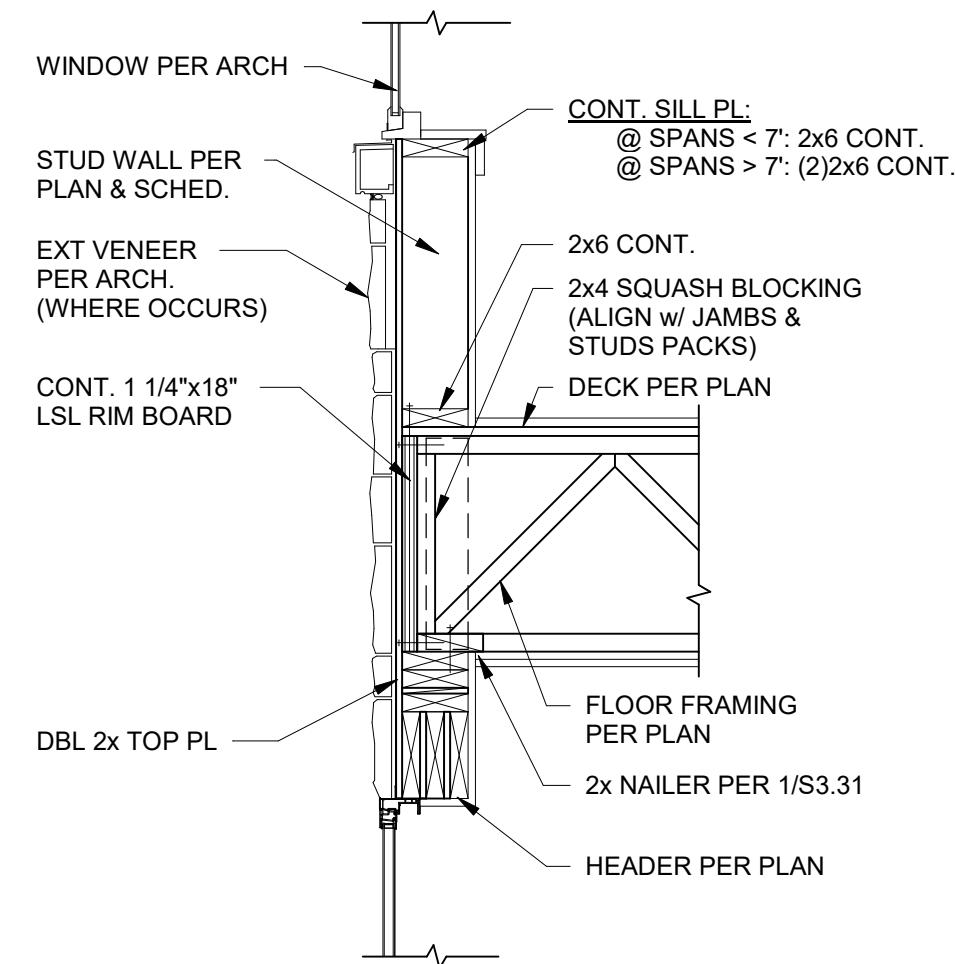
DATE:
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DRAWN BY:
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PERMIT SET

