

**CALCULATION KEY** 

No changes in this revision

## 1583.4 113.3 730.0 415.5 224.6 561.0 223.0 751.4 108.8 2284.8 652.8 6.0 1740.8 16.0 34.0 3869.2 470.8 4.0 4834.8 3055.2 127.3 2940.0 12.3 1448.9 116.8 116.4 116.1

Avg. Height. = 29280.6/251.0 = 116.66'

= 116.66 + 30.0= **146.66**'

SITE PLAN

SITE PLAN **LOT AREA 23,034 SF** 34.92% LOT COVERAGE ANCILLARY COVERAGE DECKS/RETAINING WALLS & WALKS 642 SF 2.89% **ANCILLARY IMPERVIOUS** 

Areas Revised Per New Road Path. Ancillary Impervious Calculations

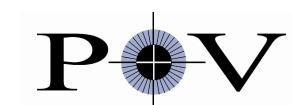
PER MICC 19.02.020(F)(3)(D) TO REMOVE NOXIOUS WEEDS. ("DEVELOPMENT PROPOSALS FOR A NEW SINGLE-FAMILY HOME SHALL REMOVE JAPANESE KNOTWEED (POLYGONUM CUSPIDATUM) AND REGULATED CLASS A, REGULATED CLASS B, AND REGULATED CLASS C WEEDS IDENTIFIED ON TEH KING COUNTY NOXIOUS WEEDS LIST, AS AMENDED, FROM REQUIRED LANDSCAPING AREAS ESTABLISHED PURSUANT TO SUBSECTION (F)(3)(A) OF THIS SECTION. 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." Note Added Per City AS PER MICC 19.07.060(D)(1)(D) BECAUSE THE DEVELOPMENT OF A GEOLOGIC HAZARD AREA IS PROPOSED ALL DISTURBED AREAS OUTSIDE OF BUILDING FOOTPRINTS AND INSTALLATION OF ALL IMPERVIOUS SURFACES BE LANDSCAPED. Note Added Per City 

Note Added Per City

BUILDING PAD TO BE DEVELOPED IN A MANNER CONSISTENT WITH PROVISIONS OF MICC 19.09.090. 

# TR Webb Homes

- Tom Webb, Architect - 10303-14th Avenue NW, Seattle, WA 98177 TomW @KDW.net / (206) 390-1800



1628 46th Street SE, Everett, WA 98203 point\_of\_vision @comcast.net (425)772-8207

POINT OF VISION ARCHITECTURAL SERVICES

THOMAS R. WEBB STATE OF WASHINGTON

New Residence For: **James & Jessica Rudolf** 8253 West Mercer Way Mercer Island, Washington 98040

## CODES:

BUILDING PAD EXTENTS

PLANS TO COMPLY WITH 2015 INTERNATIONAL RESIDENTIAL CODE (IRC), AND WASHINGTON STATE AMMENDMENTS. ALL APPLICABLE CODES TO BE FOLLOWED.

1" = 20'

- 2015 INTERNATIONAL RESIDENTIAL BUILDING CODE (IRC) 2015 INTERNATIONAL BUILDING CODE (IBC)
- 2015 WASHINGTON STATE ENERGY CODE WAC 51-11 (WSEC) MINIMUM DESIGN LOADS FO BUILDINGS AND OTHER STRUCTURES, ASCE 7-10 (ASCE)
- 2015 SPECIAL DESIGN PRÒVISIÓNS FOR WIND AND SEISMIC (SDPWS)
- 6. MERCER ISLAND CITY CODE (MICC)

## **BUILDING**

**OCCUPANCY**: CONSTRUCTION TYPE: V-5 R-15 SINGLE FAMILY **ZONING:** SETBACKS: FRONT 20' REAR 25' SIDE TOTAL 15'; 5'MIN. MAIN LEVEL FLOOR AREA: 1,669 SF MID LEVEL FLOOR ARE 1,898 SF LOWER LEVEL FLOOR AREA 1.487 SF

**TOTAL FLOOR AREA** 5,054 SF GARAGE AREA 576 SF RE 80 SF ADDED IN MAIN LEVEL

COMPLY WITH CURRENT EDITION OF NFPA 13, NFPA 13D, AND NFPA 13R; MERCER ISLAND BUILDING AND FIRE CODE. SEE MUNICIPAL CODE TITLE 17.

PERMIT SET 5/15/18 ↑ 6-11-18 Retaining Walls Removed For Tree Retention, Lot Coverage, Various Notes Per City 2 11-12-18 Adjustments Per City Comments 3 3-31-19 Building Pad Extents Added PROJECT INFORMATION PROJECT NO: POV1740

> Site Plan, ABE Calcs & Project Information

SHEET NO

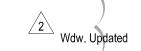
PROJECT MANAGER:

DRAWN BY:

A

TW

							WINDC	)W SCHE	EDULE		
								D	ETAILS		
WDW#	WIDTH	Height	AREA(SF)	WDW TYPE	HEAD HEIGHT	UValue	UA	Head	Jamb	Sill	Remarks
1	60	72	30	SLIDING	+8'-0"	0.29	8.7				EGRESS COMPLIANT WINDOW
2	48	72	24	PICTURE	+8'-0"	0.28	6.72				
3	36	96	24	PICTURE	+8'-0"	0.28	6.72				
4	36	96	24	PICTURE	+8'-0"	0.28	6.72		-		
5	36	96	24	PICTURE	+8'-0"	0.28	6.72		-		
6	36	96	24	PICTURE	+8'-0"	0.28	6.72		-		
7	36	96	24	PICTURE	+8'-0"	0.28	6.72		-		
8	33	96	22	PICTURE	+8'-0"	0.28	6.16		-		
9	72	24	12	PICTURE	+8'-0"	0.28	3.36				
10	72	54	27	SLIDING	+8'-0"	0.29	7.83				
11	72	24	12	PICTURE	+8'-0"	0.28	3.36				
12				NOT USED							
13				NOT USED							
14	72	24	12	PICTURE	+8'-0"	0.28	3.36				
15				NOT USED							
16				NOT USED							
17	30	72	15	CASEMENT	+8'-0"	0.29	4.35				
18	60	72	30	SLIDING	+8'-0"	0.29	8.7				EGRESS COMPLIANT WINDOW
19	48	72	24	PICTURE	+8'-0"	0.28	6.72				
20	36	72	18	CASEMENT	+8'-0"	0.29	5.22				EGRESS COMPLIANT WINDOW
21	48	72	24	PICTURE	+8'-0"	0.28	6.72		-		
22	30	72	15	PICTURE	+8'-0"	0.28	4.2		-		
23	30	72	15	PICTURE	+8'-0"	0.28	4.2		-		
24	60	72	30	SLIDING	+8'-0"	0.29	8.7		-		
25	30	72	15	CASEMENT	+8'-0"	0.29	4.35		-		
26	36	72	18	CASEMENT	+8'-0"	0.29	5.22				
27	36	72	18	CASEMENT	+8'-0"	0.29	5.22				EGRESS COMPLIANT WINDOW
28	48	72	24	PICTURE	+8'-0"	0.28	6.72				
29	30	30	6.25	PICTURE	+8'-0"	0.28	1.75				
30	30	72	15	CASEMENT	+8'-0"	0.29	4.2				EGRESS COMPLIANT WINDOW
31	40	22	6.1	PICTURE	SEE ELEV.	0.28	1.708				TRAPEZOID-V.I.F.
32	40	34	9.4	PICTURE	SEE ELEV.	0.28	2.632				TRAPEZOID-V.I.F.
33	40	41	11.4	PICTURE	SEE ELEV.	0.28	3.192				TRAPEZOID-V.I.F.
34	40	34	9.4	PICTURE	SEE ELEV.	0.28	2.632				TRAPEZOID-V.I.F.
35	40	22	6.1	PICTURE	SEE ELEV.	0.28	1.708				TRAPEZOID-V.I.F.
36				NOT USED							
TOTAL			568.6				160.992				



	EXTERIOR DOOR SCHEDULE												
DR#	WIDTH	Height	AREA(SF)	WDW TYPE	HEAD HEIGHT	UValue	UA	D	DETAILS		Remarks		
DN#	WIDIN	Height	ANEA(SF)	WDW ITE	HEAD HEIGHT	Ovalue	UA	Head	Jamb	Sill	Kellialiva		
101	201	96	134.0	FOLDING	+8'-0"	0.30	40.2				SFTY. GL.		
102	96	96	64.0	SLIDER	+8'-0"	0.30	19.2				SFTY. GL. U=0.30 or better for the full assembly		
201	201	96	134.0	FOLDING	+8'-0"	0.30	40.2				SFTY. GL. U=0.30 or better for the full assembly		
202	96	96	64.0	SLIDER	+8'-0"	0.30	19.2				SFTY. GL.		
301	72	96	48.0	ENTRY	+8'-0"	0.30	14.4				SFTY. GL.		
302	201	96	134.0	FOLDING	+8'-0"	0.30	40.2				SFTY. GL. U=0.30 or better for the full assembly		
303	128	96	85.0	FOLDING	+8'-0"	0.30	25.5				SFTY. GL. U=0.30 or better for the full assembly		
304	28	84	16.0	ENTRY	+7'-0"	0.30	4.8				SFTY. GL.		

+8'-0" 0.30 203.7 SUM OF AREA AND UA 1,247.6 364.692 AREA WEIGHTED U = UA / AREA

## **CITY OF MERCER ISLAND**

**DEVELOPMENT SERVICES GROUP** 

break between floor slab and basement wall.

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7605 | <u>www.mercergov.org</u> Inspection Requests: Online: <a href="https://www.MyBuildingPermits.com">www.MyBuildingPermits.com</a> VM: 206.275.7730



#### 2015 WSEC & IRC Ventilation Worksheet (Effective July 1, 2016)

INFORMATION IN THESE WORKSHEETS MUST BE INCLUDED IN THE CONSTRUCTION DOCUMENTS This set of worksheets has been developed to assist permit applicants with documenting compliance with the 2015 Washington State Energy Code. The following worksheets provide much of the required documentation for plan review. The details, systems, and ratings noted here must also be shown on the drawings.

PRESCRIPTIVE ENERGY CODE COMPLIANCE FOR CLIMATE ZONE MARINE 4

ILDOILL I	TO LIVE	KGI CODE	COPIL		,,, CELIIA	L LOIL I			
Component	Fenes	stration <sup>1</sup>	Ceiling	Vaulted	Wood Framed	Mass Wall (Above	Below-Grade Wall <sup>2,3</sup>	Framed	Slab R-Value &
Component	Vertical	Overhead	w/ Attic	Ceiling	Wall (Int.) <sup>2</sup>	grade)	Below-Glade Wall	Floor	Depth
Prescriptive	U. 0.30	U. 0.50	R-49	R-38 min.	R-21 min.	R-21 min.	R- 10/15/21 Int. + TB	R-30 min.	R-10 min.
Value	max.	max.	min.	14-50 11111.	X-30 IIIII.		K- 10/13/21 IIII. 1 1D	14-50 111111.	2'

 $^{ar{1}}$  Fenestration is defined as skylights, roof windows, vertical windows (fixed or moveable), opaque doors, glazed doors, glazed block and combination opaque/glazed doors. Fenestration includes products with glass and non-glass glazing materials.

