direction before proceeding. All design and construction work for this project shall conform to the requirements of the 2021 International Building Code, as amended by the City of Denton, Texas.

These drawings are for this specific project and no other use is

Structural Design Load Criteria:

A. Dead Load: B. Live Load: = 25 psf = 40 psf Maintenance Platform = 40 psf

C. Snow: Pf = 14 psf, Ps = 14 psf, Pm = 20 sf

ls = 1.0, Cs = 1.0, Ct = 1.0 Drift & unbalanced snow loads per ASCE/SEI 7-10 D. Lateral Loads:

I.) Wind V = 115 mph, exposure B. GCpi = +/-1.08Design wind pressures to be used for the deisan of exterior components and cladding materials on the designated zones of walls and roof structures shall be per Section 30.7 and Table 30.7-2 of ASCE/SEI 7-10. Tabulated pressures shall be multiplied by effective are reduction factors, exposure adjustment factors, and

topographic factors where applicable. 2.) Seismic = Ss = 0.105, SI = 0.034, IE = 1.0 Site Classification D (Assumed). Seismic Design Category B.

Basic Seismic Force-Resisting System A.17- Light-Framed Walls with Shear Panels of All Other Materials R=2, Omega = 2 1/2, Cd=2, V=1.009W

This project is designed to resist the most critical effects resulting from the load combinations of section 1605.3 of the 2021 International Building Code.

A. All concrete for foundations (walls, grade beams, and footings) shall develop minimum ultimate compressive design strength of 3500 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.

B. All concrete for interior flat work shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 560 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5 gallons of water per 100 pounds of cement and not over 4 inches of

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. The preceding minimum mix requirements may have water-reducing admixtures conforming to ASTM C494 added to

Concrete for exterior flatwork shall have a minimum design

the mix at manufacturer's dosage rates for improved 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.

All interior concrete slabs on grade shall be placed over 15 mil, Class A Vapor Barrier per ASTM E1745 with less than O.O. 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

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.

H. Contractor shall verify that all concrete inserts, reinforcing and embedded items are correctly located and rigidly secured prior to concrete placement. Construction joints in beams, slabs, and grade beams shall occur at midspan (middle third) unless noted otherwise. Provide 2×4 horizontal keus at construction joints for shear transfer. No aluminum items shall be embedded in any concrete.

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

B. Clear minimum coverage of concrete over reinforcing steel shall be as follows

Concrete placed against earth Formed concrete against earth

All coverage shall be nominal bar diameter minimum. C. All dowels shall be the same size and spacing as adjoining main bars (splice lap 48 bar diameters or 30" minimum

unless noted otherwise). D. At corners of all walls, beams, and grade beams supply corner bars (minimum 2'-6" 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 marked continuous shall be lapped 48 bar diameters (3'-0" minimum) at splices and embedments, unless shown otherwise.

Splice top bars near midspan and splice bottom bars over supports, unless noted otherwise. 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. G. All slabs and stairs not shown otherwise shall be 6" thick with #4 bars at 12" on center each way.

8. 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

B. All welding shall conform to the recommendations of the AWS. C. All bolts not otherwise specified shall be 3/4" diameter high strength (ASTM A325-N). All bolts shall be fullu pretensioned. All beam connections shall be designed per the AISC Manual of Steel Construction "Framed Beam Connections" for 40 kip reactions, 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. D. All anchor bolts shall be 3/4" diameter, ASTM F1554, Grade 36 unless noted otherwise.

Foundations:

A. The soil investigation was prepared by Alpha Testing, LLC, the report number is W222913 and their telephone number is 817-496-5600.

B. Spread footings and continuous wall footings are designed to bear on soil capable of safely sustaining 1500 psf. C. Contractor shall provide for dewatering at excavations from

either surface water or seepage. D. All foundation excavations shall be inspected by a qualified soil engineer, approved by the architect and/or structural engineer, prior to placement of steel or concrete. This inspection shall be at the owner's expense.

E. Moisture content in soils beneath building locations 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 or other conditions, recompact materials to the density and water content specified for engineered fill. Do not place concrete on frozen ground.

10. Concrete Block Masonry

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 f'm equals 1500 psi. Mortar shall be volume proportion based cement lime mortar. Proportioning shall be completed by box measure. Any block in contact with earth shall be normal weight units, laid using type "5" mortar and grouted

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. Concrete block shall be reinforced as follows in 8" walls unless

noted otherwise: 1.) <u>Vertical reinforcing</u> shall be a minimum of 1 - #4 bar in 8" walls at 4'-0" 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.

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). E. Grout, where noted above, shall have a minimum design ultimate compressive strength of 2500 psi at 28 day test and 3/8" maximum agaregate size.

F. Lintels over all openings in walls not otherwise covered shall be an $8" \times 8"$ bond beam with 2 - #6 bars in the bottom of the

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

B. Mechanical anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ACI 355.2 and ICC-ES ACI93. 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.

Timber and Wood Framing:

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 2021

International Building Code. B. All studs and top and bottom plates shall be Douglas Fir No. 2 grade visually graded lumber, with an allowable fiber stress in bending of 900 psi minimum and an elastic modulus of 1,600,000 psi unless noted otherwise. All joist, truss members and headers to be No. 2 grade (min.) (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 2021 International Building Code. Floor sheathing shall be APA rated tongue and groove Sturd-I-Floor, exposure I, qued and nailed with 10d nails or # 10 screws at 6" on center to supports at edges and 12" on center field. Sheathing of shear walls or roof diaphragms shall be edge nailed with 8d common nails at 6" on center and nailed to intermediate framing and/or blocking members with 8d common nails at 12" on center

unless otherwise 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 600lbs). Roof girder ties shall be equal to a "LGT2", "LGT3" or "LGT4" tie (dependent on number of plies) and tie the truss girder to the top plate. Provide "H4" at the top of each stud to top track 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 2,900 psi (reduced by size factor) and an elastic modulus (E) of 2,000,000 psi. ((E) = 2,200,000 psi for members

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-I latest edition). Trusses shall be designed and manufactured by an authorized member of the Wood Truss Council of America (MTCA). Truss design shall conform to specified codes, allowable stress increases, deflection limitations and other applicable

criteria of the governing code. M. Truss 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

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 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 (WTCA) and shall be 20 gauge minimum. Connector plates shall meet or exceed ASTM A653, grade 33, with ASTM

A924 galvanized coating designation G60. P. Provide truss space directly above and centered over HVAC closets. Refer to Architectural and MEP drawings for exact

Q. 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.

R. Pre-Engineered Floor Trusses Design Criteria: Top Chord Dead Load = 30 psf Top Chord Live Load = Per General Note 5B Bottom Chord Dead Load = 10 psf = L/480; (/2" max) Live Load Deflection

Total Load Deflection = L/360 S. Roof Truss Design criteria: Top Chord Dead Load

Total Load Deflection

= 25 psf (Plus Rooftop Top Chord Live Load = 20 psf or 14 psf plus Drift Top Chord Snow Load Bottom Chord Dead Load = 10 psf Bottom Chord Live Load = L/360 Live Load Deflection

= L/300

Roof trusses shall be designed per IBC 2021 for net uplift resulting from wind loading as calculated using components and cladding loading. 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, a metal tension tie with minimum 0.058 inches thick and V_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 connector. Alternate fasteners may be submitted as a substitution request. Submittal must show that alternative fasteners will not reduce the capacity of the connection.

13. 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. 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.) Concrete mix designs and material certificates including admixtures and compounds applied to the concrete after 2.) Reinforcing steel shop drawings including erection drawings

wall elevations (include all mech. openings) and bending details Bar list will not be reviewed for correct quantities. 3.) Structural steel shop drawings including erection drawings and piece details. Include connection submittals and miscellaneous framing. 4.) Miscellaneous anchors shown on the structural drawings. 5.) Wood truss design calculations and detailed erection and fabrication drawings. Standard stick framing shop drawings

need not be submitted. 6.) Construction and control joint plans and/or elevations. 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.

14. Structural Special Inspection:

A. The structural design for this project is based on completion of special inspections during construction in accordance with chapter 17 of the 2021 International Building Code. The owner shall employ one or more qualified special inspectors to provide the required special inspections.

B. Special Inspections shall be required for the items indicated 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.

I.) Placement of Concrete

2.) Testing of Concrete

3.) Bolts in Concrete 4.) Placement of Reinforcing Steel

5.) Verification of Soil Bearing Capacities 6.) High Strength Bolting 7.) Drill & Epoxy Bolts

8.) Structural Welding 9.) Shear wall installation

10.) Post-Installed Anchors II.) Wood shear walls and holdowns

12.) Wood gravity framing and placement C. The special inspector shall furnish inspection reports to the building official, owner, architect and structural engineer, and any other designated person.

D. 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

E. 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.

Copyright and Disclaimer:

A. All drawings in the structural set (5-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. I, Michael J. Falbe, 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.



amk

	NAILING SCHEDULE (REFER TO NOTES #1 and #2)				
	CONNECTION	ATTACHMENTS (REF NOT	E #3 and #4)		
I	JOIST TO SILL OR GIRDER	3- 3" x O.131" NAILS-TOENAIL	3-8d NAILS-TOENAIL		
2	BRIDGING TO JOIST	2- 3" x O.131" NAILS-TOENAIL EACH END	2-8d NAILS-TOENAIL EACH END		
3	SOLE PLATE TO JOIST OR	3" × O.131" NAILS AT 8"O.CTYPICAL FACE NAIL	16d BOX NAILS AT 16"o.c. MAX. FACE NAILING		
	BLOCKING & TRUSS TO TOP PL	4-3" x O.131" NAILS AT 16"o.cBRACED WALL PANELS	3-16d BOX NAILS AT 16"o.c. BRACED WALL PANEL		
4	TOP PLATE TO STUD	3- 3" x O.131" NAILS-END NAIL	2-16d NAILS-END NAIL		
5	STUD TO SOLE PLATE	4- 3" × 0.131" NAILS-TOENAIL OR 3- 3" × 0.131" NAILS-END NAIL	4-8d NAILS-TOENAIL OR 2-16d NAILS-END NAIL		
6	DOUBLE STUDS	3" x O.131" NAILS AT 8"o.cFACE NAIL	16d BOX NAILS AT 24"o.c. MAX. FACE NAIL		
7	DOUBLED TOP PLATES	3" × O.131" NAILS AT 12"o.cFACE NAIL	16d BOX NAILS AT 16"o.c. MAX. FACE NAIL		
8	DOUBLE TOP PLATE LAPS AND INTERSECTIONS	12-3" × 0.131" NAILS	8-16d NAILS		
	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3-3" x O.131" NAILS -TOENAIL	3-8d NAILS-TOENAIL		
10	RIM JOIST TO TOP PLATE	3" x O.131" NAILS AT 6"o.cTOENAIL	IOd NAILS AT 6"o.c. MAXTOENAIL		
=	TOP PLATE LAPS AND INTERSECTIONS	3- 3" × O.131" NAILS-FACE NAIL	2-16d NAILS-FACE NAIL		
12	CONTINUOUS HEADER, TWO PIECES	3" × O.131" NAILS AT 10"o.c. ALONG EACH EDGE	16d NAILS AT 16"O.C. MAX. ALONG EACH EDGE-TOENAIL		
13	CEILING JOISTS TO PLATE	5- 3" x 0.131" NAILS-TOENAIL	3-8d NAILS-TOENAIL		
14	CONTINUOUS HEADER TO STUD	4- 3" x O.131" NAILS-TOENAIL	4-8d NAILS-TOENAIL		
15	CEILING JOISTS, LAPS OVER PARTITIONS	4- 3" × O.131" NAILS-FACE NAIL	3-16d NAILS-FACE NAIL		
16	CEILING JOISTS TO PARALLEL RAFTERS	4- 3" x O.131" NAILS-FACE NAIL	3-16d NAILS-FACE NAIL		
17	RAFTER TO PLATE	3- 3" x 0.131" NAILS-TOENAIL	3-8d NAILS-TOENAIL		
18	I" BRACE TO EACH STUD AND PLATE	2- 3" x O.131" NAILS-FACE NAIL	2-8d NAILS-FACE NAIL		
19	BUILT-UP CORNER AND MULTIPLE STUDS	3" × 0.131" NAILS AT 16"0.c.	16d NAILS AT 24"o.c. MAX.		
20	BUILT-UP GIRDER AND BEAMS	3" × O.131" NAILS AT 24"O.C. FACE NAILED TOP AND BOTTOM STAGGERED ON OPPISOTE SIDES	20d NAILS AT 32"O.C. MAX. TOP AND BOTTOM, STAGGERED ON OPPSITE SIDES.		
		3- 3" x 0.131" NAILS AT ENDS AND EACH SPLICE	2-20d NAILS AT ENDS AND EACH SPLICE		
21	BUILT-UP LAMINATED VENEER LUMBER BEAMS	3" × O.131" NAILS AT 6"o.c. TOP AND BOTTOM ALONG EDGE	16d NAILS AT 12"O.C. TOP AND BOTTOM ALONG EDGE		
22	2" PLANKING	4- 3" x O.131" NAILS AT EACH SUPPORT	16d NAILS AT EACH SUPPORT		
23	RIM BOARD TO TRUSS	2 - 3" × O.131" FACE NAILS (IT/IB @ EA TRUSS)	2-IOd NAILS - FACE NAILS (IT/IB @ EA TRUSS)		
24	BUILT-UP STUD PACK COLUMNS	REFER TO DETAIL 6/SI.I	REFER TO DETAIL 6/SI.I		
	NOTES: I.) ALL NAILS SHALL BE AS NOTED UNLESS OTHERWISE SPECIFIED ON STRUCTURAL DRAWINGS OR				

