

GENERAL STRUCTURAL NOTES

GENERAL

- THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE CONSTRUCTION IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL OF MECHANICAL AND OTHER TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COSTS RELATED TO WORKING IN MECHANICAL REQUIREMENTS TO BE BORNE BY MECHANICAL CONTRACTOR.
- IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE ASHRAE CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- MECHANICAL EQUIPMENT LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO MECHANICAL REQUIREMENTS ARE SHOWN FOR REDDING PURPOSES ONLY. CONTRACTOR IS TO OBTAIN APPROVAL OF MECHANICAL AND OTHER TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COSTS RELATED TO WORKING IN MECHANICAL REQUIREMENTS TO BE BORNE BY MECHANICAL CONTRACTOR.
- DO NOT SCALE THE DRAWINGS WHERE DIMENSIONS ARE NOT SPECIFICALLY GIVEN. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN. COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE NOT INTENDED TO AGUMENT, NOR SUPERSEDE THOSE SHOWN ON THE ARCHITECTURAL DRAWINGS.
- FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE ARCHITECT IMMEDIATELY WHERE CONFLICTS EXIST WITHIN THE DRAWINGS OR BETWEEN THE DRAWINGS AND FIELD CONDITIONS.
- THROUGHOUT THESE PLANS, THE TERM "PROVIDE" IS DEFINED AS "SUPPLY AND INSTALL".
- SHOP DRAWINGS ARE TO BE SUBMITTED BY COMPLETE ERECTION PHASE OR SEQUENCE. LIMITS OF EACH INDIVIDUAL ERECTION PHASE OR SEQUENCE ARE TO BE CLEARLY INDICATED ON THE PLANS. INCOMPLETE OR PRECISE SHOP DRAWINGS WILL BE RETURNED PRIOR TO REVIEW. REVISIONS ARE TO BE MADE REVISIONS CLEARLY MARKED OR DENYED THE CONTRACTOR SHALL REVIEW AND ACCEPT FULL RESPONSIBILITY FOR DIMENSIONAL CORRECTNESS. ALL SHOP DRAWINGS MUST BEAR THE APPROVAL STAMP OF THE CONTRACTOR PRIOR TO REVIEW BY THE ARCHITECT OR ENGINEER.
- PREFABRICATED ITEMS SHOWN ON THE STRUCTURAL DRAWINGS ARE REFERENCED FOR GENERAL COORDINATION PURPOSES ONLY, AND MAY INCLUDE BUT NOT BE LIMITED TO: STAIRS, HANDRAILS, CURTAIN WALLS, STOREFRONT SYSTEMS, AWNINGS, COLD-FORMED METAL FRAMING, AND PREFABRICATED FRAMING MEMBERS. THESE SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED AS REQUIRED BY OTHER PORTIONS OF THE CONTRACT DOCUMENTS. ECR WILL REVIEW THE DESIGN METHOD, LOADS, AND INSTALLATION DETAILS AS PART OF THE SHOP DRAWING REVIEW PROCESS, AND MAY REQUEST A SEALED CALCULATION PACKAGE FOR REVIEW.
- SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THE GENERAL STRUCTURAL NOTES, THE SPECIFICATIONS OR WITH EACH OTHER, THE STRICTEST PROVISION WILL GOVERN.
- CODE INFORMATION
  - GOVERNING CODE: 2018 INTERNATIONAL BUILDING CODE
  - BUILDING RISK CATEGORY: CATEGORY I
  - FLOOR LIVE LOADS (WITH ALLOWABLE REDUCTIONS WHERE APPLICABLE):
  - RESTAURANT: 100 PSF
  - ROOF LIVE LOADS:
  - ORDINARY FLAT, PITCHED, AND CURVED ROOFS: 20 PSF
  - FABRIC AWNINGS AND CANOPIES: 5 PSF
  - SNOW LOADS:
  - GROUND SNOW LOAD (P<sub>g</sub>): 15 PSF
  - FLAT ROOF SNOW LOAD (P<sub>f</sub>): 15 PSF
  - SNOW EXPOSURE FACTOR (C<sub>e</sub>): 1.0
  - SNOW LOAD IMPORTANCE FACTOR (I<sub>s</sub>): 1.0
  - THERMAL FACTOR (C<sub>t</sub>): 1.0
  - SNOW DRIFTING: SEE PLAN
  - WIND LOADS:
  - WIND IMPORTANCE FACTOR: 1.0
  - BASIC ULTIMATE WIND SPEED (V): 107 MPH
  - SITE EXPOSURE CATEGORY: B
  - INTERNAL PRESSURE COEFFICIENT: +/- 0.18
  - SEISMIC LOADS:
  - SEISMIC IMPORTANCE FACTOR: 1.0
  - MAPPED SPECTRAL RESPONSE ACCELERATION (S<sub>a</sub>): 0.25
  - MAPPED SPECTRAL RESPONSE ACCELERATION (S<sub>1</sub>): 0.08
  - SEISMIC SITE CLASS: D
  - DESIGN SPECTRAL RESPONSE ACCELERATION (S<sub>a</sub>): 0.19
  - DESIGN SPECTRAL RESPONSE ACCELERATION (S<sub>1</sub>): 0.11
  - SEISMIC DESIGN CATEGORY: B
  - RESPONSE MODIFICATION COEFFICIENT (R): 6.5
  - ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE
  - BASIC SEISMIC FORCE-RESISTING SYSTEM: LIGHT FRAME WOOD CONSTRUCTION WITH WOOD PANELS RATED FOR SHEAR RESISTANCE.
  - RAIN LOADS:
  - 15-MINUTE: 7.0 PSF
  - 60-MINUTE: 3.0 PSF
  - SPECIAL LOADS:
  - INTERIOR WALLS & PARTITIONS: 5 PSF HORIZONTAL
  - HANDRAIL LOADS (ANY DIRECTION): 50 PLF/200R CONC.
  - GEOTECHNICAL:
  - GEOTECHNICAL ENGINEER: ECR SOUTHWEST
  - REFERENCE REPORT I.D. OR NUMBER: ES-1514
  - REFERENCE REPORT DATE: AUGUST 24, 2022
  - ALLOWABLE DESIGN BEARING PRESSURE: 2,000 PSF
  - FOUNDATION TYPE: SHALLOW SPREAD FOOTING

REINFORCED CONCRETE

- SPECIFICATIONS: IN GENERAL, COMPLY WITH ACI 301-16, "SPECIFICATIONS FOR STRUCTURAL CONCRETE".
- MATERIALS:
  - STRUCTURAL CONCRETE:

MIX USAGE	F <sub>c</sub> (PSI)	MAX. WTR	AIR CONTENT
LEAN CONCRETE	3,000	0.55	---
FOOTINGS & INTERIOR COLUMN PIERS	3,000	0.50	---
INTERIOR SLABS ON GRADE	3,000	0.50	---
INTERIOR SLABS ON GRADE WHICH RECEIVE MOISTURE-SENSITIVE FLOOR COVERINGS	3,500	0.45	---
EXTERIOR FOUNDATION STEM WALLS, EXTERIOR FOUNDATION WALLS, & EXTERIOR COLUMN PIERS	3,000	0.45	---
EXTERIOR UNREINFORCED SLABS ON GRADE & EXTERIOR CONCRETE NOT SUBJECT TO DEICERS	3,500	0.45	5%+7%
  - ALL DEFORMED REINFORCING BARS: F<sub>y</sub> = 60,000 PSI
  - CEMENT: PORTLAND CEMENT, ASTM C150, TYPE 1. ALL CEMENT FOR CONCRETE EXPOSED TO VIEW IS TO BE FROM THE SAME MILL.
  - AGGREGATES: ASTM C33, USE SIZE NO. 57 FOR ALL MIXES UNLESS NOTED OTHERWISE.
  - AD Mixtures:
    - WATER-REDUCING, LOW AND MID-RANGE: ASTM C494, TYPE A OR D
    - HIGH-RANGE WATER-REDUCING, SUPERPLASTICIZER: ASTM C494, TYPE F OR G
  - AD Mixtures:
    - FLY-ASH, ASTM C618, TYPE C OR F
    - NON-CHLORIDE, NON-CORROSIVE ACCELERATOR: ASTM C494, TYPE C OR E
- FIELD MANUAL: PROVIDE AT LEAST ONE COPY OF THE ACI FIELD REFERENCE MANUAL, SP-15 IN THE FIELD OFFICE AT ALL TIMES.
- SUBMITTALS:
  - SUBMIT A MIX DESIGN FOR EACH MIXTURE USAGE REQUIRED FOR THE PROJECT. CONCRETE PROPORTIONS ARE TO BE ESTABLISHED ON THE BASIS OF PREVIOUS FIELD EXPERIENCE OR TRIAL MIXTURES.
  - SUBMIT PLACING DRAWINGS FOR ALL REINFORCING. INDICATE STRENGTH, SIZE, AND DETAILS OF ALL BAR REINFORCING.
  - SUBMIT PRODUCT LITERATURE FOR ADMIXTURES AND CURING COMPOUNDS PROPOSED FOR USE.
  - SUBMIT REPORTS OF ALL REQUIRED TESTING AND INSPECTIONS.
- CONTINGENCIES:
  - PROVIDE 1/4" TOP OF REINFORCING BARS TO BE USED AS DIRECTED BY THE ARCHITECT/ENGINEER. COLD-BEND IN THE FIELD, IF REQUIRED.
  - PROVIDE LEAN CONCRETE UNDER FOUNDATIONS FOR ACCIDENTAL OVER EXCAVATION, SOFT SPOTS, AND UTILITY TRENCHES.
- FOOTINGS, PIERS, WALLS:
  - DOWELS IN FOOTINGS TO MATCH VERTICAL, PER OR WALL REINFORCING.
  - PROVIDE CORNER BARS AT WALL AND FOOTING CORNERS TO MATCH HORIZONTAL REINFORCING. MINIMUM LENGTH OF EACH LEG: 36 BAR DIAMETERS.
- SPLICES:
  - LAP SPLICE REINFORCING BARS AS SCHEDULED. MINIMUM LAP = 36 DIAMETERS.
- CONSTRUCTION JOINTS:
  - CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER.
- FINISHES:
  - PER ACI 117, SURFACES OF INTERIOR SLABS ON GRADE ARE TO BE FINISHED TO THE FOLLOWING TOLERANCES: FLOOR FINISH (F<sub>1</sub>)=30 AND LEVELNESS (F<sub>1</sub>)=20 UNLESS NOTED OTHERWISE IN SPECIFICATIONS.
  - TYPICAL INTERIOR FLOOR AREAS TO RECEIVE CARPET, RESIDENT FLOOR COVERING, OR TO REMAIN EXPOSED: FLOWLED FINISH.
  - INTERIOR FLOOR AREAS TO RECEIVE QUARRY TILE OR CERAMIC TILE: FLOWLED FINISH.
  - EXTERIOR SLABS: BROOM FINISH.
- CURING:
  - CURING IS TO COMMENCE IMMEDIATELY AFTER CONCRETE PLACEMENT AND CONTINUE FOR AT LEAST 7 DAYS. DO NOT ALLOW CURING TO BE DELAYED OVERNIGHT.
  - INTERIOR SLABS TO RECEIVE QUARRY TILE OR CERAMIC TILE ARE TO BE MOIST-CURED WITHOUT THE USE OF A CURING COMPOUND.
  - ALL OTHER SLABS MAY BE EITHER MOIST-CURED OR RECEIVE AN APPLICATION OF CURING COMPOUND.
- FIELD QUALITY CONTROL:
  - OBTAIN CERTIFICATES FOR REQUIRED TESTS AT POINT OF PLACEMENT. IF CONCRETE IS PUMPED, OBTAIN CERTIFICATE AT DISCHARGE END.
  - FOR EACH CLASS OF CONCRETE, OTHER THAN LEAN CONCRETE, PERFORM ONE STRENGTH TEST FOR EACH 1,000 YARDS, OR FRACTION THEREOF, FOR ONE DAY PLACEMENT.
  - DETERMINE SLUMP FOR EACH STRENGTH TEST.
  - DETERMINE AIR CONTENT FOR EACH STRENGTH TEST OF EXTERIOR EXPOSED CONCRETE.
  - MAINTAIN RECORDS OF ALL TESTS INDICATING EXACT LOCATION OF THE STRUCTURE REPRESENTED BY EACH TEST.

MASONRY

- MATERIALS:
  - CONCRETE BLOCK: ASTM C90 HOLLOW AND SOLID, F<sub>m</sub> = 2,500 PSI
  - MORTAR: ASTM 270 TYPE S, MINIMUM COMPRESSIVE STRENGTH = 1,800 PSI
  - BOND BEAM AND CORE FILL: ASTM C476, COARSE TYPE WITH F<sub>c</sub> = 2,500 PSI MIN.
  - HORIZONTAL CONT. REINFORCING: STANDARD LASTER TYPE, 5-GAL. MALL GALVANIZED FINISH. PROVIDE AT 8" O.C. BELOW GRADE, AND 16" O.C. ABOVE GRADE, UNLESS NOTED OTHERWISE.
- CONTROL JOINTS:
  - PROVIDE CONTROL JOINTS IN ALL MASONRY WALLS AT A SPACING NOT TO EXCEED THREE TIMES THE WALL HEIGHT OR 24 FEET ON CENTER, WHICHEVER IS SMALLER. IN ADDITION, PROVIDE CONTROL JOINTS AT THE ENDS OF LINTELS, CHANGES IN WALL HEIGHT, CHANGES IN WALL THICKNESS, WITHIN 2 FEET OF WALL CORNERS AND INTERSECTIONS, TRANSITIONS FROM INTERIOR WALL TO EXTERIOR WALL, AND TRANSITIONS FROM WALL BEARING ON FOUNDATION TO WALL BEARING ON FLOOR SLAB.
- MISCELLANEOUS:
  - PROVIDE 10% SOLID CMU BEARING, MINIMUM 3 COURSES UNDER BEAMS, 2 COURSES UNDER JOISTS, UNLESS DETAILED OTHERWISE.
  - PROVIDE SOLID OR GROUT FILL CMU FOR ALL BELOW-GRADE FOUNDATION WALLS.
  - FILL CORE SOLID AROUND CAST-IN ANCHOR ROOFS.
  - PROVIDE SOLID CMU OR SOLID F FILL HOLLOW CMU AT ALL EPOXY ANCHOR AND WEDGE ANCHOR LOCATIONS. EXTEND SOLID AREA AT LEAST 8" IN ALL DIRECTIONS FROM CENTER OF ANCHOR.
  - HOLLOW MASONRY UNITS TO BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. WEBS ARE ALSO TO BE BEDDED IN ALL COURSES OF PIERS, PLASTERS, THE STARTING COURSE ON FOOTINGS, AND WHEN ADJACENT TO LINTELS TO BE REINFORCED OR FILLED WITH CONCRETE OR GROUT. SOLID UNITS TO BE LAID WITH FULL HEAD AND BED JOINTS.

- MINIMUM EMBEDMENT FOR WEDGE ANCHORS IS TO BE 7 BOLT DIAMETERS, UNLESS DESIGNATED OTHERWISE. MINIMUM EMBEDMENT FOR EPOXY ANCHORS IS TO BE 7 BOLT DIAMETERS, UNLESS DESIGNATED OTHERWISE.
- WHERE HOLLOW MASONRY UNITS ARE USED ABOVE HOLLOW MASONRY UNITS OF A DIFFERENT THICKNESS, PROVIDE A CONTINUOUS COURSE OF SOLID MASONRY AT LEAST 4" HIGH BELOW THE TRANSITION.
- AT CORBELLED WALLS, USE SOLID MASONRY FOR THE COURSE BELOW THE FIRST CORBEL, AND FOR EACH CORBELLED COURSE.
- MAXIMUM CORBEL PER COURSE = 1". UNLESS DETAILED OTHERWISE.
- LAP BRUCE REINFORCING BARS AS SCHEDULED. MINIMUM LAP = 48 BAR DIAMETERS.
- ALL GROUTING OF MASONRY WALLS TO BE BY THE LOW-LIFT GROUTING METHOD (MAXIMUM LIFT HEIGHT 5'-0"), UNLESS CLEAN-OUTS AND INSPECTIONS ARE PROVIDED.
- COLD-FORMED METAL FRAMING:
  - SPECIFICATIONS:
    - WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS. DESIGN, FABRICATION, AND ERECTION TO BE GOVERNED BY LATEST REVISIONS OF:
      - ASTM SPECIFICATION OF THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS
      - STRUCTURAL WELDING CODE, AWS D1.3 OF THE AMERICAN WELDING SOCIETY
  - CONNECTIONS:
    - FIELD CONNECTIONS MAY BE EITHER WELDED OR SCREWED, EXCEPT AS SPECIFICALLY DETAILED OTHERWISE.
    - WELD SIZE TO BE 1/8" WITH AWS E70X OR 70A ROD.
    - EXCEPT AS NOTED OTHERWISE, MECHANICAL FASTENERS TO BE SELF-TAPPING #10-16 SCREWS.
  - FINISH:
    - ALL MATERIAL TO BE GALVANIZED COATING IN ACCORDANCE WITH ASTM A592 G-40.
    - TOUCH-UP FIELD WELDS WITH ZINC-RICH PAINT.
  - MISCELLANEOUS:
    - ALL FIELD CUTTING TO BE PERFORMED WITH A SAW.
    - TRACKS TO BE SECURELY ANCHORED TO SUPPORTING STRUCTURE WITH WELD OR SCREW AT EACH SIDE OF TRACKS.
    - PROVIDE HORIZONTAL BRIDGING AT 8'-0" O.C. MAX. FOR ALL STUD WALLS UNLESS NOTED OTHERWISE.

STRUCTURAL LUMBER

- MATERIALS:
  - STRUCTURAL LUMBER: ALL DESIGN VALUES PER 2015 NPA NATIONAL DESIGN SPECIFICATION, ANY SUBSTITUTIONS ARE TO MEET MINIMUM DESIGN VALUES OF ABOVE MEMBERS, UNLESS OTHERWISE SPECIFIED. FRAMING MATERIALS SHALL BE:
    - BEAMS, HEADERS, JOISTS, AND RAFTERS: DOUGLAS FIR/LARCH NO. 2, 4S GRADED BY NGLA.
    - WALL STUDS 2x OR 2x6: DOUGLAS FIR/LARCH NO. 2, 4S GRADED BY NGLA.
    - MICRO-LAM (ML) OR LAMINATED VENEER LUMBER (LVL): F<sub>b</sub> = 2,600 PSI, F<sub>v</sub> = 285 PSI, F<sub>t</sub> (PERP.) = 750 PSI, E = 1,900 KSI.
    - PARALLEL OR PARALLEL STRAND LUMBER (PSL): F<sub>b</sub> = 2,300 PSI, F<sub>v</sub> = 290 PSI, F<sub>t</sub> (PERP.) = 750 PSI, E = 2,000 KSI.
    - LAMINATED STRAND LUMBER (LSL) BEAMS: F<sub>b</sub> = 2,300 PSI, F<sub>v</sub> = 290 PSI, F<sub>t</sub> (PERP.) = 750 PSI, E = 1,900 KSI.
    - DECKING AND SHEATHING (OSB OR PLYWOOD):
      - ROOF: 1/2" (2" MINIMUM) APA RATED SHEATHING, 3276 EXPOSURE 1
      - WALL SHEATHING: 7/16" APA RATED SHEATHING, WALL-34, EXPOSURE 1
  - ALL LUMBER IN CONTACT WITH CONCRETE, MASONRY, GROUND/SOIL, OR USED IN CONDITIONS WITH MOISTURE PRESENT, IS TO BE PRESSURE-TREATED TO RESIST DECAY. PRESERVATIVES USED FOR PRESSURE TREATMENT ARE TO BE AVALINE COPPER QUAT ACQ OR ACQ-D. OTHER PRESERVATIVES PROPOSED FOR USE ARE TO BE SUBMITTED FOR REVIEW PRIOR TO ERECTION OR INSTALLATION ON THE PROJECT.
- SPECIFICATIONS:
  - UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION ARE TO BE GOVERNED BY THE LATEST REVISIONS OF:
    - NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION
    - U.S. PRODUCT STANDARD PS-1 FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD
    - APA PS 2-18, PERFORMANCE STANDARD FOR WOOD STRUCTURAL PANELS
    - APA DESIGN/CONSTRUCTION GUIDE: RESIDENTIAL AND COMMERCIAL
  - CONNECTIONS:
    - CONNECTIONS FOR WOOD MEMBERS SHALL BE MINIMALLY FASTENED AS PRESCRIBED IN TABLE 2304.10.1 OF THE REFERENCED BUILDING CODE UNLESS DETAILED OTHERWISE. ALL NAILS ARE TO BE COMMON WIRE NAILS, UNLESS SPECIFICALLY NOTED OTHERWISE.
    - FOUNDATION PLATES ON CONCRETE OR MASONRY WALLS SHALL BE PRESSURE-TREATED LUMBER, 6" BY 6" MINIMUM. THERE SHALL BE A MINIMUM OF 3 BOLTS PER GILL PLATE WITH ONE BOLT LOCATED WITHIN 12" OF EACH END OF EACH PIECE. DO NOT PROVIDE A BALL PLATE SPLICE UNDER ANY POST OR STUD. SEE SHEATHING SCHEDULE AND DETAILS FOR ADDITIONAL REQUIREMENTS.
    - JOISTS TO BEAMS OR JOISTS TO TRUSSES: 16 GA. STD. JOIST HANGERS, UNLESS SHOWN OTHERWISE. BEAMS TO BEAMS: 16 GA. BEAM HANGERS, UNLESS SHOWN OTHERWISE.
    - ALL HANGERS, STRIPS, CAPS, BASES, HOLD-DOWNS, TIES OR OTHER CONNECTORS IN CONTACT WITH PRESSURE-TREATED LUMBER ARE TO BE BATCH-POST HOT-DIPPED GALVANIZED PER ASTM A123 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 30304 OR AISI 316.
  - ALL FASTENERS INCLUDING NAILS, ANCHOR RODS, POWER-DRIVEN ACTUATED FASTENERS, SCREWS, BOLTS, AND THREADED RODS, IN CONTACT WITH PRESSURE-TREATED LUMBER ARE TO BE HOT-DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 30304 OR AISI 316. FASTENERS AND CONNECTORS ARE TO BE OF THE SAME MATERIAL, STAINLESS STEEL OR HOT-DIPPED GALVANIZED, DO NOT MIX MATERIALS.
  - ALL MECHANICAL ANCHORS INCLUDING WEDGE ANCHORS AND BULKIE ANCHORS IN CONTACT WITH PRESSURE-TREATED LUMBER ARE TO BE STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 30304 OR AISI 316.
  - SHEATHING TO FRAMING:
    - ROOFS: USE 1/2" RING SHANK NAILS AT 6" ON CENTER AT PANEL EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS (AND).
    - STUD WALLS: USE COMMON OR GALVANIZED BOX NAILS AT 6" ON CENTER AT PANEL EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS (AND). SEE SHEATHING SCHEDULE FOR ADDITIONAL FASTENING REQUIREMENTS.
    - CEILING: USE 1/2" RING SHANK NAILS AT 6" ON CENTER AT PANEL EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS (AND). SEE SHEATHING SCHEDULE FOR ADDITIONAL FASTENING REQUIREMENTS.
  - TRUSS TO WALL OR RAFTERS TO WALL: STANDARD HURRICANE ANCHORS AT EACH BEARING POINT. ADDITIONAL ANCHORS MAY BE REQUIRED BASED UPON FINAL LAYOUT AND DESIGN BY THE TRUSS MANUFACTURER DURING THE SHOP DRAWING PROCESS.
  - ALL BOLTS SHALL BE GALVANIZED. BOLT HOLES SHALL BE 1/16" LARGER DIAMETER THAN NOMINAL SIZE OF BOLT USED. RE-TIGHTEN ALL STANDARD GALVANIZED ZINC WASHERS SHALL BE USED UNDER BOLT HEADS AND NUTS AGAINST WOOD.
- MISCELLANEOUS:
  - PROVIDE ONE LINE OF SOLID BLOCKING OR CROSS BRIDGING AT 8'-0" O.C. MAX. FOR ALL FLOOR JOISTS. USE SOLID BLOCKING AT JOIST AND RAFTER BEARINGS.
  - PROVIDE SOLID BLOCKING AT MID-HEIGHT OF WALLS FOR EACH OF THE FOLLOWING CONDITIONS: EXTERIOR STUD WALLS, INTERIOR BEARING PARTITIONS, AND ALL WALL FRAMING WHICH IS NOT SHEATHED ON EACH SIDE WITH GYPSUM OR WOOD SHEATHING.
  - DO NOT ROOF OR NOTCH JOISTS, RAFTERS OR BEAMS, EXCEPT WHERE SHOWN IN DETAILS, OR WITH ARCHITECT'S APPROVAL FOR ANY HOLES OR NOTCHES NOT DETAILED. HOLES THROUGH GILLS, PLATES, STUDS AND DOUBLE PLATES IN INTERIOR BEARING AND SHEAR WALLS SHALL NOT EXCEED 1/8" IN DIAMETER. OR STUD WITHIN USE BORED AND LOCATED IN THE CENTER OF THE STUD OR PLATE.
  - CEILING: USE 1/2" RING SHANK NAILS AT 6" ON CENTER AT PANEL EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS (AND). SEE SHEATHING SCHEDULE FOR ADDITIONAL FASTENING REQUIREMENTS.
  - PROVIDE MULTIPLE STUDS AT BEARING POINTS FOR MULTIPLE MEMBER JOISTS OR BEAMS. IE: TRIPLE STUD AT TRIPLE MEMBER BEAM, UNLESS NOTED OTHERWISE. MULTIPLE STUDS TO CARRY DOWN TO FOUNDATION. PROVIDE OTHER ADDITIONAL STUDS WHERE NOTED ON DETAILS OR PLANS.