<sup>2</sup> Int. (intermediate framing) denotes standard framing 16" o.c. with headers insulated with a minimum R-10 insulation. <sup>3</sup> 10/15/21 +TB" means R-10 continuous insulation on the exterior of the wall, or R-15 on the 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 the interior of the basement wall. "10/15/21 +TB" 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. "TB" means thermal

Whole House Ventilation (Prescriptive) Please check the appropriate box to describe which of the four prescriptive Whole House Ventilation Systems you will be using AND fill in the required whole house ventilation rate in CFM's. (See "2015 Residential Whole House Ventilation Rate"

Н	landout.) A complete system required by one of the sections noted below must be specified on the drawings.	
	WHOLE HOUSE VENTILATION METHOD	Whole House Ventilation Rate
	Intermittent Whole House Ventilation Using Exhaust Fans & Fresh Air Inlets. (IRC M1507.3.4)	
	Intermittent Whole House Ventilation Integrated with a Forced Air System. (IRC M1507.3.5)	
	Intermittent Whole House Ventilation using a Supply Fan. (IRC M1507.3.6)	
<b>v</b>	Intermittent Whole House Ventilation Using a Heat Recovery Ventilation System (IRC M1507.3.7)	120 cfm

Source Specific Exhaust Ventilation & Fan Efficiency

Required in each kitchen, bathroom, water closet compartment, laundry room, indoor swimming pool, spa and other rooms where water vapor or cooking odor is produced. (IRC M 1507.4) Fan efficiency from WAC 51-11R – Table R403.6.1. Kitchen Hoods greater than 400 cfm require makeup air per IRC M1503.4

Minimum Source Specific Ventilation Capacity Requirements

Minimum Source Specific Ventilation Capacity Requirements										
	Bathrooms -	Utility Rooms	Kitchens	In-line fan						
Intermittently operating	50 cfn	n min	100 cfm min							
Continuous operation	20 cfn	n min	25 cfm min							
Minimum Efficacy (cfm/watt)	1.4 cfm/watt if <90cfm	2.8 cfm/watt if >90cfm	2.8 cfm/watt	2.8 cfm/watt						

#### **Energy Efficiency Credits** Each dwelling unit shall comply with sufficient options from WSEC Table R406.2 so as to achieve the following minimum number

of credits as described on the reverse side of this page. **Small Dwelling Unit: 1.5 credits** (Dwelling units less than 1500 SF in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building that are greater than 500 SF of heated floor area, but less than 1500 SF. TOTAL SQUARE FEET OF FENESTRATION: \_\_\_\_\_ (doors, windows, skylights) Medium Dwelling Unit: 3.5 credits (All dwelling units not included in #1 or #3. Exception: Dwelling units serving R-2 occupancies shall require 2.5 credits. Large Dwelling Unit: 4.5 credits (Dwelling Units exceeding 5000 SF of conditioned floor area.

Additions less than 500 SF: 0.5 credits

S:\DSG\FORMS\2017\Building\2015\_WSEC\_IRC\_Ventilation.pdf

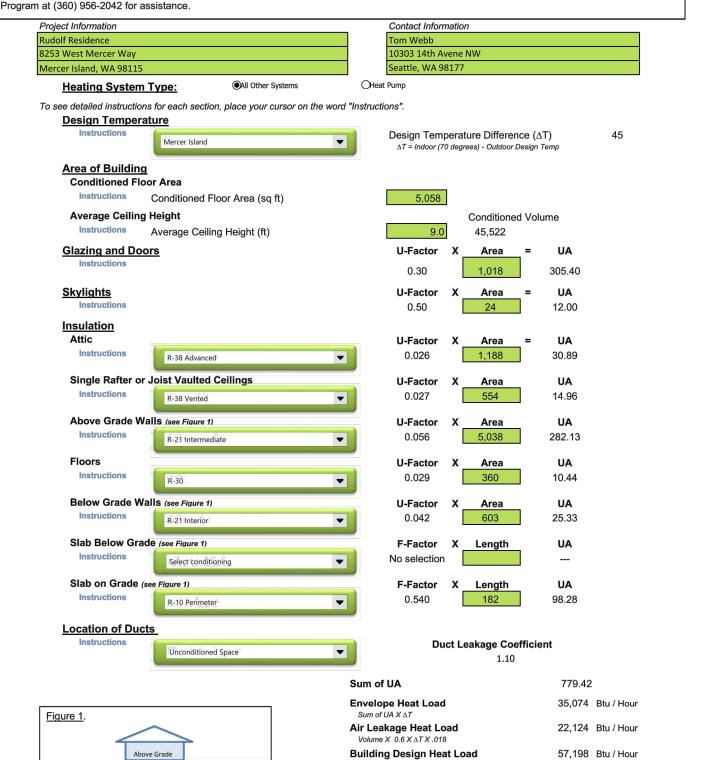
#### 2015 WSCE - Table R406.2 - circle the options that you will be using for this project

OPTION	DESCRIPTION	CREDIT(S
1a	Vertical fenestration U = 0.28 Floor R-38 Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab.  OR Compliance based on Section R402.1.4: Reduce the Total UA by 5%.	0.5
1b	Vertical fenestration U = 0.25 Wall R-21 plus R-4 Floor R-38 Basement wall R-21 int plus R-5 ci Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab.  OR Compliance based on Section R402.1.4: Reduce the Total UA by 15%.	1.0
1c	EFFICIENT BUILDING ENVELOPE 1c:  Prescriptive compliance is based on Table R402.1.1 with the following modifications: Vertical fenestration U = 0.22  Ceiling and single-rafter or joist-vaulted R-49 advanced Wood frame wall R-21 int plus R-12 ci  Floor R-38  Basement wall R-21 int plus R-12 ci  Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab  OR Compliance based on Section R402.1.4: Reduce the Total UA by 30%.	2.0
1d	<b>EFFICIENT BUILDING ENVELOPE 1d:</b> Prescriptive compliance is based on Table R402.1.1 with the following modifications: Vertical fenestration U = 0.24. Projects using this option may not use Option 1a, 1b or 1c.	0.5
2a	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2a:  Compliance based on R402.4.1.2: Reduce the tested air leakage to 3.0 air changes per hour maximum  AND All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code shall be met with a high efficiency fan (maximum 0.35 watts/cfm), not interlocked with the furnace fan. Ventilation systems using a furnace including an ECM motor are allowed, provided that they are controlled to operate at low speed in ventilation only mode.  To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the qualifying ventilation system.	0.5
2b	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2b:  Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 2.0 air changes per hour maximum  AND All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.70.  To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.	1.0
2c	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2c:  Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 1.5 air changes per hour maximum.  AND All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.85.  To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum tested building air leakage and shall show the heat recovery ventilation system.	1.5
3a	HIGH EFFICIENCY HVAC EQUIPMENT 3a: Gas, propane or oil-fired furnace with minimum AFUE of 94%, or Gas, propane or oiled-fired boiler with minimum AFUE of 92%. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit.  To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.	1.0
3b	HIGH EFFICIENCY HVAC EQUIPMENT 3b:  Air-source heat pump with minimum HSPF of 9.0. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d.  When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit.  To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.	1.0
3c	HIGH EFFICIENCY HVAC EQUIPMENT 3c:  Closed-loop ground source heat pump; with a minimum COP of 3.3  OR Open loop water source heat pump with a maximum pumping hydraulic head of 150 feet and minimum COP of 3.6. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit.  To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.	1.5
3d	HIGH EFFICIENCY HVAC EQUIPMENT 3d: Ductless Split System Heat Pumps, Zonal Control: In homes where the primary space heating system is zonal electric heating, a ductless heat pump system shall beinstalled and provide heating to the largest zone of the housing unit. Projects may only include credit from one space heating option, 3a, 3b, 3c or 3d. When a housing unit has two pieces of equipment (i.e., two furnaces) both must meet the standard to receive the credit.  To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.	1.0

#### Simple Heating System Size: Washington State

This heating system sizing calculator is based on the Prescriptive Requirements of the 2015 Washington State Energy Code (WSEC) and ACCA Manuals J and S. This calculator will calculate heating loads only. ACCA procedures for sizing cooling systems should be used to determine cooling

The glazing (window) and door portion of this calculator assumes the installed glazing and door products have an area weighted average U-factor of 0.30. The incorporated insulation requirements are the minimum prescriptive amounts specified by the 2015 WSEC. Please fill out all of the green drop-downs and boxes that are applicable to your project. As you make selections in the drop-downs for each section, some values will be calculated for you. If you do not see the selection you need in the drop-down options, please call the WSU Energy Extension



Maximum Heat Equipment Output 88,084 Btu / Hour Building and Duct Heat Loss X 1.40 for Forced Air Furnace Building and Duct Heat Loss X 1.25 for Heat Pump hammannaman 2015 WSCE - Table R406.2 - Continued Forms Updated HIGH EFFICIENCY HVAC DISTRIBUTION SYSTEM All heating and cooling system components installed inside the conditioned space. This includes all equipment and distribution system components such as forced air ducts, hydronic piping, hydronic floor heating loop, convectors and radiators. All combustion equipment shall be direct vent or sealed combustion. For forced air ducts: A maximum of 10 linear feet of return ducts and 5 linear feet of supply ducts may be located outside the

Air Leakage + Envelope Heat Loss Building and Duct Heat Load

Ducts in unconditioned space: Sum of Building Heat Loss X 1.10 Ducts in conditioned space: Sum of Building Heat Loss X 1

conditioned space. All metallic ducts located outside the conditioned space must have both transverse and longitudinal joints sealed with mastic. If flex ducts are used, they cannot contain splices. Flex duct connections must be made with nylon straps and installed using a plastic strapping tensioning tool. Ducts located outside the conditioned space must be insulated to a minimum of R-8. Locating system components in conditioned crawl spaces is not permitted under this option. Electric resistance heat and ductless heat pumps are not permitted under this option. Direct combustion heating equipment with AFUE less than 80% is not permitted under this option. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and shall show the location of the heating and cooling equipment and all the ductwork. All showerhead and kitchen sink faucets installed in the house shall be rated at 1.75 GPM or less. All other lavatory faucets shall be rated at 1.0 GPM or less Plumbing Fixtures Flow Ratings. Low flow plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following requirement 1. Residential bathroom lavatory sink faucets: Maximum flow rate - 3.8 L/min (1.0 gal/min) when tested in accordance with ASME A112.18.1/CSA B125.1. 2. Residential kitchen faucets: Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA 3. Residential showerheads: Maximum flow rate - 6.6 L/min (1.75 gal/min) when tested in accordance with ASME A112.18.1/CSA To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the maximum fl rates for all showerheads, kitchen sink faucets, and other lavatory faucets. EFFICIENT WATER HEATING 5b: Water heating system shall include one of the following: Gas, propane or oil water heater with a minimum EF of 0.74 **<u>OR</u>** Water heater heated by ground source heat pump meeting the requirements of Option 3c. 5b OR For R-2 occupancy, a central heat pump water heater with an EF greater than 2.0that would supply DHW to all the units through a ce minimum pipe insulation. o qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heate equipment type and the minimum equipment efficiency. **EFFICIENT WATER HEATING 5c:** Water heating system shall include one of the following: Gas, propane or oil water heater with a minimum EF of 0.91 OR Solar water heating supplementing a minimum standard water heater. Solar water heating will provide a rated minimum savings of 85 therms or 2000 kWh based on the Solar Rating and Certification Corporation (SRCC) Annual Performance of OG-300 Certified Solar Water Heating Systems OR Electric heat pump water heater with a minimum EF of 2.0 and meeting the standards of NEEA's Northern Climate Specifications for Heat Pump Water Heaters To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heate equipment type and theminimum equipment efficiency and, for solar water heating systems, the calculation of the minimum energ A drain water heat recovery unit(s) shall be installed, which captures waste water heat from all the showers, and has a minimum efficiency of 40% if installed for equalflow or a minimum efficiency of 52% if installed for unequal flow. Such units shall be rated in accordance CSA B55.1 and be so labeled. To qualify to claim this credit, the building permit drawings shall include a plumbing diagram that specified the drain water heat recovery units and the plumbing layout needed to install it and labels or other documentation shall be provided that demon that the unit complies with the standard. RENEWABLE ELECTRIC ENERGY: For each 1200 kWh of electrical generation per each housing unit provided annually by on-site wind or solar equipment a 0.5 credit shall be allowed, up to 3 credits. Generation shall be calculated as follows: For solar electric systems, the design shall be demonstrated to meet this requirement using the National Renewable Energy Laboratory calculator PVWATTs. Documentation noting solar access shall be included on the plans. For wind generation projects designs shall document annual power generation based on the following factors: The wind turbine power curve; average annual wind speed at the site; frequency distribution of the wind speed at the site and To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall show the photovoltaic o wind turbine equipment type, provide documentation of solar and wind access, and include a calculation of the minimum annual

