GENERAL NOTES

1. CODE COMPLIANCE
ALL WORK SHALL COMPLY WITH THE 2018 IRC, 2015 IMC, 2015 IFGC, 2015 IFC, 2015 UPC, 2015 IPMC, 2008 NEC, 2015 INTERNATIONAL ENERGY CONSERVATION CODE WITH WASHINGTON STATE AMENDMENTS, 2009 ICC A117.1, AND WITH ALL LOCAL CODES, ORDINANCES, AND COVENANTS OF THE JURISDICTION WHERE IT IS BUILT.

2. DIMENSIONS
A. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY THE ARCHITECT OF DISCREPANCIES. IF WORK IS STARTED PRIOR TO NOTIFICATION, THE GENERAL AND SUBCONTRACTOR PROCEED AT THEIR OWN RISK.
B. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TO FACE OF STUDS OR FACE OF CONCRETE WALLS. FACE OF STONE VENEER LIES 6" +/- OUTSIDE THE FACE OF FRAMING. INTERIOR PLAN DIMENSIONS ARE TO FACE OF STUDS UNLESS OTHERWISE NOTED.
C. VERIFY ALL ROUGH-IN DIMENSIONS FOR WINDOWS, DOORS, PLUMBING, ELECTRICAL FIXTURES AND APPLIANCES PRIOR TO COMMITMENT OF WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES OF DIMENSIONAL TOLERANCES REQUIRED.

3. DOCUMENT REVIEW/VERIFICATION:
CONSULT WITH ARCHITECT REGARDING ANY SUSPECTED ERRORS, OMISSIONS, OR CHANGES ON PLANS BEFORE PROCEEDING WITH THE WORK. APPROVAL BY AN INSPECTOR DOES NOT CONSTITUTE AUTHORITY TO DEVIATE FROM THE DRAWINGS OR SPECIFICATIONS.

4. ROUGH OPENINGS/BACKING:
VERIFY SIZE AND LOCATION, AS WELL AS PROVIDE ALL OPENINGS THROUGH FLOORS AND WALLS, FURRING, CURBS, ANCHORS, INSERTS, EQUIPMENT BASES AND ROUGH BUCKS/BACKING FOR SURFACE-MOUNTED ITEMS.

5. FURRING:
PROVIDE FURRING AS REQUIRED TO CONCEAL MECHANICAL AND/OR ELECTRICAL EQUIPMENT IN FINISHED AREAS. FURRING NOT SHOWN ON PLANS SHALL BE APPROVED BY ARCHITECT PRIOR TO CONSTRUCTION.

6. GRADES: VERIFY ALL GRADES AND THEIR RELATIONSHIP TO THE BUILDING(S).

7. FLOOR LINES: "FLOOR LINE" REFERS TO TOP OF CONCRETE SLAB OR TOP OF WOOD SUBFLOOR.

8. REPETITIVE FEATURES: OFTEN DRAWN ONLY ONCE AND SHALL BE PROVIDED AS IF FULLY DRAWN.

9. DOORS:
DOORS NOT DIMENSIONALLY LOCATED SHALL BE 6" FROM STUD FACE TO EDGE OF DOOR, ROUGH OPENING OR CENTERED BETWEEN WALLS AS SHOWN.

10. WOOD MEMBERS IN CONTACT WITH CONCRETE, AND/OR EXPOSED TO WEATHER:
TO BE PRESSURE TREATED, TYPICAL. PROVIDE PRESSURE TREATED SILL PLATE IF FINISH GRADE IS WITHIN 8", TYPICAL.

11. FRAMING:
ALL NEW INTERIOR FRAME PARTITIONS TO BE 2X4 @ 16" O.C., & ALL NEW EXTERIOR FRAME PARTITIONS TO BE 2X6 @ 16" O.C., UNLESS OTHERWISE NOTED. VERIFY W/ STRUCTURAL DRAWINGS. EXISTING EXTERIOR WALLS ARE 2X4 STUDS @ 16" O.C., AND ARE TO REMAIN.

12. VENTILATION:
VENT ALL BATHROOM FANS, LAUNDRY FANS, RANGE HOODS AND DRYER VENTS TO OUTSIDE ATMOSPHERE. BATHROOM/UTILITY ROOM FANS SHALL BE CAPABLE OF 5 AIR CHANGES PER HOUR AND SHALL BE VENTED DIRECTLY TO THE OUTSIDE THROUGH SMOOTH, RIGID, NON-CORROSIVE METAL, 24 GA. DUCTWORK. FLEX DUCTING IS NOT ALLOWED.

13. FLUES: FLUES TO BE LOCATED MINIMUM 2" FROM ALL COMBUSTIBLE MATERIALS.

14. DOWNSPOUTS: LOCATE NEW DOWNSPOUTS AS SHOWN ON ROOF PLAN, FLOOR PLANS & ELEVATIONS.

15. OTHER DOCUMENTATION:
REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL, AND/OR LANDSCAPE DRAWINGS FOR ADDITIONAL DRAWINGS, NOTES, SCHEDULES, AND SYMBOLS.

16. PROTECTION:
PROTECT ALL EXISTING FINISHES AND SURFACES. ANY DAMAGE WILL BE REPAIRED WITHOUT ADDITIONAL COST TO OWNER.

17. PERMITS:
SEPARATE ELECTRICAL, MECHANICAL, AND PLUMBING PERMITS ARE REQUIRED IN ADDITION TO THE BASIC BUILDING PERMIT

18. ROOFING: PROVIDE NEW ROOFING TO MATCH EXISTING.

19. EXHAUST DUCTS: PROVIDE BACKDRAFT DAMPERS AT ALL EXHAUST DUCTS.

20. PROVIDE COMBUSITON AIR OPENINGS INTO FURNACE ROOM PER UMC 703.

21. APPLIANCES:
CLEARANCES OF UL LISTED APPLIANCES FROM COMBUSTIBLE MATERIALS SHALL BE AS SPECIFIED IN UL LISTING.

22. WATER FLOW:
SHOWER SHALL BE EQUIPPED WITH FLOW CONTROL DEVICE TO LIMIT WATER FLOW TO 2.5 GALLONS PER MINUTE.

23. SMOKE DETECTORS:
SMOKE & CARBON MONOXIDE THROUGHT NEW CONSTRUCTION. TO BE MONITORED PER FIRE DEPARTMENT REQUIREMENTS.

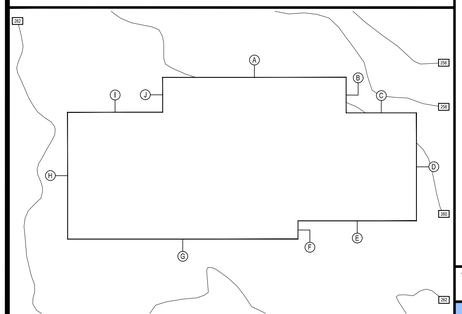
24. WALK-THROUGHS:
THE CONTRACTOR SHALL SCHEDULE WALK-THROUGHS AT EACH OF THE VELOW NOTED INTERVALS AT MINIMUM:
1. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION
2. PRIOR TO THE COMMENCEMENT OF MECHANICAL & ELECTRICAL WORK

DUTY OF COOPERATION

RELEASE AND ACCEPTANCE OF THESE DOCUMENTS INDICATES COOPERATION AMONG THE OWNER, CONTRACTOR, AND STURMAN ARCHITECTS. ANY ERRORS, OMISSIONS, OR DISCREPANCIES DISCOVERED IN THE USE OF THESE DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO STURMAN ARCHITECTS. FAILURE TO DO SO SHALL RELIEVE STURMAN ARCHITECTS FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES.

ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT THE CONSENT OF STURMAN ARCHITECTS ARE UNAUTHORIZED. FAILURE TO OBSERVE THESE PROCEDURES SHALL RELIEVE STURMAN ARCHITECTS OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING FROM SUCH ACTIONS.

ABE CALCULATIONS NO SCALE



	MIDPOINT ELEVATION	SEGMENT LENGTH	ELEVATION x LENGTH
A:	259.5 FT	40.5 FT	10509.8 FT
B:	259.8 FT	7.8 FT	2026.4 FT
C:	259.4 FT	15.5 FT	4020.7 FT
D:	260.2 FT	23.8 FT	6192.8 FT
E:	260.9 FT	26.1 FT	6809.5 FT
F:	261.1 FT	4.0 FT	1044.4 FT
G:	261.5 FT	50.8 FT	13284.2 FT
H:	261.8 FT	28.0 FT	7330.4 FT
I:	261.2 FT	21.0 FT	5485.2 FT
J:	260.5 FT	7.8 FT	2031.9 FT

MID POINT ELEVATION X SEGMENT LENGTH: 58,735.3 FT^2 / TOTAL WALL SEGMENT LENGTH: 225.3 FT = A.B.E. = 260.7 FT

PROJECT DATA

PROJECT ADDRESS:	5635 84TH AVE SE MERCER ISLAND, WA 98040
PROPERTY TAX ID NUMBER:	362291-0030
SCOPE OF WORK:	REMODEL AND ADDITION OF KITCHEN, DINING, AND LAUNDRY ROOM ON THE MAIN FLOOR. REMODEL AND EXPANSION OF UPPER FLOOR BEDROOMS. NEW ROOF OVER PORTION OF EXISTING AND NEW DECK.
ZONING:	R-15
CONSTRUCTION TYPE:	TYPE V B
SEISMIC ZONE:	3
NUMBER OF STORIES:	2 STORY
FIRE PROTECTION:	-
BUILDING HEIGHT	30 FT ABOVE AVERAGE BUILDING ELEVATION (FLAT ROOF) 35 FT ABOVE AVERAGE BUILDING ELEVATION (SLOPED ROOF)
LOT AREA:	9,340 SF
SETBACKS:	FRONT LOT LINE = 20 FT REAR LOT LINE = 25 FT SIDE LOT LINES = 15 FT TOTAL (MINIMUM 5 FT)
LOT COVERAGE:	40% MAX

PROJECT TEAM

OWNER:	DORRINDA PIERCE 5635 84TH AVE SE MERCER ISLAND, WA 98040 PHONE: .
ARCHITECT:	STURMAN ARCHITECTS, INC. 9 - 103RD AVE NE SUITE 203 BELLEVUE, WA 98004 PHONE: 425.451.7003 CONTACT: BRAD STURMAN
STRUCTURAL:	O.G. ENGINEERING, PLLC 8645 22ND AVE SE SEATTLE, WA 98106 PHONE: 206.290.4608 CONTACT: OWEN GOULD

LOT COVERAGE & HARDSCAPE

GROSS LOT AREA IS 11,819 SF

LOT COVERAGE	MAIN STRUCT. & ROOF S.F.		TOTAL LOT COVERAGE	% LOT COVERAGE
EXISTING LOT COVERAGE	2,533.2 SF	949.2 SF	3,482.4 SF	29.5 %
PROPOSED LOT COVERAGE	3,110.4 SF	949.2 SF	4,059.6 SF	34.3 %
CHANGE	+ 577.2 SF	+ 0 SF	+ 577.2 SF	+ 4.8 %
% ALLOWED LOT COVERAGE			4,727.6 SF ALLOWABLE	40 %

HARDSCAPE	CONCRETE WALKWAY	PAVERS	WOOD DECK	ROCKERIES & RET. WALLS	TOTAL HARDSCAPE	% HARDSCAPE
EXISTING HARDSCAPE	475.2 SF	204.3 SF	476.1 SF	94.2 SF	1,249.8 SF	10.6 %
PROPOSED HARDSCAPE	380.6 SF	204.3 SF	427.6 SF	125.3 SF	1,137.8 SF	9.6 %
CHANGE	- 94.6 SF	0 SF	- 48.5 SF	+ 31.1 SF	- 112 SF	- 1.0 %
% ALLOWED HARDSCAPE					1,128.1 SF ALLOWABLE	9 %

HIGHEST EL: +/-267.5'
LOWEST EL: +/-251.0'
ELEVATION DIFFERENCE= 16.5'

16.5' DIVIDED BY 162.25' (HORIZ. DIST. BTWN. HIGHEST & LOWEST ELEV.) = .102

LOT SLOPE IS 10.2%,
WHICH IS LESS THAN 15% THUS LOT COVERAGE ALLOWED IS 40%.

ADDITIONAL 9% OF LOT SIZE WILL DETERMINE ALLOWABLE HARDSCAPE SURFACE

NOTE:
CONTOURS TAKEN FROM MERCER ISLAND GIS

GROSS FLOOR AREA

LOT SIZE	= 11,819 SF
GFA THRESHOLD	= 12,000 SF OR 40% (4,728) OF THE LOT AREA, WHICHEVER IS LESS
EXISTING RESIDENCE GFA:	
MAIN FLOOR	= 1,622 SF
SECOND FLOOR	= 1,875 SF
ATTACHED GARAGE	= 575 SF
TOTAL EXISTING:	= 4,072 SF
EXISTING GFA IS 4,072 SF OR 34.5%	
PROPOSED RESIDENCE GFA:	
MAIN FLOOR	= 1,785 SF
UPPER FLOOR	= 2,247 SF
GARAGE	= 575 SF
TOTAL PROPOSED:	= 4,607 SF
PROPOSED GFA IS 4,607 SF OR 39.0%	

BUILDING AREA

	MAIN FLOOR	SECOND FLOOR	HEATED SUB-TOTAL
EXISTING SF:	1,622 SF	1,875 SF	3,497 SF
PROPOSED HOUSE SF:	1,785 SF	2,183 SF	3,968 SF
CHANGE IN SF:	+163 SF	308 SF	+471 SF

	ATTACHED GARAGE	COVERED DECK	GRAND TOTAL
EXISTING SF:	570 SF	0 SF	4,067 SF
PROPOSED HOUSE SF:	570 SF	297 SF	4,835 SF
CHANGE IN SF:	0 SF	+297 SF	+768 SF

ENERGY NOTES

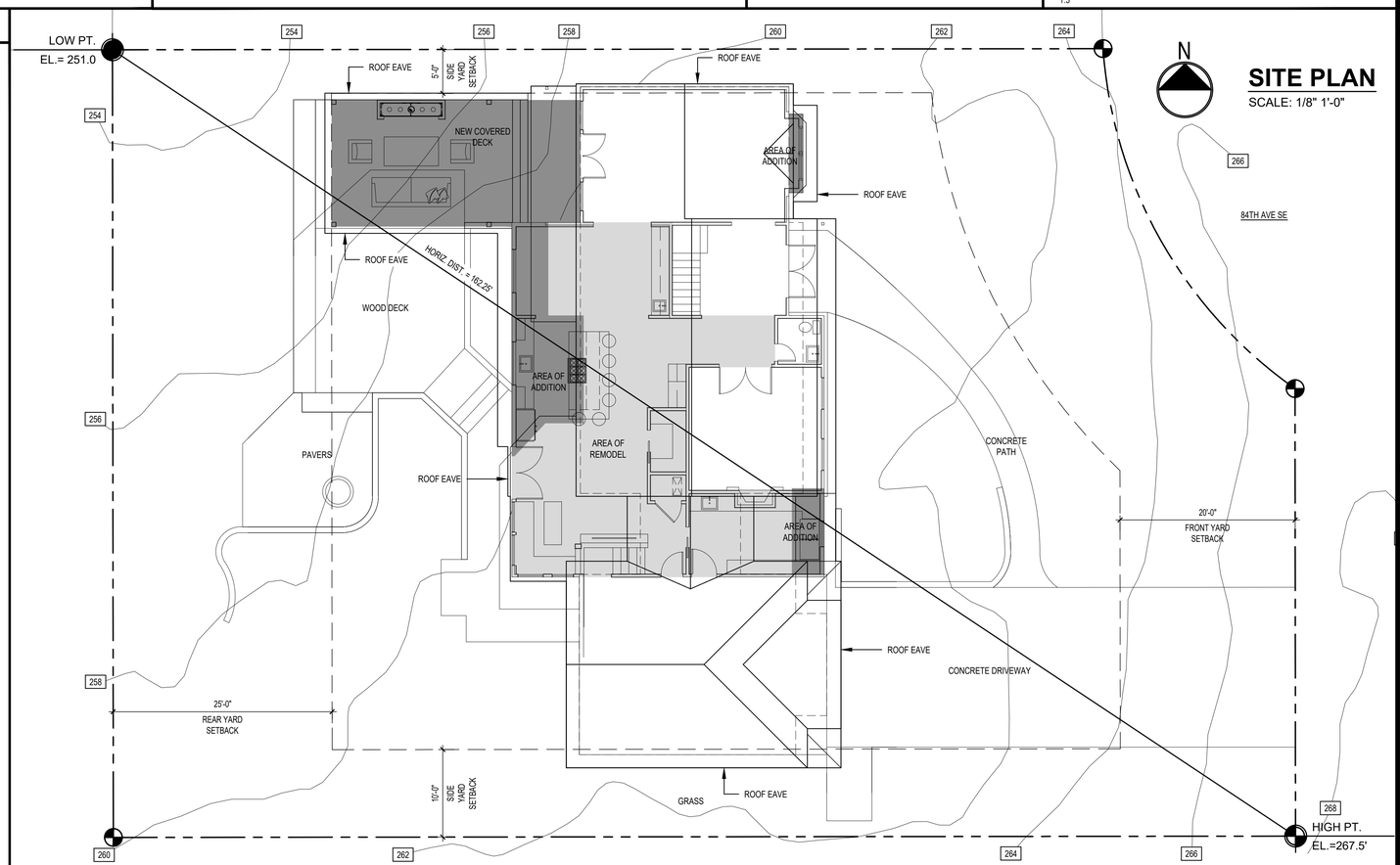
PROJECT IS LESS THAN 500SF OF NEW CONDITIONED SPACE SO 1.5 CREDITS NEEDED

CREDITS	OPTION	DESCRIPTION
1.5	5.4	EFFICIENT WATER HEATING

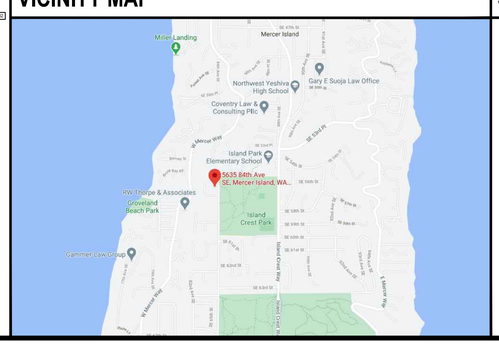
TOTAL CREDITS
1.5

ENERGY NOTES

CODE:	2015 W.S.E.C. & 2015 IRC, WAC 51-11R
CLIMATIC ZONE:	ZONE #4C
SPACE HEAT TYPE:	NATURAL GAS, IN-FLOOR RADIANT HEAT
INSULATION VALUES: PRESCRIPTIVE METHOD	WALLS: R-21 FLAT ATTICS/CEILINGS: R-49 VAULTED CEILINGS: R-38 FLOORS (OVER UNHEATED SPACES): R-30 SLAB-ON-GRADE: R-10
THERMAL STANDARDS FOR OPENINGS:	UNLIMITED OPTION
AIR INFILTRATION:	MANUFACTURED DOORS/WINDOWS: CONFORM TO SECTION R402.4.3 OF THE WASHINGTON STATE ENERGY CODE EXTERIOR JOINTS/OPENINGS: SEAL, CAULK, GASKET OR WEATHERSTRIP TO LIMIT AIR LEAKAGE AT EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATION, BETWEEN WALLS AND ROOF; OPENINGS AT PENETRATIONS OF UTILITY SERVICES AND ALL OTHER SUCH OPENINGS IN THE BUILDING ENVELOPE
MOISTURE CONTROL:	WALLS: VAPOR RETARDER BONDED TO BATT INSULATION; INSTALL WITH STAPLES NOT MORE THAN 8 INCHES ON CENTER AND AND WITH A GAP BETWEEN AND OVER FRAMING NOT GREATER THAN 1/16 OF AN INCH; OR, VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE) ATTICS/CEILINGS: VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE). INSTALL CONTINUOUSLY CRAWL SPACE: 6 MIL POLYETHELENE
VENTILATION:	ATTICS WITH LOOSE FILL: N.A. BAFFLE VENT OPENINGS TO DEFLECT AIR ABOVE INSULATION SURFACE ENCLOSED JOIST OR RAFTER SPACES: PROVIDE MINIMUM OF ONE INCH CLEAR VENTED AIR SPACE ABOVE INSULATION. TAPER OR COMPRESS INSULATION AT PERIMETER TO INSURE PROPER VENTILATION
HEATING & COOLING:	IN-FLOOR RADIANT HEATING
TEMP. CONTROL:	FOR HEATING AND COOLING, THERMOSTAT SHALL BE CAPABLE OF BEING SET FROM 55-85 DEGREES FARENHEIT AND OF OPERATING THE HEATING/COOLING SYSTEM IN SEQUENCE. THERMOSTAT TO BE AUTOMATIC DAY/NIGHT SETBACK TYPE.
DUCT INSULATION:	THERMALLY INSULATE ALL PLENUMS, DUCTS AND ENCLOSURES IN ACCORDANCE WITH TABLE R403.3.1 OF THE WASHINGTON STATE ENERGY CODE. a. ALL HEATING DUCTS IN UNCONDITIONED SPACES SHALL BE INSULATED WITH A MIN. OF R-8. ALL SEAM JOINTS SHALL BE TAPED, SEALED AND FASTENED WITH THE MINIMUM OF FASTENERS PER WSEC. b. DUCTS WITHIN A CONCRETE SLAB OR IN THE GROUND SHALL BE INSULATED TO R-10, WITH INSULATION DESIGNED TO BE USED BELOW GRADE.
LIGHTING:	RECESSED LIGHTING FIXTURES INSTALLED IN BUILDING ENVELOPE SHALL COMPLY WITH WSEC PROVISIONS AND SHALL BE IC LISTED. ALL ROOMS WITHOUT GLAZING SHALL HAVE ARTIFICIAL LIGHTING ACROSS THE AREA OF THE ROOM PRODUCING AN AVERAGE 6 FOOTCANDLES AT 30" ABOVE THE FLOOR
PIPE INSULATION:	NON RECIRCULATING HOT AND COLD WATER PIPES LOCATED IN UNCONDITIONED SPACE SHALL BE INSULATED TO R-3 MIN. PLUMBING OR MECHANICAL CANNOT DISPLACE THE REQUIRED INSULATION.
WHOLE HOUSE VENTILATION:	WHOLE HOUSE VENTILATION SYSTEM: a. WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY EXHAUST FAN PROVIDING 105 CFM RUNNING CONTINUOUSLY PER 2012 IRC TABLES M1507.3.3 (18). FAN SHALL BE CONNECTED TO A 24 HOUR CLOCK TIMER AND HAVE A SONE RATING OF LESS THAN 1.0. VENTILATION SHALL BE ABLE TO OPERATE INDEPENDENTLY OF HEATING SYSTEM. b. SYSTEM SHALL HAVE A 5"Ø SMOOTH FRESH AIR DUCT W/ LOUVER & SCREEN CONNECTED TO THE RETURN AIR STREAM 4' UPSTREAM OF THE AIR HANDLER AND INSULATED W/ R-4 MIN IN HEATED AREAS. c. SHALL HAVE A FILTER WITH A MERV OF AT LEAST 6 INSTEALLED IN AN EASILY ACCESSIBLE LOCATION. d. FRESH AIR VENT SHALL BE LOCATED AWAY FROM SOURCES OF ODORS OR FUMES, MIN 10' FROM PLUMBING OR APPLIANCE VENTS, AWAY FROM ROOMS W/ FUEL BURNING APPLIANCES, AND OUT OF ATTICS, CRAWL SPACES, AND GARAGES.

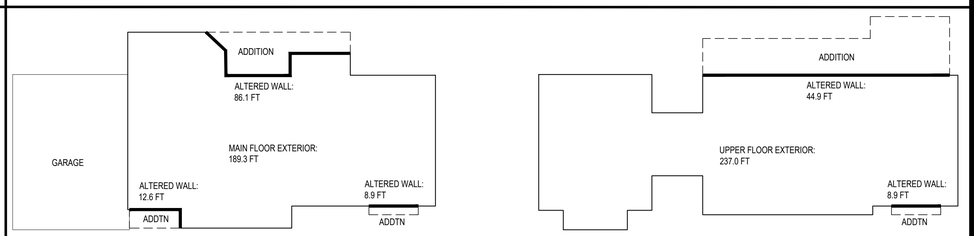


VICINITY MAP



SHEET INDEX

40% RULE DIAGRAM



TOTAL EXTERIOR LENGTH = 426.3 FT
TOTAL LENGTH OF ALTERED WALLS = 161.4 FT

PERCENTAGE OF ALTERATIONS = 36.8%
PERCENTAGE OF WALL TO REMAIN = 63.2%

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET 12/20/2021

STURMAN ARCHITECTS
9 - 103rd Ave NE Suite 203 Bellevue, WA 98004
TEL: 425.451.7003

REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON
9460

PIERCE RESIDENCE

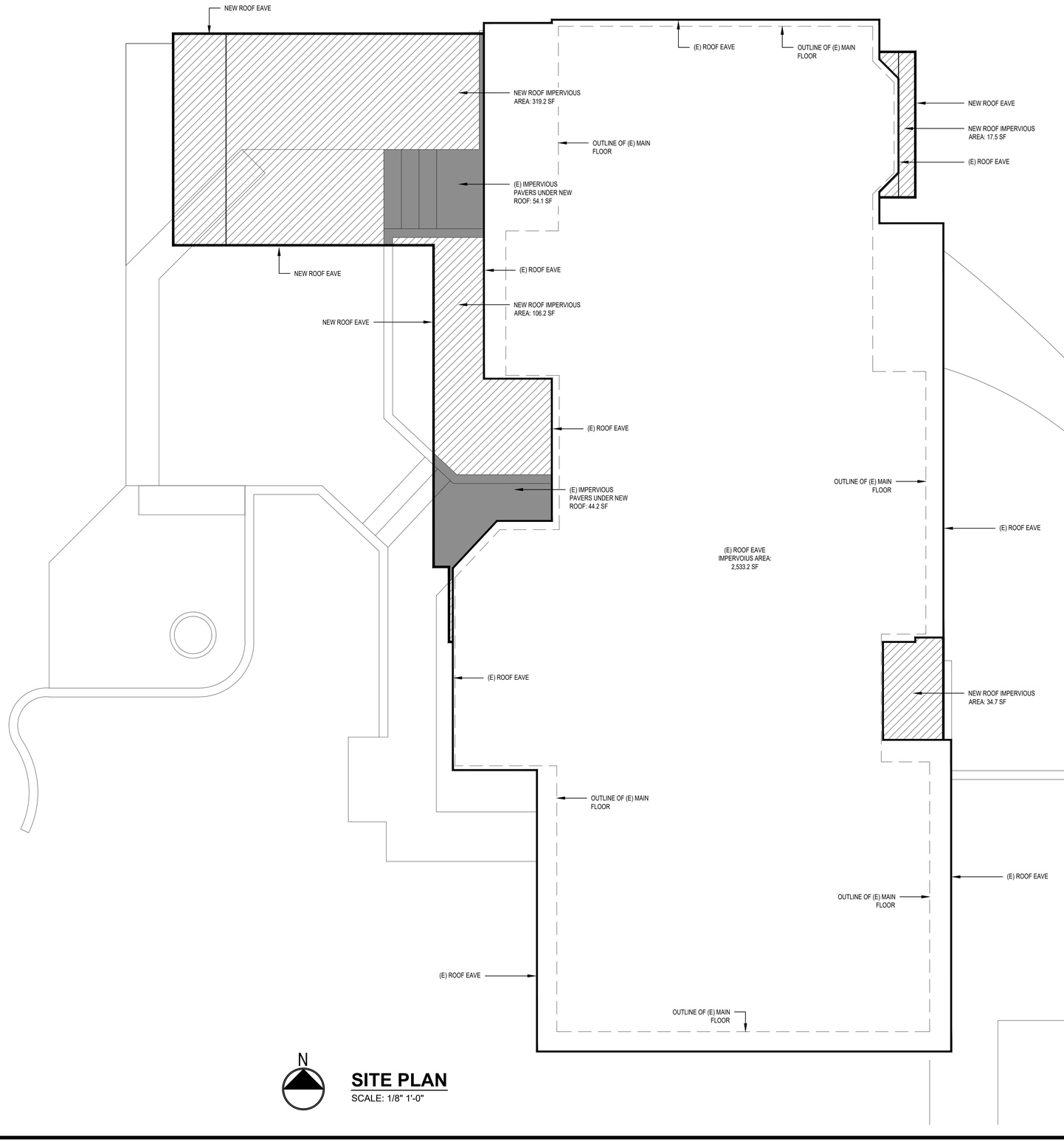
5635 84TH AVE SE
MERCER ISLAND, WA 98040

SITE PLAN

REVISIONS:

PLOT DATE: 12/20/2021
DRAWN BY: JM
CHECKED BY: BJS

SHEET
A1.0



SITE PLAN

SCALE: 1/8" 1'-0"

IMPERVIOUS SURFACE	MAIN STRUCT. & ROOF S.F.
EXISTING HOUSE IMPERVIOUS SURFACE	2,533.2 SF
(E) IMPERVIOUS AREA UNDER NEW ROOF	98.3 SF
NEW IMPERVIOUS AREA NEW UNDER ROOF	477.6 SF
TOTAL NEW IMPERVIOUS AREA	477.6 SF

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PERMIT SET 12/20/2021

STURMAN ARCHITECTS
9- 103rd Ave NE Suite 203 Bellevue, WA 98004
TEL: 425.457.7003

REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON
9462

PIERCE RESIDENCE

5635 84TH AVE SE
MERCER ISLAND, WA 98040

NEW IMPERVIOUS SURFACE

REVISIONS:

PLOT DATE: 12/20/2021
DRAWN BY: JM
CHECKED BY: BJS

SHEET
A1.1

WALL PARTITION TYPES:

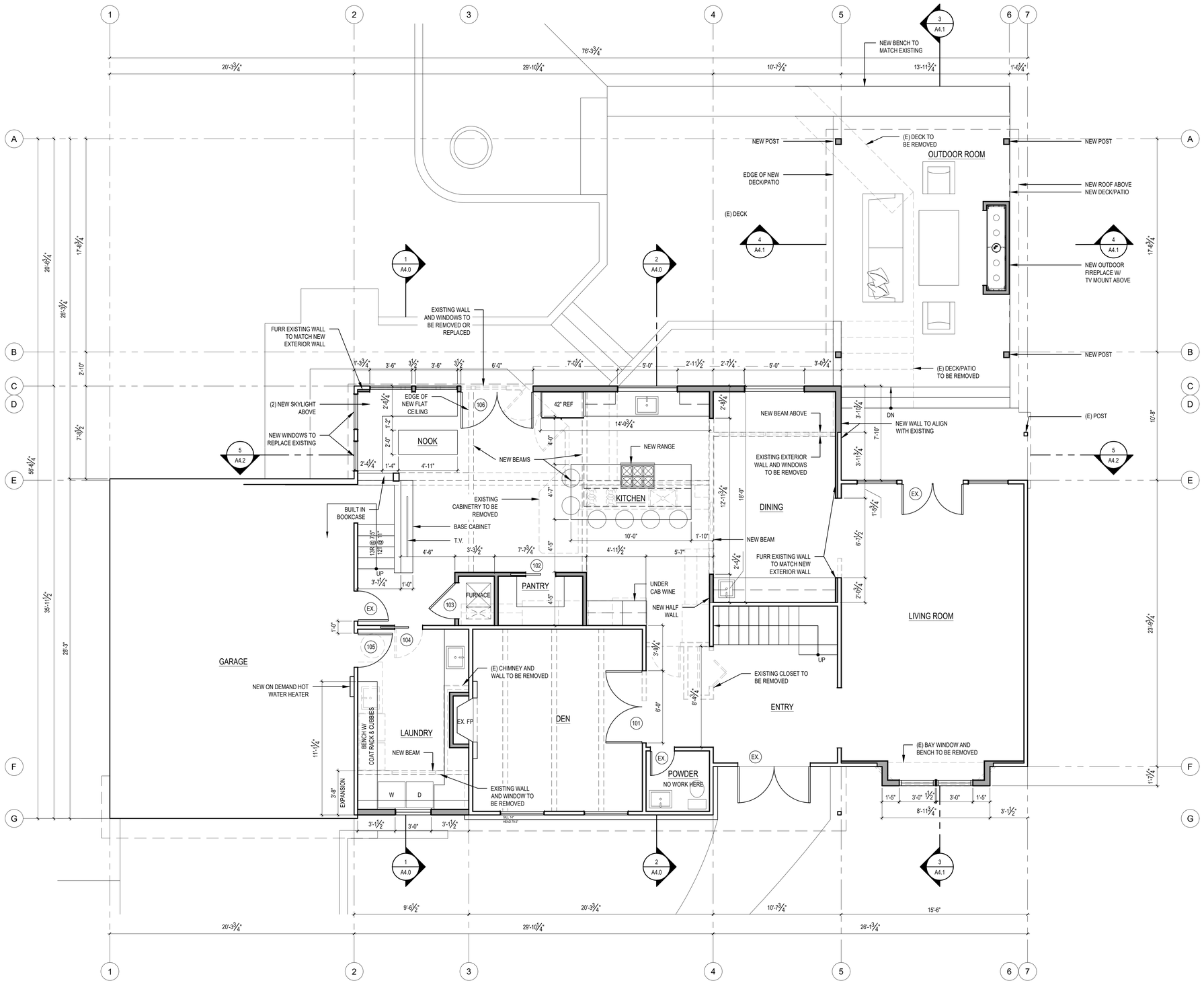
N.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.

TYPICAL EXTERIOR WALL
EXTERIOR WALL FINISH o/ (2) LAYERS 60# BLDG. PAPER o/ 1/2" CDX PLYWOOD o/ 2x6 WOOD STUDS AT 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION EXCEPT AROUND GARAGE.

TYPICAL INTERIOR PARTITION
U.N.O. ALL INTERIOR WALL SHALL BE 2x4 WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD EACH SIDE.

TYPICAL FURRED WALL
2" AIRSPACE, 2x4 P.T. WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION.

1 1HR. FIRE RATED WALL
5/8" THK GWB, TYPE 'X' O/ 2X6 WD STUDS @ 16" O.C. PANELS NAILED 7" O.C.-1 7/8" CEM CTD NAILS- JOINTS EXP OR FIN - PERIM CAULKED- UL DES U305 & U314- JOINTS FIN



MAIN FLOOR PLAN

SCALE: 1/4" = 1'

N

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET 12/20/2021

STURMAN ARCHITECTS
TEL: 425-457-7003 9 - 103rd Ave NE Suite 203 Bellevue, WA 98004

REGISTERED ARCHITECT 3982 BRADLEY J. STURMAN STATE OF WASHINGTON

PIERCE RESIDENCE

5635 84TH AVE SE
MERCER ISLAND, WA 98040

MAIN FLOOR PLAN

REVISIONS:

PLOT DATE: 12/20/2021
DRAWN BY: JM
CHECKED BY: BJS

SHEET A2.0

WALL PARTITION TYPES:

N.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.

TYPICAL EXTERIOR WALL
EXTERIOR WALL FINISH o/ (2) LAYERS 60# BLDG. PAPER o/ 1/2" CDX PLYWOOD o/ 2x6 WOOD STUDS AT 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION EXCEPT AROUND GARAGE.

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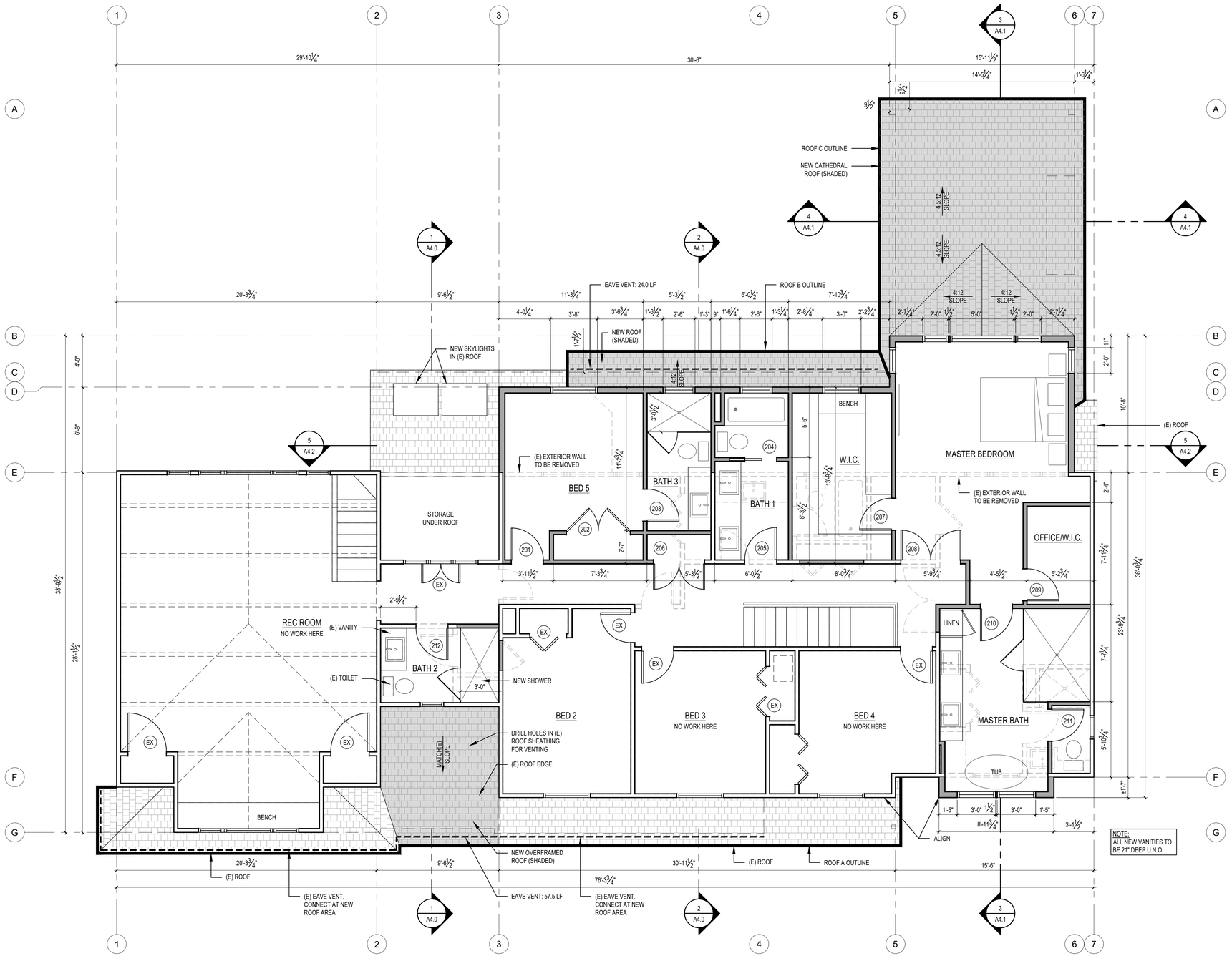

UPPER FLOOR PLAN

SCALE: 1/4" = 1'

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET 12/20/2021

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9- 103rd Ave NE Suite 203 Bellevue, WA 98004
TEL: 425-457-7003

REGISTERED ARCHITECT
BRADLEY J. STURMAN
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www.sturmanarchitects.com

PIERCE RESIDENCE

5635 84TH AVE SE
MERCER ISLAND, WA 98040

UPPER FLOOR PLAN
LOWER ROOF PLAN

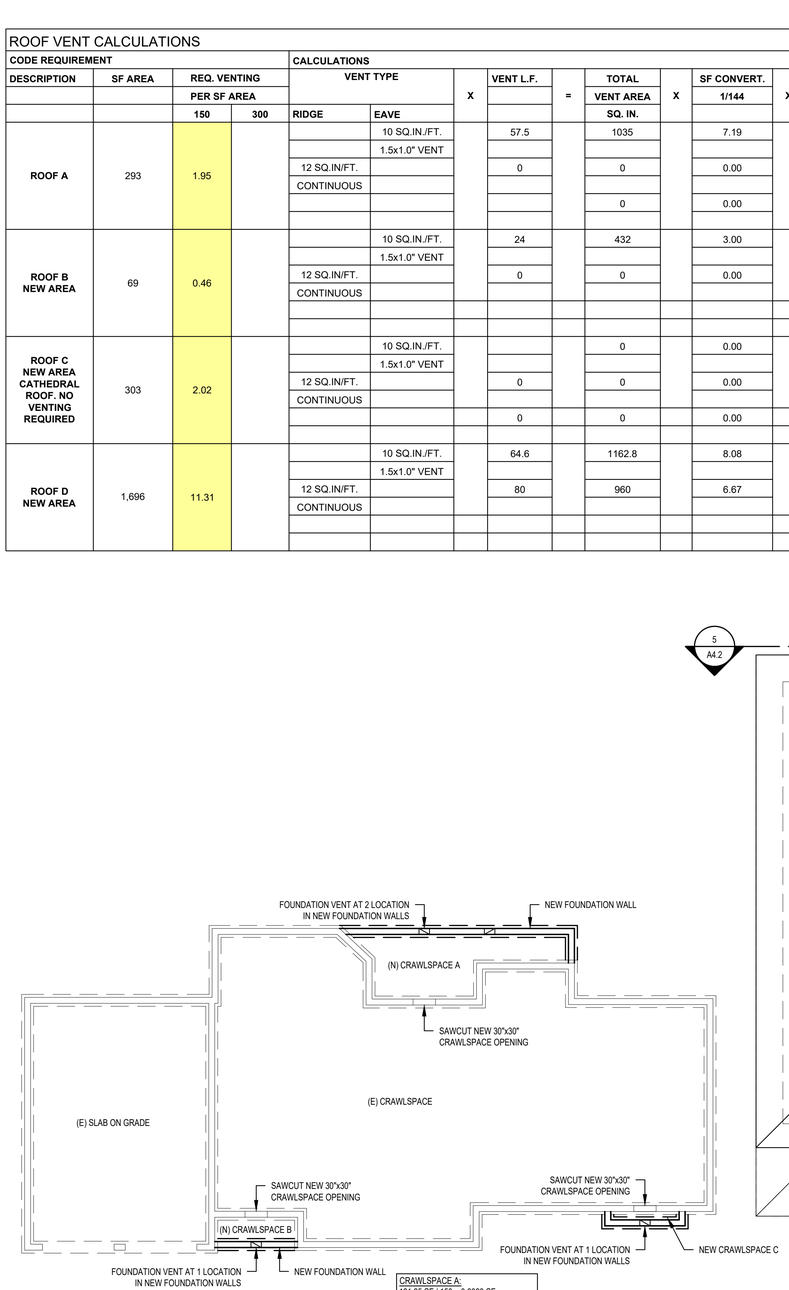
REVISIONS:

PLOT DATE: 12/20/2021
DRAWN BY: JM
CHECKED BY: BJS

SHEET A2.1

ROOF VENT CALCULATIONS

CODE REQUIREMENT				CALCULATIONS										ACTUAL	
DESCRIPTION	SF AREA	REQ. VENTING PER SF AREA		VENT TYPE		X	VENT L.F.	=	TOTAL VENT AREA	X	SF CONVERT. 1/144	X	80% EFF FACTOR	TOTAL
		150	300	RIDGE	EAVE				SQ. IN.					
ROOF A	293	1.95			10 SQ.IN./FT.		57.5		1035		7.19		5.75	5.75
					1.5x1.0" VENT									
				12 SQ.IN/FT.			0		0		0.00		0.00	
				CONTINUOUS										
									0		0.00		0.00	
ROOF B NEW AREA	69	0.46			10 SQ.IN./FT.		24		432		3.00		2.40	2.40
					1.5x1.0" VENT									
				12 SQ.IN/FT.			0		0		0.00		0.00	
				CONTINUOUS										
ROOF C NEW AREA CATHEDRAL ROOF. NO VENTING REQUIRED	303	2.02			10 SQ.IN./FT.				0		0.00		0.00	0.00
					1.5x1.0" VENT									
				12 SQ.IN/FT.			0		0		0.00		0.00	
				CONTINUOUS										
							0		0		0.00		0.00	
ROOF D NEW AREA	1,696	11.31			10 SQ.IN./FT.		64.6		1162.8		8.08		6.46	11.79
					1.5x1.0" VENT									
				12 SQ.IN/FT.			80		960		6.67		5.33	
				CONTINUOUS										



② CRAWLSPACE DIAGRAM

SCALE: 1/8" = 1'-0"

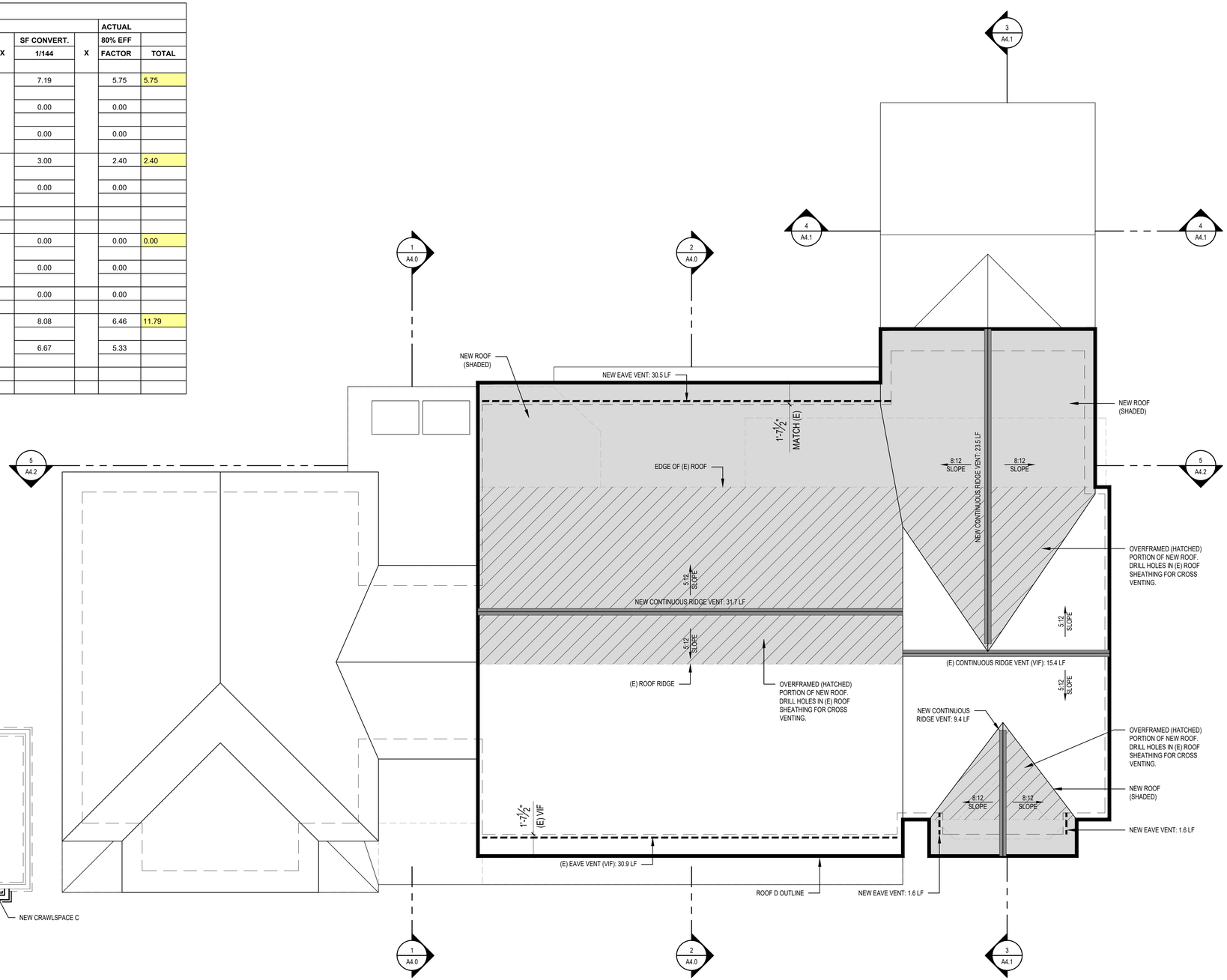
CRAWLSPACE A:
121.25 SF / 150 = 0.8083 SF
0.8083 SF x 144 = 116.3952 SQ. IN.
68 SQ. IN. STND. VENT SIZE.
116.3952 / 68 = 1.71 VENTS REQ.
2 VENTS WILL BE PROVIDED

CRAWLSPACE B:
25.11 SF / 150 = 0.1007 SF
0.1007 SF x 144 = 14.501 SQ. IN.
68 SQ. IN. STND. VENT SIZE.
14.501 / 68 = 0.21 VENTS REQ.
1 VENTS WILL BE PROVIDED

CRAWLSPACE C:
7.08 SF/150 = 0.0472
0.0472 SF x 144 = 6.7968 SQ. IN.
68 SQ. IN. STND. VENT SIZE.
6.797 / 68 = 0.10 VENTS REQ.
1 VENTS WILL BE PROVIDED

1.92 NEW VENTS REQ.
4 NEW VENTS WILL BE PROVIDED

NOTE:
EXISTING VENTS TO REMAIN



① MAIN ROOF PLAN

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

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

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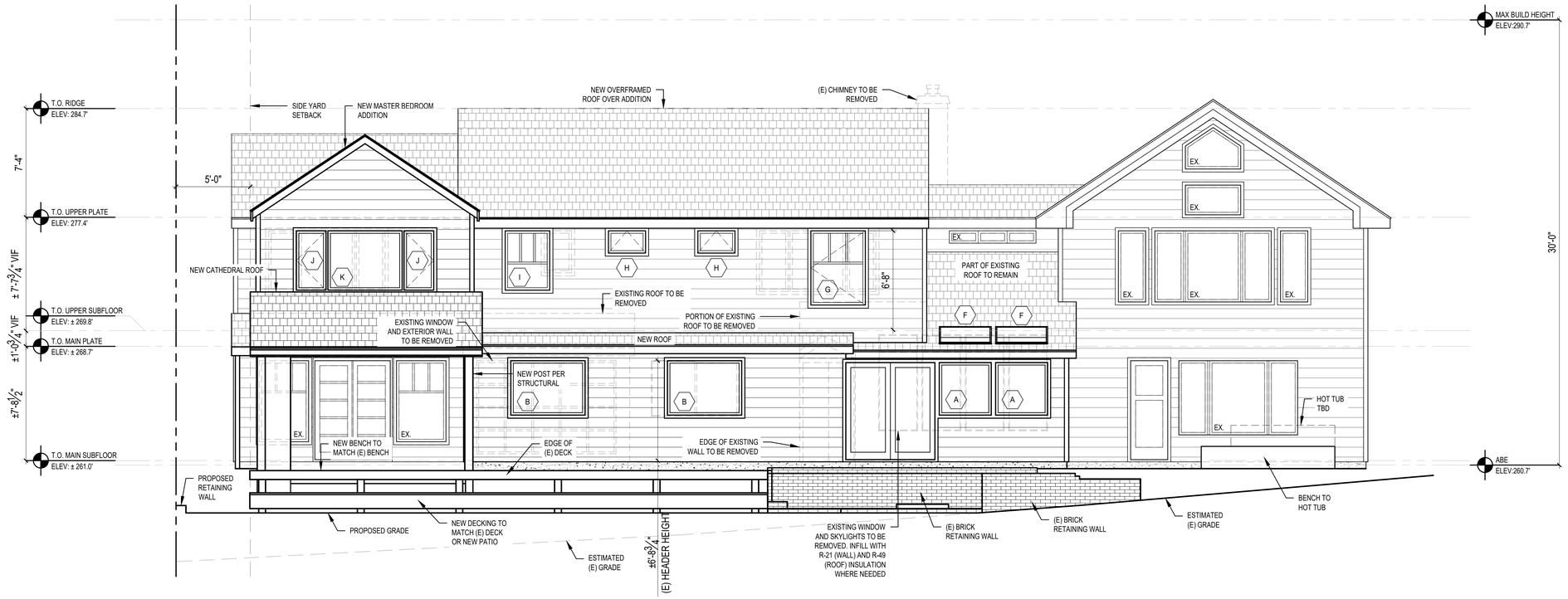
MAIN ROOF PLAN ROOF VENT CALCS CRAWLSPACE DIAGRAM

REVISIONS:

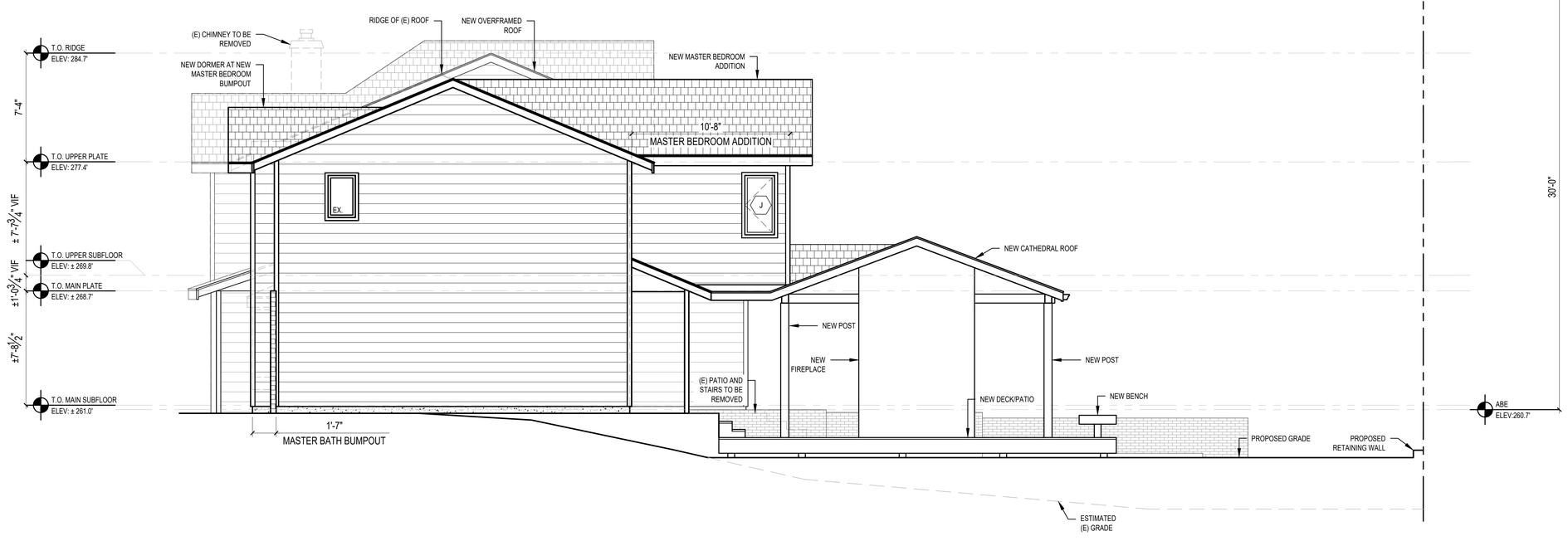
PLOT DATE: 12/20/2021
DRAWN BY: JM
CHECKED BY: BJS

SHEET A2.2



1 WEST ELEVATION

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



2 SOUTH ELEVATION

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

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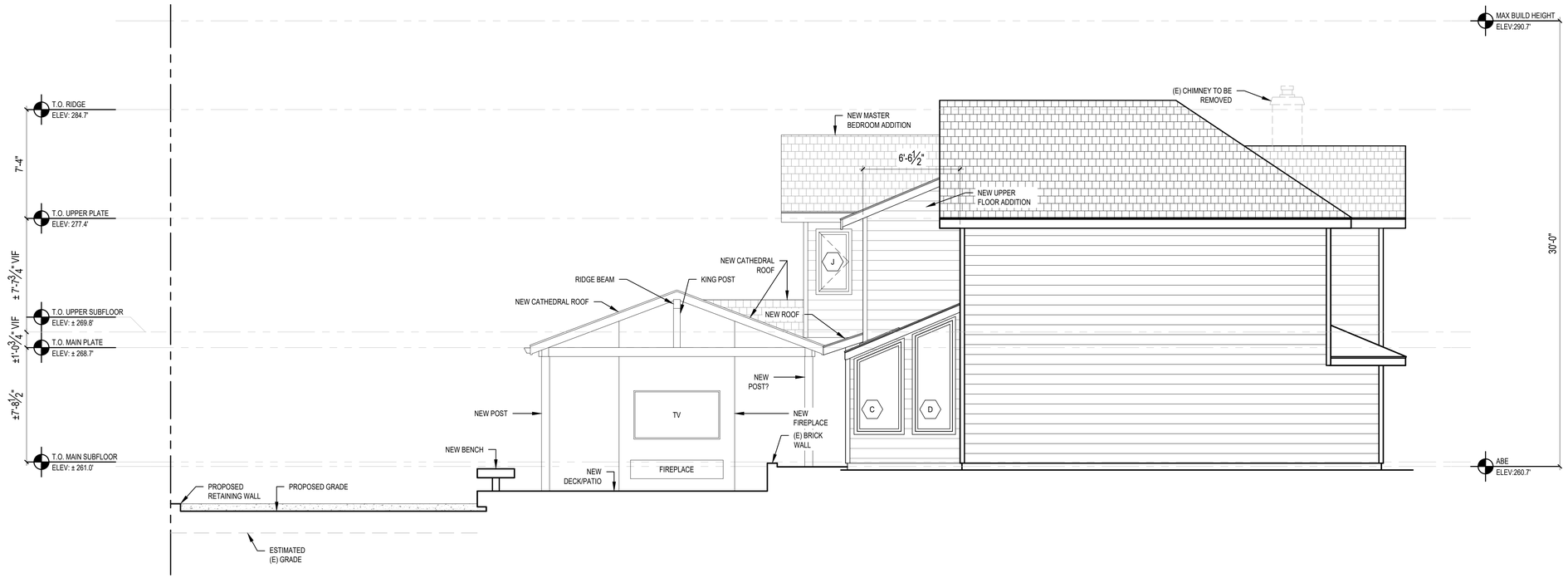
EXTERIOR ELEVATIONS

REVISIONS:

PLOT DATE: 12/20/2021
DRAWN BY: JM
CHECKED BY: BJS

SHEET
A3.0



1 NORTH ELEVATION

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

2 WEST ELEVATION

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

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

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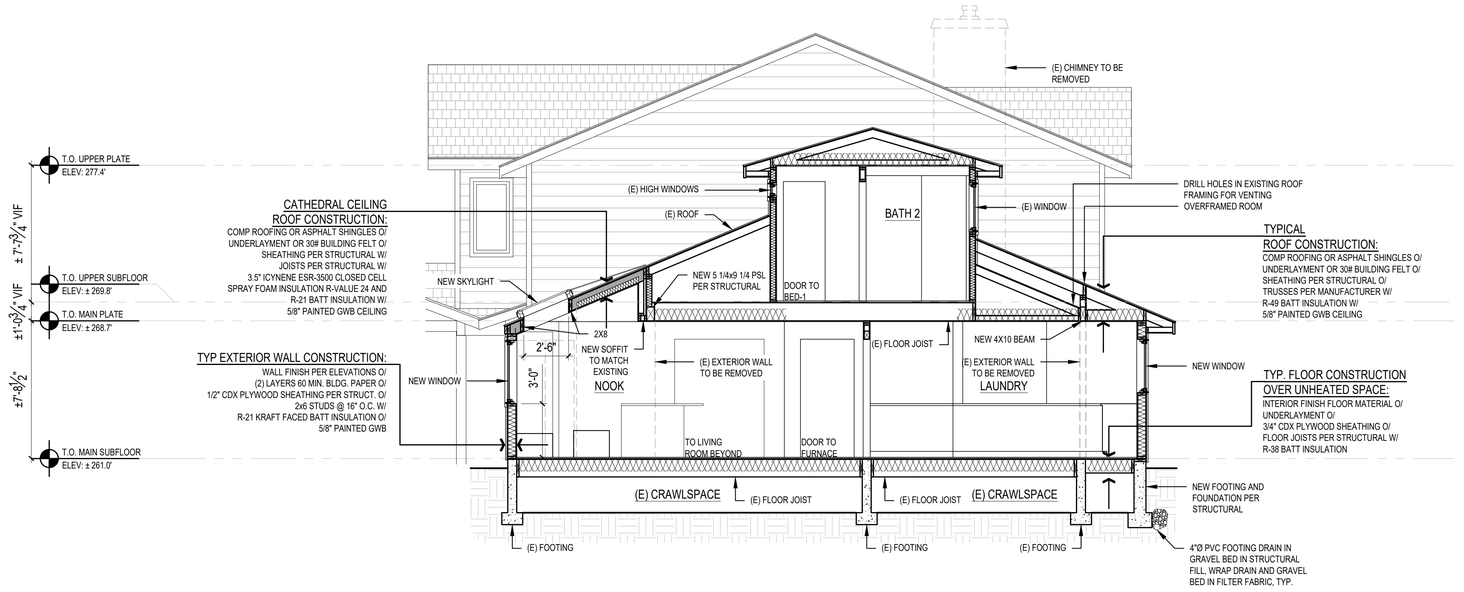
EXTERIOR ELEVATIONS

REVISIONS:

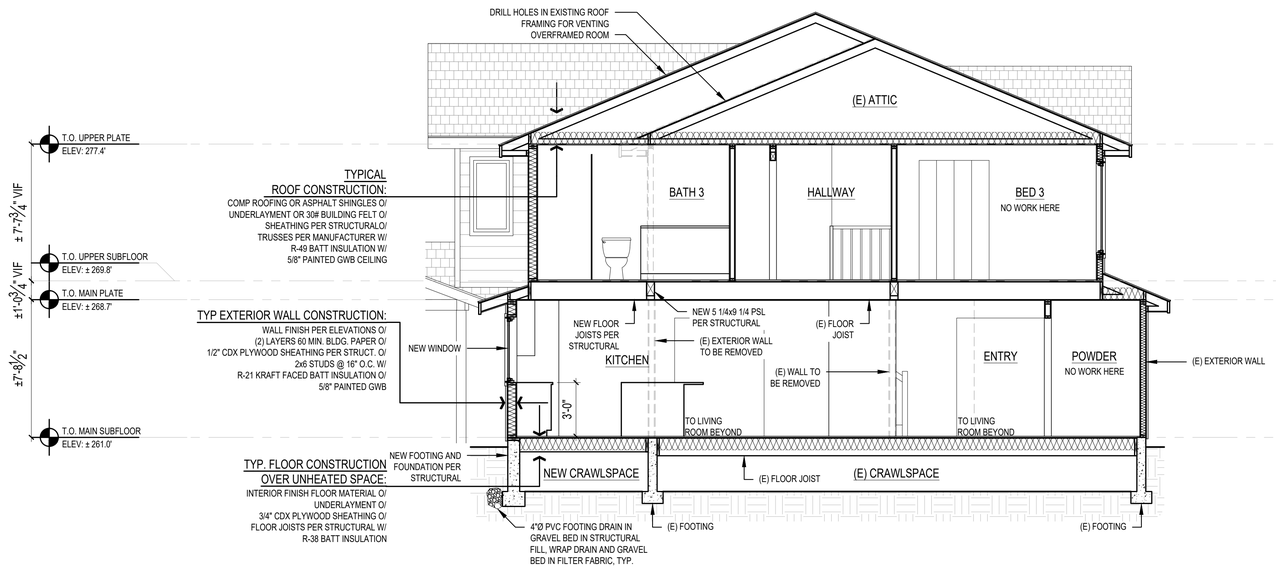
PLOT DATE: 12/20/2021
DRAWN BY: JM
CHECKED BY: BJS

SHEET
A3.1



1 BUILDING SECTION

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



2 BUILDING SECTION

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

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

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BUILDING SECTIONS

REVISIONS:

PLOT DATE: 12/20/2021
DRAWN BY: JM
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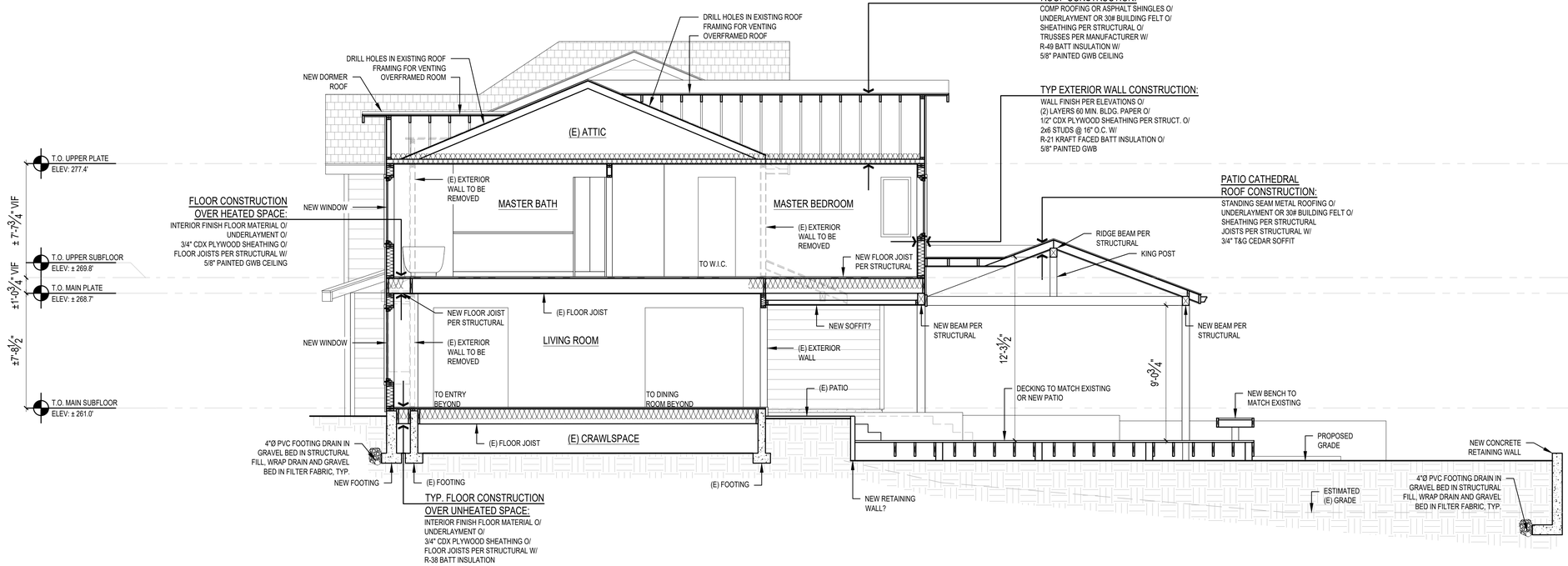
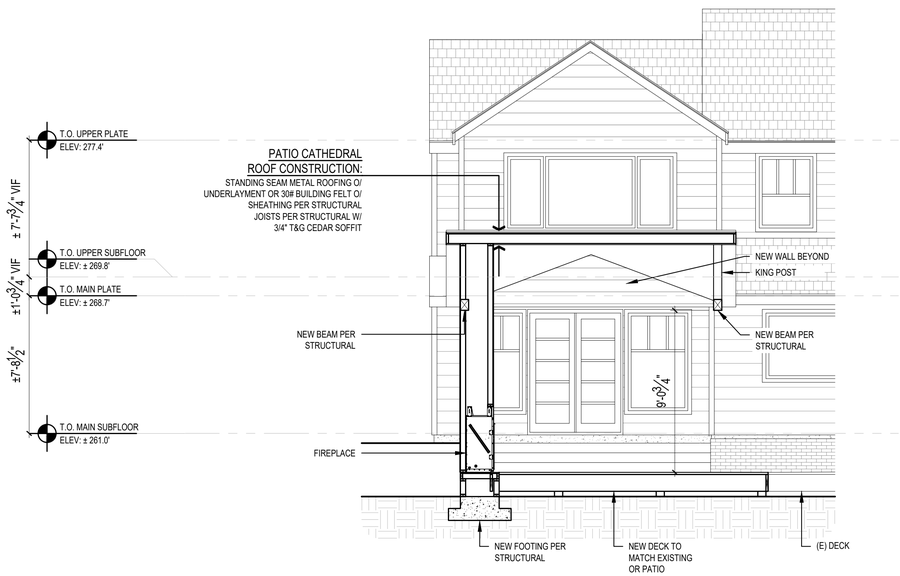
SHEET
A4.0



3 BUILDING SECTION

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



4 BUILDING SECTION

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

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BUILDING SECTIONS

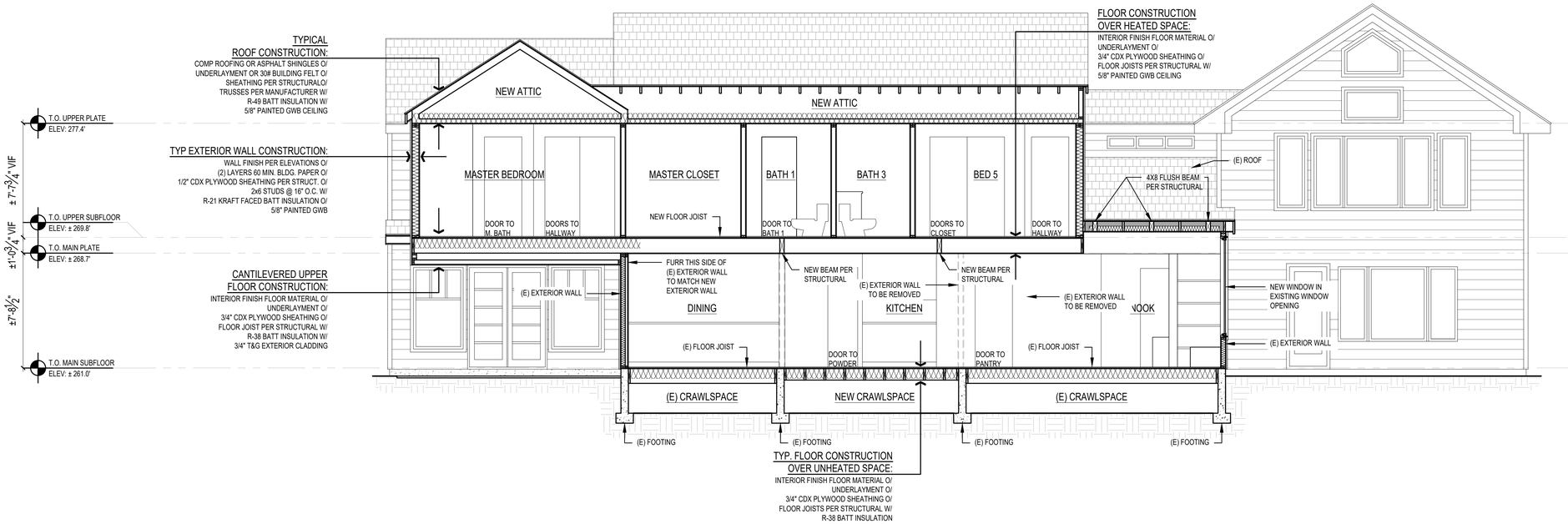
REVISIONS:

PLOT DATE: 12/20/2021
DRAWN BY: JM
CHECKED BY: BJS

SHEET
A4.1

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

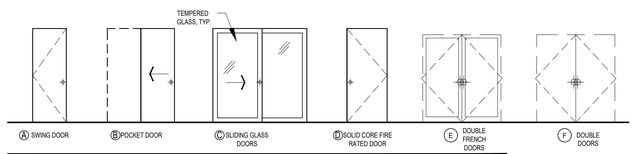
PERMIT SET 12/20/2021



5 BUILDING SECTION

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

DOOR TYPES:



DOOR SCHEDULE

DOOR NO.	LOCATION	SIZE WIDTH	SIZE HEIGHT	DOOR TYPE	TEMP. GLASS	DOOR FIN.	DOOR THK.	U-VAL. (MIN.)	NFRC CERT.	DOOR HDWR.
MAIN FLOOR										
101	DEN	6'-0"	6'-8"	F	-	-	1-3/4"	.30	Y	
102	PANTRY	2'-6"	6'-8"	B	-	-	1-3/4"	.30	Y	
103	FURNACE	3'-0"	6'-8"	A	-	-	1-3/4"	.30	Y	
104	LAUNDRY	2'-4"	6'-8"	B	-	-	1-3/4"	.30	Y	
105	LAUNDRY	2'-10"	6'-8"	D	-	-	1-3/4"	.30	Y	
106	NOOK	6'-8"	6'-8"	E	Y	-	1-3/4"	.30	Y	
107	MUD/LAUNDRY	5'-0"	6'-8"	C	Y	-	1-3/4"	.30	Y	
UPPER FLOOR										
201	BED 5	6'-0"	6'-8"	A	-	-	1-3/4"	.30	Y	
202	BED 5 CLOSET	5'-0"	6'-8"	F	-	-	1-3/4"	.30	Y	
203	BATH 3	2'-6"	6'-8"	A	-	-	1-3/4"	.30	Y	
204	BATH 1	2'-6"	6'-8"	B	-	-	1-3/4"	.30	Y	
205	BATH 1	2'-6"	6'-8"	A	-	-	1-3/4"	.30	Y	
206	HALLWAY CLOSET	4'-0"	6'-8"	F	-	-	1-3/4"	.30	Y	
207	MASTER W.I.C.	2'-6"	6'-8"	A	-	-	1-3/4"	.30	Y	
208	MASTER BEDROOM	4'-8"	6'-8"	F	-	-	1-3/4"	.30	Y	
209	OFFICE/W.I.C.	2'-6"	6'-8"	A	-	-	1-3/4"	.30	Y	
210	MASTER BATH	2'-6"	6'-8"	A	-	-	1-3/4"	.30	Y	
211	MASTER BATH	2'-6"	6'-8"	A	-	-	1-3/4"	.30	Y	
212	BATH 2	2'-6"	6'-8"	A	-	-	1-3/4"	.30	Y	

WINDOW SCHEDULE

WINDOW MARK	DESCRIPTION	R.O. SIZE WIDTH	R.O. SIZE HEIGHT	TEMP.	QTY.	TOTAL AREA (SF)	U-VALUE (MIN.)	NFRC CERT.	GLAZING	REMARKS & NOTES
A	PICTURE	3'- 6"	3'- 6 1/2"	-	2	24.8'	.28	Y	LOW E / CLEAR	-
B	PICTURE	5'- 0"	3'- 8"	-	2	36.7'	.28	Y	LOW E / CLEAR	-
C	FIXED	2'- 11 1/2"	6'- 0"	-	1	17.8'	.28	Y	LOW E / CLEAR	-
D	FIXED	2'- 6"	7'- 5 1/2"	-	1	18.7'	.28	Y	LOW E / CLEAR	-
E	CASEMENT	3'- 0"	4'- 0"	-	1	12.0'	.28	Y	LOW E / CLEAR	-
F	SKYLIGHT	3'- 6"	2'- 6"	-	2	17.5'	.28	Y	LOW E / CLEAR	-
G	CASEMENT	3'- 8"	5'- 0"	-	1	18.3'	.28	Y	LOW E / CLEAR	EGRESS
H	AWNING	2'- 6"	1'- 6"	-	2	7.5'	.28	Y	LOW E / CLEAR	-
I	FIXED CASEMENT	3'- 0"	4'- 0"	-	1	12.0'	.28	Y	LOW E / CLEAR	-
J	CASEMENT	2'- 0"	4'- 0"	-	4	32.0'	.28	Y	LOW E / CLEAR	EGRESS
K	PICTURE	5'- 0"	4'- 0"	-	1	20.0'	.28	Y	LOW E / CLEAR	-
L	PICTURE	3'- 0"	5'- 0"	-	2	30.0'	.28	Y	LOW E / CLEAR	-
M	CASEMENT	3'- 0"	4'- 6"	-	2	27.0'	.28	Y	LOW E / CLEAR	-

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PIERCE RESIDENCE

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MERCER ISLAND, WA 98040

BUILDING SECTION
DOOR SCHEDULE
WINDOW SCHEDULE

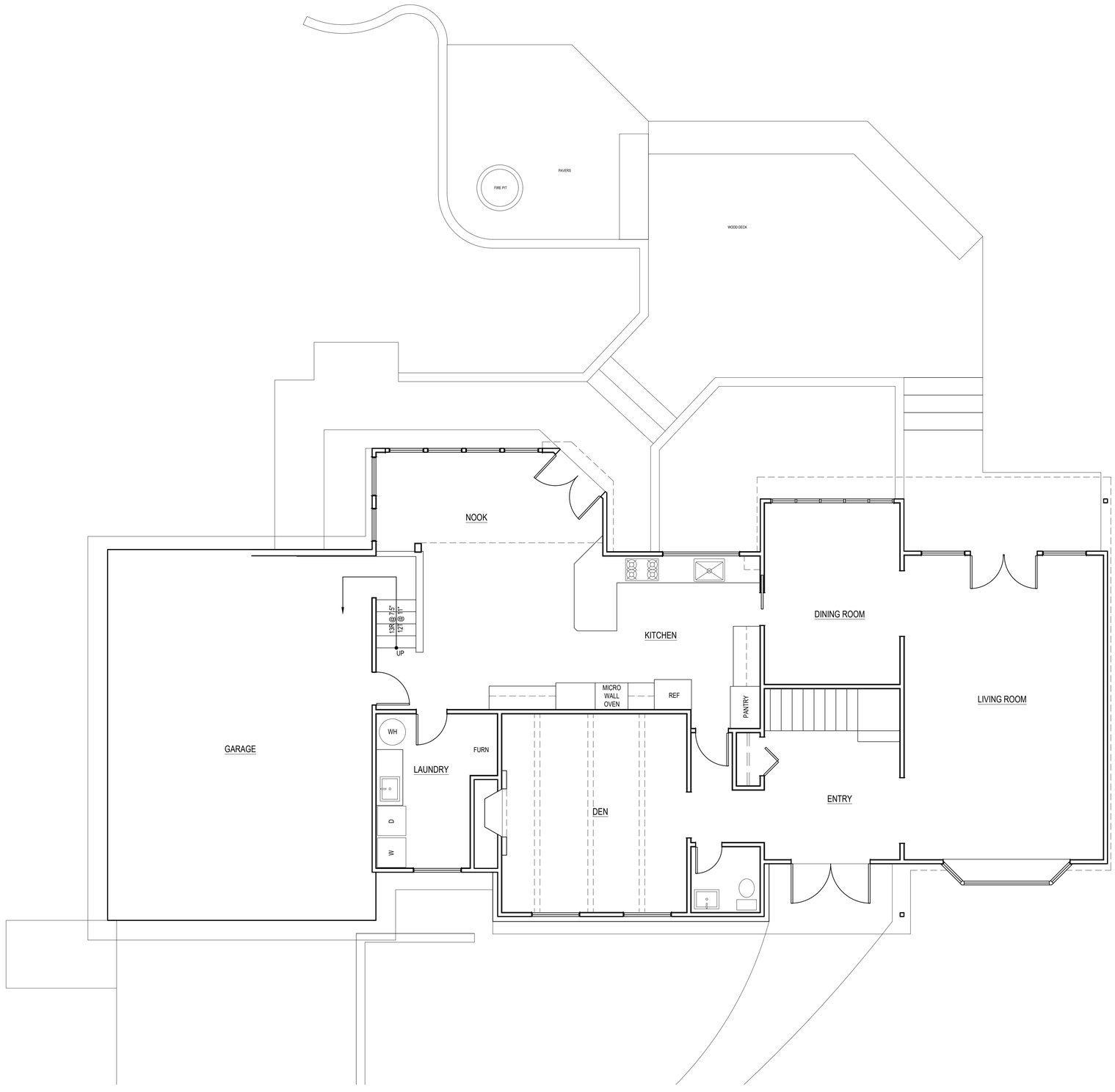
REVISIONS:

PLOT DATE: 12/20/2021
DRAWN BY: JM
CHECKED BY: BJS

SHEET A4.2

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET 12/20/2021



AS-BUILT MAIN FLOOR PLAN

SCALE: 1/4" = 1'

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

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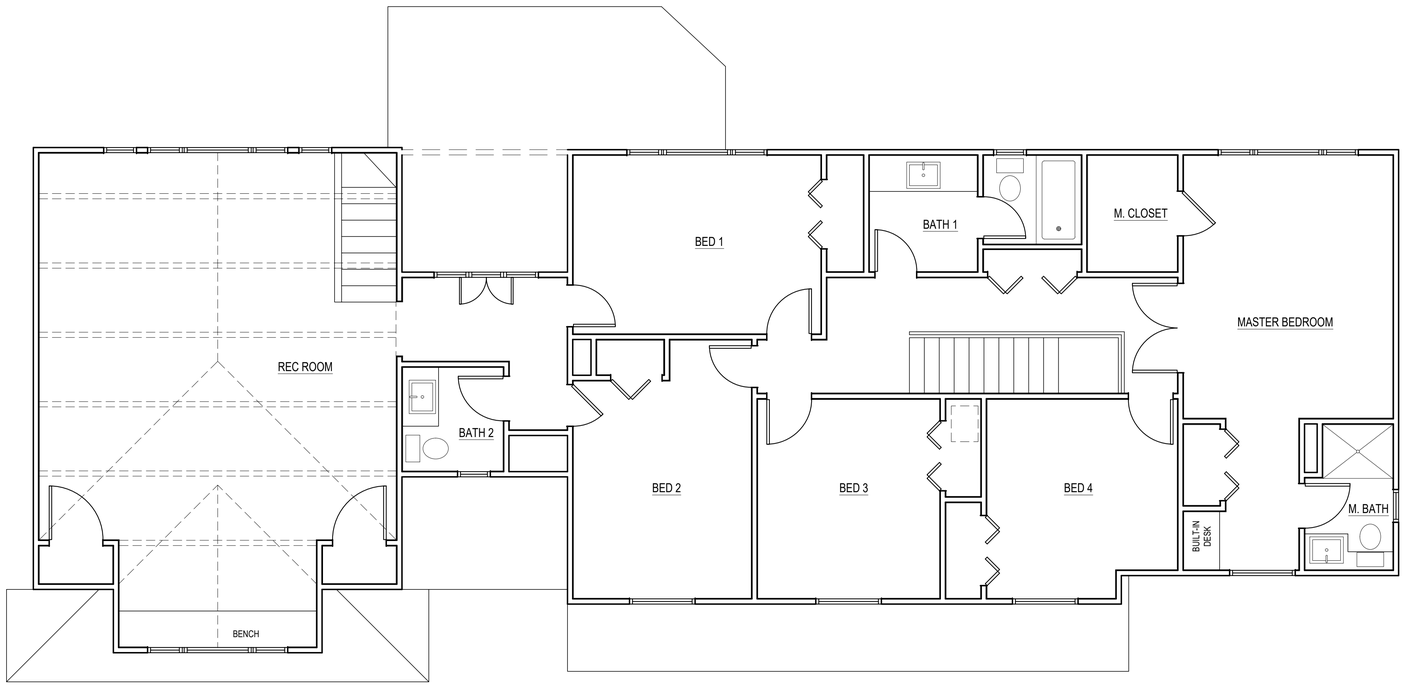
AS-BUILT MAIN FLOOR PLAN

REVISIONS:

PLOT DATE: 12/20/2021
DRAWN BY: JM
CHECKED BY: BJS

SHEET **AB1**



AS-BUILT UPPER FLOOR PLAN

SCALE: 1/4" = 1'

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET 12/20/2021

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REGISTERED ARCHITECT
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STATE OF WASHINGTON

PIERCE RESIDENCE

5635 84TH AVE SE
MERCER ISLAND, WA 98040

AS BUILT UPPER FLOOR

REVISIONS:

PLOT DATE: 12/20/2021
DRAWN BY: JM
CHECKED BY: BJS

SHEET
AB2

GENERAL NOTES

1.0 GENERAL

1.1 Construction shall conform to the 2018 INTERNATIONAL RESIDENTIAL CODE and all other requirements of authorities having jurisdiction.

1.2 These drawings are the property of O.G. Engineering, PLLC ("Engineer"). These drawings and the information contained herein shall not be used for completion of or revisions to this project by others, extensions of this project or any other project without Engineer's express written permission.

1.3 Refer to Architectural Plans for all dimensions and elevations not shown. Do not scale drawings. The contractor shall verify all pertinent dimensions and existing conditions prior to beginning construction. Conflicts, differences in information, and omissions in drawings shall be brought to the attention of the Engineer for resolution prior to construction. Changes from the drawings shall be made only with the prior approval of the Engineer. All work is subject to review and approval by the local building department. All work shall conform to all permit and building department requirements. All details shall be considered typical at similar conditions. Details shall be used where applicable, unless otherwise noted. Details intend to show concepts that may not exactly match specific site conditions. All work shown on these drawings is new unless noted as existing.

1.4 The contractor shall be solely responsible for jobsite and construction safety and compliance with all current safety regulations. Jobsite visits performed by the Engineer do not include a review of the adequacy of the contractor's safety measures. The Engineer has no authority to exercise any control over any construction contractor or their employees in connection with their work or any health or safety precautions. Only the final, permanent structure is shown on these drawings. The contractor shall be solely responsible for the means and methods of construction, including but not limited to construction sequencing and providing all necessary shoring, bracing and other temporary supports during construction. The contractor shall be solely responsible for obtaining all necessary independent engineering reviews of all temporary conditions and support systems during construction.

1.5 Utility information is not shown on these drawings. The contractor shall be solely responsible for locating and protecting utilities prior to and during construction. The contractor shall be solely responsible for all damage to utilities resulting from their work, and all damage to utilities shall be repaired solely at the contractor's expense.

1.6 All waterproofing and drainage information shown on these drawings is for illustrative purposes only. Waterproofing and drainage are the design responsibility of others.

2.0 DESIGN BASIS – BUILDING STRUCTURES

2.1 Vertical Loads (psf)	Dead	Live	Snow
Existing (Upper) Roof	8	20	25
Addition (Low) Roof	13	20	25
Outdoor Roof	13	20	25
Attic	6	20	
Upper Floor	13	40	
Existing Main Floor	12	40	
Addition Main Floor	10	40	
Outdoor Deck	30	60	

2.2 Seismic Design Data (per the 2018 IBC)
Risk Category: II
Importance Factor: Ie=1.0
Site Coordinates: 47.5522°N, 122.2273°W
Mapped Spectral Response Acceleration: Ss=1.46, S1=0.51
Site Class: Default D
Spectral Response Coefficients: Sds=1.17
Seismic Design Category: D
Main Seismic Force-Resisting System: Wood Structural Panel Shear Walls
Response Modification Factor: R=6.5
Seismic Response Coefficient: Cs=0.18
Redundancy Factor: ρ=1.3
Over-strength Factor: Ω=2.5
Analysis Procedure Used: Equivalent Lateral Force Procedure

2.3 Wind Design Data (per the 2018 IBC)
Risk Category: II
Basic Wind Speed: 98 mph
Exposure Category: C
Topographic Factor: 1.60 (Per Mercer Island Wind Load Map)

3.0 INSPECTIONS

The construction work shall be inspected as required by the IRC Section R106. The contractor is solely responsible for understanding the requirements of and coordinating all inspections, observations and testing and ensuring that all required work is performed to the satisfaction of the inspector.

4.0 FOUNDATIONS

4.1 The following foundation & retaining wall design criteria are assumed, have not been verified by a geotechnical engineer and therefore must be approved by the building official. If design criteria are found to be different than assumed, notify Engineer for additional requirements prior to construction:

* Allowable Vertical Bearing Pressure: 2000 psf

4.2 Footing & Slab on Grade Excavations

Remove any deleterious, loose or softened material from footing & slab on grade excavations and compact sub-grades to a firm and unyielding condition. If loose sub-grades can not be adequately compacted, over-excavate loose material to competent soil and replace with properly compacted structural fill. Do not allow water to stand in excavations; if sub-grades become softened before concrete is cast, excavate softened material and replace with properly compacted structural fill at no additional cost to the owner. Structural fill and compaction requirements are the design responsibility of others.

5.0 MATERIALS

5.1 Wood:

5.1.1 All sawn lumber shall be Hem Fir grade number 2, U.O.N. Mudsills and all sawn lumber in contact with concrete, masonry, ground, exposed to weather or moisture, shall be P.T. Preservative retention levels in P.T. wood shall meet the requirements of the applicable use category in accordance with AWPA U1-16, and shall not exceed those required to comply with AWPA Use Category UC4A. Do not use wood treated with ACZA. Field-cut ends, notches and drilled holes of P.T. wood shall be treated in the field in accordance with AWPA M4. P.T. is not required at naturally decay-resistant (i.e. redwood, cedar etc.) sawn lumber members.

5.1.2 Engineered Wood Framing Members and I-Joists shall be TrusJoist® or approved equal. 'PSL' denotes Parallam 2.2E for beams and 1.8E for posts.

5.1.3 Glulam framing members shall be DF/DF, stress class 24F-1.8E, combination symbol 24F-V8, U.O.N.

5.1.4 All wood framing members shall have 19% maximum moisture content at time of installation.

5.2 Concrete:

Hardrock, normal-weight concrete with a minimum 28-day compressive strength of 3,000 psi for concrete exposed to weather and 2,500psi for concrete not exposed to weather. Slump range shall be 3-5 inches. Maximum aggregate size shall be 1". Maximum water/cement ratio shall be 0.5. Concrete exposed to weather shall be air-entrained with total air content between 5%-7% of total concrete volume.

5.3 Reinforcing Steel Bars:

ASTM A615, Grade 60

5.4 Post-Installed Dowels & Anchors into Existing Concrete & CMU

Epoxy: Simpson SET-3G (Installed & inspected per ICC No. ESR-4057)

5.5 Bolts and Threaded Rods:

5.5.1 Threaded Rod: ASTM F1554 Grade 36

5.5.2 Sill Anchor Bolts: ASTM A307
Bent bar "J" anchor bolts shall have a hook with a 90-degree bend with an inside diameter of three bolt diameters, plus an extension of one and one half bolt diameters at the free end.

5.5.3 Bolts in Timber Connections: ASTM A307

6.0 CONCRETE CONSTRUCTION

6.1 Concrete elements shall be constructed in single continuous pours, without construction joints, unless otherwise approved by the Engineer. Reinforcement shall be the longest lengths practical. Splices in rebar are not allowed in footings or walls less than 20 feet long. Lap splices shall be staggered at least 2 ft. in adjacent bars. Where reinforcement or anchor edge distances are noted on the drawings as "clear", the distance shall be taken from the face of reinforcement or anchor to edge of concrete. Cast-in-place reinforcement and anchor bolts shall be installed prior to concrete placement and shall not be "wet-set" into freshly poured concrete.

6.2 Reinforcement installation details, including rebar bends, hooks, splices and development lengths shall be in accordance with the requirements of IRC Section R608.5.4, U.O.N. Concrete materials, forms, mixing and delivery shall be in accordance with the requirements of the IRC Section R404.1.3.3.

6.3 Concrete Coverage over Reinforcing Steel

Unless otherwise noted, maintain the minimum concrete cover to face of reinforcement or anchors as follows:

1) 3" Where concrete is cast against and permanently exposed to earth except slab on grade.
2) 2" Where concrete is exposed to earth but formed, or exposed to weather.
3) 1½" Where concrete is not exposed to earth or weather.

6.4 Slabs on Grade

6.4.1 Crack Control Joints

Cut crack control joints in top of slab @10'-0"o.c. (max.) each way. Joint depth shall be ¼ of the slab depth or 1", whichever is greater. Joints shall be conventional saw-cut within 4 to 12 hrs of concrete placement, or early-entry saw-cut within 1 to 4 hrs of concrete placement. Jointed panels shall be rectangular, as square as possible, with a max length-to-width ratio of 1½:1.

6.4.2 Slab Sub-Base

Slab sub-base shall be ⅜" to ¾" clean, crushed drain rock, compacted to a firm and unyielding condition.

7.0 WOOD CONSTRUCTION

7.1 General Framing

Connections not specified on these drawings shall conform to the IRC fastening schedule, refer to Table R602.3(1). Depth of all posts in walls shall match stud depth, U.O.N. Block floor joist space solid under posts and cripple studs supporting headers and continue support to foundation. Face nail all plies of multi-ply studs with 10d@6"o.c. Obtain approval from engineer prior to ripping or creating notches or holes in framing members, U.O.N. Install double joists below all new interior walls parallel to floor joists and solid blocking below all new interior walls perpendicular to floor joists (NSFC on plan), U.O.N. All beams shall be continuous across supports unless explicitly shown as multiple pieces. Install full depth blocking between framing members over supports, unless otherwise noted. Bevel-cut ends of framing members in skewed hangers, U.O.N.

7.2 Engineered Wood Framing

See TrusJoist "Installation Guide for Floor and Roof Framing" (TJ-9001) for allowable holes in engineered wood beams.

7.3 Fasteners

Nails specified on these drawings are common nails, U.O.N. Fasteners in contact with P.T. wood, exposed to weather or in contact with ground shall be hot-dipped galvanized per IRC Section 317.3, or shall have equivalent corrosion resistance. Dissimilar metals & coatings shall not be in contact. Bolt holes shall be a minimum of 1/32" to a maximum of 1/16" larger than the bolt diameter. Bolts shall not be forcibly driven, and shall be tightened to the snug-tight condition. Install standard cut washers under all bolt heads and nuts bearing against wood.

7.4 Connectors

Connectors specified on these drawings are manufactured by the SIMPSON STRONG-TIE® Company, U.O.N. Refer to latest catalog for information not specifically noted herein. Connectors in contact with P.T. wood, exposed to weather or in contact with ground shall be ZMAX or HDG galvanized. All connectors shall receive the maximum number of fasteners, U.O.N. Dissimilar metals & coatings shall not be in contact. Shim gaps in connectors for different framing sizes with plywood as required. Non-field-adjustable hangers specified as sloped or skewed shall be manufactured sloped or skewed.

7.5 Wood Structural Panels

WSPs shall bear the APA trademark and shall meet the requirements of the latest edition of USDOC PS1 or PS2. Use 10d common wire nails to fasten panels with 1½" minimum penetration into framing at all panel edge and field nailing, U.O.N. Nails shall be located at least ⅜" from panel ends and edges. Stagger nails at adjoining panel edges. Drive nail heads flush with panel surface. Maintain ⅛" gap between all adjoining panel edges. Center interior panel joints on framing members or blocking. Provide ⅛" space between untreated panel and concrete or masonry. Minimum panel dimension shall be 2'-0". Panel storage and handling during transport and construction shall be in accordance with APA recommendations and shall protect the panels from prolonged exposure to moisture from rain, snow, ground or other sources. WSPs permanently exposed to weather shall be exterior grade.

7.6 Shear Walls and Exterior Wall Sheathing

7.6.1 Shear walls are noted on the plans. Shear walls shall be sheathed with ½" APA RATED SHEATHING, EXPOSURE 1 WSPs with a span rating of 32/16. Panels shall not be less than 4'-0"x8'-0", except at boundaries and changes in framing. Panels shall be laid with strength axis vertical. Install 2x blkg under all unsupported panel edges; all panel edges shall be supported by and fastened to min. 2x common studs or blocking, U.O.N. on shear wall schedule. Edge nail panels to posts within shear walls. Install double stud or min. 4x post at the ends of all shear walls. Provide solid blocking under double studs & posts between floors and continue support to foundation. See shear wall schedule for more information.

7.6.2 WSP Wall Nailing, U.O.N.:

Panel Edge Nailing: 10d@6"o.c. maximum.
Intermediate (Field) Nailing: 10d@12"o.c. maximum.

7.6.3 All new exterior walls not called out as shear walls shall be sheathed on their exterior face with ½" APA RATED SHEATHING, EXPOSURE 1 WSPs with a span rating of 32/16 and nailing per note 7.6.2., U.O.N. All other fasteners & requirements shall conform to the shear wall schedule for wall type ①.

7.7 Holdowns and Tiedown Straps

Holdowns and tiedown straps shall be attached to double studs or min. 4x posts, U.O.N. See latest Simpson Catalog for additional requirements not noted herein. See holdown schedule for anchor bolt sizes and additional specifications. Refer to note 7.1 for nailing and framing requirements at holdown/tiedown posts. Install solid post at shear wall corners or intersections where holdowns/tiedowns occur. All holdowns/tiedowns shall have the maximum number of fasteners.

7.8 Sill Anchor Bolts

There shall be a minimum of two sill anchor bolts per piece with one bolt located not more than 12" or less than 4½" from each end of each piece. Holes in sills for bolts shall not be oversized. Sill anchor bolts shall be ⅝"ø with 7" min. embed. into concrete. Sill anchor bolts into existing concrete shall be all-thread rod, drill and epoxy. See shear wall schedule for spacing of sill anchor bolts in shear walls. Maximum sill anchor bolt spacing at non-shear-walls shall be 6'-0"o.c. at interior walls and 4'-0"o.c. at exterior walls. All sill anchor bolts at shear walls and mudsills shall be installed with 0.229"x3"x3" steel plate washers. Edge of sill anchor bolt plate washers shall be located ½" max. from inside face of wall sheathing or rim joist where occurs.

7.9 Floor and Roof Sheathing

7.9.1 Wood structural panel sheets at floors and roofs shall be laid with strength axis perpendicular to supports and continuous over two or more spans, unless otherwise noted on drawings. Stagger adjacent panels 4'-0"o.c. lengthwise.

7.9.2 Unless otherwise noted, typical roof sheathing shall be unblocked ⅜" APA RATED SHEATHING, EXPOSURE 1 WSPs with a span rating of 40/20. Panels shall be fastened to framing members with 10d nails @6"o.c. at all supported panel edges and 10d nails @12"o.c. intermediate (field) nailing. Install 'PSCL' sheathing clips (one mid-way between each support) at all unsupported panel joints.

7.9.3 Unless otherwise noted, typical floor sheathing shall be unblocked ¾" APA RATED STURD-I-FLOOR EXPOSURE 1 WSPs with a span rating of 48/24 and T&G edges. Panels shall be fastened to framing members with 10d nails @6"o.c. at all supported panel edges and 10d nails @12"o.c. field nailing. Glue sheathing to all supports (including blocking) with ¼" minimum beads of approved adhesive meeting APA specification AFG-01.

7.9.4 Existing Lumber Floor & Roof Board Sheathing

Where new edge nailing of existing lumber board sheathing is specified on these plans, that nailing shall be 10d, (2) at each 1x6 lumber board, or (3) at each 1x8 board.

8.0 STRUCTURAL STEEL

8.1 Steel fabrication and erection shall be in accordance with "Specification for Structural Steel Buildings" (AISC 360-10).

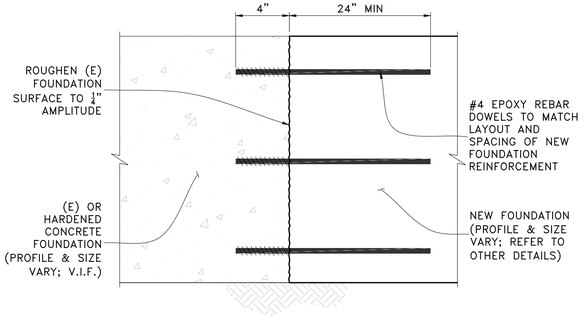
8.2 Welding shall be in accordance with "Structural Welding Code – Steel" (AWS D1.1, latest edition) Specifications. Minimum tensile strength of weld metal shall be 70 ksi, U.O.N. Welding electrodes shall be as recommended by their manufacturer for the position and other conditions of actual use. All welding shall be performed by AWS Certified Welders.

8.3 Bolt holes shall be drilled or punched. Bolt holes shall be standard, and hole size shall be 1/16" larger diameter than the nominal size of bolt used, U.O.N. Bolts shall be installed snug-tight, U.O.N.

8.4 All steel framing and fasteners exposed to weather or in contact with ground shall be hot-dipped galvanized after fabrication to meet the requirements of ASTM 153. Upon completion of erection; touch-up, de-slag, clean and apply zinc-rich primer to exposed welds or other unprotected markings incurred during the transportation, handling or erection process. Dissimilar metals & coatings shall not be in contact.

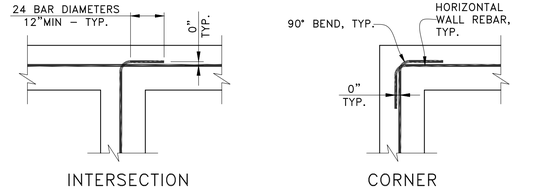
8.5 No penetrations shall be made through steel framing except with the prior written permission of the engineer.

8.6 Structural steel shop drawings shall be submitted to the architect and engineer for review and acceptance prior to fabrication.



TYPICAL NEW TO EXISTING FOUNDATION — A

SCALE: NTS



TYPICAL FOOTING AND WALL CORNERS — B

SCALE: NTS

ABBREVIATIONS

@	AT
ADJ.	ADJACENT
ALT.	ALTERNATE
ARCH.	ARCHITECT
A.T.R.	ALL-THREAD ROD
B.F.	BALLOON-FRAMED
BLKG	BLOCKING
BLW.	BELOW
BM	BEAM
BOTT.	BOTTOM
C.I.P.	CAST-IN-PLACE
C.J.	CONSTRUCTION JOINT
CL	CENTERLINE
CLR.	CLEAR
CONT.	CONTINUOUS
CSK.	COUNTERSINK
ø	DIAMETER
DBL.	DOUBLE
DF	DOUGLAS FIR
DIM	DIMENSION
D.J.	DOUBLE JOIST
D.R.	DOUBLE RAFTER
ELEV.	ELEVATION
EMBED.	EMBEDMENT
ENGR.	ENGINEER
E.N.	EDGE NAILING
E.O.R.	ENGINEER OF RECORD
EQ.	EQUAL
E/W	EACH WAY
(E)	EXISTING
F.J.	FLOOR JOIST
F.N.	FIELD NAILING
FTG	FOOTING
G.L.	GRID LINE
GLB	GLULAM BEAM
G.C.	GENERAL CONTRACTOR
H.D.G.	HOT-DIPPED GALVANIZED
HDR	HEADER
HF	HEM FIR
IBC	2018 INTERNATIONAL BUILDING CODE®
INV.	INVERTED
IRC	2018 INTERNATIONAL RESIDENTIAL CODE®
K.D.	KILN-DRIED LUMBER
LOCN	LOCATION
MAX.	MAXIMUM
MANUF.	MANUFACTURER
M.B.	MACHINE BOLT
MIN.	MINIMUM
NSFC	NOT SHOWN FOR CLARITY
N.T.S.	NOT TO SCALE
o/	OVER
o.c.	ON CENTER
O/H	OPPOSITE HAND
OPNG	OPENING
PL	PLATE
PSF	POUNDS PER SQUARE FOOT
PT	PRESSURE-PRESERVATIVE-TREATED
QUAD.	QUADRUPLE
REQ'D	REQUIRED
RFT	RETROFIT
R.R.	ROOF RAFTER
R.W.	REDWOOD
S.A.D.	SEE ARCHITECTURAL DRAWINGS
S.O.G.	SLAB ON GRADE
SIM.	SIMILAR
SQ.	SQUARE
STD	STANDARD
S.W.S.	SHEAR WALL SCHEDULE
T.B.D.	TO BE DETERMINED
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
T.O.	TOP OF
TRPL.	TRIPLE
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
U/S	UNDERSIDE
u/	UNDER
V.I.F.	VERIFY IN FIELD
W.R.C.	WESTERN RED CEDAR
WSP	WOOD STRUCTURAL PANEL

PERMIT SET

REV.	DATE	DESCRIPTION
	12-13-21	PERMIT SET

PROJECT: ADDITIONS & ALTERATIONS
5635 84th Ave SE
Mercer Island, WA 98040

CLIENT: Elliot & Dorrinda Pierce
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OWEN REMICK GOULD — STATE OF WASHINGTON — 52797 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

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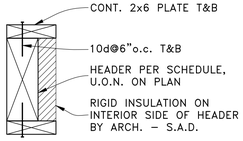
SHEET TITLE: GENERAL NOTES & TYPICAL DETAILS

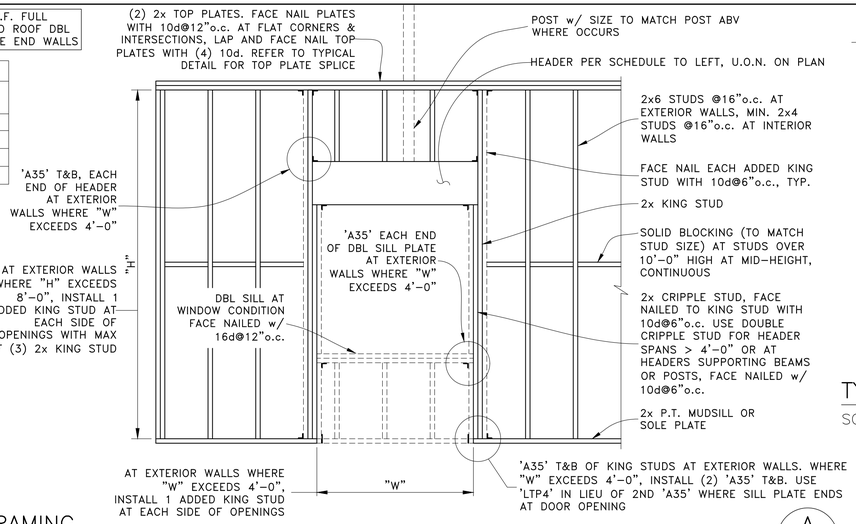
SCALE: AS NOTED
JOB NO. 21031
SHEET. NO. S1

NOTE: GABLE END WALL STUDS SHALL BE B.F. FULL HEIGHT FROM FLOOR SOLE PLATE TO SLOPED ROOF DBL TOP PLATE. DO NOT PLATFORM FRAME GABLE END WALLS

HEADER SCHEDULE, U.O.N.	
"W" MAX. OPENING	MIN. HEADER
4'–0"	4x6
6'–0"	4x8
8'–0"	4x10
10'–0"	4x12

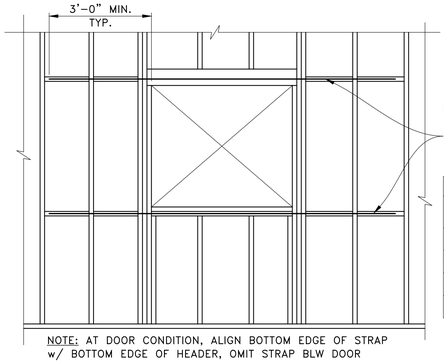


EXTERIOR HEADER @ 2x6 WALLS



TYPICAL STUD WALL FRAMING (A)

SCALE: NTS



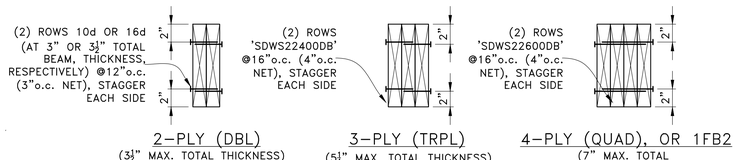
NOTE: AT DOOR CONDITION, ALIGN BOTTOM EDGE OF STRAP w/ BOTTOM EDGE OF HEADER, OMIT STRAP BLW DOOR

STRAP PER SCHEDULE BELOW – EXTEND MIN. 3'–0" PAST OPENING EACH SIDE (OR TO END OF WALL) OVER 2x4 FLAT BLOCKING BTWN STUDS. PLACE STRAP OVER WALL SHEATHING.

STRAP SCHEDULE	
SHEAR WALL MARK	STRAP
①	CS20
②	CS16
③	CS16
④	CS14

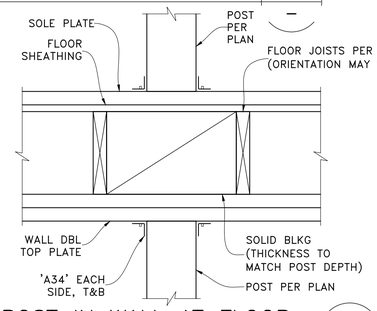
TYPICAL SHEARWALL STRAP AROUND OPENINGS (B)

SCALE: NTS



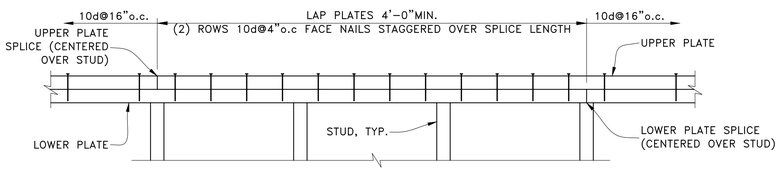
TYPICAL MULTI–PLY BEAM FASTENING (C)

SCALE: NTS



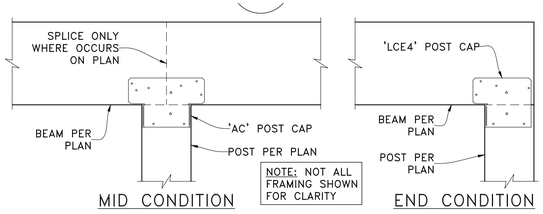
POST IN WALL AT FLOOR (F)

SCALE: NTS



TYPICAL DOUBLE TOP PLATE SPLICE (D)

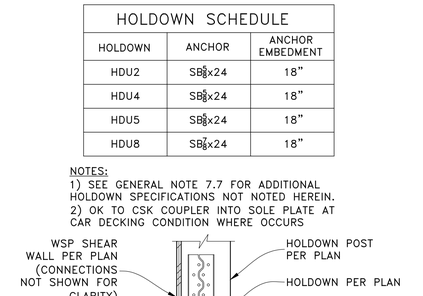
SCALE: NTS



NOTE: NOT ALL FRAMING SHOWN FOR CLARITY

BEAM TO ISOLATED POST (E)

SCALE: NTS

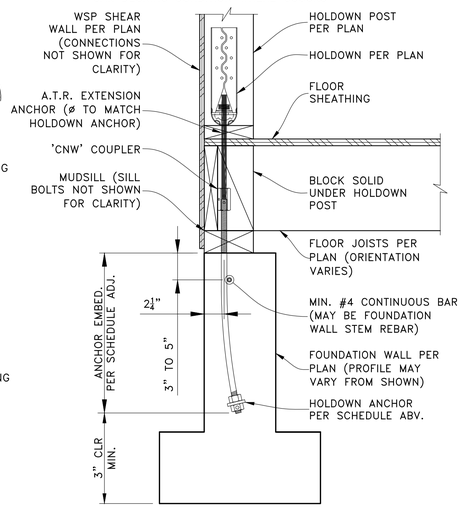


HOLDOWN AT CORNER (J)

SCALE: NTS

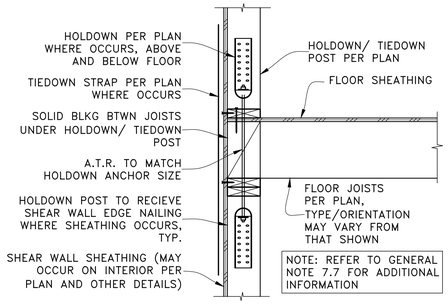
HOLDOWN SCHEDULE		
HOLDOWN	ANCHOR	ANCHOR EMBEDMENT
HDU2	SB⅝x24	18"
HDU4	SB⅝x24	18"
HDU5	SB⅝x24	18"
HDU8	SB⅞x24	18"

NOTES:
1) SEE GENERAL NOTE 7.7 FOR ADDITIONAL HOLDOWN SPECIFICATIONS NOT NOTED HEREIN.
2) OK TO CSK COUPLER INTO SOLE PLATE AT CAR DECKING CONDITION WHERE OCCURS



TYPICAL HOLDOWN AT FOUNDATION (L)

SCALE: NTS

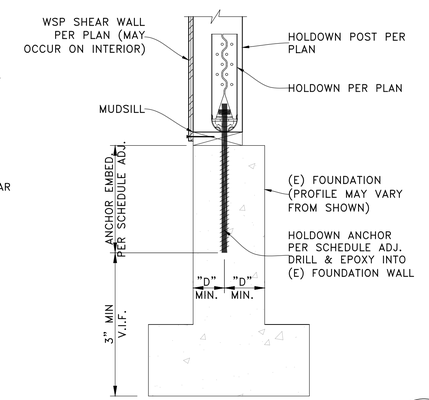


TYPICAL UPPER FLOOR HOLDOWN OR TIEDOWN STRAP (H)

SCALE: NTS

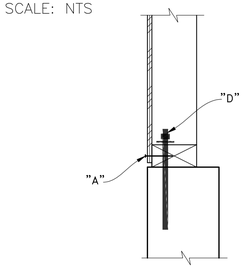
HOLDOWN SCHEDULE			
HOLDOWN	ANCHOR	ANCHOR* EMBEDMENT	MIN. EDGE DISTANCE*
HDU2	⅝"ø A.T.R.	18"	3"
HDU4	⅝"ø A.T.R.	18"	3"
HDU5	⅝"ø A.T.R.	18"	3"
HDU8	⅞"ø A.T.R.	24"	4"

*V.I.F. & NOTIFY ENGINEER FOR ADDITIONAL REQUIREMENTS IF MIN. EDGE DISTANCES, EMBEDMENT OR ANCHOR CLEARANCE TO BOTTOM OF FOOTING ARE NOT ACHIEVABLE (THROUGH BOLTING WILL BE REQUIRED)

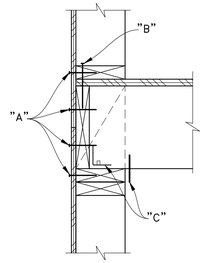


TYPICAL HOLDOWN AT EXISTING FOUNDATION (M)

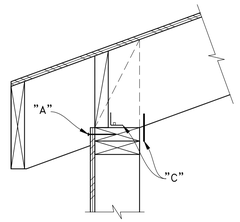
SCALE: NTS



FOUNDATION LEGEND



UPPER FLOOR LEGEND



ROOF LEGEND

SHEAR WALL SCHEDULE (1/2" SHEATHING–RATED WOOD STRUCTURAL PANELS)							
SHEAR WALL MARK	CAPACITY (PLF)	EDGE NAILING "A"	FIELD NAILING [2]	FRAMING AT ADJOINING PANEL EDGES	SOLE PLATE FASTENERS "B"	FRAMING CLIPS "C"	SILL ANCHOR BOLT SPACING – "D"
①	310	10d@6"o.c.	10d@12"o.c.	2x NOMINAL	'SDS25600' @ 8"o.c. [4]	'A34' OR 'LTP4' @ 16"o.c. [5]	4'–0"o.c. [6]
②	460	10d@4"o.c.	10d@12"o.c.	2x NOMINAL	'SDS25600' @ 8"o.c. [4]	'A34' OR 'LTP4' @ 8"o.c. [5]	2'–8"o.c. [6]
③	600	10d@3"o.c. [1]	10d@12"o.c.	3x OR 2–2x NOMINAL [3]	'SDS25600' @ 8"o.c. [4]	'A34' OR 'LTP4' @ 8"o.c. [5]	2'–8"o.c. [6]
④	770	10d@2"o.c. [1]	10d@12"o.c.	3x OR 2–2x NOMINAL [3]	'SDS25600' @ 4"o.c. [4]	'A34' OR 'LTP4' @ 8"o.c. [5]	1'–4"o.c. [6]
DBL SIDED ②	920	10d@4"o.c. [1]	10d@12"o.c.	3x OR 2–2x NOMINAL [3]	'SDS25600' @ 4"o.c. [4]	'A34' OR 'LTP4' @ 4"o.c. [5]	1'–4"o.c. [6]
DBL SIDED ③	1200	10d@3"o.c. [1]	10d@12"o.c.	3x OR 2–2x NOMINAL [3]	'SDS25600' @ 4"o.c. [4]	'A34' OR 'LTP4' @ 4"o.c. [5]	1'–4"o.c. [6]
DBL SIDED ④	1540	10d@2"o.c. [1]	10d@12"o.c.	3x OR 2–2x NOMINAL [3]	'SDS25600' @ 3"o.c. [4]	'A34' OR 'LTP4' @ 4"o.c. [5]	8"o.c. [6]

NOTES

1) STAGGER ROWS OF EDGE NAILING ½" APART. ON DBL SIDED WALLS, STAGGER EDGE NAILS ON PANELS ON OPPOSITE SIDES OF WALL.

2) NAILING TO ALL INTERMEDIATE FRAMING MEMBERS IN FIELD OF PANEL

3) PANEL EDGE NAILING SHALL BE STAGGERED. 2–2x FRAMING MEMBERS SUPPORTING PANEL EDGES SHALL BE FACE NAILED WITH 10d, SPACING TO MATCH PANEL EDGE NAILING, STAGGERED. STAGGER PANEL EDGES IN OPPOSITE PANELS MIN. 2'–0" APART ON DBL SIDED SHEAR WALLS.

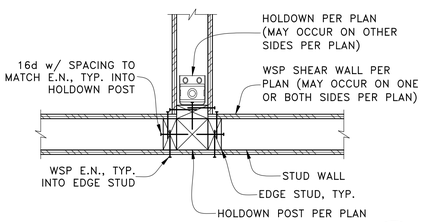
4) SCREWS SHALL HAVE MIN. 2" PENETRATION INTO RIM JOIST/ BLOCKING – USE LONGER SCREWS IF NECESSARY.

5) FRAMING CLIPS ARE ONLY REQUIRED WHERE SPECIFIED ON FRAMING DETAILS. INCREASE FREQUENCY OF FRAMING CLIPS BY 25% AT "STRUCT 1" SHEAR WALLS WHERE OCCURS.

6) SEE GENERAL NOTES 7.6 & 7.8 FOR MORE INFORMATION.

SHEAR WALL SCHEDULE (S.W.S.) (I)

SCALE: NTS



FLOOR TO EXISTING FLOOR (K)

SCALE: NTS

PERMIT SET

REV.	DATE	DESCRIPTION
	12–13–21	PERMIT SET

PROJECT:
ADDITIONS & ALTERATIONS
5635 84th Ave SE
Mercer Island, WA 98040

CLIENT:
Elliot & Dorrinda Pierce
5635 84th Ave SE
Mercer Island, WA 98040

ENGINEER OF RECORD

O.G. ENGINEERING, PLLC
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SHEET TITLE: TYPICAL DETAILS

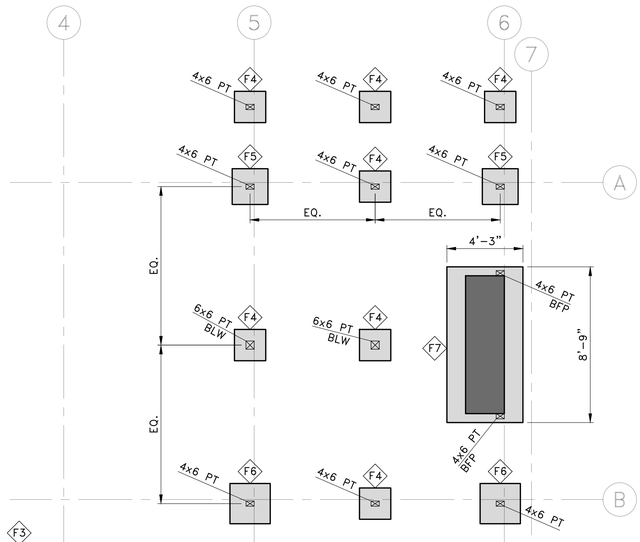
SCALE: AS NOTED
JOB NO. 21031
SHEET. NO. S2

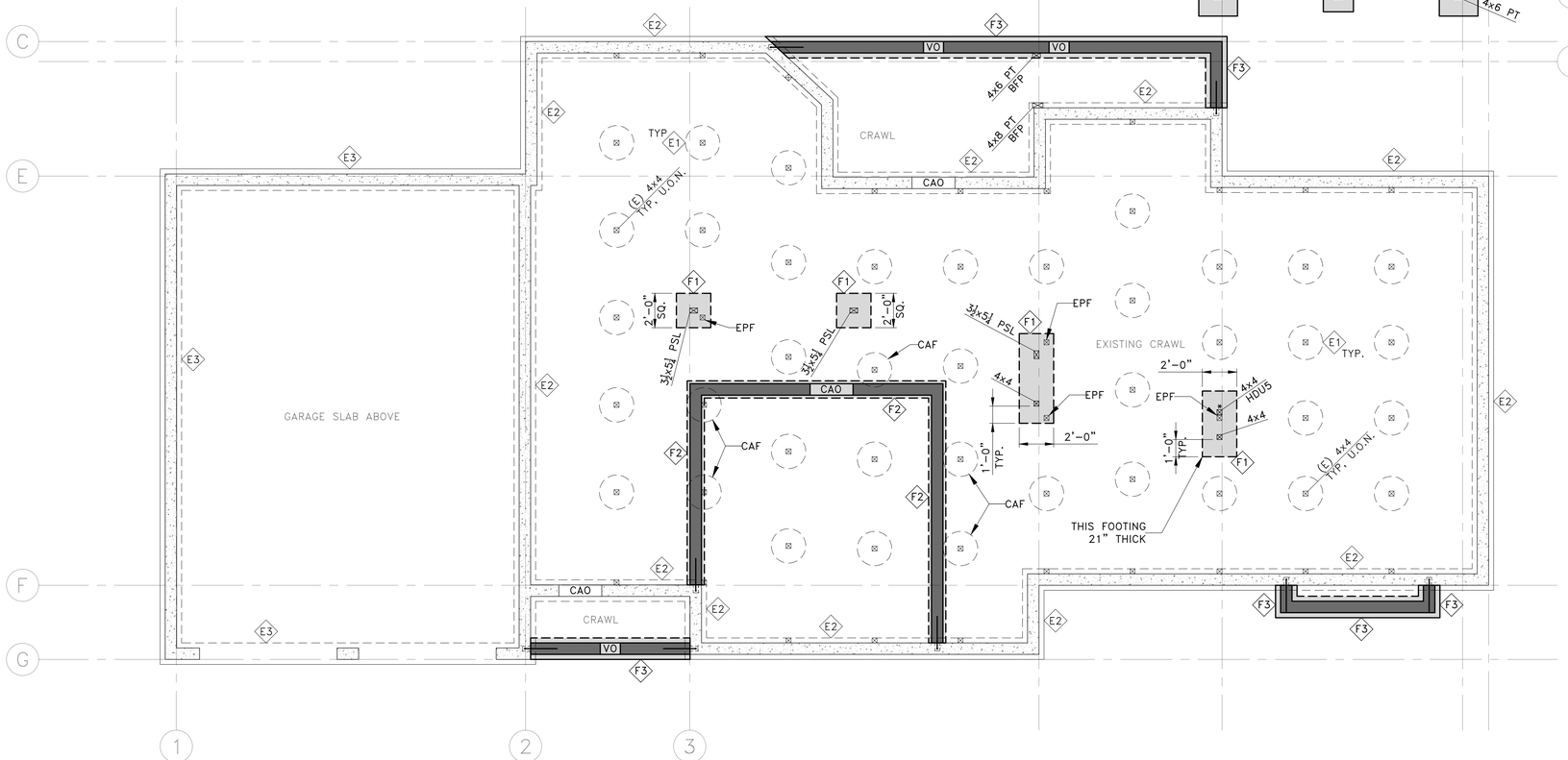
PLAN LEGEND

	CONCRETE FOUNDATION WALL PER FOUNDATIONSCHEDULE ADJACENT		
	(E) CONCRETE FOUNDATION WALL PER FOUNDATION SCHEDULE ADJACENT		
	CONCRETE SPREAD FOOTING PER FOUNDATION SCHEDULE ADJACENT		
	(E) CONCRETE SPREAD FOOTING PER FOUNDATION SCHEDULE ADJACENT		
4x4	POST ABOVE FOUNDATION PER C/S7 E/S7		
2-2x HDU2	POST & HOLDOWN PER L-M/S2	BPF	PT POST PER PLAN FROM T.O. FOOTING TOE TO U/S MAIN FLOOR BEAM w/ 'H8Z' EACH SIDE OF BEAM & ½"ø EPOXY ANCHORS w/ 4" EMBED. INTO CONCRETE STEM WALL 6" FROM T.O. POST & @12"o.c. VERT. BTWN. CENTER VERT. ANCHOR ROW 3" MEASURED HORIZ. FROM CONCRETE WALL CORNER WHERE OCCURS & AS CLOSE TO POST CENTER AS POSSIBLE. PLACE W.P. BARRIER (BY OTHERS) BTWN UNTREATED WOOD AND CONCRETE
	EPOXY REBAR DOWEL NEW TO (E) FOUNDATION PER A/S1		
		CAF	CAST NEW STRIP FTG AROUND (E) PAD FOOTING AT OVERLAP WHERE OCCURS & INSTALL #4x30" EPOXY DOWEL, HOOKED w/ 5" PERPENDICULAR EMBED. INTO (E) FTG & LAP w/ STRIP FTG BOTT. BARS. EPOXY DOWEL STEM VERT. BARS w/ 4" EMBED. INTO (E) PAD. PLACE MOISTURE BARRIER BTWN (E) WOOD FRAMING AND FOUNDATION WALL WHERE OCCURS. IF FOUNDATION WALL INTERFERES WITH (E) WOOD FRAMING, NOTIFY ENGR FOR ADD'L REQUIREMENTS PRIOR TO CONSTRUCTION.
		CAO	SAWCUT OR FORM ACCESS OPNG IN (E) OR NEW FOUNDATION WALL (S.A.D. FOR DIMS, 2'-6"SQ. MAX). ADJUST LOCN AS REQ'D TO AVOID CONFLICT w/ (E) POSTS.
		EPF	(E) OR REPLACEMENT POST BEARING ON NEW FOOTING WHERE OCCURS SHALL HAVE 'ABAZ' BASE w/ 5" EPOXY ANCHOR EMBED. INTO CONCRETE
		VO	VENT OPENING (S.A.D. FOR DIMS)

FOUNDATION SCHEDULE

F1	INTERIOR PAD FOOTING PER C/S7
F2	8" INTERIOR CRAWLSPACE FOUNDATION WALL w/ 12" WIDE STRIP FOOTING PER B/S7
F3	8" EXTERIOR CRAWLSPACE FOUNDATION WALL w/ 15" WIDE STRIP FOOTING PER A/S7
F4	1'-9"SQ. DECK PAD FOOTING PER E/S7
F5	2'-0"SQ. DECK PAD FOOTING PER E/S7
F6	2'-3"SQ. DECK PAD FOOTING PER E/S7
F7	OUTDOOR FIREPLACE PEDESTAL AND FOOTING PER A/S8
E1	(E) 24"ø INTERIOR PAD FOOTING (LOCNS & QUANTITY SHOWN ARE APPROXIMATE, V.I.F.)
E2	(E) 8" CRAWLSPACE FOUNDATION WALL w/ 15" WIDE STRIP FOOTING (V.I.F. FOOTING WIDTH; NOTIFY ENGR FOR ADDITIONAL REQUIREMENTS IF LESS)
E3	(E) 8" SLAB ON GRADE FOUNDATION WALL w/ 15" WIDE STRIP FOOTING (V.I.F. FOOTING WIDTH; NOTIFY ENGR FOR ADDITIONAL REQUIREMENTS IF LESS)





NORTH

PERMIT SET

REV.	DATE	DESCRIPTION
	12-13-21	PERMIT SET

PROJECT:
ADDITIONS & ALTERATIONS
5635 84th Ave SE
Mercer Island, WA 98040

CLIENT:
Elliot & Dorrinda Pierce
5635 84th Ave SE
Mercer Island, WA 98040

OWEN REMICK GOTTLIEB
STATE OF WASHINGTON
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STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
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O.G. ENGINEERING, PLLC
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(206) 290-4608
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SHEET TITLE:
CRAWLSPACE FOUNDATION PLAN

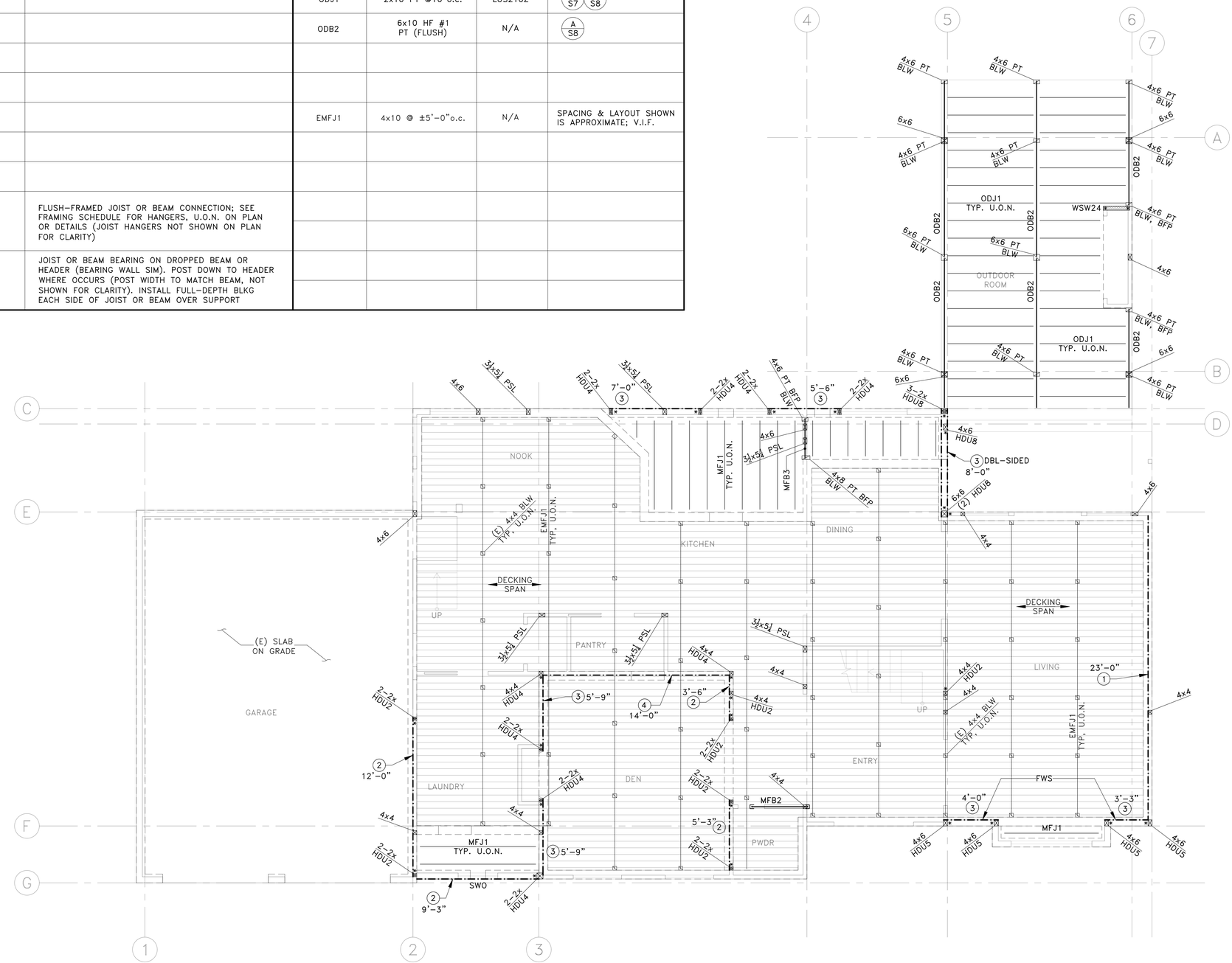
SCALE: AS NOTED
JOB NO. 21031
SHEET. NO. S3

PLAN LEGEND

	NEW OR EXISTING STUD WALL ABOVE FLOOR		
	NEW OR EXISTING WALL BELOW FLOOR	BFP	SEE SHEET S3 PLAN LEGEND
	NEW OR EXISTING WINDOW BY ARCH (S.A.D.)	FWS	FUR OUT WALL w/ 2x6 STUDS SISTERED w/ 10d@6"o.c. FACE NAIL TO (E) STUDS
(X) 'L'	½" W.S.P. SHEAR WALL TYPE (X) w/ MIN. LENGTH 'L', PER (I S2) (A–B S7) (D S7) (H–K S7) (B–D S8)	SWO	STRAP AROUND OPENING IN SHEAR WALL PER (B S2)
4x4 OR 4x4 BLW	POST ABOVE OR BELOW FLOOR PER (E–F S2) (C S7) (E S7)		
2–2x HDU2	POST & HOLDOWN PER (L–M S2)		
DECKING SPAN	(E) 2x CAR DECKING SPANNING IN INDICATED DIRECTION		
WSW24	SIMPSON STRONG WALL WSW24 PER ATTACHED MANUFACTURER'S DETAILS. USE 'SB1x30' CIP ANCHOR BOLTS INTO FOUNDATION IN LIEU OF WSW ANCHOR BOLTS, w/ ANCHOR BEND ORIENTED EAST (TOWARD PEDESTAL)		
		BEAM HANGER	FLUSH–FRAMED JOIST OR BEAM CONNECTION; SEE FRAMING SCHEDULE FOR HANGERS, U.O.N. ON PLAN OR DETAILS (JOIST HANGERS NOT SHOWN ON PLAN FOR CLARITY)
			JOIST OR BEAM BEARING ON DROPPED BEAM OR HEADER (BEARING WALL SIM). POST DOWN TO HEADER WHERE OCCURS (POST WIDTH TO MATCH BEAM, NOT SHOWN FOR CLARITY). INSTALL FULL–DEPTH BLKG EACH SIDE OF JOIST OR BEAM OVER SUPPORT

FRAMING SCHEDULE

CALLOUT	JOIST/BEAM	HANGER (U.O.N. ON PLAN)	REFER TO DETAIL(S) (OR SEE NOTES BLW)
MFJ1	2x10 @16"o.c.	LUS210 (STRAIGHT) LSSJ210Z (SKEWED)	(A S7) (F S7)
MFB2	4x10 (FLUSH w/ EMFJ1)	HU410	N/A
MFB3	5¼x9¼ PSL (FLUSH w/ MFJ1)	N/A	SHALL HAVE FULL BEARING OVER BFP
ODJ1	2x10 PT @16"o.c.	LUS210Z	(E S7) (A S8)
ODB2	6x10 HF #1 PT (FLUSH)	N/A	(A S8)
EMFJ1	4x10 @ ±5'–0"o.c.	N/A	SPACING & LAYOUT SHOWN IS APPROXIMATE; V.I.F.



PERMIT SET

REV.	DATE	DESCRIPTION
	12–13–21	PERMIT SET

PROJECT:
ADDITIONS & ALTERATIONS
5635 84th Ave SE
Mercer Island, WA 98040

CLIENT:
Elliot & Dorrinda Pierce
5635 84th Ave SE
Mercer Island, WA 98040

STATE OF WASHINGTON · OMAR REMICK GOLLER · 52797 · STRUCTURAL ENGINEER · PROFESSIONAL ENGINEER

ENGINEER OF RECORD

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SHEET TITLE:
MAIN FLOOR FRAMING PLAN

SCALE: AS NOTED
JOB NO. 21031
SHEET NO. S4

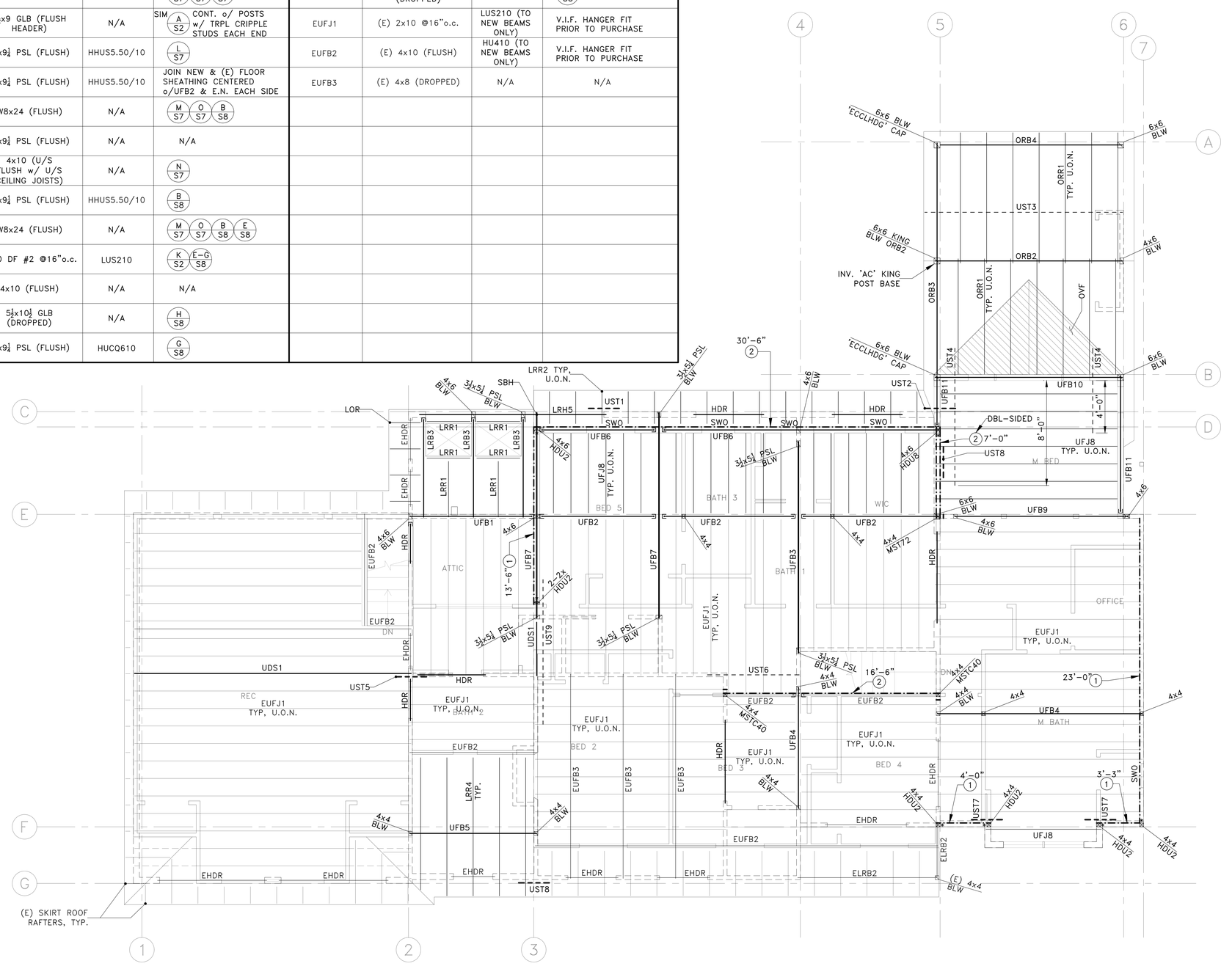
PLAN LEGEND

	NEW OR EXISTING STUD WALL ABOVE FLOOR
	NEW OR EXISTING WALL BELOW FLOOR
	NEW OR EXISTING WINDOW BY ARCH (S.A.D.)
X 'L'	½" W.S.P. SHEAR WALL TYPE (X) (I S2) (B–H S8) (J S8) (A–D S9) w/ MIN. LENGTH 'L', PER
4x4 OR 4x4 BLW	POST ABOVE OR BELOW FLOOR PER (E–F S2) (O S7)
2-2x HDU2 OR 2-2x MSTC28	POST & HOLDOWN OR TIEDOWN STRAP PER (H S2)
OVF	OVER–FRAMING PER (L S8)
	METAL STRAP LOCATED ON UPPER FLOOR SHEATHING OR BELOW PER PLAN & STRAP CALLOUT NOTES BELOW
UST1	'MSTC28' STRAP o/ SHEATHING o/ OUTSIDE FACE OF HEADER TO DBL TOP PLATE
UST2	'MSTA30' STRAP U/S UFJ8 (ADD JOIST AS REQ'D TO ALIGN) TO T.O. ADJ DBL TOP PLATE PER. (G S9) E.N. FLOOR DIAPHRAGM FULL LENGTH OF UFJ8
UST3	CONT. 'CS20' STRAP o/ FLOOR SHEATHING o/ 2x4 FLAT BLKG w/ MIN. 32" END LAP (H S9) SIM LENGTH OVER WALL BLW PER
UST4	CONT. 'CS20' STRAP o/ ROOF SHEATHING PLACED WITHIN 3'–0" OF NORTH & SOUTH EDGE OF OUTDOOR ROOF; LAP MIN. 18" o/ ORR1 & CONTINUE OVER 2x4 FLAT BLKG BTWN UFJ8. BLOCK SOLID BLW STRAP AT OUTDOOR ROOF "GUTTER SPACE" AS REQ'D
UST5	'MSTC40' STRAP U/S UDS1 TO (G S9) T.O. ADJ DBL TOP PLATE PER
UST6	CONT. 'CS20' STRAP u/ 2x BLKG w/ 'LS50' CLIPS TO U/S FLOOR SHEATHING @ 16"o.c. & (F S9) MIN. 18" END LENGTH LAP OVER SHEAR WALL PER
UST7	'LSTA18' STRAP U/S UFJ8 (ADD JOIST AS REQ'D TO ALIGN) TO T.O. ADJ. DBL TOP PLATE PER. (G S9) (E.N. FLOOR SHEATHING TO FULL–LENGTH OF UFJ8)
UST8	'MSTC28' STRAP o/ SHEATHING o/ OUTSIDE FACE OF NEW TO (E) DBL TOP PLATE
UST9	CONT. (2) SIDE–BY–SIDE 'CS16' STRAPS o/ FLOOR SHEATHING o/ UDS1 w/ MIN. 4'–0" (H S9) SIM END LAP LENGTH OVER WALL BLW PER
UDS1	4x10 "DRAG STRUT" w/ 'A35' w/ 'PH612I' SCREWS @24"o.c. TO U/S FLOOR SHEATHING (INSTALL BLKG AS REQ'D FOR VERTICAL SUPPORT)
HDR	DROPPED HEADER OVER WALL OPENING BELOW PER (A S2) (USE 'HUC' HANGER TO FULL–HEIGHT POST WHERE OCCURS, MATCH BEAM DEPTH)
LOR	LOOKOUT RAFTERS PER (J S7)
SBH	'H8' EACH SIDE OF STEEL BEAM TO WALL FRAMING BELOW, THIS LOCN ONLY
EHDR	(E) DROPPED HEADER OVER WALL OPENING BELOW
BEAM HANGER	FLUSH–FRAMED JOIST OR BEAM CONNECTION; SEE FRAMING SCHEDULE FOR HANGERS, U.O.N. ON PLAN OR DETAILS (JOIST HANGERS NOT SHOWN ON PLAN FOR CLARITY)
	JOIST OR BEAM BEARING ON DROPPED BEAM OR HEADER (BEARING WALL SIM). POST DOWN TO HEADER WHERE OCCURS (POST WIDTH TO MATCH BEAM, NOT SHOWN FOR CLARITY). INSTALL FULL–DEPTH BLKG EACH SIDE OF JOIST OR BEAM OVER SUPPORT

FRAMING SCHEDULE

CALLOUT	JOIST/BEAM	HANGER (U.O.N. ON PLAN)	REFER TO DETAIL(S) (OR SEE NOTES BLW)
LRR1	2x8 @24"o.c.	LRU28Z OR LUS28	(I–J S7) (L S7)
LRR2	2x6 @24"o.c.	LRU26Z	(G S7) (K S7) (B S8)
LRB3	4x8 (FLUSH)	LSSR410Z (SHIM GAP IN SEAT)	(I S7) (L S7)
LRR4	2x6 @24"o.c.	LRU26Z	(G S7) (H S7) (N S7)
LRH5	5½x9 GLB (FLUSH HEADER)	N/A	SIM (A S2) CONT. o/ POSTS w/ TRPL CRIPPLE STUDS EACH END
UFB1	5¼x9¼ PSL (FLUSH)	HHUS5.50/10	(L S7)
UFB2	5¼x9¼ PSL (FLUSH)	HHUS5.50/10	JOIN NEW & (E) FLOOR SHEATHING CENTERED o/UFB2 & E.N. EACH SIDE
UFB3	W8x24 (FLUSH)	N/A	(M S7) (O S7) (B S8)
UFB4	3½x9¼ PSL (FLUSH)	N/A	N/A
UFB5	4x10 (U/S FLUSH w/ U/S CEILING JOISTS)	N/A	(N S7)
UFB6	5¼x9¼ PSL (FLUSH)	HHUS5.50/10	(B S8)
UFB7	W8x24 (FLUSH)	N/A	(M S7) (O S7) (B S8) (E S8)
UFJ8	2x10 DF #2 @16"o.c.	LUS210	(K S2) (E–G S8)
UFB9	4x10 (FLUSH)	N/A	N/A
UFB10	5½x10½ GLB (DROPPED)	N/A	(H S8)
UFB11	5¼x9¼ PSL (FLUSH)	HUCQ610	(G S8)

CALLOUT	JOIST/BEAM	HANGER (U.O.N. ON PLAN)	REFER TO DETAIL(S) (OR SEE NOTES BLW)
ORR1	2x8 @24"o.c.	LRU28Z (TO UFB10 ONLY)	(H–I S8) (K S8)
ORB2	5½x9 GLB (DROPPED RIDGE)	N/A	(K S8)
ORB3	5½x10½ GLB (DROPPED)	N/A	N/A
ORB4	5½x10½ GLB (DROPPED)	N/A	(I S8)
EUFJ1	(E) 2x10 @16"o.c.	LUS210 (TO NEW BEAMS ONLY)	V.I.F. HANGER FIT PRIOR TO PURCHASE
EUFB2	(E) 4x10 (FLUSH)	HU410 (TO NEW BEAMS ONLY)	V.I.F. HANGER FIT PRIOR TO PURCHASE
EUFB3	(E) 4x8 (DROPPED)	N/A	N/A



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	12-13-21	PERMIT SET

PROJECT: ADDITIONS & ALTERATIONS
5635 84th Ave SE
Mercer Island, WA 98040

CLIENT: Elliot & Dorrinda Pierce
5635 84th Ave SE
Mercer Island, WA 98040

OWEN REMICK COLE
STATE OF WASHINGTON
52797
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
ENGINEER OF RECORD

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SHEET TITLE: UPPER FLOOR/ LOW ROOF FRAMING PLAN

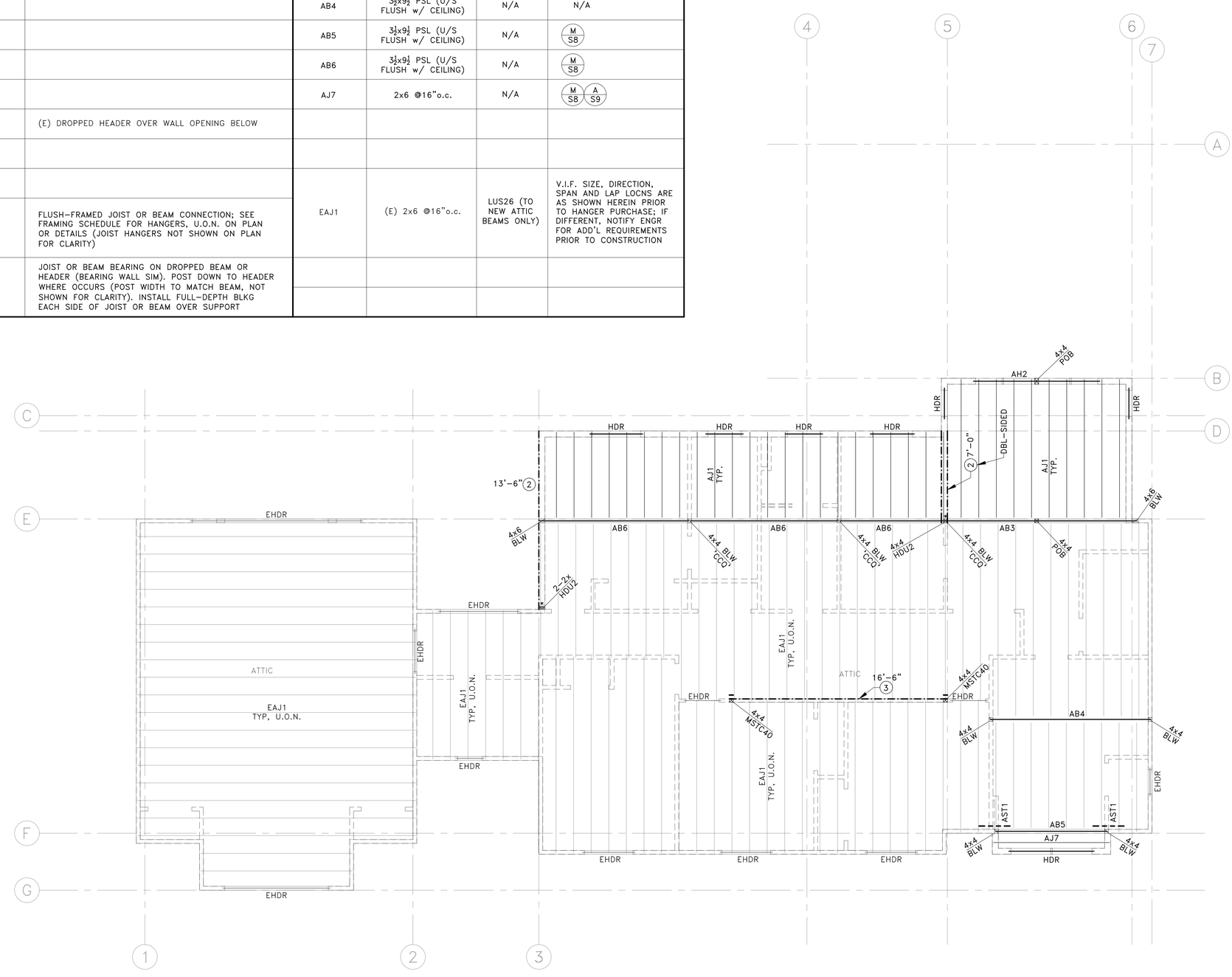
SCALE: AS NOTED
JOB NO. 21031
SHEET. NO. S5

PLAN LEGEND

⊏⊏⊏⊏⊏⊐	NEW OR EXISTING WALL BELOW FLOOR		
(X) 'L'	½" W.S.P. SHEAR WALL TYPE (X) (I/S2) (J/S8) (A–D/S9) w/ MIN. LENGTH 'L', PER		
OVF	OVER–FRAMING PER (L/S8)	HDR	DROPPED HEADER OVER WALL OPENING BELOW PER (A/S2)
4x4 OR 4x4 BLW	POST ABOVE OR BELOW ATTIC PER (E–F/S2)	POB	POST BEARS ON ATTIC BEAM w/ INV. 'AC' BASE
- - - - - - - -	METAL STRAP LOCATED ON ATTIC JOISTS OR BELOW PER PLAN & STRAP CALLOUT NOTES BELOW		
AST1	'LSTA18' STRAP U/S AB5 TO T.O. ADJ. DBL TOP PLATE PER (G/S9)		
		EHDR	(E) DROPPED HEADER OVER WALL OPENING BELOW
		BEAM HANGER	FLUSH–FRAMED JOIST OR BEAM CONNECTION; SEE FRAMING SCHEDULE FOR HANGERS, U.O.N. ON PLAN OR DETAILS (JOIST HANGERS NOT SHOWN ON PLAN FOR CLARITY)
			JOIST OR BEAM BEARING ON DROPPED BEAM OR HEADER (BEARING WALL SIM). POST DOWN TO HEADER WHERE OCCURS (POST WIDTH TO MATCH BEAM, NOT SHOWN FOR CLARITY). INSTALL FULL–DEPTH BLKG EACH SIDE OF JOIST OR BEAM OVER SUPPORT

FRAMING SCHEDULE

CALLOUT	JOIST/BEAM	HANGER (U.O.N. ON PLAN)	REFER TO DETAIL(S) (OR SEE NOTES BLW)
AJ1	2x6 @16"o.c.	LUS26	(X/SX)
AH2	3½x10½ GLB (DROPPED HEADER)	N/A	(A/S2) DBL CRIPPLE STUDS EACH END
AB3	3½x11⅞ PSL (U/S FLUSH w/ CEILING)	N/A	(M/S8)
AB4	3½x9½ PSL (U/S FLUSH w/ CEILING)	N/A	N/A
AB5	3½x9½ PSL (U/S FLUSH w/ CEILING)	N/A	(M/S8)
AB6	3½x9½ PSL (U/S FLUSH w/ CEILING)	N/A	(M/S8)
AJ7	2x6 @16"o.c.	N/A	(M/S8) (A/S9)
EAJ1	(E) 2x6 @16"o.c.	LUS26 (TO NEW ATTIC BEAMS ONLY)	V.I.F. SIZE, DIRECTION, SPAN AND LAP LOCNS ARE AS SHOWN HEREIN PRIOR TO HANGER PURCHASE; IF DIFFERENT, NOTIFY ENGR FOR ADD'L REQUIREMENTS PRIOR TO CONSTRUCTION



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	12–13–21	PERMIT SET

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5635 84th Ave SE
Mercer Island, WA 98040

CLIENT:
Elliot & Dorrinda Pierce
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Mercer Island, WA 98040

OWEN GEMICK GRAHAM — STATE OF WASHINGTON — 52797 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

ENGINEER OF RECORD

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SHEET TITLE:
UPPER ROOF FRAMING PLAN

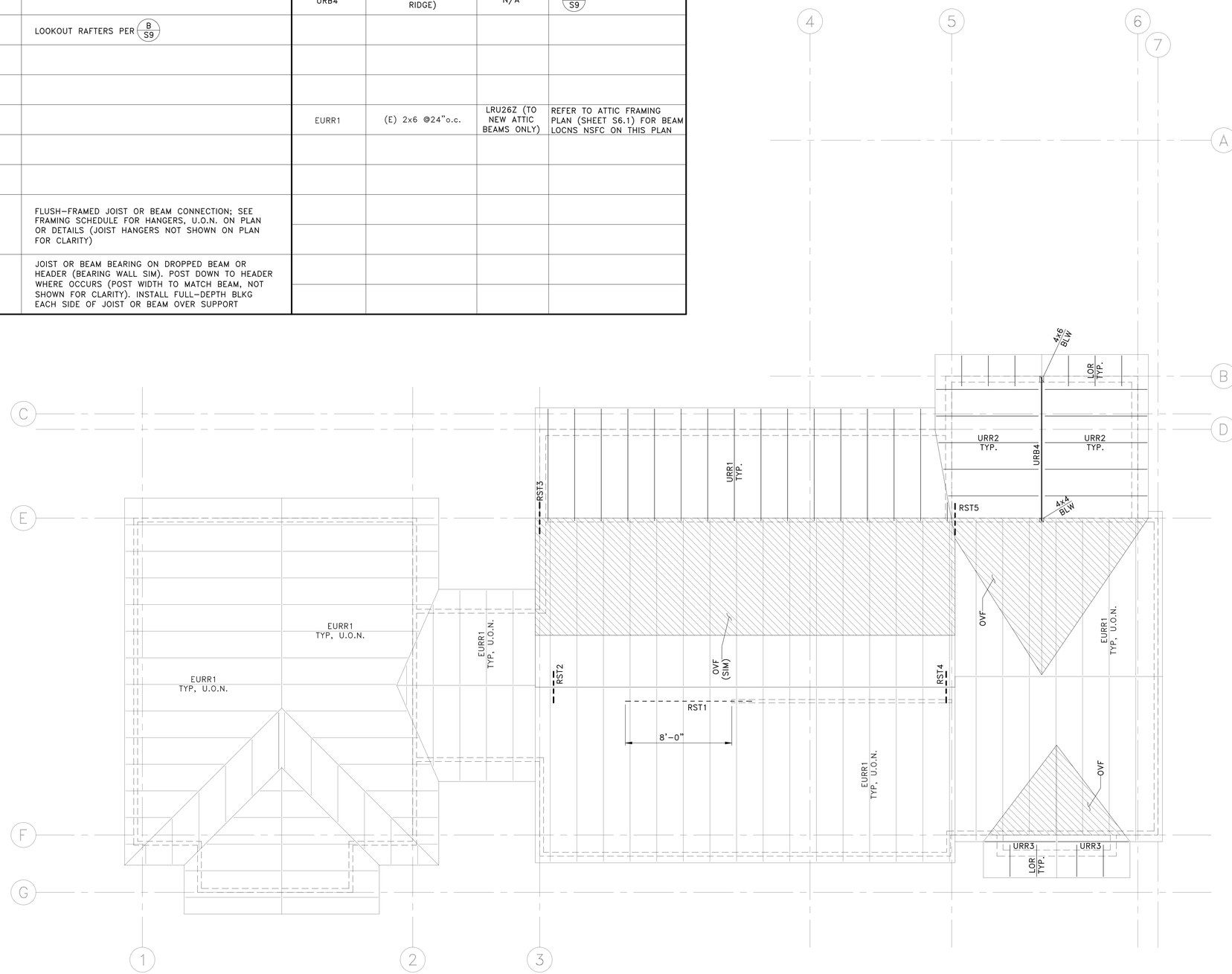
SCALE: AS NOTED
JOB NO. 21031
SHEET NO. S6.1

PLAN LEGEND

⊏⊏⊏⊏⊏⊐	NEW OR EXISTING WALL BELOW FLOOR		
OVF	OVER-FRAMING PER L/S8 N/S8		
4x4 BLW	POST BELOW ROOF PER E-F/S2		
- - - - - - - -	METAL STRAP LOCATED ON ROOF SHEATHING OR BELOW PER PLAN & STRAP CALLOUT NOTES BELOW		
RST1	CONT. 'CS16' STRAP u/ 2x BLKG w/ 'LS50' CLIPS TO U/S ROOF SHEATHING @ 2'-0"o.c. & MIN. 18" END LENGTH LAP OVER SHEAR WALL PER F/S9		
RST2	'LSTA36' STRAP U/S ERR1 ACROSS RIDGE; SHIM GAP BELOW RIDGE BOARD AS REQ'D	LOR	LOOKOUT RAFTERS PER B/S9
RST3	'MSTC28' STRAP o/ SHEATHING o/ OUTSIDE FACE OF NEW TO (E) DBL TOP PLATE		
RST4	'MSTA36' STRAP U/S ERR1 ACROSS RIDGE; SHIM GAP BELOW RIDGE BOARD AS REQ'D		
RST5	'MSTC40' STRAP o/ SHEATHING o/ OUTSIDE FACE OF NEW TO (E) DBL TOP PLATE		
		BEAM HANGER	FLUSH-FRAMED JOIST OR BEAM CONNECTION; SEE FRAMING SCHEDULE FOR HANGERS, U.O.N. ON PLAN OR DETAILS (JOIST HANGERS NOT SHOWN ON PLAN FOR CLARITY)
			JOIST OR BEAM BEARING ON DROPPED BEAM OR HEADER (BEARING WALL SIM). POST DOWN TO HEADER WHERE OCCURS (POST WIDTH TO MATCH BEAM, NOT SHOWN FOR CLARITY). INSTALL FULL-DEPTH BLKG EACH SIDE OF JOIST OR BEAM OVER SUPPORT

FRAMING SCHEDULE

CALLOUT	JOIST/BEAM	HANGER (U.O.N. ON PLAN)	REFER TO DETAIL(S) (OR SEE NOTES BLW)
URR1	2x6 @24"o.c. (SHED RAFTERS)	N/A	M/S8 A/S9
URR2	2x6 @24"o.c. (GABLE RAFTERS)	LRU26Z	M/S8 A-B/S9
URR3	2x6 @24"o.c. (DORMER RAFTERS)	N/A	A-B/S9
URB4	4x10 (FLUSH RIDGE)	N/A	E/S9
EURR1	(E) 2x6 @24"o.c.	LRU26Z (TO NEW ATTIC BEAMS ONLY)	REFER TO ATTIC FRAMING PLAN (SHEET S6.1) FOR BEAM LOCNS NSFC ON THIS PLAN



PERMIT SET

REV.	DATE	DESCRIPTION
	12-13-21	PERMIT SET

PROJECT:
ADDITIONS & ALTERATIONS
5635 84th Ave SE
Mercer Island, WA 98040

CLIENT:
Elliot & Dorrinda Pierce
5635 84th Ave SE
Mercer Island, WA 98040

OWEN REMICK GOLTZ — STATE OF WASHINGTON — 52797 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

ENGINEER OF RECORD

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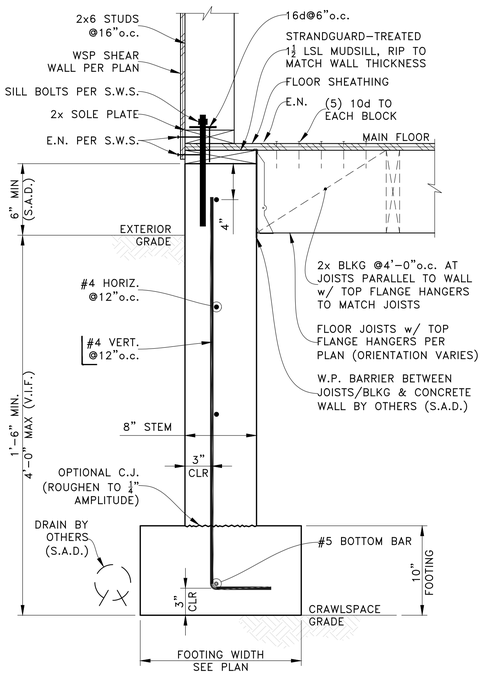
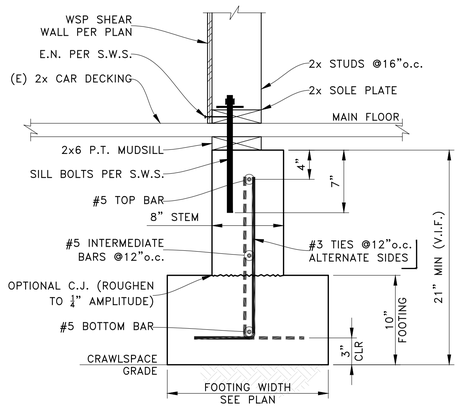
SHEET TITLE:
UPPER ROOF FRAMING PLAN

SCALE: AS NOTED
JOB NO. 21031
SHEET. NO. S6.2



EXTERIOR CRAWLSPACE FOUNDATION WALL — A

SCALE: NTS



INTERIOR CRAWLSPACE FOUNDATION — B

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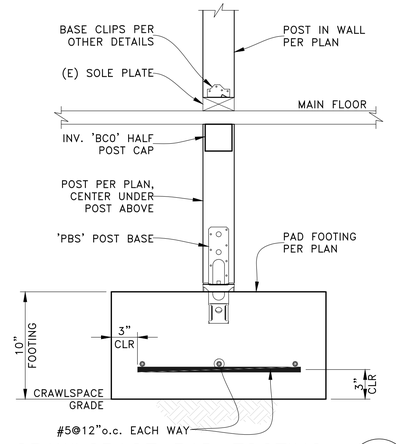
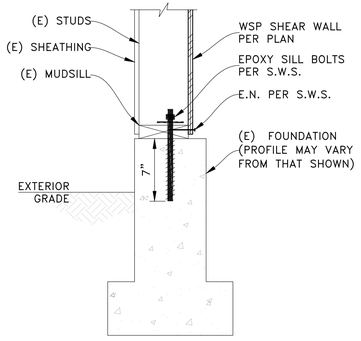


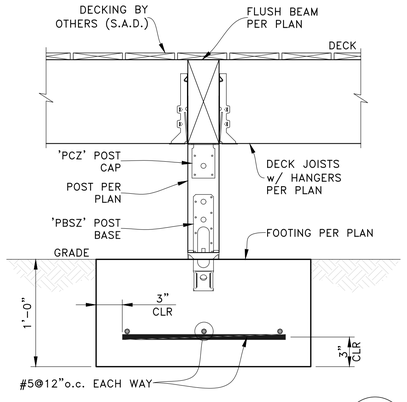
CRAWLSPACE PAD FOOTING — C

SCALE: NTS



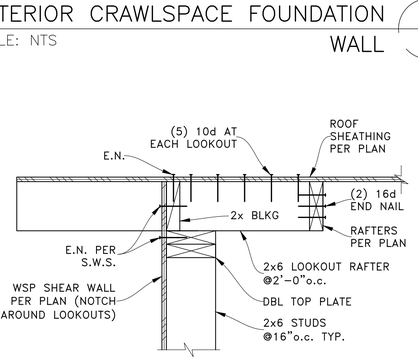
SHEAR WALL ON EXISTING FOUNDATION — D

SCALE: NTS



DECK PAD FOOTING — E

SCALE: NTS

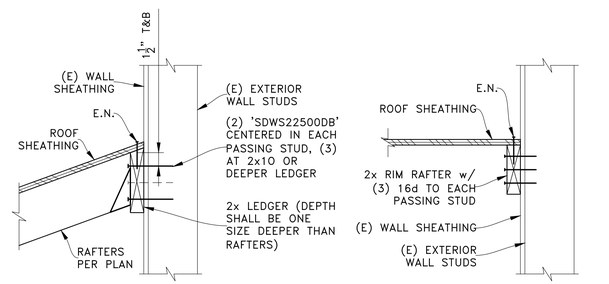


NOOK ROOF RAKE — J

SCALE: NTS

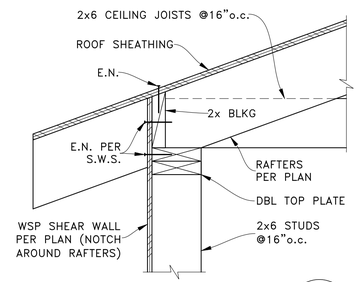
FLOOR TO EXISTING FOUNDATION — F

SCALE: NTS



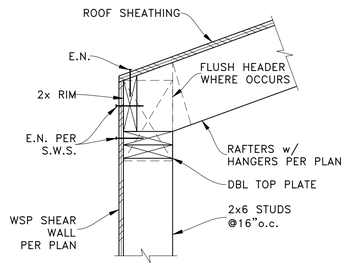
ROOF TO EXISTING EXTERIOR WALL — G

SCALE: NTS



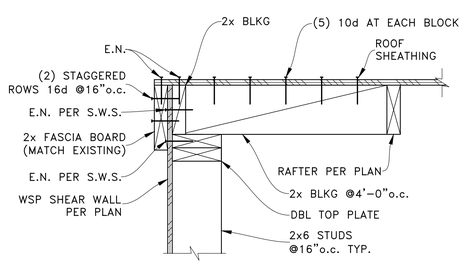
ROOF EAVE — H

SCALE: NTS



NOOK ROOF EAVE — I

SCALE: NTS

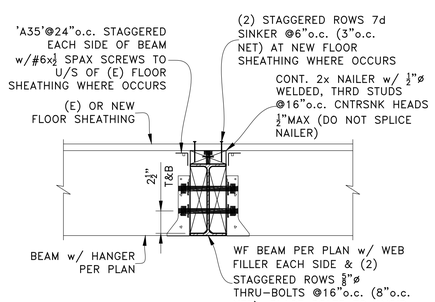


KITCHEN ROOF RAKE — K

SCALE: NTS

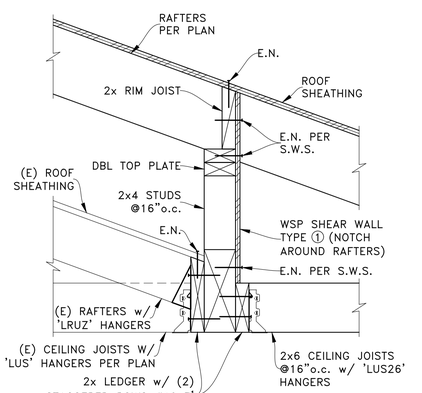
UFB1 AT NOOK CEILING — L

SCALE: NTS



FLUSH STEEL BEAM — M

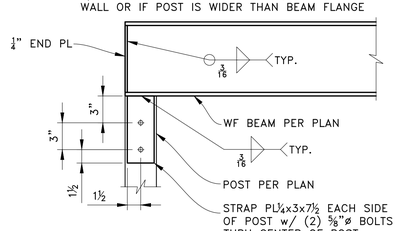
SCALE: NTS



ROOF & CEILING AT UFB5 — N

SCALE: NTS

NOTES:
1) SOME WOOD FRAMING, BOLTS, NAILER & WEB FILLER BLOCKS NOT SHOWN FOR CLARITY.
2) ROTATE STRAP PLs 90° AS REQ'D TO FIT IN WALL OR IF POST IS WIDER THAN BEAM FLANGE



STEEL BEAM TO POST — O

SCALE: NTS

PERMIT SET

REV.	DATE	DESCRIPTION
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Mercer Island, WA 98040

CLIENT:
Elliot & Dorrinda Pierce
5635 84th Ave SE
Mercer Island, WA 98040

OWEN REMICK GOULET
STATE OF WASHINGTON
32797
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
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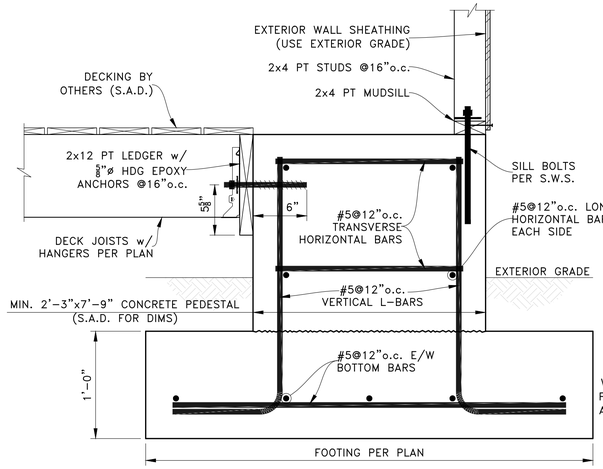
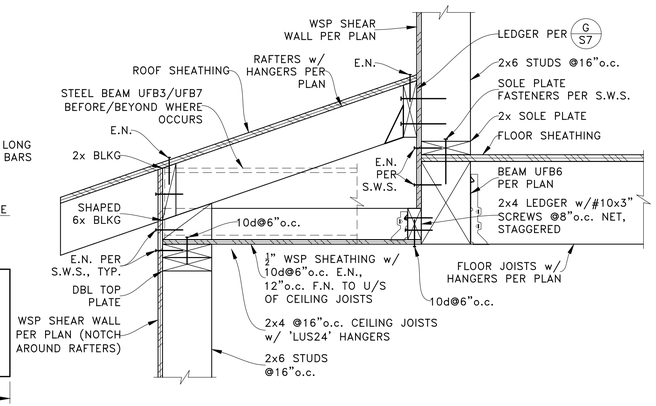
SHEET TITLE:
SECTIONS & DETAILS

SCALE: AS NOTED
SHEET. NO. S7
JOB NO. 21031



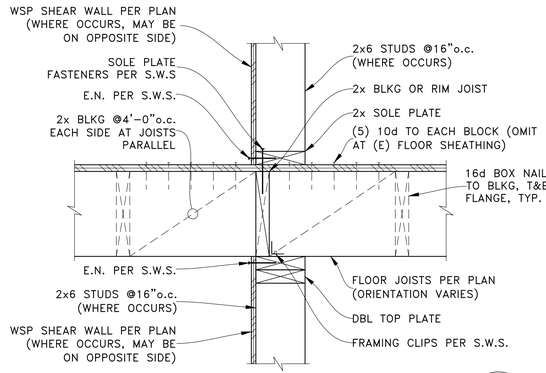
OUTDOOR FIREPLACE FOOTING — A

SCALE: NTS



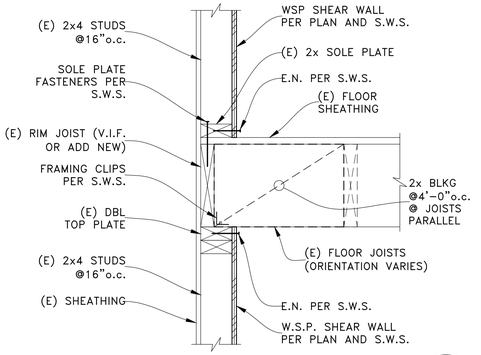
SKIRT ROOF AT REAR — B

SCALE: NTS



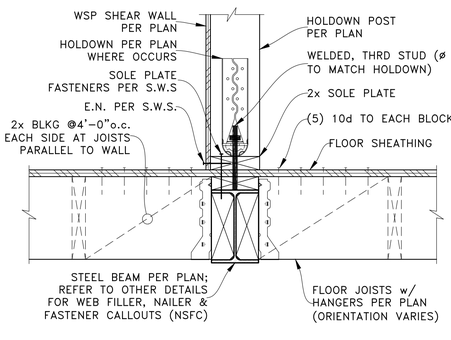
INTERIOR SHEAR WALL AT FLOOR — C

SCALE: NTS



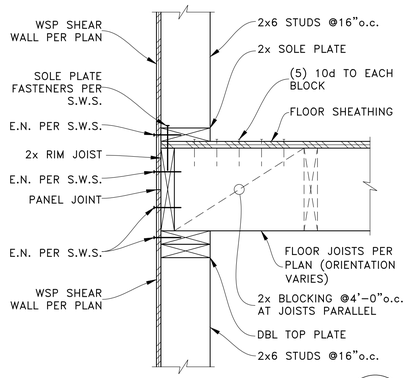
SHEAR WALL AT EXISTING FLOOR — D

SCALE: NTS



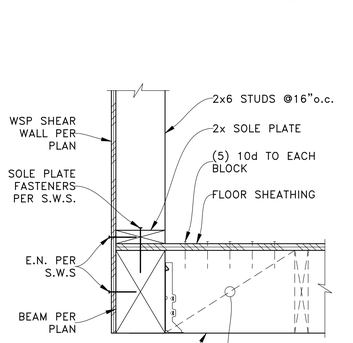
SHEAR WALL ON STEEL BEAM — E

SCALE: NTS



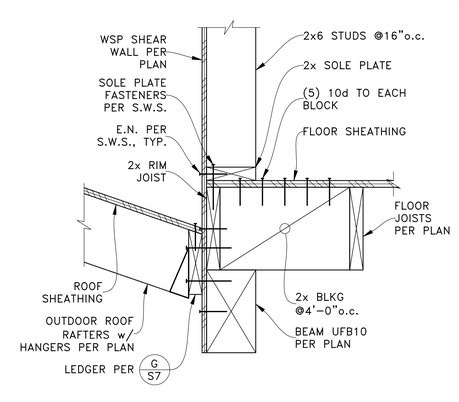
EXTERIOR WALL AT FLOOR — F

SCALE: NTS



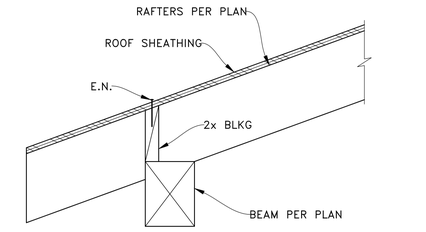
FLOOR OVERHANG — G

SCALE: NTS



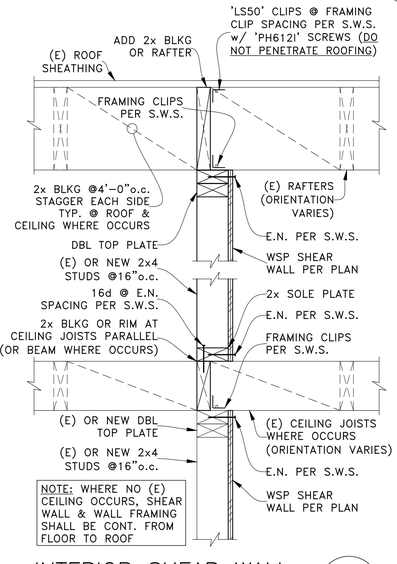
OUTDOOR ROOF EAVE TO HOUSE — H

SCALE: NTS



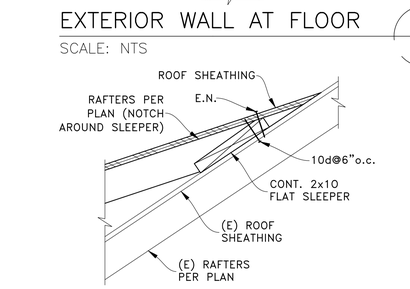
OUTDOOR ROOF EAVE — I

SCALE: NTS



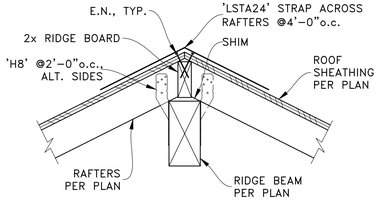
INTERIOR SHEAR WALL AT ROOF — J

SCALE: NTS



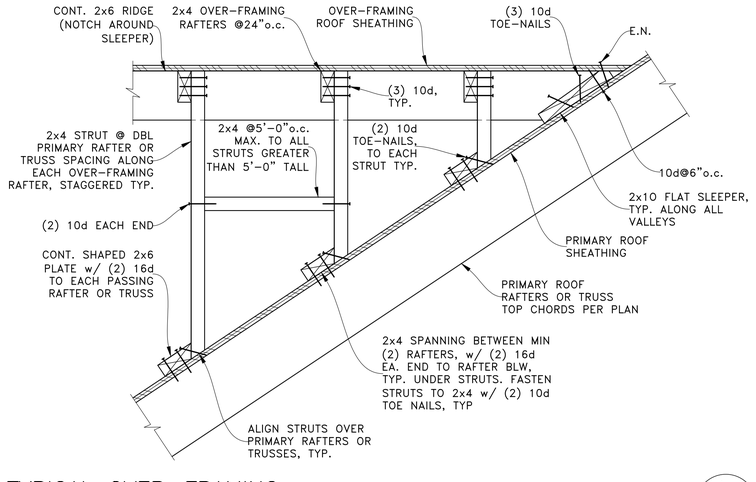
SHED ROOF OVER-FRAMING — N

SCALE: NTS



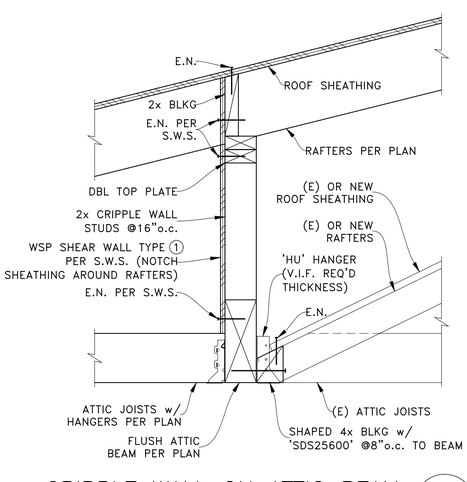
OUTDOOR ROOF RIDGE BEAM — K

SCALE: NTS



TYPICAL OVER-FRAMING — L

SCALE: NTS



CRIPPLE WALL ON ATTIC BEAM — M

SCALE: NTS

PERMIT SET

REV.	DATE	DESCRIPTION
	12-13-21	PERMIT SET

PROJECT:
ADDITIONS & ALTERATIONS
5635 84th Ave SE
Mercer Island, WA 98040

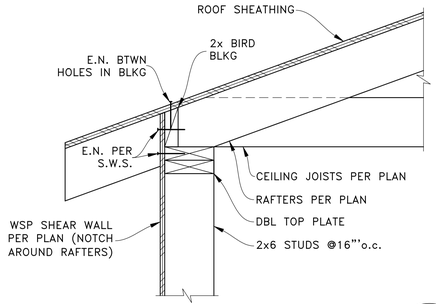
CLIENT:
Elliot & Dorrinda Pierce
5635 84th Ave SE
Mercer Island, WA 98040

OWEN REMICK COLE
STATE OF WASHINGTON
62797
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
ENGINEER OF RECORD

O.G. ENGINEERING, PLLC
3201 1st Ave S, Suite 101, SEATTLE, WA 98134
(206) 290-4608
owen@ogengineer.com

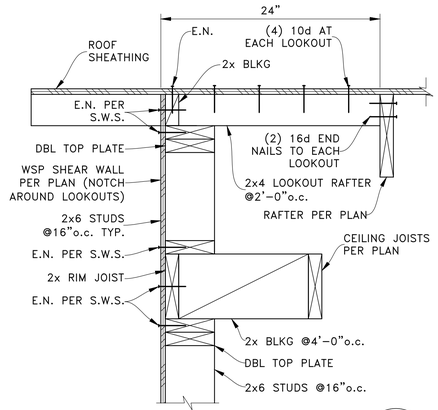
SHEET TITLE:
SECTIONS & DETAILS

SCALE: AS NOTED
JOB NO. 21031
SHEET. NO. S8



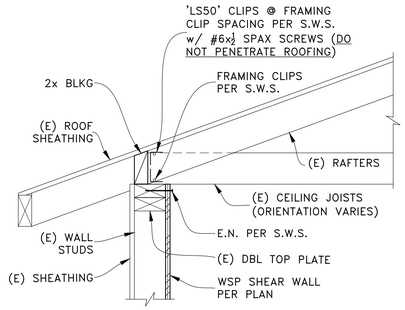
ADDITION ROOF EAVE — A

SCALE: NTS



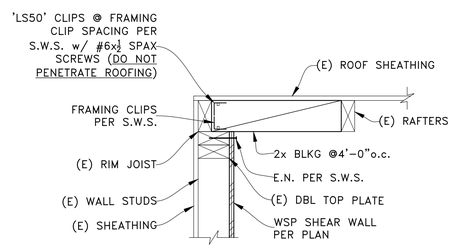
ADDITION RAKE — B

SCALE: NTS



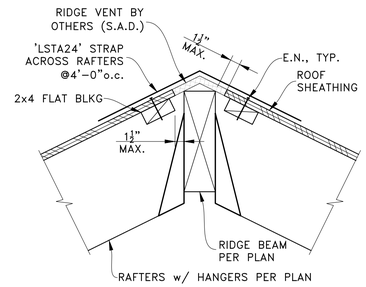
SHEAR WALL AT EXISTING EAVE — C

SCALE: NTS



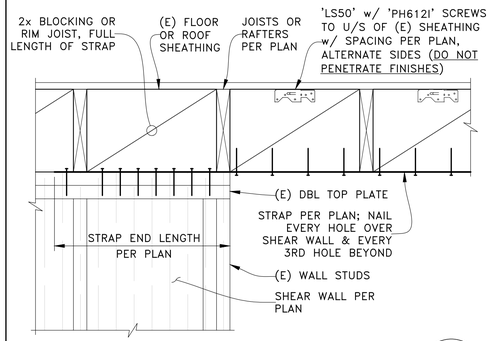
SHEAR WALL AT EXISTING RAKE — D

SCALE: NTS



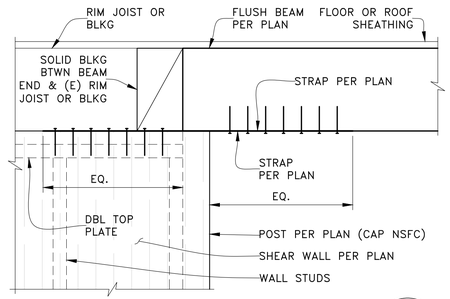
RIDGE BEAM AT VENT — E

SCALE: NTS



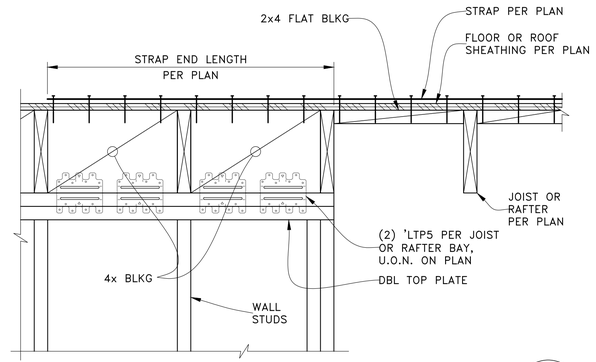
STRAP TO SHEAR WALL — F

SCALE: NTS



BEAM STRAP TO SHEAR WALL — G

SCALE: NTS



CONTINUOUS STRAP TO SHEAR WALL — H

SCALE: NTS

PERMIT SET

REV.	DATE	DESCRIPTION
	12-13-21	PERMIT SET

PROJECT:
ADDITIONS & ALTERATIONS
5635 84th Ave SE
Mercer Island, WA 98040

CLIENT:
Elliot & Dorrinda Pierce
5635 84th Ave SE
Mercer Island, WA 98040

OWEN REMICK GOTTLIEB
STATE OF WASHINGTON
50797
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
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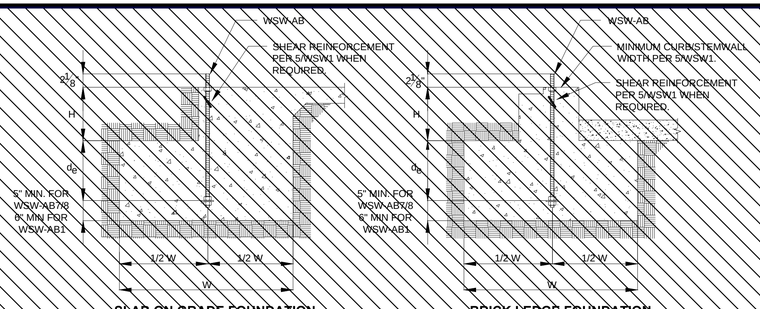
O.G. ENGINEERING, PLLC
3201 1st Ave S, Suite 101, SEATTLE, WA 98134
(206) 290-4608
owen@ogengineer.com

SHEET TITLE:
SECTIONS & DETAILS

SCALE: AS NOTED
JOB NO. 21031
SHEET. NO. S9

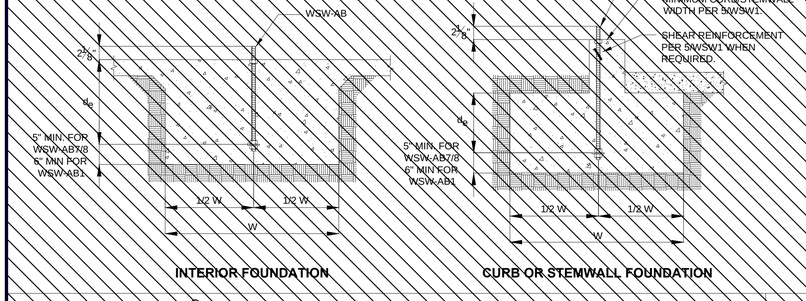


SLAB ON GRADE FOUNDATION

BRICK LEDGE FOUNDATION

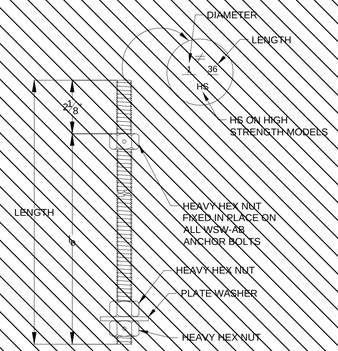
NOTES:
1. SEE 2/WSW1 FOR DIMENSIONS AND ADDITIONAL NOTES.
2. SEE 5/WSW1 FOR SHEAR REINFORCEMENT WHEN REQUIRED.
3. MAXIMUM H = l_e - d_e. SEE 3/WSW1 AND 4/WSW1 FOR l_e.

