these areas

DRIVEWAY

331 SF (exist.)

ALL HARDSCAPE TO REMAIN

UPPER ROOF

(new, higher roof system)

B. IMPERVIOUS SITE PLAN & ROOF PLAN

DRAINAGE EXEMPT

connect to existing system

1/4"/FT DRAIN TO PERIM. TYP.

1" = 10'-0"

HOUSE IMPERVIOUS EXTENTS

(existing house to oh = 3821.5 sf)

OF PROPOSED = 3833.55 sf

All Japanese knotweed (Polygonum cuspidatum) and Regulated Class A, Regulated Class B, and Regulated Class C weeds identified on the King County Noxious Weed list, as amended, shall be removed from the property.

development proposals for a new single-family home shall remove japanese knotweed (polygonum cuspidatum) and regulated class a, regulated class b, and regulated class c weeds identified on the king county noxious weed list, as amended, from required landscaping areas established pursuant to subsection 19.02.020(f)(3)(a). new landscaping associated with new single-family home shall not incorporate any weeds identified on the king county noxious weed list, as amended. provided, that removal shall not be required if the removal will result in increased slope instability or risk of landslide or erosion.

Parcel Number/Legal

Parcel #

4457900050

LUCAS HILL DIV # 2 PLat Block: 1 Plat Lot: 10

ZONING = R-9.6LOT sf = 11167

Owner

Farshad and Laleh Mahramnia 3859 83rd Ave SE Mercer Island WA

Structural Engineer

Javid Abdi, PE, SE Atlas Consulting Structural Engineers 6810 NE 149th St Kenmore WA 98028 Phone: (206) 427-7233

Project Description

Remodel of existing single family residence. New living space on the main floor =310sf. New Loft area =204sf. 69sf of living space at main floor to be removed.

Code Data

- 2018 International Building Code (IBC) struct.
- 2018 International Residential Code (IRC)
- 2018 International Mechanical Code (IMC)
- 2018 International Fuel Gas Code (IFGC)
- 2018 Uniform Plumbing Code (UPC)
- 2018 International Fire Code (IFC)
- 2018 International Existing Building Code
- 2018 International Swimming Pool and Spa Code Washington State Energy Code (WCEC)

ICC/ANSI A117.1-09, Accessible and Usable Buildings and Facilities, with statewide and City amendments

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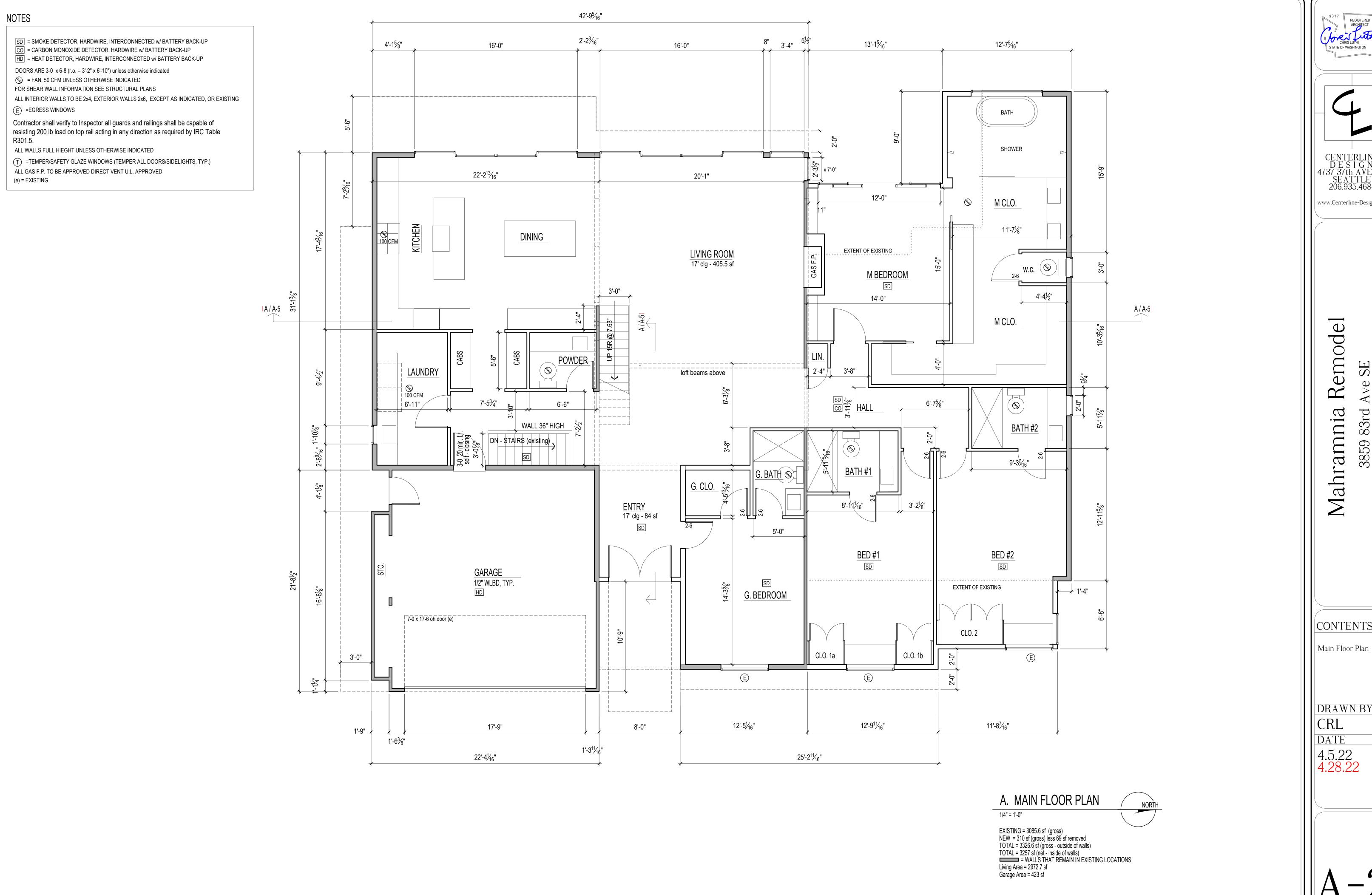
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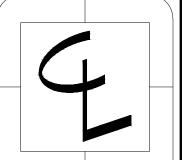
Site Plan

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DATE 2.23.22

4.28.22 6.3.22





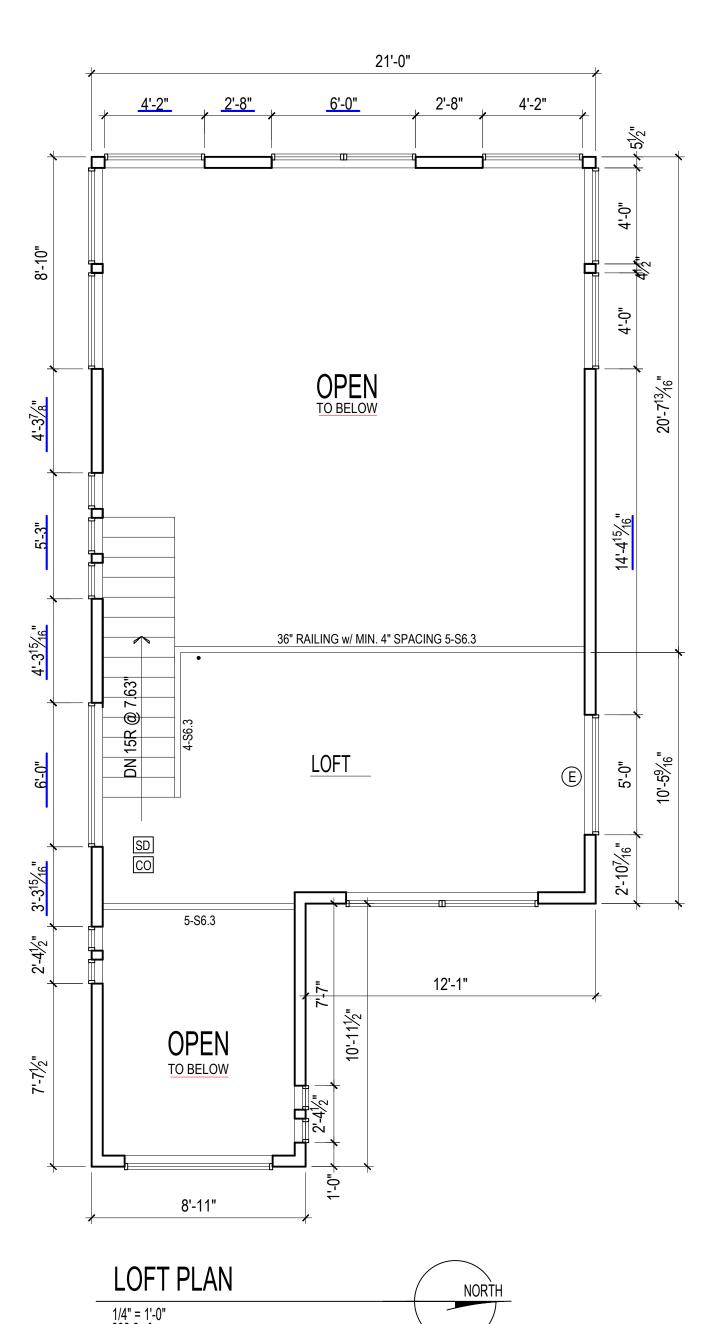
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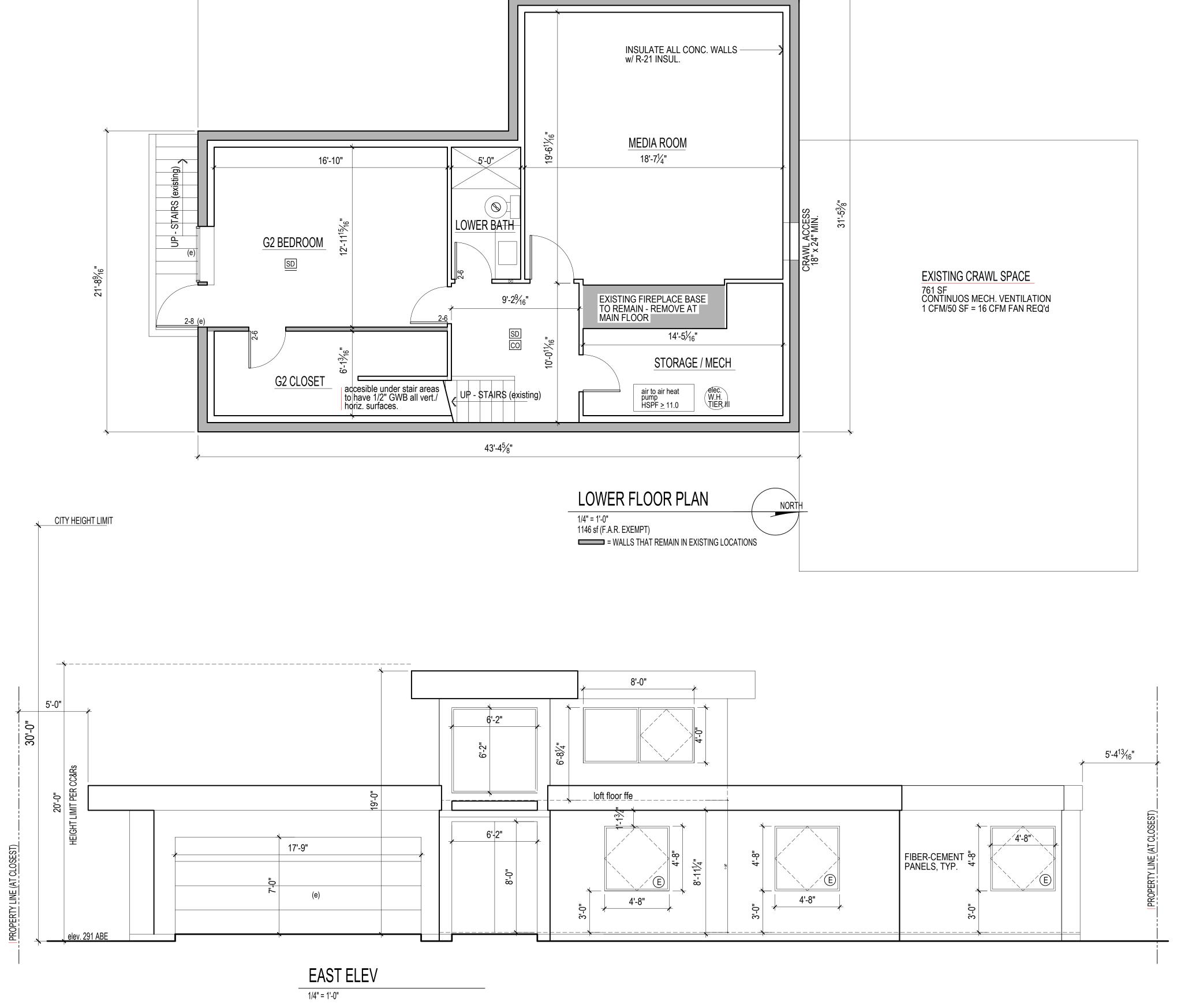
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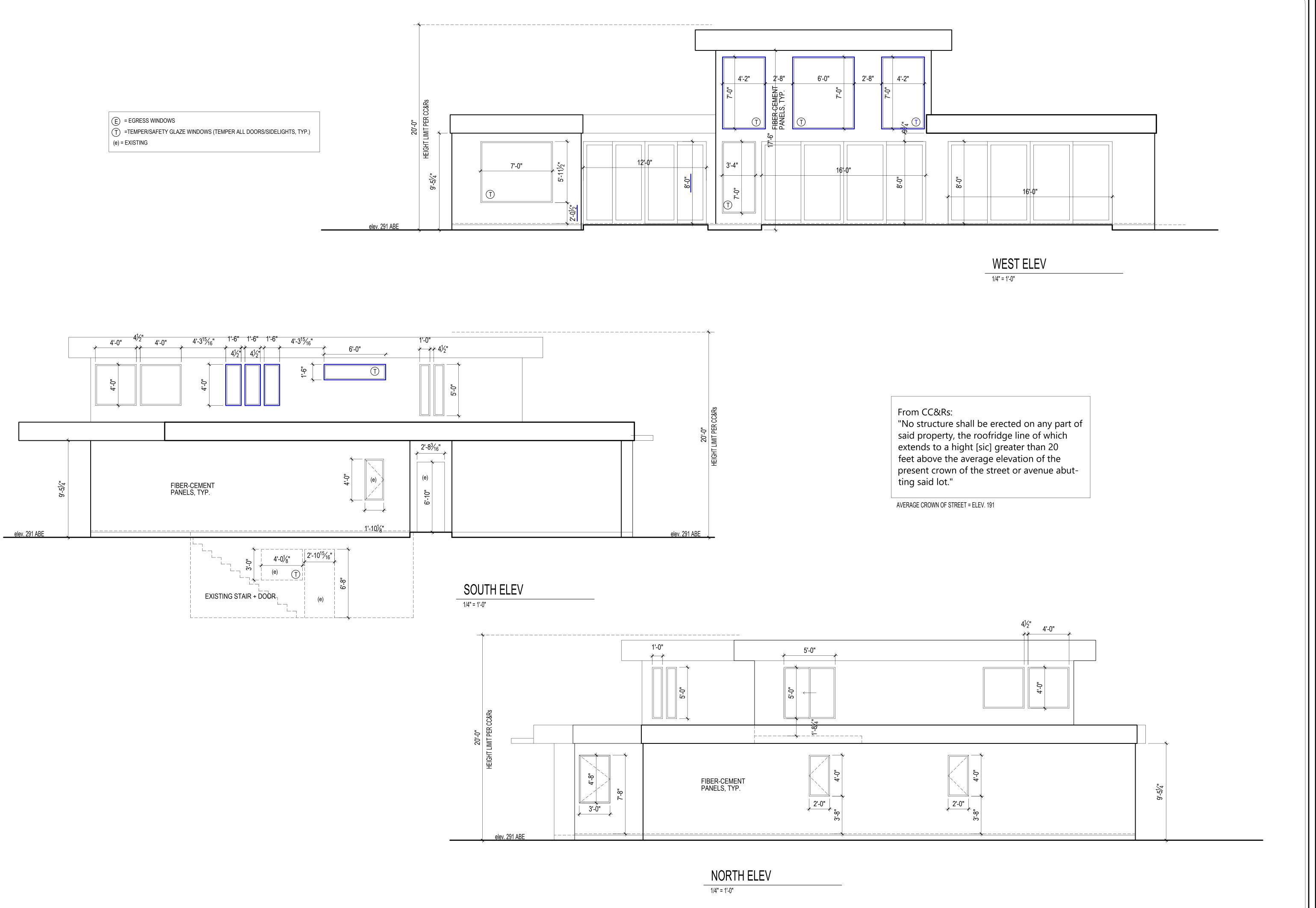
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Main Floor Plan

4.5.22 4.28.22



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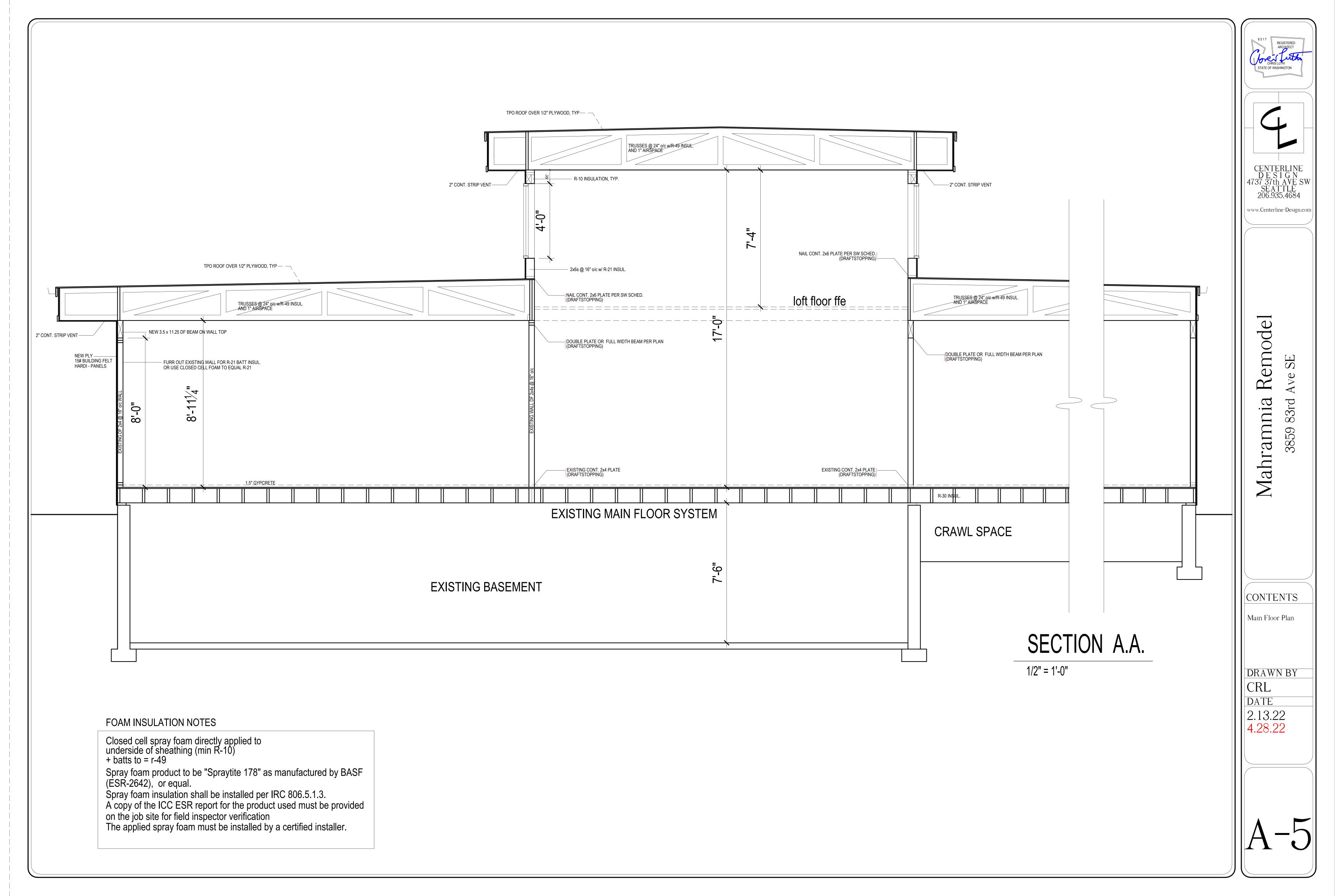
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Main Floor Plan

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4.5.22
4.28.22

A-4



Energy Code Info

ADDITIONS < 500 SF REQ 1.5 ENERGY CREDITS

PRIMARY RESIDENCE HVAC NOTES

Air-source, centrally ducted heat pump with minimum HSPF of 11.0.