ENGINEERED WOOD TRUSSES

- MATERIALS:
  - LUMBER: AS REQUIRED BY THE TRUSS MANUFACTURER. MINIMUM GRADE TO BE SYP NO. 2 KD 15 PERCENT MC, EXCEPT FOR WEBS, WHICH MAY BE MINIMUM GRADE OF SYP NO. 3 KD 15 PERCENT MC.
  - CONNECTIONS: ALL INTERNAL TRUSS CONNECTIONS ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER. CONNECTIONS ARE TO BE DEFORMED PLATE TYPE OF MINIMUM 2" THICK GALVANIZED STEEL SHEET. ALL JOINTS WITH BE BE DESIGNED USING METHODS AS SET FORTH IN TP STANDARDS.
  - ALL HANGERS, STRIPS, CAPS, BASES, HOLD-DOWNS, TIES OR OTHER CONNECTORS IN CONTACT WITH PRESSURE-TREATED LUMBER ARE TO BE BATCH-POST HOT-DIPPED GALVANIZED PER ASTM A123 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 30304 OR AISI 316.
  - ALL FASTENERS INCLUDING NAILS, ANCHOR RODS, POWER-DRIVEN ACTUATED FASTENERS, SCREWS, BOLTS, AND THREADED RODS, IN CONTACT WITH PRESSURE-TREATED LUMBER ARE TO BE HOT-DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 30304 OR AISI 316. FASTENERS AND CONNECTORS ARE TO BE OF THE SAME MATERIAL, STAINLESS STEEL OR HOT-DIPPED GALVANIZED, DO NOT MIX MATERIALS.
- SPECIFICATIONS AND REFERENCE STANDARDS: UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION, ERECTION, HANDLING AND BRACING REQUIREMENTS ARE TO BE GOVERNED BY THE LATEST REVISIONS OF:
  - NATIONAL DESIGN SPECIFICATIONS FOR STRESS-GRADE LUMBER AND ITS FASTENINGS
  - TIMBER CONSTRUCTION STANDARDS
  - DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES
  - TRUSS PLATE INSTITUTE PUBLICATION NO. 2002 TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES
- DESIGN:
  - ALL TRUSSES ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER FOR THE FOLLOWING LOADS:
    - ROOFS:
      - TOP CHORD DEAD LOAD: 10 PSF
      - TOP CHORD LIVE LOAD: 30 PSF
      - BOTTOM CHORD DEAD LOAD: 10 PSF
      - BOTTOM CHORD LIVE LOAD: 0 PSF
      - LIVE LOAD DEFLECTION LIMIT: L/800
    - ADDITIONAL DEAD LOADS: TRUSS DESIGNER SHALL INCLUDE ADDITIONAL WEIGHT OF DEAD LOADS APPLIED TO TRUSSES FROM OVER-FRAMED AREAS INDICATED ON PLANS.
    - SNOW LOADS: IN ACCORDANCE WITH ASCE 7-10 USING THE CRITERIA DEFINED IN THE "DESIGN LOADS" SECTION OF THE GENERAL STRUCTURAL NOTES. SNOW LOADS ARE TO INCLUDE THE EFFECTS OF "UNBALANCED SNOW LOADS FOR HP AND GABLE ROOFS".
    - WIND LOADS: IN ACCORDANCE WITH ASCE 7-10 USING THE CRITERIA DEFINED IN THE "DESIGN LOADS" SECTION OF THE GENERAL STRUCTURAL NOTES. TRUSSES ARE TO BE DESIGNED FOR "COMPONENTS AND CLADDING" WIND LOADS UNLESS NOTED OTHERWISE.
    - OTHER LATERAL LOADS: SEE PLANS AND DETAILS FOR DRAG STRUT LOCATIONS AND LOADING REQUIREMENTS.
  - SPECIAL LOADS: SEE PLANS AND ELEVATIONS FOR ADDITIONAL LOADS TO BE CONSIDERED IN THE TRUSS DESIGN.
  - WHERE TRUSSES ARE REQUIRED TO FRAME INTO OTHER TRUSSES, DESIGN OF THE CONNECTIONS ARE TO BE THE RESPONSIBILITY OF THE TRUSS SUPPLIER. THE TRUSS SUPPLIER IS TO MAKE NECESSARY PROVISIONS IN THE SUPPORTING TRUSS TO ACCEPT THE TYPE OF HANGER REQUIRED.
  - THE DESIGN OF ALL WEB MEMBER PERMANENT BRACING REQUIRED FOR THE STRUCTURAL ADEQUACY OF THE TRUSSES, IS TO BE THE SOLE RESPONSIBILITY OF THE TRUSS SUPPLIER.
  - ADDITIONAL PERMANENT BRACE SIZES AND CONNECTIONS, NOT PROVIDED BY THE SHEATHING SHOWN ON THE CONSTRUCTION DRAWINGS, ARE TO BE THE SOLE RESPONSIBILITY OF THE TRUSS SUPPLIER. THIS BRACING CAN INCLUDE, BUT IS NOT LIMITED TO, TOP CHORD BRACING FOR TRUSSES WITH PIGGY-BACKS, AND INTERMEDIATE BRACES FOR GABLE TRUSS WEB MEMBERS.
- SUBMITTALS:
  - TRUSS DESIGNS ARE TO BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION. TRUSS SUBMITTAL IS TO INCLUDE THE FOLLOWING INFORMATION:
    - DESIGN INFORMATION FOR EACH TYPE OF TRUSS SUPPLIED.
    - LAYOUT DRAWING INDICATING LOCATION OF EACH SPECIFIC TRUSS TYPE AND ANY PERMANENT HORIZONTAL BRACING MEMBERS.
    - PERMANENT MEMBER BRACE LOCATIONS, BRACE SIZES, AND CONNECTIONS.
    - TRUSS HANGER TYPE AND LOCATION FOR ALL TRUSSES FRAMING INTO TRUSSES.
    - TRUSS DESIGNS AND LAYOUT DRAWING STAMPED BY A REGISTERED PROFESSIONAL ENGINEER, IN THE STATE OF PROJECT LOCATION.
  - SUBMITTALS WHICH DO NOT INCLUDE THE ABOVE LISTED INFORMATION WILL BE RETURNED TO THE CONTRACTOR PRIOR TO REVIEW.
- MISCELLANEOUS:
  - ALL LARGER TRUSSES ARE TO BE 2xPL MINIMUM.
  - UNLESS SPECIFICALLY NOTED OTHERWISE ON THE APPROVED TRUSS SHOP DRAWINGS, ALL MEMBERS OF MULTIPLE TRUSSES ARE TO BE NAILS TOGETHER WITH 16 COMMON NAILS AT 8" O.C. FOR DOUBLE TRUSSES, OR WITH 16 COMMON NAILS AT 8" O.C. FROM EACH SIDE, FOR TRIPLE TRUSSES.

ABBREVIATIONS

- AB ANCHOR BOLT  
ALUM ALUMINUM  
ARCH ARCHITECTURAL  
BFB BOTTOM FLANGE BRACE  
BLD BUILDING  
BM BEAM

- CFMF COLD-FORMED METAL FRAMING  
CJ CONTROL OR CONSTRUCTION JOINT  
CLR CLEAR  
CM CONSTRUCTION MANAGER  
CMU CONCRETE MASONRY UNIT  
COL COLUMN  
CONC CONCRETE  
CONT CONTINUOUS  
COORD COORDINATE  
CY CUBIC YARD

- DBL DOUBLE  
DEM DEMOLISH OR DEMOLITION  
DET DETAIL  
DIA DIAMETER  
DIAG DIAGONAL  
DIM DIMENSION  
DWG DRAWING

- EA EACH  
EJ EXPANSION JOINT  
EW EACH WAY  
EXP EXPANSION

- FDN FOUNDATION

- FIN FINISH OR FINISHED

- FLR FLOOR

- FTG FOOTING

- FRTW FIRE-RETARDANT TREATED WOOD

- FV FIELD VERIFY

- GA GAGE

- GALV GALVANIZED

- GC GENERAL CONTRACTOR

- HC HOLLOW CORE

- HORIZ HORIZONTAL

- I INSIDE DIAMETER

- IF INSIDE FACE

- INT INTERIOR

- JST JOIST

- JOINT JOINT

- L ANGLE

- LLH LONG LEG HORIZONTAL

- LVH LONG LEG VERTICAL

- MAS MASONRY

- MAX MAXIMUM

- MIN MINIMUM

- MTL METAL

- N NORTH

- NA NOT APPLICABLE

- NIC NOT IN CONTRACT

- NOM NOMINAL

- NTS NOT TO SCALE

- OC ON CENTER

- OD OUTSIDE DIAMETER

- OH OVERHEAD

- OPP OPPOSITE

- OPNG OPENING

- OSB ORIENTED STRAND BOARD

- PC PRECAST

- PE PRE-ENGINEERED

- PEMB PRE-ENGINEERED METAL BUILDING

- PERP PERPENDICULAR

- PSF POUNDS PER SQUARE FOOT

- PSI POUNDS PER SQUARE INCH

- REINF REINFORCING OR REINFORCED

- SCH SCHEDULE

- SECT SECTION

- SF SQUARE FOOT

- SL SLOPED

- SPEC SPECIFICATIONS

- SS SQUARE

- SQ SQUARE

- STD STANDARD

- SY SQUARE YARD

- SYM SYMMETRICAL

- TOP OF TOP OF

- T&B TOP AND BOTTOM

- TEMP TEMPORARY

- T&G TONGUE AND GROOVE

- TYP TYPICAL

- UN UNLESS NOTED

- UNO UNLESS NOTED OTHERWISE

- VB VAPOR BARRIER

- VERT VERTICAL

- W WIDE FLANGE

- W/O WITHOUT

- W/F WELDED WIRE FABRIC

- YD YARD

CONCRETE REINFORCING CLEARANCES/COVER		
(#3 - #11 BARS)		
EXPOSURE CONDITION	MIN. COVER U.N.O.	TOLERANCE
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"	-3/8", + 1"
EXPOSED TO EARTH OR WEATHER: #5 AND SMALLER BARS #6 AND LARGER BARS	1 1/2" 2"	-1/4", +1/2" -1/4", +1/2"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS, BEAMS, COLUMNS, PIERS - TO TIES & STIRRUPS	3/4" 1 1/2"	-1/4", +3/8" -1/4", +1/2"

"-" INDICATES TOLERANCE DECREASE TOWARDS MEMBER FACE.  
"+" INDICATES AWAY FROM MEMBER FACE

IN ACCORDANCE WITH CHAPTER 17 OF THE REFERENCE BUILDING CODE, THE OWNER SHALL EMPLOY INSPECTION AGENCIES TO PERFORM SPECIAL INSPECTIONS DURING CONSTRUCTION INCLUDING CHECKS OF SHOP FABRICATED ITEMS WHEN APPLICABLE. ALL INSPECTION AGENCIES, INCLUDING FABRICATION FACILITIES, WHEN REQUIRED, SHALL BE QUALIFIED AND APPROVED BY THE BUILDING OFFICIAL. REFER TO OTHER DISCIPLINES FOR SPECIAL INSPECTIONS OF NON-STRUCTURAL SYSTEMS.

TABLE 1 STATEMENT OF SPECIAL INSPECTIONS FOR STRUCTURAL DISCIPLINE

REQUIRED SPECIAL INSPECTIONS AND TESTS FOR SOILS		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	---	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	---	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	---	X
4. VERIFY USE OF PROPER MATERIAL DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	---
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SURGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	---	X

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION			
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	—	X	
2. INSPECT ANCHORS CAST IN CONCRETE.	—	X	
3. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	—	—	
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	—	
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4A.	—	X	
4. VERIFY USE OF REQUIRED DESIGN MIX.	—	X	
5. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	—	X	
6. INSPECT CONCRETE AND BIDDOTYPE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	—	
7. VERIFY MAINTENANCE OF SPECIFIC CURING TEMPERATURE/TEMPERATURE TECHNIQUES.	—	X	
8. INSPECT FORMWORK FOR BRACE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	—	X	





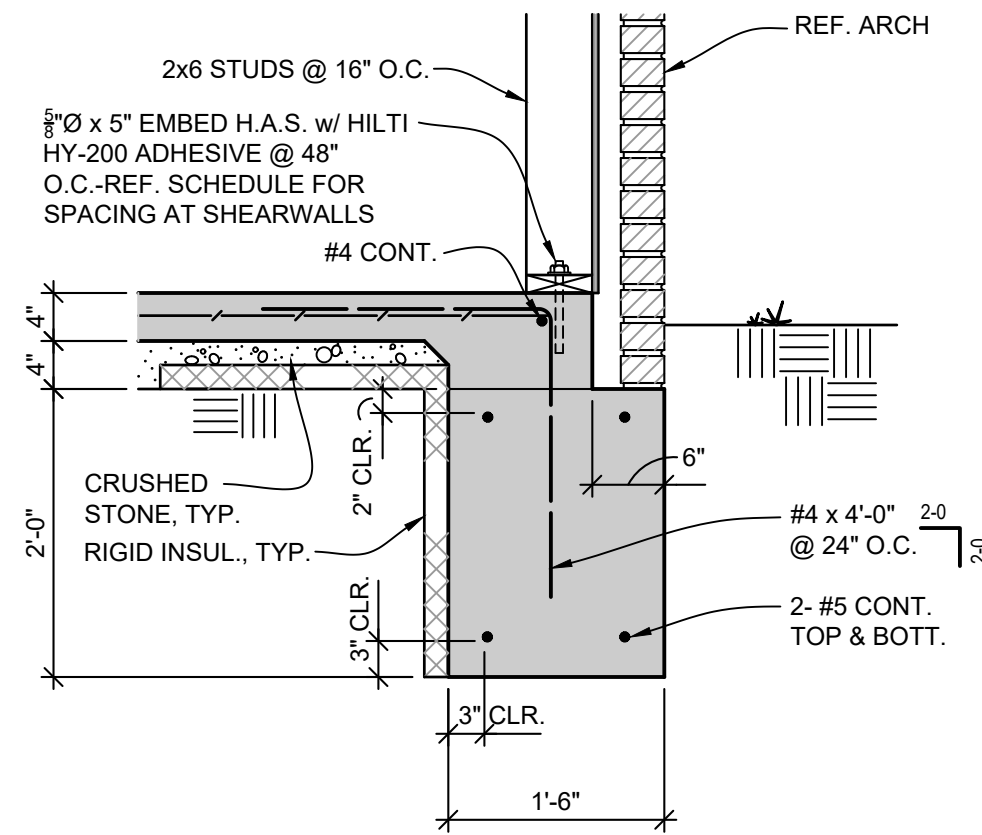
FOR  
RB AMERICAN GROUP  
6200 OAK TREE BLVD. INDEPENDENCE, OH 44131

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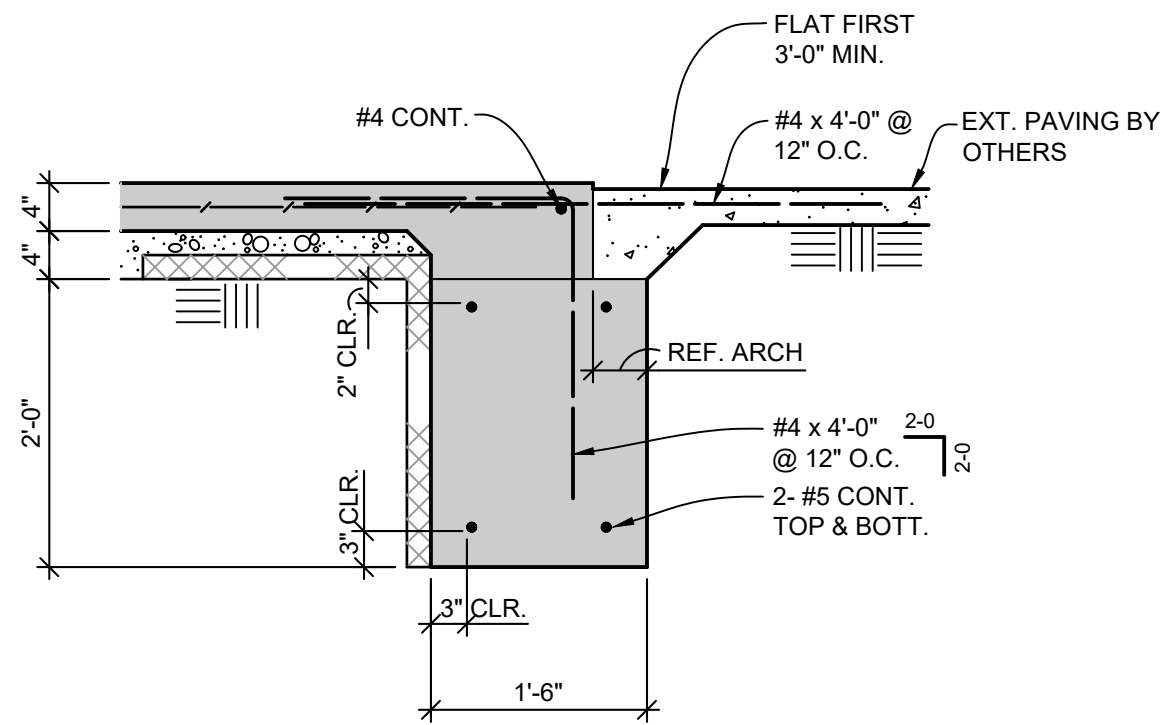
# S1



