

## GENERAL NOTES

ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATIONS, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK. THE GENERAL CONTRACTOR SHALL VERIFY AND COORDINATE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION. THE STRUCTURE HAS BEEN DESIGNED TO RESIST CODE SPECIFIED VERTICAL AND LATERAL FORCES AFTER THE CONSTRUCTION OF ALL STRUCTURAL ELEMENTS HAS BEEN COMPLETED. STABILITY OF THE STRUCTURE PRIOR TO COMPLETION IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THIS RESPONSIBILITY INCLUDES BUT IS NOT LIMITED TO JOB SITE SAFETY; ERECTION MEANS, METHODS, AND SEQUENCES; TEMPORARY SHORING, FORMWORK, BRACING; USE OF EQUIPMENT AND CONSTRUCTION PROCEDURES. CONSTRUCTION OBSERVATION BY THE STRUCTURAL ENGINEER IS FOR GENERAL CONFORMANCE WITH DESIGN ASPECTS ONLY AND IS NOT INTENDED IN ANY WAY TO REVIEW THE CONTRACTOR'S CONSTRUCTION PROCEDURES.

### STANDARDS

ALL METHODS, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED AND ADOPTED BY THE LOCAL BUILDING OFFICIAL OR APPLICABLE JURISDICTION.

APPLICABLE STRUCTURAL PROVISIONS:

- 2018 INTERNATIONAL BUILDING CODE (IBC)

## DESIGN CRITERIA

### VERTICAL LOADS

AREA	DESIGN DEAD LOAD	LIVE LOAD
ROOF	15 PSF	25 PSF (SNOW)
OTHER ROOMS FLOORS	15 PSF	40 PSF (2)
STAIRS	ACTUAL	100 PSF (OR 300# PER TREAD)
DECKS	ACTUAL	60 PSF

- (1) LIVE LOAD REDUCTION NOT PERMITTED EXCEPT AS NOTED IN IBC SECTION 1607.10.  
(2) 30 PSF FOR SLEEPING AREAS

**SNOW:** (MINIMUM ROOF SNOW LOAD = 25 PSF)

$P_g = 25$  PSF = GROUND SNOW LOAD  
 $P_f = 0.7C_eC_tI_sP_g$  = FLAT ROOF SNOW LOAD  
 $P_s = C_sP_f$  = SLOPED ROOF SNOW LOAD  
 $I_s = 1.0$   $C_e = 1.0$ ,  $C_t = 1.0$ ,  $C_s =$  VARIES

### LATERAL FORCES

THE BUILDING MEETS THE CRITERIA TO USE THE "EQUIVALENT LATERAL FORCE PROCEDURE" PER ASCE 7-16.

### WIND:

### IBC

- EXPOSURE CATEGORY = B
- BASIC WIND SPEED, (3 SEC. GUST),  $V_{ULT} = 110$  MPH
- WIND IMPORTANCE FACTOR,  $I_w = 1.0$
- OCCUPANCY BUILDING CATEGORY PER TABLE 1-1 = II
- INTERNAL PRESSURE COEFFICIENT (ENCLOSED) =  $\pm 0.18$
- TOPOGRAPHIC FACTOR  $K_{ZT} = 1.00$

### SEISMIC:

SEISMIC IMPORTANCE FACTOR!  $e = 1.0$   
RISK CATEGORY OF BUILDING PER TABLE 1.5-1 = II  
SPECTRAL RESPONSE ACCELERATIONS  $S_s = 1.408$  &  $S_1 = 0.489$   
SITE CLASS PER TABLE 20.3-1 = D  
DESIGN SPECTRAL RESPONSE ACCELERATIONS  $S_{ds} = 1.126$   
SEISMIC DESIGN CATEGORY = D  
ANALYSIS PROCEDURE USED = SIMPLIFIED LATERAL FORCE ANALYSIS  
RESPONSE MODIFICATION FACTOR PER TABLE 12.2-1,  $R = 6.5$

### FOUNDATION DESIGN CRITERIA

SOIL BEARING PRESSURE: 1500 PSF (ASSUMED)\*

ACTIVE PRESSURE - RESTRAINED: 55 PCF +14H SEISMIC SURCHARGE (ASSUMED)  
ACTIVE PRESSURE - UNRESTRAINED: 35 PCF +6H SEISMIC SURCHARGE (ASSUMED)  
PASSIVE RESISTANCE: 200 PCF (INCLUDES F.O.S.  $\geq 1.5$ ) (ASSUMED)  
COEFFICIENT OF FRICTION: .35 (INCLUDES F.O.S.  $\geq 1.5$ ) (ASSUMED)

ALL FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH OR "STRUCTURAL BACKFILL". NATIVE EARTH BEARING SHALL BE SURFACE COMPACTED. AREAS OVER-EXCAVATED SHALL BE BACKFILLED WITH LEAN CONCRETE ( $F'_c = 2000$  PSI) OR "STRUCTURAL BACKFILL". AREAS DESIGNATED "STRUCTURAL BACKFILL" SHALL BE FILLED WITH APPROVED WELL-GRADED BANKRUN MATERIAL. MAXIMUM SIZE OF ROCK 4". FROZEN SOIL, ORGANIC MATERIAL AND DELETERIOUS MATTER NOT ALLOWED. COMPACT TO AT LEAST 95% OF ITS MAXIMUM DENSITY AS DETERMINED BY ASTM D1557. PROVIDE DRAINAGE AND DEWATERING AROUND ALL WORK TO AVOID WATER-SOFTENED FOOTINGS.

### FREE DRAINING BACKFILL MATERIAL FOR RETAINING & BASEMENT WALLS

A CLEAN, FREE DRAINING, WELL GRADED GRANULAR MATERIAL CONFORMING TO ASTM D2487 GW OR SW WHOSE MAXIMUM PARTICLE SIZE DOES NOT EXCEED 3/4" AND WHOSE FINES CONTENT (MATERIAL PASSING THE NO. 200 SIEVE) DOES NOT EXCEED 5%,

WITH A MAXIMUM DUST RATIO  $\frac{\% \text{ PASSING U.S. NO. 200 SIEVE}}{\% \text{ PASSING U.S. NO. 40 SIEVE}} = 2/3$  MAX.

## CONCRETE

CONCRETE: MODERATE WEATHERING POTENTIAL SHALL BE MADE WITH PORTLAND CEMENT SHALL BE MADE WITH PORTLAND CEMENT ASTM C-150 TYPE II OR TYPE I, COARSE AND FINE AGGREGATE ASTM C-33, WATER CLEAN AND POTABLE AND SHALL BE READY MIXED PER ASTM C-94. NO ALUMINUM (CONDUIT, MISCELLANEOUS ITEMS, ETC.) SHALL BE EMBEDDED IN ANY CONCRETE. COORDINATE FORMWORK AND FINISH TYPES ACCEPTABLE TO THE OWNER.

ITEM	DESIGN $f'_c$ (PSI) (AT 28 DAYS U.N.O.)	MAX. W/C RATIO	MIN. FLYASH OR SLAG (PCY)	AGGREGATE GRADING ASTM AASHTO	NOTES
SLAB ON GRADE	2500	0.45	100	57 OR 67	1
FOUNDATIONS - UNO	2500	0.50	--	57 OR 67	
STEM WALLS	2500	0.45	100	57 OR 67	

### CONCRETE MIX NOTES:

1. FIBROUS CONCRETE REINFORCEMENT SHALL BE "FIBERMESH" MANUFACTURED BY PROPEX CONCRETE SYSTEMS OR PRE-APPROVED EQUAL. DOSAGE SHALL FOLLOW MANUFACTURER'S RECOMMENDATION BUT NOT LESS THAN 1.5 LB/CU. YD.
2. PROVIDE 3000 PSI AT 28 DAYS MINIMUM FOR DURABILITY AT BASEMENT WALLS, FOUNDATION WALLS, EXTERIOR WALLS, PORCHES, CARPORT SLABS AND STEPS EXPOSED TO THE WEATHER AND FOR ALL GARAGE FLOOR SLABS. CONCRETE SHALL BE AIR ENTRAINED CONFORMING TO ASTM C-260. TOTAL AIR CONTENT (PERCENT BY VOLUME OF CONCRETE) SHALL NOT BE LESS THAN 5% OR MORE THAN 7%.

**PLACE CONCRETE:** PER ACI 304 AND CONFORM TO ACI 305 AND 306 FOR HOT AND COLD WEATHER PLACEMENT AND CURING PROTECTION. USE INTERIOR MECHANICAL VIBRATORS WITH 7000 RPM MINIMUM FREQUENCY. DO NOT OVER-VIBRATE. CONCRETE SHALL BE POURED MONOLITHICALLY BETWEEN CONSTRUCTION OR EXPANSION JOINTS. PROTECT ALL FRESHLY PLACED CONCRETE FROM PREMATURE DRYING, EXCESSIVE HOT OR COLD TEMPERATURE FOR SEVEN DAYS AFTER POURING.

### GROUT

NON-SHRINK GROUT: GROUT SHALL CONFORM TO GRD-C621.  $F'_c = 5000$  PSI IN 28 DAYS. FILL OR PACK ENTIRE SPACE UNDER PLATES OR SHAPES. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR PREPARATION, INSTALLATION, AND CURING.

## REINFORCING STEEL

REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. DETAIL, FABRICATE AND PLACE PER ACI 315 AND ACI 378. LAP SPLICES SHALL BE 48 BAR DIAMETERS UNLESS NOTED OTHERWISE. PROVIDE CORNER BARS AT ALL HORIZONTAL BARS IN FOOTINGS AND WALLS. WELDED WIRE REINFORCEMENT SHALL CONFORM TO A185. LAP ONE FULL MESH ON SIDES AND ENDS BUT NOT LESS THAN 8 INCHES. PLACE AT MID-DEPTH OF SLAB OR AS SHOWN.

## POST-INSTALLED ANCHORS

POST-INSTALLED ANCHORS: SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH REBAR. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. INSTALLER SHALL BE QUALIFIED AND TRAINED BY THE MANUFACTURER. HOLES SHALL BE HAMMER DRILLED ONLY (ROTARY DRILLED ONLY AT UNREINFORCED MASONRY - NO HAMMER TOOLS).

SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED FOR APPROVAL A MINIMUM OF 2 WEEKS PRIOR TO BID, ALONG WITH CALCULATIONS THAT ARE PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER (LICENSED IN THE STATE IN WHICH THE PROJECT OCCURS) DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.

### CONCRETE ANCHORS:

- ADHESIVE ANCHORS: HILTI HIT-HY 200 (ICC-ESR-3187)
  - \*CONCRETE SHALL BE A MINIMUM OF 21 DAYS OLD AT TIME OF INSTALLATION.
  - \*CONCRETE SHALL BE IN THE TEMPERATURE RANGE AS REQUIRED BY THE CONCRETE MANUFACTURER.
  - \*HOLE SHALL BY HAMMER-DRILLED ONLY.
  - \*HOLE SHALL BE DRY AT TIME OF INSTALLATION.
  - \*INSTALLER OF HORIZONTAL OR UPWARDLY INCLINED (ANY POSITION EXCEPT DIRECTLY DOWNWARD) ANCHORS SHALL ALSO BE CERTIFIED BY THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM.
- EXPANSION ANCHORS: KWIKBOLT TZ (ICC ESR-1917) BY HILTI, INC. OR STRONG-BOLT 2 (ICC ESR-3037) BY SIMPSON STRONG TIE, INC.
- SCREW ANCHORS: KWIK HUS-EZ (ICC ESR-3027) BY HILTI, INC. OR TITEN HD (ICC ESR-2713) BY SIMPSON STRONG TIE, INC.

## STRUCTURAL STEEL

### DETAILING, FABRICATION AND ERECTION

ALL WORKMANSHIP SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION, 14TH EDITION.

### MATERIAL PROPERTIES

**WIDE FLANGE SECTIONS:** ASTM A992 ( $F_y = 50$  KSI)

**OTHER SHAPES AND PLATES:** ASTM A36 ( $F_y = 36$  KSI) TYP. U.N.O.; ASTM A572 ( $F_y = 50$  KSI) WHERE INDICATED

**HOLLOW STRUCTURAL SECTIONS:** RECTANGULAR & SQUARE - ASTM A500 GRADE B ( $F_y = 46$  KSI) ROUND - ASTM A500 GRADE B ( $F_y = 42$  KSI)

**STRUCTURAL STEEL PIPES:** ASTM A53, GRADE B, TYPE E OR S ( $F_y = 35$  KSI)

**MACHINE BOLTS (M.B.):** ASTM A307, GRADE A

**ANCHOR BOLTS (A.B.):** ASTM F1554, GRADE 55, UNLESS OTHERWISE NOTED, ASTM F1554, GRADE 105 WHERE INDICATED.

## WELDING

**STRUCTURAL STEEL:** WELD IN ACCORDANCE WITH "STRUCTURAL WELDING CODE" AWS D1.1.

**CERTIFICATION :** ALL WELDING SHALL BE PERFORMED BY WABO/AWS CERTIFIED WELDERS. WELDERS SHALL BE PREQUALIFIED FOR EACH POSITION AND WELD TYPE WHICH THE WELDER WILL BE PERFORMING.

**ELECTRODES:** USE E70 ELECTRODES.

## GENERAL REQUIREMENTS

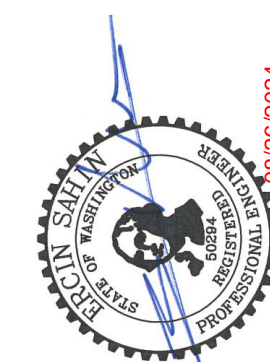
**ADHESIVE ANCHOR RODS:** ASTM F1554, GRADE 36 UNLESS NOTED OTHERWISE.

**FINISH :** STRUCTURAL STEEL SHALL BE PRIMER PAINTED, UNLESS NOTED OTHERWISE. WHERE STRUCTURAL STEEL IS NOTED TO BE GALVANIZED, IT SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123, A384, AND A385.

STRUCTURAL DRAWING INDEX	
SHEET NUMBER	SHEET DESCRIPTION
S0.0	GENERAL NOTES
S0.1	GENERAL NOTES
S1.0	FOUNDATION PLAN
S1.1	MAIN FLOOR FRAMING PLAN
S2.0	LOWER ROOF & UPPER FLOOR FRAMING PLAN
S2.1	UPPER ROOF FRAMING PLAN
S3.0	SHEARWALL SCHEDULE AND HOLDOWN LAYOUTS
S4.0	FOUNDATION AND FRAMING DETAILS
S4.1	FLOOR FRAMING DETAILS
S5.0	ROOF FRAMING DETAILS
S6.0	SHEARWALL SH. AND HOLDOWN DETAILS
Grand Total: 11	

STRUCTURAL WORKS, PLLC

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PROJECT  
THE MOLONEY / O'HANLON RESIDENCE REMODEL  
4016 92ND AVE SE,  
MERCER ISLAND, WA 98040

TITLE  
GENERAL NOTES

DATE  
03/05/24 PERMIT SET  
04/09/24 REVISION01  
08/02/24 REVISION02  
09/23/24 REVISION03  
JOB NO  
2458

SHEET

S0.0

**CARPENTRY:**

**NAILS:** CONNECTION DESIGNS ARE BASED ON "COMMON WIRE" NAILS WITH THE FOLLOWING PROPERTIES:

PENNYWEIGHT	DIAMETER (INCHES)	LENGTH (INCHES)	TRACKER** COLOR CODED NAILS
8d	0.131	2-1/2	BLUE
10d	0.148	3	PURPLE
16d	0.162	3-1/2	ORANGE
20d	0.192	4	-

FOR DIAPHRAGM OR SHEAR WALL NAILING THE FOLLOWING FASTENER TYPES MAY BE USED AT EQUIVALENT SPACING TO THAT SPECIFIED ON PLANS:

FASTENER TYPE	DIAMETER (INCHES)	LENGTH (INCHES)	EQUIVALENT SPACING (INCHES)			TRACKER** COLOR CODED NAILS
			6	4	3	
8d COMMON WIRE	0.131	2-1/2	6	4	3	BLUE
8d "DIPPED GALV. BOX"	0.131	2-1/2	6	4	3	-
8d "SHINY BOX"	0.113	2-1/2	4-1/2	3	2-1/2	YELLOW
12 GA. STAPLES	0.1055	1-7/8"	6	5-1/2	4	-
14 GA. STAPLES	0.080	1-1/2"	6	4	3	-
15 GA STAPLES	0.072	1-1/2"	5	3	2-1/2	-
10d COMMON WIRE	0.148	3	6	4	3	PURPLE
10d "HOT DIPPED GALV. BOX"	0.148	3	6	4	3	-
10d "SHINY BOX"	0.128	3	4-1/2	3	2-1/4	WHITE

\*BASED ON 15/32" PLYWOOD OR OSB.

\*\*REFERENCE TO COLOR CODED NAILS PER TRACKERS SYSTEM.

**WOOD SHEATHING (STRUCTURAL):** SHEATHING SHALL BE PLYWOOD OR ORIENTED STRAND BOARD. PLYWOOD SHEATHING SHALL BE 5-PLY MINIMUM WHERE INDICATED AS 3/4" OR THICKER. WOOD SHEATHING SHALL BE "STRUCTURAL I" CONFORMING TO PS1-09 AND/OR PS2-10. ALL PANELS SHALL BEAR THE STAMP OF AN APPROVED GRADING AGENCY. SPAN RATING SHALL BE PROVIDED AS FOLLOWS: ROOF FRAMING AT 32"O.C. (48/24); ROOF FRAMING AT 24"O.C. (32/16); WALLS (32/16); FLOORS (48/24) ALL WOOD SHEATHED WALLS SHALL BE BLOCKED AT ALL PANEL EDGES UNLESS NOTED OTHERWISE.

**GLUE-LAMINATED MEMBERS:** CONFORM TO ANSI/AITC A190.1. MEMBERS SHALL BE COMBINATION 24F-V4 DOUGLAS FIR (DF) FOR SIMPLE SPANS AND 24F-V8 DF FOR CANTILEVERED SPANS (Fb=2400 PSI, Fv=265 PSI, E=1.8X10<sup>6</sup> PSI) AND DF COMBINATION 2 FOR COLUMNS. ARCHITECTURAL APPEARANCE GRADE WHERE EXPOSED TO VIEW; INDUSTRIAL APPEARANCE GRADE WHERE NOT EXPOSED TO VIEW. ALL MEMBER TO HAVE EXTERIOR GLUE AND HAVE AITC OR APA-EWS STAMP. CAMBER AS SHOWN ON STRUCTURAL DRAWINGS.

**FRAMING LUMBER:** STANDARDS. EACH PIECE SHALL BEAR THE GRADE TRADEMARK OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB), WESTERN WOOD PRODUCTS ASSOCIATION (WWPA), OR OTHER AGENCY ACCREDITED BY THE AMERICAN LUMBER STANDARD COMMITTEE (ALSC) TO GRADE UNDER ALSC CERTIFIED GRADING RULES.

**SPECIES AND GRADE (BASE DESIGN VALUE)**

- 6x BEAMS AND HEADERS. "DOUG FIR-LARCH" NO. 1 (Fb=1350 PSI, Fv=170 PSI)
- 2x TO 4x JOISTS, PURLINS AND HEADERS. "DOUG FIR-LARCH" NO. 2 (Fb=900 PSI, Fv=180 PSI) OR "HEM-FIR" NO. 1 (Fb=975 PSI, Fv=150 PSI)
- 6x POSTS AND COLUMNS. "DOUG FIR-LARCH" NO. 1 (Fc=1000 PSI)
- EXTERIOR STUDS, INTERIOR BEARING WALLS AND 4x COLUMNS. "DOUG FIR-LARCH" NO. 2 (Fb= 900 PSI, Fc= 1350 PSI) OR "HEM-FIR" NO. 1 (Fb=975 PSI, Fc=1350 PSI).
- INTERIOR NON-BEARING STUD WALLS. "DOUG FIR-LARCH" NO. 2 (Fb=900 PSI, Fc=1350 PSI) OR "HEM-FIR" NO. 1 (Fb=975 PSI, Fc=1350 PSI)

**STRUCTURAL COMPOSITE LUMBER (SCL):** SHALL BE MANUFACTURED BY WEYERHOUSER, OR PRE-APPROVED EQUAL IN ACCORDANCE WITH APPROVED SHOP AND INSTALLATION DRAWINGS CONFORMING TO A CURRENT ICC EVALUATION REPORT.

**MINIMUM DESIGN VALUES:**

- 2x LVL: Fb = 1700 PSI, Fv = 285 PSI, E = 1300 KSI
- 1-3/4" LVL: Fb = 2600 PSI, Fv = 285 PSI, E = 1800 KSI
- 3-1/2" LVL: Fb = 2900 PSI, Fv = 285 PSI, E = 2000 KSI
- 5-1/4" LVL: Fb = 2900 PSI, Fv = 285 PSI, E = 2000 KSI
- RIMBOARD:APA/EWS PERFORMANCE RATED RIM (PRR-401) 1-1/4" MINIMUM THICKNESS

**PRESERVATIVE TREATED WOOD REQUIREMENTS:**

TREATMENTS OTHER THAN THOSE LISTED BELOW ARE NOT PERMITTED.

