

Dann

Residence

RUDOLPH
ARCHITECTS
915 Rucker Avenue Everett Washington
206 226-5588

43945 REGISTERED ARCHITECT
JAMES D. RUDOLPH
STATE OF WASHINGTON

PERMIT SET	03/11/24
REVISION	02/10/24
REVISION	04/13/25
REVISION	xx/xx/xx

A New Residence For

Teddy and Megan Dann

3008 70th Avenue S.E. Mercer Island Washington 98040

General Contractor

XXX XXX XXX

XXXX XXX XXX XX WW XXXXX
(XXX) XXX-XXXX
Licence # XXXXXXXXXX

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Standard Site Plan Notes

1. THE CITY SHALL INSPECT THE INSTALLATION OF ALL WATER, SEWER, STORM AND FOOTING DRAINS PRIOR TO CONTRACTOR BACKFILLING TRENCHES.

2. ROOF AND FOOTING DRAINS ARE TO BE CONNECTED SEPARATELY TO THE STORM DRAIN SYSTEM UNLESS OTHERWISE ALLOWED IN ACCORDANCE WITH THE PLAT CONDITIONS AND THE KING COUNTY SURFACE WATER DESIGN MANUAL OR AS APPROVED BY THE CITY IN WRITING.

3. ALL ROCKERY OR RETAINING WALL DRAINS SHALL BE CONNECTED TO THE STORM DRAIN SYSTEM, DISCHARGED APPROPRIATELY PER KCSWDM, OR AS APPROVED BY THE CITY IN WRITING.
4. ANY CHANGES TO THE APPROVED PLANS MUST BE APPROVED BY THE CITY IN WRITING.

5. NOTE: ANY WALL OVER 4 FEET IN HEIGHT, OR WITH A SURCHARGED LATERAL LOAD, MUST BE ACCOMPANIED BY AN ENGINEER'S STAMP. WALLS SHALL NOT BE USED TO SUPPORT DRIVEWAYS OR SIDEWALKS UNLESS ACCOMPANIED BY AN ENGINEER'S STAMP.
6. CONSTRUCTION HOURS ARE 7:00 AM TO 8:00 PM ON WEEKDAYS AND 9:00 AM TO 6:00 PM ON SATURDAYS & HOLIDAYS. WORK IS NOT ALLOWED ON SUNDAYS.

7. NO MATERIALS OR EQUIPMENT SHALL BE PLACED OR STORED ON PUBLIC STREETS AT ANY TIME.

8. NO WORK IS ALLOWED WITHIN THE PUBLIC RIGHT-OF-WAY UNTIL A RIGHT-OF-WAY PERMIT HAS BEEN ISSUED AND THE CITY HAS BEEN NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF STARTING WORK WITHIN THE RIGHT-OF-WAY, PERMIT

9. ALL PROJECTS ARE REQUIRED TO SUBMIT REQUESTS FOR VARIANCES TO THE CITY INTERIM PUBLIC WORKS STANDARDS (WITH RESPECT TO DRIVEWAY SLOPE, WIDTH AND LOCATION) IN WRITING. DETAILED DRAWING SHALL ACCOMPANY REQUESTS IF NECESSARY.

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Permit Number

XXXX-XXXX-XXXX

NOTE :
Per WSEC R402.4, The building thermal Envelope shall be constructed to limit air leakage. The results of the test shall be signed by the party conducting the test and provided to the code official (R402.4.1.2).
Per WSEC R403.1.1, at least one thermostat per dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule.
Per WSEC R403.2.2, Ducts, air handlers, and filter boxes shall be sealed.
Per WSEC R404.1, A minimum of 90 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps.

NOTE :
PER MICC A107.1 all new construction requires a NFPA 13d Fire Sprinkler System. In addition due to roadway width deficiency a NFPA 72-Chapter 29
Monitored Fire Alarm System will be required per NFPA and CoMI Standards. Note this may take the place of a "line voltage"
smoke detection system per IRC 314

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September 27, 2024

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WINDOW SCHEDULE

Note: See Section For Mullion Placement

MARK	SIZE			S.F.	DESCRIPTION		MANUFACTURER & u Value	u	ROOM	COMMENTS
NORTH										
N1	3'- 2" x 6' - 0"	3.16	6.00	18.96	Fixed TDL		Kolbe Vistalux WD	0.28	104	Contemporary Nail Fin
N4 / W6	3'- 6" x 5' - 6" X 1 '- 8" x 5' - 6"	3.50	5.50	19.25	Fixed Corner TDL		Kolbe Vistalux WD	0.28	204	Contemporary Nail Fin
N5	5'- 0" x 5' - 6"	5.00	5.50	27.50	French Casement TDL	Egress	Kolbe Vistalux WD	0.28	203	Contemporary Nail Fin Provide Screen
N6 / W7	3'- 6" x 5' - 6" X 3' - 0" x 5' - 6"	3.50	8.41	29.44	Fixed Corner TDL		Kolbe Vistalux WD	0.28	203	Contemporary Nail Fin
				95.15	**Sub Total**					
EAST										
E1	5'- 0" x 4' - 3"	5.00	4.25	21.25	French Casement TDL	Egress	Kolbe Vistalux WD	0.28	002	Contemporary Nail Fin Provide Screen
E2	5'- 0" x 6' - 0"	5.00	6.00	30.00	French Casement TDL	Egress	Kolbe Vistalux WD	0.28	105	Contemporary Nail Fin
E3	6'- 0" x 4' - 0" Verify	6.00	4.00	24.00	Fixed	S.G.	Kolbe Vistalux WD	0.28	010	Contemporary Nail Fin
E8	5'- 0" x 5' - 6"	5.00	5.50	27.50	French Casement TDL	Egress	Kolbe Vistalux WD	0.28	114	Contemporary Nail Fin Provide Screen
E10	6- 0" x 16' - 6"	6.00	16.50	99.00	Fixed TDL Verify	S.G.	Kolbe Vistalux WD	0.28	110	Contemporary Nail Fin
E11	5'- 0" x 5' - 6"	5.00	5.50	27.50	French Casement TDL	Egress	Kolbe Vistalux WD	0.28	206	Contemporary Nail Fin Provide Screen
				178.00	**Sub Total**					
SOUTH										
S3 / W9	3'- 6" x 5'- 6" X 3' - 0" x 5' - 6"	3.50	5.50	19.25	Fixed Corner TDL		Kolbe Vistalux WD	0.28	203	Contemporary Nail Fin
S4	2'- 6" x 5'- 6"	3.00	5.50	16.50	Casement TDL		Kolbe Vistalux WD	0.28	203	Contemporary Nail Fin Provide Screen
S5 / W10	3'- 6" x 2'- 8 1/2" X 3 '- 0" x 2' - 8 1/2"	3.50	2.70	9.45	Fixed Corner Align Match Mullion Layout		Kolbe Vistalux WD	0.28	207	Contemporary Nail Fin
				45.20	**Sub Total**					
WEST										
W1	6'- 0" x 1' - 6"	6.00	1.50	9.00	Awning		Kolbe Vistalux WD	0.28	003	Contemporary Nail Fin Provide Screen
W2	4'- 0" x 6' - 0"	4.00	6.00	24.00	Fixed TDL		Kolbe Vistalux WD	0.28	104	Contemporary Nail Fin
W3	7'- 8" x 8'- 5"	7.66	6.00	45.96	Fixed TDL Full Height Mulled With Spandrall Glass W8 At Upper Floor Line		Kolbe Vistalux WD	0.28	104	Contemporary Nail Fin
W4	4'- 0" x 6' - 0"	4.00	6.00	24.00	Fixed TDL		Kolbe Vistalux WD	0.28	104	Contemporary Nail Fin
W6 / N4	1'- 8" x 5' - 6" X 3 '- 6" x 5' - 6"	3.50	5.50	19.25	Fixed Corner TDL		Kolbe Vistalux WD	0.28	204	Contemporary Nail Fin
W7 / N6	3'- 0" x 5' - 6" X 3' - 6" x 5' - 6"	3.50	8.41	29.44	Fixed Corner TDL		Kolbe Vistalux WD	0.28	203	Contemporary Nail Fin
W8	7'- 8" x 10'- 7" S.G.	7.66	10.58	81.04	Fixed TDL Full Height Mulled With Spandrall Glass W3 At Upper Floor Line		Kolbe Vistalux WD	0.28	203	Contemporary Nail Fin
W9 / S3	3'- 0" x 5' - 6" X 3' - 6" x 5' - 6"	3.50	8.41	29.44	Fixed Corner TDL		Kolbe Vistalux WD	0.28	203	Contemporary Nail Fin
W10 / S5	3'- 0" x 2'- 8 1/2" X 3 '- 6" x 2' - 8 1/2"	3.00	2.70	8.10	Fixed Corner Align Match Mullion Layout		Kolbe Vistalux WD	0.28	207	Contemporary Nail Fin
W11	5'- 0" x 5' - 6"	5.00	5.50	27.50	French Casement TDL	Egress	Kolbe Vistalux WD	0.28	201	Contemporary Nail Fin Provide Screen
				194.76	**Sub Total**					
SKYLIGHTS										
R1	2'- 0" x 2' - 0"	2.00	2.00	4.00	Opberabal		Velux	0.28	201	Contemporary Nail Fin Provide Screen
					Sub Total					
				4.00	**TOTAL S.F. GLASS SKYLIGHT**					

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September 20, 2024

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DOOR SCHEDULE

LOWER FLOOR

MARK	SIZE	DESCRIPTION	MATERIAL	FINISH	STOPS	RATING	HDW.
001 A	3'- 0" x 7'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3			Lockset Automatic Hinge
001 B	2'- 6" x 7'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Passage
002 A	2'- 6" x 7'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Passage
002 B	2'- 6" x 7'- 0" x 1 3/4"	Pair Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Dummy W/ Roller Catch
004 A	16'- 0" x 7'- 0" x 1 3/4"	Custom Four Section Carage Door	Wood Clad	P3			Horizontal 1x5 Clear Re-Sawn Cedar Graded Vjoint Exposure Stain
005 A	2'- 6" x 7'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Passage
006 A	2'- 6" x 7'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Lockset
007 A	2'- 2" x 7'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3			Privacy
007 B	5'- 0" x 7'- 10" x 1/2"	Aggilite Bronson Estate Series Swing	Glass	Wax		Temp.	1/2" Rimless Estate Series

MAIN FLOOR

MARK	SIZE	DESCRIPTION	MATERIAL	FINISH	STOPS	RATING	HDW.
100 A	5'- 0" x 9'- 0" x 2 1/4"	Custom Pivot 10 Panel W/ Ono Vertical Glass Panel	Wood Solid Core W/ Glass	P3	Floor	Temp.	Morticed Lockset W/ Dead Bolt Insul Glass and SS Accents See Details
101 A	13'- 11" x 9'- 0" x 1 3/4"	XOOX Kolbe Vistalux Sliding Glass Door	Wood /Glass Alu Clad	P3	Wall	Temp.	Factory Hardware
105 A	13'- 11" x 9'- 0" x 1 3/4"	Kolbe Vistalux Pocked 4 Panel Sliding Glass Door	Wood Solid Core	P3	Wall		Factory Hardware
107 A	2'- 6" x 8'- 0" x 1 3/4"	Pair Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Dummy W/ Roller Catch
108 A	2'- 6" x 8'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Privacy
109 A	2'- 6" x 8'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Lockset

UPPER FLOOR

MARK	SIZE	DESCRIPTION	MATERIAL	FINISH	STOPS	RATING	HDW.
200 A	2'- 6" x 7'- 0" x 1 3/4"	Store Door Kolbe Vistalux Patio Mulled To A Transom 2'-8" x 2'-8"	Wood /Glass Alu Clad	P3	Wall	Temp.	Lockset 3 Point Latch
201 A	2'- 6" x 8'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Passage
201 B	2'- 6" x 8'- 0" x 1 3/4"	Pair Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Dummy W/ Roller Catch
203 A	2'- 6" x 8'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Lockset
203 B	2'- 8" x 7'- 0" x 1 3/4"	Store Door Kolbe Vistalux Patio Mulled To A Transom 2'-10" x 2'-8"	Wood /Glass Alu Clad	P3	Wall	Temp.	Lockset 3 Point Latch
204 A	2'- 6" x 8'- 0" x 1 3/4"	Store Door Pocket	Wood Solid Core	P3	Wall		Passage Heavy Duty Pocket Track Obscure Milk Glass
204 B	2'- 6" x 8'- 0" x 1 3/4"	Store Door Pocket	Wood Solid Core	P3	Wall		Privacy Heavy Duty Pocket Track Obscure Milk Glass
204 C	6'- 0" x 9'- 0" x 1/2"	Aggilite Bronson Estate Series Barn	Glass	Wax		Temp.	1/2" Rimless 1'- 9" Corner Estate Series
205 A	2'- 6" x 8'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Passage Heavy Duty Pocket Track Obscure Milk Glass
206 A	2'- 6" x 8'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Passage
206 B	1'- 6" x 8'- 0" x 1 3/4"	Pair Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Dummy W/ Roller Catch
207 A	2'- 6" x 8'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Privacy
207 B	5'- 0" x 9'- 0" x 1/2"	Aggilite Bronson Estate Series Barn	Glass	Wax		Temp.	1/2" Rimless Estate Series
208 A	2'- 6" x 8'- 0" x 1 3/4"	Five Flat Panel Square Stops	Wood Solid Core	P3	Wall		Passage

Applicable Codes

2018 International Building Code (IBC)
2018 International Residential Code (IRC)
2018 International Mechanical Code (IMC)
2018 International Fuel Gas Code (IFGC)
2018 Uniform Plumbing Code (UPC)
2018 International Fire Code (IFC)
. Washington State Energy Code (WCEC)
. ICC/ANSI A117.1-09,
. Accessible and Usable Buildings and
. Facilities, with statewide and City amendments

NOTE :
Air leakage control WSRC M1507.3 Option 2.3
Efficient Ventilation

Other Agencies Phone and Contact Information

FEDERAL GOVERNMENT		
General Information	(Toll Free)	800-726-4995
Environmental Protection Agency	(Toll Free)	800-424-4EPA
	(Local)	206-553-1200
US Army Corps of Engineers	(Regulatory Branch)	206-764-3495
(work in waters of the United States, including adjacent wetlands, piers, bulkheads, fills, etc.)		
US Soil Conservation Service	(Local)	206-764-3325
(soils testing)		
STATE OF WASHINGTON		
General Information	(Toll Free)	800-321-2808
Contractor's License	(Bellevue)	425-990-1400
	(Olympia)	360-956-5226
Contractor Information	(Toll Free)	800-647-0982
Department of Ecology	(Local)	425-649-7000
Department of Fish and Wildlife	(Regional)	425-775-1311
Fisheries Hotline		206-976-3200
Receptionist	(Olympia)	206-902-2200
Department of Labor and Industries	(Electrical)	425-990-1400
South of Renton/Maple Valley Highway		206-248-6630
North of Renton/Maple Valley Highway		206-453-6589
Elevator Permits	(Olympia)	360-902-2200
Department of Natural Resources	(Toll Free)	800-562-6010
KING COUNTY		
Department of Assessments		206-296-7300
Department of Public Health		206-296-4932
Division of Records and Elections		206-296-1570
UTILITIES		
Mercer Island Sewer and Water District		206-xxx-xxxx
OTHER		
Utilities Underground Location Center	(Toll Free)	800-424-5555
***PLEASE** call 2 business days before you dig, utilities mark their lines!*		
Puget Sound Air Pollution Control Agency		206-343-8800
Burn Ban Information	(24 Hour Recording)	800-595-4341

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206 226-5588



PERMIT SET	03/11/24
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REVISION	04/13/25
REVISION	xx/xx/xx

A New Residence For
Teddy and Megan Dann
3008 70th Avenue S.E. Mercer Island Washington 98040

General Contractor
XXX XXX XXX
xxxx- xxx xxx xx xx xxxxx
(xxx) xxx-xxxx
Licence # XXXXXXXXXX

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Lot Slope Calculation.

HIGH POINT ELEVATION SOUTH EAST CORNER 297.70'

LOW POINT ELEVATION SOUTH WEST CORNER - 283.20'

LOT SLOPE = ELEV. DIFFERENCE 13.50'
DIVIDED BY LENGTH

DISTANCE BETWEEN POINTS 99.96'

13.50 / 99.96 = 13.50 %

Note :

Gross Floor Area Allowed is adjusted Zone R- 8.4 40 %
Allowances 3.a. The Gross Floor Area for lots with an area of less than 7,500 sq.ft. or less may be the lesser of 3,000 sq.ft. or 45% of the Lot Area

Lot Coverage Calculations.

AREA OF LOT:	5,971.00	SQ. FT.
ASSESSORS PARCEL NUMBER:	# 1745013115	
AREA OF LOT COVERAGE: 40% MAX ALLOWED	2,388.40	SQ. FT.
AREA OF MAIN STRUCTURE ROOF AREA	1819.00	SQ. FT.
AREA OF VEHICULAR USE PAVED	362.50	SQ. FT.
AREA COVERED PATIOS AND DECKS	61.00	SQ. FT.
AREA OF TOTAL LOT COVERAGE	2,242.50	SQ. FT.
PERCENTAGE OF TOTAL LOT COVERAGE	37.55 %	ACTUAL
AREA OF HARDSCAPE: 9 % MAX ALLOWED	537.39	SQ. FT. ALLOWED
AREA OF UN-USED LOT COVERAGE: 2.45% ALLOWED	146.29	SQ. FT. 683.69 SQ.FT. = 11.45%
AREA OF UNCOVERED DECKS	132.75	SQ. FT.
AREA OF WALKWAYS	302.75	SQ. FT
AREA OF STAIRS	89.75	SQ. FT
AREA OF RETAINING WALLS & ROCKERIES	158.00	SQ. FT
AREA OF TOTAL HARDSCAPE COVERAGE	683.25	SQ. FT.
PERCENTAGE OF TOTAL HARDSCAPE COVERAGE	11.44 %	ACTUAL

Building Heights .

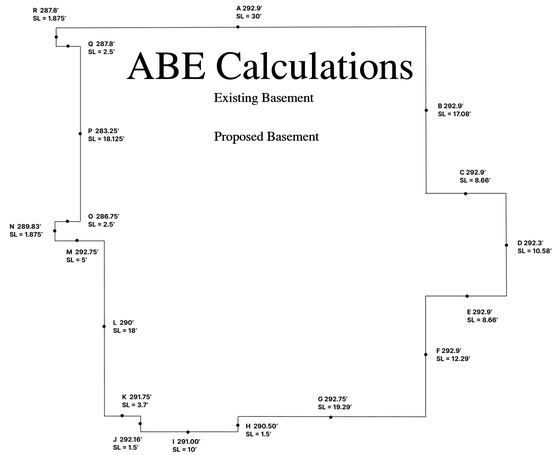
PROPOSED MAIN FLOOR ELEVATION	ELEV.	293.00'
AVERAGE BUILDING ELEVATION M.I.	ELEV.	291.00'
MAX RIDGE ALLOWED MERCER ISLAND	ELEV.	321.00'
PROPOSED TOP OF RIDGE	ELEV.	316.68'
MAX ALLOWED RIDGE DOWNSIDE 30 FT.	ELEV.	313.58'
PROPOSED PLATE DOWNSIDE 30 FT.	ELEV.	313.58'
BASMENT SLAB ELEVATION	ELEV.	283.75'

SEE HEIGHT TABLE A.B.E. CALCULATION UPPER RIGHT THIS PAGE

PROPOSED EL. 293.00' — MAIN FLOOR TOP OF SUB FL.

Legal Description .

LOTS 19 AND 20, BLOCK 7, EAST SEATTLE, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 3 OF PLATS, PAGE 22, IN KING COUNTY, WASHINGTON. DEED #20211206001056



ABE Calculations

Existing Basement

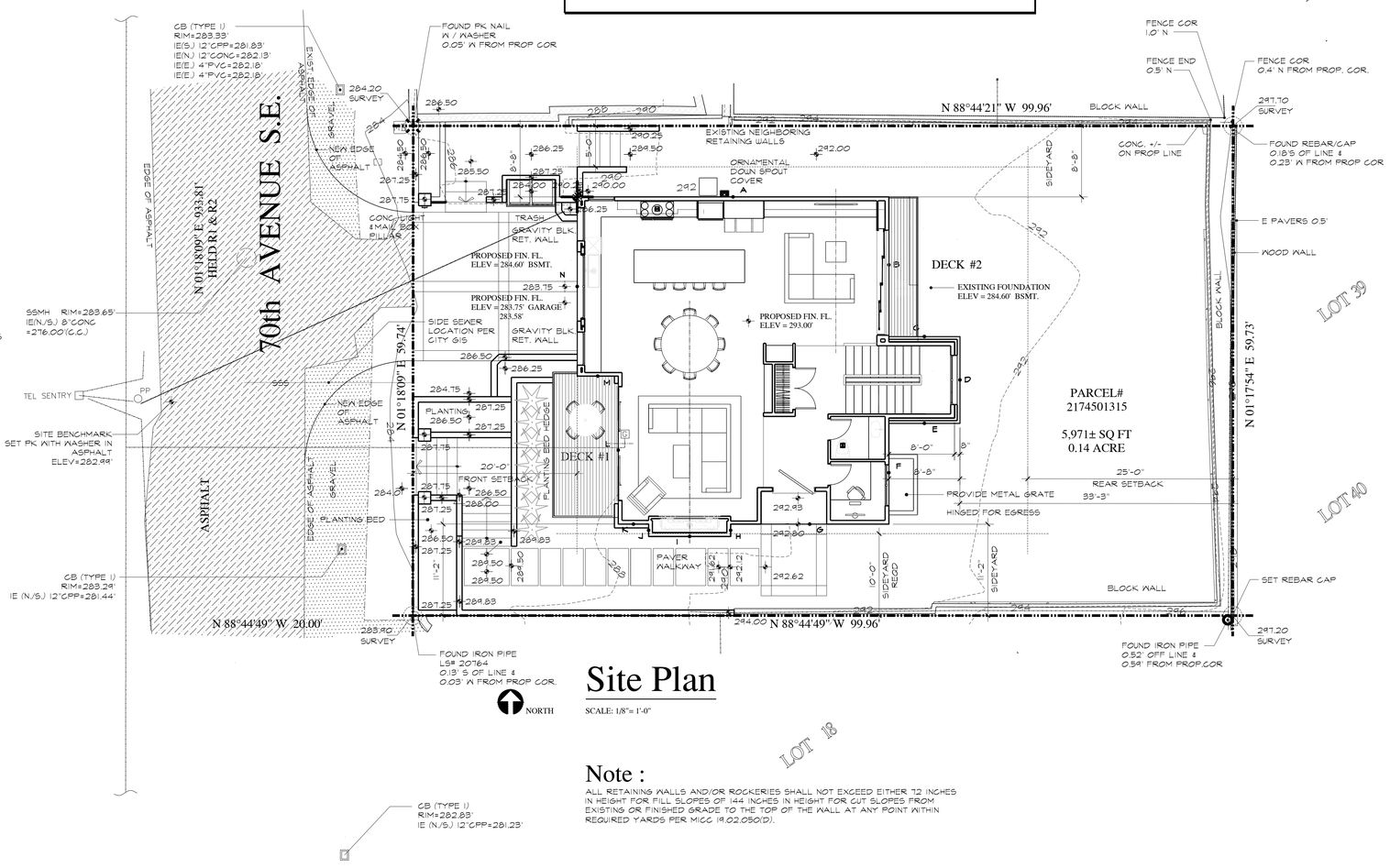
Proposed Basement

Dann Residence 11-Jul-25

Average Building Elevation Calculation Mercer Island

		G = Lowest Grade Elevation	SL = Segment Length	G x SL
Mark	A	292.90	38.00	11130.20
Mark	B	292.90	17.13	5017.38
Mark	C	292.00	8.66	2528.72
Mark	D	292.30	10.50	3069.15
Mark	E	292.90	8.66	2536.51
Mark	F	292.90	12.29	3599.74
Mark	G	292.75	19.29	5647.15
Mark	H	290.50	1.50	435.75
Mark	I	291.00	10.00	2910.00
Mark	J	291.00	1.50	436.50
Mark	K	291.75	3.70	1079.48
Mark	L	290.00	18.00	5220.00
Mark	M	292.75	5.00	1463.75
Mark	N	289.83	1.88	543.43
Mark	O	286.75	2.50	716.88
Mark	P	283.25	18.13	5133.91
Mark	Q	287.75	2.50	719.38
Mark	R	287.80	1.88	539.63
			181.11	52727.54

Avg Building Elevation = 52727.54 / 181.11 = 291.143464 ABE



Site Plan

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

Note :

ALL RETAINING WALLS AND/OR ROCKERIES SHALL NOT EXCEED EITHER 72 INCHES IN HEIGHT FOR FILL SLOPES OF 144 INCHES IN HEIGHT FOR CUT SLOPES FROM EXISTING OR FINISHED GRADE TO THE TOP OF THE WALL AT ANY POINT WITHIN REQUIRED YARDS PER MICC 19.02.050(D).

RUDOLPH
ARCHITECTS
915 Rocker Avenue Everett, Washington
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4.30.25 REGISTERED ARCHITECT JAMES D. RUDOLPH STATE OF WASHINGTON

PERMIT SET 03/11/24
REVISION 02/10/24
REVISION 05/26/25
REVISION xx/xx/xx

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Teddy and Megan Dann

3008 70th Avenue S.E. Mercer Island Washington 98040

General Contractor
XXX XXX XXX
xxxx xxx xxx xx xxxxx
(xxx) xxx-xxxx
Licence # XXXXXXXXXX

A1

Dann Residence 11-Jul-25

Basement Exemption Calculation Mercer Island

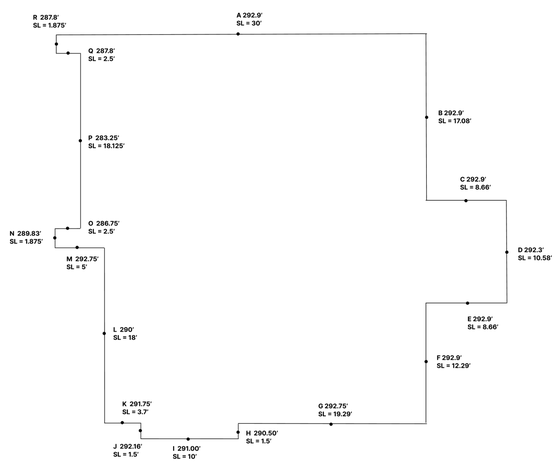
SC Segment Coverage X SL Segment Length

Basement Exemption Calculations

		SC	SL	SC*SL	E = ceiling elev.	G = Lowest Grade Elevation	E - G = Elev y = Lowest Grade Elevation	H = Wall Height	y - h (Net Wall Height)	y / H = Segment Coverage Decimal Point	SC % (100% Maximum)
Mark	A	100.0%	38.000	3800.0	292.16	292.90	-0.74	8.9	9.64	1.08	**100%**
Mark	B	100.0%	17.130	1713.0	292.16	292.90	-0.74	8.9	9.64	1.08	**100%**
Mark	C	100.0%	8.660	866.0	292.16	292.00	0.16	8.9	8.74	0.98	**98%**
Mark	D	100.0%	10.500	1050.0	292.16	292.30	-0.14	8.9	9.04	1.02	**100%**
Mark	E	100.0%	8.660	866.0	292.16	292.90	-0.74	8.9	9.64	1.08	**100%**
Mark	F	100.0%	12.290	1229.0	292.16	292.90	-0.74	8.9	9.64	1.08	**100%**
Mark	G	100.0%	19.290	1929.0	292.16	292.75	-0.59	8.9	9.49	1.07	**100%**
Mark	H	81.4%	1.500	122.0	292.16	290.50	1.66	8.9	7.24	0.81	**81%**
Mark	I	87.0%	10.000	869.7	292.16	291.00	1.16	8.9	7.74	0.87	**87%**
Mark	J	100.0%	1.500	150.0	292.16	291.00	1.16	8.9	7.74	0.87	**87%**
Mark	K	95.4%	3.700	352.9	292.16	291.75	0.41	8.9	8.49	0.95	**95%**
Mark	L	78.0%	18.000	1404.0	292.16	290.00	2.16	8.9	6.74	0.76	**76%**
Mark	M	87.0%	5.000	435.0	292.16	292.75	-0.59	8.9	9.49	1.07	**100%**
Mark	N	73.8%	1.875	138.4	292.16	289.83	2.33	8.9	6.57	0.74	**74%**
Mark	O	39.2%	2.500	98.0	292.16	286.75	5.41	8.9	3.49	0.39	**39%**
Mark	P	0.1%	18.125	2.0	292.16	283.25	8.91	8.9	0.01	0.00	**0%**
Mark	Q	50.4%	2.500	126.1	292.16	287.75	4.41	8.9	4.49	0.50	**50%**
Mark	R	51.0%	1.875	95.6	292.16	287.80	4.36	8.9	4.54	0.51	**51%**
			181.105	15246.9							

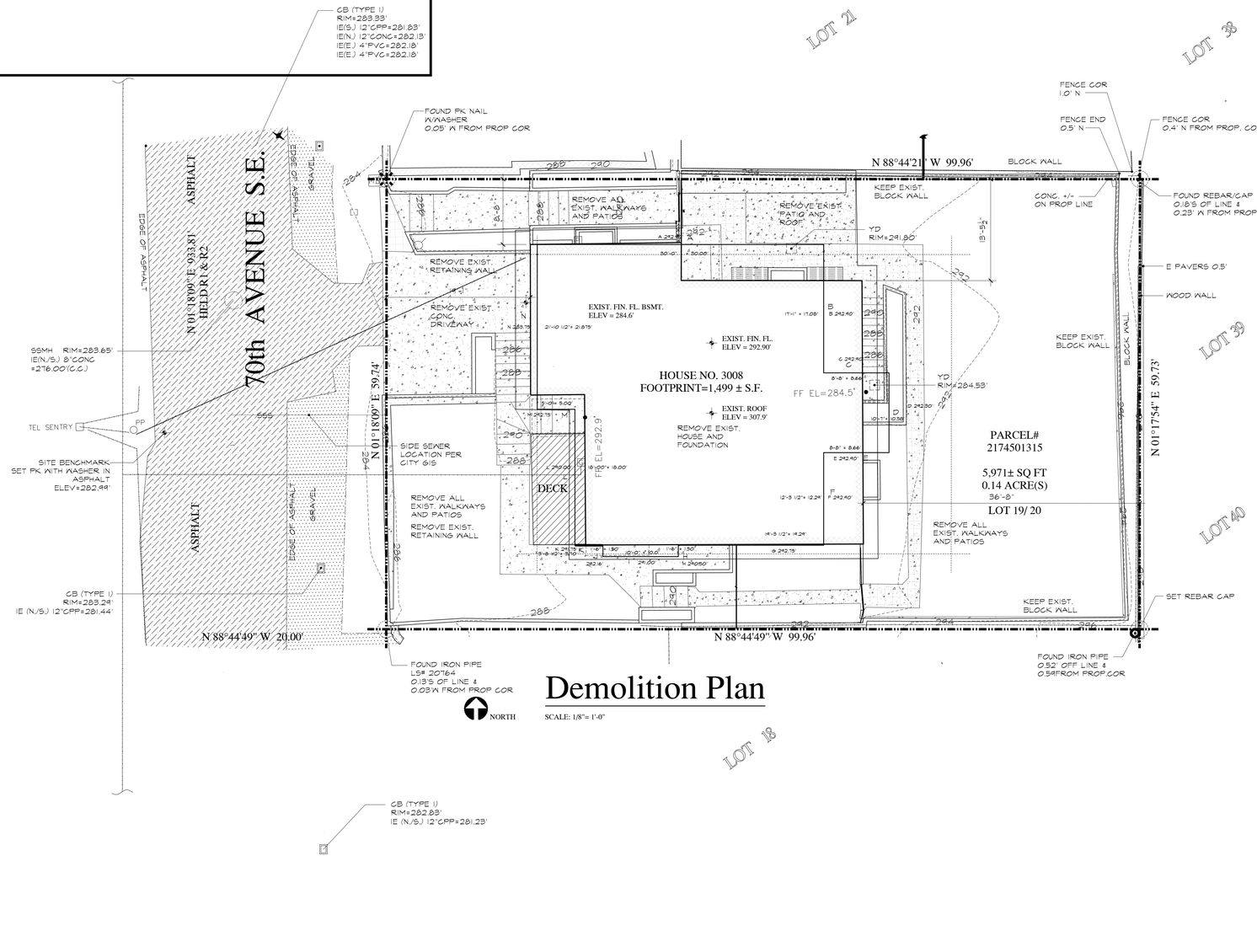
Basement Exclusion %	**84.19%**
Basement Gross SF	1465.50
Excluded Basement SF	1233.78

Upper Floor	**1099.00**
Main Floor	**1483.75**
Excluded Stair	**-117.75**
Basement	**1465.5**
LESS: Excluded Basement	**-1233.78**
Net Basement Area	**231.7**
FAR Allowed	2700
Gross Floor Area FAR	**2696.72**
Under FAR Allowed	**-3.28**



G.F.A. Calculations .