HEAT RECOVERY VENTILATION REQUIRED VENTING = CONTINUOUS 120CFM SET TO OPERATE AT 240 CFM FOR 2 HOURS IN EA. 4 HR PERIOD (50%) PROVIDED BY VARIABLE SPEED HIGH EFF. FAN (MAX .35 WATTS/CFM) CONTOLLED TO OPERATE AT LOW SPEED IN VENTILATION MODE ONLY.

> design professional or builder shall complete and post an "Insulation Certificate for Residential Construction" within 3' of the electrical panel prior to final inspection.

Maximum flow rates for shower heads and kitchen sink - 1.75 GPM or less. All other lavatory faucets - 1.0 GPM or less.

2018 Washington State Energy Code – Residential Prescriptive Energy Code Compliance for All Climate Zones in Washington Single Family – New & Additions (effective February 1, 2021)

These requirements apply to all IRC building types, including detached one- and two-family

dwellings and multiple single-family dwellings (townhouses). Project Information Contact Information

Instructions: This single-family project will use the requirements of the Prescriptive Path below and incorporate the minimum values listed. Based on the size of the structure, the appropriate number of additional credits are checked as chosen by the permit applicant.

Provide all information from the following tables as building permit drawings: Table R402.1 - Insulation and Fenestration Requirements by Component, Table R406.2 - Fuel Normalization Credits and 406.3 - Energy Credits.

Aut	thorized Representative	Chris Li	uthi Date 02/15/2022			
		All Climate Zones (Table R4	02.1.1)			
		R-Value a	U-Factor ^a			
Fer	estration U-Factor b	n/a	0.30			
Skylight U-Factor b		n/a	0.50			
Gla	zed Fenestration SHGC b,e	n/a	n/a			
	ling eu	49	0.026			
Wo	ood Frame Wall ^{gh}	21 int	0.056			
Flo	or	30	0.029			
12.	ow Grade Wall ^{ch}	10/15/21 int + TB	0.042			
Slal	b ^{d,f} R-Value & Depth	10, 2 ft	n/a			
C	the interior of the wall, or R- the interior of the basement the interior of the basement	21 cavity insulati <mark>o</mark> n plus a thermal b wall. "10/15/21 ±5TB" shall be pern wall plus R-5 continuous insulation (ior of the wall, or R-15 continuous insulation or break between the slab and the basement wall a nitted to be met with R-13 cavity insulation on on the interior or exterior of the wall. "STB"			
d		ween floor slab and basement wall. required under heated slab on grad				
e	AR .	ted ceilings, the insulation may be r	reduced to R-38 if the full insulation depth			
f	slab insulation when applied		ned to be equivalent to the required perimeter tion R503.1.1. If foam plastic is used, it shall stics.			
g	For log structures developed climate zone 5 of ICC 400.	in compliance with Standard ICC 40	00, log walls shall meet the requirements for			
ħ	Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78% of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.					

Prescriptive Path - Single Family 2018 Washington State Energy Code-R

2018 Washington State Energy Code – Residential Prescriptive Energy Code Compliance for All Climate Zones in Washington Single Family - New & Additions (effective February 1, 2021)

Each dwelling unit in a residential building shall comply with sufficient options from Table R406.2 (fuel normalization credits) and Table 406.3 (energy credits) to achieve the following minimum number of credits. To claim this credit, the building permit drawings shall specify the option selected and the maximum tested building air leakage, and show the qualifying ventilation system and its control sequence.

- 1. Small Dwelling Unit: 3 credits
- Dwelling units less than 1,500 sf in conditioned floor area with less than 300 sf of fenestration area.
- Additions to existing building that are greater than 500 sf of heated floor area but less than 1,500 sf.

 2. Medium Dwelling Unit: 6 credits
- All dwelling units that are not included in #1 or #3
- 3. Large Dwelling Unit: 7 credits Dwelling units exceeding 5,000 sf of conditioned floor area
- Additions less than 500 square feet: 1.5 credits All other additions shall meet 1-3 above

Before selecting your credits on this Summary table, review the details in Table 406.3 (Single Family), on page 4.

	Summary of Ta	Table R406.2 and 406.3					
Heating Options	Fuel Normalization Descriptions		elect ONE option	User Notes			
1	Combustion heating minimum NAECAb	0.0					
2	Heat pump ^c	1.0					
3	Electric resistance heat only - furnace or zonal	-1.0					
4	DHP with zonal electric resistance per option 3.4	0.5					
5	All other heating systems	1.0					
Energy Options	Energy Credit Option Descriptions	Credits - select ONE energy option from each category d					
1.1		0.5					
1.2	Efficient Building Envelope	1.0					
1.3	Efficient Building Envelope	0.5					
1.4	Efficient Building Envelope	1,0					
1.5	Efficient Building Envelope	2.0					
1.6	Efficient Building Envelope	3.0					
1.7	Efficient Building Envelope	0.5					
2.1	Air Leakage Control and Efficient Ventilation	0.5					
2.2	Air Leakage Control and Efficient Ventilation	1.0					
2.3	Air Leakage Control and Efficient Ventilation	1,5					
2.4	Air Leakage Control and Efficient Ventilation	2.0					
3.1ª	High Efficiency HVAC	1.0					
3.2	High Efficiency HVAC	1.0					
3.3ª	High Efficiency HVAC	1.5					
3.4	High Efficiency HVAC	1.5					
3,5	High Efficiency HVAC	1,5					
3.6ª	High Efficiency HVAC	2.0					
4.1	High Efficiency HVAC Distribution System	0.5					
4.2	High Efficiency HVAC Distribution System	1.0					

Prescriptive Path - Single Family 2018 Washington State Energy Code-R

2018 Washington State Energy Code – Residential Prescriptive Energy Code Compliance for All Climate Zones in Washington Single Family – New & Additions (effective February 1, 2021)

	Summary of Table	R406.2 (co	nt.)		
Energy Options	Energy Credit Option Descriptions (cont.)	Credits - s energy op each car	tion from		lotes
5.1 ^d	Efficient Water Heating	0.5			
5.2	Efficient Water Heating	0.5			
5.3	Efficient Water Heating	1.0		24	
5.4	Efficient Water Heating	1.5			
5.5	Efficient Water Heating	2.0			
5.6	Efficient Water Heating	2.5			
6.1 ^e	Renewable Electric Energy (3 credits max)	1.0			
7.1	Appliance Package	0.5			× ×
	Total Credits		2.5	Calculate Total	Clear Form

a. An alternative heating source sized at a maximum of 0.5 W/sf (equivalent) of heated floor area or 500 W.

- whichever is bigger, may be installed in the dwelling unit.
- b. Equipment listed in Table C403.3.2(4) or C403.3.2(5) c. Equipment listed in Table C403.3.2(1) or C403.3.2(2)

Prescriptive Path - Single Family

- d. You cannot select more than one option from any category EXCEPT in category 5. Option 5.1 may be combined with options 5.2 through 5.6. See Table 406.3.
- e. 1.0 credit for each 1,200 kWh of electrical generation provided annually, up to 3 credits max.
- See the complete Table R406.2 for all requirements and option descriptions. f. Use the single radiobutton in the upper right of the second column to deselect radiobuttons in that group.

40		

2018 Washington State Energy Code-R

Per WSEC R402.4, The building thermal Envelope shall be constructed to limit air leakage to 2.0 air changes per hour maximum. The results of the test shall be signed by the party conducting the test and provided to the code official (R402.4.1.2). Per WSEC R403.1.1, at least one thermostat per dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule. Per

WSEC R403.2.2, Ducts, air handlers, and filter boxes shall be sealed. Per WSEC R404.1, A minimum of 75 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps.

All Climate Zones (Table R402.1.1)						
	R-Value ^a	U-Factor ^a				
Fenestration U-Factor ^b	n/a	0.30				
Skylight U-Factor ^b	n/a	0.50				
Glazed Fenestration SHGC b,e	n/a	n/a				
Ceiling ^e	49	0.026				
Wood Frame Wall ^{g,h}	21 int	0.056				
Floor	30	0.029				
Below Grade Wall ^{c,h}	10/15/21 int + TB	0.042				
Slab d,f R-Value & Depth	10, 2 ft	n/a				

R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity that is less a than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix Table A101.4 shall not be less than the *R*-value specified in the table.

- b The fenestration *U*-factor column excludes skylights.
- "10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on
- the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at c | the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.
- d R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.
- For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.
- R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter f slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.
- For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for
- Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard h framing 16 inches on center, 78% of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

Window, Skylight and Door Schedule Project Information lahramnia Remodel

Contact Information

Qt. Feet Inch Feet Inch 0.0 0.00 0.0 0.00

49.3 14.80 21.8 6.53

 21.8
 6.53

 21.8
 6.53

 14.0
 4.20

 0.0
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 0.0
 0.00

 0.0
 0.00

Qt. Feet Inch Feet Inch

Vertical Fenestration (Windows and doors) Component Description

Entry

G Bed

Entry

Loft

Loft

L.R.

Exempt Glazed Fenestration (15 sq. ft. max.

Exempt Swinging Door (24 sq. ft. max.)

Bed 1 Bed 2 Bed 2 0.30 Bath 2 WC M Bath M Bed L.R. L.R. L.R. 0.30 KitchenDining Laundry Back Door 0.30 Entry

Ref. U-factor

Ref. U-factor

0.30

0.30

0.30

8.0 2.40 8.0 2.40 42.0 12.60 84.0 25.20 16.0 4.81 25.1 7.53 128.0 38.40 112.0 33.60 7.3 2.20 21.6 6.49 38.0 11.41 20.0 6.00 32.0 50.0 15.00 160.0 48.00 54.7 16.40 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00

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 0.0 0.00 935.5 280.64 Sum of Vertical Fenestration Area and UA Vertical Fenestration Area Weighted U = UA/Area 0.30 Overhead Glazing (Skylights) Component Ref. U-factor 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 0.00 Sum of Overhead Glazing Area and UA 0.00 Overhead Glazing Area Weighted U = UA/Area

Total Sum of Fenestration Area and UA (for heating system sizing calculations)

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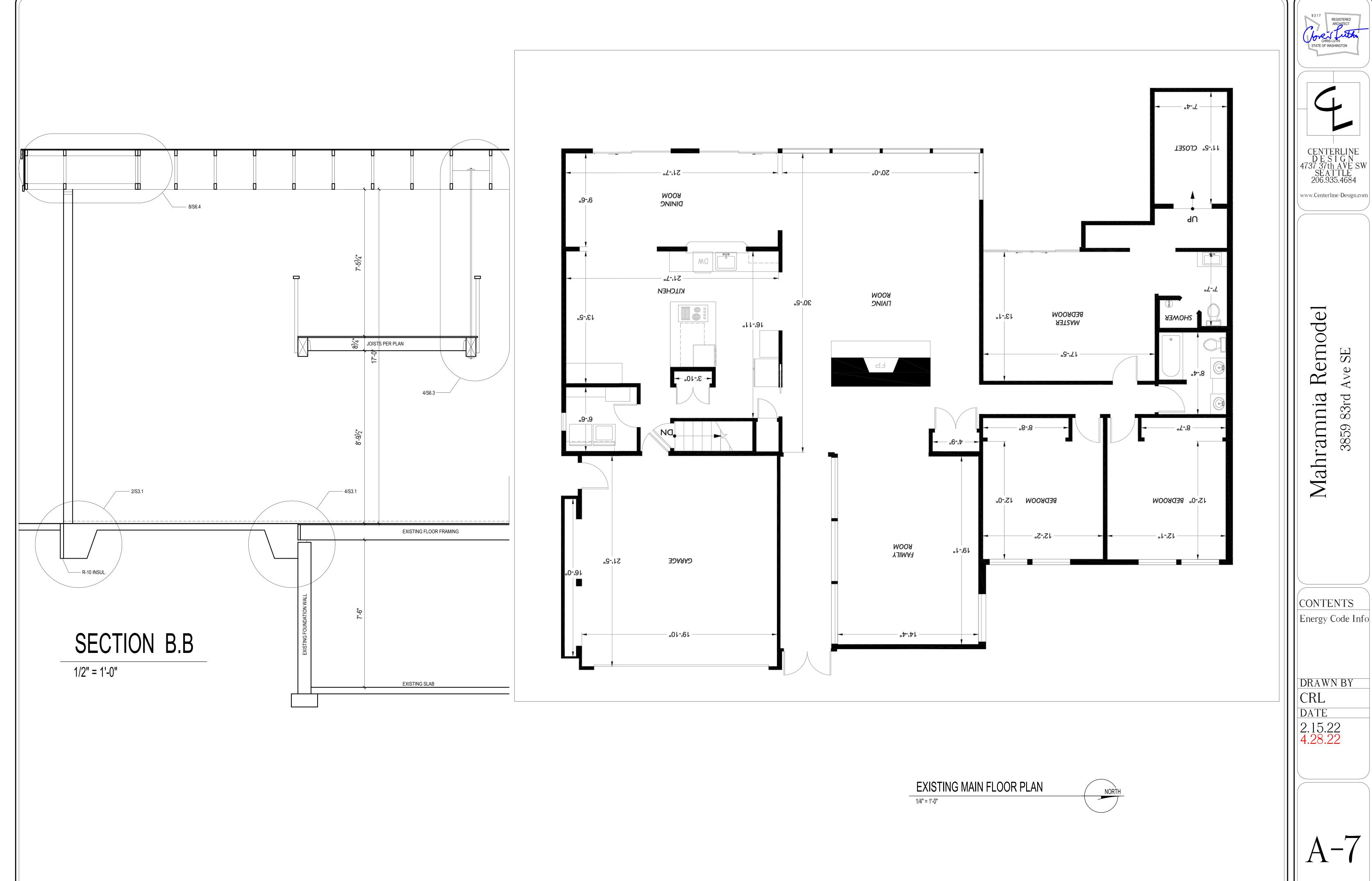
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CONTENTS Energy Code Info

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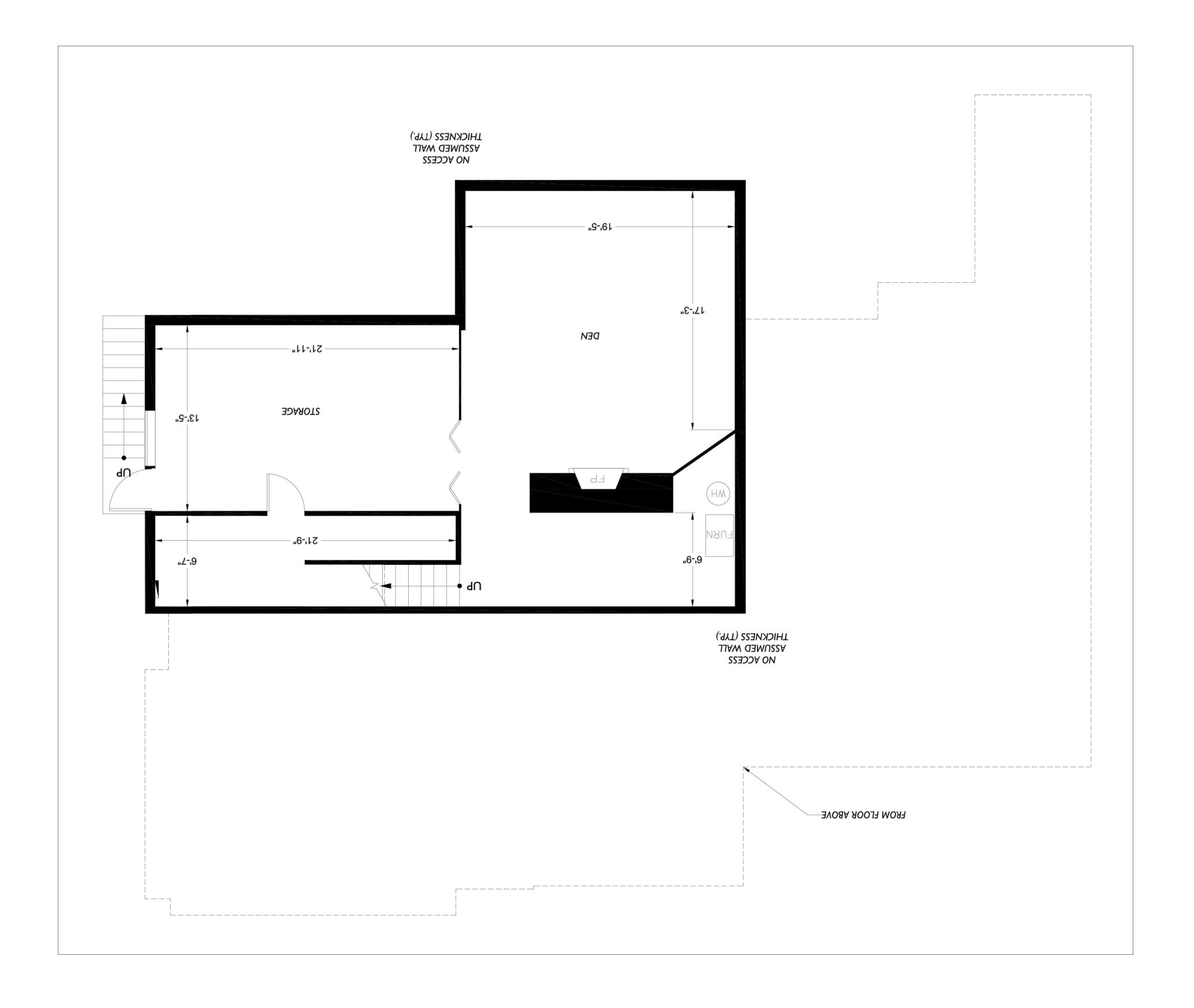
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General Structural Notes (GSN's)

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC) WITH WASHINGTON STATE ADMINISTRATIVE CODE AMENDMENTS, 2018 EDITION.

 2. DESIGN LOADING CRITERIA

 RISK CATEGORY IBC TABLE 1604.5
 II

 ROOF SNOW LOAD
 25 PSF (I_S = 1.0)

 ROOF RAIN ON SNOW SURCHARGE
 5 PSF 1

 ROOF DEAD LOAD
 15 PSF

 LIVE LOAD
 40 PSF

 DECK LIVE LOAD
 60 PSF

PRESSURES MAY BE CALCULATED IN ACCORDANCE WITH ASCE 7-10 CHAPTER 30.