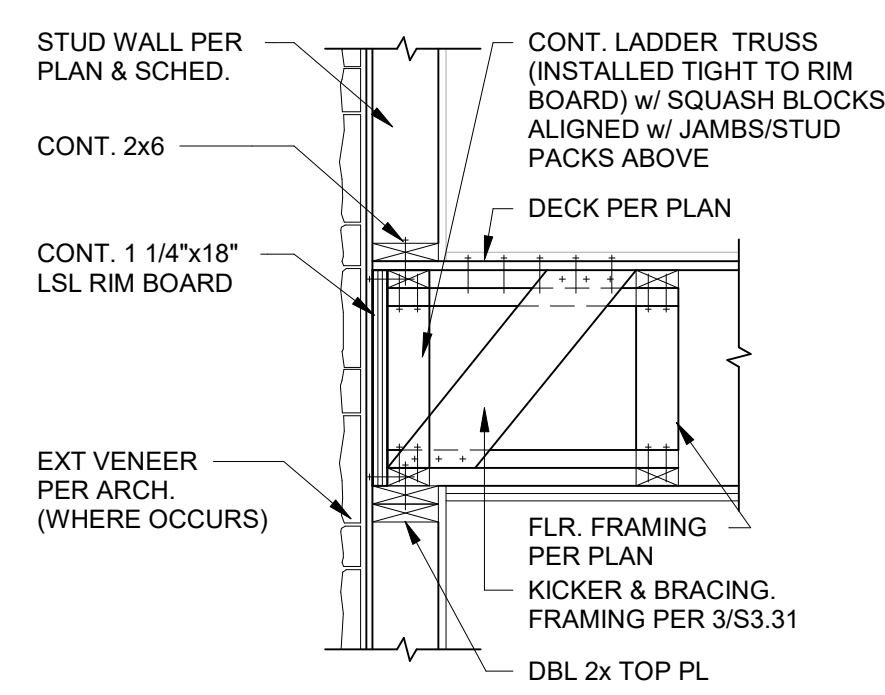
S3.30



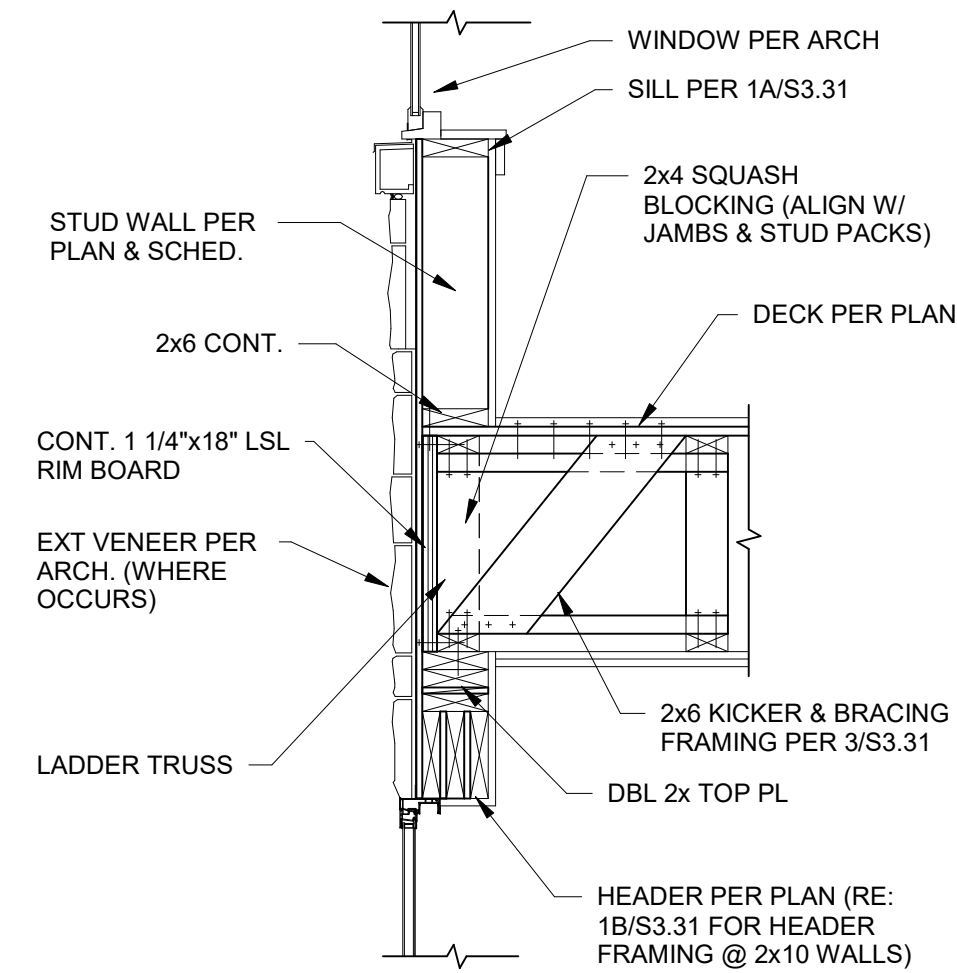
1 SECTION



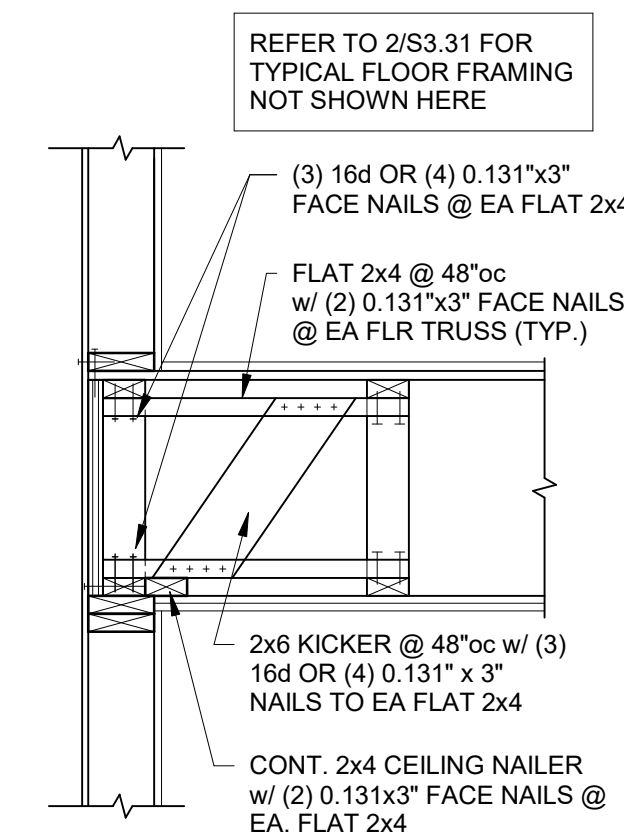
1A SECTION



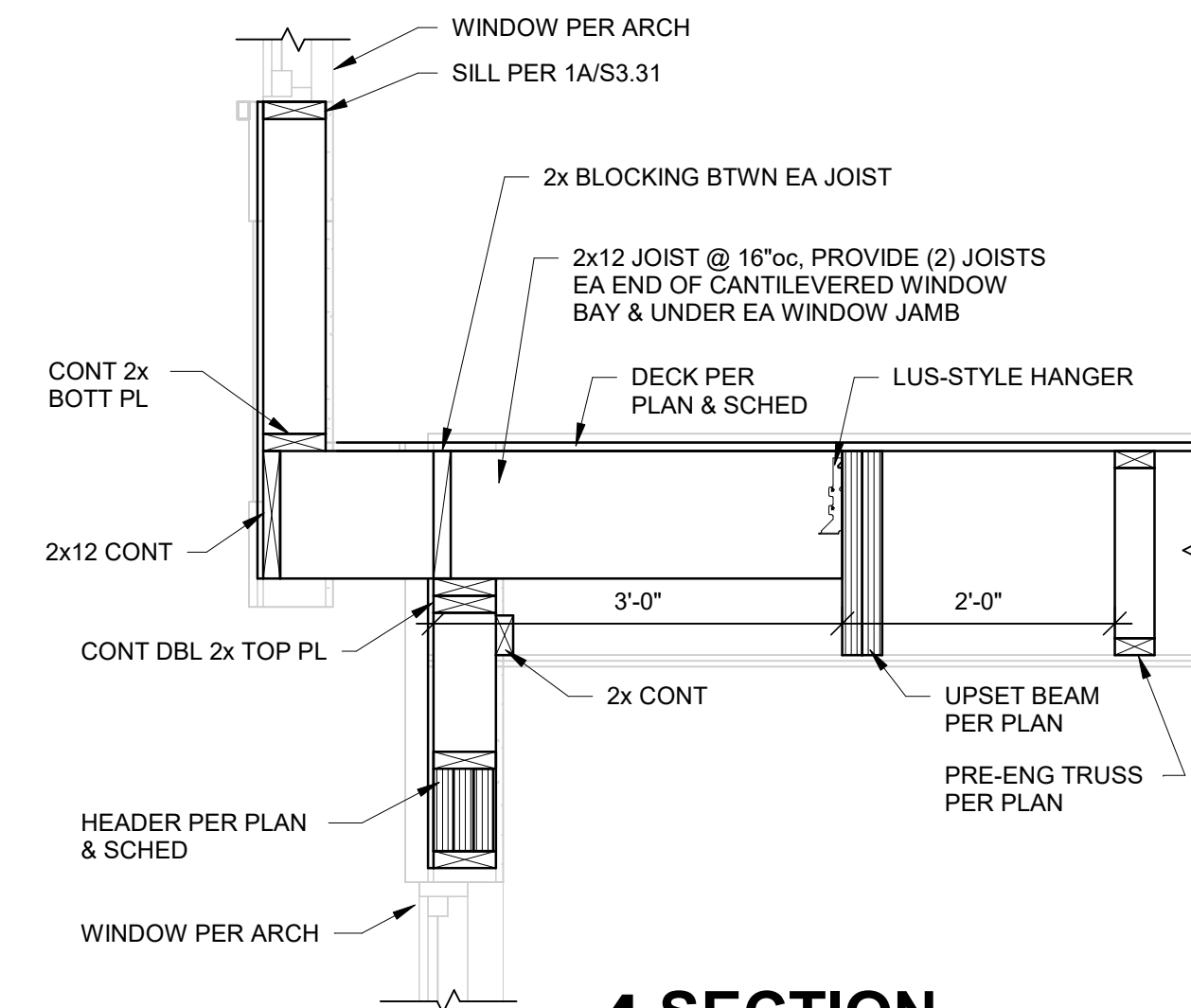
2 SECTION



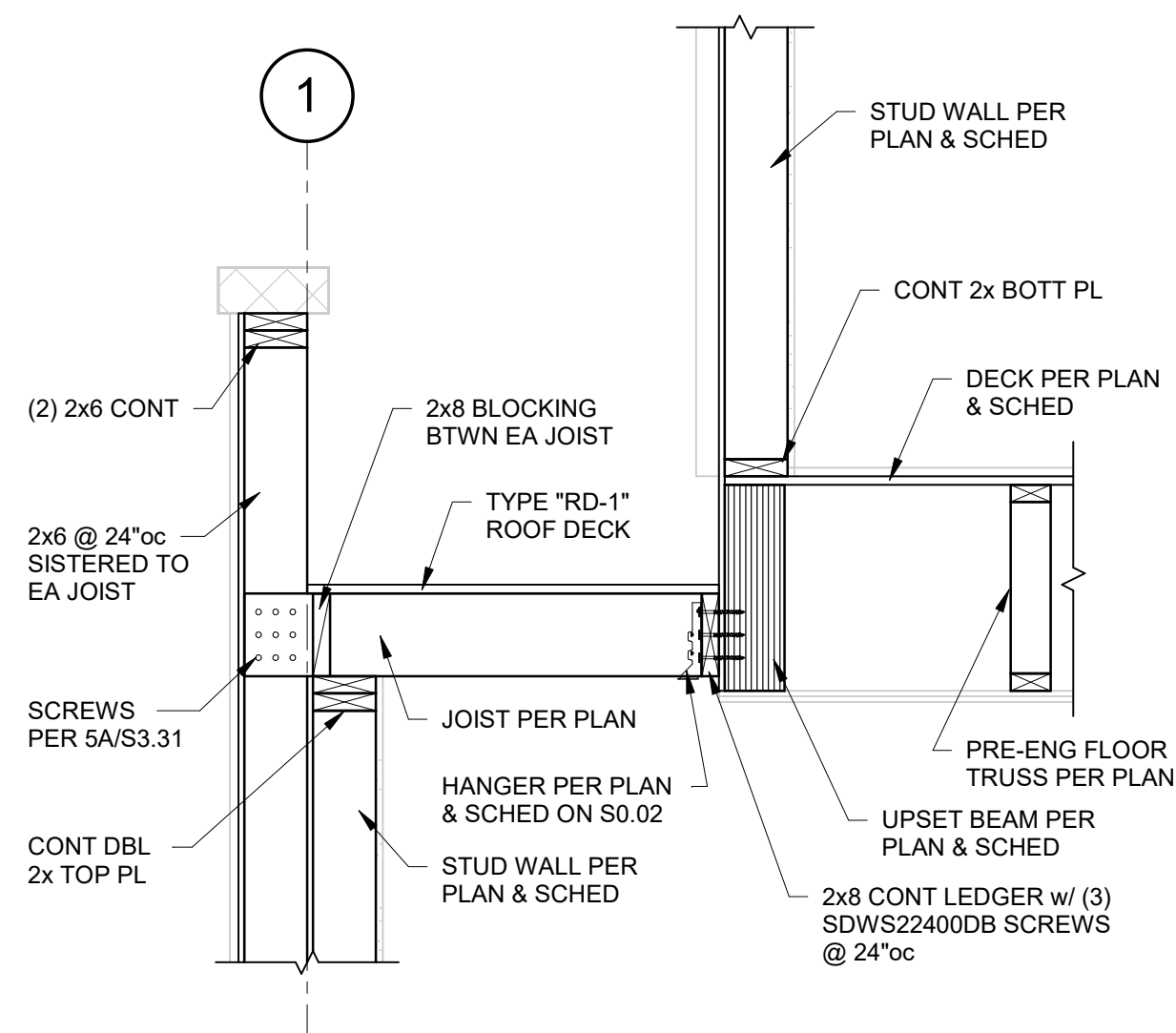
2A SECTION
3/4" = 1'-0"



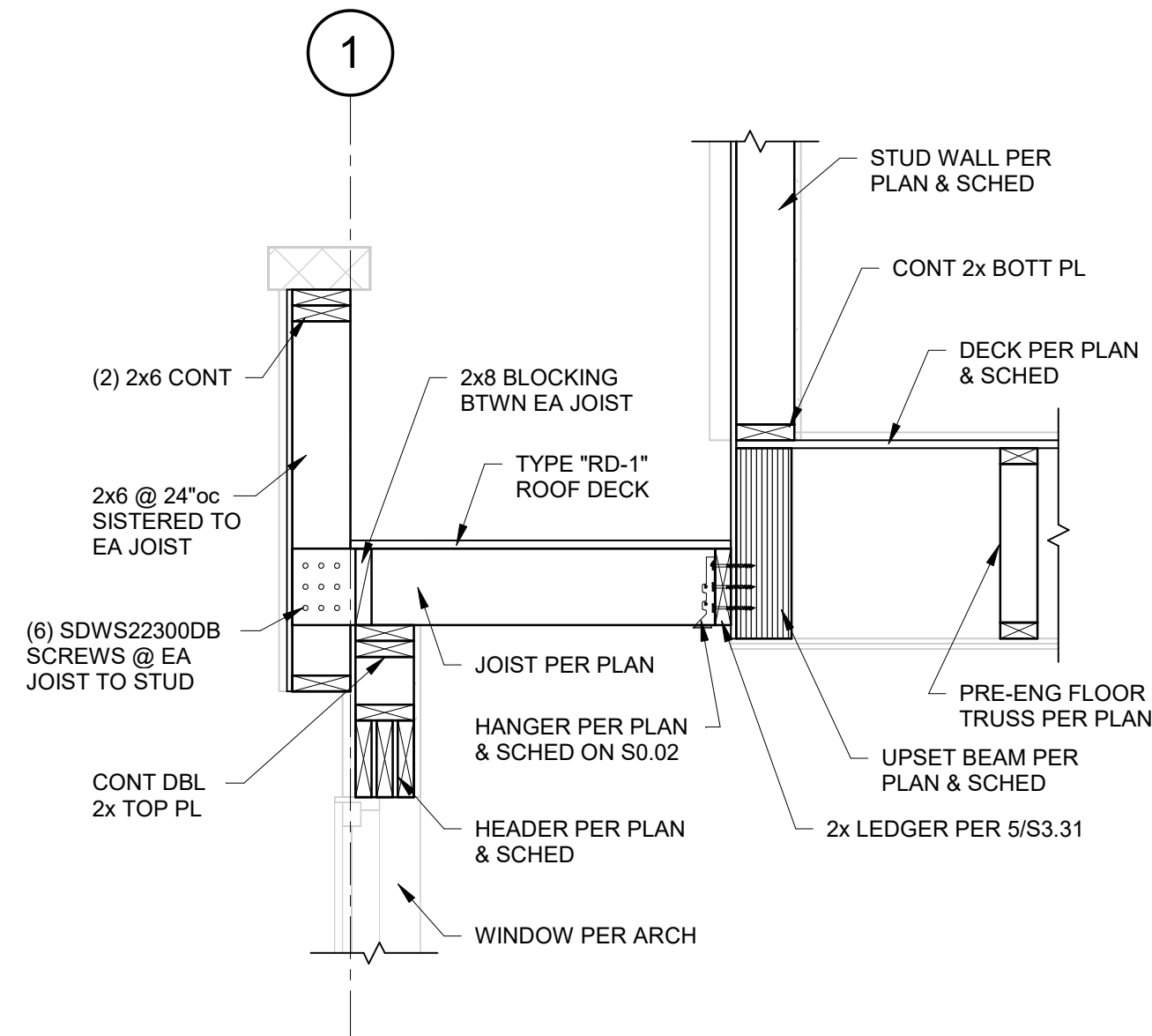
TYPICAL KICKER & BRACING FRAMING DETAIL



4 SECTION

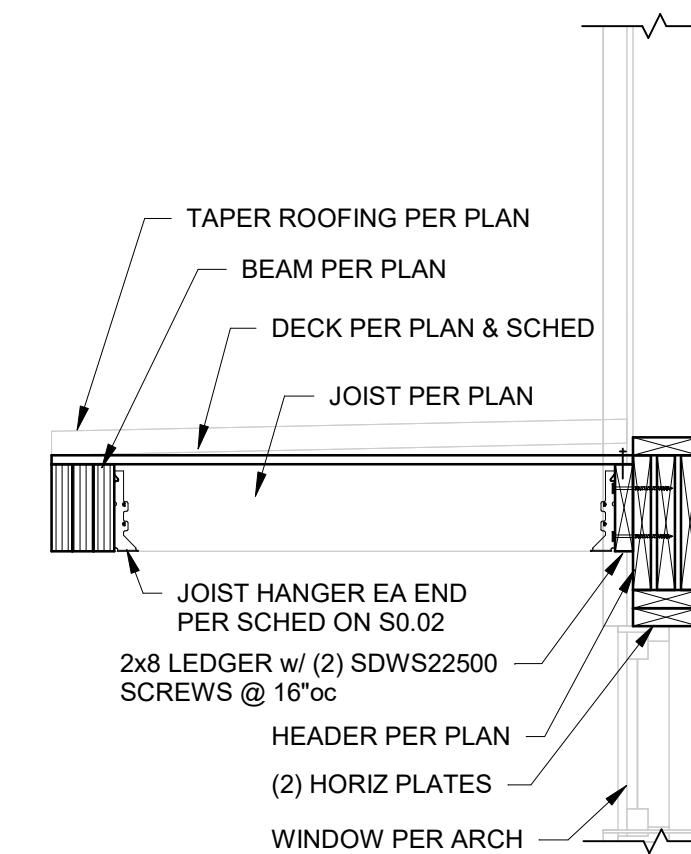


5 SECTION



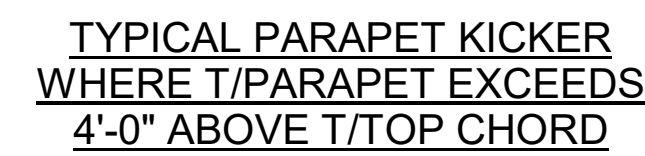
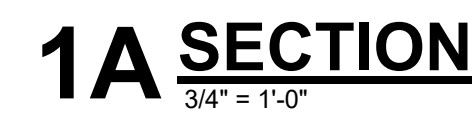
5A SECTION

6 SECTION



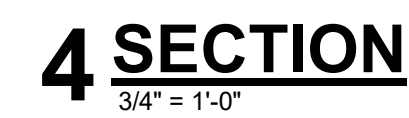
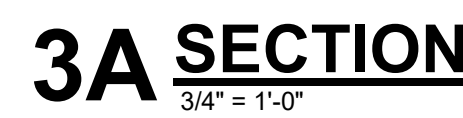
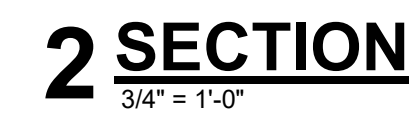
7 SECTION

8 SECTION



1B SECTION

3/4" = 1'-0"



PERMIT SET

STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER
PE-2017012583
3.24.23
PROFESSIONAL ENGINEER

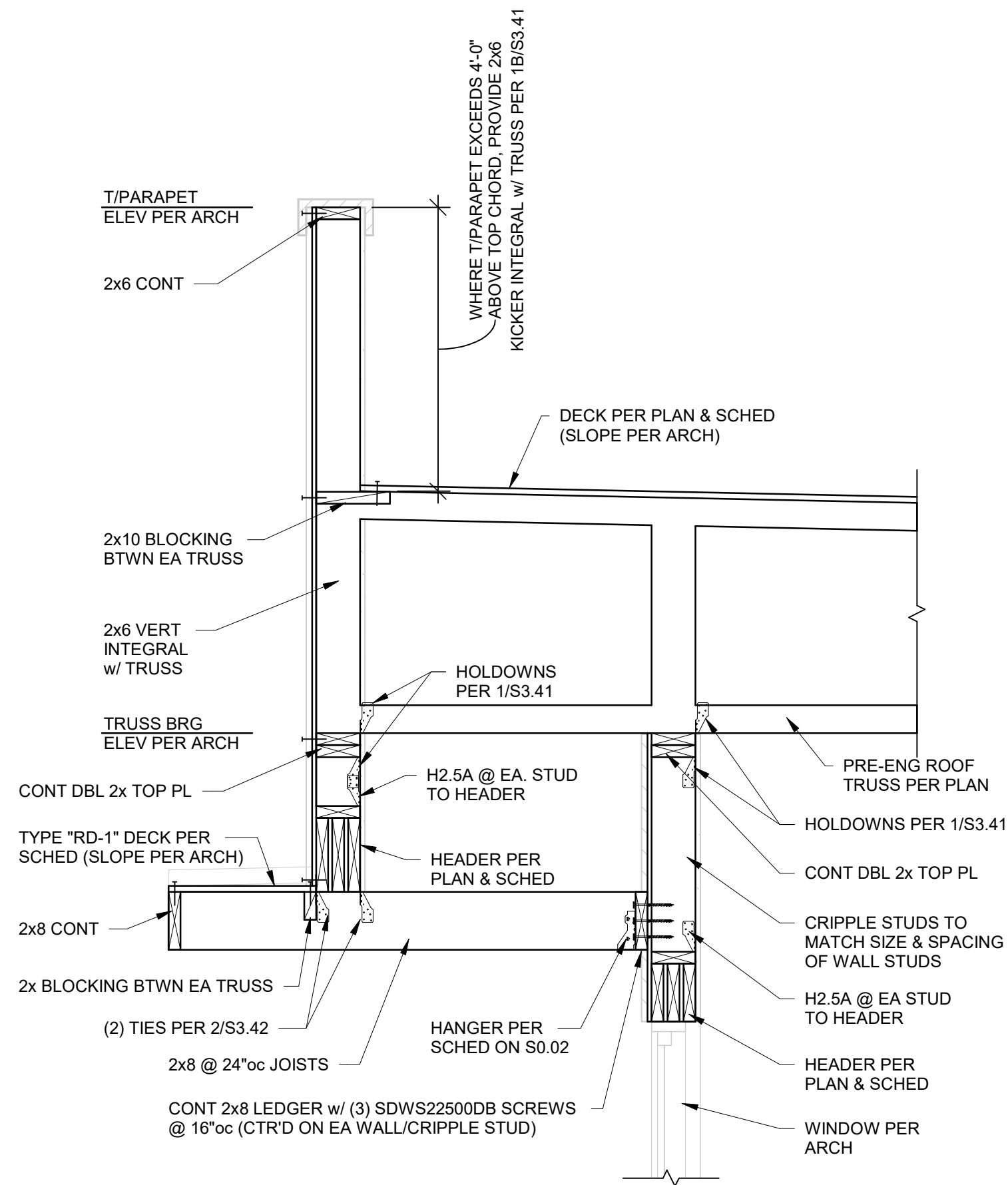
**A NEW DEVELOPMENT:
RESIDENCES AT BLACKWELL**
50 Highway & Blackwell, Lee's Summit, MO

A NEW DEVELOPMENT:

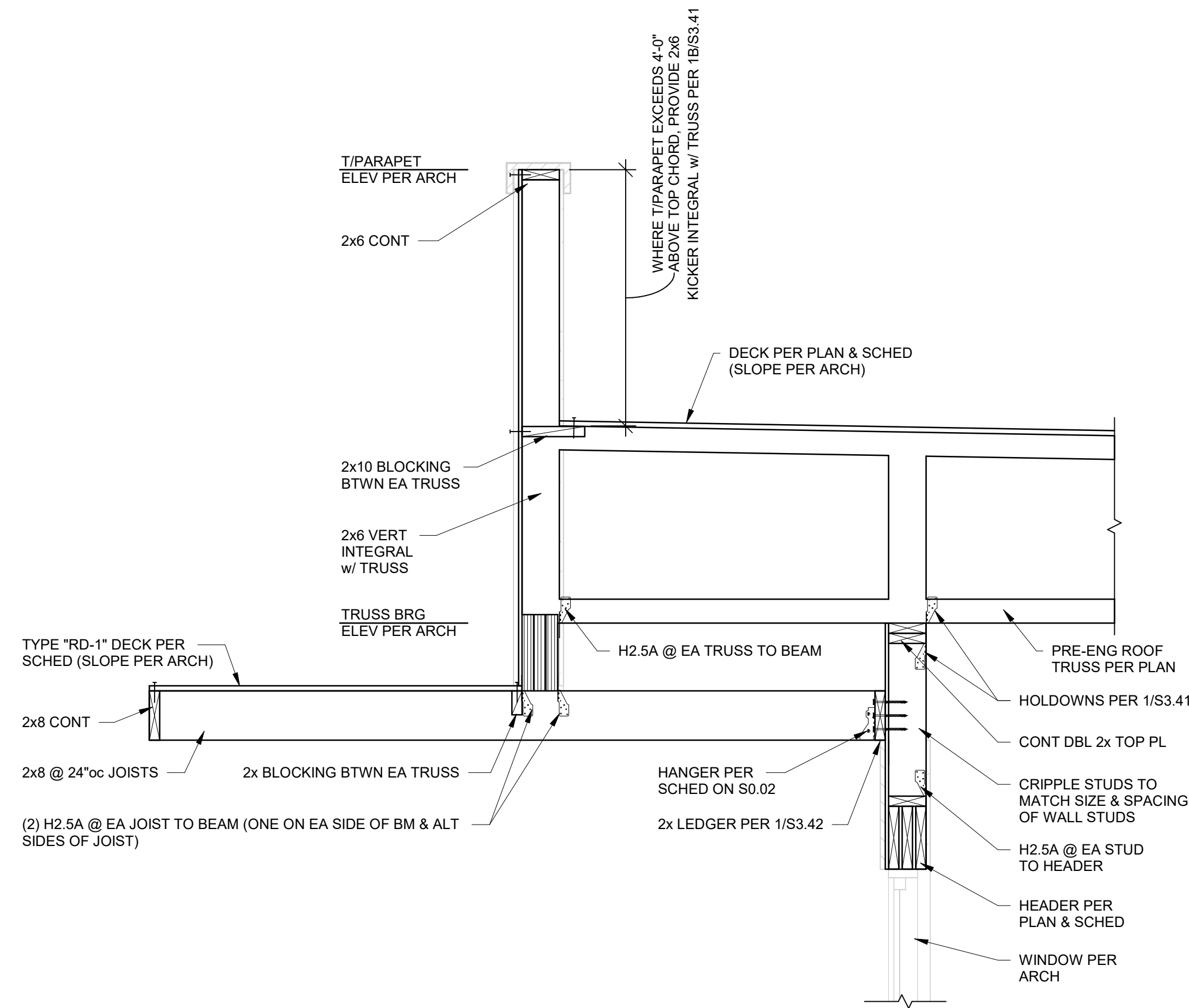
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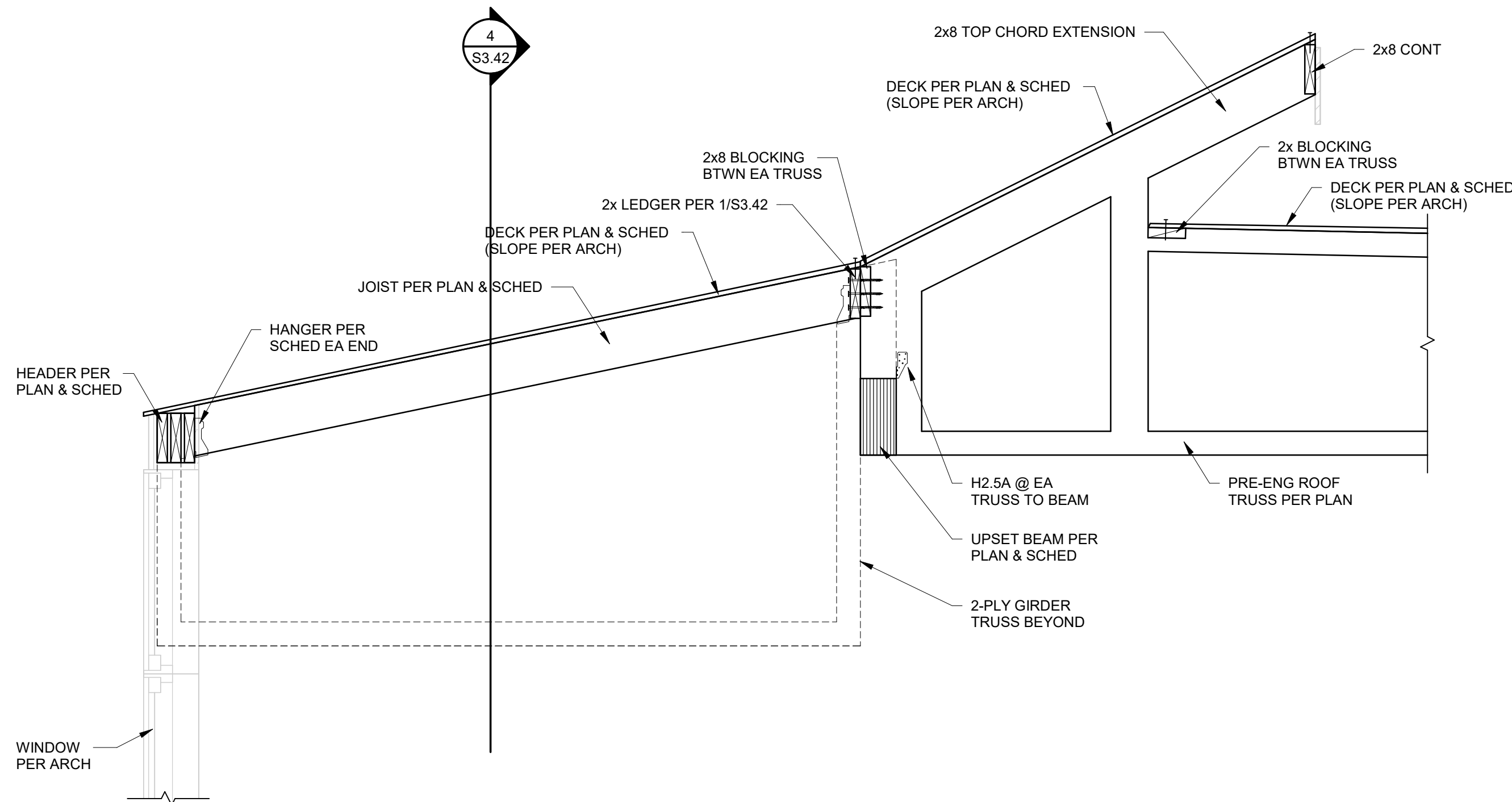
S3.41



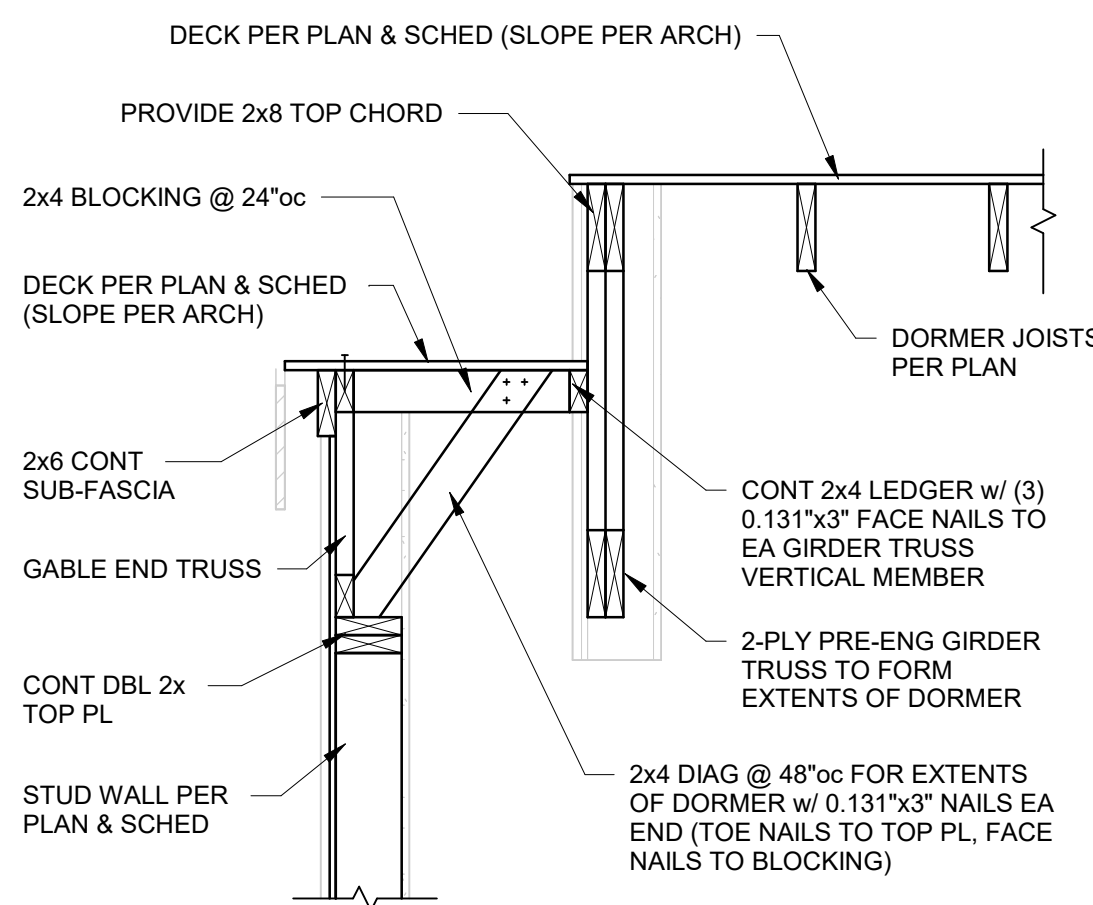
1 SECTION
3/4" = 1'-0"



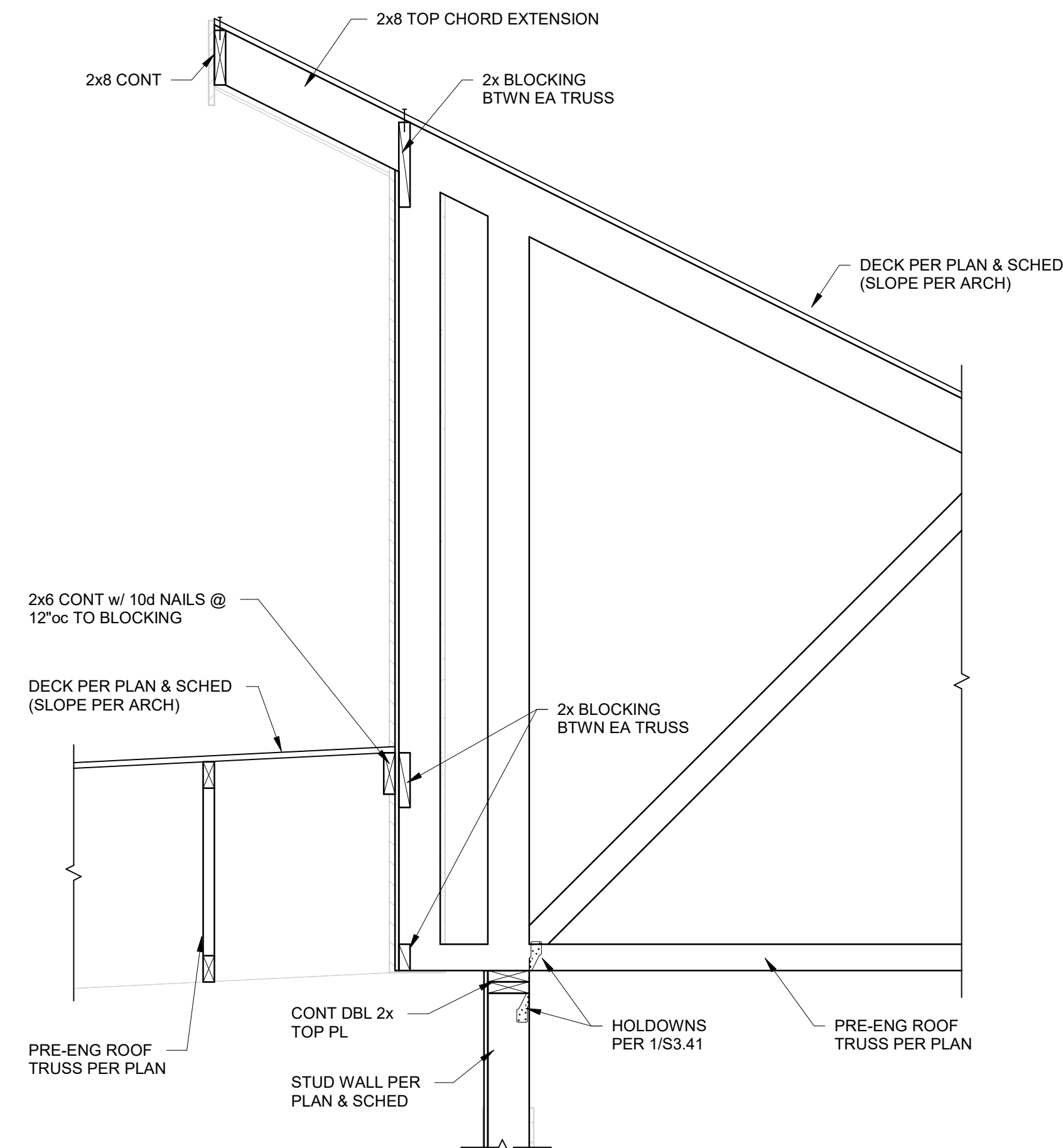
2 SECTION
3/4" = 1'-0"



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



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



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

PERMIT SET

ARCHD 24", 36"

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3515 W. 75TH ST., SUITE 201
PRAIRIE VILLAGE, KS 66208

STATE OF MISSOURI
CHRISTOPHER A. BEVERLIN
NUMBER
PE-2017012350
4.24.23
PROFESSIONAL ENGINEER

A NEW DEVELOPMENT:
RESIDENCES AT BLACKWELL
50 Highway & Blackwell, Lee's Summit, MO

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3/24/2023
JOB NO.
696521
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SHEET NO.

