

# KAHN RESIDENCE

4205 85TH AVE SE, MERCER ISLAND, WA 98040

**FIRE ALARM SYSTEM:**  
A NFPA 72- CHAPTER 29 MONITORED FIRE ALARM SYSTEM IN COMPLIANCE WITH NFPA 72 AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE  
SEPARATE FIRE PERMIT REQUIRED

RESIDENCE

KAHN MICHAEL A

4205 85th AVE SE,  
MERCER ISLAND, WA  
98040

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△ DATE DESCRIPTION

#22001

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COVER SHEET

1CS

## LOWER FLOOR PLAN

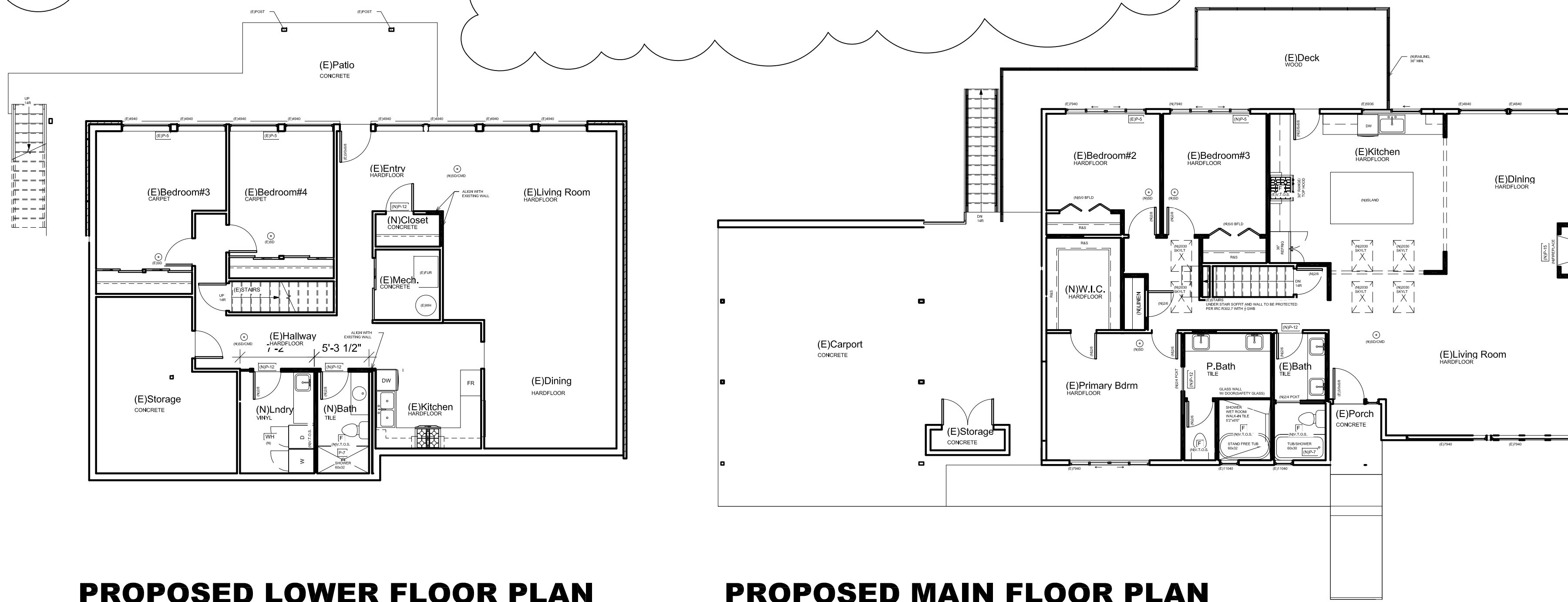
- A1. CODE NOTES
- A1.1. SITE PLAN
- A2. (E) LOWER FLOOR PLAN
- A3. (E) MAIN FLOOR PLAN
- A4. (P) LOWER FLOOR PLAN
- A5. (P) MAIN FLOOR PLAN
- A6. (P) ARCH. ROOF PLAN
- A7. (E) ELEVATIONS
- A8. (P) ELEVATIONS
- A8.1(P) ELEVATIONS
- A9. (P) SECTION
- D1. STANDARD DETAILS

- S1.1. STRUCTURAL NOTES
- S1.2. FOUNDATION PLAN
- S1.3. LOWER FLOOR WALL PLAN
- S1.4. MAIN FLOOR FRAMING PLAN
- S1.5. MAIN FLOOR WALL PLAN
- S1.6. ROOF FRAMING PLAN
- S2.1. STRUCTURAL DETAILS
- S2.2. STRUCTURAL DETAILS
- S3.1. STRUCTURAL DETAILS
- S3.2. STRUCTURAL DETAILS
- S3.3. STRUCTURAL DETAILS
- S3.4. STRUCTURAL DETAILS

LOWER FLOOR	1,722 SF
MAIN FLOOR	1,862 SF
TOTAL	3,584 SF
CARPOR	562 SF
PORCH	24 SF
PATIO	324 SF
DECK	299 SF

### ADDITIONAL SQ FTG

LOWER FLOOR	+0 SF
MAIN FLOOR	+0 SF
TOTAL	+0 SF
(N)ATTACHED GARAGE	+0 SF

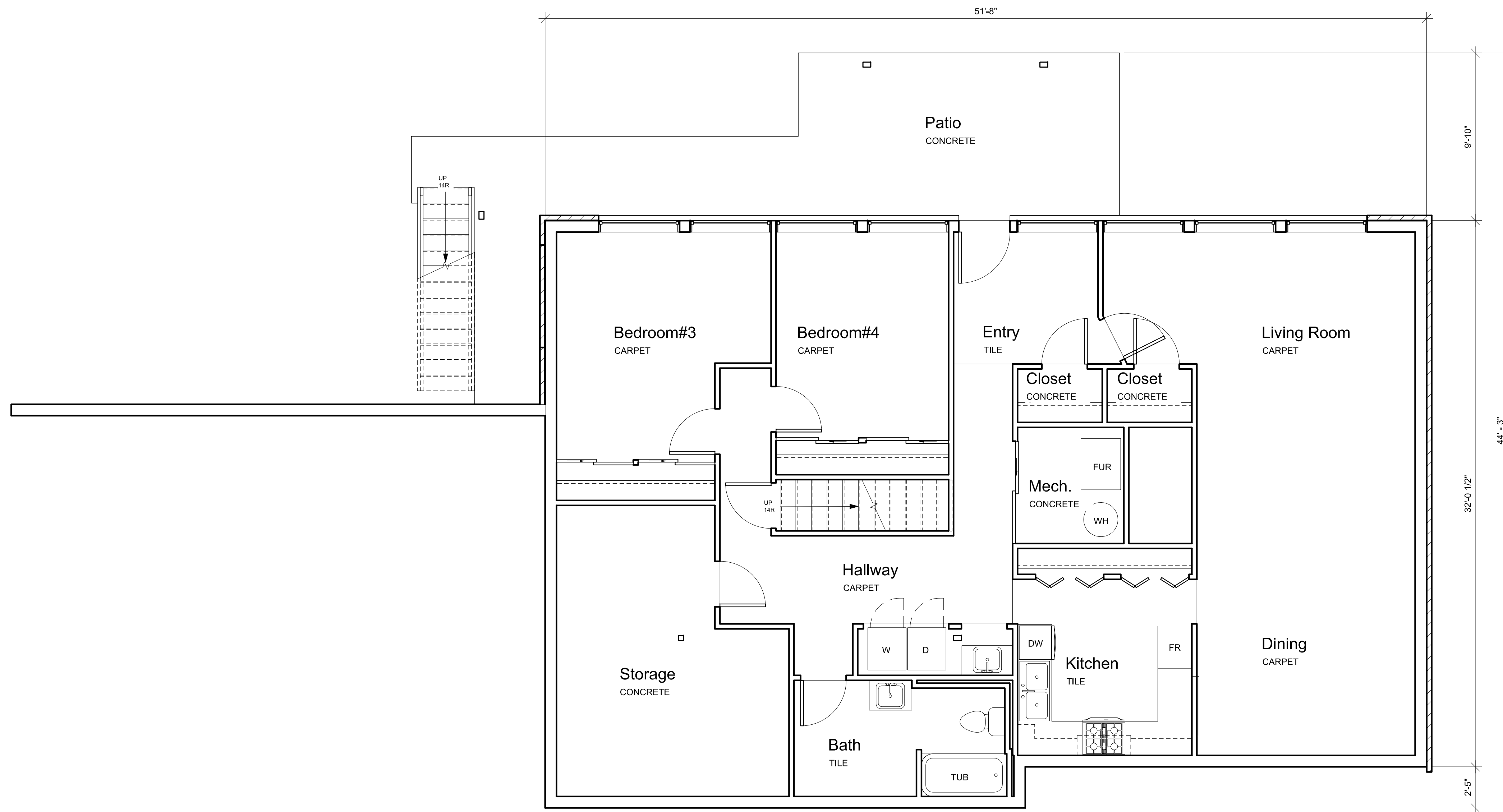


PROPOSED LOWER FLOOR PLAN

PROPOSED MAIN FLOOR PLAN







① (E) LOWER FLOOR PLAN  
 1/4" = 1'-0"

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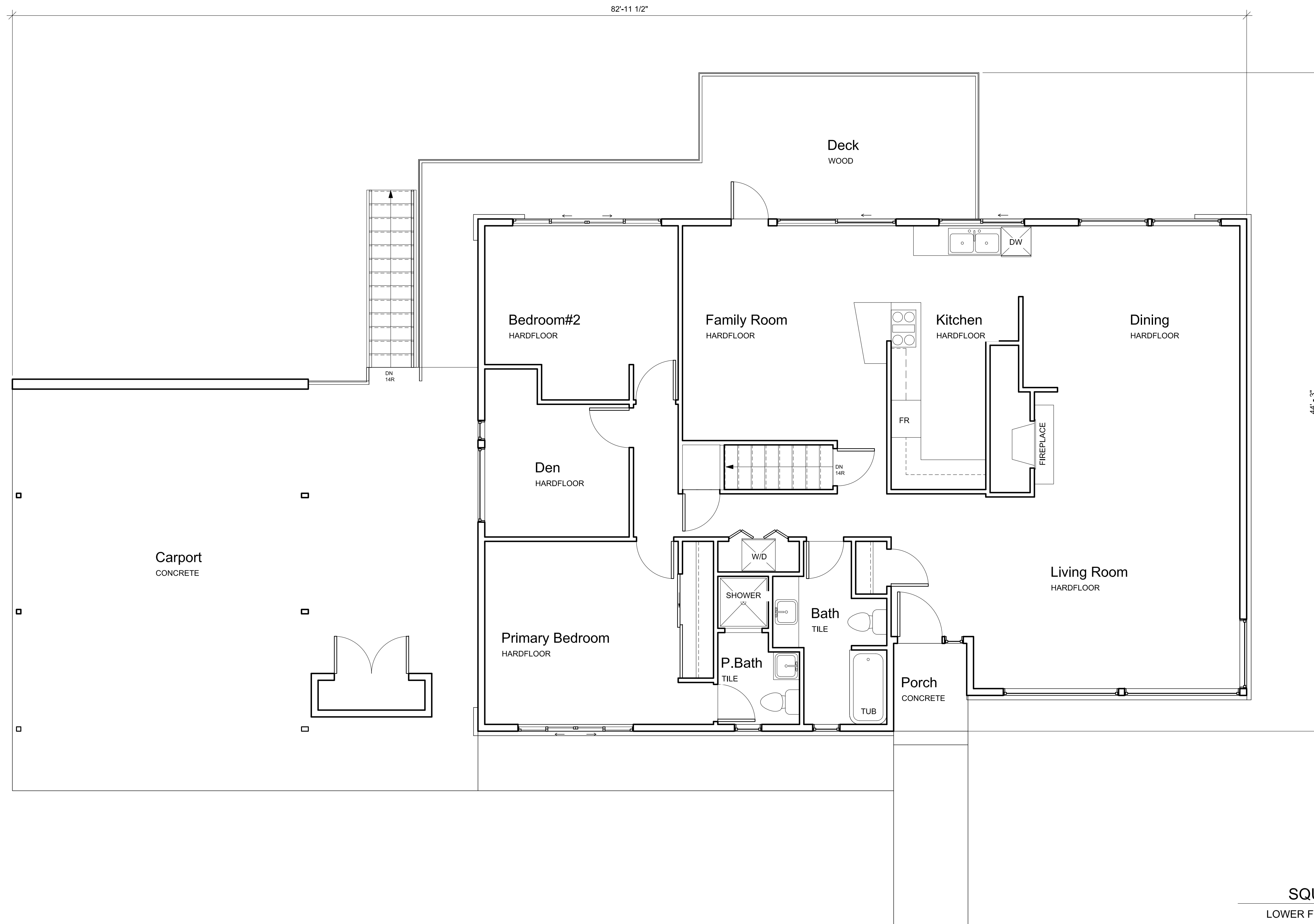
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**(E) LOWER FLOOR PLAN**



① (E) MAIN FLOOR PLAN  
 1/4" = 1'-0"

SQUARE FOOTAGE	
LOWER FLOOR	1,722 SF
MAIN FLOOR	1,704 SF
TOTAL	3,426 SF
CARPORT	740 SF
PORCH	34 SF
PATIO	324 SF
DECK	299 SF

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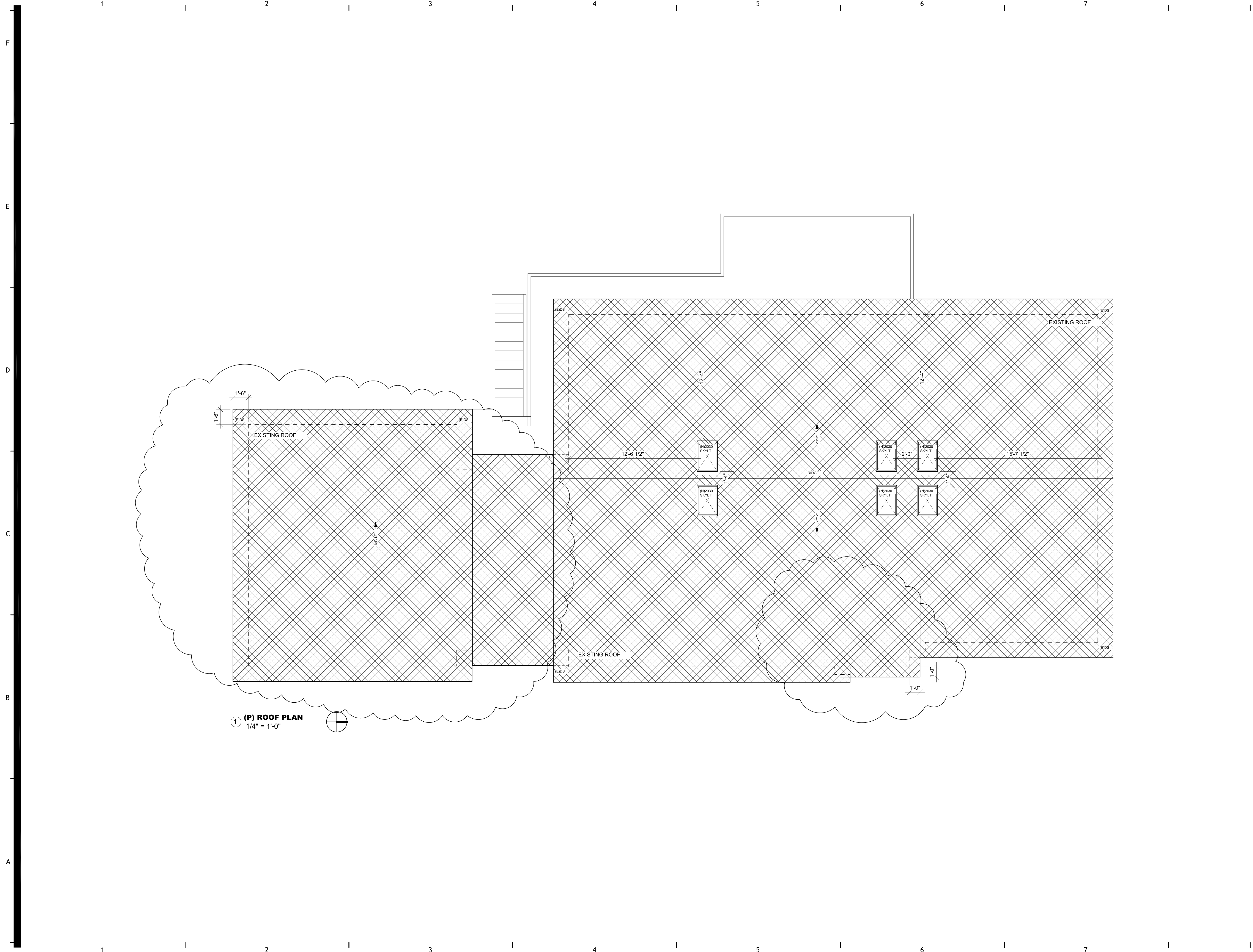
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**(E) MAIN FLOOR PLAN**







① (P) ROOF PLAN  
1/4" = 1'-0"



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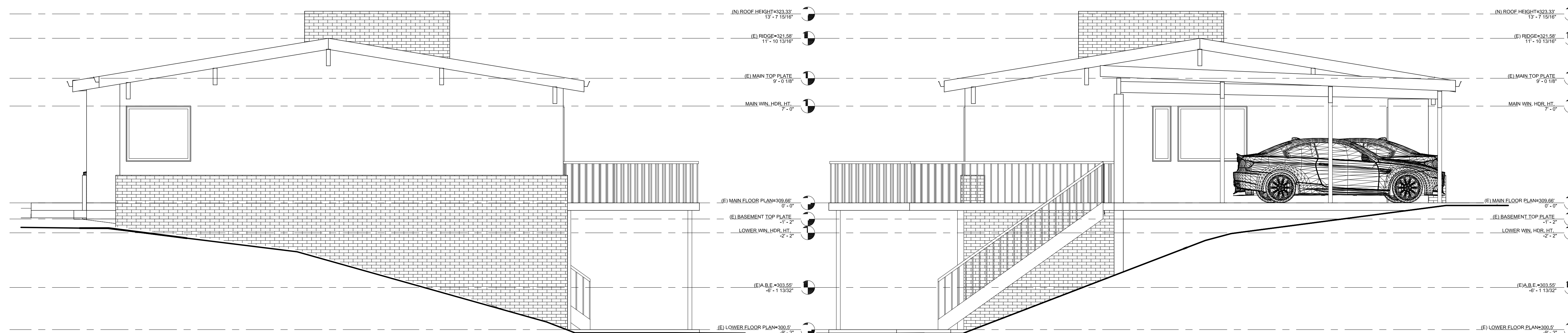
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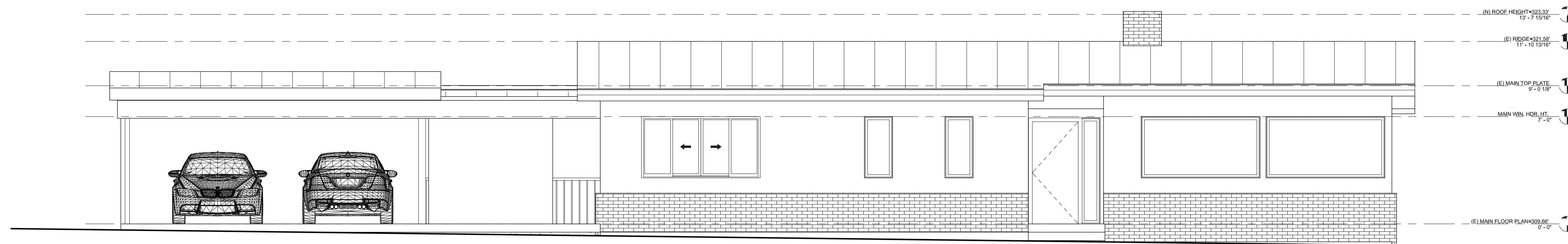
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**(P) ROOF PLAN**



① (E) East  
1/4" = 1'-0"

④ (E) West  
1/4" = 1'-0"



③ (E) South  
1/4" = 1'-0"



② (E) North  
1/4" = 1'-0"

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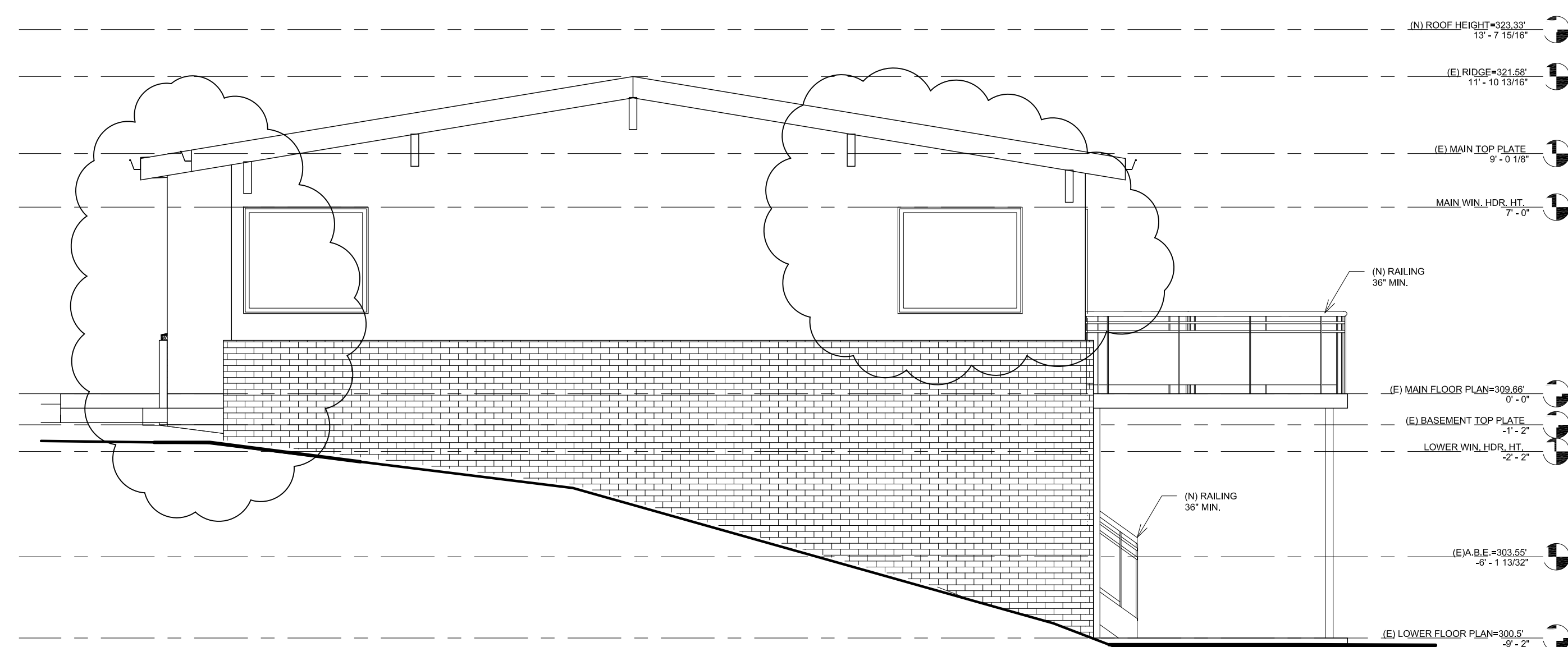
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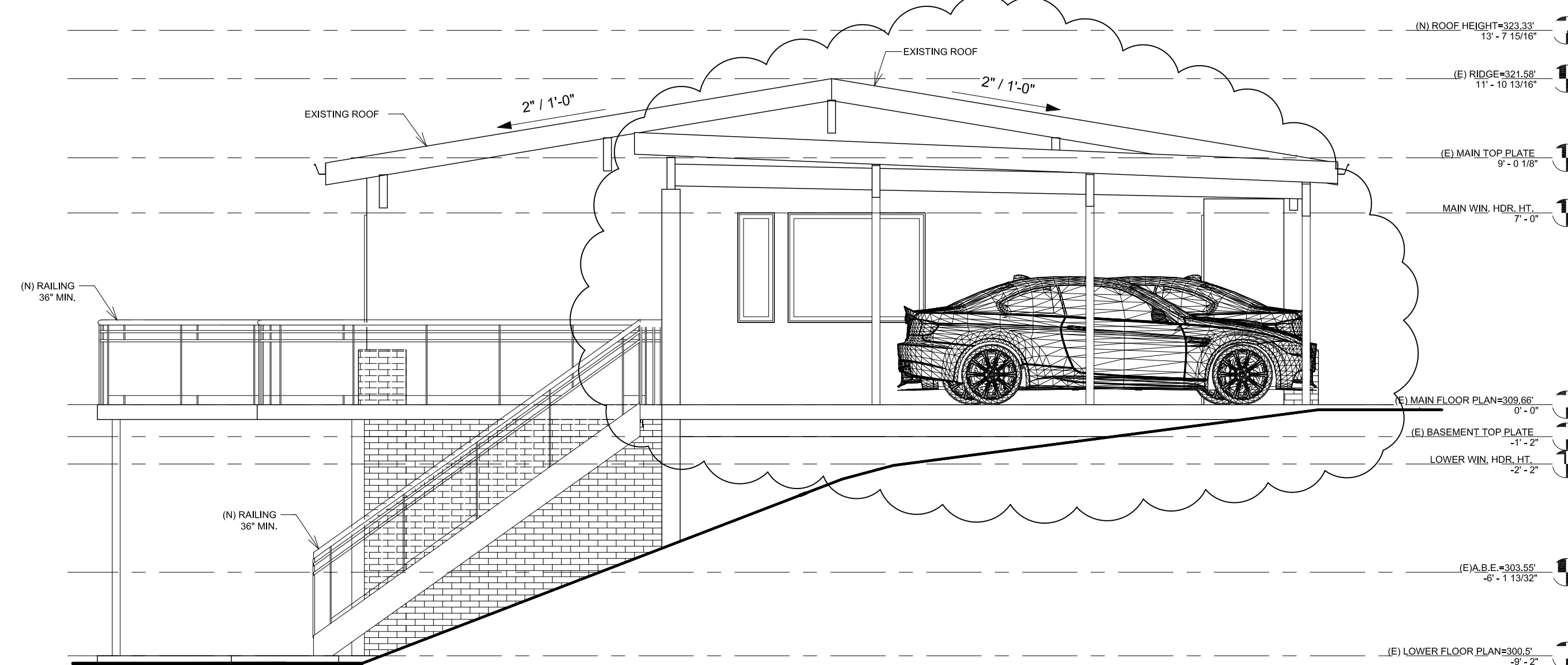
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**(E) ELEVATIONS**

MAX ALLOWABLE HEIGHT=333.55'

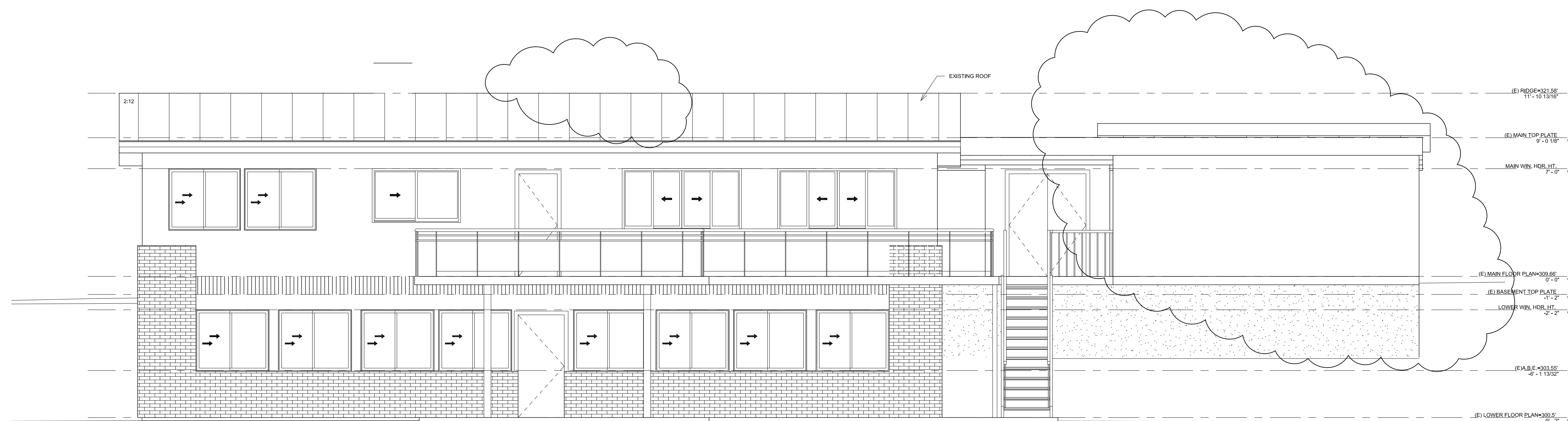


① (P) EAST  
1/4" = 1'-0"



② (P) WEST  
1/4" = 1'-0"

MAX ALLOWABLE HEIGHT=333.55'



③ (P) North  
1/4" = 1'-0"

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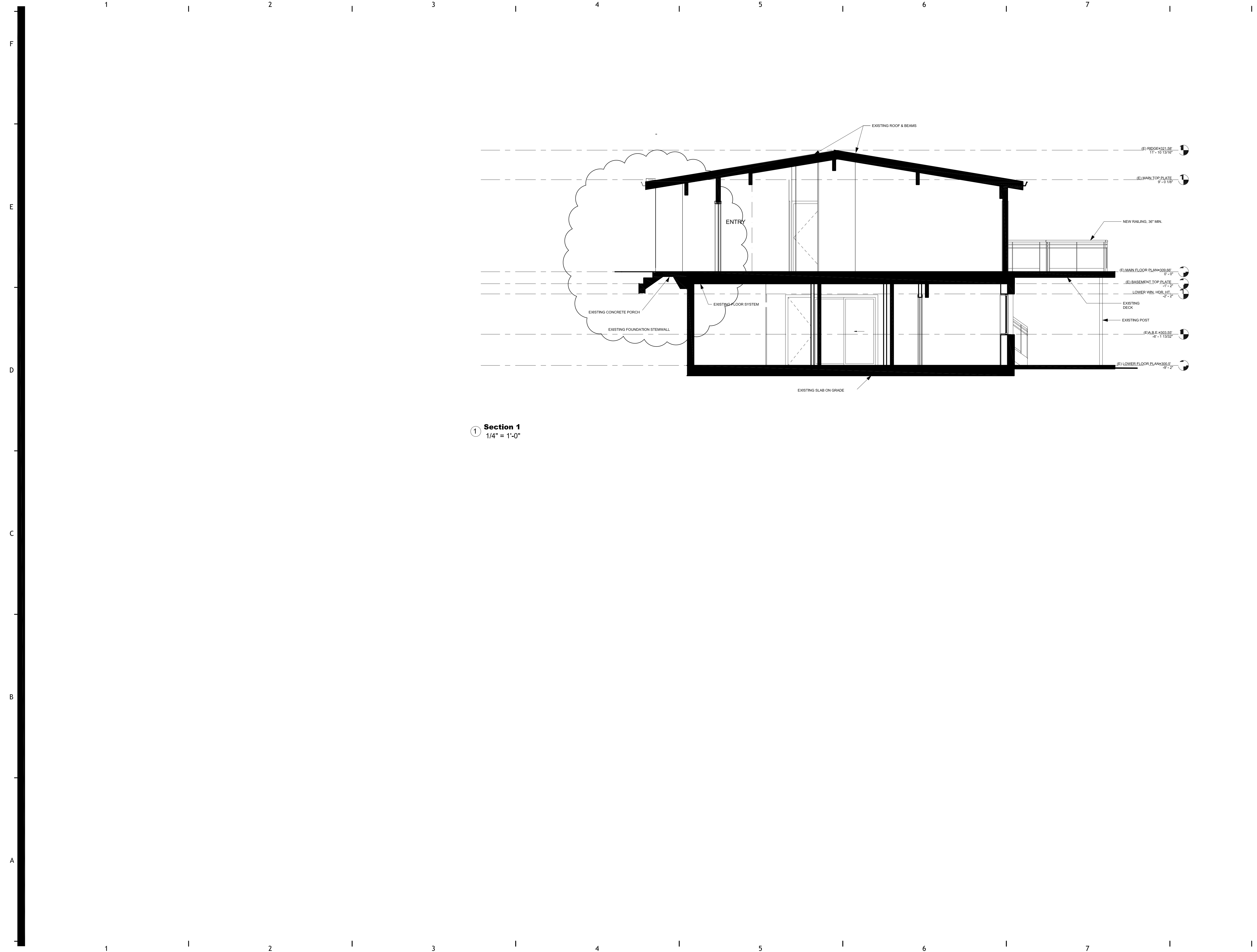
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**(P) ELEVATIONS**



① Section 1  
1/4" = 1'-0"