## TR Webb Homes

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1628 46th Street SE, Everett, WA 98203 point\_of\_vision @ comcast.net (425)772-8207

New Residence For:

**James & Jessica Rudolf** 8253 West Mercer Way Mercer Island, Washington 98040

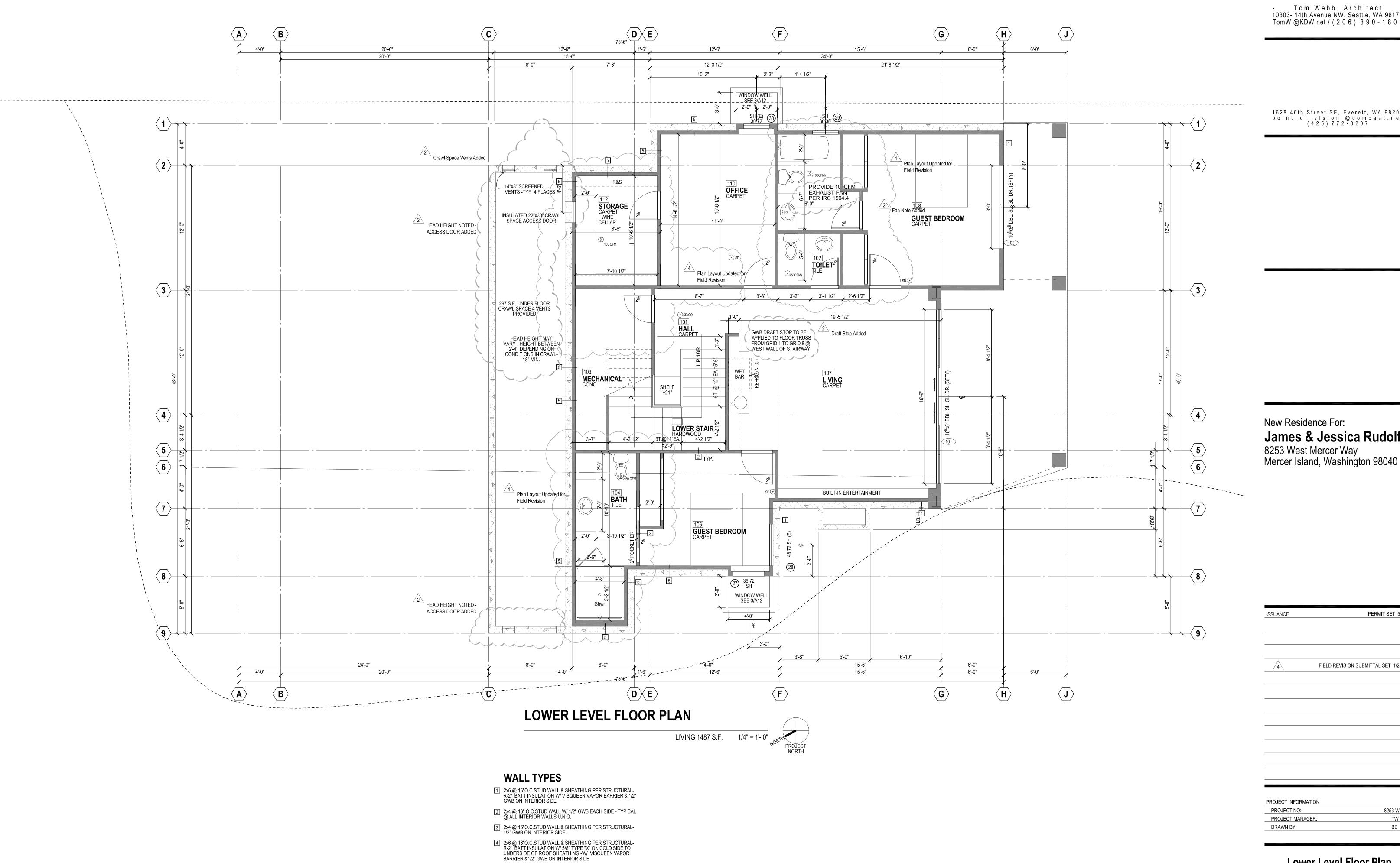
ISSUANCE	PERMIT SET 5/15/18
4	FIELD REVISION SUBMITTAL SET 1/25/2022

**Energy Schedules & Charts /** Requirements

SHEET NO

PROJECT INFORMATION

PROJECT NO: PROJECT MANAGER:



5 CONCRETE FOUNDATION WALL PER STRUCTURAL - 2x4 @ 16" O.C.FURRING - R-21 BATT INSULATION - 1/2" GWB

6 2x6 @ 16"O.C.STUD WALL & SHEATHING PER STRUCTURAL-R-21 BATT INSULATION -1/2" GWB ON COLD SIDE W/ VISQUEEN VAPOR BARRIER & 1/2" GWB ON INTERIOR SIDE

# TR Webb Homes

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New Residence For: James & Jessica Rudolf 8253 West Mercer Way

PERMIT SET 5/15/18 FIELD REVISION SUBMITTAL SET 1/25/2022

PROJECT INFORMATION PROJECT NO: 8253 W PROJECT MANAGER: DRAWN BY:

Lower Level Floor Plan

SHEET NO

- Tom Webb, Architect -10303-14th Avenue NW, Seattle, WA 98177 TomW @KDW.net / (206) 390-1800

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New Residence For: James & Jessica Rudolf 8253 West Mercer Way Mercer Island, Washington 98040

ISSUANCE PERMIT SET 5/15/18 FIELD REVISION SUBMITTAL SET 1/25/2022

PROJECT INFORMATION PROJECT NO: 8253 W

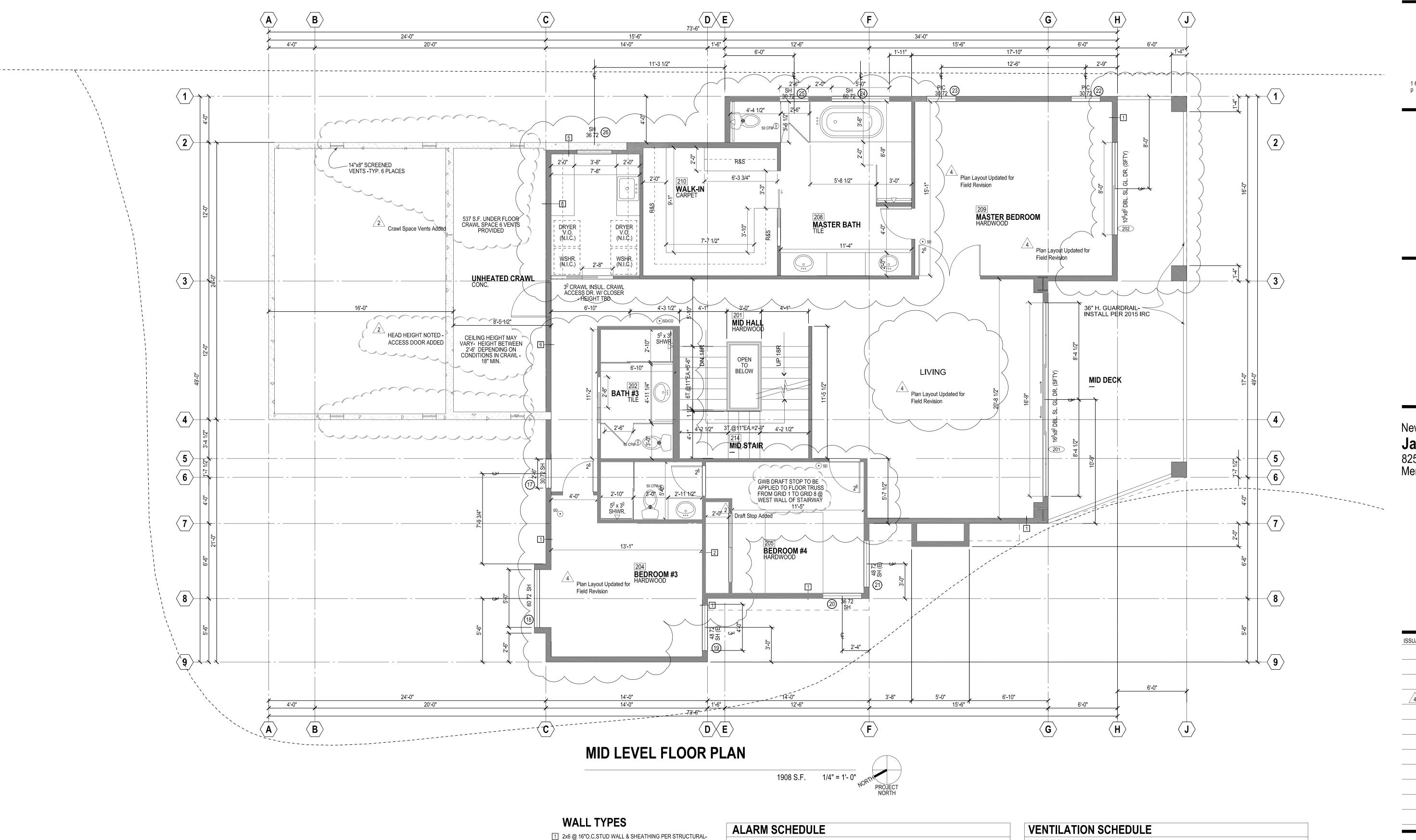
Mid Level Floor Plan

TW

SHEET NO

PROJECT MANAGER:

DRAWN BY:



- 2x6 @ 16"O.C.STUD WALL & SHEATHING PER STRUCTURAL-R-21 BATT INSULATION W/ VISQUEEN VAPOR BARRIER & 1/2"
- GWB ON INTERIOR SIDE
- 2x4 @ 16" O.C.STUD WALL W/ 1/2" GWB EACH SIDE TYPICAL @ ALL INTERIOR WALLS U.N.O.
- 3 2x4 @ 16"O.C.STUD WALL & SHEATHING PER STRUCTURAL-1/2" GWB ON INTERIOR SIDE.
- 4 2x6 @ 16"O.C.STUD WALL & SHEATHING PER STRUCTURAL-R-21 BATT INSULATION W/ 5/8" TYPE "X" ON COLD SIDE TO UNDERSIDE OF ROOF SHEATHING -W/ VISQUEEN VAPOR BARRIER &1/2" GWB ON INTERIOR SIDE
- 5 CONCRETE FOUNDATION WALL PER STRUCTURAL 2x4 @ 16" O.C.FURRING R-21 BATT INSULATION 1/2" GWB 6 2x6 @ 16"O.C.STUD WALL & SHEATHING PER STRUCTURAL-R-21 BATT INSULATION -1/2" GWB ON COLD SIDE W/ VISQUEEN VAPOR BARRIER & 1/2" GWB ON INTERIOR SIDE