PERMIT SET

S3.43

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

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

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

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

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

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

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

DECK PER PLAN & SCHED (SLOPE PER ARCH)
TYP- EDGE FASTENERS PER SCHED @ ROOF BLOCKING
2x12 BLOCKING BTWN EA JOIST (LEAVE OUT @ EVERY THIRD TRUSS BAY IF REQ'D FOR VENTING)
2x8 TOP CHORD EXTENSION
2x6 CONT
TRUSS BRG ELEV PER ARCH
SHEATHING TO EXTEND UP TO BLOCKING AS SHOWN
STUD WALL PER PLAN & SCHED
HOLDOWNS PER 1/S3.41
PRE-ENG ROOF TRUSS PER PLAN
CONT DBL 2x TOP PL

DECK PER PLAN & SCHED (SLOPE PER ARCH)
PRE-ENG ROOF TRUSS PER PLAN
FULL HEIGHT 2x BLOCKING BTWN EA TRUSS
2x6 TOP CHORD EXTENSION
TRUSS BRG ELEV PER ARCH
2x6 CONT
H2.5A @ EA STUD TO HEADER
HEADER PER PLAN & SCHED (RE: 3/S0.21)
CONT DBL 2x TOP PL
WINDOW PER ARCH

DECK PER PLAN & SCHED (SLOPE PER ARCH)
TYP- EDGE FASTENERS PER SCHED @ ROOF BLOCKING
2x12 BLOCKING BTWN EA JOIST (LEAVE OUT @ EVERY THIRD TRUSS BAY IF REQ'D FOR VENTING)
2x8 TOP CHORD EXTENSION
2x6 CONT
TRUSS BRG ELEV PER ARCH
SHEATHING TO EXTEND UP TO BLOCKING AS SHOWN
HOLDOWNS PER 1/S3.41
PRE-ENG ROOF TRUSS PER PLAN
CONT DBL 2x TOP PL
H2.5A @ EA STUD TO HEADER
WINDOW PER ARCH

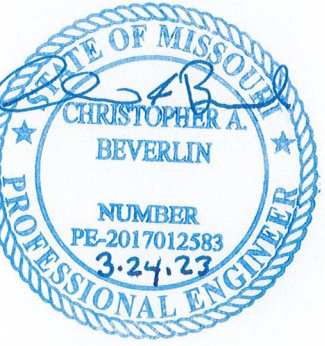
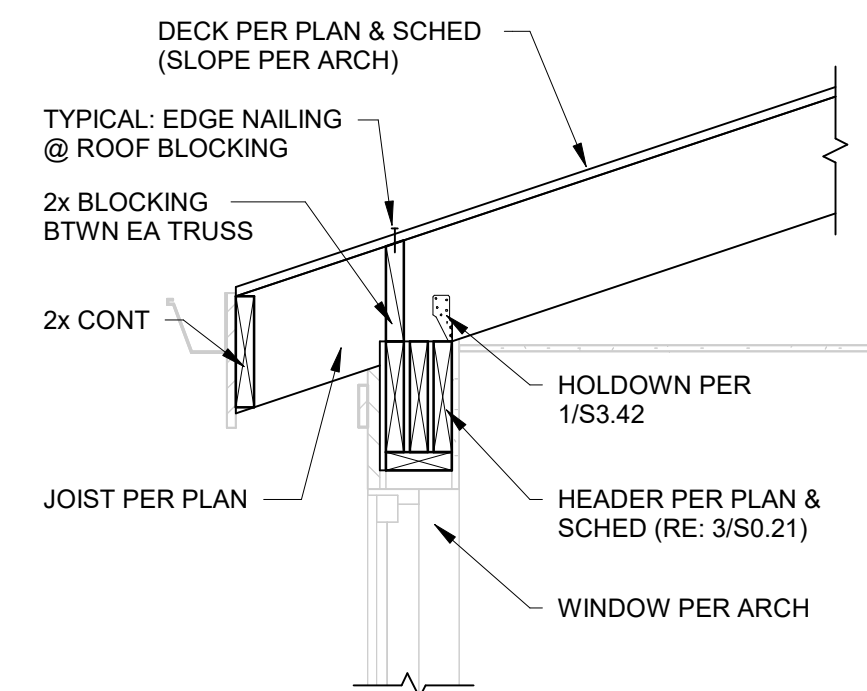
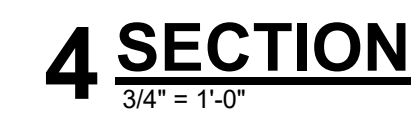
2x6 @ EA BRACE w/ SIMPSON A34 FRAME ANGLE EA END
DECK PER PLAN & SCHED (SLOPE PER ARCH)
(3) 10d FACE NAILS
2x6 CONT
2x4 BRIDGING @ MID-SPAN @ BRACE LOCATIONS ≥ 10'-0"
2x DIAG BRACE @ 60"oc (2x4 @ LENGTHS < 10'-0"; 2x6 OTHERWISE)
GABLE END TRUSS
CONT DBL 2x TOP PL
CRIPPLE STUDS TO MATCH SIZE & SPACING OF WALL STUDS
HEADER PER PLAN & SCHED
WINDOW PER ARCH
PRE-ENG ROOF TRUSS PER PLAN
SIMPSON GBC @ EA BRACE
SIMPSON SDS22600DB SCREWS @ 16"oc THRU TO TOP PL TO GABLE END TRUSS

DECK PER PLAN & SCHED (SLOPE PER ARCH)
2x6 CONT
GABLE END TRUSS
TRUSS BRG ELEV PER ARCH
CONT DBL 2x TOP PL
CRIPPLE STUDS TO MATCH SIZE & SPACING OF WALL STUDS
HEADER PER PLAN & SCHED
WINDOW PER ARCH
PRE-ENG ROOF TRUSS PER PLAN
2x DIAG BRACE PER 3/S3.43
SIMPSON GBC @ EA BRACE
CONT DBL 2x TOP PL
PROVIDE PRE-ENG TRUSS ATOP WALL @ EXT. FACE
WALL STUD BEYOND PER PLAN & SCHED
CONT 2x BOTT PL
DECK PER PLAN
PRE-ENG TRUSS PER PLAN
HEADER PER PLAN & SCHED
WINDOW PER ARCH

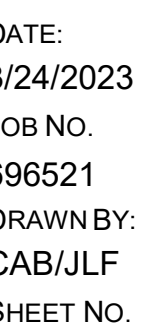
2x10 BLOCKING BTWN EA TRUSS
2x6 CONT
2x6 TOP CHORD EXTENSION
DECK PER PLAN & SCHED (SLOPE PER ARCH)
2x BLOCKING BTWN EA TRUSS
2x6 BLOCKING BTWN EA TRUSS w/ 10d FACE NAILS @ 6"oc TO CONT 2x
2x6 CONT
TRUSS BRG ELEV PER ARCH
H2.5A @ EA STUD TO HEADER
PRE-ENG ROOF TRUSS PER PLAN
CONT DBL 2x TOP PL
HEADER PER PLAN & SCHED
WINDOW PER ARCH

T/PARAPET ELEV PER ARCH
DECK PER PLAN & SCHED (SLOPE PER ARCH)
2x6 CONT
2x10 BLOCKING BTWN EA TRUSS
2x6 VERT INTEGRAL w/ TRUSS
TRUSS BRG ELEV PER ARCH
PRE-ENG ROOF TRUSS PER PLAN
HOLDOWNS PER 1/S3.41
CONT DBL 2x TOP PL
WALL STUD BEYOND PER PLAN & SCHED
PRE-ENG ROOF TRUSS PER PLAN
SIMPSON H3 @ EA TRUSS TO B/PL
CONT 2x BOTT PL
DECK PER PLAN
(2) SDWS22400DB SCREWS @ 48"oc (STAGGER 24"oc)
HEADER PER PLAN & SCHED
PRE-ENG TRUSS PER PLAN

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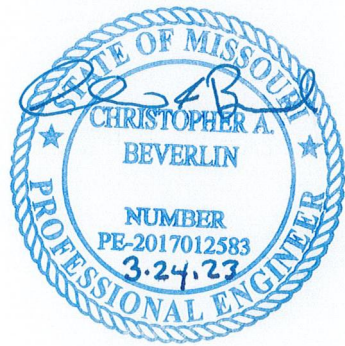

RESIDENCES AT BLACKWELL
50 Highway & Blackwell, Lee's Summit, MO




S3.44

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A NEW DEVELOPMENT:
RESIDENCES AT BLACKWELL
50 Highway & Blackwell, Lee's Summit, MO

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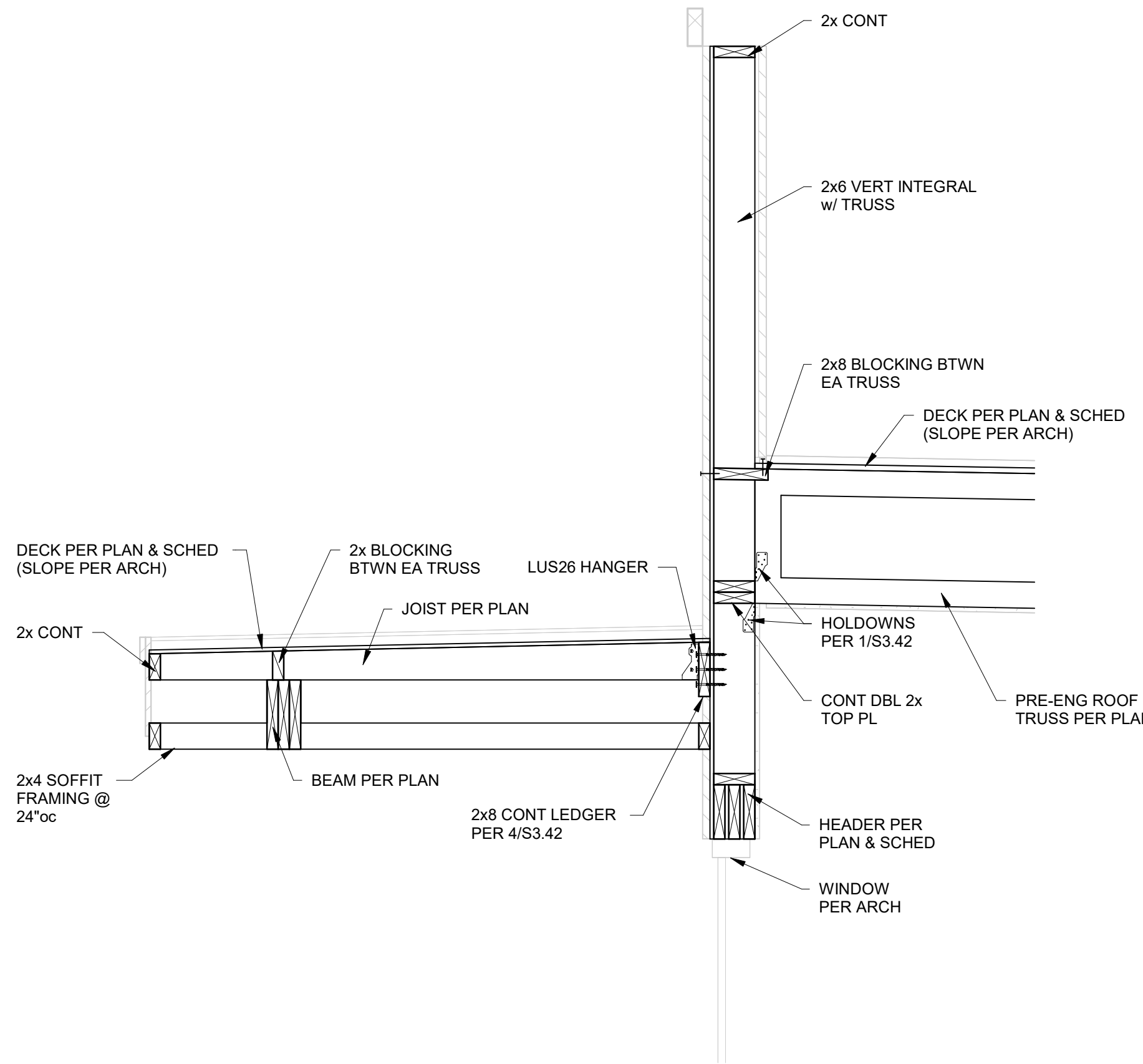
PERMIT SET

S3.45

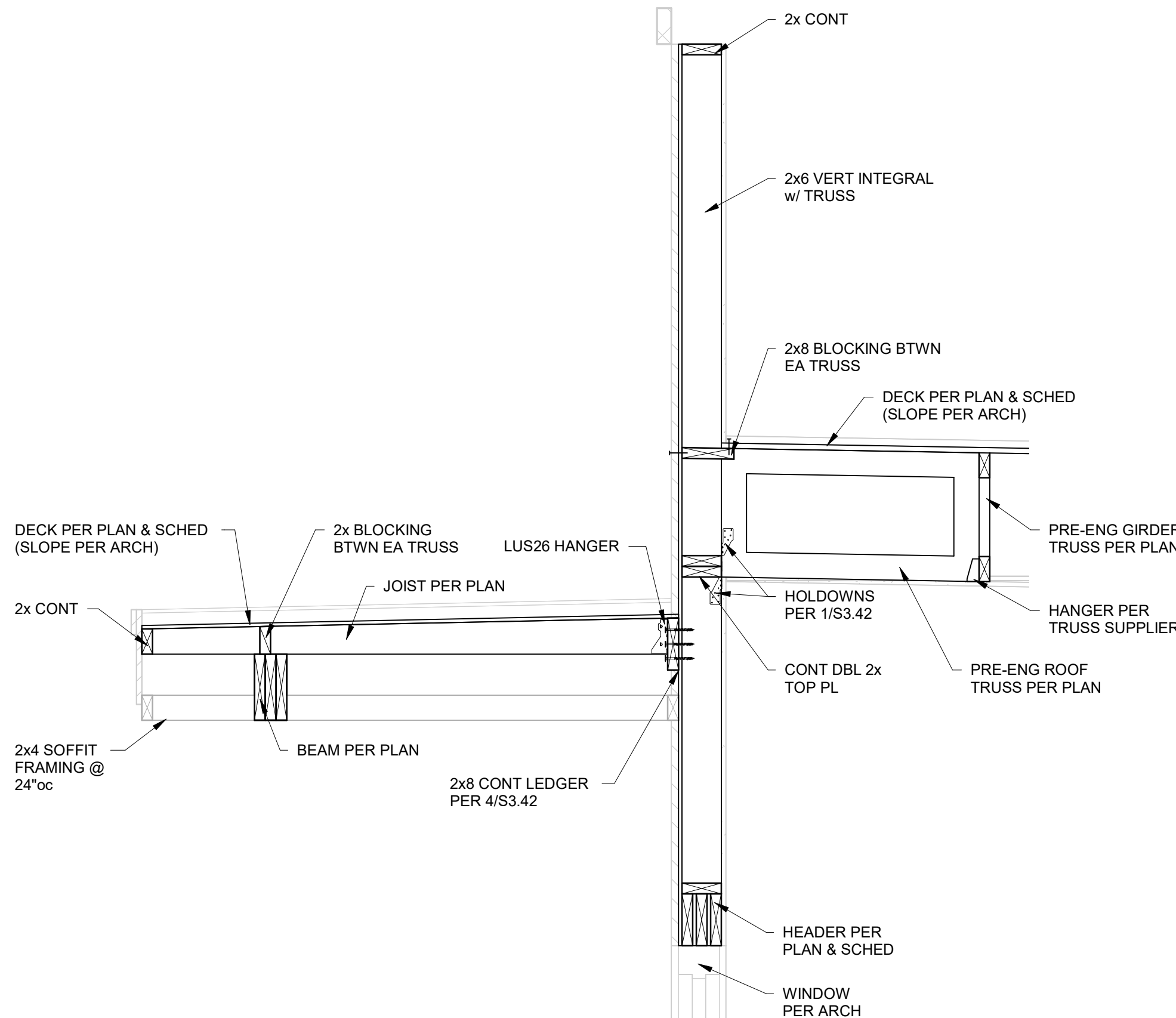
ARCHD 24" x 36"