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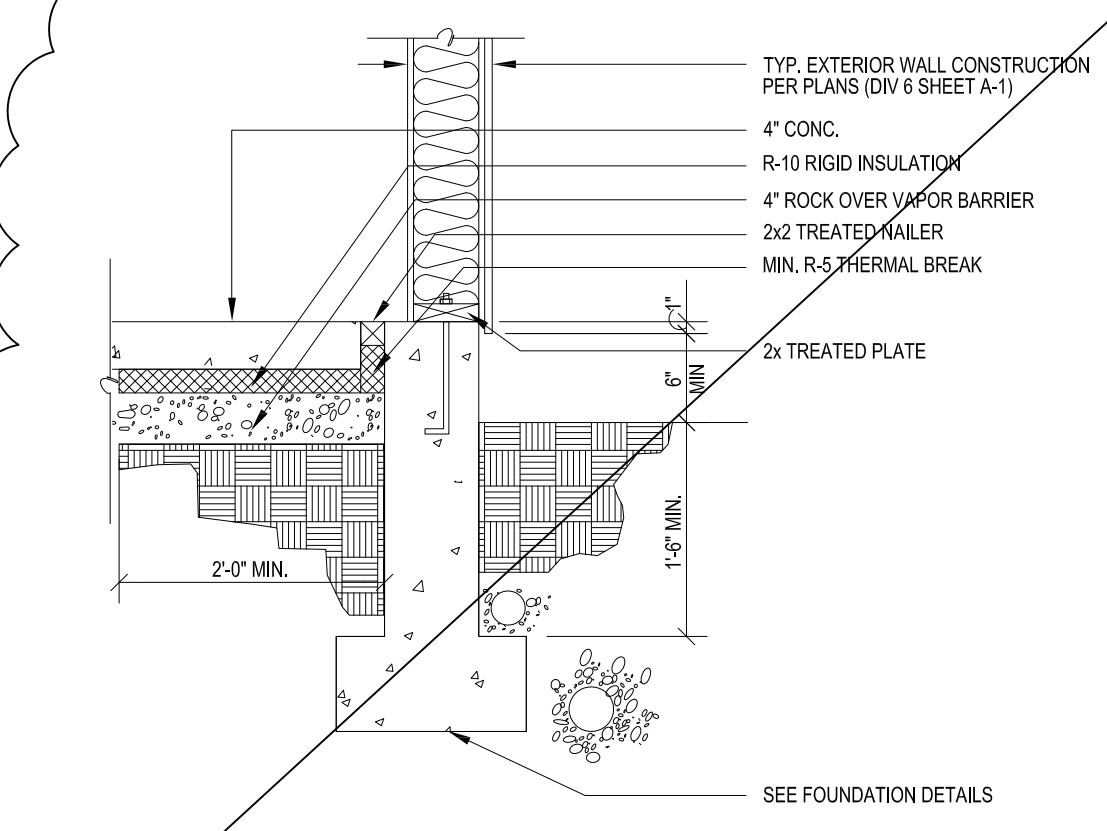
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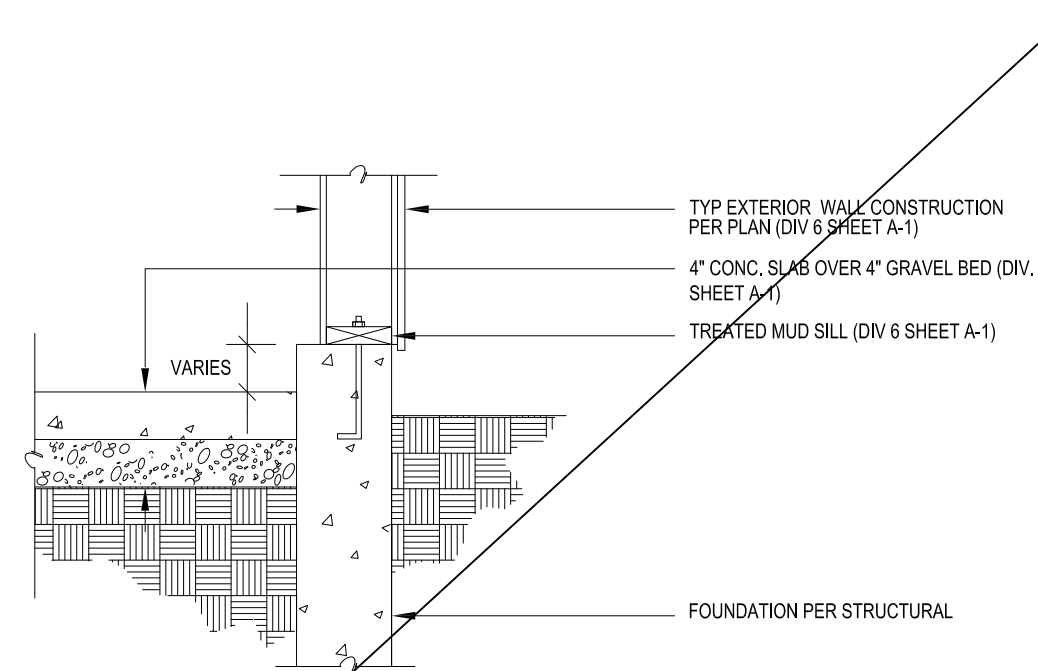
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**(P) BUILDING SECTION**

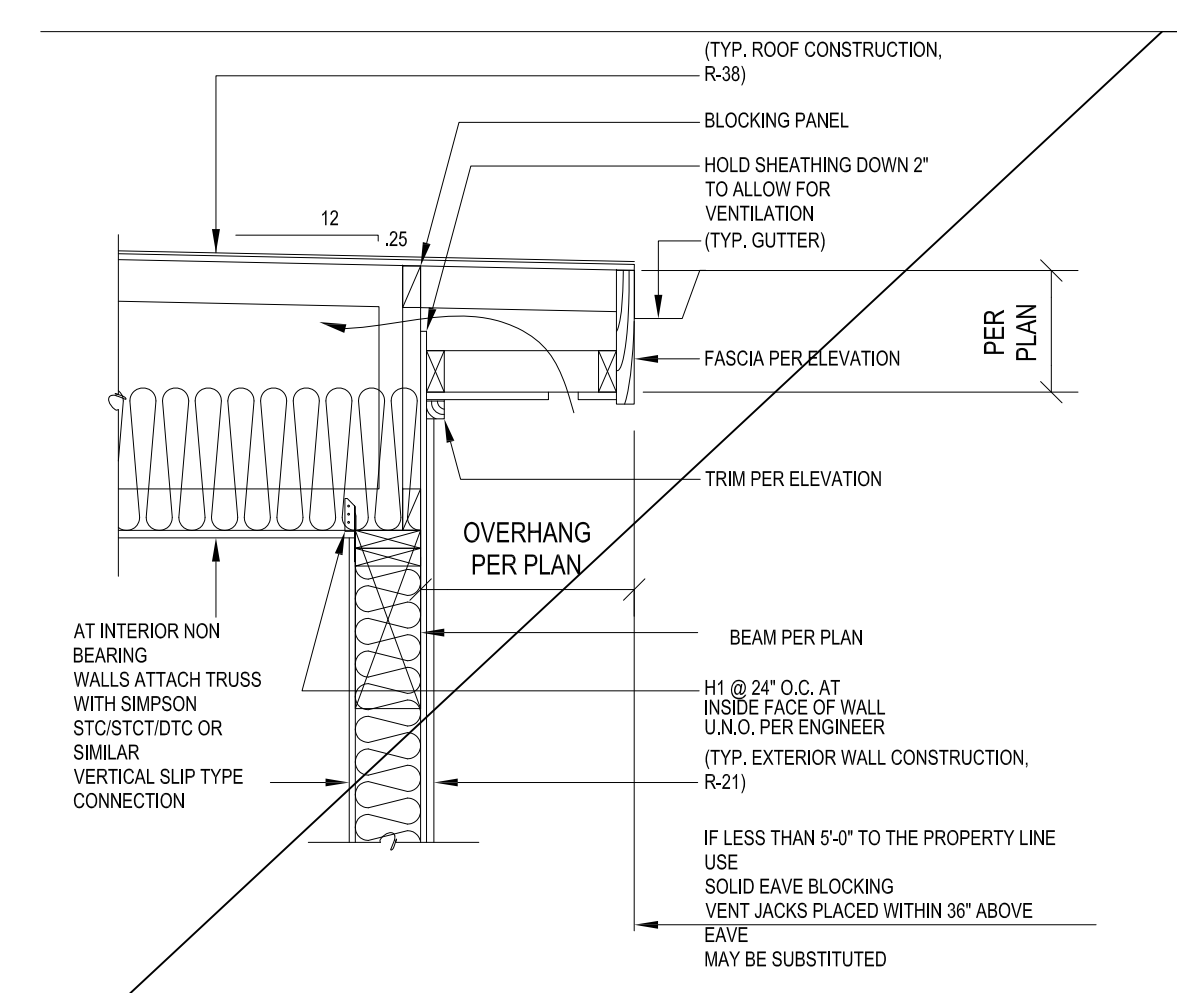
F  
E  
D  
C  
B  
A



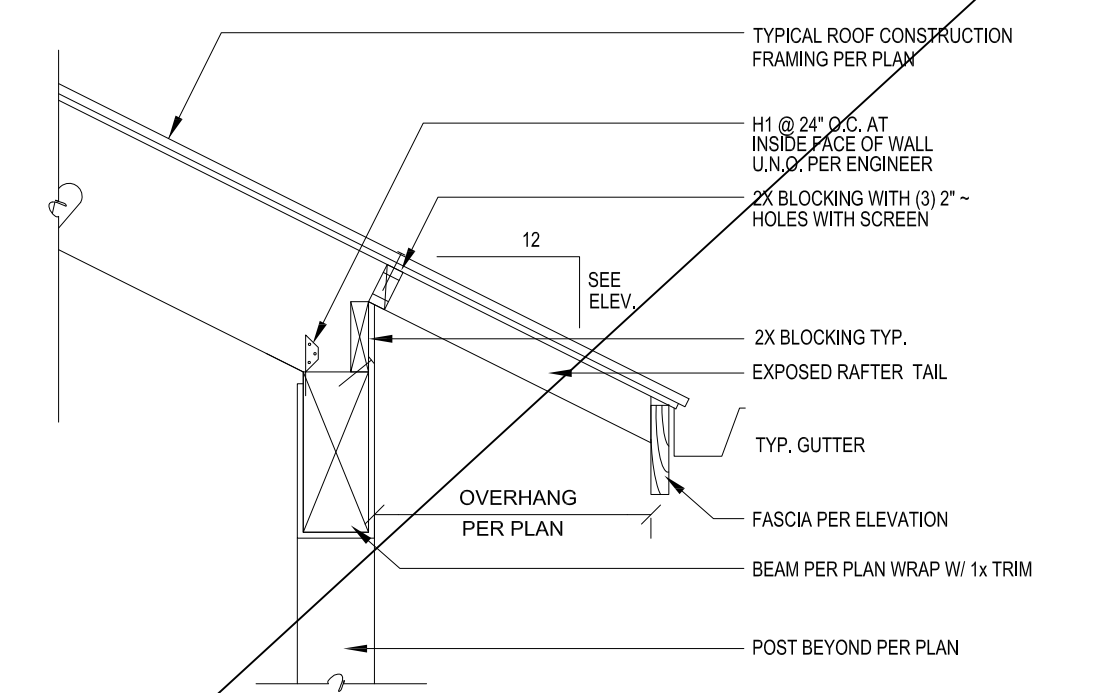
1 FOUNDATION DETAIL (INSULATED)  
3/4" = 1'-0"



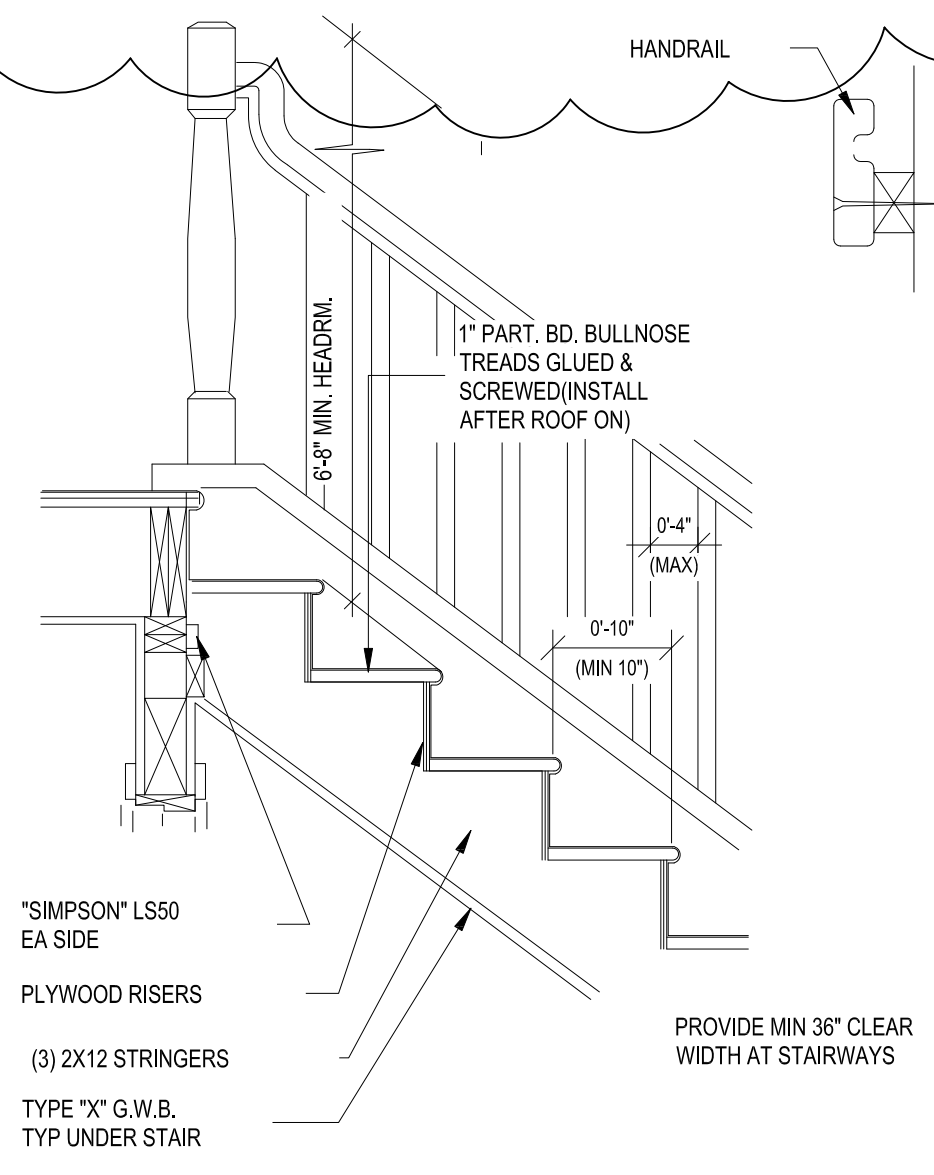
2 SLAB @ STEM WALL  
3/4" = 1'-0"



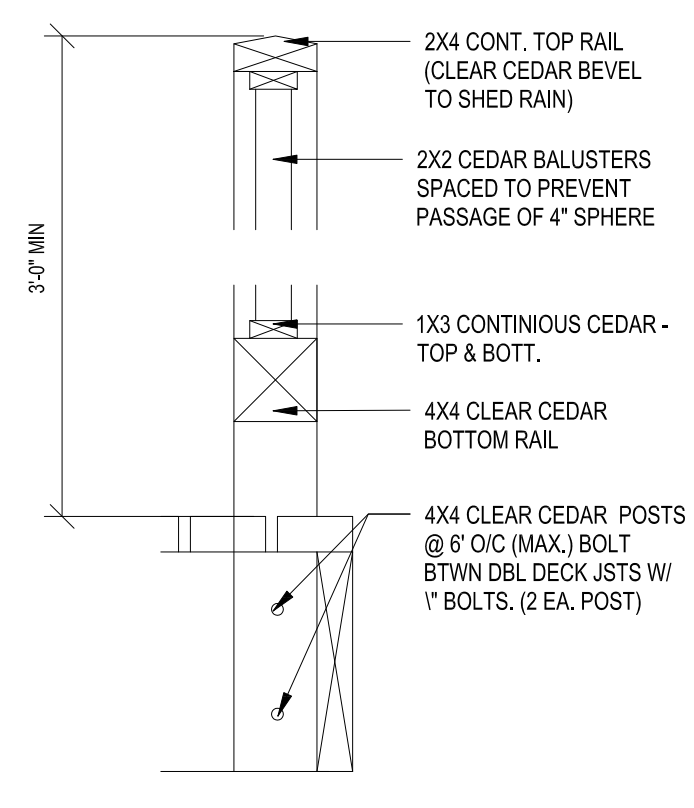
3 EAVE DETAIL  
3/4" = 1'-0"



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



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



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**STANDARD DETAILS**

**D1**

# STRUCTURAL NOTES

## GENERAL

ALL MATERIALS AND WORKMANSHIP SHALL BE AS SPECIFIED BY THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS AND SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE CODES IN EFFECT. WHERE THERE IS A CONFLICT BETWEEN THE CONSTRUCTION DRAWINGS AND THE REFERENCED CODES AND STANDARDS SHALL APPLY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY THE DESIGNER AND OR THE ENGINEER OF ANY DISCREPANCIES IN THE DRAWINGS PRIOR TO THE START OF ANY CONSTRUCTION. WORKING DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO THE DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO THE REVIEW AND APPROVAL BY THE DESIGNER AND THE ENGINEER OF THE RECORD. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING AND SHORING NECESSARY FOR THE CONSTRUCTION OF THE STRUCTURE AND ITS COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OF OR PROCEDURES REQUIRED TO PERFORM THE WORK. ALL CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE DESIGNER OR THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. THESE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

## APPLICABLE CODES AND STANDARDS

THE STRUCTURAL DESIGN HAS BEEN PREPARED IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS:  
 AMERICAN CONCRETE INSTITUTE ACI 318-11 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE  
 ACI-301-10 SPECIFICATIONS FOR STRUCTURAL CONCRETE-SP 66-04 CONCRETE DETAILING MANUAL  
 AMERICAN INSTITUTE OF STEEL CONSTRUCTION - ANSI/AISC 360 SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL  
 AMERICAN WELDING SOCIETY - AWS STRUCTURAL WELDING CODE  
 STEEL STRUCTURE PAINTING CODE - SSPC STRUCTURE PAINTING MANUAL  
 U.S. PRODUCT STANDARDS - PS - 1-74  
 INTERNATIONAL BUILDING CODE (IBC) 2018 EDITION + 2018 IRC  
 NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION (NDS) 2018 EDITION NDS FOR WOOD CONSTR. W/ 2018 SUPPLEMENT  
 SPS 2012 SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC  
 WESTERN WOOD PRODUCTS ASSOCIATION - WMPA GRADING RULES FOR LUMBER AND PLYWOOD  
 AMERICAN SOCIETY OF CIVIL ENGINEERS/ASCE/7-10 MIN. DESIGN LOADS FOR BLDGS + OTHER STRUCTURES.

## DESIGN CRITERIA

IN ADDITION TO THE DEAD LOADS, THE FOLLOWING LOADS WERE USED IN THE PREPARATION OF THIS DESIGN AS REQUIRED BY CHAPTER 16 OF THE INTERNATIONAL BUILDING CODE.

LIVE LOADS	SOIL PRESSURE
ROOF 72 PSF	SOIL BEARING 1500 PSF (ASSUMED)
CEILING 10 PSF	ACTIVE PRESSURE/CANTILEVER PCF (ASSUMED)
FLOOR 40 PSF	ACTIVE PRESSURE/BASEMENTS PCF (ASSUMED)
DECKS 60 PSF	EQUV PASSIVE 300 PCF (ASSUMED)
EXTERIOR BALCONY 60 PSF	BASE FRICTION COEFF. 0.40 PCF (ASSUMED)
STAIR + CORRIDOR 60 PSF	

## ROOF SNOW LOAD

GROUND SNOW LOAD,pg	80 PSF
---------------------	--------

1. ROOF SNOW LOAD,PI 72 PSF
2. SNOW EXPOSURE FACTOR CE +10
3. SNOW LOAD RESISTANCE FACTOR C1
4. THERMAL FACTOR C1 -11

## WIND DESIGN DATA:

(ANSI/AF+PA WFCM-2018)

RISK CATEGORY	1	2	3	4	5	6
1. RISK CATEGORY						
2. SEISMIC IMPORTANCE FACTOR	le +10					
3. MAPPED SPECTRAL ACCELERATION, SHORT PERIOD	SS-1420g					
4. MAPPED SPECTRAL ACCELERATION, 1 SECOND PERIOD	SD-0.494g					
5. SPECTRAL RESPONSE COEFFICIENT, SHORT PERIOD	SDS-0.947g					
6. SEISMIC DESIGN CATEGORY	D					
7. BASIC SEISMIC FORCE RESISTANCE	PLYWOOD SHEAR PANELS					
8. DESIGN BASE SHEAR	V=SEE CALCS					
9. SEISMIC RESPONSE COEFFICIENT	C=5					
10. RESPONSE MODIFICATION FACTOR	R=4.5					
11. ANALYSIS PROCEDURE USED	EQLATERAL FORCE (ASCE7-10,12.8)					

## FOUNDATIONS

ALL FOOTINGS AND FOUNDATIONS SHALL BEAR ON SOLID, UNDISTURBED FIRM NATURAL EARTH OR COMPACTED SOIL, AT LEAST 18" BELOW FINISHED GRADE AND FREE OF ORGANIC MATERIALS. FOOTING AND FOUNDATION EXCAVATION SHALL BE FREE OF LOOSE SOILS, SLOUGHS, DEBRIS, AND FREE OF WATER AT ALL TIMES. FOUNDATIONS SUPPORTING WOOD SHALL EXTEND AT LEAST 6" ABOVE FINISH FLOOR. FOUNDATION WALL BACKFILL SHALL BE PLACED SIMULTANEOUSLY ON BOTH SIDES OF WALL. PROVIDE 4" PERFORATED PIPE (AS REQUIRED) FOR SUBSURFACE DRAINAGE. FOOTING SIZE SHALL BE AS INDICATED ON DRAWINGS OR MINIMUM AS PER IBC SECTION 1806. WHERE THE SURFACE IS SLOPED MORE THAN ONE (1) FOOT IN TEN(10) FEET THE FOUNDATION SHALL BE LEVEL OR BE STEPPED SO THAT BOTH TOP AND BOTTOM OF SUCH FOUNDATION ARE LEVEL PER IBC. WHERE STRUCTURAL COLUMNS AND POSTS ARE EXPOSED TO WATER SPLASH ABOVE A CONCRETE SURFACE OR TO THE WEATHER, PROVIDE A MINIMUM PLINTH OF 1" ABOVE THE CONCRETE SURFACE, OR 6" ABOVE THE EXPOSED EARTH PER UBC. FOUNDATION SILL PLATES SHALL BE BOLTED TO THE FOUNDATION OR WITH A STEEL ANCHOR BOLT HAVING A MINIMUM NOMINAL DIAMETER OF 5/8". BOLTS SHALL BE EMBEDDED A MINIMUM OF 7" INTO THE CONCRETE AND SHALL BE SPACED NOT MORE THAN 4 FEET APART. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 7" BOLT DIAMETERS FROM EACH END OF THE PIECE. ANCHOR BOLTS SHALL BE A STANDARD "J-BOLT" WITH A 4d RETURN, OR A STANDARD "L-BOLT" WITH 12d EXTENSION. ANCHOR BOLTS SHALL BE A36 STEEL OR BETTER. ALL ANCHOR BOLTS AT FOUNDATION SILL PLATES SHALL BE PROVIDED WITH 3"x3"x1/4" PLATE WASHERS PER SHEAR WALL SCHEDULE AT SHEAR WALLS AND OTHER STANDARD WALLS DEFAULTING TO P1-6. SEE SHEARWALL SCHEDULE ON THIS SHEET FOR SPECIFIC ANCHOR BOLT REQUIREMENTS AT ALL SHEARWALL LOCATIONS.

## CONCRETE

CONCRETE SHALL ATTAIN A 28 DAY STRENGTH OF 17c ? AS INDICATED BELOW. CONCRETE SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING AN AIR ENTRAINING ADMIXTURE CONFORMING TO IBC STANDARDS SHALL BE ADDED TO ALL CONCRETE EXPOSED TO EARTH OR WEATHER. PROVIDE 5% ± 15% ENTRAINED AIR MAXIMUM. MAXIMUM SLUMP SHALL BE 4" AT TIME OF PLACING. COMPRESSIVE STRENGTH OF 3,000 psi IS REQUIRED FOR ALL EXTERIOR AND EXPOSED CONDITIONS PER PER IBC AND/OR IRC GOVERNING CODES.

MIN. SACKS OF PORTLAND CEMENT PER CY OF CONC.	SPECIAL INSP. REQUIRED	USE
5000 psi	6 1/2	YES
		SLABS ON GRADE FOUNDATIONS + FOOTINGS

GROUT FOR POST BEARING PLATES SHALL BE NON-SHRINK TYPE WITH MINIMUM COMPRESSIVE STRENGTH OF 8,000 PSI AT 28 DAYS.

## REINFORCING STEEL

NEW, CLEAN AND FREE FROM DIRT, CONCRETE REINFORCING STEEL SHALL CONFORM TO ASTM -A615-76A, GRADE 60 (77-79,80,000 PSI) FOR # 4 BARS AND SMALLER GRADE 60 (77-79,80,000 PSI) FOR # 5 BARS AND LARGER UNLESS OTHERWISE NOTED. REINFORCING BARS SHALL BE CONTINUOUS WITH ALL SPLICES STAGGERED. ALL STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND SECURED BY FORM TIES TO PREVENT DISPLACEMENT DURING CONSTRUCTION. PROVIDE ALL HORIZONTAL BARS WITH 2'-6" x 2'-6" CORNER BARS OF THE SAME SIZE AT ALL CORNERS AND WALL INTERSECTIONS. WHERE CONCRETE WALL END DOES NOT INTERSECT WITH ANOTHER WALL, HOOK HORIZONTAL BARS 90 DEGREES AND PROVIDE AN EXTENSION OF 6 BAR DIAMETERS. AT CONCRETE WALLS LAP VERTICAL REINFORCEMENT A MINIMUM OF 48 BAR DIAMETERS TO FOOTING DOWELS. LAP ALL REINFORCING BARS 48 BAR DIAMETERS. REINFORCING STEEL SHALL BE DETAILED INCLUDING HOOK AND BENDS IN ACCORDANCE WITH ACI 315 AND 318 - (LATEST EDITION).

## CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

FOOTINGS AND OTHER UNFORMED SURFACES, EARTH FACE	3"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER	
#5 BARS OR SMALLER	1 1/2"
#6 BARS OR LARGER	3/4"
SLABS AND WALLS (INTERIOR FACE)	

WELDED WIRE FABRIC SHALL CONFORM TO ASTM-85. LAP FABRIC 1'-0" MINIMUM AT SPLICES. LAP ADJACENT MATS OF WELDED WIRE MESH ONE FULL MESH AT SIDES AND ENDS.

## STRUCTURAL STEEL

STRUCTURAL STEEL STANDARD SHAPES AND PLATES SHALL CONFORM TO ASTM A36 STEEL (77-79 ± 36,000 PSI) STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B (77-79 ± 48,000 PSI) ALL MACHINE BOLTS AND ANCHOR BOLTS SHALL CONFORM TO ASTM A 307. USE E70XX ELECTRODES FOR WELDING. ALL FILLET WELDS SHALL BE MINIMUM 3/16" OR EQUAL TO MINIMUM THICKNESS OF MEMBER BEING WELDED, WHICHEVER IS LESS, UNLESS OTHERWISE SHOWN. ALL WELDING SHALL BE PERFORMED BY WELDERS CERTIFIED IN ACCORDANCE WITH AWS AND WAGO. ALL STEEL ITEMS SHALL HAVE ONE COAT OF RED LEAD CONFORMING TO TT-P-06163 TYPE I, 2-3 MILL COATING. SHOP DRAWINGS FOR STRUCTURAL STEEL SHALL BE SUBMITTED TO THE DESIGNER AND THE ENGINEER FOR APPROVAL.

## METAL WOOD TO WOOD CONNECTORS

METAL WOOD TO WOOD CONNECTORS REFERENCED BY LETTERS AND NUMBERS SHALL BE MANUFACTURED BY SIMPSON STRONG TIE AS SPECIFIED IN THEIR FULL LINE CATALOG, CURRENT EDITION. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

## SOLID SAWN LUMBER

ALL FRAMING LUMBER SHALL KILN DRIED OR MC-19 AND BE GRADED AND MARKED IN CONFORMANCE WITH GLB STANDARD GRADING RULES FOR WEST COAST LUMBER NO 17 OR WPA WESTERN LUMBER GRADING RULES MOST CURRENT EDITION. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

1. 4" X 6" STUDS (2x AND 3x MEMBERS):	HEM FIR OR SPF STUD GRADE	F <sub>425</sub> 2500 psi	F <sub>v</sub> = 150 psi	F <sub>c</sub> = 675 psi	E = 1,200,000
DESIGN VALUES					
2. 4" X 6" PLATES AND MISCO (2x AND 3x MEMBERS): <td>HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td></td>	HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td>	F <sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td>	F <sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td>	F <sub>c</sub> = 675 psi <td>E = 1,200,000</td>	E = 1,200,000
DESIGN VALUES					
3. JOISTS AND RAFTERS (2x AND 3x MEMBERS): <td>HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td></td>	HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td>	F <sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td>	F <sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td>	F <sub>c</sub> = 675 psi <td>E = 1,200,000</td>	E = 1,200,000
DESIGN VALUES					
4. 4x BEAMS: <td>HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td></td>	HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td>	F <sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td>	F <sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td>	F <sub>c</sub> = 675 psi <td>E = 1,200,000</td>	E = 1,200,000
DESIGN VALUES					
5. 4x RAFTERS: <td>HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td></td>	HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td>	F <sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td>	F <sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td>	F <sub>c</sub> = 675 psi <td>E = 1,200,000</td>	E = 1,200,000
DESIGN VALUES					
6. TIMBER BEAMS (RECTANGULAR 6x AND LARGER): <td>HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td></td>	HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td>	F <sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td>	F <sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td>	F <sub>c</sub> = 675 psi <td>E = 1,200,000</td>	E = 1,200,000
DESIGN VALUES					
7. TIMBER POSTS (SQUARE 6x AND LARGER): <td>HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td></td>	HEM-FIR NO. 2 <td>F<sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td></td>	F <sub>425</sub> 2500 psi <td>F<sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td></td>	F <sub>v</sub> = 150 psi <td>F<sub>c</sub> = 675 psi <td>E = 1,200,000</td> </td>	F <sub>c</sub> = 675 psi <td>E = 1,200,000</td>	E = 1,200,000
DESIGN VALUES					

## STRUCTURAL GLUED LAMINATED TIMBERS

STRUCTURAL GLUED LAMINATED TIMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ANSI/AITC STANDARD A1901 AND ASTM D 3737. EACH MEMBER SHALL BEAR AN AITC IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC CERTIFICATE OF PERFORMANCE. ALL BEAMS SHALL BE DOUGLAS FIR COMBINATION (24F-V4/DF OR 24F-V8/DF, AS INDICATED) WITH A STANDARD CAMBER (3600 FT. RADIUS), UNLESS OTHERWISE NOTED ON PLANS. ONE COAT OF END SEALER SHALL BE APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER SHOP OR FIELD. GLUE LAMINATED MEMBERS EXPOSED TO WEATHER OR MOISTURE SHALL BE TREATED WITH AN APPROVED PRESERVATIVE.

DESIGN VALUES	24F-V4/DF	F <sub>b</sub> ten = 2400 psi	F <sub>b</sub> comp = 1850 psi	F <sub>v</sub> = 240 psi	F <sub>c</sub> 7 = 650 psi	F <sub>c</sub> = 1600 psi	E = 1,800,000
DESIGN VALUES <td>24F-V8/DF <td>F<sub>b</sub> ten = 2400 psi <td>F<sub>b</sub> comp = 2400 psi <td>F<sub>v</sub> = 240 psi <td>F<sub>c</sub>7 = 650 psi <td>F<sub>c</sub> = 1600 psi <td>E = 1,800,000</td> </td></td></td></td></td></td>	24F-V8/DF <td>F<sub>b</sub> ten = 2400 psi <td>F<sub>b</sub> comp = 2400 psi <td>F<sub>v</sub> = 240 psi <td>F<sub>c</sub>7 = 650 psi <td>F<sub>c</sub> = 1600 psi <td>E = 1,800,000</td> </td></td></td></td></td>	F <sub>b</sub> ten = 2400 psi <td>F<sub>b</sub> comp = 2400 psi <td>F<sub>v</sub> = 240 psi <td>F<sub>c</sub>7 = 650 psi <td>F<sub>c</sub> = 1600 psi <td>E = 1,800,000</td> </td></td></td></td>	F <sub>b</sub> comp = 2400 psi <td>F<sub>v</sub> = 240 psi <td>F<sub>c</sub>7 = 650 psi <td>F<sub>c</sub> = 1600 psi <td>E = 1,800,000</td> </td></td></td>	F <sub>v</sub> = 240 psi <td>F<sub>c</sub>7 = 650 psi <td>F<sub>c</sub> = 1600 psi <td>E = 1,800,000</td> </td></td>	F <sub>c</sub> 7 = 650 psi <td>F<sub>c</sub> = 1600 psi <td>E = 1,800,000</td> </td>	F <sub>c</sub> = 1600 psi <td>E = 1,800,000</td>	E = 1,800,000

## STRUCTURAL COMPOSITE LUMBER

ENGINEERED WOOD SHOWN ON THE DRAWINGS IS BASED ON PRODUCT MANUFACTURED BY WEYERHAEUSER IN ACCORDANCE WITH ICC REPORT NO. ES ESR-1387. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE ICC REPORT NUMBER AND THE QUALITY CONTROL AGENCY, AND SHALL BE FURNISHED TO THE FOLLOWING MINIMUM STANDARDS:

13 E LEVEL TRUS JOIST: TIMBERSTRAND LSL (BEAM / COLUMN)	DESIGN VALUES	F <sub>b</sub> = 1700 psi	F <sub>v</sub> = 400 psi	F <sub>c</sub> 7 = 680 psi	F <sub>c</sub> = 1400 psi	E = 1,300,000
DESIGN VALUES						
15 E LEVEL TRUS JOIST: TIMBERSTRAND LSL (BEAM)	DESIGN VALUES	F <sub>b</sub> = 2325 psi	F <sub>v</sub> = 310 psi	F <sub>c</sub> 7 = 800 psi	F <sub>c</sub> = 2050 psi	E = 1,550,000
DESIGN VALUES						
19 E LEVEL TRUS JOIST: MICROLAM LVL (BEAM)	DESIGN VALUES	F <sub>b</sub> = 2600 psi	F <sub>v</sub> = 285 psi	F <sub>c</sub> 7 = 750 psi	F <sub>c</sub> = 2510 psi	E = 1,900,000
DESIGN VALUES						
18 E LEVEL TRUS JOIST: PARALLAM PSL (COLUMN)	DESIGN VALUES	F <sub>b</sub> = 2400 psi	F <sub>v</sub> = NA	F <sub>c</sub> 7 = NA	F <sub>c</sub> = 2500 psi	E = 1,800,000
DESIGN VALUES						
2.0 E LEVEL TRUS JOIST: PARALLAM PSL (BEAM)	DESIGN VALUES	F <sub>b</sub> = 2900 psi	F <sub>v</sub> = 290 psi	F <sub>c</sub> 7 = 750 psi	F <sub>c</sub> = 2900 psi	E = 2,000,000
DESIGN VALUES						

## PRE-MANUFACTURED WOOD FLOOR JOISTS

ALL WOOD JOISTS SHALL BE TJI SERIES JOISTS MANUFACTURED BY WEYERHAEUSER IN ACCORDANCE WITH ICC ESR-1593.

PRE-MANUFACTURED WOOD JOISTS SHALL BE T.J.L.X SERIES JOISTS MANUFACTURED BY WEYERHAEUSER. PRE-MANUFACTURED WOOD JOISTS SHALL BE OF THE SIZE, SPACING AND PROFILE SHOWN ON THE DRAWINGS. THE JOISTS SHALL BE COMPATIBLE WITH THE LOAD, DIMENSIONAL, AND FIRE RATING REQUIREMENTS OF THE PROJECT. INSTALLATION SHALL COMPLY WITH MANUFACTURERS SPECIFICATIONS, LAYOUT AND CONSTRUCTION DETAILING DRAWINGS PREPARED AND FURNISHED BY MANUFACTURERS AUTHORIZED REPRESENTATIVE. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS.

## PRE-MANUFACTURED ROOF TRUSSES

ROOF TRUSS MANUFACTURER IS RESPONSIBLE FOR THE DESIGN, FABRICATION AND INSTALLATION GUIDELINES OF ALL ROOF TRUSSES. ROOF TRUSSES SHALL BE COMPATIBLE WITH THE LOAD, DIMENSIONAL, AND FIRE RATING REQUIREMENTS OF THE PROJECT. ROOF TRUSS LAYOUT AND SPACING SHALL CONFORM TO THE LOCATIONS AND SPACING SHOWN ON THE ROOF FRAMING PLAN DESCRIBED HEREIN. PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH TP-2007 FOR THE SPANS AND CONDITIONS SHOWN ON THE DRAWINGS BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON EXPERIENCED WITH THE DESIGN OF WOOD ROOF TRUSSES. WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (MITEK, ITW, OR APPROVED TRUSS PLATE MANUFACTURER). TRUSSES SHALL BE SUPPLIED WITH THE NECESSARY BRACING TO PROVIDE LATERAL STABILITY OF ALL TRUSS MEMBERS AND TE-DOWN CONNECTIONS FROM TRUSS MEMBERS TO THE TOP OF WALLS AND BEAMS TO FORM AN INTEGRAL PART OF THE WHOLE.

## STRUCTURAL WOOD PANEL SHEATHING

ALL STRUCTURAL WOOD PANEL SHEATHING (ROOF, FLOOR AND WALL SHEATHING) SHALL BE APA RATED, EXTERIOR OR WITH EXPANDED PROTECTION. ALL SHEATHING SHALL BE GRADED AND MARKED WITH THE GRADE, TRADEMARK OF APA AND SHALL BE MANUFACTURED UNDER THE PROVISIONS OF VOLUNTARY PRODUCT STANDARDS DOC PS-1, DOC PS-2 OR APA FRP-108. PERFORMANCE STANDARDS AND POLICES FOR STRUCTURAL WOOD PANELS SHALL BE AS SPECIFIED IN THE APA SPECIFICATION AFG 01 WALL SHEATHING SHALL BE 7/16" PLYWOOD (OR OSB) WITH AN APA SPAN RATING OF 24/0. INSTALL WITH A MINIMUM GAP OF 1/8" CLEAR SPACE BETWEEN PANEL JOINTS TO ALLOW FOR EXPANSION. NAILS SHALL BE DRIVEN FLUSH BUT NOT FRACTURE THE SURFACE OF THE SHEATHING. REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

## WOOD FRAMING

THE FOLLOWING SHALL APPLY UNLESS OTHERWISE SHOWN ON THE PLANS. ALL WOOD FRAMING COMPONENTS NOT SPECIFICALLY ENGINEERED AND DETAILED ON PLANS SHALL BE CONSTRUCTED TO COMPLY WITH IBC CHAPTER 23. THE NUMBER AND SIZE OF NAILS CONNECTING WOOD MEMBERS, UNLESS OTHERWISE NOTED, SHALL COMPLY WITH TABLE 2304.9.1 OF THE INTERNATIONAL BLDG. CODE. ALL NAILS SHALL BE COMMON, UNLESS OTHERWISE INDICATED. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. ALL BOLT HEADS AND NUTS BEARING AGAINST WOOD SURFACES SHALL BE PROVIDED WITH STANDARD FLAT CUT WASHERS. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL SHIMS SHALL BE SEASONED AND DRIED AND OF THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

## WALL FRAMING:

ALL STUD WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2x4 STUDS + 16" o.c. AT INTERIOR WALLS AND 2x6 STUDS + 16" o.c. AT EXTERIOR WALLS AND WALLS SEPARATING HEATED AND UNHEATED SPACES. A MINIMUM OF THREE STUDS SHALL BE PROVIDED AT THE CORNERS AND INTERSECTIONS OF ALL WALLS AND A MINIMUM OF ONE TRIMMER STUD PLUS A SINGLE KING STUD SHALL BE PROVIDED AT EACH SIDE OF ALL OPENINGS NOT OTHERWISE NOTED ON PLANS. TRIMMERS AT WINDOW AND DOOR OPENING INDICATED ON PLANS ARE AS FOLLOWS:  
 (1) 2x - ONE TRIMMER STUD PLUS A SINGLE KING STUD.  
 (2) 2x - TWO TRIMMER STUDS PLUS A SINGLE KING STUD.  
 (3) 2x - THREE TRIMMER STUDS PLUS A SINGLE KING STUD.

THE TRIMMER/KING STUD ASSEMBLY SHALL BE FASTENED TOGETHER IN ACCORDANCE WITH TABLE 2304.9.1 AS DOUBLE STUDS. A SINGLE 4x8 HEADER SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL UNHEATED STUD WALLS OVER 8'-0" IN HEIGHT. ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. ALL WOOD PLATES AND BLOCKING IN DIRECT CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED. OR PROVIDE 2 LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER BETWEEN UNHEATED WOOD AND CONCRETE. END NAIL TOP PLATE TO EACH STUD AND TOE NAIL OR END NAIL EACH STUD TO BOTTOM PLATE IN ACCORDANCE WITH TABLE 2304.9.1. FACE NAIL DOUBLE TOP PLATES IN ACCORDANCE WITH TABLE 2304.9.1. END JOINTS AT DOUBLE TOP PLATE SPLICES SHALL BE OFFSET A MINIMUM OF 48" AND NAILED PER TABLE 2304.9.1. ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW PER TABLE 2304.9.1 OR BOLTED TO CONCRETE WITH 1/2" DIAMETER ANCHOR BOLTS (WITH 7" MINIMUM EMBEDMENT) + 4'-0" O.C. UNLESS INDICATED OTHERWISE. ALL POSTS WITHIN THE WALL FRAME ASSEMBLY NOT OTHERWISE NOTED ON PLANS SHALL BE SPIKE LAMINATED COLUMNS, CONSISTING OF DOUBLED STUDS. INDIVIDUAL MEMBERS OF SILL OR POST SHALL BE HELD AWAY FROM THE TRUSS BOTTOM CHORD AND SHEARWALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING WHEN NOT OTHERWISE NOTED. PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES NAILED TO ALL STUDS, TOP AND BOTTOM PLATES, AND BLOCKING WITH NAILS + 7" o.c. USE 5d COOLER NAILS FOR 1/2" GWB AND 6d COOLER NAILS FOR 5/8" GWB. PROVIDE 7/16" (NOMINAL) APA RATED SHEATHING SPAN RATING 24/0) ON EXTERIOR SURFACES NAILED AT ALL PANEL EDGES (BLOCK UN-SUPPORTED EDGES), AND TOP AND BOTTOM PLATES WITH 8d + 6" o.c. AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d + 12" o.c. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS. NON-BEARING WALLS SHALL BE HELD AWAY FROM THE TRUSS BOTTOM CHORD WITH APPROVED FASTENERS TO INSURE THAT THE TRUSS BOTTOM CHORD WILL NOT BEAR ON THE WALL.

## FLOOR AND ROOF FRAMING:

REFER TO FRAMING PLANS FOR ALL JOIST, RAFTER AND BEAM LAYOUTS. DIRECTION, SPACING, TYPE AND SIZE SHALL BE AS INDICATED ON PLANS. PROVIDE DOUBLE JOISTS UNDER ALL BEARING PARTITIONS THAT EXTEND OVER MORE THAN HALF OF THE JOIST LENGTH AND AROUND ALL OPENINGS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL JOISTS TO SUPPORTS IN ACCORDANCE WITH TABLE 2304.9.1. ATTACH WOOD JOISTS TO FLUSH BEAMS OR BEAMS WITH METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI-JOIST BEAMS TOGETHER IN ACCORDANCE WITH TABLE 2304.9.1. UNLESS OTHERWISE NOTED ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP W/ FACE GRAIN PERPENDICULAR TO SUPPORTS AND END JOINTS STAGGERED 4'-0". ALL PLYWOOD SHALL BE INSTALLED PER APA STANDARDS. SHEATHING SHALL BE FASTENED IN ACCORDANCE WITH TABLE 2304.9.1. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN RAFTER/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS IN ACCORDANCE WITH TABLE 2304.9.1. UNLESS OTHERWISE NOTED ON THE PLANS, PROVIDE SOLID BLOCKING AT ALL UNFRAMED PANEL EDGES AND NAIL WITH EDGE NAILING PER NAILING SCHEDULE THIS SHEET. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. SOLID BLOCKING SHALL BE PROVIDED AT ALL HOLD-DOWN LOCATIONS AND POINT LOADS BEARING DIRECTLY ON THE FLOOR DIAPHRAGM FROM ABOVE. BLOCKING SHALL BE OF THE SAME SIZE AS THE POST OR COLUMN ABOVE, OR SHALL BE CONSTRUCTED OF MULTIPLE STUDS PROVIDING AN AREA

## DIAPHRAGM AND HOLD-DOWN SCHEDULES

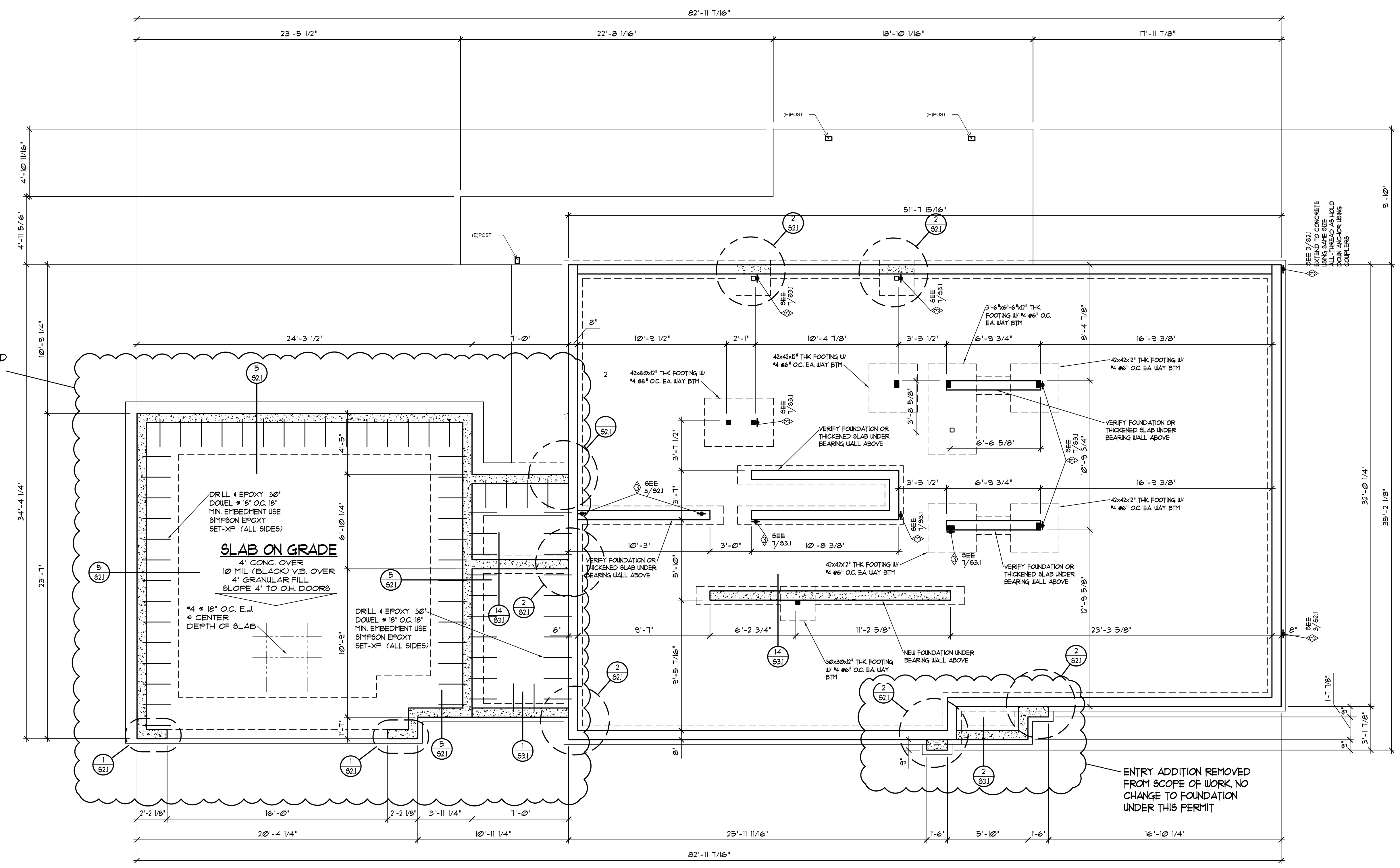
SHEAR WALL SCHEDULE? 1? (VERTICAL DIAPHRAGM)													
SHEARWALL TYPE	WALL SHEATHING (PANEL) THICKNESS AND GRADE	WALL STUD GRADE AND SPACING	NAIL TYPE	EDGE NAILING	FIELD NAILING	BLOCKING REQ'D	BLOCK SIZE	ABUTTING PLYWOOD PANEL EDGE MEMBER SIZE	TOP PLATE NAILING SIZE AND SPACING	SOLE PLATE NAILING SIZE AND SPACING	FOUNDATION ANCHOR BOLTS SIZE AND SPACING	FRAMING ANCHOR TYPE AND SPACING	ALLOWABLE LOAD <sup>1</sup> SEISMIC / WIND
P1-6	7/16" APA RATED OR 15/32" PLYWOOD ONE FACE	HEM-FIR @ 16" o.c.	8d COMMON	6" o.c.	12" o.c.	YES	2x	2x	16d @ 5"	16d @ 5"	5/8" @ 48" o.c.	A36 @ 24" o.c.	240 PLF/336 PLF
P1-4	7/16" APA RATED OR 15/32" PLYWOOD ONE FACE	HEM-FIR @ 16" o.c.	8d COMMON	4" o.c.	12" o.c.	YES	2x	2x	16d @ 3"	16d @ 3"	5/8" @ 32" o.c.	A36 @ 12" o.c.	350 PLF/400 PLF
P1-3 <sup>2</sup>	7/16" APA RATED OR 15/32" PLYWOOD ONE FACE	HEM-FIR @ 16" o.c.	8d COMMON	3" o.c.	12" o.c.	YES	3x	3x	(2) ROWS 16d @ 4"	(2) ROWS 16d @ 4"	5/8" @ 24" o.c.	A36 @ 12" o.c.	450 PLF/830 PLF
P1-2 <sup>2,4</sup>	7/16" APA RATED OR 15/32" PLYWOOD ONE FACE	HEM-FIR @ 16" o.c.	8d COMMON	2" o.c.	12" o.c.	YES	3x	3x	(2) ROWS 16d @ 3"	(2) ROWS 16d @ 3"	5/8" @ 12" o.c.	A36 @ 6" o.c.	590 PLF/820 PLF
P2-4 <sup>2,4</sup>	7/16" APA RATED OR 15/32" PLYWOOD TWO FACES	HEM-FIR @ 16" o.c.	8d COMMON	4" o.c.	12" o.c.	YES	3x	3x	(2) ROWS 16d @ 3"	(2) ROWS 16d @ 3"	5/8" @ 32" o.c.	A36 @ 12" o.c.	700 PLF / 1050 PLF
P2-3 <sup>2,4</sup>	7/16" APA RATED OR 15/32" PLYWOOD TWO FACES	HEM-FIR @ 16" o.c.	8d COMMON	3" o.c.	12" o.c.	YES	3x	3x	(2) ROWS 16d @ 3"	(2) ROWS 16d @ 3"	5/8" @ 12" o.c.	A36 @ 6" o.c.	900 PLF / 1260 PLF
P2-2 <sup>2,4</sup>	7/16" APA RATED OR 15/32" PLYWOOD TWO FACES	HEM-FIR @ 16" o.c.	8d COMMON	2" o.c.	12" o.c.	YES	3x	3x	(2) ROWS 16d @ 2"	(2) ROWS 16d @ 2"	5/8" @ 8" o.c.	A36 @ 6" o.c.	1180 PLF / 1640 PLF



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**KAHN RESIDENCE**  
 4205 85TH AVE SE, MERCER ISLAND, WA 98040

FOUNDATION PLAN



GARAGE ADDITION REMOVED FROM SCOPE OF WORK, NO CHANGE TO FOUNDATION UNDER THIS PERMIT

ENTRY ADDITION REMOVED FROM SCOPE OF WORK, NO CHANGE TO FOUNDATION UNDER THIS PERMIT

**STRUCTURAL LEGEND**

- DENOTES LOCATION AND EXTENT OF SHEAR WALLS
- DENOTES TYPE OF SHEAR WALLS SEE SHEAR WALL SCHEDULE
- 2 DENOTES HOLD-DOWN LOCATION SEE HOLD-DOWN SCHEDULE LOCATE HOLD-DOWNS MIN. 9" FROM FOUNDATION VENTS

- FOUNDATION NOTES:**
- WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
  - CONTRACTOR TO VERIFY ALL DIMENSIONS AND FIELD CONDITIONS.
  - ALL FOOTINGS TO HAVE A MINIMUM DEPTH OF 18" BELOW FINISH GRADE
  - STEP FOUNDATIONS PER SITE CONDITIONS
  - ALL POSTS SHALL BE TREATED 4x4 (4x6 @ 2M SPLICE) ON TYPE-30 FELT ON CONCRETE FOOTING AS INDICATED PER PLAN.
  - ALL GIRDERS SHALL BE #2 DOUG/FIR (SIZE AS INDICATED PER PLAN).
  - GROUND COVER SHALL BE 6 MIL (0.006") POLYETHYLENE FILM WITH AT LEAST A 12" LAP AT ALL SEAMS AND EXTENDED UP THE FOUNDATION WALL TO AT LEAST THE OUTSIDE FINISHED GRADE LINE.
  - ALL WOOD IN CONTACT WITH EARTH, MASONRY OR CONCRETE SHALL BE TREATED OR BE OF WOOD WITH A NATURAL RESISTANCE TO DECAY.

**FOUNDATION PLAN**

1/4" = 1'-0"

CONTRACTOR SHALL VERIFY ALL CONDITIONS DURING DEMOLITION AND INSPECTION AND REPORT TO ARCHITECT AND ENGINEER OF RECORD FOR REVIEW AND APPROVAL

**REMODEL LEGEND**

- NEW FOUNDATION
- EXISTING FOUNDATION TO REMAIN
- EXISTING FOUNDATION TO BE REMOVED

Revisions

△	CLIENT REVISION/	1/11/2024
△	REVISED	
△	REVISED	
△	REVISED	

Drawn: **DFP** Checked: \_\_\_\_\_  
 Date: **JULY 16, 2022**  
 Sheet: **S1.2**  
 Scale: 1/4" = 1'-0"



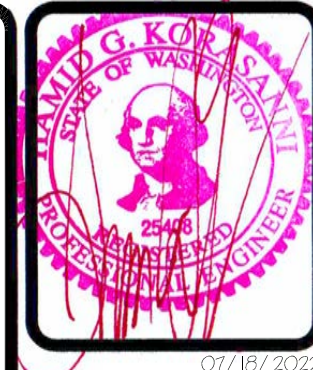






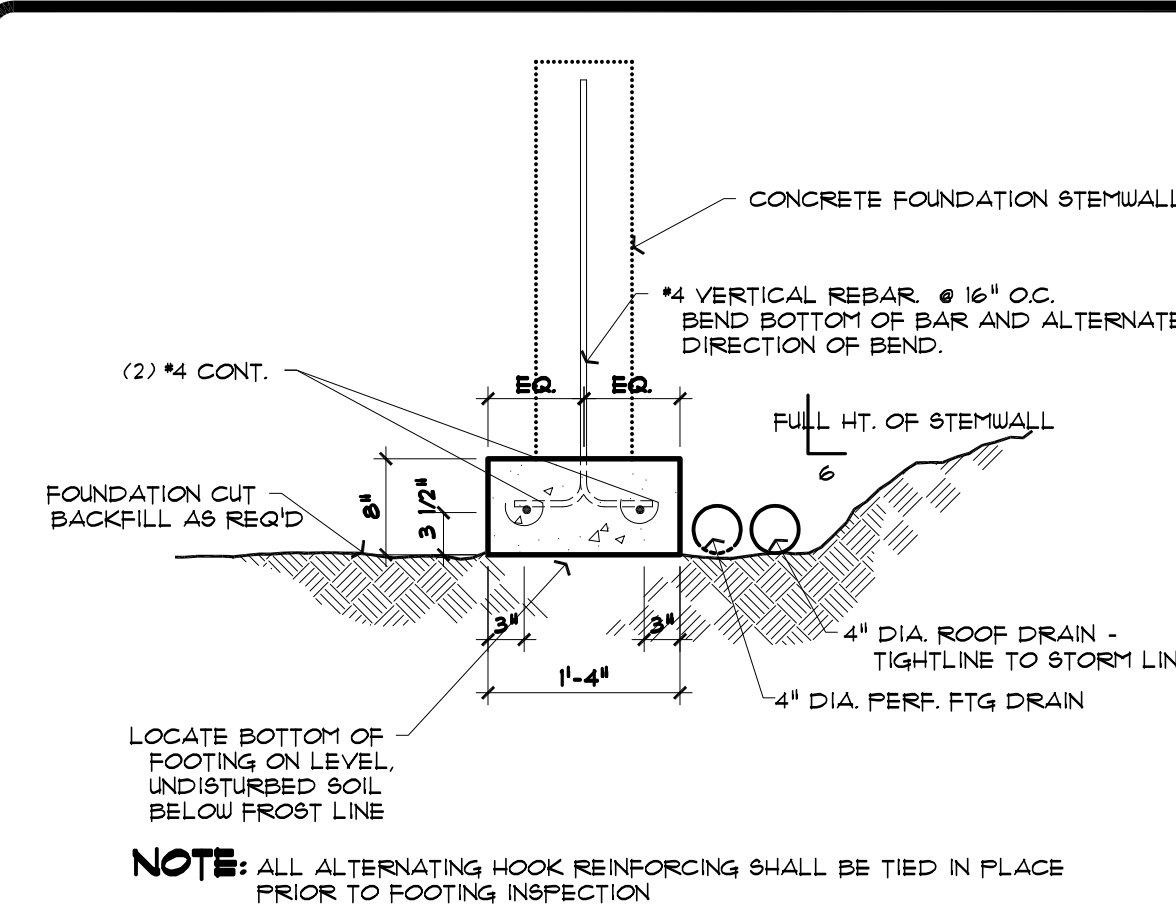




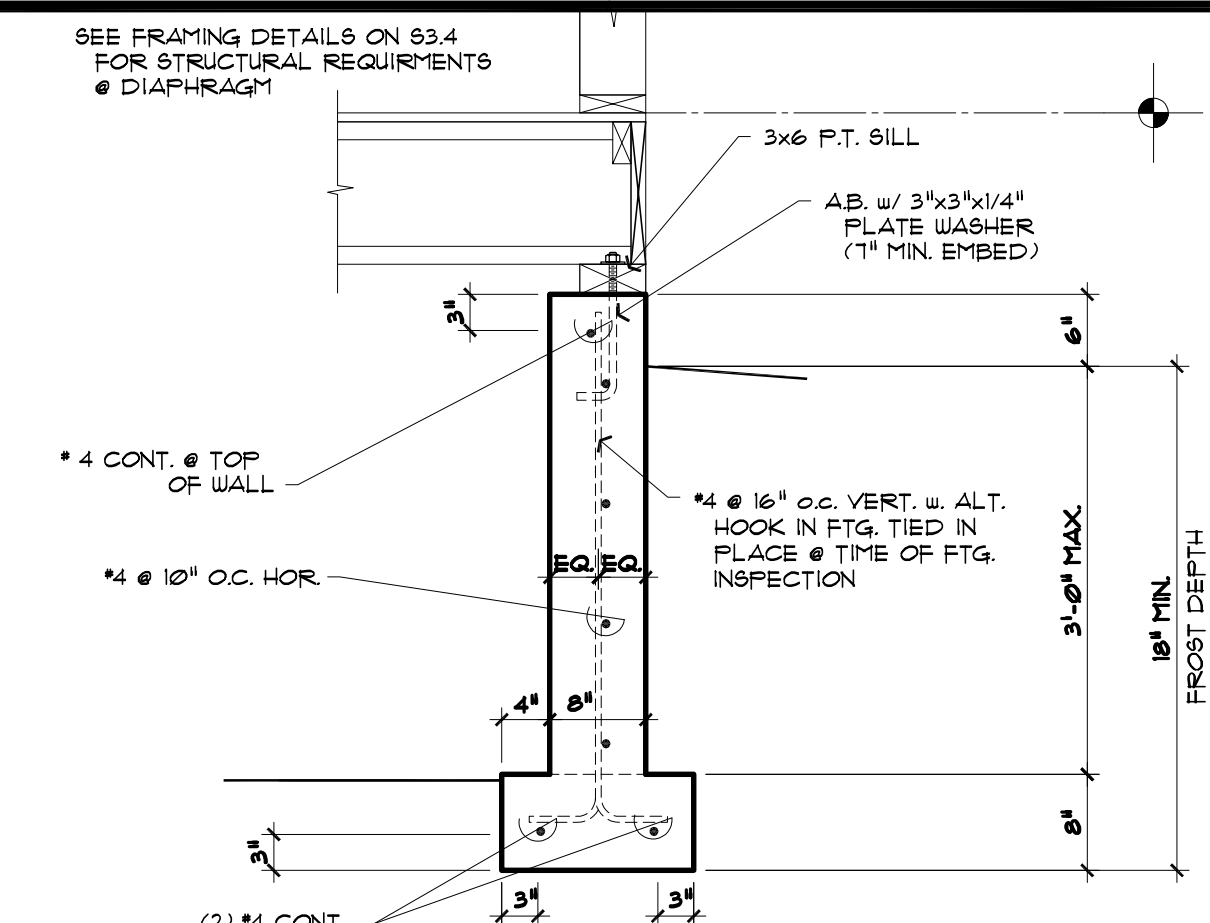


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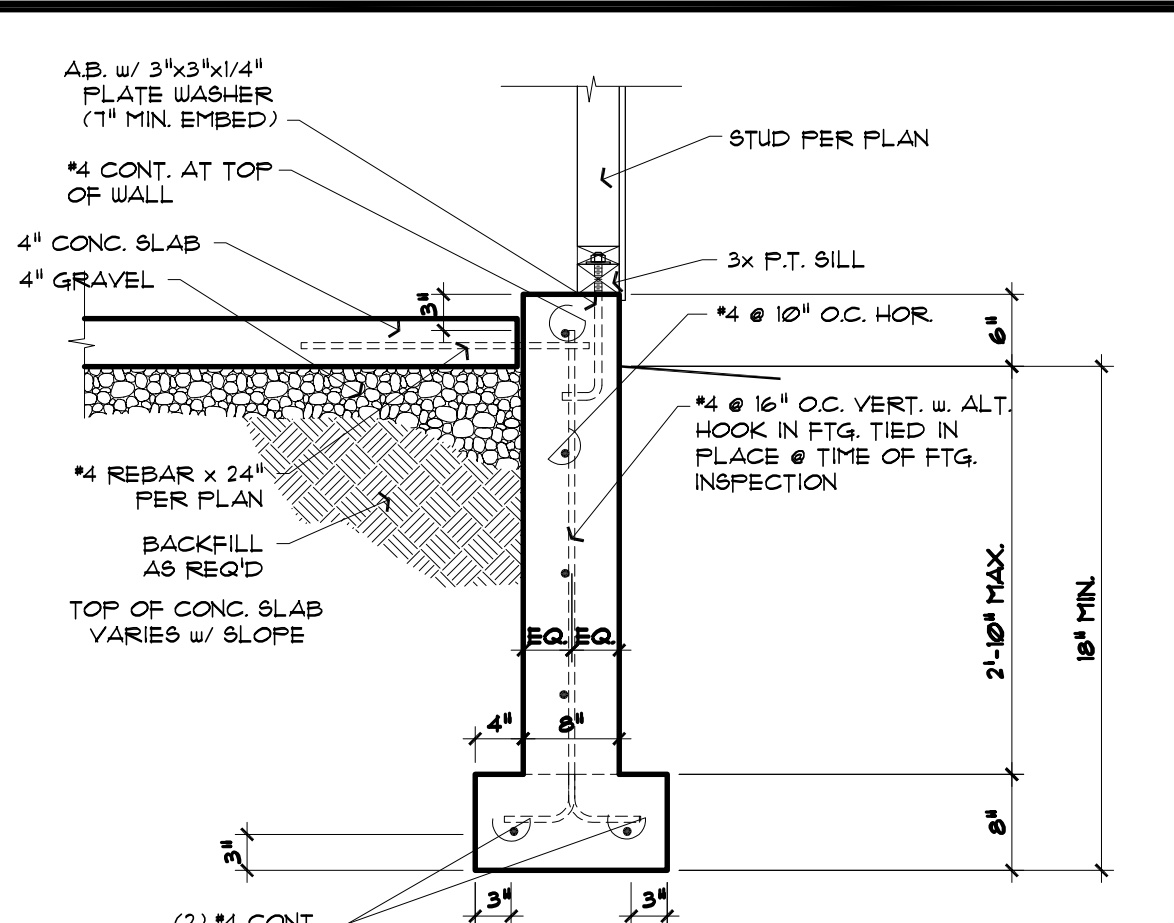
**STRUCTURAL DETAILS**  
**KAHN RESIDENCE**  
 4205 85TH AVE SE, MERCER ISLAND, WA 98040



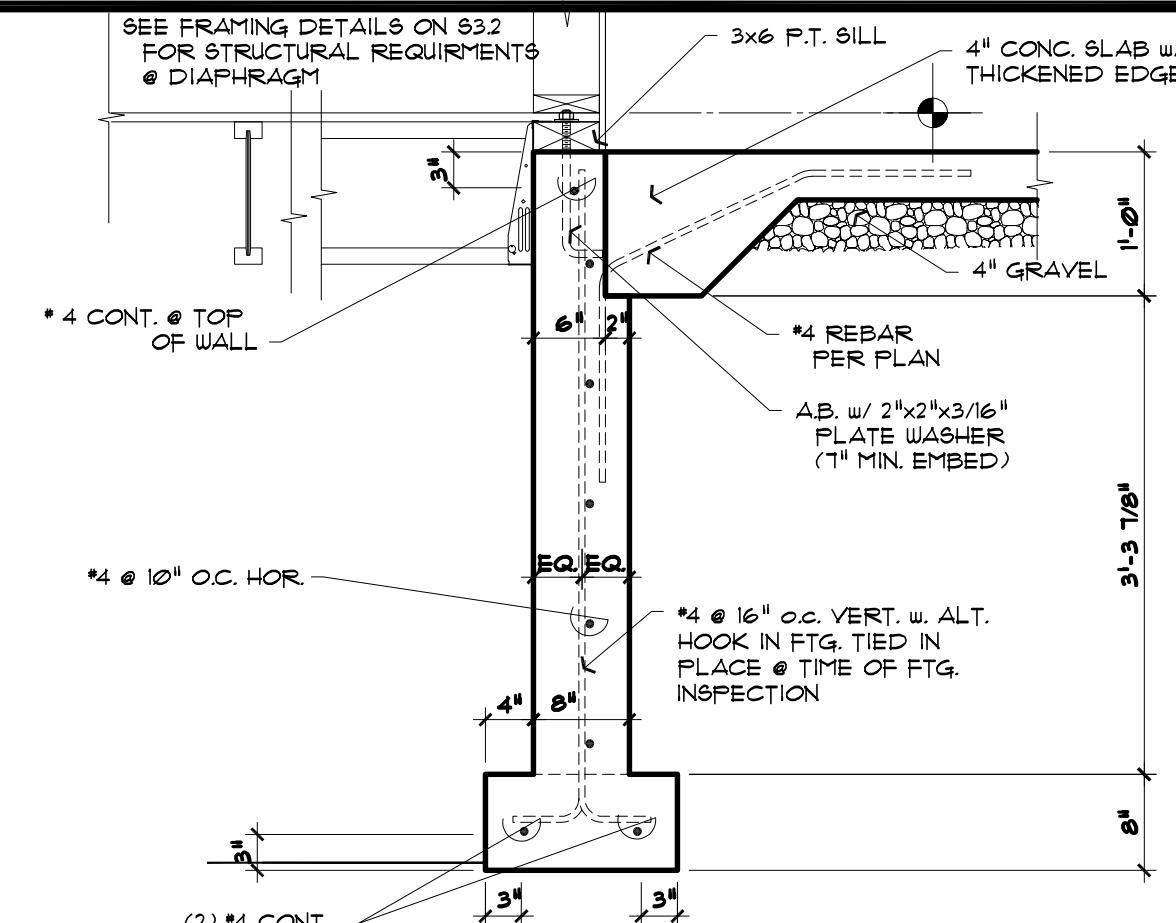
**1 TYPICAL FORMED FOOTING**  
 3/4" = 1'-0"



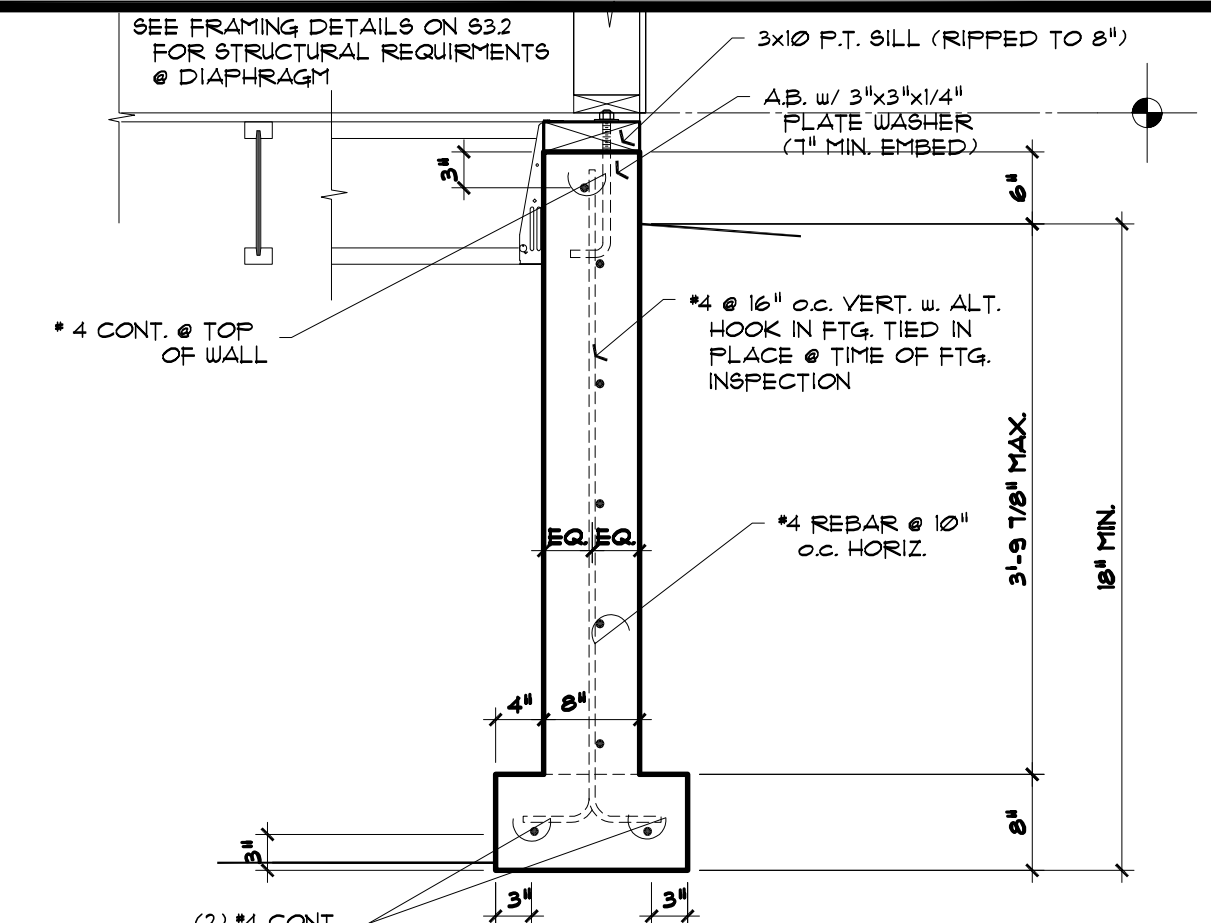
**2 FOUNDATION STEMWALL @ EXT. WALL**  
 3/4" = 1'-0"



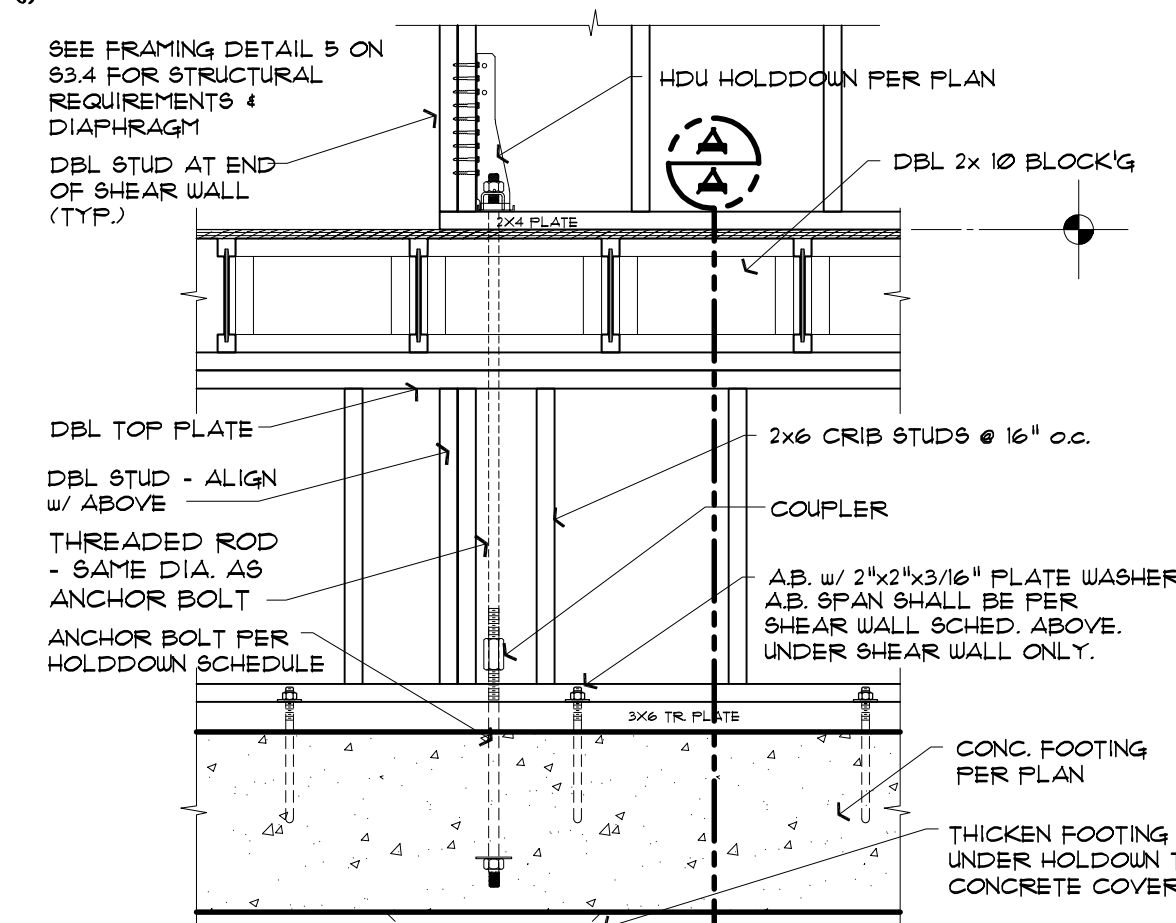
**3 EXT. FND WALL @ GARAGE SLAB**  
 3/4" = 1'-0"



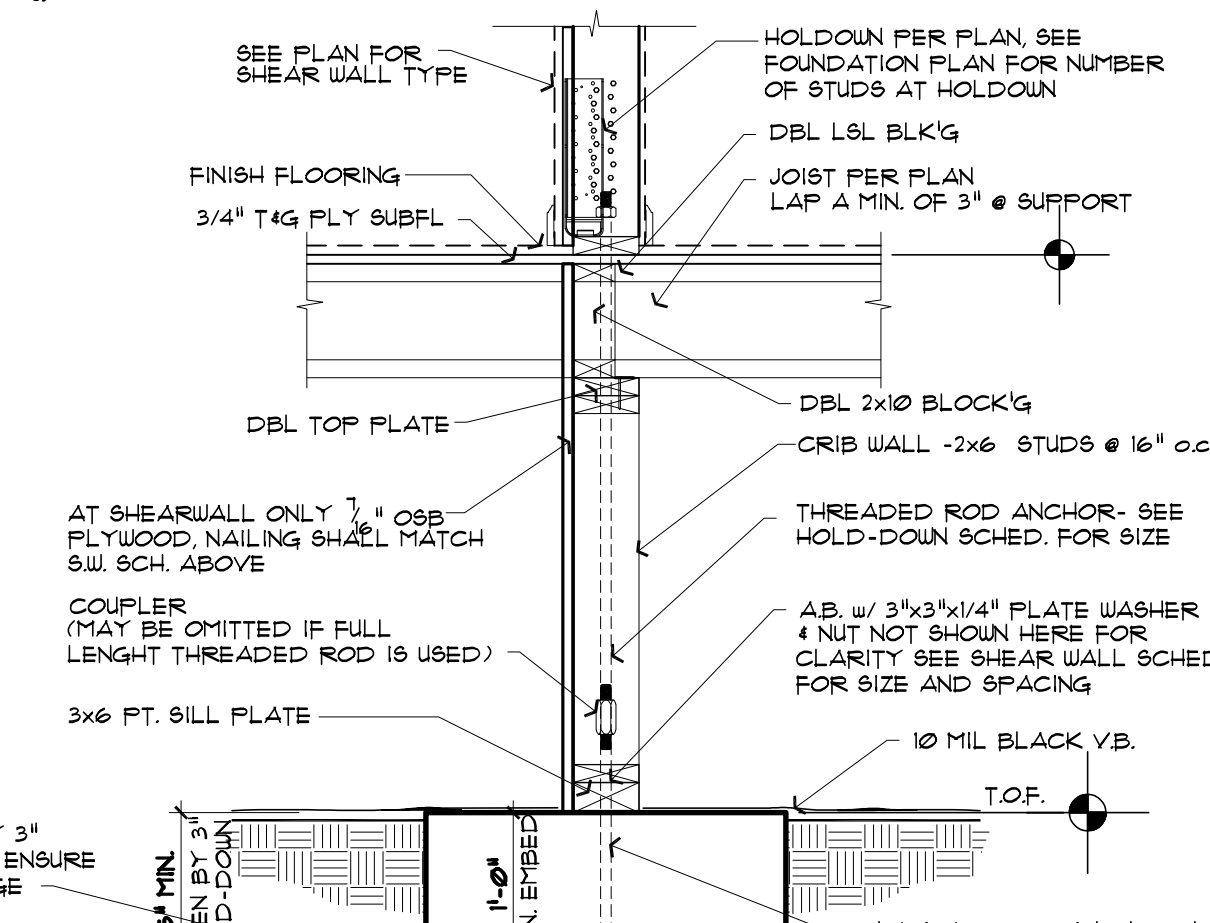
**4 FOUND. STEMWALL @ GARAGE SLAB w/ DIAPHRAGM INSIDE**  
 3/4" = 1'-0"



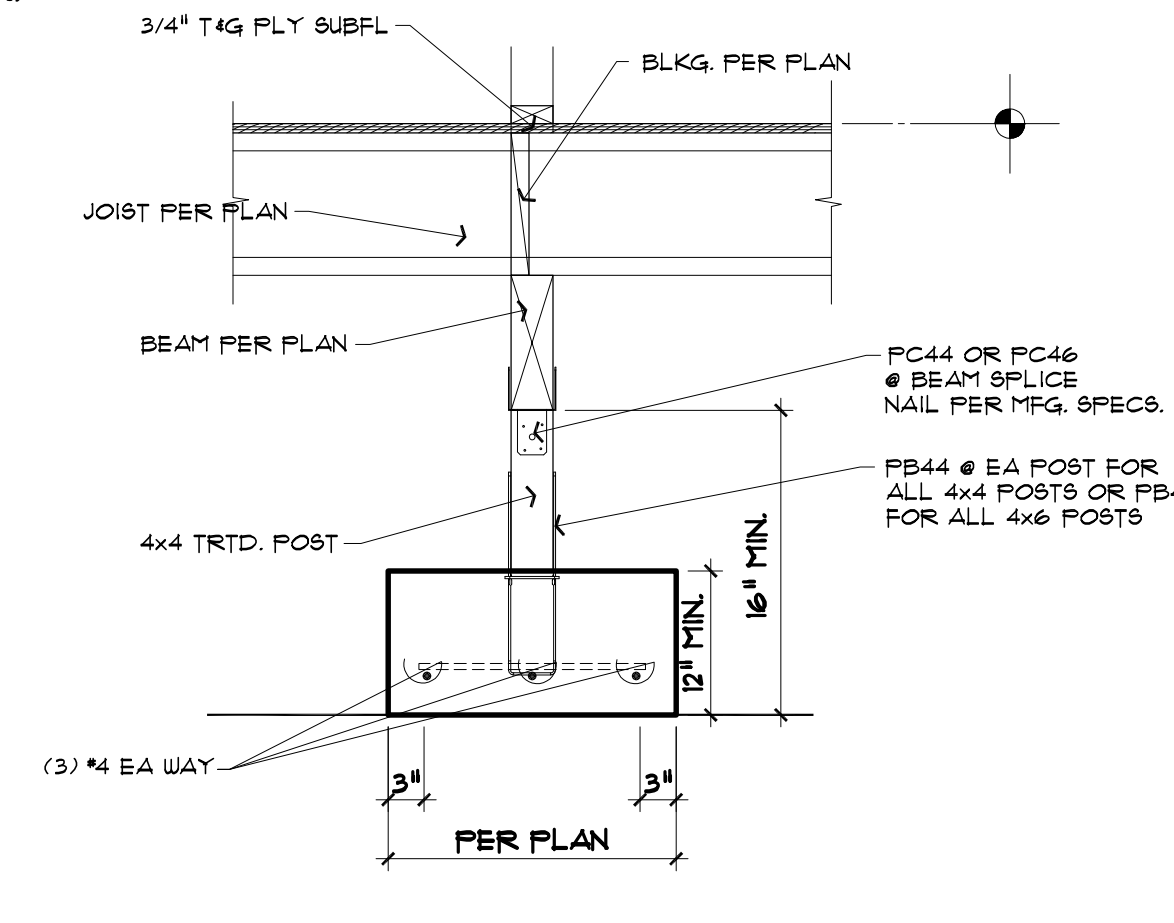
**5 FOUNDATION STEMWALL @ EXT. WALL TYPICAL w/ DIAPHRAGM INSIDE OF WALL**  
 3/4" = 1'-0"



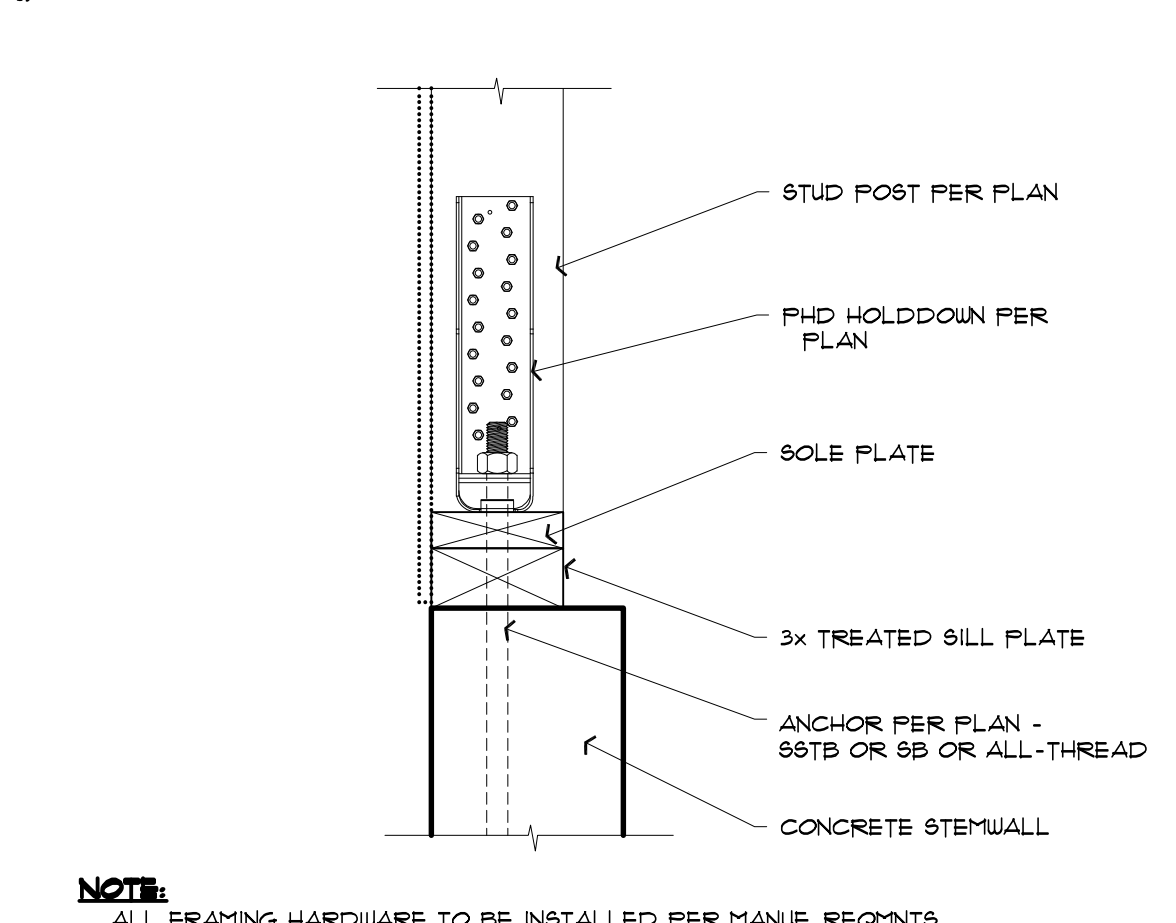
**6 HDU HOLDDOWN @ CRIBWALL**  
 JOISTS PERP. TO WALL - SHEAR WALL ABOVE 3/4" = 1'-0"



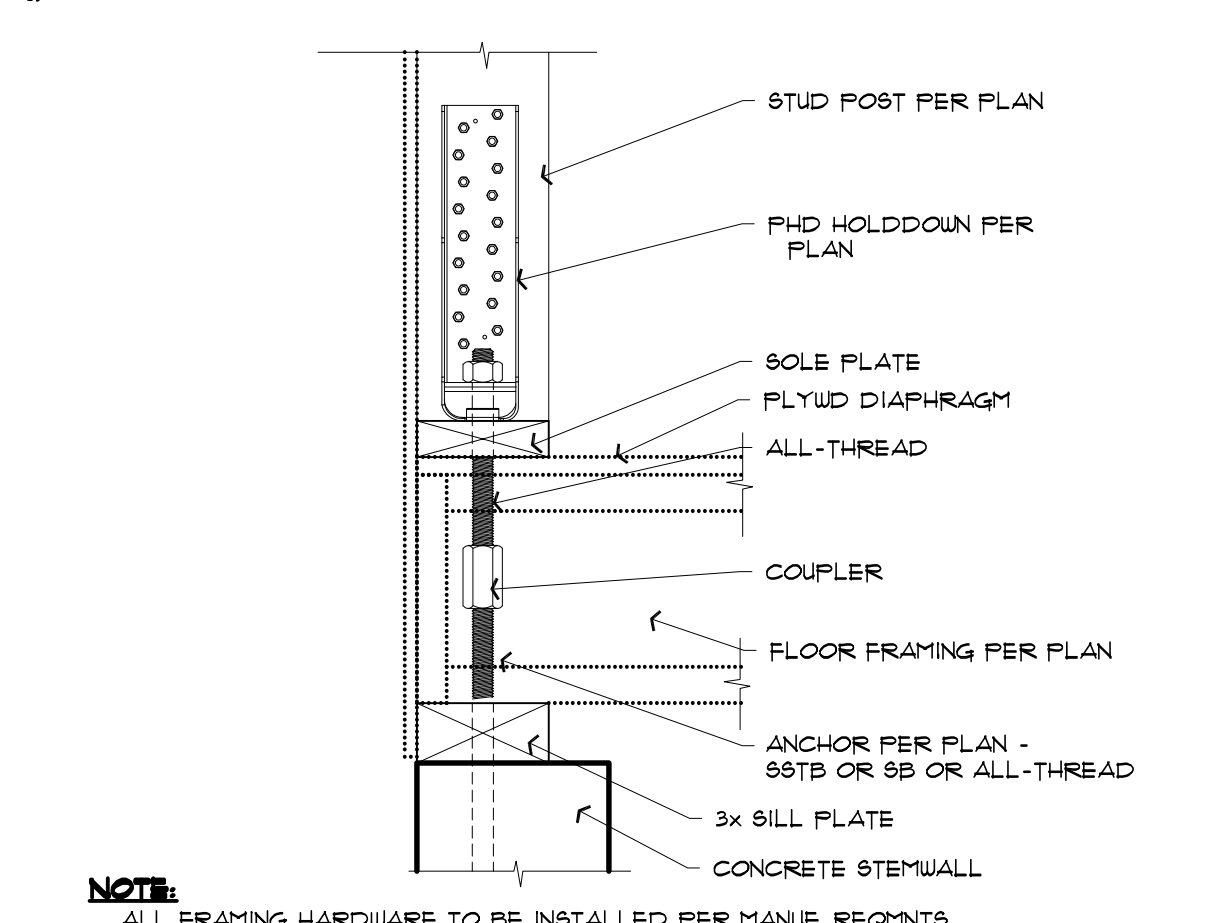
**7 TYPICAL w/ DIAPHRAGM ON TOP OF WALL**  
 3/4" = 1'-0"



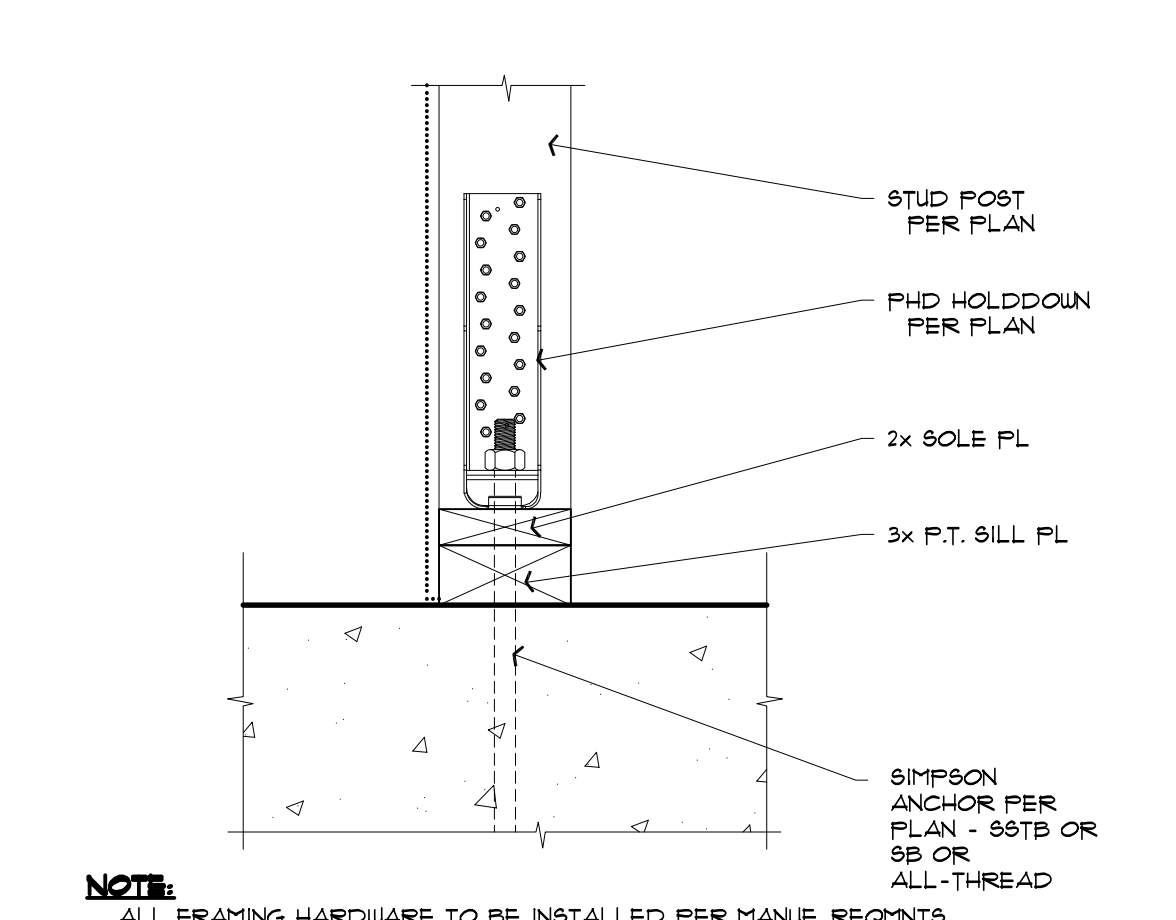
**8 TYPICAL POST & BEAM POSITIVE CONNECTION TO CONCRETE**  
 3/4" = 1'-0"



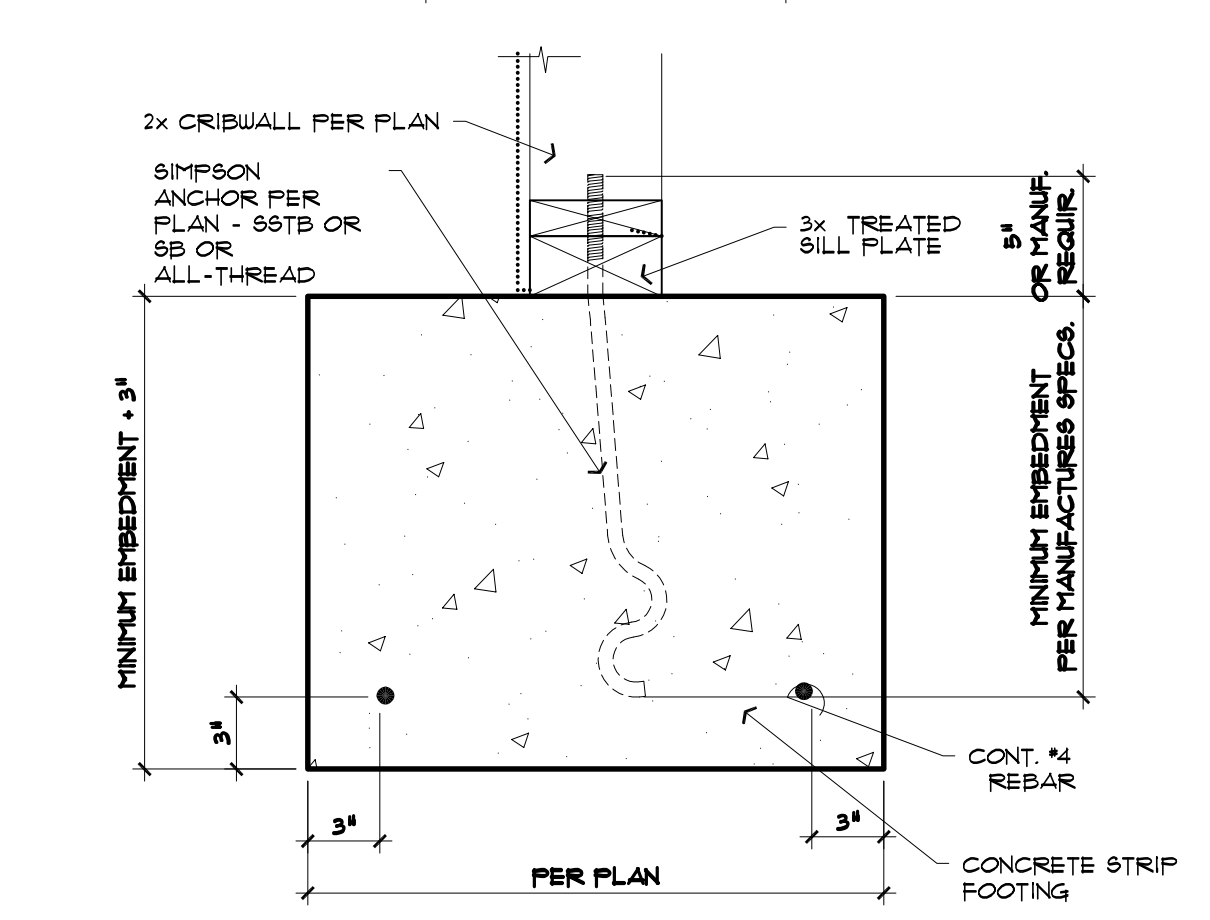
**9 PHD HOLDDOWN @ EXT. FOOTING SHEARWALL AT GARAGE SLAB**  
 1 1/2" = 1'-0"



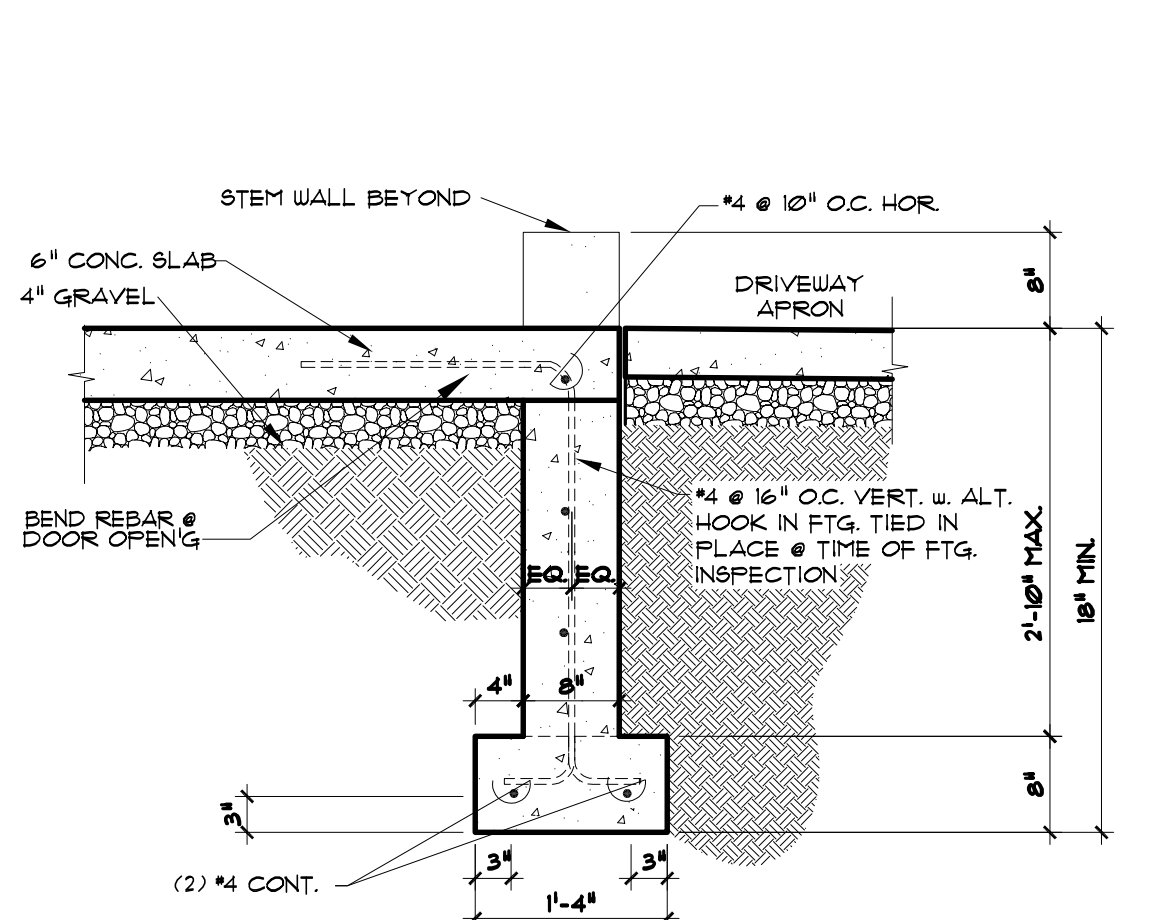
**10 PHD HOLDDOWN @ EXT. FOOTING SHEARWALL AT FLOOR DIAPHRAGM**  
 1 1/2" = 1'-0"



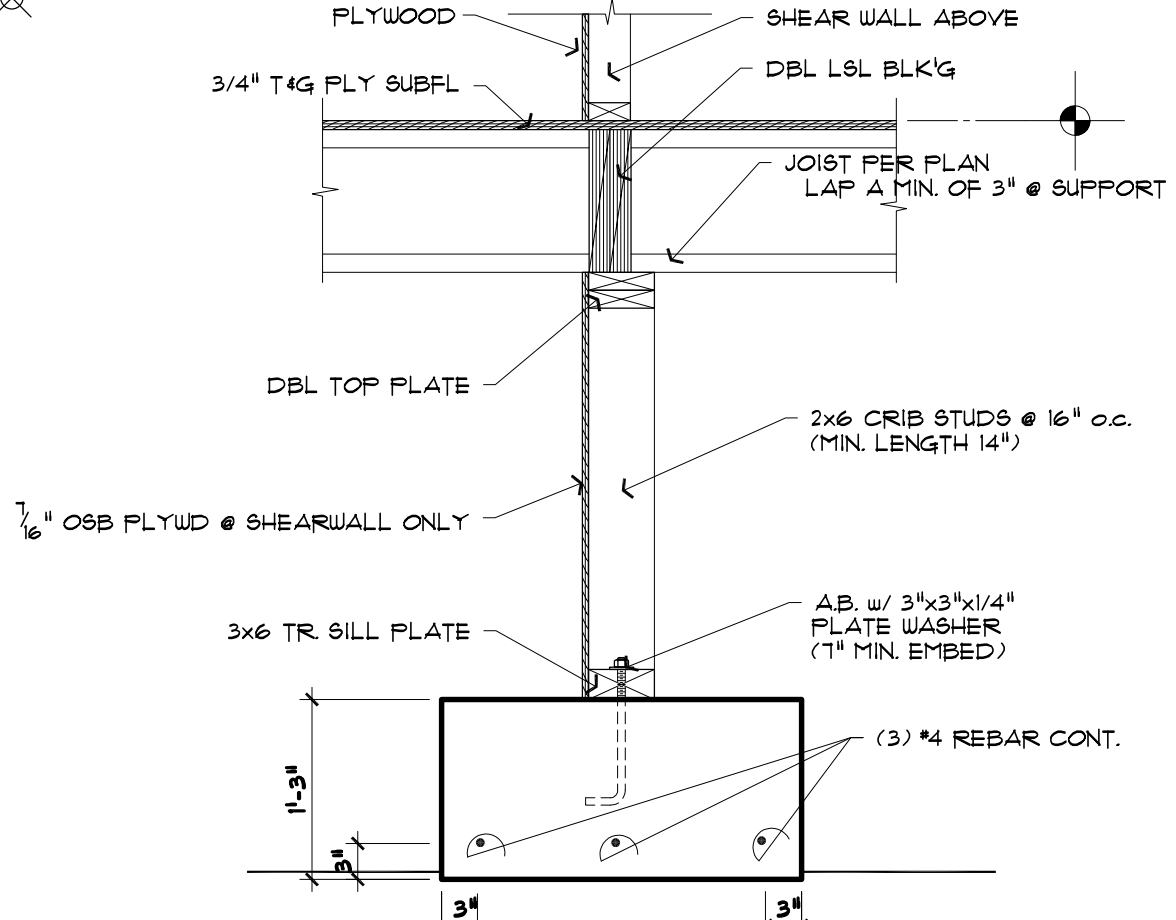
**11 PHD HOLDDOWN @ INT. FOOTING SHEARWALL AT CRIBWALL**  
 1 1/2" = 1'-0"



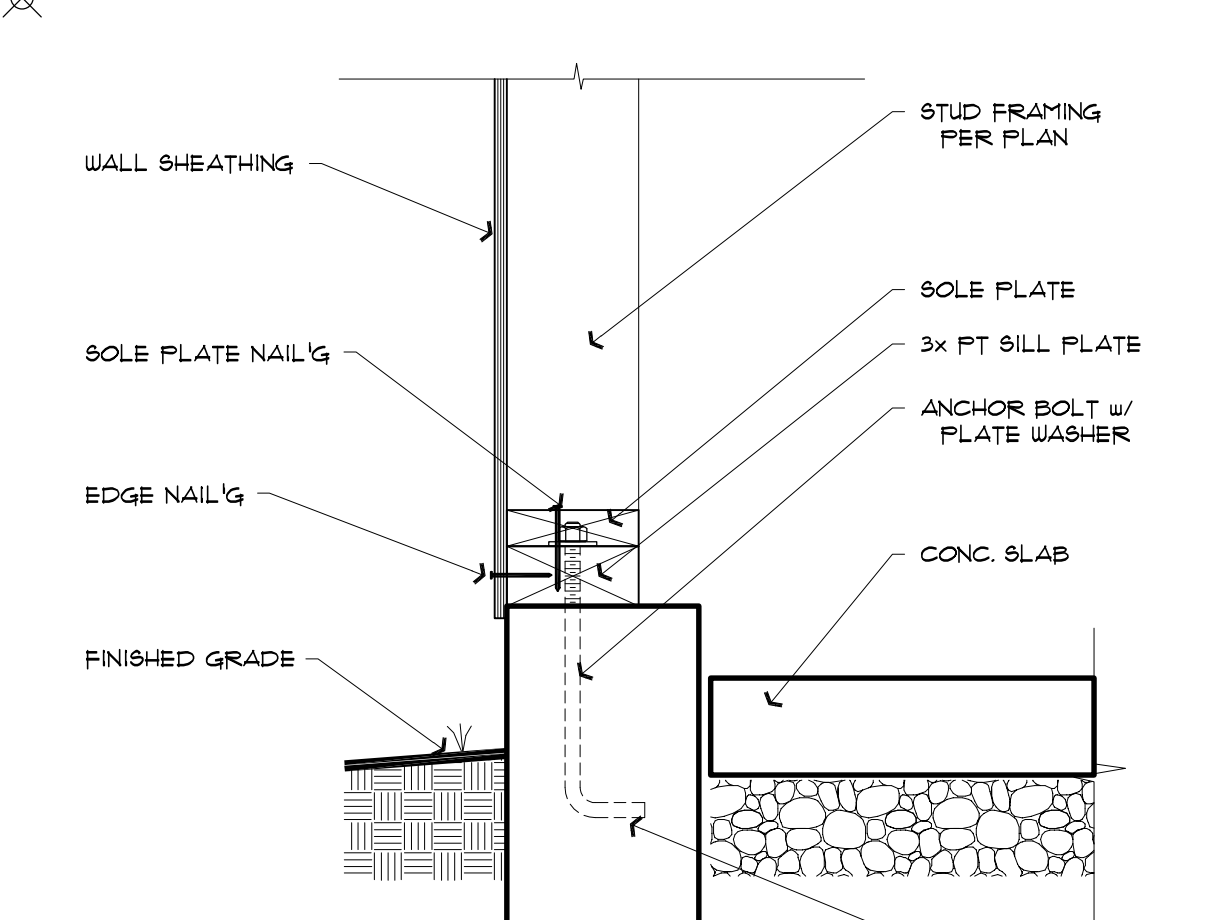
**12 HOLDOWN ANCHOR @ INT. FOOTING**  
 SIMPSON ANCHOR OR OTHER 1 1/2" = 1'-0"



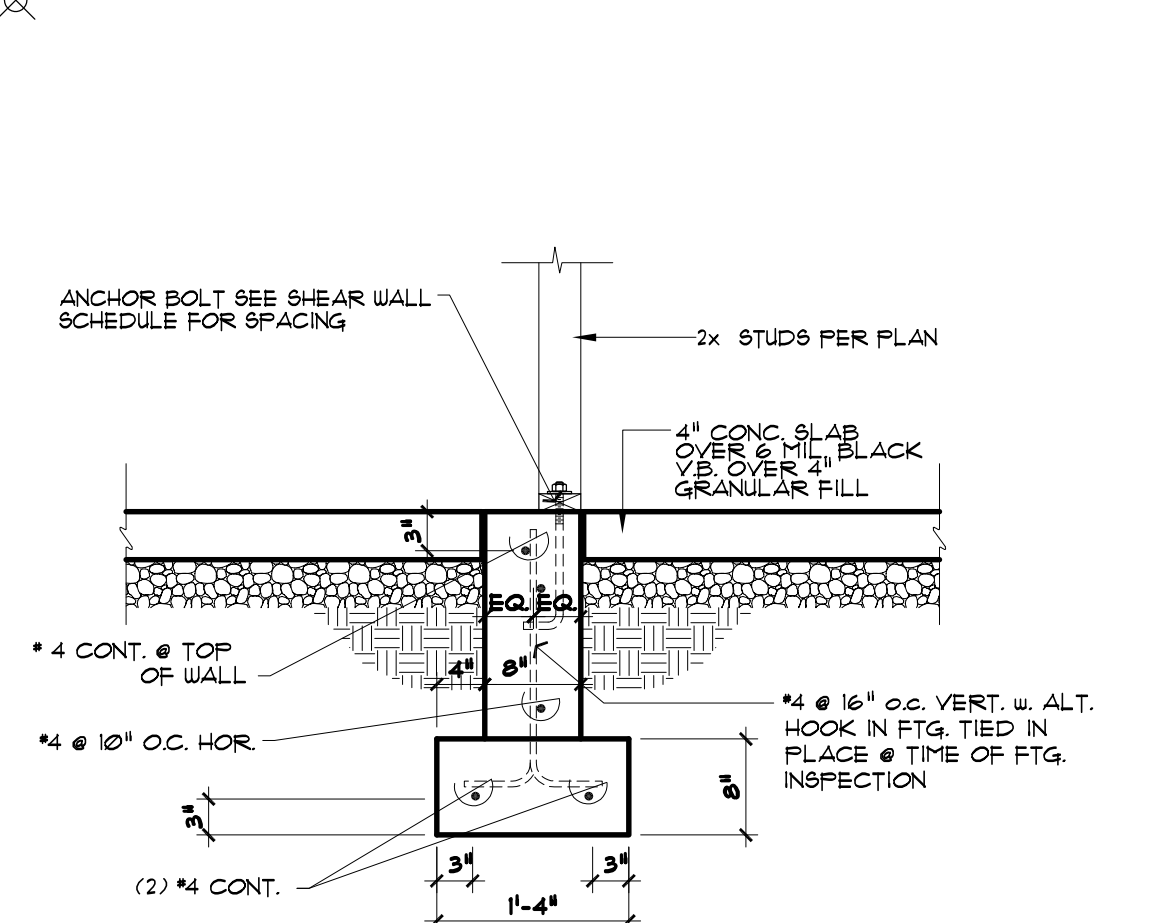
**13 EXT. FND WALL @ O.H. DOOR**  
 3/4" = 1'-0"



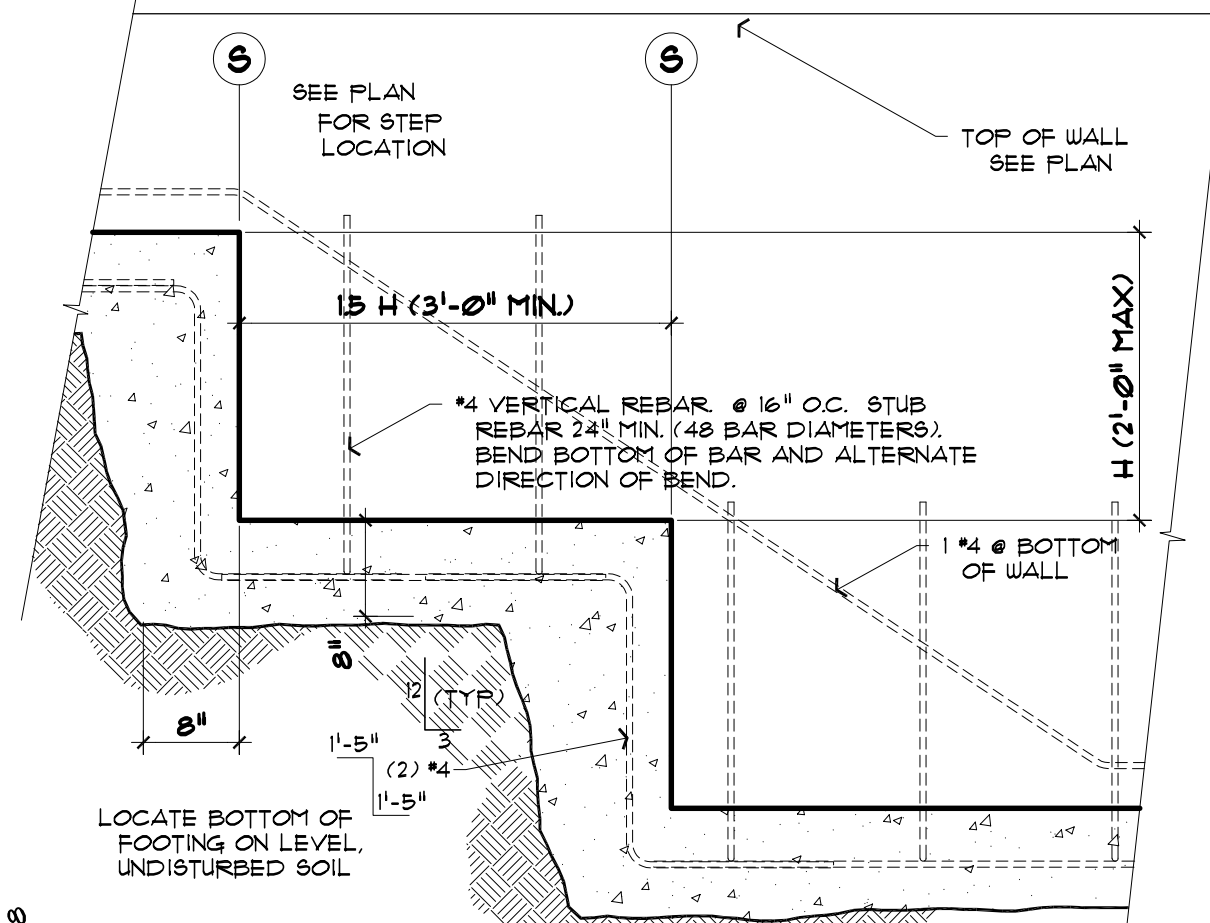
**14 2x6 CRIBWALL ON CONT. SPREAD FTG.**  
 JOISTS PERP. TO WALL - BRG WALL ABOVE 3/4" = 1'-0"



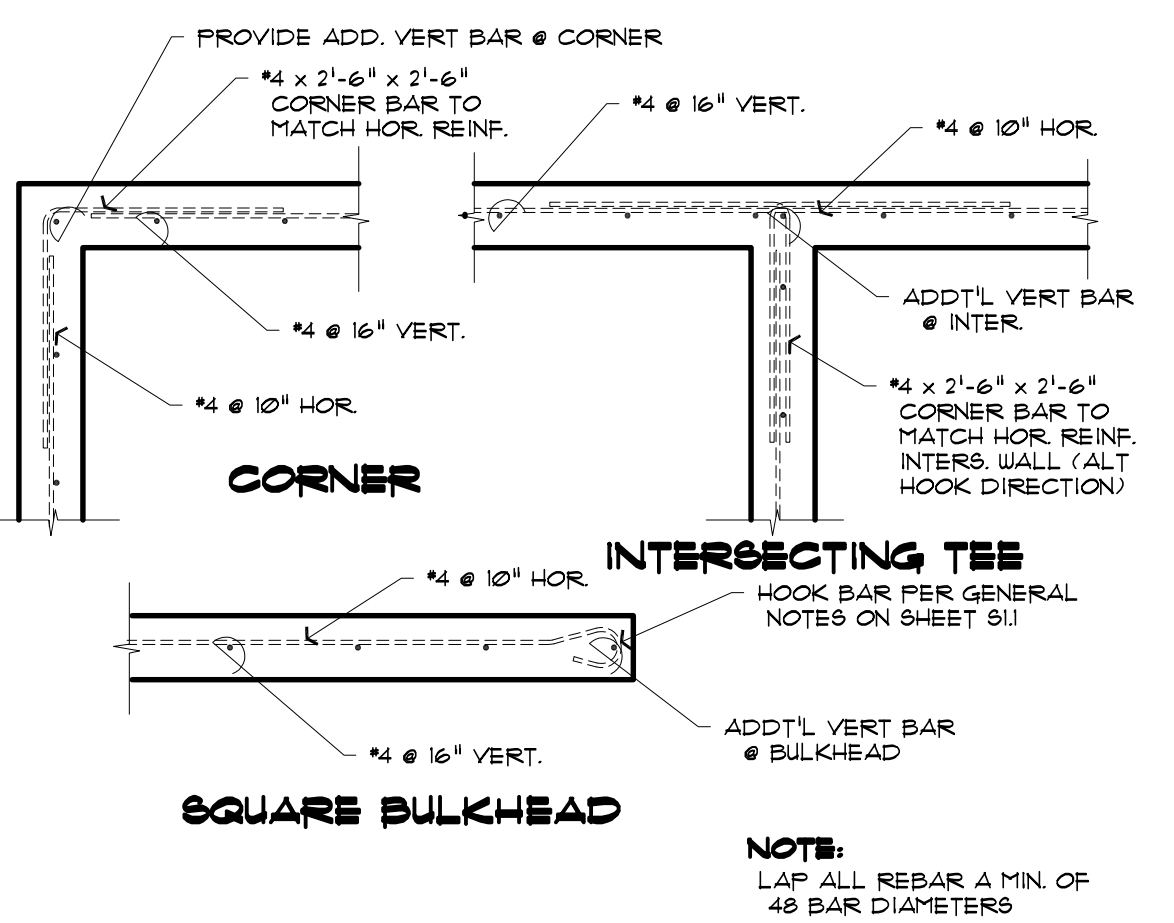
**15 SHEARWALL TO STEMWALL NAIL'G**  
 SHEARWALL ON EXT STEMWALL @ GARAGE SLAB 1 1/2" = 1'-0"



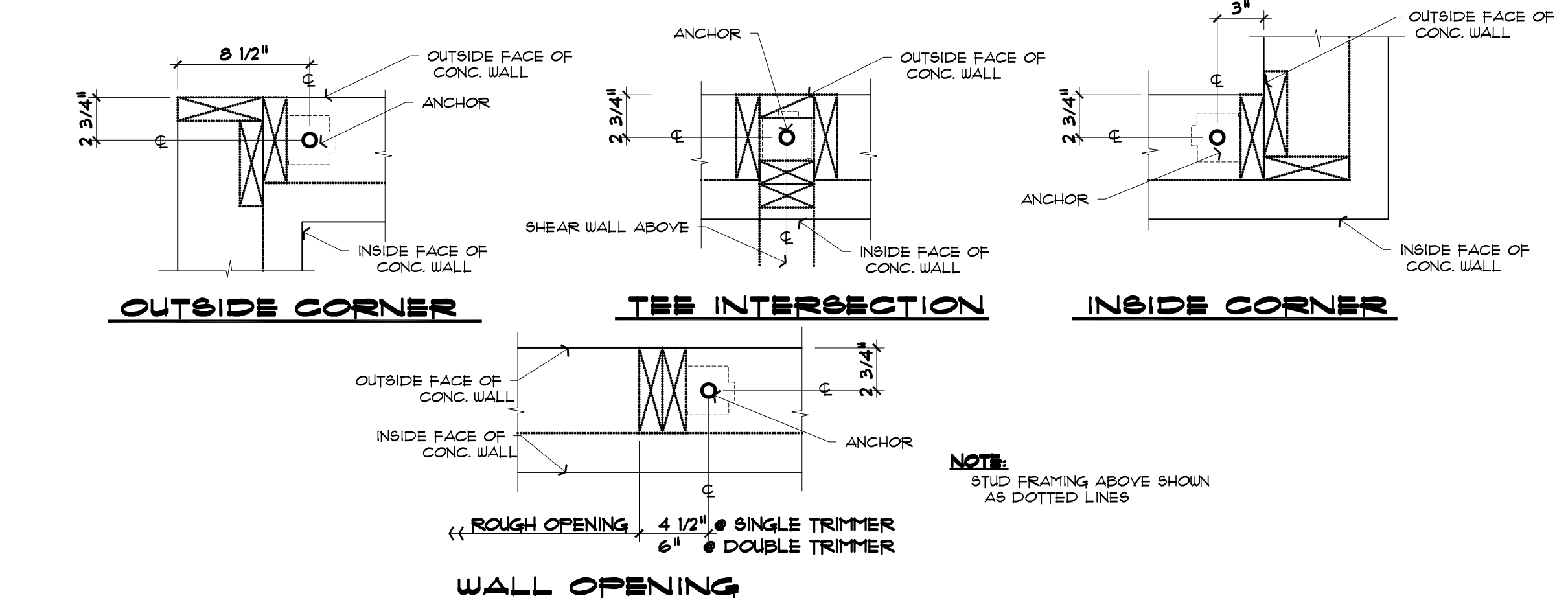
**16 INTERIOR STEM WALL**  
 SHEARWALL OVER INTERIOR STEM WALL 3/4" = 1'-0"



**17 TYP MULTI-STEPPED FOOTING**  
 3/4" = 1'-0"

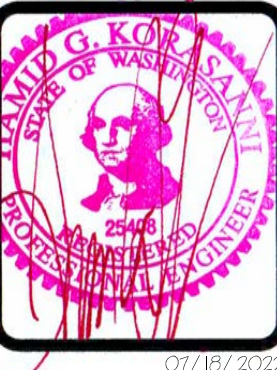


**18 TYPICAL REINFORCEMENT DETAILS**  
 1/2" = 1'-0"



**19 ALL-THREAD ANCHOR PLACEMENT @ TYPICAL LOCATIONS**  
 1 1/2" = 1'-0"

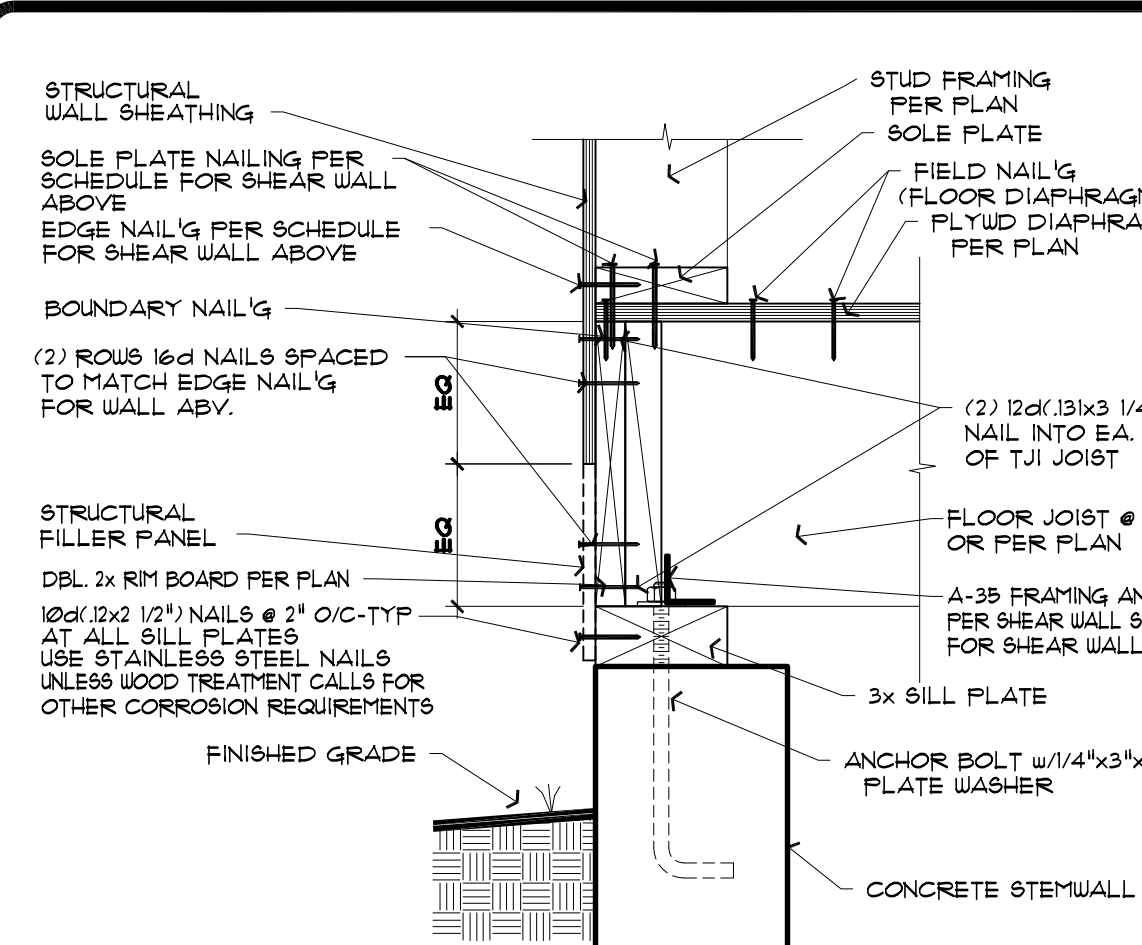
Revisions  
 CLIENT REVISION / CITY CORRECTION  
 1/11/2024  
 Draw: [ ] PSF Checked: [ ]  
 Date: JULY 18, 2022  
 Sheet: **S3.1**  
 Scale: 1/4" = 1'-0"



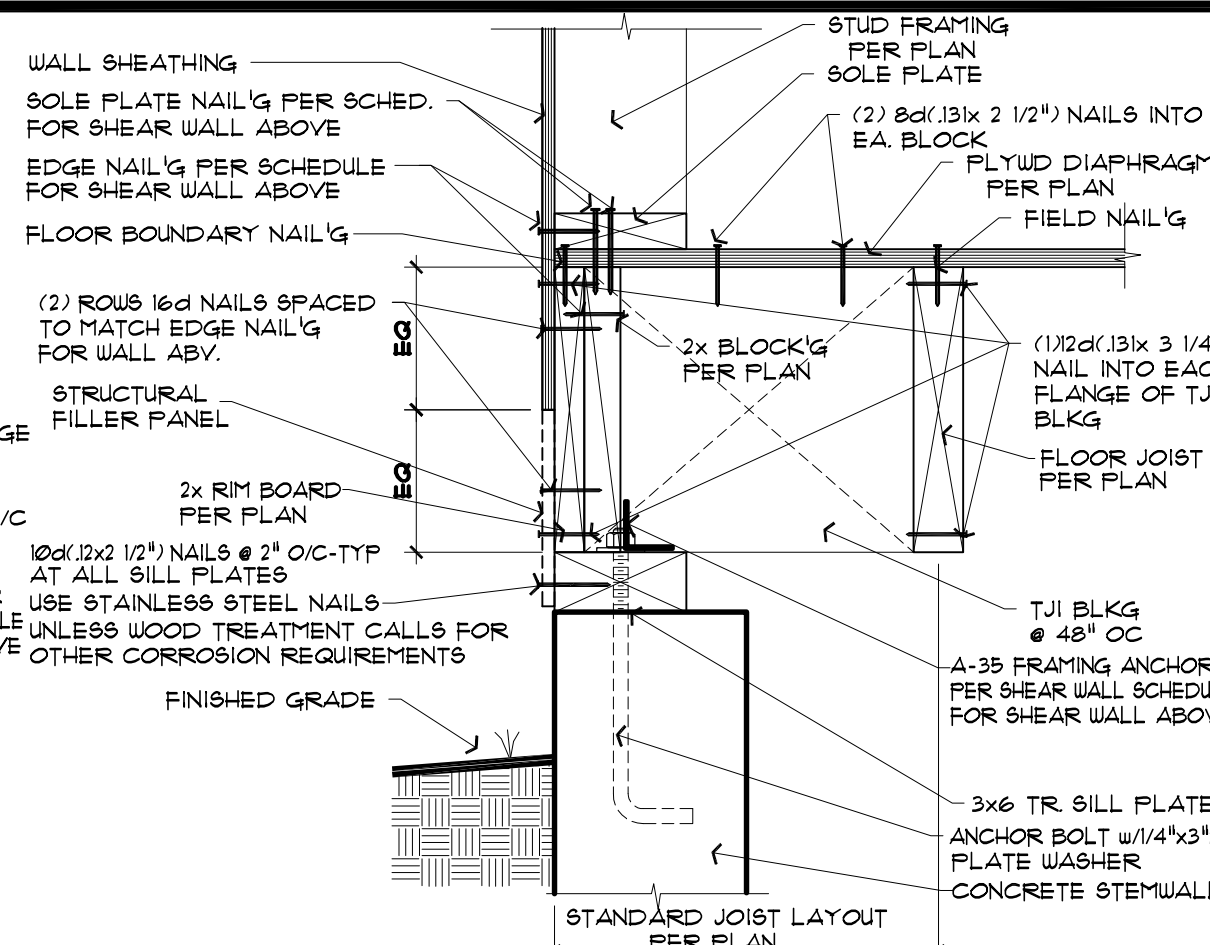
**SAZEI DESIGN GROUP, LLC**  
 6008 110TH AVE. N.E.  
 KIRKLAND, WA, 98033  
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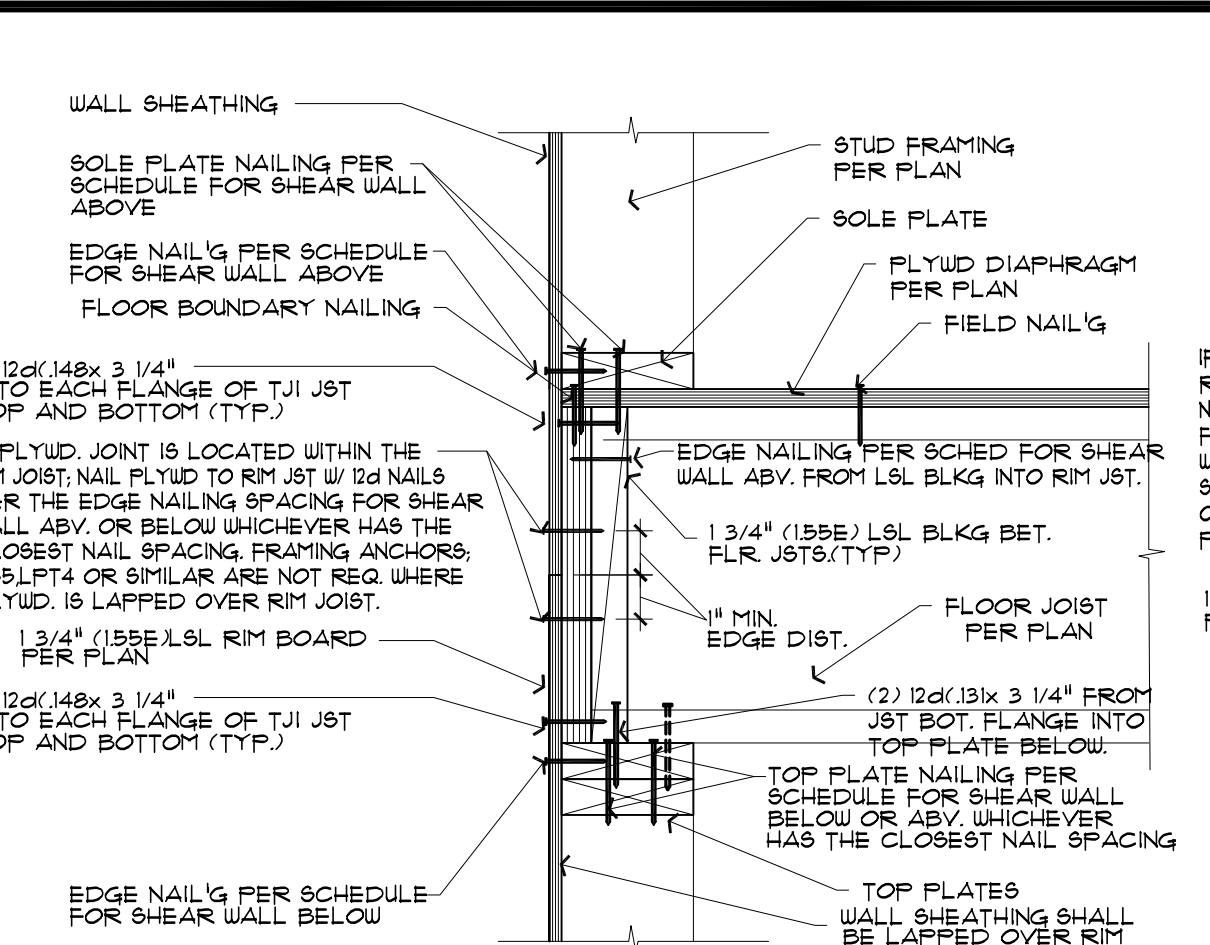
Structural Details



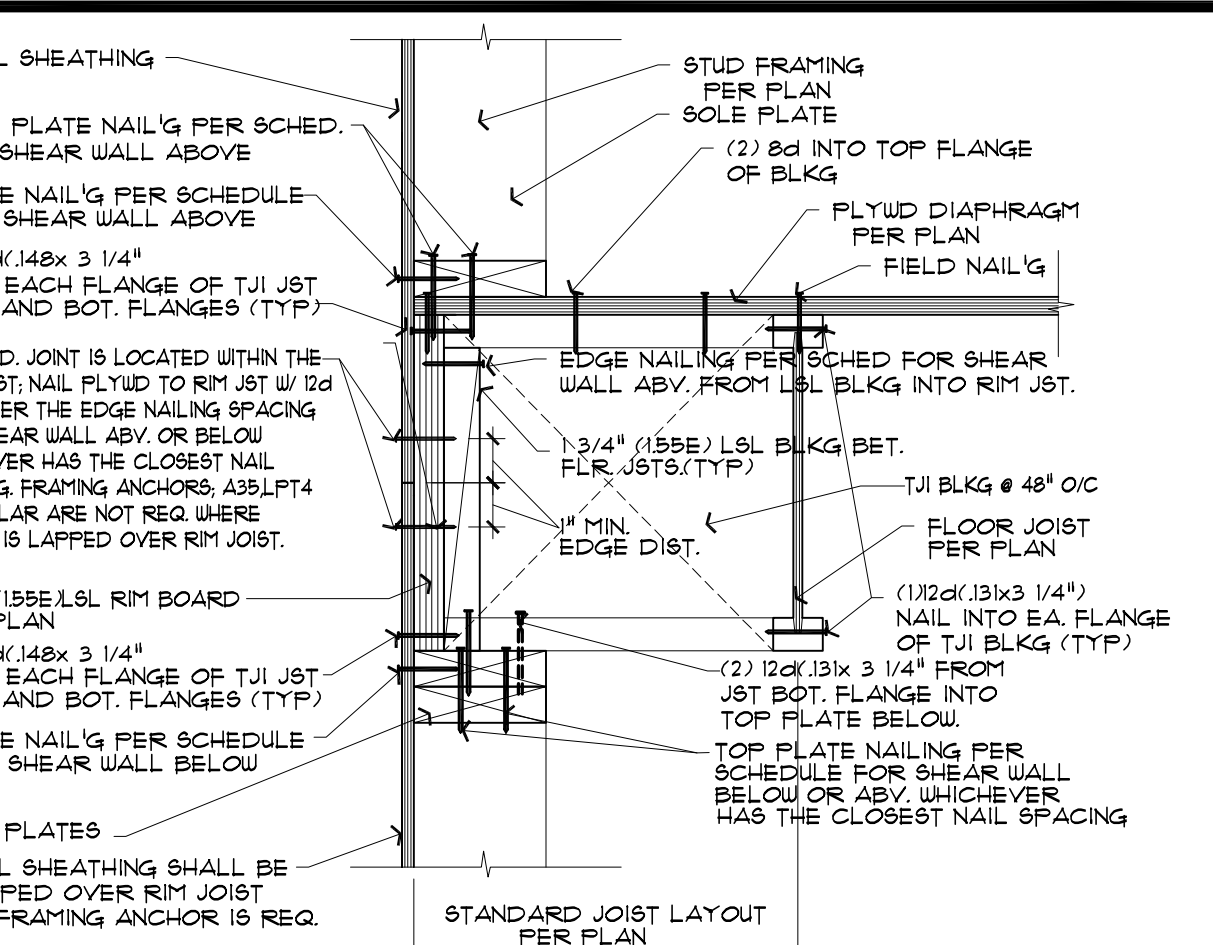
**1** DIAPHRAGM @ EXTERIOR STEMWALL  
 632 FLOOR JOISTS PERPENDICULAR TO WALL 1 1/2" = 1'-0"



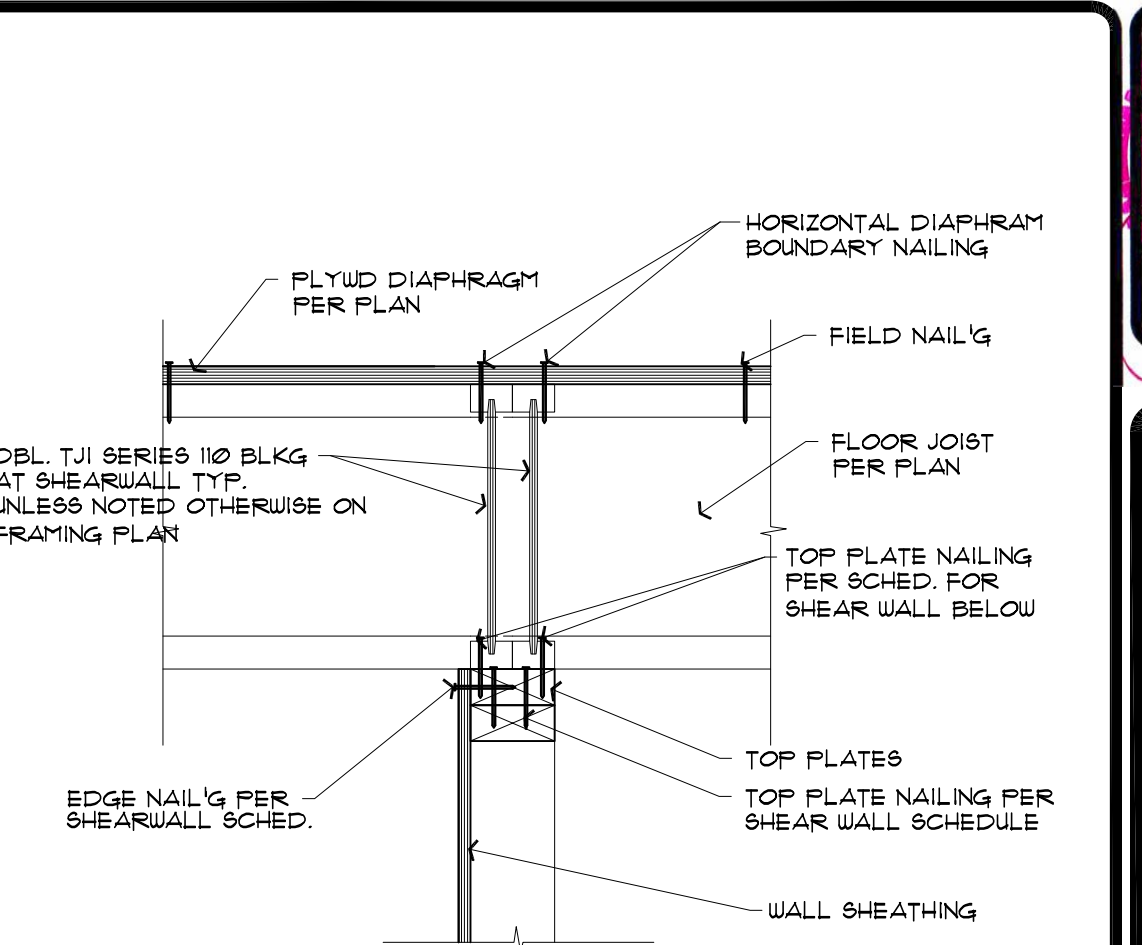
**2** DIAPHRAGM @ EXTERIOR STEMWALL  
 632 FLOOR JOISTS PARALLEL TO WALL 1 1/2" = 1'-0"



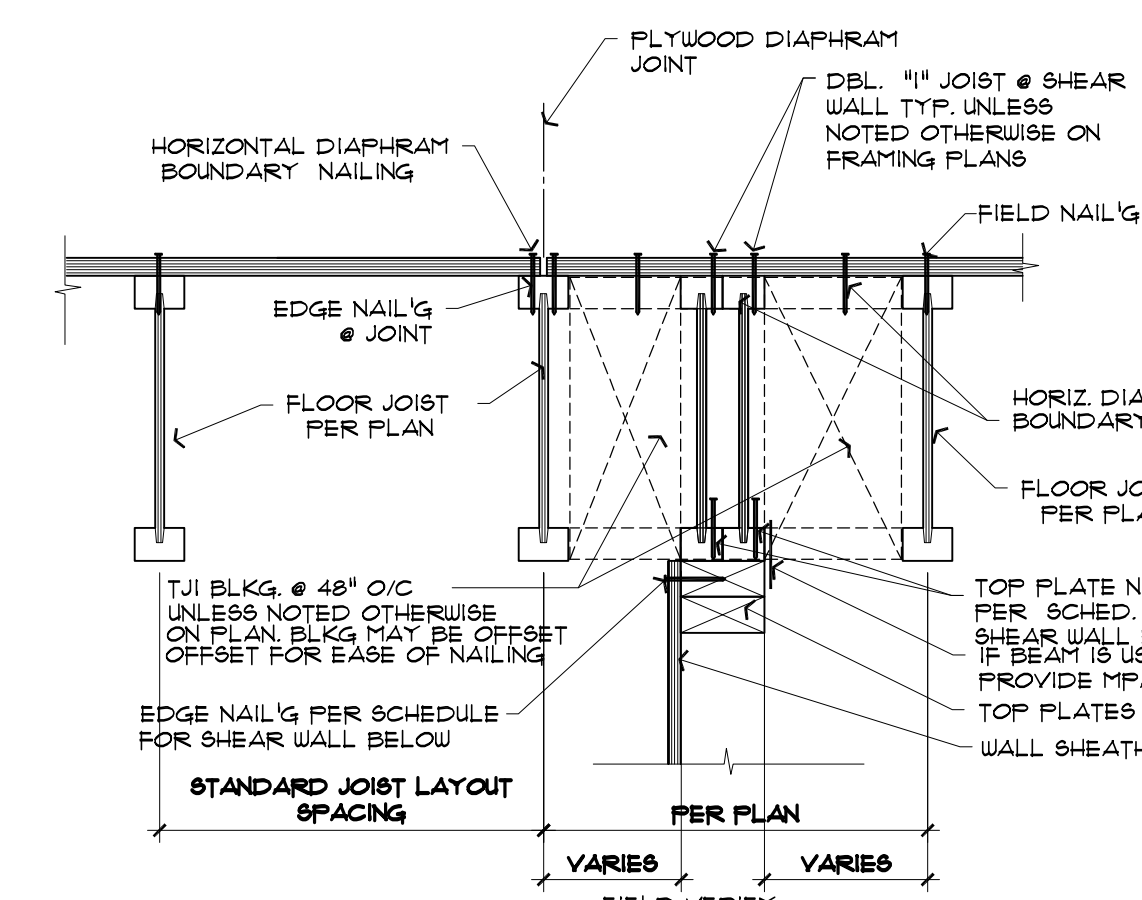
**3** DIAPHRAGM @ EXTERIOR SHEARWALL  
 632 FLOOR JOISTS PERPENDICULAR TO WALL 1 1/2" = 1'-0"



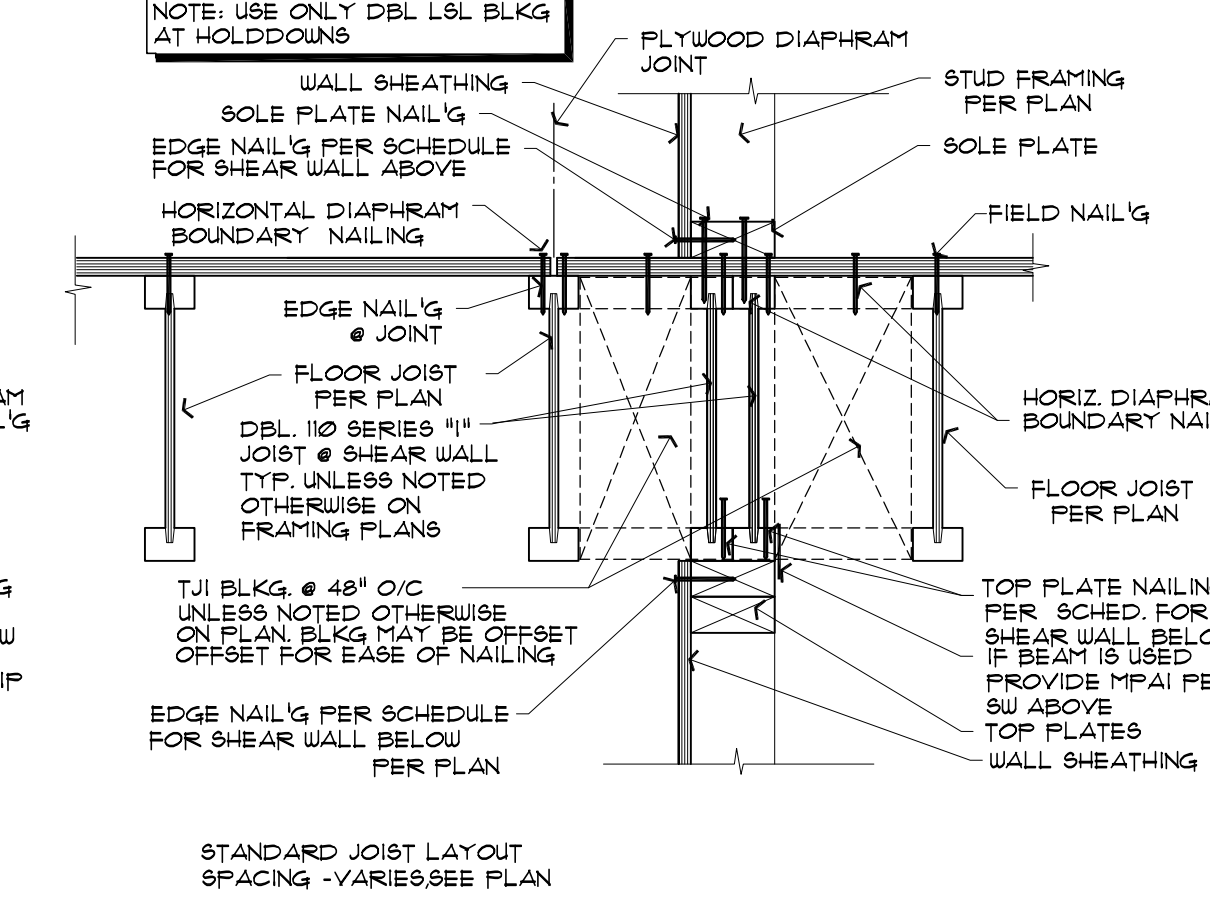
**4** DIAPHRAGM @ EXTERIOR SHEARWALL  
 632 FLOOR JOISTS PARALLEL TO WALL 1 1/2" = 1'-0"



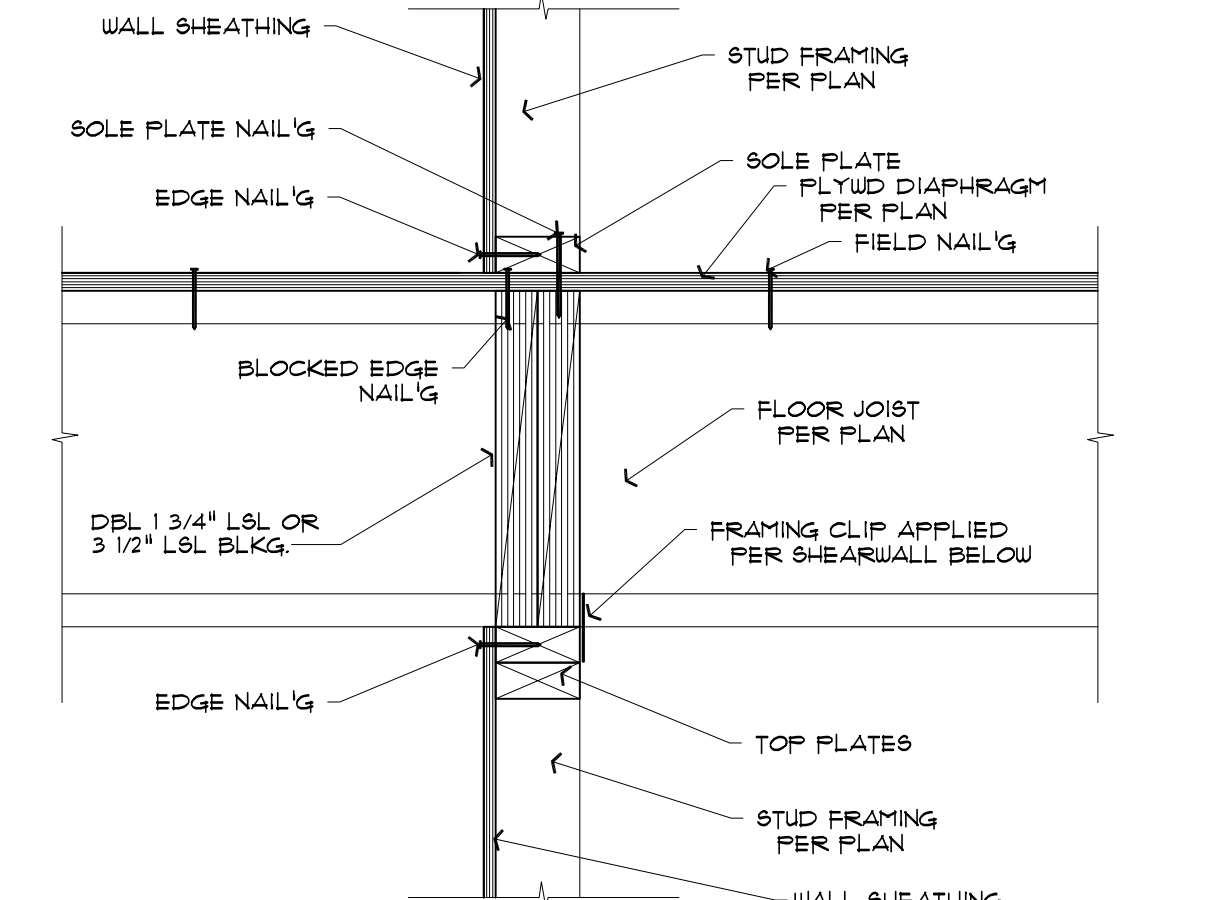
**5** DIAPHRAGM @ INT. SHEARWALL BELOW  
 632 FLOOR JOISTS PERPENDICULAR TO WALL 1 1/2" = 1'-0"



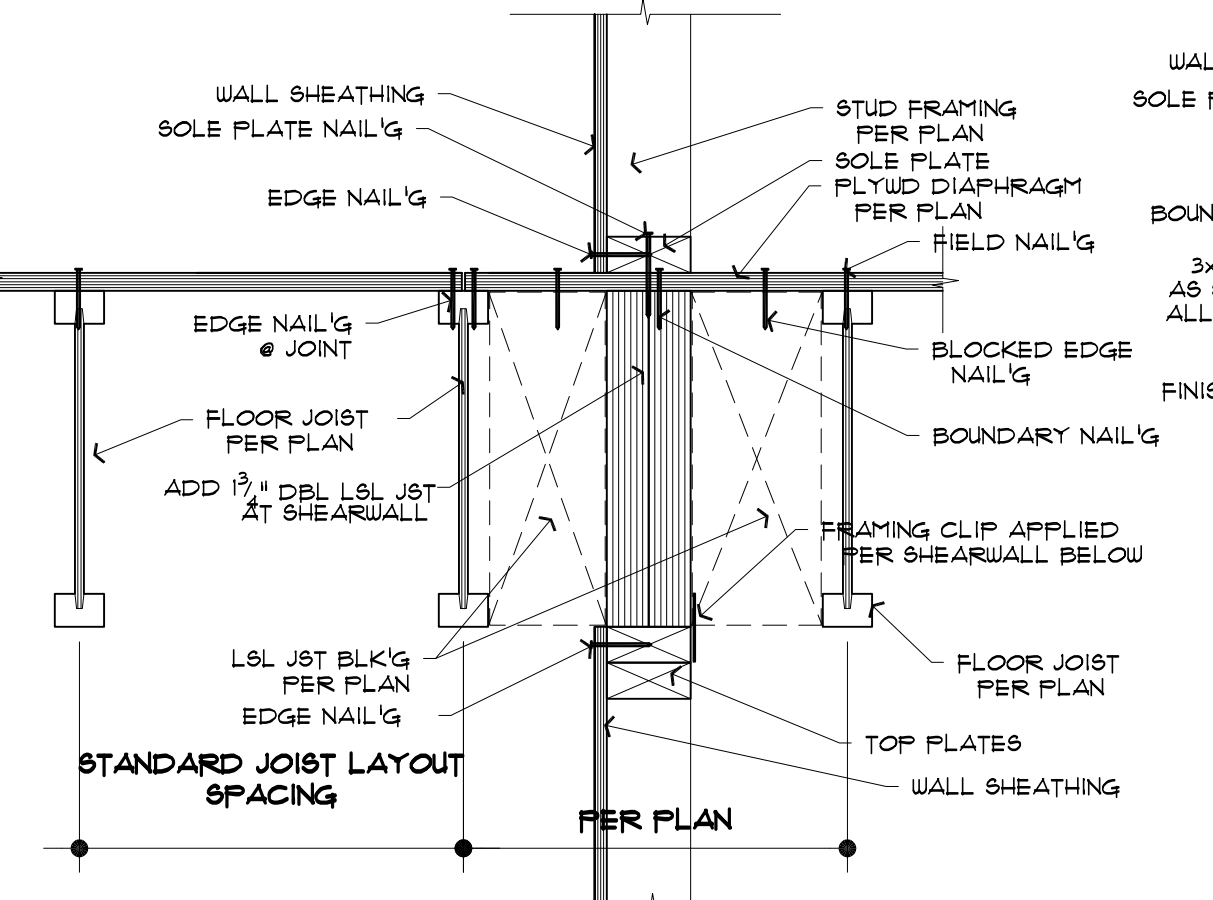
**6** DIAPHRAGM @ INT. SHEARWALL BELOW  
 632 FLOOR JOISTS PARALLEL TO WALL 1 1/2" = 1'-0"



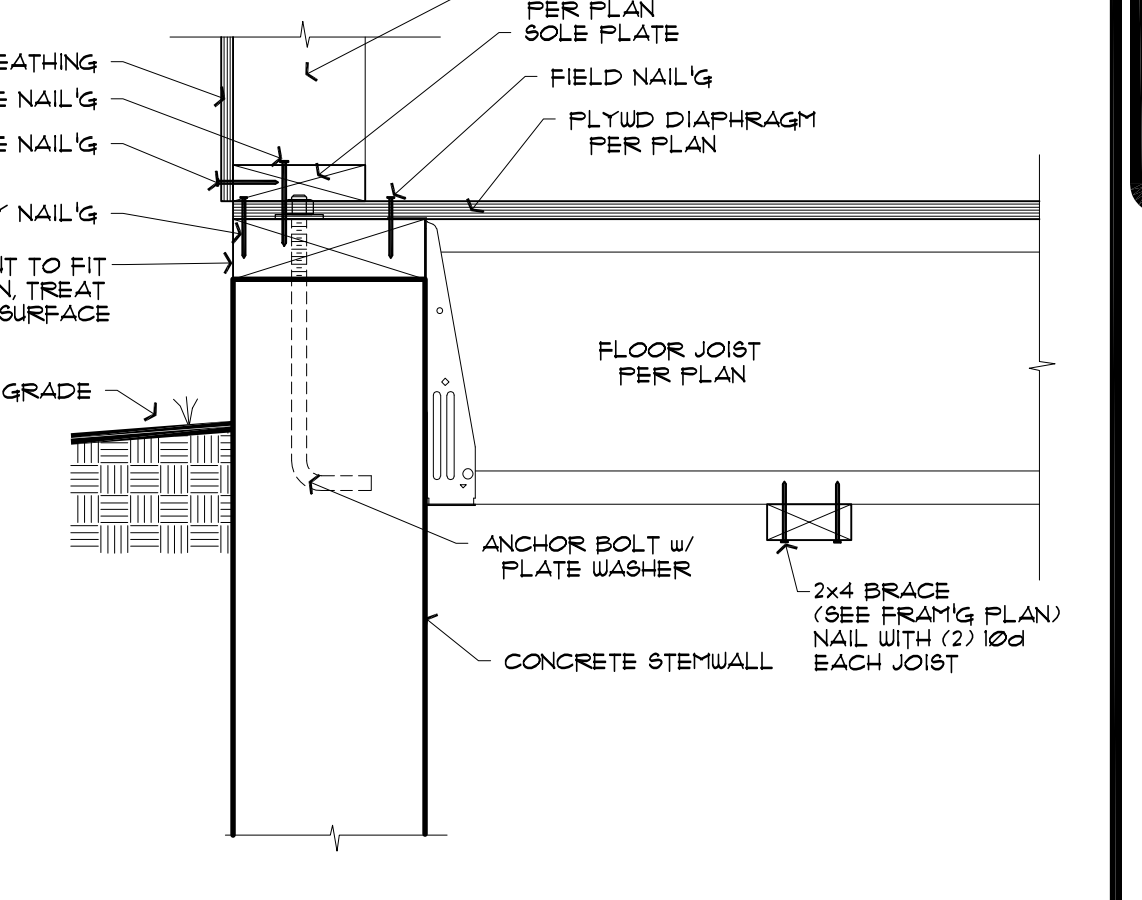
**7** DIA. @ INT. SHEARWALL ABV. & BEL.  
 632 FLOOR JOISTS PARALLEL TO WALL 1 1/2" = 1'-0"



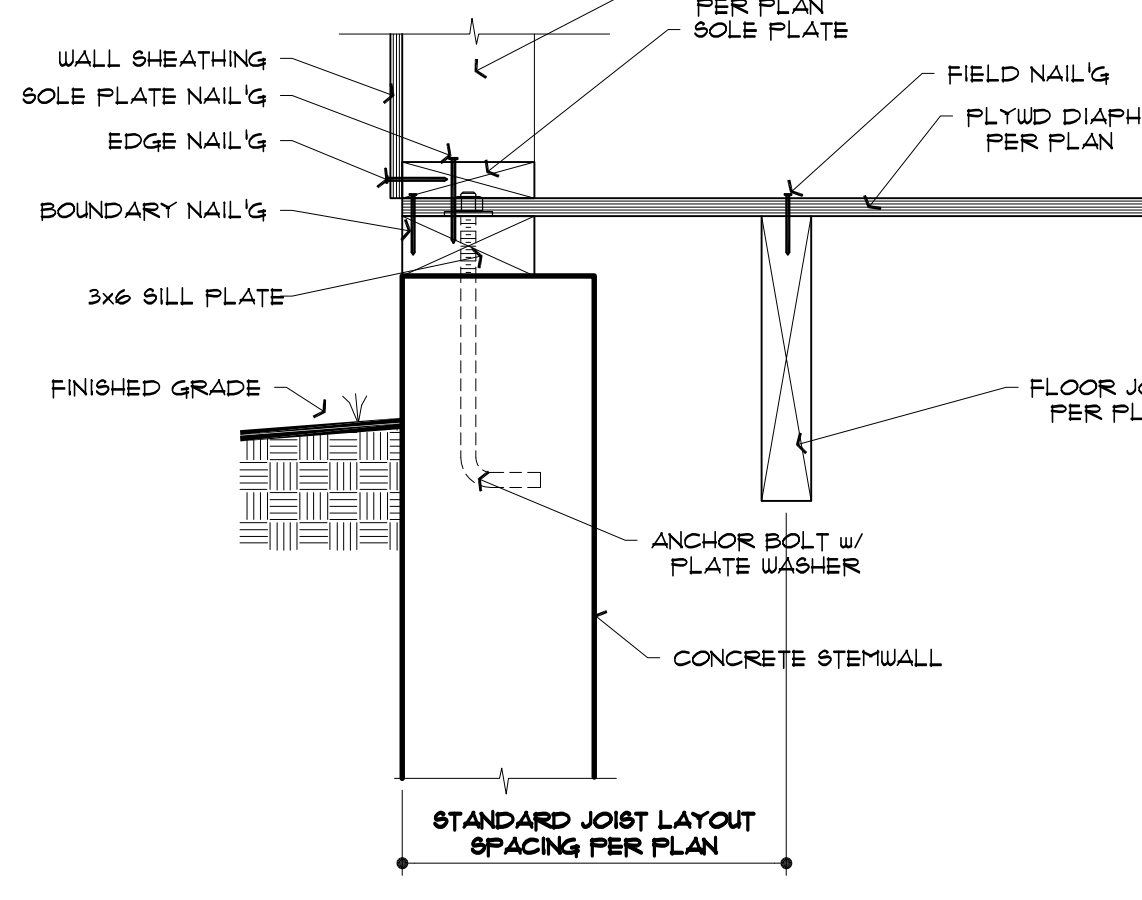
**8** DIAPHRAGM @ INTERIOR SHEARWALL  
 632 FLOOR JOISTS PERPENDICULAR TO WALL 1 1/2" = 1'-0"



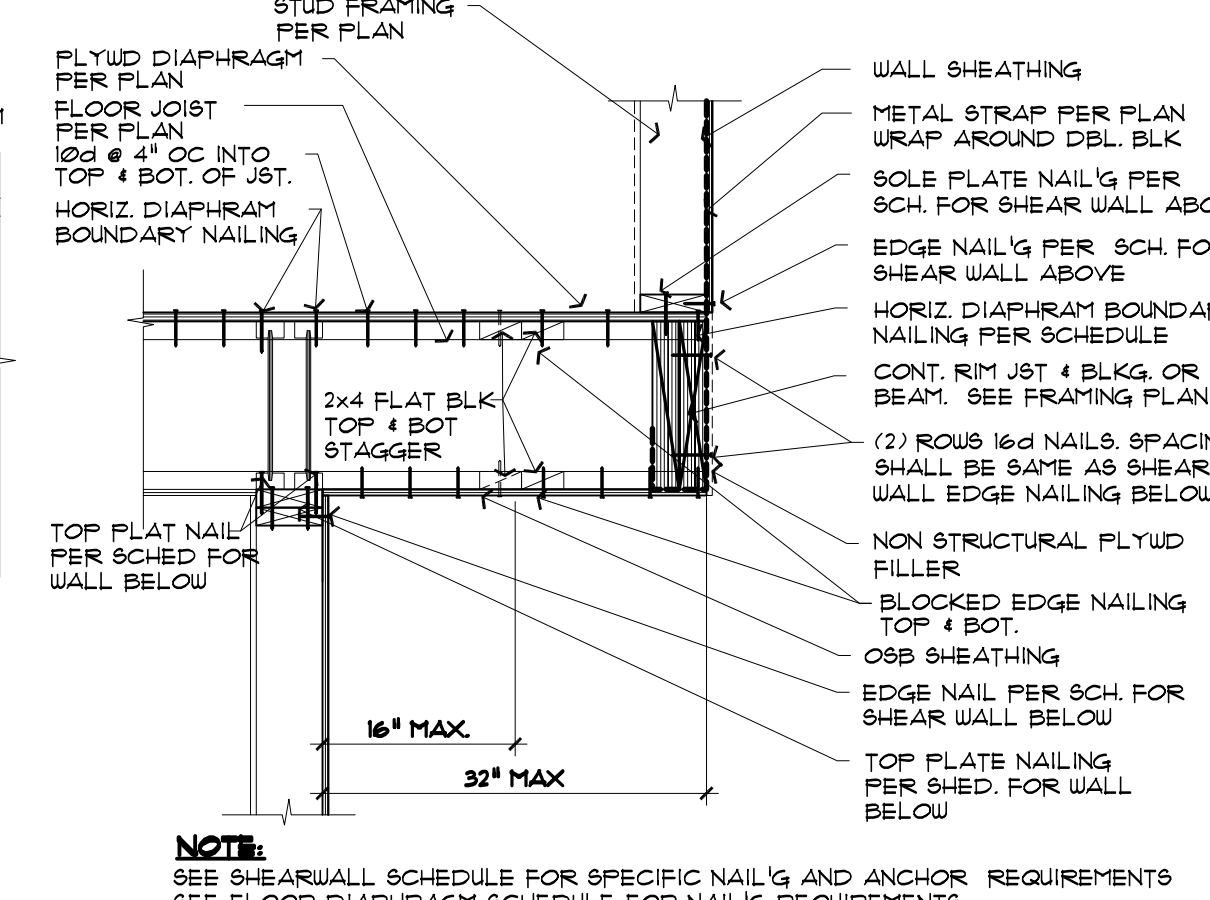
**9** DIAPHRAGM @ INTERIOR SHEARWALL  
 632 FLOOR JOISTS PARALLEL TO WALL 1 1/2" = 1'-0"



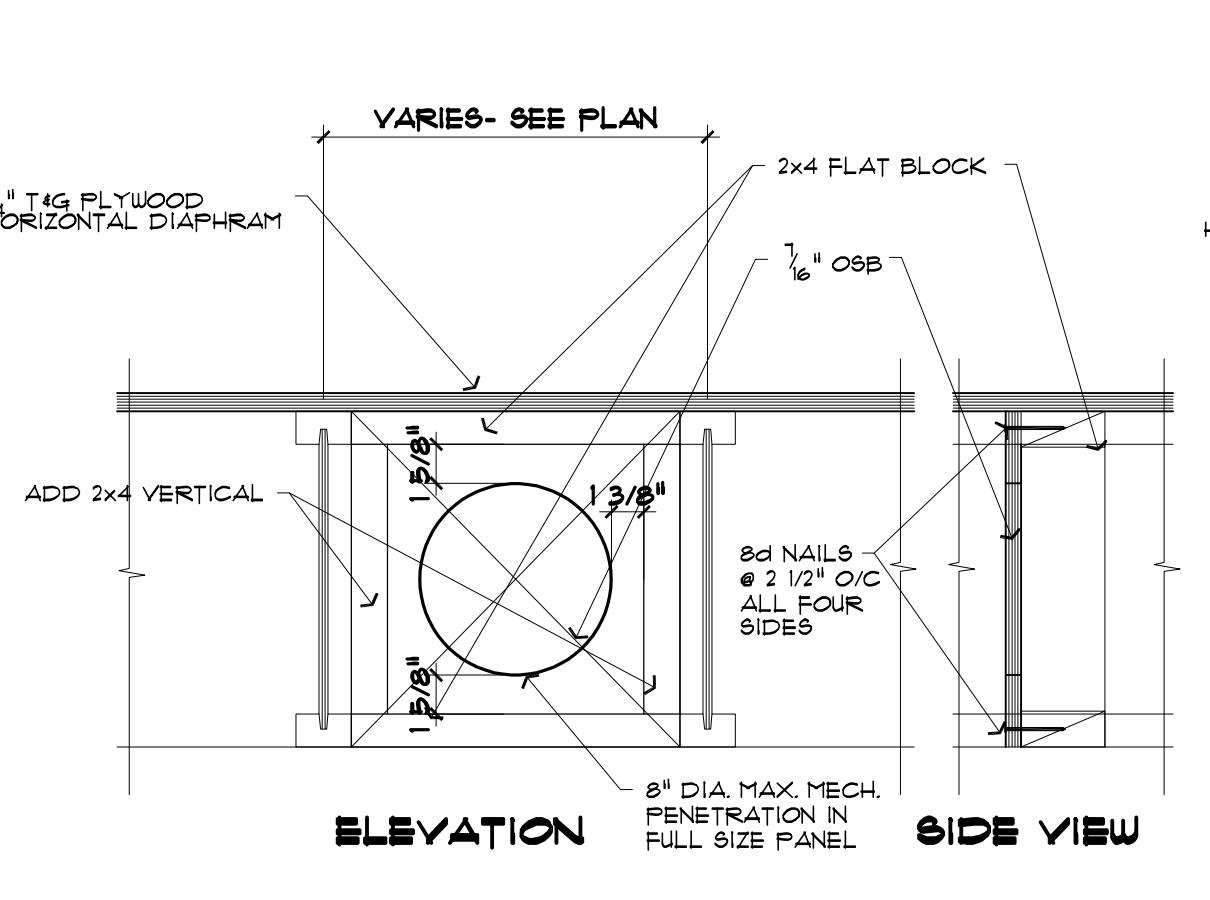
**10** DIAPHRAGM @ EXTERIOR STEMWALL  
 632 FLOOR JOISTS PERPENDICULAR TO WALL 1 1/2" = 1'-0"



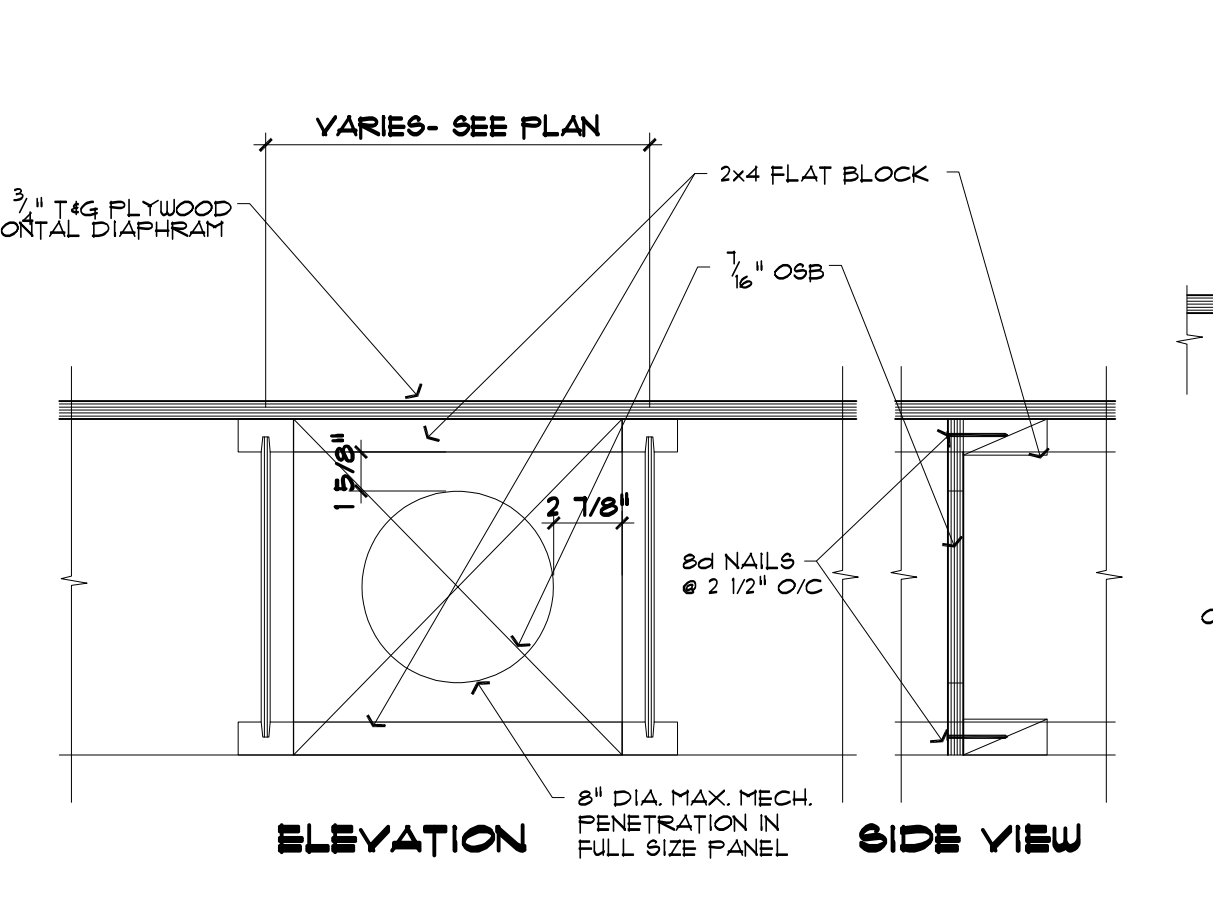
**11** DIAPHRAGM @ EXTERIOR STEMWALL  
 632 FLOOR JOISTS PARALLEL TO WALL 1 1/2" = 1'-0"



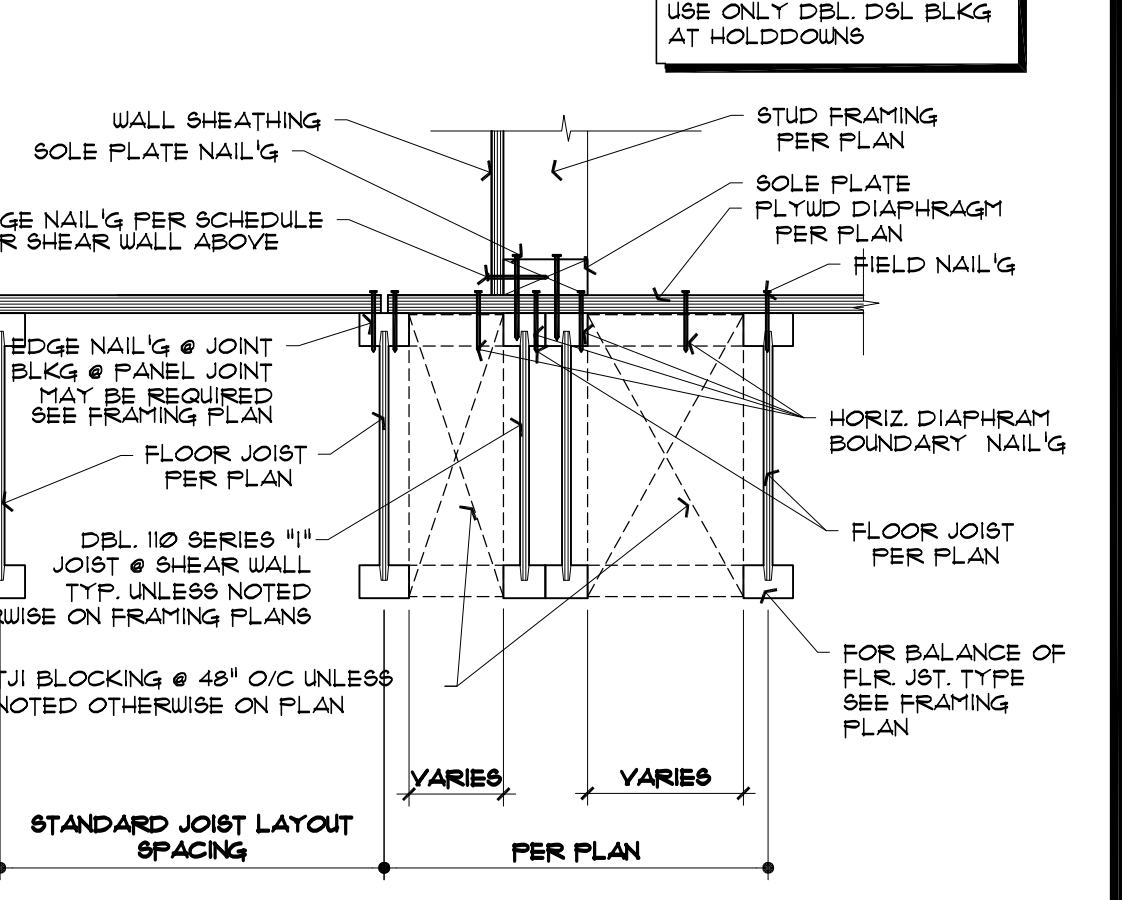
**12** DIAPHRAGM @ OVERHANG SHEARWALL  
 632 JOISTS PERPENDICULAR TO SHEARWALL 3/4" = 1'-0"



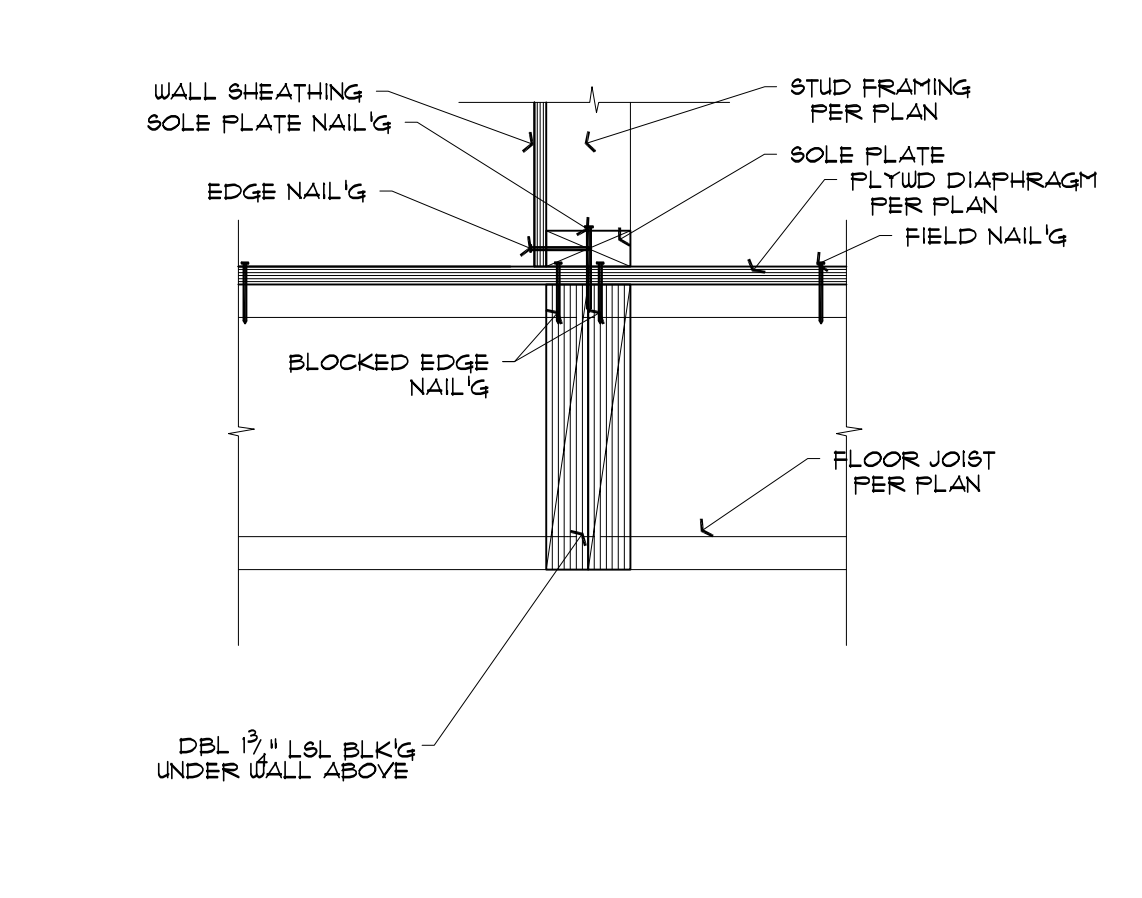
**13** PRE-FAB BLOCKING PANEL A  
 632 AT SHEAR OR BEARING WALL LOCATION 1 1/2" = 1'-0"



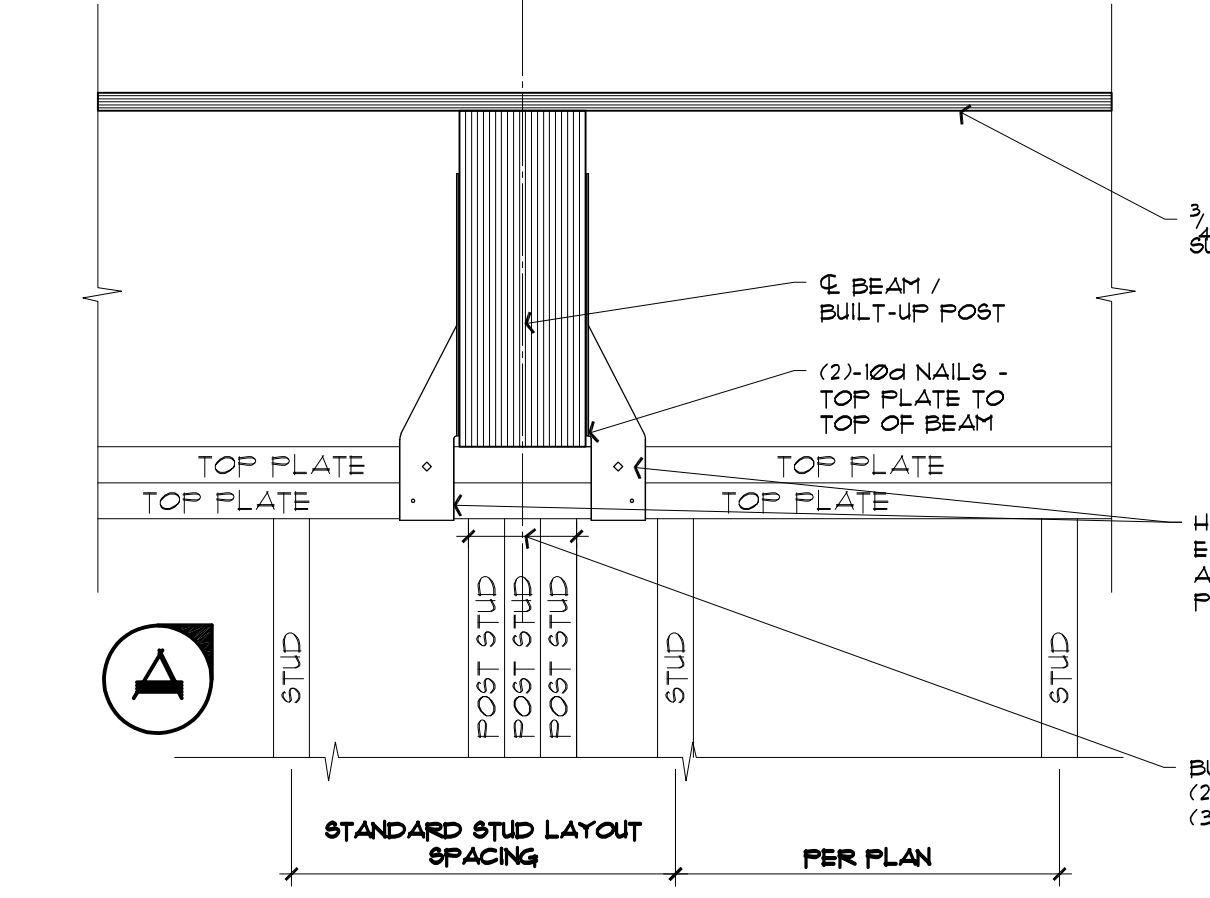
**14** PRE-FAB BLOCKING PANEL B  
 632 1 1/2" = 1'-0"



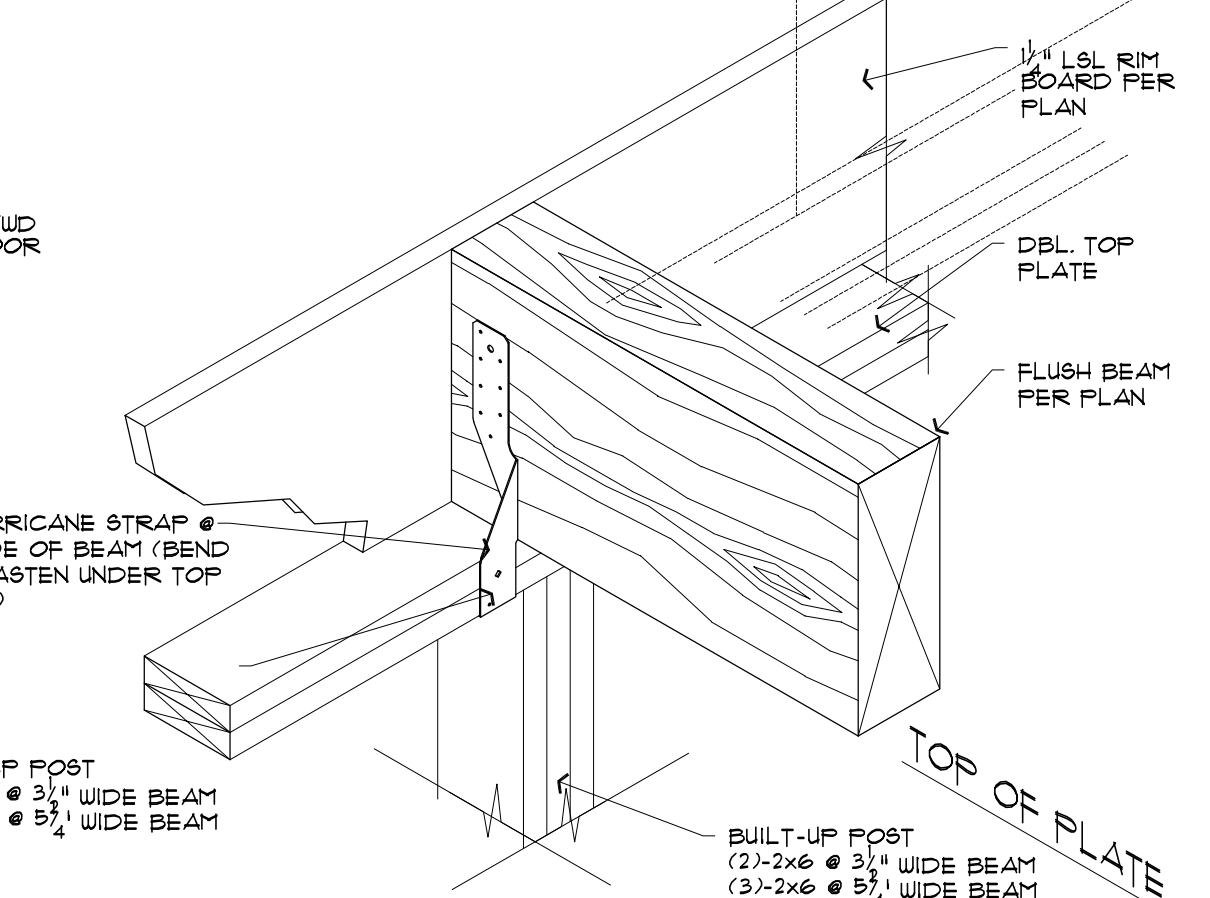
**15** DIAPHRAGM @ INT. SHEARWALL ABOVE  
 632 FLOOR JOISTS PARALLEL TO WALL 1 1/2" = 1'-0"



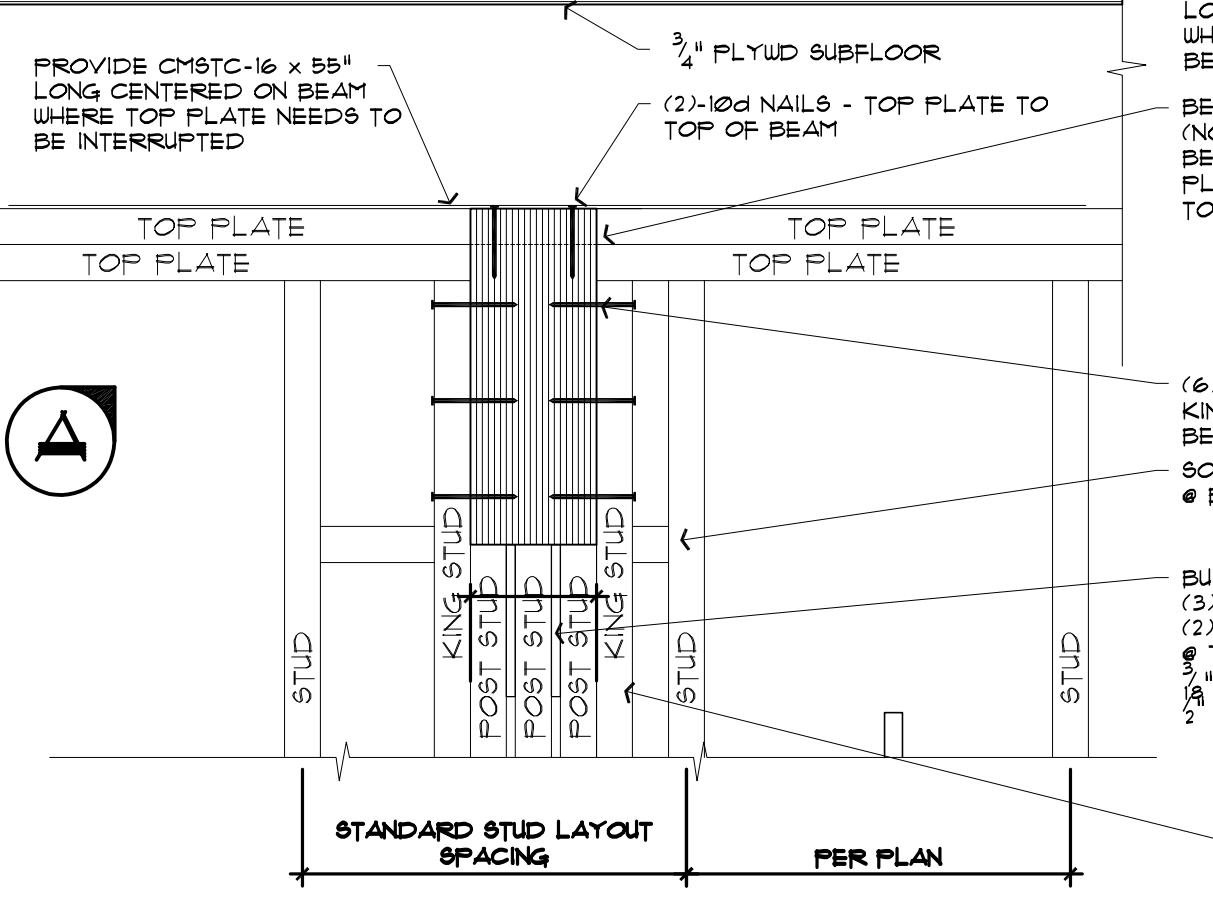
**16** DIAPHRAGM @ INT. SHEARWALL ABOVE  
 632 FLOOR JOISTS PERPENDICULAR TO WALL 1 1/2" = 1'-0"



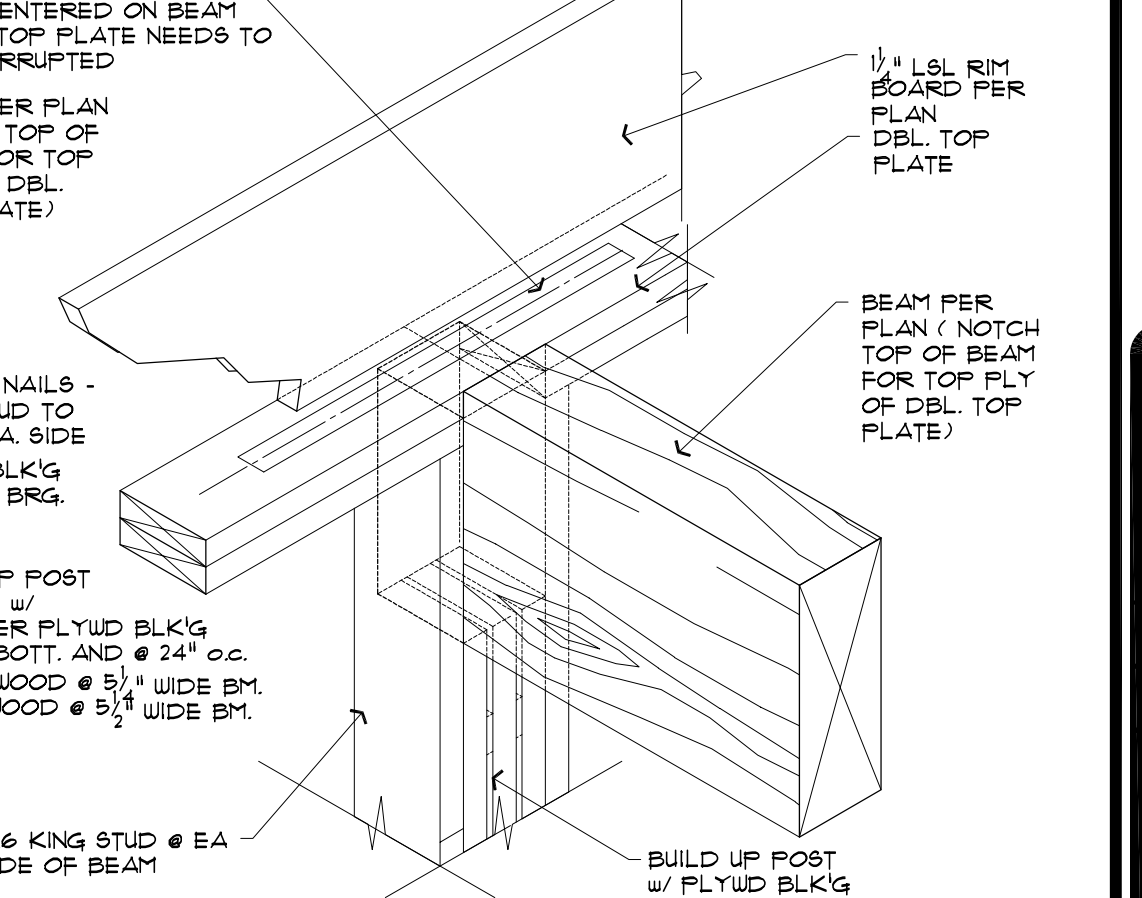
**17** BEAM FRAMING DETAIL @ BEAM TO WALL ASSY.  
 632 TOP OF BEAM FLUSH W/ TOP OF JOIST-BEAM BEARING ON TOP OF PLATE 1 1/2" = 1'-0"



**18** ISOMETRIC  
 632 1 1/2" = 1'-0"



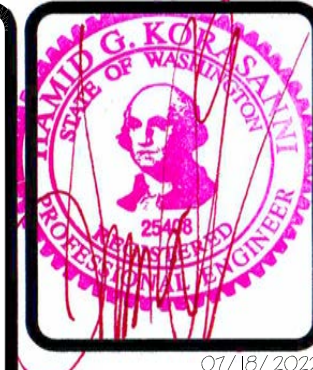
**19** BEAM FRAMING DETAIL @ BEAM TO WALL ASSY.  
 632 TOP OF BEAM FLUSH W/ TOP OF PLATE 1 1/2" = 1'-0"



**20** ISOMETRIC  
 632 1 1/2" = 1'-0"

Revisions  
 CLIENT REVISION / CITY CORRECTION 1/11/2024  
 Drawn by DSF Checked  
 Date JULY 10, 2022  
 Sheet  
**S3.2**  
 Scale 1/4" = 1'-0"



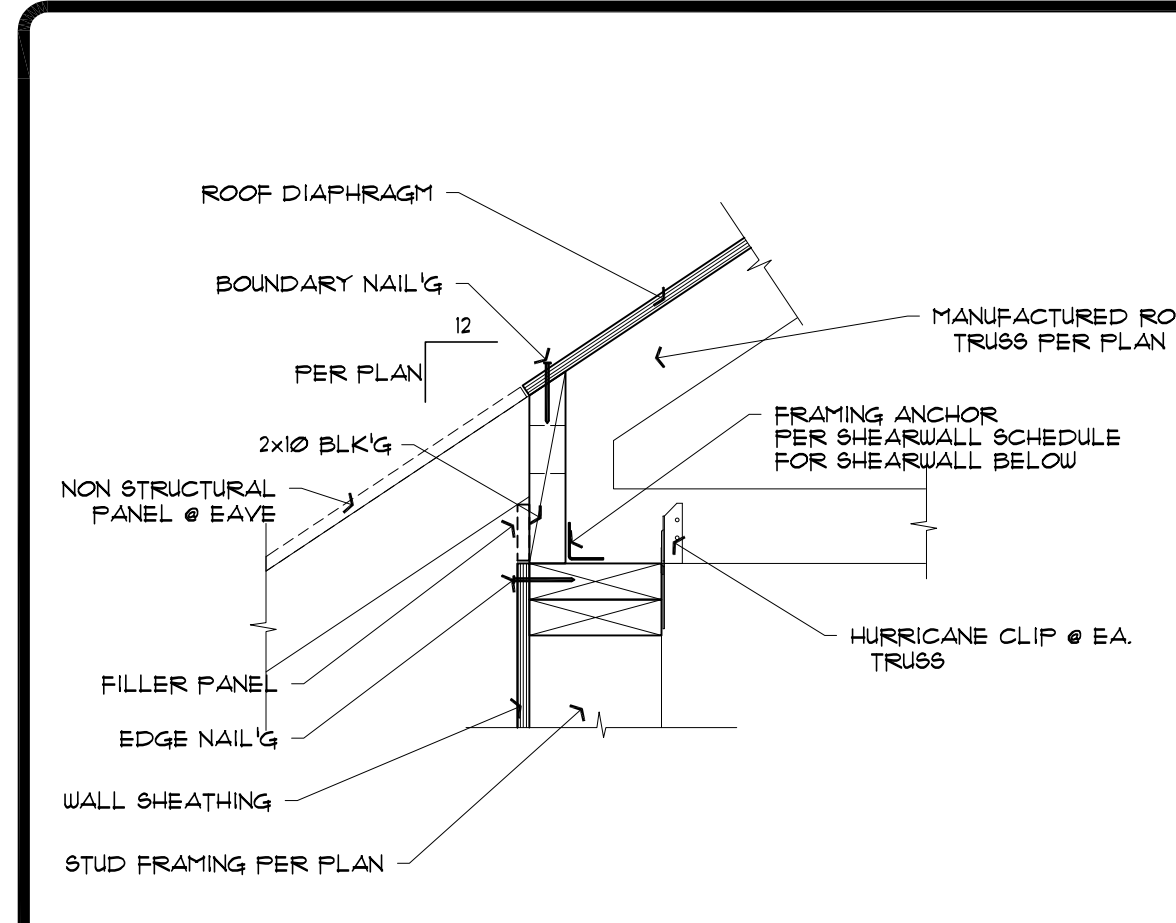


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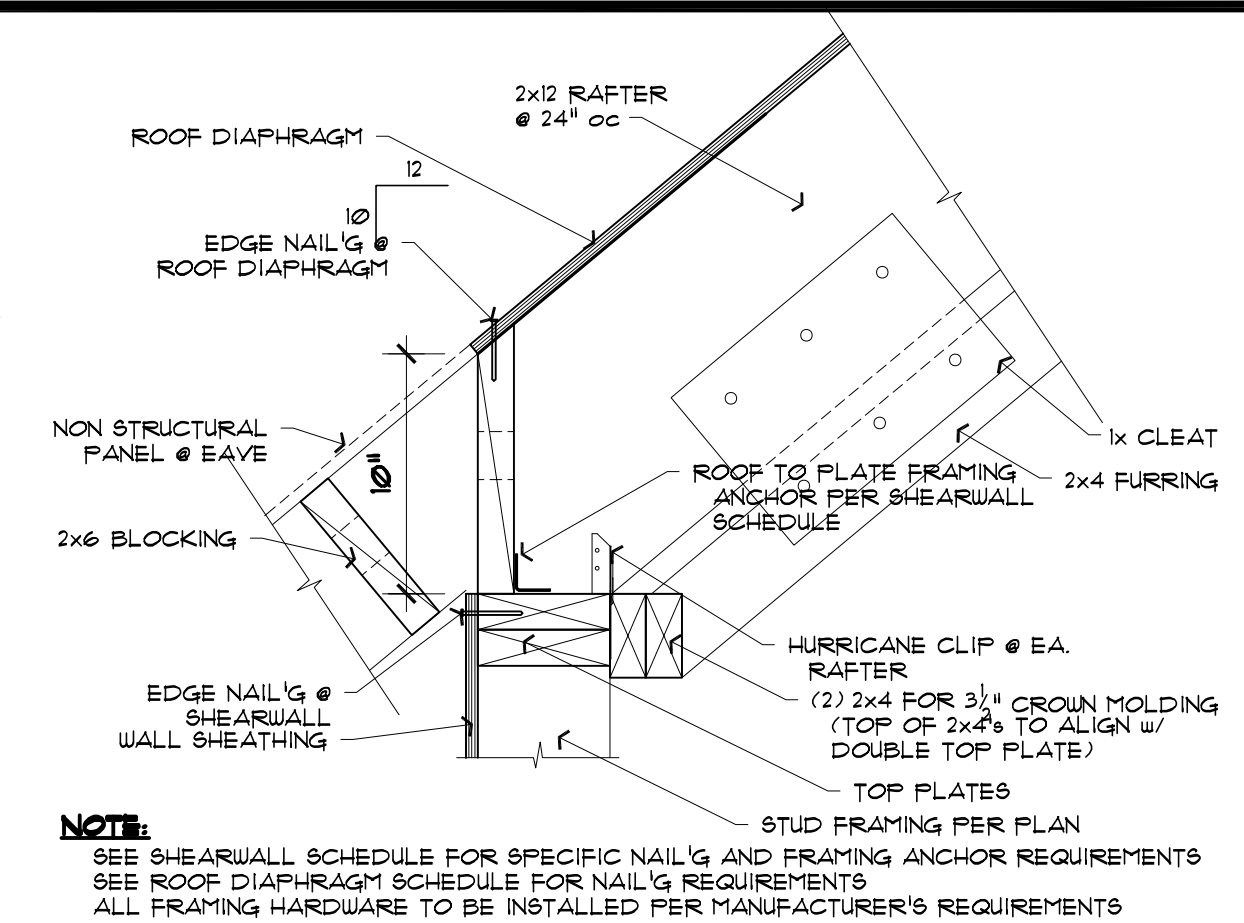
**KAHN RESIDENCE**  
 4205 85TH AVE SE, MERCER ISLAND, WA 98040

Structural Details

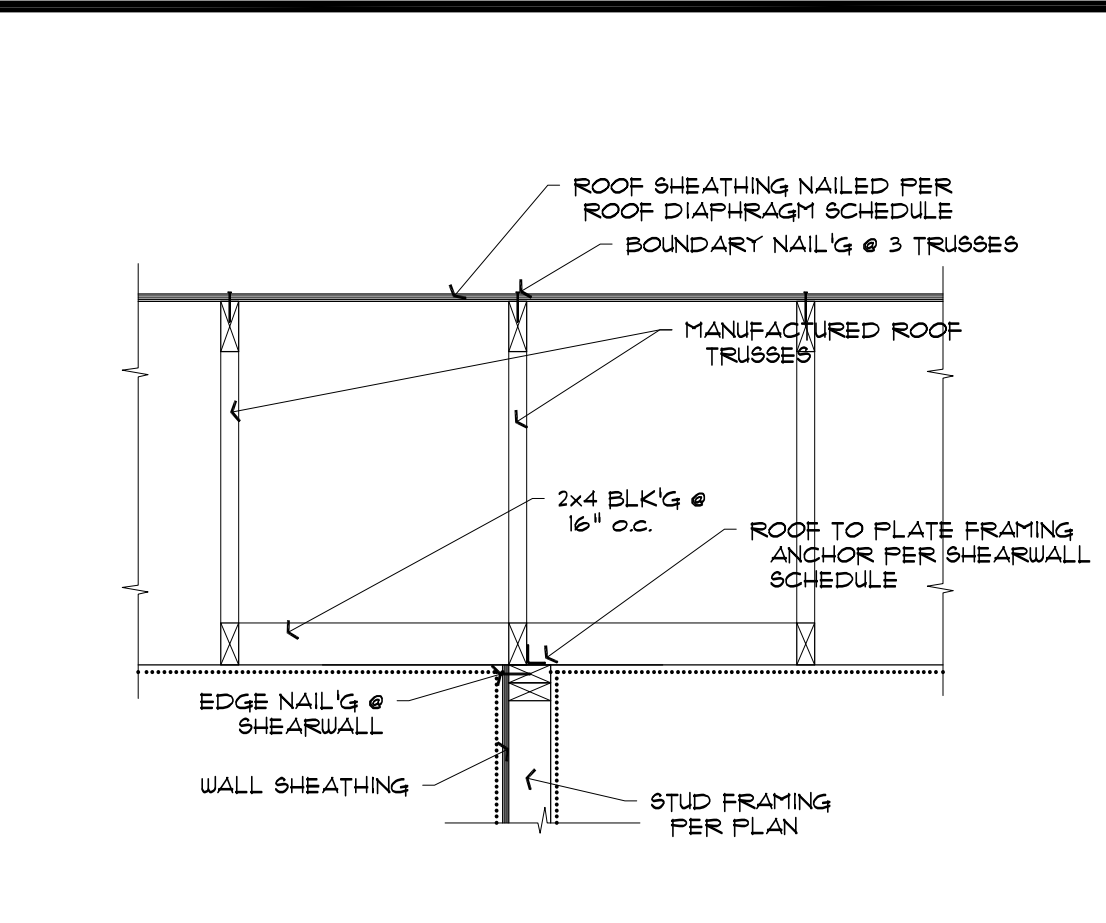
Revisions	CLIENT REVISION / CITY CORRECTION
1	1/11/2024
2	
3	
4	
5	
Drawn	DSF
Checked	
Date	JULY 18, 2022
Sheet	
<b>S3.4</b>	
Scale	1/4" = 1'-0"



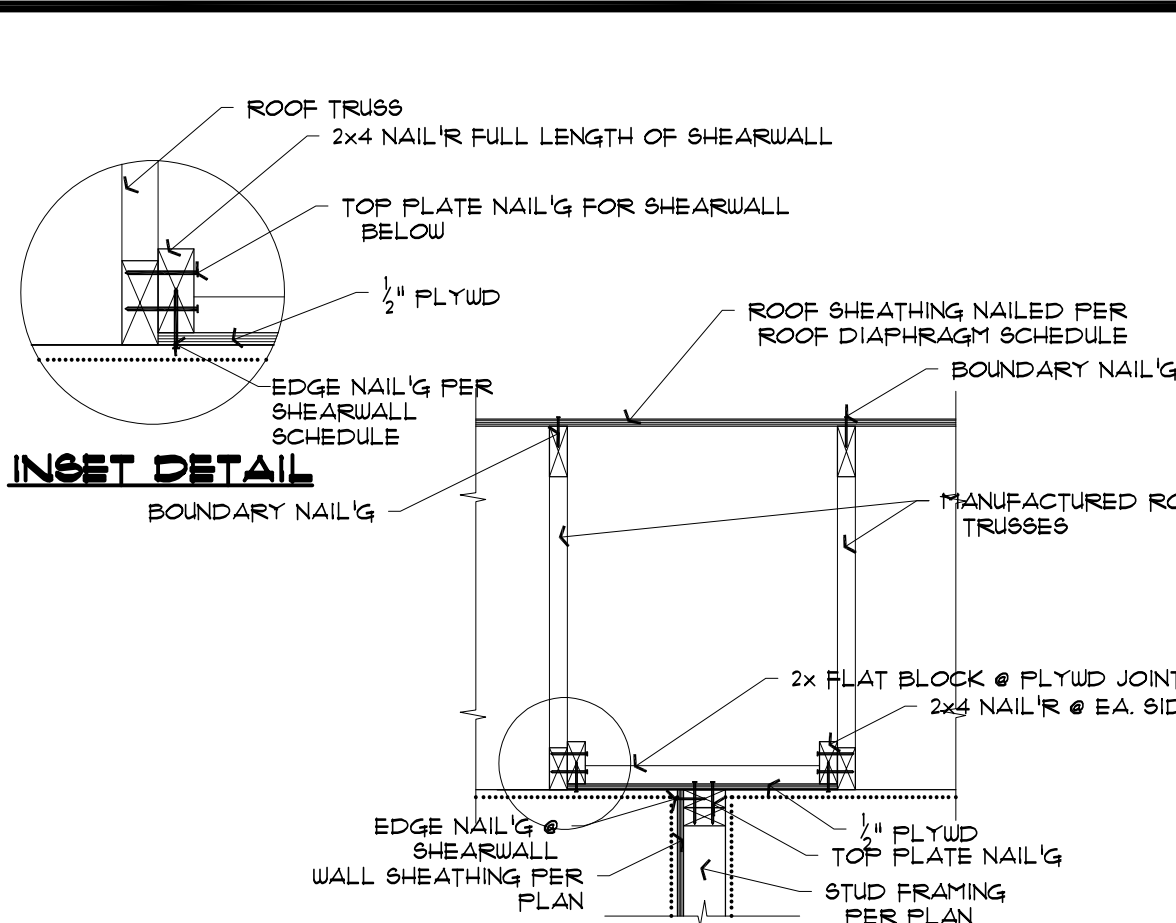
**1** SHEARWALL @ ROOF TRUSS ASSEMBLY  
 63.4 ROOF TRUSS PERPENDICULAR TO WALL 1 1/2" = 1'-0"



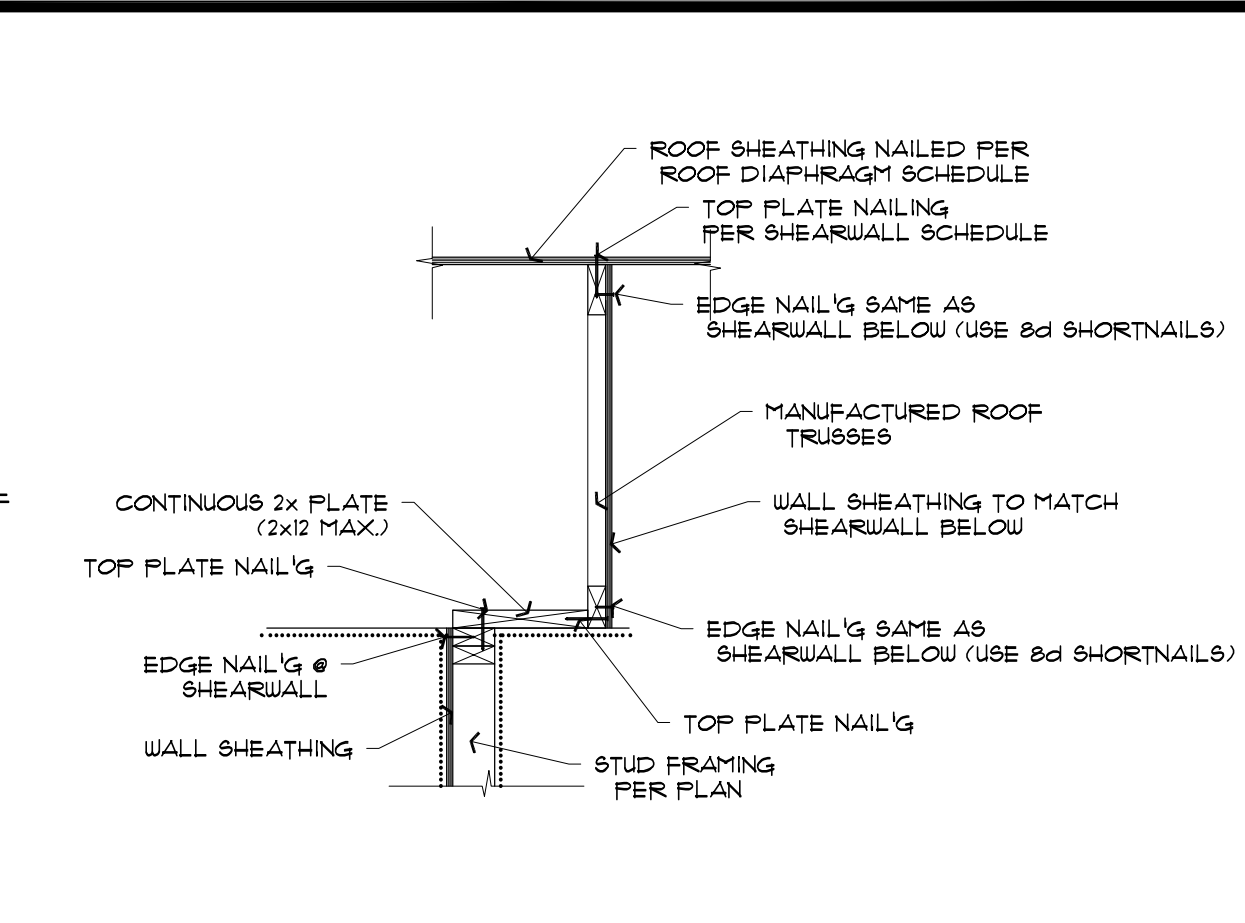
**2** SHEARWALL @ RAFTER ASSEMBLY  
 63.4 RAFTER PERPENDICULAR TO WALL 1 1/2" = 1'-0"