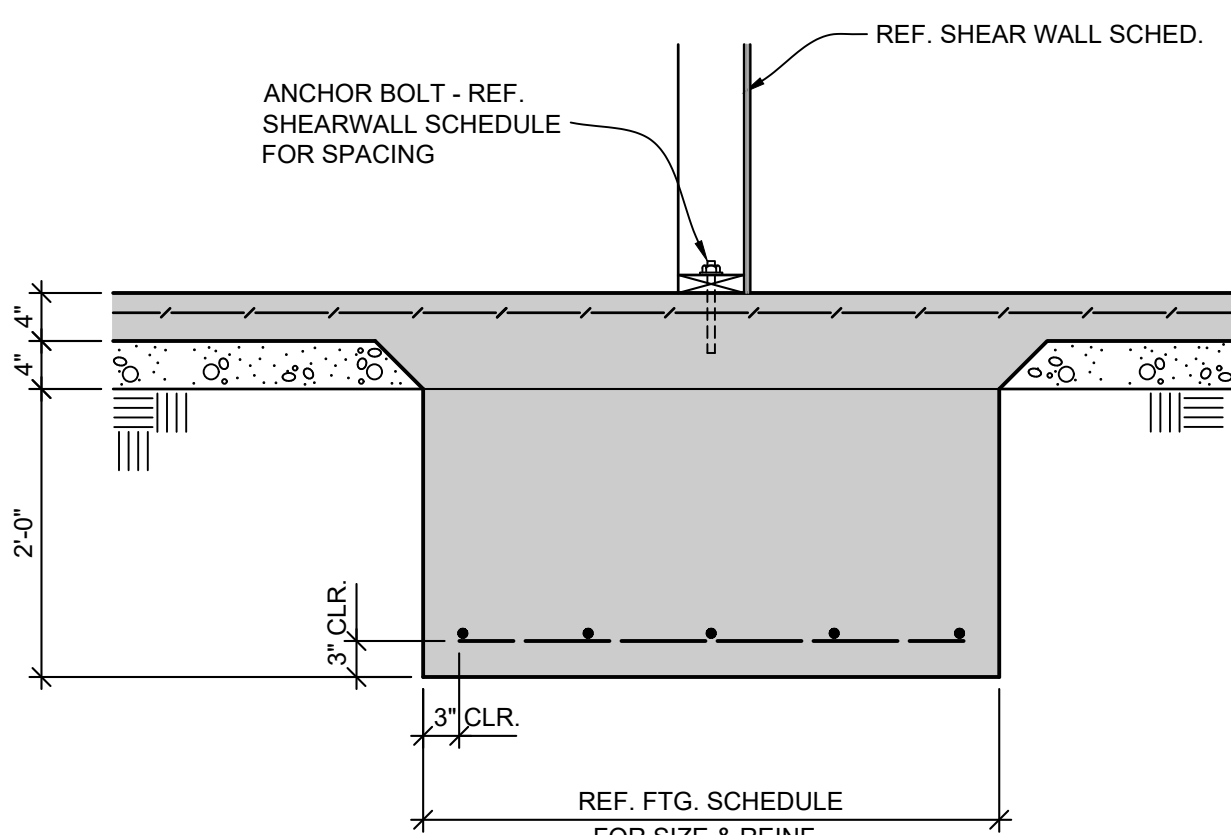
1. SEE S0 FOR REFERENCE SLOPS REQUIRED FOR INFORMATION. REFERENCE THIS REPORT FOR ANY REQUIRED SLOPE DATA. ALL EXCAVATIONS SHALL BE PROTECTED FROM BELOW-GRADE CONSTRUCTION. FOOTING EXCAVATIONS MAY BE REQUIRED TO EXTEND THROUGH EXISTING FILL ZONES IN ORDER TO BEAR ON SATURABLE MATERIAL. OVER-EXCAVATIONS ARE TO BE FILLED WITH LEAN CONCRETE UP TO THE PLANNED FINISH GRADE. EXISTING FILL TO BE REMOVED TO CONCRETE PRIOR TO INSPECTION AND APPROVAL OF BORING SURFACES BY SOILS ENGINEER.
2. KEEP FOUNDATIONS FREE OF WATER AT ALL TIMES. REMOVE WEAKENED SOIL WITH LEAN CONCRETE OR FLOWABLE FILL.
3. PROVIDE CORNER BARS AT ALL FOOTING AND CONCRETE WALL INTERSECTIONS PER DETAIL 4S2.1
4. SEE SECTIONS 9S2.1 FOR TYPICAL UTILITY TRENCH EXCAVATION CLEARANCE REQUIREMENTS FROM BUILDING FOUNDATIONS.
5. \* INDICATES SHEARWALL HOLD-DOWN LOCATION. SEE SHEARWALL SCHEDULE THIS SHEET AND COORDINATE ANCHOR LOCATION WITH DETAIL 9S2.
6. THE GENERAL CONTRACTOR IS TO FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING DRAWINGS. IF CONDITIONS OR DIMENSIONS VARY FROM THOSE SHOWN ON THE CONSTRUCTION DOCUMENTS, CONTACT THE ARCHITECT PRIOR TO COMMENCING WITH CONSTRUCTION OR FABRICATION.
7. SEE SCHEDULE 3 FOR GENERAL STRUCTURAL INFORMATION.
8. C.J. - INDICATES A SAWED CONCRETE JOINT, REF. 7S2.



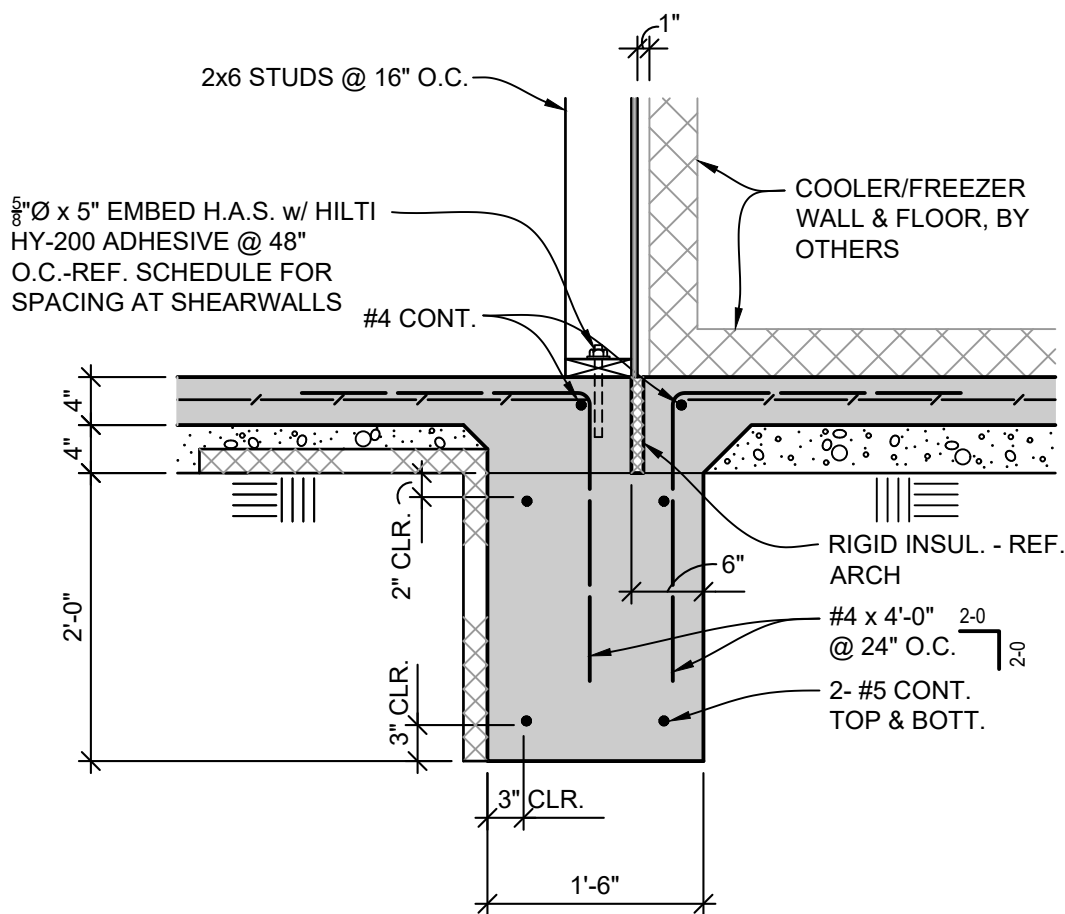
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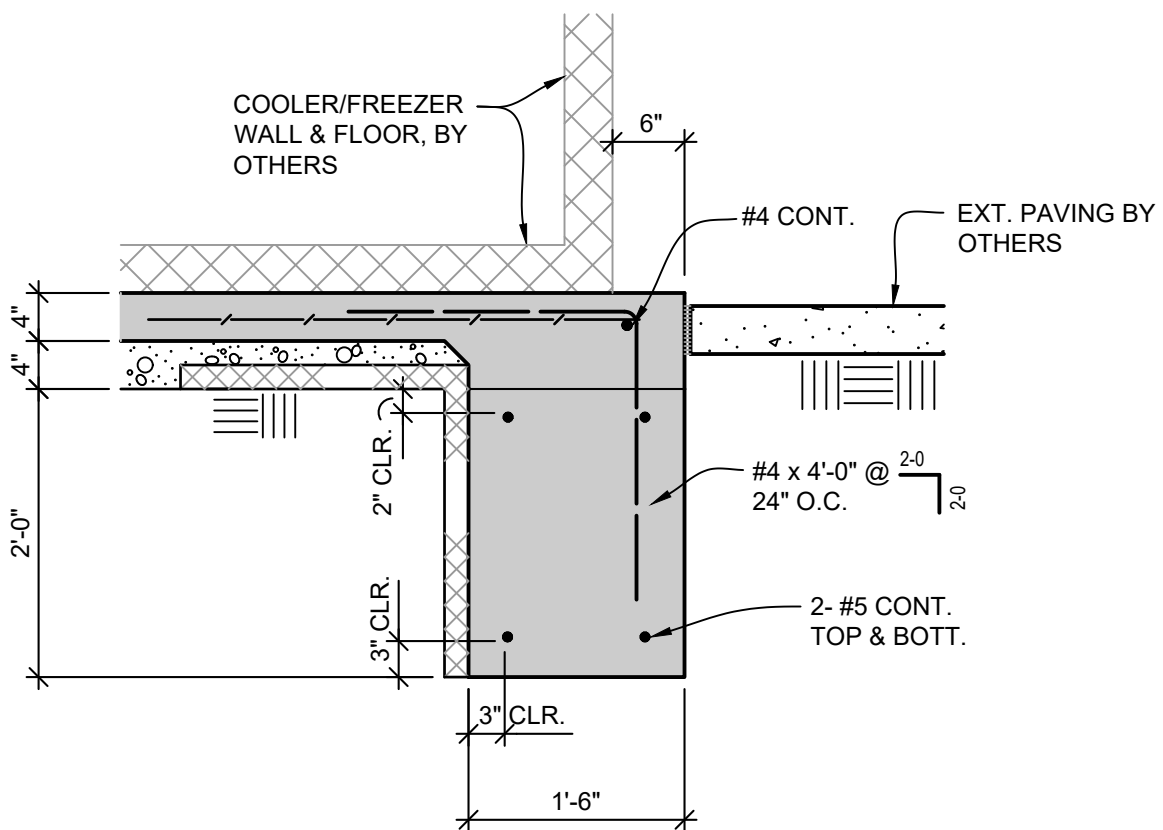
**2 SECTION**  
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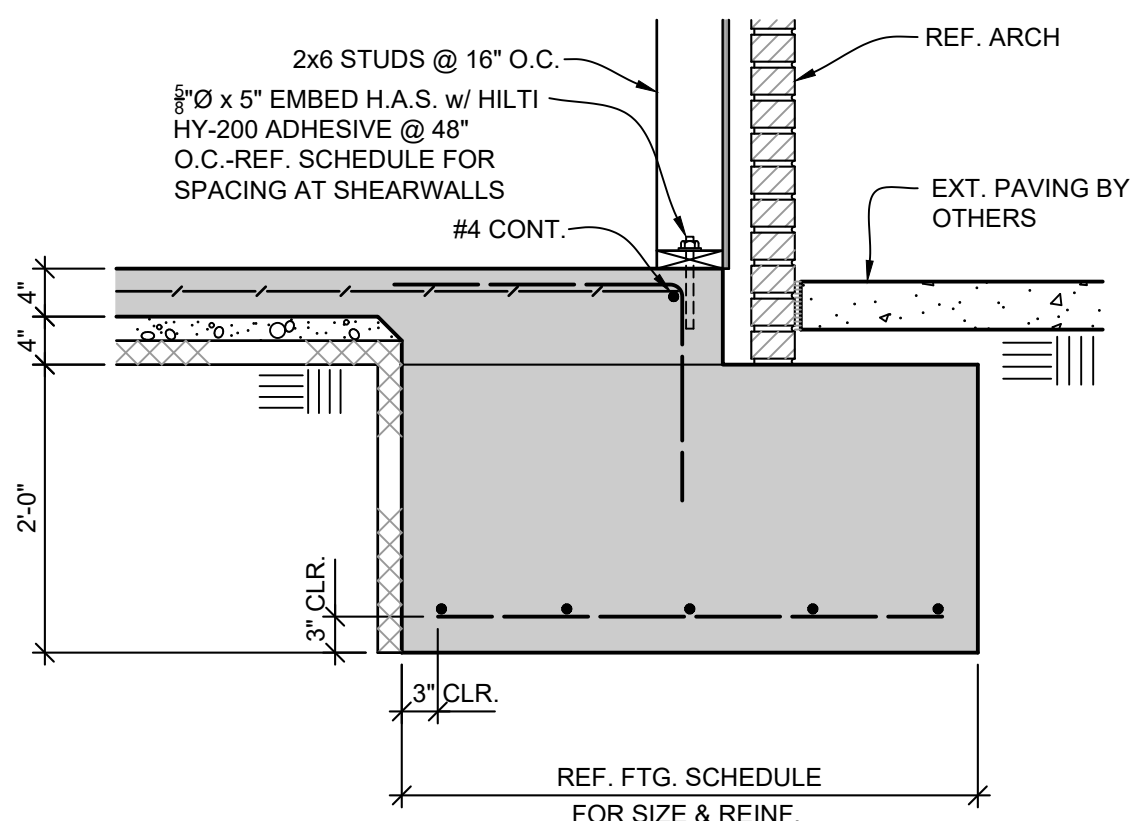
**3 SECTION**  
SCALE: 3/4" = 1'-0"



**4 SECTION**  
SCALE: 3/4" = 1'-0"



**5 SECTION**  
SCALE: 3/4" = 1'-0"



**6 SECTION**  
SCALE: 3/4" = 1'-0"

- LIGHT GAUGE NOTES**
1. LIGHT GAUGE STEEL MEMBERS ARE TO BE DEPTH AND GAUGE NOTED ON DRAWINGS.
  2. YIELD STRESS (FY) FOR 18 AND 20 GAUGE MATERIAL IS TO BE MINIMUM 33,000 PSI. YIELD STRESS FOR 16 GAUGE AND HEAVIER IS TO BE MINIMUM 50,000 PSI.
  3. WALL STUDS ARE TO ALIGN WITH FLOOR, ROOF, AND CEILING JOISTS UNLESS NOTED OTHERWISE.
  4. TRACK IS TO MATCH GAUGE OF ADJACENT MATERIAL (I.E. STUDS) UNLESS NOTED OTHERWISE. ALL TRACK IS TO HAVE A MINIMUM YIELD STRESS OF 33,000 PSI.
  5. PUNCHED WEBS ARE ACCEPTABLE, PER DIETRICH STANDARD; HOWEVER, 10 INCHES MINIMUM OF UNPUNCHED MATERIAL IS REQUIRED AT BOTH ENDS OF ALL MEMBERS. IF PUNCHES OCCUR AT FASTENER LOCATIONS, REINFORCE WITH MATERIAL OF SAME GAUGE AND YIELD STRESS AS PUNCHED MEMBER.
  6. STUDS MUST BE SEATED SQUARELY IN WEB OF BOTTOM TRACK, WITH BOTH FLANGES FASTENED TO TRACK FLANGES.
  7. PROVIDE 1/2" 16 GAUGE COLD-ROLLED "U" CHANNEL HORIZONTAL BRIDGING AT 5'-0" ON CENTER, MAXIMUM FOR WALL STUDS. PROVIDE ONE ROW AT MID-HEIGHT FOR WALLS LESS THAN 10 FEET HIGH. ATTACH BRIDGING TO EACH STUD BY WELDING OR WITH CLIPS AND SCREWS.
  8. PROVIDE BRIDGING FOR FLOOR, ROOF, AND CEILING JOISTS AT 8 FEET ON CENTER, MAXIMUM. BRIDGING TO CONSIST OF SOLID BLOCKING IN TWO JOIST SPACES EACH END OF BRIDGING LINE AND IN SINGLE SPACES 10 FEET ON CENTER, MAXIMUM, WITH CONTINUOUS FLAT STEEL STRAPS TOP AND BOTTOM FULL LENGTH. NOTE: TOP FLANGE STRAP MAY BE OMITTED, UNLESS CONSTRUCTION LOADS REQUIRE BRIDGING PRIOR TO DECK INSTALLATION.
  9. ALL MEMBERS ARE TO BE CONTINUOUS BETWEEN SUPPORTS. CONTINUOUS WALL TRACK MUST BE ANCHORED TO A COMMON STRUCTURAL MEMBER, AT SPLICE LOCATIONS, OR MUST BE SPLICED BY BUTT WELDING OR LAPPING AND FASTENING.
  10. TYPICAL WALL STUDS TO BE AS FOLLOWS, EXCEPT WHERE NOTED OTHERWISE 550S162-43 @ 16" O.C.
  11. PROVIDE MULTIPLE STUDS AT BEARING POINTS FOR MULTIPLE MEMBER JOISTS OR BEAMS, I.E. TRIPLE STUD AT TRIPLE MEMBER BEAM. MULTIPLE STUDS TO CARRY DOWN TO FOUNDATION. PROVIDE OTHER ADDITIONAL STUDS WHERE NOTED ON DETAILS OR PLANS. SECTIONS CAN BE IDENTIFIED BY THE FOLLOWING NOMENCLATURE:

550 S 162 - 43

MEMBER DEPTH:  
(IN 1/100 INCHES)

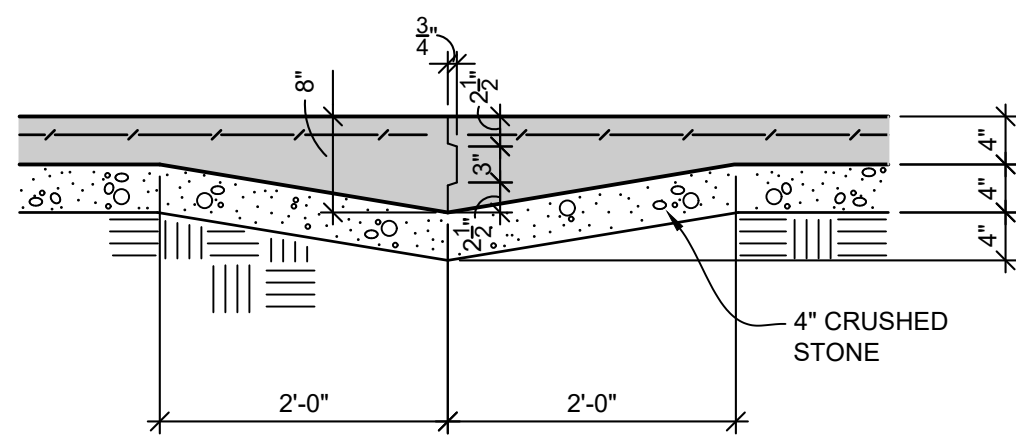
STYLE:  
S = STUD OR JOIST SECTIONS  
T = TRACK SECTIONS  
U = CHANNEL SECTIONS  
F = FURRING CHANNEL SECTIONS

MATERIAL THICKNESS: (MILLS)  
(IN 1/1000 INCHES)

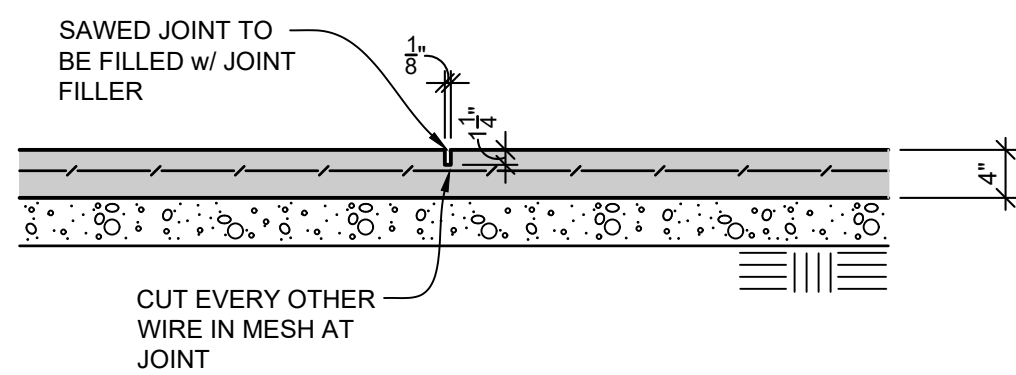
FLANGE WIDTH:  
(IN 1/100 INCHES)

**FOOTING SCHEDULE**

MARK	F1	F2	F3	F4	F5
FOOTING	6'-0"x11'-6"x2'-0" DP w/ 8- #5 x 11'-0" & 15- #5 x 6'-6" BOTT	7'-0"x11'-0"x2'-0" DP w/ 9- #5 x 10'-6" & 14- #5 x 6'-6" BOTT	6'-0"x6'-0"x2'-0" DP w/ 8- #5 x 5'-6" E.W. BOTT	4'-6"x4'-6"x2'-0" DP w/ 6- #5 x 4'-0" E.W. BOTT	5'-0"x5'-0"x2'-0" DP w/ 7- #5 x 4'-6" E.W. BOTT