3/24/2023 7:38:49 PM NSPJ ARCHITECTS ©

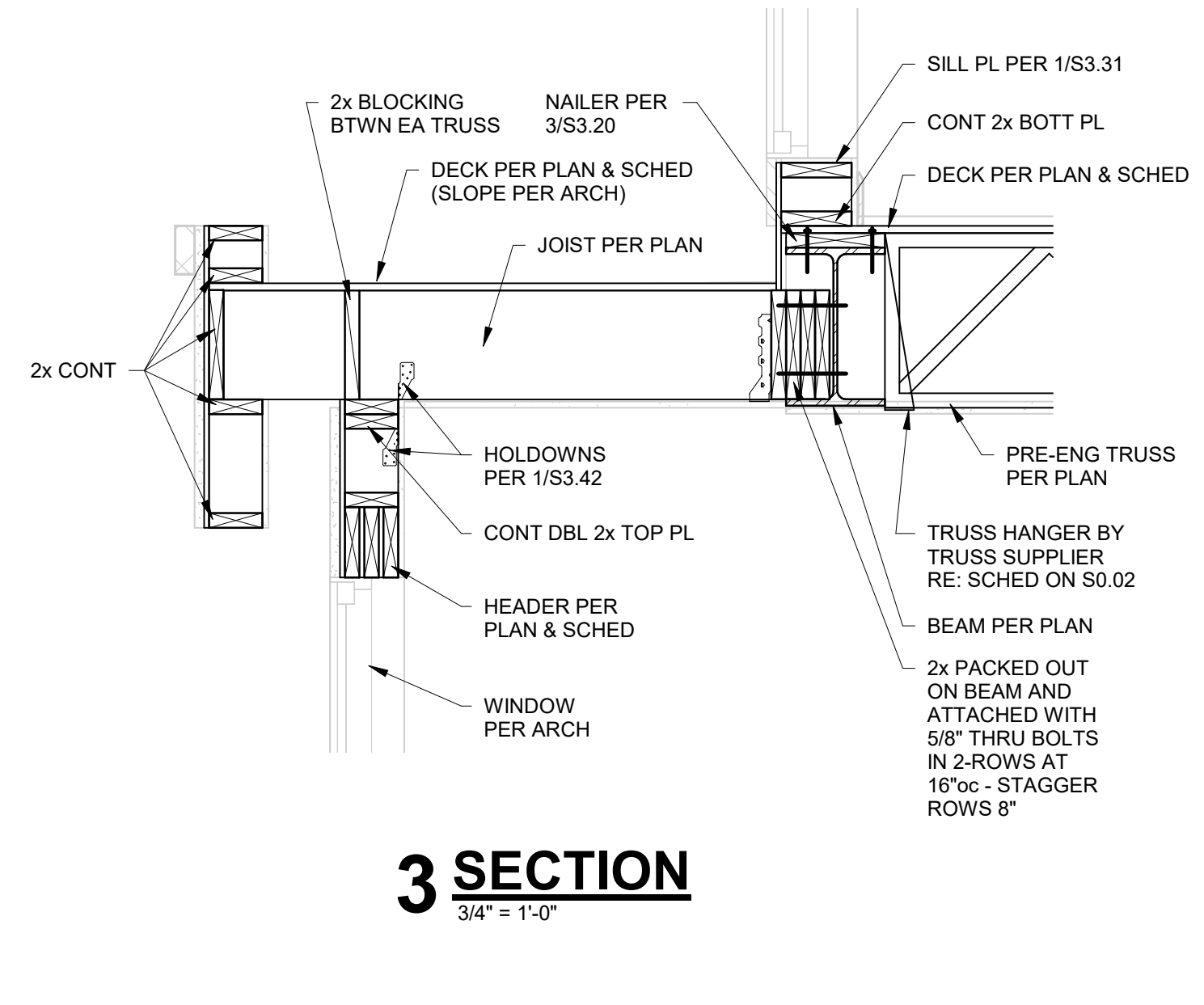
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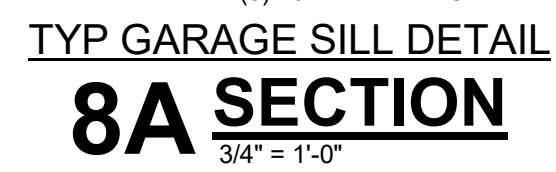
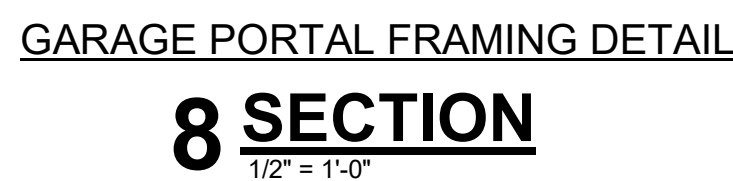
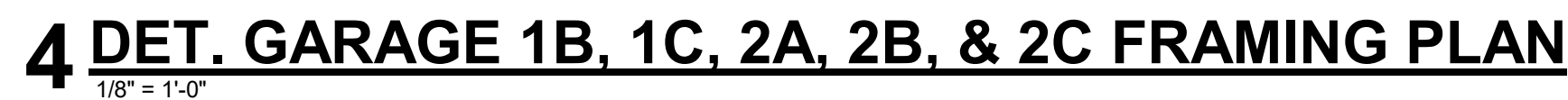
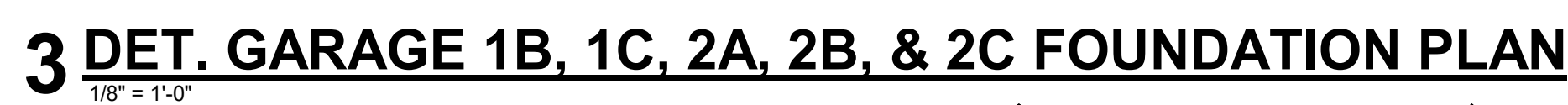
1 SECTION
3/4" = 1'-0"



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



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



PERMIT SET

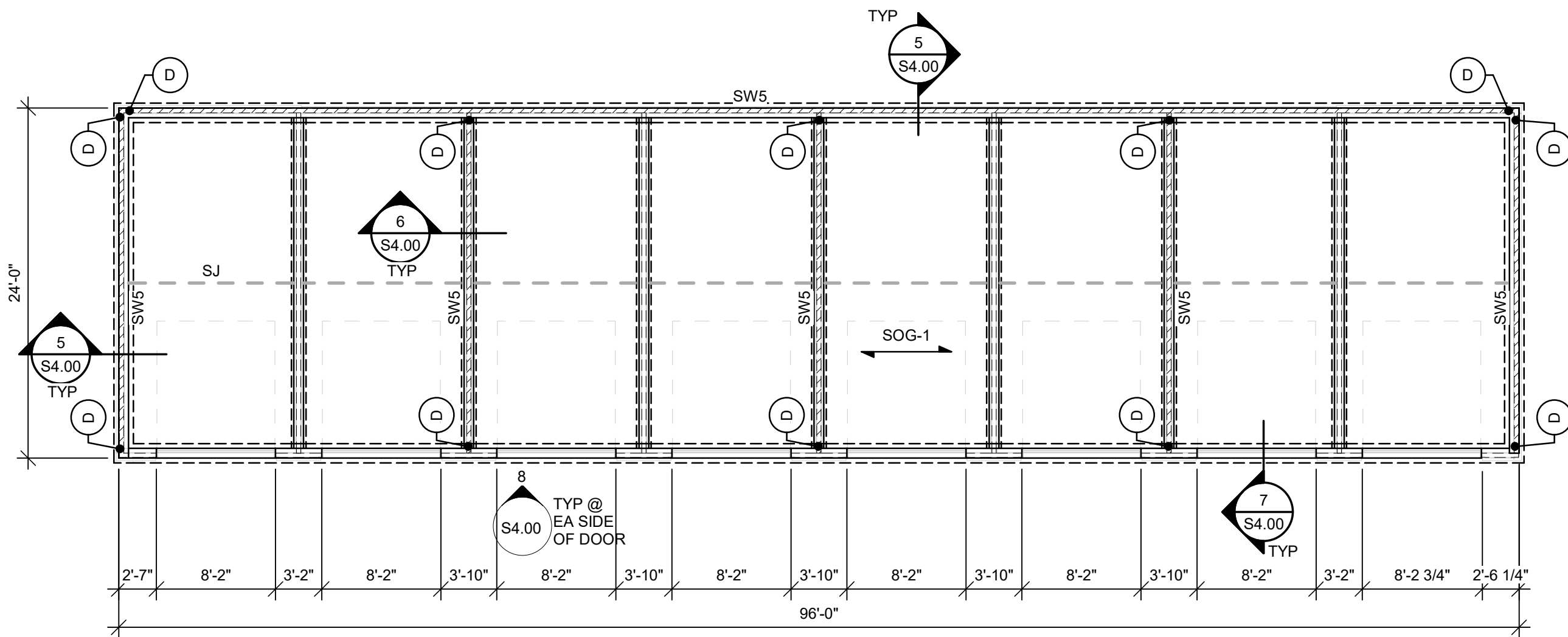
**A NEW DEVELOPMENT:
RESIDENCES AT BLACKWELL**
50 Highway & Blackwell, Lee's Summit, MO

DRAWING RELEASE LOG

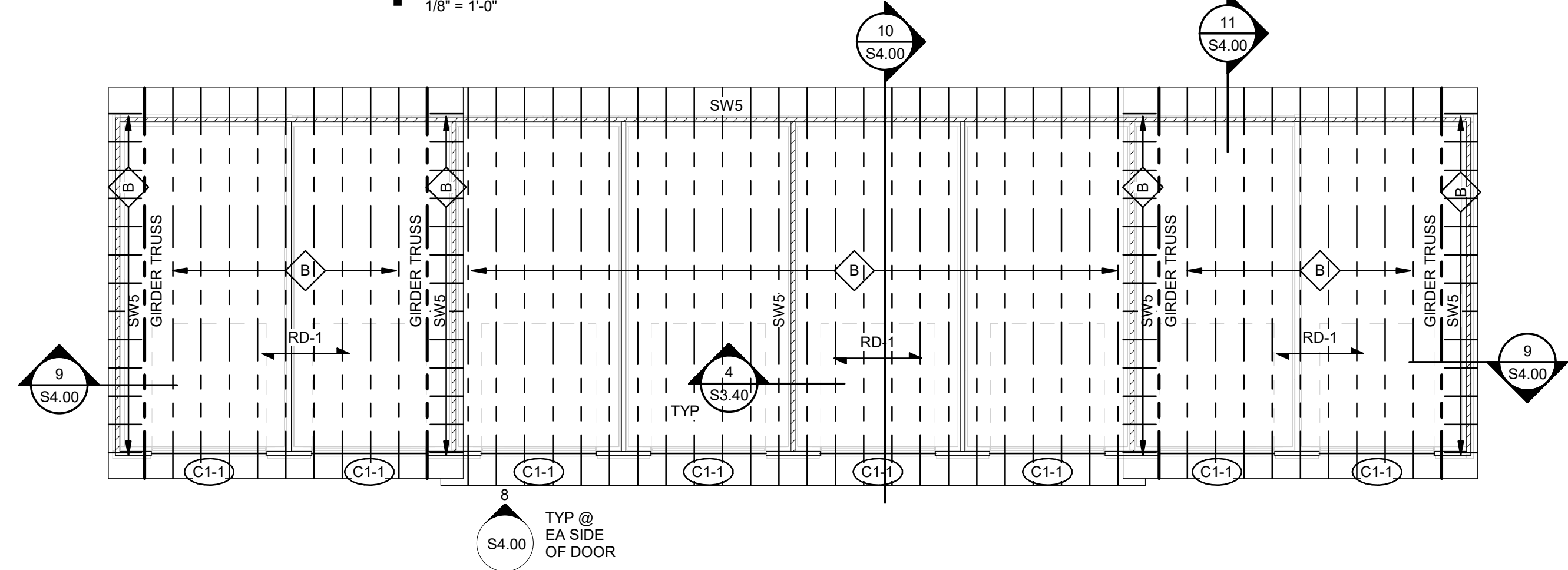
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3/24/2023
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SHEET NO.