## 2015 IRC SECTIONS R314 R315 SYMBOL DESCRIPTION REQUIREMENTS 110 V INTERCONNECTED W/ BATTERY BACKUP INSTALLED ON EACH FLOOR AND IN EACH SLEEPING AREA LISTED IN ACCORDANCE WITH UL 217 ANO INSTALLED PER THE HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NEPA 72 SMOKE ALARM INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS SMOKE ALARM REQUIREMENTS PER ABOVE CARBON MONOXIDE ALARMS TO BE INSTALLED IN DWELLING UNITS WITHIN WHICH FUEL-FIRED APPACES ARE INSTALLED AND IN DWELLING UNITS OSD/CO COMBINATION SMOKE ALARM CARBON MONOXIDE THAT HAVE ATTACHED GARAGES • CARBON MONOXIDE ALARMS LISTED AS COMPLYING WITH UL 2034 AND INSTALLED PER MANUFACTURERS INSTALLATION INSTRUCTIONS

<b>v</b> — · · · ·		0.125022
2015 IRC SI	ECTIONS M1507 M15	08
SYMBOL	LOCATION	MINIMUM FAN REQUIREMENTS
⊗ <sub>50 CFM</sub>	BATH, POWDER, LAUNDRY	• MIN 50 CFM AT 0.25" WG TABLE M1507.3
⊗ <sub>100</sub> CFM	KITCHEN	MINIMUM 100 CFM AT 0.25" WG (IRC TABLE M1507.3) (RANGE HOOD OR DOWN DRAFT EXHAUST FAN RATED AT MIN 100 CFM AT 0.10" WG MAY BE USED FOR EXHAUST FAN REQUIREMENT.)
⊗ <sub>wh</sub>	WHOLE HOUSE FAN	140 CFM AT 0.25" WG (IRC TABLE M1508.2)  • WHOLE HOUSE FAN TO OPERATE AT LEAST ONCE EVERY HOURS  • WHOLE HOUSE FANS LOCATED 4 FT OR LESS FROM INTERIOR GRILLE TO HAVE A SONE RATING Of 1.0 LESS MEASURED AT 0.1" WG

ALL FANS TO VENT TO OUTSIDE. ALL OTHER REQUIREMENTS OF THE 2015 WSEC AND 2015 IRC SECTIONS M1507 AND M1508 MUST BE MET.

- Tom Webb, Architect - 10303- 14th Avenue NW, Seattle, WA 98177 TomW @KDW.net / (206) 390-1800

1628 46th Street SE, Everett, WA 98203 point\_of\_vision @comcast.net (425)772-8207

New Residence For:

James & Jessica Rudolf
8253 West Mercer Way
Mercer Island, Washington 98040

ISSUANCE PERMIT SET 5/15/18

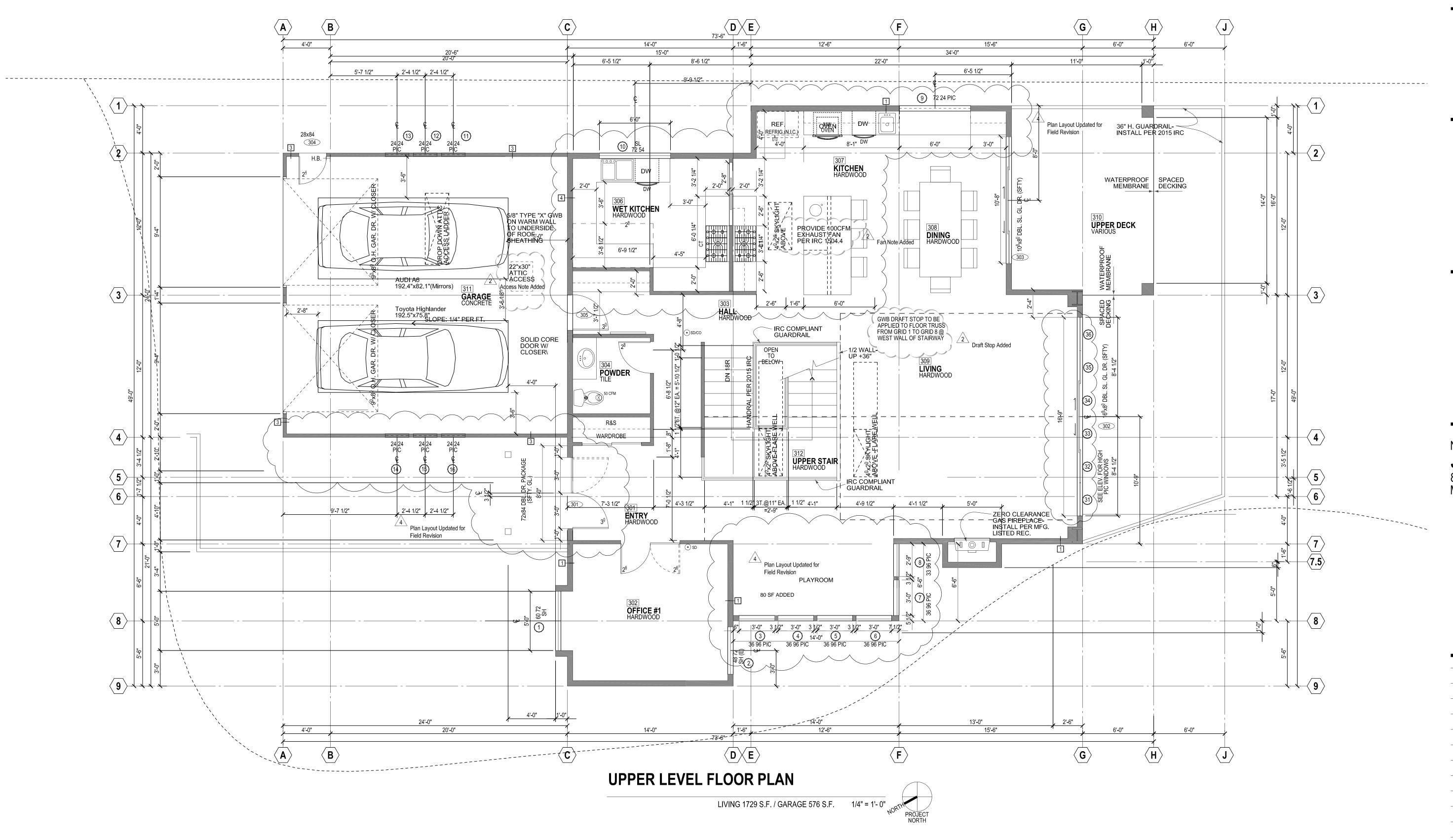
4 FIELD REVISION SUBMITTAL SET 1/25/2022

PROJECT INFORMATION
PROJECT NO: 8253 W
PROJECT MANAGER: TW
DRAWN BY: BB

**Upper Level Floor Plan** 

SHEET NO

**A6** 



## **WALL TYPES**

- 2x6 @ 16"O.C.STUD WALL & SHEATHING PER STRUCTURAL-R-21 BATT INSULATION W/ VISQUEEN VAPOR BARRIER & 1/2"
- 2x4 @ 16" O.C.STUD WALL W/ 1/2" GWB EACH SIDE TYPICAL @ ALL INTERIOR WALLS U.N.O.
- 2x4 @ 16"O.C.STUD WALL & SHEATHING PER STRUCTURAL-1/2" GWB ON INTERIOR SIDE.
- 4 2x6 @ 16"O.C.STUD WALL & SHEATHING PER STRUCTURAL-R-21 BATT INSULATION W/ 5/8" TYPE "X" ON COLD SIDE TO UNDERSIDE OF ROOF SHEATHING -W/ VISQUEEN VAPOR BARRIER &1/2" GWB ON INTERIOR SIDE
- 5 CONCRETE FOUNDATION WALL PER STRUCTURAL 2x4 @ 16" O.C.FURRING R-21 BATT INSULATION 1/2" GWB
- 6 2x6 @ 16"O.C.STUD WALL & SHEATHING PER STRUCTURAL-R-21 BATT INSULATION -1/2" GWB ON COLD SIDE W/ VISQUEEN VAPOR BARRIER & 1/2" GWB ON INTERIOR SIDE

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8253 West Mercer Way
Mercer Island, Washington 98040