R = 6.5, $\Omega_0 = 2\frac{1}{2}$, $I_E = 1.0$, $C_d = 4$, $C_s = 0.174$

BASE SHEAR V = 18.2 K - LRFD

3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ENGINEER OF ALL DISCREPANCIES PRIOR TO CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE BUILDING LAYOUT DIMENSIONS (GRID LAYOUTS, SITE COORDINATES, ETC.) AMONGST ALL TRADES, INCLUDING SHOP FABRICATED ITEMS.

4. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING, BOTH FOR VERTICAL LOADS AND LATERAL STABILITY, FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK.

6. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

7. ALL STRUCTURAL SYSTEMS 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.

8. SEISMIC BRACING AND/OR GRAVITY SUPPORT AND ANCHORAGE OF ALL MECHANICAL OR ELECTRICAL EQUIPMENT SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON, EXCEPT FOR ELEMENTS SPECIFICALLY SHOWN AND DETAILED ON THE STRUCTURAL DRAWINGS. THE MECHANICAL/ELECTRICAL CONTRACTOR MUST HIRE THE ENGINEER AND IS RESPONSIBLE FOR ALL COSTS RELATED TO THE PURCHASE AND INSTALLATION OF NECESSARY SUPPORTS, BRACING AND ANCHORAGE. SEISMIC BRACING AND ANCHORAGE DESIGN AND CONSTRUCTION SHALL COMPLY WITH CHAPTER 13 OF ASCE 7–10.

9. SHOP DRAWING REVIEW: SHOP DRAWINGS FOR TRUSSES SHALL BE SUBMITTED TO THE CONTRACTOR, ARCHITECT, AND ENGINEER OF RECORD FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS. DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, AND THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. SUBMITTALS SHALL INCLUDE A REPRODUCIBLE AND ONE COPY. THE REPRODUCIBLE SHALL BE MARKED AND RETURNED. SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

10. DEFERRED SUBMITTALS SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF WASHINGTON. THE COMPONENT DESIGNER SHALL BE A REGISTERED STRUCTURAL ENGINEER IF REQUIRED BY THE BUILDING OFFICIAL OF THE LOCAL JURISDICTION. BUILDING COMPONENT SUBMITTALS SHALL INCLUDE THE DESIGNING PROFESSIONAL ENGINEER'S STAMP AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO CURSORY REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE INCLUDING ACCOMMODATION FOR STRUCTURAL DISPLACEMENT PER ASCE 7–10 SECTION 13.3.2. AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. DEFERRED SUBMITTALS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE. DESIGN CALCULATIONS SHALL BE INCLUDED IN THE SUBMITTAL. THE CONTRACTOR SHALL FORWARD DEFERRED SUBMITTALS TO THE BUILDING OFFICIAL AND HAVE THE DEFERRED SUBMITTALS ON SITE FOR THE GOVERNING JURISDICTIONS INSPECTORS USE AND REFERENCE. THE FOLLOWING BUILDING COMPONENTS SHALL BE DEFERRED SUBMITTALS FOR THIS PROJECT:

PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES (SEE NOTE 23)

GEOTECHNICAL:

ANCHORAGE:

12. DRIVE PINS AND OTHER POWDER-ACTUATED FASTENERS SHALL BE ONE OF THE FOLLOWING INSTALLED IN STRICT ACCORDANCE WITH THE ICC-ES REPORTS INDICATED AND MANUFACTURER'S INSTRUCTIONS

INCLUDING MINIMUM EMBED REQUIREMENTS: "TE SERIES" (0.157" DIAMETER) AS MANUFACTURED BY ITW RAMSET (ICC-ES NO. 1799); OR "X-U" (0.157" DIAMETER) AS MANUFACTURED BY HILTI, INC. (ICC-ES NO. 2269); OR "STRONG-TIE PDPA" (0.157" DIAMETER) AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. (ICC-ES NO. 2138); OR "CSI PIN" (0.157" DIAMETER) AS MANUFACTURED BY DEWALT/POWERS (ICC-ES NO. 2024); OR AN APPROVED EQUIVALENT IN STRENGTH AND EMBEDMENT. MINIMUM EMBEDMENT IN CONCRETE SHALL BE 1" UNLESS OTHERWISE NOTED. MAINTAIN AT LEAST 3-1/2" TO NEAREST CONCRETE EDGE.

CONCRETE

13. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 318-14 CHAPTER 26 AND ACI 301. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 4,000 PSI (4,500 PSI AT ALL CONCRETE EXPOSED TO WEATHER). MAXIMUM WATER-CEMENTITIOUS MATERIAL RATIO FOR INTERIOR SLABS SHALL BE BETWEEN 0.40 AND 0.44. ALL CONCRETE SHALL BE EXPOSURE CLASSES FO, SO, WO, AND CO PER ACI 318-14 TABLES 19.3.1.1 AND 19.3.2.1 EXCEPT AS NOTED BELOW.

ALL CONCRETE EXPOSED TO EARTH (FOUNDATIONS, ETC.): (FO, SO, WO, C1)

ALL CONCRETE EXPOSED TO WEATHER: (F1, S0, W0, C1)

SEE SPECIFICATIONS FOR SHRINKAGE REDUCING CONCRETE MIX CRITERIA WHERE INDICATED ON DRAWINGS.

CONCRETE MIXES SHALL MEET OR EXCEED THE REQUIREMENTS SPECIFIED ABOVE. MIXES SHALL BE

SUBMITTED TO THE ENGINEER AND BUILDING OFFICIAL FOR APPROVAL TWO WEEKS PRIOR TO PLACING

ANY CONCRETE AND SHALL INCLUDE THE AMOUNTS OF CEMENT, CEMENTITOUS MATERIAL, FINE AND

COARSE AGGREGATE, WATER AND ADMIXTURES, AS WELL AS THE WATER—CEMENT RATIO, SLUMP,

CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 318—14, CHAPTER 26

AND 27. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION

PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS

FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

14. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, fy = 60,000 PSI. GRADE 60 REINFORCING BARS WHICH ARE TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCEMENT COMPLYING WITH ASTM A615(S1) MAY BE WELDED ONLY IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN A.W.S. D1.4 ARE SUBMITTED. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064.

15. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315-99 AND 318-14. LAP ALL CONTINUOUS REINFORCEMENT IN ACCORDANCE WITH "REINFORCEMENT SPLICE AND DEVELOPMENT LENGTH SCHEDULE" OF 10/S3.1. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 12" AT SIDES AND ENDS. NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS OTHERWISE NOTED ON THE DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.

17. BONDING AGENT SHALL BE "MASTEREMACO ADH 326" BY BASE CORPORATION. OR EQUIVALENT, AND SHALL BE USED WHERE NEW CONCRETE IS PLACED AGAINST HARDENED CONCRETE. PLACE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, INCLUDING PREPARATION OF EXISTING SURFACES. CONCRETE SHALL BE CONSIDERED HARDENED AFTER 56 DAYS.

18. NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (6,000 PSI MINIMUM).

WOOD:

19. FRAMING LUMBER SHALL BE KILN DRIED OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH W.C.L.I.B. STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17 OR W.W.P.A. WESTERN LUMBER GRADING RULES. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

PLATES, LEDGERS & MISC.

DOUGLAS FIR NO. 3 OR STUD GRADE

LIGHT FRAMING: MIN. BASIC DESIGN STRESS, $F_b = 525$ PSI, E = 1400 KSI $F_c = 775$ PSI, $F_t = 325$ PSI JOISTS, BEAMS & POSTS: DOUGLAS FIR NO. 1

MIN. BASIC DESIGN STRESS, $F_b = 1000$ PSI, E = 1700 KSI

 $F_c = 1500 \text{ PSI}, F_t = 1000 \text{ PSI}$

20. MANUFACTURED LUMBER SHALL BE AS MANUFACTURED BY TRUS JOIST OR APPROVED EQUAL. REQUESTS FOR APPROVAL AS EQUAL WILL REQUIRE SUBMITTAL OF ICC REPORT EQUIVALENT TO ESR-1387 FOR LAMINATED VENNER LUMBER (LVL, LAMINATED STRAND LUMBER (LSL), OR PARALLEL STRAND LUMBER (PSL). THE MINIMUM ALLOWABLE DESIGN VALUES ARE AS FOLLOWS:

LVL - $F_b = 2,600$ $F_v = 290$ PSI E = 2,000,000 PSI LSL - $F_b = 1,900$ $F_v = 150$ PSI E = 1,300,000 PSI

21. ENGINEERED WOOD I-JOISTS SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS, STIFFENERS, ETC., SHALL BE DETAILED AND FURNISHED BY THE MANUFACTURER. PERMANENT AND TEMPORARY BRIDGING SHALL BE INSTALLED IN CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH ENGINEERED WOOD I-JOISTS PROVIDED. DESIGN SHOWN ON THE DRAWINGS IS BASED ON RESIDENTIAL JOISTS MANUFACTURED BY WEYERHAUSER IN ACCORDANCE WITH ICC-ES REPORT NO. ESR-1153. ALTERNATE ENGINEERED WOOD I-JOISTS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD

22. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND A.I.T.C. STANDARDS IN ACCORDANCE WITH IBC SECTION 2303.1.3. EACH MEMBER SHALL BEAR AN A.I.T.C. IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN A.I.T.C. CERTIFICATE OF CONFORMANCE. HORIZONTAL MEMBERS AND INCLINED MEMBERS OF LESS THAN 1:1 SLOPE SHALL HAVE A RADIUSED CAMBER OF 3,500 FT. UNLESS OTHERWISE NOTED.

SIMPLE SPAN BEAMS DOUGLAS FIR COMBINATION 24F-VR $F_b = 2400$ PSI; $F_v = 265$ PSI; E = 1,800,000 PSI GLUED LAMINATED MEMBERS EXPOSED TO WEATHER OR MOISTURE SHALL BE TREATED WITH A NON-CORROSIVE, APPROVED PRESERVATIVE.

23. PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH ANSI/TPI I-2007 AND IBC SECTION 2303.4 FOR THE SPANS AND CONDITIONS SHOWN ON THE DRAWINGS.

DESIGN LOADS SHALL BE AS FOLLOWS:

TOP CHORD LIVE LOAD

BOTTOM CHORD LIVE LOAD

O PSF

TOP CHORD DEAD LOAD

12 PSE

TOP CHORD DEAD LOAD

BOTTOM CHORD DEAD LOAD

3 PSF

WIND UPLIFT (TOP CHORD)

SEE NOTE#2 COMPONENTS & CLADDING ROOF LOADS

THE TRUSS MANUFACTURER SHALL COORDINATE LOCATIONS AND SUPPORT CONFIGURATIONS OF PLUMBING, MECHANICAL UNITS, DUCTS, AND/OR OTHER MISCELLANEOUS ITEMS WITH THE CONTRACTOR PRIOR TO TRUSS FABRICATION. THE TRUSS MANUFACTURER SHALL DESIGN TRUSSES TO SUPPORT ALL LOADS ASSOCIATED WITH SUCH ITEMS. THE TRUSS SHOP DRAWINGS SHALL INCLUDE ALL DESIGN LOADS AND APPROVED HANGER CONNECTION DETAILS TO TRUSS CHORDS FOR SUPPORT OF HUNG MECHANICAL SYSTEM COMPONENTS AS APPLICABLE.

WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (GANGNAIL OR EQUAL). SHOP DRAWINGS AND CALCULATIONS SHALL BE PROVIDED AS A DEFERRED SUBMITTAL TO THE CONTRACTOR AND STRUCTURAL ENGINEER OF RECORD PER GENERAL STRUCTURAL NOTE 13. SHOP DRAWINGS SHALL INDICATE SHAPES, BEARING POINTS, INTERSECTIONS, HIPS, VALLEYS, ETC. EXACT COMPOSITION OF SPECIAL HIP, VALLEY, AND INTERSECTION AREAS (USE OF GIRDER TRUSSES, JACK TRUSSES, STEP—DOWN TRUSSES, ETC.) SHALL BE DETERMINED BY THE MANUFACTURER UNLESS OTHERWISE NOTED ON THE DRAWINGS. THE TRUSS MANUFACTURER SHALL PROVIDE ALL TRUSS—TO—TRUSS BEAM/JOIST CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. THE TRUSS MANUFACTURER SHALL DESIGN AND PROVIDE DETAILS FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.

24. ROOF & WALL SHEATHING SHALL BE APA RATED, EXTERIOR OR EXPOSURE 1 PLYWOOD OR ORIENTED STRAND BOARD (OSB) IN CONFORMANCE WITH IBC SECTION 2303.1.5. SHEATHING SHALL BE MANUFACTURED UNDER THE PROVISIONS OF VOLUNTARY PRODUCT STANDARDS DOC PS 1-09, PS 2-10, OR APA PRP-108 PERFORMANCE STANDARDS AND POLICIES FOR STRUCTURAL USE PANELS. SEE DRAWINGS FOR THICKNESS, SPAN RATING, AND NAILING REQUIREMENTS.

25. AT NON-SHEAR WALL EXTERIOR WALLS, UNLESS OTHERWISE NOTED, WALL SHEATHING SHALL BE $\frac{1}{2}$ " (NOMINAL) WITH SPAN RATING OF $\frac{24}{6}$; WITH 8d @ 6" oc PANEL NAILING (APPLIES TO ALL SHEATHING PANEL EDGES); AND 8d @ 12" oc TO INTERMEDIATE FRAMING.

26. ALL PRESSURE—TREATED (P.T.) WOOD MEMBERS SPECIFIED ON THE DRAWINGS THAT OCCUR ABOVE GROUND AND CONTINUOUSLY PROTECTED FROM MOISTURE (INTERIOR LOCATIONS) SHALL BE PRESSURE—TREATED WITH DOT SODIUM BORATE (SBX) WITHOUT NaSIO2. AT LOCATIONS PERMANENTLY EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, WOOD MEMBERS SHALL BE PRESSURE—TREATED WITH ALKALINE COPPER QUAT (ACQ—C FOR DOUGLAS—FIR) PRESERVATIVE UNLESS OTHERWISE NOTED. AMMONIACAL COPPER ZINC ARSENATE (ACZA) PRESERVATIVE OR OTHER PRESERVATIVES WITH AMMONIA CARRIERS, SHALL NOT BE USED. GLUED LAMINATED MEMBERS EXPOSED TO WEATHER OR MOISTURE SHALL BE TREATED WITH A NON—CORROSIVE, APPROVED PRESERVATIVE.

SEE NOTE #27 FOR MATERIAL REQUIREMENTS OF CONNECTORS AND FASTENERS IN CONTACT WITH

PRESSURE-TREATED MEMBERS.

27. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED N THEIR WOOD CONSTRUCTION CONNECTORS CATALOG NO. C-C-2017-18. INSTALL NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, CENTER STRAP ON JOINT AND INSTALL NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER, WITH EQUAL NUMBER AND SIZE OF FASTENERS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. INSTALL WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

ALL TIMBER CONNECTORS IN CONTACT WITH PRESSURE—TREATED WOOD THAT USED PRESERVATIVE CHEMICALS OTHER THAN DOT SODIUM BORATE (SBX) WITHOUT NaSIO2 SHALL BE MANUFACTURED FROM Z_{MAX} STEEL BY SIMPSON (G185 STEEL PER ASTM A653), OR TYPE 304 OR 316 STAINLESS STEEL. ALTERNATIVELY, CONNECTORS CAN BE POST HOT DIP GALVANIZED PER ASTM A123 OR MECHANICALLY GALVANIZED PER ASTM B695, CLASS 55 OR GREATER. STAINLESS STEEL FASTENERS SHALL BE USED WITH STAINLESS STEEL CONNECTORS, AND HOT DIP GALVANIZED FASTENERS PER ASTM A153 SHALL BE USED WITH GALVANIZED CONNECTORS.

28. WOOD FRAMING NOTES: THE FOLLOWING SHALL APPLY UNLESS OTHERWISE NOTED ON THE DRAWINGS:

A. ALL WOOD FRAMING DETAILS SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC. MINIMUM NAILING SHALL CONFORM TO IBC TABLE 2304.9.1 OR CURRENT ICC—ES REPORT NER—272. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. INSTALL WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. INSTALLATION OF LAG SCREWS SHALL CONFORM TO 2012 NDS SECTION 11.1.4, AND INSTALLATION OF BOLTS SHALL CONFORM TO 2012 NDS SECTION 11.1.3.

B. WALL FRAMING: TWO STUDS MINIMUM SHALL BE INSTALLED AT THE ENDS OF ALL WALLS, UNLESS NOTED OTHERWISE NOTED. INSTALL SOLID BLOCKING FOR WOOD COLUMN THROUGH FLOOR SPACES TO SUPPORTS BELOW.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS @ 12" oc STAGGERED OR BOLTED TO CONCRETE WITH 5%" ANCHOR BOLTS @ 4'-0" oc PER IBC SECTION 2308.6 (EMBED 7"), UNLESS OTHERWISE NOTED. 3" x 3" x 0.229" PLATE WASHERS SHALL BE USED WITH ALL SILL PLATE ANCHOR BOLTS AND INSTALLED PER AF&PA SDPWS-2008 SECTION 4.3.6.4.3. INDIVIDUAL MEMBERS OF BUILT-UP STUD POSTS SHALL BE NAILED TO EACH OTHER WITH 16d @ 12" oc STAGGERED.

C. FLOOR AND ROOF FRAMING: INSTALL SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL JOISTS TO SUPPORTS WITH (2)16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 16d@12"oc STAGGERED.

ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AS SHOWN ON THE DRAWINGS. INSTALL APPROVED PANEL EDGE CLIPS CENTERED BETWEEN JOISTS/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 LOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16d@12"oc. IN ACCORDANCE WITH IBC SECTION 1604.8.3, DECKS SHALL BE POSITIVELY ANCHORED TO THE STRUCTURE BY MEANS OTHER THAN NAILS SUBJECT TO WITHDRAWAL. ANCHOR WITH MINIMUM (1) CS16 STRAP AT EACH END ATTACHED TO DECK JOISTS AND TO A SOLID BLOCKING MEMBER WITHIN THE BUILDING.

POST-INSTALLED ANCHORS AND EPOXY ADHESIVE

REQUIRED?

29. EPOXY-GROUTED RODS OR REBAR TO CONCRETE SPECIFIED ON THE DRAWINGS SHALL BE ONE OF THE FOLLOWING INSTALLED IN STRICT ACCORDANCE WITH THE ICC-ES REPORTS INDICATED AND MANUFACTURER'S INSTRUCTIONS INCLUDING MINIMUM EMBED REQUIREMENTS: "SET-XP" AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. (ICC-ES NO. 2508); OR "HIT-HY 200" AS MANUFACTURED BY HILTI, INC. (ICC-ES NO. 3187), "SAFE-SET" INSTALLATION WITH HOLLOW CARBIDE DRILL BIT IS PERMITTED; OR "PURE110+" AS MANUFACTURED BY DEWALT/POWERS (ICC-ES NO. 3298). SUBSTITUTES PROPOSED BY CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH ICC-ES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. IN ADDITION, SUBSTITUTIONS SHALL MEET ICC-ES ACCEPTANCE CRITERIA AC308. SPECIAL INSPECTION OF EPOXY-GROUTED ANCHOR INSTALLATION IS REQUIRED. EPOXY GROUTED RODS OR REBAR SHALL NOT BE USED AS SUBSTITUTES FOR CAST-IN-PLACE ANCHOR BOLTS OR REINFORCING STEEL UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER. NOTIFY ENGINEER IF ANCHOR LOCATIONS CONFLICT WITH REINFORCING STEEL -DO NOT CUT REINFORCING OR REDUCE EMBEDMENT DEPTHS WITHOUT PRIOR APPROVAL. INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY CERTIFIED PERSONNEL IN CONFORMANCE TO ACI 318-14 SECTION 17.8.2.2. HOLES SHALL BE HAMMER DRILLED AND DRY.