ALTERNATE PROVIDED BY ENGINEER IN WRITING. 2.) CONDITIONS NOT SPECIFIED SHALL BE IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE.

3.) NAILING DESIGNATION: 4- 3" × O.131" NAILS - DIAMETER IN INCHES - NAIL LENGTH

- QUANTITY 4.) ALL NAILS NOTED AS 8d, IOd, I6d, ETC. SHALL BE COMMON NAILS UNLESS NOTED BOX.

5.) REFER TO SHEARWALL SCHEDULE FOR ADDT'L NAILING REQUIREMENTS

9
REVISION:

DATE:

(#) - FOOTING TYPE PER SCHED ON SI.I

* - SHEARWALL HOLDDOWN TYPE PER SCHED ON SI.2

SW - SHEARWALL PER SCHED ON SI.2

A - BEAM OR HEADER PER SCHED ON SI.I

(A-U) - UPSET BEAM OR HEADER PER SCHED ON SI.I

CJ - CONSTRUCTION JOINT PER 2/53.1

SJ - SAW JOINT PER 1/S3.1

- - SPAN DIRECTION

TYPICAL SYMBOL LEGEND:

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DENTON,

05-17-2023 21-3205 SHEET NO.:

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JOB:		21-	-3205
SHEET NO.	:		
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	HEADER SCHEDULE					
MARK	HEADER	JAMB STUDS	NOTES			
A	(2) 2xIO w/1/2" PLYWOOD SPACER PL	2 JACK / I KING (2 KING BELOW 2nd FLR)				
В	(2) 1¾" × 9¼" L∨Ls	4 JACK / I KING (U.N.O. ON PLAN)				
(v)	(3) 2x10 m/ (2) 1/2" PLYWOOD SPACER PLS	I JACK / 2 KING				
Ф	(3) 2x10 w/ (2) 1/2" PLYWOOD SPACER PLS	I JACK / 3 KING				
E	(3) 1 ³ / ₄ " x 9 ¹ / ₄ " LVLs	2 JACK, 2 KING				
F	(2) l ³ ⁄ ₄ " × l8" L√Ls	4 JACK / I KING				
6	(3) 1 ³ / ₄ " x 9 ¹ / ₄ " LVLs	4 JACK				
Ŧ	(3) 2x10 w/ (2) 1/2" PLYWOOD SPACER PLS	I JACK / I KING				
	(2) 2xIO w/ 1/2" PLYMOOD SPACER PL	I JACK / I KING				
	(3) 2×8 UPSET	2 JACK, 2 KING				
K	(2) 2×IO UPSET	I JACK, I KING				
	(3) 2x8 m/ (2) 1/2" PLYMOOD SPACER PLS	I JACK / I KING				
M	(3) 2x12 w/ (2) 1/2" PLYWOOD SPACER PLS	I JACK / I KING				
N	(2) 2×10	2 JACK				
0	(3) 2×IO	3 JACK				
P	(3) 1³¼" × 11¼" L∨Ls	3 JACK / 3 KING				
Q	(3) 1 ³ / ₄ " x 9 ¹ / ₄ " LVLs	2 JACK / 3 KING				
R	(3) 1³¼" × 11¼" L∨Ls	3 JACK / I KING				

- JAMB STUDS SHALL MATCH SIZE & GRADE OF WALL STUDS UNO.
- WHERE BEAM IS NOTED "UPSET", ALL JAMB STUDS NOTED WILL EXTEND TO DOUBLE TOP PLATE. ALL EXTERIOR LUMBER TO BE TREATED.
- 4. PROVIDE SQUASH BLOCKS AT TRUSSES & BLOCKING FRAMING WHERE JAMBS OR STUD PACKS ARE DISCONT. QUANTITY TO MATCH JAMB OR STUD PACK ABOVE.
- 5. PROVIDE 1/2" PLYWOOD SPACER PLS AT HEADERS CONSTRUCTED WITH 2x LUMBER.
- 6. AT CONTRACTOR'S OPTION-PROVIDE GLULAM IN LIEU OF PSLs.
- REFER TO DTL 5/SI,I FOR MULTI-PLY MEMBER CONNECTION REQUIREMENTS.
- 8. ATTACH JAMB AND KING STUDS TOGETHER PER CONNECTION TYPE 24 IN NAILING SCHEDULE ON SHEET SI.O. 9. REFER TO DETAILS 7/SI.I FOR TYPICAL HEADER CONDITIONS.

STUD BEARING WALL & SHEATHING SCHEDULE

31.127 11111110 551.125422		
LOCATION	STUD SIZE AND SPACING	
(TYP.) EXTERIOR WALL INTERIOR WALL (EXCEPT AT NON TRUSS BRG CORRIDORS)	2x6 @ 16"oc STUDS	
	REFER TO SECTIONS ON SHEET S3.2	
INTERIOR WALL (AT NON TRUSS BRG CORRIDORS)	REFER TO SECTIONS ON SHEET S3.2	

- I. PROVIDE 2x BLOCKING @ MID HEIGHT (5'-O" MAX)
- BOTH SIDES AND ALL 2x8 WALLS. ALL STUDS TO BE No. 2 GRADE U.N.O.

@ ALL LOAD BEARING WALLS NOT SHEATHED ON

3. RE: 6/SI.I FOR NAILING OF MULTIPLE STUDS. 4. REFER TO ARCH/MEP DRAWING FOR LOCATIONS OF FURRED OUT WALLS TO ACCOMMODATE PLUMBING OR MEP ITEMS.

STRUCTURAL DECK	\$ SLAB SCHEDULE	

MARK	DESCRIPTION		
4 50G-I	IO" CONG. SLAB ATOP 15 MIL VAPOR BARRIER ATOP 2" SAND ATOP 12" SELECT FILL AS REQ'D BY PROJECT GEOTECHNICAL REPORT ATOP IO'-O" MOISTURE CONDITIONED SOIL AS REQ'D BY PROJECT GEOTECHNICAL REPORT. REINF. CONG. w/ ½"中 TENDONS @ 14"oc EACH WAY, MID-HEIGHT (BUNDLE IN GROUPS OF 2). EL. T/C = 100'-O.		
FD-I	3/4" PLYWOOD SHEATHING ATTACH W/ 8d NAILS @ 6"oc AT EDGES AND 12"oc AT FIELD.		
RD-I	3/4" ZIP STRIP ROOF SHEATHING ATTACH w/ 8d NAILS @ 6"oc AT EDGES AND 12"oc AT FIELD.		

SOG = SLAB-ON-GRADE TYPE 2. FD = FLOOR DECK TYPE 3. RD = ROOF DECK TYPE

MARK	SIZE	REINFORCING
3.5	3'-6"x3'-6"x1'-4" Dp	#4 @ 6"oc EACH WAY, BOTTOM
4	4'-0"x4'-0"x1'-4" Dp	#4 @ 6"oc EACH WAY, BOTTOM
5	5'-0"x5'-0"x1'-4" Dp	#4 @ 6"oc EACH WAY, BOTTOM
9/5	9'-0"x5'-0"x1'-4" Dp	#5 @ 12"0c EACH WAY, TOP & BOTTOM

SPREAD FOOTING SCHEDULE

- I. SPREAD FOOTINGS LOCATED AT INTERIOR SHALL BE POURED MONOLITHIC WITH THE SLAB AS A THICKENED PORTION OF SLAB UNLESS THEY HAVE A STEEL COLUMN BEARING ATOP.
- 2. SPREAD FOOTINGS LOCATED AT INTERIOR WITH STEEL COLUMNS BEARING ATOP SHALL BE LOCATED AT 99'-2".
- 3. SPREAD FOOTINGS LOCATED AT PERIMETER (EXTERIOR) OF BUILDING SHALL BE POURED MONOLITHIC WITH GRADE BEAMS

	COI	LUMN SCH	HEDUL	.E
TYPE	SIZE	BASE PL	SHAPE	ANCHOR BOLTS
(J)	HSS5x5x ¹ / ₄	¾"x5½"xl3"	Α	(2) ¾"Ф × 2'-0"Lg
(2)	HSS3½×3½×¾	³¼"x3½"x1 <i>0½</i> "	Α	(2) ¾"Ф × 2'-0"Lg
(3)	H555x5x ¹ / ₄	¾"×7"×l3"	В	(2) ¾"Ф × 2'-0"Lg

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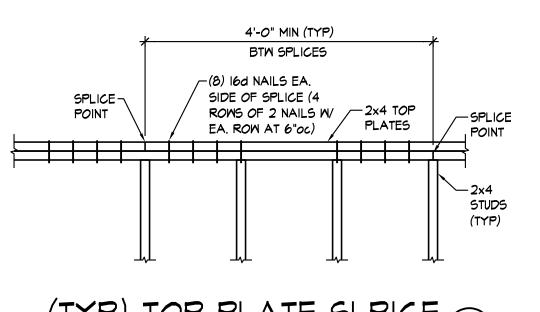
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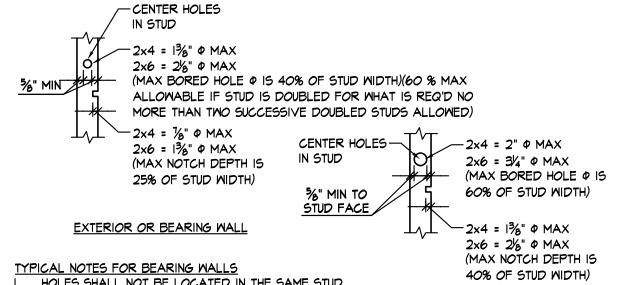
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- . SEE PLAN FOR ORIENTATION OF COLUMNS. 2. ALL COLUMNS SHALL BE CONTINUOUS WITH NO SPLICES. 3. AB LENGTH INCLUDES 4" HK & 4" PROJECTION U.N.O.
- 4 U.N.O. SET COLUMN BASE PLATES ON I" GROUT TYPICAL. 5. EACH AB SHALL HAVE A 3"x3"x¾" PLATE WASHER BOT. (IN LIEU OF HK) @ 4"
- PROJ. ATOP WHERE NOTED IN THE SCHED. (4"x4"x34" PLATE WASHER @ BOLTS I"Φ AND LARGER). ANCHOR BOLTS SHALL HAVE A STUSTUKT DLATE MASHER & TOR & ITA

6.	34" PLATE WASHER @ TOP & 1"P
	34" O ANCHOR BOLTS SHALL HAVE A 2"x2"x4" PLATE MASHER @ TOP & 1"O ANCHOR BOLTS SHALL HAVE A 3"x3"x36" PLATE MASHER. MELD MASHER TO
	COLUMN BASE PLATE WITH 1/8" FILLET WELD @ 4- SIDES.
٦.	ALL ANCHOR BOLTS SHALL BE ASTM F1554, GRADE 36 U.N.O.