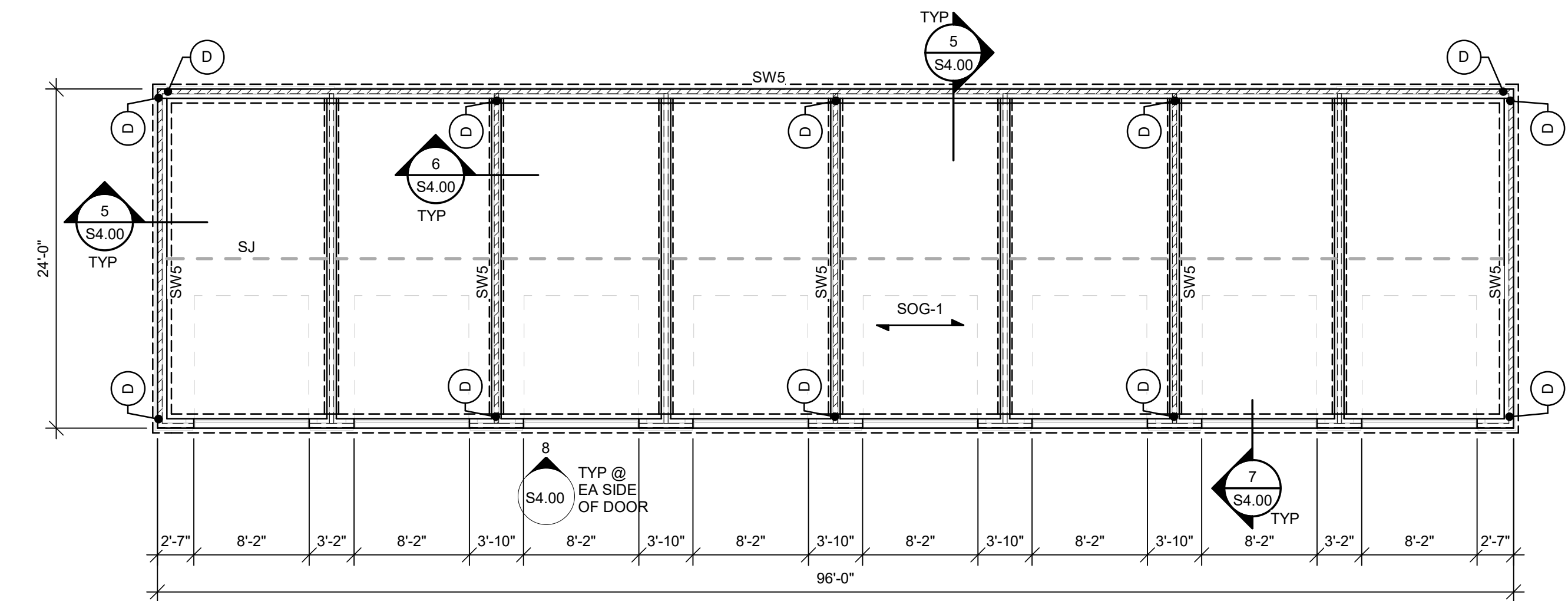
\$4.00



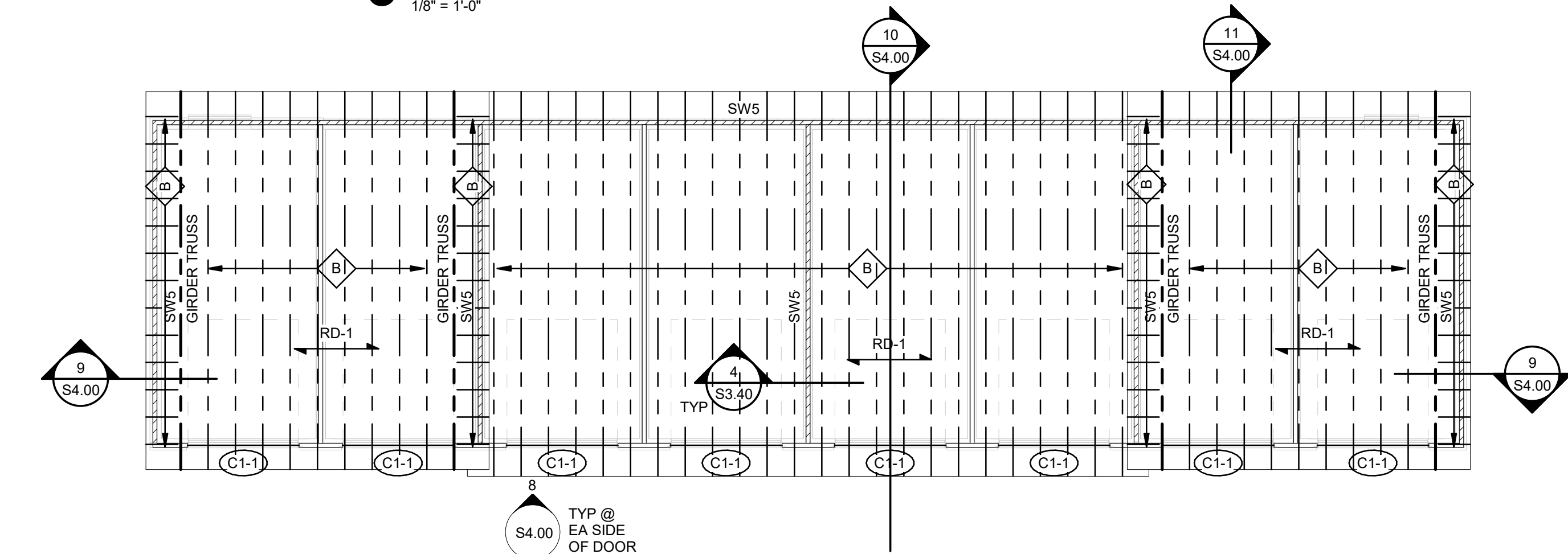
1 DET. GARAGE 3A & 3B FOUNDATION PLAN
1/8" = 1'-0"



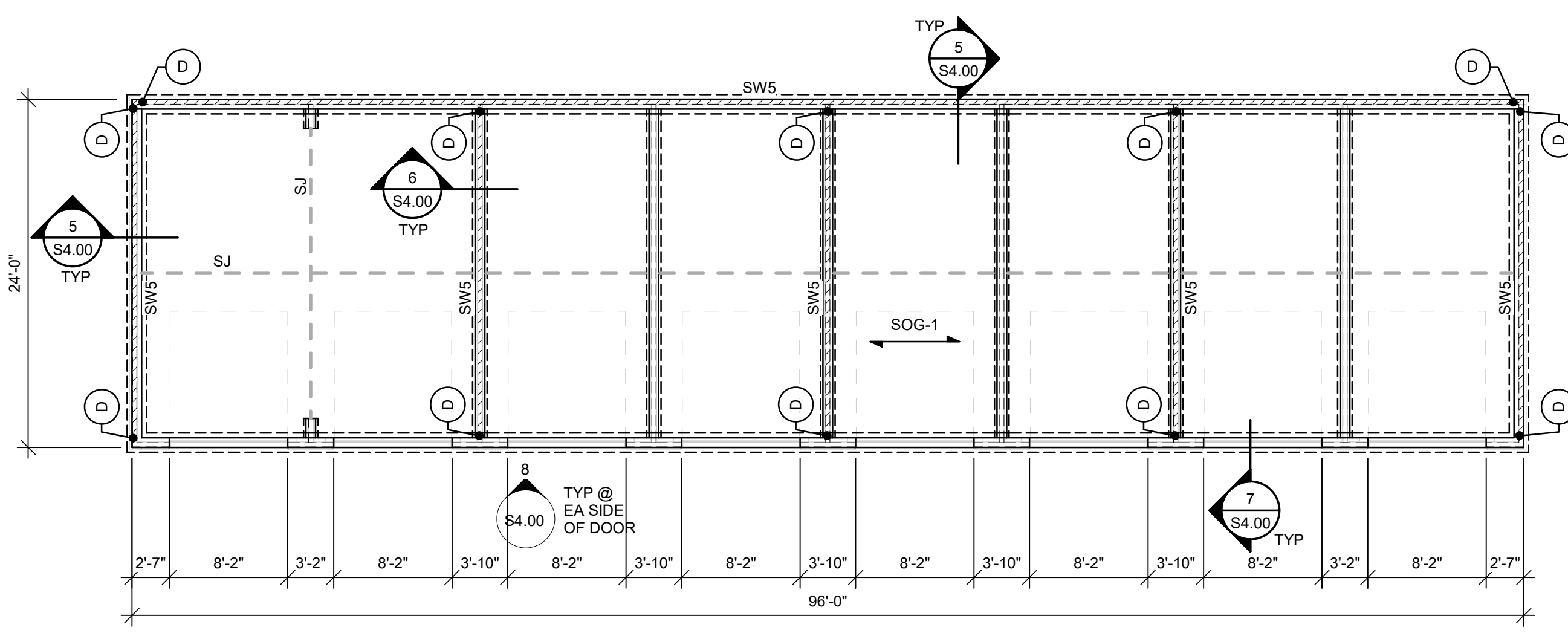
2 DET. GARAGE 3A & 3B FRAMING PLAN
1/8" = 1'-0"



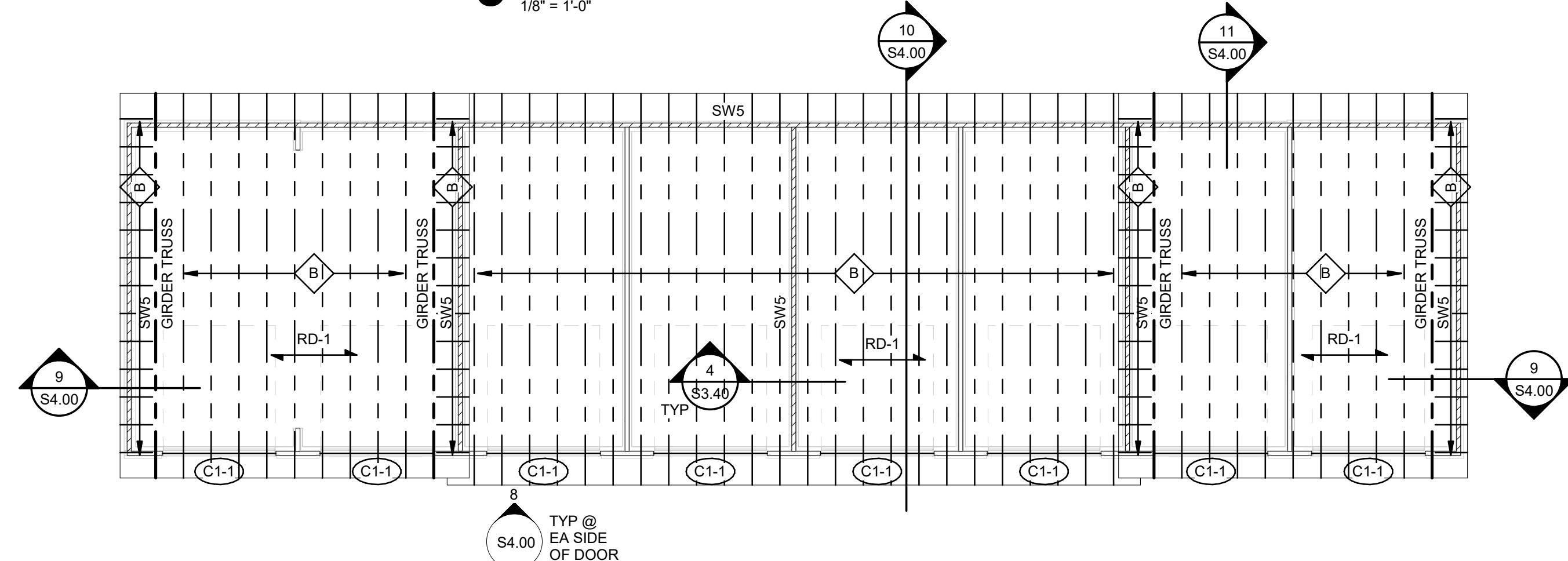
3 DET. GARAGE 3C, 4A, & 4B FOUNDATION PLAN
1/8" = 1'-0"



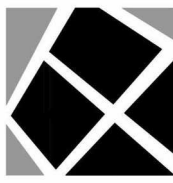
4 DET. GARAGE 3C, 4A, & 4B FRAMING PLAN
1/8" = 1'-0"