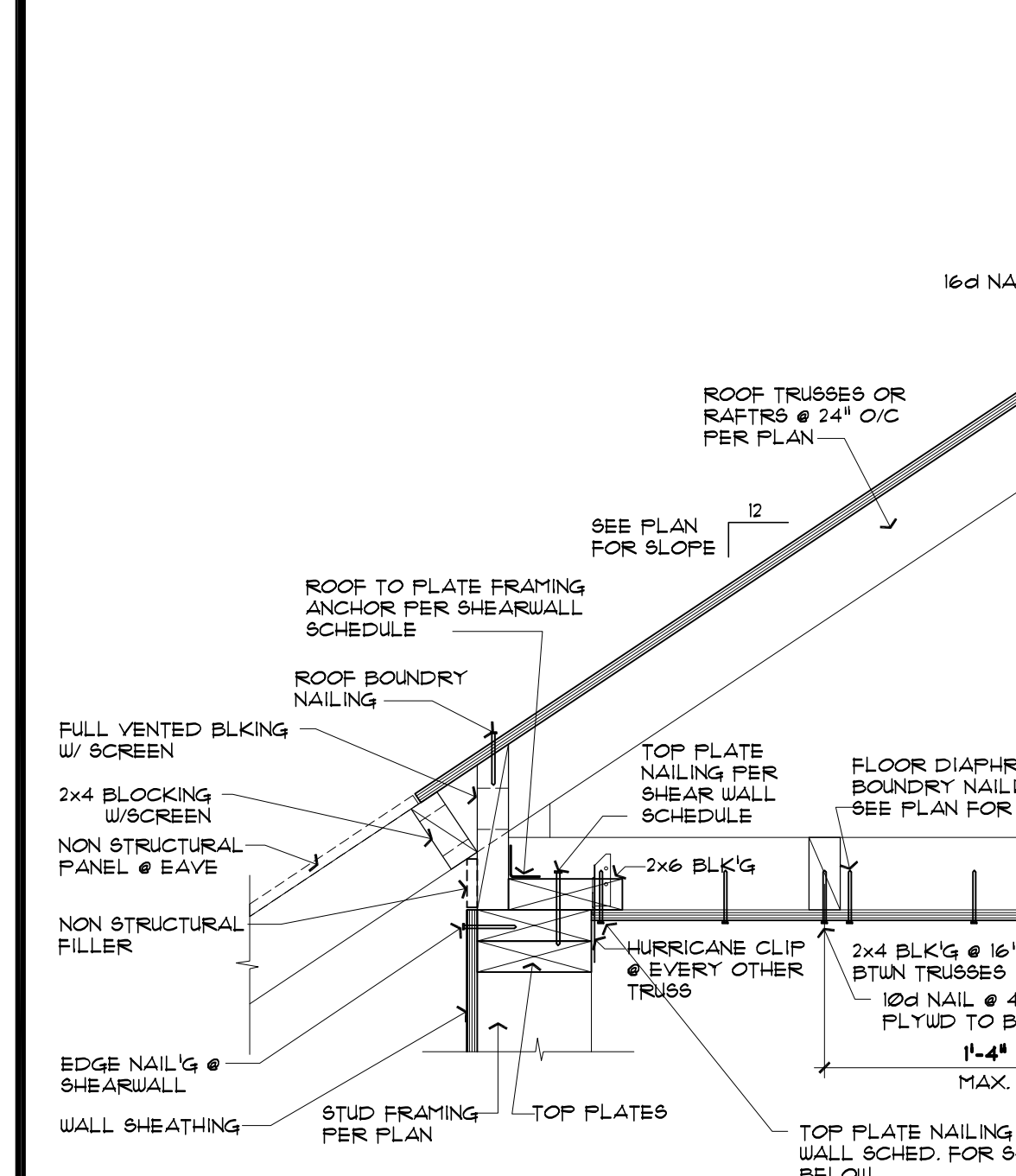
**3** SHEARWALL TO TRUSS CONNECTION  
 63.4 TRUSS FRAMING PARALLEL TO SHEARWALL 3/4" = 1'-0"



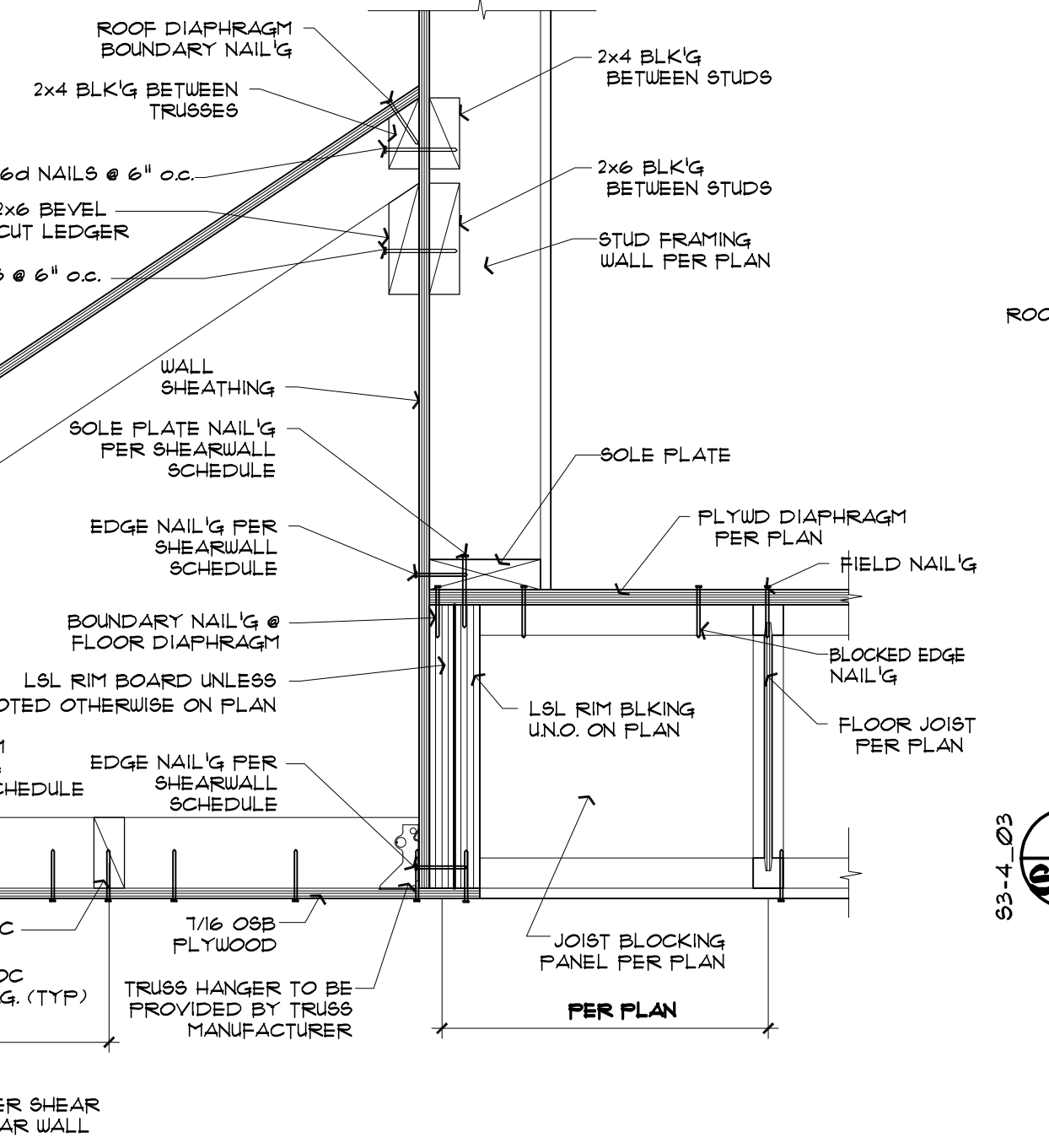
**4** SHEARWALL @ OPEN TRUSS BAY  
 63.4 TRUSS FRAMING PARALLEL TO SHEARWALL 3/4" = 1'-0"



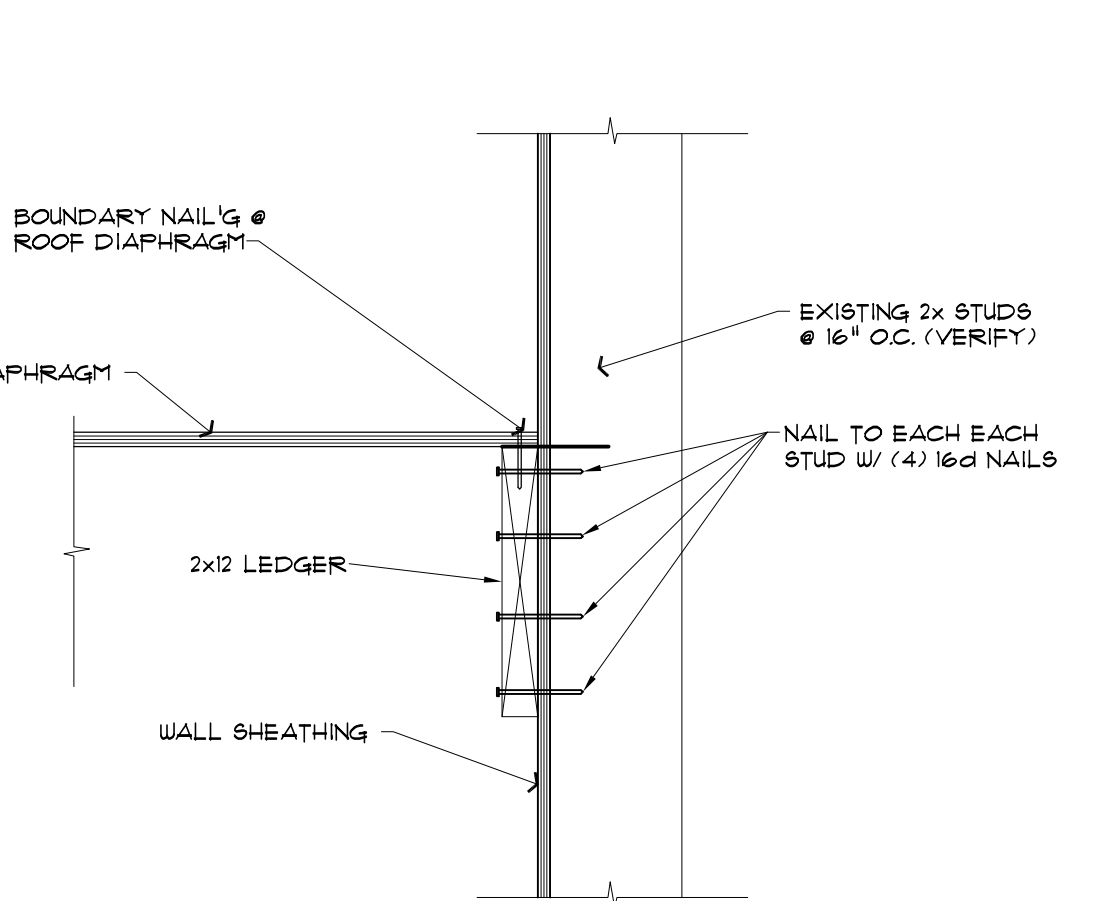
**5** SHEARWALL @ OFFSET TRUSS  
 63.4 TRUSS FRAMING PARALLEL TO SHEARWALL 3/4" = 1'-0"



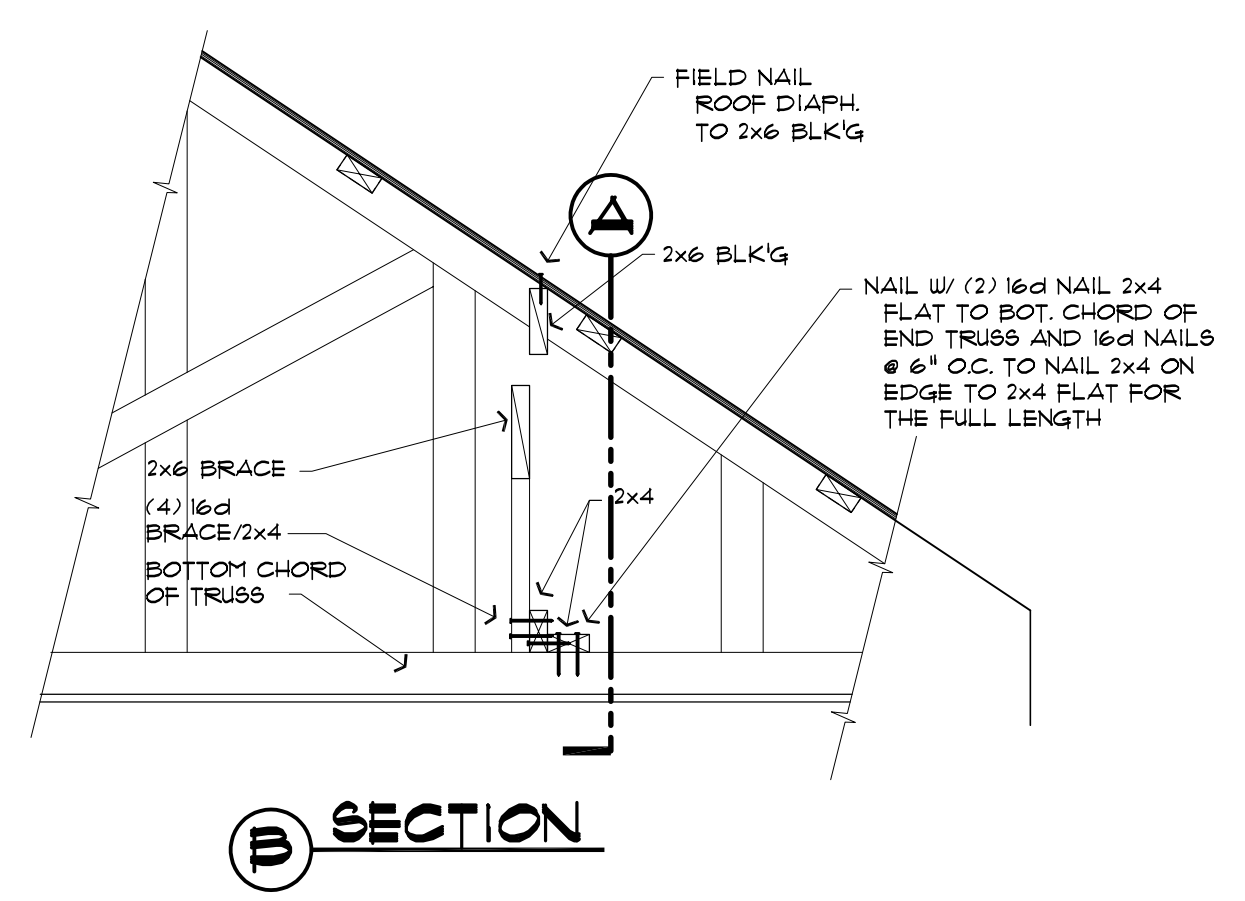
**6** SHEARWALL @ LOWER ROOF TO UPPER WALL  
 63.4 SHEARWALL PERPENDICULAR TO ROOF FRAMING 1 1/2" = 1'-0"



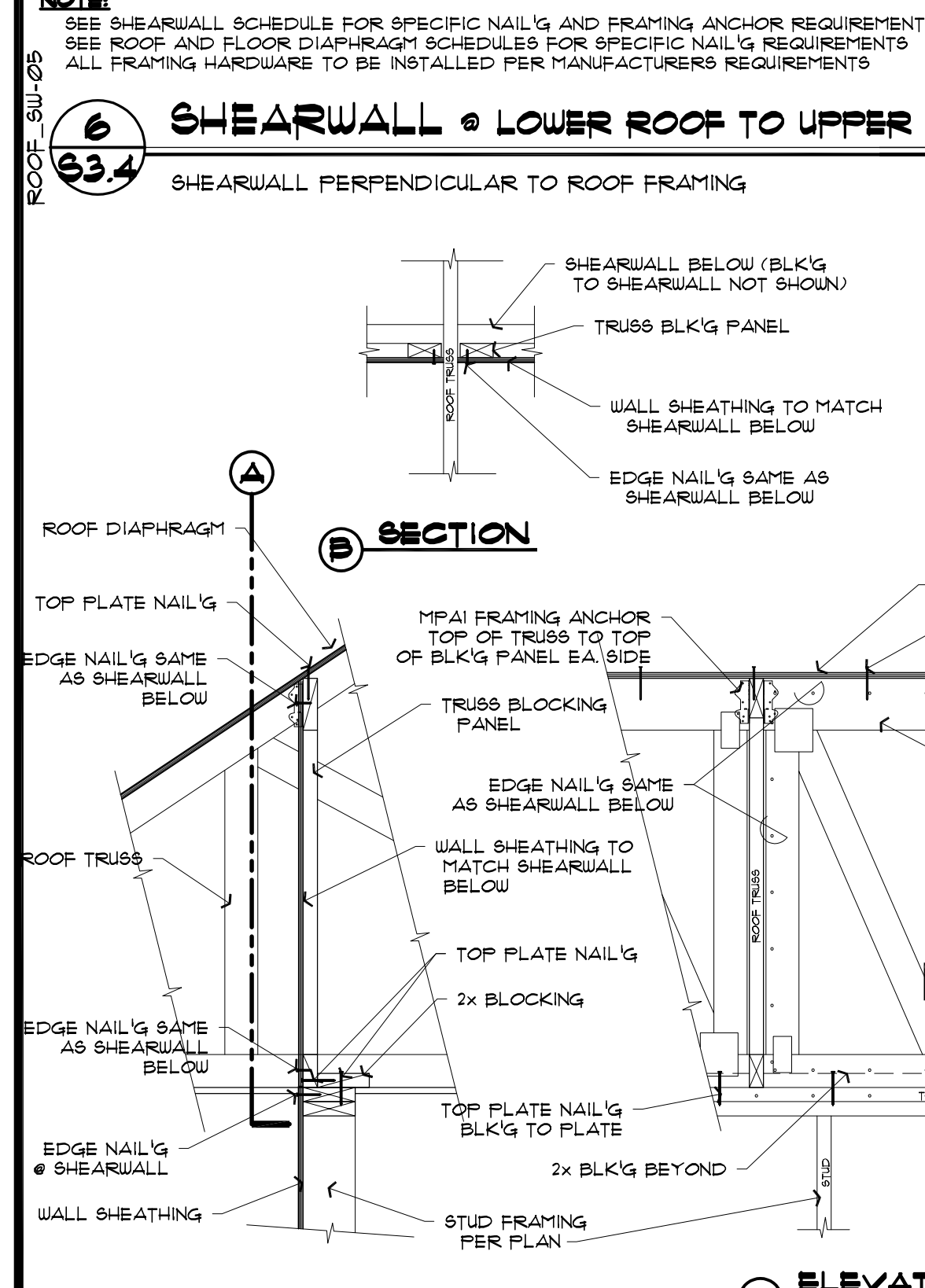
**7** LOWER ROOF TO UPPER WALL  
 63.4 1 1/2" = 1'-0"



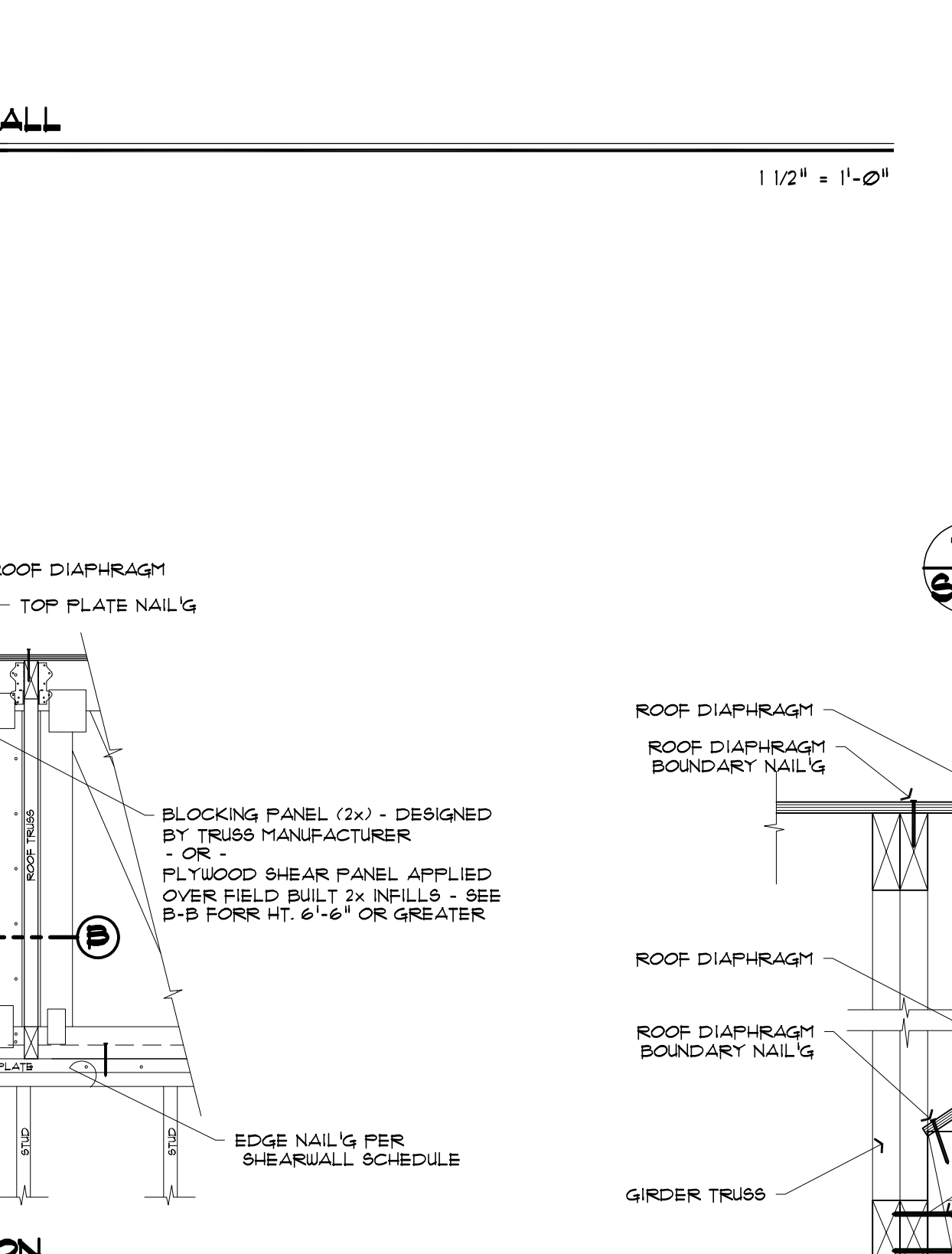
**8** ROOF SHEATHING OVERLAP  
 63.4 @ ROOF OVERFRAME 1 1/2" = 1'-0"



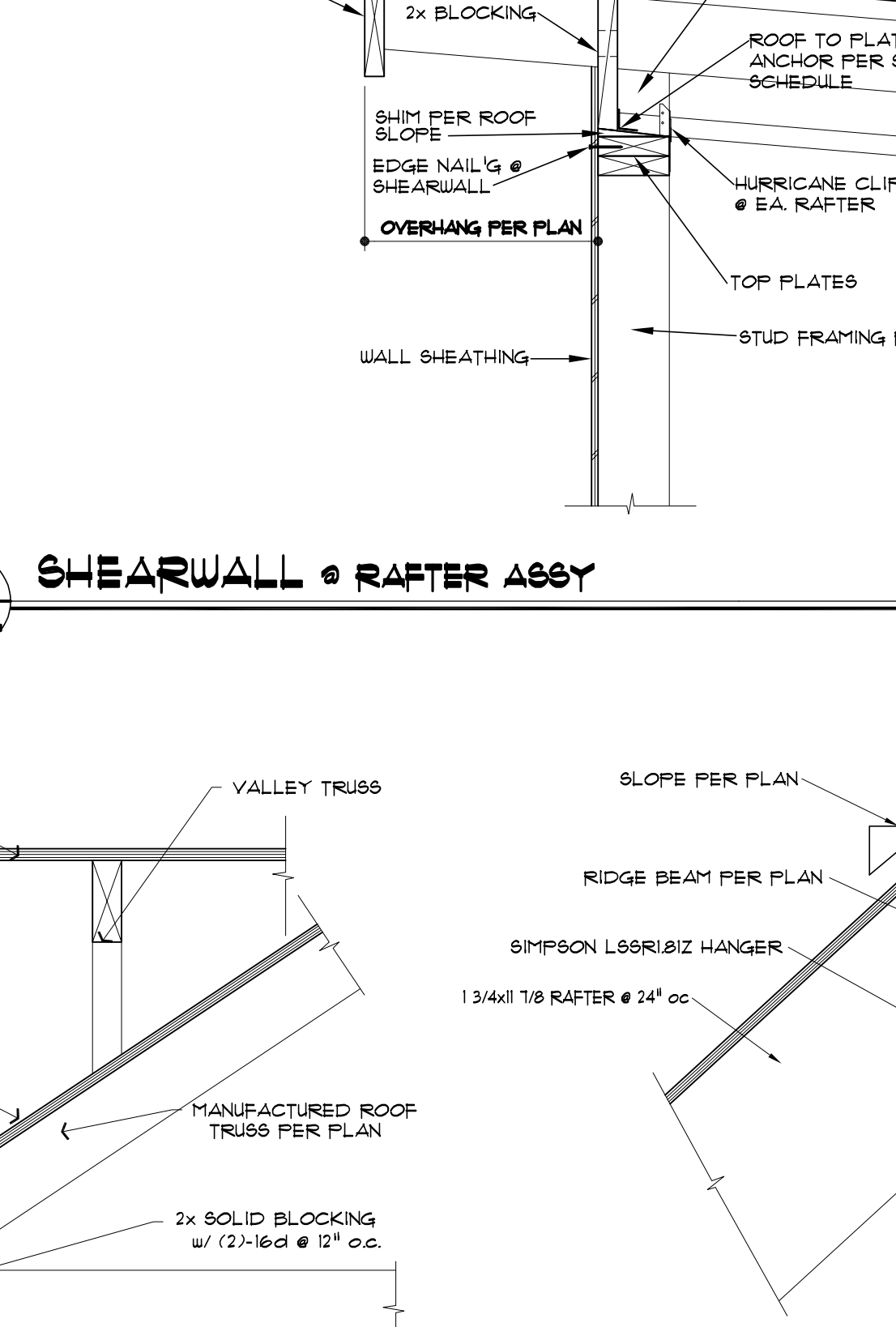
**9** SHEARWALL @ ROOF TRUSS ASSEMBLY  
 63.4 TRUSS FRAMING PERPENDICULAR TO WALL 1 1/2" = 1'-0"



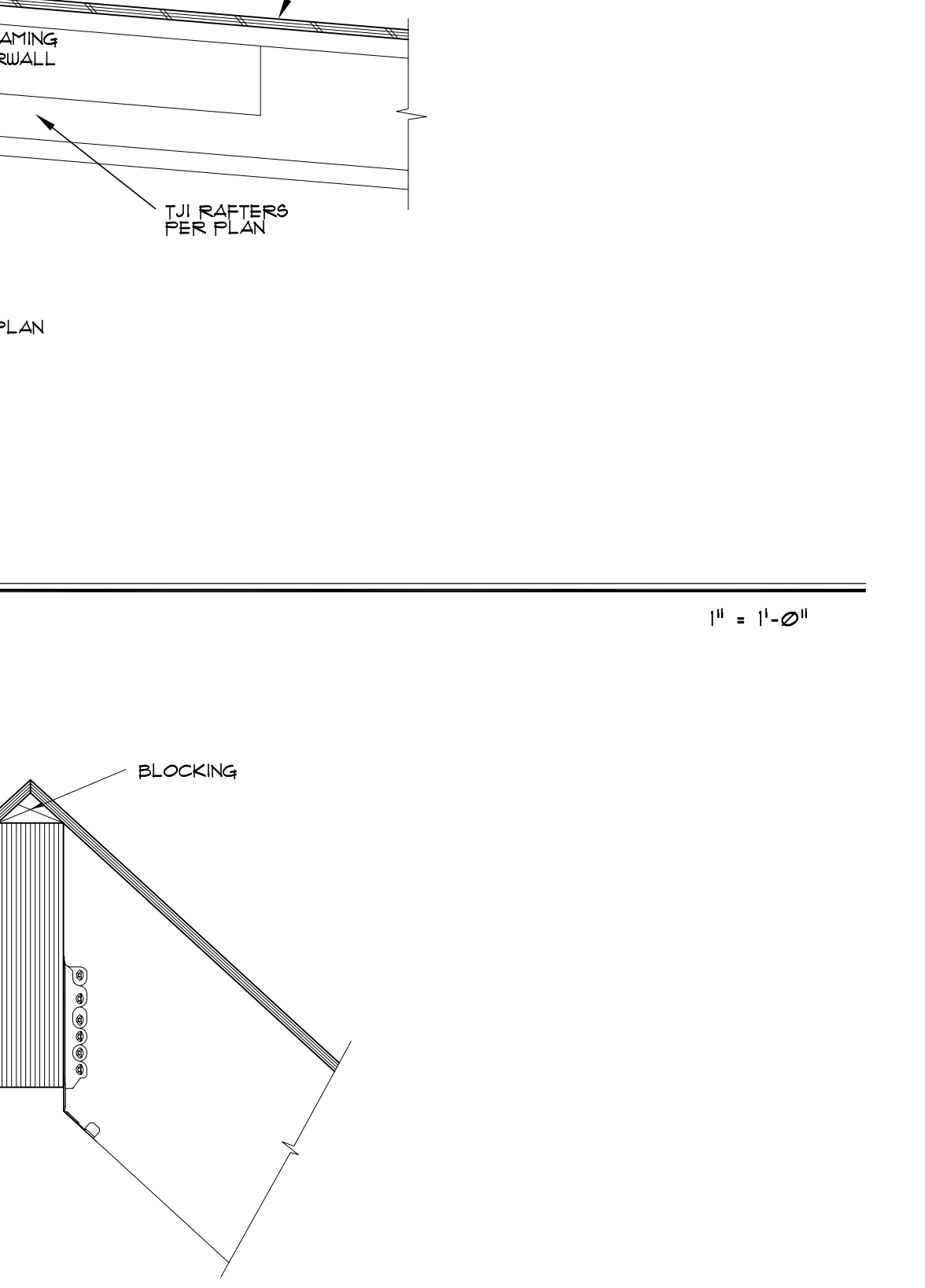
**10** SHEARWALL @ RAFTER ASSEMBLY  
 63.4 @ ROOF OVERFRAME 1 1/2" = 1'-0"



**11** SHEARWALL @ GABLE END WALL  
 63.4 TRUSS FRAMING PARALLEL TO SHEARWALL 3/4" = 1'-0"



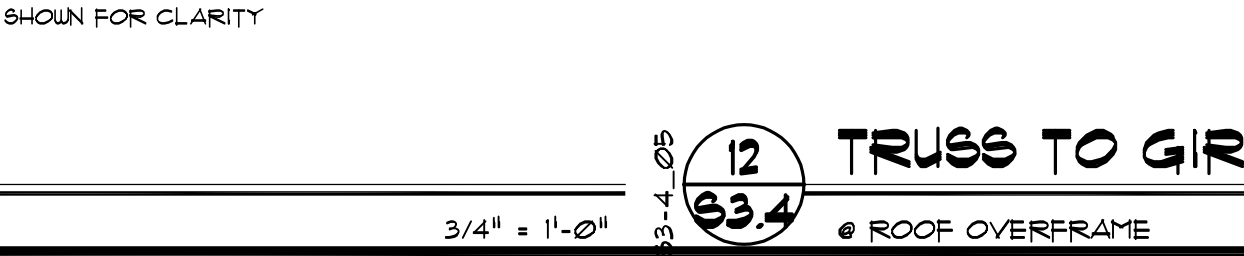
**12** TRUSS TO GIRDER CONNECTION  
 63.4 @ ROOF OVERFRAME 1 1/2" = 1'-0"



**13** RAFTER ASSEMBLY AT RIDGE  
 63.4 1 1/2" = 1'-0"



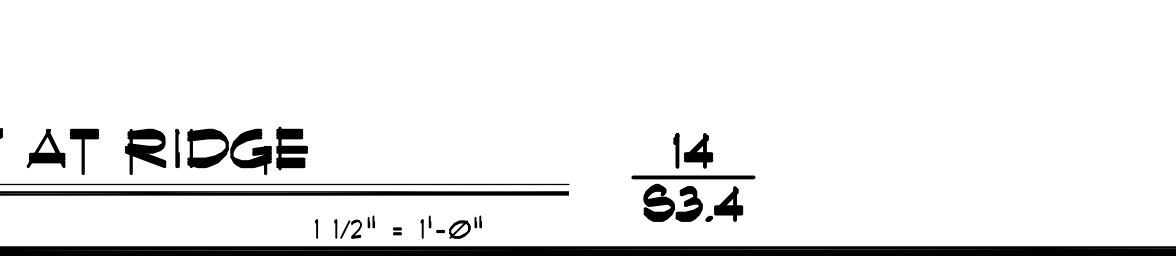
**14** SHEARWALL @ ROOF TRUSS ASSEMBLY  
 63.4 TRUSS FRAMING PERPENDICULAR TO WALL 1 1/2" = 1'-0"



**15** SHEARWALL @ RAFTER ASSEMBLY  
 63.4 1 1/2" = 1'-0"



**16** SHEARWALL TO TRUSS CONNECTION  
 63.4 TRUSS FRAMING PARALLEL TO SHEARWALL 3/4" = 1'-0"



**17** SHEARWALL @ OPEN TRUSS BAY  
 63.4 TRUSS FRAMING PARALLEL TO SHEARWALL 3/4" = 1'-0"



**18** SHEARWALL @ OFFSET TRUSS  
 63.4 TRUSS FRAMING PARALLEL TO SHEARWALL 3/4" = 1'-0"

**NOTE:** SEE SHEARWALL SCHEDULE FOR SPECIFIC NAILING AND FRAMING ANCHOR REQUIREMENTS. SEE ROOF AND FLOOR DIAPHRAGM SCHEDULES FOR SPECIFIC NAILING REQUIREMENTS. ALL FRAMING HARDWARE TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.

**NOTE:** SEE SHEARWALL SCHEDULE FOR SPECIFIC NAILING AND FRAMING ANCHOR REQUIREMENTS. SEE ROOF DIAPHRAGM SCHEDULE FOR NAILING REQUIREMENTS. ALL FRAMING HARDWARE TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.

**NOTE:** SEE SHEARWALL SCHEDULE FOR SPECIFIC NAILING AND FRAMING ANCHOR REQUIREMENTS. SEE ROOF AND FLOOR DIAPHRAGM SCHEDULES FOR SPECIFIC NAILING REQUIREMENTS. ALL FRAMING HARDWARE TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.

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**NOTE:** SEE SHEARWALL SCHEDULE FOR SPECIFIC NAILING AND FRAMING ANCHOR REQUIREMENTS. SEE ROOF AND FLOOR DIAPHRAGM SCHEDULES FOR SPECIFIC NAILING REQUIREMENTS. ALL FRAMING HARDWARE TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.

**NOTE:** SEE SHEARWALL SCHEDULE FOR SPECIFIC NAILING REQUIREMENTS. SEE ROOF DIAPHRAGM SCHEDULE FOR NAILING REQUIREMENTS.

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