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



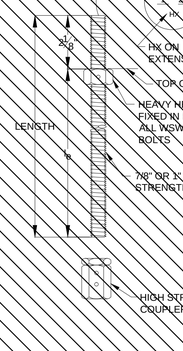
INTERIOR FOUNDATION

CURB OR STEMWALL FOUNDATION

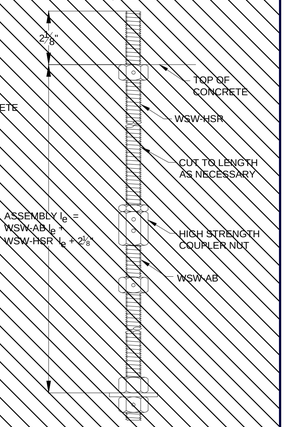


WSW PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSW12 AND WSW18	WSW-AB7/8x24	7/8"	24"	20"
	WSW-AB7/8x24HS	7/8"	24"	20"
	WSW-AB7/8x30	7/8"	30"	26"
	WSW-AB7/8x30HS	7/8"	30"	26"
	WSW-AB7/8x36HS	7/8"	36"	32"
WSW24	WSW-AB1x24	1"	24"	20"
	WSW-AB1x24HS	1"	24"	20"
	WSW-AB1x30	1"	30"	26"
	WSW-AB1x30HS	1"	30"	26"
	WSW-AB1x36HS	1"	36"	32"

WSW-HSR_KT

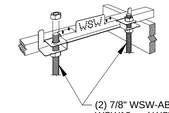


WSW-HSR AND WSW-AB ASSEMBLY



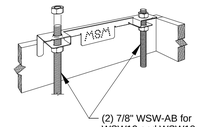
WSW PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSW12 AND WSW18	WSW-HSR7/8x24KT	7/8"	24"	20"
	WSW-HSR7/8x36KT	7/8"	36"	34"
WSW24	WSW-HSR1x24KT	1"	24"	22"
	WSW-HSR1x36KT	1"	36"	34"

WSW-RT INTERIOR INSTALLATION

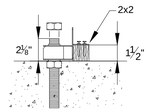


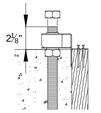
(2) 7/8" WSW-AB for WSW12 and WSW18
(2) 1" WSW-AB for WSW24

WSW-RT EXTERIOR INSTALLATION

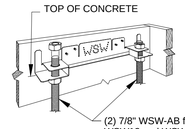


(2) 7/8" WSW-AB for WSW12 and WSW18
(2) 1" WSW-AB for WSW24



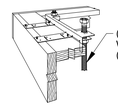


WSW-RTPF PANEL FORM INSTALLATION

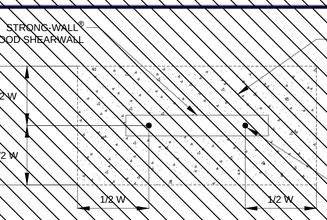


(2) 7/8" WSW-AB for WSW12 and WSW18
(2) 1" WSW-AB for WSW24

WSW-RTBL BRICK LEDGE INSTALLATION



(2) 7/8" WSW-AB for WSW12 and WSW18
(2) 1" WSW-AB for WSW24



FOUNDATION PLAN VIEW

WSW ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSW-AB7/8 ANCHOR BOLT: ASD ALLOWABLE TENSION (lb.)	WSW-AB7/8 ANCHOR BOLT: W (in.)	WSW-AB7/8 ANCHOR BOLT: d_e (in.)	WSW-AB1 ANCHOR BOLT: ASD ALLOWABLE TENSION (lb.)	WSW-AB1 ANCHOR BOLT: W (in.)	WSW-AB1 ANCHOR BOLT: d_e (in.)
SEISMIC	CRACKED	STANDARD	11,900	27	9	16,100	33	11
			13,100	29	10	17,100	35	12
		HIGH STRENGTH	24,900	43	15	33,000	51	17
			27,100	46	16	35,300	54	18
	UNCRACKED	STANDARD	12,500	24	8	15,700	28	10
			13,100	25	9	17,100	30	10
		HIGH STRENGTH	25,300	38	13	32,300	42	15
			27,100	40	14	35,300	47	16
WIND	CRACKED	STANDARD	5,100	14	6	6,200	16	6
			8,700	20	7	11,400	24	8
		HIGH STRENGTH	13,100	27	9	17,100	32	11
			15,900	30	10	21,100	36	12
	UNCRACKED	STANDARD	9,300	18	6	12,500	22	8
			13,100	23	8	17,100	28	10
		HIGH STRENGTH	15,200	35	9	21,900	32	11
			19,900	30	10	26,400	36	12
			24,000	34	12	31,500	40	14
			27,100	37	13	35,300	43	15

NOTES:
1. ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APPENDIX D AND ACI 318-14 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSW-AB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A449).
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C - F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.3 AND ACI 318-14 SECTION 17.2.3.4.3.
4. WIND INCLUDES SEISMIC DESIGN SATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE REGISTERED DESIGN PROFESSIONAL MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
6. REFER TO 1/WSW1 FOR d_e.

WSW ANCHORAGE SOLUTIONS FOR 3000 PSI CONCRETE

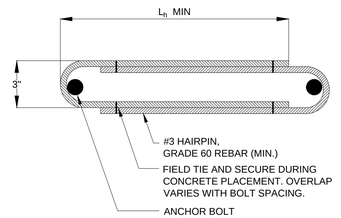
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSW-AB7/8 ANCHOR BOLT: ASD ALLOWABLE TENSION (lb.)	WSW-AB7/8 ANCHOR BOLT: W (in.)	WSW-AB7/8 ANCHOR BOLT: d_e (in.)	WSW-AB1 ANCHOR BOLT: ASD ALLOWABLE TENSION (lb.)	WSW-AB1 ANCHOR BOLT: W (in.)	WSW-AB1 ANCHOR BOLT: d_e (in.)
SEISMIC	CRACKED	STANDARD	12,300	26	9	16,000	31	11
			13,100	28	10	17,100	33	11
		HIGH STRENGTH	25,200	41	14	32,700	48	16
			27,100	43	15	35,300	51	17
	UNCRACKED	STANDARD	12,000	22	8	16,300	27	9
			13,100	24	8	17,100	28	10
		HIGH STRENGTH	25,300	36	12	32,700	42	14
			27,100	38	13	35,300	44	15
WIND	CRACKED	STANDARD	5,000	13	6	5,800	14	6
			8,800	19	7	10,200	21	7
		HIGH STRENGTH	13,100	25	9	17,100	30	10
			15,700	28	10	20,100	33	11
	UNCRACKED	STANDARD	9,300	18	6	12,500	22	8
			13,100	23	8	17,100	28	10
		HIGH STRENGTH	19,200	32	11	25,300	38	13
			23,200	36	12	32,300	44	15
			27,100	40	14	35,300	47	16

WSW ANCHORAGE SOLUTIONS FOR 4500 PSI CONCRETE

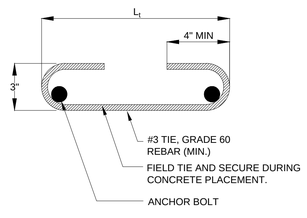
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSW-AB7/8 ANCHOR BOLT: ASD ALLOWABLE TENSION (lb.)	WSW-AB7/8 ANCHOR BOLT: W (in.)	WSW-AB7/8 ANCHOR BOLT: d_e (in.)	WSW-AB1 ANCHOR BOLT: ASD ALLOWABLE TENSION (lb.)	WSW-AB1 ANCHOR BOLT: W (in.)	WSW-AB1 ANCHOR BOLT: d_e (in.)
SEISMIC	CRACKED	STANDARD	12,600	23	8	16,000	27	9
			13,100	24	8	17,100	29	10
		HIGH STRENGTH	24,800	36	12	32,100	42	14
			27,100	38	13	35,300	45	15
	UNCRACKED	STANDARD	12,700	20	7	15,700	23	8
			13,100	21	7	17,100	25	9
		HIGH STRENGTH	24,600	31	11	32,500	37	13
			27,100	34	12	35,300	39	13
WIND	CRACKED	STANDARD	5,400	12	6	6,800	14	6
			8,300	16	6	11,600	20	7
		HIGH STRENGTH	13,100	22	8	17,100	26	9
			15,300	24	8	21,400	30	10
	UNCRACKED	STANDARD	9,300	16	6	12,400	18	6
			13,100	19	7	17,100	23	8
		HIGH STRENGTH	19,300	28	10	25,800	34	12
			23,600	32	11	31,000	38	13
			27,100	36	12	35,300	42	14

WSW ANCHORAGE SOLUTIONS FOR 6000 PSI CONCRETE

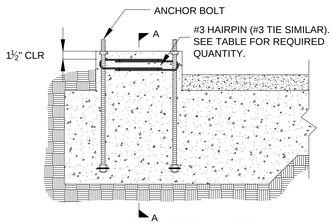
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSW-AB7/8 ANCHOR BOLT: ASD ALLOWABLE TENSION (lb.)	WSW-AB7/8 ANCHOR BOLT: W (in.)	WSW-AB7/8 ANCHOR BOLT: d_e (in.)	WSW-AB1 ANCHOR BOLT: ASD ALLOWABLE TENSION (lb.)	WSW-AB1 ANCHOR BOLT: W (in.)	WSW-AB1 ANCHOR BOLT: d_e (in.)
SEISMIC	CRACKED	STANDARD	12,900	23	8	16,000	27	9
			13,100	24	8	17,100	29	10
		HIGH STRENGTH	24,800	36	12	32,100	42	14
			27,100	38	13	35,300	45	15
	UNCRACKED	STANDARD	12,700	20	7	15,700	23	8
			13,100	21	7	17,100	25	9
		HIGH STRENGTH	24,600	31	11	32,500	37	13
			27,100	34	12	35,300	39	13
WIND	CRACKED	STANDARD	5,400	12	6	6,800	14	6
			8,300	16	6	11,600	20	7
		HIGH STRENGTH	13,100	22	8	17,100	26	9
			15,300	24	8	21,400	30	10
	UNCRACKED	STANDARD	9,300	16	6	12,400	18	6
			13,100	19	7	17,100	23	8
		HIGH STRENGTH	19,300	28	10	25,800	34	12
			23,600	32	11	31,000	38	13
			27,100	36	12	35,300	42	14



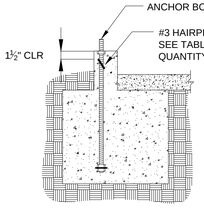
HAIRPIN SHEAR REINFORCEMENT



TIE SHEAR REINFORCEMENT



HAIRPIN INSTALLATION
(GARAGE CURB SHOWN. OTHER FOOTING TYPES SIMILAR.)



SECTION A-A

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

STRONG-WALL® WOOD SHEARWALL SHEAR ANCHORAGE

MODEL	L_t OR L_h (in.)	SEISMIC [3]		WIND [4]		ASD ALLOWABLE SHEAR LOAD, V (lb.) [6]	
		SHEAR REINFORCEMENT	MINIMUM CURB/ STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	MINIMUM CURB/ STEMWALL WIDTH (in.)	UNCRACKED	CRACKED
WSW12	10¼	(1) #3 HAIRPIN	8[5]	SEE NOTE 6	6	1,035	740
WSW18	15	(1) #3 HAIRPIN	8[5]	(1) #3 HAIRPIN	6	HAIRPIN REINFORCEMENT ACHIEVES MAXIMUM ALLOWABLE SHEAR LOAD OF THE WSW	
WSW24	19	(2) #3 HAIRPINS	8[5]	(1) #3 HAIRPIN	6		

NOTES:
1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-11 AND ACI 318-14 AND ASSUME MINIMUM 2,500 PSI CONCRETE.
2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
5. WHERE NOTED, MINIMUM CURB/STEMWALL WIDTH IS 6 INCHES WHEN STANDARD STRENGTH ANCHOR BOLT IS USED.
6. USE (1) #3 TIE FOR WSW12 WHEN PANEL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
7. #4 GRADE 40 SHEAR REINFORCEMENT MAY BE SUBSTITUTED FOR WSW SHEAR ANCHORAGE SOLUTIONS.

NO.	DATE	REVISIONS
0	07/01/2016	FIRST RELEASE - 2015 IBC

SIMPSON STRONG-TIE COMPANY, INC.
HOME OFFICE: POSITAS, BLVD.
PLEASANTON, CA 94588
TEL: (800) 999-5099

SIMPSON Strong-Tie® THERE IS NO EQUAL

STRONG-WALL® WSW
ANCHORAGE DETAILS
ENGINEERED DESIGNS

SIMPSON Strong-Tie® THERE IS NO EQUAL

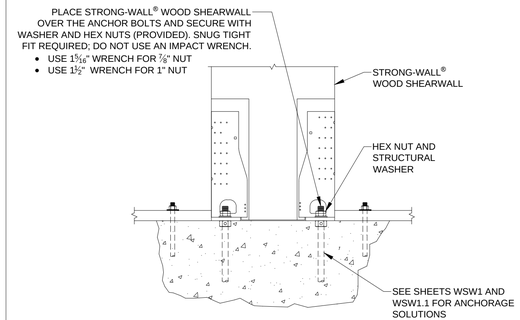
NAME	
DATE	07-01-2016
SCALE	N.T.S.
CHECKED	
SHEET	WSW1
OF	SHEETS
JOB NO.	

STRONG-WALL® WOOD SHEARWALL MODELS

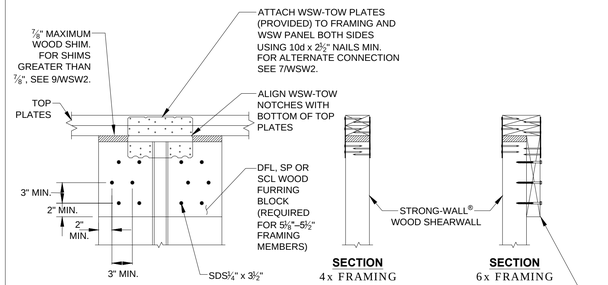
MODEL NO.	W (in.)	H (in.)	ANCHOR BOLTS		TOTAL WALL WEIGHT (lb.)
			QUANTITY	DIA. (in.)	
WSW12x7	12	78	2	7/8	100
WSW18x7	18	78	2	7/8	145
WSW12x7.5	12	85 1/2	2	7/8	110
WSW18x7.5	18	85 1/2	2	7/8	155
WSW12x8	12	93 1/4	2	7/8	115
WSW18x8	18	93 1/4	2	7/8	165
WSW24x8	24	93 1/4	2	1	225
WSW12x9	12	105 1/4	2	7/8	130
WSW18x9	18	105 1/4	2	7/8	185
WSW24x9	24	105 1/4	2	1	245
WSW12x10	12	117 1/4	2	7/8	140
WSW18x10	18	117 1/4	2	7/8	205
WSW24x10	24	117 1/4	2	1	270
WSW12x11	12	129 1/4	2	7/8	150
WSW18x11	18	129 1/4	2	7/8	220
WSW24x11	24	129 1/4	2	1	295
WSW12x12	12	141 1/4	2	7/8	165
WSW18x12	18	141 1/4	2	7/8	240
WSW24x12	24	141 1/4	2	1	320
WSW18x13	18	153 1/4	2	7/8	255
WSW24x13	24	153 1/4	2	1	345
WSW24x14	24	168	2	1	375
WSW24x16	24	192	2	1	425
WSW18x20	18	240	2	7/8	385
WSW24x20	24	240	2	1	520

NOTES:
1. FOR HEIGHTS NOT LISTED, ORDER THE NEXT TALLEST PANEL AND TRIM TO FIT. MINIMUM TRIMMED HEIGHT FOR ALL PANELS IS 74⅛".
2. ALL PANELS COME WITH TWO PRE-ATTACHED HOLDOWNS, TWO STANDARD HEX NUTS, TWO STRUCTURAL WASHERS, TWO WSW-TOW PLATES AND INSTALLATION INSTRUCTIONS.
3. ALL PANELS ARE 3½" THICK.

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

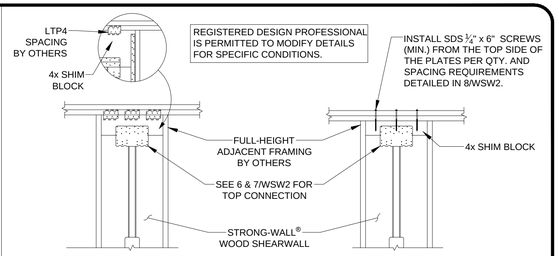


REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

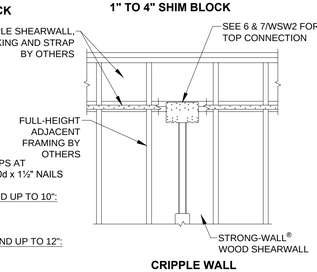


FOR 5⅛"-5½" FRAMING, ATTACH DFL, SP OR SCL WOOD FURRING BLOCK BETWEEN WSW PANEL AND WSW-TOW WITH SDS ¼" x 3½" SCREWS (MIN.) OR 16d COMMON NAILS (8 TOTAL FASTENERS FOR WSW12, 10 FOR WSW18 AND 14 FOR WSW24). MINIMUM BLOCK SIZE IS 1¾" x 11⅞" x WSW PANEL WIDTH.

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



REGISTERED DESIGN PROFESSIONAL SHALL DESIGN AND DETAIL FOR :
1. SHEAR TRANSFER
2. OUT-OF-PLANE LOADING EFFECT
3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT



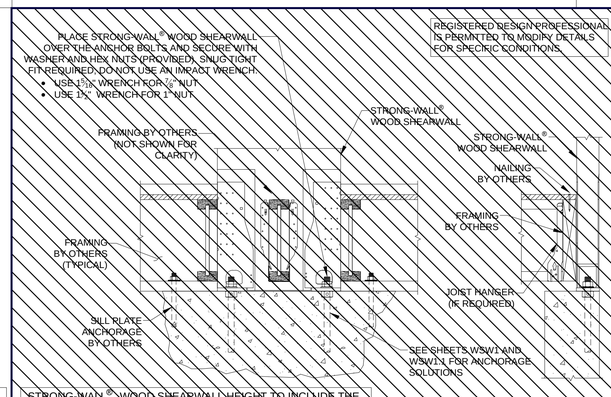
FOR 8" TO 12" BLOCK DEPTHS:
ATTACH SIMPSON STRONG-TIE® CS16 STRAPS AT EDGE OF WSW PANEL (EACH SIDE) USING 10d x 1½" NAILS

SHIM BLOCK HEIGHTS GREATER THAN 8" AND UP TO 10":
- 8 NAILS INTO BLOCK
- 8 NAILS INTO WSW PANEL

SHIM BLOCK HEIGHTS GREATER THAN 10" AND UP TO 12":
- 10 NAILS INTO BLOCK
- 10 NAILS INTO WSW PANEL

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

WSW DESIGNED TO PROVIDE ⅛" GAP BETWEEN LSL AT BASE OF WSW AND CONCRETE. ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.



REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

STRONG-WALL® WOOD SHEARWALL HEIGHT TO INCLUDE THE DEPTH OF THE FLOOR SYSTEM AND SHALL BE INSTALLED DIRECTLY ON THE FOUNDATION. SPECIFY PANEL HEIGHT FROM TOP OF FOUNDATION TO UNDERSIDE OF TOP PLATES OR BEAM.

WSW-TOW ALTERNATE CONNECTION KIT		
MODEL NO.	FASTENER QUANTITY	
	SD #10 x 1½"	SDS ¼" x 6"
WSW-TOW12KT	20	2
WSW-TOW18KT	28	4
WSW-TOW24KT	40	5

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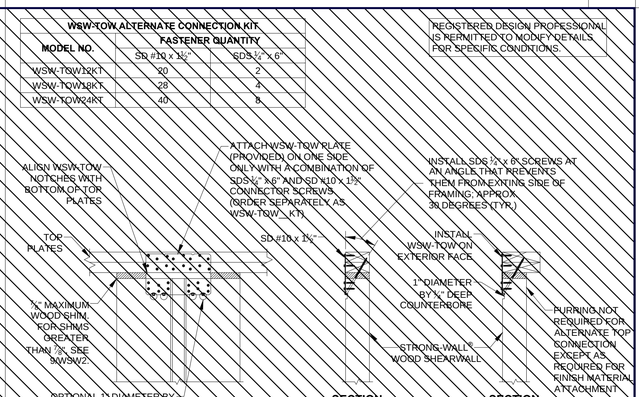
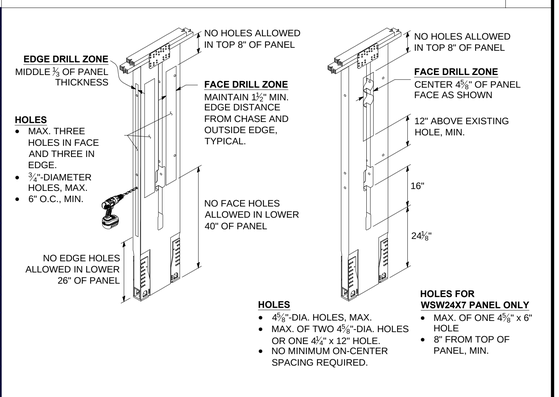




ALLOWABLE SMALL HOLES FACE AND EDGE DRILL ZONES

ALLOWABLE LARGE HOLES IN ADDITION TO ALLOWABLE SMALL HOLES

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

WHEN WSW-PS STRAPS OMITTED, ALLOWABLE SHEAR VALUES FOR STANDARD PANEL APPLY.

GARAGE HEADER ROUGH OPENING HEIGHT		
MODEL NO.	H CURB	ROUGH OPENING HEIGHT
WSW12x7	6½"	6'-11½"
WSW18x7	6"	7'-0"
WSW24x7		
WSW12x7.5	6"	7'-1½"
WSW18x7.5		
WSW24x7.5		
WSW12x8	6½"	8'-2½"
WSW18x8	6"	8'-3½"
WSW24x8		

NOTES:
1. IF REQUIRED ROUGH OPENING HEIGHT EXCEEDS TABLE VALUE, SPECIFY NEXT TALLER PANEL AND TRIM AS NECESSARY. THE STRONG-WALL® WOOD SHEARWALL MAY BE TRIMMED TO A MINIMUM HEIGHT OF 74⅛". PURRINS DOWN GARAGE HEADER MAY BE REQUIRED FOR CORRECT ROUGH OPENING HEIGHT.

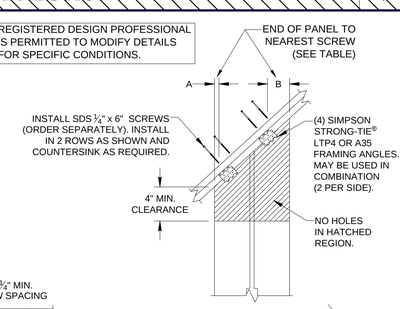
FOR GARAGE WALL OPTION 2, REGISTERED DESIGN PROFESSIONAL SHALL DESIGN AND DETAIL FOR :
1. SHEAR TRANSFER
2. OUT-OF-PLANE LOADING EFFECT
3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT

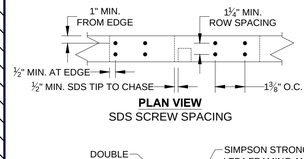
QTY. OF SDS¼" x 6" SCREWS REQ'D.	
WSW12	4
WSW18	8
WSW24	12

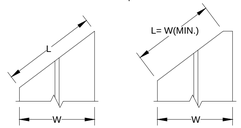
REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

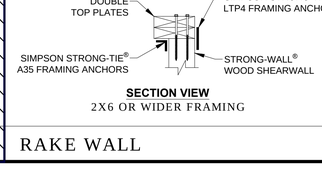
EDGE DISTANCE FOR SCREWS		
SLOPE	A (in.)	B (in.)
0:12-4:12	2	3
5:12-8:12	1 1/2	4 1/2
9:12-12:12	1/2	5 1/2

NOTES:
1. MAINTAIN END DISTANCES TO PREVENT SCREWS FROM PENETRATING THROUGH THE OUTER EDGES.
2. INSTALL SCREWS PERPENDICULAR TO THE TOP PLATE.
3. EDGE DISTANCES ASSUME DOUBLE TOP PLATE.









INSTALLATION NOTES :
1. ACTUAL CUT LENGTH (L) MUST BE GREATER THAN OR EQUAL TO PANEL WIDTH (W).
2. THIS DETAIL APPLICABLE FOR SLOPES UP TO 12:12.
3. PANELS TALLER THAN 12' MUST BE DESIGNED FOR THE APPLICATION.

1. STRONG-WALL WOOD SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY INC."HOME OFFICE: 5956 W. LAS POSITAS BLVD. , PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY INC." IS AN ISO 9001-2008 REGISTERED COMPANY.
2. USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.
3. THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE DESIGNER.
4. ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STRONG-WALL SB SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER FOR CLARIFICATION PRIOR TO CONSTRUCTION.
6. INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE DESIGNER.
7. SIMPSON STRONG-TIE COMPANY INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.
8. ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.
9. SEE ICC-ES ESR-2652 OR CITY OF LOS ANGELES RR25730 AS APPLICABLE FOR ADDITIONAL INFORMATION.

REVISIONS

NO.	DATE	
0	07/01/2016	FIRST RELEASE - 2015 IBC

SIMPSON STRONG-TIE COMPANY, INC.
HOME OFFICE: 5956 W. LAS POSITAS BLVD. PLEASANTON, CA 94588 TEL: (800) 999-5099

SIMPSON Strong-Tie® THERE IS NO EQUAL

STRONG-WALL WSW

FRAMING DETAILS
ENGINEERED DESIGNS

SIMPSON Strong-Tie® THERE IS NO EQUAL

NAME	
DATE	07-01-2016
SCALE	N.T.S.
CHECKED	
SHEET	WSW2
	OF SHEETS
JOB NO.	