Existing Basement



Demolition Plan

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

RUDOLPH
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915 Rucker Avenue. Everett. Washington
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REGISTERED ARCHITECT
LANCE D. RUDOLPH
STATE OF WASHINGTON
4.30.25

PERMIT SET	03/11/24
REVISION	02/10/24
REVISION	05/26/25
REVISION	xx/xx/xx

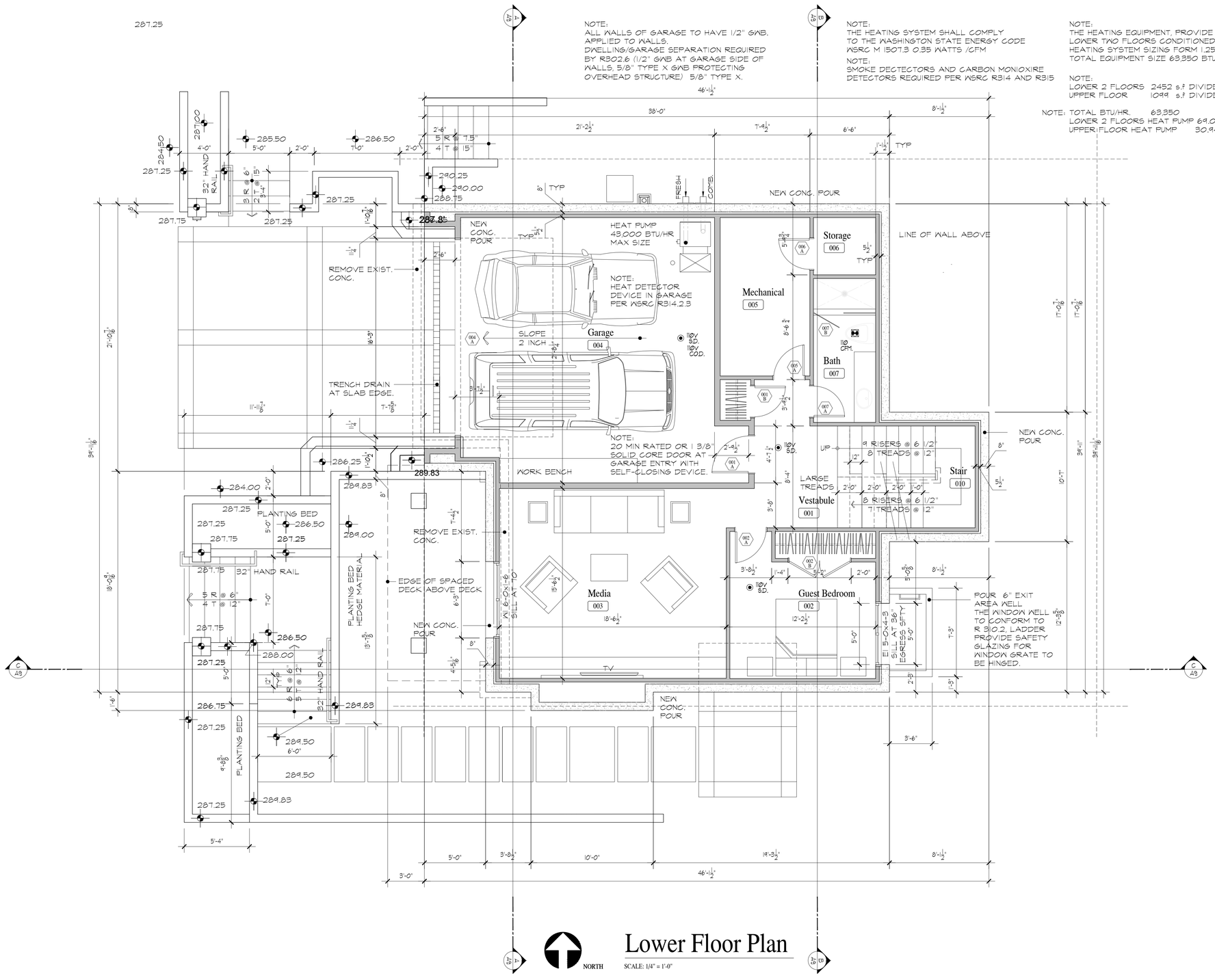
A New Residence For

Teddy and Megan Dann

3008 70th Avenue S.E. Mercer Island Washington 98040

General Contractor
XXX XXX XXX
XXXX XXX XX WW XXXXX
(XXX) XXX-XXXX
Licence # XXXXXXXXX

A2



Lower Floor Plan

NORTH

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

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915 Rucker Avenue. Everett. Washington
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REGISTERED ARCHITECT
JAMES D. RUDOLPH
STATE OF WASHINGTON
4369

PERMIT SET	03/11/24
REVISION	02/10/24
REVISION	05/26/25
REVISION	xx/xx/xx

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xxxx. xxx xxx xx www xxxxx
(xxx) xxx-xxxx
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A3

Main Floor Plan

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

NORTH

RUDOLPH
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915 Rucker Avenue. Everett, Washington
206 226-5588

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REVISION	02/10/24
REVISION	05/26/25
REVISION	xx/xx/xx

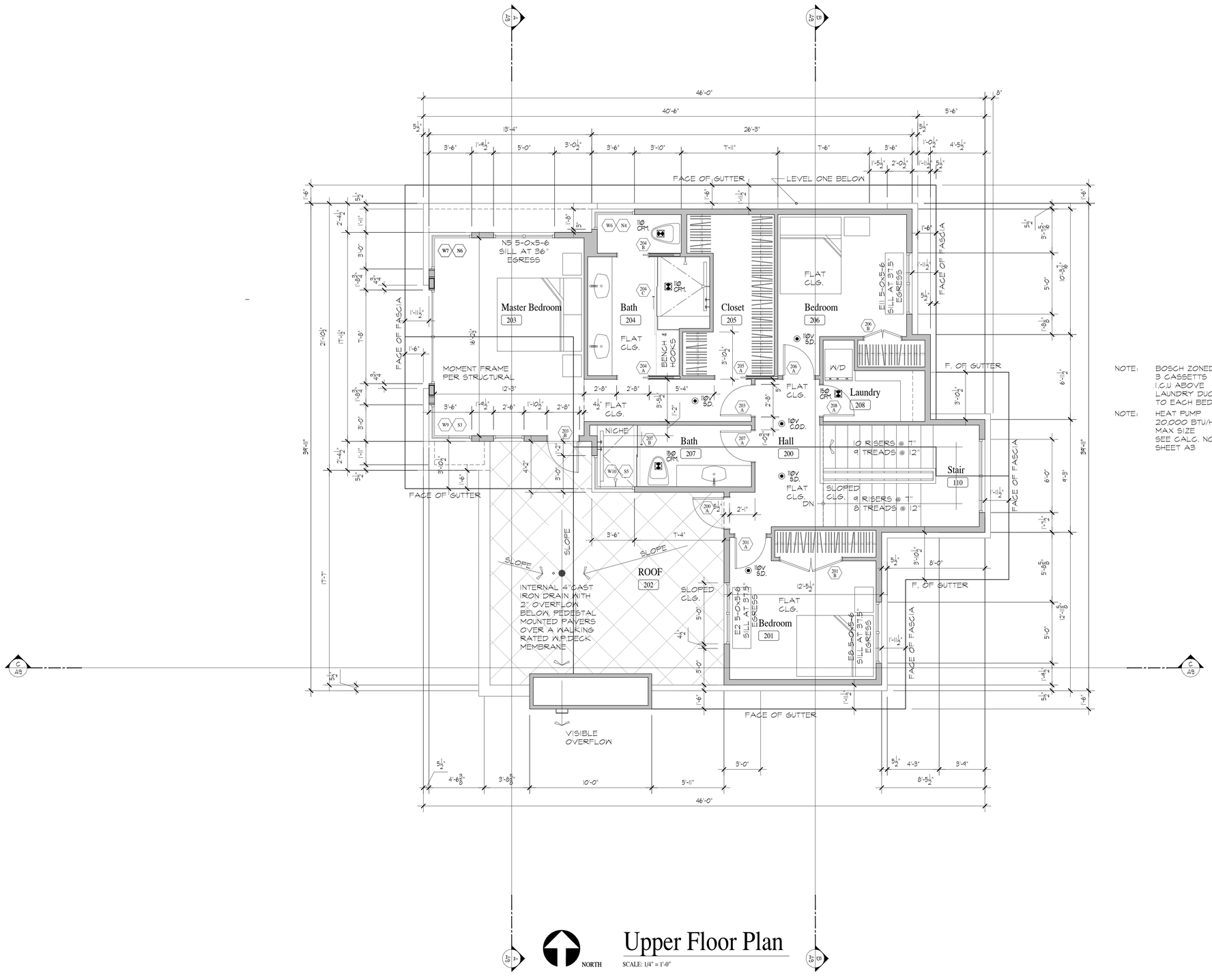
A New Residence For

Teddy and Megan Dann

3008 70th Avenue S.E. Mercer Island Washington 98040

General Contractor
XXX XXX XXX
xxxx. xxx xxx xx ww xxxxx
(xxx) xxx-xxxx
Licence # XXXXXXXXX

A4



NOTE: BOSCH ZONED
3 CASSETTS
I.C.U ABOVE
LAUNDRY DUCTED
TO EACH BEDROOM

NOTE: HEAT PUMP
20,000 BTU/HR
MAX SIZE
SEE CALC. NOTE ON
SHEET A3

NORTH

Upper Floor Plan

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

RUDOLPH

ARCHITECTS

915 Rocker Avenue Everett, Washington
206 226-5588

4.30.24 REGISTERED ARCHITECT JAMES D. RUDOLPH STATE OF WASHINGTON

PERMIT SET	03/11/24
REVISION	02/10/24
REVISION	05/26/25
REVISION	xx/xx/xx

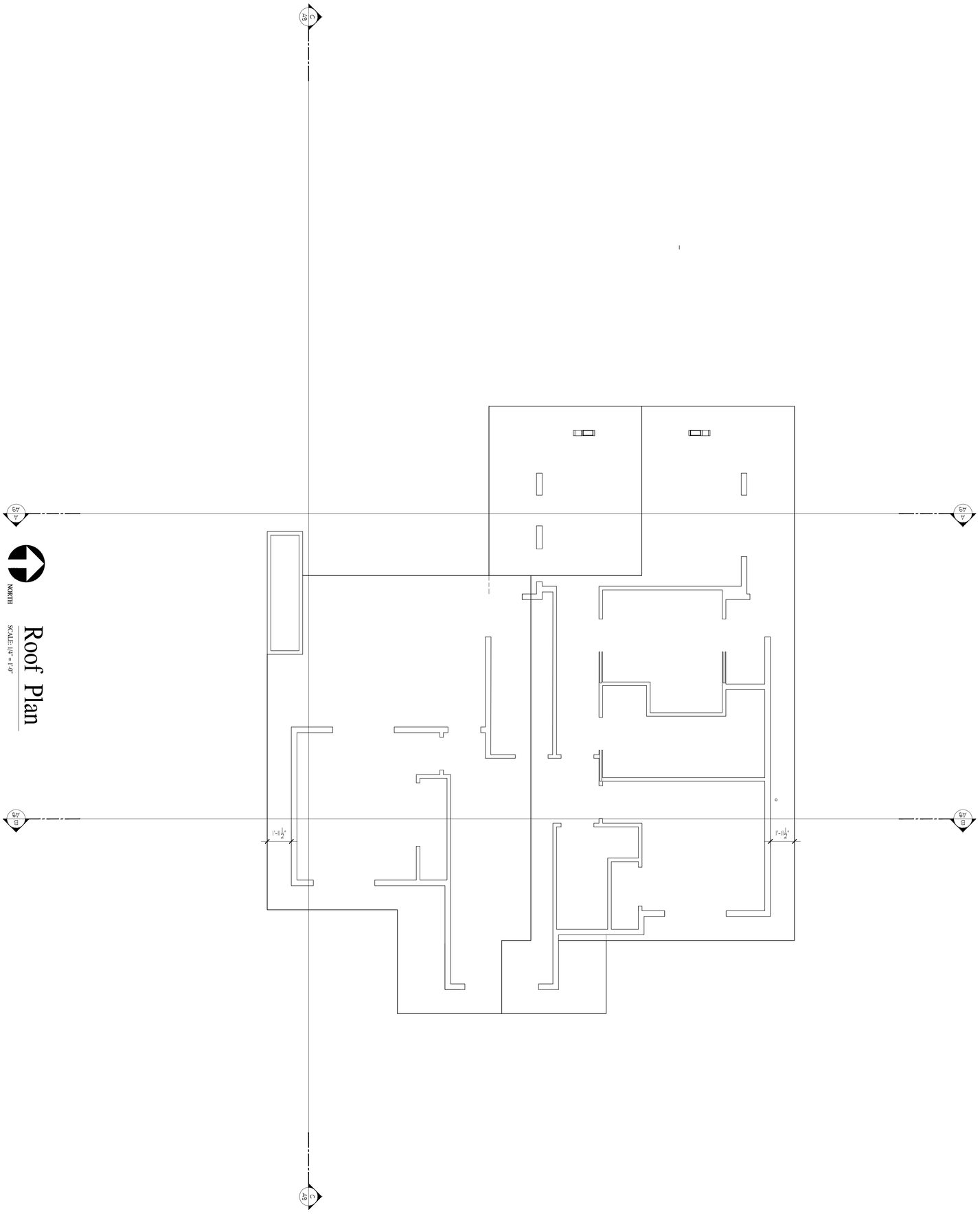
A New Residence For

Teddy and Megan Dann

3008 70th Avenue S.E. Mercer Island Washington 98040

General Contractor
XXX XXX XXX
xxxx. xxx xxx xx wx xxxxx
(xxx) xxx-xxxx
Licence # XXXXXXXXX

A5



Roof Plan

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

A6

General Contractor

XXX XXX XXX

xxxx, xxx xxx xx ww xxxxx
(xxx) xxx-xxxx
Licence # XXXXXXXXX

A New Residence For

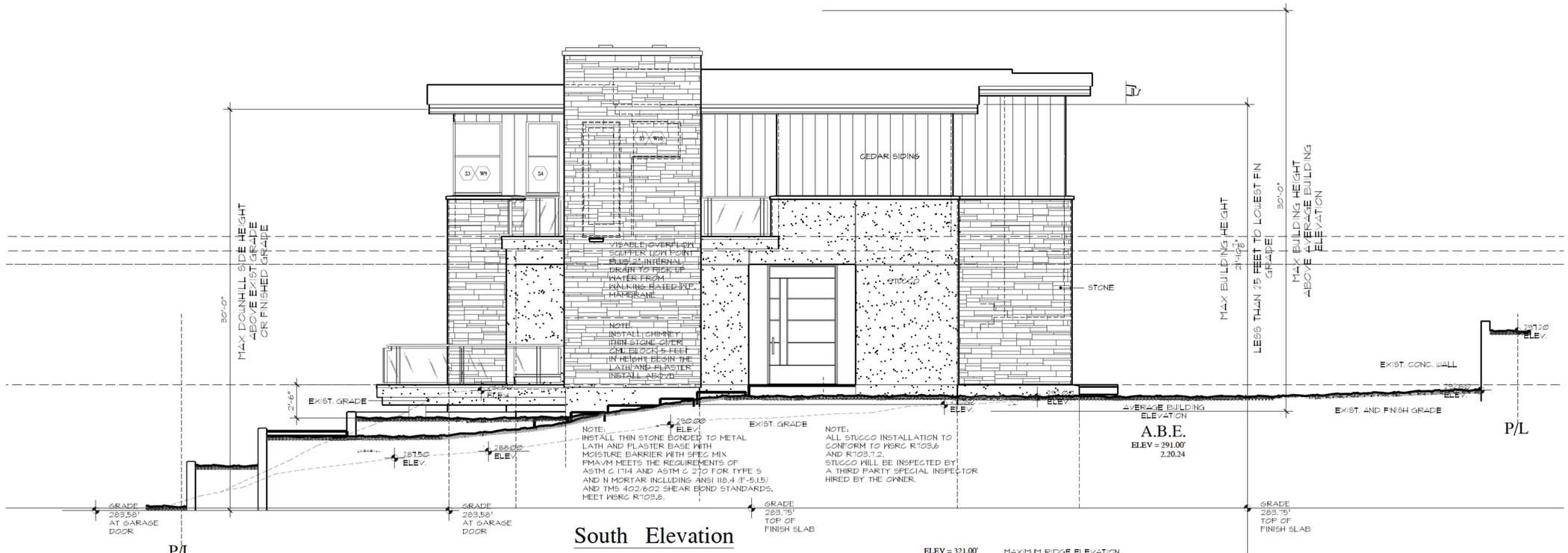
Teddy and Megan Dann

3008 70th Avenue S.E. Mercer Island Washington 98040

PERMIT SET	03/11/24
REVISION	02/10/24
REVISION	05/26/25
REVISION	XX/XX/XX

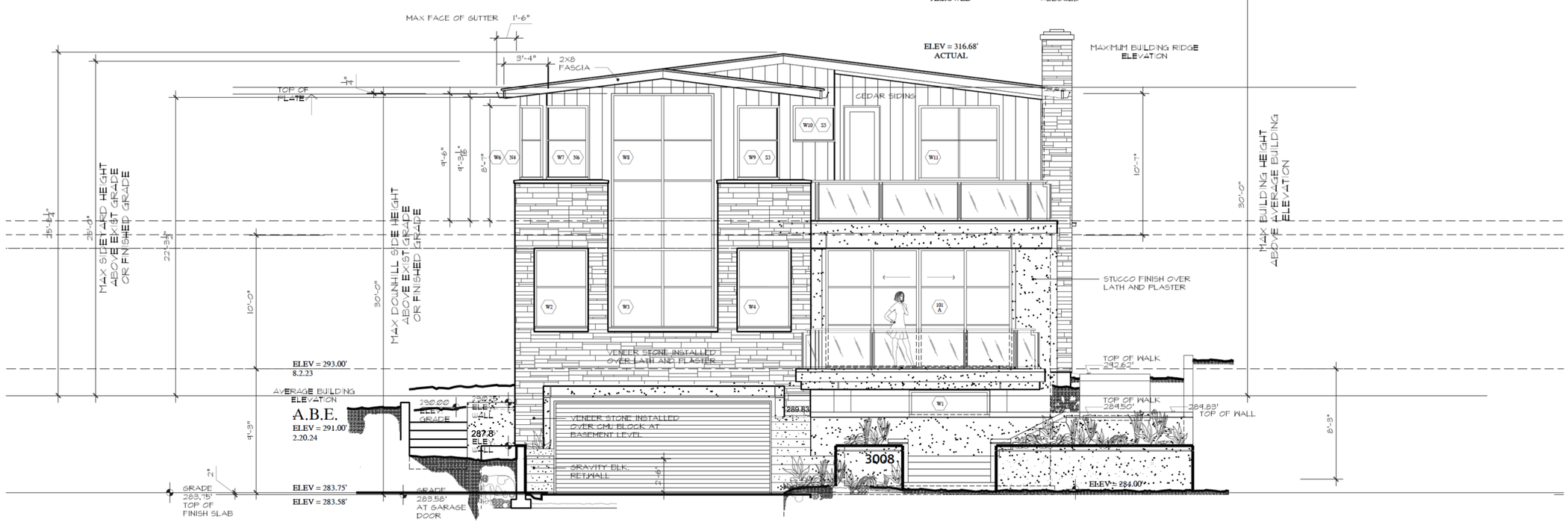
436 REGISTERED ARCHITECT JAMES D. RUDOLPH STATE OF WASHINGTON

RUDOLPH
ARCHITECTS
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206 226-5588



South Elevation

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



West Elevation

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

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PERMIT SET	03/11/24
REVISION	02/10/24
REVISION	05/26/25
REVISION	xx/xx/xx

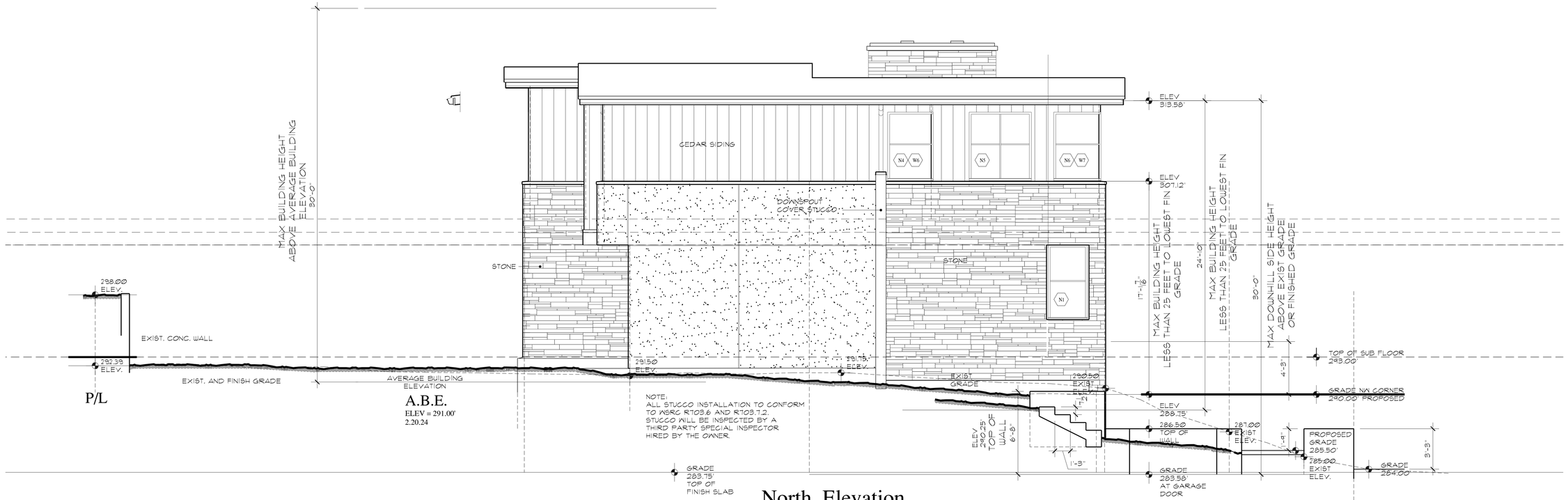
A New Residence For

Teddy and Megan Dann

3008 70th Avenue S.E. Mercer Island Washington 98040

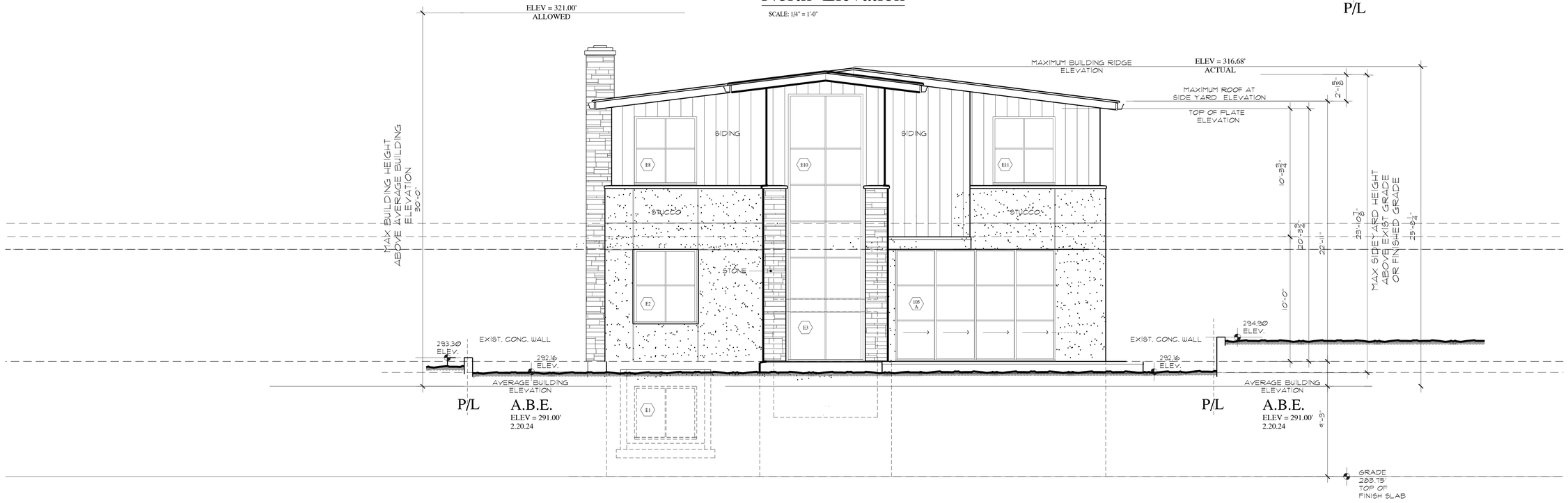
General Contractor
XXX XXX XXX
XXXX XXX XXX XX WW XXXXX
(XXX) XXX-XXXX
License # XXXXXXXXXX

A7



North Elevation

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



East Elevation

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

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REVISION	02/10/24
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REVISION	xx/xx/xx

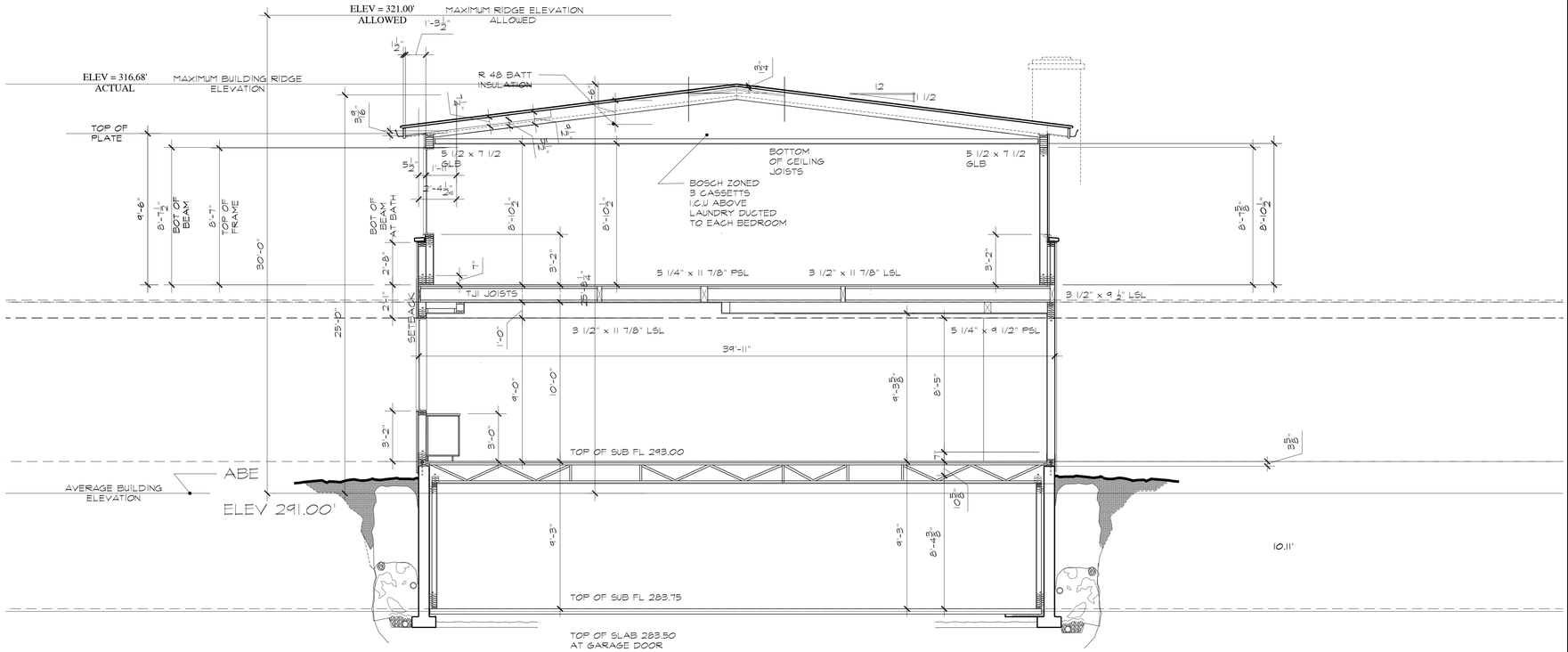
A New Residence For

Teddy and Megan Dann

3008 70th Avenue S.E. Mercer Island Washington 98040

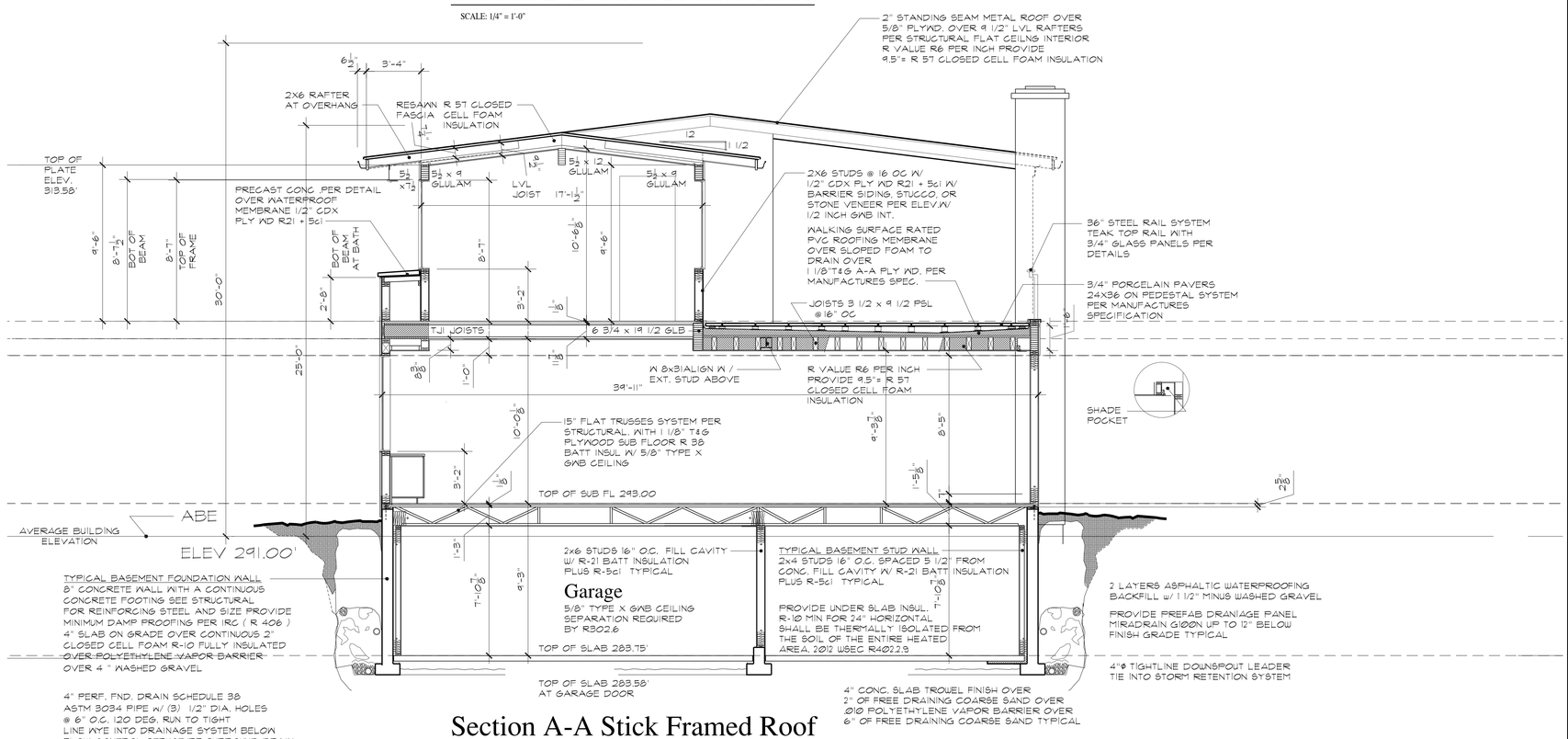
General Contractor
XXX XXX XXX
XXXX XXX XXX XX WW XXXXX
(XXX) XXX-XXXX
License # XXXXXXXXXX

A8



Section B-B Stick Framed Roof

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



Section A-A Stick Framed Roof

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

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STATE OF WASHINGTON
REGISTERED ARCHITECT
4368

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REVISION	04/13/25
REVISION	xx/xx/xx

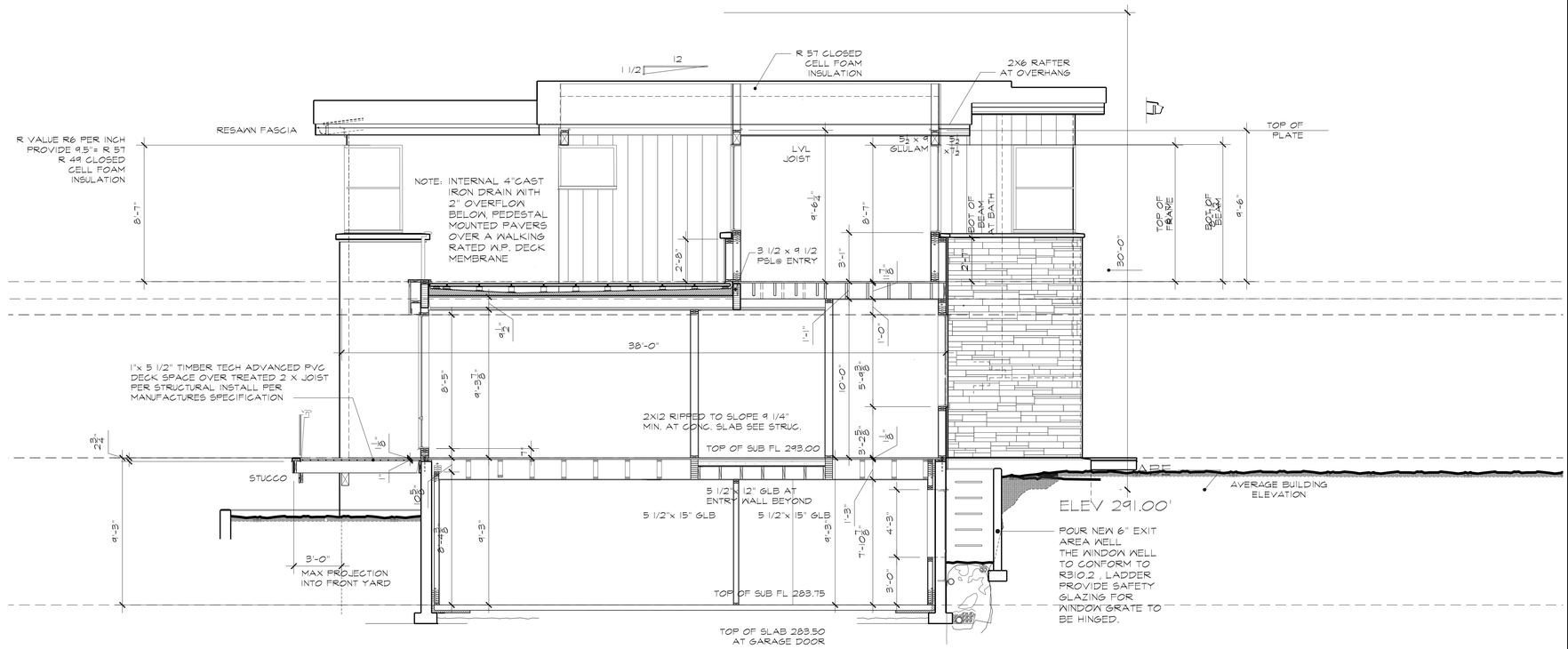
A New Residence For

Teddy and Megan Dann

3008 70th Avenue S.E. Mercer Island Washington 98040

General Contractor
XXX XXX XXX
xxxx xxx xxx xx xxx xxxxx
(xxx) xxx-xxxx
Licence # XXXXXXXXXX

A9



Section C-C

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

ENERGY CREDIT CALCULATION

SEE 2018 W.S.E.C. PRESCRIPTIVE ENERGY CODE COMPLIANCE SINGLE FAMILY

HEATING OPTION SELECTED	CREDITS
OPTION # 2 HEAT PUMP c	1.0 CREDITS
ENERGY OPTIONS SELECTED	
OPTION # 1.4 EFFICIENT BUILDING ENVELOPE	1.0 CREDITS
AIR LEAKAGE CONTROL EFFICIENT VENTILATION	
OPTION # 2.3	1.5 CREDITS
HIGH EFFICIENCY H.V.A.C.	
OPTION # 3.2	1.0 CREDITS
HIGH EFFICIENCY H.V.A.C. DISTRIBUTION SYSTEM	
OPTION # 4.2	1.0 CREDITS
EFFICIENT WATER HEATING	
OPTION # 5.2	0.5 CREDITS
TOTAL CREDITS	6.0 CREDITS

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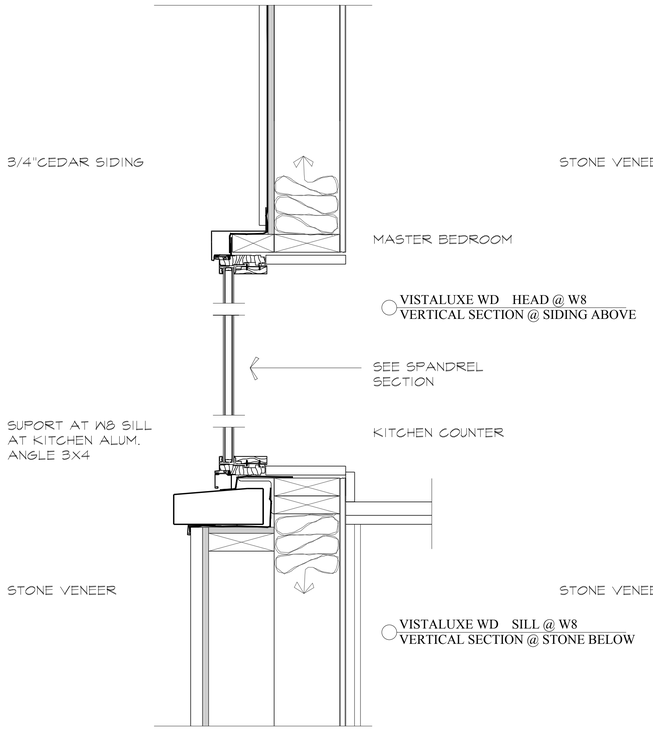
JAMES D. RUDOLPH
REGISTERED ARCHITECT
STATE OF WASHINGTON
4369

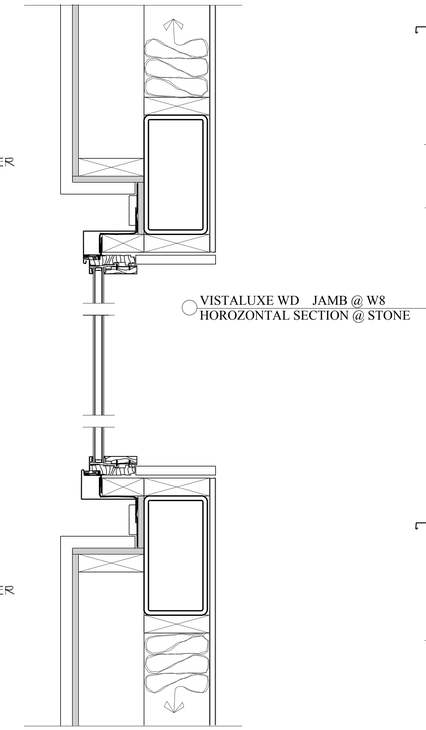
PERMIT SET	03/11/24
REVISION	02/10/24
REVISION	04/13/25
REVISION	xx/xx/xx