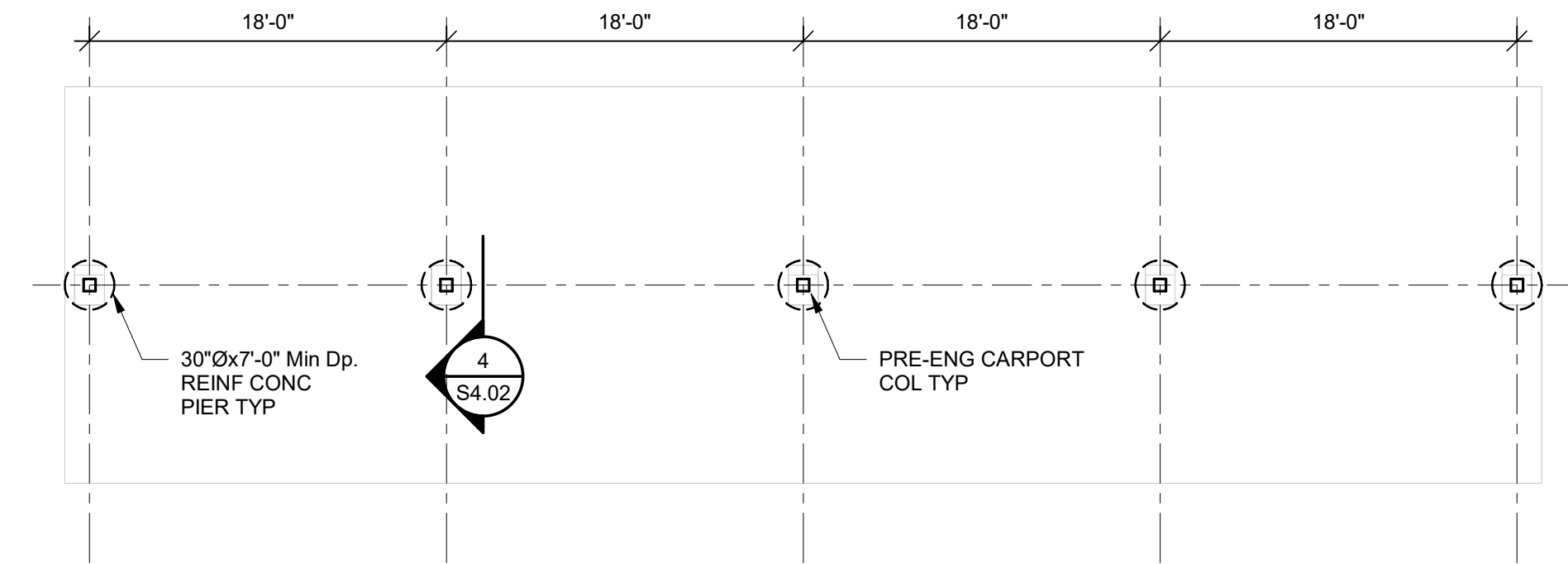


5 DET. GARAGE 4C FOUNDATION PLAN
1/8" = 1'-0"

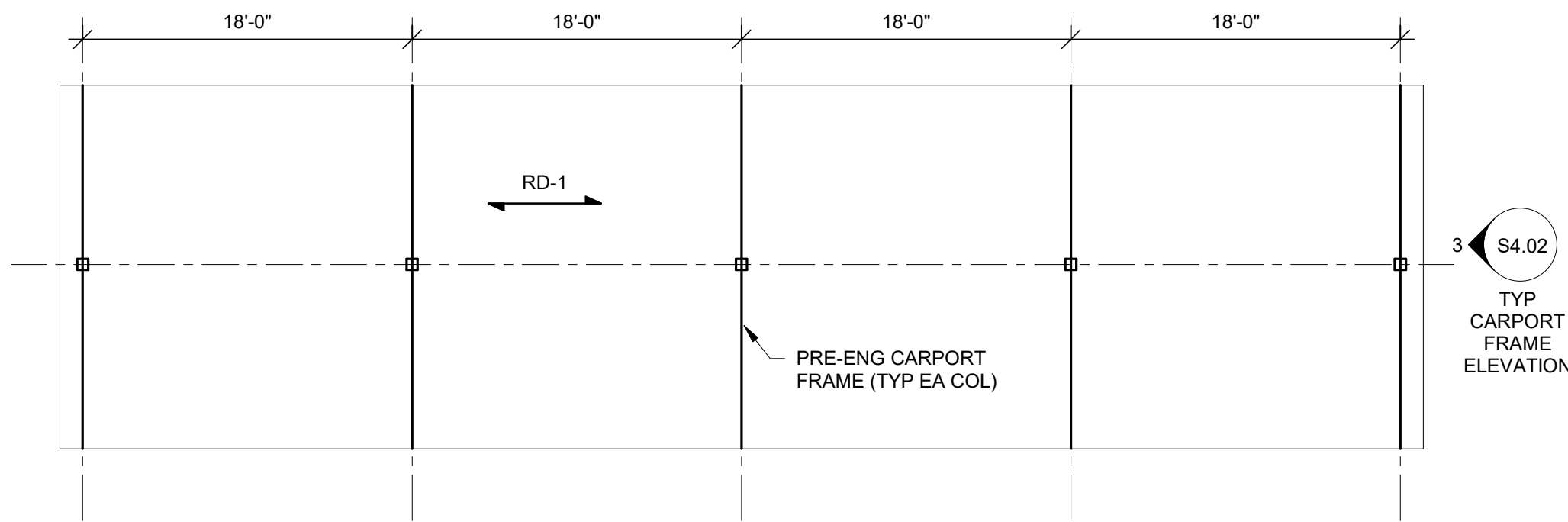


6 DET. GARAGE 4C FRAMING PLAN
1/8" = 1'-0"

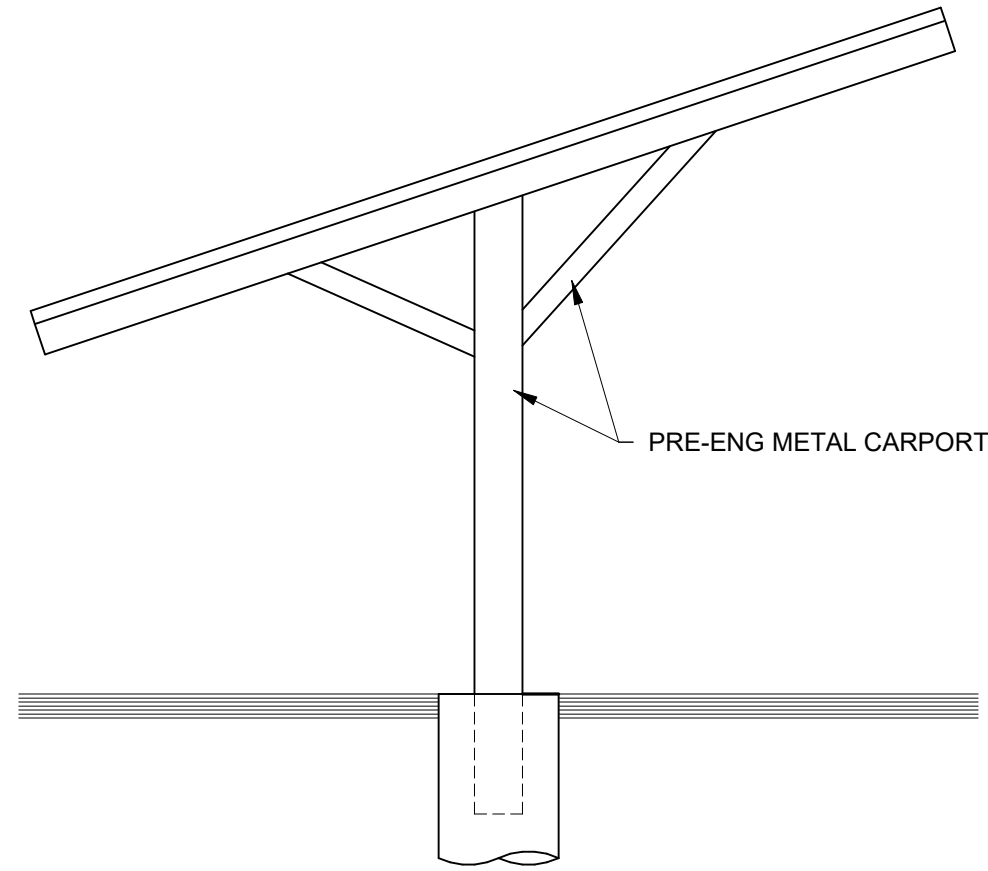




1 CARPORT FOUNDATION PLAN
1/8" = 1'-0"

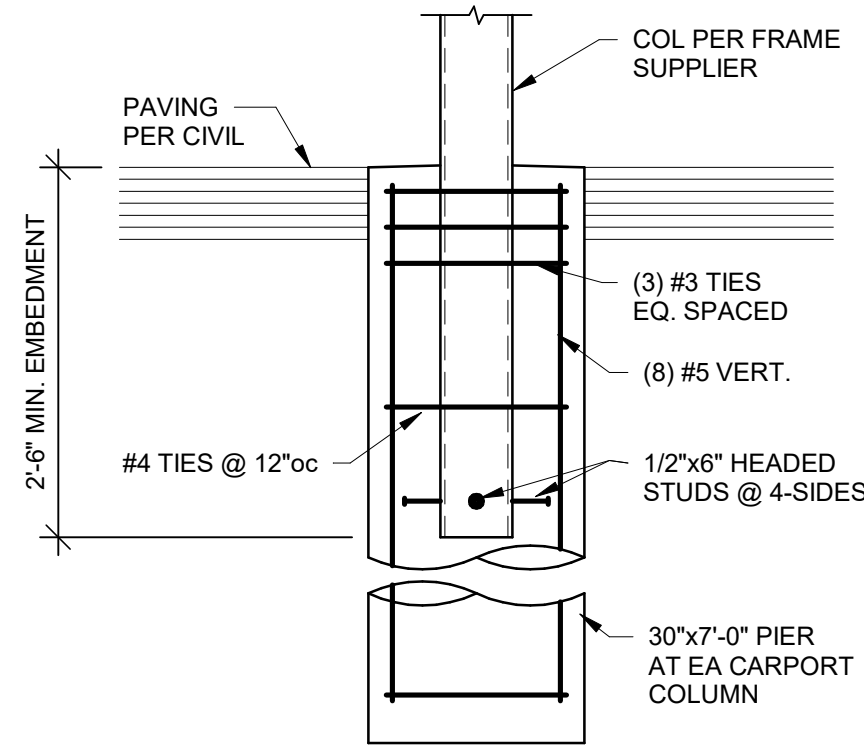


2 CARPORT FRAMING PLAN
1/8" = 1'-0"



TYPICAL CARPORT FRAME
NOTE: FRAME PROFILE APPROXIMATE, RE: PRE-ENG. STRUCTURE MANUFACTURER PER EXACT PROFILE, COORD. W/ ARCH

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



TYPICAL CARPORT COLUMN PIER

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



LEGEND:

- 1 FULL HEIGHT VERTICAL BARS AS JAMB REINFORCING IN FIRST 2 CELLS ADJACENT TO OPENING. REINFORCE EACH CELL WITH SIZE & QUANTITY OF BAR TO MATCH WALL REINFORCING (1 BAR TYPICAL IN 6" WALLS AND 2 BARS TYPICAL IN 12" WALLS).
- 2 LINTEL REINFORCING PER SECTION C. EXTEND 2'-0" PAST EDGE OF OPENING ON EACH SIDE (TYPICAL).
- 3 2#5 CONTINUOUS HORIZONTAL BARS AS SILL REINFORCING IN 8" COURSE BELOW OPENING (U.N.O.). EXTEND 2'-0" PAST EDGE OF OPENING ON EACH SIDE (TYPICAL).
- 4 FULL HEIGHT VERTICAL BARS PER MASONRY VERTICAL REINFORCING SCHEDULE LOCATED IN END CELL AT EACH SIDE OF VERTICAL WALL CONTROL JOINTS.

GENERAL CRITERIA: (SECTION A CONTINUED)

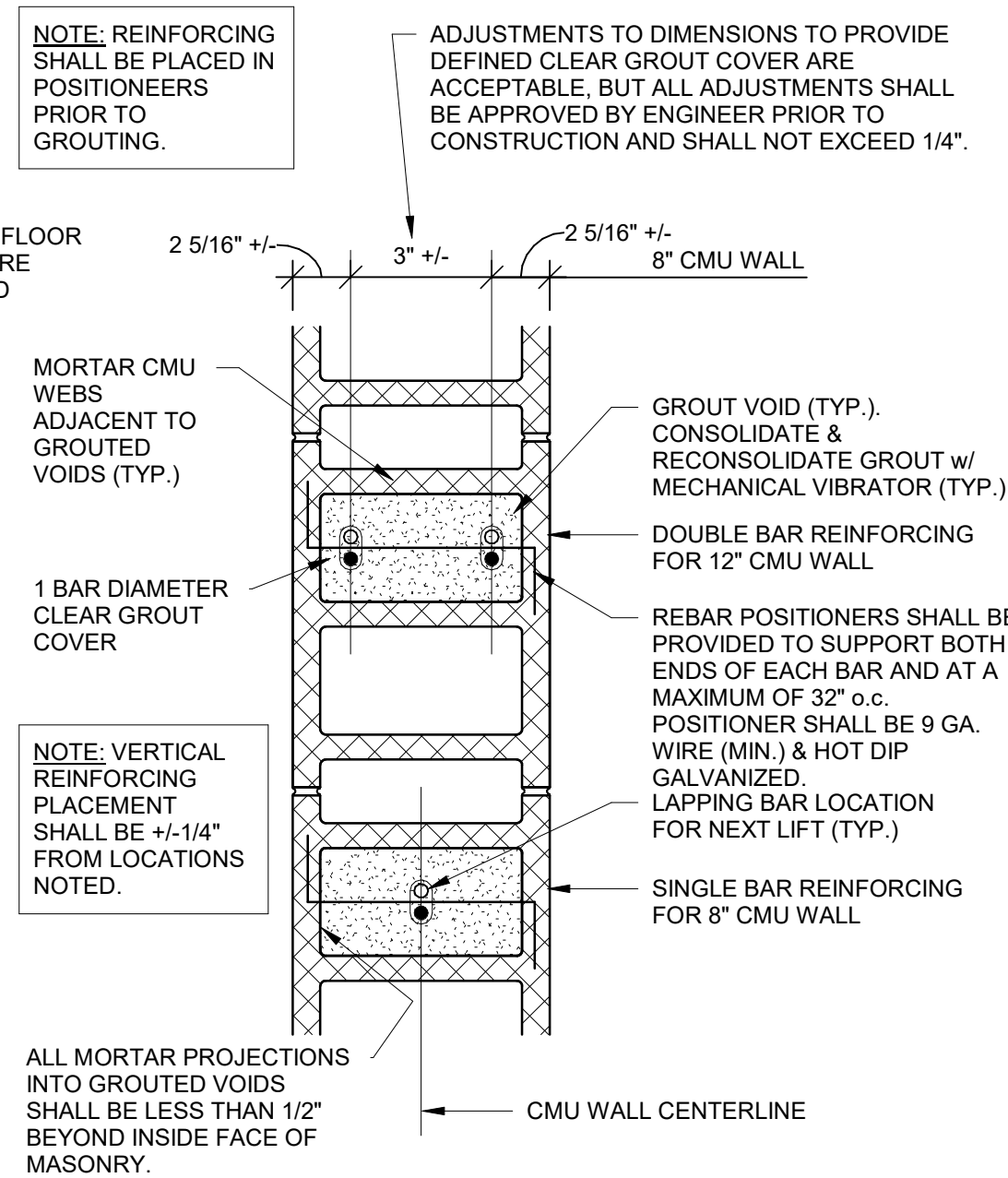
1. VERTICAL REINFORCING BARS SHALL BE DOWELED TO FOUNDATION WITH A DOWEL OF MATCHING SIZE AND SPACING.
2. CONTRACTOR SHALL COORDINATE AND VERIFY OPENINGS IN MASONRY WALLS. OPENINGS SHALL BE DETAILED ON REINFORCING STEEL SHOP DRAWING ELEVATIONS.
3. VERTICAL CONTROL JOINTS IN MASONRY WALLS SHALL BE 3/8" WIDE, FULL HEIGHT OF WALL. JOINTS SHALL BE SPACED AT A MAXIMUM OF 2'-0" ON CENTER AND NOT LESS THAN 2'-0" FROM THE EDGE OF ANY WALL OR CORNER. ALL VERTICAL CONTROL JOINTS SHALL BE CONTINUOUS THROUGH CONTROL JOINTS. ALL BOND BEND HORIZONTAL REINFORCING SHALL BE CONTINUOUS THROUGH CONTROL JOINTS. CONTRACTOR SHALL COORDINATE AND VERIFY ALL CONTROL JOINT LOCATIONS.

<div> <div>MASONRY VERTICAL REINFORCING SCHEDULE</div> <div>FOR LOAD BEARING MASONRY (CMU) WALLS</div> </div>			
WALL THICKNESS	LOCATION	VERTICAL REINF. (IN GROUTED CELLS)	SPACING
8"	TRASH ENCLOSURE	1- #5	24"oc

NOTES:

- IN ADDITION TO SPACING SHOWN IN SCHEDULE, VERTICAL REINFORCING SHALL BE PROVIDED IN GROUTED CELLS AT THE FOLLOWING LOCATIONS
 - IN THE FIRST 2 CELLS ADJACENT TO EACH OPENING
 - IN THE END CELLS ON EACH SIDE OF VERTICAL CONTROL JOINTS
 - IN THE END CELLS OF EACH LENGTH OF WALL
 - AT EACH CORNER OF WALLS
- ALL MASONRY VOIDS AND BOND BEAMS TO BE GROUTED SHALL BE FREE OF DEBRIS AND MORTAR DROPPINGS PRIOR TO GROUTING. ANY MASONRY w/ DROPPINGS OR DEBRIS OBSERVED IN VOIDS SHALL BE REJECTED.

A CMU WALL ELEVATION

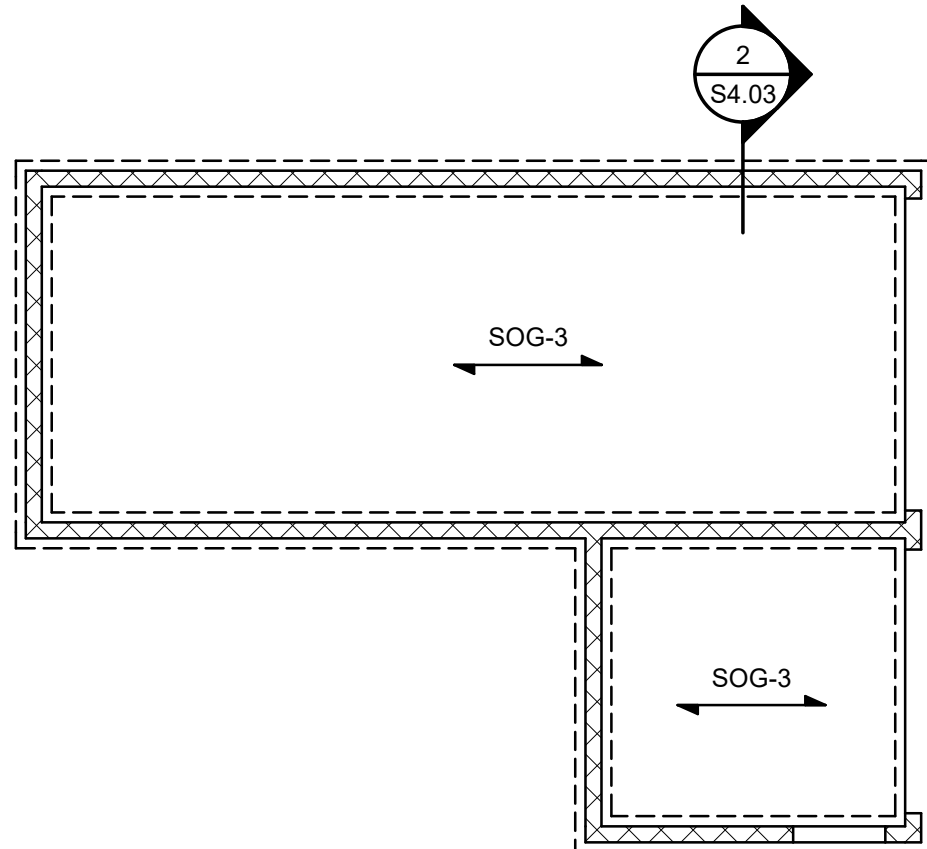
$$1\frac{1}{2}'' = 1'-0''$$


NOTE: ALL MASONRY VOIDS AND BOND BEAMS TO BE GROUTED SHALL BE FREE OF DEBRIS AND MORTAR DROPPINGS PRIOR TO GROUTING. ANY MASONRY w/ DROPPINGS OR DEBRIS OBSERVED IN VOIDS SHALL BE REJECTED.

TYPICAL REBAR POSITIONING DETAIL

B SECTION

1 1/2" = 1'-0"

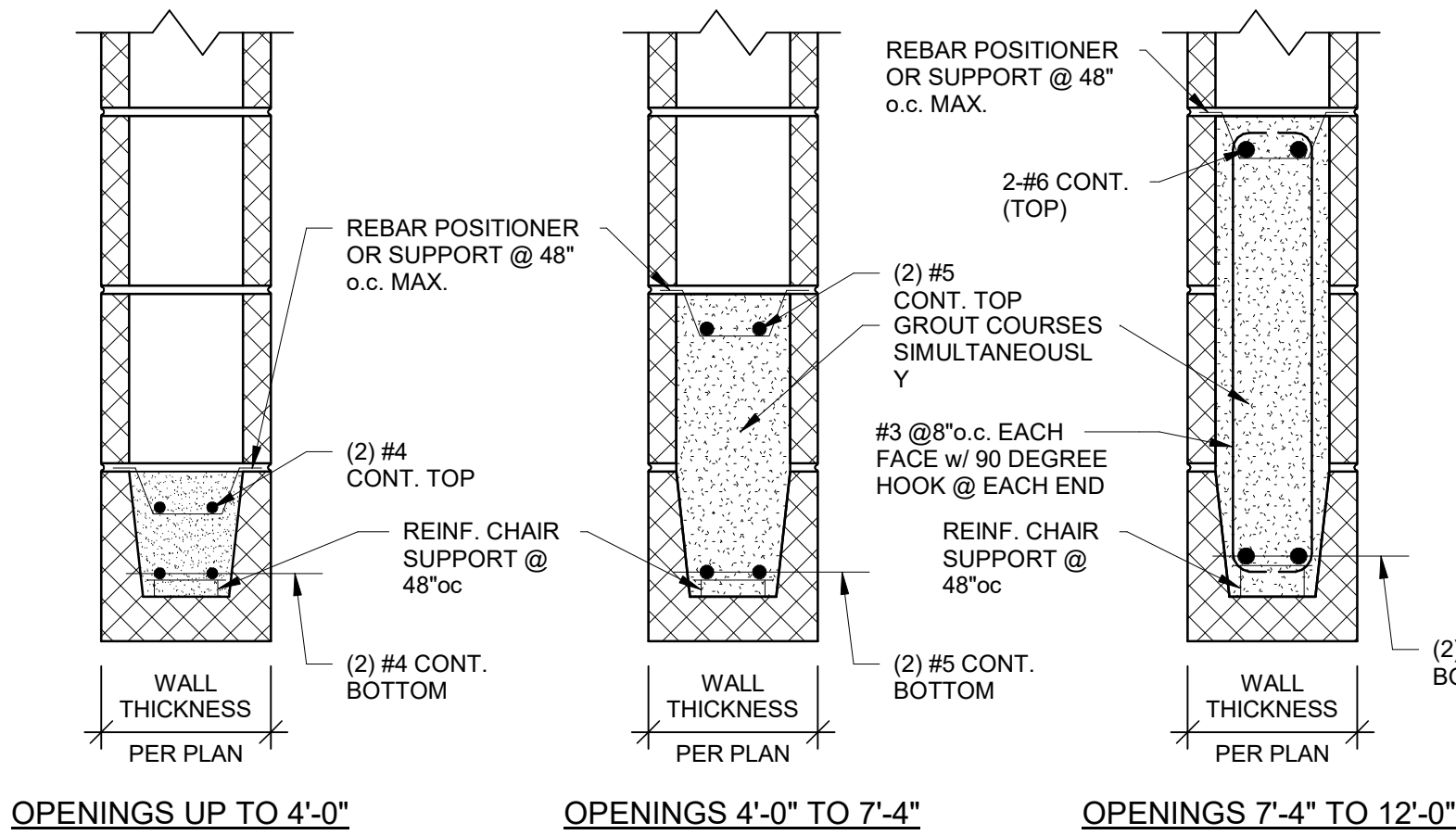


1 TRASH ENCLOSURE FOUNDATION PLAN

$$1/8'' = 1'-0''$$

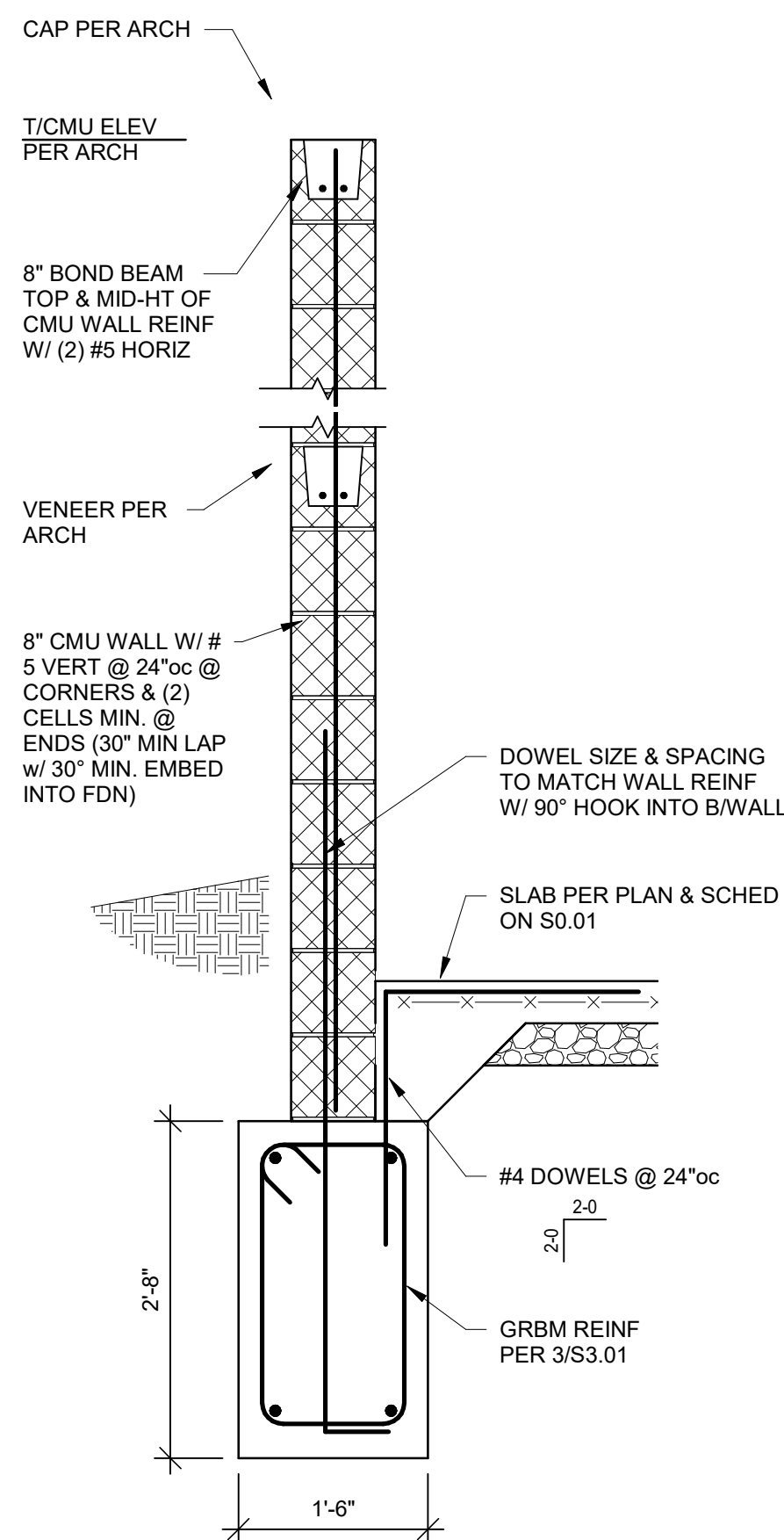
TYPICAL MASONRY REINFORCING NOTE:

ALL INTERIOR & EXTERIOR MASONRY WALLS SHOWN ON ARCHITECTURAL AND STRUCTURAL DRAWINGS ARE TO BE REINFORCED HORIZONTALLY WITH BOND BEAMS (2" #5 BOTTOM) AT BOTTOM COURSE, TOP COURSE, JOIST BEARING ELEVATION AND AT 8'-0" MAXIMUM O.C. AND VERTICALLY AS INDICATED ON DRAWINGS. THESE WALLS ARE TO BE ANCHORED TOP AND BOTTOM TO FOUNDATION WITH 2" #5 REINFORCING BARS. THE VERTICAL REINFORCING IS CONTINUOUS (IN 6'-6" MAXIMUM LENGTHS, LAPPED 2'-6" MINIMUM), FILL BLOCK CELLS AND BOND BEAMS WITH 2,500psi GROUT. RE: DETAILS "A" THROUGH "E" ON THIS SHEET.

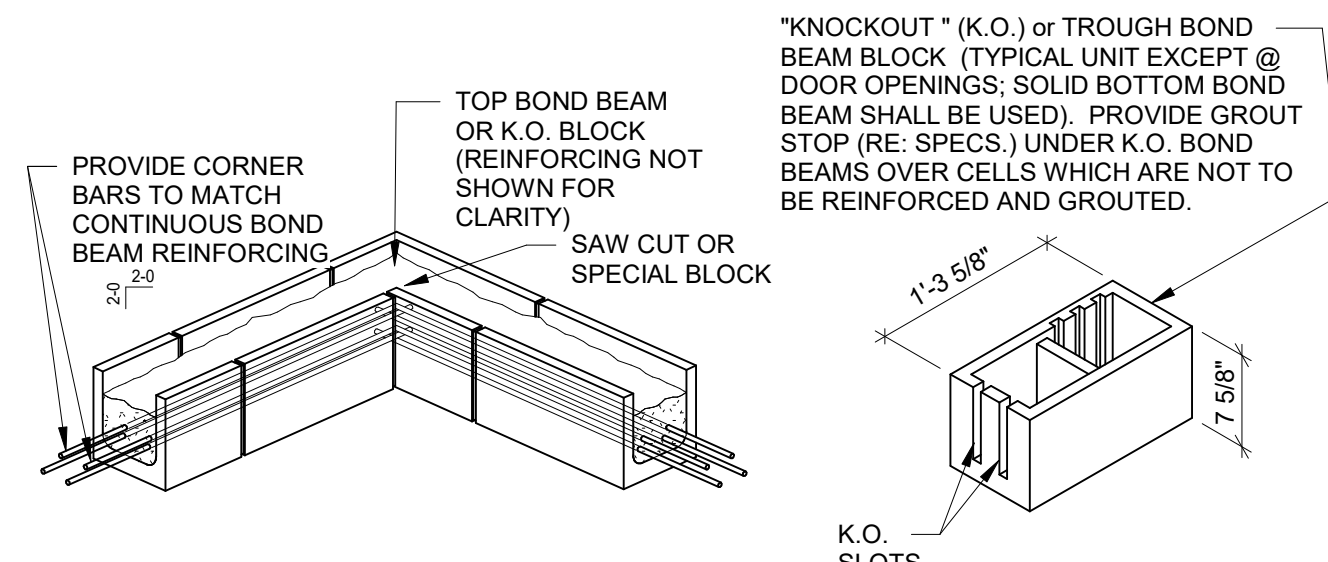


TYPICAL LINTELS AT ALL CMU WALLS (U.N.O.)

C SECTION

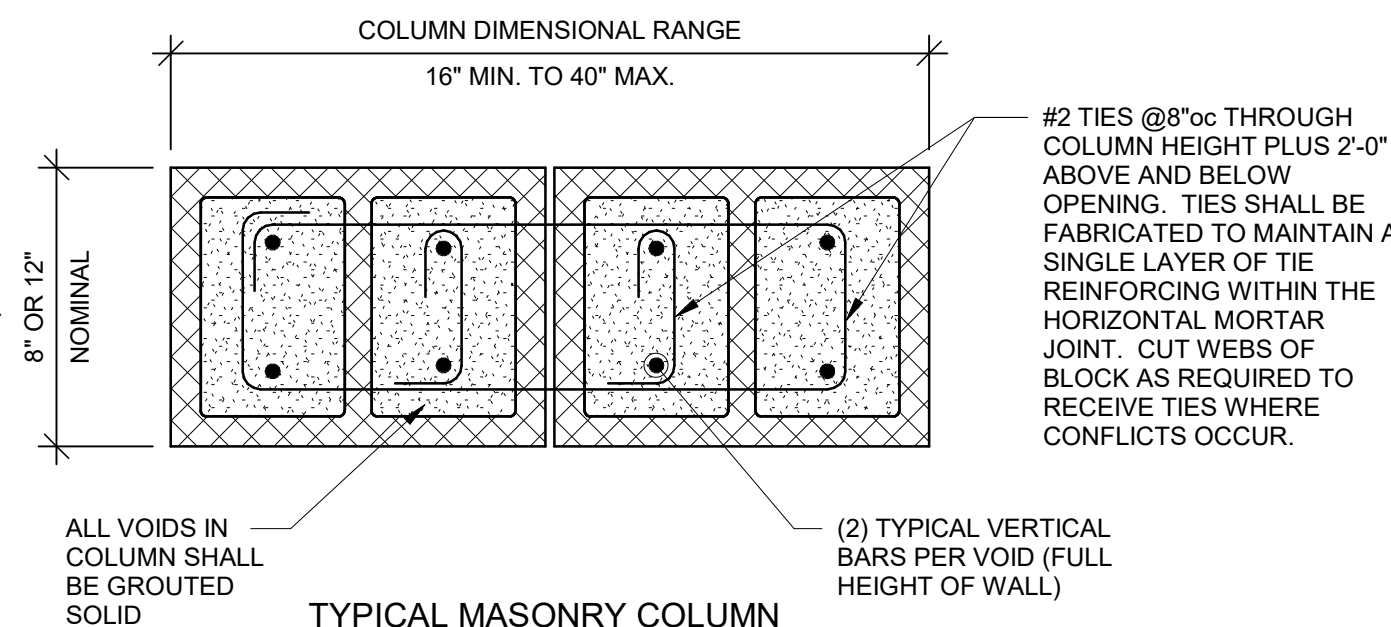
$$1\frac{1}{2}'' = 1'-0''$$


2 SECTION

$$\overline{3/4'' = 1'-0''}$$


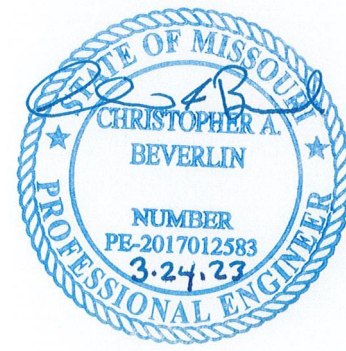
TYPICAL BOND BEAM DETAIL AT CORNER OF CMU WALL

D DETAIL

$$\frac{3}{4}'' = 1'-0''$$


TYPICAL MASONRY COLUMN

E SECTION

$$1\frac{1}{2}'' = 1'-0''$$


A NEW DEVELOPMENT:

RESIDENCES AT BLACKWELL

50 Highway & Blackwell, Lee's Summit, MO



DRAWING RELEASE LOC

△ REVISIONS:

DATE:
3/24/2023
JOB NO.
696521
DRAWN BY:
CAB/JLF
SHEET NO.

PERMIT SET

S4.03