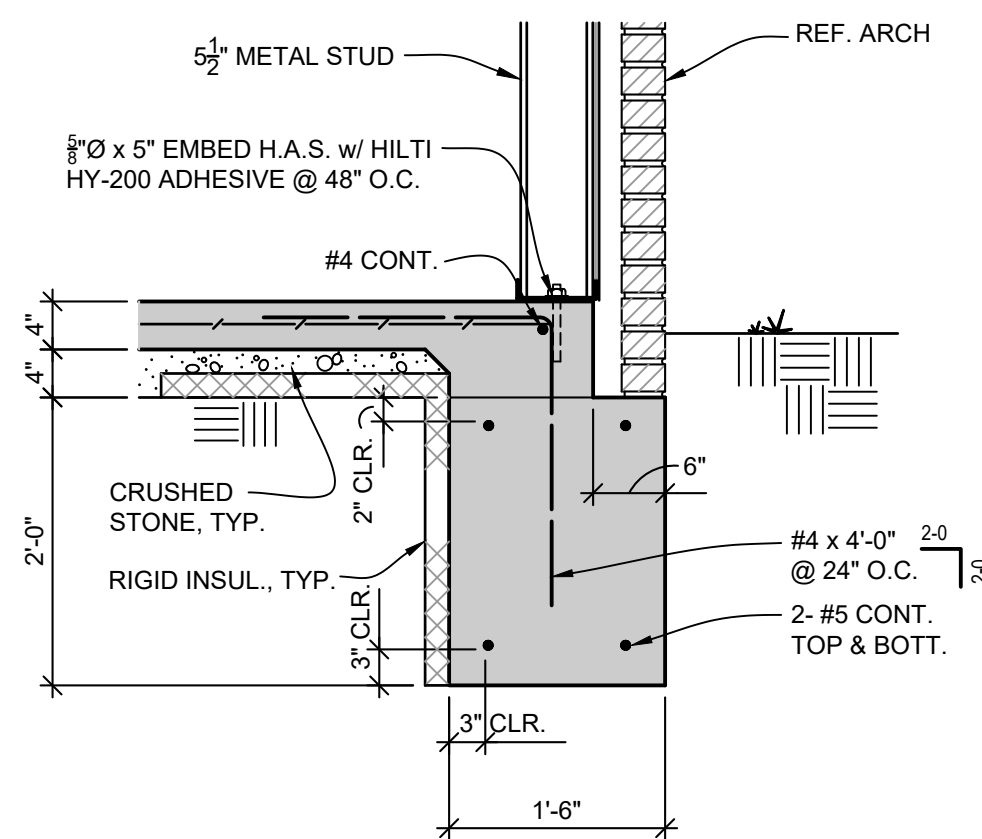


TYPICAL FLOOR CONSTRUCTION JOINT

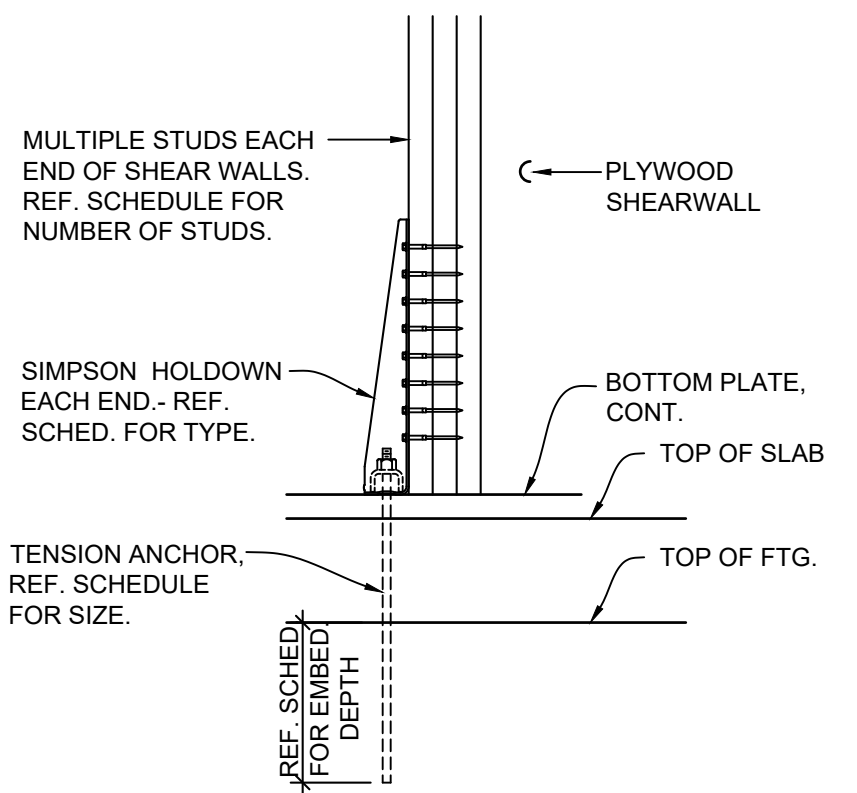


TYPICAL FLOOR CONTROL JOINT

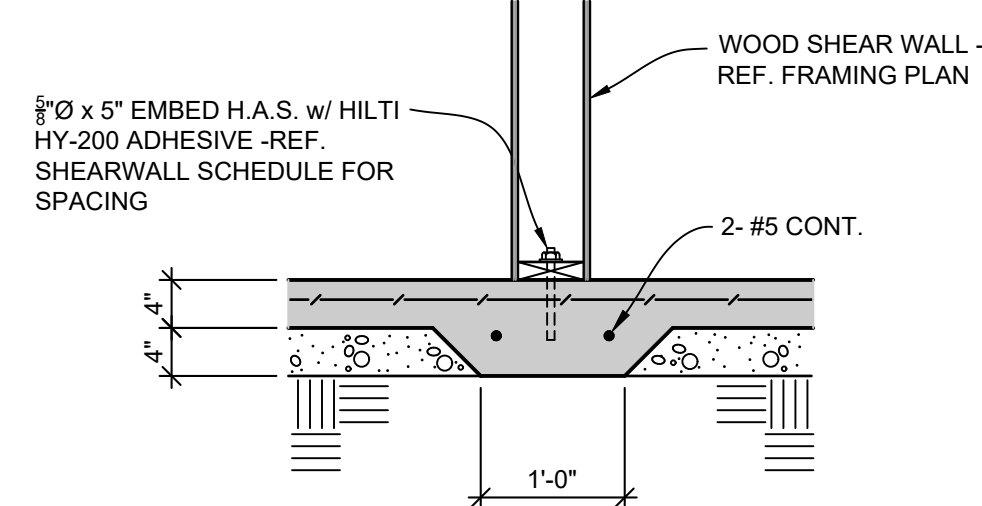
**7 SECTION**  
SCALE: 3/4" = 1'-0"



**8 SECTION**  
SCALE: 3/4" = 1'-0"



**9 SECTION AT SHEAR WALL HOLDOWN**  
SCALE: 3/4" = 1'-0"



**10 SECTION**  
SCALE: 3/4" = 1'-0"



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

② SECTION

### TYPICAL EXCAVATION CLEARANCE REQUIREMENTS

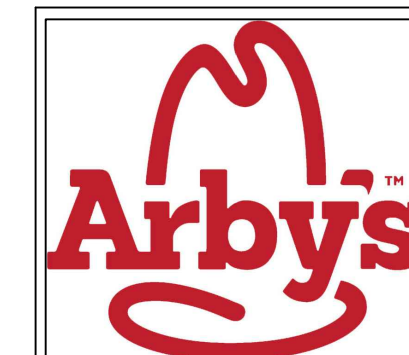
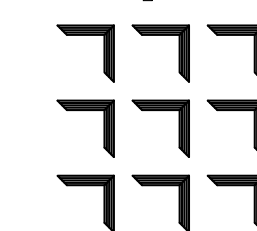
**4** SECTION

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

**5** TYPICAL LIGHT POLE FOUNDATION DETAIL

SCALE: 1/2" = 1'-0"

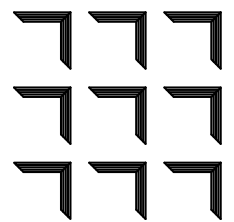
**6 SECTION AT TRASH ENCLOSURE**  
SCALE: 3/4" = 1'-0"



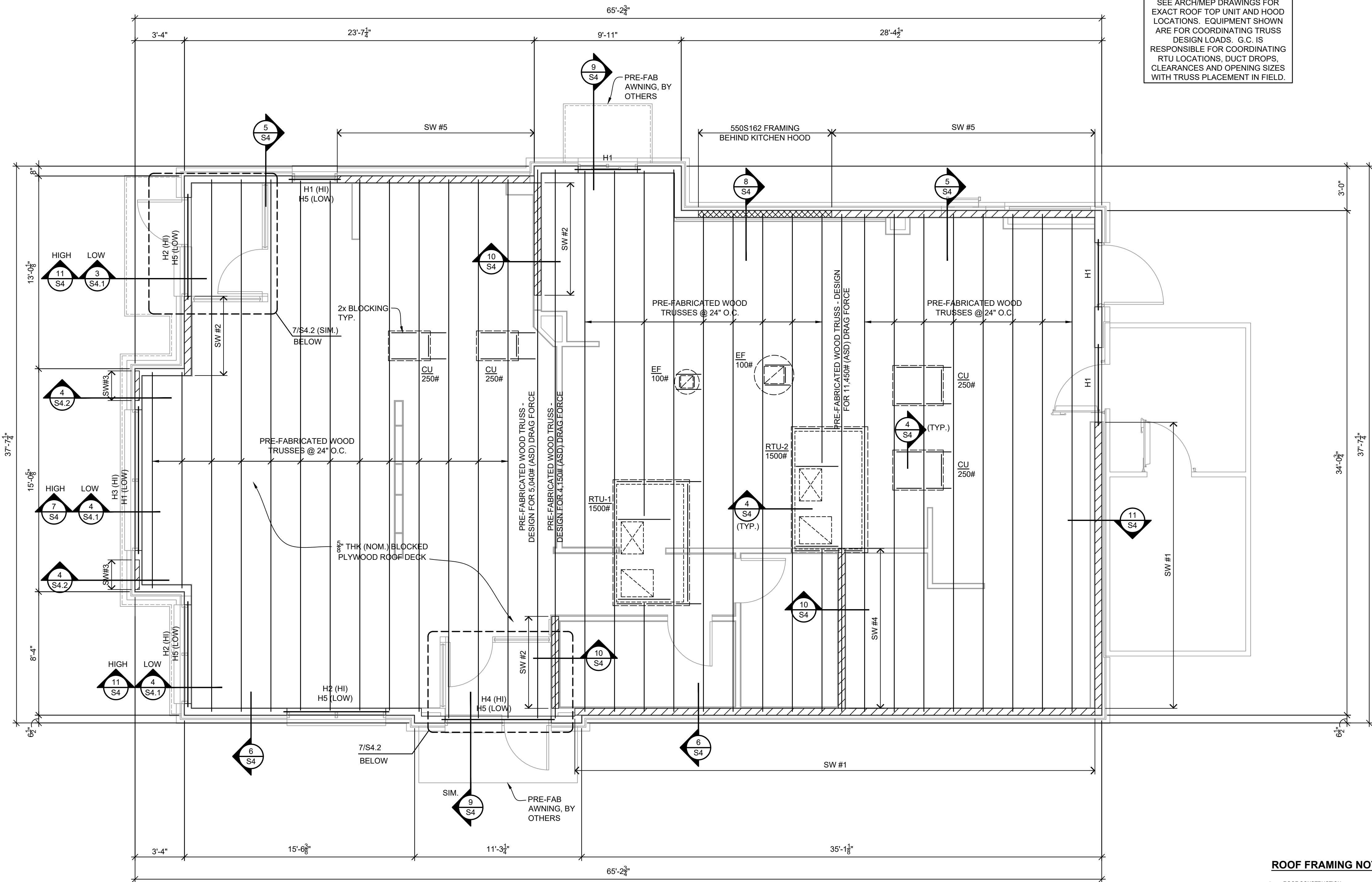
PROJECT NUMBER:  
220750

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SHEET:



REVISION	

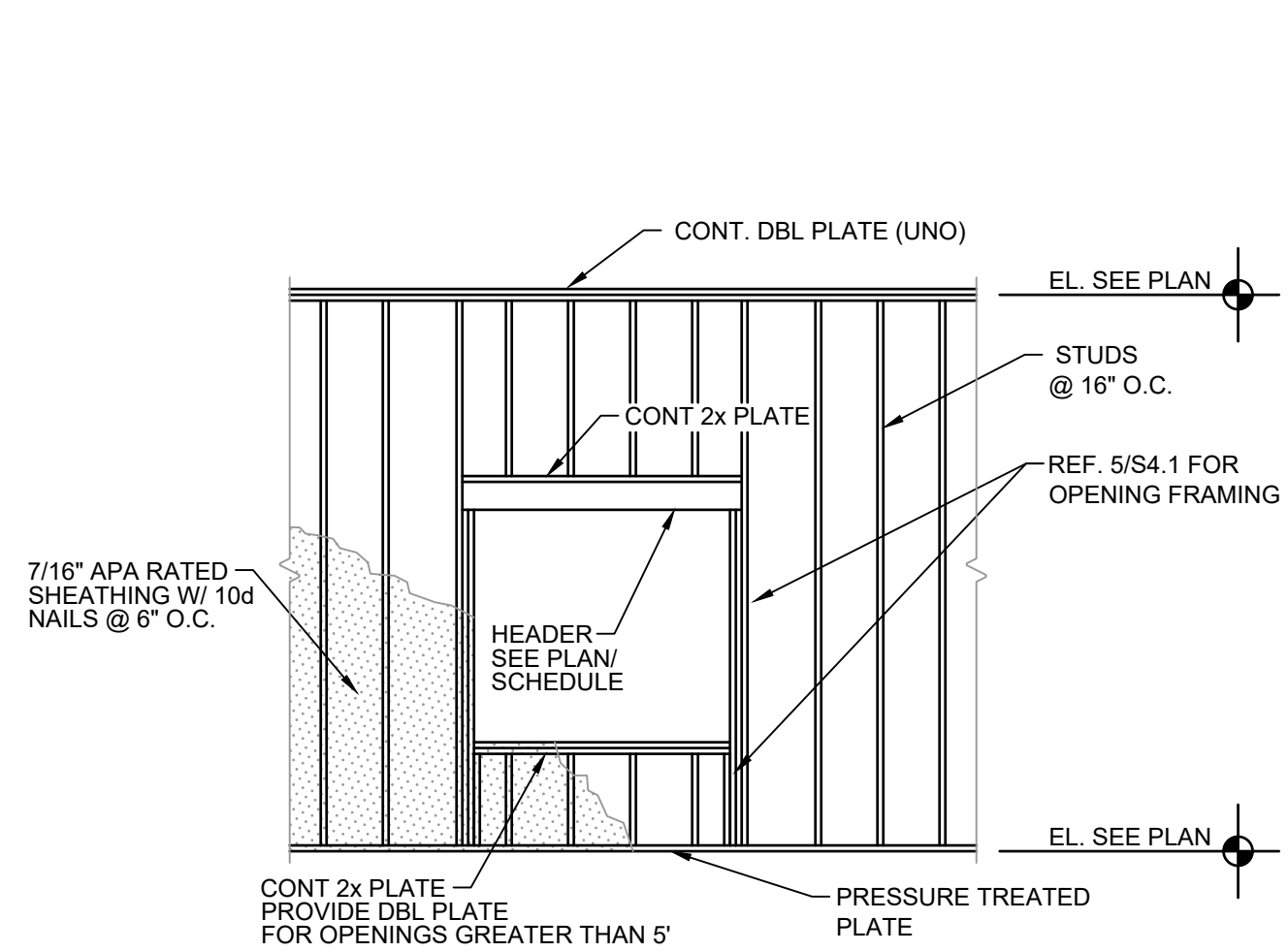


**1 ROOF FRAMING PLAN**  
SCALE: 1/4" = 1'-0"  
North

**ROOF FRAMING NOTES**

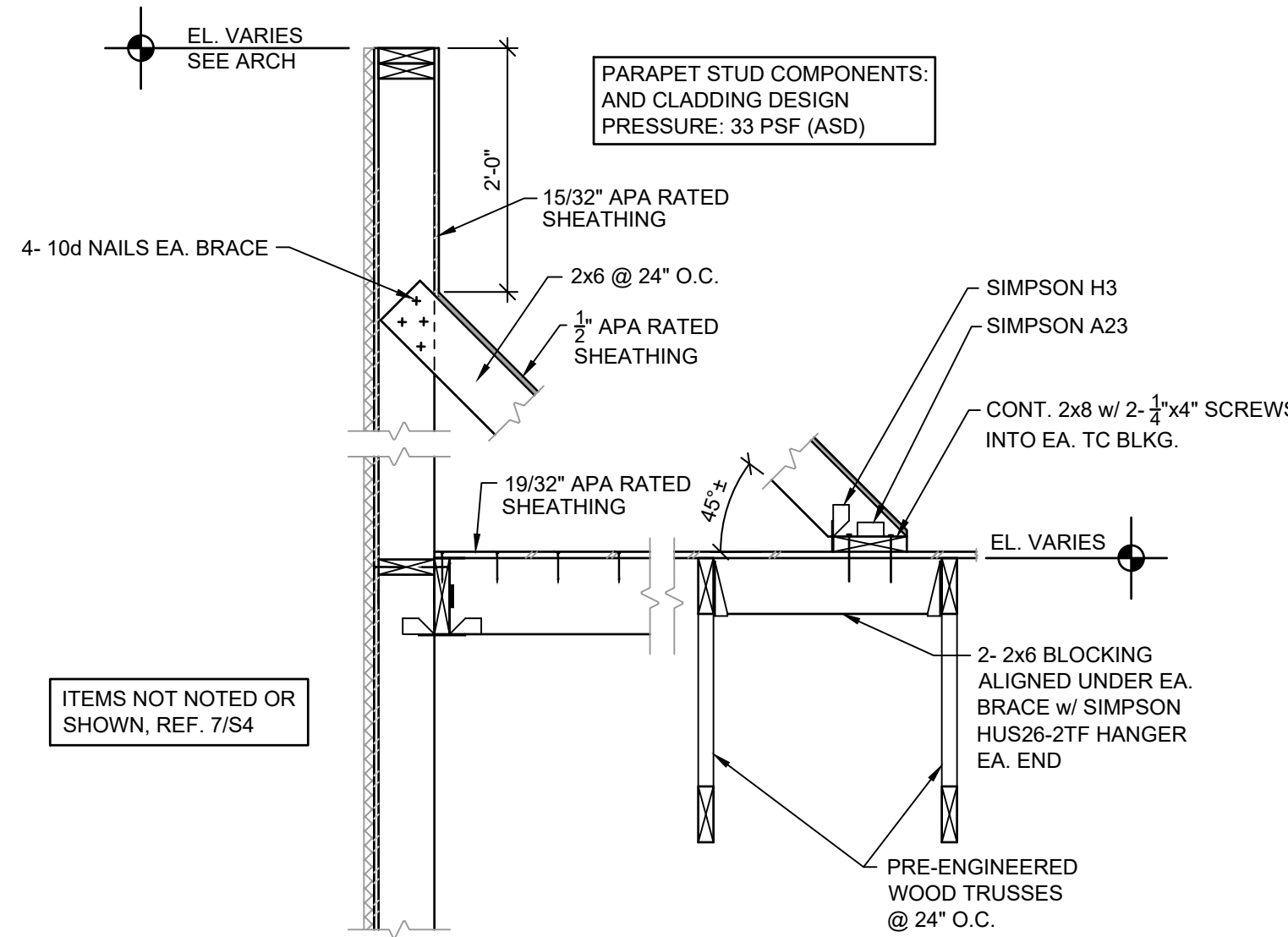
1. ROOF CONSTRUCTION:  
5/8" NOMINAL APA RATED OSB SHEATHING ON PRE-ENGINEERED WOOD TRUSSES OR 2x FRAMING. UNLESS NOTED OTHERWISE, FASTEN SHEATHING TO SUPPORTS AS INDICATED IN THE GENERAL STRUCTURAL NOTES AND DETAIL S34.
2. INDICATES ROOF OPENING. DETERMINE EXACT SIZE AND LOCATION FROM ARCHITECTURAL AND MECHANICAL DRAWINGS. NOT ALL OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS. PROVIDE 2x6 BLOCKING FOR FRAMING OF ALL OPENINGS EQUAL TO OR GREATER THAN 6" SQUARE OR DIAMETER. SIZE OF OPENING IS NOT TO EXCEED THE TYPICAL CLEAR DISTANCE BETWEEN FRAMING MEMBERS OR TRUSSES. NOTIFY THE ARCHITECT BEFORE PROCEEDING IF OPENINGS CANNOT BE FIT BETWEEN FRAMING MEMBERS.
3. INDICATES MECHANICAL LOAD SUPPORTED ON ROOF. COORDINATE FINAL SIZE, WEIGHT, LOCATION AND OPENING REQUIREMENTS WITH MECHANICAL CONTRACTOR. TOLERANCE FOR LOCATION OF ACTUAL UNIT IS 3 FEET IN ANY DIRECTION FROM WHERE SHOWN ON THE STRUCTURAL DRAWINGS. PROVIDE BLOCKING SUPPORT UNDER ALL UNIT CURBS PER DETAIL 454. PRE-ENGINEERED METAL BUILDING STRUCTURE IS TO BE DESIGNED TO ACCOMMODATE LOADING.
4. INDICATES SHEAR WALL.
5. INDICATES METAL STUD FRAMING.
6. INDICATES WOOD HEADER FOR WALL OPENINGS PER SCHEDULE ON SHEET S3. SEE ARCHITECTURAL DRAWINGS FOR OPENING SIZES AND DETAILS 1 AND 254 FOR STANDARD HEADER CONSTRUCTION.
7. SEE ARCHITECTURAL DRAWINGS FOR ANY DIMENSIONS NOT INDICATED HEREIN.
8. THE GENERAL CONTRACTOR IS TO FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING SHOP DRAWINGS. IF CONDITIONS OR DIMENSIONS VARY FROM THOSE SHOWN ON THE CONSTRUCTION DRAWINGS, CONTACT THE ARCHITECT PRIOR TO COMMENCING WITH CONSTRUCTION.
9. SEE SHEET S0 FOR GENERAL STRUCTURAL INFORMATION.