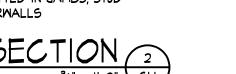
SHAPE (NOT TO SCALE)			
Ea. *	B		



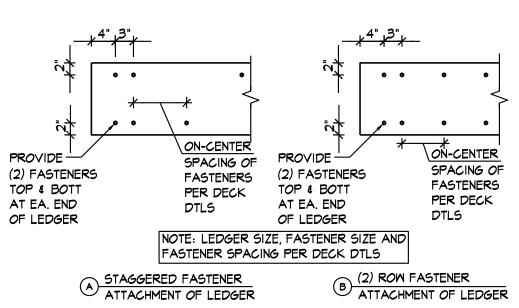


I. HOLES SHALL NOT BE LOCATED IN THE SAME STUD AS A CUT OR NOTCH 2. CONTACT ENGINEER PRIOR TO CUTTING OR NOTCHING

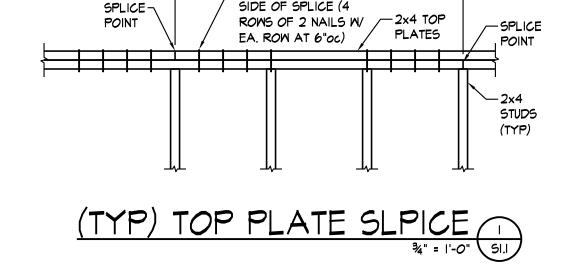
- TO VERIFY SIZE AND LOCATION IF HOLES GREATER THAN 20% STUD WIDTH OR NOTCHES GREATER THAN 10% STUD WIDTH ARE REQUIRED IN TWO OR MORE CONSECUTIVE STUDS
- NOTCHES OR HOLES NOT PERMITTED IN JAMBS, STUD PACKS AND AT ENDS OF SHEARWALLS

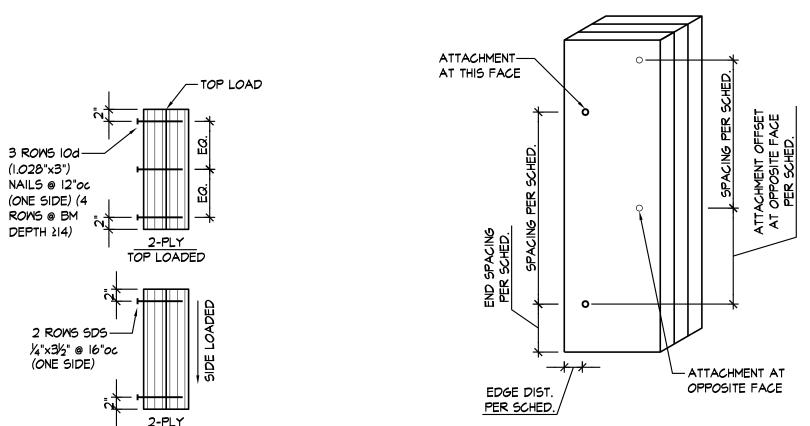


NON-BEARING PARTITION WALL



TYPICAL LEDGER CONNECTION





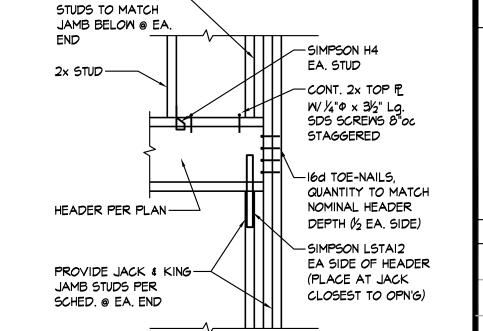
TYPICAL MULTI-PLY

BEAM CONNECTION (5



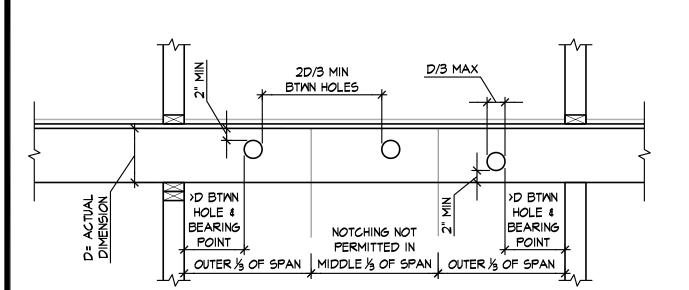
NUMBER OF PLIES	ATTACHMENT AT COLUMN STUD PACKS SUPPORTING BEAMS	ATTACHMENT AT WALL STUD PACKS SUPPORTING TRUSSES
2-PLY MEMBERS NAILED FROM OPPOSITE SIDE OFFSET 6", @ 12"oc W/ FIRST NAIL 2" FROM EA. END 20d NAILS AT 16"oc, 1 1/2" FROM EDGE W/ OPPOSITE EDGE NAILED FROM OPPOSITE SIDE OFFSET 8", @ 16"oc N.		&d NAILS AT 12"0c, 1" FROM EDGE, W/ OPPOSITE EDGE NAILED FROM OPPOSITE SIDE OFFSET 6", @ 12"0c W/ FIRST NAIL 2" FROM EA. END
		8d NAILS AT 12"oc, 1" FROM EDGE, W/ OPPOSITE EDGE NAILED FROM OPPOSITE SIDE OFFSET 6", @ 12"oc W/ FIRST NAIL 2" FROM EA. END
4-PLY MEMBERS	1/4"\$\Psi\$\text{SIMPSON SDS SCREWS AT 16"}\rightarrow\$\text{0}, 1 1/2" FROM EDGE W/ OPPOSITE EDGE SCREWED FROM OPPOSITE SIDE OFFSET \(\delta\)", \(\etilde\) 16"\rightarrow\$\text{V}\' FIRST SCREW 4" FROM EA. END	3 PLIES ATTACHED PER 3-PLY ATTACHMENT WITH 4TH PLY ATTACHED WITH 8d NAILS AT 12"0c IN 2 ROW! 1 1/2" FROM EDGE, OFFSET ROWS 6"
5-PLY MEMBERS	1/4"\$\psi \text{SIMPSON SDS SCREWS AT 12"}\rightarrow\$\text{C}, 1 1/2" FROM EDGE W/ OPPOSITE EDGE SCREWED FROM OPPOSITE SIDE OFFSET 6", @ 12"\rightarrow\$\text{C} 12"\rightarrow\$\text{C} W/ FIRST SCREW 4" FROM EA. END	3 PLIES ATTACHED PER 3-PLY ATTACHMENT WITH 4TH 5TH PLY ATTACHED AT OPPOSITE SIDES WITH 8d NAIL: AT 12"0c IN 2 ROWS, I 1/2" FROM EDGE, OFFSET ROWS
6-PLY MEMBERS	1/4"\$\phi\text{\pi}" SIMPSON SDS SCREWS AT 12"\pic, 1 1/2" FROM EDGE W/ OPPOSITE EDGE SCREWED FROM OPPOSITE SIDE OFFSET 6", @ 12"\pic W/ FIRST SCREW 4" FROM EA. END	3-PLIES ATTACHED PER 3-PLY ATTACHMENT WITH 4TH PLY ATTACHED WITH 8d NAILS AT 12"0c IN 2 ROWS 1 1/2" FROM EDGE, OFFSET ROWS 6" AND 5TH AND 6TH ATTACHED WITH 1/4"0x5" SIMPSON 5DS SCREWS AT 12"0c IN 2 ROWS, 1 1/2" FROM EDGE, OFFSET ROWS 6"0c W/ FIRST SCREW 4" FROM EA. END

ALL BUILT-UP STUD PACKS MUST ALIGN FLOOR-TO-FLOOR WITH SOLID BLOCKING (SQUASH BLOCKS) AT FLOOR CAVITIES.
 EXTEND ALL STUD PACKS TO COLUMNS UNLESS NOTED OTHERWISE.
 ALL NAILS ARE COMMON NAILS UNLESS NOTED OTHERWISE.



PROVIDE CRIPPLE -

TYP. HEADER DETAIL @ ROOF TRUSS BEARING LOCATIONS



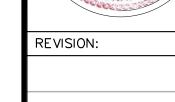
CONTACT ARCHITECT PRIOR TO CUTTING JOISTS TO VERIFY SIZE AND LOCATION 2. DETAIL APPLIES TO 2x FRAMING ONLY. REFER TO ENGINEERED OR COMPOSITE LUMBER MANUNFACTURER'S RECOMMENDATIONS AT PSLs, LVLs, LSLs & GLULAM

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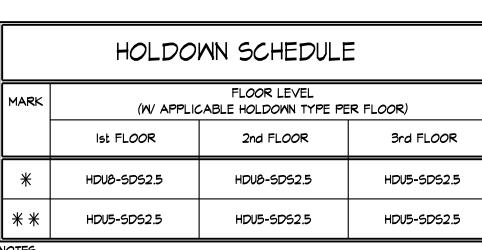
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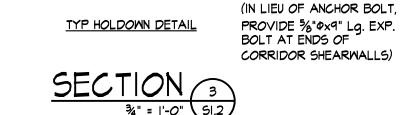


05-17-2023 21-3205

SHEET NO.:



- HOLDOWN TYPES ARE BASED UPON MANUFACTURER SIMPSON STRONG-TIE.
- REFER TO SECTION DETAILS ON SI.2 FOR TYPICAL HOLDOWN DETAILS. 3. WHERE THE ENDS OF PERPENDICULAR SHEAR WALLS INTERSECT AND ONLY ONE HOLDOWN SHOWN ON PLAN, FASTEN ALL STUDS TOGETHER PER SCHEDULE AND USE LARGER OF THE TWO HOLDOWNS SHOWN ON THE SHEAR WALL SCHEDULE.
- 4. ALL HOLDOWN POSTS TO BE (2) 2x's (MIN.) (U.N.O.) TO MATCH STUD SIZE & GRADE NOTED IN WALL SCHEDULE. PROVIDE ADDITIONAL STUDS AS REQ'D TO MEET QUANTITY NOTED IN SCHED.
- 5. REFER TO SECTIONS 2/51.2, 3/51.2, 4A/51.2 & 4B/51.2 FOR HOLDOWN ANCHOR



TREATED 2x -

- CONCRETE SLAB PER PLAN

SILL P

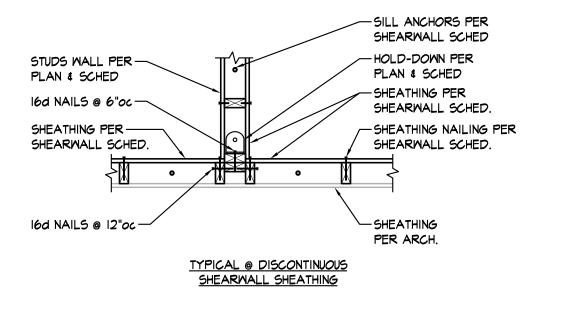
∠ DBL. 2× @ HOLDOWN

SIMPSON HOLDOWN

· %"Фx1'-9" Lg. ANCHOR

BOLT w/ 3" HK (A-36)

PER PLAN



- DBL 2x @ HOLDOWN

-%"Ф THRU BOLT

(A-36) @ HDU5

%"Ф THRU BOLT

(A-36) @ HDU8

LFLOOR FRAMING PER PLAN

-DBL 2x @ HOLDOWN

FLOOR BEAMS

NOTE: WELD THREADED

ROD TO WIG BEAMS WHERE

SHEARWALLS SET ATOP 2nd

HOLDOWN & THRU -

BOLT PER SCHED.