EXPOSURE	APPLICATION	SPECIFIED MATERIAL	PRESERVATIVE TREATMENT (1)	CONNECTORS & FASTENERS (2)(3)
DRY	FOUNDATION SILL PLATES, TOP PLATES & LEDGERS ON CONCRETE OR MASONRY WALLS (4)	2x, 4x, 6x (FIR), OR GLULAM (SP)	SBX	GALV (G60)
			ACQ, CBA, CA	GALV (G185)
WET	FRAMING, DECKING, POSTS & LEDGERS	2x, & 4x (FIR) 2x, & 4x (CEDAR)	ACQ, CBA, CA	GALV (G185)
			NONE	GALV (G90)
	BEAMS & COLUMNS	6x (FIR), OR GLULAM (SP) 6x OR GLULAM (CEDAR)	ACQ, CBA, CA NONE	GALV (G185) GALV (G90)

- CCA: CHROMATED COPPER ARSENATE NOT PERMITTED  
SBX: DOT SODIUM BORATE  
ACQ: ALKALINE COPPER QUAT  
CBA & CA: COPPER AZOLE  
FIR: DOUG-FIR OR HEM-FIR  
SP: SOUTHERN PINE
- CONNECTORS: JOIST HANGERS, STRAPS, FRAMING CONNECTORS, COLUMN CAPS AND BASES, ETC.  
FASTENERS: MACHINE BOLTS, ANCHOR BOLTS AND LAG SCREWS WITH ASSOCIATED PLATE WASHERS AND NUTS. NAILS, SPIKES, WOOD SCREWS, ETC.
- G60, G90 & G185 PER ASTM A653 FOR COLD-FORMED STEEL CONNECTORS. BATCH/POST HOT-DIP GALVANIZED PER ASTM A123 FOR CONNECTORS. HOT-DIP GALVANIZED PER ASTM A153 FOR FASTENERS OR MECHANICALLY GALVANIZED FASTENERS PER ASTM B695, CLASS 55 OR GREATER.

**GENERAL REQUIREMENTS:** PROVIDE MINIMUM NAILING PER IBC TABLE 2304.10.1 OR MORE, AS OTHERWISE SHOWN. STAGGER ALL NAILING TO PREVENT SPLITTING OF WOOD MEMBERS. ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESERVATIVE TREATED WITH THE EXCEPTION OF INTERIOR CONCRETE TOPPING ON WOOD FLOOR SYSTEMS. HOLES AND CUTS IN 3x OR 4x PLATES SHOULD BE TREATED WITH A 9% SOLUTION OF COPPER NAPHTHENATE. BOLT HOLES IN WOOD MEMBERS SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER. PROVIDE CUT WASHERS WHERE BOLT HEADS, NUTS AND LAG SCREW HEADS BEAR ON WOOD. PROVIDE A MINIMUM 3"x3"x0.229" PLATE WASHER ON ALL ANCHOR BOLTS WHICH CONNECT MUD SILLS TO FOUNDATION. DO NOT NOTCH OR DRILL STRUCTURAL MEMBERS, EXCEPT AS ALLOWED BY IBC SECTIONS 2308.4.2.4, 2308.5.9, 2308.5.10 AND 2308.7.4 OR AS RESTRICTED BY PLANS OR DETAILS, OR AS APPROVED PRIOR TO INSTALLATION. REFER TO PRESERVATIVE TREATED WOOD REQUIREMENTS IN THESE GENERAL NOTES FOR GALVANIZING REQUIREMENTS FOR CONNECTORS AND FASTENERS.

FASTENING SCHEDULE FOR WOOD STRUCTURAL MEMBERS (UNLESS NOTED OTHERWISE ON PLANS)		
ITEM	TYPE	CONNECTION
RAFTER OR TRUSS TO TOP PLATE	TOENAIL & CONNECTOR	(3) 16d H2.5 @ 48" O.C.
CEILING JOIST TO TOP PLATE	TOENAIL	(3) 8d
CEILING JOIST TO PARALLEL RAFTER	FACE NAIL	(3) 16d
CEILING JOIST: LAP OVER PARTITION	FACE NAIL	(3) 16d
COLLAR TIE	FACE NAIL	(3) 16d
BLOCKING TO RAFTER	TOENAIL	(3) 8d
RIM BOARD TO RAFTER	END NAIL	(2) 16d
TOP PLATE TO TOP PLATE	FACE NAIL	(2) 16d @ 12" O.C.
TOP PLATE AT INTERSECTIONS	FACE NAIL	(4) 16d
TOP PLATE LAP	FACE NAIL	(8) 16d
STUD TO STUD	FACE NAIL	(2) 16d @ 24" O.C.
HEADER TO HEADER	FACE NAIL	16d @ 16" O.C. EA. EDGE
TOP OR BOTTOM PLATE TO STUD	END NAIL	(2) 16d
STUD TO SOLE PLATE	TOE NAIL END NAIL	(4) 8d (2) 16d
BOTTOM PLATE TO FLOOR JOIST AT BRACED PANEL	TOE NAIL FACE NAIL	16d @ 16" O.C. (3) 16d @ 16" O.C.
JOISTS TO TOP PLATE, SILL OR GIRDER	TOE NAIL	(4) 8d
BRIDGING TO JOIST	TOE NAIL	(2) 8d
BLOCKING TO JOISTS	TOE NAIL	(3) 8d
BLOCKING TO TOP PLATE	TOE NAIL	(3) 8d
RIM JOIST TO JOIST	FACE NAIL	(3) 16d
RIM JOIST TO SILL OR TOP PLATE	CONNECTOR	A35 @ 24" O.C.
CONTINUOUS HEADER TO STUD	CONNECTOR	A35
BUILT-CORNER STUDS	FACE NAIL	16d @ 24" O.C.
BUILT-UP BEAMS (PER LAYER)	FACE NAIL	16d @ 16" O.C. EA. EDGE
RAFTERS TO RIDGE BOARD	TOE NAIL FACE NAIL	(4) 16d (3) 16d
RAFTERS TO HIP	TOE NAIL FACE NAIL	(4) 16d (3) 16d

**FRAMING CONNECTORS:** SHALL HAVE ICC APPROVAL AND BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, SAN LEANDRO, CA., OR PRE-APPROVED EQUAL. PROVIDE MAXIMUM SIZE AND QUANTITY OF NAILS OR BOLTS PER MANUFACTURER, EXCEPT AS NOTED OTHERWISE. PROVIDE LEAD HOLES AS REQUIRED TO PREVENT SPLITTING OF WOOD MEMBERS. REFER TO PRESERVATIVE TREATED WOOD REQUIREMENTS IN THESE GENERAL NOTES FOR GALVANIZING REQUIREMENTS FOR CONNECTORS AND FASTENERS.

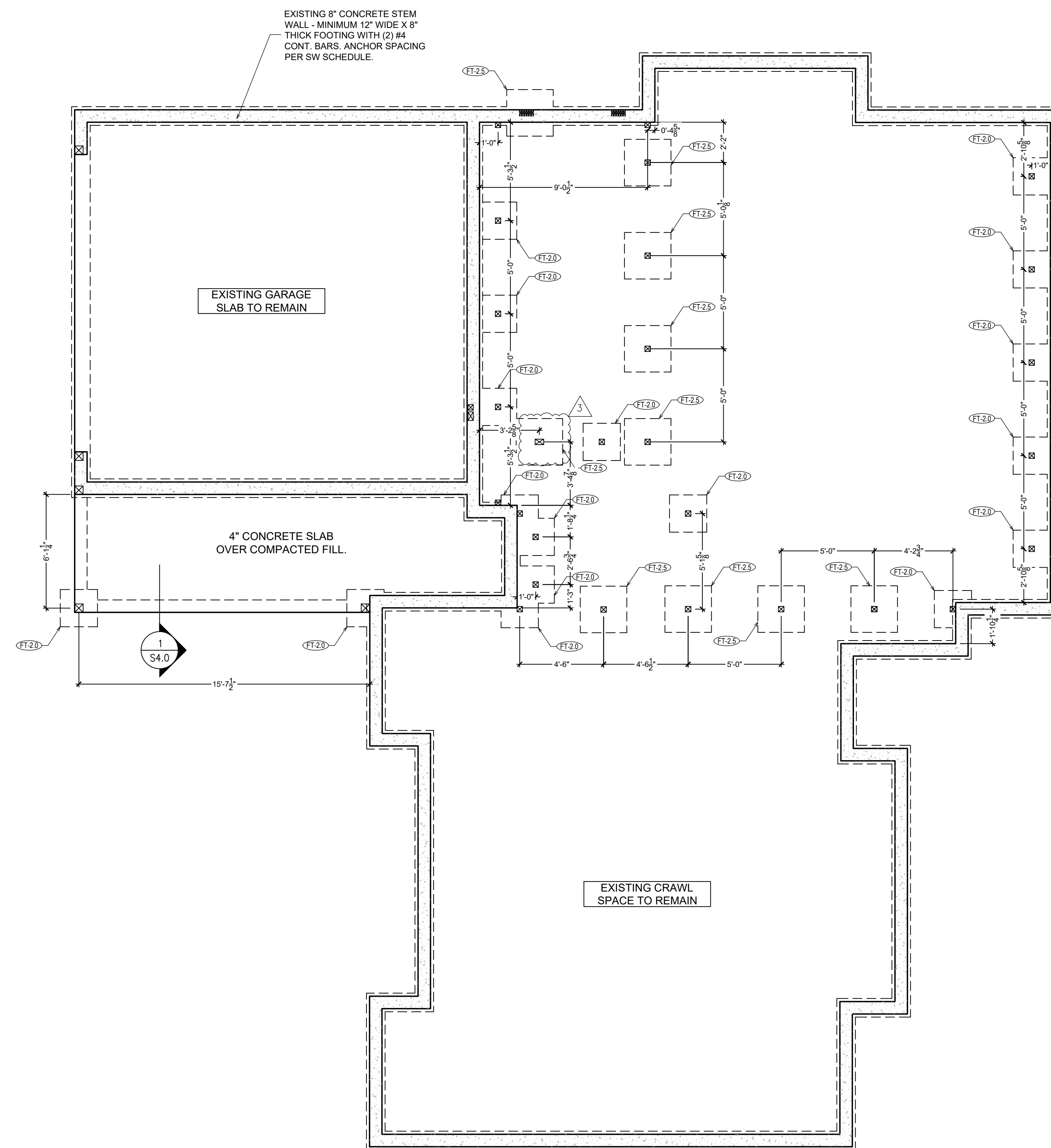
**LAG SCREWS:** SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1. LAG SCREWS SHALL BE OF A DIAMETER INDICATED ON DRAWINGS WITH A MINIMUM OF 8x DIA. EMBEDMENT IN SUPPORTING MEMBER UNLESS NOTED OTHERWISE. CLEARANCE HOLE FOR THE SHANK SHALL BE THE SAME DIAMETER AS THE SHANK AND THE SAME DEPTH OF PENETRATION AS THE UNTHREADED PORTION OF THE SHANK. THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 60 TO 75 PERCENT OF THE SHANK DIAMETER AND A LENGTH EQUAL TO AT LEAST THE LENGTH OF THE THREADED PORTION. THE THREADED PORTION OF THE SCREW SHALL BE INSERTED IN ITS LEAD HOLE BY TURNING WITH A WRENCH. SOAP OR OTHER LUBRICANT SHALL BE USED ON THE SCREWS OR IN THE LEAD HOLE TO FACILITATE INSERTION AND PREVENT DAMAGE TO THE SCREW. LAG SCREWS SHALL NOT BE DRIVEN WITH A HAMMER. REFER TO PRESERVATIVE TREATED WOOD REQUIREMENTS IN THESE GENERAL NOTES FOR GALVANIZING REQUIREMENTS FOR CONNECTORS AND FASTENERS.

**METAL-PLATE-CONNECTED WOOD TRUSSES:** SHALL BE MANUFACTURED AND INSTALLED WITHIN THE JURISDICTION REQUIREMENTS, AND DESIGNED AND DETAILED IN ACCORDANCE WITH ANSI/TP-1, INCLUDING BRACING AND WIND UPLIFT. PROVIDE 2x6 TOP CHORDS, AND 2x4 BOTTOM CHORDS AND WEBS, UNLESS COORDINATED AND APPROVED. TRUSSES SHALL BE DESIGNED TO CARRY THE LOADS LISTED IN THE DESIGN CRITERIA AND ANY ADDITIONAL LOADS INDICATED ON THE FRAMING PLANS AND DETAILS. TRUSSES INDICATED ON PLANS ARE FOR TYPICAL UNIFORMLY LOADED CONDITIONS. MANUFACTURER SHALL PROVIDE ADDITIONAL OR SPECIAL TRUSSES AS REQUIRED TO SUPPORT SPECIAL LOADING CONDITIONS AS INDICATED ON DRAWINGS. PROVIDE INSTALLATION FRAMING PLANS AND DRAWINGS.

PROVIDE CERTIFICATE OF CONFORMANCE FROM AN INDEPENDENT TESTING LABORATORY OR A LICENSED PROFESSIONAL ENGINEER CERTIFYING THAT THEY HAVE INSPECTED THE FINISHED TRUSSES AND THAT ALL TRUSSES ARE CONSTRUCTED IN CONFORMANCE WITH THE TRUSS DESIGN DRAWINGS.

**I-JOISTS:** SHALL BE APA EWS PERFORMANCE RATED I-JOISTS (PRI) OR PRE-APPROVED EQUAL. I-JOISTS SHALL BE MANUFACTURED IN CONFORMANCE WITH APA PRI-400 CONFORMING TO APPROVED SHOP AND INSTALLATION DRAWINGS.





### FOUNDATION PLAN

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

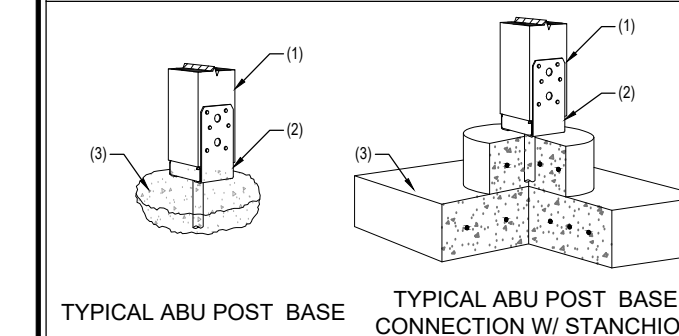
#### FOUNDATION NOTES:

- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- BOTTOM OF EXTERIOR FOOTINGS SHALL BE MINIMUM 12" BELOW GRADE.
- 4" CONCRETE SLAB OVER 6MIL VAPOR BARRIER ON 6" PF GRAVEL OR CRUSHED ROCK OVER FIRM UNDISTURBED SOIL OR ENGINEERED COMPACTED BACK-FILL. REINFORCE WITH 6 x 6 W1.4 x W1.4 WWF.
- ALL WOOD IN CONTACT WITH CONCRETE SHOULD BE PRESSURE TREATED WOOD.
- REFER TO GENERAL STRUCTURAL NOTES PAGE ON S0.0 FOR ADDITIONAL REQUIREMENTS.

#### FOOTING SCHEDULES

TYPE	DIMENSIONS & REINFORCEMENT				MAX CAPACITY (LBS)	
	LENGTH & WIDTH	DEPTH	ROUND OPTION	LONG. & TRANS. NO. SIZE	SQ	RND
FT-1.5	18"	10"	18" Ø	3 #4	2750	2200
FT-2.0	24"	10"	24" Ø	4 #4	4750	3750
FT-2.5	30"	10"	30" Ø	5 #4	7500	6000
FT-3.0	36"	12"	36" Ø	5 #4	10500	8500
FT-3.5	42"	12"	-	6 #4	15000	-
FT-4.0	48"	12"	-	8 #4	18500	-
FT-5.0	60"	12"	-	8 #4	30000	-

**IMPORTANT NOTE:**  
EXTERIOR FOOTINGS W/ FROST DEPTH UP TO 12", USE 12" THICK FOOTING. FROST DEPTH GREATER THAN 12", PLEASE USE STANCHION AS SHOWN.



- NOTES:**
- POST PER PLAN
  - SIMPSON ABU POST BASE PER PLAN
  - FOOTING PER PLAN

#### ADDITIONAL NOTES

- POSTS SHOWN ON THE FOUNDATION PLAN ARE THOSE DIRECTLY CONNECTED TO THE FOUNDATION WITH A HOLDOWN OR POST BASE CONNECTOR.
- ALL FOOTINGS, FOUNDATIONS, EXCAVATIONS, GRADING, AND FILL SHALL COMPLY TO THE PROVISIONS OF THE INTERNATIONAL BUILDING CODE W/ LOCAL AMENDMENTS.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL MEASUREMENTS AGAINST THE ARCHITECTURAL PLAN SET. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE EOR AND DESIGNER BEFORE FORMING AND/OR POURING CONCRETE.
- ALL FOOTINGS CAPACITIES ARE SHOWN ABOVE BASED ON 1500 PSF SOIL BEARING PRESSURE.

#### FLOOR FRAMING NOTES:

- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- FLOOR SHEATHING SHALL BE 3/4" TONGUE AND GROOVE A.P.A. RATED PLYWOOD OR OSB PANELS. (EXPOSURE 1, SPAN RATING 48/24). GLUE AND NAIL SHEATHING AT ALL FRAMED PANEL EDGES WITH 10d AT 6" O.C. AND TO ALL INTERMEDIATE FRAMING AT 12" O.C.
- HEADERS OVER DOORS AND WINDOW OPENINGS SHALL BE MINIMUM 4x10'S U.N.O.
- PROVIDE (2) STUDS MINIMUM AT EACH END OF ALL BEAMS U.N.O. ON PLANS. BEAR BEAM FULLY ON BUILT UP COLUMN AND PROVIDE POSITIVE CONNECTION BY EITHER A35 OR LTP4 CLIPS ON EACH SIDE OF BEAM
- ALL EXTERIOR WALLS SHALL BE SW1 U.N.O.
- REFER TO GENERAL STRUCTURAL NOTE PAGE ON S0.0 FOR ADDITIONAL REQUIREMENTS

#### FLOOR BEAM SCHEDULE

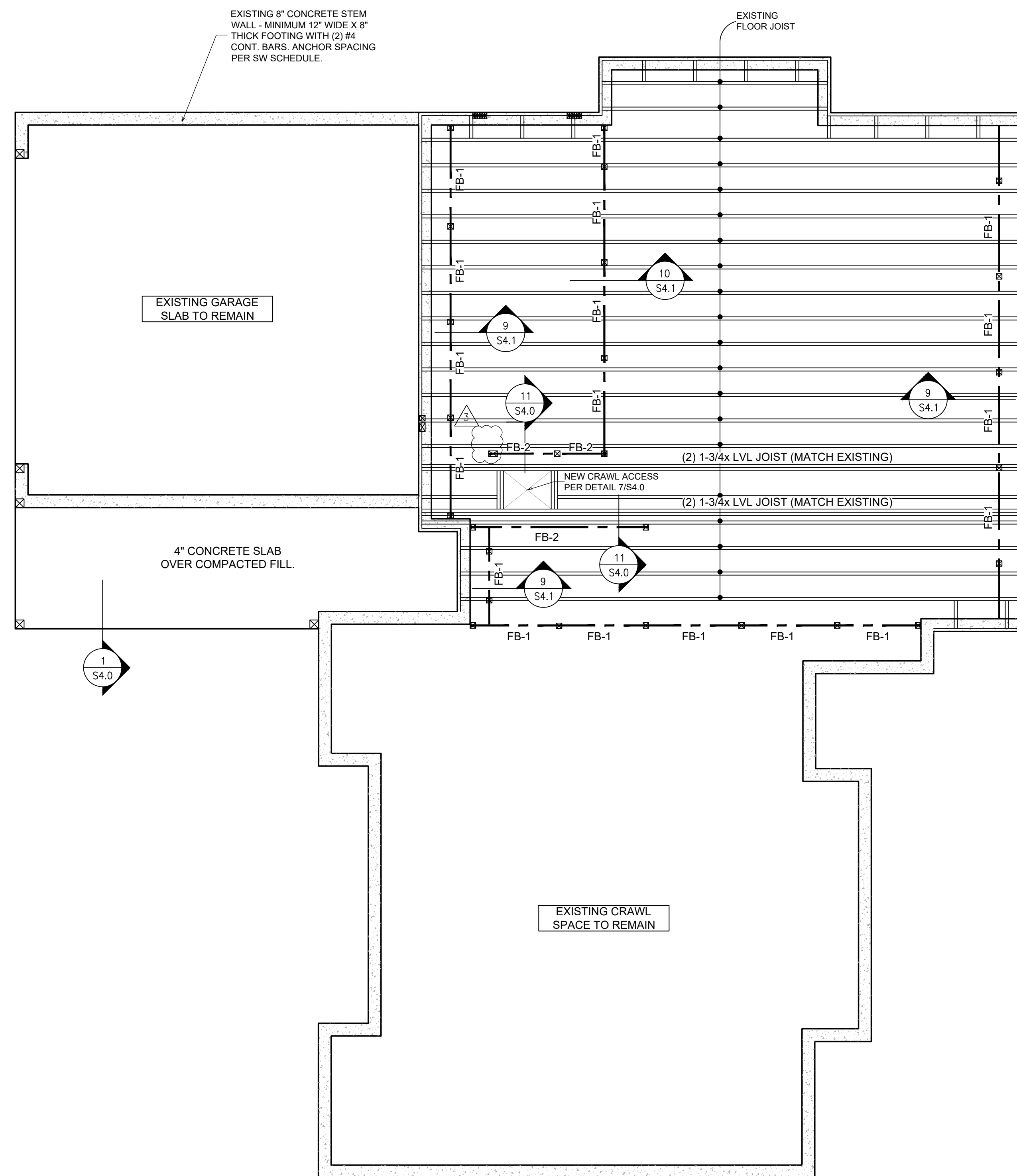
**FB-1:** 4 x 12 DF-L NO.2 (DROP)

**HDR:** 4 x 8 DF-L NO.2 (UP TO 4'); 4 x 10 DF-L NO.2 (UP TO 6'); 4 x 12 DF-L NO.2 (UP TO 8')

#### POST & TRIMMER & WALL SCHEDULE

(x3) 2x TRIMMERS + (x3) 2x KING STUDS.	* ALL TRIMMERS AND KING STUDS SHALL CONFORM PER DETAIL 10/S4.1 UNLESS NOTED OTHERWISE.
(x2) 2x TRIMMERS + (x2) 2x KING STUDS.	
POST BELOW	6x6 POST
POST FROM ABOVE	4x4 POST
	4x6 POST
LOAD BEARING WALL	
PARTITION WALL	





**MAIN FLOOR FRAMING PLAN**

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

**FLOOR FRAMING NOTES:**

- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- FLOOR SHEATHING SHALL BE 3/4" TONGUE AND GROOVE A.P.A. RATED PLYWOOD OR OSB PANELS. (EXPOSURE 1, SPAN RATING 48/24). GLUE AND NAIL SHEATHING AT ALL FRAMED PANEL EDGES WITH 10d AT 6" O.C. AND TO ALL INTERMEDIATE FRAMING AT 12" O.C.
- HEADERS OVER DOORS AND WINDOW OPENINGS SHALL BE MINIMUM 4x10'S U.N.O.
- PROVIDE (2) STUDS MINIMUM AT EACH END OF ALL BEAMS U.N.O. ON PLANS. BEAR BEAM FULLY ON BUILT UP COLUMN AND PROVIDE POSITIVE CONNECTION BY EITHER A35 OR LTP4 CLIPS ON EACH SIDE OF BEAM
- ALL EXTERIOR WALLS SHALL BE SW1 U.N.O.
- REFER TO GENERAL STRUCTURAL NOTE PAGE ON S0.0 FOR ADDITIONAL REQUIREMENTS

**FLOOR BEAM SCHEDULE**

**FB-1:** 4 x 12 DF-L NO.2 (DROP)

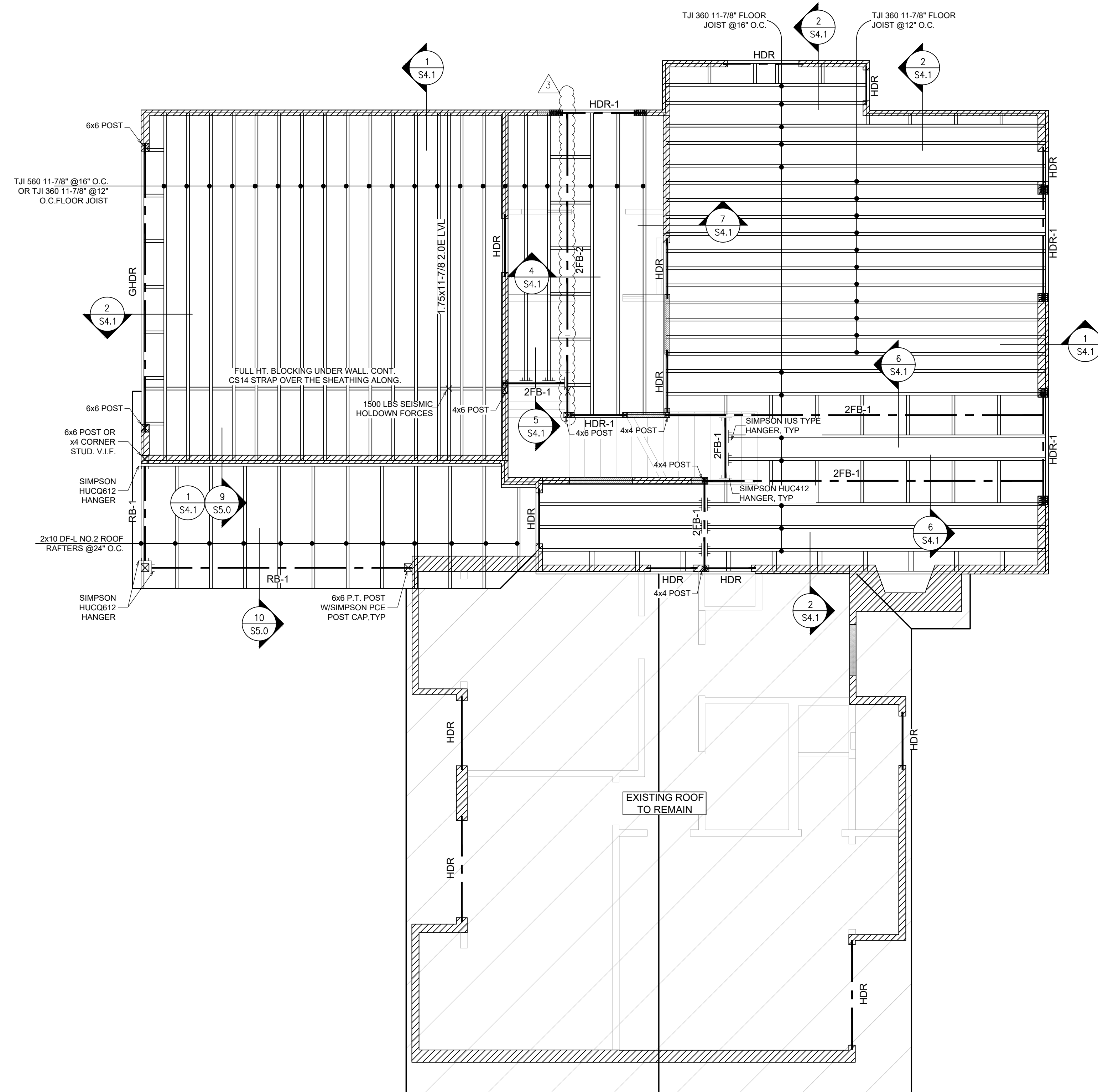
**FB-2:** 4 x 12 DF-L NO.2

**HDR:** 4 x 8 DF-L NO.2 (UP TO 4'); 4 x 10 DF-L NO.2 (UP TO 6'); 4 x 12 DF-L NO.2 (UP TO 8')

**POST & TRIMMER & WALL SCHEDULE**

■ (x3) 2x TRIMMERS + (x3) 2x KING STUDS.	• ALL TRIMMERS AND KING STUDS SHALL CONFORM PER DETAIL 10/S4.1 UNLESS NOTED OTHERWISE.
■ (x2) 2x TRIMMERS + (x2) 2x KING STUDS.	☒ 6x6 POST
☒ POST BELOW	☒ 4x4 POST
☒ POST FROM ABOVE	☒ 4x6 POST
▬ LOAD BEARING WALL	
▬ PARTITION WALL	





**LOWER ROOF & UPPER FLOOR FRAMING PLAN**

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

**ROOF FRAMING NOTES:**

- DO NOT SCALE DRAWINGS, REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- ROOF FRAMING SHALL BE PRE-MANUFACTURED ROOF TRUSSES AT 24" O.C. TRUSS DESIGN IS TO BE PROVIDED BY MANUFACTURER.
- HEADERS OVER DOORS AND WINDOW OPENINGS SHALL BE MINIMUM 4X10 U.N.O.
- PROVIDE (2) STUDS MINIMUM AT EACH END OF ALL BEAMS U.N.O. ON PLANS. BEAR BEAM FULLY ON BUILT UP COLUMN AND PROVIDE POSITIVE CONNECTION BY EITHER A35 OR LTP4 CLIPS ON EACH SIDE OF BEAM
- REFER TO GENERAL STRUCTURAL NOTE PAGE ON S0.0 FOR ADDITIONAL REQUIREMENTS
- PANELS SHALL NOT BE LESS THAN 4' X 8' EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING WHERE MINIMUM PANEL DIMENSION SHALL BE 24".

**ROOF BEAM SCHEDULE**

RB-1: 6 x 12 DF-L NO.2  
 HDR: 4 x 8 DF-L NO.2 (UP TO 4'); 4 x 10 DF-L NO.2 (UP TO 6'); 4 x 12 DF-L NO.2 (UP TO 8')

**ROOF SHEATHING SCHEDULE**

SNOW LOAD (UP TO)	NOMINAL THICKNESS	SPAN RATING	EDGE NAILING	FIELD NAILING
40LBS	7/16"	24/16	8d @ 6" O.C.	8d @ 12" O.C.
70LBS	15/32", 1/2"	32/16	10d @ 6" O.C.	10d @ 12" O.C.
130LBS	19/32", 5/8"	40/20	10d @ 6" O.C.	10d @ 12" O.C.
175LBS	23/32", 3/4"	48/24	12d @ 6" O.C.	12d @ 12" O.C.

- LONG DIMENSIONS PERPENDICULAR TO ROOF JOIST WITH EDGE SUPPORT R503.2.1.1(1).
- NAIL SHEATHING AT ALL FRAMED PANEL EDGES AND TO ALL INTERMEDIATE FRAMING AS SHOWN ABOVE U.N.O.

**POST & TRIMMER & WALL SCHEDULE**

(x3) 2x TRIMMERS + (x3) 2x KING STUDS.	* ALL TRIMMERS AND KING STUDS SHALL CONFORM PER DETAIL 10/S4.1 UNLESS NOTED OTHERWISE.
(x2) 2x TRIMMERS + (x2) 2x KING STUDS.	
POST BELOW	6x6 POST
POST FROM ABOVE	4x4 POST
	4x6 POST

LOAD BEARING WALL    EXISTING WALL  
 PARTITION WALL    EXISTING STRUCTURE

**ADDITIONAL NOTES**

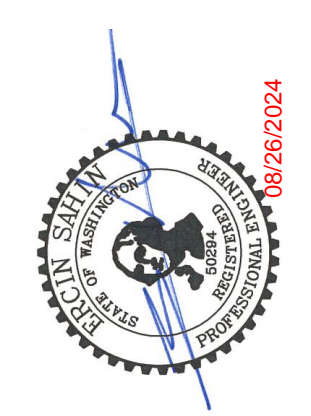
- PLEASE SUBMIT TRUSS MANUFACTURER'S TRUSS LAYOUT FOR OUR APPROVAL PRIOR TO CONSTRUCTION.

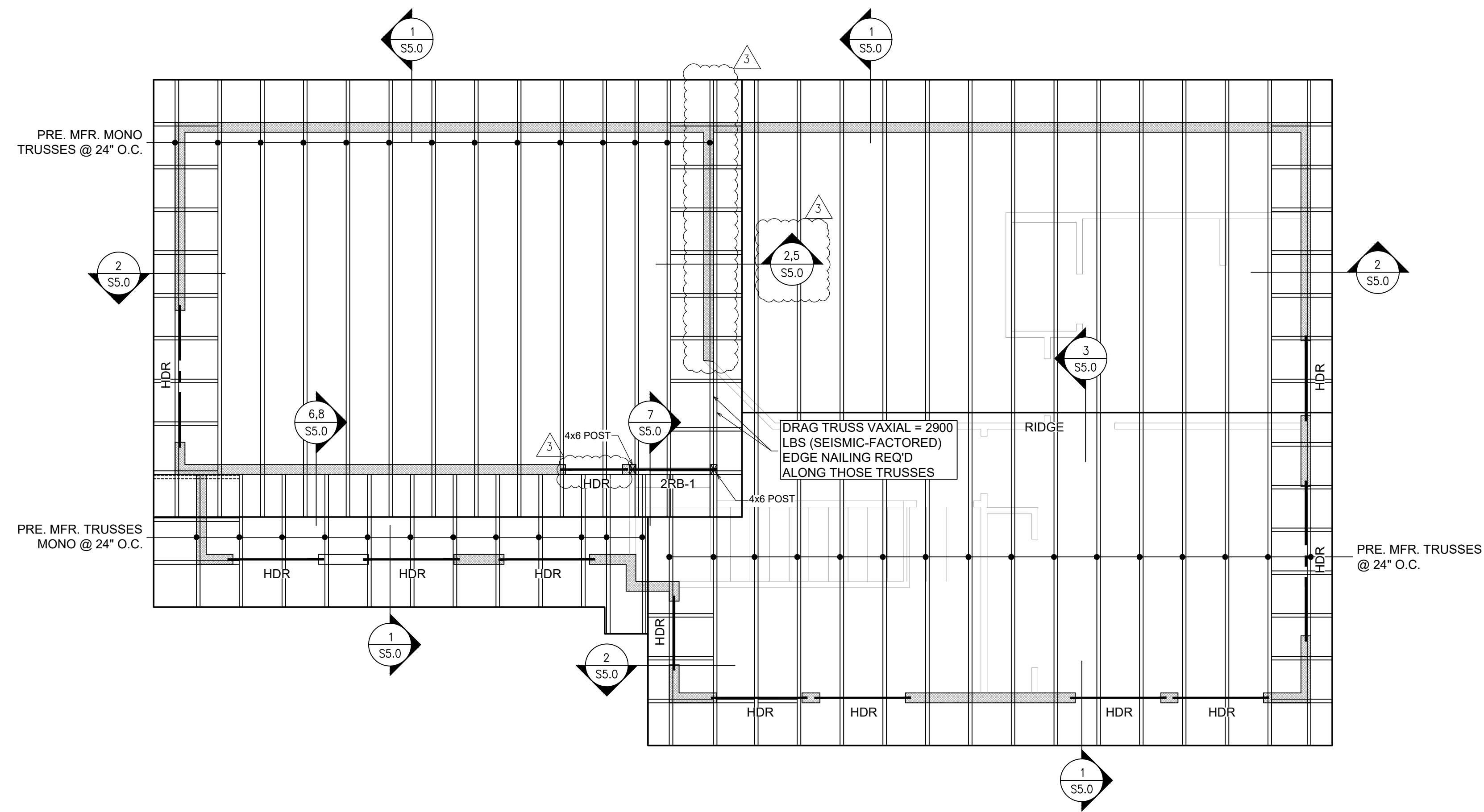
**FLOOR FRAMING NOTES:**

- DO NOT SCALE DRAWINGS, REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- FLOOR SHEATHING SHALL BE 3/4" TONGUE AND GROOVE A.P.A. RATED PLYWOOD OR OSB PANELS, (EXPOSURE 1, SPAN RATING 48/24), GLUE AND NAIL SHEATHING AT ALL FRAMED PANEL EDGES WITH 10d AT 6" O.C. AND TO ALL INTERMEDIATE FRAMING AT 12" O.C.
- HEADERS OVER DOORS AND WINDOW OPENINGS SHALL BE MINIMUM 4X10'S U.N.O.
- PROVIDE (2) STUDS MINIMUM AT EACH END OF ALL BEAMS U.N.O. ON PLANS. BEAR BEAM FULLY ON BUILT UP COLUMN AND PROVIDE POSITIVE CONNECTION BY EITHER A35 OR LTP4 CLIPS ON EACH SIDE OF BEAM
- ALL EXTERIOR WALLS SHALL BE SW1 U.N.O.
- REFER TO GENERAL STRUCTURAL NOTE PAGE ON S0.0 FOR ADDITIONAL REQUIREMENTS

**FLOOR BEAM SCHEDULE**

2FB-1: 3-1/2" x 11-7/8" 2.0E LVL  
 2FB-2: 5-1/4" x 11-7/8" 24F-V4 DF GLULAM  
 HDR-1: 3-1/2" x 12" 24F-V4 DF GLULAM  
 GHDR: 3-1/2" x 12" 24F-V4 DF GLULAM  
 HDR: 4 x 8 DF-L NO.2 (UP TO 4'); 4 x 10 DF-L NO.2 (UP TO 6'); 4 x 12 DF-L NO.2 (UP TO 8')





**UPPER ROOF FRAMING PLAN**

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

**ROOF FRAMING NOTES:**

- DO NOT SCALE DRAWINGS, REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- ROOF FRAMING SHALL BE PRE-MANUFACTURED ROOF TRUSSES AT 24" O.C. TRUSS DESIGN IS TO BE PROVIDED BY MANUFACTURER.
- HEADERS OVER DOORS AND WINDOW OPENINGS SHALL BE MINIMUM 4X10 U.N.O.
- PROVIDE (2) STUDS MINIMUM AT EACH END OF ALL BEAMS U.N.O. ON PLANS. BEAR BEAM FULLY ON BUILT UP COLUMN AND PROVIDE POSITIVE CONNECTION BY EITHER A35 OR LTP4 CLIPS ON EACH SIDE OF BEAM
- REFER TO GENERAL STRUCTURAL NOTE PAGE ON S0.0 FOR ADDITIONAL REQUIREMENTS
- PANELS SHALL NOT BE LESS THAN 4' X 8' EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING WHERE MINIMUM PANEL DIMENSION SHALL BE 24".

**ROOF BEAM SCHEDULE**

**2RB-1:** 6 x 12 DF-L NO.2  
**HDR:** 4 x 8 DF-L NO.2 (UP TO 4'); 4 x 10 DF-L NO.2 (UP TO 6'); 4 x 12 DF-L NO.2 (UP TO 8')

**ROOF SHEATHING SCHEDULE**

SNOW LOAD (UP TO)	NOMINAL THICKNESS	SPAN RATING	EDGE NAILING	FIELD NAILING
40LBS	7/16"	24/16	8d @ 6" O.C.	8d @ 12" O.C.
70LBS	15/32", 1/2"	32/16	10d @ 6" O.C.	10d @ 12" O.C.
130LBS	19/32", 5/8"	40/20	10d @ 6" O.C.	10d @ 12" O.C.
175LBS	23/32", 3/4"	48/24	12d @ 6" O.C.	12d @ 12" O.C.

- LONG DIMENSIONS PERPENDICULAR TO ROOF JOIST WITH EDGE SUPPORT R503.2.1.1(1).
- NAIL SHEATHING AT ALL FRAMED PANEL EDGES AND TO ALL INTERMEDIATE FRAMING AS SHOWN ABOVE U.N.O.

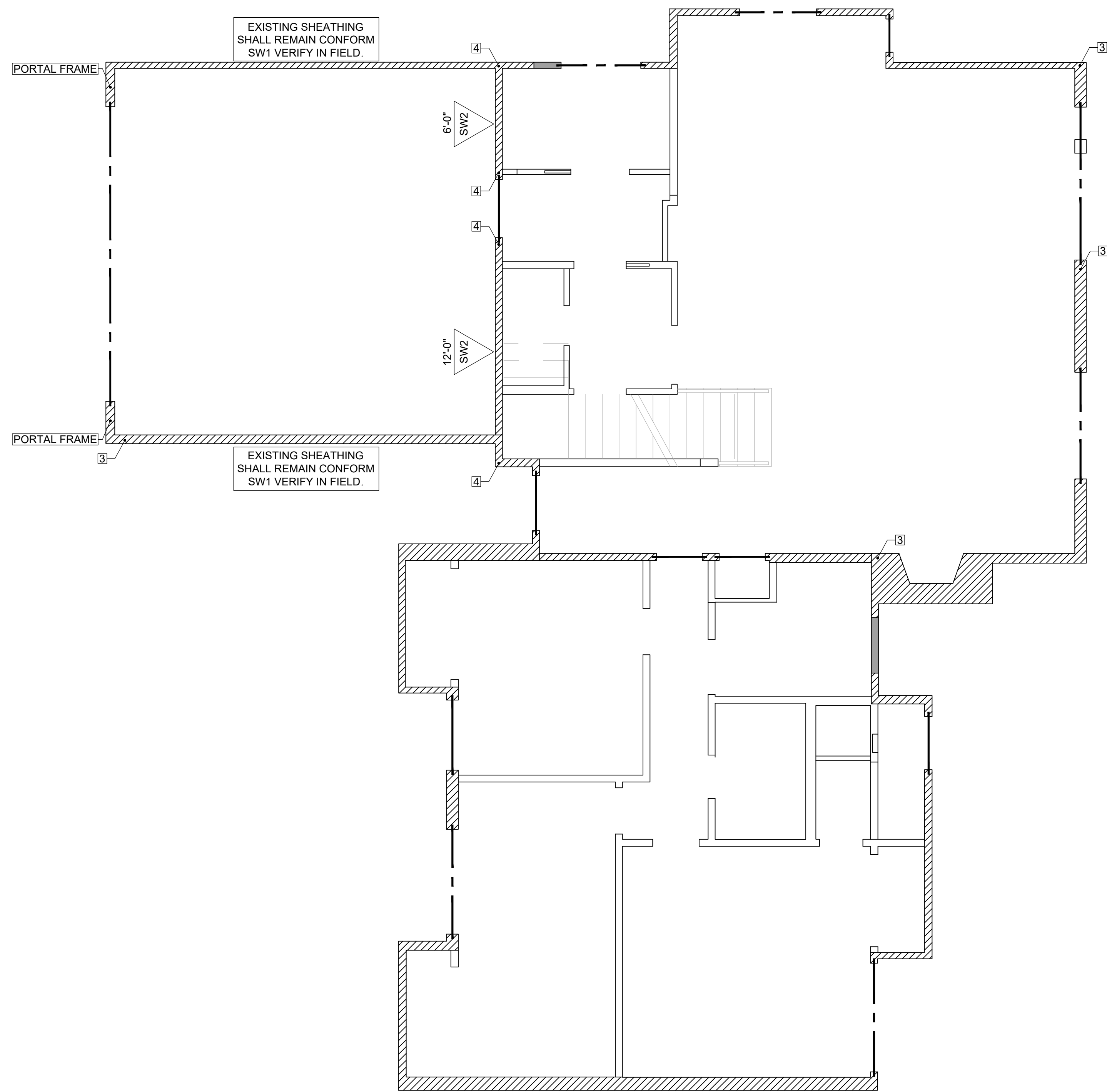
**POST & TRIMMER & WALL SCHEDULE**

(x3) 2x TRIMMERS + (x3) 2x KING STUDS.	ALL TRIMMERS AND KING STUDS SHALL CONFORM PER DETAIL 10/S4.1 UNLESS NOTED OTHERWISE.
(x2) 2x TRIMMERS + (x2) 2x KING STUDS.	
POST BELOW	6x6 POST
POST FROM ABOVE	4x4 POST
	4x6 POST
LOAD BEARING WALL	EXISTING WALL
PARTITION WALL	EXISTING STRUCTURE

**ADDITIONAL NOTES**

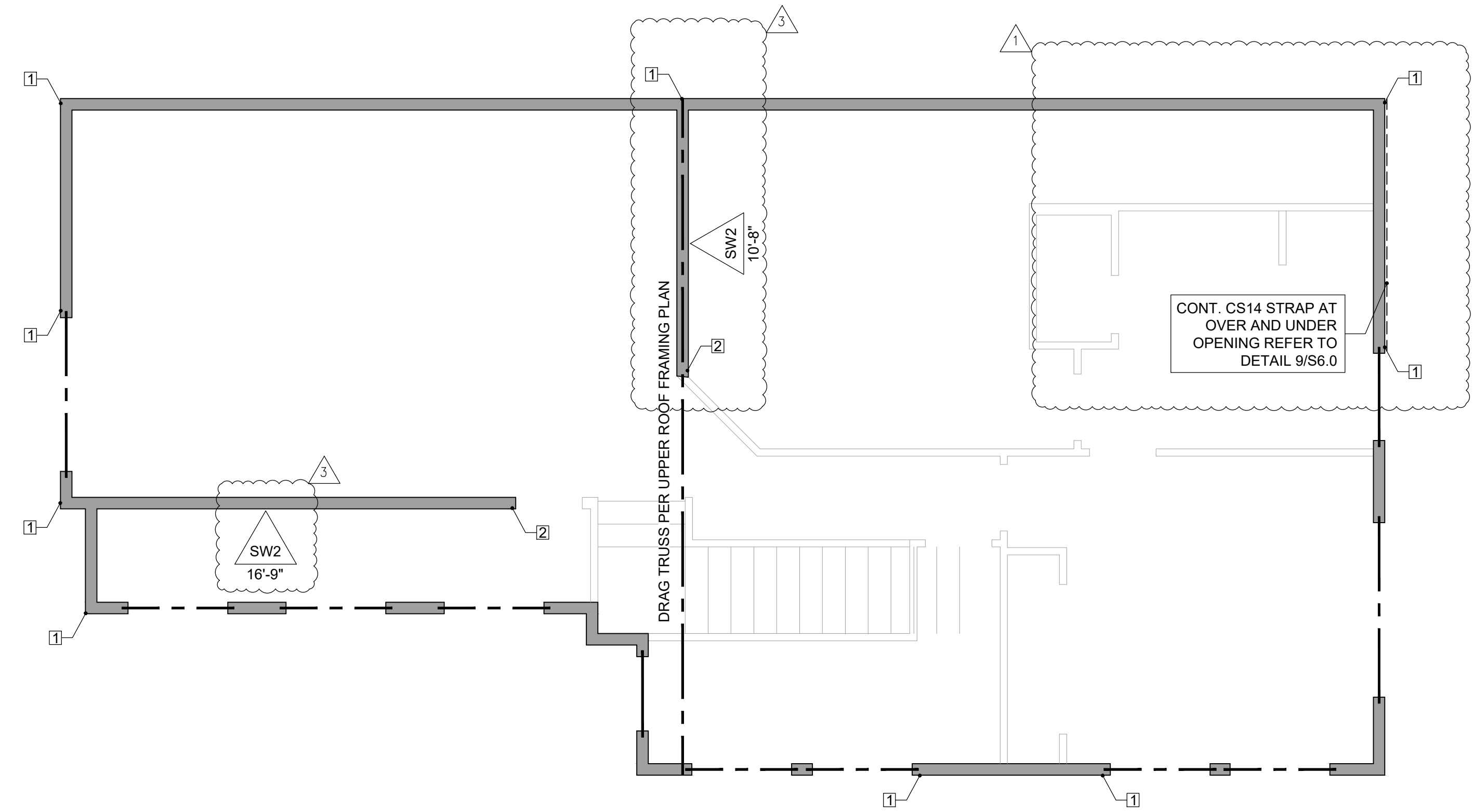
- PLEASE SUBMIT TRUSS MANUFACTURER'S TRUSS LAYOUT FOR OUR APPROVAL PRIOR TO CONSTRUCTION.





**MAIN FLOOR SHEARWALL AND HOLDOWN LAYOUT**

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



**UPPER FLOOR SHEARWALL AND HOLDOWN LAYOUT**

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

**HOLDOWN LEGEND**

- 1-MSTC40 BETWEEN FLOORS
- 2-MSTC48B3 TO BEAM OR FLOOR JOIST
- 3-HDU2 HOLDOWN W/ 5/8" ATR WITH EPOXY
- 4-HDU8 HOLDOWN W/ 7/8" ATR WITH EPOXY

FOR POST INSTALLED ANCHORS, USE SIMPSON SET-XP EPOXY W/ 15" EMBEDMENT

△ SWXX → REFER TO SHEARWALL SCHEDULE ON PAGE 6.0

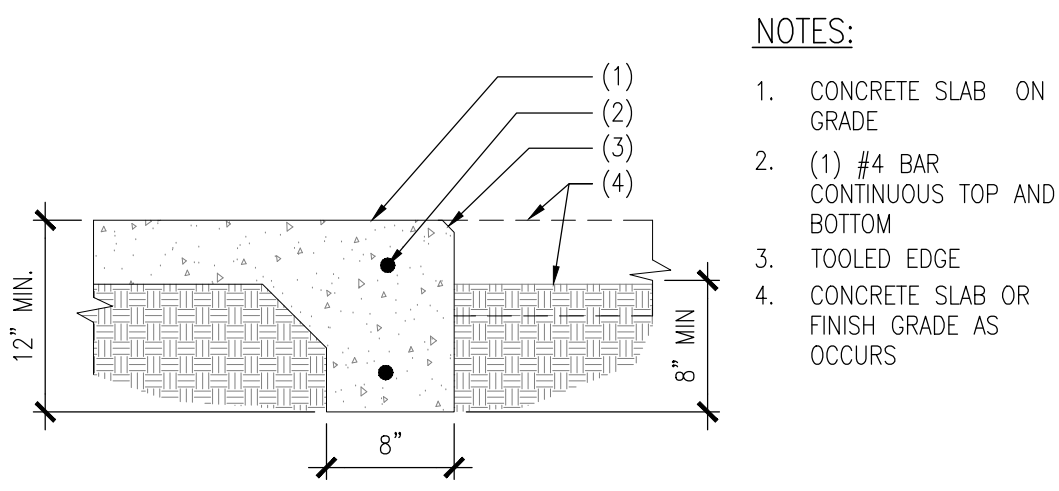
△ SW1 → ALL EXTERIOR WALLS SHALL BE SW1 UNLESS NOTED OTHERWISE

**WALL LEGEND**

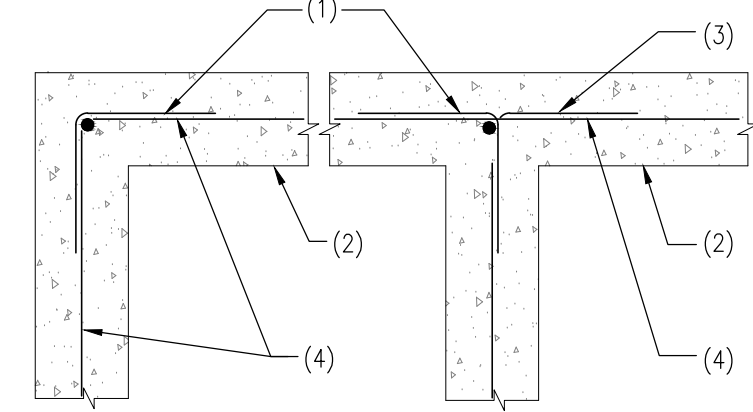
▬ SHEARWALL

▬ INTERIOR WALL (SHEATHING IS NOT REQ'D)

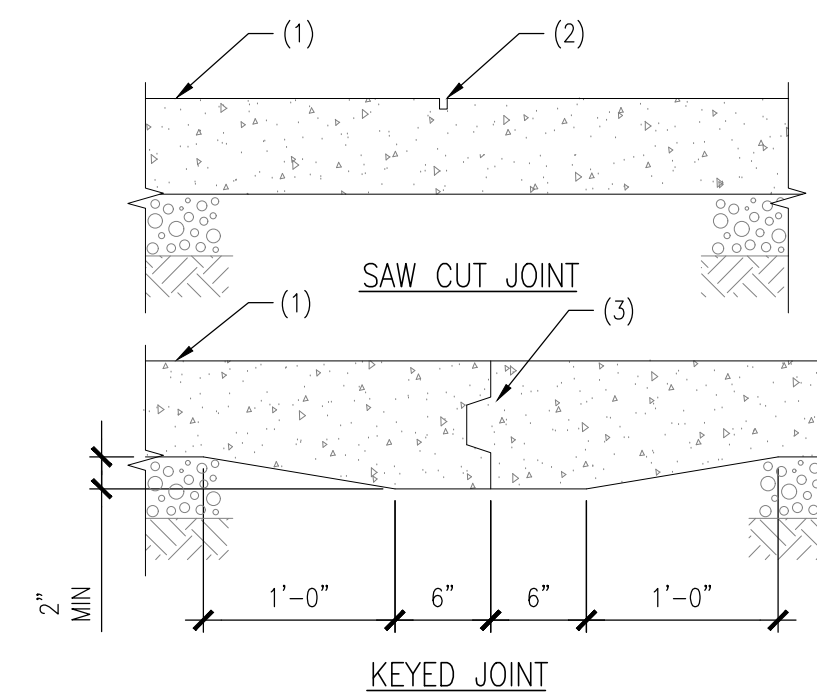




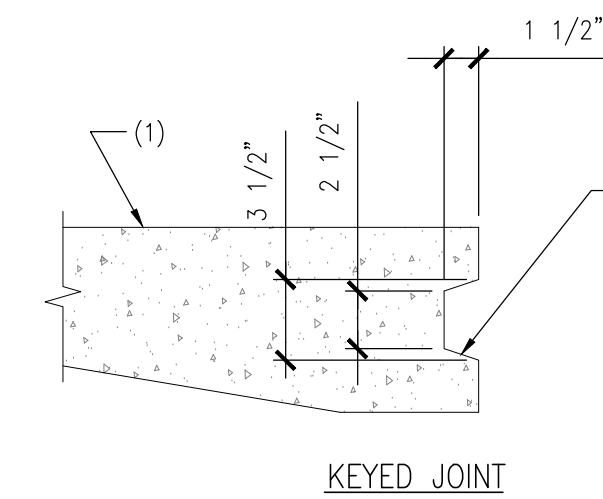
- NOTES:**
1. CONCRETE SLAB ON GRADE
  2. (1) #4 BAR CONTINUOUS TOP AND BOTTOM
  3. TOOLED EDGE CONCRETE SLAB OR FINISH GRADE AS OCCURS
  4. CONCRETE SLAB OR FINISH GRADE AS OCCURS



- NOTES:**
1. CORNER BARS SAME SIZE AND SPACING AS HORIZONTAL REINFORCING LAP PER GSN (24\"/>
  - 2. CONCRETE STEM WALL OR FOOTING
  - 3. ALTERNATE BENDS
  - 4. REINFORCING PER PLANS AND/OR DETAILS



- NOTES:**
1. CONCRETE SLAB ON GRADE
  2. SAWCUT - 1/8\"/>
  - 3. CONTINUOUS KEY - SEE TYPICAL DETAIL
- NOTES:**
- A. KEYED JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING PLACEMENT UNLESS SPECIFICALLY NOTED ON THE PLANS



- NOTES:**
1. CONCRETE SLAB
  2. KEYED JOINT - REMOVE FORM MATERIAL PRIOR TO PLACING ADJACENT CONCRETE
- NOTES:**
- A. ALL DIMENSIONS ARE ±1/2\"/>

**1 THICKENED EDGE CONCRETE SLAB**

SCALE: N.T.S.

**2 PLAN-CORNER REINFORCING IN CONCRETE FOOTING STEM/WALL**

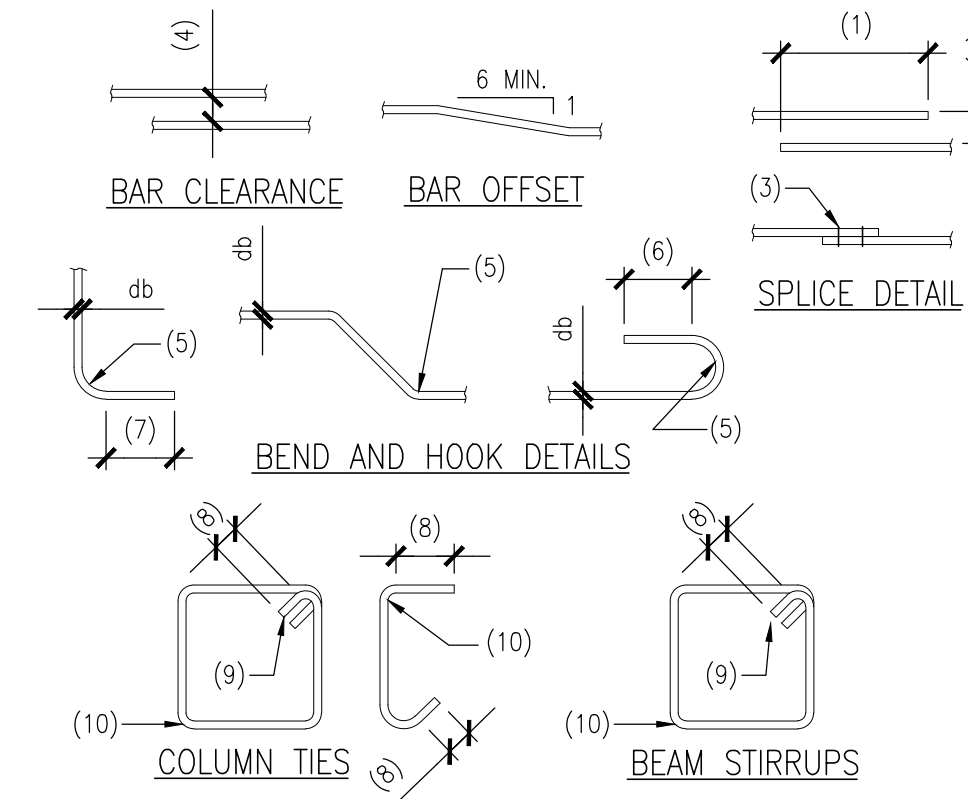
SCALE: N.T.S.

**3 CONTROL JOINTS (C.J.) IN CONCRETE SLAB ON GRADE**

SCALE: N.T.S.

**4 TYPICAL KEY IN CONCRETE**

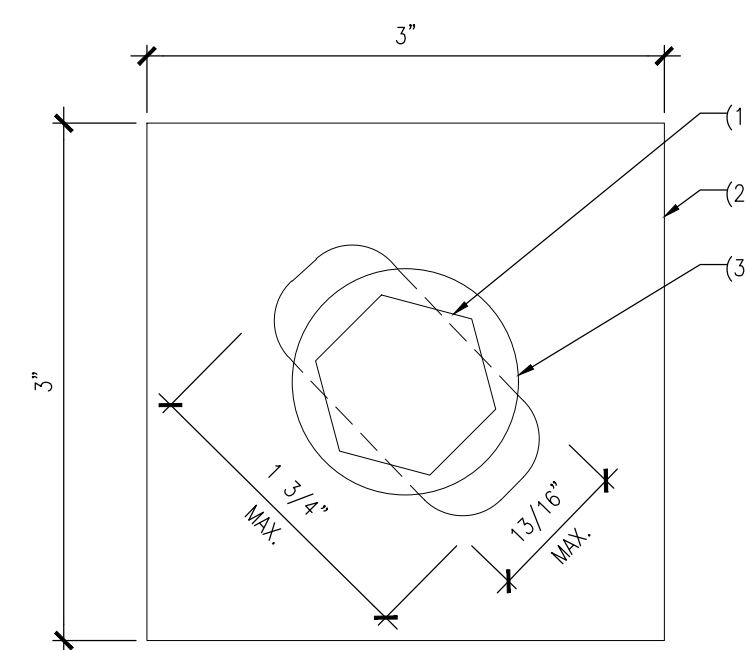
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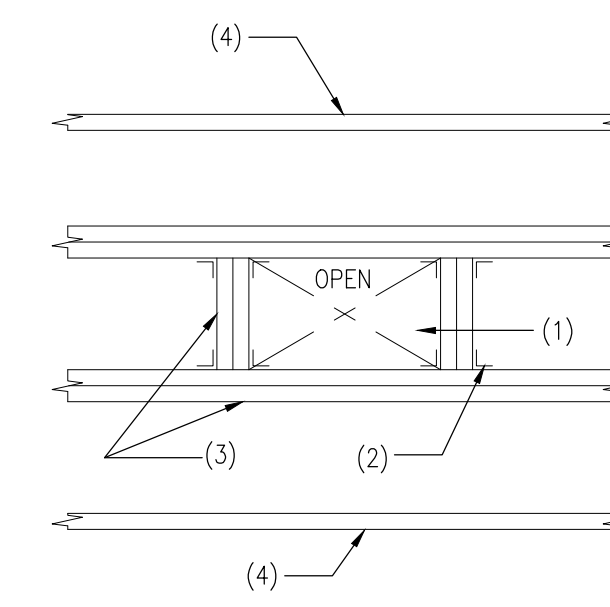
- NOTES:**
1. LAP PER TYPICAL SCHEDULE
  2. MAXIMUM 1/5 LAP BUT NOT MORE THAN 6\"/>
  - 3. WIRE TIES
  - 4. 1db (1\"/>
  - 5. INSIDE BEND RADIUS: #3 TO #8 BARS = 3db #9 TO #11 BARS = 4db #14, #18 BARS = 5db
  - 6. 4db (2 1/2\"/>
  - 7. 12db
  - 8. 6db (4\"/>
  - 9. 135° BEND
  - 10. BEND AROUND: 1 1/2\"/>

	CLASS "B" LAP SPLICE LENGTH (IN INCHES)							
	f'c=2,500 PSI		f'c=3,000 PSI		f'c=4,000 PSI		f'c=5,000 PSI	
	REG	TOP	REG	TOP	REG	TOP	REG	TOP
#3	16	22	16	20	16	18	16	16
#4	32	42	30	38	26	34	24	30
#5	40	52	36	48	32	42	28	36

- NOTES:**
- A. TOP BARS ARE ANY HORIZONTAL BARS PLACED SO THAT MORE THAN 12\"/>
  - B. UNLESS NOTED OTHERWISE, LAP SPLICES IN CONCRETE BEAMS, SLABS, WALLS, AND FOOTINGS SHALL BE CLASS "B" TENSION LAP SPLICES.
  - C. CONTACT STRUCTURAL ENGINEER IF CENTER-TO-CENTER SPACING OF REINFORCEMENT IS LESS THAN (3) BAR DIAMETERS (<3db).
  - D. LAP SPLICES BASED UPON THE FOLLOWING STEEL PROPERTIES: #3 fy = 40 KSI #4 AND LARGER fy = 60 KSI



- NOTES:**
1. ANCHOR BOLT PER SHEAR WALL SCHEDULE
  2. SLOTTED PLATE WASHER
  3. STANDARD CUT WASHER



- NOTES:**
1. CRAWL SPACE OPENING
  2. SIMPSON LU OR SIMILAR HANGER
  3. DOUBLE JOISTS SISTERED - IF TJI USE LVL'S OR LSL'S
  4. WOOD JOIST PER PLAN
  5. USE EDGE NAILING AROUND OPENINGS

**5 TYPICAL CONCRETE REINFORCING BARS LAP SPLICE SCHEDULE FOR REINFORCING IN CONCRETE**

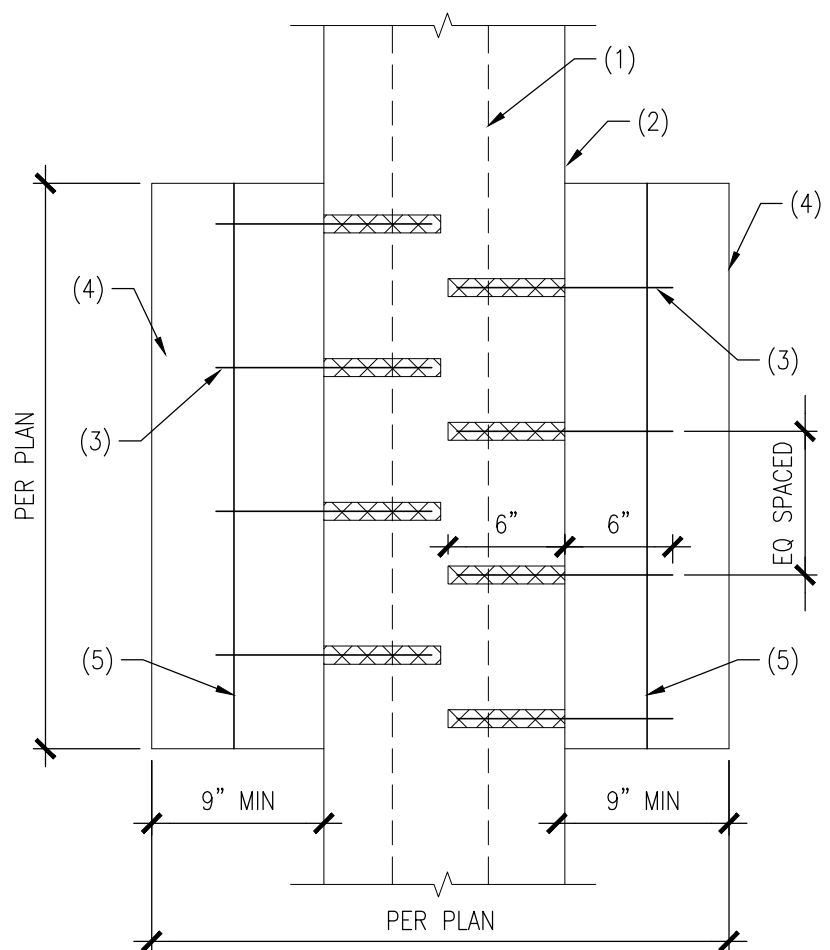
SCALE: N.T.S.

**6 SILL PLATE ANCHOR BOLT SLOTTED PLATE WASHER**

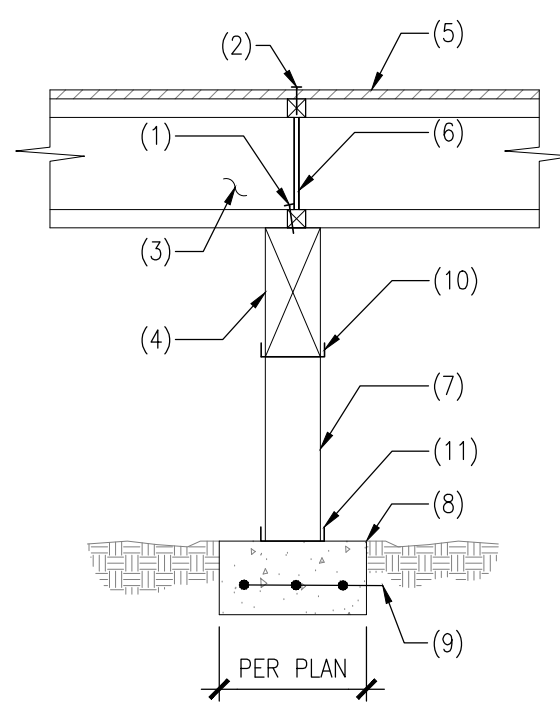
SCALE: N.T.S.

**7 TYPICAL CRAWL SPACE OPENING**

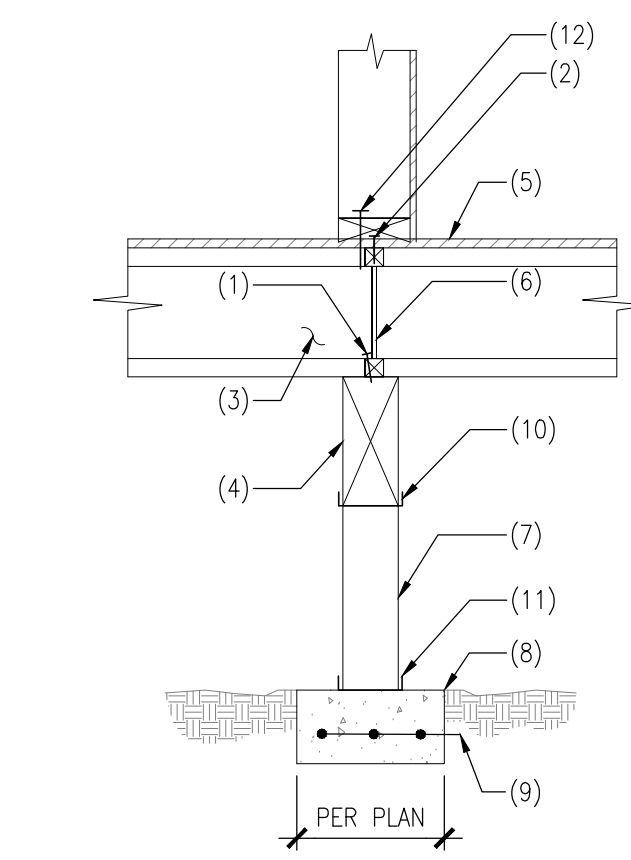
SCALE: N.T.S.



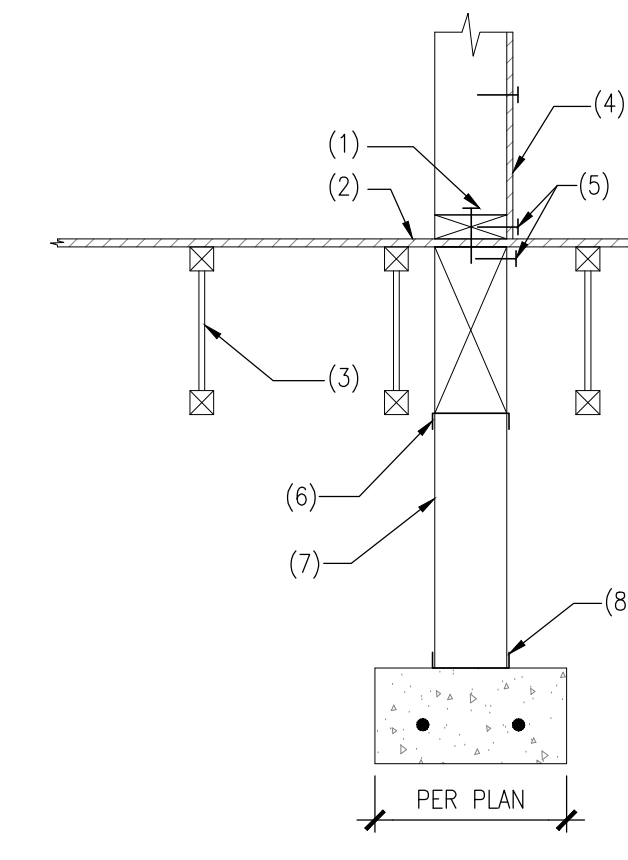
- NOTES:**
1. EXISTING CONCRETE STEM WALL
  2. EXISTING CONCRETE FOOTING
  3. 1'-0\"/>
  - 4. NEW CONCRETE FOOTING
  - 5. (1) #4 BAR CONTINUOUS



- NOTES:**
1. (3) 10d NAILS PER BLOCK
  2. EDGE NAILING
  3. PLYWOOD WEB JOISTS PER PLAN
  4. WOOD BEAM PER PLAN
  5. PLYWOOD SHEATHING
  6. BLOCKING BY JOIST MANUFACTURER
  7. WOOD POST PER PLAN
  8. CONCRETE SPREAD FOOTING PER PLAN
  9. (3) #4 BARS EACH WAY
  10. SIMPSON POST CAP
  11. SIMPSON POST BASE



- NOTES:**
1. (3) 10d NAILS PER BLOCK
  2. EDGE NAILING
  3. PLYWOOD WEB JOISTS PER PLAN
  4. WOOD BEAM PER PLAN
  5. PLYWOOD SHEATHING
  6. BLOCKING BY JOIST MANUFACTURER
  7. WOOD POST PER PLAN
  8. CONCRETE SPREAD FOOTING PER PLAN
  9. (3) #4 BARS EACH WAY
  10. SIMPSON POST CAP
  11. SIMPSON POST BASE
  12. BASE PLATE NAILING PER SHEARWALL SCHEDULE



- NOTES:**
1. BASE PLATE NAILING PER SHEARWALL SCHEDULE
  2. PLYWOOD SHEATHING
  3. PLYWOOD WEB JOISTS PER PLAN
  4. SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE
  5. EDGE NAILING
  6. SIMPSON POST CAP
  7. POST PER PLAN
  8. SIMPSON POST BASE

**8 FOOTING ADDITION AT EXISTING FOOTING**

SCALE: N.T.S.

**9 INTERIOR SPREAD FOOTING WITH PLYWOOD WEB JOIST**

SCALE: N.T.S.

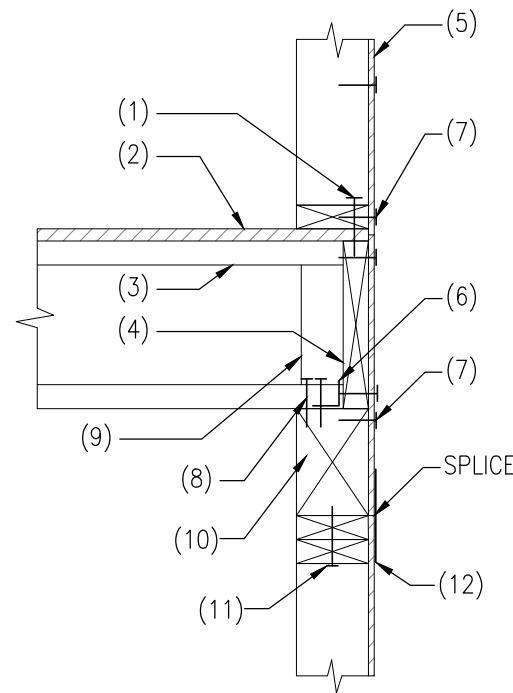
**10 INTERIOR SPREAD FOOTING WITH PLYWOOD WEB JOIST**

SCALE: N.T.S.

**11 WOOD BEAM PARALLEL TO FLOOR JOIST (FLUSH)**

SCALE: N.T.S.

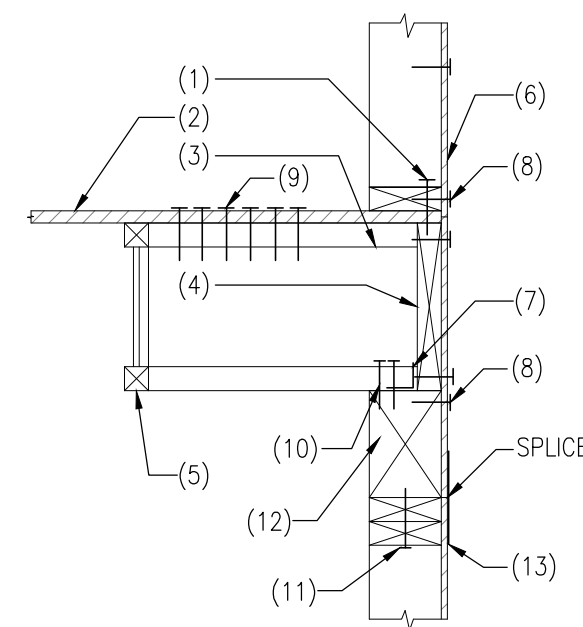




- NOTES:**
1. BASE PLATE NAILING PER SHEARWALL SCHEDULE
  2. PLYWOOD SHEATHING
  3. PLYWOOD WEB JOIST PER PLAN
  4. RIM JOIST BY JOIST MANUFACTURER - ATTACH WITH (2) 10d NAILS PER JOIST
  5. SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE
  6. SIMPSON A35 CLIPS PER SHEARWALL SCHEDULE MIN. 24" O.C.
  7. EDGE NAILING
  8. NAIL BRG PER MNF. - MIN (2) 12D NAILS
  9. WEB STIFFENER
  10. 4x10 BEAM
  11. TOP PLATE NAILING PER SHEARWALL SCHEDULE (20D NAILS)
  12. SIMPSON LTP @24" O.C.

**1 PLYWOOD WEB JOIST AT WOOD STUD WALL**

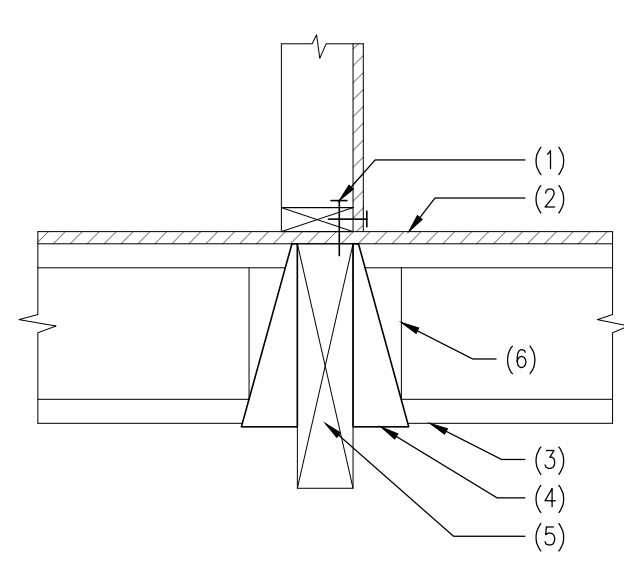
SCALE: N.T.S.



- NOTES:**
1. BASE PLATE NAILING PER SHEARWALL SCHEDULE
  2. PLYWOOD SHEATHING
  3. BLOCKING AT 48" O.C. BY JOIST MANUFACTURER
  4. RIM JOIST BY JOIST MANUFACTURER - ATTACH WITH (2) 10d NAILS PER PLAN
  5. PLYWOOD WEB JOIST PER PLAN
  6. SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE
  7. SIMPSON A35 CLIPS PER SHEARWALL SCHEDULE MIN. 24" O.C.
  8. EDGE NAILING
  9. (6) #8 SCREWS PER BLOCK - 10d NAILS ALTERNATE
  10. NAIL BRG PER MNF. - MIN (2) 12D NAILS
  11. TOP PLATE NAILING PER SHEARWALL SCHEDULE (20D NAILS)
  12. 4X10 BEAM
  13. SIMPSON LTP4 @24" O.C.

**2 PLYWOOD WEB JOIST AT WOOD STUD WALL**

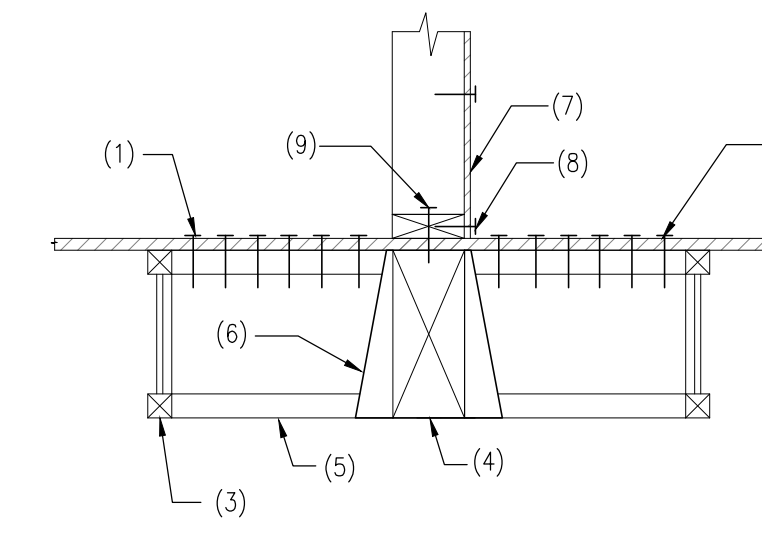
SCALE: N.T.S.



- NOTES:**
1. BASE PLATE NAILING PER SHEARWALL SCHEDULE
  2. PLYWOOD SHEATHING
  3. PLYWOOD WEB JOIST PER PLAN
  4. JOIST HANGER BY JOIST MANUFACTURER
  5. WOOD BEAM PER PLAN
  6. WEB STIFFENER

**3 PLYWOOD WEB JOIST AT WOOD BEAM**

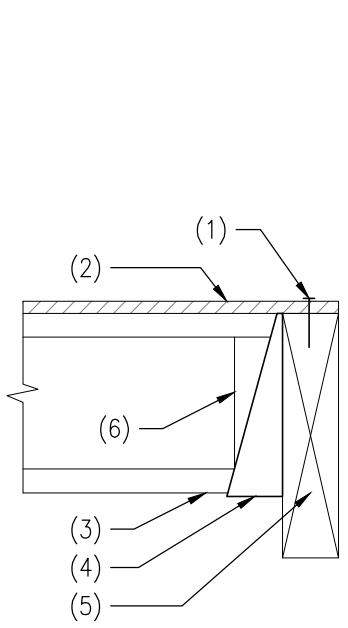
SCALE: N.T.S.



- NOTES:**
1. (6) #8 SCREWS PER BLOCK - 10d NAILS ALTERNATE
  2. PLYWOOD SHEATHING
  3. PLYWOOD WEB JOISTS PER PLAN
  4. WOOD BEAM PER PLAN
  5. BLOCKING AT 32" O.C. BY JOIST MANUFACTURER
  6. SIMPSON LLU TYPE HANGER
  7. SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE
  8. EDGE NAILING
  9. BASE PLATE NAILING PER SHEARWALL SCHEDULE

**4 PLYWOOD WEB JOIST AT WOOD BEAM**

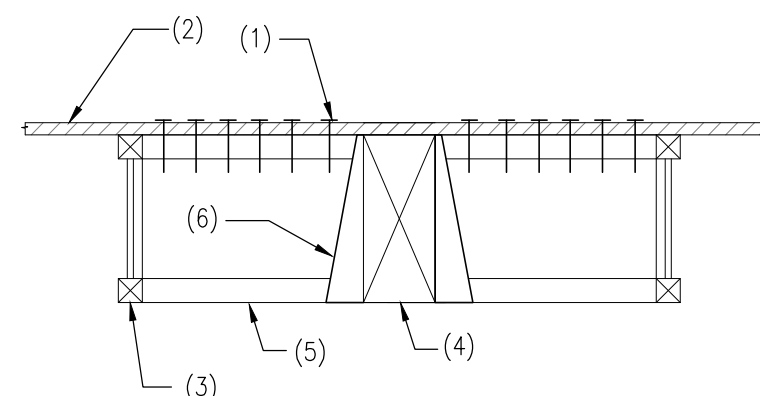
SCALE: N.T.S.



- NOTES:**
1. DOUBLE EDGE NAILING
  2. PLYWOOD SHEATHING
  3. PLYWOOD WEB JOIST PER PLAN
  4. JOIST HANGER BY JOIST MANUFACTURER
  5. WOOD BEAM PER PLAN
  6. WEB STIFFENER

**5 PLYWOOD WEB JOIST AT WOOD BEAM**

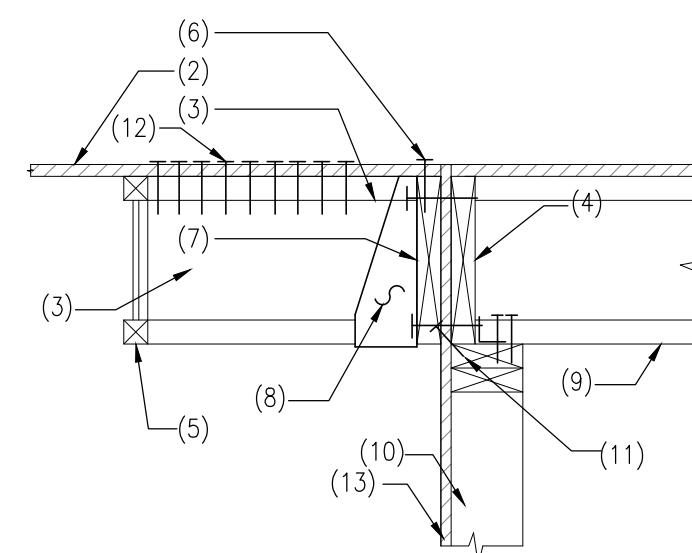
SCALE: N.T.S.



- NOTES:**
1. (6) #8 SCREWS PER BLOCK - 10d NAILS ALTERNATE
  2. PLYWOOD SHEATHING
  3. PLYWOOD WEB JOISTS PER PLAN
  4. WOOD BEAM PER PLAN
  5. BLOCKING AT 48" O.C. BY JOIST MANUFACTURER
  6. SIMPSON LLU TYPE HANGER

**6 PLYWOOD WEB JOIST AT WOOD BEAM**

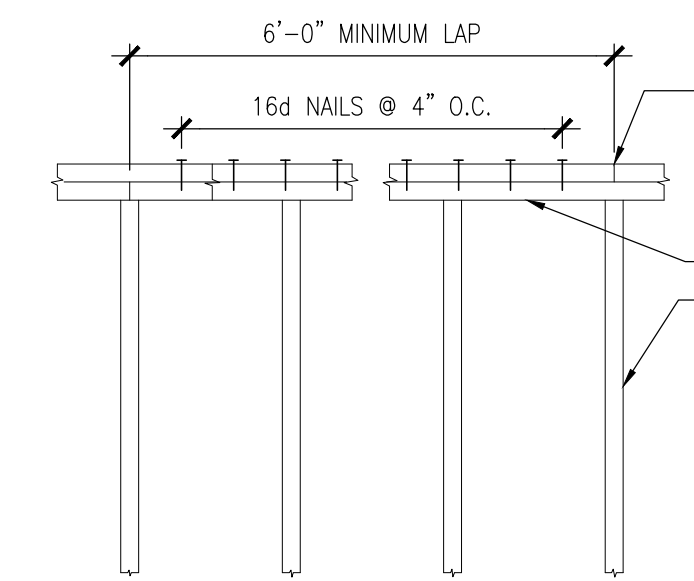
SCALE: N.T.S.



- NOTES:**
1. BASE PLATE NAILING PER SHEARWALL SCHEDULE
  2. PLYWOOD SHEATHING
  3. BLOCKING AT 32" O.C. BY JOIST MANUFACTURER
  4. RIM JOIST
  5. PLYWOOD WEB JOIST PER PLAN
  6. EDGE NAILING
  7. 2X LEDGER ATTACH TO RIM JOIST WITH (2) SDS 1/4" x 3 1/2" WOOD SCREWS AT 8" O.C.
  8. SIMPSON HANGER
  9. PLYWOOD WEB JOIST PER PLAN
  10. WOOD STUD WALL
  11. 16d TOENAILS AT 6" O.C.
  12. (9) #8 SCREWS PER BLOCK - 10d ALTERNATE
  13. SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE

**7 PLYWOOD WEB JOIST AT WOOD STUD WALL**

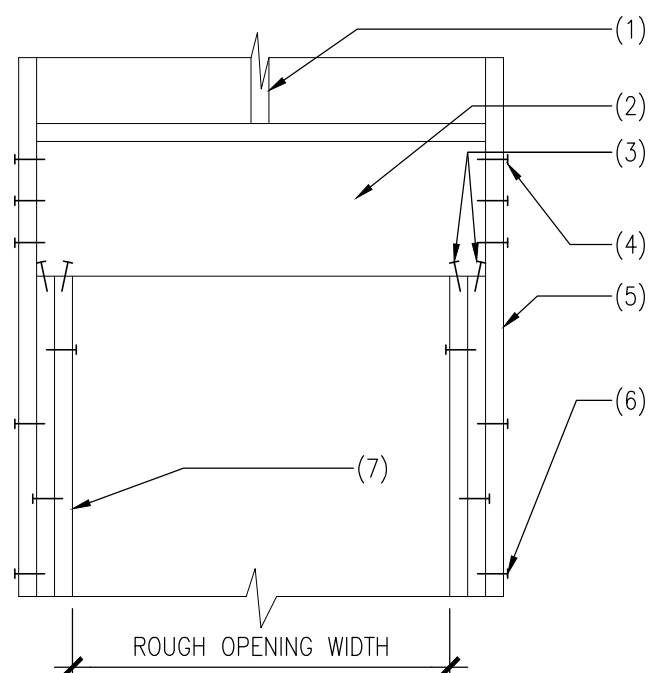
SCALE: N.T.S.



- NOTES:**
1. TOP PLATE SPLICE OVER STUD ONLY.
  2. DOUBLE TOP PLATE.
  3. WOOD STUDS.

**8 TYPICAL SPLICE OF TOP PLATES**

SCALE: N.T.S.



- NOTES:**
1. WOOD STUD WALL
  2. WOOD HEADER PER PLAN
  3. (2) 16d TOENAILS - EACH SIDE, EACH END
  4. (3) 16d NAILS AS SHOWN
  5. RUN VERTICAL STUDS UP PAST HEADER AS SHOWN
  6. (2) 16d NAILS AT 12" O.C.
  7. DOUBLE STUDS UNDER HEADER BEARINGS FOR OPENING WIDTHS GREATER THAN 5'-0"

**9 WOOD HEADER (DROPPED)**

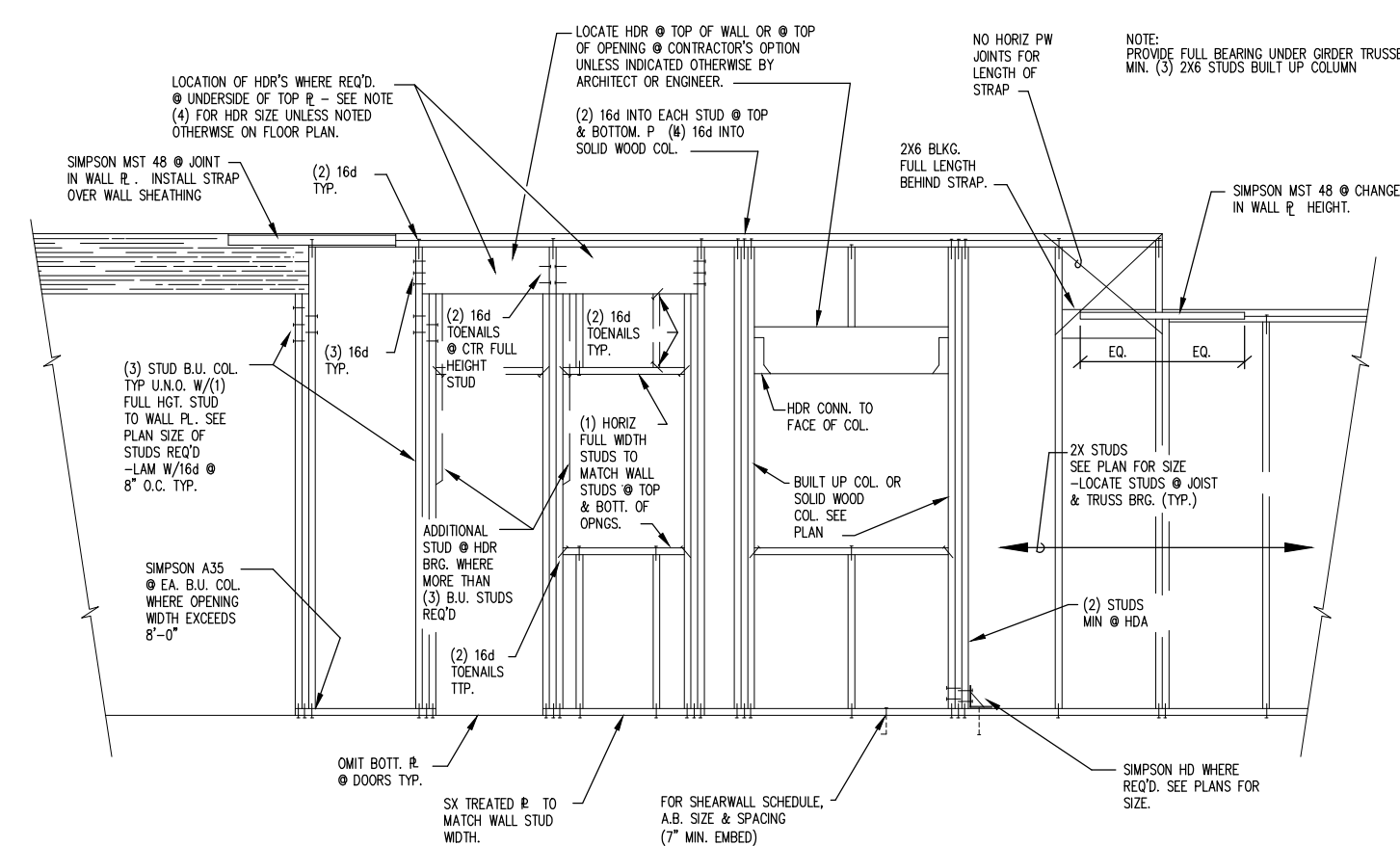
SCALE: N.T.S.

OPENING SIZE	HEADER SIZE	TRIMMERS REQ'D		KING STUDS REQ'D	
		2X4	2X6	2X4	2X6
UP TO 3'-6"	SEE PLAN	1	1	1	1
3'-6" > TO 5'-0"	SEE PLAN	2	1	2	2
5'-0" > TO 8'-0"	SEE PLAN	2	1	2	2
8'-0" > TO 10'-6"	SEE PLAN	3	2	3	3
10'-6" > TO 16'-0"	SEE PLAN	4	3	3	3

- NOTES:**
- UNLESS NOTED OTHERWISE, ALL BEAM AND HEADER SUPPORTS SHALL CONFORM TO THIS SCHEDULE
  - ALL BUILT-UP SUPPORTS WILL MATCH OR EXCEED WIDTH OF SUPPORTED BEAM
  - ALL HEADERS ARE TO BE 4X10 DF-L NO.2 UNLESS NOTED OTHERWISE

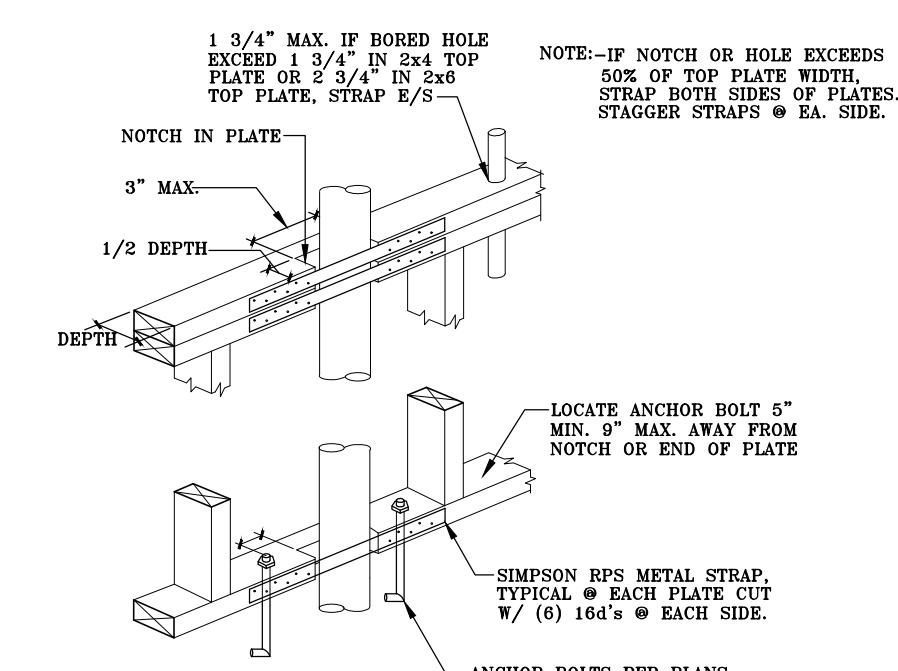
**10 HEADER AND BEAM SCHEDULE FOR LOAD BEARING WALLS**

SCALE: N.T.S.



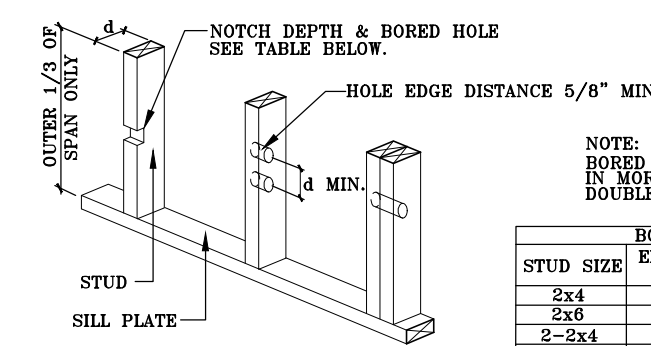
**11 TYPICAL EXTERIOR + INTERIOR BEARING WALL FRAMING ELEVATION**

SCALE: N.T.S.



**12 PIPES THRU PLATES**

SCALE: N.T.S.



**NOTES:** HOLES NOT PERMITTED IN MORE THAN TWO CONSECUTIVE PORTABLE STUDS

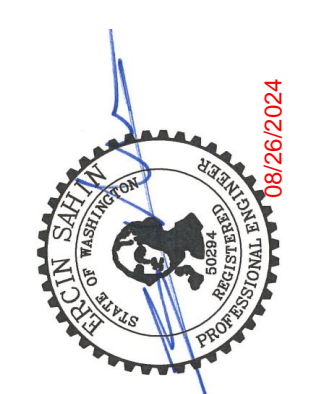
STUD SIZE	BORED HOLES	
	KAT. & BRN'G. WALLS	NON-BRN'G. WALLS
2x4	1 5/16"	2 1/8"
2x6	2 1/16"	3 1/16"
2-2x4	2 1/16"	3 1/16"
2-2x6	3 5/16"	3 5/16"

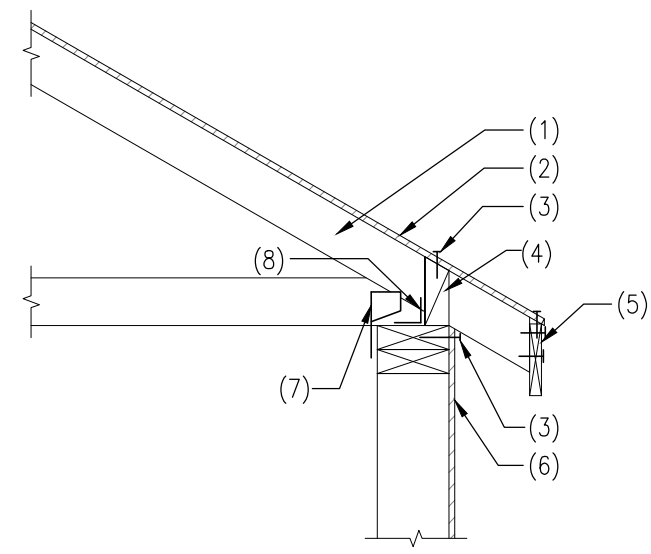
  

STUD SIZE	NOTCH DEPTH	
	KAT. & BRN'G. WALLS	NON-BRN'G. WALLS
2x4	1 3/8"	1 7/16"
2x6	1 3/8"	2 1/16"

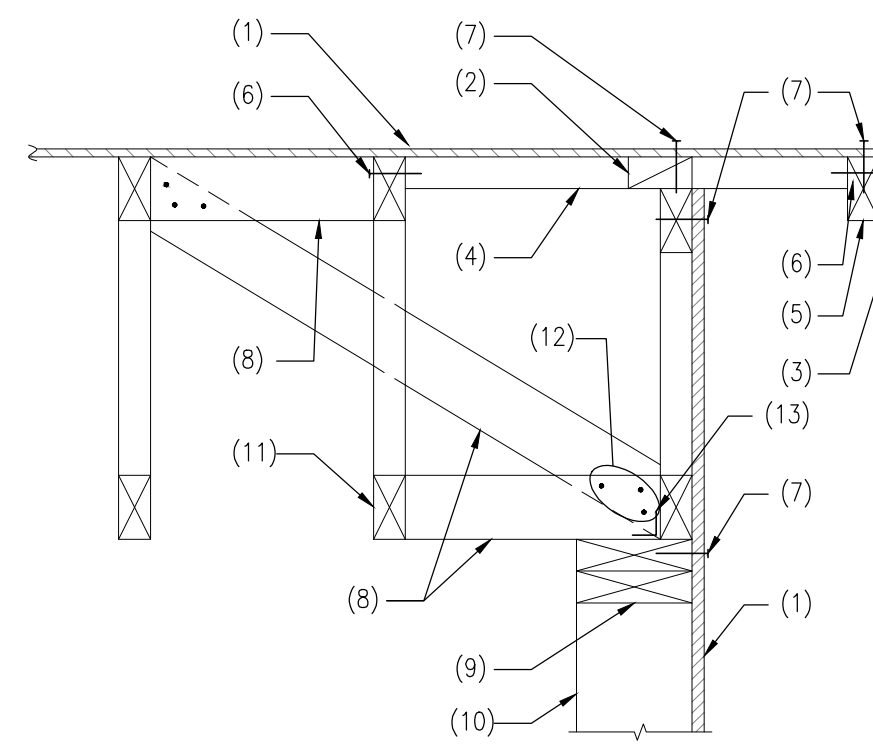
**13 STUD NOTCHING/BORING LIMITS**

SCALE: N.T.S.

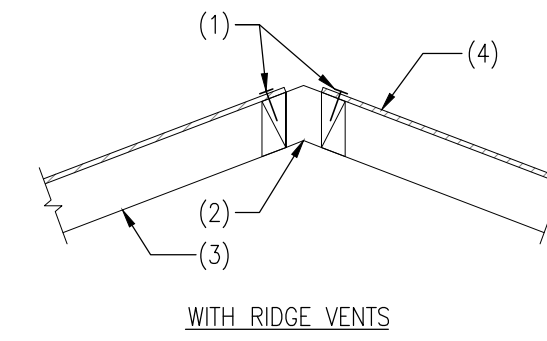




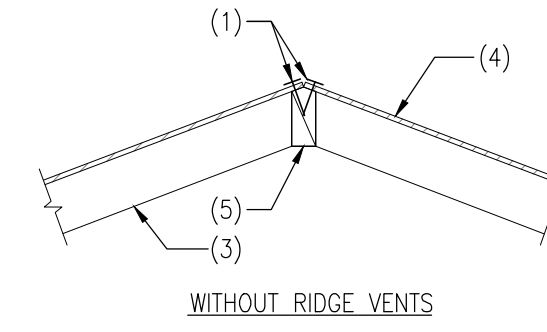
- NOTES:**
- WOOD TRUSS PER PLAN
  - PLYWOOD SHEATHING
  - EDGE NAILING
  - 2x BLOCKING WITH (3) 16d NAILS PER BLOCK
  - WOOD FASCIA WITH (2) 10d NAILS PER TRUSS MANUFACTURER
  - SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE
  - SIMPSON H1 AT EACH TRUSS - USE SIMPSON H2.5 EACH SIDE OF GIRDER TRUSS
  - SIMPSON A35 CLIP PER SHEARWALL SCHEDULE



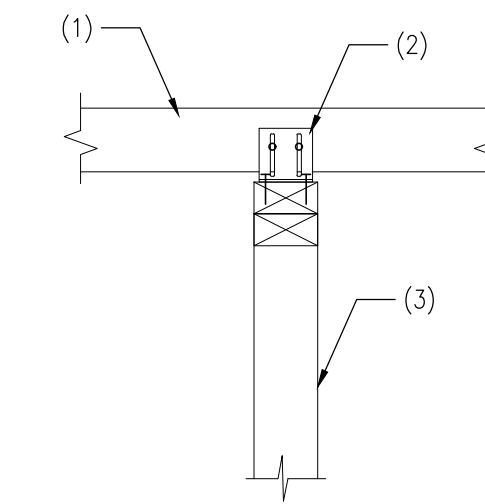
- NOTES:**
- PLYWOOD SHEATHING
  - 2x BLOCKING
  - ARCHITECTURAL FASCIA
  - 2x4 OUTRIGGERS AT 24" O.C.
  - 2x STRUCTURAL FASCIA
  - (2) 10d EACH OUTRIGGER
  - EDGE NAILING
  - 2x4 BRACE AT 48" O.C.
  - 2x DOUBLE TOP PLATE
  - WOOD STUD WALL
  - PRE-MFR'D WOOD TRUSS
  - (3) 10d EACH END
  - SIMPSON A35 CLIPS PER SHEARWALL SCHEDULE



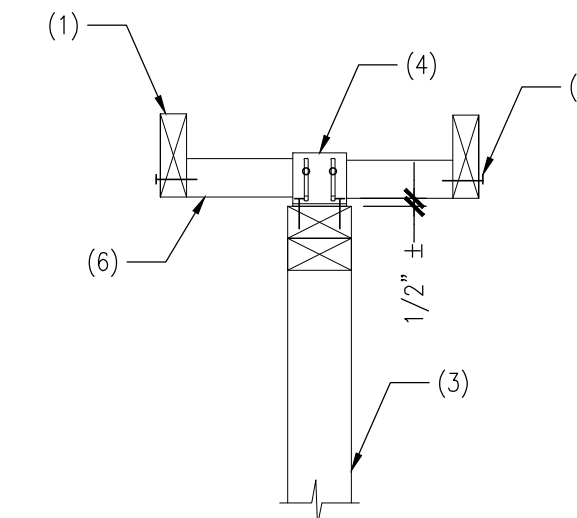
- NOTES:**
- EDGE NAILING
  - RIDGE VENTS
  - WOOD TRUSS PER PLAN
  - PLYWOOD SHEATHING
  - 2x SOLID BLOCKING



- NOTES:**
- SIMPSON H1 CLIP AT EACH TRUSS - AT GIRDER TRUSS, USE SIMPSON H2.5 EACH SIDE OF GIRDER TRUSS
  - WOOD TRUSS PER PLAN
  - EXISTING WOOD BEAM
  - WOOD STUD WALL AS OCCURS
  - 2x BLOCKING
  - EDGE NAILING
  - PLYWOOD SHEATHING
  - SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE



PERPENDICULAR TO FRAMING



PARALLEL TO FRAMING

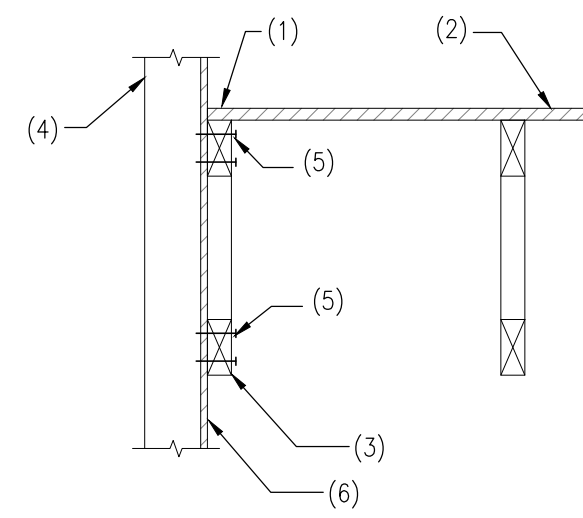
- NOTES:**
- CEILING FRAMING/BOTTOM CHORD
  - SIMPSON DTC CLIP AT EACH BOTTOM CHORD
  - WOOD STUD WALL
  - SIMPSON DTC CLIP AT 2' O.C.
  - (2) 16d NAILS
  - 2x4 FLAT AT 2' O.C.

**1** WOOD TRUSS AT WOOD STUD WALL  
SCALE: N.T.S.

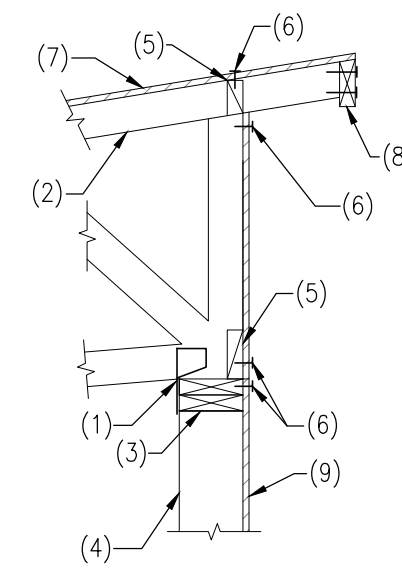
**2** GABLE END TRUSS AT WOOD STUD WALL  
SCALE: N.T.S.

**3** TRUSS RIDGE  
SCALE: N.T.S.

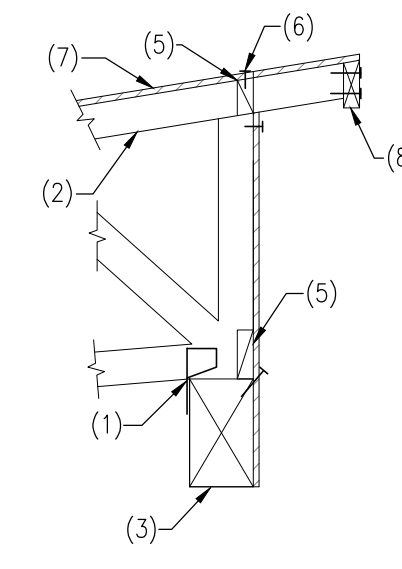
**4** INTERIOR NON-BEARING STUD WALLS AT WOOD TRUSSES  
SCALE: N.T.S.



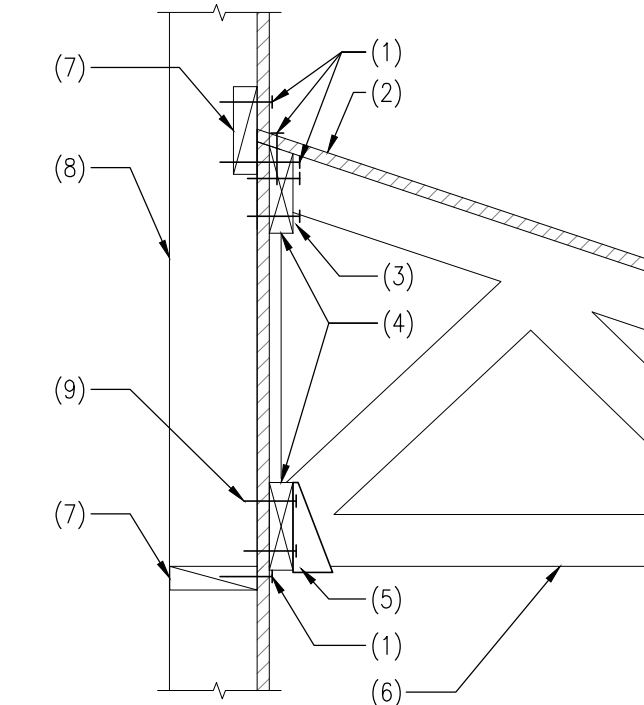
- NOTES:**
- EDGE NAILING
  - PLYWOOD SHEATHING
  - PREFABRICATED WOOD TRUSS
  - WOOD STUD WALL
  - (2) 16d NAILS PER STUD
  - SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE



- NOTES:**
- SIMPSON H1 CLIP AT EACH TRUSS - AT GIRDER TRUSS, USE SIMPSON H2.5 EACH SIDE OF GIRDER TRUSS
  - WOOD TRUSS PER PLAN
  - DOUBLE 2x TOP PLATE
  - WOOD STUD WALL AS OCCURS
  - 2x BLOCKING
  - EDGE NAILING
  - PLYWOOD SHEATHING
  - FASCIA WITH (2) 10d NAILS PER TRUSS
  - SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE



- NOTES:**
- SIMPSON H1 CLIP AT EACH TRUSS - AT GIRDER TRUSS, USE SIMPSON H2.5 EACH SIDE OF GIRDER TRUSS
  - WOOD TRUSS PER PLAN
  - EXISTING WOOD BEAM
  - WOOD STUD WALL AS OCCURS
  - 2x BLOCKING
  - EDGE NAILING
  - PLYWOOD SHEATHING
  - SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE



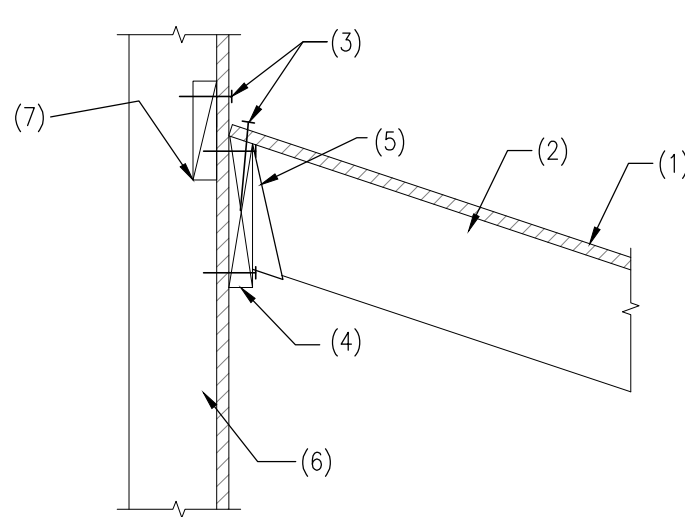
- NOTES:**
- EDGE NAILING
  - PLYWOOD SHEATHING
  - (2) 16d NAILS PER STUD
  - CONTINUOUS 2x LEDGER
  - SIMPSON LU TYPE HANGER
  - WOOD TRUSS PER PLAN
  - 2x SOLID BLOCKING
  - WOOD STUD WALL
  - (2) 16d NAILS PER STUD

**5** WOOD TRUSSES AT WOOD STUD WALL  
SCALE: N.T.S.

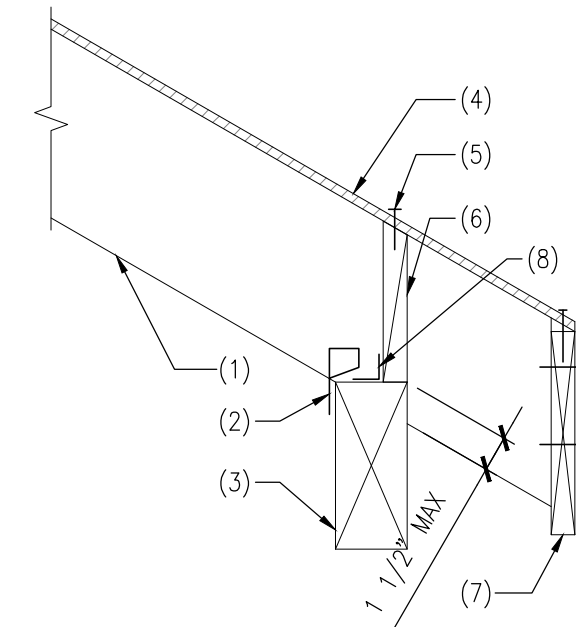
**6** WOOD TRUSS AT WOOD STUD WALL  
SCALE: N.T.S.

**7** WOOD TRUSS AT WOOD STUD WALL  
SCALE: N.T.S.

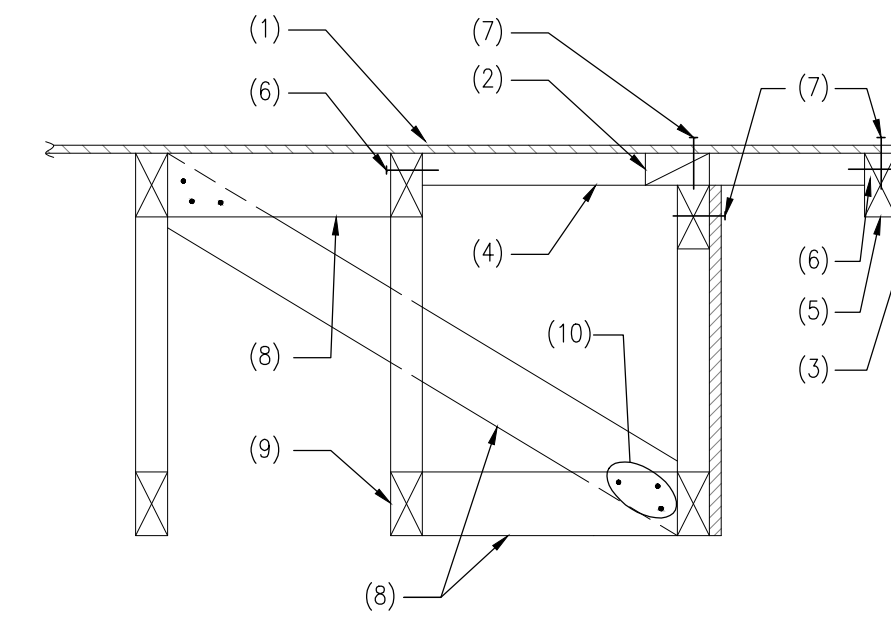
**8** WOOD TRUSS AT WOOD STUD WALL  
SCALE: N.T.S.



- NOTES:**
- PLYWOOD SHEATHING
  - RAFTERS PER PLAN AT 24" O.C.
  - EDGE NAILING
  - 2x LEDGER WITH (3) 16d NAILS PER BLOCK
  - SIMPSON LRUZ HANGER
  - STUD WALL
  - 2x SOLID BLOCKING



- NOTES:**
- WOOD RAFTER PER PLAN
  - SIMPSON H1 CLIPS AT EACH RAFTER
  - WOOD BEAM
  - PLYWOOD SHEATHING
  - EDGE NAILING
  - 2x BLOCKING WITH (3) 16d NAILS PER BLOCK
  - WOOD FASCIA WITH (2) 10d PER JOIST
  - SIMPSON A35 CLIPS AT 24" O.C.

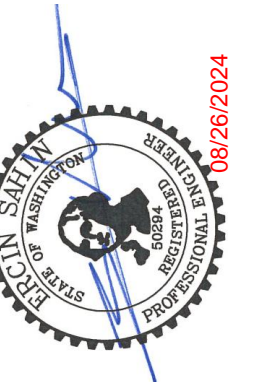


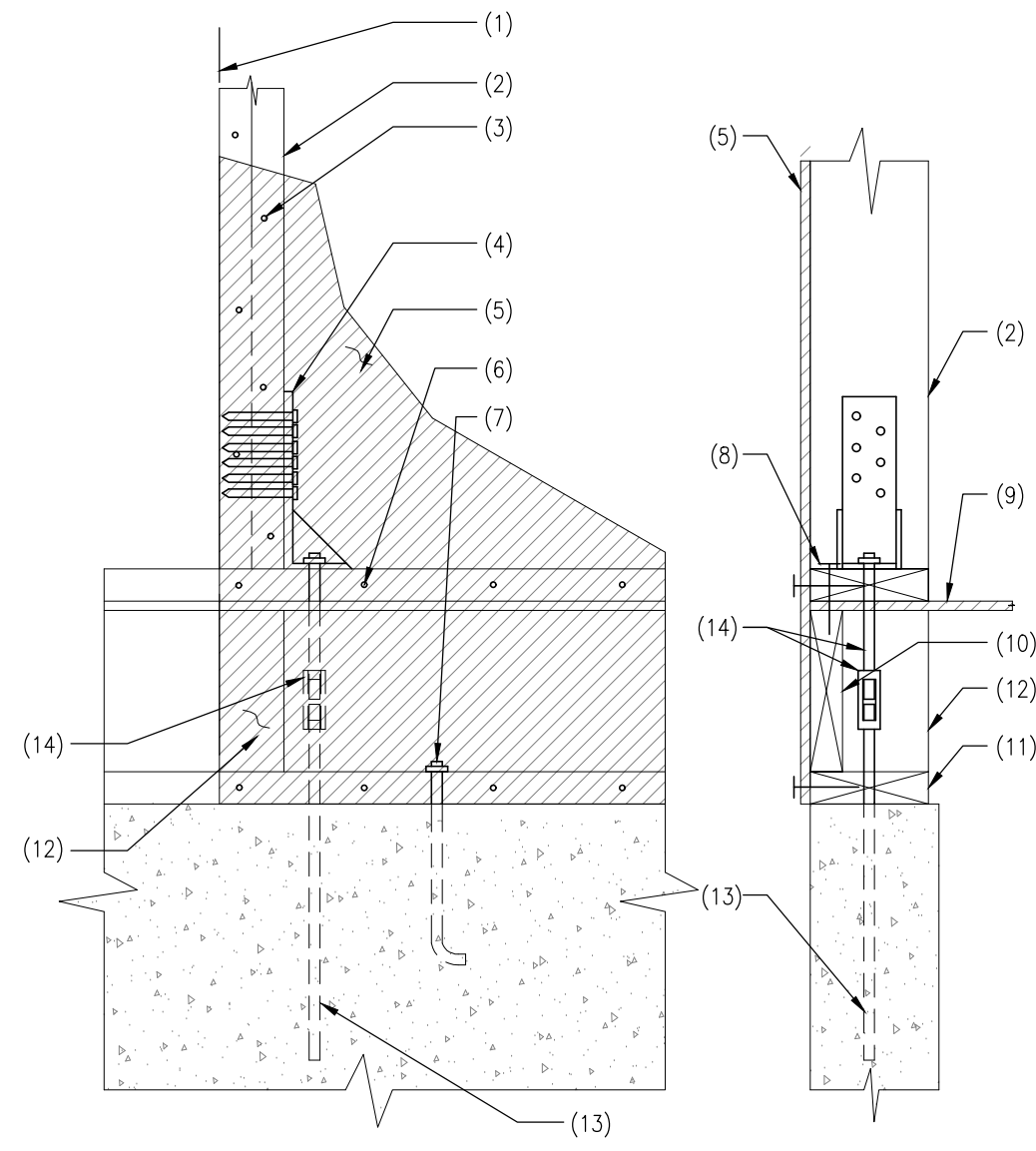
- NOTES:**
- PLYWOOD SHEATHING
  - 2x BLOCKING
  - ARCHITECTURAL FASCIA
  - 2x4 OUTRIGGERS AT 24" O.C.
  - 2x STRUCTURAL FASCIA
  - (2) 10d EACH OUTRIGGER
  - EDGE NAILING
  - 2x4 BRACE AT 48" O.C.
  - PRE-MFR'D WOOD TRUSS
  - (3) 10d EACH END

**9** WOOD RAFTER AT WOOD STUD WALL  
SCALE: N.T.S.

**10** WOOD RAFTER AT WOOD BEAM  
SCALE: N.T.S.

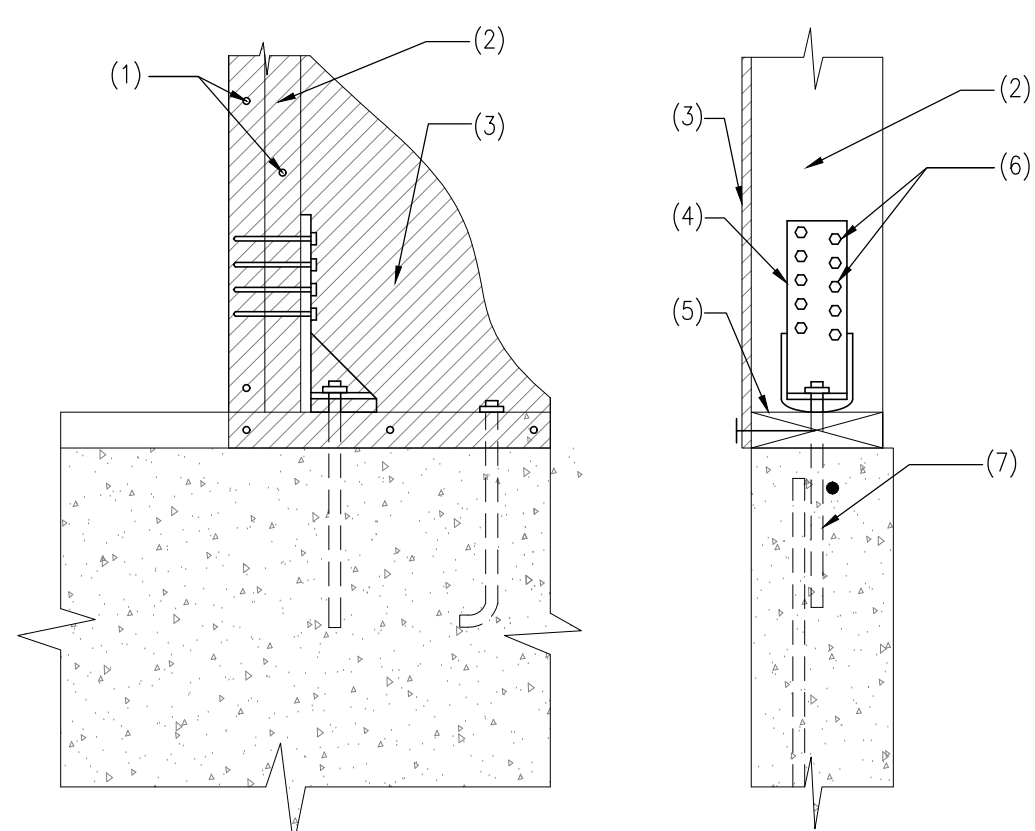
**11** GABLE END TRUSS  
SCALE: N.T.S.



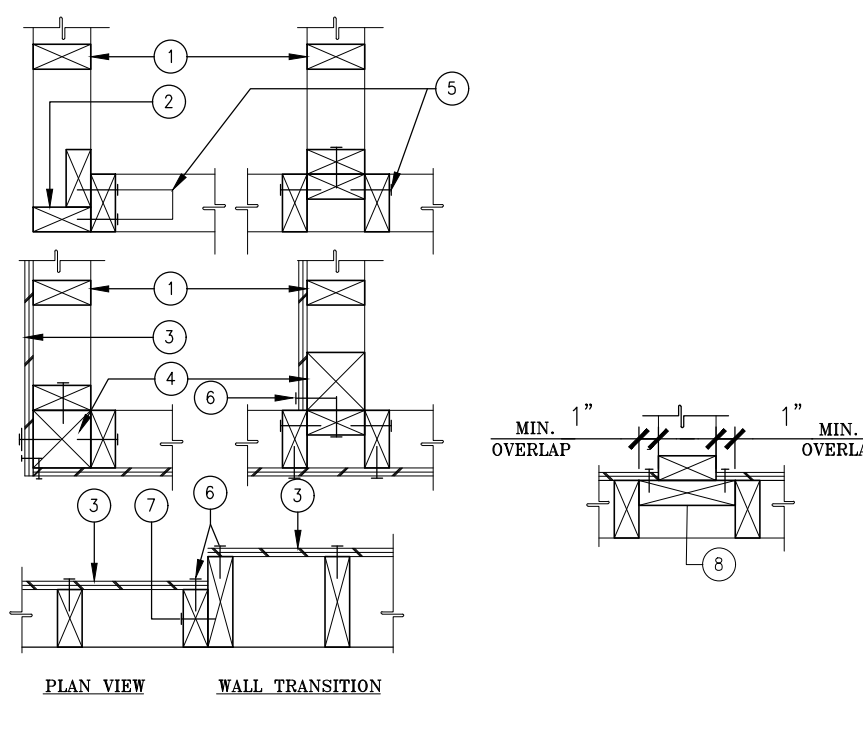


- NOTES:**
- EDGE OF SHEARWALL
  - DOUBLE STUDS AT SHEARWALL EDGES - ATTACH STUDS TO ADJACENT STUD WITH 10d NAILS AT 12" O.C.
  - EDGE NAILING - NAIL TO TOP PLATE SAME AS EDGE OF SHEARWALL NAILING
  - HDU TYPE HOLDOWN REQUIRED BOTH EDGES OF SHEARWALL
  - SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE
  - EDGE NAILING AT SILL PLATE
  - ANCHOR BOLTS PER SHEARWALL SCHEDULE
  - BASE PLATE NAILING PER SHEARWALL SCHEDULE
  - PLYWOOD SHEATHING
  - RIM JOIST
  - TREATED BASE PLATE PER SHEARWALL SCHEDULE
  - SOLID BLOCKING FOR FULL BEARING
  - 5/8" DIAMETER ANCHOR BOLT SET IN SIMPSON S.E.T. EPOXY, EMBED 10" MINIMUM
  - SIMPSON COUPLER AND ROD EXTENSION AS REQUIRED

**1 SHEARWALL DETAIL WITH SIMPSON HDU HOLDOWN AT FLOOR SUPPORTED BY FOUNDATION RETRO-FIT**  
SCALE: N.T.S.

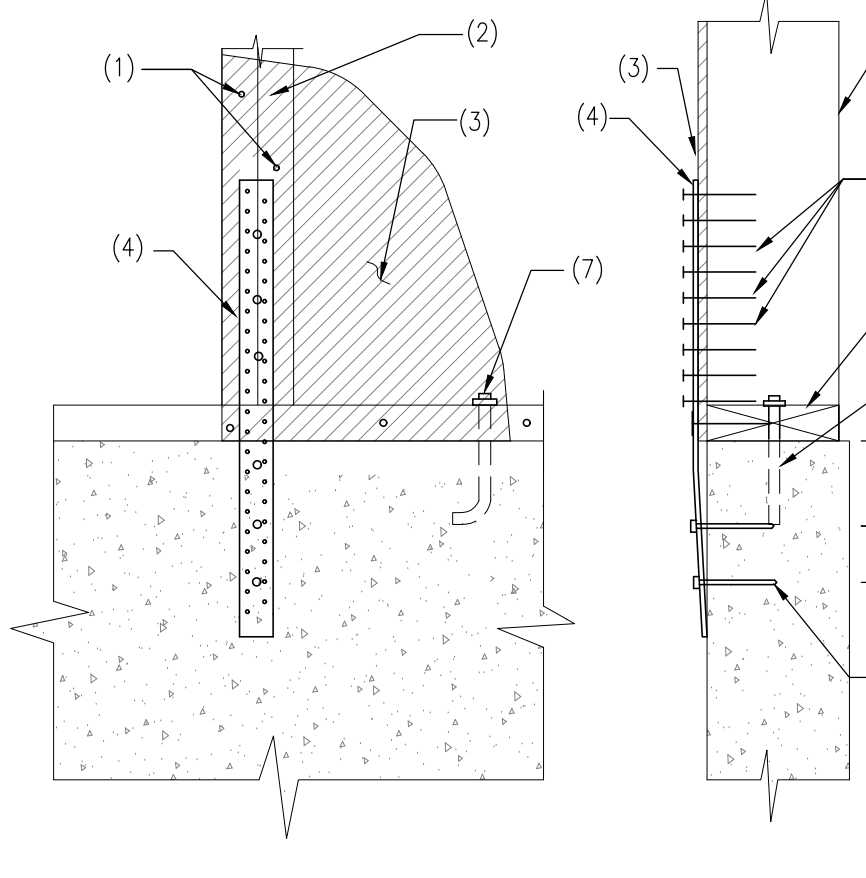


**2 SHEARWALL DETAIL WITH SIMPSON HDU HOLDOWN AT FLOOR SUPPORTED BY FOUNDATION RETRO-FIT**  
SCALE: N.T.S.



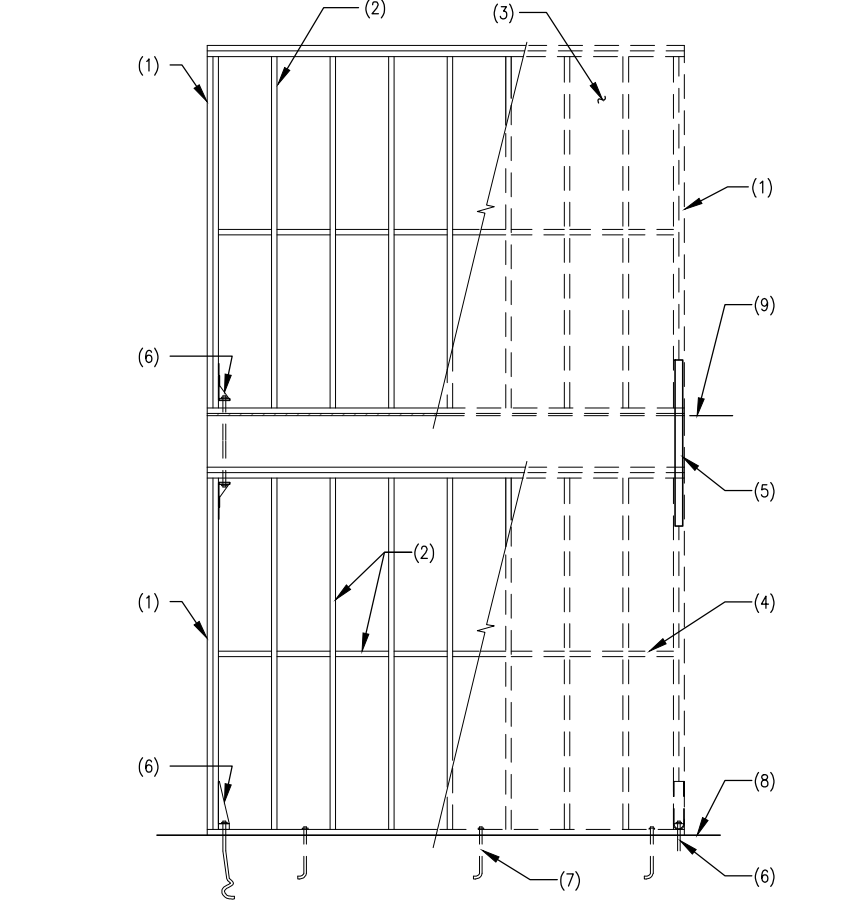
**5 SHEARWALL INTERSECTION FRAMING**  
SCALE: N.T.S.

- NOTES:**
- TYPICAL 2X STUDS AT 16" O.C. U.N.O. W/ (2) 16d END NAILS OR (4) 8d TOE NAILS EACH END TO TOP & SILL PLATES.
  - CORNER STUDS OR POST PER PLAN.
  - PLYWOOD SHEAR PANEL PER PLAN.
  - POST AT END OF SHEAR PANEL PER PLAN.
  - NAIL CORNER & MULTI-STUDS TOGETHER W/ 16d'S @ 16" O.C. STAGGERED @ SHEAR WALLS & 24" O.C. @ NON-SHEAR WALLS.
  - EDGE NAILING
  - 16d'S @ 4" O.C. STAGGERED
  - 2x STUD @ SHEAR BREAK.
- NOTE: NAILS SPACED @ 2" O.C. SHOULD BE STAGGERED MIN. 1/8".



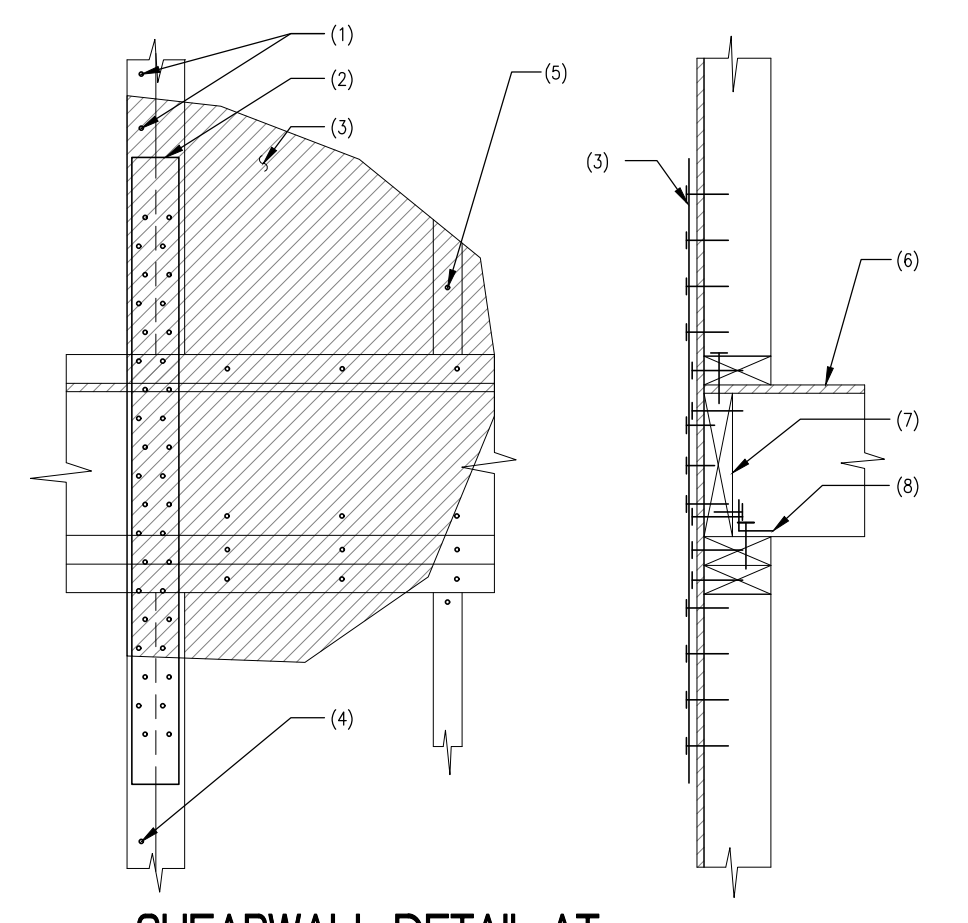
**3 SHEARWALL DETAIL WITH SIMPSON MST TYPE HOLDOWN RETRO-FIT**  
SCALE: N.T.S.

- NOTES:**
- PANEL EDGE NAILING AS PER SHEARWALL SCHEDULE
  - CONTINUOUS DOUBLE STUDS @ SHEARWALL EDGES, NAIL STUDS TOGETHER WITH 10d @ 12" O.C.
  - SHEARWALL SHEATHING
  - SIMPSON MST48 HOLDOWN - LOCATE AS SHOWN ON SHEARWALL KEY PLAN
  - TREATED SILL PLATE
  - MIN (34) 16d NAILS W/ 2 IN. MIN. PENETRATION INTO STUD
  - EXISTING ANCHOR BOLTS
  - (2) 1/2" DIAMETER BOLTS SET IN SIMPSON S.E.T. EPOXY-EMBED 5" MINIMUM



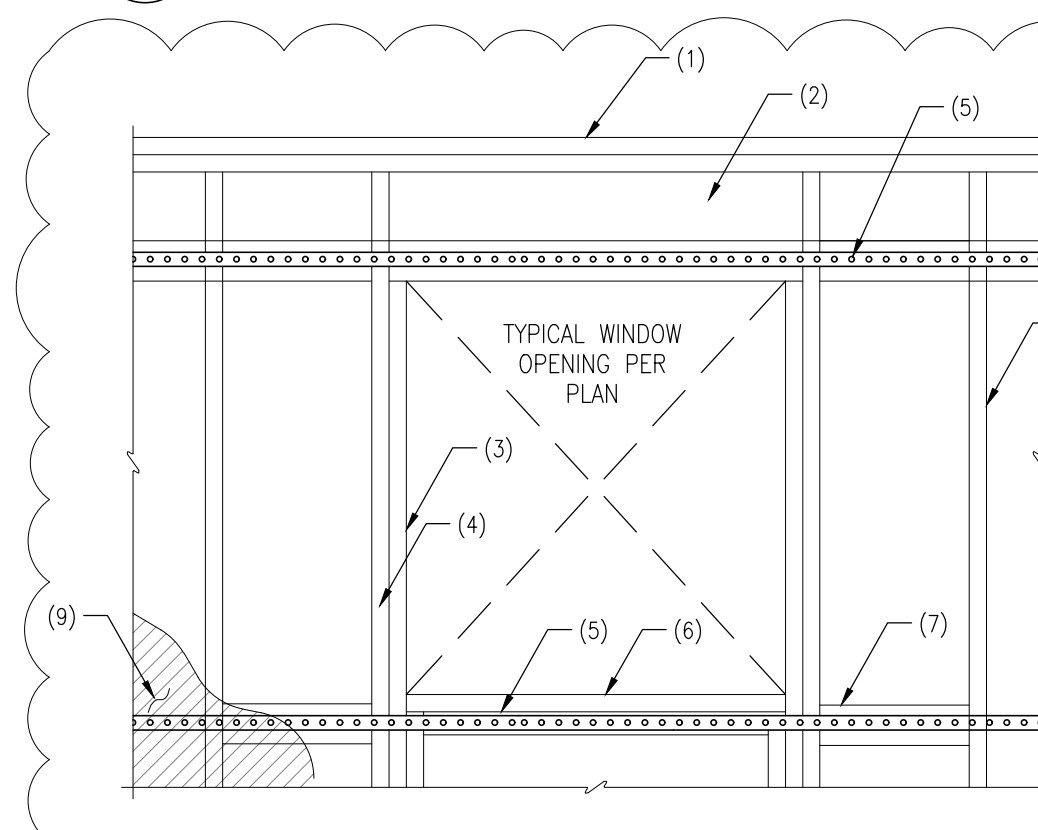
**6 TWO-STORY SHEAR WALL ELEVATION**  
SCALE: N.T.S.

- NOTES:**
- (2) STUDS, U.N.O. AT EACH END OF PANEL NAILED AS BUILT-UP POST, TYPICAL
  - WOOD STUDS
  - SHEATHING MATERIAL
  - BLOCKING REQUIRED AT SHEATHING PANEL JOINTS
  - SIMPSON STRAP PER PLANS AND DETAILS
  - HOLD DOWNS AS OCCURS
  - ANCHOR BOLTS FIRST FLOOR LINE
  - FIRST FLOOR LINE
  - SECOND FLOOR LINE



**4 SHEARWALL DETAIL AT SECOND FLOOR WITH MST STRAP HOLDOWN**  
SCALE: N.T.S.

- NOTES:**
- PANEL EDGE NAILING. ALSO NAIL TO TOP PATES SAME AS EDGE NAILING
  - HOLDOWN STRAP REQUIRED BOTH ENDS OF SHEARWALL
  - SHEATHING AND NAILING PER SHEARWALL SCHEDULE
  - PROVIDE PANEL EDGE NAILING AT STUD WITH STRAP AT WALL BELOW
  - 12" O.C. FIELD NAILING
  - PLYWOOD SHEATHING
  - RIM JOIST OR JOIST
  - SIMPSON A34 FRAMING ANCHOR AT SAME SPACING AS JOISTS



**9 WINDOW STRAPPING DETAIL (SHEAR WALL FORCE TRANSFER DETAIL)**  
SCALE: N.T.S.

- DOUBLE TOP PLATE
  - HEADER PER PLAN
  - TRIMMER
  - KING STUD
  - CONT. STRAP PER PLAN, INSTALLED OVER SHEATHING
  - 2X SILL PLATE
  - 3X BLOCKING
  - WALL STUD
  - SHEATHING AND ATTACHMENT PER SHEARWALL SCHEDULE
  - WALL ENDS SHALL HAVE MIN. (2) STUDS
- \*\* NAIL WALL SHEATHING TO BLOCKS AND AROUND ALL 4 SIDES OF OPENING AS SHEAR WALL EDGE NAILING

SHEAR WALL SCHEDULE									
WALL MARK	SHEATHING	SIDES	PANEL EDGE NAILING	FIELD NAILING	FRAMING AT ADJACENT PANEL EDGES	BASE PLATE ATTACHMENT	ANCHOR BOLT SPACING	FOUNDATION SILL PLATE/FLOOR BASE PLATE	BLOCKING/RIM JOIST ATTACHMENT
SW1	7/16" OSB	ONE	8d NAILS AT 6" O.C.	12" O.C.	2x	16d NAILS AT 6" O.C.	5/8" DIAMETER BOLTS AT 48" O.C.	2x	SIMPSON A35 CLIPS AT 18" O.C.
SW2	7/16" OSB	ONE	8d NAILS AT 4" O.C.	12" O.C.	3x OR (2) 2x	16d NAILS AT 3" O.C.	5/8" DIAMETER BOLTS AT 32" O.C. 5/8" DIAMETER BOLTS AT 12" O.C.	3x 2x	SIMPSON A35 CLIPS AT 12" O.C.

**SHEAR WALL SCHEDULE NOTES:**

FRAMING STUDS SHALL BE DOUGLAS-FIR #2 SPACED AT 16" O.C. MAXIMUM. THICKNESS OF STUDS SHALL BE 2x UNLESS OTHERWISE NOTED IN SCHEDULE.

SHEATHING PANELS MAY BE PLACED VERTICAL OR HORIZONTAL. BLOCK ALL HORIZONTAL EDGES WITH 2x OR 3x BLOCKING TO MATCH STUD WIDTH UNLESS NOTED OTHERWISE.

ALL EXTERIOR WALLS NOT DESIGNATED AS SHEARWALLS SHALL RECEIVE APA RATED SHEATHING, FULLY BLOCKED WITH MINIMUM EDGE ATTACHMENT OF 8d NAILS @ 6" O.C., 12" O.C. FIELD NAILING APPLIES TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING.

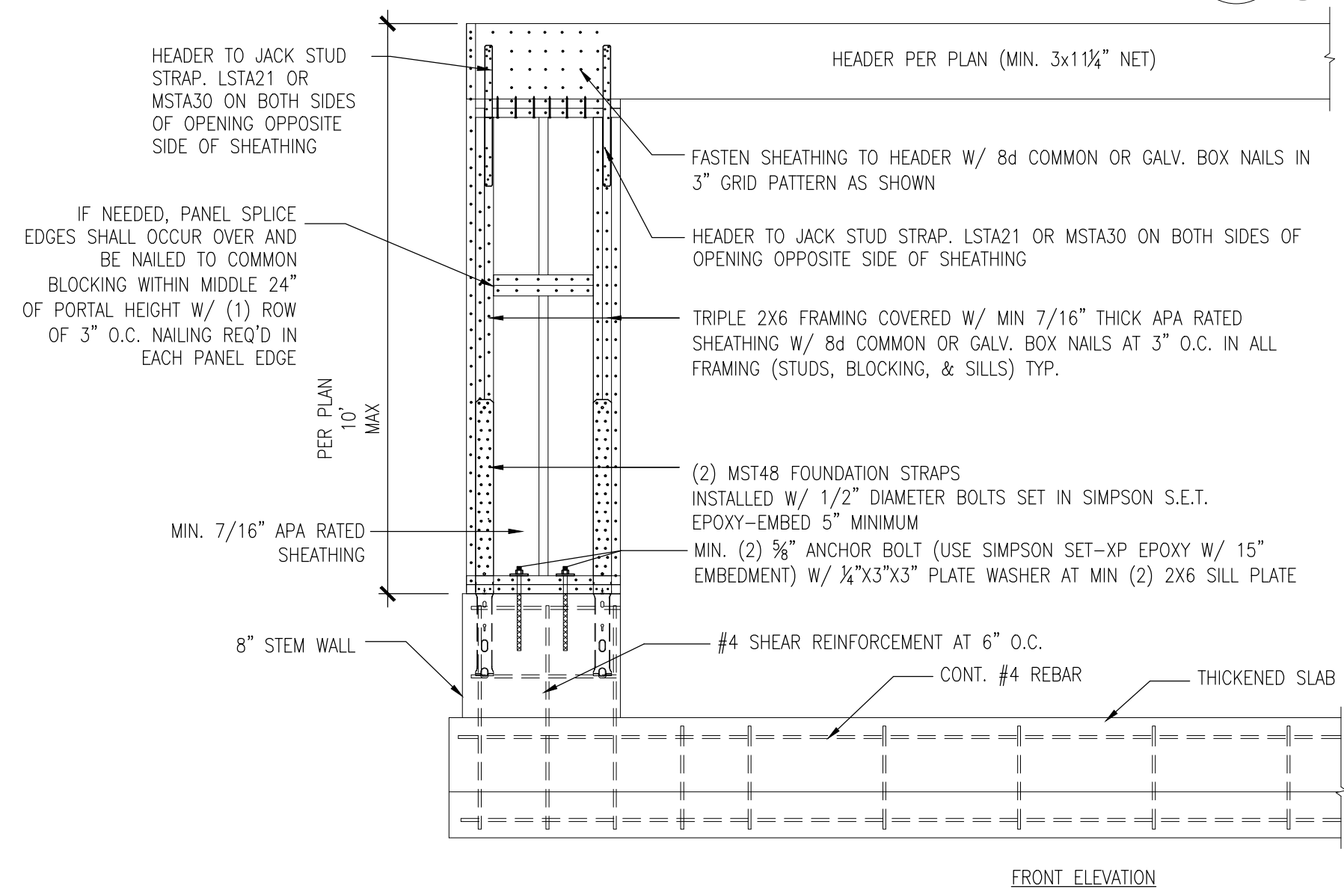
MINIMUM ANCHOR BOLT SPACING OF 48" O.C. UNLESS OTHERWISE NOTED IN SCHEDULE. MINIMUM OF 2 ANCHORS PER WALL. PROVIDE 3"x3"x0.25" SQUARE WASHERS AT EACH ANCHOR BETWEEN THE SILL PLATE AND WASHER. A DIAGONAL SLOT IN THE PLATE WASHER MAY BE USED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT NOT TO EXCEED 1-3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. DO NOT RECESS BOLTS.

TABLES BASED ON 8d NAILS (2 1/2" LONG x 0.113" COMMON OR 2 1/2" x 0.113" GALVANIZED BOX).

BLOCKING/RIM JOIST ATTACHMENT NEED NOT BE USED WHERE THE SHEATHING IS DIRECTLY ATTACHED WITH EDGE NAILING TO THE DOUBLE TOP PLATES AT UPPER STORY SHEARWALLS AND TO THE BASE/SILL PLATE BELOW AT LOWER STORY SHEARWALLS.

WHERE 3x BASE/SILL ARE SPECIFIED, 20d COMMON NAILS SHALL BE USED FOR THE BASE PLATE ATTACHMENT IN LIEU OF THE ORIGINALLY SPECIFIED 16d COMMON NAILS.

**7 SHEARWALL SCHEDULE**  
SCALE: N.T.S.



**8 TYPICAL PORTAL FRAME CONSTRUCTION AT EXISTING FOUNDATION**  
SCALE: N.T.S.