ISSUANCE PERMIT SET 5/15/18

FIELD REVISION SUBMITTAL SET 1/25/2022

PROJECT INFORMATION

PROJECT NO: 8253 W

PROJECT MANAGER: TW

DRAWN BY: BB

**Roof Plan** 

SHEET NO

PROPOSED GAF COBRA 3 RIDGE VENTILATION

18 S.I. x 56 L.F. = 1,008 S.I. 400 S.I. LOW + 1,008 S.I. HIGH = 1,408 S.I. TOTAL

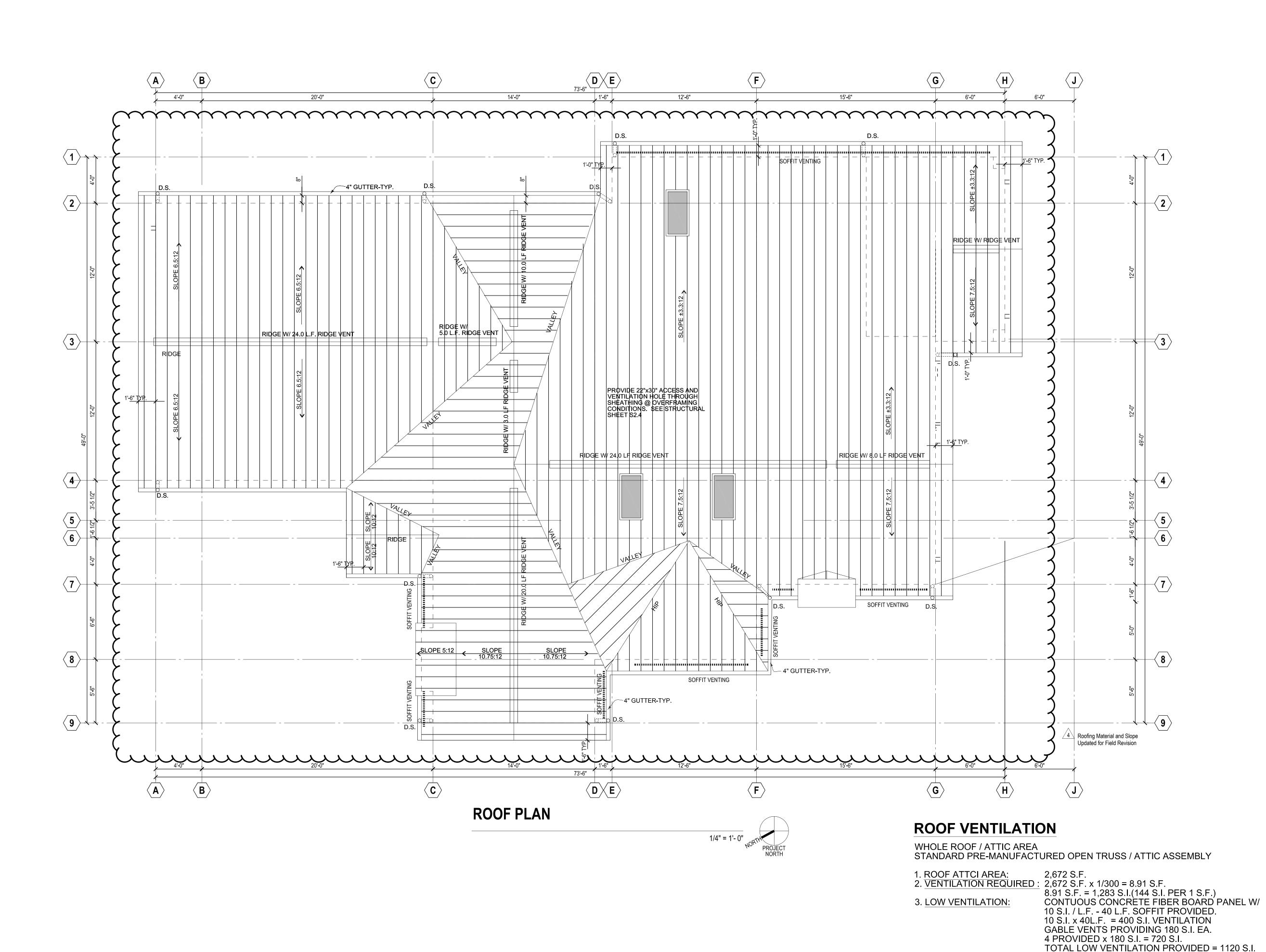
18 S.I. / L.F. - 56 L.F. RIDGE VENT PROVIDED

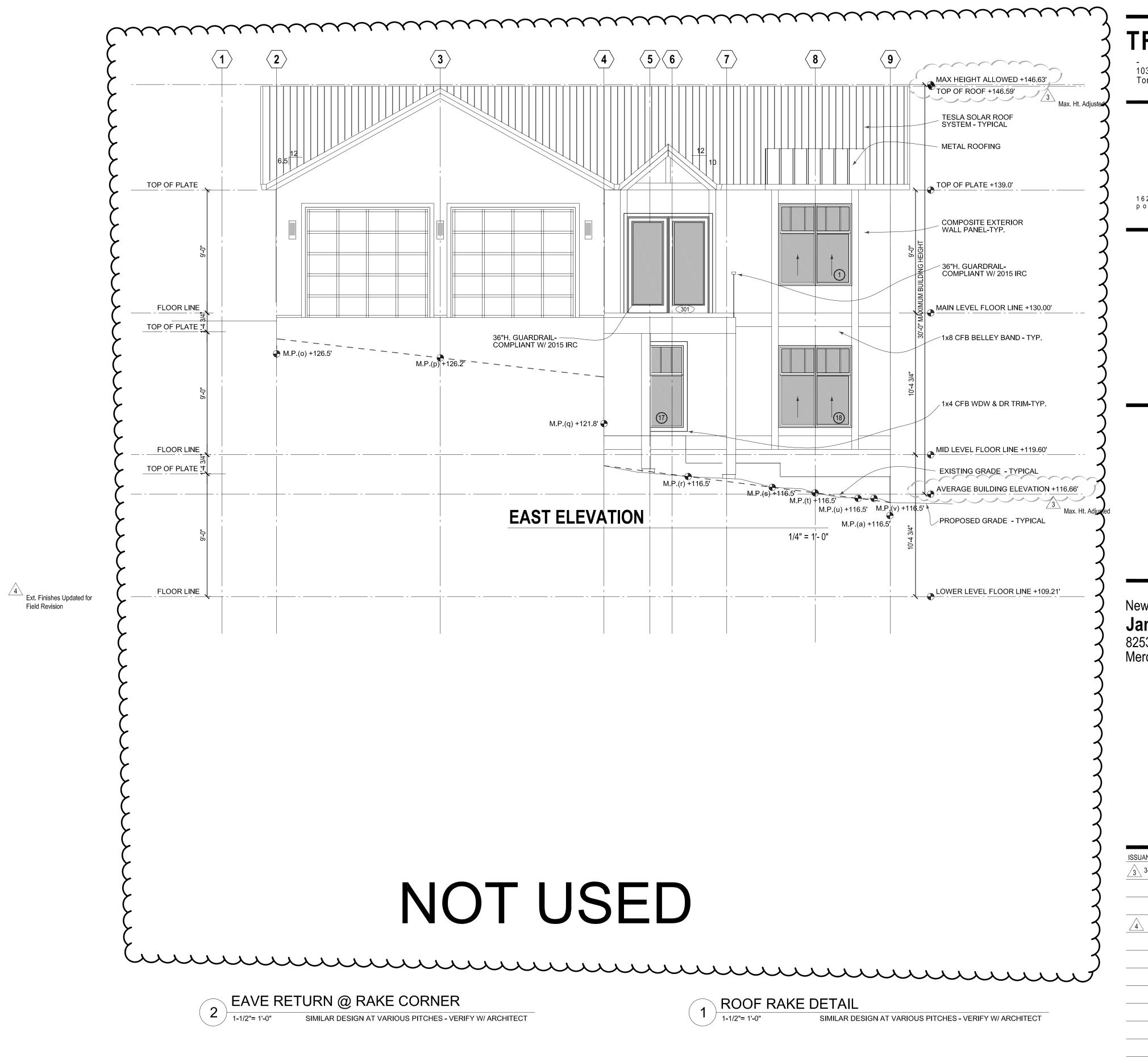
1,408 S.I. > 1,283 S.I. OK

4. HIGH VENTILATION:

5. TOTAL VENTILATION:

**A7** 





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New Residence For:

James & Jessica Rudolf
8253 West Mercer Way
Mercer Island, Washington 98040

ISSUANCE PERMIT SET 5/15/18

3 3-31-19 Maximum Building Height Clarified

FIELD REVISION SUBMITTAL SET 1/25/2022

PROJECT INFORMATION

PROJECT NO: 8253 Me

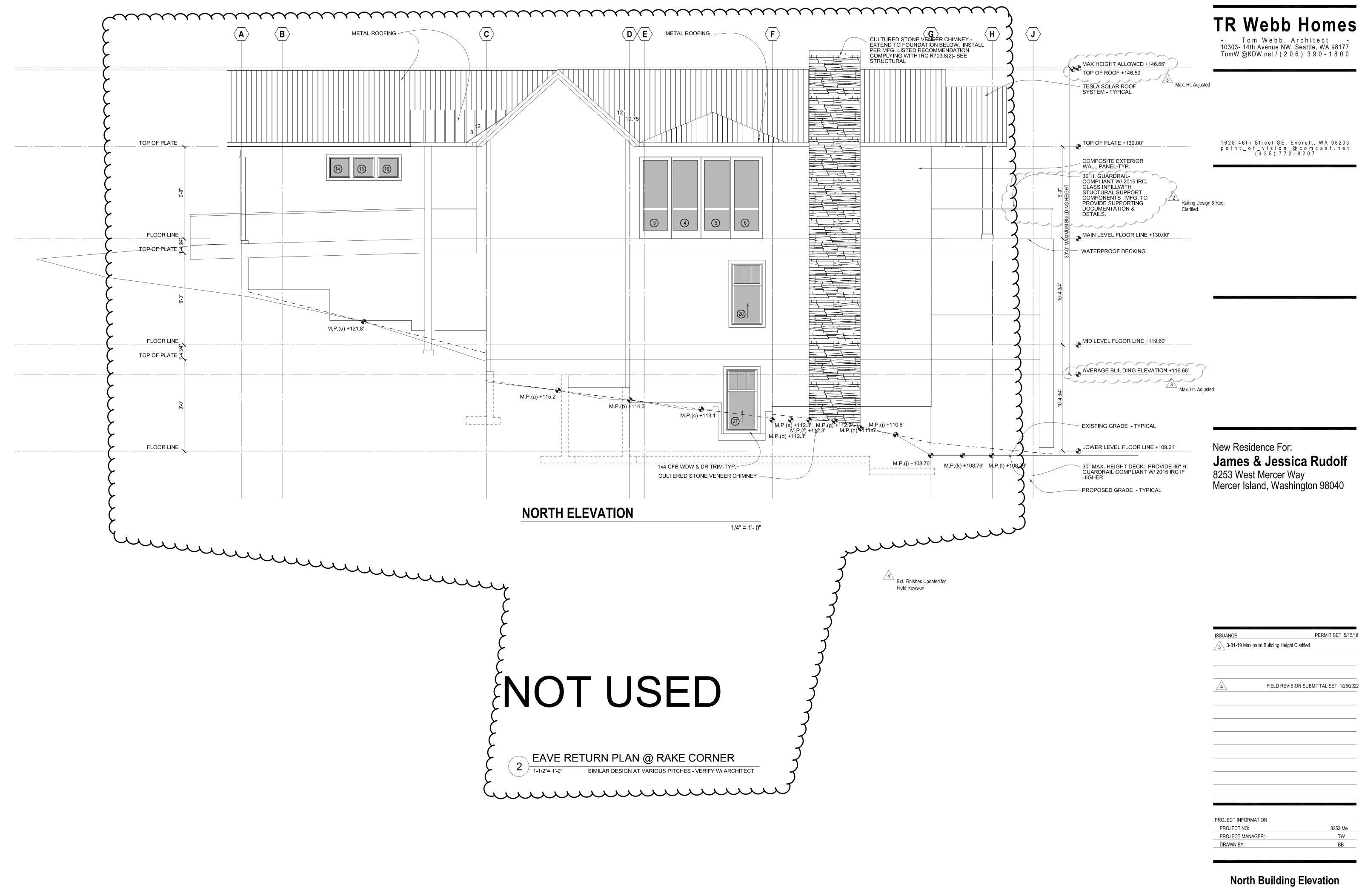
PROJECT MANAGER: TW

DRAWN BY: BB

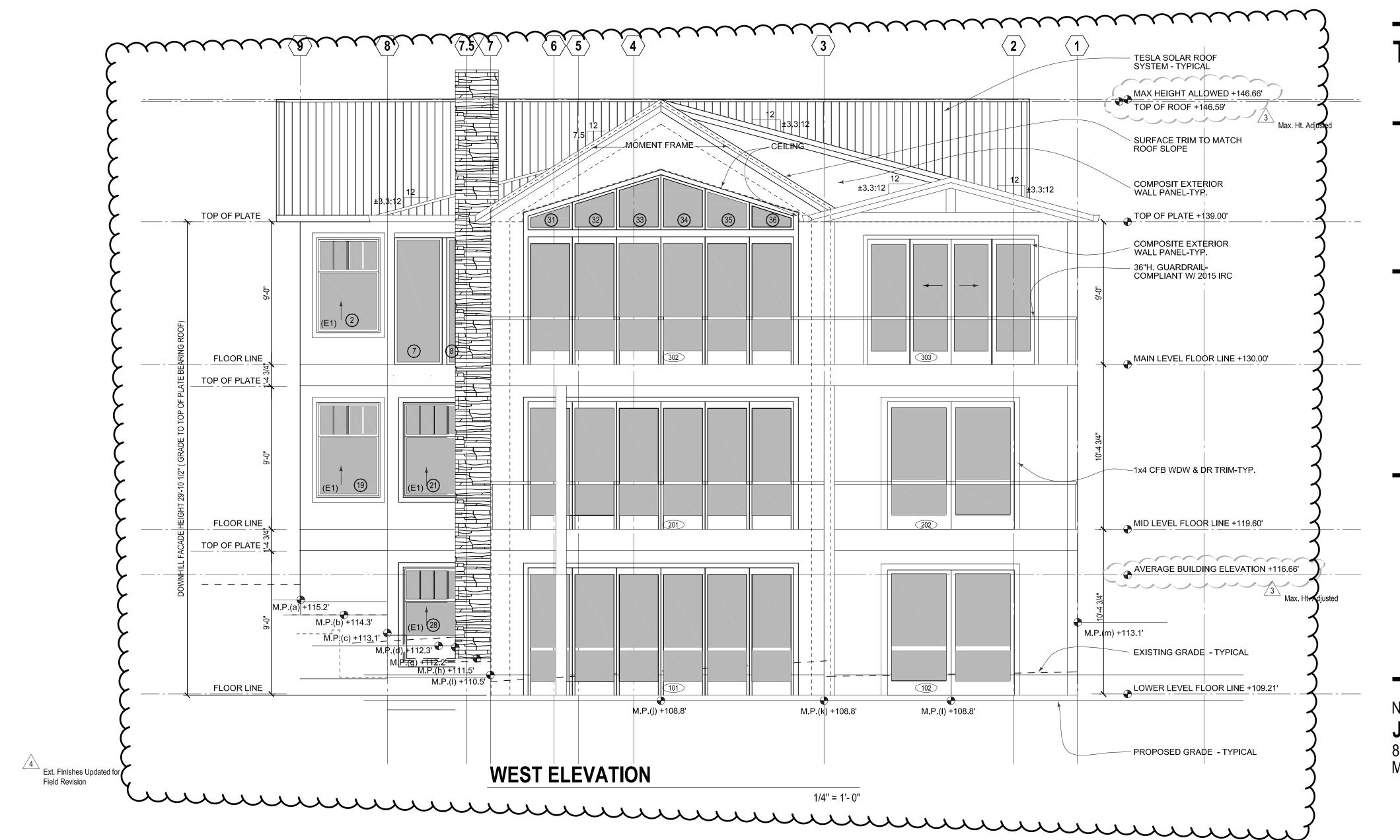
**East Building Elevation** 

SHEET NO

48



SHEET NO



INTERIOR

1/2" PLWD SHE.