HOLDOWN & THRU -BOLT PER SCHED.

PER PLAN

FLOOR CONSTRUCTION -

-FLOOR

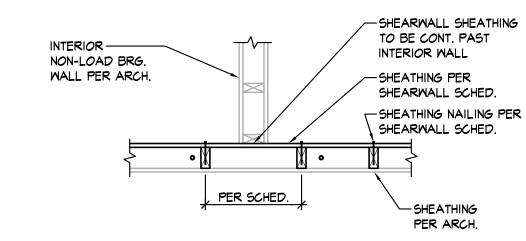
FRAMING

PER PLAN

TYP HOLDOWN DETAIL

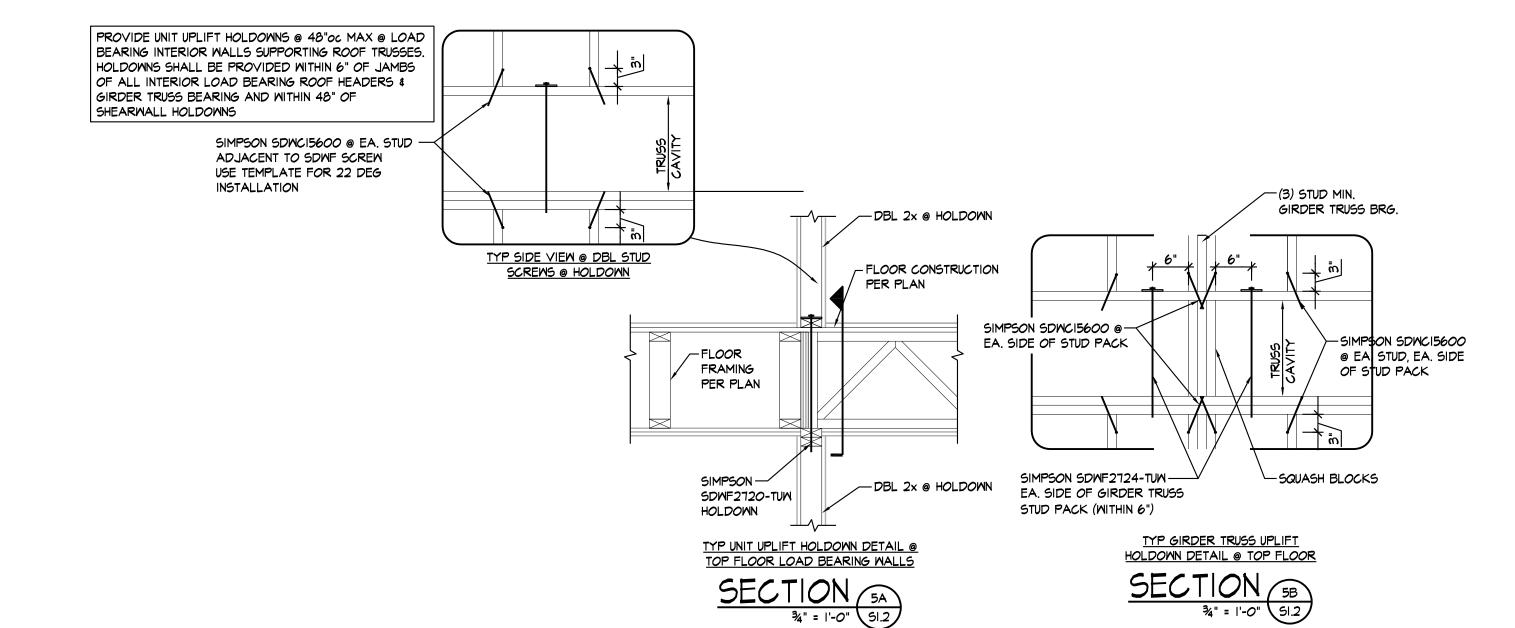
SECTION (2)

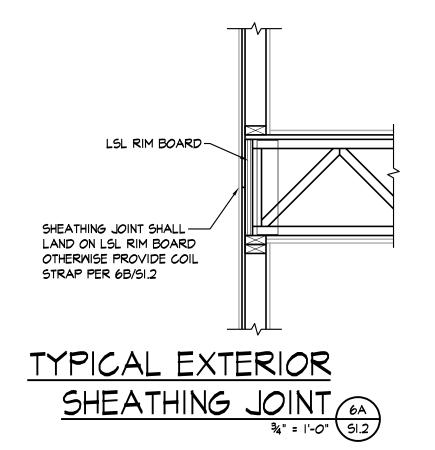


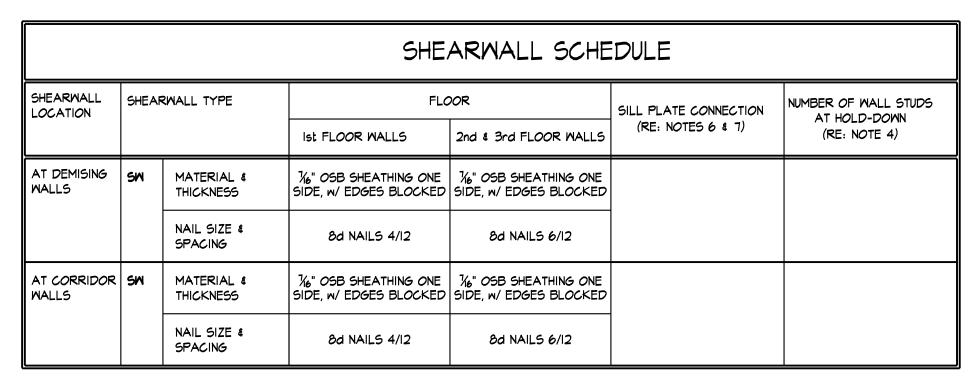


TYPICAL @ SHEARWALL CONTINUOUS PAST NON-LOAD BRG WALL

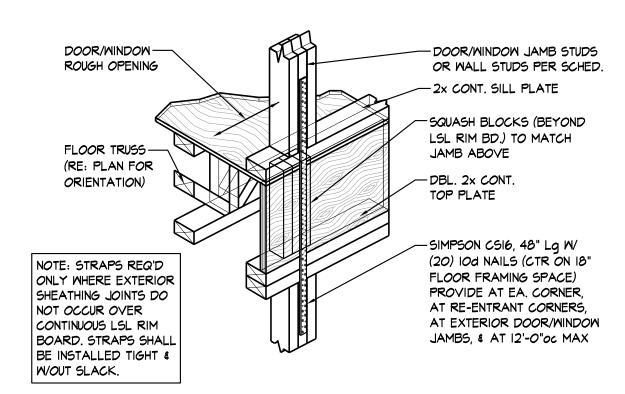






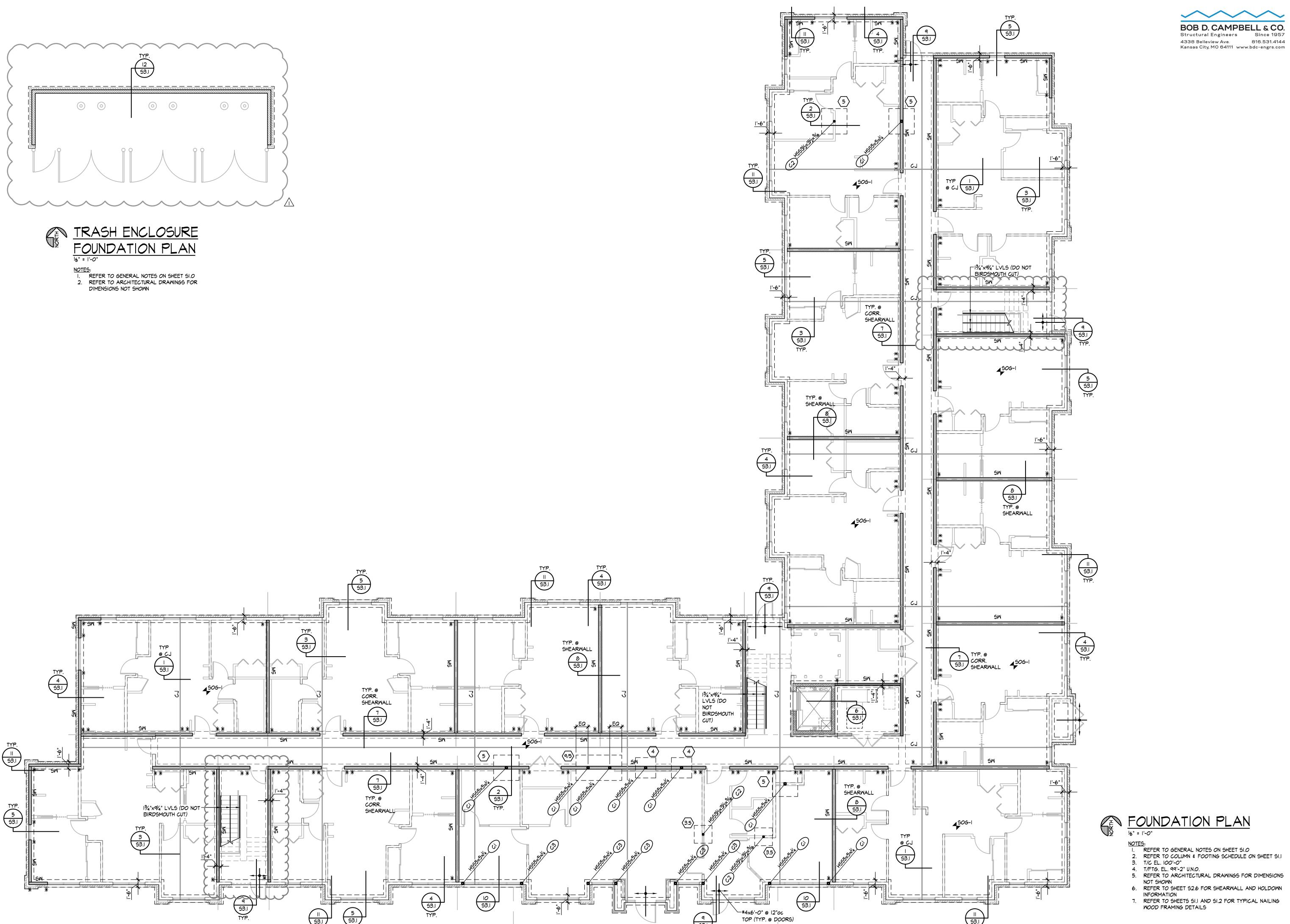


- NAILING SHALL BE TO ALL STUDS, TOP & BOTTOM PLATES, AND BLOCKING WHERE INDICATED.
- HOLDOWNS PER PLAN & SCHEDULE.
- 3. WHERE THE ENDS OF PERPENDICULAR SHEAR WALLS INTERSECT AND ONLY ONE HOLDDOWN SHOWN ON PLAN, FASTEN ALL STUDS TOGETHER PER SCHEDULEA AND USE LARGE OF THE TWO HOLDDOWNS SHOWN IN THE SHEARWALL SCHEDULE. REFERENCE DETAILS 4A, 4B. 4C. AND 4D ON SHEET SI.2 FOR SHEATHING AND HOLDOWN ATTACHMENT AT PERPENDICULAR WALLS AND STUD WALL SIZE TRANSITIONS.
- 4. PROVIDE 2 WALL STUDS AT EACH HOLDDOWN UNLESS NOTED OTHERWISE IN SCHEDULE. AT LOCATIONS WHERE A SHEARWALL TERMINATES AT A OPENING JAMB, PROVIDE NUMBER OF STUDS PER JAMB SCHEDULE PLUS AN ADDITIONAL STUD FOR THE SHEARWALL. ATTACH ALL STUDS TOGETHER PER 6/SI.I.
- 5. NAIL SPACING SHOWN AS (#/#) INDICATES FASTENERS SPACING IN INCHES AT THE EDGES/FIELD WHERE FIELD IS THE INTERMEDIATE MEMBERS. 6. TYPICAL SILL PLATE TO WOOD SHALL BE 20d COMMON NAILS (1.092x4") AT 12"00 UNLESS NOTED OTHERWISE IN SCHEDULE.
- 7. TYPICAL SILL PLATE TO CONCRETE SHALL BE ½" ANCHORS: AT 2x4 WALLS SPACE AT 24"00 MAX WITH 1/4"x21/2"x21/2" PLATE WASHER OR SIMPSON BPS 1/2 - 3 @ CONTRACTORS OPTION
- PLATE WASHERS TO MAINTAIN MAX OF 1/2" BETWEEN EDGE OF SILL PLATE AND EDGE OF PLATE WASHER 8. SHEARWALL SHEATHING CALLED OUT AT CORRIDOR WALLS SHALL BE LOCATED AT UNIT SIDE OF WALL
- 9. AT GYPSUM SHEARMALLS NO. 6 x 1 1/4" TYPE S OR W SCREWS CAN BE UTILIZED AS THE SAME SPACING AS SPECIFIED 6d NAILS. IO. NAILS @ WOOD STRUCTURE PANEL SHEAR WALLS SHALL BE GALVANIZED COMMON OF TYPE INDICATED IN SCHED.