30. EXPANSION ANCHORS SHALL BE ONE OF THE APPROVED PRODUCTS BELOW:

- KWIK BOLT TZ ANCHORS AS MANUFACTURED BY HILTI, INC. AND INSTALLED IN STRICT

ACCORDANCE WITH ICC-ES REPORT NO. 1917, OR
- STRONG-BOLT 2 AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. AND INSTALLED IN

STRICT ACCORDANCE WITH ICC-ES REPORT NO. 3037

AND INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

. INSPECT REINFORCEMENT, INCLUDING ACI 318 CH. 20, 25.2, 25.3, 26.5.1–26.5.3 1908.4 TENDONS AND VERIFY PLACEMENT 2. REINFORCING BAR WELDING: A. VERIFY WELDABILITY OF REINFORCING BARS AWSD1.4 THAN ASTM A 706 ACI 318 26.5.4 B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM C. INSPECT ALL OTHER WELDS YES 3. INSPECT ANCHORS CAST IN CONCRETE. ACI 318: 17.8.2 4. INSPECT ANCHORS POST-INSTALLED IN HARDENED A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO ACI 318: 17.8.2.4 SUSTAINED TENSION LOADS ACI 318:17.8.2 B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS ACI 318: CH. 19. 1904.1. 1904.1 N* 5. VERIFY USE OF REQUIRED DESIGN MIX. 26.4.3, 26.4.4 | 1908.2, 1908.3 6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM ASTM C 31 ACI 318: 26.4.5, 1908.10 AND AIR CONTENT TESTS, AND DETERMINE THE 26.12 TEMPERATURE OF THE CONCRETE INSPECT CONCRETE AND SHOTCRETE PLACEMENT ACI 318: 26.4.5 PROPER APPLICATION TECHNIQUES. 8. VERIFY MAINTENANCE OF SPECIFIED CURING ACI 318: 26.4.7-26.4.9 1908.9 TEMPERATURE AND TECHNIQUES. . INSPECT PRESTRESSED CONCRETE FOR: A. APPLICATION OF PRESTRESSING FORCES: AND ACL 318: 26.9.2 B. GROUTING OF BONDED PRESTRESSING TENDONS ACI 218: 26.9.2.3 O. INSPECT ERECTION OF PRECAST CONCRETE

IBC TABLE 1705.3 REQUIRED SPECIAL INSPECTIONS

AND TESTS OF CONCRETE CONSTRUCTION

CONTINUOUS PERIODIC REF STD.

ACI 318: CH. 26.8

ACI 318: 26.10.2

ACI318: 26.10.1(b) ---

IBC REF.

VERIFICATION & INSPECTION

. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO

STRESSING OF TENDONS IN POST—TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES

AND FORMS FROM BEAMS AND STRUCTURAL ABS.

PURSPECT FORMWORK FOR SHAPE LOCATION AND

DIMENSIONS OF THE CONCRETE MEMBER BEING

* EXCEPTIONS 2 PER IBC SECTION 1705.3 APPLIES TO CONCRETE WORK ON THIS PROJECT.

Minimum Connectors and Fasteners for Wood Members per IBC 2018

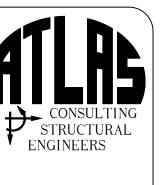
	DESCRIPTION OF BUILDING ELEMENT	NUMBER AND TYPE OF FASTENERS	SPACING & LOCATION	DESC BLDC
1.	BLOCKING BETWEEN CEILING JOISTS, RAFTERS, OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	ROOF 3-8d COMMON ($2\frac{1}{2}$ " x 0.131"); or 3-10d BOX (3" x 0.128"); or 3-3" x 0.131" NAILS; or 3-3" x 14 GAGE STAPLES, $\frac{7}{16}$ " CROWN	EACH END, TOENAIL	22. JOIST TO PLATE,
	BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	2-8d COMMON (2½" x 0.131") 2-3" x 0.131" NAILS 2-3" x 14 GAGE STAPLES 2-16d COMMON (3½" x 0.162") 3-3" x 0.131" NAILS	EACH END, TOENAIL END NAIL	23. RIM JOIS OR BLOO PLATE, FRAMING
	FLAT BLOCKING TO TRUSS AND WEB FILLER	3-3" x 14 GAGE STAPLES 16d COMMON (3½" x 0.162") @ 6" oc 3" x 0.131" NAILS @ 6" oc 3" x 14 GAGE STAPLES @ 6" oc	FACE NAIL	24. 1" x 6" LESS TO
2.	CEILING JOISTS TO TOP PLATE	3-8d COMMON ($2\frac{1}{2}$ " x 0.131"); or 3-10d BOX (3 " x 0.128"); or 3-3" x 0.131" NAILS; or 3-3" x 14 GAGE STAPLES, $\frac{7}{16}$ " CROWN	EACH JOIST, TOENAIL	JOIST O 26. 2" PLAN BEAM —
3.	CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITION (NO THRUST) (SEE 2308.7.3.1, TABLE 2308.7.3.1)	3-16d COMMON (3½" x 0.162"); or 4-10d BOX (3" x 0.128"); or 4-3" x 0.131" NAILS; or 4-3" x 14 GAGE STAPLES, 7/6" CROWN	FACE NAIL	27. BUILT-U BEAMS, LAYERS
4.	CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)	PER TABLE 2308.7.3.1	FACE NAIL	
5.	COLLAR TIE TO RAFTER	3-10d COMMON (3" x 0.148"); or 4-10d BOX (3" x 0.128"); or 4-3" x 0.131" NAILS; or 4-3" x 14 GAGE STAPLES, 7/6" CROWN	FACE NAIL	
6.	RAFTER OR ROOF TRUSS TO TOP PLATE (SEE 2308.7.5, TABLE 2308.7.5)	3-10d COMMON (3" x 0.148"); or 3-16d BOX (3½" x 0.135"); or 4-10d BOX (3" x 0.128"); or 4-3" x 0.131" NAILS; or 4-3" x 14 GAGE STAPLES, ½6" CROWN	TOENAIL	28. LEDGER SUPPOR OR RAF
7.	ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS; OR ROOF RAFTER TO 2" RIDGE BEAM	2-16d COMMON (3½" x 0.162"); or 3-10d BOX (3" x 0.128"); or 3-3" x 0.131 NAILS; or 3-3" x 14 GAGE STAPES, 7/6" CROWN	END NAIL	29. JOIST TO OR RIM
		$3-10d$ COMMON ($3\frac{1}{2}$ " x 0.148"); or $3-16d$ BOX ($3\frac{1}{2}$ " x 0.135"); or $4-10d$ BOX (3 " x 0.128"); or $4-3$ " x 0.131 NAILS; or $4-3$ " x 14 GAGE STAPES, $\frac{7}{16}$ " CROWN	TOENAIL	30. BRIDGING TO JOIS TRUSS
8.	STUD TO STUD (NOT AT SHEARWALL CHORDS)	WALL 16d COMMON (3½" × 0.162")"	24" oc FACE NAIL	
	CHONDS)	10d BOX (3" x 0.128"); or 3" x 0.131" NAILS; or 3−3" x 14 GAGE STAPLES, ½6" CROWN	16" oc FACE NAIL	
9.	STUD TO STUD AND ABUTTING STUDS AT INTERSECTION WALL CORNERS	16d COMMON ($3\frac{1}{2}$ " x 0.162")"; or 16d BOX ($3\frac{1}{2}$ " x 0.135")"; or 3" x 0.131" NAILS; or 3-3" x 14 GAGE STAPLES, $\frac{1}{16}$ " CROWN	16" oc FACE NAIL 12" oc FACE NAIL 12" oc FACE NAIL	
10.	BUILT-UP HEADER (2" TO 2" HDR.)	16d COMMON (3½" x 0.162")"; or 16d BOX (3½" x 0.135")	16" oc EA. EDGE, FACE NAIL 12" oc EA. EDGE, FACE NAIL	
11.	CONTINUOUS HEADER TO STUD	4-8d COMMON (2½" x 0.131"); or 4-10d BOX (3" x 0.128")	TOENAIL	
12.	TOP PLATE TO TOP PLATE	16d COMMON ($3\frac{1}{2}$ " x 0.162"); or 10d BOX (3 " x 0.128"); or 3" x 0.131" NAILS; or 3 " x 14 GAGE STAPLES, $\frac{1}{16}$ " CROWN	16" oc FACE NAIL 12" oc FACE NAIL	
13.	TOP PLATE TO TOP PLATE, AT END JOINTS	8-16d COMMON (3½" x 0.162"); or 12-10d BOX (3" x 0.128"); or 12-3" x 0.131" NAILS; or 12-3" x 14 GAGE STAPLES, ½6" CROWN	EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EA. SIDE OF END JOINT	
14.	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING NOT AT SHEARWALL	16d COMMON (3½" x 0.162")"; or 16d BOX (3½" x 0.135")"; or 3" x 0.131" NAILS; or 3" x 14 GAGE STAPLES, ½6" CROWN	16" oc FACE NAIL 12" oc FACE NAIL	
15.	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING AT SHEARWALL	2-16d COMMON ($3\frac{1}{2}$ " x 0.162"); or 3-16d BOX ($3\frac{1}{2}$ " x 0.135"); or 4-3" x 0.131" NAILS; or 4-3" x 14 GAGE STAPLES, $\frac{1}{16}$ " CROWN	16" oc FACE NAIL	
16.	STUD TO TOP OR BOTTOM PLATE	4-8d COMMON (2½" x 0.131"); or 4-10d BOX (3" x 0.128"); or 4-3" x 0.131" NAILS; or 4-3" x 14 GAGE STAPLES, ½6" CROWN	TOENAIL	
		2-16d COMMON ($3\frac{1}{2}$ " x 0.162"); or 3-10d BOX (3 " x 0.128"); or 3-3" x 0.131" NAILS; or 3-3" x 14 GAGE STAPLES, $\frac{1}{16}$ " CROWN	END NAIL	
17.	TOP OR BOTTOM PLATE TO STUD	2-16d COMMON ($3\frac{1}{2}$ " x 0.162"); or 3-10d BOX (3 " x 0.128"); or 3-3" x 0.131" NAILS; or 3-3" x 14 GAGE STAPLES, $\frac{7}{16}$ " CROWN	END NAIL	
18.	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	2-16d COMMON ($3\frac{1}{2}$ " x 0.162"); or 3-10d BOX (3 " x 0.128"); or 3-3" x 0.131" NAILS; or 3-3" x 14 GAGE STAPLES, $\frac{7}{16}$ " CROWN	FACE NAIL	
19.	1" BRACE TO EACH STUD AND PLATE	2-8d COMMON ($2\frac{1}{2}$ " x 0.131"); or 2-10d BOX (3" x 0.128"); or 2-3" x 0.131" NAILS; or 2-3" x 14 GAGE STAPLES, $\frac{1}{16}$ " CROWN	FACE NAIL	
20.	1" x 6" SHEATHING TO EACH BEARING	2-8d COMMON (2½" × 0.131"); or 2-10d BOX (3" × 0.128"); or	FACE NAIL	
21	1" x 8" AND WIDER SHEATHING TO	3-8d COMMON (2½" x 0.131"); or 3-10d BOX (3" x 0.128"); or	FACE NAIL	

	SCRIPTION OF DG. ELEMENT	NUMBER AND TYPE OF FASTENERS	SPACING & LOCATION
		FLOOR	
	TO SILL, TOP OR GIRDER	$3-8d$ COMMON ($2\frac{1}{2}$ " x 0.131"); or $3-10d$ BOX (3 " x 0.128"); or $3-3$ " x 0.131" NAILS; or $3-3$ " x 14 GAGE STAPLES, $\frac{7}{16}$ " CROWN	TOENAIL
OR BLO PLATE,	IST, BAND JOIST, OCKING TO TOP SILL, OR OTHER IG BELOW	8d COMMON ($2\frac{1}{2}$ " x 0.131"); or 10d BOX (3" x 0.128"); or 3" x .131" NAILS; r 3" x 14 GAGE STAPLES, $\frac{7}{16}$ " CROWN	6" o.c., TOENA
	" SUBFLOOR OR TO EACH JOIST	2-8d COMMON (2½" x 0.131"); or 2-10d BOX (3" x 0.128")	FACE NAIL
25. 2" SUE JOIST	BFLOOR TO OR GIRDER	2-16d COMMON (3½" x 0.162")	FACE NAIL
	NKS (PLANK & – FLOOR & ROOF)	2-16d COMMON (3½" x 0.162")"	EA. BEARING, FACE NAIL
	UP GIRDERS AND , 2" LUMBER	20d COMMON (4" x 0.192")	32" o.c., FACE NAIL TOP & BO STAGGERED ON OPPOSITE SIDES
		10d BOX (3" x 0.128"); or 3" x 0.131" NAILS; or 3" x 14 GAGE STAPLES, 7/6" CROWN	24" o.c., FACE NAIL AT TOP & BOT. STAGGERE ON OPP. SIDES
		AND: 2-20d COMMON (4" x 0.192"); or 3-10d BOX (3" x 0.128"); or 3-3" x 0.131" NAILS; or 3-3" x 14 GAGE STAPLES, 7/6" CROWN	ENDS AND AT EACH SPLICE, FACE NAIL
28. LEDGEF SUPPO OR RA	RTING JOISTS	3-16d COMMON (3½" x 0.162"); or 4-10d BOX (3" x 0.128"); or 4-3" x 0.131" NAILS; or 4-3" x 14 GAGE STAPLES, ½" CROWN	EACH JOIST OR RAFTER, FACE NAIL
29. JOIST OR RIM	TO BAND JOIST I JOIST	$3-16d$ COMMON ($3\frac{1}{2}$ " x 0.162"); or $4-10d$ BOX (3 " x 0.128"); or $4-3$ " x 0.131" NAILS; or $4-3$ " x 14 GAGE STAPLES, $\frac{1}{16}$ " CROWN	END NAIL
	NG OR BLOCKING ST, RAFTER, OR	2-8d COMMON (2½" x 0.131"); or 2-10d BOX (3" x 0.128"); or 2-3" x 0.131" NAILS; or 2-3" x 14 GAGE STAPLES, ½6" CROWN	EACH END, TOENAIL



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General

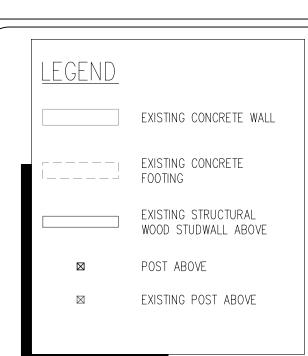
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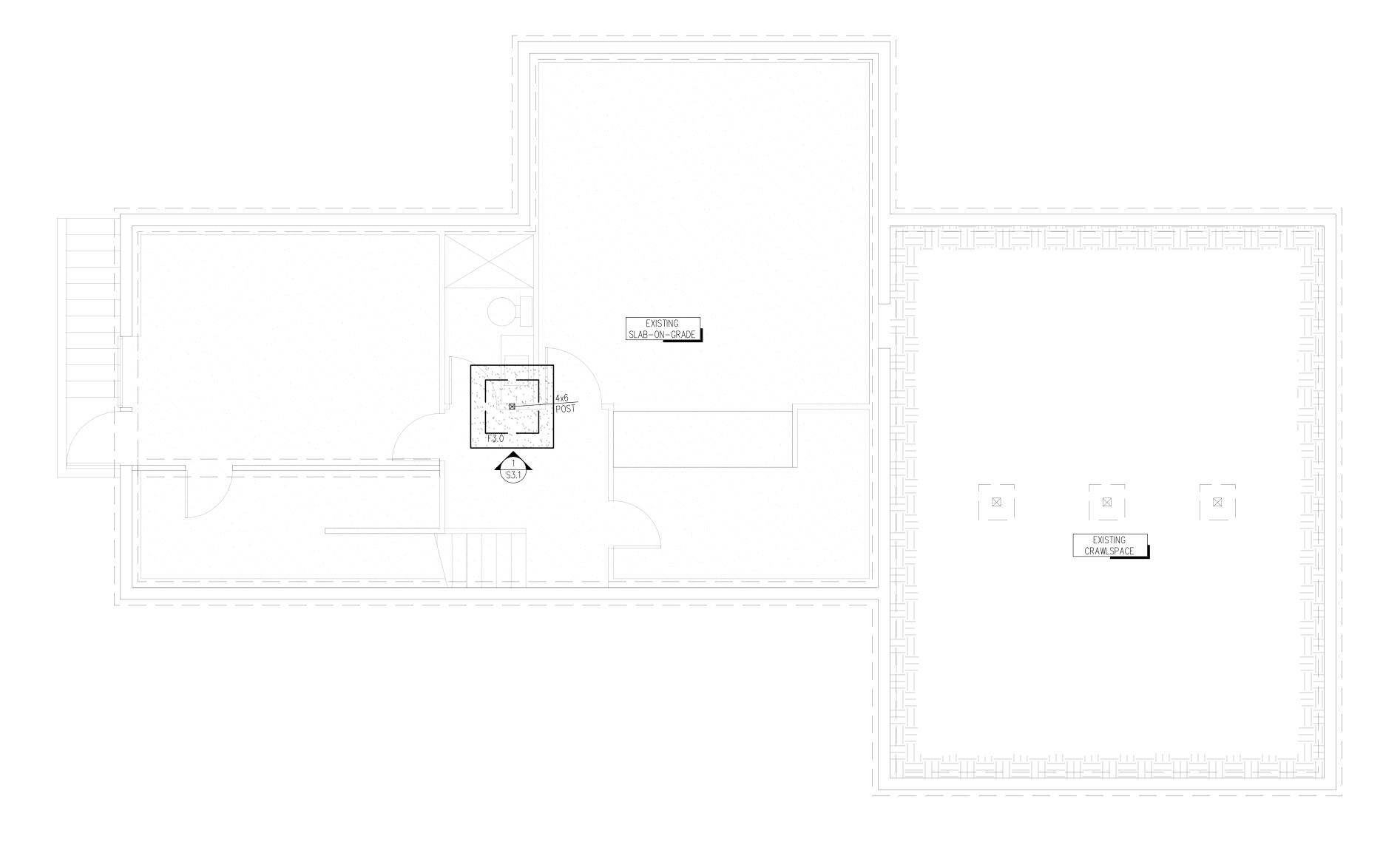
Structural

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DATE 02.14.22

S1.1





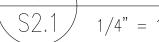
LOWER FLOOR PLAN NOTES

1. SOLID WALLS AND SHEARWALLS SHOWN IN PLAN ARE ABOVE LOWER FLOOR LEVEL.
2. EXISTING CONCRETE FOUNDATION WALL CONDITION SHALL BE V.I.F. TO BE MIN. 8" WIDE AND IN SUITABLE CONDITION (i.e. FREE OF CRACKS, DETERIORATION, BOWING, ETC.). SEE ARCHITECTURAL FOR INTERIOR STUDWALLS. SEE 6/6.2, 5/S6.2, AND 2/S6.2 FOR ALLOWABLE HOLES & NOTCHES IN STUDWALL STUDS AND TOP & BOTTOM PLATES.

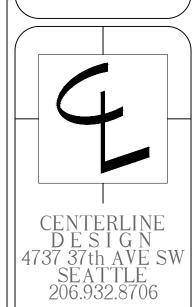
3. SEE STRUCTURAL GENERAL NOTES #13 – 18 FOR CONCRETE AND CONCRETE REINFORCING REQUIREMENTS.