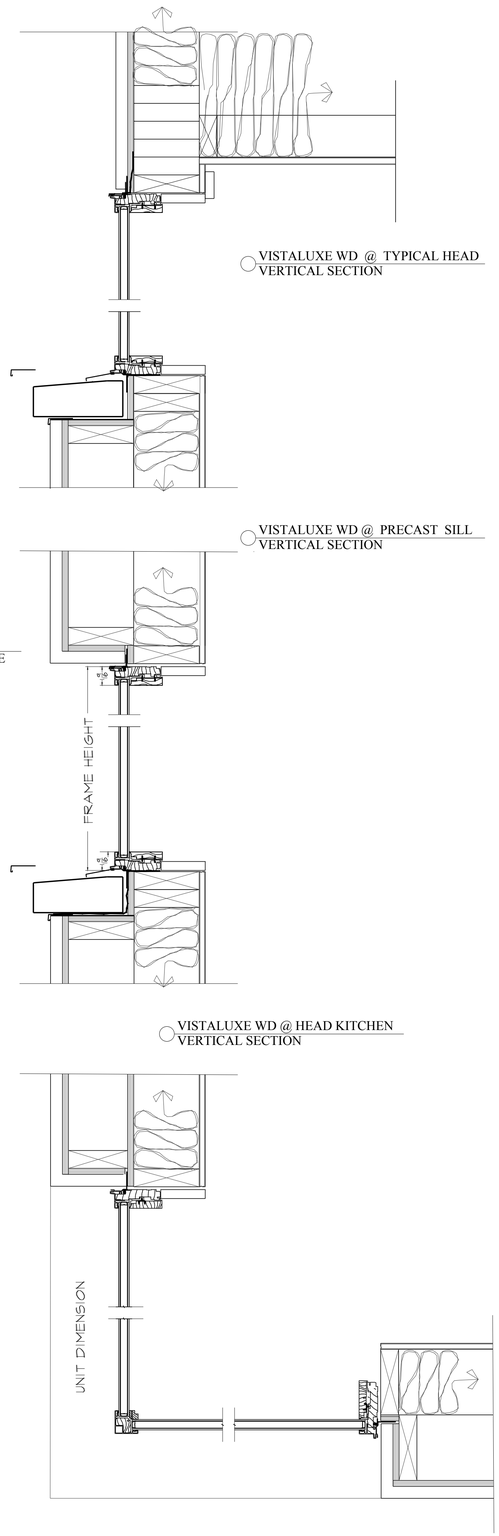
A New Residence For
Teddy and Megan Dann
3008 70th Avenue S.E. Mercer Island Washington 98040

General Contractor
XXX XXX XXX
XXX. XXX XXX XX WW XXXXX
(XXX) XXX-XXXX
Licence # XXXXXXXXXX

A10







RUDOLPH
ARCHITECTS
915 Rucker Avenue. Everett. Washington
206 226-5588

4.30.25 REGISTERED ARCHITECT JAMES D. RUDOLPH STATE OF WASHINGTON

PERMIT SET	03/11/24
REVISION	02/10/24
REVISION	04/13/25
REVISION	xx/xx/xx

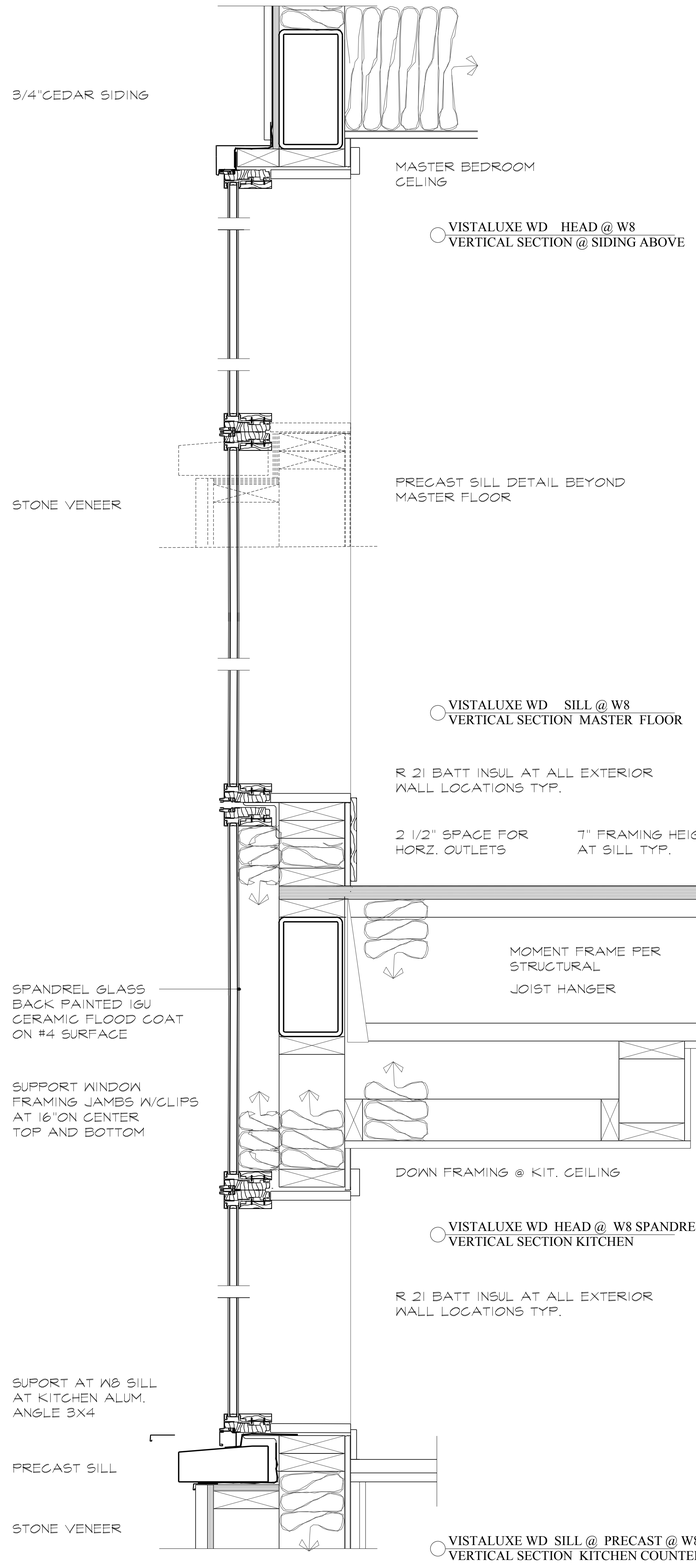
A New Residence For

Teddy and Megan Dann

3008 70th Avenue S.E. Mercer Island Washington 98040

General Contractor
XXX XXX XXX
XXXX. XXX XXX XX WW XXXXX
(XXX) XXX-XXXX
Licence # XXXXXXXXXX

A11

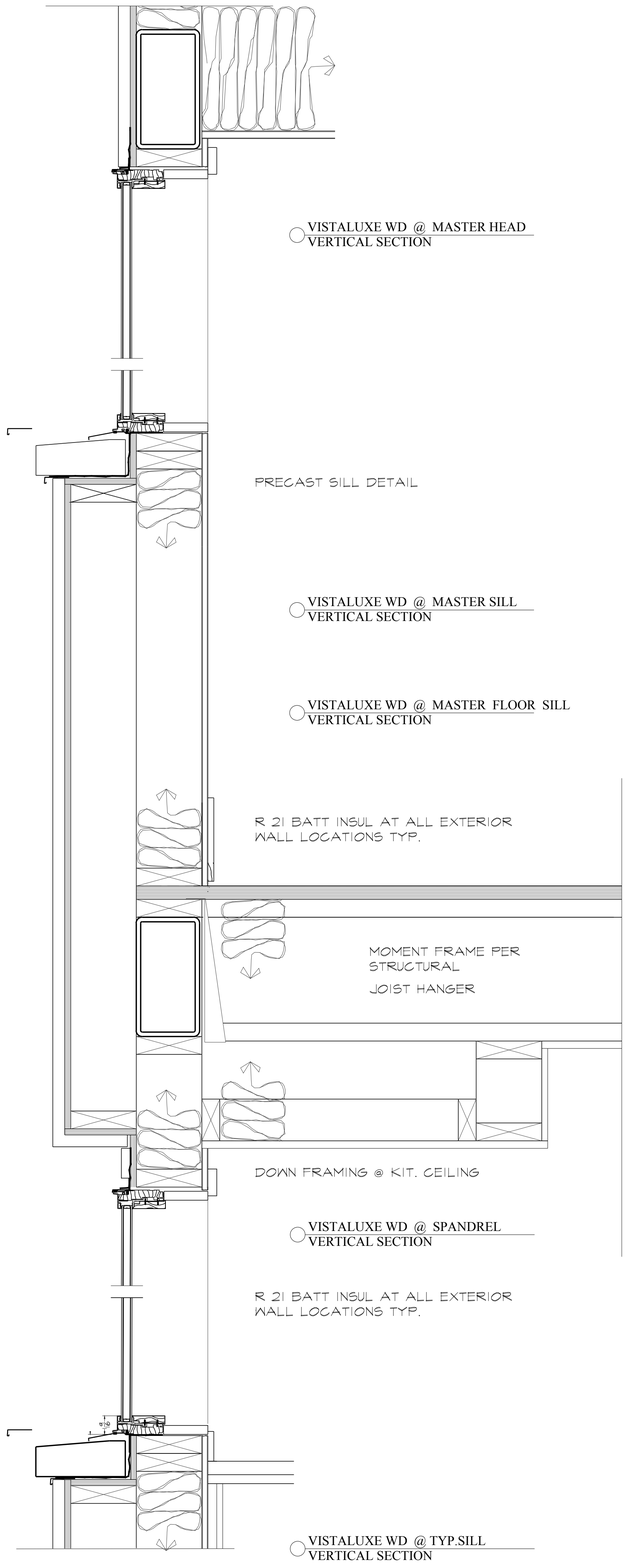


VISTALUXE WD HEAD @ W8
VERTICAL SECTION @ SIDING ABOVE

VISTALUXE WD SILL @ W8
VERTICAL SECTION MASTER FLOOR

VISTALUXE WD HEAD @ W8 SPANDREL
VERTICAL SECTION KITCHEN

VISTALUXE WD SILL @ PRECAST @ W8
VERTICAL SECTION KITCHEN COUNTER



VISTALUXE WD @ MASTER HEAD
VERTICAL SECTION

VISTALUXE WD @ MASTER SILL
VERTICAL SECTION

VISTALUXE WD @ MASTER FLOOR SILL
VERTICAL SECTION

VISTALUXE WD @ SPANDREL
VERTICAL SECTION

VISTALUXE WD @ TYP.SILL
VERTICAL SECTION

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ARCHITECTS
915 Rucker Avenue Everett, Washington
206 226-5588

4368 REGISTERED ARCHITECT THOMAS D. RUDOLPH STATE OF WASHINGTON

PERMIT SET	03/11/24
REVISION	02/10/24
REVISION	04/13/25
REVISION	xx/xx/xx

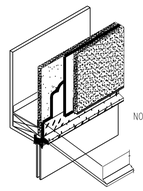
A New Residence For

Teddy and Megan Dann

3008 70th Avenue S.E. Mercer Island Washington 98040

General Contractor
XXX XXX XXX
xxxx xxx xxx xx xx xxxxx
(xxx) xxx-xxxx
Licence # XXXXXXXXX

A12



SHEATHING
WATER RESISTANT BARRIER
SELF-FURRING LATH
CEMENT PLASTER
HEAD FLASHING MEMBRANE

CASING BEAD

HEAD FLASHING (METAL OR PVC)

NOTE: FOR END DAMS REFER TO FWB9

3" (77 mm) MIN.

DEPTH OF CEMENT PLASTER PLUS 1/4" (7 mm)

1/2" (13 mm) MIN.

SLOPE OUTWARD 1/8" (3 mm) MIN.

(Fabricated From Metal or PVC)

EXTEND HEAD FLASHING HORIZONTALLY 3/4" (19 mm) MIN. BEYOND WINDOW JAMB EACH SIDE.

43 Window Head Flashing
SCALE: 3/4" = 1'-0"



Head

SHEATHING
CEMENT PLASTER
SELF-FURRING LATH
WATER RESISTANT BARRIER, LAP OVER FLANGE OF METAL FLASHING
CASING BEAD
METAL HEAD FLASHING
SEALANT
WOOD WINDOW

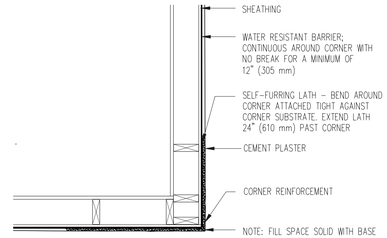
Jamb

CEMENT PLASTER
SELF-FURRING LATH
WATER RESISTANT BARRIER
CASING BEAD
BACKER ROD AND SEALANT
WOOD WINDOW

Sill

WOOD WINDOW
BACKER ROD AND SEALANT
CASING BEAD
SELF-FURRING LATH
CEMENT PLASTER
WATER RESISTANT BARRIER

44 Wood Window
SCALE: 3/4" = 1'-0"



SHEATHING

WATER RESISTANT BARRIER; CONTINUOUS AROUND CORNER WITH NO BREAK FOR A MINIMUM OF 12" (305 mm)

SELF-FURRING LATH - BEND AROUND CORNER ATTACHED TIGHT AGAINST CORNER SUBSTRATE. EXTEND LATH 24" (610 mm) PAST CORNER

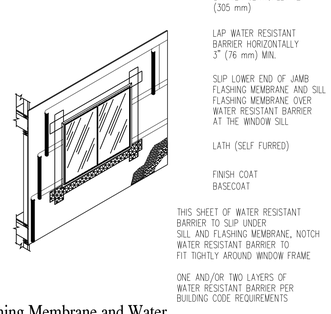
CEMENT PLASTER

CORNER REINFORCEMENT

NOTE: FILL SPACE SOLID WITH BASE COAT CEMENT PLASTER

WELDED WIRE WITH PLASTIC NOSE, OR PVC CORNER TRIM IS RECOMMENDED IF FINISH COAT IS A SAND FINISH CEMENT PLASTER OF ACRYLIC FINISH COAT

45 Corner Trim for Fine Finish
SCALE: 3/4" = 1'-0"



LAP WATER RESISTANT BARRIER VERTICALLY 12" (305 mm)

LAP WATER RESISTANT BARRIER HORIZONTALLY 3" (76 mm) MIN.

SLIP LOWER END OF JAMB FLASHING MEMBRANE AND SILL FLASHING MEMBRANE OVER WATER RESISTANT BARRIER AT THE WINDOW SILL

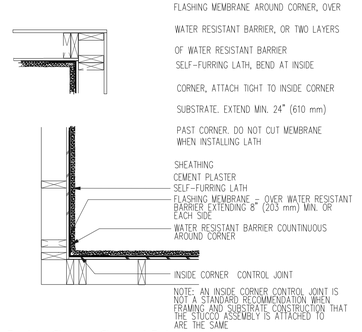
LATH (SELF FURRED)

FINISH COAT
BASECOAT

THIS SHEET OF WATER RESISTANT BARRIER TO SLIP UNDER SILL AND FLASHING MEMBRANE,. NOTCH WATER RESISTANT BARRIER TO FIT TIGHTLY AROUND WINDOW FRAME

ONE AND/OR TWO LAYERS OF WATER RESISTANT BARRIER PER BUILDING CODE REQUIREMENTS

48 Flashing Membrane and Water Resistant Barrier Application Sequence
SCALE: 3/4" = 1'-0"



FLASHING MEMBRANE AROUND CORNER, OVER

WATER RESISTANT BARRIER, OR TWO LAYERS

OF WATER RESISTANT BARRIER

SELF-FURRING LATH, BEND AT INSIDE

CORNER, ATTACH TIGHT TO INSIDE CORNER

SUBSTRATE. EXTEND MIN. 24" (610 mm)

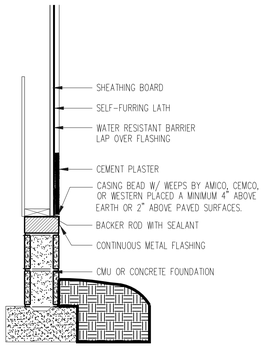
PAST CORNER. DO NOT CUT MEMBRANE WHEN INSTALLING LATH

SHEATHING
CEMENT PLASTER
SELF-FURRING LATH
FLASHING MEMBRANE - OVER WATER RESISTANT BARRIER EXTENDING 8" (203 mm) MIN. OR EACH SIDE
WATER RESISTANT BARRIER COUNTINUOUS AROUND CORNER

INSIDE CORNER CONTROL JOINT

NOTE: AN INSIDE CORNER CONTROL JOINT IS NOT A STANDARD RECOMMENDATION. WHEN FRAMING AND SUBSTRATE CONSTRUCTION THAT THE STUCCO ASSEMBLY IS ATTACHED TO ARE THE SAME

49 Inside Corner Control Joint
SCALE: 3/4" = 1'-0"



SHEATHING BOARD

SELF-FURRING LATH

WATER RESISTANT BARRIER LAP OVER FLASHING

CEMENT PLASTER

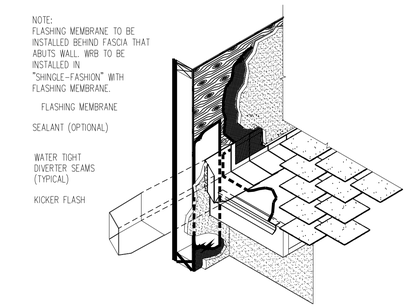
CASING BEAD W/ WEEPS BY AMICO, CEMCO, OR WESTERN PLACED A MINIMUM 4" ABOVE EARTH OR 2" ABOVE PAVED SURFACES.

BACKER ROD WITH SEALANT

CONTINUOUS METAL FLASHING

CMU OR CONCRETE FOUNDATION

50 Termination at Foundation
SCALE: 3/4" = 1'-0"



NOTE:
FLASHING MEMBRANE TO BE INSTALLED BEHIND FASCIA THAT ABUTS WALL. WRB TO BE INSTALLED IN "SHINGLE-FASHION" WITH FLASHING MEMBRANE.

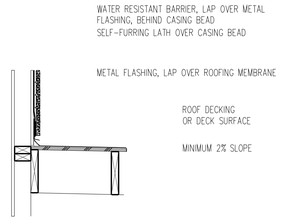
FLASHING MEMBRANE

SEALANT (OPTIONAL)

WATER TIGHT DIVERTER SEAMS (TYPICAL)

KICKER FLASH

53 Roof/Kicker Flashing Axonometric
SCALE: 3/4" = 1'-0"



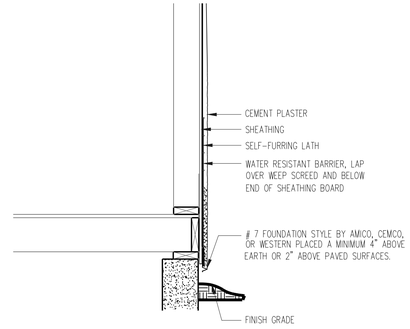
WATER RESISTANT BARRIER, LAP OVER METAL FLASHING, BEHIND CASING BEAD
SELF-FURRING LATH OVER CASING BEAD

METAL FLASHING, LAP OVER ROOFING MEMBRANE

ROOF DECKING OR DECK SURFACE

MINIMUM 2% SLOPE

54 Counter Flashing at Roofing/Deck Membrane
SCALE: 3/4" = 1'-0"

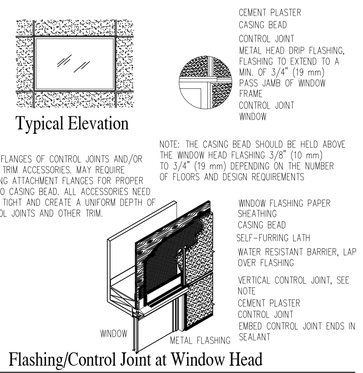


CEMENT PLASTER
SHEATHING
SELF-FURRING LATH
WATER RESISTANT BARRIER, LAP OVER WEEP SCREED AND BELOW END OF SHEATHING BOARD

7 FOUNDATION STYLE BY AMICO, CEMCO, OR WESTERN PLACED A MINIMUM 4" ABOVE EARTH OR 2" ABOVE PAVED SURFACES.

FINISH GRADE

55 Termination at Foundation/Finished Grade
SCALE: 3/4" = 1'-0"



Typical Elevation

CEMENT PLASTER
CASING BEAD
CONTROL JOINT
METAL HEAD DRIP FLASHING, FLASHING TO EXTEND TO A MIN. OF 3/4" (19 mm) PASS JAMB OF WINDOW FRAME
CONTROL JOINT
WINDOW

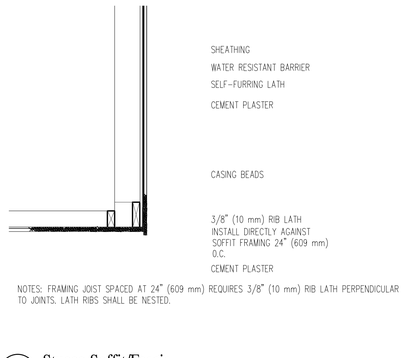
NOTE: FLANGES OF CONTROL JOINTS AND/OR OTHER TRIM ACCESSORIES. MAY REQUIRE TRIMMING ATTACHMENT FLANGES FOR PROPER FIT INTO CASING BEAD. ALL ACCESSORIES NEED TO FIT TIGHT AND CREATE A UNIFORM DEPTH OF CONTROL JOINTS AND OTHER TRIM.

NOTE: THE CASING BEAD SHOULD BE HELD ABOVE THE WINDOW HEAD FLASHING 3/8" (10 mm) TO 3/4" (19 mm) DEPENDING ON THE NUMBER OF FLOORS AND DESIGN REQUIREMENTS

WINDOW FLASHING PAPER
SHEATHING
CASING BEAD
SELF-FURRING LATH
WATER RESISTANT BARRIER, LAP OVER FLASHING
VERTICAL CONTROL JOINT, SEE NOTE
CEMENT PLASTER
CONTROL JOINT
EMBED CONTROL JOINT ENDS IN SEALANT

WINDOW
METAL FLASHING

58 Flashing/Control Joint at Window Head
SCALE: 3/4" = 1'-0"



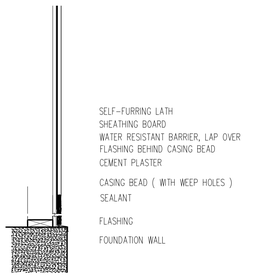
SHEATHING
WATER RESISTANT BARRIER
SELF-FURRING LATH
CEMENT PLASTER

CASING BEADS

3/8" (10 mm) RIB LATH INSTALL DIRECTLY AGAINST SOFFIT FRAMING 24" (609 mm) O.C.
CEMENT PLASTER

NOTES: FRAMING JOIST SPACED AT 24" (609 mm) REQUIRES 3/8" (10 mm) RIB LATH PERPENDICULAR TO JOINTS. LATH RIBS SHALL BE NESTED.

59 Stucco Soffit/Fascia
SCALE: 3/4" = 1'-0"



SELF-FURRING LATH
SHEATHING BOARD
WATER RESISTANT BARRIER, LAP OVER FLASHING BEHIND CASING BEAD
CEMENT PLASTER

CASING BEAD (WITH WEEP HOLES)
SEALANT

FLASHING

FOUNDATION WALL

60 Casing Bead at Concrete Foundation
SCALE: 3/4" = 1'-0"

RUDOLPH
ARCHITECTS
915 Rucker Avenue Everett, Washington
206 226-5588



PERMIT SET	03/11/24
REVISION	02/10/24
REVISION	04/13/25
REVISION	xx/xx/xx

A New Residence For

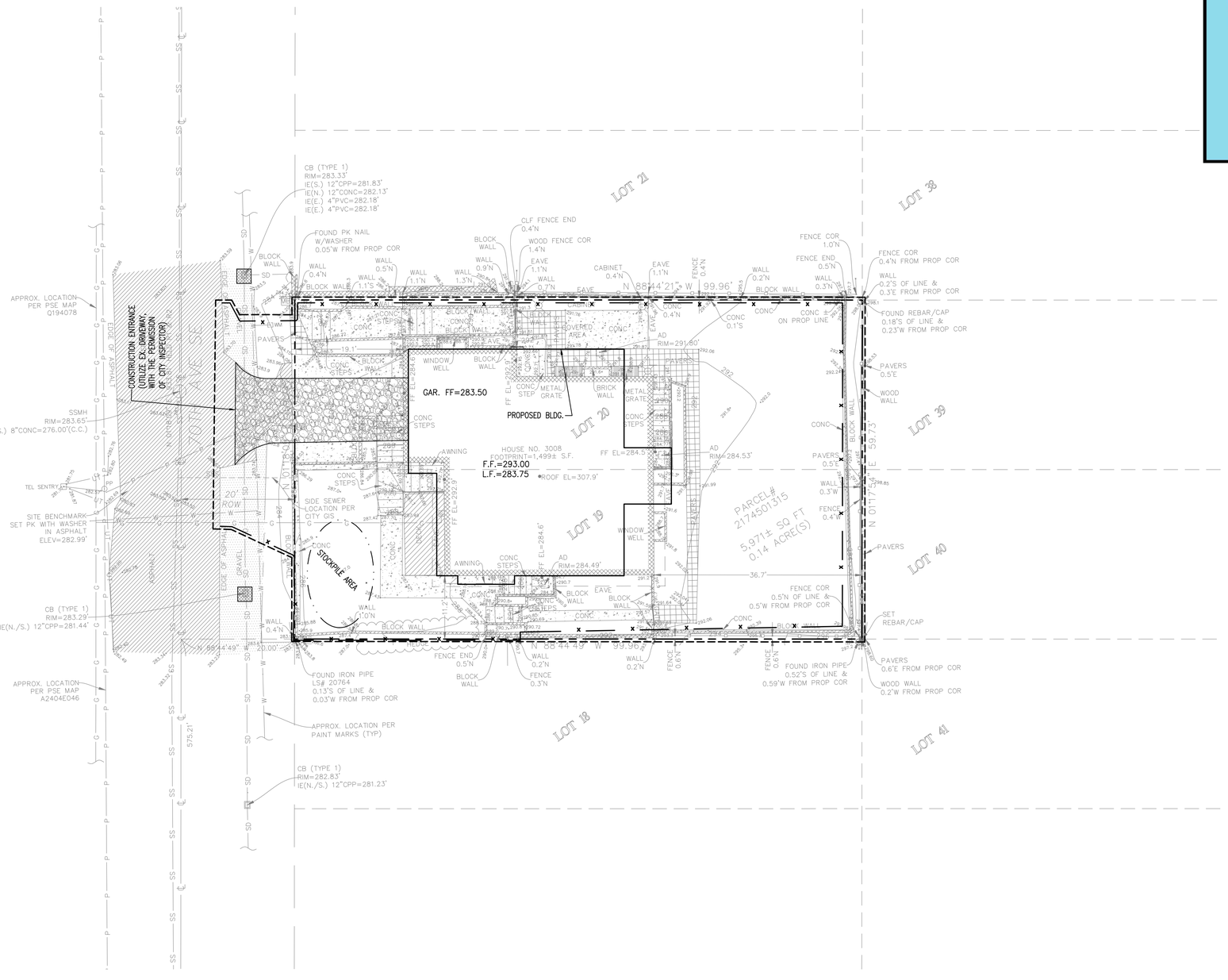
Teddy and Megan Dann

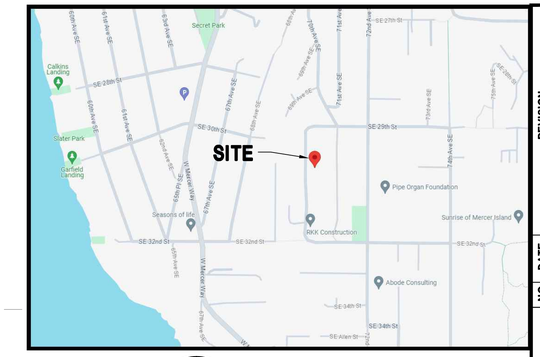
3008 70th Avenue S.E. Mercer Island Washington 98040

General Contractor
XXX XXX XXX
xxxx xxx xxx xx xx xxxxx
(xxx) xxx-xxxx
Licence # XXXXXXXXXX

A13

SW ¼, NW ¼, SEC 12, TWP. 24N., RGE 4E., W.M.





VICINITY MAP
(NTS)

LEGEND:

- TEMPORARY CONSTRUCTION ENTRANCE (USING EX. ASP. DRWY.)
- SILT FENCE/CLEARING LIMITS
- DISTURBANCE LIMITS
- PROPOSED BUILDING

SURVEY LEGEND:

- ASPHALT SURFACE
- BENCHMARK
- BUILDING
- CENTERLINE ROW
- CONCRETE SURFACE
- CULVERT PIPE
- DECK
- FENCE LINE (CHAIN LINK)
- FENCE LINE (WOOD)
- GAS LINE
- GAS METER
- GRAVEL SURFACE
- HEDGE FOLIAGE LINE
- INLET (TYPE 1)
- INLET (TYPE 2)
- MONUMENT (IN CASE, FOUND)
- NAIL AS NOTED
- POWER METER
- POWER (OVERHEAD)
- POWER POLE
- REBAR & CAP (SET)
- REBAR / IRON PIPE (FOUND)
- RETAINING WALL
- ROCKERY
- SEWER LINE
- SEWER MANHOLE
- STORM DRAIN LINE
- TELEPHONE (OVERHEAD)
- TREE (AS NOTED)
- WATER LINE
- WATER METER
- WATER VALVE

LEGAL DESCRIPTION

(PER STATUTORY WARRANTY DEED RECORDING# 20211206001056)

LOTS 19 AND 20, BLOCK 7, EAST SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 3 OF PLATS, PAGE 22, RECORDS OF KING COUNTY, WASHINGTON.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

BENCHMARK AND DATUM PER SURVEY

NAD 83(2011) WASHINGTON NORTH STATE PLANE COORDINATES PER GPS OBSERVATIONS

NAVD 88 PER GPS OBSERVATIONS

811 Know what's below. Call before you dig.

EARTHWORK QUANTITIES:

CUT = 70 C.Y.
FILL = 50 C.Y.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. (H)

NO.	DATE	REVISION

DOMENIC CHEN — 22684 — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER — 03/28/2024

C2MY ENGINEERS, LLC
PO BOX 52883
BELLEVUE, WA 98015
(206) 922-9376
cmchin.c2my@gmail.com

DATE: 03-11-24

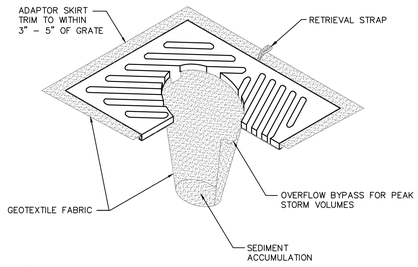
PROJECT: DANN RESIDENCE
3008 70TH AVENUE SE
MERCER ISLAND, WA 98040

TESC PLAN

FILE NO: 2405 DWG

SHEET C1.0

Jun 28, 2024 - 11:26am CMC G:\Projects\2024\2405 - 3008 70th Ave SE Mercer Is - James Rudolph\2405-C1.0.dwg Layout Name: C1

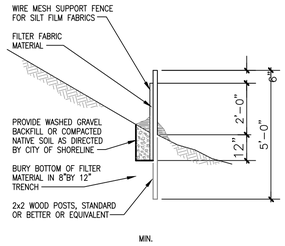


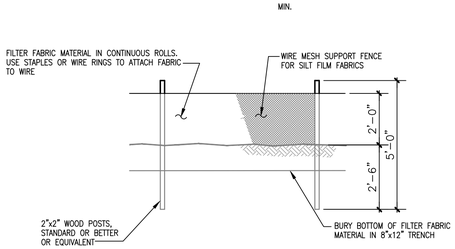
NOTES

1. INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
2. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL .
3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH BASIN.

CATCH BASIN INLET PROTECTION INSERT

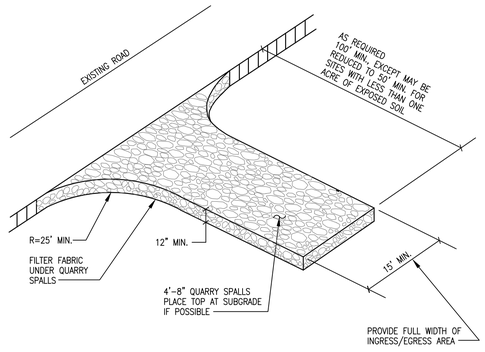
NTS





SILT FENCE

NO SCALE

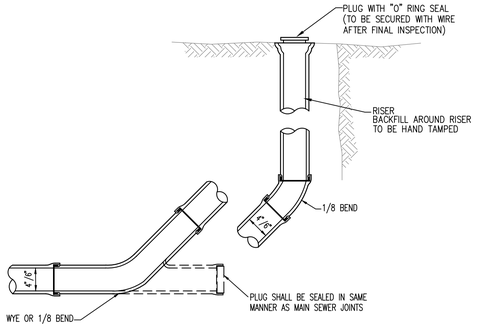


STABILIZED CONSTRUCTION ENTRANCE

NO SCALE

NOTES:

1. STONE SIZE – USE 4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN 12"
4. WIDTH – 15 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



NOTE:

1. FOR SIDE SEWER AND SERVICE DRAINS ON UNPAVED AREA.

CLEANOUT DETAILS

NTS

NO.	DATE	REVISION

C2MY ENGINEERS, LLC
PO BOX 52883
BELLEVUE, WA 98015
(206) 922-9316
cmchin.c2my@gmail.com

DATE: 03-11-24

PROJECT: DANN RESIDENCE
3008 70TH AVENUE SE
MERCER ISLAND, WA 98040

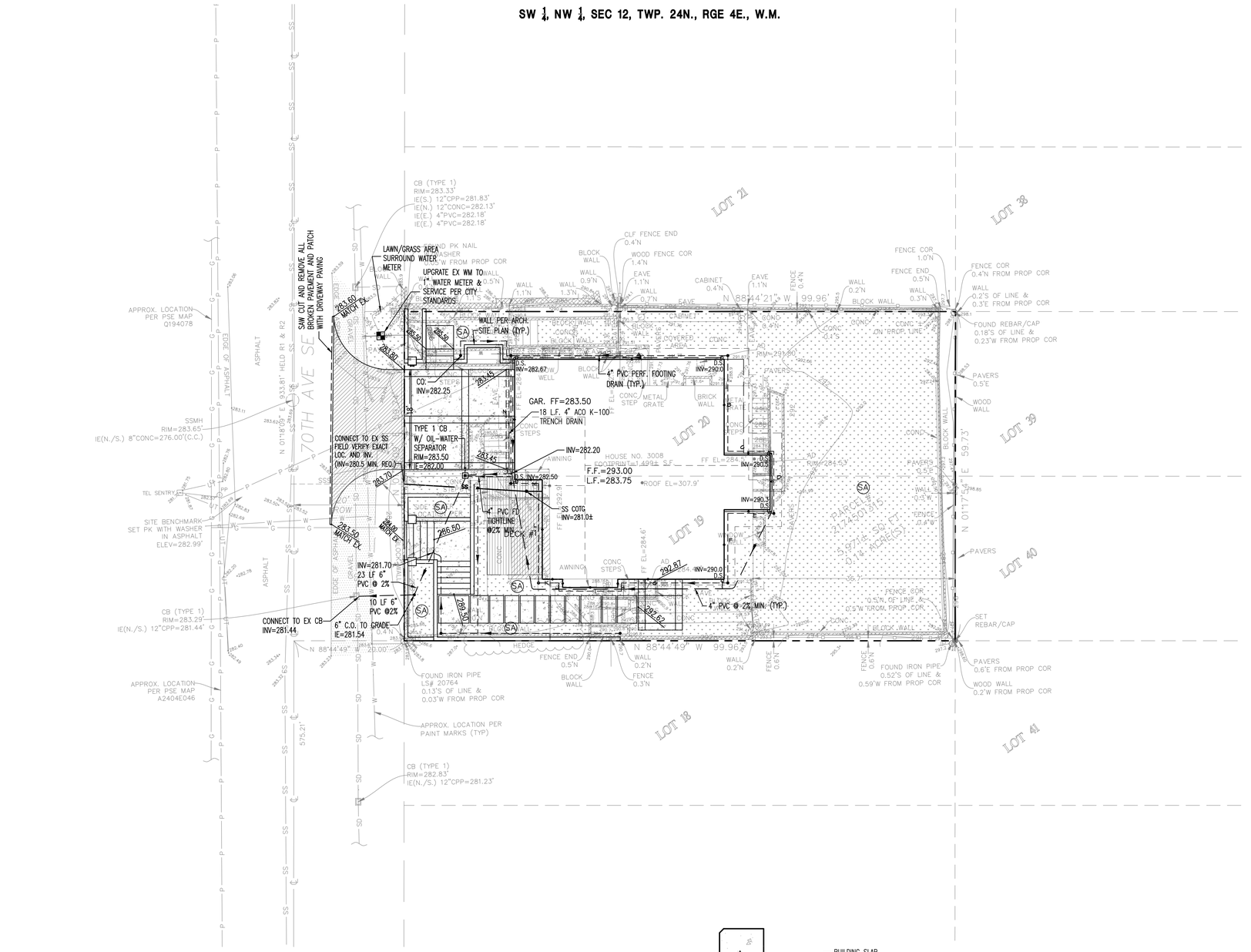
TESC AND DRAINAGE DETAILS

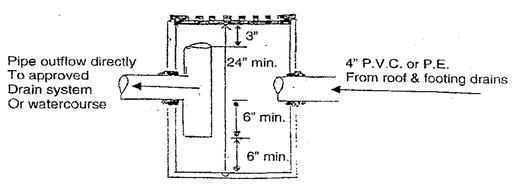
FILE NO: 2405 DWG

SHEET C1.1

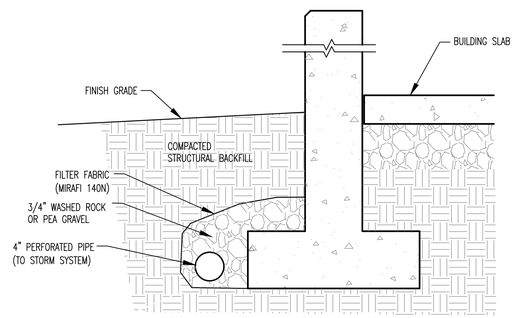
Jun 28, 2024 – 11:27am CMC G:\Projects\2024\2405 – 3008 70th Ave SE Mercer Is – James Rudolph\2405–C1.1.dwg Layout Name: C1.1

SW ¼, NW ¼, SEC 12, TWP. 24N., RGE 4E., W.M.





Catch Basin with Oil Separator



FOOTING DRAIN DETAILS
NTS

SOIL AMENDMENT NOTE:

THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.

SIDE SEWER NOTE:

THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED.

SITE IMPERVIOUS AREA SUMMARY:

EXISTING LOT AREA = 5,971 S.F.
EXISTING BUILDING ROOF: 2,129 S.F.
EXISTING DRIVEWAY: 294 S.F.
EXISTING DECK: 72 S.F.
EXISTING WALKWAY: 674 S.F.
TOTAL EXISTING HARD SURFACES AREA = 3,169 S.F.
EXISTING IMPERVIOUS IS $\frac{3169}{5971}$=53.1% > 35% (REDEVELOPMENT FLOW CHART)

PROPOSED DRIVEWAY WITHIN ROW: 279 S.F.
PROPOSED DRIVEWAY WITHIN PROPERTY: 363 S.F.
PROPOSED WALKWAY: 418 S.F.
PROPOSED BUILDING ROOF: 1,833 S.F.
PROPOSED DECK: 168 S.F.
TOTAL NEW HARD SURFACES AREA: 2,782 S.F. < 5000 S.F.

PER FIGURE I-3.2 FLOW CHART FOR DETERMINING REQUIREMENT FOR REDEVELOPMENT: MINIMUM #1 TO #5 APPLIED TO NEW AND REPLACED HARD SURFACES AND THE LAND DISTURBED

NET DECREASE IN IMPERVIOUS AREA ON-SITE= 387 S.F.

LEGEND

- EX. SANITARY SEWER ——SS——
- EX. WATER LINE ——W——
- EX. STORM DRAIN ——SD——
- CONCRETE DRIVEWAY
- SOIL AMENDMENT-SA
- SAW CUT LINE
- ROOF DRAIN TIGHTLINE WITH C.O.T.G.(4" PVC)
- FOOTING DRAIN W/ CLEANOUT TO GRADE (C.O.T.G.)

NOTES:

1. SEE ARCHITECTURE SITE PLAN FOR OTHER PROPOSED INFORMATION NOT SHOWN ON THIS SHEET.

DRAINAGE GENERAL NOTES:

1. DOWNSPOUTS SHALL BE TIED INTO A NON-PERFORATED, RIGID, SMOOTH-BORE PIPE WHICH DRAINS TO AN APPROVED STORM SYSTEM
2. PROVIDE CLEANOUTS AT THE UPPER END OF THE SYSTEM AND AT EACH CUMULATIVE CHANGE OF DIRECTION IN EXCESS OF 135 DEGREES.
3. ALL PIPE FITTINGS SHALL BE MADE OF THE SAME MATERIAL AS THE STRAIGHT PIPE. GLUED JOINTS SHALL USE A BONDING AGENT RECOMMENDED BY THE PIPE MANUFACTURER.
4. FOOTING DRAINS SHALL BE INSTALLED AROUND ALL NEW FOUNDATIONS AND SHALL BE TIGHLINED TO DISCHRAGE TO THE SPLASH BLOCK. FOOTING DRAINS SHALL BE CONSTRUCTED OF PERFORATED PIPE AT THE BASE OF THE FOOTING, AND SHALL MEET MATERIAL STANDARDS OF D2729 FOR PVC PIPE, WITH THE PERFORATIONS DIRECTED DOWNWARD. PLACE GRANULAR BACKFILL AROUND AND ABOVE THE FOOTING DRAIN TO A DEPTH OF 2/3 OF THE WALL HEIGHT. PROVIDE FILTER FABRIC WRAP AROUND BETWEEN THE GRANULAR BACKFILL AND THE NATIVE SOIL.

BENCHMARK AND DATUM PER SURVEY

NAD 83(2011) WASHINGTON NORTH STATE PLANE COORDINATES PER GPS OBSERVATIONS

NAVD 88 PER GPS OBSERVATIONS

Know what's below. Call before you dig.

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft. (H)

NO.	DATE	REVISION
1	06.28.2024	REVISED PER CITY COMMENTS
2	05.23.2025	ADDED WALL FD CO INV & CB CONNECTING PIPE INV.

CHENG CHIN LIN — 20864 — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 05/23/2025

C2MY ENGINEERS, LLC
PO BOX 52883
BELLEVUE, WA 98015
(206) 922-9376
cmchin.c2my@gmail.com

DATE: 05-11-24

PROJECT: DANN RESIDENCE
3008 70TH AVENUE SE
MERCER ISLAND, WA 98040

Paving, Grading, Drainage Plan

FILE NO: 2405 .DWG

SHEET C2.0

May 23, 2025 - 1:08pm CMC G:\Projects\2024\2405 - 3008 70th Ave SE Mercer Is - James Rudolph\2405-C2.0.dwg Layout Name: C2

GENERAL STRUCTURAL NOTES:

CRITERIA:

1.1 All Materials, workmanship, design, and construction shall conform to the drawings, specifications, and the Seattle Building Code (SBC), 2018 Edition.

1.2 Design Loading Criteria
The Design Loading of the Structure is as follows:

Live Loads (in accordance with SCB Table 1607.1)			
Occupancy or Use	**Uniform Live Load**	**Concentrated Live Load**	**Notes**
Floor, Residential	40-psf	-	
Balconies & Decks	60-psf	-	1.5 x Occupancy Load
Uninhabitable attic, with storage	20-psf	-	Concurrent with Snow Loads
Unihabitable attic, without storage	10-psf	-	Non-concurrent with Snow Loads
Handrails and Guards	-	200-lbs	Any point, any direction (ASCE 7-16, Section 4.5.1)

Wind Design Data **ASCE 7-16, Chapter 28: Simplified Envelope Procedure**	
Basic Design Wind Speed (3-sec gust), V	100 mph
Risk Catagory	II
Wind Exposure	B
Internal Pressure Coefficient	N/A
Exterior Components and Cladding	25-psf
Topographical Factor, K_{zt}	1.60

Seismic Design Data **ASCE 7-16, Section 12.8: Equivalent Lateral Force Procedure**	
Risk Catagory	II
Seismic Importance Factor, I_e	1.0
Mapped Spect. Accel., Short Period, S_S Mapped Spect. Accel., 1-Sec, S_1	1.405 0.489
Site Class	D
Spectral Response Coeff., Short Period, S_{DS} Spectral Response Coeff., 1-Sec, S_{D1}	1.124 0.590
Seismic Design Catagory	D
Basic Seismic-Force-Resistance System	Ply. Shear Walls
Response Modification Factor, R	6.5
Seismic Response Coefficient, C_S	0.173
Design Base Shear, V	20.8 Kips

Snow Loads **(ASCE 7-16, Chapter 7)**		
Ground Snow Load, P_g		25-psf
Flat Roof Snow Load, $P_f = 0.7\ C_e\ C_t\ I_s\ P_g$ * Snow Exposure Factor, C_e * Snow Load Importance Factor, I_s * Thermal Factor, C_t	 1.0 1.0 1.2	25-psf

Do not adjust for slope or drift unless noted on the Drawings.
See Drawings for Additional Loading Criteria.

1.3 Structural Drawings shall be used in conjunction with all other project documents for bidding and construction. Contractor shall verify dimensions and conditions for compatibility and shall notify architect of all discrepancies prior to construction.

1.4 Contractor shall provide Temporary Bracing for the structure and structural components until all final connections have been completed in accordance with the drawings.

1.5 Contractor shall be responsible for all safety precautions and the methods, techniques, sequences or procedures required to perform the work.

1.6 Contractor-initiated changes shall be submitted in writing to the Architect and Structural Engineer for approval prior to fabrication or construction. Changes shown on shop drawings only will not satisfy this requirement.

1.7 Drawings indicate general and typical details of construction. Where conditions are not specifically indicated but are of similar character to details shown, similar details of construction shall be used, subject to review and approval by the Architect and the Structural Engineer.

1.8 All structural systems composed of components to be field erected shall be supervised by the Supplier during manufacturing, delivery, handling, storage and erection in accordance with instructions prepared by the Supplier.

GEOTECHNICAL:

2.1 Allowable Soil Pressure, Lateral Earth Pressure, and Soil Profile Type assume IBC prescribe minimum. Footings shall bear on firm, undisturbed earth at least 18" below adjacent finished grade. Notify Structural Engineer if suitable soil is not present. Unless otherwise noted, footings shall be centered below columns or walls above. Backfill behind all retaining walls with free draining, granular fill and provide for subsurface drainage.

Geotechnical Properties	
Soil Site Class	D
Allowable Soil Bearing Pressure	1500-psf
Active Lateral Earth Pressure (Restrained)	60-pcf
Active Lateral Earth Pressure (Unrestrained)	35-pcf
Seismic Lateral Earth Pressure	6H-psf
Passive Lateral Earth Pressure	300-pcf
Base Friction Coefficient	0.35

CONCRETE:

3.1 Concrete shall be mixed, proportioned, conveyed and placed in accordance with SBC Chapter 19 and ACI 318-14. Mix shall be proportioned to produce a slump of 5" or less. All concrete with surfaces exposed to standing water shall be air-entrained with an air-content conforming to ACI 318-14 Table 19.3.3.1. Concrete Strength, based on SBC Section 1904.1, shall be as follows:

Type or Location of Concrete Construction (Moderate Exposure)	**Min. 28-Day Compressive Strength, f'c**
Interior Slabs-on-Grade	2500-psi
Footings, Basement Walls, Foundation/Stem Walls	3000-psi[†]

[†] Specified compressive strength (f'_c) specifications address serviceability requirements. Design strength of concrete is 2500-psi, therefore, strength tests are not required. Provided concrete mix tickets verifying strength specifications.

3.2 Reinforcing Steel shall conform to ASTM A615/A615M-18e1 and the following:

Bar Size	**Steel Grade**
#5 bar and larger	Grade 60, fy = 60,000-psi
#4 bar and smaller	Grade 40, fy = 40,000-psi

Welded Wire Fabric shall conform to ASTM A1064/A1064M-18a

3.3 Reinforcing Steel shall be detailed (including hooks and bends) in accordance with ACI 318-14. Lap all continuous reinforcement (#5 and smaller) 2'-0" minimum. Laps of larger bars (#6 and #7) shall be 3'-0", min. Provide corner bars at all wall and footing intersections and lap 2'-0" minimum. Lap adjacent mats of welded wire fabric a minimum of 8" at sides and ends.

No bars partially embedded in hardened concrete shall be field bent unless otherwise noted on the drawings or approved by the structural engineer.

3.4 Concrete Protection (cover) for Reinforcing Steel shall be as follows:

Condition	**Clear Cover**
Footings and Unformed Surfaces cast against and permanently exposed to Earth	3"
Formed Surfaces exposed to Earth or Weather (#6 bars or larger)	2"
Formed Surfaces exposed to Earth or Weather (#5 bars or smaller)	1½"
Slabs and Walls, interior face (#11 bars and smaller)	¾"
Column Ties or Spirals and Beam Stirrups	1½"

STEEL:

5.1 Structural Steel design, fabrication, and erection shall be based on the following documents:

1. AISC 360-16: Specification for Structural Steel Buildings
2. AISC 341-16: Seismic Provisions for Structural Steel Buildings
3. AISC 303-16: Code of Standard Practice for Steel Buildings and Bridges
4. Specification for Structural Joints using high strength bolts (dated june 11, 2020), prepared by research council on structural connections, RCSC Committee A.1

5.2 Structural Steel shall conform to the following requirements:

Type of Member	**ASTM Specification**	**F_y**
Standard Shapes	A992	50 ksi
Plates, Angles & Rods	A36	36 ksi
Hollow Structural Sections (Tube Steel)	A500 (Grade B)	46 ksi
Anchor Bolts	F1554	36 ksi
Connection Bolts	A325-N or F1852-N	

5.3 Dimensional Tolerance for Structural Steel members shall be per the AISC 303-16, Section 6.4 and ASTM Specification A6/A6M. Unless specifically allowed by the Engineer, column members shall not be modified by the rotary straightening process.

5.4 All Welding shall be in conformance with AISC and AWS Standards and shall be performed by WABO certified welders using E70xx electrodes. Only prequalified welds (as defined by AWS) shall be used.

WOOD:

6.1 Framing Lumber shall be kiln dried or MC-19, and graded and marked in conformance with WCLB Standard Grading Rules for West Coast Lumber No. 17. Unless otherwise noted, furnish to the following minimum standards:

Member Use	**Size**	**Species**	**Grade**
Studs	2x, 3x	Hem-Fir or SPF	STUD
Joists/Rafters	2x, 3x	Hem-Fir	No. 2
Plates/Misc.	2x, 3x	Douglas Fir-Larch	No. 2
Beams	4x	Douglas Fir-Larch	No. 2
Posts	4x	Douglas Fir-Larch	No. 2
Timber, Beams	6x & Larger	Douglas Fir-Larch	No. 2
Timber, Posts	6x & Larger	Douglas Fir-Larch	No. 2

6.2 Glued Laminated Members shall be fabricated in conformance with ASTM and AITC Standards. Each member shall bear an AITC Identification Mark and shall be accompanied by an AITC certificate of conformance. Furnish to the following minimum standards:

Member Use	**Combination**	**Species**	**F_{bx+}**	**F_{bx-}**	**$F_{c\perp x}$**	**F_{vx}**	**E_x**
Beams	24F-V4	DF/DF	2400-psi	1850-psi	650-psi	265-psi	1800-ksi

Camber all glulam beams to 3,500' radius, unless otherwise noted. Glued laminated members exposed to weather or moisture shall be treated with an approved preservative.

6.3 Engineered Wood shown on the drawings are based on product manufactured by Weyerhaeuser in accordance with ICC Report No. ES ESR-1387. Alternate manufacturers may be used subject to review and approval by the Architect and Structural Engineer. All hangers and other hardware not shown shall be designed and supplied by the Joist Manufacturer. Each piece shall bear a stamp or stamps noting the name and plant number of the manufacturer, the grade, the ICC report number, and the quality control agency. Furnish to the following minimum standards:

Member Use	**Product**	**F_b**	**$F_{c\perp}$**	**F_v**	**E**
Beams	1.55E Laminated Strand Lumber (LSL)	2325-psi	800-psi	310-psi	1550-ksi
Beams	2.0E Laminated Veneer Lumber (LVL)	2600-psi	750-psi	285-psi	2000-ksi
Beams	2.0E Parallel Strand Lumber (PSL)	2900-psi	750-psi	290-psi	2000-ksi
Rim Boards	Laminated Strand Lumber (LSL)	1700-psi	680-psi	400-psi	1300-ksi

6.4 Engineered Wood I-Joists shown on the drawings are based on joists manufactured by Weyerhaeuser in accordance with ICC Report No. ES ESR-1153. Alternate Engineered Wood I-Joists manufacturers may be used subject to review and approval by the Architect and Structural Engineer.

6.5 Prefabricated Connector Plate Wood Trusses shall be designed by the manufacturer in accordance with TPI 1-2014 for the spans and conditions shown on the drawings. Wood trusses shall utilize approved connector plates (MITEK, ITW or other approved Truss Plate Manufacturer).

Unless otherwise noted, loading shall be as follows:

Roof Truss Design Loading	
Member	**Uniform Load**
Top Chord Snow Load	25-psf
Top Chord Wind Load (Uplift)	15-psf
Top Chord Dead Load	7-psf
Bottom Chord Live Load	10-psf
Bottom Chord Dead Load	5-psf

Floor Truss Design Loading	
Member	**Uniform Load**
Top Chord Live Load	40-psf
Top Chord Dead Load	10-psf
Bottom Chord Dead Load	5-psf

Submit shop drawings and design calculations prior to fabrication. Submitted documents shall bear the stamp and signature of a registered Professional Engineer, State of Washington. Truss design drawings shall include, at a minimum, the following:

A. Slope or Depth, Span and Spacing
B. Location of all Joints and Support Locations
C. Number of Plies if greater than one
D. Required Bearing Widths
E. Design Loads and Locations: Include Top and Bottom Chord Live and Dead Loads, Girder Loads, and Environmental Loads (Seismic, Wind, Snow, etc.)
F. Other Lateral Loads, including Drag Strut Loads
G. Adjustments to Wood and Metal Connector Plate Design Value for Conditions of Use
H. Maximum Reaction Force and Direction (including Maximum Uplift)
I. Metal-Connector-Plate Type, Size, Thickness, and Location
J. Size Species and Grade for each Member
K. Truss-to-Truss Connections and Truss Field Assembly Requirements
L. Calculated Span-to-Deflection Ratio and maximum Vertical and Horizontal Deflection for Live and Total Loads
M. Maximum Axial Tension and Compression Forces in each Truss Member
N. Required Permanent Individual Truss Member Restraint Location and the Method and Details of Restraint Bracing to be used
O. Placement Layout including Bearing Points, Intersections, Hips, Valleys, etc.
P. Truss-to-Truss and Truss-to-Beam Connection Details and Hardware

6.6 Roof, Floor & Wall Sheathing shall be APA Rated, Exterior or Exposure 1 Plywood or OSB manufactured under the provisions of Voluntary Product Standards DOC PS-1 or DOC PS-2, or APA PRP-108 Performance Standards and Policies for Structural Use Panels. See Drawings for thickness, span rating, and nailing requirements. Unless otherwise noted, wall sheathing shall be ½" (nominal) with Span Rating of 24/0. Glue floor sheathing to all supporting members with adhesive conforming to APA Specification AFG-01.

6.7 Wood members shall be protected against decay and termites in accordance with SBC Section 2304.12. Where required, members shall be naturally durable species or shall be treated with waterborne preservatives wood in accordance with American Wood Protection Association specification AWPA U1. Members shall be clearly labeled. Modified treated members (ripped or end cut) shall be field treated in accordance with specification AWPA M4.

6.8 Timber Connectors and Proprietary Fasteners shall be "Strong-Tie" by Simpson Company, as specified in their current catalog. Provide number and size of fasteners as specified by manufacturer. Connectors shall be installed in accordance with the manufacturer's instructions. Where connector straps connect two members, center strap on joint and provide number and size of fasteners as specified by manufacturer, with equal number and size of fasteners in each member.

Alternate hardware manufacturer substitutions, such as USP Connectors, shall be ICC approval for equal or greater load capacities. All joist hangers and other hardware shall be compatible in size with specified framing members. See Hanger Conversion Table for pre-approved substitutions.

Timber Connectors and their fasteners shall be protected from corrosion in accordance with manufacturer's recommendations or ASTM A 653, Type G185.

WOOD (Continued):

6.10 Wood Framing Notes: The following apply unless otherwise noted on the drawings:

A. All wood framing details shall be constructed to the minimum standards of the IBC. Nailing not specified on the drawings shall conform to IBC Table 2304.10.1 or ICC ES ESR-1539. Coordinate the size and location of all openings with Mechanical and Architectural Drawings.
B. Wall Framing: Stud wall size and spacing shall be in accordance with the plan notes. Two studs minimum shall be provided at the ends of all walls, at each side of all openings, and at the ends of all beams and headers. All stud bearing walls on wood framing shall have their lower wood plates attached to framing or concrete below per P1-6 of the shear wall schedule.
C. Individual members of Built-Up stud posts shall be nailed to each other with framing nails @ 12"oc, staggered. Individual members of Built-Up joist beams shall be nailed to each other with framing nails @ 12"oc, staggered.
D. Solid blocking for wood columns shall be provided through floors to supports below.
E. Floor and Roof Framing: Provide solid blocking at all bearing points. Toenail joists to supports with two framing nails. Attach timber joists to flush headers or beams with metal joist hangers in accordance with notes above.
F. Roof and floor sheathing shall be laid up with grain perpendicular to supports and nailed per plan notes. Allow 1/8" spacing at all panel edges and ends of floor and roof sheathing. Provide approved panel edge clips centered between joists/trusses at unblocked roof sheathing edges. All floor sheathing edges shall have approved tongue-and-groove joints. Toenail blocking to supports with framing nails @ 12"oc. At blocked floor and roof diaphragms, provide flat 2x blocking at all unframed panel edges and nail with edge nailing specified.

6.9 Dowel-Type Fasteners (Bolts, Lag Screws, Wood Screws and Nails) shall conform to Sections 11 and 12 of the ANSI/AWC NDS-2018.

Dowel Type Fastener	**Grade**	**Requirements at Exterior Use or when in Contact w/ Treated Lumber**	**Installation**
Bolts	ASTM A307	ASTM B 695, Class 55 Galvanized or Stainless Steel	ANSI/AWC NDS-2018 Section 12.1.3 Hole = Bolt Ø + (1/32" to 1/16") Washer @ Bolt Head and @ Nut
All-Thread/Threaded Rod	ASTM F1554	ASTM B 695, Class 55 Galvanized or Stainless Steel	ANSI/AWC NDS-2018 Section 12.1.3 Hole = Rod Ø + (1/32" to 1/16") Washer @ Each Nut
Lag Screws	ASTM A307	ASTM A 153 Galvanized or Stainless Steel	ANSI/AWC NDS-2018 Section 12.1.4 Lead Hole = 0.5 x Shank Ø; Shank Hole = Shank Ø Washer @ Lag Head
Wood Screws		ASTM A 153 Galvanized or Stainless Steel	ANSI/AWC NDS-2018 Section 12.1.5 Pilot Hole = 0.75 x Root Ø (Unless Self-Boring)
Nails	ASTM F1667	ASTM A 153 Galvanized or Stainless Steel	ANSI/AWC NDS-2018 Section 12.1.6 Avoid Overdriving or Underdriving; Avoid Wood Splitting Toenails 30°, 1/3 Nail Length from Joint

Nails specified on the drawings shall be as follows:

Nail Use	**Penny Weight**	**Grade**
Framing Nails	12d Box	0.131"Ø x 3¼"
Sheathing Nails	8d Common	0.131"Ø x 2½"

All Metal Fasteners exposed to weather or in contact with treated wood shall be protected from corrosion according to table above. Nuts and bolts exposed to weather or in contact with treated wood shall be galvanized in accordance with ASTM A153/A153M-16a or Stainless Steel. See above for Proprietary Fastener requirements. Do not substitute standard Dowel-Type Fasteners for Proprietary Fasteners unless specifically allowed.

QUALITY ASSURANCE:

7.1 See Special Inspection and Testing Requirements Table for inspection and testing requirements. Special Inspection shall be in accordance with SBC Section 1704.2. Standard inspections shall be in accordance with SBC Section 110.

7.2 Structural Observation in accordance with SBC Section 1704.6 is required:

SPECIAL INSPECTION AND TESTING REQUIREMENTS			
Verification and Inspection	Continuous	Periodic	Comments
Soils	-	-	Refer to Geotechnical Report
Concrete	-	-	Provide Batch Mix Tickets
Concrete Retaining Walls Basement Walls	-	X	
Post-Installed Anchors in Concrete	X	-	
Ordinary Steel Moment Frame - Fabrication	-	-	Fabricator shall submit shop drawings and QA/QC procedures as a deferred submittal
Ordinary Steel Moment Frame - Installation	X	-	Field welds of moment frame base to steel wide flange beam.

Hanger Conversion Table

TYPE	SIMPSON STRONG-TIE PRODUCT #	USP CONNECTORS PRODUCT #
HOLDOWNS	HDUx-SDS2.5	PHDxA
	STHD14/STHD14RJ	STAD14/STAD14RJ
	DTT1Z	LTS19-TZ w/ 1"x1"x⅛" PLATE WASHER (TO ACCOMMODATE ⅜" LAG SCREW)
STRAPS	MST48	KST248
	ST2215	KST216
	ST6224	KST224
	CS16	RS150
	MASA / MASAP	FA4
	CMSTC16	CMSTC16
ANGLES/TIES	LGT2	LUGT2
	LTP4	MP4F
	LTP5	MP6F
	A34	MP34
	A35	MPA1
	H1	RT15
	H2.5	RT7
	H2.5A	RT7A
POST CAPS	LPCxZ	PBxx-6TZ
	LCE4	PBES74
	EPCxx	EPCMxx
	CCQxxSDS5.5	KCCQxx
	ECCQxxSDS5.5	KECCQxx
	ACx	PBSxx
POST BASES	PBxx	WExx
	ABUxx	PAUxx
	ABAxx	PAxxE
DRAG STRUTS	HTS30C	HTW30C
	HTS30	HTW30
	DSC5	DSC4
HANGERS	LUSxx	JUSxx
	IUSxx	THFxx
	ITTxx	THOxx
	HUxx / HUCxx	HDxx / HDxxIF
	MIUxx	THFxx
	HUSxx	HUSxx

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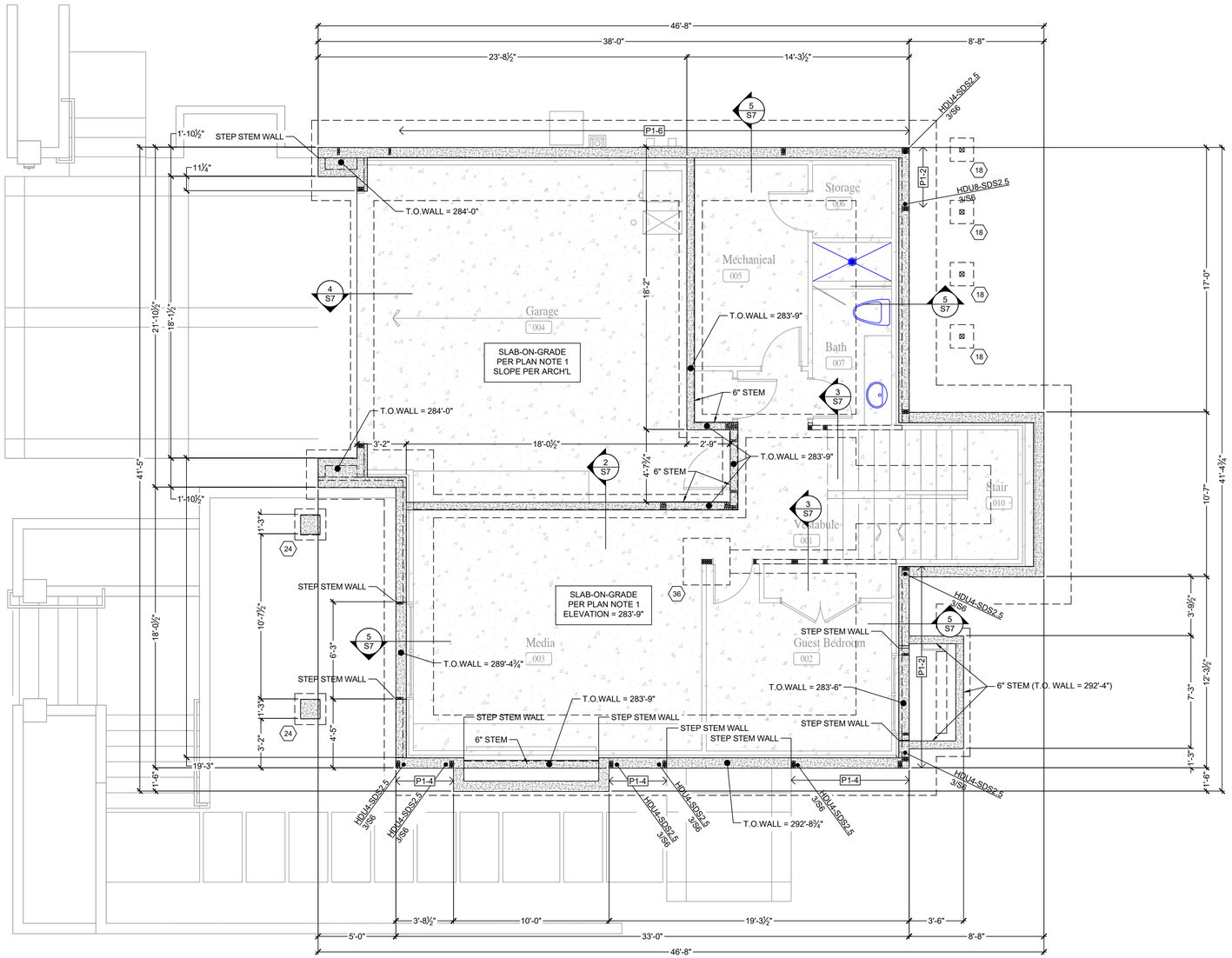
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Revisions To A New Residence for

Teddy and Megan Dann

3008 70th Avenue S.E. - Mercer Island, WA 98040

S1



FOUNDATION PLAN

1/4"=1'-0"

FOUNDATION PLAN NOTES:

1. SLAB-ON-GRADE SHALL BE 4" THICK WITH 6x6 W1.4xW1.4 WWM AT CENTER, U.O.N. SLAB SHALL BE POURED OVER BASE SOIL PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. SLAB SHALL BE POURED OVER 10MIL VAPOR BARRIER PLACED OVER FREE-DRAINING GRANULAR FILL. SEE ARCHITECTURAL DRAWINGS FOR SLAB ELEVATION, DEPRESSION, AND SLOPE REQUIREMENTS. WWM MAY BE OMITTED IF SLAB CONCRETE MIX IS INCLUDES FIBROUS REINFORCEMENT PER GENERAL STRUCTURAL NOTES.
2. PROVIDE CONSTRUCTION/CONTROL JOINT IN SLAB PER ARCHITECTURAL DRAWINGS. AREAS SHALL BE APPROXIMATELY SQUARE AND 400-SF OR LESS.
3. BOTTOM OF FOOTINGS SHALL BE SET ON COMPETENT, PROPERLY COMPACTED BEARING SOIL BELOW FROST DEPTH. THE CONTRACTOR SHALL DETERMINE ACTUAL FOOTING ELEVATIONS BASED ON FINAL GRADES AND SITE CONDITIONS. CONSULT WITH THE GEOTECHNICAL ENGINEER AS REQUIRED.
4. ANCHOR BOLTS FOR EXTERIOR STUD WALLS SHALL BE IN ACCORDANCE WITH P1-6 OF THE SHEAR WALL SCHEDULE OF 1/S6, U.O.N.
5. TOP OF STEM WALL ELEVATION SHALL BE 292'-9⅜", U.O.N.

LEGEND

- X / Sx — DETAIL CALL-OUT
- P1-x — ANCHOR BOLTS FOR SHEAR WALL ABOVE PER SCHEDULE OF 1/S6
- SLAB-ON-GRADE PER PLAN NOTE 1
- FOUNDATION WALL AND FOOTING
- BEARING OR SHEAR WALL ABOVE
- xx — FOOTING CALLOUT - SEE 4/S6

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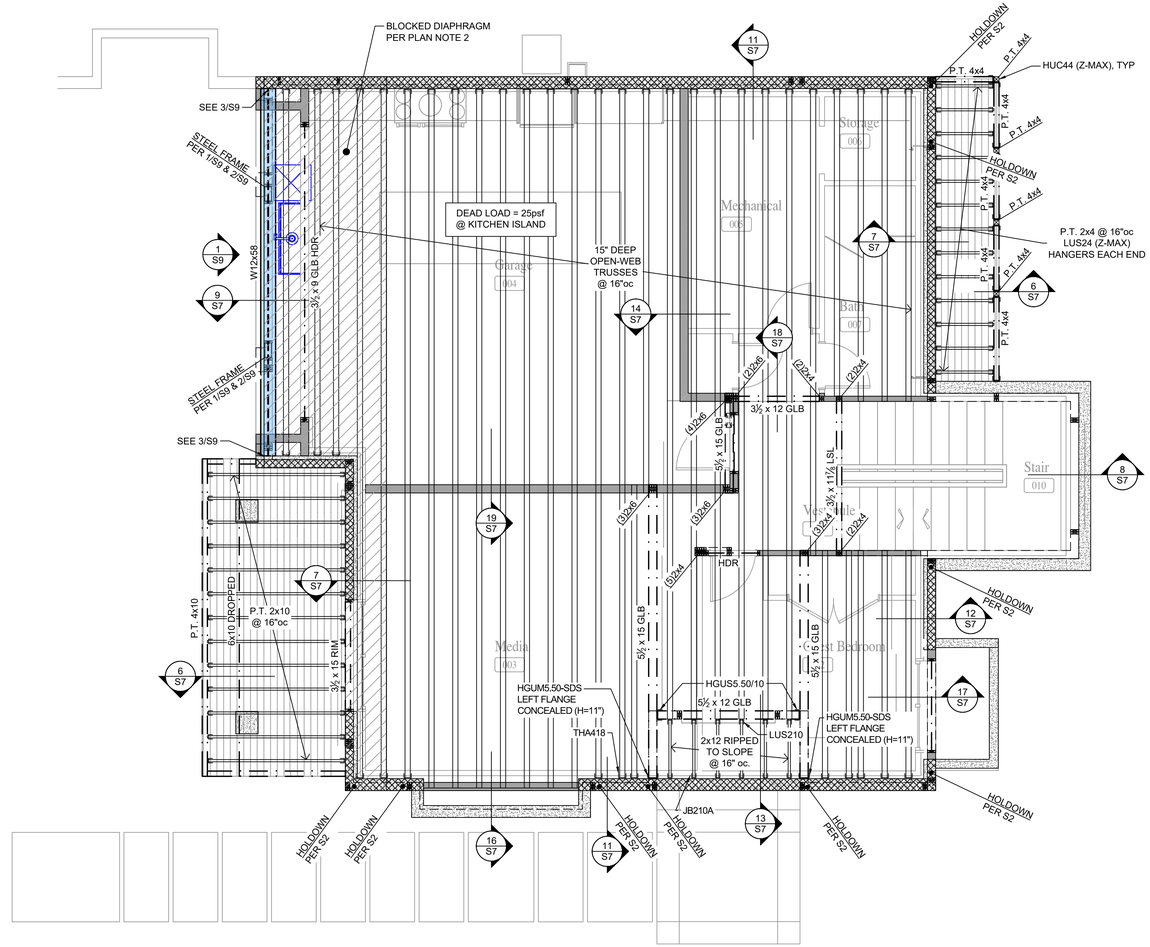
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Revisions To A New Residence for

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S2



LOWER WALL/MAIN FLOOR FRAMING PLAN

1/4"=1'-0" 0 1 2 4 8 16

FLOOR FRAMING PLAN NOTES:

1. FLOOR SHEATHING SHALL BE 1⅛" THICK T&G (SINGLE FLOOR PANEL SPAN RATING 48" oc). GLUE SHEATHING TO ALL FRAMING MEMBERS AND BLOCKING BELOW WITH ADHESIVE CONFORMING TO A.P.A.SPECIFICATION AFG-01. FASTEN SHEATHING TO FRAMING WITH WSV212 SUBFLOOR SCREWS (#9 x 2") or 0.131"Ø x 2½" NAILS AS FOLLOWS:

FRAMING, EDGES	6"oc
FRAMING, EDGES @ BLOCKED DIAPHRAGM	4"oc
FRAMING, FIELD	10"oc
BOUNDARIES, BLOCKING, STRUTS	6"oc

AT AREAS INDICATED AS BLOCKED DIAPHRAGM, PROVIDE 2x FLAT BLOCKING (PER GENERAL STRUCTURAL NOTES) AT ALL UNFRAMED SHEATHING PANEL EDGES. FASTEN SHEATHING TO FRAMING AND BLOCKING WITH WSV212 SUBFLOOR SCREWS (#9 x 2½") or 0.131"Ø x 2½" NAILS AS FOLLOWS:

SEE DRAWINGS FOR OTHER SHEATHING NAILING REQUIREMENTS.

2. AT AREAS INDICATED AS BLOCKED DIAPHRAGM, PROVIDE 2x FLAT BLOCKING (PER GENERAL STURCTURAL NOTES) AT ALL UNFRAMED SHEATHING PANEL EDGES.

3. FLOOR FRAMING SHALL BE 15" DEEP "4x2" CONNECTOR-PLATE TRUSSES @ 16"oc, U.O.N. LOADING SHALL BE AS FOLLOWS, U.O.N.:

TOP CHORD LIVE LOAD	40-psf
TOP CHORD DEAD LOAD	10-psf
BOTTOM CHORD LIVE LOAD	N/A
BOTTOM CHORD DEAD LOAD	5-psf

MAXIMUM LIVE LOAD DEFLECTION SHALL BE THE SMALLER OF L/900 or ½". REFER TO GENERAL STRUCTURAL NOTES FOR OTHER REQUIREMENTS.

LAYOUT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. GIRDER AND BEAM LOCATIONS SHOWN SHALL NOT BE CHANGED WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER. OTHER FRAMING LAYOUT SHOWN MAY BE MODIFIED TO ACCOMMODATE ACCESS, HVAC OR OTHER FIXTURES.

WALL FRAMING PLAN NOTES:

4. EXTERIOR WALLS SHALL BE SHEAR WALL TYPE P1-6 WITH 2x6 STUDS @ 16"oc, U.O.N. INTERIOR WALLS SHALL BE 2x4 STUDS @ 16"oc, U.O.N.

   WHERE ADJACENT SHEAR WALLS ARE IN CONTACT, NAIL STUDS TOGETHER PER 13/S6. SEE 1/S6 FOR SPECIAL STUD REQUIREMENTS AT SHEAR WALL TYPES P1-3, P1-2, P2-4, P2-3, AND P2-2.

5. TOP PLATE ELEVEATION SHALL BE PER ARCHITECTRUAL DRAWINGS.

6. HEADERS SHALL BE 4x8, U.O.N. SEE DETAIL 19/S6.

7. BUILT-UP STUD GROUPS IN WALLS SUPPORTING BEAMS, POSTS OR GIRDER TRUSSES ABOVE SHALL BE (2) STUDS, U.O.N. SEE GENERAL STRUCTURAL NOTES FOR FASTENING REQUIREMENTS.

LEGEND

X / Sx	DETAIL CALL-OUT
P1-x	SHEAR WALL BELOW PER SCHEDULE OF 1/S6
	BEARING OR SHEAR WALL BELOW
	MUDSILL BELOW
	BEARING OR SHEAR WALL ABOVE
PT LD	BLOCK THRU FLOOR FOR POST ABOVE (MATCH AREA)
XXX	POST BELOW
(F)	FLUSH FRAMED (BOTTOM FLUSH W/ BOTTOM OF FRAMING)
HDR	HEADER PER PLAN NOTE 5

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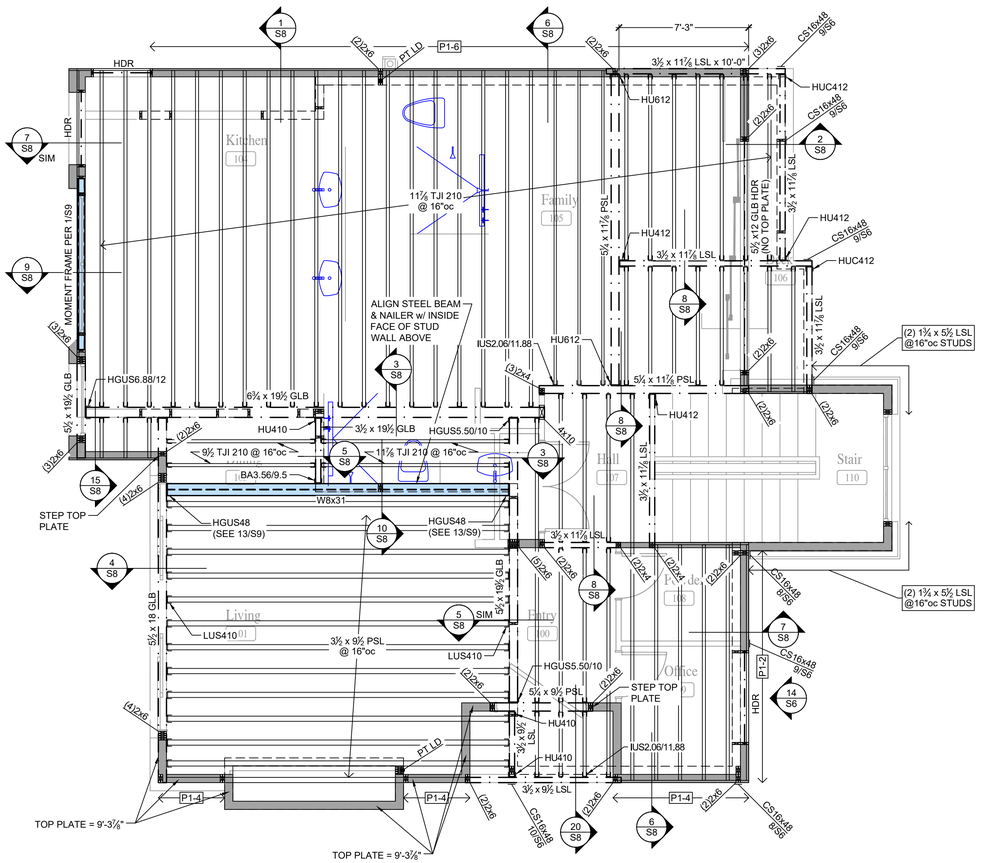
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Revisions To A New Residence for

Teddy and Megan Dann

3008 70th Avenue S.E. - Mercer Island, WA 98040

S3



FLOOR FRAMING PLAN NOTES:

1. FLOOR SHEATHING SHALL BE 1⅛" THICK T&G (SINGLE FLOOR PANEL SPAN RATING 48" oc). GLUE SHEATHING TO ALL FRAMING MEMBERS AND BLOCKING BELOW WITH ADHESIVE CONFORMING TO A.P.A.SPECIFICATION AFG-01. FASTEN SHEATHING TO FRAMING WITH WSV212 SUBFLOOR SCREWS (#9 x 2") or 0.131"Ø x 2½" NAILS AS FOLLOWS:

FRAMING, EDGES	6"oc
FRAMING, EDGES @ BLOCKED DIAPHRAGM	4"oc
FRAMING, FIELD	10"oc
BOUNDARIES, BLOCKING, STRUTS	6"oc

AT AREAS INDICATED AS BLOCKED DIAPHRAGM, PROVIDE 2x FLAT BLOCKING (PER GENERAL STRUCTURAL NOTES) AT ALL UNFRAMED SHEATHING PANEL EDGES. FASTEN SHEATHING TO FRAMING AND BLOCKING WITH WSV212 SUBFLOOR SCREWS (#9 x 2½") or 0.131"Ø x 2½" NAILS AS FOLLOWS:

SEE DRAWINGS FOR OTHER SHEATHING NAILING REQUIREMENTS.

2. FLOOR JOISTS SHALL BE 11⅞" TJI 210 @ 16"oc, U.O.N.

LAYOUT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. GIRDER AND BEAM LOCATIONS SHOWN SHALL NOT BE CHANGED WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER. OTHER FRAMING LAYOUT SHOWN MAY BE MODIFIED TO ACCOMMODATE ACCESS, HVAC OR OTHER FIXTURES.

WALL FRAMING PLAN NOTES:

3. EXTERIOR WALLS SHALL BE SHEAR WALL TYPE P1-6 WITH 2x6 STUDS @ 16"oc, U.O.N.
INTERIOR WALLS SHALL BE 2x4 STUDS @ 16"oc, U.O.N.

WHERE ADJACENT SHEAR WALLS ARE IN CONTACT, NAIL STUDS TOGETHER PER 13/S6. SEE 1/S6 FOR SPECIAL STUD REQUIREMENTS AT SHEAR WALL TYPES P1-3, P1-2, P2-4, P2-3, AND P2-2.

4. TOP PLATE ELEVATION SHALL BE 10'-0" U.O.N.

5. HEADERS SHALL BE 3½ x9, U.O.N. SEE DETAIL 19/S6.

6. BUILT-UP STUD GROUPS IN WALLS SUPPORTING BEAMS, POSTS OR GIRDER TRUSSES ABOVE SHALL BE (2) STUDS, U.O.N. SEE GENERAL STRUCTURAL NOTES FOR FASTENING REQUIREMENTS.

LEGEND

X / Sx	DETAIL CALL-OUT
P1-x	SHEAR WALL BELOW PER SCHEDULE OF 1/S6
	BEARING OR SHEAR WALL BELOW
	BEARING OR SHEAR WALL ABOVE
PT.LD	BLOCK THRU FLOOR FOR POST ABOVE (MATCH AREA)
XXX	POST BELOW
(F)	FLUSH FRAMED (BOTTOM FLUSH W/ BOTTOM OF FRAMING)
HDR	HEADER PER PLAN NOTE 5

MAIN WALL/UPPER FLOOR FRAMING PLAN

1/4"=1'-0" 0 1 2 4 8 16

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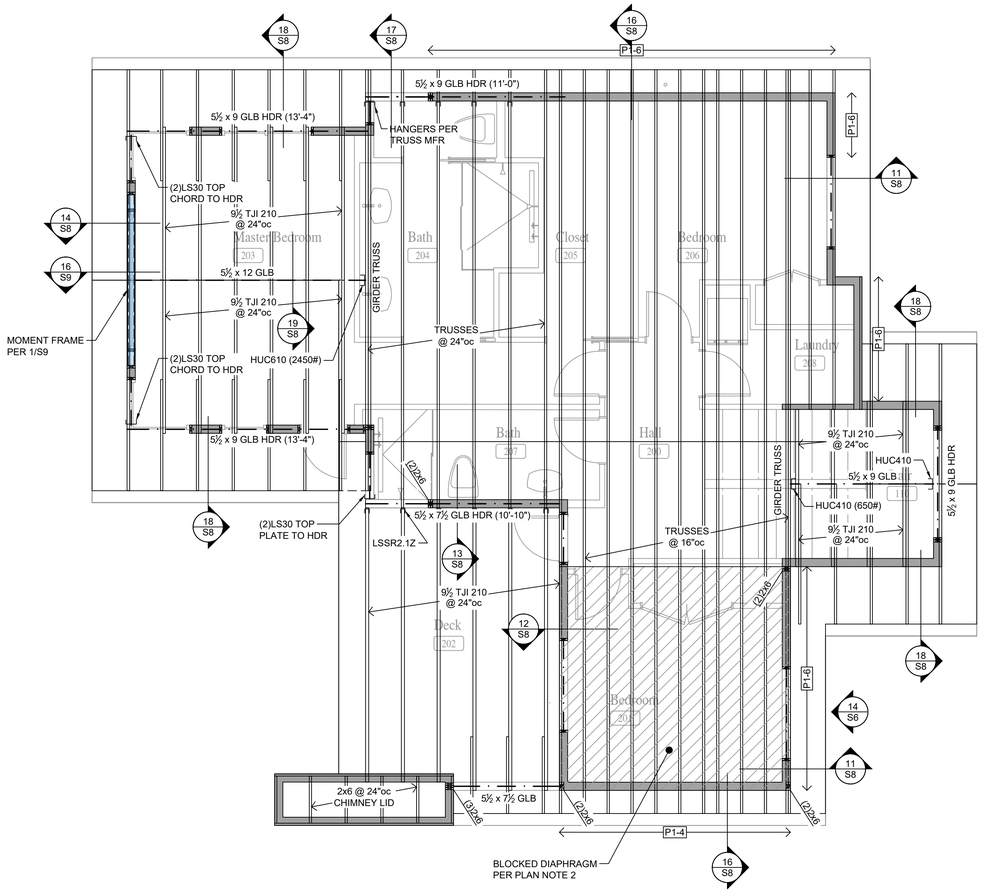
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S4



UPPER WALL/ROOF FRAMING PLAN

1/4"=1'-0" 0 1 2 4 8 16

ROOF FRAMING PLAN NOTES:

1. ROOF SHEATHING SHALL BE ⅞" THICK (PANEL SPAN RATING 32/16). FASTEN SHEATHING TO FRAMING WITH 0.131"Ø x 2½" NAILS AS FOLLOWS:

FRAMING, EDGES	6"oc
FRAMING, FIELD	12"oc
BOUNDARIES, BLOCKING, STRUTS	6"oc

AT UNFRAMED PANEL EDGES, PROVIDE PSCA FRAMING CLIPS CENTERED BETWEEN EACH FRAMING MEMBER. SEE DRAWINGS FOR OTHER SHEATHING NAILING REQUIREMENTS.

2. AT AREAS INDICATED AS BLOCKED DIAPHRAGM, PROVIDE 2x FLAT BLOCKING (PER GENERAL STURCTURAL NOTES) AT ALL UNFRAMED SHEATHING PANEL EDGES.

3. ROOF FRAMING SHALL BE CONNECTOR PLATE TRUSSES, U.O.N. LOADING SHALL BE AS FOLLOWS:

TOP CHORD SNOW LOAD	25-psf
TOP CHORD DEAD LOAD	10-psf
BOTTOM CHORD LIVE LOAD	N/A
BOTTOM CHORD DEAD LOAD	5-psf

LAYOUT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. GIRDER AND BEAM LOCATIONS SHOWN SHALL NOT BE CHANGED WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER. OTHER FRAMING LAYOUT SHOWN MAY BE MODIFIED TO ACCOMMODATE ATTIC ACCESS, SKYLIGHTS, HVAC OR OTHER FIXTURES.

WALL FRAMING PLAN NOTES:

4. EXTERIOR WALLS SHALL BE SHEAR WALL TYPE P1-6 WITH 2x6 STUDS @ 16"oc, U.O.N.
INTERIOR WALLS SHALL BE 2x4 STUDS @ 16"oc, U.O.N.

WHERE ADJACENT SHEAR WALLS ARE IN CONTACT, NAIL STUDS TOGETHER PER 13/S6. SEE 1/S6 FOR SPECIAL STUD REQUIREMENTS AT SHEAR WALL TYPES P1-3, P1-2, P2-4, P2-3, AND P2-2.

5. TOP PLATE ELEVATION SHALL BE 8'-10½" U.O.N.

6. HEADERS SHALL BE 5½ x 7½ GLB, U.O.N. T.O. HEADER ELEVATION SHAL BE 9'-3", U.O.N. SEE DETAIL 20/S6.
NO HEADERS @ GABLE ENDS. DO NOT SPLICE TOP CHORD @ OPENINGS.

7. BUILT-UP STUD GROUPS IN WALLS SUPPORTING BEAMS, POSTS OR GIRDER TRUSSES ABOVE SHALL BE (2) STUDS, U.O.N. SEE GENERAL STRUCTURAL NOTES FOR FASTENING REQUIREMENTS.

LEGEND

X / Sx	DETAIL CALL-OUT
P1-x	SHEAR WALL BELOW PER SCHEDULE OF 1/S6
	BEARING OR SHEAR WALL BELOW
⊠	POST BELOW
(F)	FLUSH FRAMED (BOTTOM FLUSH W/ BOTTOM OF FRAMING)
HDR	HEADER PER PLAN NOTE 5

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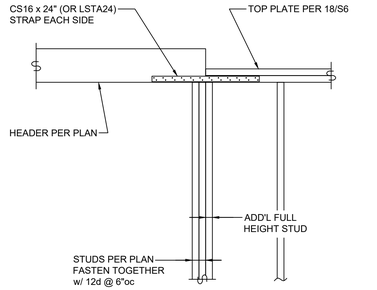
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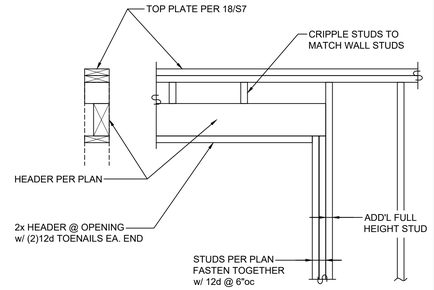
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PERMIT UPDATE	10/1/2024
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PLAN REVIEW 2	04/17/2025

Revisions To A New Residence for
Teddy and Megan Dann
3008 70th Avenue S.E. - Mercer Island, WA 98040

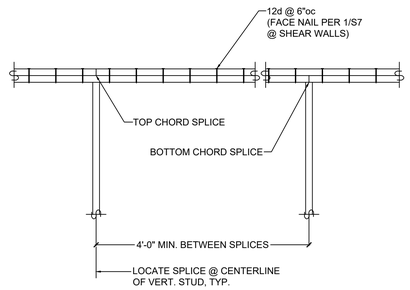
S5



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SHEAR WALL SCHEDULE

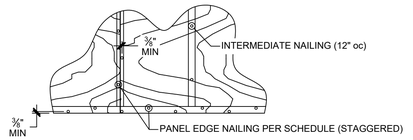
(IN ACCORDANCE w/ ANSI/AF&PA SDPWS-2021 SECTION 4.3)
Updated 4/1/2024

WALL TYPE	SHEATHING (1)	PANEL EDGE NAILING (2)	MINIMUM WIDTH OF NAILED FACE OF FRAMING @ ADJOINING PANEL EDGES (3)		MUDSILL PLATE	FACE NAILING (4)	FRAMING CLIPS (5)	ANCHORAGE TO CONCRETE (6)		SEISMIC CAPACITY - h/b = 2 h/b = 3.5	WIND CAPACITY - h/b = 2 h/b = 3.5
			SINGLE MEMBER	BUILT-UP MEMBER				ANCHOR BOLTS	MUDSILL ANCHORS		
P1-6	1 SIDE	6" oc	2x	2x	2x	6" oc	A35 @ 28" oc or LTP4 @ 28" oc	⅝"Ø @ 60" oc	MASAP @ 52" oc	240-plf 194-plf	240-plf 194-plf
P1-4	1 SIDE	4" oc	2x	2x	2x	4" oc	A35 @ 19" oc or LTP4 @ 19" oc	⅝"Ø @ 46" oc	MASAP @ 36" oc	350-plf 284-plf	350-plf 284-plf
P1-3	1 SIDE	3" oc	3x	(2)2x	2x	3" oc	A35 @ 14" oc or LTP4 @ 14" oc	⅝"Ø @ 36" oc	MASAP @ 28" oc	450-plf 366-plf	450-plf 366-plf
P1-2	1 SIDE	2" oc	3x	(2)2x	2x	2" oc	A35 @ 8" oc or LTP4 @ 8" oc	⅝"Ø @ 20" oc	MASAP @ 18" oc	590-plf 478-plf	820-plf 669-plf
P2-2	2 SIDES	2" oc	3x	(2)2x	3x	(2) Rows, 2" oc	A35 @ 8" oc and LTP4 @ 8" oc	⅝"Ø @ 12" oc	MASAP @ 7" oc	1180-plf 957-plf	1640-plf 1338-plf

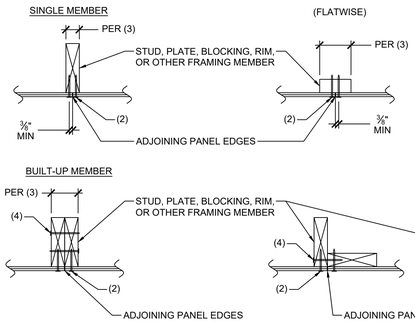
SHEAR WALL SCHEDULE NOTES

(1) SECTION 4.3.7.1.1
⅞6" OSB or 15/32" PLYWOOD SHEATHING OR SIDING EXCEPT GROUP 5 SPECIES. MINIMUM PANEL SPAN RATING OF (24/0). PANELS SHALL NOT BE LESS THAN 4'x8', EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING. ALL EDGES OF ALL PANELS SHALL BE SUPPORTED BY AND FASTENED TO FRAMING MEMBERS OR BLOCKING.

(2) SECTION 4.3.7.1.2. & SECTION 4.3.7.1.3
PANEL EDGE NAILING APPLIES TO ALL SHEATHING PANEL EDGES. NAIL SHEATHING TO INTERMEDIATE FRAMING MEMBERS WITH SHEATHING NAILS @ 12"oc. MAXIMUM STUD SPACING SHALL BE 16"oc. SHEATHING NAILS SHALL BE 0.131"Ø x 2½". PLYWOOD EDGE NAILING SHALL BE STAGGERED. NAILS SHALL BE LOCATED AT LEAST ⅜" FROM THE PANEL EDGES.

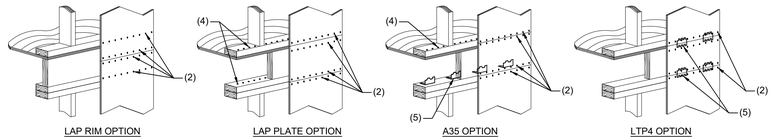


(3) SECTION 4.3.7.1.4
THE MINIMUM NOMINAL WIDTH OF THE NAILED FACE OF FRAMING AND BLOCKING AT ADJOINING PANEL EDGES SHALL BE AS INDICATED IN THE SCHEDULE.



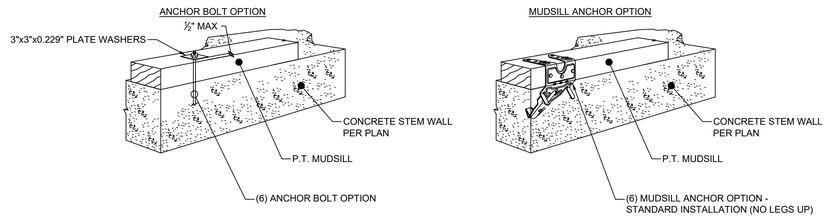
(4) FACE NAILING APPLIES TO CONDITIONS WHERE FRAMING NAILS CAN BE STRAIGHT DRIVEN THRU FIRST MEMBER AND PENETRATE MAIN MEMBER MINIMUM OF 1½". FRAMING NAILS SHALL BE 0.131"Ø x 3¼". 0.131"Ø x 3" NAILS MAY BE USED WHEN STITCHING TOGETHER (2)2x MEMBERS WITH NO SPACERS.

(5) AT ADJOINING PANEL EDGES WHERE SHEATHING CANNOT LAP ON SINGLE MEMBER AND FACE NAILING CANNOT BE ACCOMPLISHED, FRAMING CLIPS SHALL BE USED TO FASTEN BUILT-UP MEMBERS. USE 0.131"Ø x 2½" NAILS AT LTP4 CLIP WHEN INSTALLED OVER ½" SHEATHING.

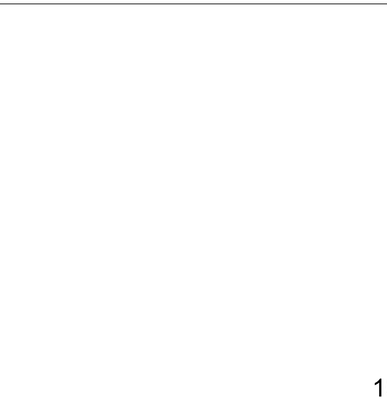


LAP RIM OPTION | LAP PLATE OPTION | A35 OPTION | LTP4 OPTION

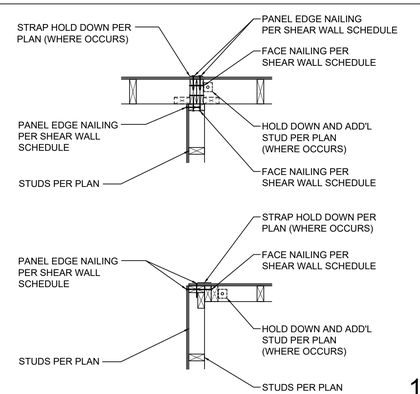
(6) SECTION 4.3.6.4.3
ANCHOR BOLTS EMBEDMENT SHALL BE 7", U.O.N. ALL ANCHORS SHALL HAVE 3" x 3" x 0.229" PLATE WASHERS. PLATE WASHER SHALL EXTEND TO WITHIN ½" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING. IF SHEATHING IS ON BOTH SIDES OF THE WALL, STAGGER THE ANCHOR BOLTS, AS REQUIRED, SO THAT HALF OF THE PLATE WASHERS ARE WITHIN ½" OF THE EDGE OF THE BOTTOM PLATE ON EACH SIDE. HOLE IN PLATE WASHERS MAY BE DIAGONALLY SLOTTED.



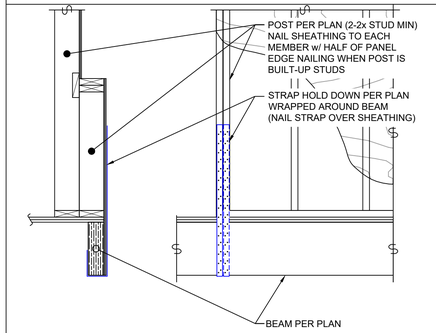
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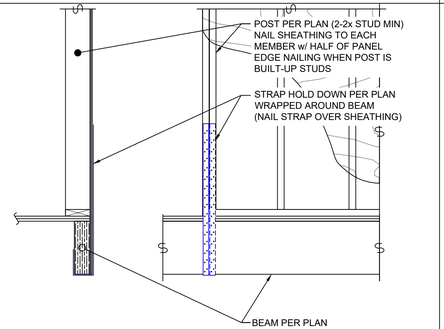
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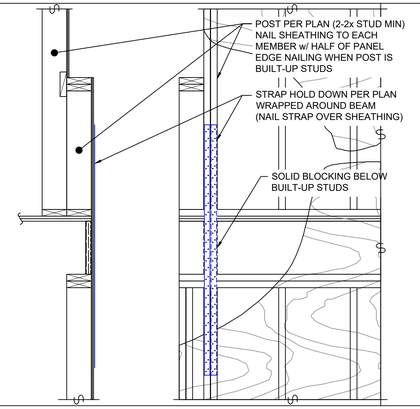
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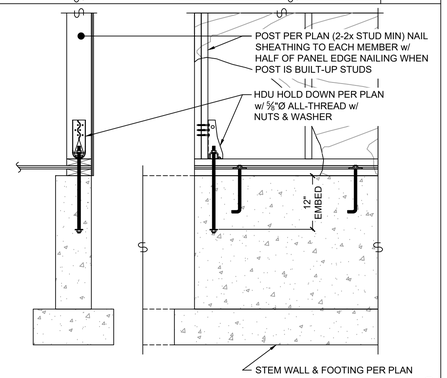


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5

PLAN CALLOUT	SIZE	REINFORCING	DETAIL REFERENCE
18	18" sq x 8" thick	(2)#4 EA. WAY BOTTOM	-
24	24" sq x 8" thick	(2)#4 EA. WAY BOTTOM	-
30	30" sq x 8" thick	(3)#4 EA. WAY BOTTOM	-
36	36" sq x 12" thick	(3)#4 EA. WAY BOTTOM	-
42	42" sq x 12" thick	(4)#4 EA. WAY BOTTOM	-
48	48" sq x 12" thick	(5) #4 EA. WAY BOTTOM	-

4



3

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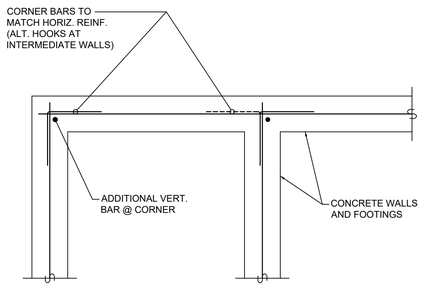
BTL ENGINEERING P.S.
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DARIAN T. LAMB
STATE OF WASHINGTON
55666
PROFESSIONAL ENGINEER
4/17/2025

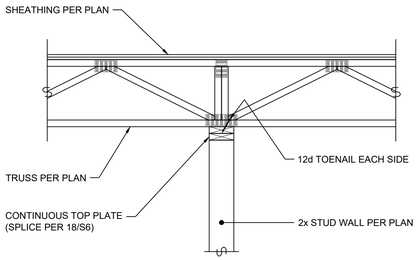
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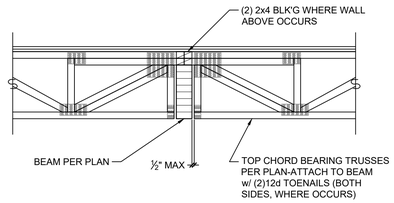
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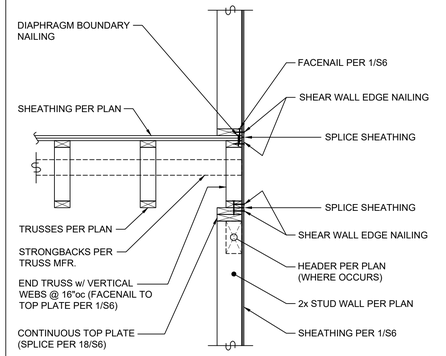
CORNER BARS 20



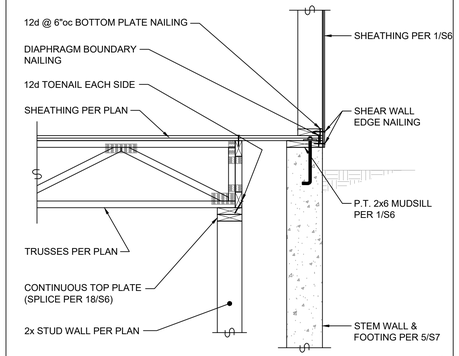
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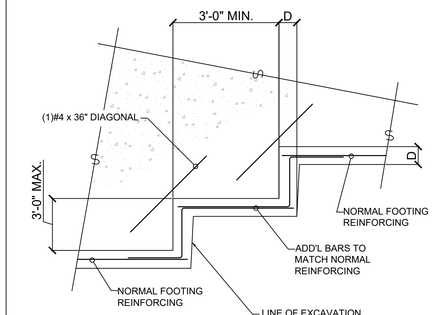
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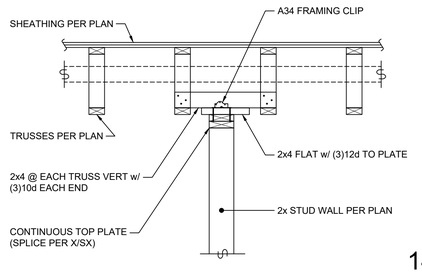
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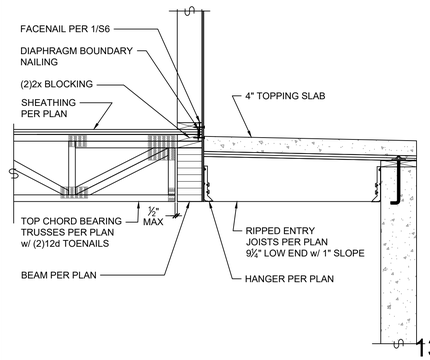
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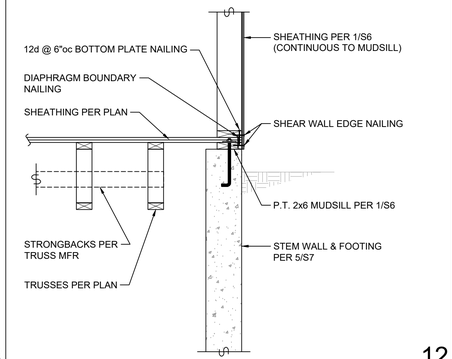
STEP IN FOOTING 15



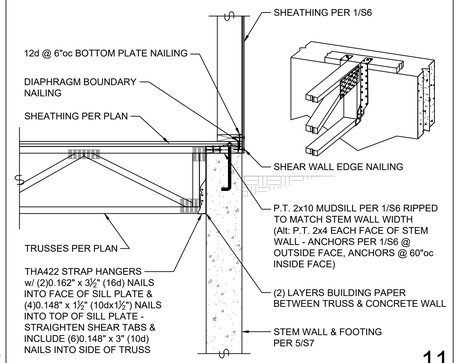
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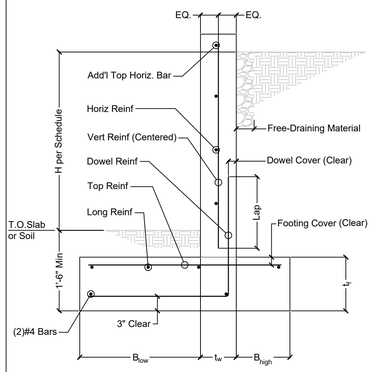
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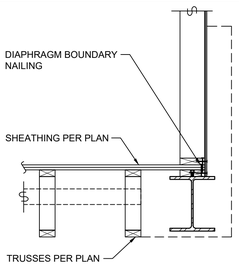
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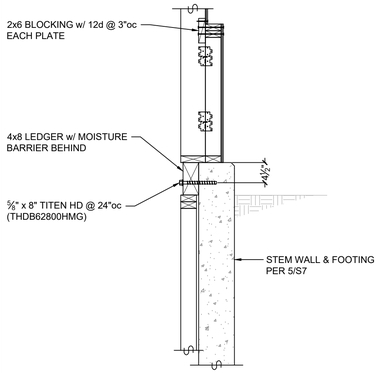
RETAINING WALL SCHEDULE												
H	B_{low}	t_w	B_{high}	t_f	Dowel Cover	Footing Cover	Vert Reinf	Dowel Reinf	Horiz Reinf	Top Reinf	Long Reinf	Lap
10'	2'-9"	8"	1'-9"	12"	½"	½"	#6 @ 7"	#6 @ 7"	#5 @ 18"	#4 @ 9"	(5)#4	42"
9'	2'-3"	8"	1'-9"	12"	½"	½"	#5 @ 7"	#5 @ 7"	#5 @ 18"	#4 @ 12"	(4)#4	36"
8'	2'-3"	8"	1'-3"	12"	½"	½"	#5 @ 11"	#5 @ 11"	#5 @ 18"	#4 @ 18"	(4)#4	36"
7'	2'-0"	8"	1'-0"	12"	½"	½"	#5 @ 17"	#5 @ 17"	#5 @ 18"	#4 @ 18"	(3)#4	30"
6'	1'-9"	8"	9"	12"	½"	½"	#4 @ 12"	#4 @ 12"	#5 @ 18"	#4 @ 18"	(2)#4	24"
5'	1'-3"	8"	9"	12"	½"	½"	#4 @ 16"	#4 @ 16"	#5 @ 18"	#4 @ 18"	(2)#4	24"
4'	SEE STANDARD FOOTING											

SOIL BEARING PRESSURE:	1500 PSF	CONCRETE STRENGTH:	2500 PSI
ACTIVE EARTH PRESSURE:	35 PCF	#4 STEEL STRENGTH (GR40):	40 KSI
PASSIVE EARTH PRESSURE:	300 PCF	#5/#6 STEEL STRENGTH (GR60):	60 KSI
FRICTION COEFFICIENT:	0.35		
SEISMIC SURCHARGE:	6H		

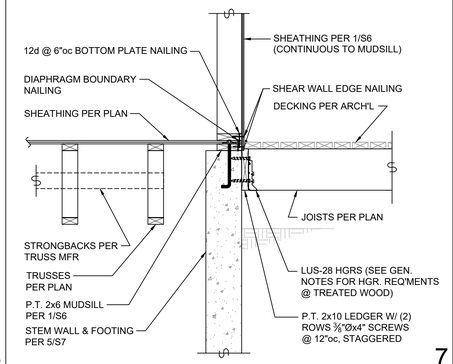
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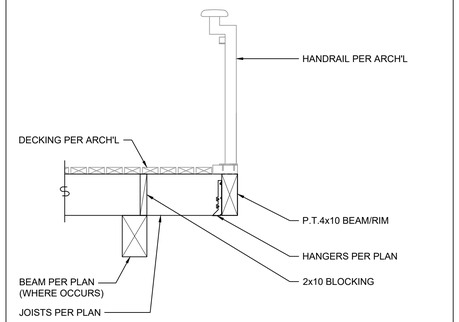
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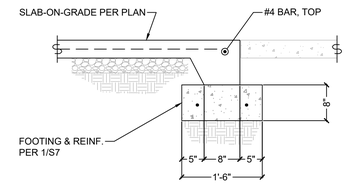
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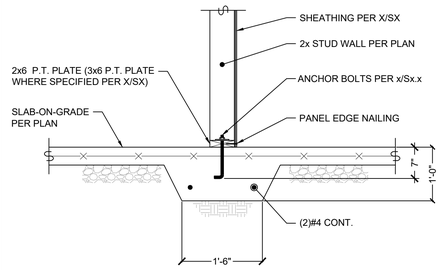
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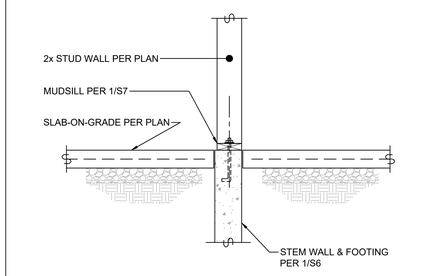
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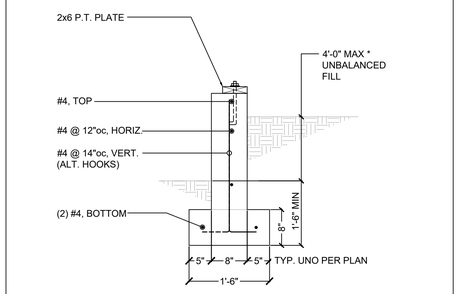
4



3



2



SEE 5/S7 WHEN UNBALANCED FILL EXCEEDS 4'-0"

1

RUDOLPH
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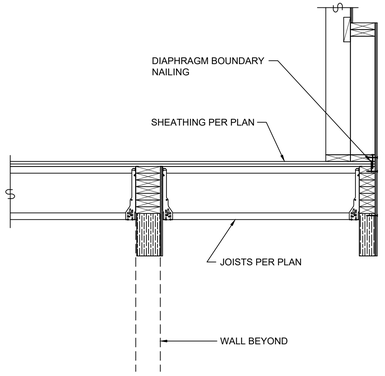
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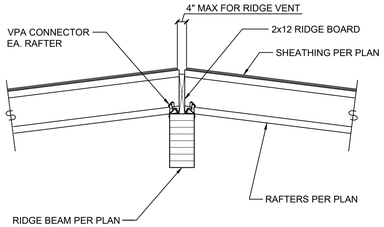
Teddy and Megan Dann

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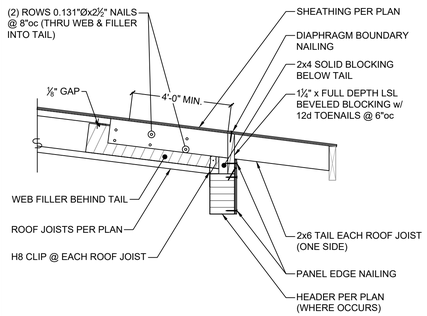
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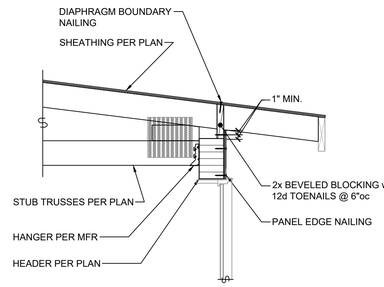
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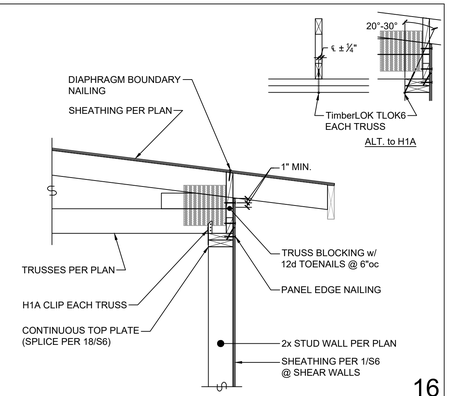
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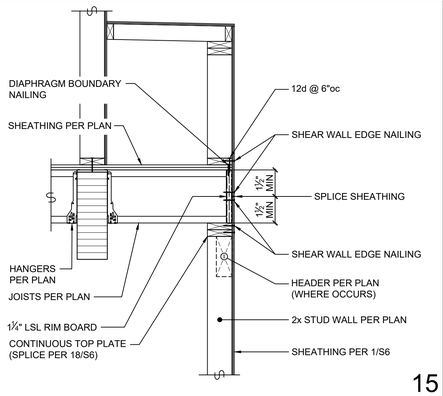
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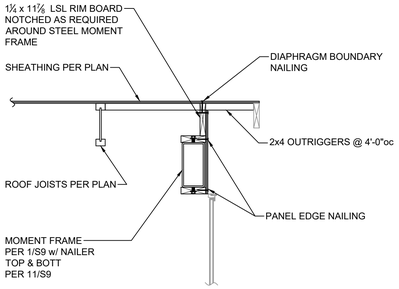
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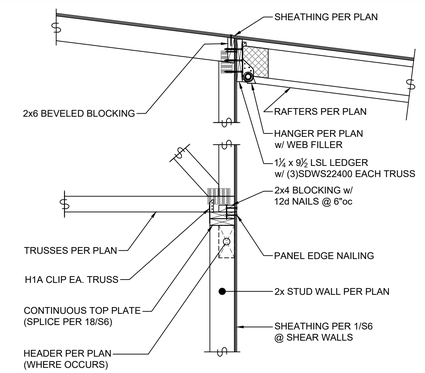
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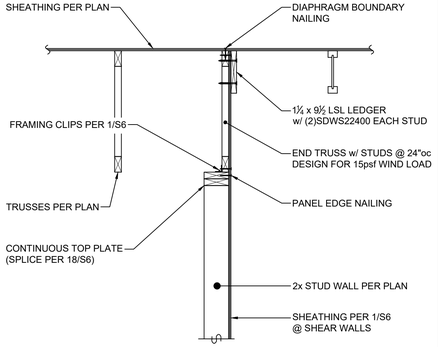
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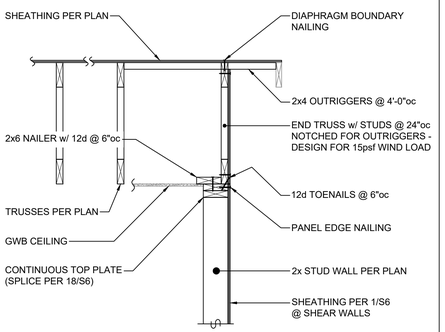
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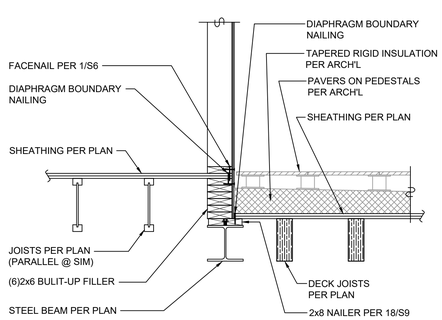
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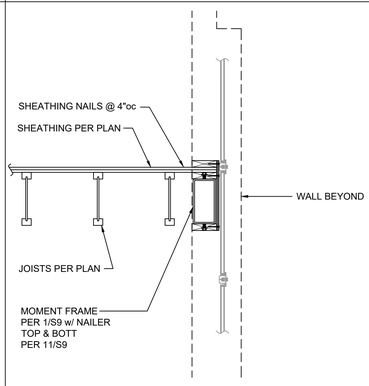
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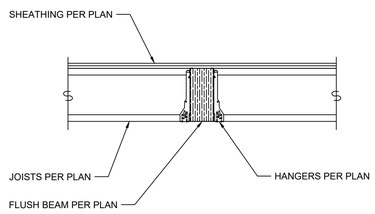
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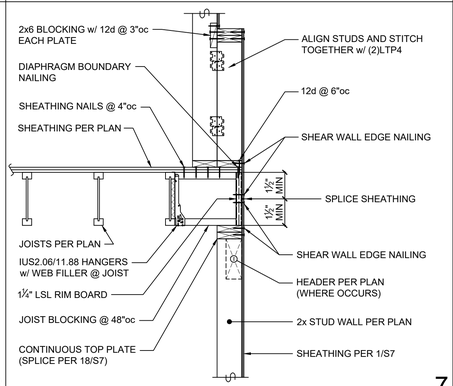
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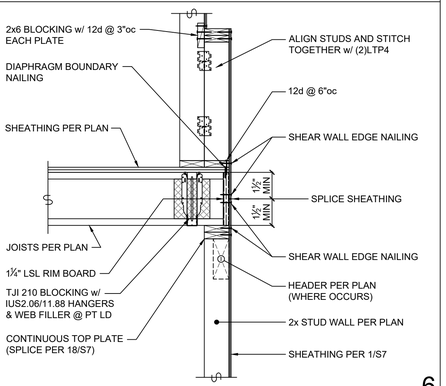
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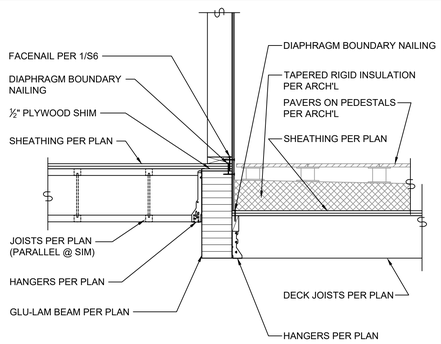
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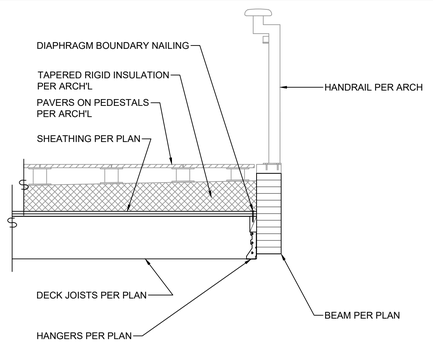
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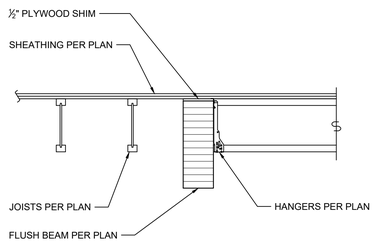
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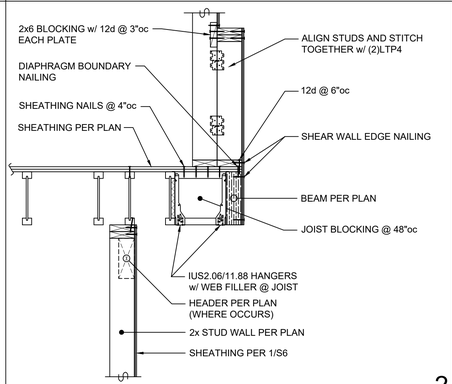
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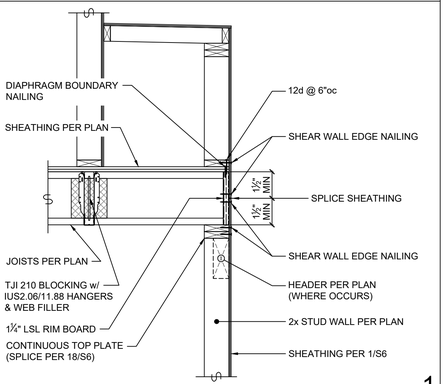
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4/17/2025

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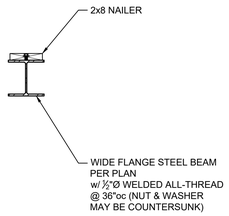
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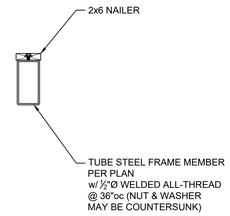
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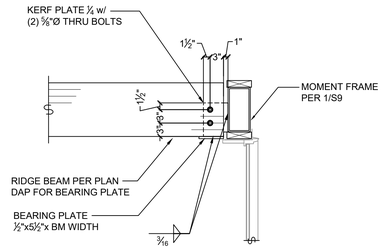
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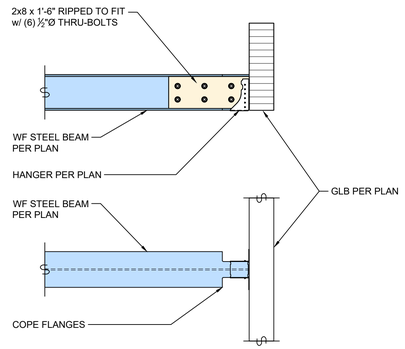
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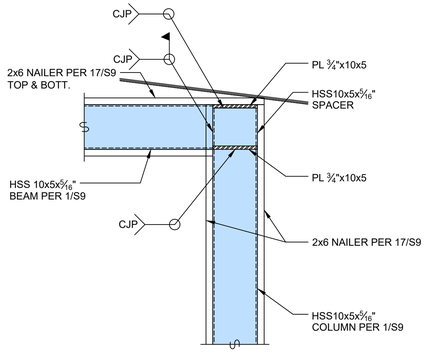
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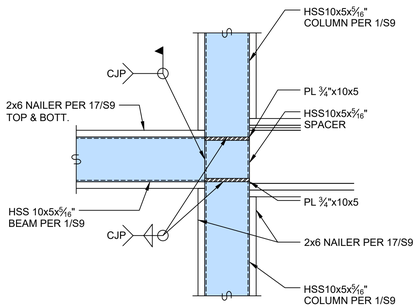


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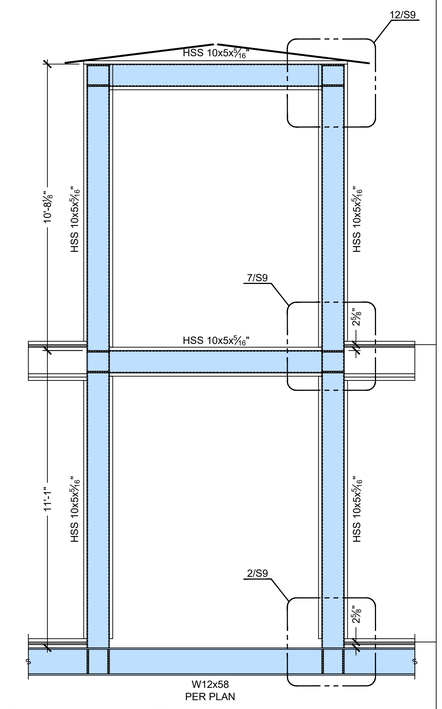
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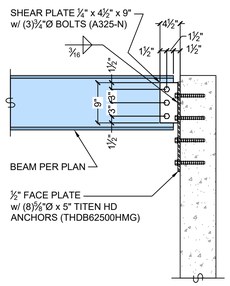
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REFER TO GENERAL STRUCTURAL NOTES FOR DEFERRED SUBMITTAL AND QA/QC REQUIREMENTS

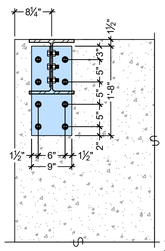
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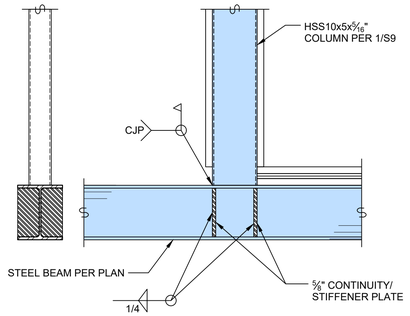


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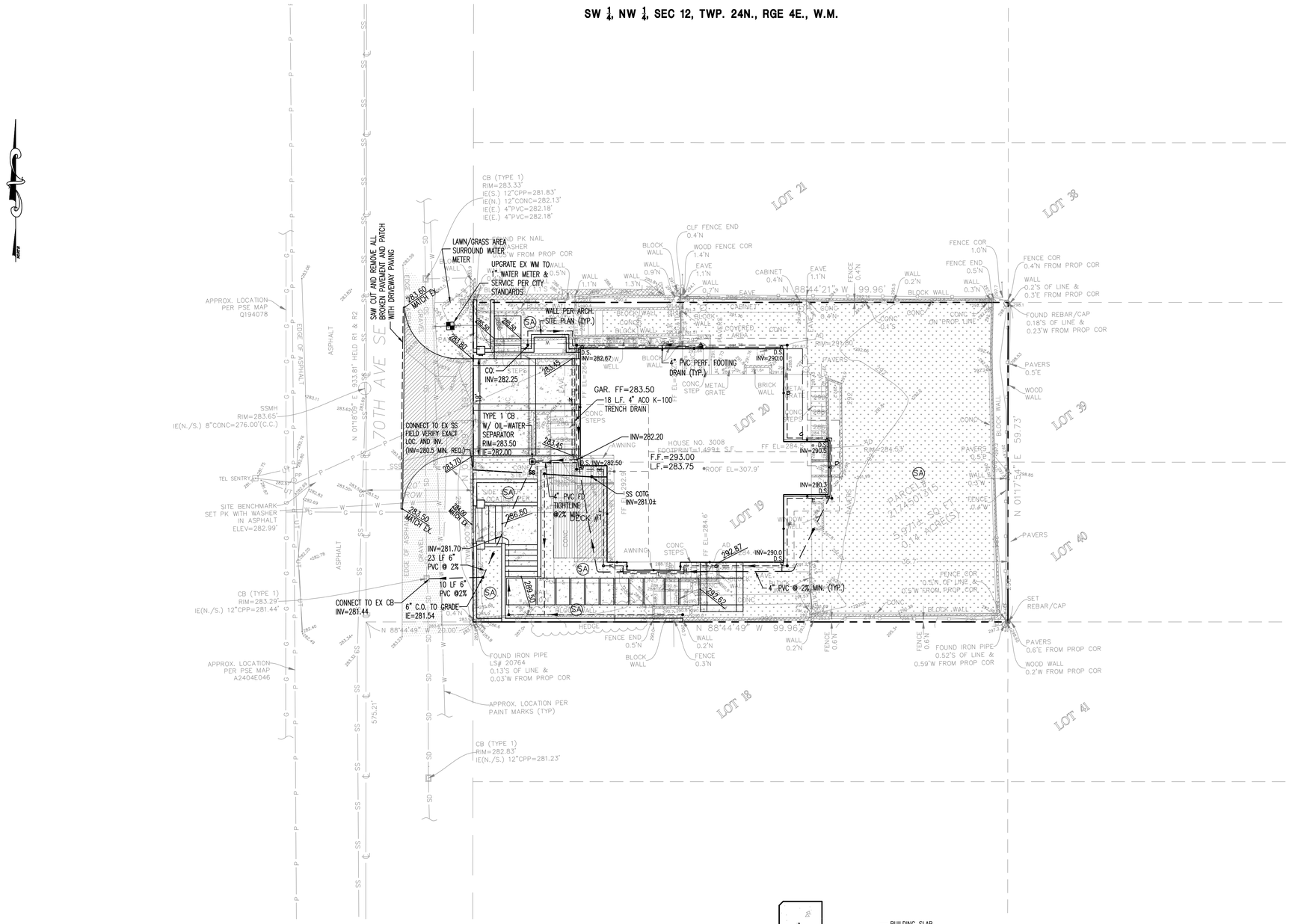
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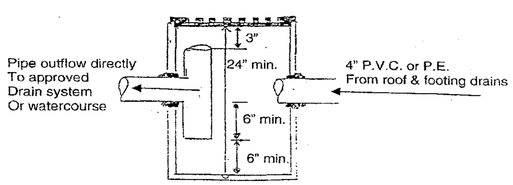
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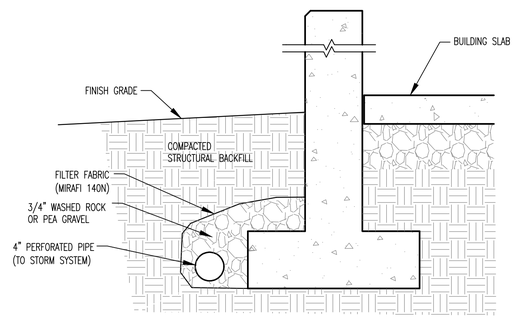
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SW ¼, NW ¼, SEC 12, TWP. 24N., RGE 4E., W.M.





Catch Basin with Oil Separator



FOOTING DRAIN DETAILS
NTS

SOIL AMENDMENT NOTE:

THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.

SIDE SEWER NOTE:

THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED.

SITE IMPERVIOUS AREA SUMMARY:

EXISTING LOT AREA = 5,971 S.F.
EXISTING BUILDING ROOF: 2,129 S.F.
EXISTING DRIVEWAY: 294 S.F.
EXISTING DECK: 72 S.F.
EXISTING WALKWAY: 674 S.F.
TOTAL EXISTING HARD SURFACES AREA = 3,169 S.F.
EXISTING IMPERVIOUS IS $\frac{3169}{5971}$=53.1% > 35% (REDEVELOPMENT FLOW CHART)

PROPOSED DRIVEWAY WITHIN ROW: 279 S.F.
PROPOSED DRIVEWAY WITHIN PROPERTY: 363 S.F.
PROPOSED WALKWAY: 418 S.F.
PROPOSED BUILDING ROOF: 1,833 S.F.
PROPOSED DECK: 168 S.F.
TOTAL NEW HARD SURFACES AREA: 2,782 S.F. < 5000 S.F.

PER FIGURE I-3.2 FLOW CHART FOR DETERMINING REQUIREMENT FOR REDEVELOPMENT: MINIMUM #1 TO #5 APPLIED TO NEW AND REPLACED HARD SURFACES AND THE LAND DISTURBED

NET DECREASE IN IMPERVIOUS AREA ON-SITE= 387 S.F.

LEGEND

- EX. SANITARY SEWER ——SS——
- EX. WATER LINE ——W——
- EX. STORM DRAIN ——SD——
- CONCRETE DRIVEWAY
- SOIL AMENDMENT-SA
- SAW CUT LINE
- ROOF DRAIN TIGHTLINE WITH C.O.T.G.(4" PVC)
- FOOTING DRAIN W/ CLEANOUT TO GRADE (C.O.T.G.)

NOTES:

1. SEE ARCHITECTURE SITE PLAN FOR OTHER PROPOSED INFORMATION NOT SHOWN ON THIS SHEET.

DRAINAGE GENERAL NOTES:

1. DOWNSPOUTS SHALL BE TIED INTO A NON-PERFORATED, RIGID, SMOOTH-BORE PIPE WHICH DRAINS TO AN APPROVED STORM SYSTEM
2. PROVIDE CLEANOUTS AT THE UPPER END OF THE SYSTEM AND AT EACH CUMULATIVE CHANGE OF DIRECTION IN EXCESS OF 135 DEGREES.
3. ALL PIPE FITTINGS SHALL BE MADE OF THE SAME MATERIAL AS THE STRAIGHT PIPE. GLUED JOINTS SHALL USE A BONDING AGENT RECOMMENDED BY THE PIPE MANUFACTURER.
4. FOOTING DRAINS SHALL BE INSTALLED AROUND ALL NEW FOUNDATIONS AND SHALL BE TIGHLINED TO DISCHRAGE TO THE SPLASH BLOCK. FOOTING DRAINS SHALL BE CONSTRUCTED OF PERFORATED PIPE AT THE BASE OF THE FOOTING, AND SHALL MEET MATERIAL STANDARDS OF D2729 FOR PVC PIPE, WITH THE PERFORATIONS DIRECTED DOWNWARD. PLACE GRANULAR BACKFILL AROUND AND ABOVE THE FOOTING DRAIN TO A DEPTH OF 2/3 OF THE WALL HEIGHT. PROVIDE FILTER FABRIC WRAP AROUND BETWEEN THE GRANULAR BACKFILL AND THE NATIVE SOIL.

BENCHMARK AND DATUM PER SURVEY

NAD 83(2011) WASHINGTON NORTH STATE PLANE COORDINATES PER GPS OBSERVATIONS

NAVD 88 PER GPS OBSERVATIONS

Know what's below. Call before you dig.

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft. (H)

NO.	DATE	REVISION
1	06.28.2024	REVISED PER CITY COMMENTS
2	05.23.2025	ADDED WALL FD CO INV & CB CONNECTING PIPE INV.

COMEANG CHEN — WASHINGTON — 36564 — REGISTERED PROFESSIONAL ENGINEER — 05/23/2025

C2MY ENGINEERS, LLC
PO BOX 52883
BELLEVUE, WA 98015
(206) 922-9376
cmchin.c2my@gmail.com

DATE: 05-11-24

PROJECT: DANN RESIDENCE
3008 70TH AVENUE SE
MERCER ISLAND, WA 98040

Paving, Grading, Drainage Plan

FILE NO: 2405 .DWG

SHEET C2.0

May 23, 2025 - 1:08pm CMC G:\Projects\2024\2405 - 3008 70th Ave SE Mercer Is - James Rudolph\2405-C2.0.dwg Layout Name: C2

GENERAL STRUCTURAL NOTES:

CRITERIA:

1.1 All Materials, workmanship, design, and construction shall conform to the drawings, specifications, and the Seattle Building Code (SBC), 2018 Edition.

1.2 Design Loading Criteria
The Design Loading of the Structure is as follows:

Live Loads (in accordance with SCB Table 1607.1)			
Occupancy or Use	**Uniform Live Load**	**Concentrated Live Load**	**Notes**
Floor, Residential	40-psf	-	
Balconies & Decks	60-psf	-	1.5 x Occupancy Load
Uninhabitable attic, with storage	20-psf	-	Concurrent with Snow Loads
Unihabitable attic, without storage	10-psf	-	Non-concurrent with Snow Loads
Handrails and Guards	-	200-lbs	Any point, any direction (ASCE 7-16, Section 4.5.1)

Wind Design Data **ASCE 7-16, Chapter 28: Simplified Envelope Procedure**	
Basic Design Wind Speed (3-sec gust), V	100 mph
Risk Catagory	II
Wind Exposure	B
Internal Pressure Coefficient	N/A
Exterior Components and Cladding	25-psf
Topographical Factor, K_{zt}	1.60

Seismic Design Data **ASCE 7-16, Section 12.8: Equivalent Lateral Force Procedure**	
Risk Catagory	II
Seismic Importance Factor, I_e	1.0
Mapped Spect. Accel., Short Period, S_S Mapped Spect. Accel., 1-Sec, S_1	1.405 0.489
Site Class	D
Spectral Response Coeff., Short Period, S_{DS} Spectral Response Coeff., 1-Sec, S_{D1}	1.124 0.590
Seismic Design Catagory	D
Basic Seismic-Force-Resistance System	Ply. Shear Walls
Response Modification Factor, R	6.5
Seismic Response Coefficient, C_S	0.173
Design Base Shear, V	20.8 Kips

Snow Loads **(ASCE 7-16, Chapter 7)**		
Ground Snow Load, P_g		25-psf
Flat Roof Snow Load, $P_f = 0.7\ C_e\ C_t\ I_s\ P_g$		25-psf
* Snow Exposure Factor, C_e	1.0	
* Snow Load Importance Factor, I_s	1.0	
* Thermal Factor, C_t	1.2	

Do not adjust for slope or drift unless noted on the Drawings.
See Drawings for Additional Loading Criteria.

1.3 Structural Drawings shall be used in conjunction with all other project documents for bidding and construction. Contractor shall verify dimensions and conditions for compatibility and shall notify architect of all discrepancies prior to construction.

1.4 Contractor shall provide Temporary Bracing for the structure and structural components until all final connections have been completed in accordance with the drawings.

1.5 Contractor shall be responsible for all safety precautions and the methods, techniques, sequences or procedures required to perform the work.

1.6 Contractor-initiated changes shall be submitted in writing to the Architect and Structural Engineer for approval prior to fabrication or construction. Changes shown on shop drawings only will not satisfy this requirement.

1.7 Drawings indicate general and typical details of construction. Where conditions are not specifically indicated but are of similar character to details shown, similar details of construction shall be used, subject to review and approval by the Architect and the Structural Engineer.

1.8 All structural systems composed of components to be field erected shall be supervised by the Supplier during manufacturing, delivery, handling, storage and erection in accordance with instructions prepared by the Supplier.

GEOTECHNICAL:

2.1 Allowable Soil Pressure, Lateral Earth Pressure, and Soil Profile Type assume IBC prescribe minimum. Footings shall bear on firm, undisturbed earth at least 18" below adjacent finished grade. Notify Structural Engineer if suitable soil is not present. Unless otherwise noted, footings shall be centered below columns or walls above. Backfill behind all retaining walls with free draining, granular fill and provide for subsurface drainage.

Geotechnical Properties	
Soil Site Class	D
Allowable Soil Bearing Pressure	1500-psf
Active Lateral Earth Pressure (Restrained)	60-pcf
Active Lateral Earth Pressure (Unrestrained)	35-pcf
Seismic Lateral Earth Pressure	6H-psf
Passive Lateral Earth Pressure	300-pcf
Base Friction Coefficient	0.35

CONCRETE:

3.1 Concrete shall be mixed, proportioned, conveyed and placed in accordance with SBC Chapter 19 and ACI 318-14. Mix shall be proportioned to produce a slump of 5" or less. All concrete with surfaces exposed to standing water shall be air-entrained with an air-content conforming to ACI 318-14 Table 19.3.3.1. Concrete Strength, based on SBC Section 1904.1, shall be as follows:

Type or Location of Concrete Construction (Moderate Exposure)	**Min. 28-Day Compressive Strength, f'c**
Interior Slabs-on-Grade	2500-psi
Footings, Basement Walls, Foundation/Stem Walls	3000-psi[†]

[†] Specified compressive strength (f'_c) specifications address serviceability requirements. Design strength of concrete is 2500-psi, therefore, strength tests are not required. Provided concrete mix tickets verifying strength specifications.

3.2 Reinforcing Steel shall conform to ASTM A615/A615M-18e1 and the following:

Bar Size	**Steel Grade**
#5 bar and larger	Grade 60, fy = 60,000-psi
#4 bar and smaller	Grade 40, fy = 40,000-psi

Welded Wire Fabric shall conform to ASTM A1064/A1064M-18a

3.3 Reinforcing Steel shall be detailed (including hooks and bends) in accordance with ACI 318-14. Lap all continuous reinforcement (#5 and smaller) 2'-0" minimum. Laps of larger bars (#6 and #7) shall be 3'-0", min. Provide corner bars at all wall and footing intersections and lap 2'-0" minimum. Lap adjacent mats of welded wire fabric a minimum of 8" at sides and ends.

No bars partially embedded in hardened concrete shall be field bent unless otherwise noted on the drawings or approved by the structural engineer.

3.4 Concrete Protection (cover) for Reinforcing Steel shall be as follows:

Condition	**Clear Cover**
Footings and Unformed Surfaces cast against and permanently exposed to Earth	3"
Formed Surfaces exposed to Earth or Weather (#6 bars or larger)	2"
Formed Surfaces exposed to Earth or Weather (#5 bars or smaller)	1½"
Slabs and Walls, interior face (#11 bars and smaller)	¾"
Column Ties or Spirals and Beam Stirrups	1½"

STEEL:

5.1 Structural Steel design, fabrication, and erection shall be based on the following documents:

1. AISC 360-16: Specification for Structural Steel Buildings
2. AISC 341-16: Seismic Provisions for Structural Steel Buildings
3. AISC 303-16: Code of Standard Practice for Steel Buildings and Bridges
4. Specification for Structural Joints using high strength bolts (dated june 11, 2020), prepared by research council on structural connections, RCSC Committee A.1

5.2 Structural Steel shall conform to the following requirements:

Type of Member	**ASTM Specification**	**F_y**
Standard Shapes	A992	50 ksi
Plates, Angles & Rods	A36	36 ksi
Hollow Structural Sections (Tube Steel)	A500 (Grade B)	46 ksi
Anchor Bolts	F1554	36 ksi
Connection Bolts	A325-N or F1852-N	

5.3 Dimensional Tolerance for Structural Steel members shall be per the AISC 303-16, Section 6.4 and ASTM Specification A6/A6M. Unless specifically allowed by the Engineer, column members shall not be modified by the rotary straightening process.

5.4 All Welding shall be in conformance with AISC and AWS Standards and shall be performed by WABO certified welders using E70xx electrodes. Only prequalified welds (as defined by AWS) shall be used.

WOOD:

6.1 Framing Lumber shall be kiln dried or MC-19, and graded and marked in conformance with WCLB Standard Grading Rules for West Coast Lumber No. 17. Unless otherwise noted, furnish to the following minimum standards:

Member Use	**Size**	**Species**	**Grade**
Studs	2x, 3x	Hem-Fir or SPF	STUD
Joists/Rafters	2x, 3x	Hem-Fir	No. 2
Plates/Misc.	2x, 3x	Douglas Fir-Larch	No. 2
Beams	4x	Douglas Fir-Larch	No. 2
Posts	4x	Douglas Fir-Larch	No. 2
Timber, Beams	6x & Larger	Douglas Fir-Larch	No. 2
Timber, Posts	6x & Larger	Douglas Fir-Larch	No. 2

6.2 Glued Laminated Members shall be fabricated in conformance with ASTM and AITC Standards. Each member shall bear an AITC Identification Mark and shall be accompanied by an AITC certificate of conformance. Furnish to the following minimum standards:

Member Use	**Combination**	**Species**	**F_{bx+}**	**F_{bx-}**	**$F_{c\perp x}$**	**F_{vx}**	**E_x**
Beams	24F-V4	DF/DF	2400-psi	1850-psi	650-psi	265-psi	1800-ksi

Camber all glulam beams to 3,500' radius, unless otherwise noted. Glued laminated members exposed to weather or moisture shall be treated with an approved preservative.

6.3 Engineered Wood shown on the drawings are based on product manufactured by Weyerhaeuser in accordance with ICC Report No. ES ESR-1387. Alternate manufacturers may be used subject to review and approval by the Architect and Structural Engineer. All hangers and other hardware not shown shall be designed and supplied by the Joist Manufacturer. Each piece shall bear a stamp or stamps noting the name and plant number of the manufacturer, the grade, the ICC report number, and the quality control agency. Furnish to the following minimum standards:

Member Use	**Product**	**F_b**	**$F_{c\perp}$**	**F_v**	**E**
Beams	1.55E Laminated Strand Lumber (LSL)	2325-psi	800-psi	310-psi	1550-ksi
Beams	2.0E Laminated Veneer Lumber (LVL)	2600-psi	750-psi	285-psi	2000-ksi
Beams	2.0E Parallel Strand Lumber (PSL)	2900-psi	750-psi	290-psi	2000-ksi
Rim Boards	Laminated Strand Lumber (LSL)	1700-psi	680-psi	400-psi	1300-ksi

6.4 Engineered Wood I-Joists shown on the drawings are based on joists manufactured by Weyerhaeuser in accordance with ICC Report No. ES ESR-1153. Alternate Engineered Wood I-Joists manufacturers may be used subject to review and approval by the Architect and Structural Engineer.