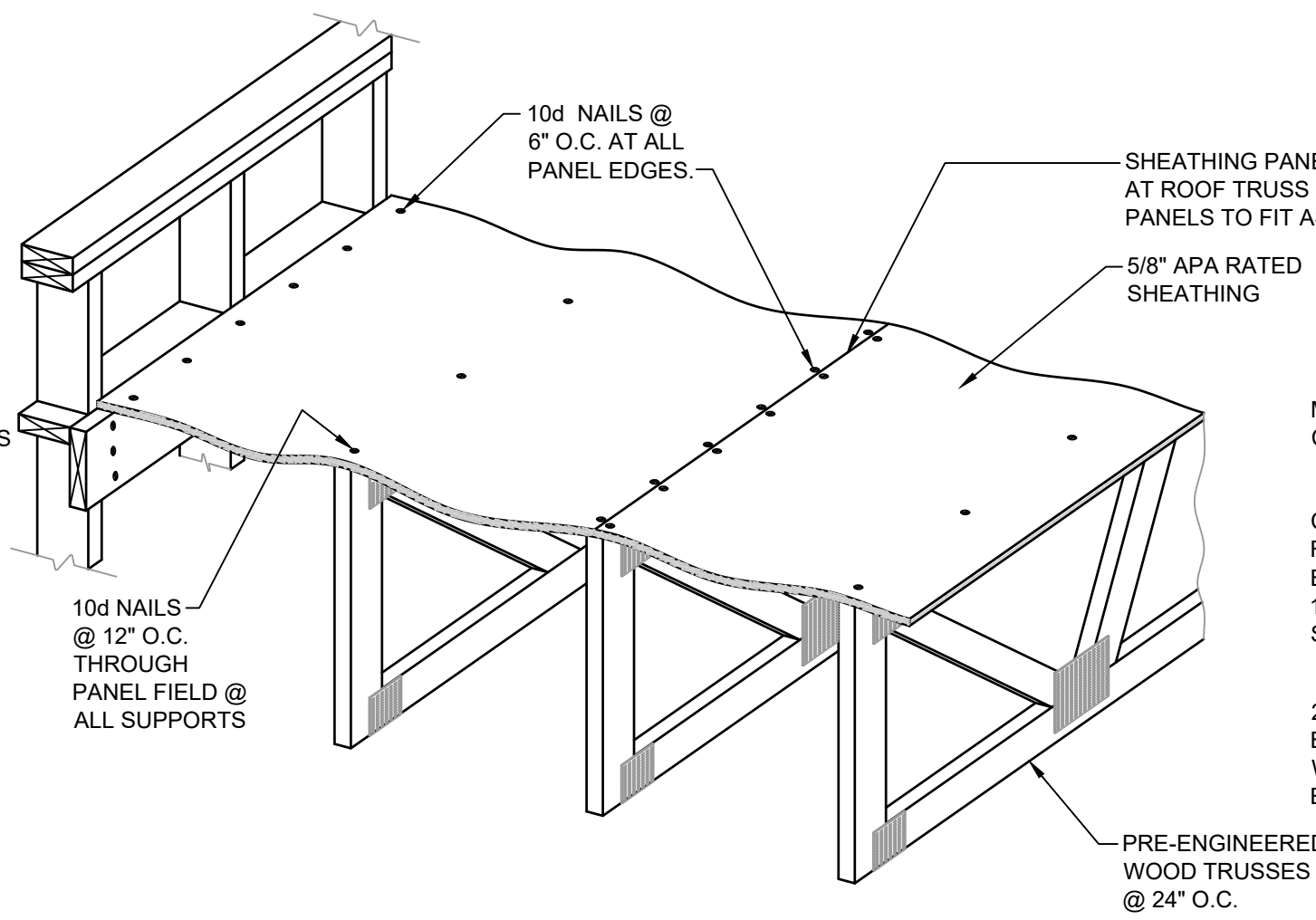
## TYPICAL WALL AND OPENING ELEVATION

① SCALE: 3/4" = 1'-0"



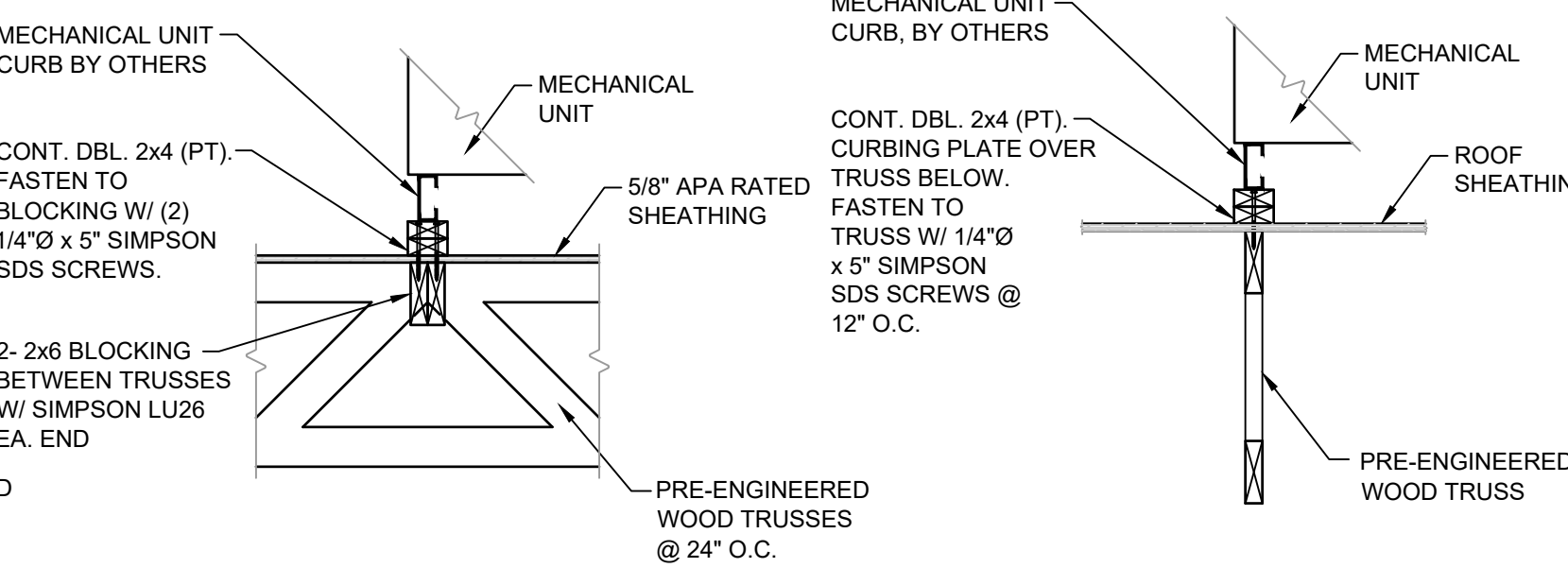
## ② FRAMING SECTION

SCALE: 3/4" = 1'-0"



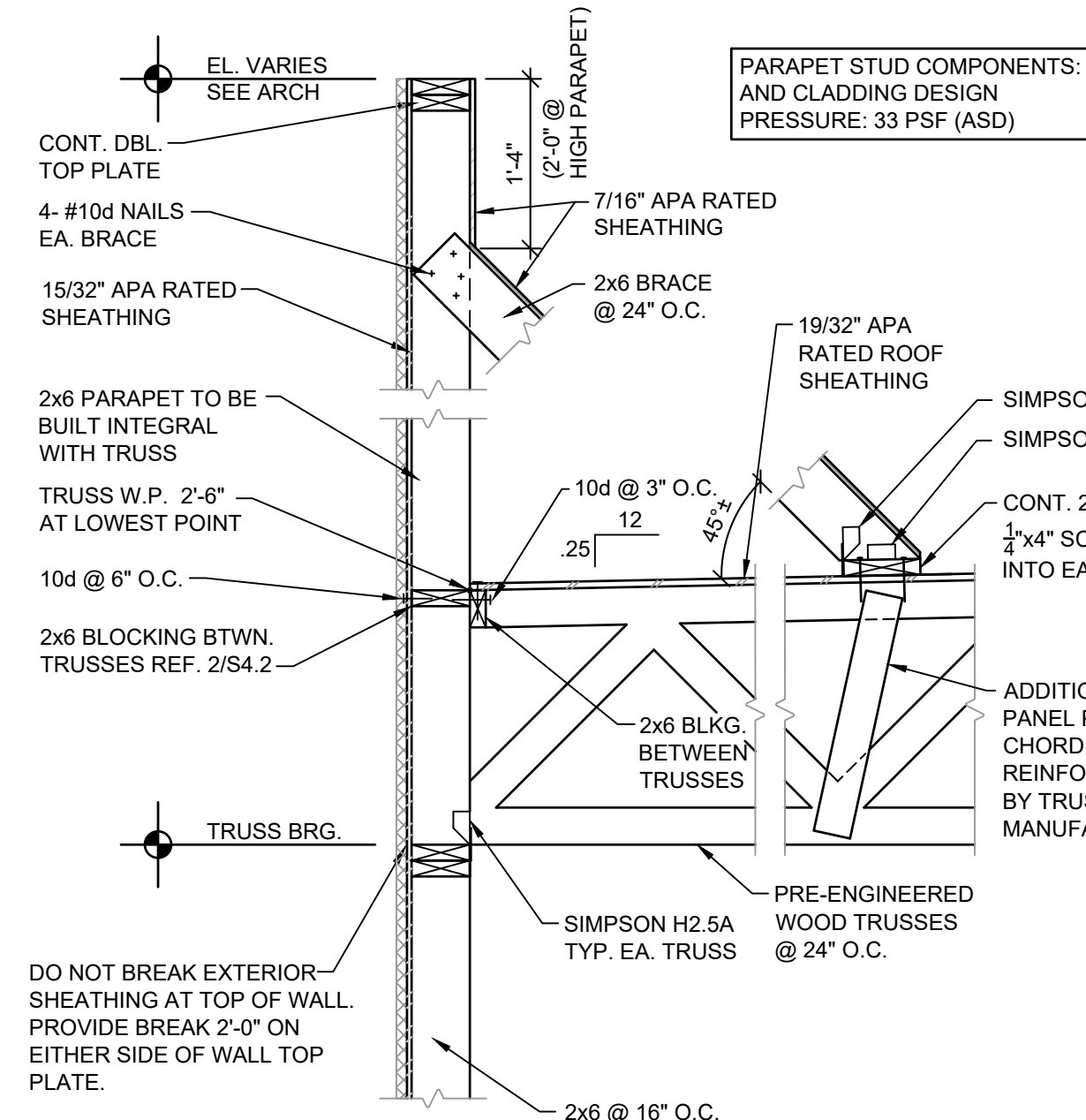
## ③ TYPICAL DIAPHRAGM NAILING

SCALE: 3/4" = 1'-0"



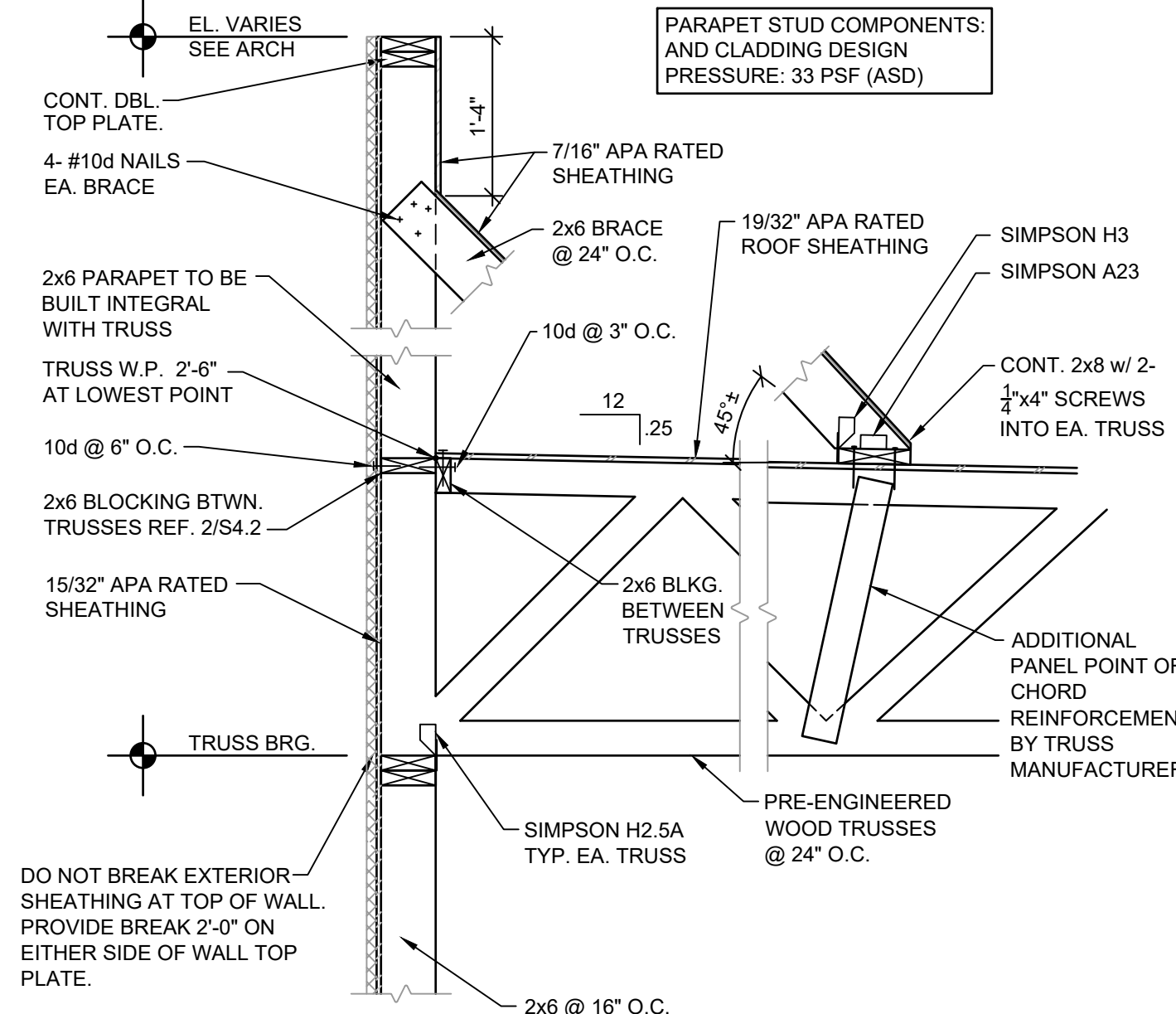
## ④ MECHANICAL CURB DETAILS

SCALE: 3/4" = 1'-0"



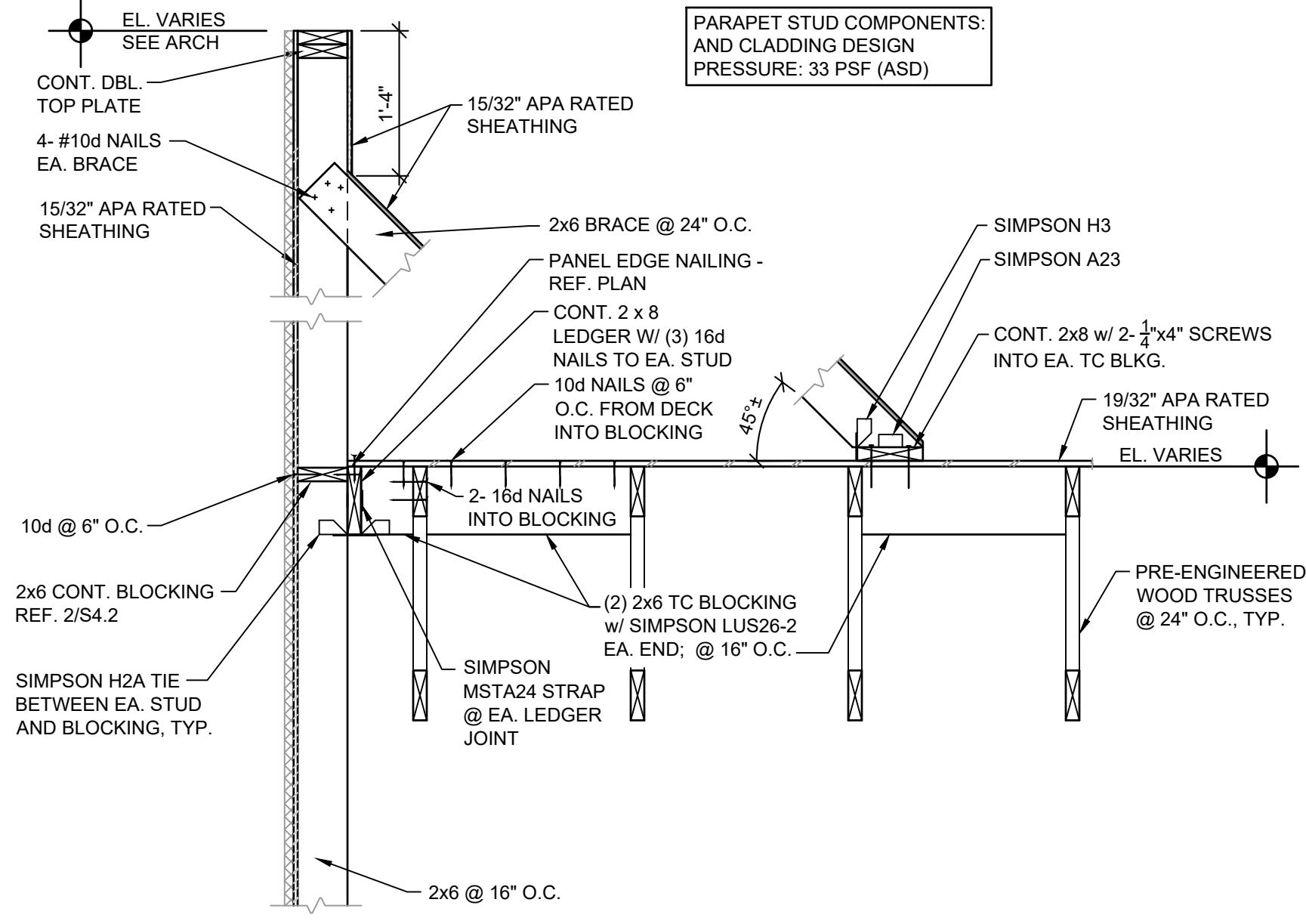
## ⑤ FRAMING SECTION

SCALE: 3/4" = 1'-0"



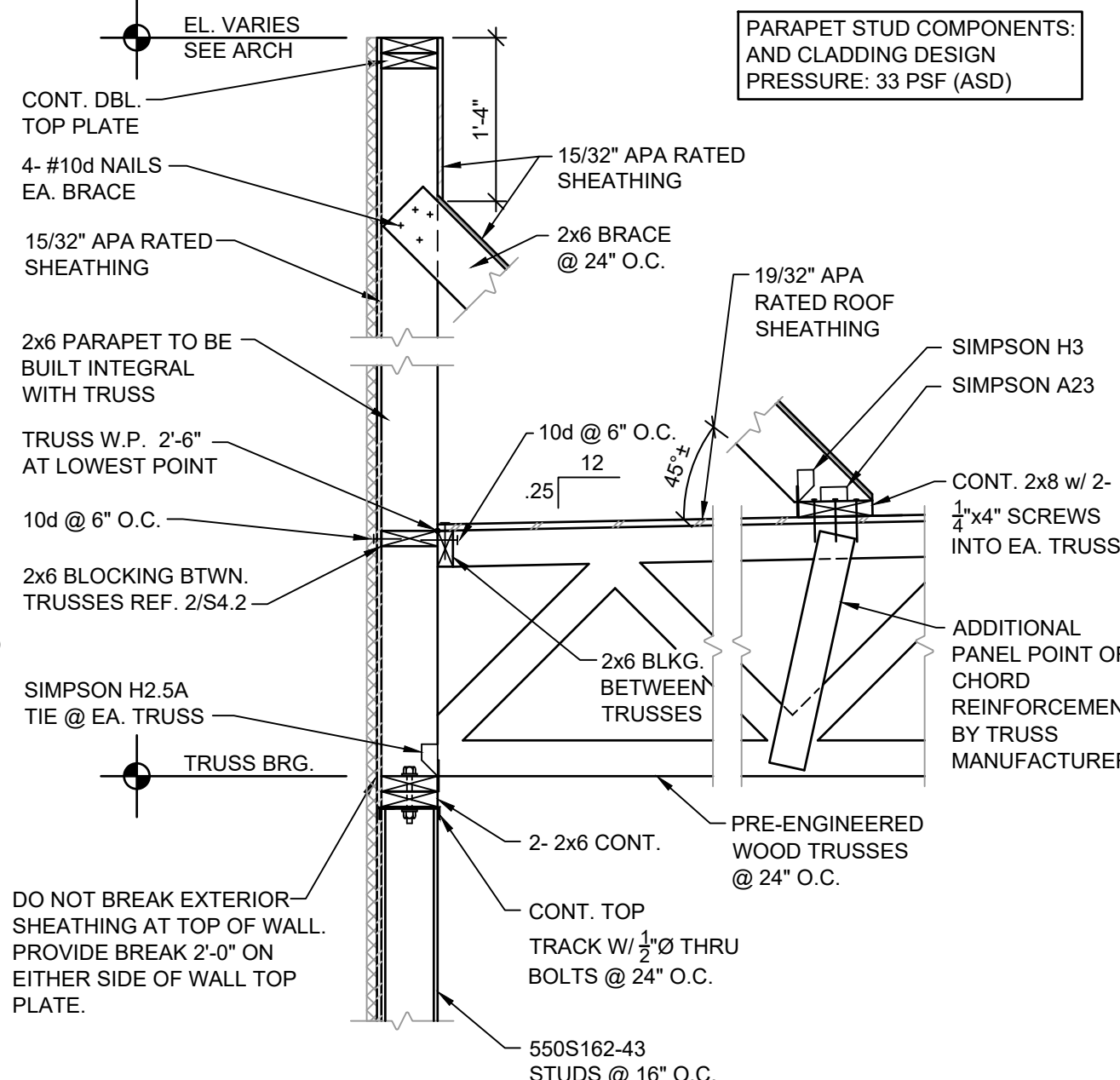
## ⑥ FRAMING SECTION

SCALE: 3/4" = 1'-0"



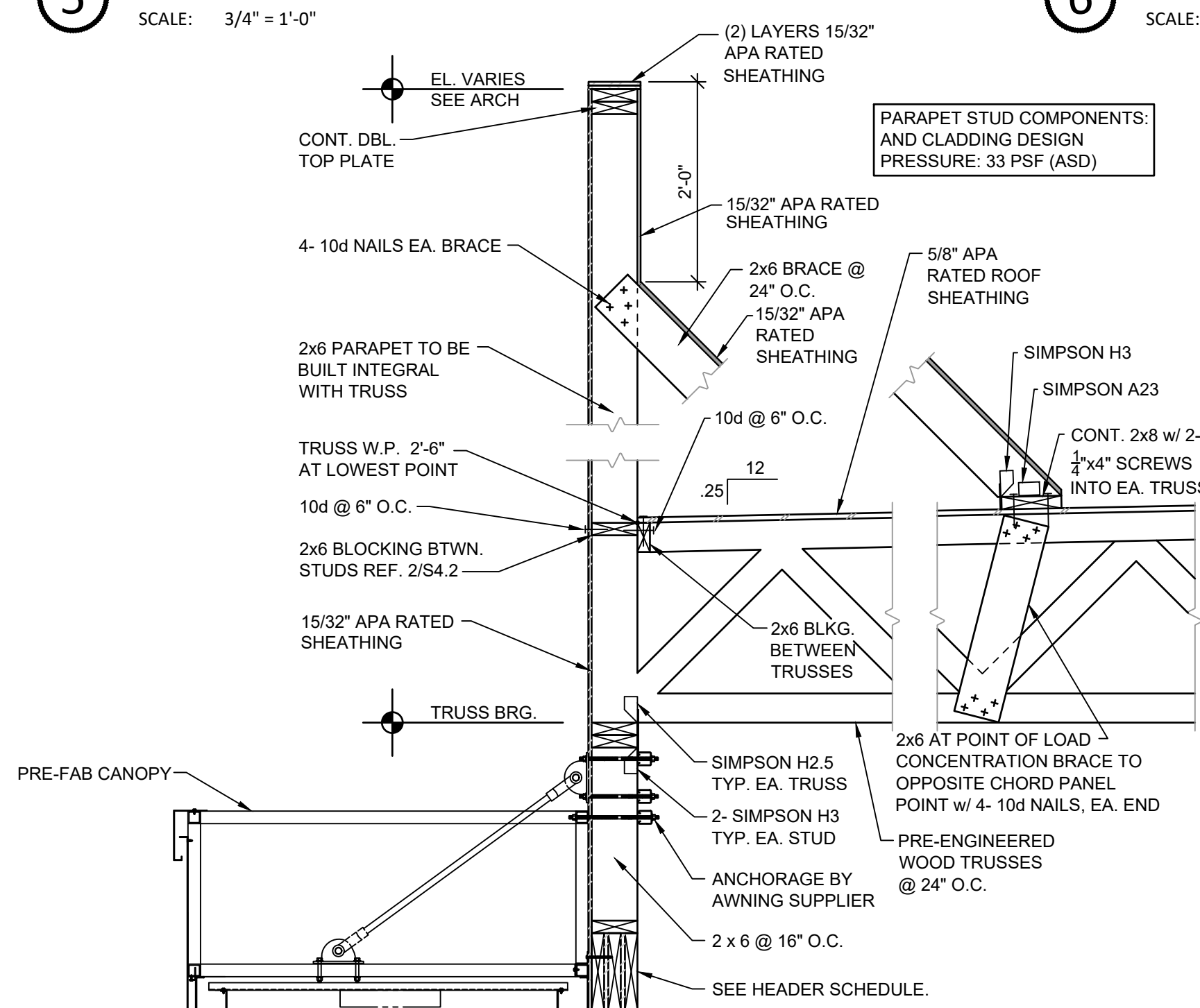
## ⑦ FRAMING SECTION

SCALE: 3/4" = 1'-0"



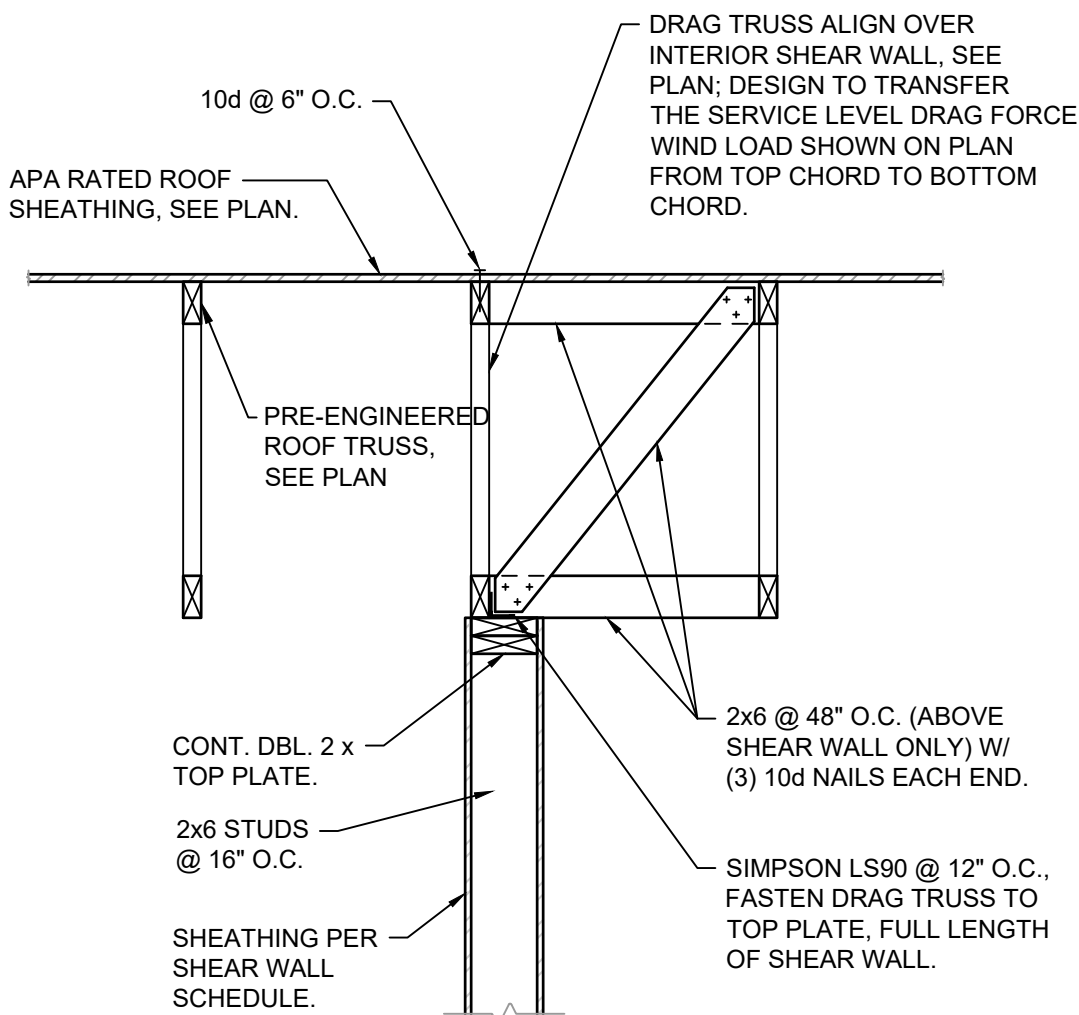
## ⑧ FRAMING SECTION

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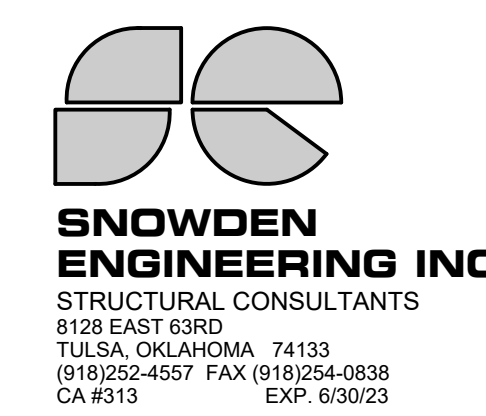
## ⑨ FRAMING SECTION

SCALE: 3/4" = 1'-0"



## ⑩ FRAMING SECTION

SCALE: 3/4" = 1'-0"



**White Design Group, P.C.**  
Architectural and Interiors Consulting  
5801 EAST 41ST STREET, SUITE 712, TULSA, OKLAHOMA 74135



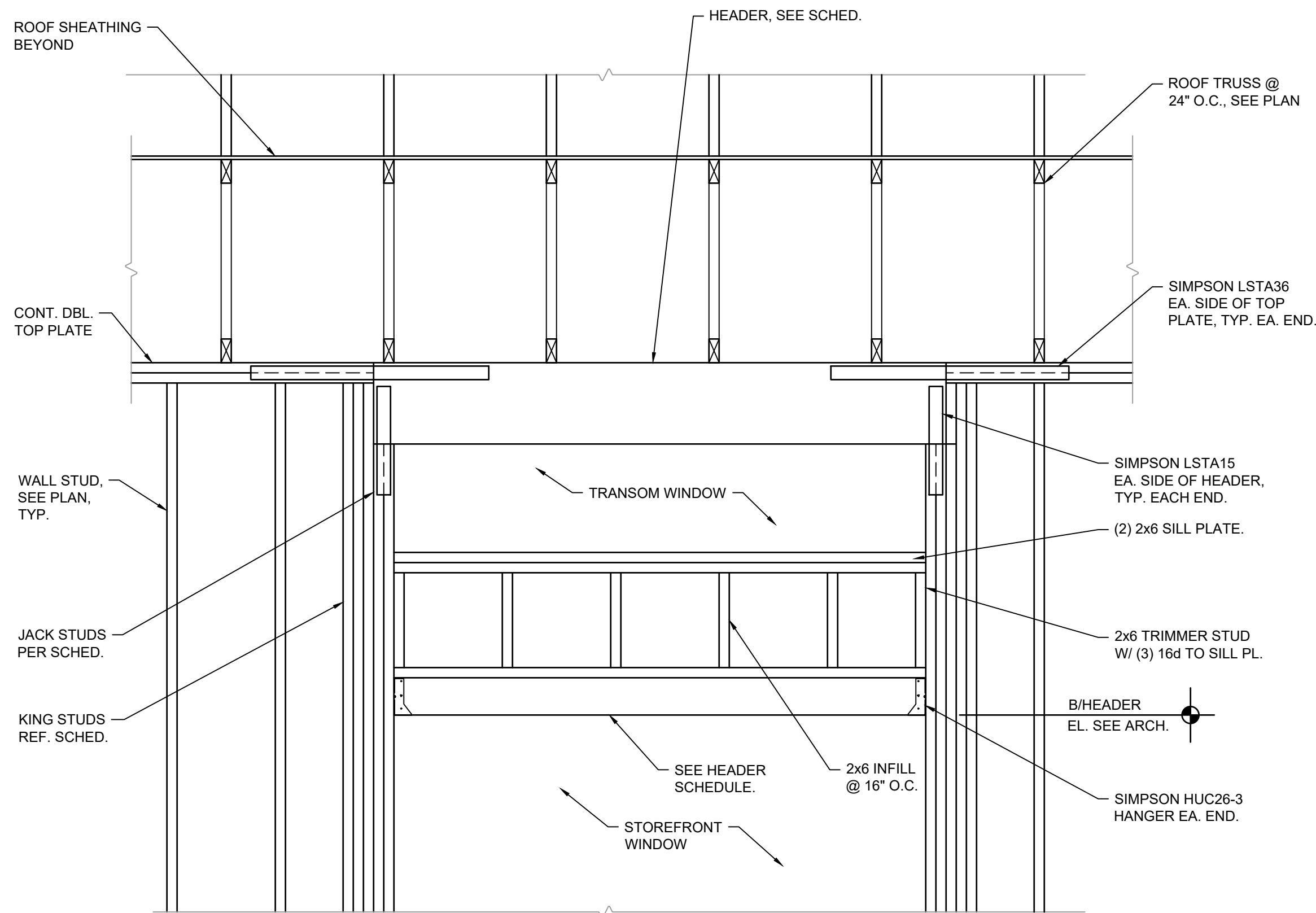
NEW RESTAURANT FOR:  
**ARBY'S - INSPIRE DUAL REG 40 - STD**  
SOUTH MISSISSIPPI AVENUE  
ATOKA, OKLAHOMA  
FOR  
RB AMERICAN GROUP  
6200 OAK TREE BLVD, INDEPENDENCE, OH 44131

PROJECT NUMBER:	220750
ISSUE	DATE
PERMIT	10-21-2022
REVISION	

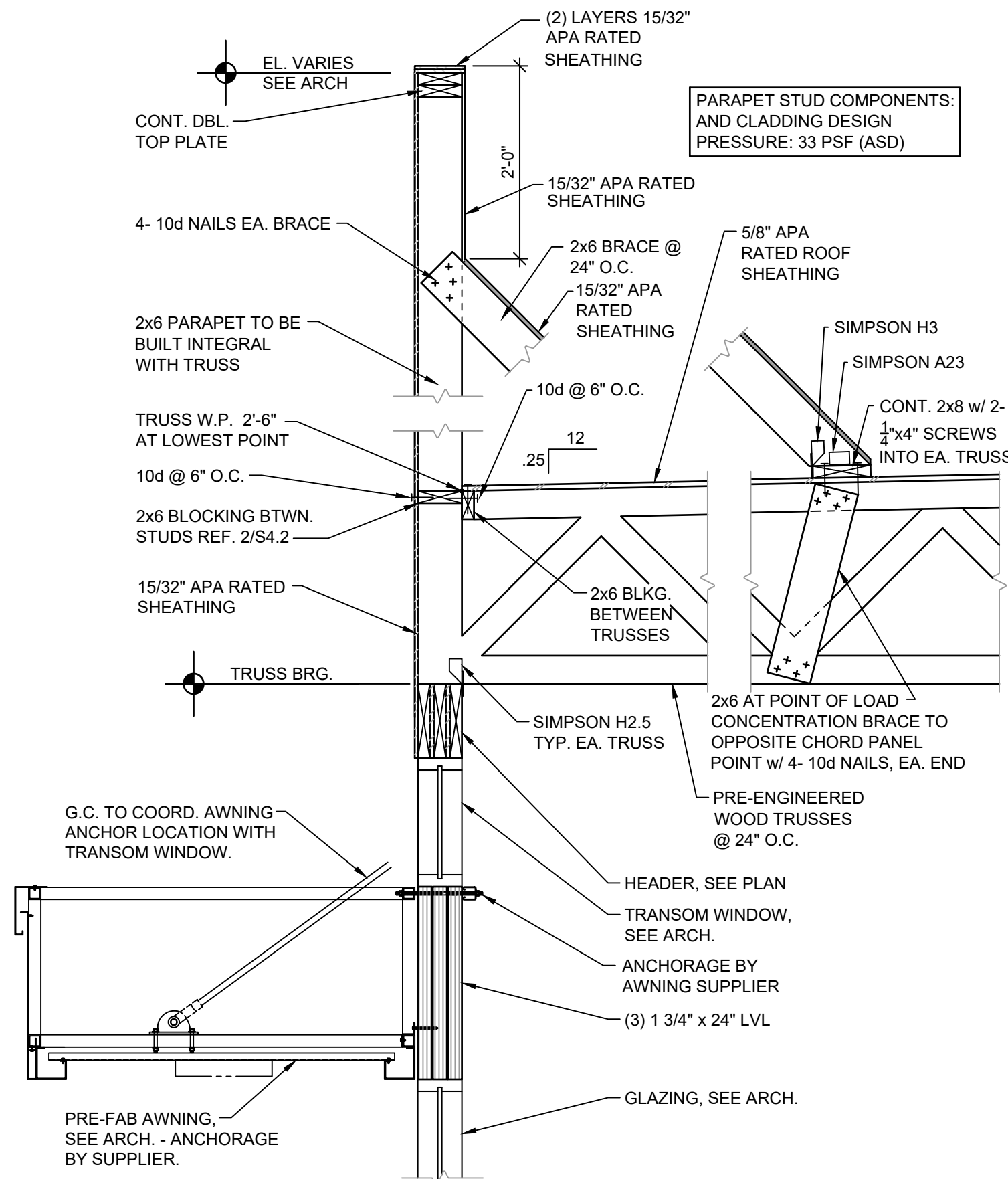
SHEET:

S4

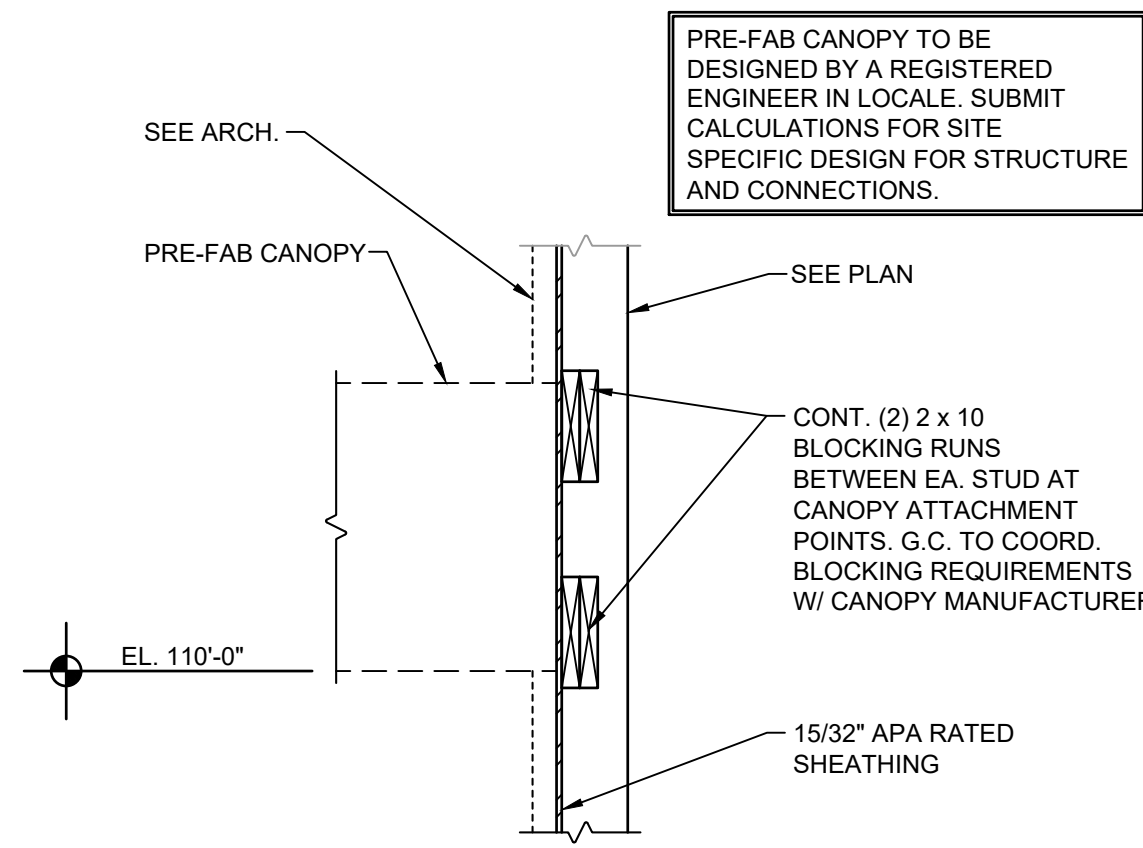




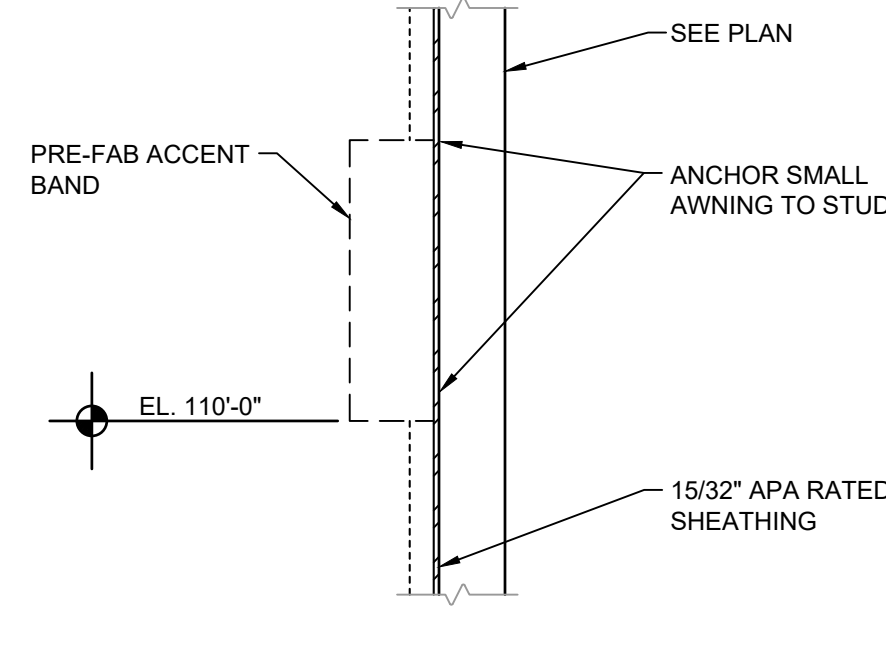
**1** TYPICAL OPENING ELEVATION AT OPENINGS WITH TRANSOM WINDOWS  
SCALE: 3/4" = 1'-0"