LOWER FLOOR AND FOUNDATION PLAN







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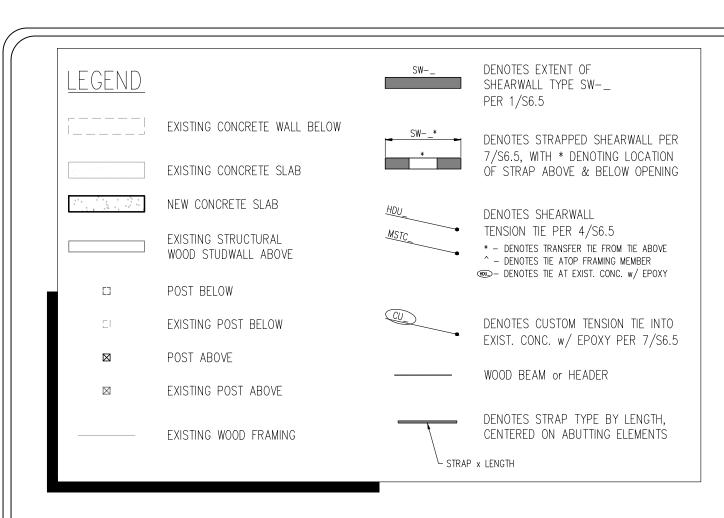
esidence Mahramni 3859 83rd / Mercer Island,

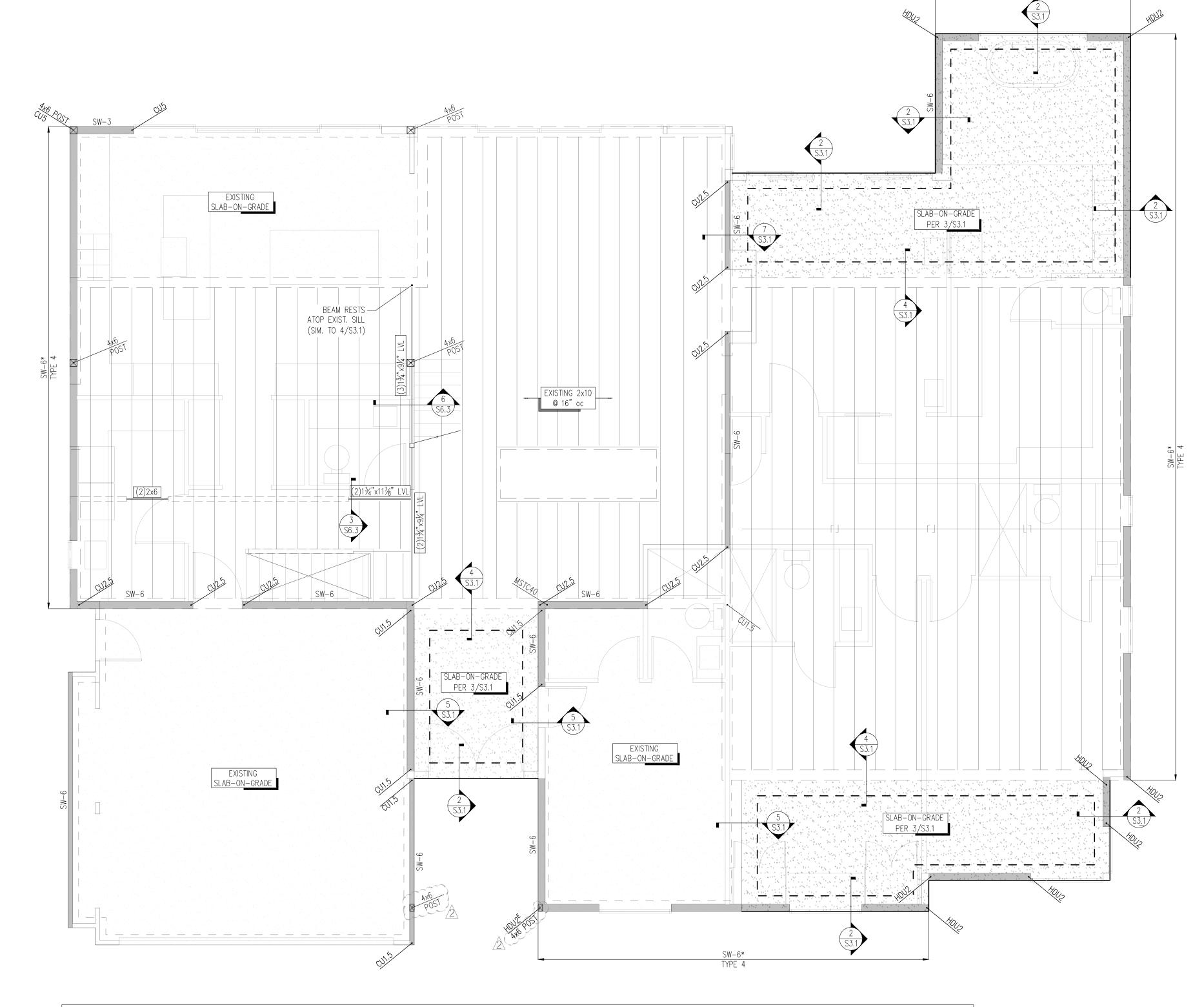
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Lower Floor and Foundation Plan

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MAIN FLOOR FRAMING PLAN NOTES

1. SOLID WALLS AND SHEARWALLS SHOWN IN PLAN ARE ABOVE MAIN FLOOR LEVEL. DASHED WALLS SHOWN IN PLAN ARE BELOW MAIN FLOOR FRAMING ELEVATION.

2. EXISTING EXTERIOR STUDWALLS SHALL BE V.I.F. TO BE 2x4 (MIN.) @ 24" oc (MAX).

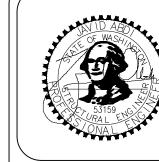
SEE ARCHITECTURAL FOR INTERIOR STUDWALLS. SEE 6/6.2, 5/S6.2, AND 2/S6.2 FOR ALLOWABLE HOLES & NOTCHES IN STUDWALL STUDS AND TOP & BOTTOM PLATES. 3. EXISTING FLOOR SHEATHING TO BE VERFIED IN FIELD TO BE IN SUITABLE CONDITION AND FREE OF DETERIORATION. IF AREAS REQUIRE REPLACEMENT, INFILL SHALL CONSIST OF 3/4" T&G SHEATHING (PANEL SPAN RATING 48/24). NAIL SHEATHING AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, BLOCKING, AND SHEAR WALLS w/ 10d @ 6" oc; AND AT ALL INTERMEDIATE SUPPORTS w/ 10d @ 12" oc (SEE 3/S6.2). GLUE SHEATHING AT ALL SUPPORTS w/ ADHESIVE CONFORMING TO ASTM SPECIFICATION D3498.

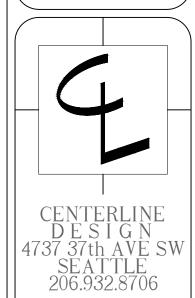
4. ALL HEADERS ABOVE (SEE 1/S2.3) SHALL HAVE A MINIMUM NUMBER OF POSTS PER 4/S6.1 AT NON-LOAD BEARING EXTERIOR WALLS, AND PER 6/S6.1 AT LOAD BEARING EXTERIOR WALLS 5. HEADERS IN EXTERIOR WALLS NOT SUPPORTING RAFTERS, JOISTS, OR BEAMS SHALL BE PER DETAIL 4/S6.2 U.N.O. IN PLAN.



MAIN FLOOR FRAMING PLAN







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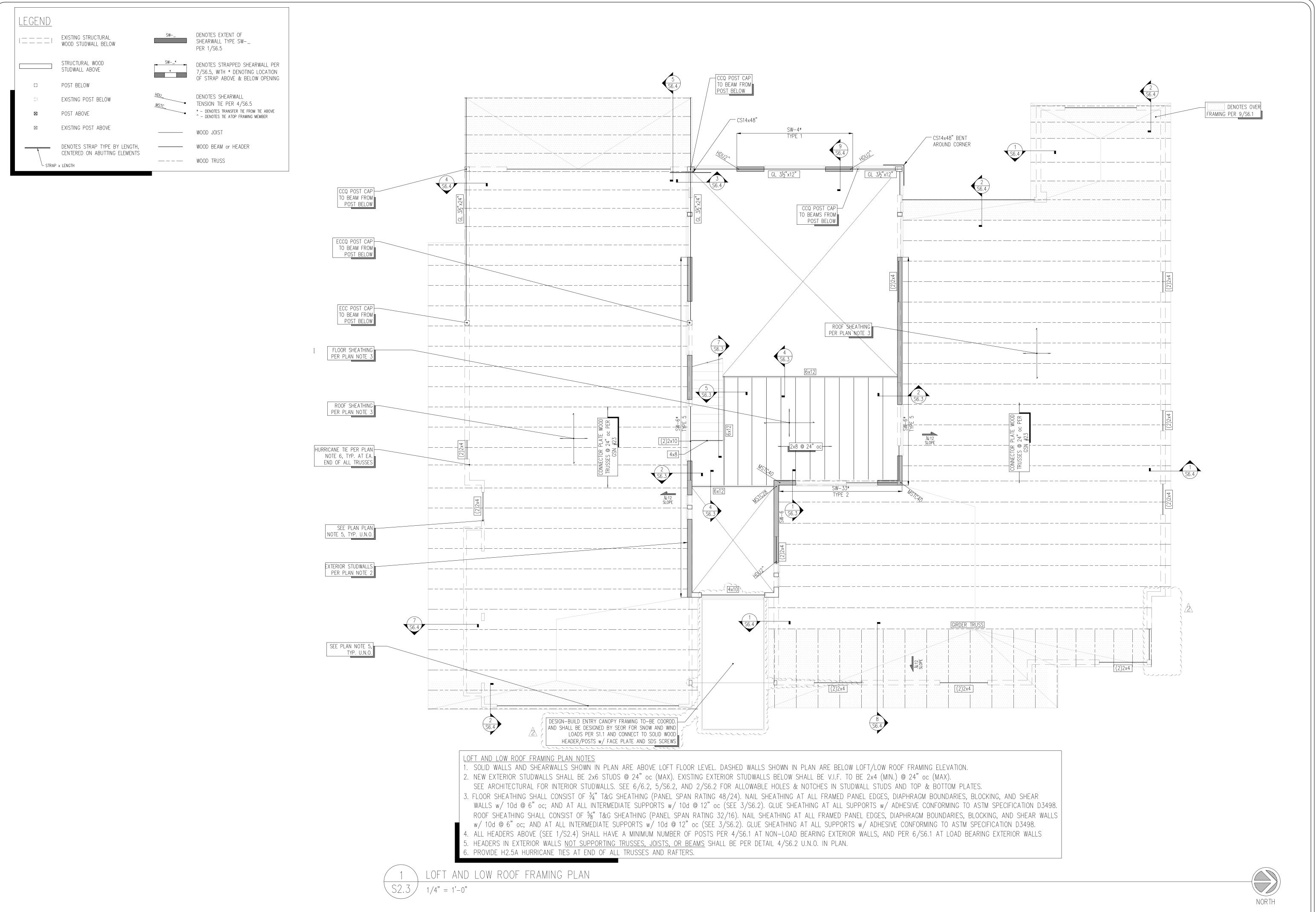


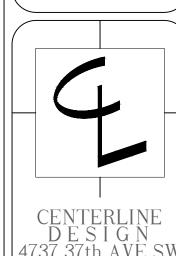
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Main Floor Framing Plan

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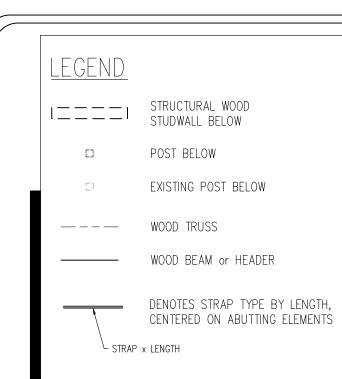
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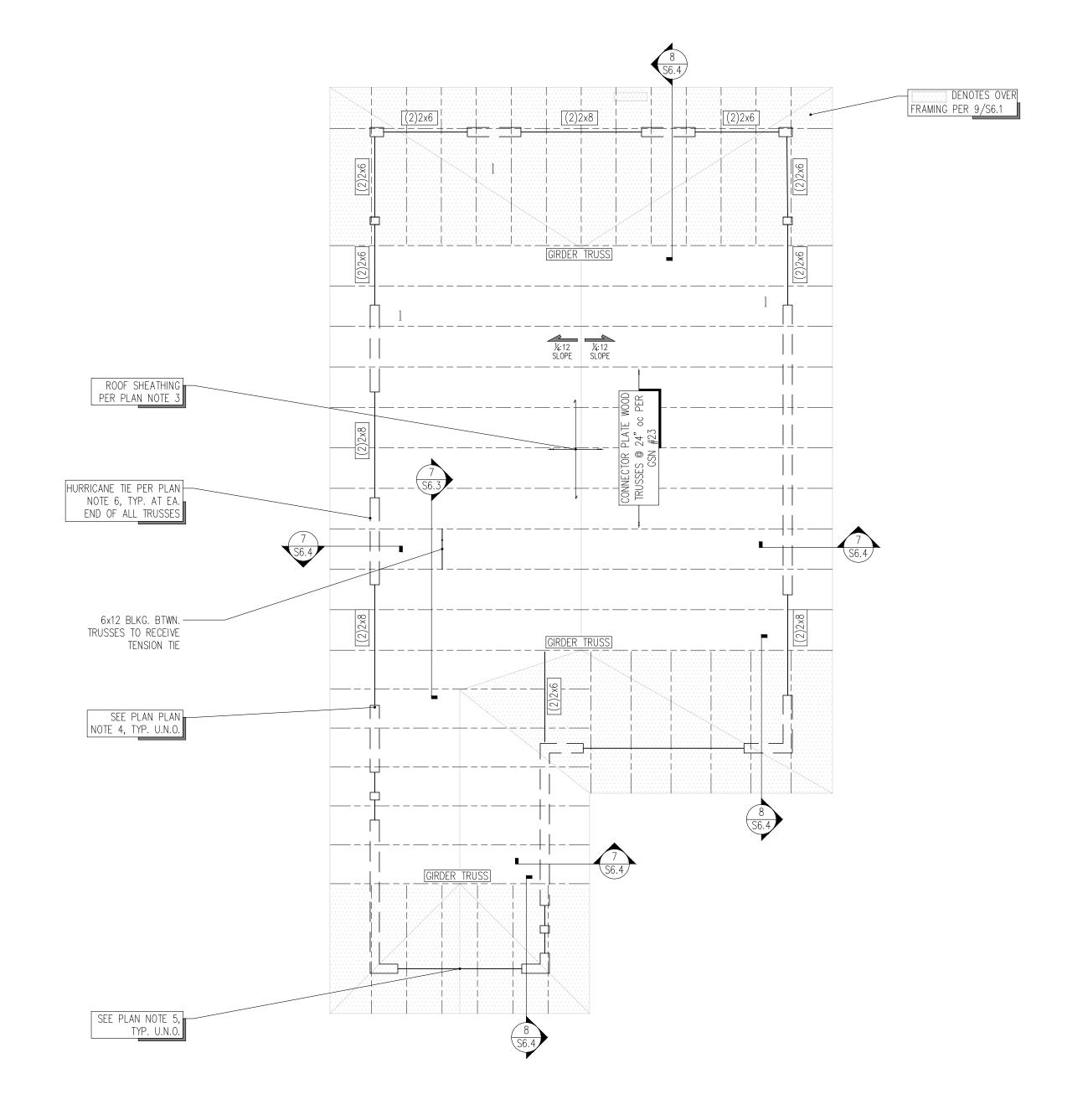
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Loft and Low Roof

Framing Plan

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LOFT ROOF FRAMING PLAN NOTES

1. DASHED WALLS SHOWN IN PLAN ARE BELOW LOFT/LOW ROOF FRAMING ELEVATION.

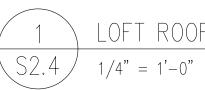
2. NEW EXTERIOR STUDWALLS SHALL BE 2x6 STUDS @ 24" oc (MAX).

SEE ARCHITECTURAL FOR INTERIOR STUDWALLS. SEE 6/6.2, 5/S6.2, AND 2/S6.2 FOR ALLOWABLE HOLES & NOTCHES IN STUDWALL STUDS AND TOP & BOTTOM PLATES.

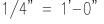
3. ROOF SHEATHING SHALL CONSIST OF %" T&G SHEATHING (PANEL SPAN RATING 32/16). NAIL SHEATHING AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, BLOCKING, AND SHEAR WALLS w/ 10d @ 6" oc; AND AT ALL INTERMEDIATE SUPPORTS w/ 10d @ 12" oc (SEE 3/S6.2). GLUE SHEATHING AT ALL SUPPORTS w/ ADHESIVE CONFORMING TO ASTM SPECIFICATION D3498.

4. ALL HEADERS SHALL HAVE A MINIMUM NUMBER OF POSTS PER 4/S6.1 AT NON-LOAD BEARING EXTERIOR WALLS, AND PER 6/S6.1 AT LOAD BEARING EXTERIOR WALLS

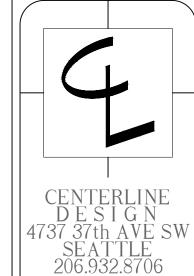
5. HEADERS IN EXTERIOR WALLS <u>NOT SUPPORTING RAFTERS</u>, <u>JOISTS</u>, <u>OR BEAMS</u> SHALL BE PER DETAIL 4/S6.2 U.N.O. IN PLAN. 6. PROVIDE H2.5A HURRICANE TIES AT END OF ALL RAFTERS.