6.5 Prefabricated Connector Plate Wood Trusses shall be designed by the manufacturer in accordance with TPI 1-2014 for the spans and conditions shown on the drawings. Wood trusses shall utilize approved connector plates (MITEK, ITW or other approved Truss Plate Manufacturer).

Unless otherwise noted, loading shall be as follows:

Roof Truss Design Loading	
Member	**Uniform Load**
Top Chord Snow Load	25-psf
Top Chord Wind Load (Uplift)	15-psf
Top Chord Dead Load	7-psf
Bottom Chord Live Load	10-psf
Bottom Chord Dead Load	5-psf

Floor Truss Design Loading	
Member	**Uniform Load**
Top Chord Live Load	40-psf
Top Chord Dead Load	10-psf
Bottom Chord Dead Load	5-psf

Submit shop drawings and design calculations prior to fabrication. Submitted documents shall bear the stamp and signature of a registered Professional Engineer, State of Washington. Truss design drawings shall include, at a minimum, the following:

A. Slope or Depth, Span and Spacing
B. Location of all Joints and Support Locations
C. Number of Plies if greater than one
D. Required Bearing Widths
E. Design Loads and Locations: Include Top and Bottom Chord Live and Dead Loads, Girder Loads, and Environmental Loads (Seismic, Wind, Snow, etc.)
F. Other Lateral Loads, including Drag Strut Loads
G. Adjustments to Wood and Metal Connector Plate Design Value for Conditions of Use
H. Maximum Reaction Force and Direction (including Maximum Uplift)
I. Metal-Connector-Plate Type, Size, Thickness, and Location
J. Size Species and Grade for each Member
K. Truss-to-Truss Connections and Truss Field Assembly Requirements
L. Calculated Span-to-Deflection Ratio and maximum Vertical and Horizontal Deflection for Live and Total Loads
M. Maximum Axial Tension and Compression Forces in each Truss Member
N. Required Permanent Individual Truss Member Restraint Location and the Method and Details of Restraint Bracing to be used
O. Placement Layout including Bearing Points, Intersections, Hips, Valleys, etc.
P. Truss-to-Truss and Truss-to-Beam Connection Details and Hardware

6.6 Roof, Floor & Wall Sheathing shall be APA Rated, Exterior or Exposure 1 Plywood or OSB manufactured under the provisions of Voluntary Product Standards DOC PS-1 or DOC PS-2, or APA PRP-108 Performance Standards and Policies for Structural Use Panels. See Drawings for thickness, span rating, and nailing requirements. Unless otherwise noted, wall sheathing shall be ½" (nominal) with Span Rating of 24/0. Glue floor sheathing to all supporting members with adhesive conforming to APA Specification AFG-01.

6.7 Wood members shall be protected against decay and termites in accordance with SBC Section 2304.12. Where required, members shall be naturally durable species or shall be treated with waterborne preservatives wood in accordance with American Wood Protection Association specification AWPA U1. Members shall be clearly labeled. Modified treated members (ripped or end cut) shall be field treated in accordance with specification AWPA M4.

6.8 Timber Connectors and Proprietary Fasteners shall be "Strong-Tie" by Simpson Company, as specified in their current catalog. Provide number and size of fasteners as specified by manufacturer. Connectors shall be installed in accordance with the manufacturer's instructions. Where connector straps connect two members, center strap on joint and provide number and size of fasteners as specified by manufacturer, with equal number and size of fasteners in each member.

Alternate hardware manufacturer substitutions, such as USP Connectors, shall be ICC approval for equal or greater load capacities. All joist hangers and other hardware shall be compatible in size with specified framing members. See Hanger Conversion Table for pre-approved substitutions.

Timber Connectors and their fasteners shall be protected from corrosion in accordance with manufacturer's recommendations or ASTM A 653, Type G185.

WOOD (Continued):

6.10 Wood Framing Notes: The following apply unless otherwise noted on the drawings:

A. All wood framing details shall be constructed to the minimum standards of the IBC. Nailing not specified on the drawings shall conform to IBC Table 2304.10.1 or ICC ES ESR-1539. Coordinate the size and location of all openings with Mechanical and Architectural Drawings.
B. Wall Framing: Stud wall size and spacing shall be in accordance with the plan notes. Two studs minimum shall be provided at the ends of all walls, at each side of all openings, and at the ends of all beams and headers. All stud bearing walls on wood framing shall have their lower wood plates attached to framing or concrete below per P1-6 of the shear wall schedule.
C. Individual members of Built-Up stud posts shall be nailed to each other with framing nails @ 12"oc, staggered. Individual members of Built-Up joist beams shall be nailed to each other with framing nails @ 12"oc, staggered.
D. Solid blocking for wood columns shall be provided through floors to supports below.
E. Floor and Roof Framing: Provide solid blocking at all bearing points. Toenail joists to supports with two framing nails. Attach timber joists to flush headers or beams with metal joist hangers in accordance with notes above.
F. Roof and floor sheathing shall be laid up with grain perpendicular to supports and nailed per plan notes. Allow 1/8" spacing at all panel edges and ends of floor and roof sheathing. Provide approved panel edge clips centered between joists/trusses at unblocked roof sheathing edges. All floor sheathing edges shall have approved tongue-and-groove joints. Toenail blocking to supports with framing nails @ 12"oc. At blocked floor and roof diaphragms, provide flat 2x blocking at all unframed panel edges and nail with edge nailing specified.

6.9 Dowel-Type Fasteners (Bolts, Lag Screws, Wood Screws and Nails) shall conform to Sections 11 and 12 of the ANSI/AWC NDS-2018.

Dowel Type Fastener	**Grade**	**Requirements at Exterior Use or when in Contact w/ Treated Lumber**	**Installation**
Bolts	ASTM A307	ASTM B 695, Class 55 Galvanized or Stainless Steel	ANSI/AWC NDS-2018 Section 12.1.3 Hole = Bolt Ø + (1/32" to 1/16") Washer @ Bolt Head and @ Nut
All-Thread/Threaded Rod	ASTM F1554	ASTM B 695, Class 55 Galvanized or Stainless Steel	ANSI/AWC NDS-2018 Section 12.1.3 Hole = Rod Ø + (1/32" to 1/16") Washer @ Each Nut
Lag Screws	ASTM A307	ASTM A 153 Galvanized or Stainless Steel	ANSI/AWC NDS-2018 Section 12.1.4 Lead Hole = 0.5 x Shank Ø; Shank Hole = Shank Ø Washer @ Lag Head
Wood Screws		ASTM A 153 Galvanized or Stainless Steel	ANSI/AWC NDS-2018 Section 12.1.5 Pilot Hole = 0.75 x Root Ø (Unless Self-Boring)
Nails	ASTM F1667	ASTM A 153 Galvanized or Stainless Steel	ANSI/AWC NDS-2018 Section 12.1.6 Avoid Overdriving or Underdriving; Avoid Wood Splitting Toenails 30°, 1/3 Nail Length from Joint

Nails specified on the drawings shall be as follows:

Nail Use	**Penny Weight**	**Grade**
Framing Nails	12d Box	0.131"Ø x 3¼"
Sheathing Nails	8d Common	0.131"Ø x 2½"

All Metal Fasteners exposed to weather or in contact with treated wood shall be protected from corrosion according to table above. Nuts and bolts exposed to weather or in contact with treated wood shall be galvanized in accordance with ASTM A153/A153M-16a or Stainless Steel. See above for Proprietary Fastener requirements. Do not substitute standard Dowel-Type Fasteners for Proprietary Fasteners unless specifically allowed.

QUALITY ASSURANCE:

7.1 See Special Inspection and Testing Requirements Table for inspection and testing requirements. Special Inspection shall be in accordance with SBC Section 1704.2. Standard inspections shall be in accordance with SBC Section 110.

7.2 Structural Observation in accordance with SBC Section 1704.6 is required:

SPECIAL INSPECTION AND TESTING REQUIREMENTS			
Verification and Inspection	Continuous	Periodic	Comments
Soils	-	-	Refer to Geotechnical Report
Concrete	-	-	Provide Batch Mix Tickets
Concrete Retaining Walls Basement Walls	-	X	
Post-Installed Anchors in Concrete	X	-	
Ordinary Steel Moment Frame - Fabrication	-	-	Fabricator shall submit shop drawings and QA/QC procedures as a deferred submittal
Ordinary Steel Moment Frame - Installation	X	-	Field welds of moment frame base to steel wide flange beam.

Hanger Conversion Table

TYPE	SIMPSON STRONG-TIE PRODUCT #	USP CONNECTORS PRODUCT #
HOLDOWNS	HDUx-SDS2.5	PHDxA
	STHD14/STHD14RJ	STAD14/STAD14RJ
	DTT1Z	LTS19-TZ w/ 1"x1"x⅛" PLATE WASHER (TO ACCOMMODATE ⅜" LAG SCREW)
STRAPS	MST48	KST248
	ST2215	KST216
	ST6224	KST224
	CS16	RS150
	MASA / MASAP	FA4
	CMSTC16	CMSTC16
ANGLES/TIES	LGT2	LUGT2
	LTP4	MP4F
	LTP5	MP6F
	A34	MP34
	A35	MPA1
	H1	RT15
	H2.5	RT7
	H2.5A	RT7A
POST CAPS	LPCxZ	PBxx-6TZ
	LCE4	PBES74
	EPCxx	EPCMxx
	CCQxxSDS5.5	KCCQxx
	ECCQxxSDS5.5	KECCQxx
	ACx	PBSxx
POST BASES	PBxx	WExx
	ABUxx	PAUxx
	ABAxx	PAxxE
DRAG STRUTS	HTS30C	HTW30C
	HTS30	HTW30
	DSC5	DSC4
HANGERS	LUSxx	JUSxx
	IUSxx	THFxx
	ITTxx	THOxx
	HUxx / HUCxx	HDxx / HDxxIF
	MIUxx	THFxx
	HUSxx	HUSxx

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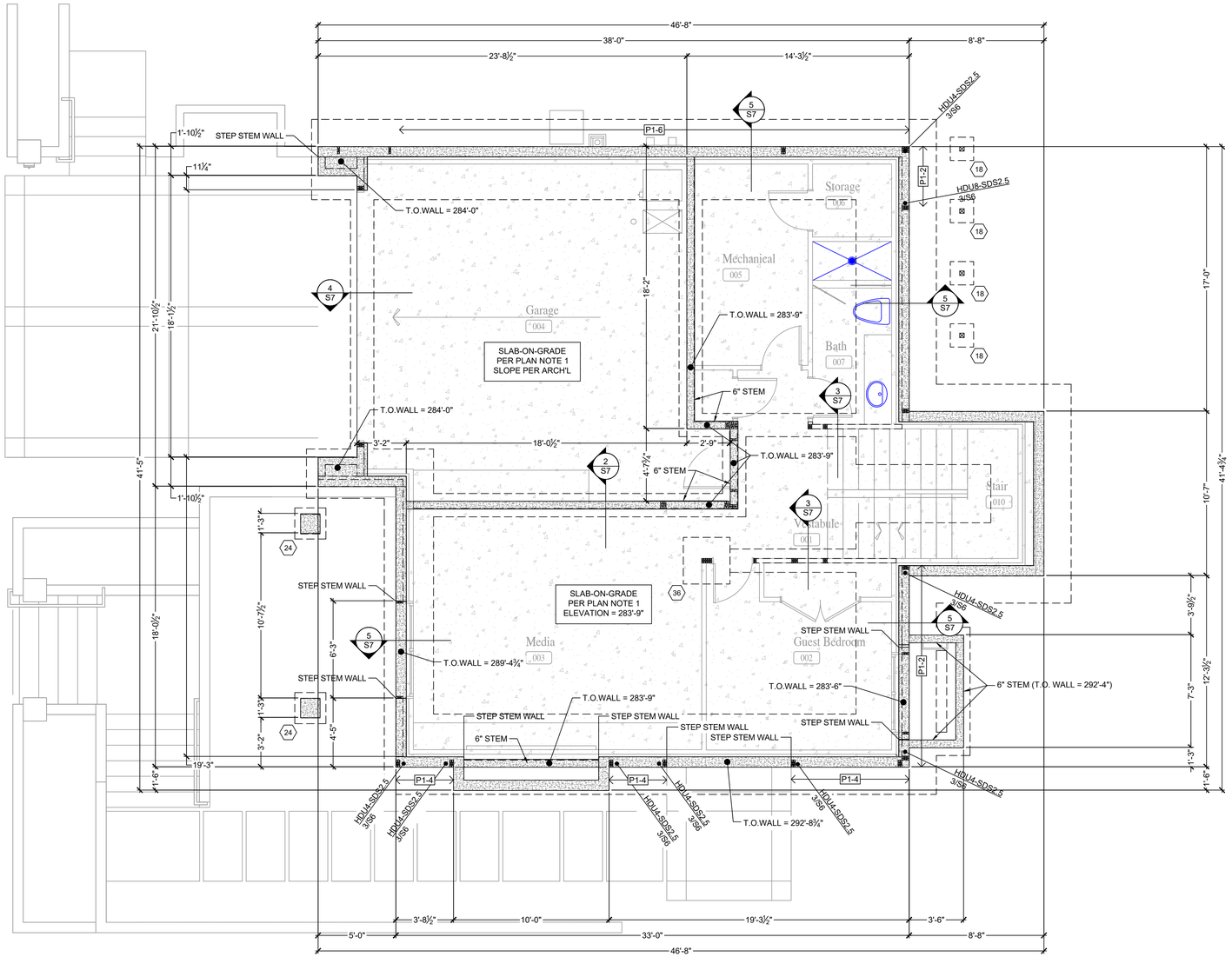
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Revisions To A New Residence for
Teddy and Megan Dann
3008 70th Avenue S.E. - Mercer Island, WA 98040

S1



FOUNDATION PLAN

FOUNDATION PLAN NOTES:

1. SLAB-ON-GRADE SHALL BE 4" THICK WITH 6x6 W1.4xW1.4 WWM AT CENTER, U.O.N. SLAB SHALL BE POURED OVER BASE SOIL PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. SLAB SHALL BE POURED OVER 10MIL VAPOR BARRIER PLACED OVER FREE-DRAINING GRANULAR FILL. SEE ARCHITECTURAL DRAWINGS FOR SLAB ELEVATION, DEPRESSION, AND SLOPE REQUIREMENTS. WWM MAY BE OMITTED IF SLAB CONCRETE MIX IS INCLUDES FIBROUS REINFORCEMENT PER GENERAL STRUCTURAL NOTES.
2. PROVIDE CONSTRUCTION/CONTROL JOINT IN SLAB PER ARCHITECTURAL DRAWINGS. AREAS SHALL BE APPROXIMATELY SQUARE AND 400-SF OR LESS.
3. BOTTOM OF FOOTINGS SHALL BE SET ON COMPETENT, PROPERLY COMPACTED BEARING SOIL BELOW FROST DEPTH. THE CONTRACTOR SHALL DETERMINE ACTUAL FOOTING ELEVATIONS BASED ON FINAL GRADES AND SITE CONDITIONS. CONSULT WITH THE GEOTECHNICAL ENGINEER AS REQUIRED.
4. ANCHOR BOLTS FOR EXTERIOR STUD WALLS SHALL BE IN ACCORDANCE WITH P1-6 OF THE SHEAR WALL SCHEDULE OF 1/S6, U.O.N.
5. TOP OF STEM WALL ELEVATION SHALL BE 292'-9⅜", U.O.N.

LEGEND

- X / Sx — DETAIL CALL-OUT
- P1-x — ANCHOR BOLTS FOR SHEAR WALL ABOVE PER SCHEDULE OF 1/S6
- SLAB-ON-GRADE PER PLAN NOTE 1
- FOUNDATION WALL AND FOOTING
- BEARING OR SHEAR WALL ABOVE
- xx — FOOTING CALLOUT - SEE 4/S6

1/4"=1'-0" (0, 1, 2, 4, 8, 16)

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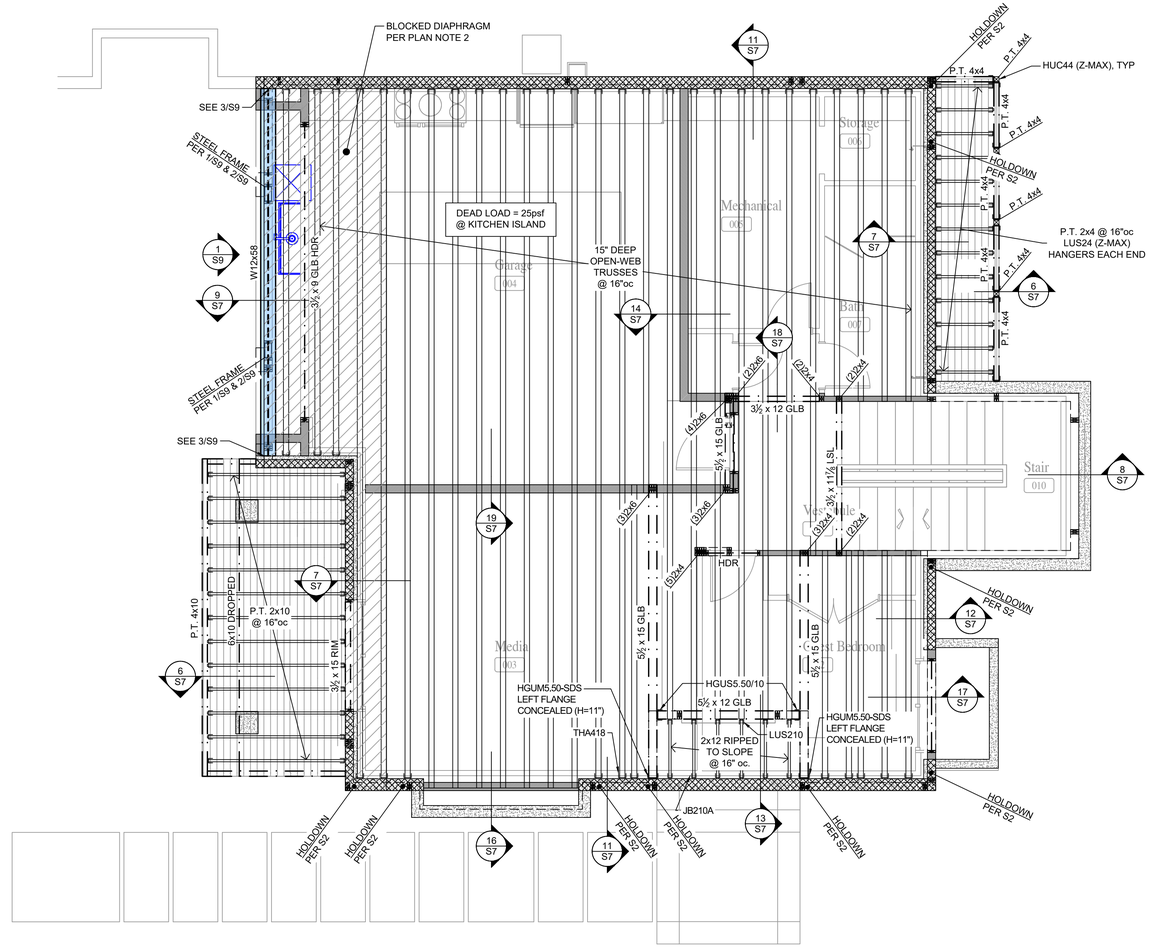
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Revisions To A New Residence for
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S2



LOWER WALL/MAIN FLOOR FRAMING PLAN

1/4"=1'-0" 0 1 2 4 8 16

FLOOR FRAMING PLAN NOTES:

1. FLOOR SHEATHING SHALL BE 1⅛" THICK T&G (SINGLE FLOOR PANEL SPAN RATING 48" oc). GLUE SHEATHING TO ALL FRAMING MEMBERS AND BLOCKING BELOW WITH ADHESIVE CONFORMING TO A.P.A.SPECIFICATION AFG-01. FASTEN SHEATHING TO FRAMING WITH WSV212 SUBFLOOR SCREWS (#9 x 2") or 0.131"Ø x 2½" NAILS AS FOLLOWS:

FRAMING, EDGES	6"oc
FRAMING, EDGES @ BLOCKED DIAPHRAGM	4"oc
FRAMING, FIELD	10"oc
BOUNDARIES, BLOCKING, STRUTS	6"oc

AT AREAS INDICATED AS BLOCKED DIAPHRAGM, PROVIDE 2x FLAT BLOCKING (PER GENERAL STRUCTURAL NOTES) AT ALL UNFRAMED SHEATHING PANEL EDGES. FASTEN SHEATHING TO FRAMING AND BLOCKING WITH WSV212 SUBFLOOR SCREWS (#9 x 2½") or 0.131"Ø x 2½" NAILS AS FOLLOWS:

SEE DRAWINGS FOR OTHER SHEATHING NAILING REQUIREMENTS.

2. AT AREAS INDICATED AS BLOCKED DIAPHRAGM, PROVIDE 2x FLAT BLOCKING (PER GENERAL STURCTURAL NOTES) AT ALL UNFRAMED SHEATHING PANEL EDGES.

3. FLOOR FRAMING SHALL BE 15" DEEP "4x2" CONNECTOR-PLATE TRUSSES @ 16"oc, U.O.N. LOADING SHALL BE AS FOLLOWS, U.O.N.:

TOP CHORD LIVE LOAD	40-psf
TOP CHORD DEAD LOAD	10-psf
BOTTOM CHORD LIVE LOAD	N/A
BOTTOM CHORD DEAD LOAD	5-psf

MAXIMUM LIVE LOAD DEFLECTION SHALL BE THE SMALLER OF L/900 or ½". REFER TO GENERAL STRUCTURAL NOTES FOR OTHER REQUIREMENTS.

LAYOUT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. GIRDER AND BEAM LOCATIONS SHOWN SHALL NOT BE CHANGED WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER. OTHER FRAMING LAYOUT SHOWN MAY BE MODIFIED TO ACCOMMODATE ACCESS, HVAC OR OTHER FIXTURES.

WALL FRAMING PLAN NOTES:

4. EXTERIOR WALLS SHALL BE SHEAR WALL TYPE P1-6 WITH 2x6 STUDS @ 16"oc, U.O.N. INTERIOR WALLS SHALL BE 2x4 STUDS @ 16"oc, U.O.N.

   WHERE ADJACENT SHEAR WALLS ARE IN CONTACT, NAIL STUDS TOGETHER PER 13/S6. SEE 1/S6 FOR SPECIAL STUD REQUIREMENTS AT SHEAR WALL TYPES P1-3, P1-2, P2-4, P2-3, AND P2-2.

5. TOP PLATE ELEVEATION SHALL BE PER ARCHITECTRUAL DRAWINGS.

6. HEADERS SHALL BE 4x8, U.O.N. SEE DETAIL 19/S6.

7. BUILT-UP STUD GROUPS IN WALLS SUPPORTING BEAMS, POSTS OR GIRDER TRUSSES ABOVE SHALL BE (2) STUDS, U.O.N. SEE GENERAL STRUCTURAL NOTES FOR FASTENING REQUIREMENTS.

LEGEND

X / Sx	DETAIL CALL-OUT
P1-x	SHEAR WALL BELOW PER SCHEDULE OF 1/S6
	BEARING OR SHEAR WALL BELOW
	MUDSILL BELOW
	BEARING OR SHEAR WALL ABOVE
PT LD	BLOCK THRU FLOOR FOR POST ABOVE (MATCH AREA)
XXX	POST BELOW
(F)	FLUSH FRAMED (BOTTOM FLUSH W/ BOTTOM OF FRAMING)
HDR	HEADER PER PLAN NOTE 5

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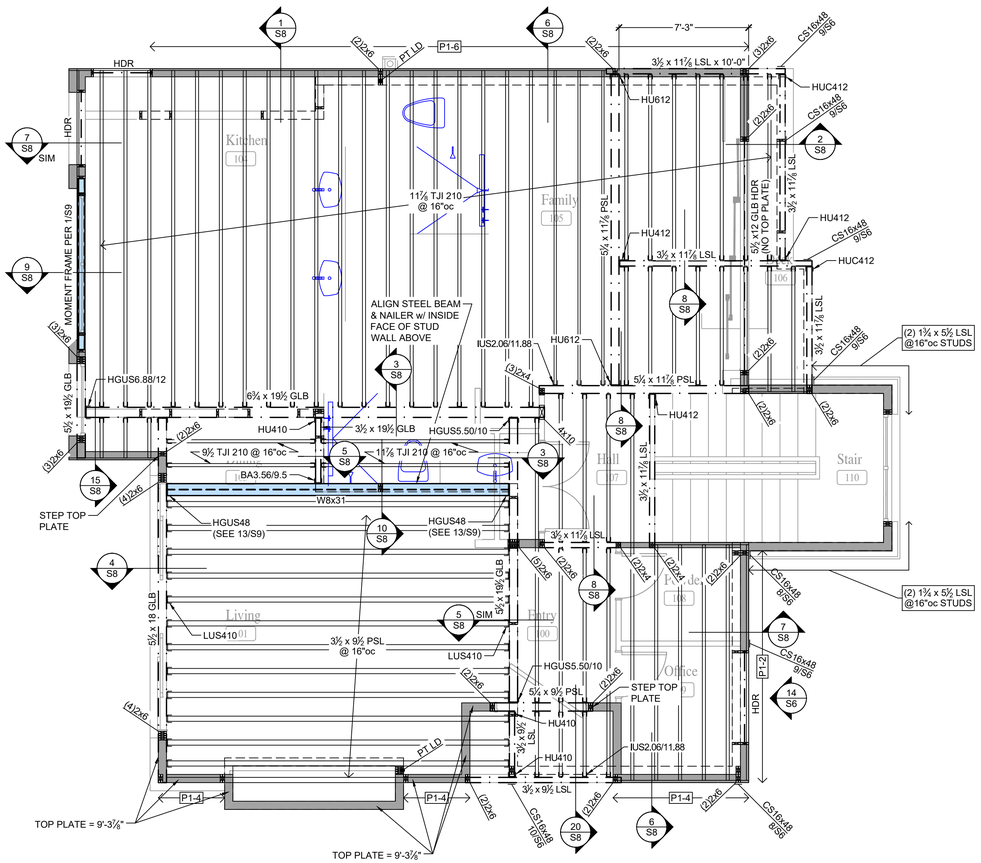
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Revisions To A New Residence for
Teddy and Megan Dann
3008 70th Avenue S.E. - Mercer Island, WA 98040

S3



MAIN WALL/UPPER FLOOR FRAMING PLAN

1/4"=1'-0" 0 1 2 4 8 16

FLOOR FRAMING PLAN NOTES:

1. FLOOR SHEATHING SHALL BE 1⅛" THICK T&G (SINGLE FLOOR PANEL SPAN RATING 48" oc). GLUE SHEATHING TO ALL FRAMING MEMBERS AND BLOCKING BELOW WITH ADHESIVE CONFORMING TO A.P.A.SPECIFICATION AFG-01. FASTEN SHEATHING TO FRAMING WITH WSV212 SUBFLOOR SCREWS (#9 x 2") or 0.131"Ø x 2½" NAILS AS FOLLOWS:

FRAMING, EDGES	6"oc
FRAMING, EDGES @ BLOCKED DIAPHRAGM	4"oc
FRAMING, FIELD	10"oc
BOUNDARIES, BLOCKING, STRUTS	6"oc

AT AREAS INDICATED AS BLOCKED DIAPHRAGM, PROVIDE 2x FLAT BLOCKING (PER GENERAL STRUCTURAL NOTES) AT ALL UNFRAMED SHEATHING PANEL EDGES. FASTEN SHEATHING TO FRAMING AND BLOCKING WITH WSV212 SUBFLOOR SCREWS (#9 x 2½") or 0.131"Ø x 2½" NAILS AS FOLLOWS:

SEE DRAWINGS FOR OTHER SHEATHING NAILING REQUIREMENTS.

2. FLOOR JOISTS SHALL BE 11⅞" TJI 210 @ 16"oc, U.O.N.

LAYOUT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. GIRDER AND BEAM LOCATIONS SHOWN SHALL NOT BE CHANGED WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER. OTHER FRAMING LAYOUT SHOWN MAY BE MODIFIED TO ACCOMMODATE ACCESS, HVAC OR OTHER FIXTURES.

WALL FRAMING PLAN NOTES:

3. EXTERIOR WALLS SHALL BE SHEAR WALL TYPE P1-6 WITH 2x6 STUDS @ 16"oc, U.O.N.
INTERIOR WALLS SHALL BE 2x4 STUDS @ 16"oc, U.O.N.

WHERE ADJACENT SHEAR WALLS ARE IN CONTACT, NAIL STUDS TOGETHER PER 13/S6. SEE 1/S6 FOR SPECIAL STUD REQUIREMENTS AT SHEAR WALL TYPES P1-3, P1-2, P2-4, P2-3, AND P2-2.

4. TOP PLATE ELEVATION SHALL BE 10'-0" U.O.N.

5. HEADERS SHALL BE 3½ x9, U.O.N. SEE DETAIL 19/S6.

6. BUILT-UP STUD GROUPS IN WALLS SUPPORTING BEAMS, POSTS OR GIRDER TRUSSES ABOVE SHALL BE (2) STUDS, U.O.N. SEE GENERAL STRUCTURAL NOTES FOR FASTENING REQUIREMENTS.

LEGEND

X / Sx	DETAIL CALL-OUT
P1-x	SHEAR WALL BELOW PER SCHEDULE OF 1/S6
	BEARING OR SHEAR WALL BELOW
	BEARING OR SHEAR WALL ABOVE
PT.LD	BLOCK THRU FLOOR FOR POST ABOVE (MATCH AREA)
XXX	POST BELOW
(F)	FLUSH FRAMED (BOTTOM FLUSH W/ BOTTOM OF FRAMING)
HDR	HEADER PER PLAN NOTE 5

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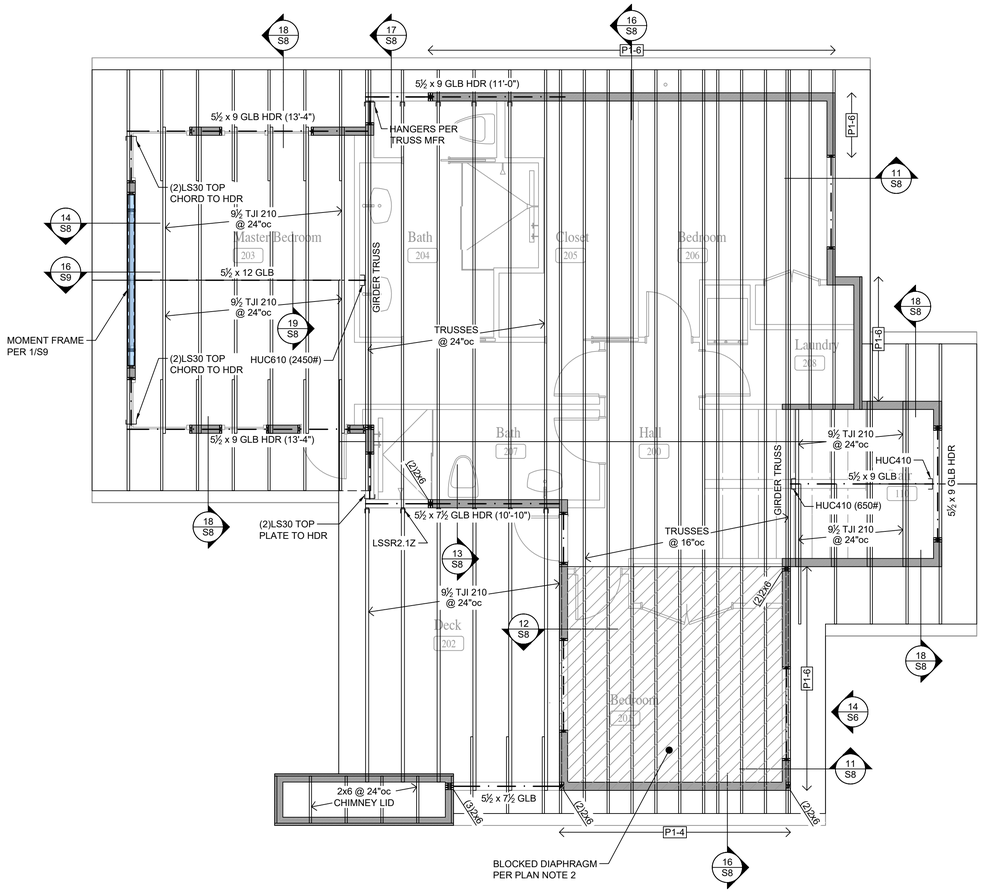
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S4



UPPER WALL/ROOF FRAMING PLAN

1/4"=1'-0" 0 1 2 4 8 16

ROOF FRAMING PLAN NOTES:

1. ROOF SHEATHING SHALL BE ⅞" THICK (PANEL SPAN RATING 32/16). FASTEN SHEATHING TO FRAMING WITH 0.131"Ø x 2½" NAILS AS FOLLOWS:

FRAMING, EDGES	6"oc
FRAMING, FIELD	12"oc
BOUNDARIES, BLOCKING, STRUTS	6"oc

AT UNFRAMED PANEL EDGES, PROVIDE PSCA FRAMING CLIPS CENTERED BETWEEN EACH FRAMING MEMBER. SEE DRAWINGS FOR OTHER SHEATHING NAILING REQUIREMENTS.

2. AT AREAS INDICATED AS BLOCKED DIAPHRAGM, PROVIDE 2x FLAT BLOCKING (PER GENERAL STURCTURAL NOTES) AT ALL UNFRAMED SHEATHING PANEL EDGES.

3. ROOF FRAMING SHALL BE CONNECTOR PLATE TRUSSES, U.O.N. LOADING SHALL BE AS FOLLOWS:

TOP CHORD SNOW LOAD	25-psf
TOP CHORD DEAD LOAD	10-psf
BOTTOM CHORD LIVE LOAD	N/A
BOTTOM CHORD DEAD LOAD	5-psf

LAYOUT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. GIRDER AND BEAM LOCATIONS SHOWN SHALL NOT BE CHANGED WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER. OTHER FRAMING LAYOUT SHOWN MAY BE MODIFIED TO ACCOMMODATE ATTIC ACCESS, SKYLIGHTS, HVAC OR OTHER FIXTURES.

WALL FRAMING PLAN NOTES:

4. EXTERIOR WALLS SHALL BE SHEAR WALL TYPE P1-6 WITH 2x6 STUDS @ 16"oc, U.O.N.
INTERIOR WALLS SHALL BE 2x4 STUDS @ 16"oc, U.O.N.

WHERE ADJACENT SHEAR WALLS ARE IN CONTACT, NAIL STUDS TOGETHER PER 13/S6. SEE 1/S6 FOR SPECIAL STUD REQUIREMENTS AT SHEAR WALL TYPES P1-3, P1-2, P2-4, P2-3, AND P2-2.

5. TOP PLATE ELEVATION SHALL BE 8'-10½" U.O.N.

6. HEADERS SHALL BE 5½ x 7¼ GLB, U.O.N. T.O. HEADER ELEVATION SHAL BE 9'-3", U.O.N. SEE DETAIL 20/S6.
NO HEADERS @ GABLE ENDS. DO NOT SPLICE TOP CHORD @ OPENINGS.

7. BUILT-UP STUD GROUPS IN WALLS SUPPORTING BEAMS, POSTS OR GIRDER TRUSSES ABOVE SHALL BE (2) STUDS, U.O.N. SEE GENERAL STRUCTURAL NOTES FOR FASTENING REQUIREMENTS.

LEGEND

X / Sx	DETAIL CALL-OUT
P1-x	SHEAR WALL BELOW PER SCHEDULE OF 1/S6
	BEARING OR SHEAR WALL BELOW
	POST BELOW
(F)	FLUSH FRAMED (BOTTOM FLUSH W/ BOTTOM OF FRAMING)
HDR	HEADER PER PLAN NOTE 5

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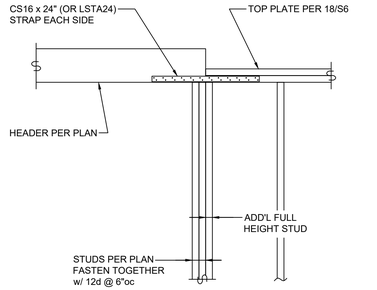
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PROFESSIONAL ENGINEER
4/17/2025

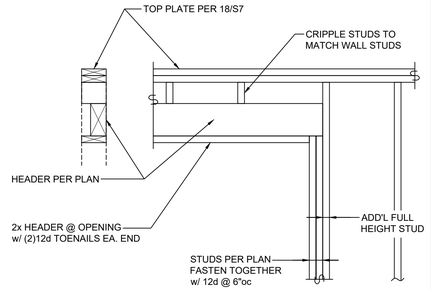
PERMIT	3/3/2024
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Revisions To A New Residence for
Teddy and Megan Dann
3008 70th Avenue S.E. - Mercer Island, WA 98040

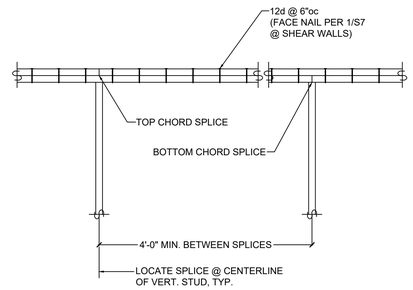
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SHEAR WALL SCHEDULE

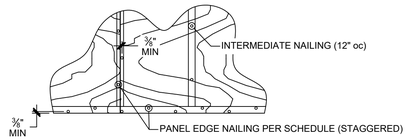
(IN ACCORDANCE w/ ANSI/AF&PA SDPWS-2021 SECTION 4.3)
Updated 4/1/2024

WALL TYPE	SHEATHING (1)	PANEL EDGE NAILING (2)	MINIMUM WIDTH OF NAILED FACE OF FRAMING @ ADJOINING PANEL EDGES (3)		MUDSILL PLATE	FACE NAILING (4)	FRAMING CLIPS (5)	ANCHORAGE TO CONCRETE (6)		SEISMIC CAPACITY - h/b = 2 h/b = 3.5	WIND CAPACITY - h/b = 2 h/b = 3.5
			SINGLE MEMBER	BUILT-UP MEMBER				ANCHOR BOLTS	MUDSILL ANCHORS		
P1-6	1 SIDE	6" oc	2x	2x	2x	6" oc	A35 @ 28" oc or LTP4 @ 28" oc	⅝"Ø @ 60" oc	MASAP @ 52" oc	240-plf 194-plf	240-plf 194-plf
P1-4	1 SIDE	4" oc	2x	2x	2x	4" oc	A35 @ 19" oc or LTP4 @ 19" oc	⅝"Ø @ 46" oc	MASAP @ 36" oc	350-plf 284-plf	350-plf 284-plf
P1-3	1 SIDE	3" oc	3x	(2)2x	2x	3" oc	A35 @ 14" oc or LTP4 @ 14" oc	⅝"Ø @ 36" oc	MASAP @ 28" oc	450-plf 366-plf	450-plf 366-plf
P1-2	1 SIDE	2" oc	3x	(2)2x	2x	2" oc	A35 @ 8" oc or LTP4 @ 8" oc	⅝"Ø @ 20" oc	MASAP @ 18" oc	590-plf 478-plf	820-plf 669-plf
P2-2	2 SIDES	2" oc	3x	(2)2x	3x	(2) Rows, 2" oc	A35 @ 8" oc and LTP4 @ 8" oc	⅝"Ø @ 12" oc	MASAP @ 7" oc	1180-plf 957-plf	1640-plf 1338-plf

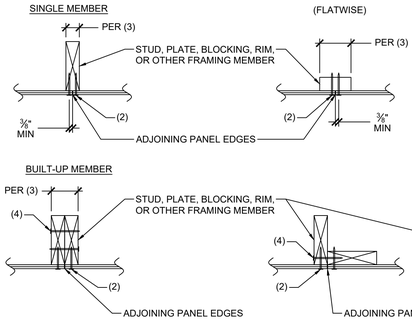
SHEAR WALL SCHEDULE NOTES

(1) SECTION 4.3.7.1.1
⅞6" OSB or 15/32" PLYWOOD SHEATHING OR SIDING EXCEPT GROUP 5 SPECIES. MINIMUM PANEL SPAN RATING OF (24/0). PANELS SHALL NOT BE LESS THAN 4'x8', EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING. ALL EDGES OF ALL PANELS SHALL BE SUPPORTED BY AND FASTENED TO FRAMING MEMBERS OR BLOCKING.

(2) SECTION 4.3.7.1.2. & SECTION 4.3.7.1.3
PANEL EDGE NAILING APPLIES TO ALL SHEATHING PANEL EDGES. NAIL SHEATHING TO INTERMEDIATE FRAMING MEMBERS WITH SHEATHING NAILS @ 12"oc. MAXIMUM STUD SPACING SHALL BE 16"oc. SHEATHING NAILS SHALL BE 0.131"Ø x 2½". PLYWOOD EDGE NAILING SHALL BE STAGGERED. NAILS SHALL BE LOCATED AT LEAST ⅜" FROM THE PANEL EDGES.

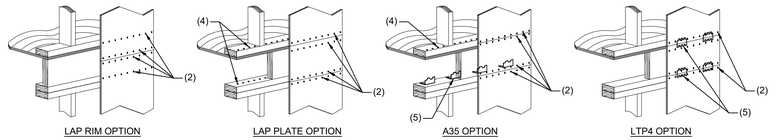


(3) SECTION 4.3.7.1.4
THE MINIMUM NOMINAL WIDTH OF THE NAILED FACE OF FRAMING AND BLOCKING AT ADJOINING PANEL EDGES SHALL BE AS INDICATED IN THE SCHEDULE.



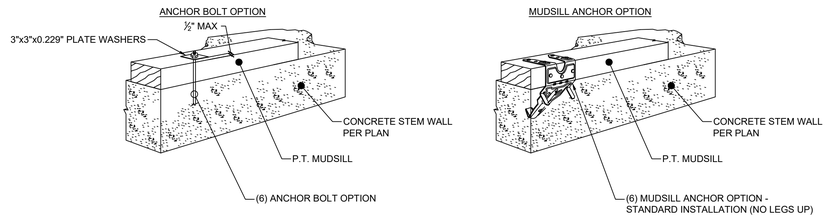
(4) FACE NAILING APPLIES TO CONDITIONS WHERE FRAMING NAILS CAN BE STRAIGHT DRIVEN THRU FIRST MEMBER AND PENETRATE MAIN MEMBER MINIMUM OF 1½". FRAMING NAILS SHALL BE 0.131"Ø x 3¼". 0.131"Ø x 3" NAILS MAY BE USED WHEN STITCHING TOGETHER (2)2x MEMBERS WITH NO SPACERS.

(5) AT ADJOINING PANEL EDGES WHERE SHEATHING CANNOT LAP ON SINGLE MEMBER AND FACE NAILING CANNOT BE ACCOMPLISHED, FRAMING CLIPS SHALL BE USED TO FASTEN BUILT-UP MEMBERS. USE 0.131"Ø x 2½" NAILS AT LTP4 CLIP WHEN INSTALLED OVER ½" SHEATHING.

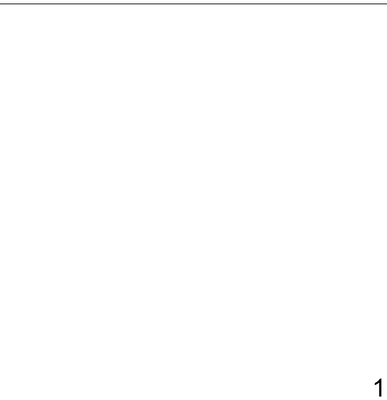


LAP RIM OPTION | LAP PLATE OPTION | A35 OPTION | LTP4 OPTION

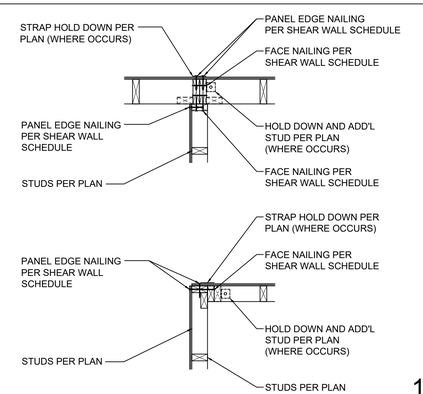
(6) SECTION 4.3.6.4.3
ANCHOR BOLTS EMBEDMENT SHALL BE 7", U.O.N. ALL ANCHORS SHALL HAVE 3" x 3" x 0.229" PLATE WASHERS. PLATE WASHER SHALL EXTEND TO WITHIN ½" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING. IF SHEATHING IS ON BOTH SIDES OF THE WALL, STAGGER THE ANCHOR BOLTS, AS REQUIRED, SO THAT HALF OF THE PLATE WASHERS ARE WITHIN ½" OF THE EDGE OF THE BOTTOM PLATE ON EACH SIDE. HOLE IN PLATE WASHERS MAY BE DIAGONALLY SLOTTED.



1

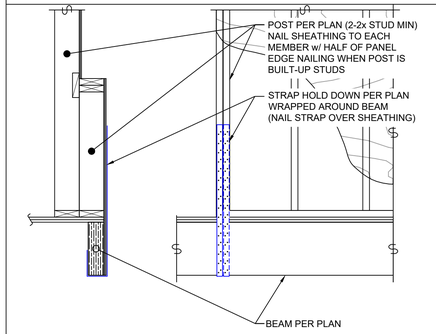


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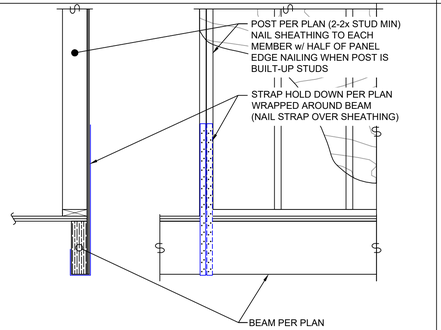


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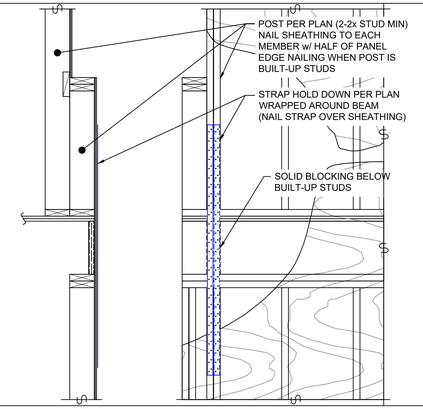
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8

5

PLAN CALLOUT	SIZE	REINFORCING	DETAIL REFERENCE
18	18" sq x 8" thick	(2)#4 EA. WAY BOTTOM	-
24	24" sq x 8" thick	(2)#4 EA. WAY BOTTOM	-
30	30" sq x 8" thick	(3)#4 EA. WAY BOTTOM	-
36	36" sq x 12" thick	(3)#4 EA. WAY BOTTOM	-
42	42" sq x 12" thick	(4)#4 EA. WAY BOTTOM	-
48	48" sq x 12" thick	(5) #4 EA. WAY BOTTOM	-

4

3

RUDOLPH
ARCHITECTS
5273 140th Avenue NE, Bellevue, Washington
425 556-5586

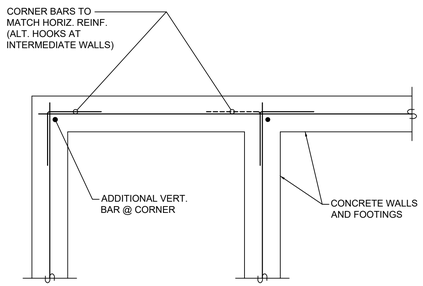
BTL ENGINEERING P.S.
19011 36th Ave W, Suite 202, Lynnwood, WA 98036
PHONE: 425-551-8348 FAX: 425-521-2120

JORDAN T. LAMB
STATE OF WASHINGTON
22666
PROFESSIONAL ENGINEER
4/17/2025

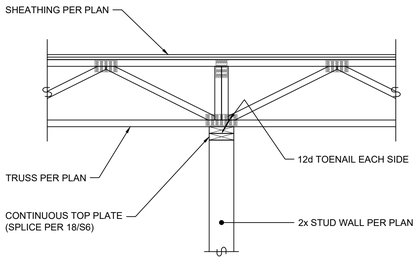
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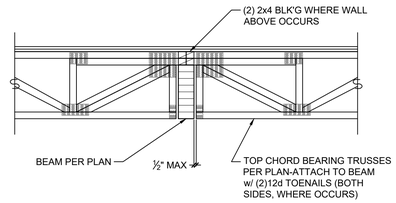
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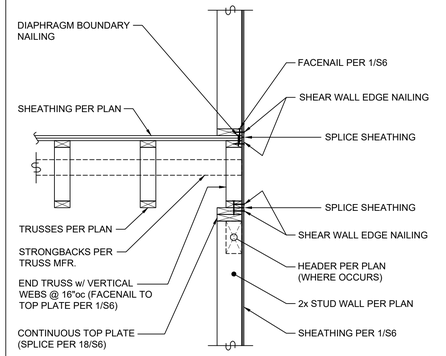
CORNER BARS 20



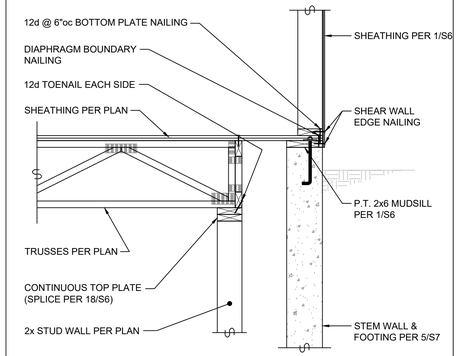
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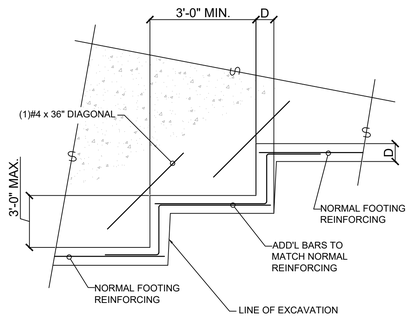
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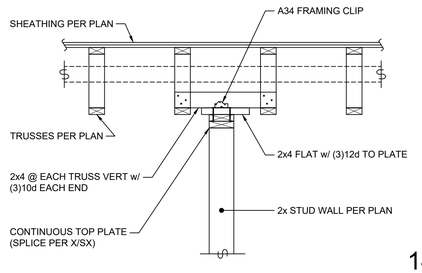
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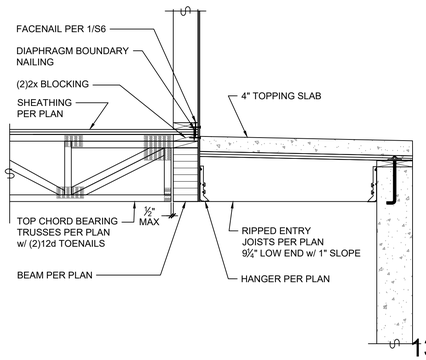
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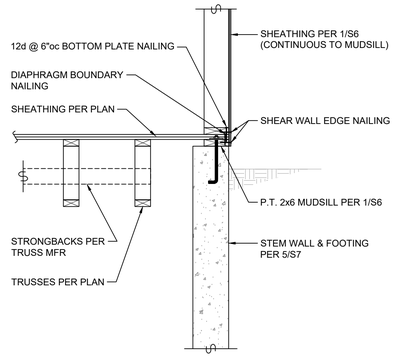
STEP IN FOOTING 15



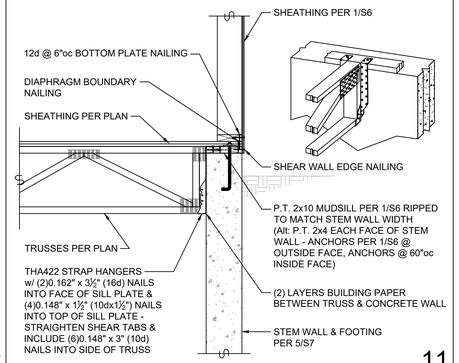
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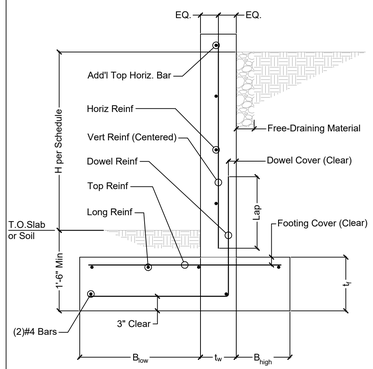
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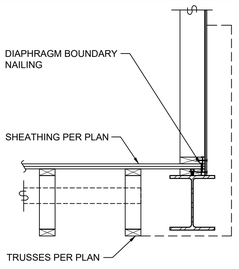
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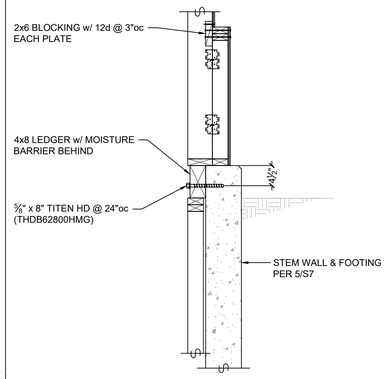
RETAINING WALL SCHEDULE											
H	B_{low}	t_w	B_{high}	t_f	Dowel Cover	Footing Cover	Vert Reinf	Dowel Reinf	Horiz Reinf	Top Reinf	Long Reinf	Lap
10'	2'-9"	8"	1'-9"	12"	½"	½"	#6 @ 7"	#6 @ 7"	#5 @ 18"	#4 @ 9"	(5)#4	42"
9'	2'-3"	8"	1'-9"	12"	½"	½"	#5 @ 7"	#5 @ 7"	#5 @ 18"	#4 @ 12"	(4)#4	36"
8'	2'-3"	8"	1'-3"	12"	½"	½"	#5 @ 11"	#5 @ 11"	#5 @ 18"	#4 @ 18"	(4)#4	36"
7'	2'-0"	8"	1'-0"	12"	½"	½"	#5 @ 17"	#5 @ 17"	#5 @ 18"	#4 @ 18"	(3)#4	30"
6'	1'-9"	8"	9"	12"	½"	½"	#4 @ 12"	#4 @ 12"	#5 @ 18"	#4 @ 18"	(2)#4	24"
5'	1'-3"	8"	9"	12"	½"	½"	#4 @ 16"	#4 @ 16"	#5 @ 18"	#4 @ 18"	(2)#4	24"
4'	SEE STANDARD FOOTING											

SOIL BEARING PRESSURE:	1500 PSF	CONCRETE STRENGTH:	2500 PSI
ACTIVE EARTH PRESSURE:	35 PCF	#4 STEEL STRENGTH (GR40):	40 KSI
PASSIVE EARTH PRESSURE:	300 PCF	#5/#6 STEEL STRENGTH (GR60):	60 KSI
FRICTION COEFFICIENT:	0.35		
SEISMIC SURCHARGE:	6H		

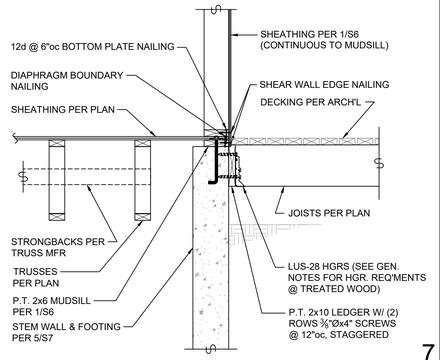
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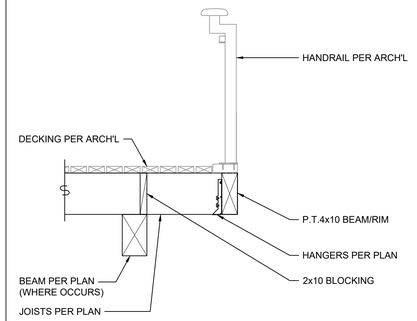
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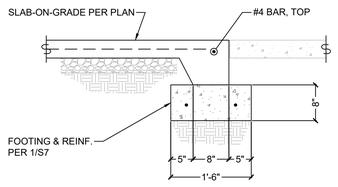
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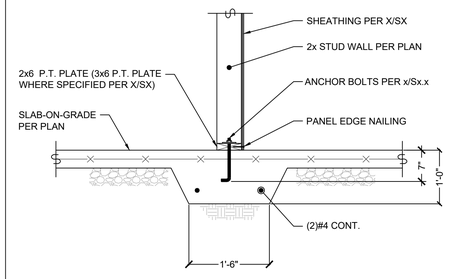
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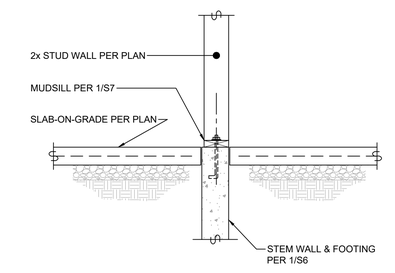
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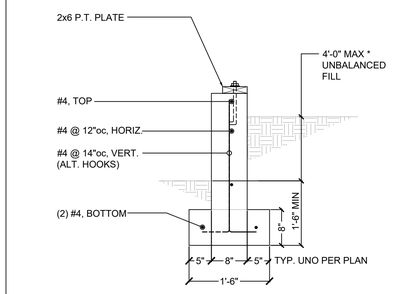
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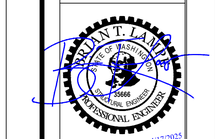


SEE 5/S7 WHEN UNBALANCED FILL EXCEEDS 4'-0"

1

RUDOLPH
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15011 NE 95th Street, Suite 205
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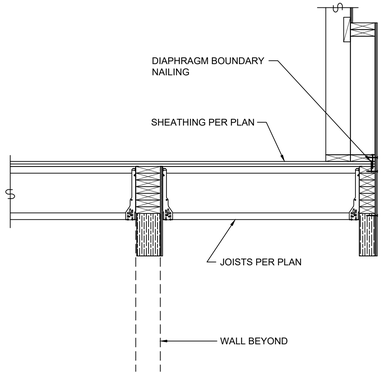
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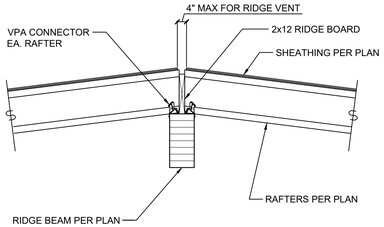
Teddy and Megan Dann

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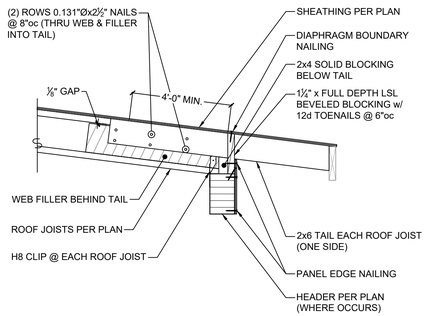
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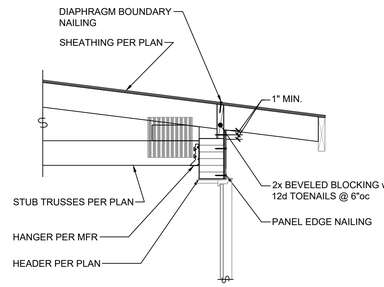
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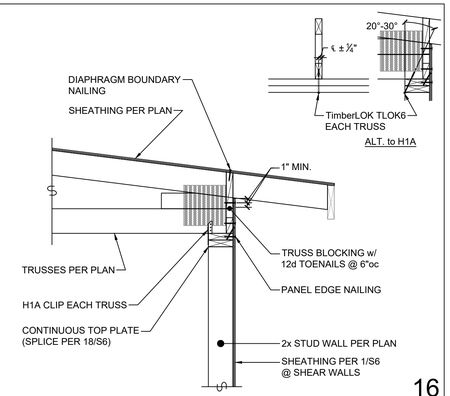
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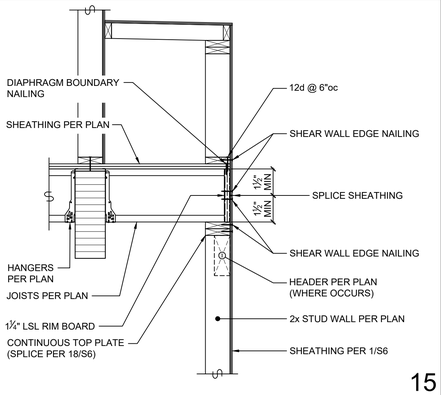
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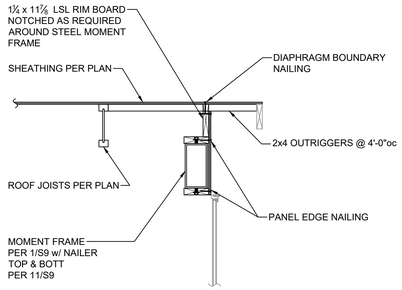
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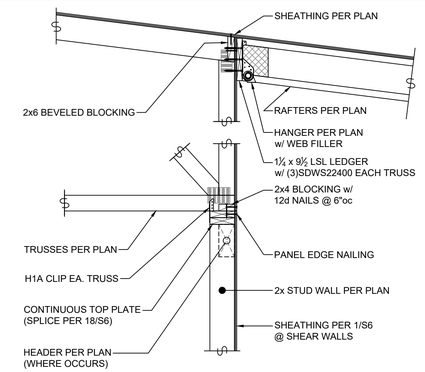
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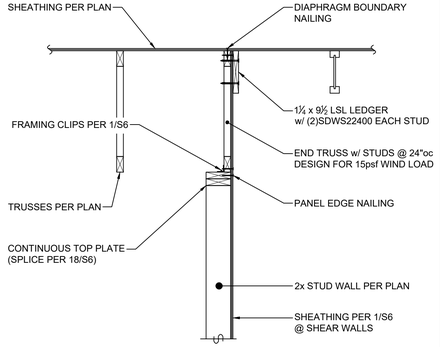
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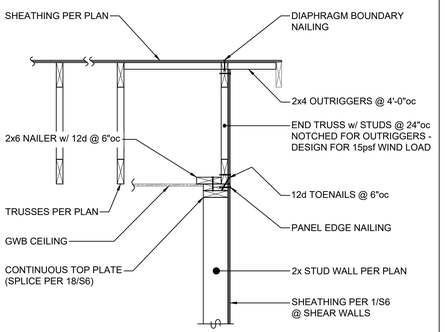
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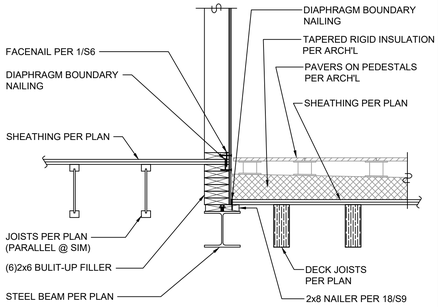
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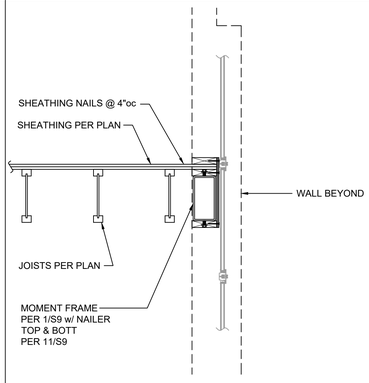
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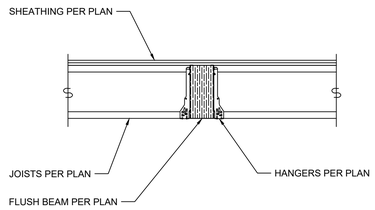
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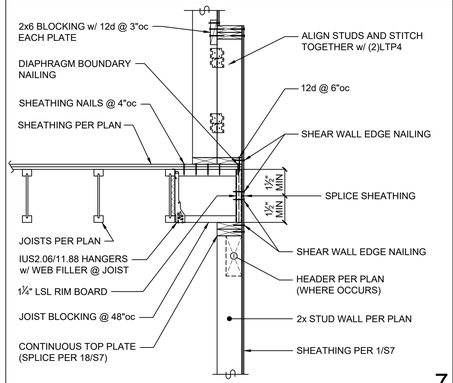
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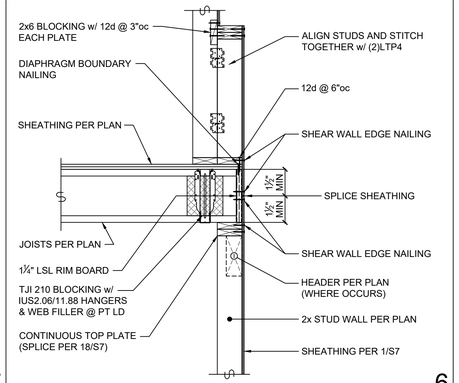
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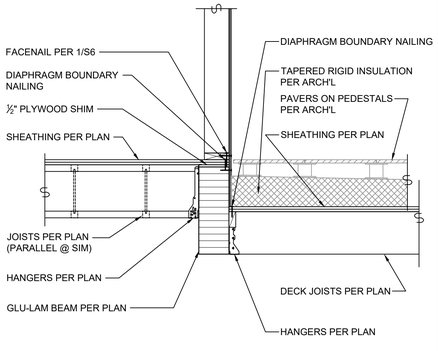
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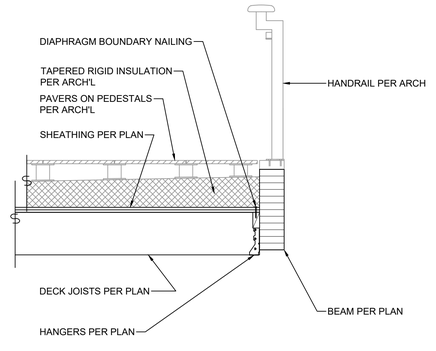
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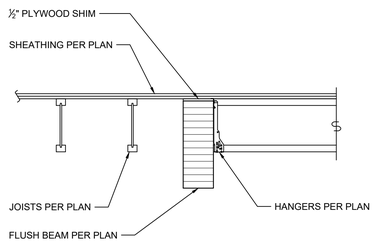
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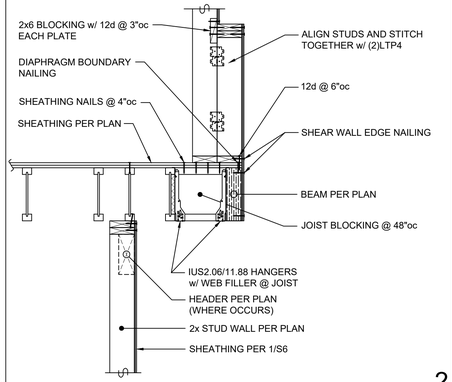
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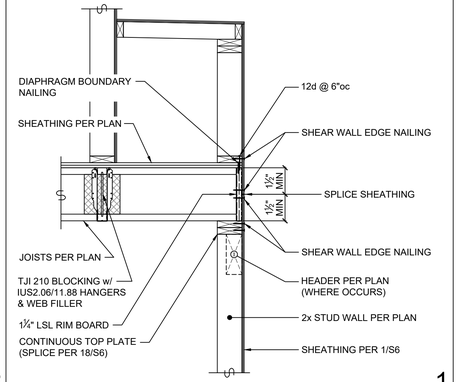
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PERMIT UPDATE	10/1/2024
PLAN REVIEW	01/09/2025
PLAN REVIEW 2	04/17/2025

Revisions To A New Residence for

Teddy and Megan Dann

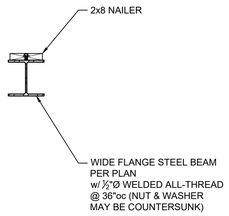
3008 70th Avenue S.E. - Mercer Island, WA 98040

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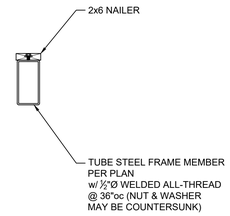
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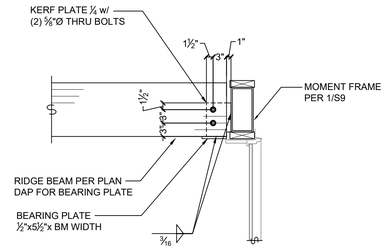
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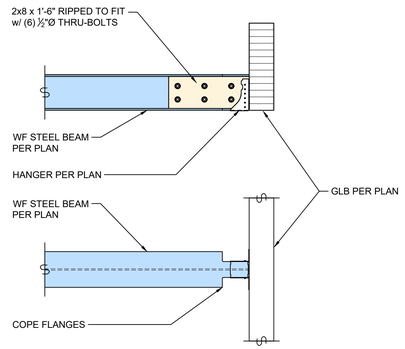
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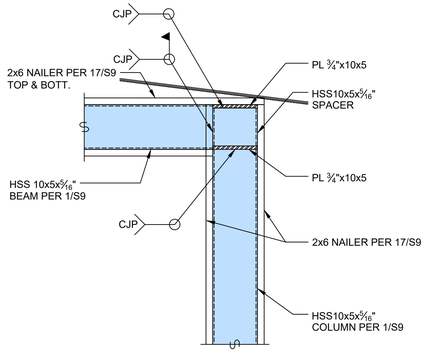
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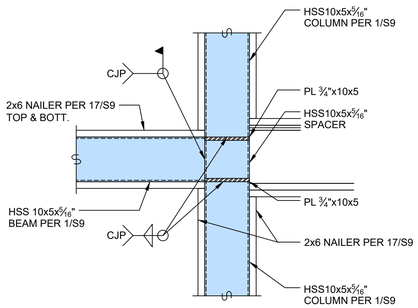


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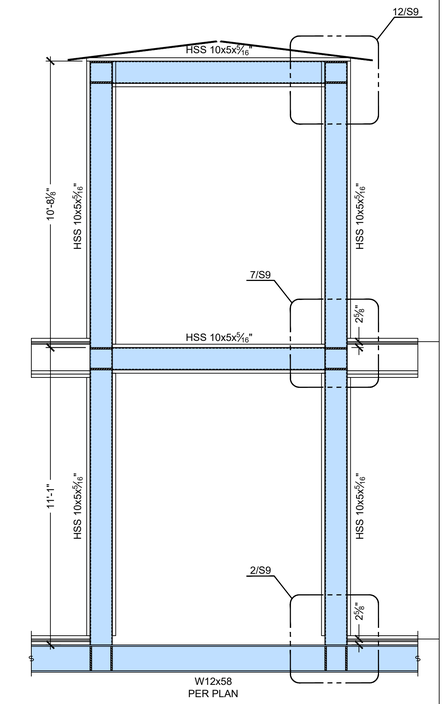
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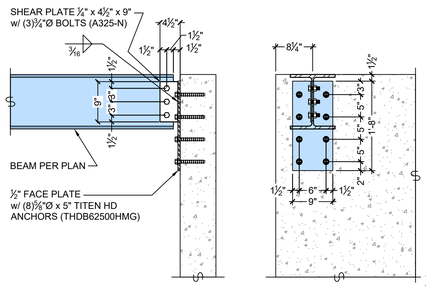
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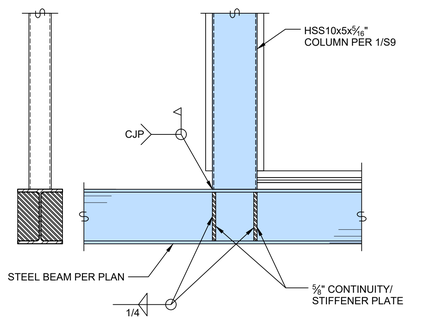
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REFER TO GENERAL STRUCTURAL NOTES FOR DEFERRED SUBMITTAL AND QA/QC REQUIREMENTS

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