- 1/6" FLWO SHTG TOT FL/ZND SIM

MIX NO BY

11% TIT @16"06. BLKG. WHANKERS

"/2" PLWD OVER NAILER SPREAD

77/16

1 11 11 11 11

DETAIL @ MOMENT FRAME BEAM

SEE STRUCTURAL DETAIL

EXT DECK

PT 2×10 LEDGER

5/8 \$ LAG SCRENG -

WEB BLOCKING W/ VZ" & THRU BOLTS. COUNTER SINK BOLTS @ BLOCKING FACE

3/0" AL STIFFENERS &

WELDED THREADED STUDS,

# TR Webb Homes

- Tom Webb, Architect - 10303-14th Avenue NW, Seattle, WA 98177 TomW @KDW.net / (206) 390-1800

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New Residence For:

James & Jessica Rudolf
8253 West Mercer Way
Mercer Island, Washington 98040

PROJECT INFORMATION
PROJECT NO:
8253 Me
PROJECT MANAGER:
TW

**West Building Elevation** 

SHEET NO

YZ" PLWD SHIZI - Zx6 e16" OC WALL

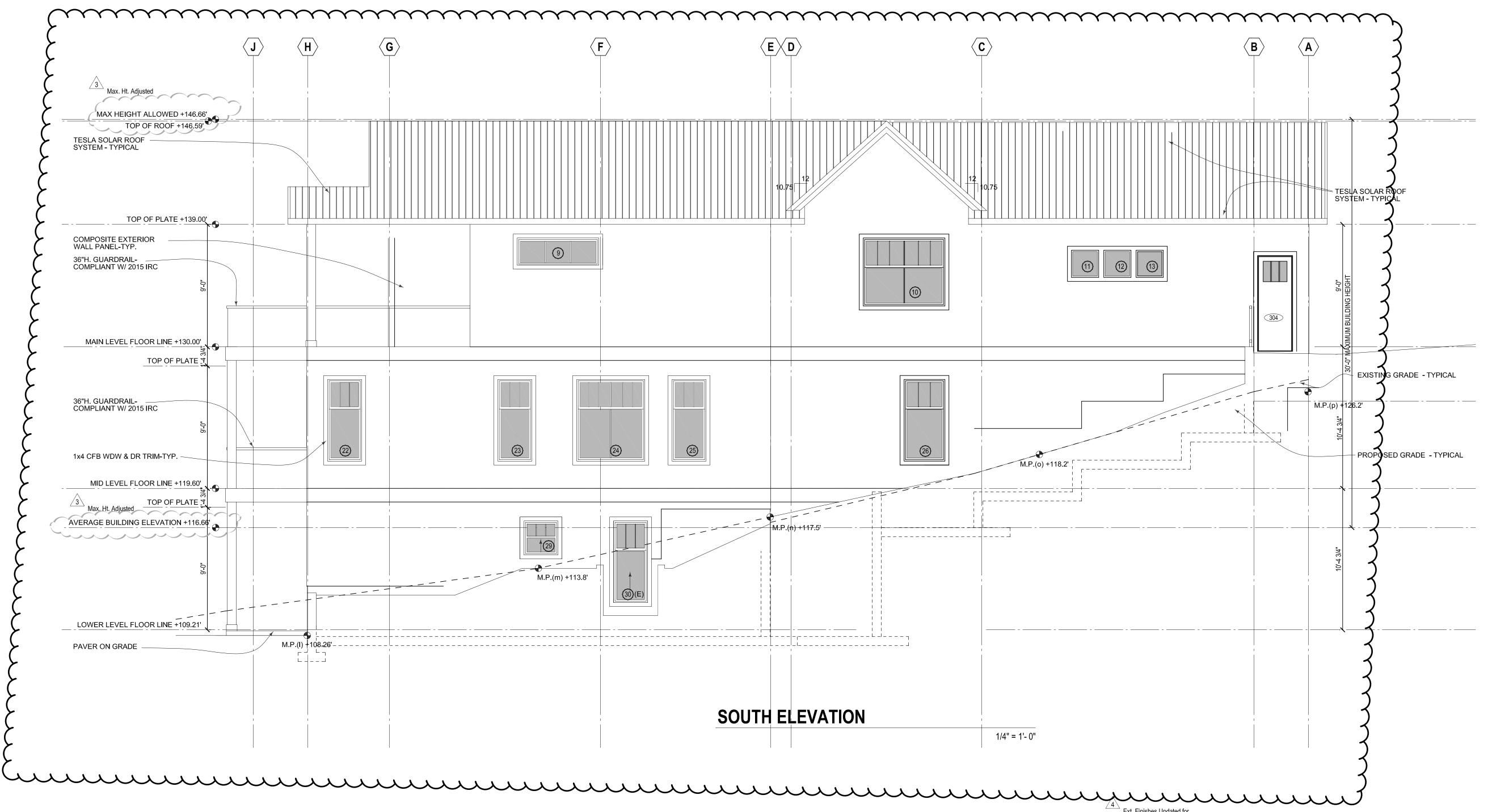
TYP, TO BY

M. FRAME COL. W 1436 × 1458

MOMENT FRAME DETAIL @ COLUMN

SEE STRUCTURAL DETAIL

**A10** 



- Tom Webb, Architect - 10303-14th Avenue NW, Seattle, WA 98177 TomW @KDW.net / (206) 390-1800

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New Residence For:

James & Jessica Rudolf
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Mercer Island, Washington 98040

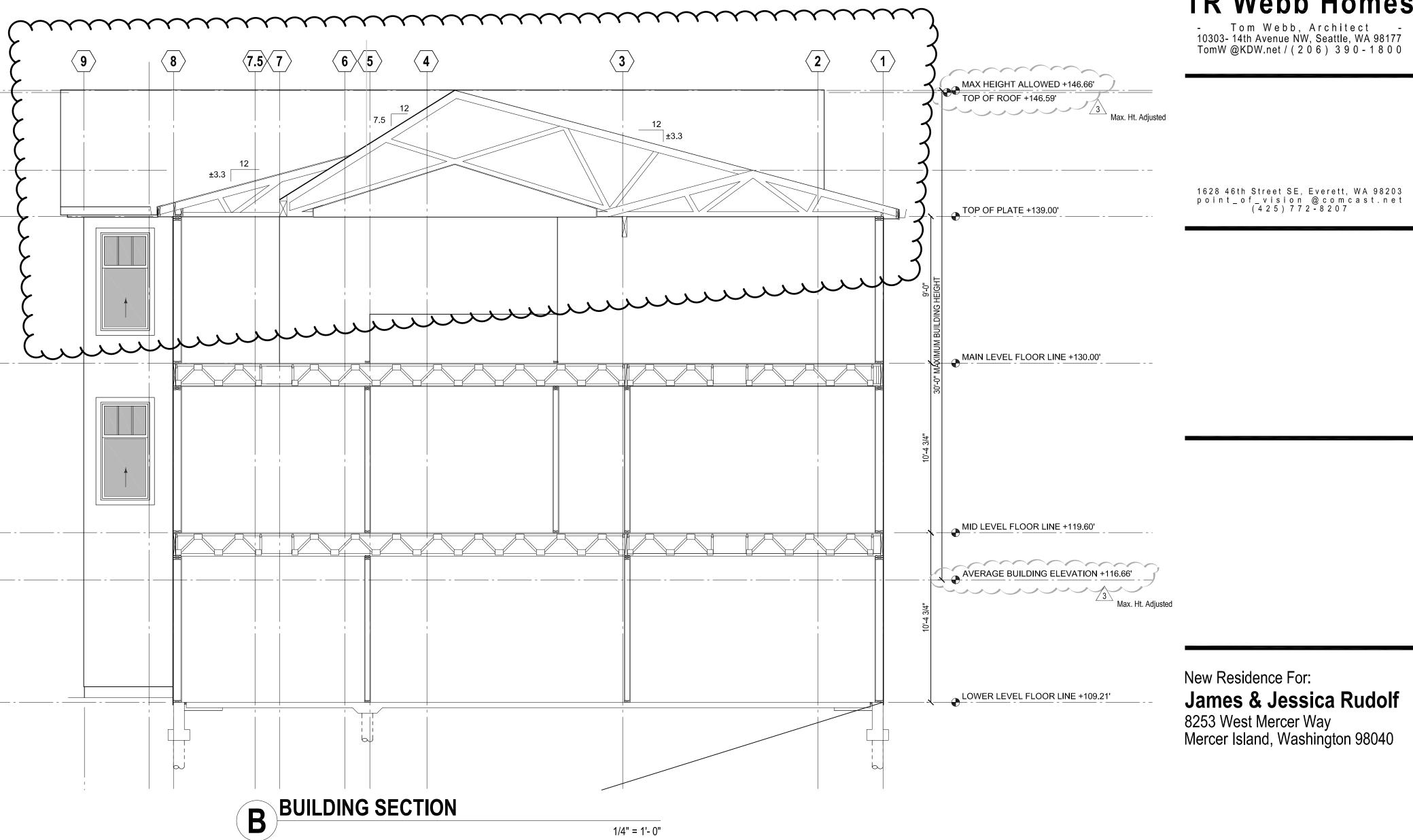
IOOLIANOE		PERMIT SET 5/
4		
<u>∕3</u> 3-31-19 Max	kimum Building Height Clarifie	ed 
4	FIELD REVISION SI	UBMITTAL SET 1/25
PROJECT INFOR	MATION	
PROJECT NO:		8253 Me
PROJECT MAN	IAGER:	TW
DRAWN BY:		BB