LOFT ROOF FRAMING PLAN







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Loft Roof Framing Plan

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MIN. STRAIGHT DEVELOPMENT LENGTH

BAR SIZE TOP BARS OTHER BARS

#4 25"

MIN. LAP SPLICE LENGTH (CLASS B)

BAR SIZE TOP BARS OTHER BARS

#4 33"

25"

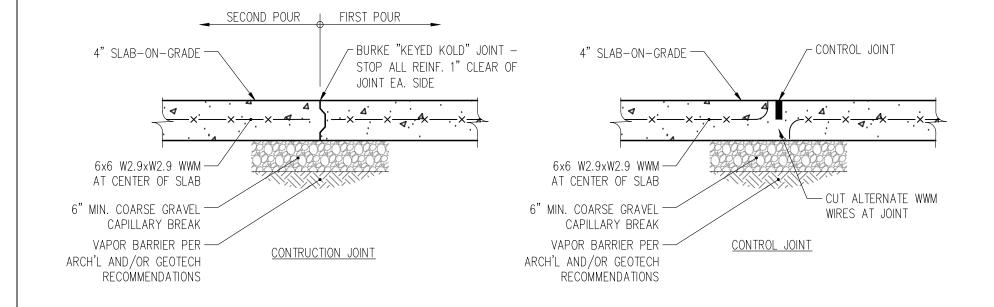
'TOP BARS' ARE HORIZONTAL BARS WITH MORE THAN 12" DEPTH OF CONCRETE CAST BELOW THEM

IF CLEAR CONCRETE COVER IS LESS THAN 1x THE DIAMETER OF THE BAR OR THE CENTER—TO—CENTER
SPACING IS LESS THAN (3) BAR DIAMETERS, THEN VALUES SHALL BE INCREASED BY 50%

MIN. EMBEDMENT LENGTH FOR STANDARD END HOOKS BAR SIZE LENGTH

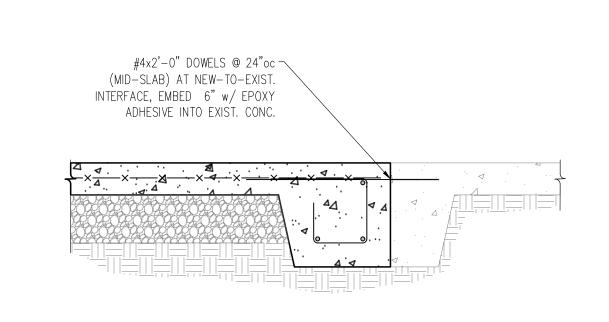
1. SIDE COVER MUST BE EQUAL TO OR GREATER THAN 2½"
2. END COVER FOR 90° HOOKS MUST BE EQUAL TO OR GREATER THAN 2"

9 CONCRETE REINFORCING DEVELOPMENT AND SPLICE LENGTH TABLES
S3.2 N/A

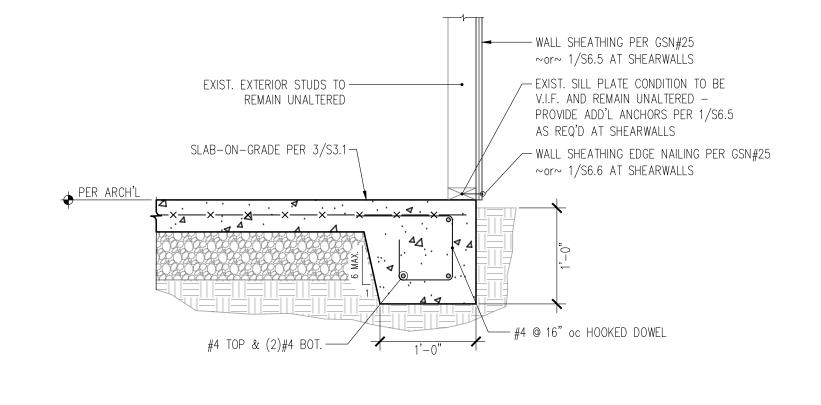


3 TYPICAL SLAB-ON-GRADE JOINTING
S3.1 1" = 1'-0"



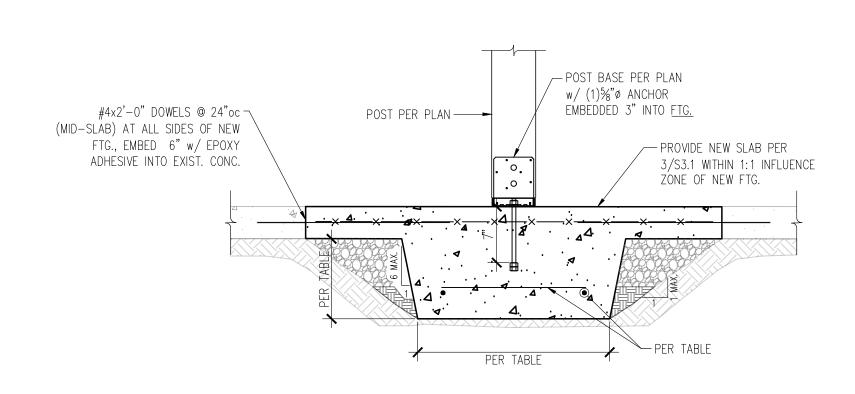


5 TYPICAL INTERFACE OF NEW-TO-EXISTING SLAB ON GRADE





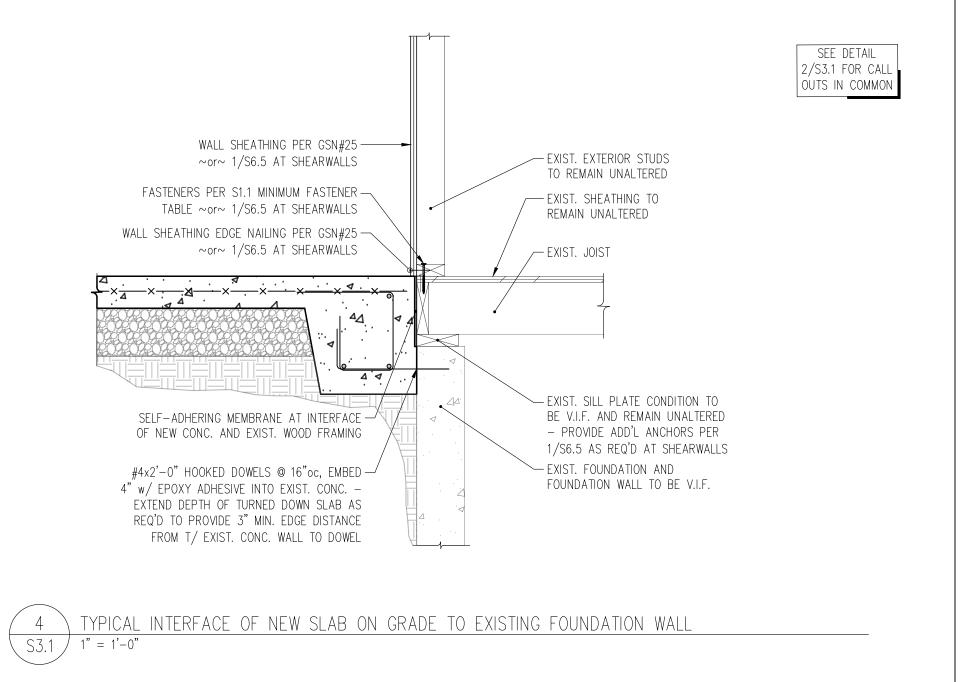
_						
E	TG. MARK	DI	MENSIONS		REINFORCING	DIRECTIO
	IO. MAIN	LENGTH	WIDTH	DEPTH	SHORT	LONG
	F3.0	3'-0"	3'-0"	10"	(4)#4	(4)#4



1 SPREAD FOOTING S3.1 1" = 1'-0"

WALL SHEATHING EDGE NAILING PER GSN#25 ~or~ 1/S6.5 AT SHEARWALLS EXIST. BLKG. EXIST. BLKG. EXIST. JOIST EXIST. SILL PLATE CONDITION TO BE V.I.F. AND REMAIN UNALTERED OF NEW CONC. AND EXIST. WOOD FRAMING #4x2'-0" HOOKED DOWELS @ 16"oc, EMBED 4" w/ EPOXY ADHESIVE INTO EXIST. CONC. — EXTEND DEPTH OF TURNED DOWN SLAB AS REQ'D TO PROVIDE 3" MIN. EDGE DISTANCE	SELF-ADHERING MEMBRANE AT INTERFACE OF NEW CONC. AND EXIST. WOOD FRAMING #4x2'-0" HOOKED DOWELS @ 16"oc, EMBED 4" w/ EPOXY ADHESIVE INTO EXIST. CONC EXTEND DEPTH OF TURNED DOWN SLAB AS	EXIST. JOIST EXIST. SILL PLATE CONDITION TO BE V.I.F. AND REMAIN UNALTERED – PROVIDE ADD'L ANCHORS PER 1/S6.5 AS REQ'D AT SHEARWALLS EXIST. FOUNDATION AND	SEE DETAIL 2/S3.1 FOR CALL OUTS IN COMMON
	REQ'D TO PROVIDE 3" MIN. EDGE DISTANCE		

TYPICAL INTERFACE OF NEW SLAB ON GRADE TO EXISTING FOUNDATION WALL









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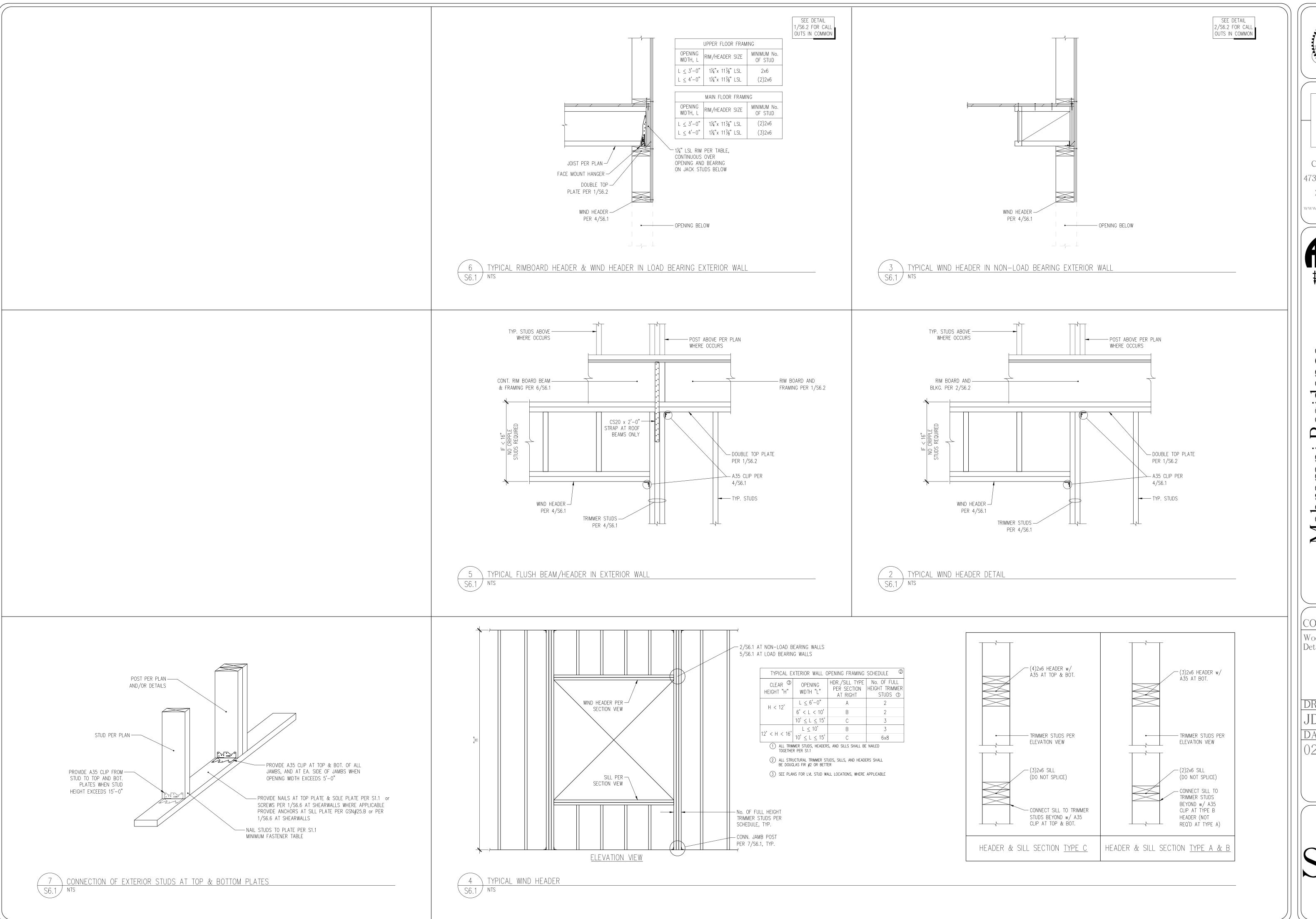
Concrete

Details

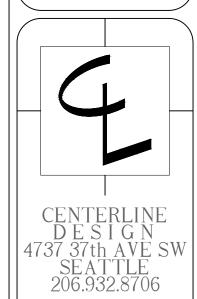
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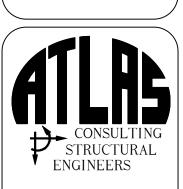
S3.1











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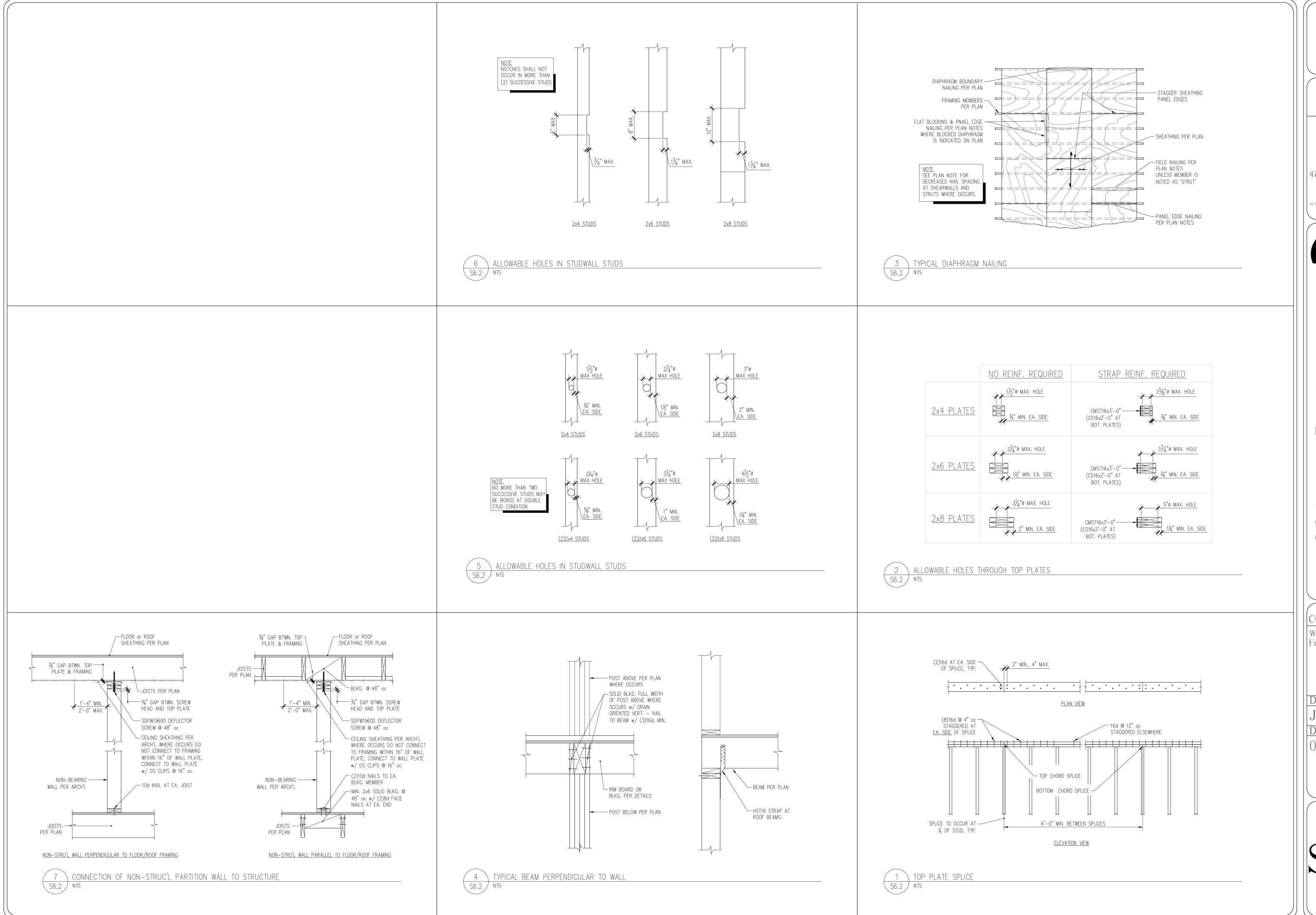
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Wood Typical
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S6 1









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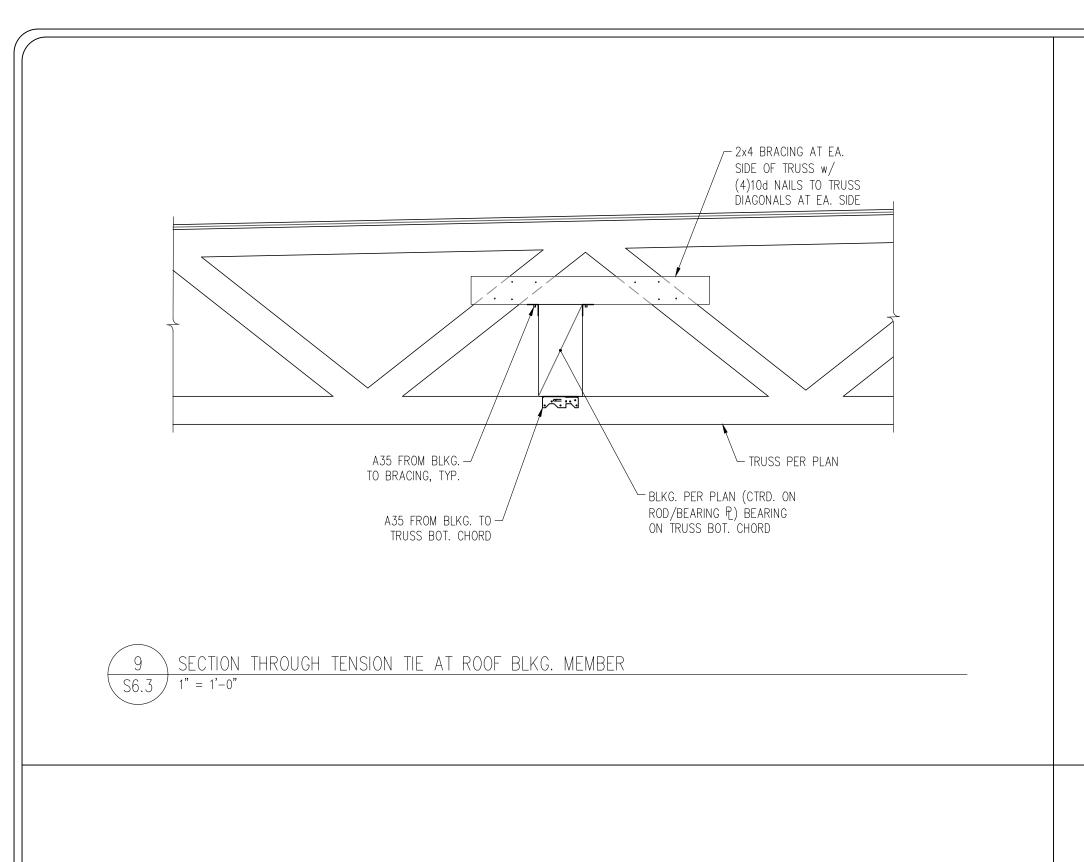
Wood Floor Framing Details

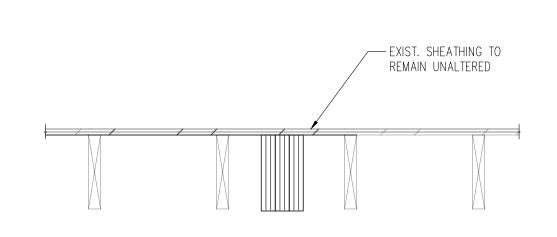
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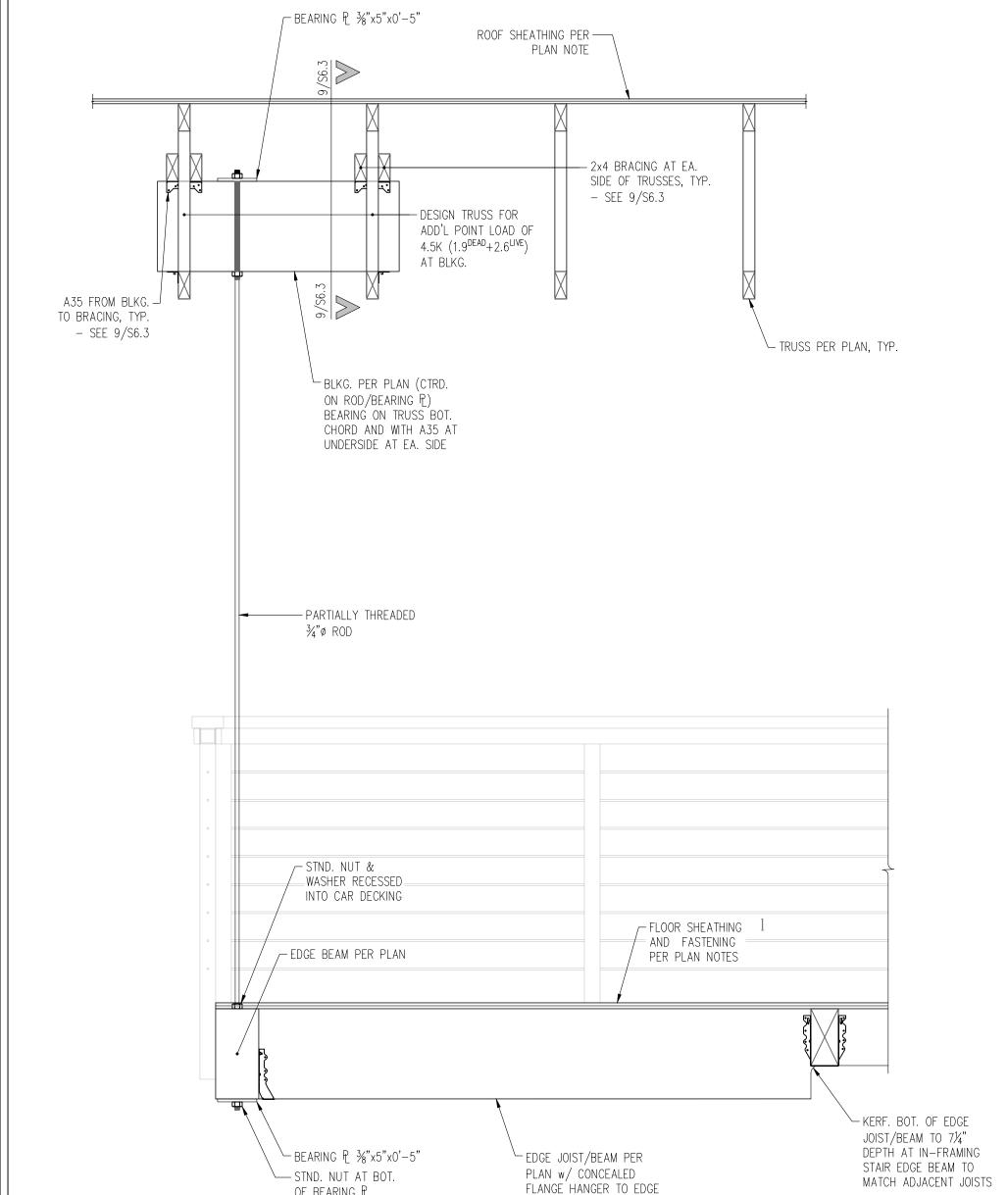
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S6.2





SECTION THROUGH EXTERIOR WALL AT PERPENDICULAR JOISTS AND PERPENDICULAR DECK JOISTS

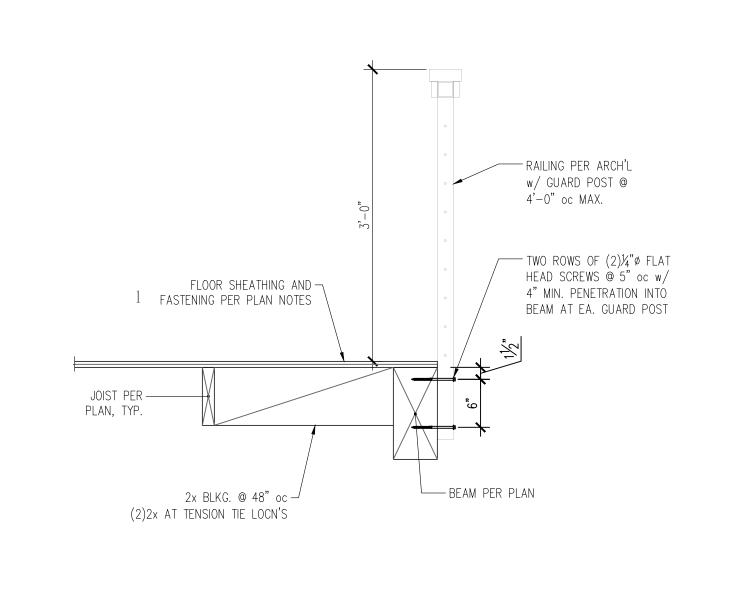


FLANGE HANGER TO EDGE

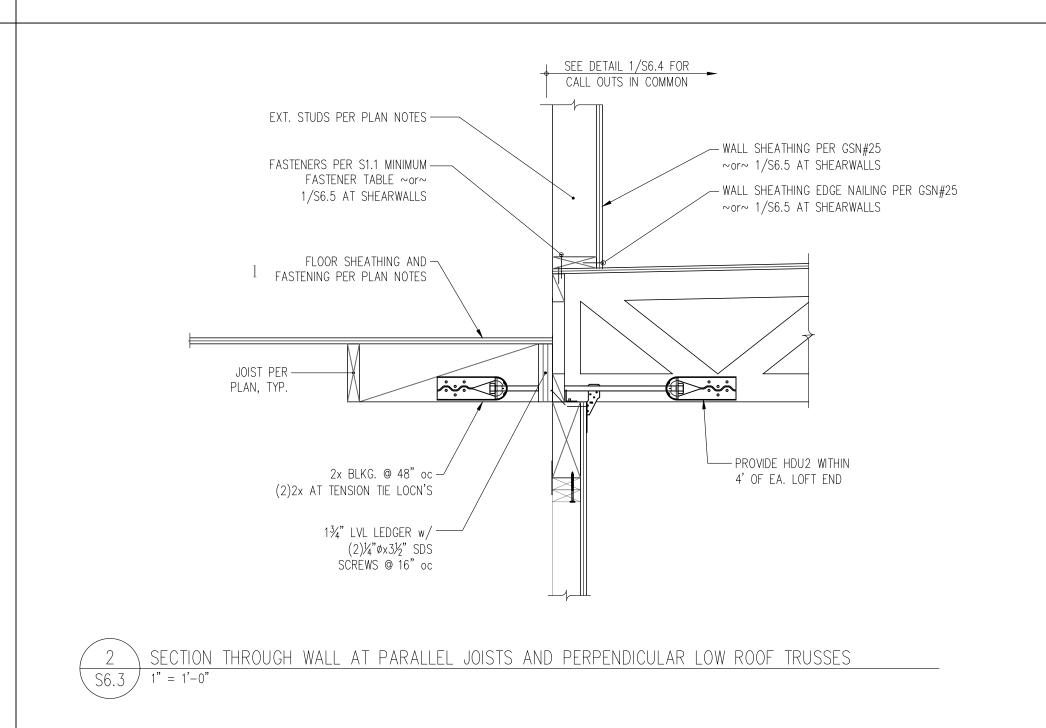
BEAM IN PERP. DIRECTION

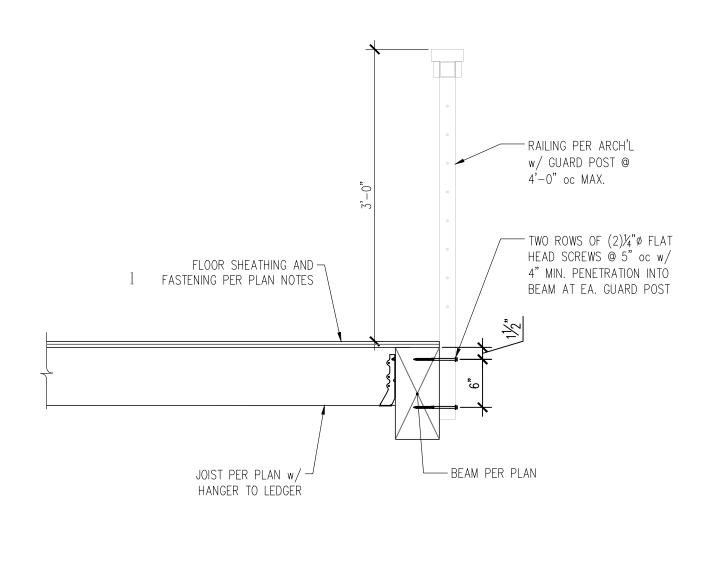
OF BEARING P

SECTION THROUGH TENSION TIE SUPPORTED LOFT CORNER

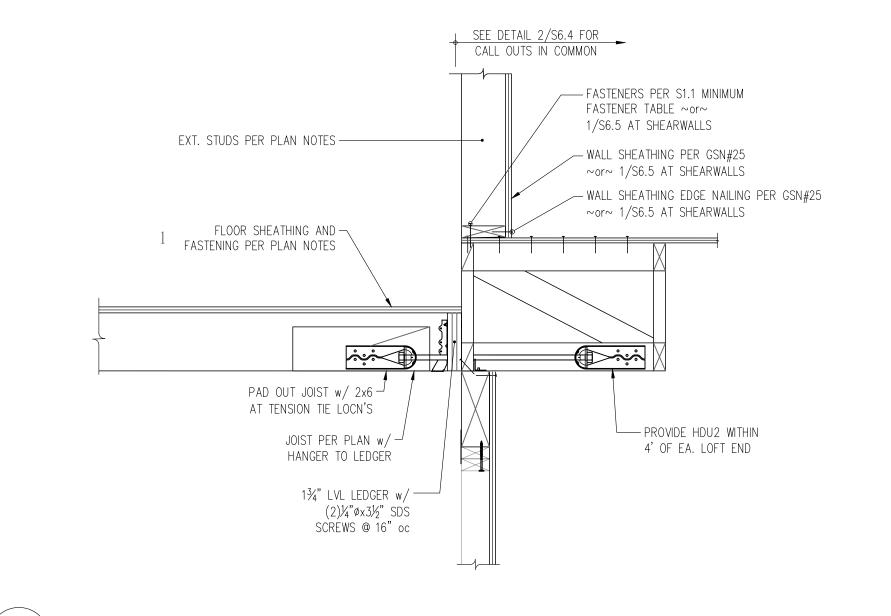




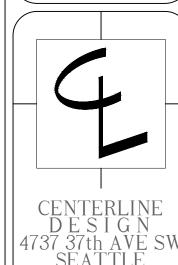




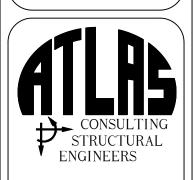




SECTION THROUGH WALL AT PERPENDICULAR JOISTS AND PARALLEL LOW ROOF TRUSSES







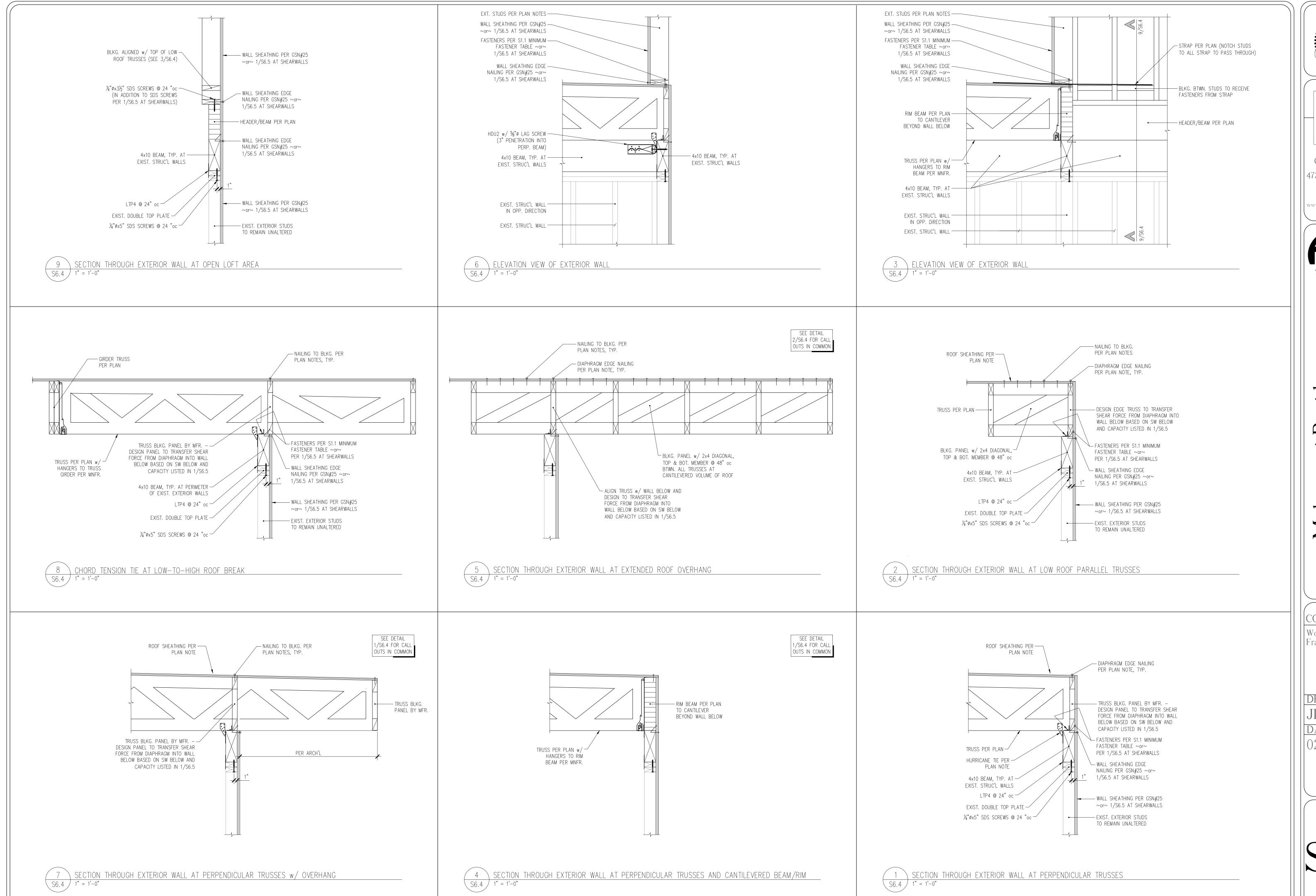
esidence venue SE 7**enue** 7A - 9804 Mahra 3859 89 Mercer

CONTENTS Wood Floor

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CONSULTING STRUCTURAL ENGINEERS

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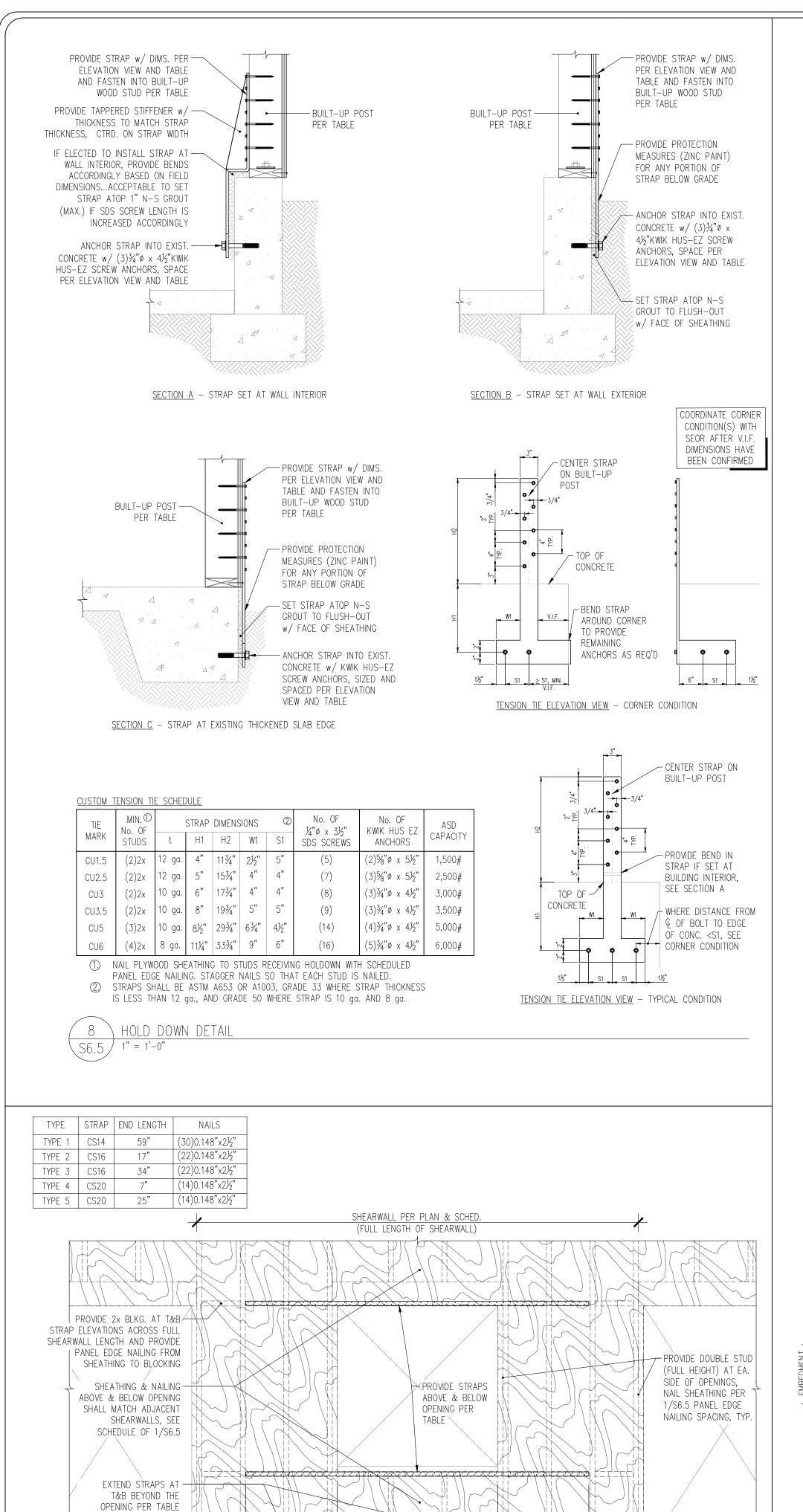
Wood Roof Framing Details

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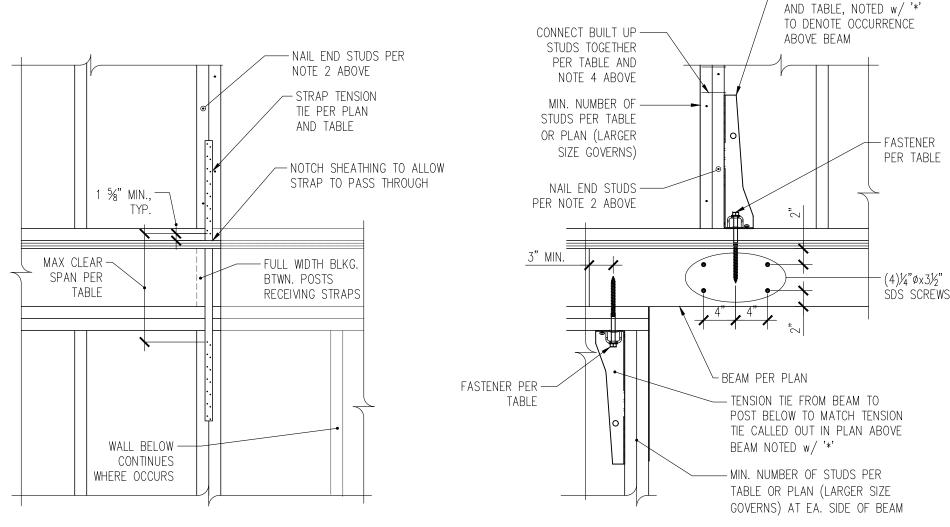
S6.4