**2** FRAMING SECTION  
SCALE: 3/4" = 1'-0"

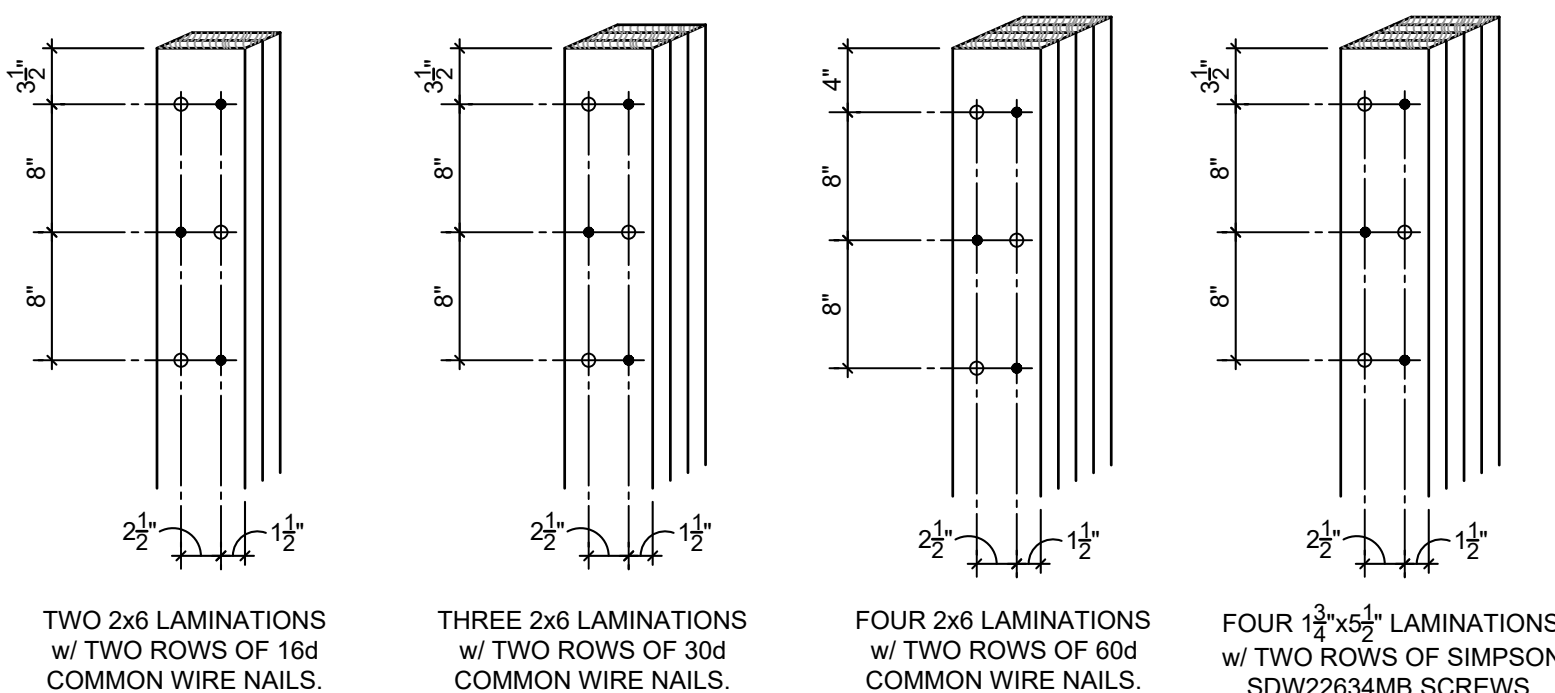


**3** FRAMING SECTION  
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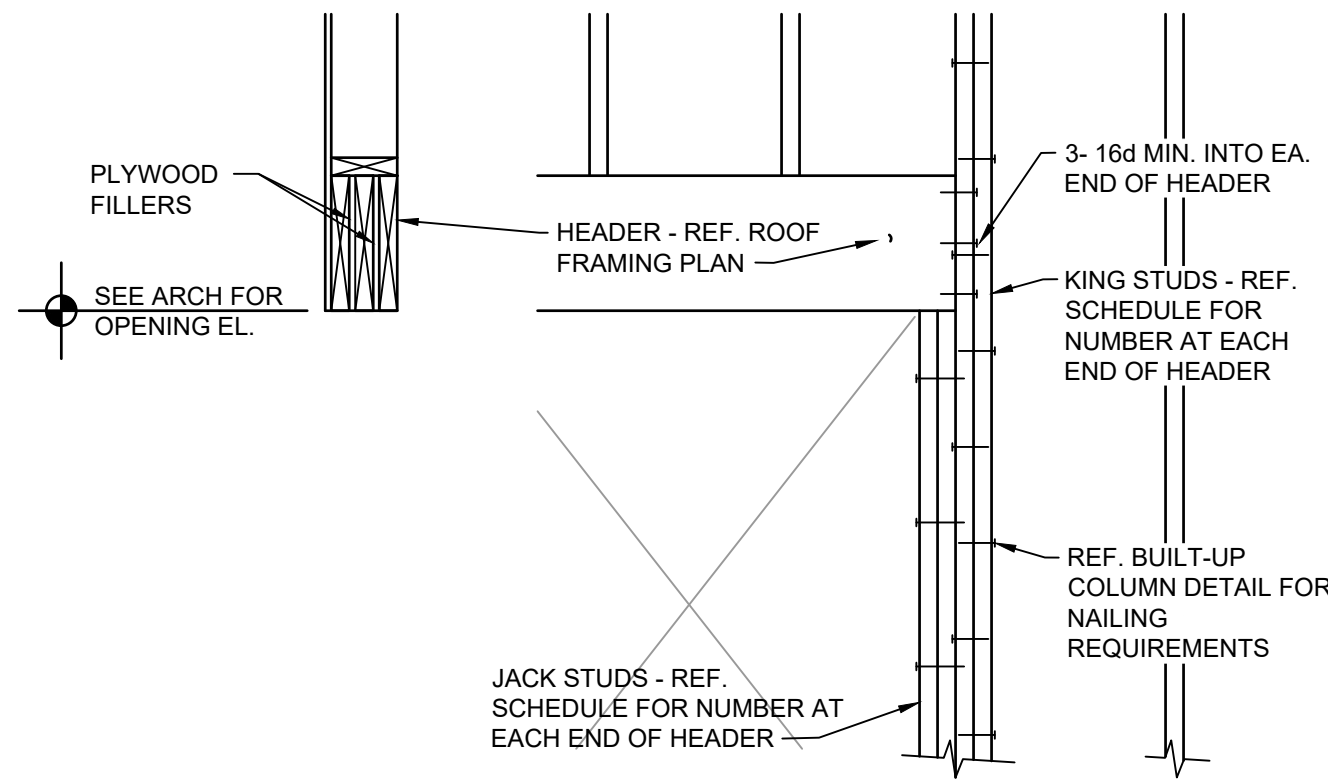


**4** FRAMING SECTION  
SCALE: 3/4" = 1'-0"

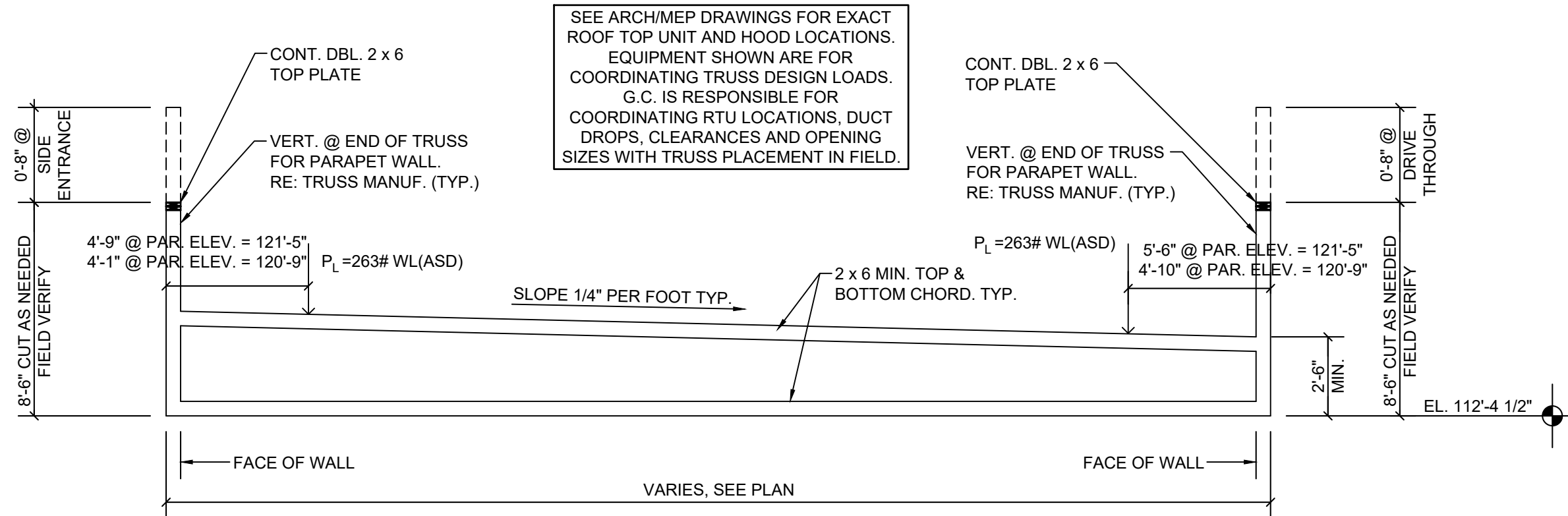
WOOD HEADER/STUD SCHEDULE				
MARK	SIZE	JACK STUDS	KING STUDS	REMARKS
H1	3- 2x8	1- 2x	2- 2x	
H2	3- 2x10	2- 2x	3- 2x	
H3	3- 2x12	2- 2x	3- 2x	
H4	3- 1 3/4"x9 1/2" LVL	2- 2x	3- 2x	
H5	3- 2x6	NA	NA	SIMPSON HUC26-3 EA. END



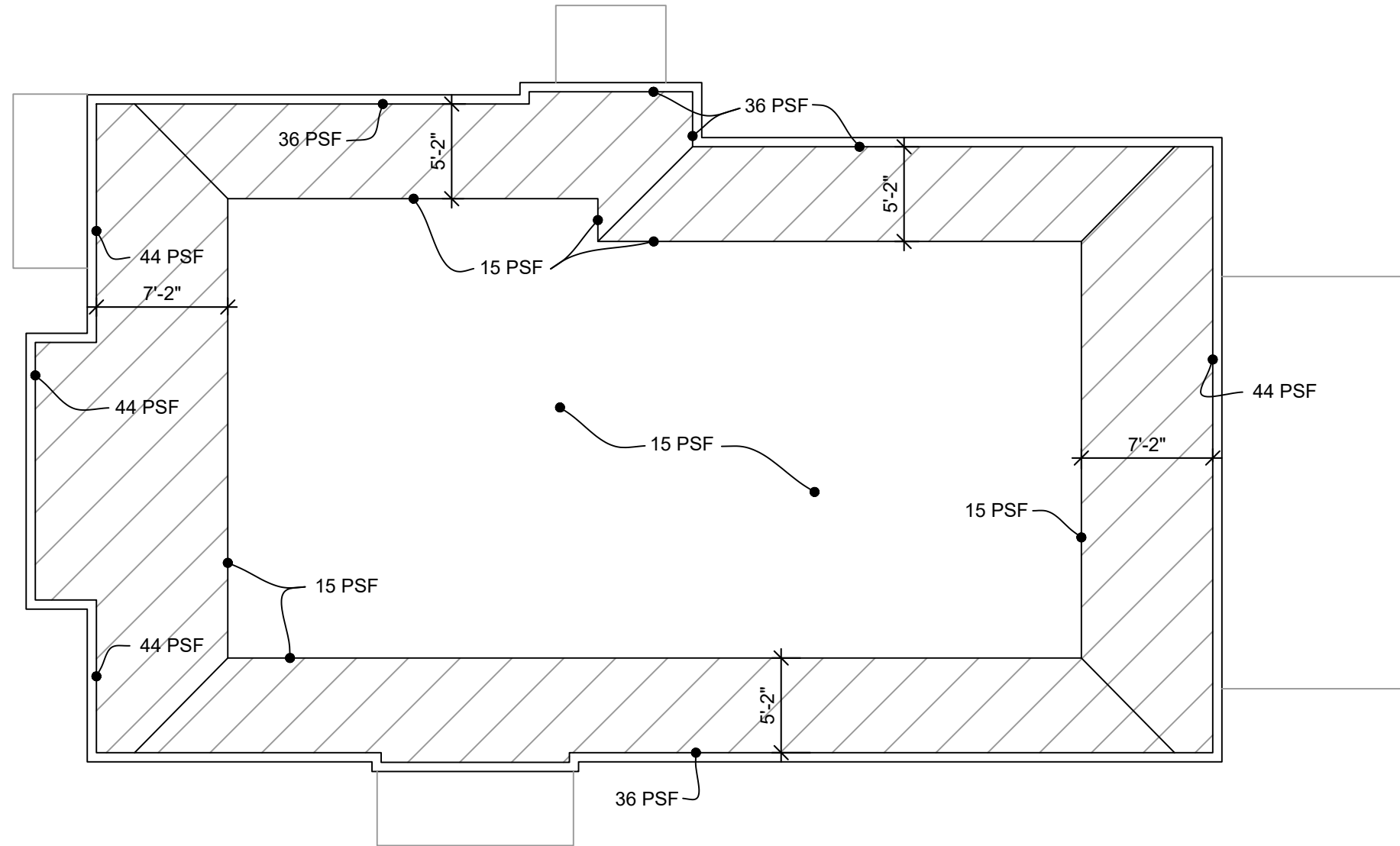
**6** TYPICAL NAILING DETAIL FOR BUILT-UP COLUMNS  
SCALE: 1" = 1'-0"



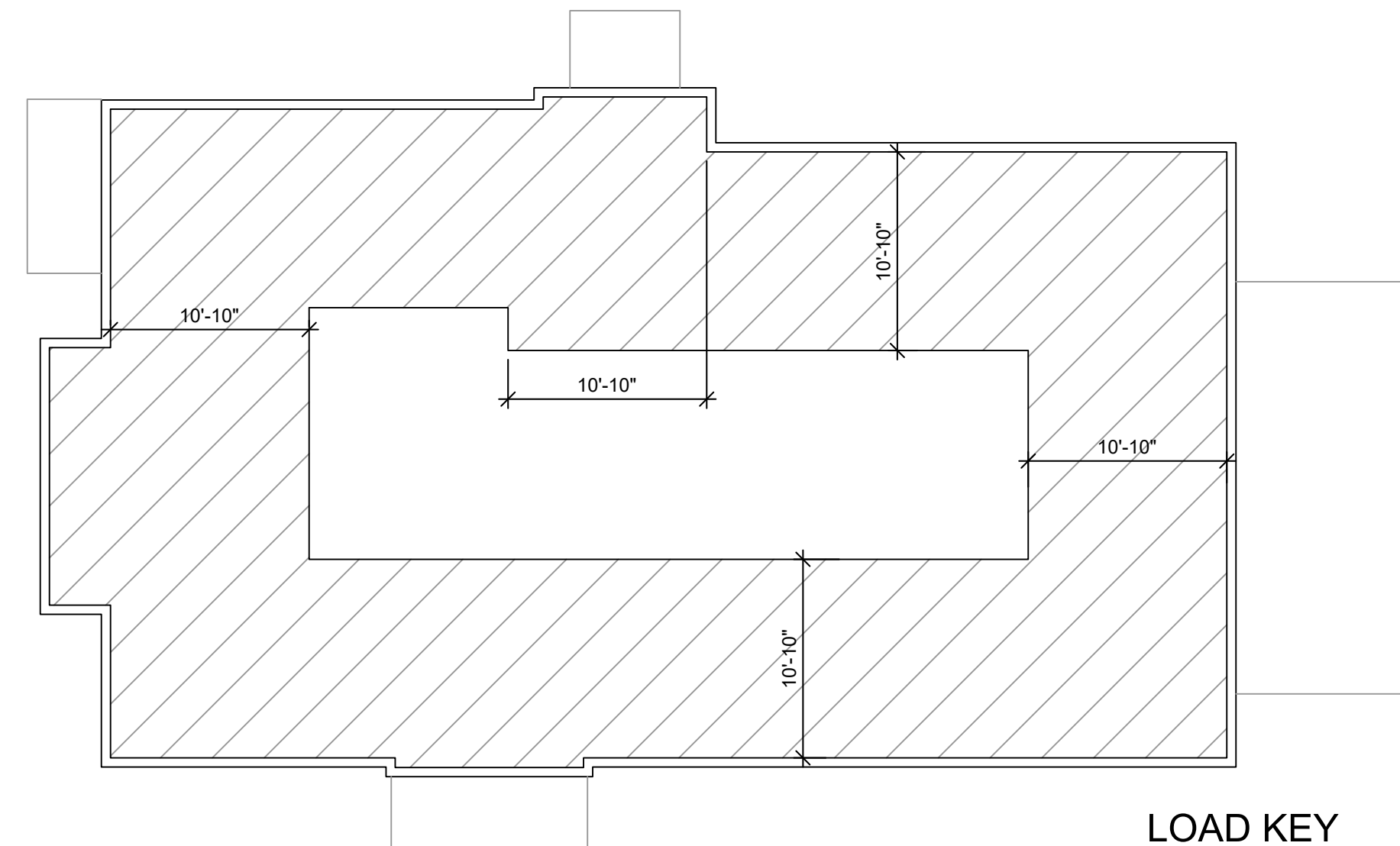
**5** TYPICAL FRAMED OPENING ELEVATION  
SCALE: 3/4" = 1'-0"



**7** TRUSS PROFILE  
SCALE: NONE



**8** SNOW DRIFT DIAGRAM  
SCALE: NONE



**9** WIND UP-LIFT DIAGRAM  
SCALE: NONE

**LOAD KEY**  
□ = 6.0 PSF  
▨ = 10.0 PSF

**SNOWDEN ENGINEERING INC.**  
STRUCTURAL CONSULTANTS  
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KEVIN W. SNOWDEN  
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10-21-22

**White Design Group, P.C.**  
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5801 EAST 41ST STREET, SUITE 712, TULSA, OKLAHOMA 74135

**Arby's**

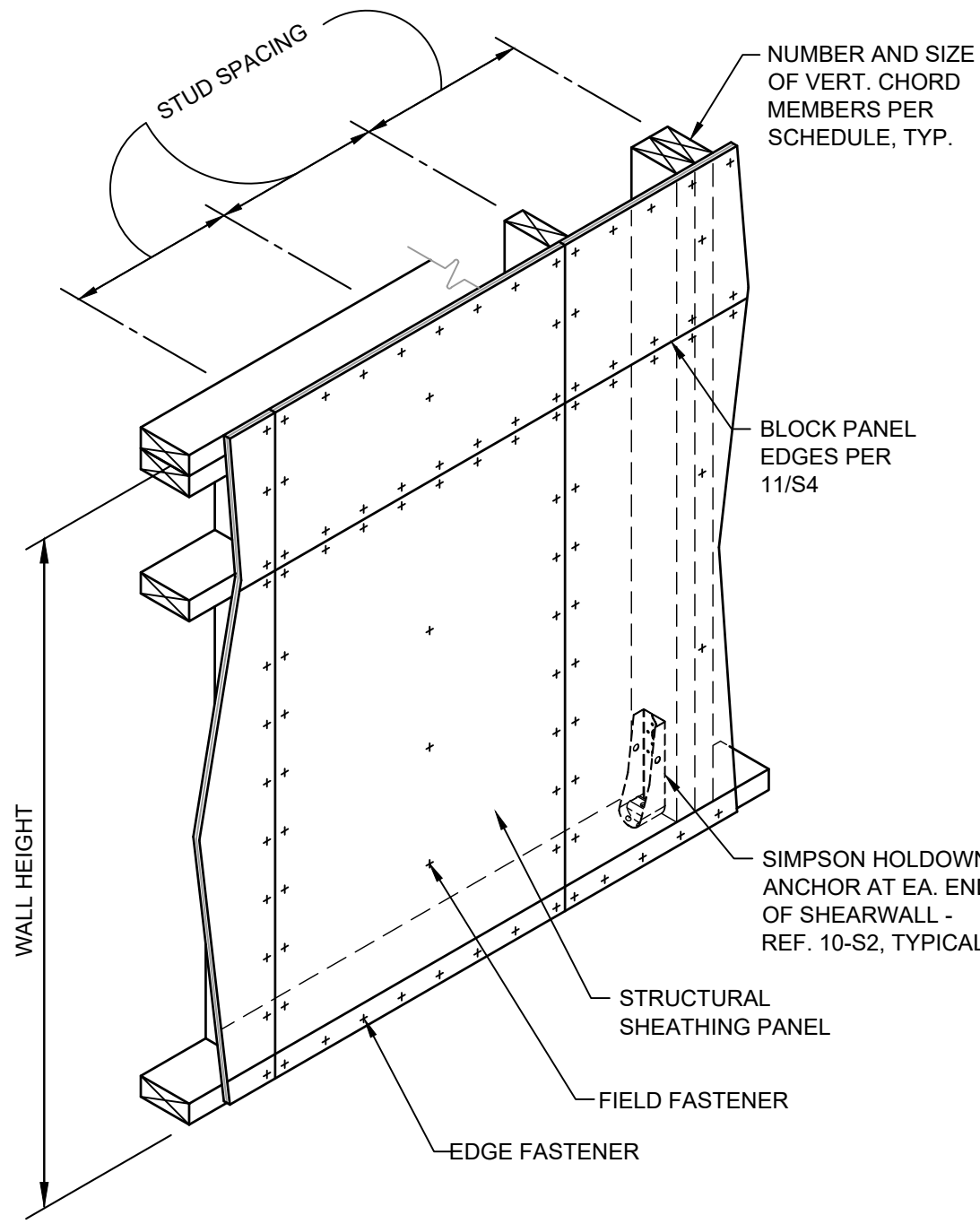
NEW RESTAURANT FOR:  
**ARBY'S - INSPIRE DUAL REG 40 - STD**  
SOUTH MISSISSIPPI AVENUE  
ATOKA, OKLAHOMA  
FOR  
RB AMERICAN GROUP  
6200 OAK TREE BLVD, INDEPENDENCE, OH 44131

PROJECT NUMBER: 220750	
ISSUE	DATE
PERMIT	10-21-2022
REVISION	

SHEET:

**S4.1**



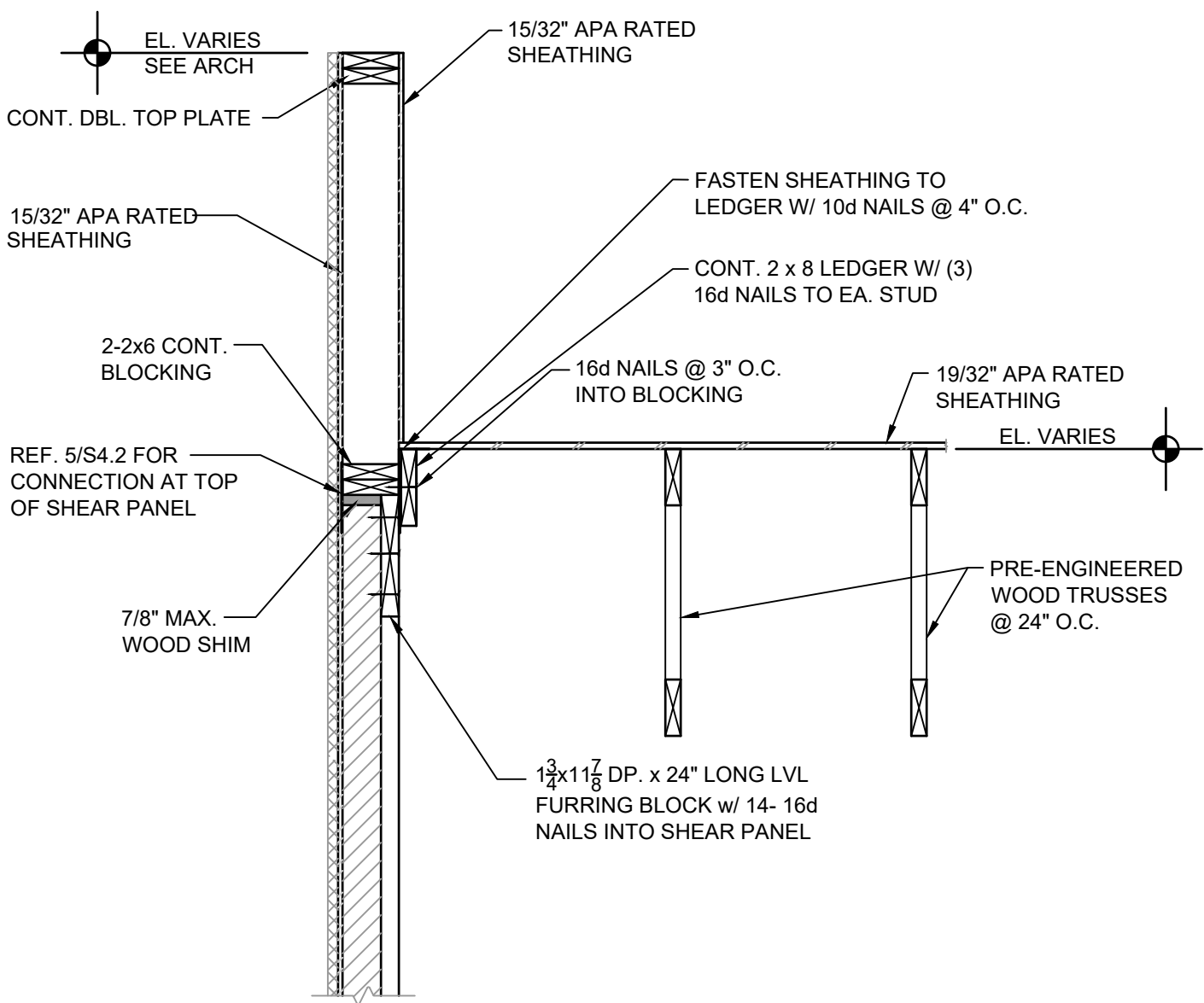


1 TYPICAL SHEAR WALL  
SCALE: 3/4" = 1'-0"

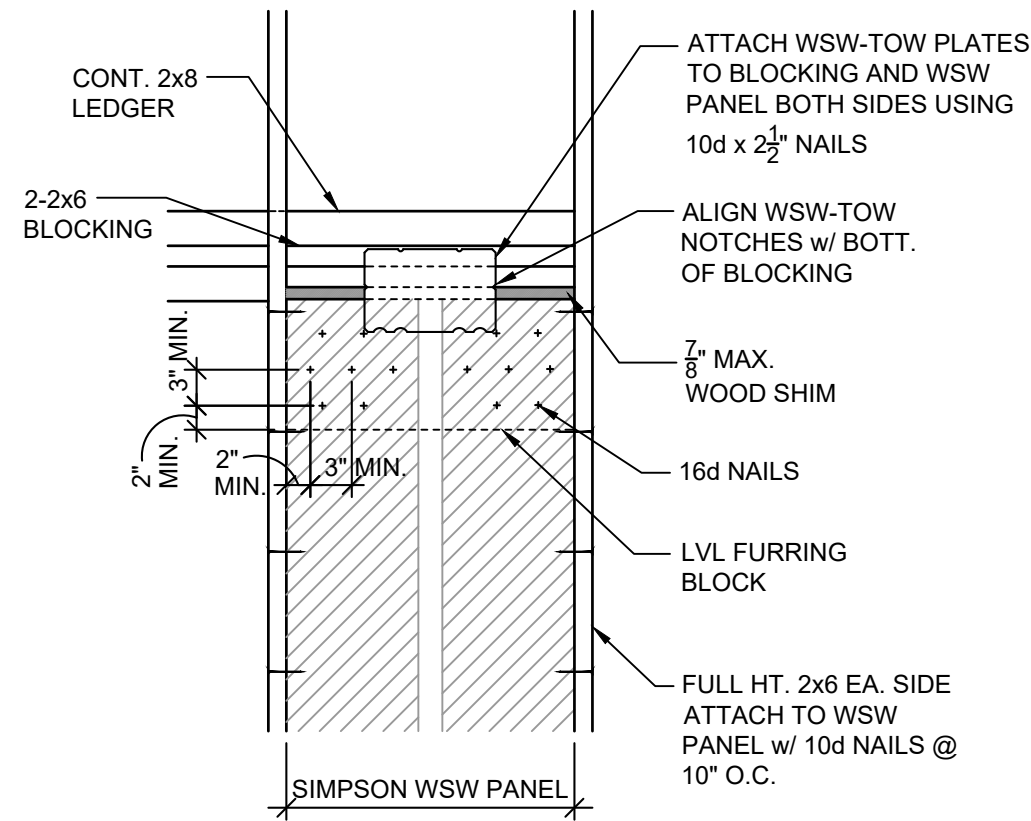
SHEARWALL SCHEDULE							
MARK (NOTE 1)	SHEATHING (NOTE 2)	EDGE BLOCKING REQUIRED	BOUNDARY NAILING	INTERMEDIATE NAILING	VERTICAL EDGE CHORD (NOTE 5)	HOLD DOWN	SILL ANCHORS (NOTE 4)
SW #1	WP	YES	6" O.C.	12" O.C.	2-2x6	HDU2-SDS2.5	5/8" Ø w 6" MIN. EMBEDMENT
SW #2	WP/WP	YES	4" O.C.	12" O.C.	4-2x6	HDU14-SDS2.5	1" Ø w 10" MIN. EMBEDMENT
SW #3	SIMPSON WSW 24x20	YES	N.A.	N.A.	N.A.	N.A.	1" Ø w 10" MIN. EMBEDMENT
SW #4	WP/WP	YES	6" O.C.	12" O.C.	4-2x6	HDU11-SDS2.5	1" Ø w 8" MIN. EMBEDMENT

SHEAR WALL AND SPECIAL FRAMING NOTES

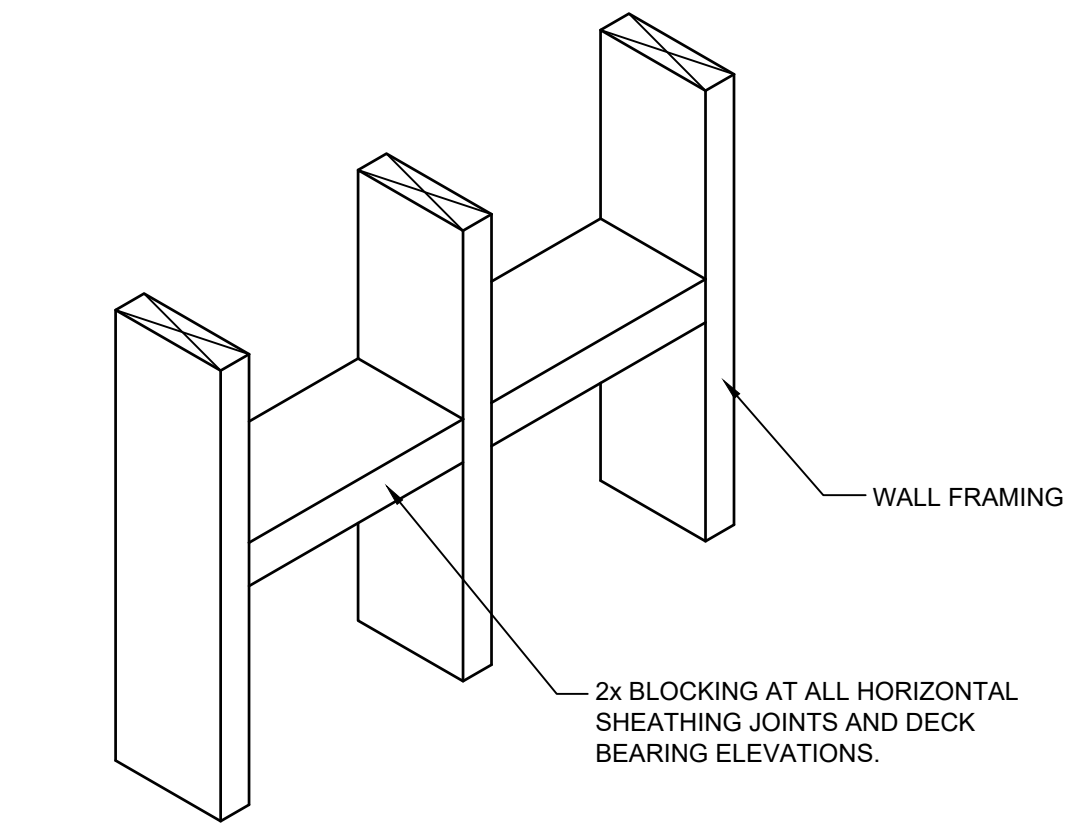
- REFERENCE PLANS FOR EXTENT OF SHEAR WALL. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL LENGTHS. LOCATE BOUNDARY STUD/POSTS AT THE END OF WALLS MARKED AS SHEAR WALLS.
- WP = 3/4" (NOM.) OSB OR PLYWOOD w/ 10x3" GALV. COMMON OR BOX NAILS. WP/WP = SHEATHING ON BOTH SIDES OF WALL.
- HOLD DOWN ANCHORS ARE TO BE INSTALLED USING HILTI HAS THREADED RODS IN HILTI HIT HY-200 HAS ADHESIVE. TENSION ANCHOR EMBEDMENT LENGTH INDICATED IS THE MINIMUM DEPTH REQUIRED INTO CONCRETE FOOTING. TOTAL LENGTH OF BOLT SHOULD INCLUDE DEPTH REQUIRED TO PENETRATE THE CONCRETE SLAB TURNDOWN - REF. 9/S2.
- SILL PLATE ANCHORS:  
5/8" Ø x 7" EMBEDMENT A307 HEADED ANCHORS BOLTS OR 5/8" Ø x 5" EMBED HILTI HY 200 ADHESIVE ANCHORS.
- EDGE CHORDS OR COLUMNS TO BE SOLID MEMBERS OR BUILT-UP STUDS PER DETAIL OR STUD AND FRAMING SCHEDULE.
- REFERENCE 10/S2 FOR HOLD DOWN DETAIL.



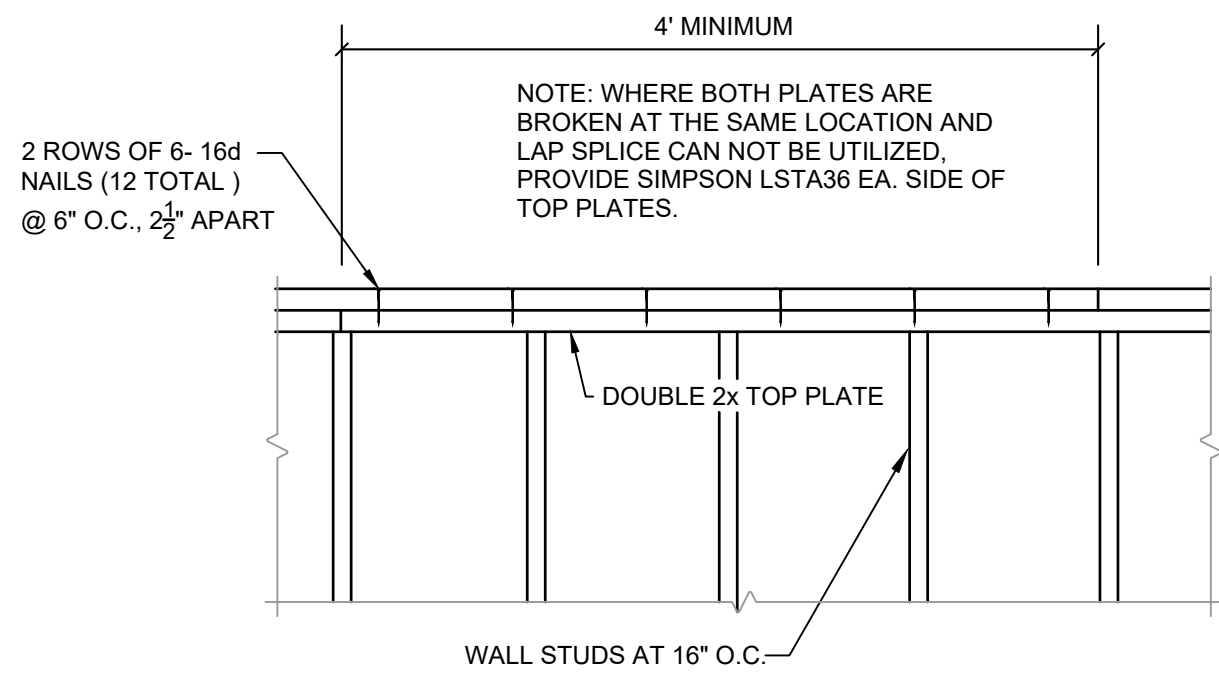
4 FRAMING SECTION  
SCALE: 3/4" = 1'-0"



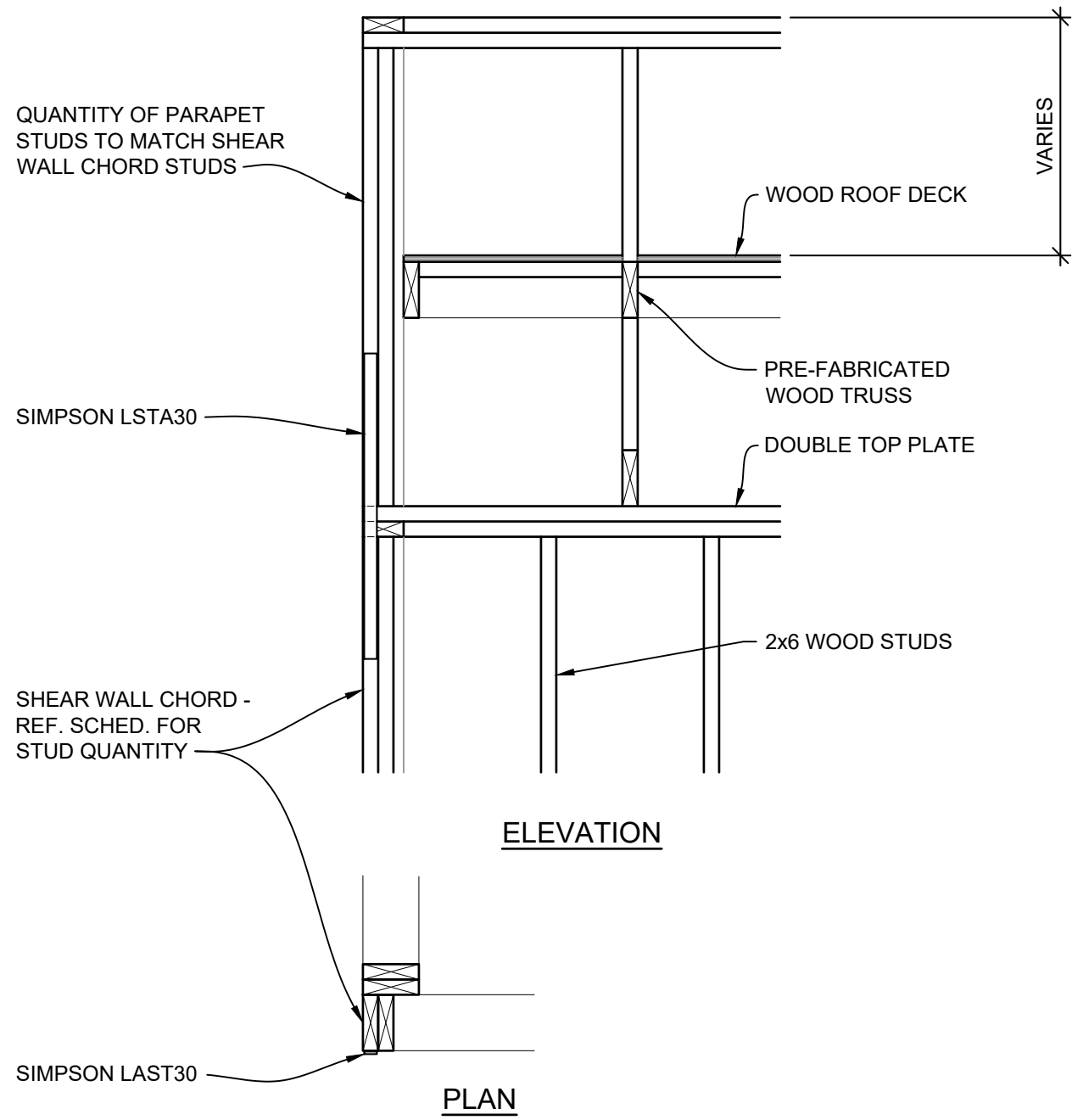
5 WSW CONNECTION DETAIL  
SCALE: 3/4" = 1'-0"



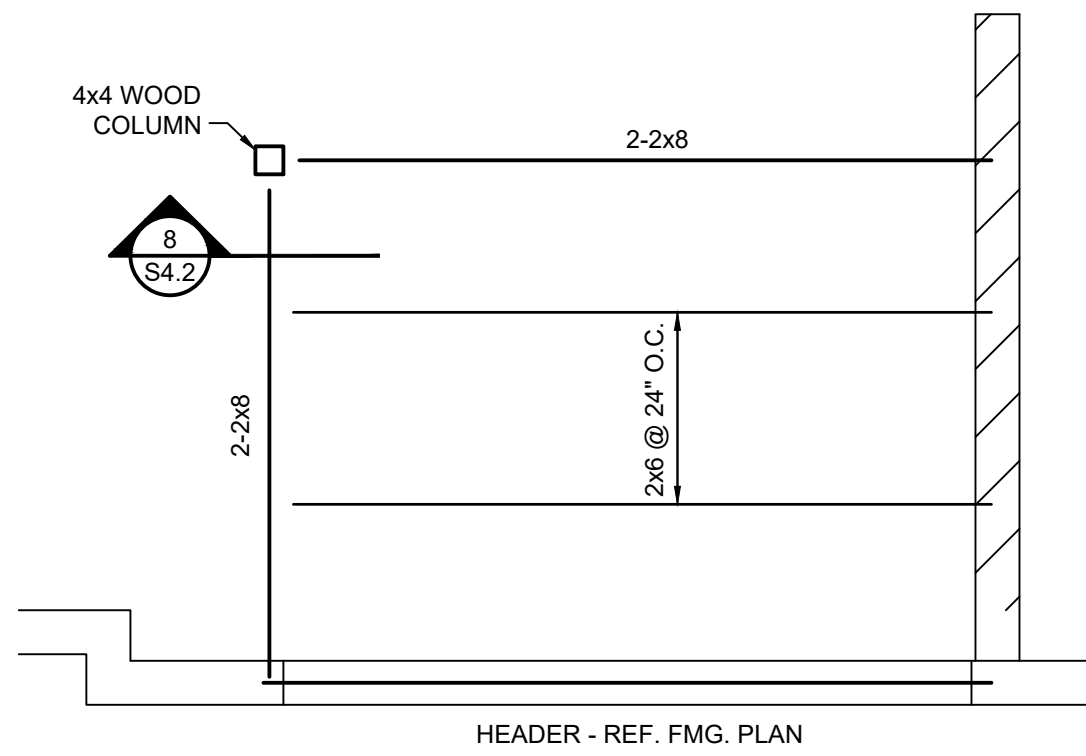
2 TYPICAL SHEAR WALL PANEL EDGE BLOCKING  
SCALE: 3/4" = 1'-0"



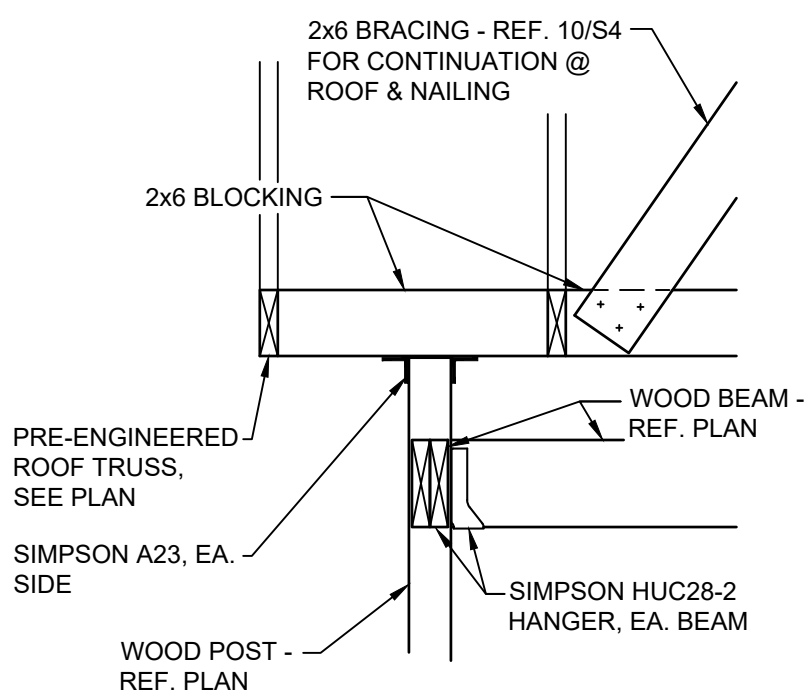
3 TYPICAL SHEAR WALL TOP PLATE SPLICE  
SCALE: 3/4" = 1'-0"



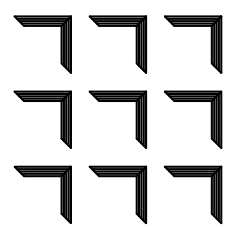
6 SHEARWALL CORNER DETAIL  
SCALE: 3/4" = 1'-0"



7 PARTIAL FRAMING PLAN  
SCALE: 1/2" = 1'-0"



8 FRAMING SECTION  
SCALE: 3/4" = 1'-0"



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