South Building Elevation

SHEET NO

**A11** 





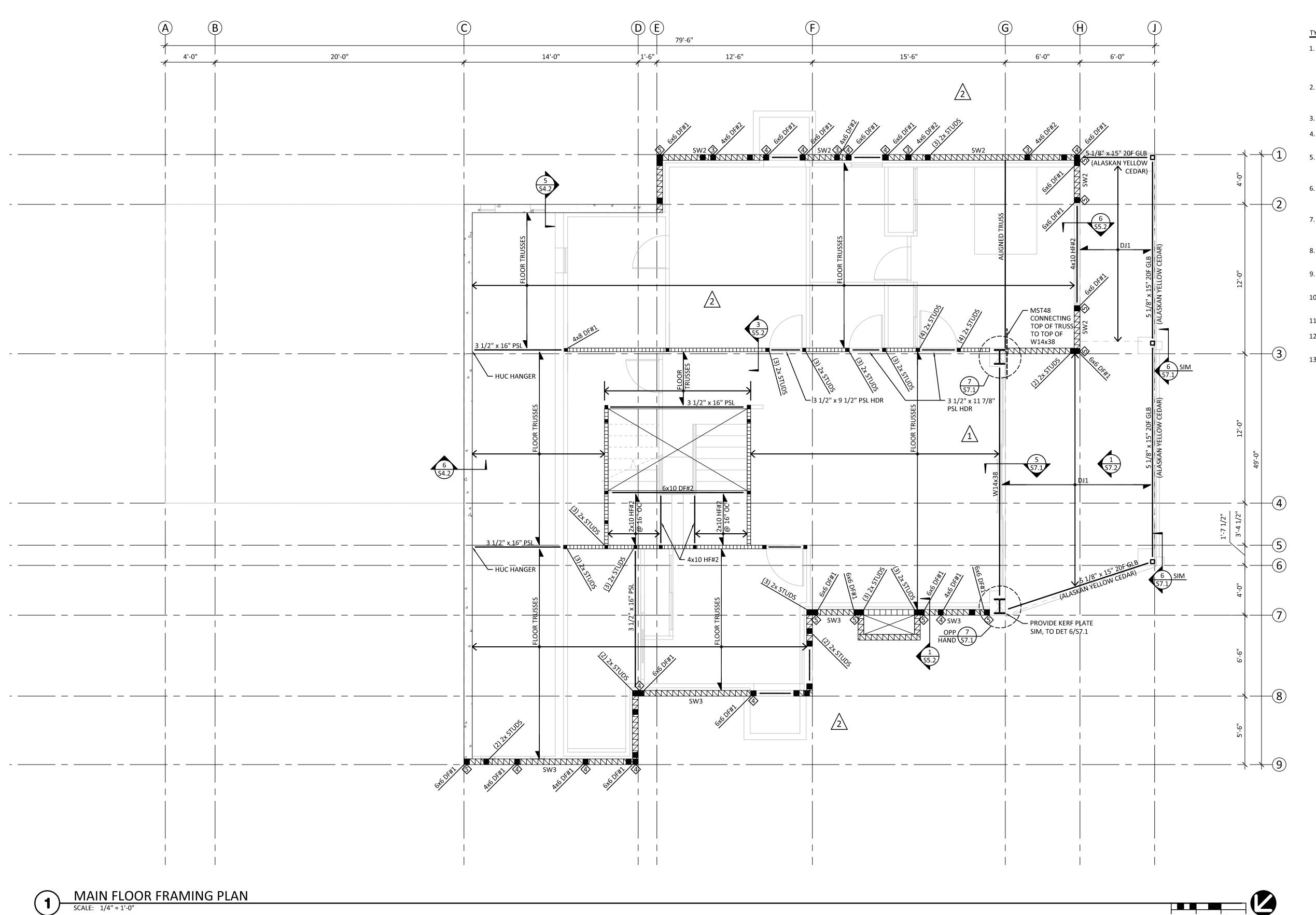
1/4" = 1'- 0"

# TR Webb Homes

James & Jessica Rudolf

PERMIT SET 5/15/18 3-31-19 Maximum Building Height Clarified FIELD REVISION SUBMITTAL SET 1/25/2022 PROJECT INFORMATION PROJECT NO: 8253 Me PROJECT MANAGER:

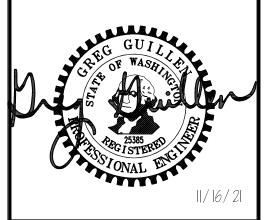
**Building Section B** 



#### TYPICAL FLOOR FRAMING PLAN NOTES:

- 1. FLOOR SHEATHING SHALL BE 3/4" PI 40/20 W/ 10d COMMON NAILS SPACED AT 6" OC AT ALL DIAPHRAGM BOUNDARIES, PANEL EDGES AND SHEAR WALLS AND 10" OC AT INTERMEDIATE FRAMING. FOR SHEATHING LAYOUT AND NAILING REFER TO DETAIL 2/S5.1
- 2. COLUMNS AND BEARING WALLS SHOWN ON PLANS SHALL BE CONTINUED DOWN TO THE FOUNDATION UNLESS CARRIED BY A BEAM
- 3. REFER TO SHEET S5.1 THRU S6.1 FOR TYPICAL FLOOR FRAMING DETAILS.
- 4. INDICATES COLUMN BELOW AND BEAM SHALL BE CONTINUED OVER COLUMN, TYP.
- CONTRACTOR SHALL HAVE THE OPTION TO DRILL A 1 1/2"Ø HOLE CENTERED IN THE DEPTH AND AT THE THIRD POINT OF THE SPAN FOR ALL WOOD FLUSH BEAMS SHOWN ON THE PLAN.
- 6. WALLS SHOWN ON THE FRAMING PLANS ARE WALLS BELOW THE FRAMING LEVELS INDICATED. HOLDOWNS SHALL BE PLACED AT THE BASE OF THE WALLS SHOWN.
- 7. TYPICAL HEADERS AT BEARING LOCATION SHALL BE 4x6 HF#2 UNO SUPPORTED BY A MINIMUM OF (1) CRIPPLE STUD AND (1) FULL HEIGHT STUD.
- 8. COLUMNS NOT OTHERWISE SHOWN OR CALLED OUT ON PLAN SHALL BE (2) 2x STUDS.9. UNLESS NOTED OTHERWISE ALL STUDS SHALL BE HF STUD GRADE AND
- SPACED AT 16" OC.
- 10. UNLESS NOTED OTHERWISE, ALL BEAM-TO-BEAM CONNECTIONS SHALL BE SIMPSON HU SERIES FACE MOUNT HANGERS W/ MAX NAILING.
- 11. ALL EXTERIOR GLU LAM BEAM DECK MEMBERS 20F CEDAR.
- 12. FLOOR TRUSSES SHALL BE PRE-ENGINEERED BY OTHERS & SPACED @ 16" OC, TYP
- 13. DRAG TRUSS ON GRID G FROM GRIDS 1-3 SHALL BE NAILED TO FLOOR DIAPHRAGM @ 4" OC TRUSS MANUFACTURE TO ACCOUNT FOR MST STRAP @ TOP CHORD.





DESCRIPTION	PERMIT SUBMITTAL	COMMENT RESPONSE	<b>CONSTRUCTION REVISIONS</b>	<b>CONSTRUCTION REVISIONS</b>			
DATE	05/11/18	01/18/19	11/02/21	11/16/21			
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DESIGN: JGG

DRAWN: ZOS

CHECK: GAG

JOB NO: 15227.10

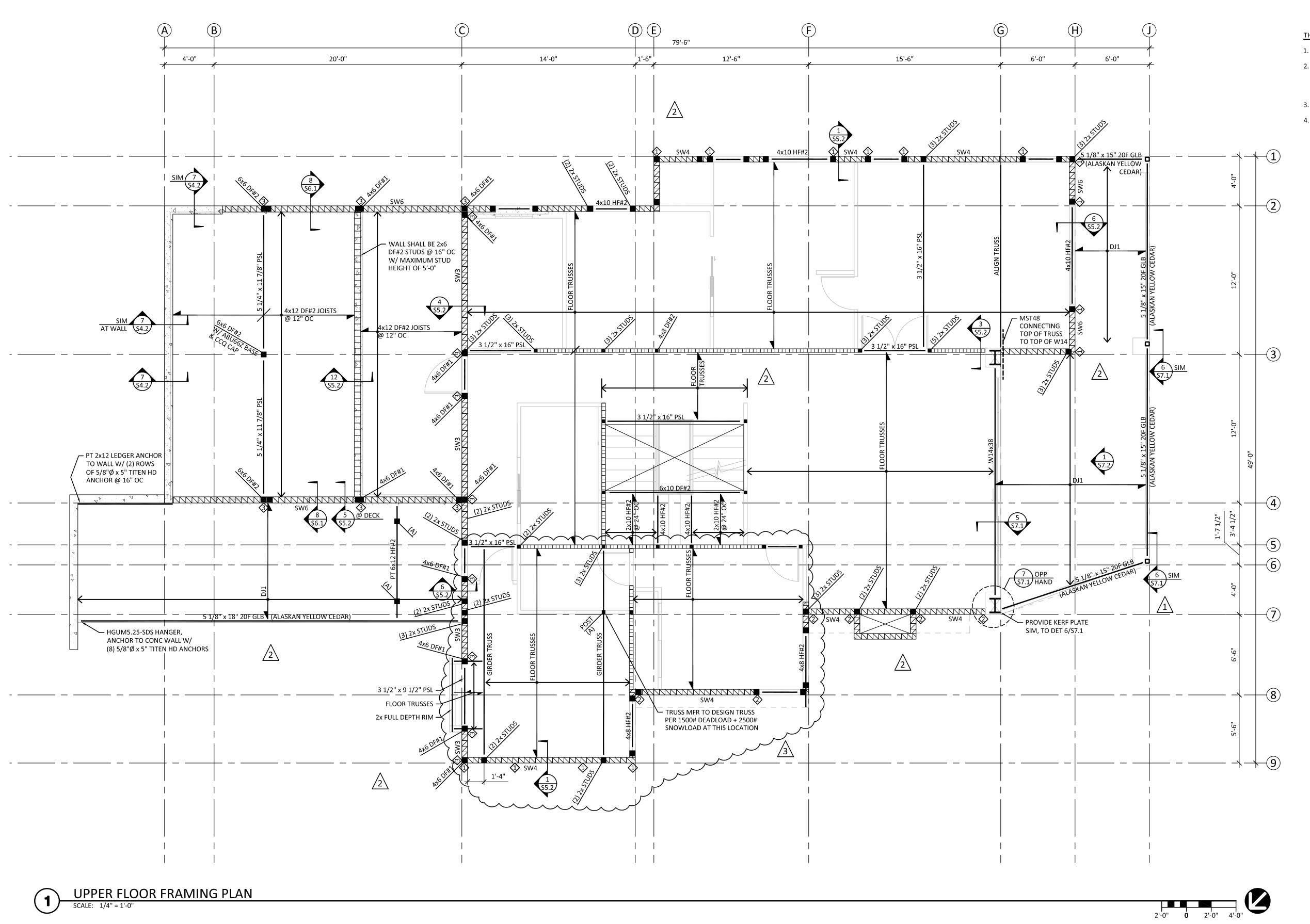
DATE: 05/11/18

RAMING PLAN

S W MERCER WAY
CER ISLAND, WA 980

CULET.

S2.2



#### THIS FLOOR FRAMING PLAN NOTES:

- 1. REFER TO S2.2 FOR TYPICAL FLOOR FRAMING PLAN NOTES
- GARAGE FLOOR SHALL BE 3 1/2" CONCRETE TOPPING SLAB OVER 1 1/8"
  T&G DECKING. CONCRETE SHALL BE REINF W/ #3 @ 18" OC EA WAY.
  FLOOR DECKING SHALL HAVE 16d NAILS @ 6" OC AT ALL PANEL EDGES &
  DIAPHRAGM BOUNDARIES & 10"OC AT INTERMEDIATE FRAMING.
- 3. THE DECK GLULAM BEAMS ARE CEDAR & WEATHER RESISTANT.
- DRAG TRUSS ON GRID G FROM GRIDS 1-3 SHALL BE NAILED TO FLOOR DIAPHRAGM @ 4" OC TRUSS MANUFACTURE TO ACCOUNT FOR MST STRAP @ TOP CHORD.