AND NAIL PER TABLE

STRAPPED SHEARWALL DETAIL

STRAP TEN	SION TIE SCHEDU	<u>LE</u>		
TIE ^① MARK	MIN. NUMBER [©] OF STUDS	© CLEAR SPAN – TOTAL FASTENERS	ASD CAPACITY	BUILT-UP STUD FACE NAILS or SCREWS ④
HDU2^	(2)2x	(6)¼"ø x 2½" SDS SCREWS	1,500#	10d @ 6" oc
MSTC28	(2)2x	16" - (16)0.148"ø x 3½"	1,330#	10d @ 6" oc
MSTC40	(3)2x	16" - (32)0.148"ø x 3¼"	2,655#	$(5)\frac{1}{4}$ "øx $4\frac{1}{2}$ " SDS
MSTC52	(3)2x	16" - (48)0.148"ø x 3¼"	3,985#	(8)¼"øx4½" SDS
MSTC66	(4)2x	16" - (68)0.148"ø x 3¼"	5,850#	(11)¼"øx6" SDS
② N EI SI P 6	AIL PLYWOOD SH DGE NAILING. STA ASTENERS NOTED ALF OF THE FAS CREWS SHALL BE ROVIDE SCREWS " oc NAILS AT O DENOTES TENSIO	S REFER TO SIMPSON STRONG-TIE CEATHING TO STUDS RECEIVING HOLDONGER NAILS SO THAT EACH STUD IS IN TABLE ABOVE REPRESENT THE TENERS SHALL BE PROVIDED INTO EAS NOTED IN TABLE AT ONE FACE COPPOSITE FACE OF BUILT UP STUD. N TIE THAT OCCURS ATOP OF A FRAA MENTAMENT OF THE TABLE AT MINIMULATION OF THE TABLE AS MOTED OF A FRAA MENTAMENT OF THE THAT OCCURS ATOP OF A FRAA MENTAMENT OF THE THAT OCCURS ATOP OF A FRAA MENTAMENT OF THE THAT OCCURS ATOP OF A FRAA MENTAMENT OF THE TABLE AS MENTAMENT OF THE TABLE OF THE T	OWN WITH SCH S NAILED. OTAL AMOUN ACH STUD. SHT OF STUD OF BUILT-UP	HEDULED PANEL T. FOR STRAPS, ABOVE TENSION TIE. STUD, AND 10d @ R BELOW. FOR
/	NAIL END STUDS NOTE 2 ABOVE	PER STUD PER	CT BUILT UP - S TOGETHER TABLE AND TE 4 ABOVE	



<u>ELEVATION VIEW</u> - TYPICAL CONDITION	<u>ELEVATION VIEW</u> — TENSION TIE ABOVE BEAM

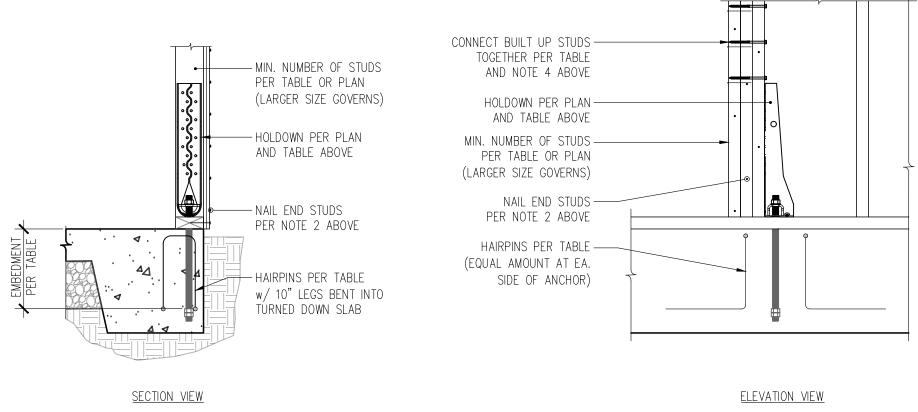
/ TENSION TIE PER PLAN

HOLDOWN T	HOLDOWN TENSION TIE SCHEDULE									
TIE ① MARK	MIN. NUMBER [©] OF STUDS	ANCHOR (Ø x EMBEDMENT) ^③ and No. OF HAIRPIN DOWELS	FASTENERS FROM TIE TO STUD	ASD CAPACITY	BUILT-UP STUD FACE NAILS or SCREWS ④					
HDU2	(2)2x	%"ø x 10" − (2)#4 HAIRPIN	(6)¼"ø x 2½" SDS SCREWS	3,075#	10d @ 6" oc					
HDU2 ^E	(2)2x	5%"ø EMBED 7½" IN EPOXY GROUTED HOLE PER GSN#29	(6)¼"ø x 2½" SDS SCREWS	500#	10d @ 6" oc					
HDU4	(3)2x	5⁄8"ø x 20" − (2)#4 HAIRPIN	(10)1/4"ø x 21/2" SDS SCREWS	4,565#	(9)¼"øx4½" SDS					
HDU8	(4)2x	%"ø x 20" − (4)#4 HAIRPIN	(20)1/4" Ø x 21/2" SDS SCREWS	7,870#	(15)¼"øx6" SDS					
HDU11	(5)2x	1"ø x 20" - (4)#4 HAIRPIN	(30)¼"ø x 2½" SDS SCREWS	11,175#	(21)¼"øx8" SDS					

- TENSION TIE TYPES REFER TO SIMPSON STRONG-TIE CATALOG CALLOUTS.
 NAIL PLYWOOD SHEATHING TO STUDS RECEIVING HOLDOWN WITH SCHEDULED PANEL EDGE NAILING. STAGGER NAILS SO
- THAT EACH STUD IS NAILED.

 3 ANCHORS SHALL BE HEAVY HEX HEAD WITH DOUBLE NUT CAST INTO CONCRETE.
- ASTM F 1554 Gr. 36 FOR %"ø ANCHOR ASTM F 1554 Gr. 105 FOR %"ø ANCHOR
- ASTM F 1554 Gr. 105 FOR 78 F ANCHOR

 ASTM F 1554 Gr. 55 FOR 1" ANCHOR
- (4) SCREWS SHALL BE SPACED EQUALLY ALONG FULL HEIGHT OF STUD ABOVE TENSION TIE. PROVIDE SCREWS AS NOTED IN TABLE AT ONE FACE OF BUILT-UP STUD, AND 10d @ 6" oc NAILS AT OPPOSITE FACE OF BUILT UP STUD.

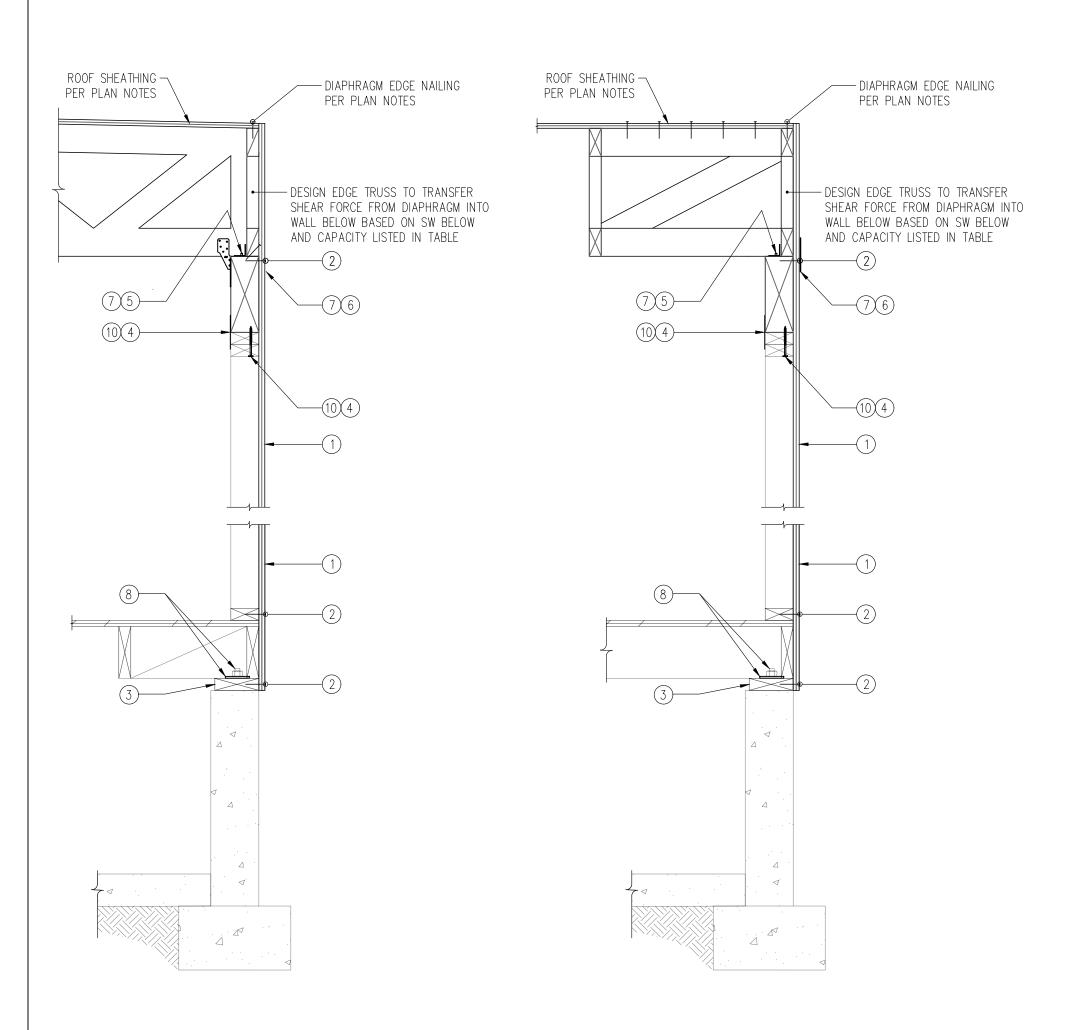




	①	2	③ STUD/BLKG. AT ABUTTING PANEL	ONN. OF BLKG. OR FRAMING to TOP PLATE; AND SOLE PLATE TO SILL PLATE			8 9 ANCHOR BOLTS TO		ASD CAPACITY
SHEARWALL PANEL TYPE	SHEATHING THICKNESS	0.131" x 21/4" PANEL NAILING	EDGES & SILL PLATE THICKNESS	④ ¼"ø x 3½" SDS SCREWS	⑤ A35 CLIPS	6 LTP4 PLATES	COI 5%"ø	NC. 3⁄4"ø	PLF
SW-6	1/2"	6" oc	2x	11" oc	17" oc	17" oc	40" oc	48" oc	310
SW-4	1/2"	4" oc	3x	7" oc	12" oc	12" oc	27" oc	37" oc	460
SW-3	1/2"	3" oc	3x	5" oc	9" oc	9" oc	21" oc	29" oc	600
SW-2	1/2"	2" oc	3x	4" oc	7" oc	7" oc	16" oc	22" oc	770
SW-33	1/2"	3" oc EA. SIDE	3x	2" oc	4" oc	4" oc	10" oc	14" oc	1200

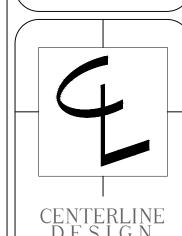
- (1) SHEATHING SHALL CONSIST OF ½" PLYWOOD AND HAVE A MINIMUM SPAN RATING OF 2%; PERMISSIBLE TO RE-USE EXISTING SHEATHING AT EXISTING STUDWALLS IF THICKNESS & SPAN RATING CAN BE VERIFIED AND STUDS & SHEATHING ARE IN SUITABLE CONDITION.
- 2 PANEL NAILING APPLIES TO ALL SHEATHING PANEL EDGES. IF RE-USING EXISTING SHEATHING PER NOTE 1 ABOVE, PROVIDE ADDITIONAL FASTENERS AS REQUIRED TO MEET SPACING REQUIREMENTS. INSTALL BLOCKING AT ALL UNFRAMED PANEL EDGES. ENSURE SHEATHING IS NAILED TO EXISTING INTERMEDIATE FRAMING WITH PANEL NAILS AT 12"oc.
- 3 DOUBLE 2x MEMBERS MAY BE SUBSTITUTED FOR 3x MEMBERS AT WALLS WITH ONLY ONE LAYER OF SHEATHING. 2x MEMBERS SHALL BE NAILED TOGETHER WITH 8d FACE: @ 5" oc FOR SW-6, @ 3½" oc FOR SW-4, @ 2½" oc FOR SW-3, AND @ 2" oc FOR SW-2 (116#/NAIL)
- ROWS OF NAILS AND SDS SCREWS SHALL BE OFFSET AT LEAST ½" AND STAGGERED. MINIMUM EDGE DISTANCE FOR NAILS AND SDS SCREWS INTO EDGE OF MEMBERS SHALL BE 5%" (400#/SCREW)
- (5) A35 CLIPS SHALL BE INSTALLED w/ (12)0.131 x 1½ " NAILS (650#/CLIP)
- (6) LTP4 LATERAL TIE PLATES MAY BE INSTALLED OVER SHEATHING W/ (12)0.131 x 2½" NAILS (625#/CLIP)
- ONTRACTOR SHALL USE A35 or LT4P CLIPS TO CONNECT ROOF TO DOUBLE TOP PLATE AND SDS SCRWS or LTP4 CLIPS TO CONNECT SOLE PLATE TO RIM BOARD AT MAIN FLOOR.
- EXTEND SHEATHING TO BOTTOM OF SOLE PLATE AT MAIN FLOOR FOUNDATION WALL AND PROVIDE EDGE FASTENING AS NOTED IN TABLE.
- 8) PLATE WASHERS IN 2x4 STUD WALLS AND <u>ALL</u> SINGLE SIDED SHEAR WALLS SHALL BE 3"x3"x0.229". DOUBLE SIDED 2x6 SHEAR WALLS SHALL HAVE 4½"x3"0.229" PLATE WASHERS. THE EDGE OF PLATE WASHERS SHALL BE LOCATED WITHIN ½" OF THE EDGE OF BOTTOM PLATE ON THE SIDE WITH SHEATHING.
- 9 CAST ANCHORS A MINIMUM OF 7" INTO CONCRETE. INSTALL ADDITIONAL ANCHOR BOLTS AT EACH SIDE OF PLATE BREAKS AND PENETRATIONS EXCEEDING THE "NO REINFORCING" HOLE SIZE PER 2/S6.1.

 AT EXISTING STUD WALLS, A COMBINATION OF EXISTING AND NEW ANCHOR BOLTS CAN BE COUNTED TOWARDS THE SPACING REQUIREMENTS NOTE IN THE TABLE PROVIDED THEY ADHERE TO NOTE #8 ABOVE. NEW ANCHOR BOLTS SHALL BE ¾" # HILTI KWIK HUS-EZ SCREW ANCHORS WITH 3" MINIMUM EMBEDMENT INTO CONCRETE. AS AN ALTERNATVIE TO NEW ANCHOR BOLTS, SIMPSON FRFP RETROFIT FOUNDATION PLATES WITH (5)¼" SDS SCREWS THAT PENETRATE THE SILL PLATE 2½" MAY BE USED (#1810/PLATE) IF SPACED ACCORDINGLY: @ 72" oc FOR SW-6, @ 56" oc FOR SW-4, @ 42" oc FOR SW-3,@ 32" oc FOR SW-2, AND @ 20" oc FOR SW-33

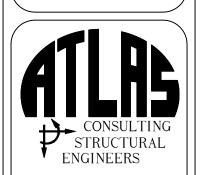








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Mahramni Residence 3859 83rd Avenue SE Mercer Island, WA - 98040

CONTENTS

Lateral

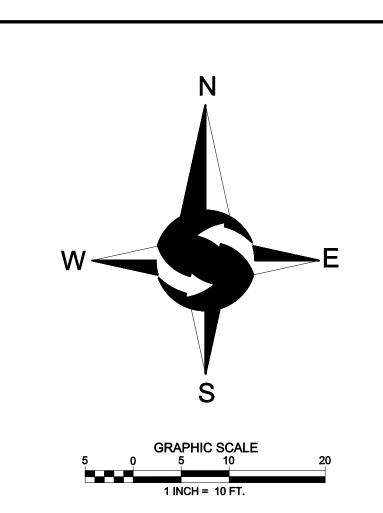
Details

DRAWN BY

JDA DATE

)2.14.22

S6.5



LEGEND

lacktriangle	FOUND MONUMENT AS DESCRIBED	— OHP—	OVERHEAD POWER
0	FOUND REBAR AS DESCRIBED	—они—	OVERHEAD UTILITIES
×	FOUND MAG NAIL AS DESCRIBED	\boxtimes	CATCH BASIN
	SET MAG NAIL AS DESCRIBED		YARD DRAIN
•	SET 5/8" X 24" IRON ROD W/1" YELLOW PLASTIC CAP		MAILBOX
P	POWER METER	ф	YARD LIGHT
<i>_</i>	UTILITY POLE	——	WOOD FENCE
	GAS METER	***************************************	CONCRETE WALL
	SANITARY SEWER MANHOLE		ROCKERY
\bowtie	WATER VALVE		
Q	FIRE HYDRANT		ASPHALT SURFACE
\blacksquare	WATER METER		CONCRETE SURFACE
-ss-	APPROXIMATE LOCATION SANITARY SEWER LINE	РМ	PALM
— w —	APPROXIMATE LOCATION UNDERGROUND WATER LINE	DS	DECIDUOUS

LEGAL DESCRIPTION

LOT 16, BLOCK 1, LUCAS HILL-DIVISION 2, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 56 OF PLATS, PAGE(S) 93, RECORDS OF KING COUNTY, WASHINGTON. SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

THE PLAT OF LUCAS HILL-DIVISION 2, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 56 OF PLATS, PAGE(S) 93, RECORDS OF KING COUNTY, WASHINGTON.

PROJECT INFORMATION

SURVEYOR:

SITE SURVEYING, INC. 21923 NE 11TH ST SAMMAMISH, WA 98074 PHONE: 425.298.4412

PROPERTY OWNER:

TAX PARCEL NUMBER:

MOHAMMAD MAHRAMNIA & LALEH MIRABBASZADEH 3859 83RD AVENUE SE MERCER ISLAND, WA 98040 445790-0050

3859 83RD AVENUE SE

PROJECT ADDRESS:

MERCER ISLAND, WA 98040

ZONING:

JURISDICTION:

CITY OF MERCER ISLAND PARCEL ACREAGE: 11,167 SF (0.256 ACRES) AS SURVEYED

GENERAL NOTES

THIS SURVEY WAS BASED ON FIDELITY NATIONAL TITLE COMPANY ORDER NO. 611282658TS, DATED MAY 18, 2021 AT 08.00 AM.

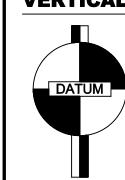
2. INSTRUMENTATION FOR THIS SURVEY WAS A 3-SECOND SPECTRAPRECISION FOCUS 35 TOTAL STATION. PROCEDURES USED IN THIS SURVEY MEET OR EXCEED STANDARDS SET BY WAC 332-130-090.

3. THE INFORMATION ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE IN JULY 2021 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

4. UTILITIES SHOWN ON THIS SURVEY ARE BASED UPON ABOVE GROUND OBSERVATIONS AND AS-BUILT PLANS WHERE AVAILABLE. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES MAY VARY AND UTILITIES NOT SHOWN ON THIS SURVEY

5. ALL MONUMENTS WERE LOCATED DURING THIS SURVEY UNLESS OTHERWISE NOTED.

VERTICAL DATUM & CONTOUR INTERVAL



ELEVATIONS SHOWN ON THIS DRAWING WERE DERIVED FROM INFORMATION PROVIDED BY WCCS SURVEY CONTROL

POINT ID NO. 217 (POINT NAME: 5513 -CONCRETE MONUMENT WITH 3/8" COPPER PIN, DOWN 0.9' IN CASE, 32'± NORTH OF THE INTERSECTION OF 82ND AVE SE AND

ELEVATION: 266.46 FEET (81.217 METERS) NAVD88 1.0' CONTOUR INTERVAL - THE EXPECTED VERTICAL ACCURACY IS EQUAL TO ½ THE CONTOUR INTERVAL OR PLUS / MINUS 0.5' FOR THIS PROJECT.