TYPICAL COIL STRAP @ EXTERIOR JAMBS SUPPORTING ROOF FRAMING AT FLOOR DIRECTLY BELOW ROOF





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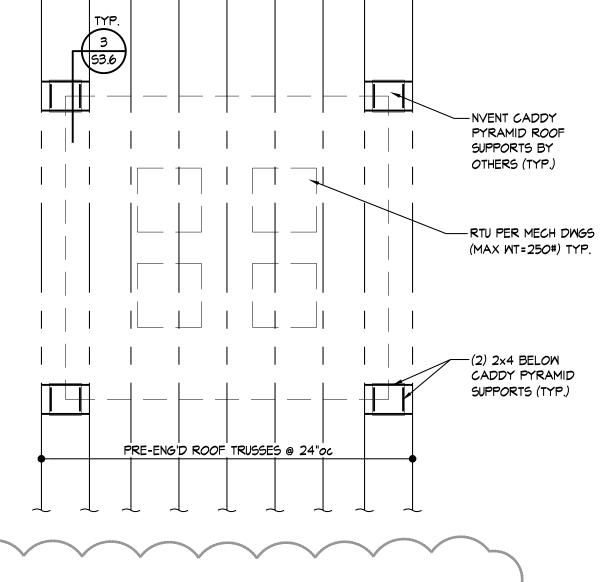
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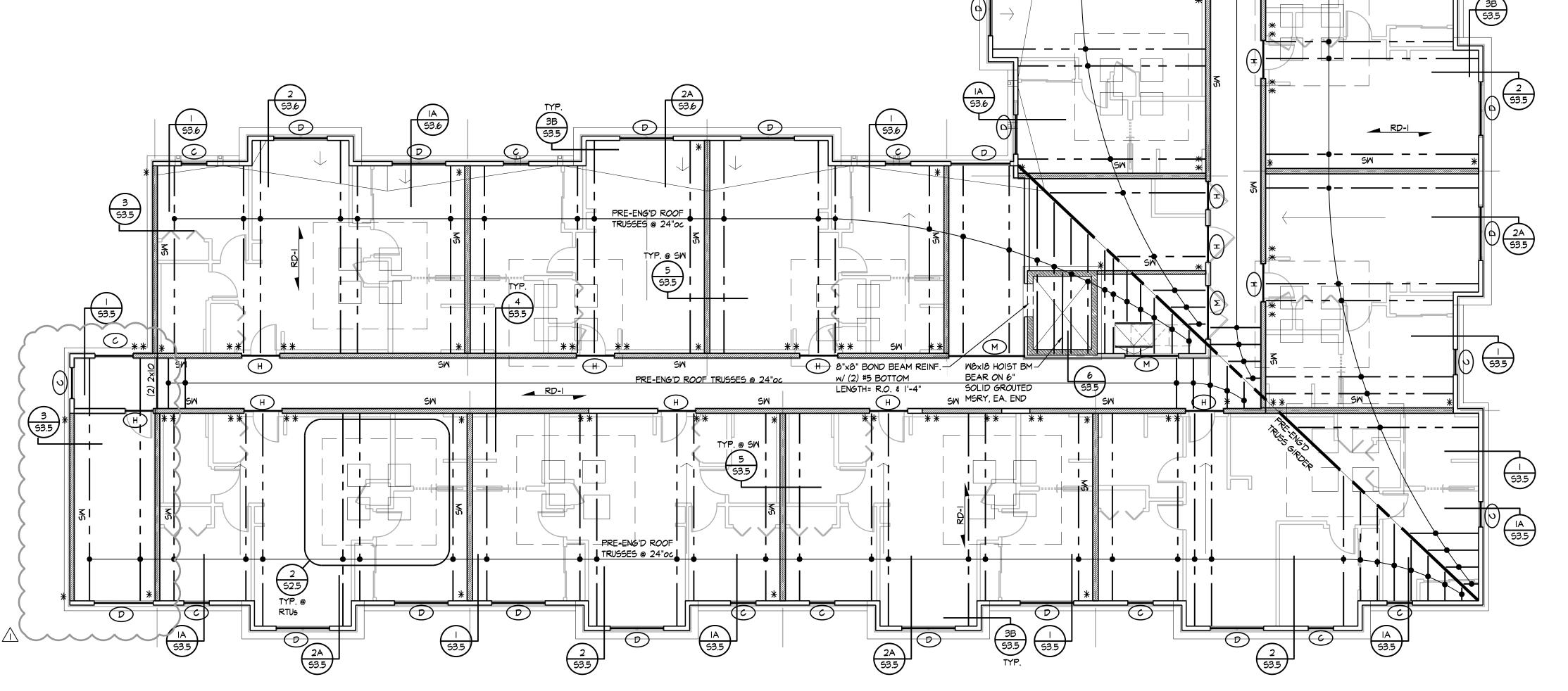
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RTU PLATFORM FRAMING PLAN 2

34" = 1'-0" 52.5

DESIGN TRUSS BELOW RTU PLATFORMS FOR ADDED RTU LOAD.
 COORD. RTU PLATFORM LOCATIONS w/ MECH DWGS.



53.6

2A 53.6

2 53.6

53.6

2A 53.6

SM

ROOF FRAMING PLAN

(IA) (53.5)

2 53.5

53.5

SM

5 53.5 TYP. @ SW

SM

- I. REFER TO GENERAL NOTES ON SHEET SI.O

 2. REFER TO HEADER SCHEDULE ON SHEET SI.I

 3. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN

 4. PROVIDE TRIPLE 2x6 OR QUADRUPLE 2x4 STUDS AT ALL PRE-ENG. TRUSS
- GIRDERS (EXTEND TO FOUNDATION.)
 5. REFER TO SHEETS SI.I AND SI.2 FOR TYPICAL NAILING WOOD FRAMING DETAILS



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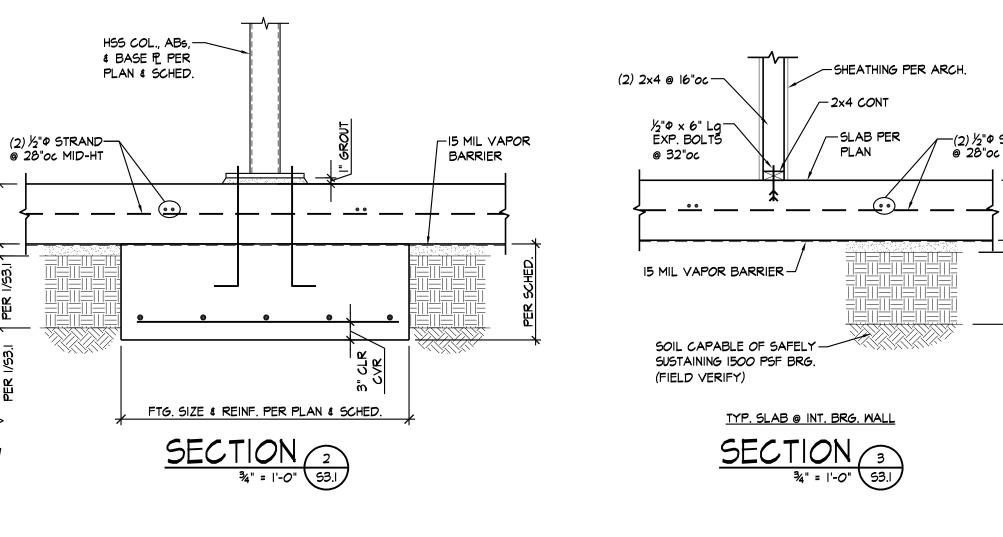


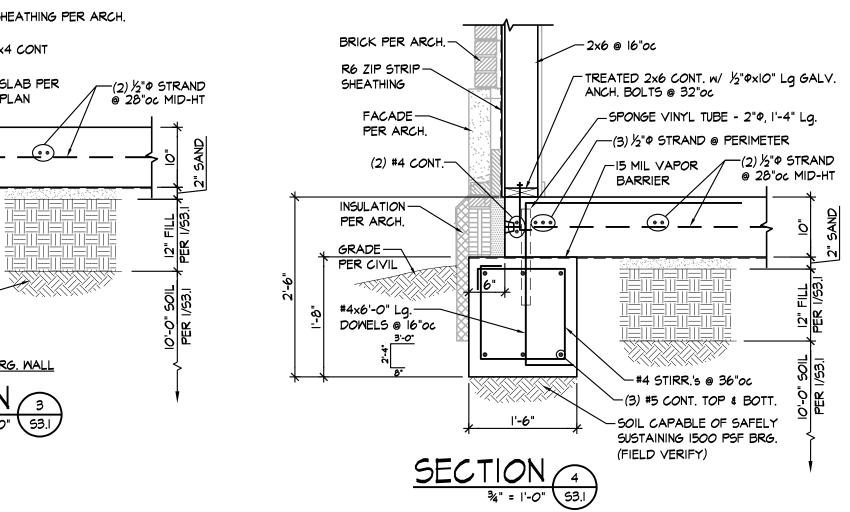
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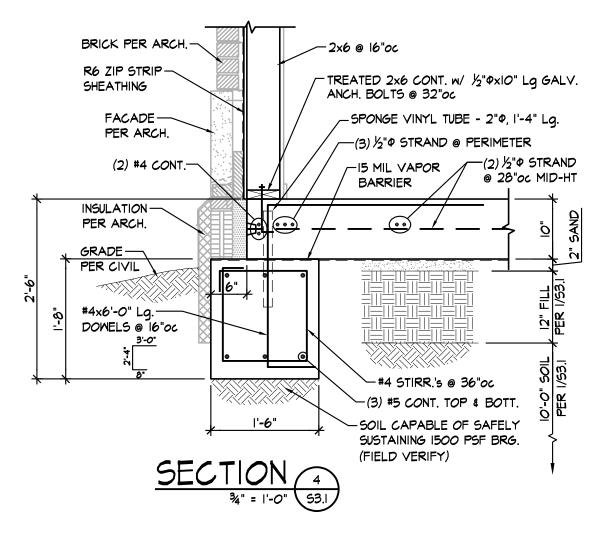
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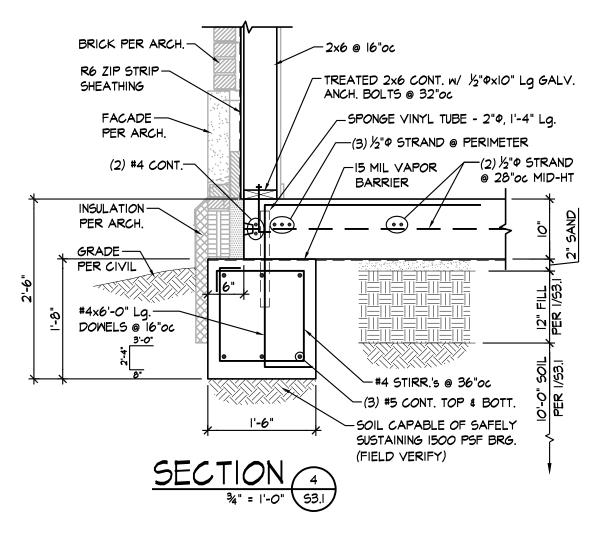
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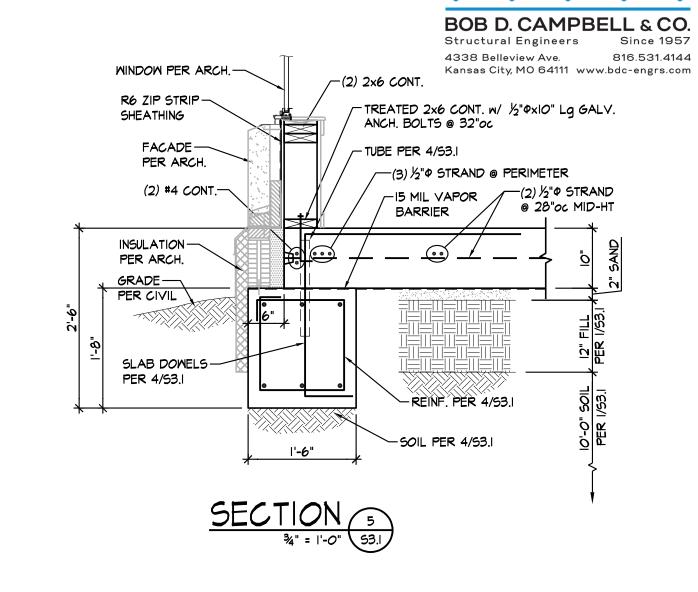
S3.1











STOREFRONT PER ARCH.

INSULATION — PER ARCH.

GRADE -

PER CIVIL

SLAB DOWELS-

SECTION

³⁄₄" = 1'-0" 53.l

PER 4/53.I

(2) #4 CONT.

TUBE PER 4/53.1

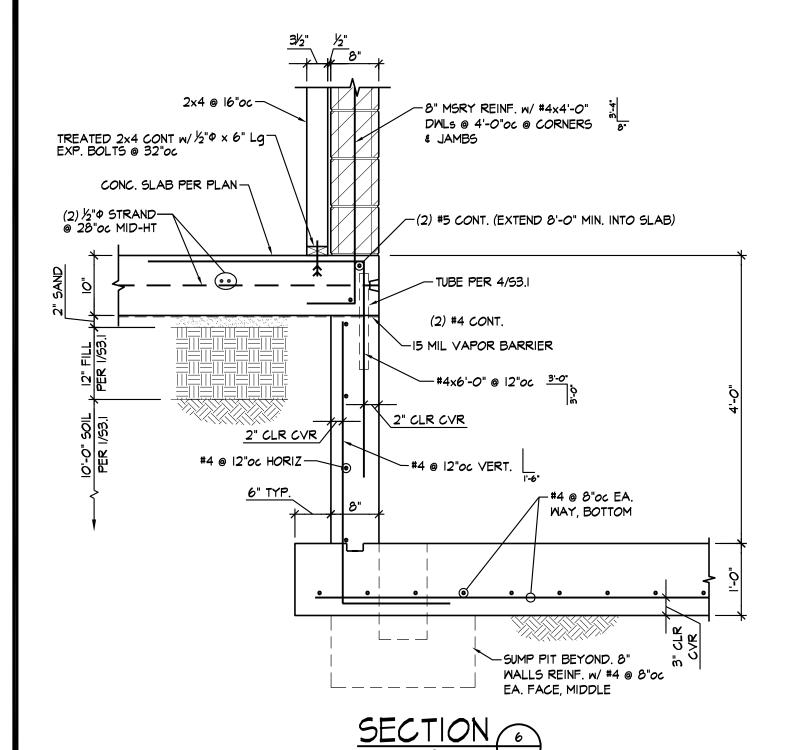
BARRIER

/--(3) ½"Ф STRAND @ PERIMETER

-REINF. PER 4/53.I

_15 MIL VAPOR / (2) 1/2 "Φ STRAND

© 28"0c MID-HT



(2) ½"\$ STRAND— @ 28"00 MID-HT /

-(2) #4 CONT. @ STRESSING END

MOISTURE CONDITIONED SOIL PER

34" = 1'-0" 53.1

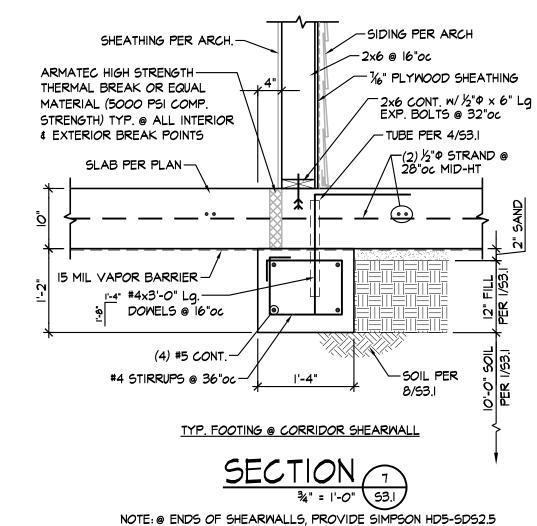
GEOTECHNICAL REPORT

TYP. CONSTRUCTION JT (CJ)

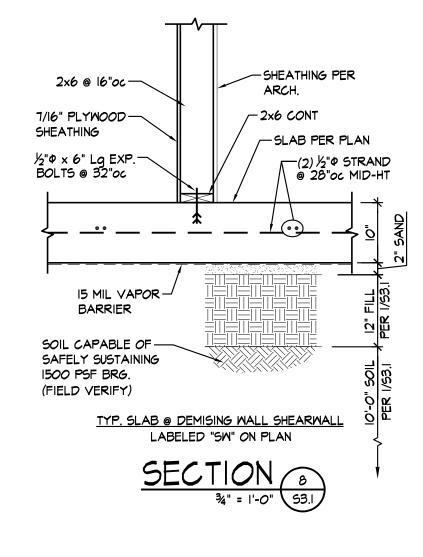
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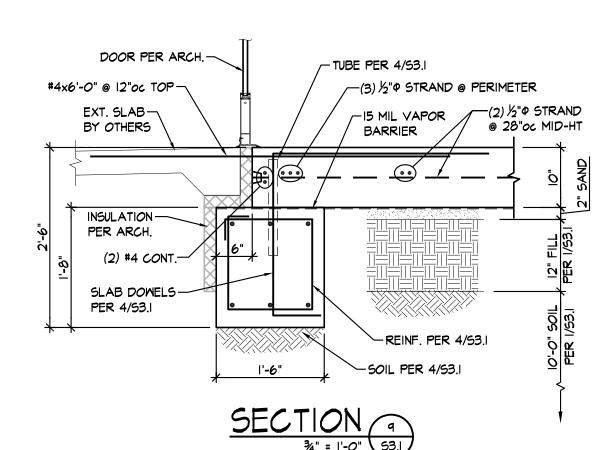
-15 MIL VAPOR BARRIER

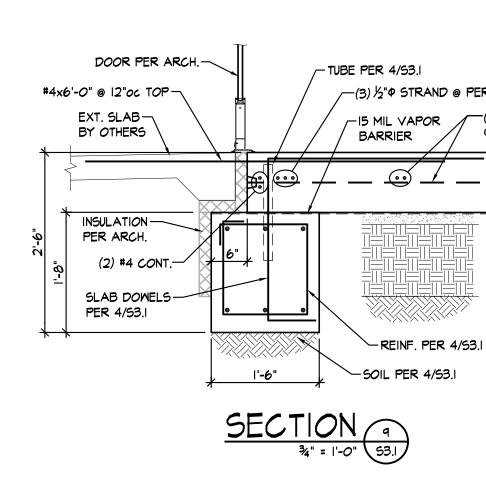
CONSTRUCTION JOINT ----

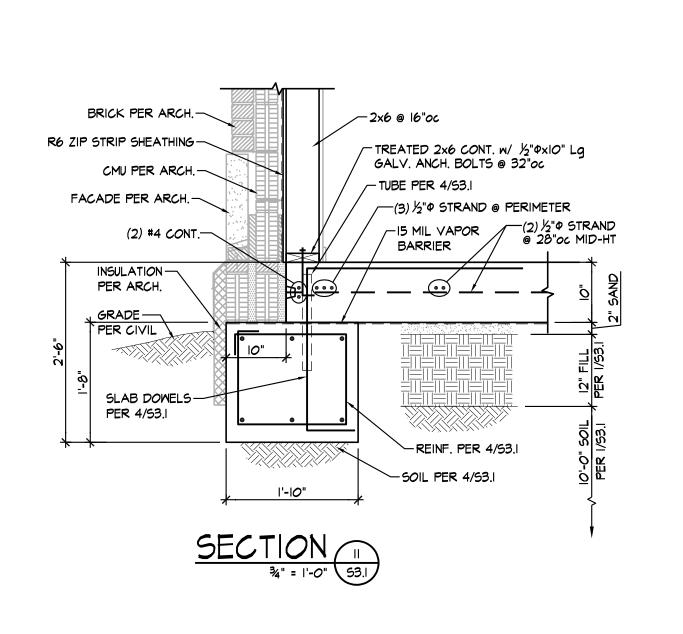


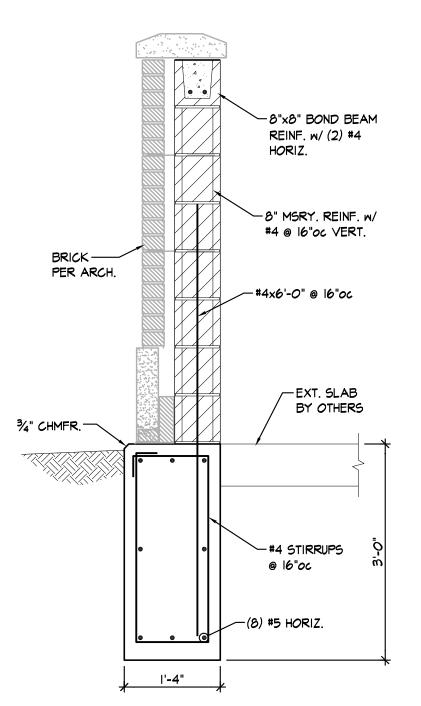
HOLDDOWN ANCHOR W/ DBL STUD & %"中 x 7"Lg EXP. BOLT

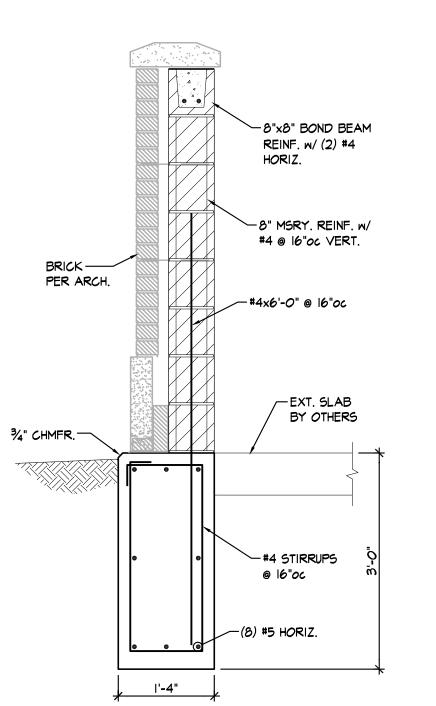




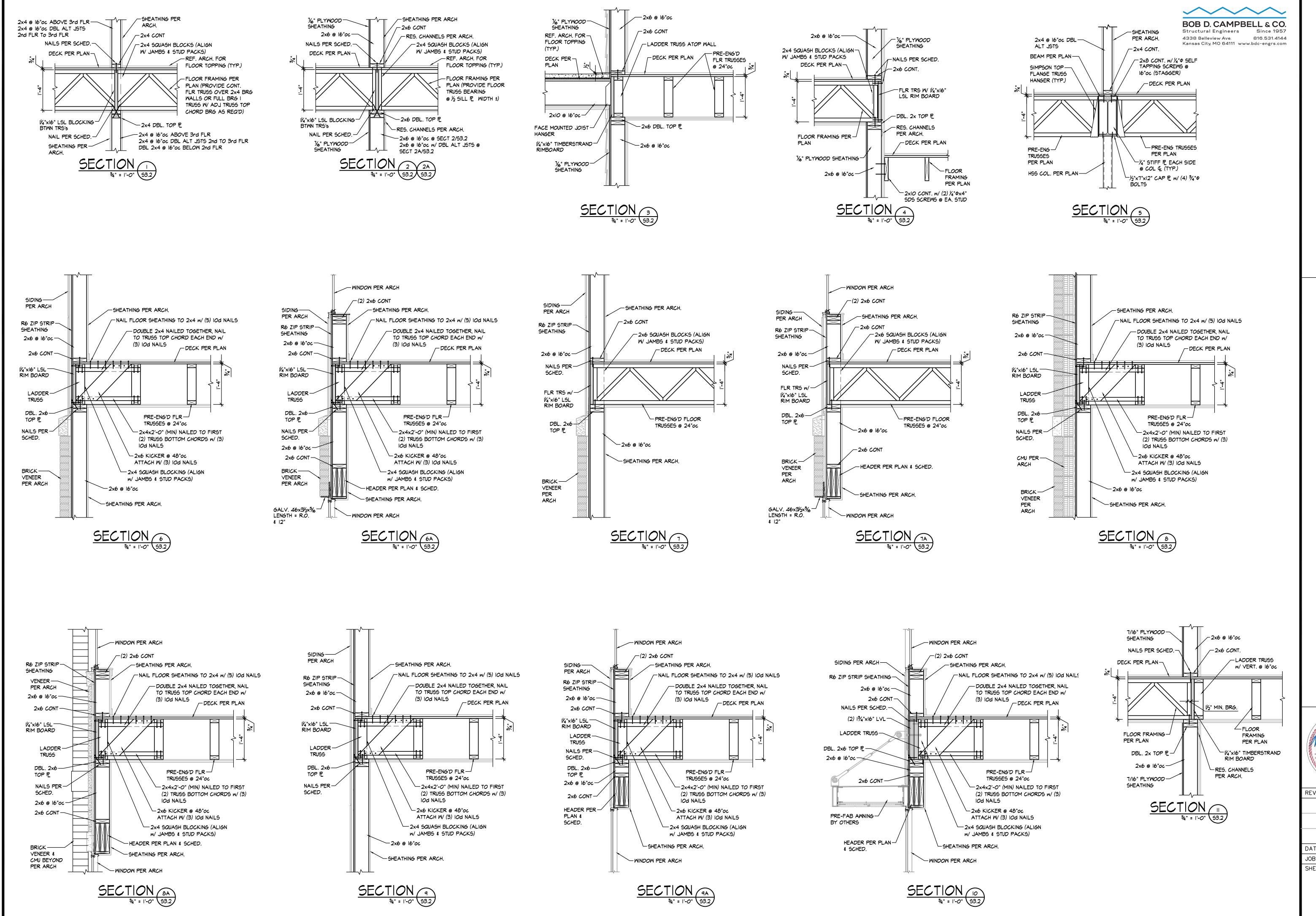








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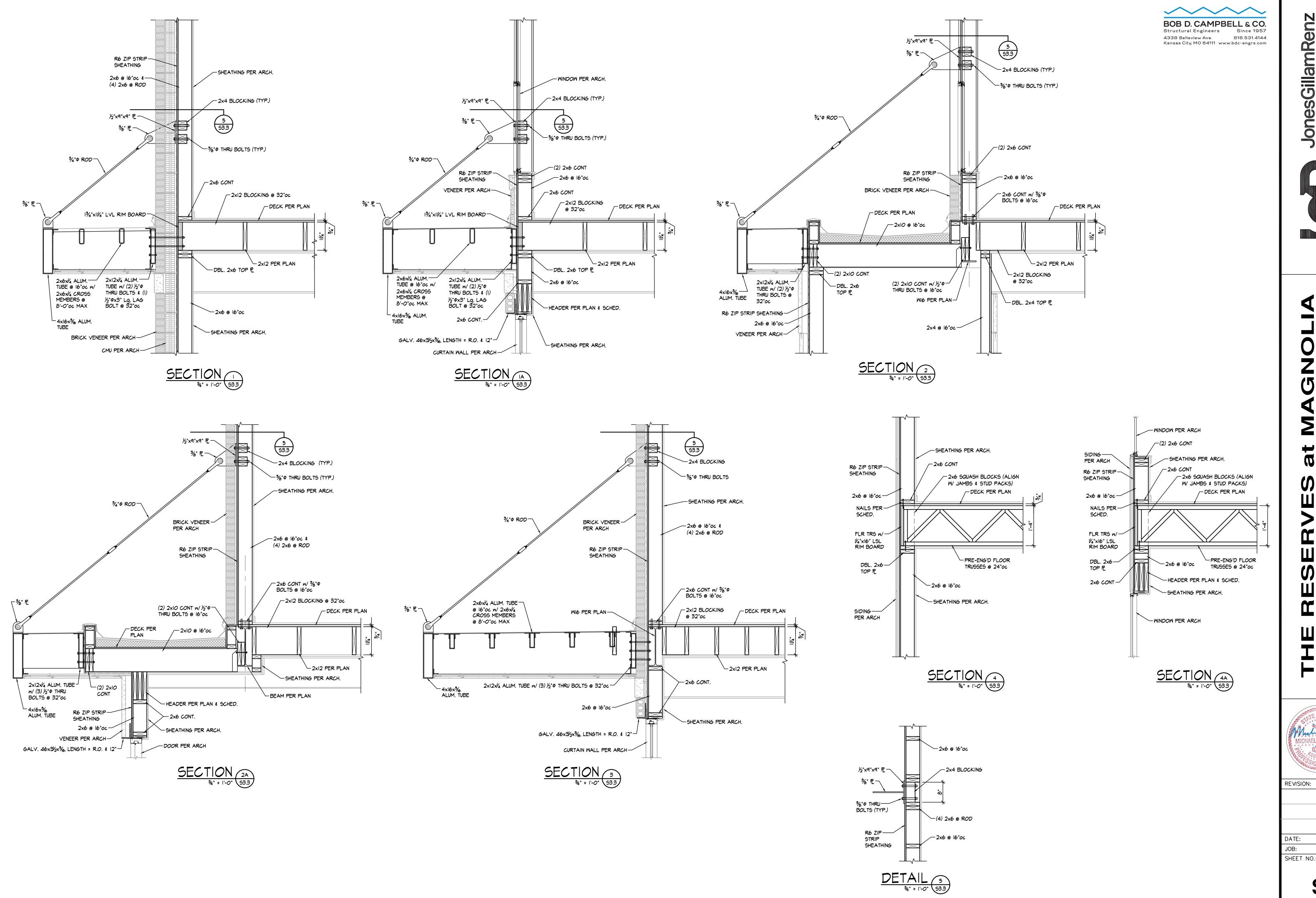
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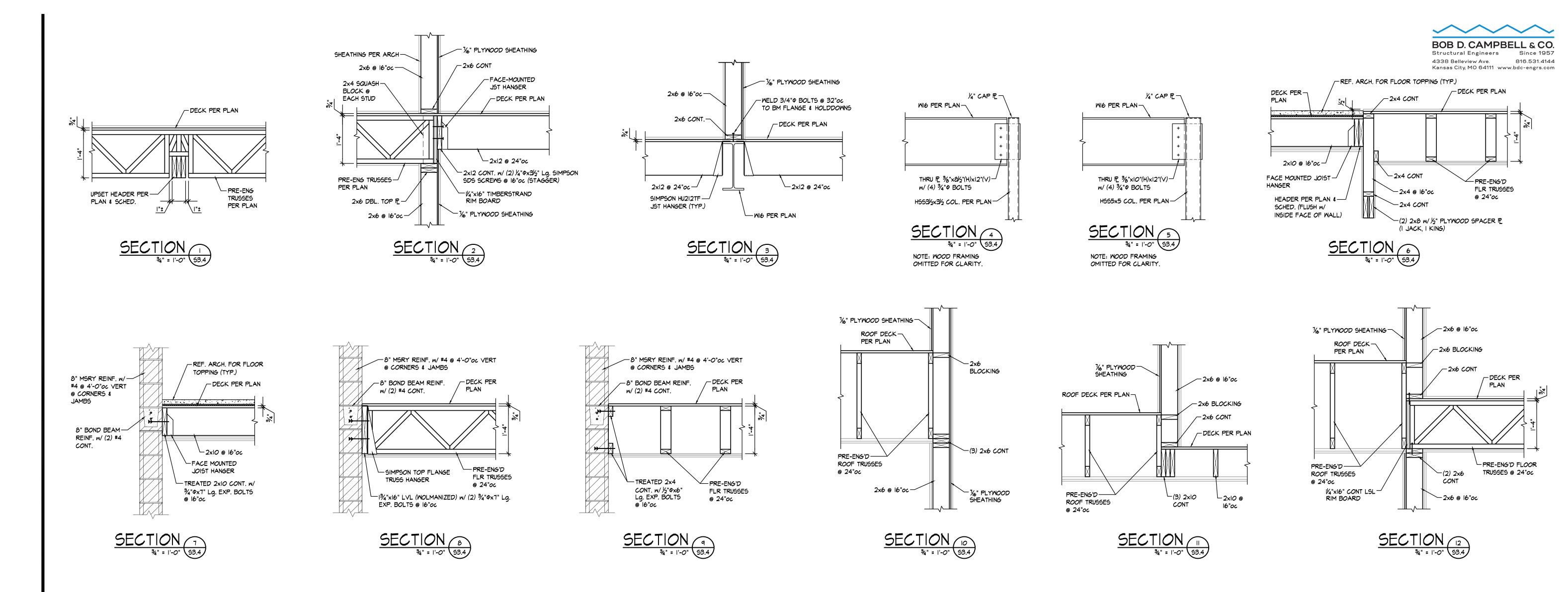
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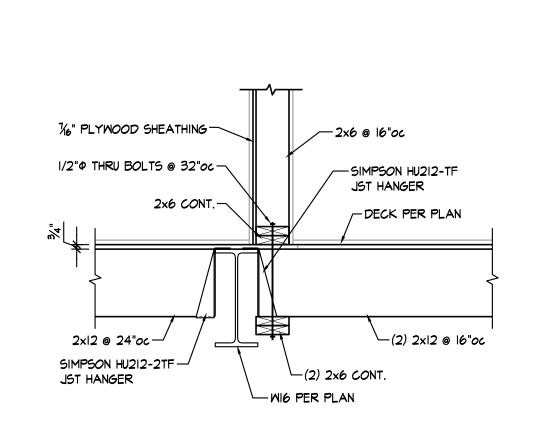


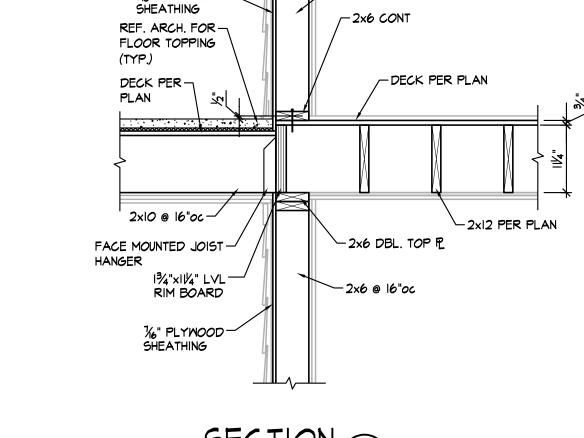
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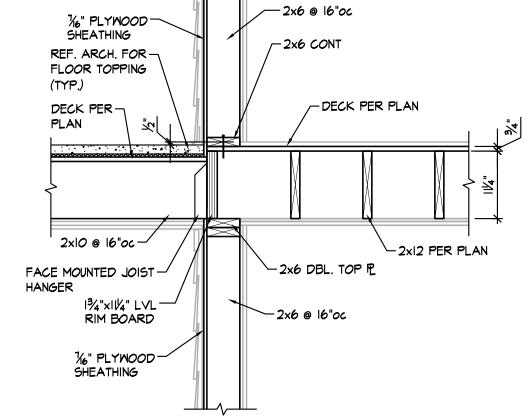
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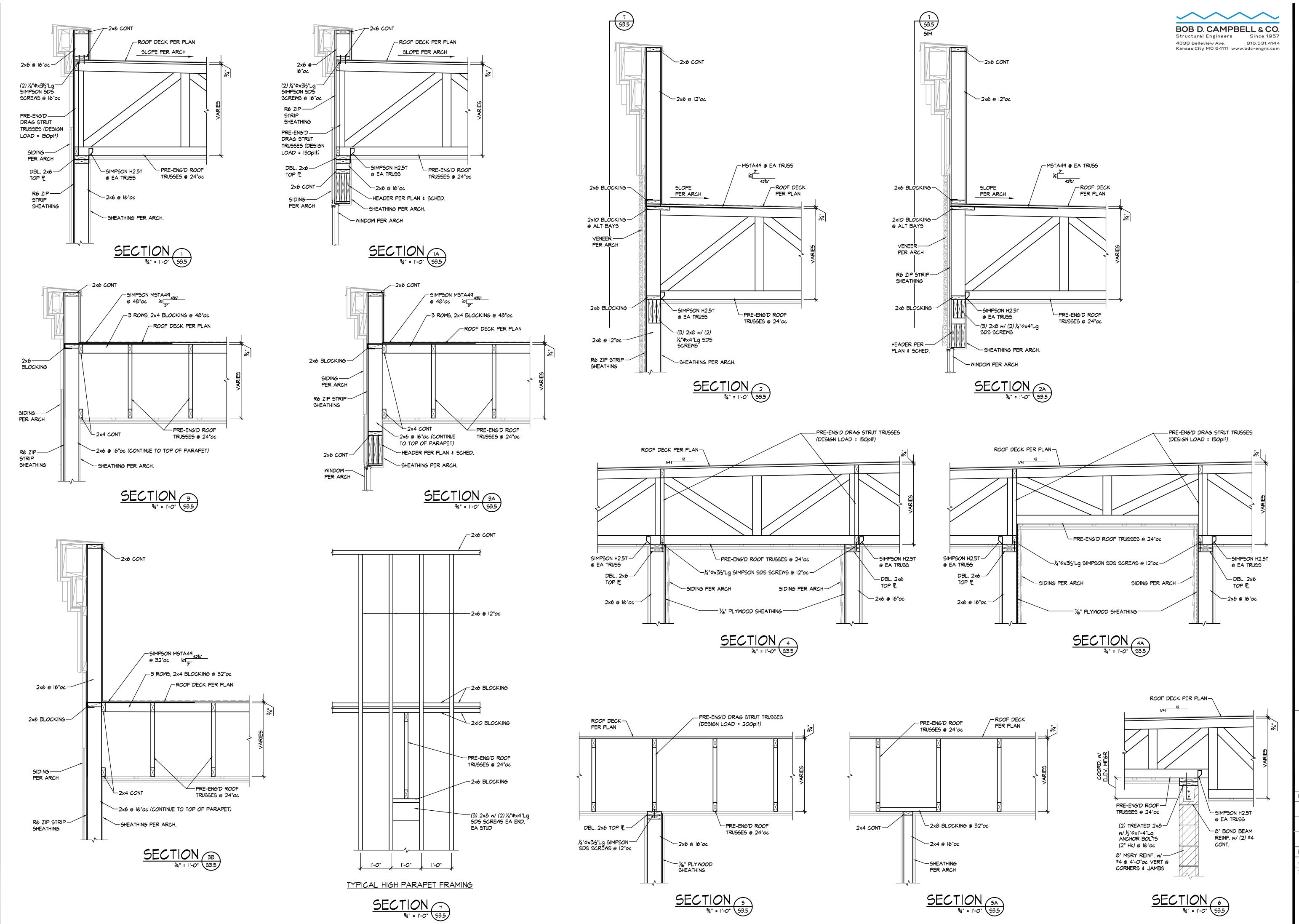
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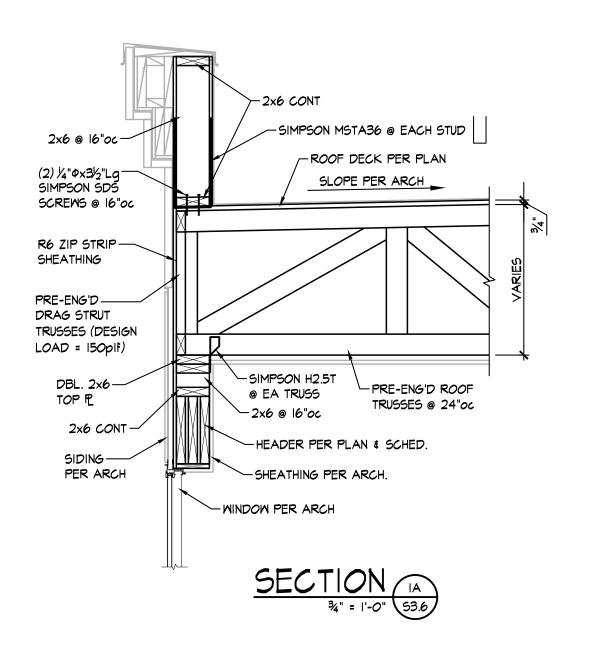
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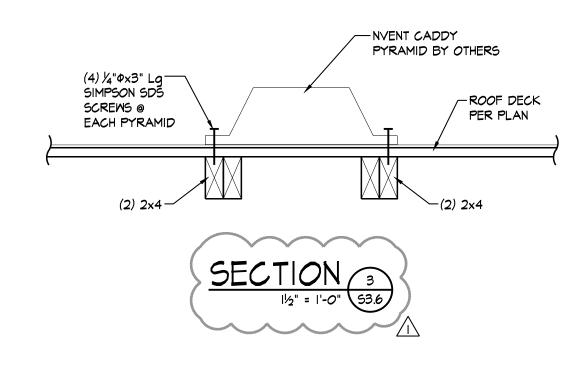
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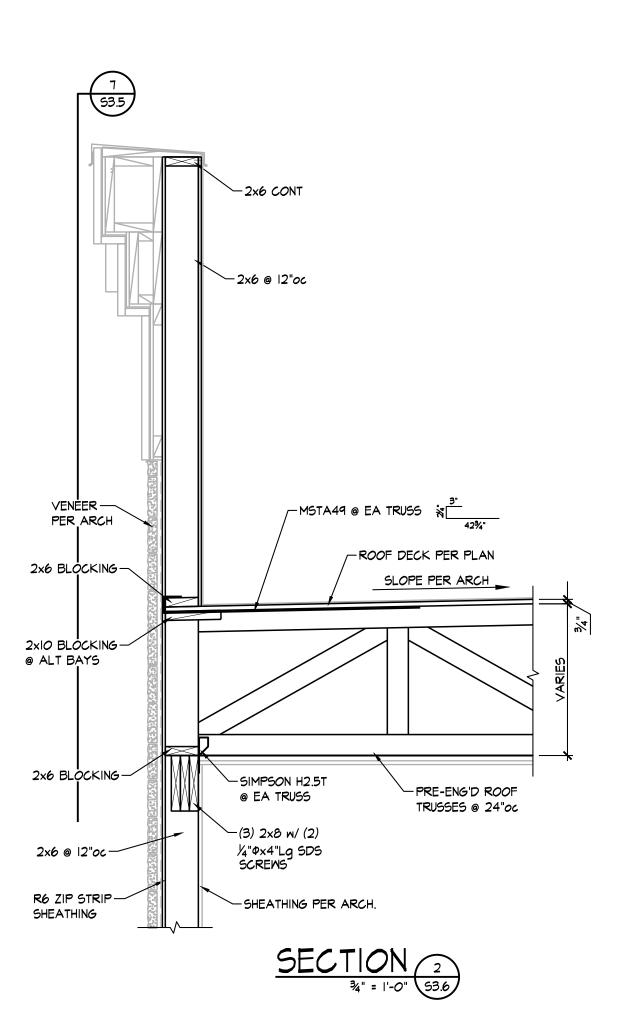
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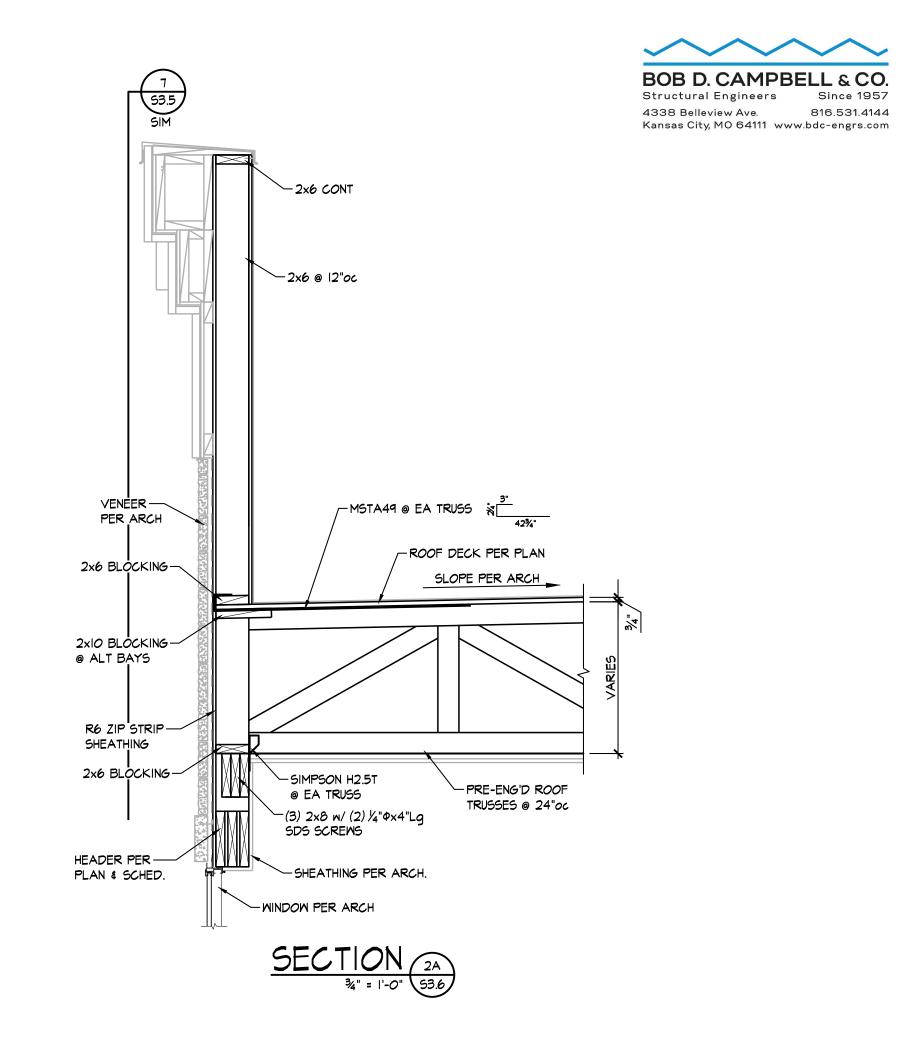
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