DESCRIPTION	PERMIT SUBMITTAL	COMMENT RESPONSE	CONSTRUCTION REVISIONS	CONSTRUCTION REVISIONS			
DATE	05/11/18	01/18/19	11/02/21	11/16/21			
MARK			$\bigvee$	\\$/			
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 15227.10

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 05/11/18

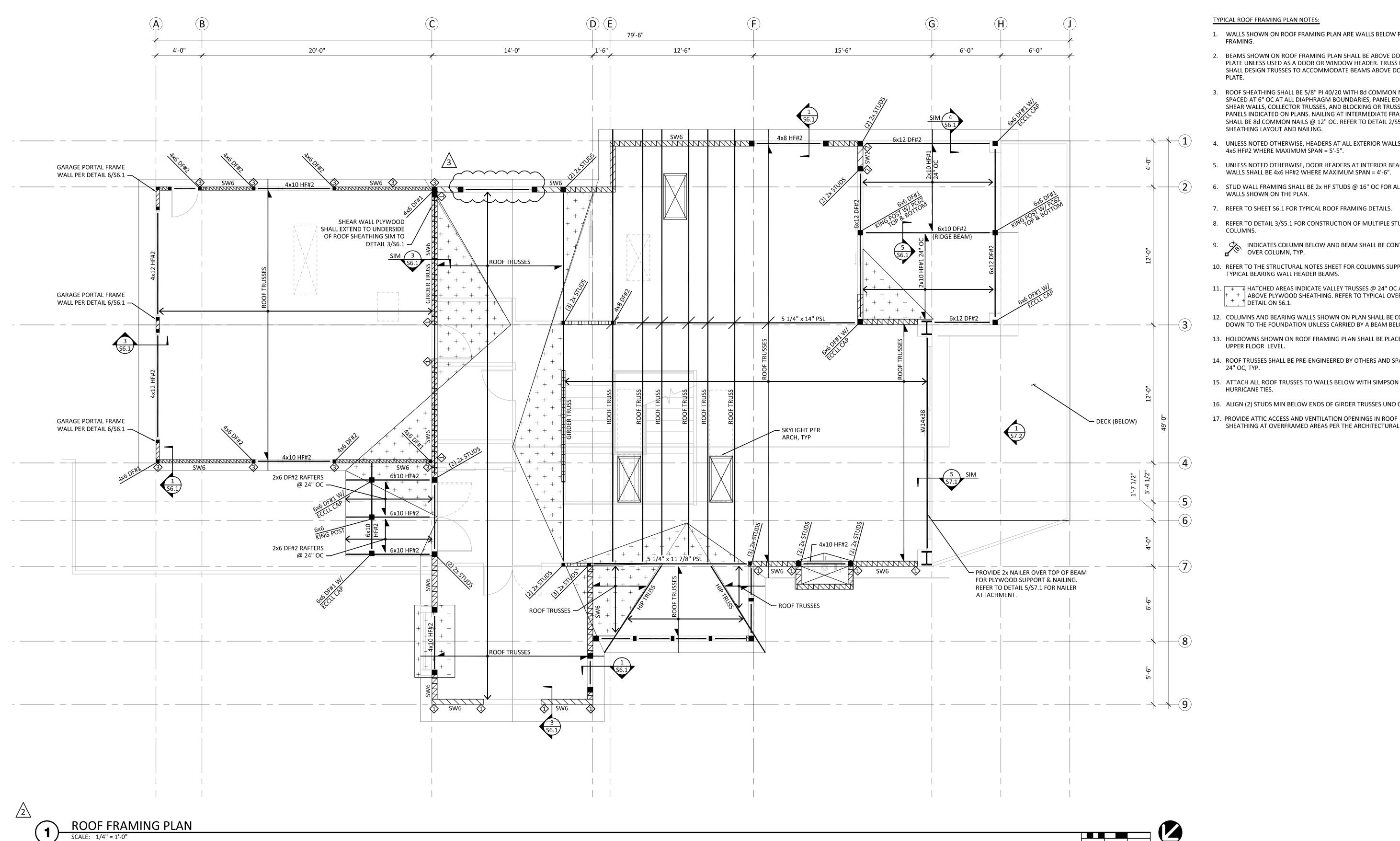
D I d

AND, WA 98040

RUDOLF RESIDENC 8253 W MERCER MERCER ISLAND,

SHEET:

S2.3



#### TYPICAL ROOF FRAMING PLAN NOTES:

- 1. WALLS SHOWN ON ROOF FRAMING PLAN ARE WALLS BELOW ROOF
- 2. BEAMS SHOWN ON ROOF FRAMING PLAN SHALL BE ABOVE DOUBLE TOP PLATE UNLESS USED AS A DOOR OR WINDOW HEADER. TRUSS MFR SHALL DESIGN TRUSSES TO ACCOMMODATE BEAMS ABOVE DOUBLE TOP
- 3. ROOF SHEATHING SHALL BE 5/8" PI 40/20 WITH 8d COMMON NAILS SPACED AT 6" OC AT ALL DIAPHRAGM BOUNDARIES, PANEL EDGES, SHEAR WALLS, COLLECTOR TRUSSES, AND BLOCKING OR TRUSS BLOCKING PANELS INDICATED ON PLANS. NAILING AT INTERMEDIATE FRAMING SHALL BE 8d COMMON NAILS @ 12" OC. REFER TO DETAIL 2/S5.1 FOR SHEATHING LAYOUT AND NAILING.
- 4. UNLESS NOTED OTHERWISE, HEADERS AT ALL EXTERIOR WALLS SHALL BE 4x6 HF#2 WHERE MAXIMUM SPAN = 5'-5".
- 5. UNLESS NOTED OTHERWISE, DOOR HEADERS AT INTERIOR BEARING WALLS SHALL BE 4x6 HF#2 WHERE MAXIMUM SPAN = 4'-6''.
- 6. STUD WALL FRAMING SHALL BE 2x HF STUDS @ 16" OC FOR ALL STUD WALLS SHOWN ON THE PLAN.
- 7. REFER TO SHEET S6.1 FOR TYPICAL ROOF FRAMING DETAILS.
- 8. REFER TO DETAIL 3/S5.1 FOR CONSTRUCTION OF MULTIPLE STUD COLUMNS.
- INDICATES COLUMN BELOW AND BEAM SHALL BE CONTINUED OVER COLUMN, TYP.
- 10. REFER TO THE STRUCTURAL NOTES SHEET FOR COLUMNS SUPPORTING TYPICAL BEARING WALL HEADER BEAMS.
- 11. T + H HATCHED AREAS INDICATE VALLEY TRUSSES @ 24" OC APPLIED + ABOVE PLYWOOD SHEATHING. REFER TO TYPICAL OVERFRAMING \_\_\_\_\_ DETAIL ON S6.1.
- 12. COLUMNS AND BEARING WALLS SHOWN ON PLAN SHALL BE CONTINUED DOWN TO THE FOUNDATION UNLESS CARRIED BY A BEAM BELOW.
- 13. HOLDOWNS SHOWN ON ROOF FRAMING PLAN SHALL BE PLACED ON UPPER FLOOR LEVEL.
- 14. ROOF TRUSSES SHALL BE PRE-ENGINEERED BY OTHERS AND SPACED AT 24" OC, TYP.
- 15. ATTACH ALL ROOF TRUSSES TO WALLS BELOW WITH SIMPSON H2.5 HURRICANE TIES.
- 16. ALIGN (2) STUDS MIN BELOW ENDS OF GIRDER TRUSSES UNO ON PLANS.
- SHEATHING AT OVERFRAMED AREAS PER THE ARCHITECTURAL DWGS.





DESIGN:

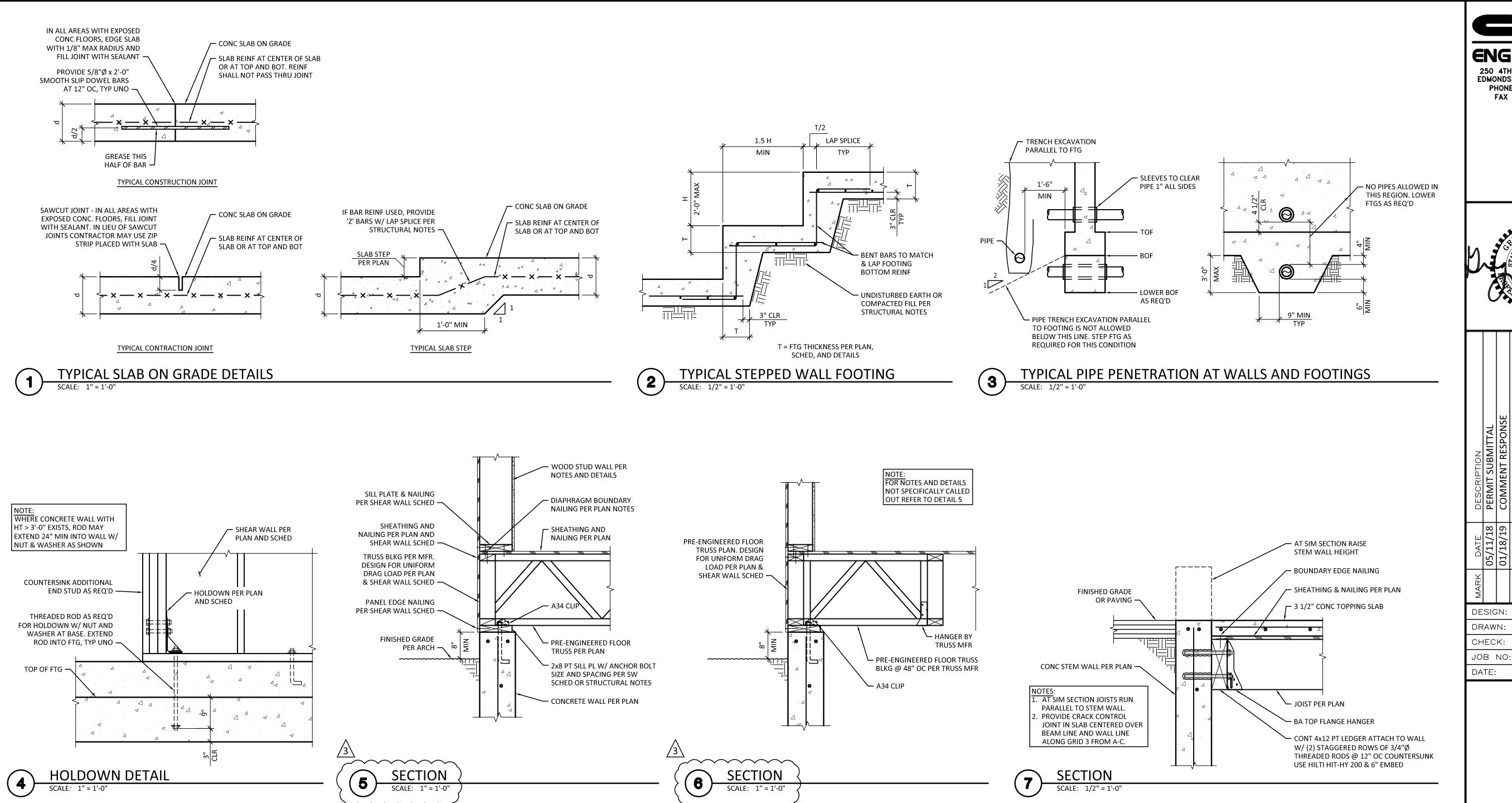
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05/11/18

DRAWN: CHECK:

JOB NO:

**S2.4** 







RK DATE DESCRIPTION	05/11/18 PERMIT SUBMITTAL	01/18/19 COMMENT RESPONSE	11/02/21 CONSTRUCTION REVISIONS	11/16/21   CONSTRUCTION REVISIONS			
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DETAIL

05/11/18

RESIDENCE MERCER WAISLAND, WA OUNDATION

RUDOLF 8253 W MERCER SHEET: