CODES

GOVERNING CODES AND REGULATIONS:

THIS DESIGN IS IN ACCORDANCE WITH THE FOLLOWING CODES AS AMMENDED BY THE WASHINGTON STATE BUILDING CODE:

2018 INTERNATIONAL RESIDENTIAL CODE (IRC)

2018 INTERNATIONAL MECHANICAL CODE (IMC)

2018 UNIFORM PLUMBING CODE (UPC)

2018 WA STATE RESIDENTIAL ENERGY CODE

2018 NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION

2018 INTERNATIONAL FIRE CODE (IFC) 2

PROJECT INFO:

PROJECT ADDRESS:
6333 77TH AVE SE
MERCER ISLAND, WA 98040

PROJECT DESCRIPTION:
DEMOLITION OF EXISTING SFR AND ASSOCIATED STRUCTURES AND CONSTRUCTION OF A NEW SFR AND ASSOCIATED STRUCTURES

PARCEL NUMBER:
4097100010

LEGAL DESCRIPTION:
LAKE VIEW HIGHLANDS WATERFRONT TR N 8.21 FT OF 1 ALL 2 & SH LDS ADJ

GENERAL NOTES

1. DO NOT SCALE THE DRAWINGS.

2. THIS PROJECT SHALL COMPLY WITH ALL GOVERNING REGULATIONS, ORDINANCES, BUILDING CODES, OR COVENANTS OF THE AREA IN WHICH IT IS BUILT.

3. APPROVAL BY AN INSPECTOR DOES NOT CONSTITUTE AUTHORITY TO DEVIATE FROM THE DRAWINGS OR SPECIFICATIONS.

4. PROVIDE ALL NECESSARY BARRICADES, WARNING SIGNS, AND DEVICES TO PROTECT PUBLIC AND CONSTRUCTION PERSONNEL DURING CONSTRUCTION.

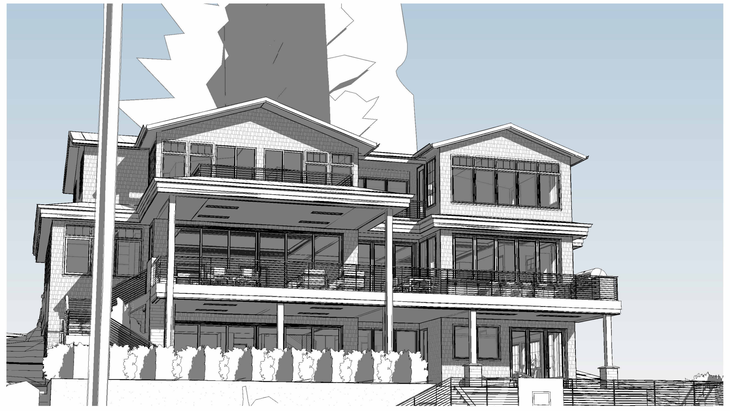
5. MAINTAIN ALL REQUIRED ACCESS AND EGRESS DURING CONSTRUCTION.

6. FIRE SPRINKLER SYSTEM:
REQUIREMENT FOR A FIRE SPRINKLER SYSTEM SHALL BE DETERMINED BY THE BUILDING OFFICIAL AT TIME OF SUBMITTAL. INSTALL KEY BOX AT GATE ACCESSIBLE BY FIRE DEPARTMENT.

7. DEFERRED SUBMITTAL ITEMS:
THE FOLLOWING IS A LIST OF ITEMS THAT ARE NOT INCLUDED IN THIS PLAN:
- -ALTERNATIVE I-JOISST/BEAM MANUFACTURE PLANS
- -MANUFACTURED TRUSS DESIGNS AND LAYOUTS
- -HVAC SYSTEMS DESIGN
- -ELECTRICAL PLANS AND SPECIFICATIONS (IF REQUIRED)
- -LANDSCAPE DESIGN

8. INSTALLATION OF A NFPA 72 CHAPTER 29 MONITORED FIRE ALARM SYSTEM TO BE INSTALLED THROUGHOUT THE RESIDENCE IN COMPLIANCE WITH NFPA 72 AND COMI STANDARDS. A SEPARATE FIRE PERMIT IS REQUIRED.

9. INSTALLATION OF A NFPA 13R FIRE SPRINKLER SYSTEM TO BE INSTALLED PER NFPA 13R AND COMI STANDARDS. A SEPARATE FIRE PERMIT IS REQUIRED. INTERNAL SOUNDERS MUST ACTIVATE UPON WATERFLOW AND THE SYSTEM MUST BE MONITORED. 2



BUILDING AREAS

LOWER FLOOR:	2,619 SF
MAIN FLOOR:	2,492 SF
UPPER FLOOR:	2,654 SF
TOTAL CONDITIONED FLOOR AREA:	**7,765 SF***
GARAGE:	889 SF
BASEMENT PATIO:	1,170 SF
MAIN DECK (359 SF COVERED):	733 SF
UPPER PRIMARY DECK:	64 SF
UPPER BEDROOM DECK:	192 SF
STAIRS OPEN TO BELOW:	110 SF
NET LOT AREA:	19,873 SF

*NOTE TOTAL AREAS ARE DIFFERENT THAN FAR AREAS FOR COMPLIANCE, SEE SHEET G0.2

PROJECT CONTACTS

CLIENT:
NICK AND LINSEY WELLMON
6333 77TH AVE SE
MERCER ISLAND, WA 98040
nick.wellmon@gmail.com
lindsey.wellmon@gmail.com

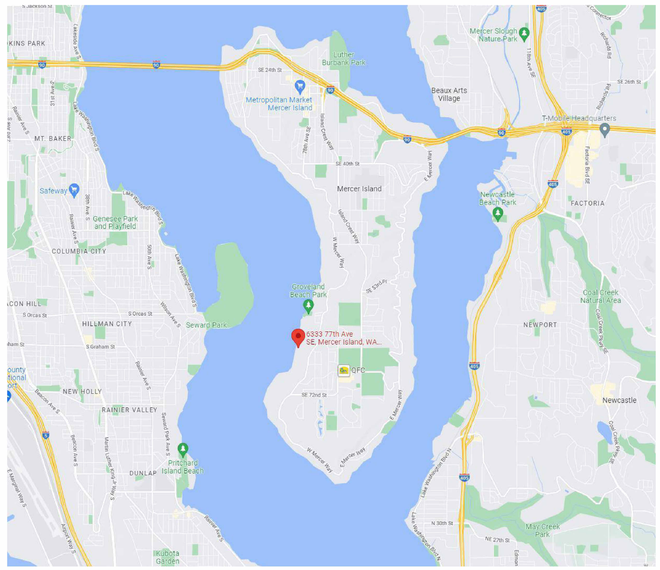
CONTRACTOR - DESIGN/BUILD:
LOCHWOOD LOZIER CUSTOM HOMES
8708 152ND AVE NE
REDMOND, WA 98052
425-576-9200

CIVIL ENGINEER:
D.R. STRONG CONSULTING ENGINEERS
620 7TH AVE
KIRKLAND, WA 98033
425-827-3063

STRUCTURAL ENGINEER:
MULHERN + KULP RESIDENTIAL STRUCTURAL ENGINEERING
7220 TRADE STREET, SUITE 350
SAN DIEGO, CA 92121
619-650-0010

GEOTECHNICAL ENGINEER:
COBALT GEOSCIENCES
P.O. BOX 82243
KENMORE, WA 98028
206-331-1097

VICINITY MAP



DRAWING INDEX

SHEET NUMBER	SHEET NAME	Current Revision
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G0.0	COVER SHEET	2
G0.1	WSEC COMPLIANCE	1
G0.2	CODE COMPLIANCE DIAGRAMS	2
G0.3	TREE RETENTION	2
G0.4	GENERAL NOTES	2
G0.5	GENERAL NOTES	1
SV-1	SURVEY	
C1	COVER SHEET & SITE PLAN	
C2	TESC PLAN	
C3	TESC NOTES AND DETAILS	
C4	STORM DRAINAGE PLAN	
C5	NOTES AND DETAILS	
C6	NOTES AND DETAILS	
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A1.0	FOUNDATION PLAN	1
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A1.2	FLOOR PLAN - MAIN LEVEL	2
A1.3	FLOOR PLAN - UPPER LEVEL	2
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A3.1	BUILDING SECTIONS	2
A3.2	BUILDING SECTIONS	2
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A6.1	REFLECTED CEILING PLAN - BASEMENT LEVEL	2
A6.2	REFLECTED CEILING PLAN - MAIN LEVEL	2
A6.3	REFLECTED CEILING PLAN - UPPER LEVEL	2
A8.1	SCHEDULES	2
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S0.0	STRUCTURAL NOTES	
S1.0	FOUNDATION PLAN	
S2.0	MAIN FRAMING PLAN	
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S3.0	ROOF FRAMING PLAN	
SD LB-1	STRUCTURAL DETAILS	
SD LB-2	STRUCTURAL DETAILS	
SD LB-3	STRUCTURAL DETAILS	
SD.01	FOUNDATION DETAILS	
SD.02	FOUNDATION DETAILS	

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DRAWN BY: MM
CHECKED BY: TL
DATE: 02/04/19
SCALE:

PROJECT
WELLMON SFR
6333 77TH AVE SE
MERCER ISLAND, WA 98040

22069WEL

REV	DATE	ISSUE/REVISION
	01/09/22	PRE-APP SUBMITTAL
1	05/12/23	PERMIT SUBMITTAL
2	10/02/23	PERMIT COMMENTS

SHEET TITLE
COVER SHEET

REVISION NO.
2
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
G0.0

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ENERGY CODE COMPLIANCE

PERSCRIPTIVE APPROACH

CLIMATE ZONE 5 AND 4C (MARINE)

FENESTRATION MAXIMUM U-FACTOR: 0.30 - 0.28 (PER ENERGY CREDIT 1.3)
SKYLIGHT MAXIMUM U-FACTOR: 0.50
REQUIRED R-VALUE AT CEILINGS: R-49
REQUIRED R-VALUE AT SINGLE RAFTER OR JOIST VAULTED CEILINGS: R-38
REQUIRED R-VALUE AT WOOD FRAMED WALLS: R21 INT
REQUIRED R-VALUE AT MASS WALLS: R21
REQUIRED R-VALUE AT WALLS BELOW GRADE: R-10 EXT +TB, R-15 INT +TB, R-21 CAVITY +TB
REQUIRED R-VALUE AT FLOORS: R30 - R38 (PER ENERGY CREDIT 1.3)
REQUIRED R-VALUE AT SLABS ON GRADE: R-10 PERIMETER, R-10 UNDER SLAB (ENTIRE SLAB PER ENERGY CREDIT 1.3)

ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS:

ENERGY CREDITS REQUIRED PER R406.3

SMALL DWELLING UNIT < 1,500 SF: 3.0 CREDITS
MEDIUM DWELLING UNIT 1,500 SF > 5,000 SF: 6 CREDITS
LARGE DWELLING UNIT >5,000 SF: 7 CREDITS

CREDITS PROVIDED PER OPTIONS SELECTED FROM FUEL NORMALIZATION TABLE R406.2:

2 - HEAT PUMP (1.0 CREDITS)
FOR AN INITIAL HEATING SYSTEM USING A HEAT PUMP THAT MEETS FEDERAL STANDARDS FOR THE EQUIPMENT LISTED IN TABLE C403.3.2(1)C OR C403.3.2(5)

OR

AIR TO WATER HEAT PUMP UNITS THAT ARE CONFIGURED TO PROVIDE BOTH HEATING AND COOLING AND ARE RATED IN ACCORDANCE WITH AHRI 550/590

CREDITS PROVIDED PER OPTIONS SELECTED FROM ENERGY CREDITS TABLE R406.3:

1.3 - EFFICIENT BUILDING ENVELOPE (0.5 CREDITS)
PRESCRIPTIVE COMPLIANCE IS BASE ON TABLE R402.1.1 WITH THE FOLLOWING MODIFICATIONS:

VERTICAL FENESTRATION U=0.28
FLOOR R-38
SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB
BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB

OR COMPLIANCE BASE ON SECTION R402.1.4 REDUCED THE TOTAL UA BY 15%

2.1 - AIR LEAKAGE CONTROL & EFFICIENT VENTILATION (0.5 CREDITS)
COMPLIANCE BASED ON R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 3.0 AIR CHANGES PER HOUR MAXIMUM AT 50 PASCALS

AND:

ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M1507.3 OF THE INTERNATIONAL RESIDENTIAL CODE OR SECTION 403.8 OF THE INTERNATIONAL MECHANICAL CODE SHALL BE MET WITH A HIGH EFFICIECY FAN(S) (MAXIMUM 0.35 WATTS/CFM), NOT INTERLOCKED WITH THE FURNACE FAN (IF PRESENT). VENTILATION SYSTEMS USING A FURNACE INCLUDING AN ECM MOTOR ARE ALLOWED, PROVIDED THAT THEY ARE CONTROLLED TO OPERATE AT LOW SPEED IN VENTILATION ONLY MODE.

TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE MAXIMUM TESTED BUILDING AIR LEAKAGE AND SHALL SHOW THE QUALIFYING VENTILATION SYSTEM AND IT'S CONTROL SEQUENCE OF OPERATIONS.

3.2 - HIGH EFFICIENCY HVAC EQUIPMENT (1.0 CREDITS)
AIR-SOURCE, CENTRALLY DUCTED HEAT PUMP WITH MINIMUM HSPF OF 9.5.

TO QUALIFY FOR THIS CLAIM CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.

4.1 - HIGH EFFICIENCY HVAC DISTRIBUTION (0.5 CREDITS)
ALL SUPPLY AND RETURN DUCTS LOCATED IN AN UNCONDITIONED ATTIC SHALL BE DEEPLY BURIED IN CEILING INSULATION IN ACCORDANCE WITH SECTION R403.3.7.

FOR MECHANICAL EQUIPMENT LOCATED OUTSIDE OF THE CONDITIONED SPACE, A MAXIMUM OF 10 LINEAR FEET OF RETURN DUCT AND 5 LINEAR FEET OF SUPPLY DUCT CONNECTIONS TO THE EQUIPMENT MAY BE OUTSIDE THE DEEPLY BURIED INSULATION. ALL METALLIC DUCTS LOCATED OUTSIDE THE CONDITIONED SPACE MUST HAVE BOTH TRANSVERSE AND LONGITUDINAL JOINTS SEALED WITH MASTIC. IF FLEX DUCTS ARE USED, THE CANNOT CONTAIN SPLICES.

DUCT LEAKAGE SHALL BE LIMITED TO 3 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA.

AIR HANDLER(S) SHALL BE LOCATED WITHIN THE CONDITIONED SPACE.

5.2 - EFFICIENT WATER HEATING (0.5 CREDITS)
WATER HEATING SYSTEM SHALL BE ENERGY STAR RATED GAS OR PROPANE WATER HEATER WITH A MINIMUM UEF OF 0.80.

TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.

6.1 - RENEWABLE ELECTRIC ENERGY (3.0 CREDITS)
FOR EACH 1200 KWH OF ELECTRICAL GENERATION PER HOUSING UNIT PROVIDED ANNUALLY BY ON-SITE WIND OR SOLAR EQUIPMENT A 1.0 CREDIT SHALL BE ALLOWED, UP TO 3 CREDITS. GENERATION SHOULD BE CALCULATED AS FOLLOWS:

FOR SOLAR ELECTRIC SYSTEMS, THE DESIGN SHALL BE DEMONSTRATED TO MEET THIS REQUIREMENT USING THE NATIONAL RENEWABLE ENERGY LABORATORY CALCULATOR PVWATTS OR APPROVED ALTERNATE BY THE CODE OFFICIAL.

DOCUMENTATION NOTING SOLAR ACCESS SHALL BE NOTED ON PLANS. DRAWINGS TO SHOW THE PV TYPE, AND INCLUDE A CALCULATION OF THE MINIMUM ANNUAL ENERGY POWER PRODUCTION.

2018 WSEC NOTES

1. THE THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE PER SECTION R402.4.1 THROUGH R402.4.4 AND SHALL BE TESTED PER SECTION R402.4.1.2, EXCEPT THE TESTED AIR LEAKAGE TO BE REDUCED TO 1.5 AIR CHANGES PER HOUR MAX. SEE TABLE R402.4.1.1 FOR AIR BARRIER AND INSULATION INSTALLATION.

2. INDOOR AND OUTDOOR LIGHTING SHALL COMPLY WITH SECTION 404.

3. HVAC DUCTS SHALL BE SEALED AND LEAK TESTED AS REQUIRED PER SECTION R402.4.

4. OPEN BLOWN OUR POURED LOOSE FILL INSULATION MAY BE USED ONLY WHEN THE CEILING IS 3:12 SLOPE OR LESS AND THERE IS AT LEAST 30" ON CLEAR SPACE FROM THE TOP OF THE BOTTOM TRUSS CHORD TO THE ROOF SHEATHING. SEE SECTION R402.2.1.1.

5. OPEN BLOWN POURED OR SPRAY APPLIED ROOF/CEILING INSULATION SHALL BE IDENTIFIED BY INCHES OF THICKNESS WITH DENSITY AND R-VALUE MARKERS INSTALLED AT ONE FOR EVERY 300 SQ. FT. THROUGH THE ATTIC SPACE PER SECTION R303.1.1.1.

6. A PERMANENT RESIDENTIAL ENERGY COMPLIANCE CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR OTHER APPROVED PARTY AND POSTED ON A WALL IN THE SPAE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM, OR AN APPROVED LOCATION INSIDE THE BUILDING. PER SECTION R401.3. THE CERTIFICATE SHALL INCLUDE:

A) PREDOMINANT R-VALUES OF INSTALLED INSULATION.
B) U-FACTORS AND SHGC OF WINDOWS AND SKYLIGHTS INSTALLED AT THE HEATED ENVELOPE.
C) THE TYPE AND EFFICIENCY OF HVAC AND WATER HEATING EQUIPMENT.
D) DUCT LEAKAGE RATES FROM THE DUCT TEST.
E) AIR LEAKAGE RATES IF A BLOWER DOOR TEST WAS CONDUCTED.

7. ATTIC AND CRAWL SPACE ACCESS DOORS SHALL BE INSULATED TO ADJACENT INSULATION STANDARD AND WEATHER STRIPPED PER R402.2.4.

8. R404.1 LIGHTING EQUIPMENT (MANDATORY). A MINIMUM OF 90% OF LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS.

9. PROVIDE 100 CFM INTERMITTENTLY OPERATING POINT-OF-USE VENTILATION AT KITCHEN.

10. PROVIDE 50 CFM INTERMITTENTLY OPERATING POINT-OF-USE VENTILATION AT ALL BATHS AND LAUNDRY.

11. AT LEAST ONE THERMOSTAT PER DWELLING UNIT SHALL BE CAPABLE OF CONTROLLING THE HEATING AND COOLING SYSTEM ON A DAILY SCHEDULE.

12. ACCESS HATCHES AND DOORS (WSEC R402.2.4):
ALL ACCESS HATCHES AND DOORS FROM CONDITIONED SPACES TO UNCONDITIONED SPACES SHALL BE WEATHER STRIPPED AND INSULATED TO A LEVEL EQUIVALENT TO THE INSULATION OF THE SURROUNDING SURFACES. ACCESS SHALL BE PROVIDED TO ALL EQUIPMENT THAT PREVENTS DAMAGING OR COMPRESSING THE INSULATION. A WOOD FRAMED OR EQUIVALENT BAFFLE OR RETAINER IS REQUIRED TO BE PROVIDED WHEN LOOSE FILL INSULATION IS INSTALLED, THE PURPOSE OF WHICH IS TO PREVENT THE LOOSE FILL INSULATION FROM SPILLING INTO THE LIVING SPACE WHEN THE ATTIC ACCESS IS OPENED, AND TO PROVIDE PERMANENT MEANS OF MAINTAINING THE INSTALLED R-VALUE OF THE LOOSE FILL INSULATION.

2018 Washington State Energy Code-Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington
Single Family/1 New & Additions (effective February 1, 2021) Version 1.2

These requirements apply to all IRC building types, including detached and two-family dwellings and multiple single-family dwellings (townhouses).

Project Information	Contact Information
Wellmon SFR	Matt Mamiya/Lochwood Lozier Custom Homes
6333 77th Ave SE, Mercer Island, WA 98040	8708 152nd Ave NE, Redmond, WA 98052

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

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

Authorized Representative: MATT MAMIYA Date: 12/06/2022

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

a. R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity that is less than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix Table A101.4 shall not be less than the R-value specified in the table.
b. The fenestration U-factor column excludes skylights.
c. "10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.
d. R-10 continuous insulation is required under heated slabs on grade floors. See Section R402.2.9.1.
e. For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.
f. R-25 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.
g. For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400.
h. Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78% of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

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

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

1. Small Dwelling Unit: 3 credits
   Dwelling units less than 1,500 sf in conditioned floor area with less than 300 sf of fenestration area. Additions to existing building that are greater than 500 sf of heated floor area but less than 1,500 sf
2. Medium Dwelling Unit: 6 credits
   All dwelling units that are not included in #1 or #3
3. Large Dwelling Unit: 7 credits
   Dwelling units exceeding 5,000 sf of conditioned floor area
4. Additions less than 500 square feet: 1.5 credits
   All other additions shall meet #3 above

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

Summary of Table R406.2 and 406.3

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

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

Summary of Table R406.2 (cont.)

Energy Options	Energy Credit Option Descriptions (cont.)	Credits- select ONE energy option from each category[d]		User Notes
5.1[d]	Efficient Water Heating	0.5	☐	
5.2	Efficient Water Heating	0.5	◉	
5.3	Efficient Water Heating	1.0	○	
5.4	Efficient Water Heating	1.5	○	
5.5	Efficient Water Heating	2.0	○	
5.6	Efficient Water Heating	2.5	○	
6.1[e]	Renewable Electric Energy (3 credits max)	1.0	3	Provide 3,600KwH annually
7.1	Appliance Package	0.5	☐	
	Total Credits		7.0	Calculate Total / Clear Form

a. An alternative heating source sized at a maximum of 0.5 kW (equivalent) of heated floor area or 500 W whichever is bigger, may be installed in the dwelling unit.
b. Equipment listed in Table C403.3.2(4) or C403.3.2(5)
c. Equipment listed in Table C403.3.2(1) or C403.3.2(2)
d. You cannot select more than one option from any category EXCEPT in category 5. Option 5.1 may be combined with options 5.2 through 5.6. See Table 406.3.
e. 1.0 credit for each 1,200 kWh of electrical generation provided annually, up to 3 credits max. See the complete Table R406.2 for all requirements and option descriptions.
f. Use the single radiobutton in the upper right of the second column to deselect radiobuttons in that

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For Building Officials Only

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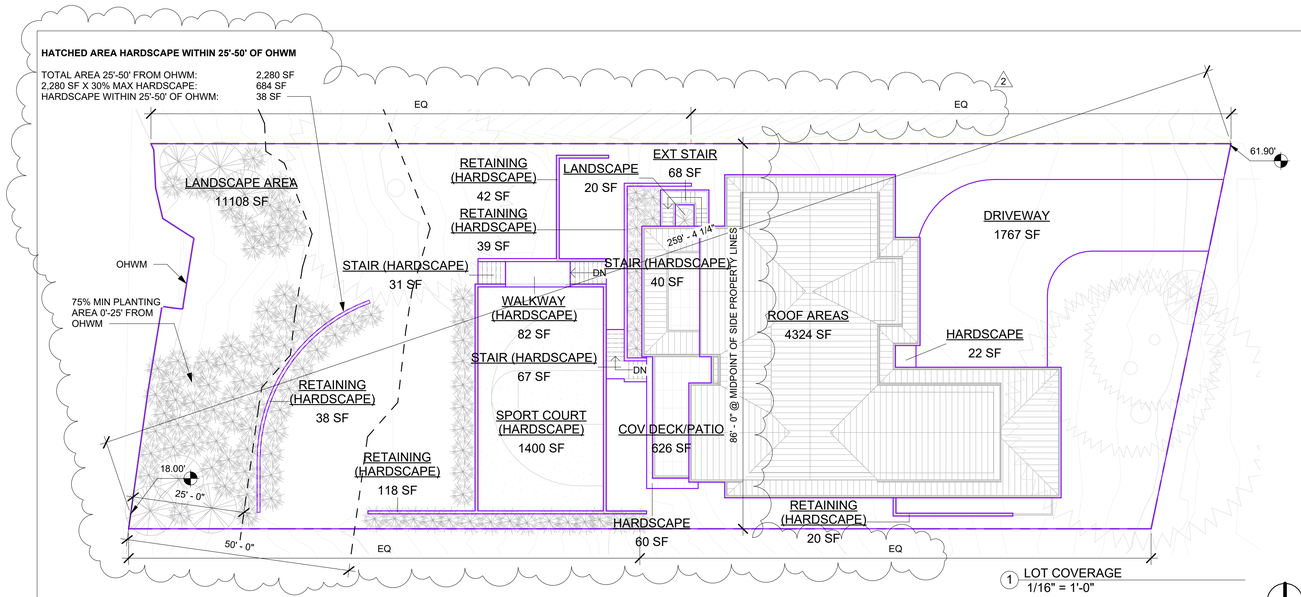
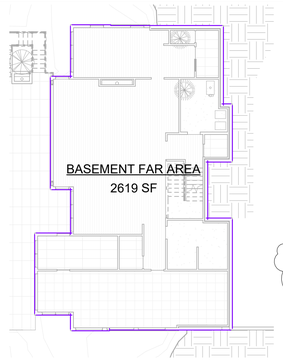
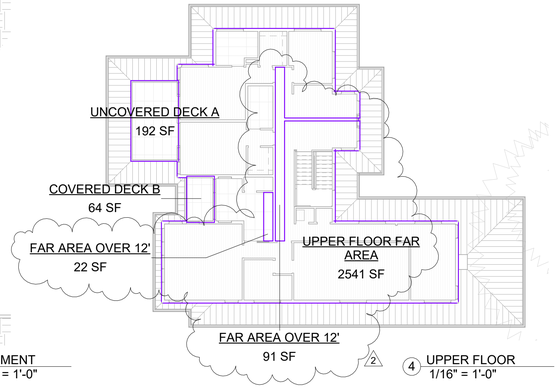


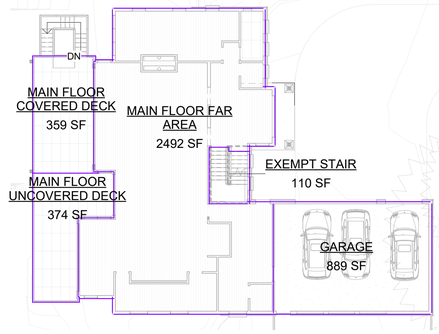
1 LOT COVERAGE
1/16" = 1'-0"



2 BASEMENT
1/16" = 1'-0"



4 UPPER FLOOR
1/16" = 1'-0"



3 MAIN FLOOR
1/16" = 1'-0"

LOT COVERAGE & LANDSCAPING AREAS:

NET LOT AREA:	19,873 SF
HIGHEST POINT ON LOT:	61.90'
LOWEST POINT ON LOT:	18.00'
HEIGHT CHANGE:	(61.90' - 18.00') = 43.90'
DISTANCE BETWEEN POINTS:	259.35'
LOT SLOPE:	(43.90' / 259.35') = 16.9%

MAXIMUM LOT COVERAGE:	(15%-30% LOT SLOPE) = 35%
MAXIMUM LOT COVERAGE AREA:	(35% X 19,873 SF) = **6,956 SF**
PROPOSED LOT COVERAGE AREA:	(4,324 SF + 626 SF + 68 SF + 1,767 SF) = **6,785 SF (171 SF REMAINING)**
MAXIMUM HARDSCAPE AREA:	(9% X 19,873 SF) = **1,789 SF + 171 SF(FROM LOT COV) = 1,960 SF**
PROPOSED HARDSCAPE AREA:	(22 SF + 60 SF + 67 SF + 40 SF + 82 SF + 31 SF + 38 SF + 118 SF + 42 SF + +39 SF +20 SF +1400 SF = **1,959 SF**
PROPOSED LANDSCAPE AREA:	(11,175 SF + 20 SF) = **11,195 SF**

2

GROSS FLOOR AREA:

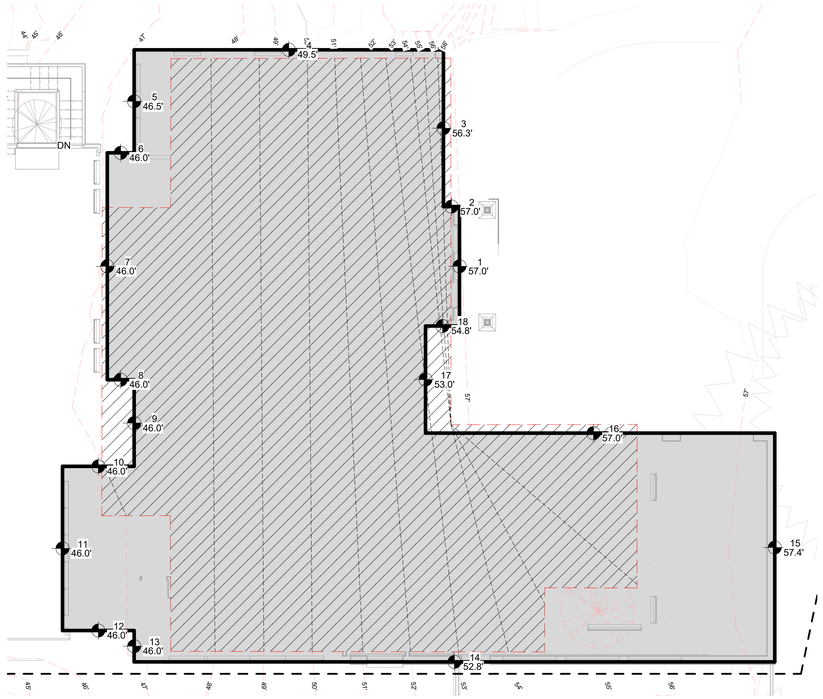
NET LOT AREA:	19,873 SF
MAXIMUM GROSS FLOOR AREA:	(40% X 19,873 SF) = **7,949 SF**

BASEMENT GROSS FLOOR AREA:	2,619 SF
BASEMENT AREA EXEMPTION:	*-1,197 SF*
MAIN FLOOR GROSS FLOOR AREA:	2,492 SF
MAIN FLOOR GARAGE AREA:	889 SF
COVERED MAIN FLOOR DECK AREA:	359 SF
UPPER FLOOR GROSS FLOOR AREA:	2,541 SF
AREA OVER 12' (113 SF X 1.5):	170 SF
COVERED DECK B AREA:	64 SF
TOTAL PROPOSED GROSS FLOOR AREA:	**7,937 SF**

2

AVERAGE EXISTING GRADE ELEVATION...			
Grade Elevation Number	Elevation Height	Wall Length	Elev * Length
1	57.0'	13' - 0"	741 SF
2	57.0'	2' - 0"	114 SF
3	56.3'	17' - 6"	985 SF
4	49.5'	34' - 6"	1708 SF
5	46.5'	11' - 6"	535 SF
6	46.0'	3' - 0"	138 SF
7	46.0'	25' - 0"	1150 SF
8	46.0'	3' - 0"	138 SF
9	46.0'	10' - 0"	460 SF
10	46.0'	8' - 0"	368 SF
11	46.0'	18' - 0"	828 SF
12	46.0'	8' - 0"	368 SF
13	46.0'	3' - 6"	161 SF
14	52.8'	71' - 6"	3775 SF
15	57.4'	25' - 6"	1464 SF
16	57.0'	39' - 0"	2223 SF
17	53.0'	12' - 0"	636 SF
18	54.8'	3' - 6"	192 SF
TOTAL: 18		308' - 6"	15983 SF

ABE = 15,983 / 308.5 = **EL. 51.81'**

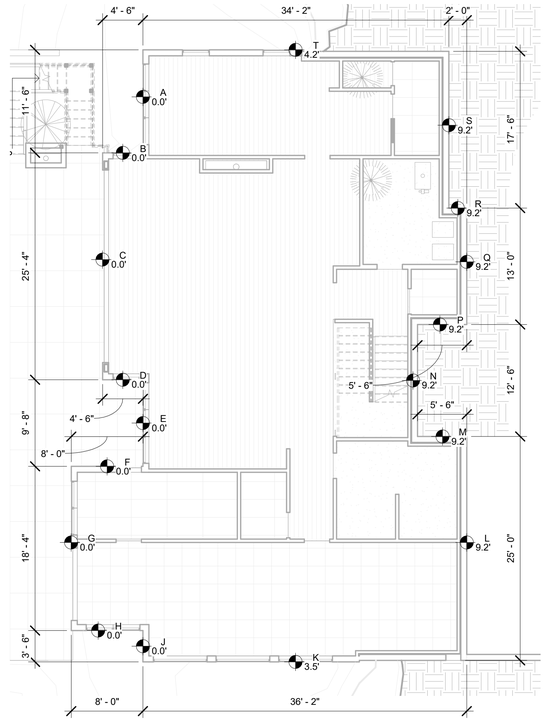


6 AVERAGE BUILDING ELEVATION CALCULATION
1/8" = 1'-0"

TABLE OF WALL LENGTHS AND COVERAGE					
Grade Elevation Number	Wall Length	Elevation Height	Total Wall Height	Coverage	Coverage X Length
A	11.50'	0.0'	9' - 2 1/4"	0%	0.00
B	3.00'	0.0'	9' - 2 1/4"	0%	0.00
C	25.33'	0.0'	9' - 2 1/4"	0%	0.00
D	3.00'	0.0'	9' - 2 1/4"	0%	0.00
E	9.67'	0.0'	9' - 2 1/4"	0%	0.00
F	8.00'	0.0'	9' - 2 1/4"	0%	0.00
G	18.33'	0.0'	9' - 2 1/4"	0%	0.00
H	8.00'	0.0'	9' - 2 1/4"	0%	0.00
J	3.50'	0.0'	9' - 2 1/4"	0%	0.00
K	36.25'	3.5'	9' - 2 1/4"	38%	13.81
L	25.00'	9.2'	9' - 2 1/4"	100%	25.00
M	5.50'	9.2'	9' - 2 1/4"	100%	5.50
N	12.50'	9.2'	9' - 2 1/4"	100%	12.50
P	5.50'	9.2'	9' - 2 1/4"	100%	5.50
Q	13.00'	9.2'	9' - 2 1/4"	100%	13.00
R	2.00'	9.2'	9' - 2 1/4"	100%	2.00
S	17.50'	9.2'	9' - 2 1/4"	100%	17.50
T	34.17'	4.2'	9' - 2 1/4"	46%	15.62
	241.75'				110.43

BASEMENT FLOOR AREA EXEMPTION:

PERCENTAGE OF EXEMPTION:	(110.43' / 241.75') = **45.7%**
BASEMENT FLOOR AREA EXEMPTION:	(45.7% X 2,619 SF) = **1,197 SF**



5 BASEMENT FLOOR AREA CALCULATION
1/8" = 1'-0"

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DRAWN BY: MM
CHECKED BY: TL
DATE: 01/08/19
SCALE: As indicated

PROJECT
WELLMON SFR
6333 77TH AVE SE
MERCER ISLAND, WA 98040

22069WEL

REV	DATE	ISSUE/REVISION
	01/09/22	PRE-APP SUBMITTAL
1	05/12/23	PERMIT SUBMITTAL
2	10/02/23	PERMIT COMMENTS

SHEET TITLE
CODE COMPLIANCE DIAGRAMS

REVISION NO. 2
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO. G0.2

10/2/2023 11:38:18 AM

TREE INVENTORY - ALL EXISTING			
Tree Number	Type	Tree Diameter	
01	Deciduous Tree	6"	
02	Sequoia	16"	*
03	Douglas Fir	16"	*
04	Sequoia	56"	**
05	Unknown Decidous	14"	*
06	Choke Cherry	6"	**
07	Pine	36"	
08	Japanese Maple	6"	
09	Choke Cherry	6"	
10	Choke Cherry	6"	
11	Choke Cherry	6"	
12	Choke Cherry	8"	
13	Choke Cherry	8"	*
14	Choke Cherry	10"	
15	Choke Cherry	6"	

* LARGE (REGULATED) TREE
** EXCEPTIONAL TREE

TREE INVENTORY - DEMO			
Tree Number	Type	Tree Diameter	
05	Unknown Decidous	14"	*
06	Choke Cherry	6"	
08	Japanese Maple	6"	
09	Choke Cherry	6"	
10	Choke Cherry	6"	
11	Choke Cherry	6"	
12	Choke Cherry	8"	
13	Choke Cherry	8"	
14	Choke Cherry	10"	*
15	Choke Cherry	6"	

TOTAL DBH OF EXISTING REGULATED TREES ON SITE: 148"

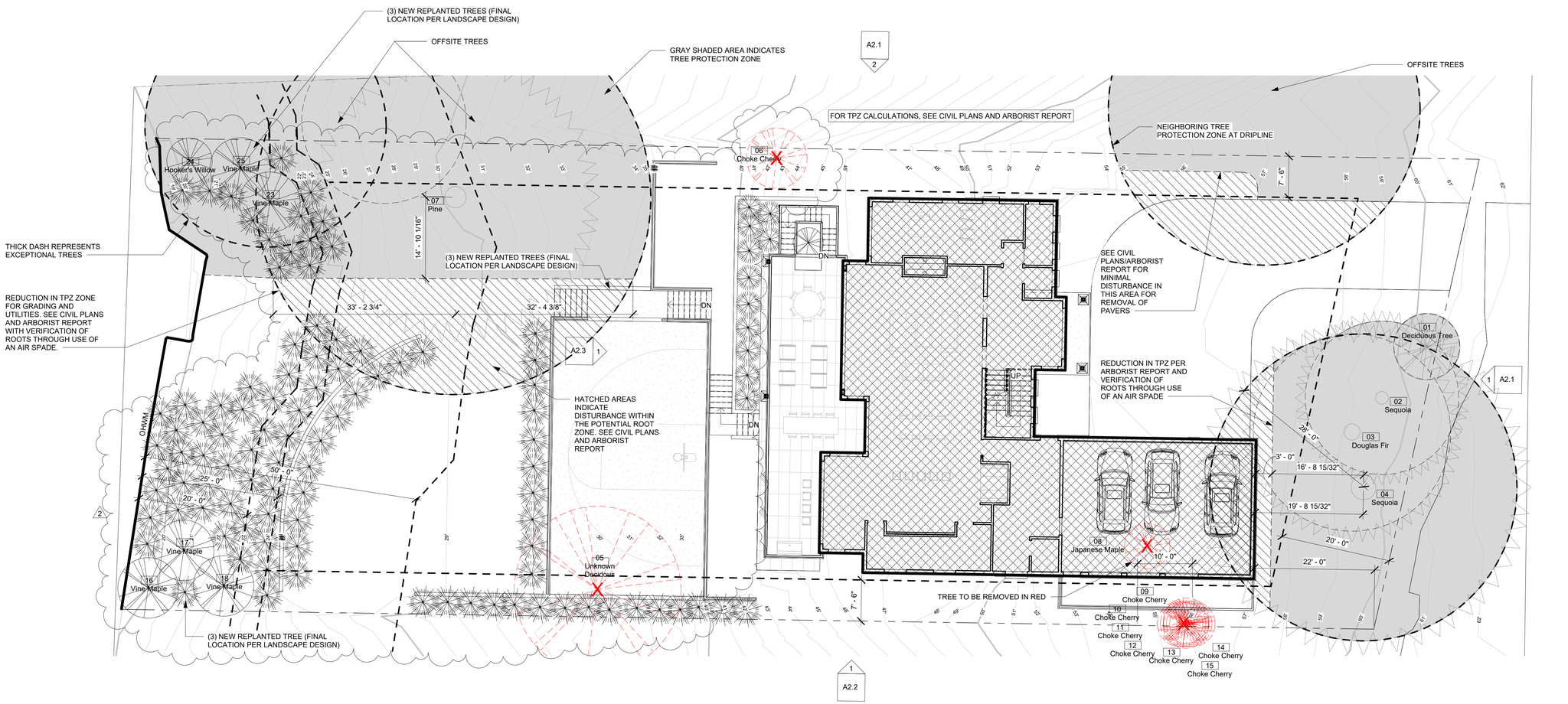
TOTAL DBH OF EXISTING REGULATED TREES TO BE REMOVED: 24"

TOTAL PERCENTAGE OF REGULATED TREE DBH TO BE REMOVED: 16.2%

REQUIRED REPLACEMENT TREES (2 TREES 10"-24": 4 (CONIFEROUS TREES TO BE MIN 6' TALL, DECIDUOUS MIN 1 1/2" CAL.)

TREE INVENTORY - NEW		
Tree Number	Type	Tree Diameter
16	Vine Maple	2"
17	Vine Maple	2"
18	Vine Maple	2"
23	Vine Maple	2"
24	Hooker's Willow	2"
25	Vine Maple	2"
		12"

2



1 TREE RETENTION PLAN
1" = 10'-0"

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DRAWN BY MM
CHECKED BY TL
DATE 04/24/23
SCALE 1" = 10'-0"

PROJECT
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22069WELL

REV	DATE	ISSUE/REVISION
1	05/12/23	PERMIT SUBMITTAL
2	10/02/23	PERMIT COMMENTS

SHEET TITLE
TREE RETENTION

REVISION NO. 2
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO. G0.3

10/2/2023 11:38:20 AM

SITE WORK

GENERAL
UNLESS A SOILS INVESTIGATION BY A QUALIFIED SOILS ENGINEER IS PROVIDED, FOUNDATION DESIGN IS BASED ON AN ASSUMED AVERAGE SOIL BEARING OF 1500 PSF. EXTERIOR FOOTINGS SHALL BEAR 18" (MINIMUM) BELOW FINISHED GRADE. ALL FOOTINGS TO BEAR ON FIRM UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. BACKFILL TO BE THOROUGHLY COMPACTED. BOLT HEADS AND NUTS BEARING AGAINST WOOD TO BE PROVIDED WITH 1/4"x3"x3" PLATE WASHERS. WOOD BEARING ON OR INSTALLED WITHIN 1" OF MASONRY OR CONCRETE TO BE PRESSURE TREATED WITH AN APPROVED PRESERVATIVE. FOUNDATION SILL BOLTS TO BE 5/8" DIAMETER AT 6'-0" O.C., U.N.O. WITH MIN. 7" EMBEDMENT. METAL FRAMING CONNECTORS TO BE MANUFACTURED BY SIMPSON STRONG TIE OR USP STRUCTURAL CONNECTORS.

FOUNDATION WATERPROOFING AND DAMPPROOFING

DAMPPROOFING
EXCEPT WHERE REQUIRED BY SEC R206.2 TO BE WATERPROOFED, FOUNDATION WALLS THAT RETAIN EARTH OR ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE DAMPROOFED FROM THE TOP OF THE FOOTING TO THE FINISHED GRADE. MASONRY WALLS SHALL HAVE NOT LESS THAN 3/8" PORTLAND CEMENT PARKING APPLIED TO THE EXTERIOR SURFACE OF THE WALL. PARKING SHALL BE DAMPROOFED BY ONE OF THE FOLLOWING:

1) BITUMINOUS COATING
2) 3 POUNDS/ SQ. YD. OF ACRYLIC MODIFIED CEMENT
3) 3/8" COAT OF SURFACE BONDING CEMENT COMPLYING WITH ASTN C 887
4) ANY MATERIAL APPROVED FOR WATERPROOFING IN SEC R406.2
5) OTHER APPROVED METHODS OR MATERIALS.

EXCEPTION: PARKING OF UNIT MASONRY WALLS IS NOT REQUIRED WHERE A MATERIAL IS APPROVED FOR DIRECT APPLICATION OF MASONRY.

WATERPROOFING:
IN AREAS WHERE HIGH WATER TABLE OR OTHER SEVERE SOIL/ WATER CONDITIONS ARE KNOWN TO EXIST, EXTERIOR FOUNDATION WALLS THAT RETAIN EARTH OR ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE WATERPROOFED FROM THE TOP OF FOOTING TO FINISHED GRADE. WALLS SHALL BE WATERPROOFED IN ACCORDANCE WITH ONE OF THE FOLLOWING:

1) 2-PLY HOT MOPPED FELT
2) 55# ROOF ROLLING
3) 6 MIL POLYVINYL CHLORIDE
4) 6 MIL POLYETHYLENE
5) 40 MIL POLYMER MODIFIED ASPHALT
6) 60 MIL FLEXIBLE POLYMER CEMENT
7) 1/8" CEMENT BASED, FIBER REINFORCED, WATERPROOF COATING
8) 60 MIL SOLVENT FREE, LIQUID APPLIED SYNTHETIC RUBBER

EXCEPTION: ORGANIC SOLVENT BASED PRODUCTS SUCH AS HYDROCARBONS, CHLORINATED HYDROCARBONS, KETONS, AND ESTERS SHALL NOT BE USED FOR ICF WALLS WITH EXPANDED POLYSTYRENE FOAM MATERIAL. USE OF PLASTIC ROOFING CEMENTS, ACRYLIC COATINGS, LATEX COATINGS, MORTARS AND PARGINGS TO SEAL ICF WALLS IS PERMITTED. COLD SETTING ASPHALT OR HOT ASPHALT SHALL CONFORM TO TYPE C OF ASTM D 449. HOT ASPHALT SHALL BE APPLIED AT A TEMPERATURE OF LESS THAN 200 DEGREES FAHRENHEIT. ALL JOINTS IN MEMBRANE WATERPROOFING SHALL BE LAPPED AND SEALED WITH AN ADHESIVE COMPATIBLE WITH THE MEMBRANE.

POSTING OF CERTIFICATE

WSEC 105.4:
A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR OTHER APPROVED PARTY AND POSTED ON A WALL IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM, OR AN APPROVED LOCATION INSIDE THE BUILDING. WHEN LOCATED ON AN ELECTRICAL PANEL, THE CERTIFICATE SHALL NOT COVER OR OBSTRUCT THE VISIBILITY OF THE CIRCUIT DIRECTORY LABEL, SERVICE DISCONNECT LABEL, OR OTHER REQUIRED LABELS. THE CERTIFICATE SHALL LIST THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN OR ON CEILING/ROOF, WALLS, FOUNDATION (SLAB, BELOW-GRADE WALL, AND/OR FLOOR) AND DUCTS OUTSIDE CONDITIONED SPACES; U-FACTORS FOR FENESTRATION AND THE SOLAR HEAT GAIN COEFFICIENT (SHGC) OF FENESTRATION; THE RESULTS FROM ANY REQUIRED DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING DONE ON THE BUILDING; AND THE RESULTS FROM THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FLOW RATE TEST. WHERE THERE IS MORE THAN ONE VALUE FOR EACH COMPONENT, THE CERTIFICATE SHALL LIST THE VALUE COVERING THE LARGEST AREA. THE CERTIFICATE SHALL LIST THE TYPES AND EFFICIENCIES OF HEATING, COOLING, WHOLE□HOUSE MECHANICAL VENTILATION, AND SERVICE WATER HEATING APPLIANCES. WHERE A GAS-FIRED UNVENTED ROOM HEATER, ELECTRIC FURNACE, OR BASEBOARD ELECTRIC HEATER IS INSTALLED IN THE RESIDENCE, THE CERTIFICATE SHALL LIST "GAS-FIRED UNVENTED ROOM HEATER," "ELECTRIC FURNACE" OR "BASEBOARD ELECTRIC HEATER," AS APPROPRIATE. AN EFFICIENCY SHALL NOT BE LISTED FOR GAS-FIRED UNVENTED ROOM HEATERS, ELECTRIC FURNACES OR ELECTRIC BASEBOARD HEATERS.

THE CODE OFFICIAL MAY REQUIRE THAT DOCUMENTATION FOR ANY REQUIRED TEST RESULTS INCLUDE AN ELECTRONIC
RECORD OF THE TIME, DATE AND LOCATION OF THE TEST. A DATE-STAMPED SMART PHONE PHOTO OR AIR LEAKAGE TESTING
SOFTWARE MAY BE USED TO SATISFY THIS REQUIREMENT.

INSULATION AND MOISTURE PROTECTION

GENERAL:
MAINTAIN 1" CLEARANCE ABOVE INSULATION FOR FREE AIR FLOW. INSULATION BAFFLES TO EXTEND 6" ABOVE BATT INSULATION. INSULATION BAFFLES TO EXTEND 12" ABOVE LOOSE FILL INSULATION. INSULATE BEHIND TUBS/SHOWERS, PARTITIONS, AND CORNERS. FACED BATTS TO BE FACE STAPLED. FRICTION FIT UNFACED BATTS SHALL BE INSTALLED PER MFR. SPECS. USE 4 MIL POLY VAPOR RETARDER AT EXTERIOR WALLS.

INSULATION MATERIALS:
INSULATION MATERIAL, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS OR VAPOR PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR/CEILING ASSEMBLIES, ROOF/CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES, AND ATTICS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 WITH AN ACCOMPANYING SMOKE DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 64.
EXCEPTIONS:
1) WHEN SUCH MATERIALS ARE INSTALLED IN CONCEALED SPACES, THE FLAME SPREAD AND SMOKE DEVELOPMENT LIMITATIONS DO NOT APPLY TO THE FACINGS, PROVIDED THAT THE FACING IS INSTALLED IN SUBSTANTIAL CONTACT WITH THE UNEXPOSED SURFACE OF THE CEILING, FLOOR, OR WALL FINISH.
2) CELLULOSE LOOSE FILL INSULATION, WHICH IS NOT SPRAY APPLIED, COMPLYING WITH THE REQUIREMENTS OF IRC R316.3, SHALL ONLY BE REQUIRED TO MEET THE SMOKE DEVELOPED INDEX OF NOT MORE THAN 450.

INFILTRATION CONTROL:
EXTERIOR JOINTS AROUND WINDOWS AND DOOR PANELS, PENETRATIONS IN FLOORS, ROOFS, AND WALLS, AND ALL SIMILAR OPENINGS SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED TO LIMIT AIR LEAKAGE.

VAPOR BARRIERS/ GROUND COVERS:
AN APPROVED VAPOR BARRIER SHALL BE PROPERLY INSTALLED IN ROOF DECKS, IN ENCLOSED CEILING SPACES, AND AT EXTERIOR WALLS. A GROUND COVER OF 6 MIL (0.006") BLACK POLYETHYLENE OR EQUIVALENT SHALL BE LAID OVER THE GROUND IN ALL CRAWL SPACES. THE GROUND COVER SHALL BE OVERLAPPED ONE FOOT AT EACH JOINT AND SHALL EXTEND TO THE FOUNDATION WALL.

WALL FLASHING:
APPROVED CORROSION RESISTANT FLASHING SHALL BE PROVIDED TO THE EXTERIOR WALL ENVELOPE IN SUCH A MANNER AS TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH AND SHALL BE INSTALLED TO PREVENT WATER FROM REENTERING THE EXTERIOR WALL ENVELOPE. APPROVED CORROSION RESISTANT FLASHINGS SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS:

1) AT THE TOP OF ALL EXTERIOR WINDOW AND DOOR OPENINGS IN SUCH A MANNER AS TO BE LEAK PROOF, EXCEPT THAT SELF FLASHING WINDOWS, HAVING A CONTINUOUS LAP OF NOT LES THAN 1-1/8" (28mm) OF THE SHEATHING MATERIAL AROUND THE PERIMETER OF THE OPENING, INCLUDING CORNERS, DO NOT REQUIRE ADDITIONAL FLASHING. JAMB FLASHING MAY ALSO BE OMITTED WHEN SPECIFICALLY APPROVED BY THE BUILDING OFFICIAL.
2) AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO OPENINGS.
3) UNDER AND AT THE ENDS OF MASONRY, WOOD, OR METAL COPINGS AND SILLS.
4) CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM.
5) WHERE EXTERIOR PORCHES, DECKS, OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD CONSTRUCTION.
6) AT WALL AND ROOF INTERSECTIONS.
7) AT BUILT IN GUTTERS.

APPLIANCES IN ATTICS

APPLIANCES IN ATTICS (IRC 2018 - M1305.1.2)
ATTICS CONTAINING APPLIANCES SHALL BE PROVIDED WITH AN OPENING AND A CLEAR UNOBSTRUCTED PASSAGEWAY LARGE ENOUGH TO ALLOW REMOVAL OF THE LARGEST APPLIANCE, BUT NOT LESS THAN 30 INCHES (762mm) HIGH AND 22 INCHES (559mm) WIDE AND NOT MORE THAN 20 FEET (6096mm) LONG MEASURED ALONG THE CENTERLINE OF THE PASSAGEWAY FROM THE OPENING TO THE APPLIANCE. THE PASSAGEWAY SHALL HAVE CONTINUOUS SOLID FLOORING IN ACCORDANCE WITH CHAPTER 5, NOT LESS THAN 24 INCHES (610mm) WIDE. A LEVEL SURFACE SPACE AT LEAST 30 INCHES (762mm) DEEP AND 30 INCHES (762mm) WIDE SHALL BE PRESENT ALONG ALL SIDES OF THE APPLIANCE WHERE ACCESS IS REQUIRED. THE CLEAR ACCESS OPENINGS SHALL BE A MINIMUM OF 20 INCHES BY 30 INCHES (508mm X 762mm), AND LARGE ENOUGH TO ALLOW REMOVAL OF THE LARGEST APPLIANCE.

EXCEPTIONS:
1)THE PASSAGEWAY AND LEVEL SERVICE SPACE ARE NOT REQUIRED WHERE THE APPLIANCE CAN BE SERVICED THROUGH THE REQUIRED OPENING.
2)WHERE THE PASSAGEWAY IS UNOBSTRUCTED AND NOT LESS THAN 6 FEET (1829mm) HIGH AND 22 INCHES (559mm) WIDE FOR ITS ENTIRE LENGTH, THE PASSAGEWAY SHALL NOT BE MORE THAN 50 FEET (15,250mm) LONG.

HABITABLE ATTIC SPACE

HABITABLE ATTIC:
A HABITABLE ATTIC SHALL BE DEFINED AS:

1) ATTIC WITH A CONDITIONED AREA OF 70 SQUARE FEET OR MORE.
2) CONTAINS AN OCCUPIABLE FLOOR AREA CEILING HEIGHT THAT COMPLIES WITH R305.
3) ATTIC SPACE IS ENTIRELY ENCLOSED BY THE ROOF ASSEMBLY.
4) ATTIC SPACE IS NOT CONSIDERED A STORY.

CARPENTRY

GENERAL
ALL NAILING TO COMPLY WITH REQUIREMENTS OF IRC TABLE R602.3(1). GYPSUM WALL BOARD AT INTERIOR WALLS TO BE FASTENED ACCORDING TO TABLE R702.3.5. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED. FIELD OUT ENDS, NOTCHES, AND DRILLED HOLES OF PRESSURE TREATED LUMBER SHALL BE RETREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4. PER IRC 317.3, FASTENERS FOR PRESSURE PRESERVATIVE AND FIRE RETARDANT TREATED WOOD SHALL BE OF HOT DIPPED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER.

1) 6" MIN. CLEARANCE BETWEEN WOOD AND EARTH.
2) 12" MIN. CLEARANCE BETWEEN FLOOR BEAMS AND EARTH.
3) 18" MIN. CLEARANCE BETWEEN FLOOR JOISTS AND EARTH.

FASTENERS:
ALL NAILS SPECIFIED ON THIS PLAN SHALL BE COMMON OR GALVANIZED BOX (UNLESS NOTED OTHERWISE) OF THE DIAMETER AND LENGTH LISTED BELOW OR AS PER APPENDIX "L) O FHTE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS).
8d COMMON (0.131" DIA., 2-1/2" LENGTH), 8d BOX (0.013" DIA., 2-1/2" LONG), 10d COMMON (0.148" DIA., 3" LONG), 10d BOX (0.128" DIA., 3" LENGTH), 16d COMMON (0.162" DIA., 3-1/2" LONG), 16d SINKER (0.148" DIA., 3-1/4" LONG), 5d COOLER (0.086" DIA., 1-5/8" LONG), 6d COOLER (0.092" DIA., 1-7/8" LONG).

LUMBER GRADES:
FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY.

GLUE LAMINATED BEAMS (GLB):
ALL GLUE LAMINATED BEAMS SHALL BE 24F-V4 FOR SINGLE SPANS AND 24F-V8 FOR CONTINUOUS OR CANTILEVER SPANS.

ENGINEERED WOOD BEAMS AND I-JOIST:
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SPECIFICATIONS FOR APPROVAL BY BUILDING OFFICIAL. DESIGN, FABRICATION, AND ERECTION IN ACCORDANCE WITH THE LATEST ICC EVALUATION REPORT. CALCULATIONS SHALL INCLUDE DEFLECTION AND CAMBER REQUIREMENTS. DEFLECTION SHALL BE LIMITED AS FOLLOWS:
FLOOR LIVE LOAD MAXIMUM = L/480
FLOOR TOTAL LOAD MAXIMUM = L/240

PREFABRICATED WOOD TRUSSES:
PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED TO SUPPORT SELF WEIGHT PLUS LIVE LOAD AND SUPERIMPOSED DEAD LOADS AS STATED IN THE GENERAL NOTES. TRUSSES SHALL BE DESIGNED AND STAMPED BY A REGISTERED DESIGN PROFESSIONAL AND FABRICATED ONLY FROM THOSE DESIGNS. NONBEARING WALLS SHALL BE HELD AWAY FROM THE TRUSS BOTTOM CHORD WITH AN APPROVED FASTENER (SUCH AS SIMPSON STC) TO ENSURE THAT THE TRUSS BOTTOM CHORD WILL NOT BEAR ON THE WALL. ALL PERMANENT TRUSS MEMBER BRACING SHALL BE INSTALLED PER THE TRUSS DESIGN DRAWINGS.

ROOF/ WALL FLOOR SHEATHING
TYPICAL WALL AND ROOF SHEATHING SHALL BE 7/16" MINIMUM UNLESS OTHERWISE SPECIFIED. MINIMUM NAILING SHALL BE 8d COMMON @ 6" O.C.AT PANEL EDGES AND 12" O.C. IN FIELD, U.N.O. ON SHEARWALL SCHEDULE. SPAN INDEX SHALL BE 24/0 FOR WALLS AND 24/16 FOR ROOF. FLOOR SHEATHING SHALL BE 3/4" T&G SHEATHING, UNLESS OTHERWISE SPECIFIED. MINIMUM NAILING SHALL BE 8d COMMON AT 6" O.C. AT PANEL EDGES AND 12" O.C. IN FIELD. SPAN INDEX SHALL BE 40/20 UNLESS NOTED OTHERWISE. STAGGER END LAPS AT ROOF AND FLOOR SHEATHING.

DRILLING AND NOTCHING STUDS

DRILLING AND NOTCHING STUDS (R602.6):
DRILLING AND NOTCHING OF STUDS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
1) NOTCHING- ANY STUD IN AN EXTERIOR WALL OR BEARING PARTITION MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. STUDS IN NONBEARING PARTITIONS MAY BE NOTCHED TO A DEPTH NOT TO EXCEED 40 PERCENT OF A SINGLE STUD WIDTH.
2) DRILLING- ANY STUD MAY BE BORED OR DRILLED, PROVIDED THAT THE DIAMETER OF THE RESULTING HOLE IS NO MORE THAN 60 PERCENT OF THE STUD WIDTH, AND THE HOLE IS NO MORE THAN 5/8" (16MM) TO THE EDGE OF THE STUD, AND THE HOLE IS NOT LOCATED IN THE SAME SECTION AS A CUT OR NOTCH. STUDS LOCATED IN EXTERIOR WALLS OR BEARING PARTITIONS DRILLED OVER 40 PERCENT AND UP TO 60 PERCENT SHALL ALSO BE DOUBLED WITH NO MORE THAN TWO SUCCESSIVE DOUBLED STUDS BORED. (SEE R602.6(1) AND R602.6(2))
EXCEPTION: USE OF APPROVED STUD SHOES IS PERMITTED WHEN THEY ARE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

DRILLING AND NOTCHING OF TOP PLATE (R602.6.1):
WHEN PIPING OR DUCTWORK IS PLACED IN OR PARTLY IN AN EXTERIOR WALL OR INTERIOR LOAD BEARING WALL NECESSITATING CUTTING, DRILLING, OR NOTCHING OF THE TOP PLATE BY MORE THAN 50 PERCENT OF ITS WIDTH, A GALVANIZED METAL TIE OF NOT LESS THAN 16ga (0.054 INCH THICK,1.37mm) AND 1-1/2" (38MM) WIDE SHALL BE FASTENED ACROSS AND TO THE PLATE AT EACH SIDE OF THE OPENING WITH NOT LESS THAN EIGHT 16d NAILS AT EACH SIDE OF EQUIVALENT (SEE R602.6.1).
EXCEPTION: WHEN THE ENTIRE SIDE OF THE WALL WITH THE NOTCH OR CUT IS COVERED BY WOOD STRUCTURAL PANEL SHEATHING.

DOORS, WINDOWS & SKYLIGHTS

GENERAL:
ALL SKYLIGHTS AND SKY WALLS TO BE LAMINATED GLASS UNLESS NOTED OTHERWISE. BEDROOM EMERGENCY EGRESS WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET WITH A MINIMUM NET CLEAR OPENING WIDTH OF 20" AND A MINIMUM NET CLEAR OPENING HEIGHT OF 24". FINISHED SILL HEIGHT SHALL BE A MAXIMUM 44" ABOVE FINISHED FLOOR.

1) WINDOW FLASHING TO BE FASTENED PER IRC R703.8
2) WINDOW GUARDS ARE REQUIRED PER IRC R612.

OPERABLE SECTIONS OF THE WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER (102mm) SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES (610mm) OF THE FINISHED FLOOR.

EXCEPTION:

1) WINDOWS WHOSE OPENINGS WILL NOT ALLOW A 4 INCH DIAMETER (102mm) SPHERE TO PASS THROUGH THE OPENING WHEN THE OPENING IS IN ITS LARGEST OPENED POSITION.
2) OPENINGS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2000.
3) WINDOWS THAT ARE PROVIDED WITH WINDOW OPENING CONTROL DEVICES THAT COMPLY WITH SECTION R312.2.2.

EMERGENCY ESCAPE AND RESCUE:
WINDOW OPENING HEIGHT OF NOT MORE THAN 44 INCHES FROM THE FINISHED FLOOR TO THE BOTTOM OF THE CLEAR WINDOW OPENING.

WINDOW INSTALLATION:
WINDOWS SHALL BE INSTALLED AND FINISHED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. WRITTEN INSTALLATION INSTRUCTIONS SHALL BE PROVIDED BY THE MANUFACTURER FOR EACH WINDOW.

SAFETY GLAZING SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS OR AS OTHERWISE REQUIRED PER IRC R308.4:

1) SIDE HINGED DOORS EXCEPT JALOUSIES.
2) SLIDING GLASS DOORS AND PANELS IN SLIDING AND BI-FOLD CLOSET DOOR ASSEMBLIES.
3) STORM DOORS.
4) SHOWER AND BATH TUB, HOT TUB, WHIRLPOOL, SAUNA, STEAM ENCLOSURES.
5) GLAZING WITH THE EXPOSED EDGE WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF A DOOR IN THE CLOSED POSITION AND BOTTOM EDGE IS LESS THAN 60" ABOVE THE WALKING SURFACE.
6) GLAZING IS GREATER THAN 9 SQUARE FEET AND LESS THAN 18" ABOVE FINISHED FLOOR.
7) GLAZING IN GUARDRAILS.
8) GLAZING IS LESS THAN 18" ABOVE FINISHED FLOOR.
9) STAIRWAYS, LANDINGS, AND RAMPS WITHIN 36" HORIZONTAL OF WALKING SURFACE AND 60" ABOVE ADJACENT WALKING SURFACE.

GLAZING ADJACENT TO STAIRS AND RAMPS:
A MINIMUM HEIGHT OF 36" ABOVE A TREAD AT THE SIDE OF A STAIRWAY SHALL BE MAINTAINED.
GLAZING ADJACENT TO THE BOTTOM OF STAIR LANDING:
SAFETY GLAZING IS REQUIRED IF:

1)LESS THAN 60" MEASURED HORIZONTALLY FROM THE BOTTOM STAIR TREAD NOSING.
2) BOTTOM EDGE OF GLAZING IS LESS THAN 36" ABOVE THE LANDING/WALKING SURFACE.

EXCEPTION: THE GLAZING IS PROTECTED BY A GUARD COMPLYING WITH SECTION R312 AND THE PLANE OF THE GLASS IS MORE THAN 18" FROM THE GUARD.

LIGHTING

STAIRWAY ILLUMINATION (R303.7):
STAIRWAY ILLUMINATION- ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A MEANS TO ILLUMINATE THE STAIRS, INCLUDING THE LANDINGS AND TREADS. INTERIOR STAIRWAYS SHALL BE PROVIDED AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF EACH LANDING OF THE STAIRWAY. FOR INTERIOR STAIRS THE ARTIFICIAL LIGHT SOURCES SHALL BE CAPABLE OF ILLUMINATING TREADS AND LANDINGS TO LEVELS NOT LESS THAN 1 FOOT CANDLE (11 LUX) MEASURED AT THE CENTER OF TREADS AND LANDINGS. EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE TOP LANDING OF THE STAIRWAY. EXTERIOR STAIRWAYS PROVIDING ACCESS TO A BASEMENT FROM THE OUTSIDE GRADE LEVEL SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE BOTTOM LANDING OF THE STAIRWAY.

EXCEPTION: AN ARTIFICIAL LIGHT SOURCE IS NOT REQUIRED AT THE TOP AND BOTTOM LANDING, PROVIDED AN ARTIFICIAL LIGHT SOURCE IS LOCATED DIRECTLY OVER EACH STAIRWAY SECTION.

WSEC R404.1 LIGHTING EQUIPMENT:
NOT LESS THAN 90% OF LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS.

SMOKE AND CARBON ALARMS

SMOKE ALARMS (R314):
SMOKE ALARMS ARE TO BE INSTALLED IN EACH SLEEPING ROOM, OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS. ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WITH BATTERY BACK-UP. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION. SMOKE ALARMS SHALL BE INTERCONNECTED AND COMPLY WITH HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NFPA 72.LOW VOLT NFPA 29 IN CHAPTER 29 MAY BE SUBSTITUTED PENDING APPROVAL BY FIRE MASHAL.

CARBON MONOXIDE DETECTORS (R315):
CARBON MONOXIDE ALARMS ARE REQUIRED ON EACH FLOOR AND OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS IN DWELLING UNITS WITHIN WHICH FUEL-FIRED APPLIANCES ARE INSTALLED AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES.

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GENERAL NOTES

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2
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G0.4

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MECHANICAL

HEATING EQUIPMENT:
ALL WARM AIR FURNACES SHALL BE LISTED AND LABELED BY AN APPROVED AGENCY AND INSTALLED TO LISTED SPECIFICATIONS. NO WARM AIR FURNACES SHALL BE INSTALLED IN A ROOM USED OR DESIGNED TO BE USED AS A BEDROOM, BATHROOM, CLOSET, OR IN ANY ENCLOSED SPACE WITH ACCESS ONLY THROUGH SUCH ROOM OR SPACE, EXCEPT DIRECT VENT FURNACE, ENCLOSED FURNACES AND ELECTRIC HEATING FURNACES.

LIQUEFIED PETROLEUM GAS BURNING APPLIANCES SHALL NOT BE INSTALLED IN A PIT, BASEMENT, OR SIMILAR LOCATION WHERE HEAVIER THAN AIR GAS MIGHT COLLECT. APPLIANCES SO FUELED SHALL NOT BE INSTALLED IN AN ABOVE GRADE UNDER FLOOR SPACE OR BASEMENT UNLESS SUCH LOCATION IS PROVIDED WITH AN APPROVED MEANS FOR REMOVAL OF UNBURNED GAS.

PROVIDE COMBUSTION AIR FOR GAS APPLIANCES PER 2018 IRC G2407.

VENTILATION:
GROUP R OCCUPANCIES SHALL BE PROVIDED WITH VENTILATION SYSTEMS WHICH COMPLY WITH THE SECTION M1505 OF THE 2018 IRC WITH WASHINGTON STATE AMENDMENTS.

M1505.2 RECIRCULATION OF AIR. EXHAUST AIR FROM BATHROOMS AND TOILET ROOMS SHALL NOT BE RECIRCULATED WITHIN A RESIDENCE AND SHALL BE EXHAUSTED DIRECTLY TO THE OUTDOORS. EXHAUST AIR FROM BATHROOMS, TOILET ROOMS AND KITCHENS SHALL NOT DISCHARGE INTO AN ATTIC, CRAWL SPACE OR OTHER AREAS INSIDE THE BUILDING. THIS SECTION SHALL NOT PROHIBIT THE INSTALLATION OF DUCTLESS RANGE HOODS IN ACCORDANCE WITH THE EXCEPTION TO SECTION M1503.3.

M1505.3 EXHAUST EQUIPMENT. EXHAUST EQUIPMENT SERVING SINGLE DWELLING UNITS SHALL BE LISTED AND LABELED AS PROVIDING THE MINIMUM REQUIRED AIRFLOW IN ACCORDANCE WITH ANSI/AMCA 210-ANSI/ASHRAE 51.

M1505.4 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM. WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH SECTIONS M1505.4.1 THROUGH M1505.4.4

M1505.4.1 SYSTEM DESIGN. THE WHOLE-HOUSE VENTILATION SYSTEM SHALL CONSIST OF ONE OR MORE SUPPLY FANS, ONE OR MORE EXHAUST FANS, OR AN ERV/HRV WITH INTEGRAL FANS, ASSOCIATED DUCTS AND CONTROLS. LOCAL EXHAUST OR SUPPLY FANS ARE PERMITTED TO SERVE AS PART OF THE WHOLE HOUSE VENTILATION SYSTEM WHEN PROVIDED WITH THE PROPER CONTROLS PER SECTION M1505.4.2. THE SYSTEMS SHALL BE DESIGNED AND INSTALLED TO EXHAUST AND/OR SUPPLY THE MINIMUM OUTDOOR AIRFLOW RATES PER SECTION M1505.4.3 AS MODIFIED BY THE WHOLE HOUSE VENTILATION SYSTEM COEFFICIENTS IN SECTION M1505.4.3.1 WHERE APPLICABLE. THE WHOLE HOUSE VENTILATION SYSTEM SHALL OPERATE CONTINUOUSLY AT THE MINIMUM VENTILATION RATE DETERMINED BY PER SECTION M1505.4.2 UNLESS CONFIGURED WITH INTERMITTENT OFF CONTROLS PER SECTION M1505.4.3.2

FOR WHOLE HOUSE COMPONENT REQUIREMENTS SEE SECTION M1505.4.1.1

FOR SYSTEM CONTROLS REQUIREMENTS SEE SECTION M1505.4.2

M1505.4.3 MECHANICAL VENTILATION RATE. THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL PROVIDE OUTDOOR AIR AT A CONTINUOUS RATE AS DETERMINED IN ACCORDANCE WITH TABLE M1505.4.3(1) OR EQUATION 15-1.

EQUATION 15-1. VENTILATION RATE IN CUBIC FEET PER MINUTE = (0.01 X TOTAL SQUARE FOOT AREA OF THE HOUSE) + [7.5 X (NUMBER OF BEDROOMS +1)]

M1505.4.3.1 VENTILATION QUALITY ADJUSTMENT. THE MINIMUM WHOLE HOUSE VENTILATION RATE FROM SECTION M1505.4.3 SHALL BE ADJUSTED BY THE SYSTEM COEFFICIENT IN TABLE M1505.4.3(2) BASED ON THE SYSTEM TYPE NOT MEETING THE DEFINITION OF A BALANCED WHOLE-HOUSE VENTILATION SYSTEM AND/OR NOT MEETING THE DEFINITION OF A DISTRIBUTED WHOLE-HOUSE VENTILATION SYSTEM.

EQUATION 15-2. QUALITY ADJUSTED AIRFLOW RATE (CFM) = VENTILATION RATE (CFM) X SYSTEM COEFFICIENT FROM TABLE 1505.4.3(2)

EXCEPTION: THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM IS PERMITTED TO OPERATE INTERMITTENTLY WHERE THE SYSTEM HAS CONTROLS THAT ENABLE OPERATION FOR NOT LESS THAN 50% OF EACH 4-HOUR SEGMENT AND THE VENTILATION RATE PRESCRIBED IN TABLE M1505.4.3(1) IS MULTIPLIED BY THE FACTOR DETERMINED IN ACCORDANCE WITH TABLE M1505.4.3(3).

TABLE M1505.4.3(1) CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION AIRFLOW RATE:

FLOOR AREA	0-1 BR	2 BR	3 BR	4 BR	5+ BR	6 BR	7BR	8+BR
< 500 SF	30 CFM	30 CFM	35 CFM	45 CFM	50 CFM			
501-1,000 SF	30 CFM	35 CFM	40 CFM	50 CFM	55 CFM			
1,001-1,500 SF	30 CFM	40 CFM	45 CFM	55 CFM	60 CFM			
1,501-2,000 SF	35 CFM	45 CFM	50 CFM	60 CFM	65 CFM			
2,001-2,500 SF	40 CFM	50 CFM	55 CFM	65 CFM	70 CFM			
2,501-3,000 SF	45 CFM	55 CFM	60 CFM	70 CFM	75 CFM			
3,001-3,500 SF	50 CFM	60 CFM	65 CFM	75 CFM	80 CFM			
3,501-4,000 SF	55 CFM	65 CFM	70 CFM	80 CFM	85 CFM			
4,001-4,500 SF	60 CFM	70 CFM	75 CFM	85 CFM	90 CFM			
4,501-5,000 SF	65 CFM	75 CFM	80 CFM	90 CFM	95 CFM			
5,001-6,000 SF	75 CFM	90 CFM	90 CFM	105 CFM	105 CFM	120 CFM	120 CFM	135 CFM
6,001-7,500 SF	90 CFM	105 CFM	105 CFM	120 CFM	120 CFM	135 CFM	135 CFM	150 CFM
> 7,500 SF	105 CFM	120 CFM	120 CFM	135 CFM	135 CFM	150 CFM	150 CFM	165 CFM

TABLE M1505.4.3(2) SYSTEM COEFFICIENT:

SYSTEM TYPE	DISTRIBUTED	NOT DISTRIBUTED
BALANCED	1.0	1.25
NOT BALANCED	1.25	1.5

TABLE M1505.4.3(3) INTERMITTENT OFF WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS:

RUN TIME % EA 4HR SEGMENT	50%	66%	75%	100%
FACTOR	2	1.5	1.3	1.0

TABLE M1505.4.4 MINIMUM REQUIRED LOCAL EXHAUST RATES FOR ONE AND TWO FAMILY DWELLINGS.

KITCHENS: 100 CFM INTERMITTENT OR 30 CFM CONTINUOUS
BATHROOMS/TOILET ROOMS: MECHANICAL EXHAUST CAPACITY OF 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS

ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M1505 OF THE IRC SHALL BE MET WITH A HIGH EFFICIENCY FAN (MAXIMUM 0.35 WATTS/CFM), NOT INTERLOCKED WITH THE FURNACE FAN. VENTILATION SYSTEMS USING A FURNACE INCLUDING AN ECM MOTOR ARE ALLOWED, PROVIDED THAT THEY ARE CONTROLLED TO OPERATE AT LOW SPEED IN VENTILATION ONLY MODE.

HVAC DUCTS MUST NOT DISPLACE REQUIRED INSULATION AT ANY GIVEN LOCATION, PROVIDE REQUIRED FLOOR OR CEILING INSULATION ON UNHEATED SIDE OF DUCTS INSTALLED IN JOIST OR RAFTER CAVITIES WHERE UNHEATED SPACES ARE ABOVE OR BELOW.

EVERY FACTORY BUILT CHIMNEY, TYPE L VENT, TYPE B GAS VENT, OR TYPE BW GAS VENT SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF ITS LISTING, MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND APPLICABLE CODE REQUIREMENTS.

A TYPE L VENTING SYSTEM SHALL TERMINATE NOT LESS THAN 2 FEET ABOVE THE HIGH TEST POINT WHERE THE VENT PASSES THROUGH THE ROOF OF THE BUILDING AND AT LEAST 2'-0" HIGHER THAN ANY PORTION OF THE BUILDING WITHIN 10'-0" OF THE VENT.

DUCTS

WSEC R403.3 DUCTS:
DUCTS AND AIR HANDLERS SHALL BE INSTALLED IN ACCORDANCE WITH SECTIONS R403.3.1 THROUGH R403.3.7.

R403.3.1 INSULATION. DUCTS OUTSIDE THE BUILDING THERMAL ENVELOPE SHALL BE INSULATED TO A MINIMUM OF R-8. DUCTS WITHIN A CONCRETE SLAB OR IN THE GROUND SHALL BE INSULATED TO R-10 WITH INSULATION DESIGNED TO BE USED BELOW GRADE.

EXCEPTION: DUCTS OR PORTIONS THEREOF LOCATED COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE. DUCTS
LOCATED IN CRAWL SPACES DO NOT QUALIFY FOR THIS EXCEPTION.

R403.3.2 SEALING. DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH EITHER THE INTERNATIONAL MECHANICAL CODE OR INTERNATIONAL RESIDENTIAL CODE, AS APPLICABLE.

EXCEPTIONS:
1. AIR-IMPERMEABLE SPRAY FOAM PRODUCTS SHALL BE PERMITTED TO BE APPLIED WITHOUT ADDITIONAL JOINT SEALS.

2. FOR DUCTS HAVING A STATIC PRESSURE CLASSIFICATION OF LESS THAN 2 INCHED OF WATER COLUMN (500 PA), ADDITIONAL CLOSURE SYSTEMS SHALL NOT BE REQUIRED FOR CONTINUOUSLY WELDED JOINTS AND SEAMS, AND LOCKING-TYPE JOINTS AND SEAMS OF OTHER THAN THE SNAP-LOCK AND BUTTON-LOCK TYPES.

R403.3.2.1 SEALED AIR HANDLER. AIR HANDLERS SHALL HAVE A MANUFACTURER'S DESIGNATION FOR AN AIR LEAKAGE OF NO MORE THAN 2 PERCENT OF THE DESIGN AIR FLOW RATE WHEN TESTED IN ACCORDANCE WITH ASHRAE 193.

R403.3.3 DUCT TESTING. DUCTS SHALL BE LEAK TESTED IN ACCORDANCE WITH WSU RS-33, USING THE MAXIMUM DUCT LEAKAGE RATES SPECIFIED.

EXCEPTIONS:
1. THE TOTAL LEAKAGE TEST OR LEAKAGE TO THE OUTDOORS IS NOT REQUIRED FOR DUCTS AND AIR HANDLERS LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE. FOR FORCED AIR DUCTS, A MAXIMUM OF 10 LINEAR FEET OF RETURN DUCTS AND 5 LINEAR FEET OF SUPPLY DUCTS MAY BE LOCATED OUTSIDE THE CONDITIONED SPACE. ALL METALLIC DUCTS LOCATED OUTSIDE THE CONDITIONED SPACE MUST HAVE BOTH TRANSVERSE AND LONGITUDINAL JOINTS SEALED WITH MASTIC. IF FLEX DUCTS ARE USED, THEY CANNOT CONTAIN SPLICES. FLEX DUCT CONNECTIONS MUST BE MADE WITH NYLON STRAPS AND INSTALLED USING A PLASTIC STRAPPING TENSIONING TOOL. DUCTS LOCATED IN CRAWL SPACES DO NOT QUALIFY FOR THIS EXCEPTION.

2. A DUCT AIR LEAKAGE TEST SHALL NOT BE REQUIRED FOR DUCTS SERVING HEAT OR ENERGY RECOVERY VENTILATORS THAT ARE NOT INTEGRATED WITH DUCTS SERVING HEATING OR COOLING SYSTEMS.

A WRITTEN REPORT OF THE RESULTS SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE
CODE OFFICIAL.

R403.3.4 DUCT LEAKAGE. THE TOTAL LEAKAGE OF THE DUCTS, WHERE MEASURED IN ACCORDANCE WITH SECTION R403.3.3, SHALL BE AS FOLLOWS:

1. ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM (113.3 L/MIN) PER 100 SQUARE FEET (9.29 M2) OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. (25 PA) ACROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST. IF THE AIR HANDLER IS NOT INSTALLED AT THE TIME OF THE TEST, TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CFM (85 L/MIN) PER 100 SQUARE FEET (9.29 M2) OF CONDITIONED FLOOR AREA.

2. POSTCONSTRUCTION TEST: LEAKAGE TO OUTDOORS SHALL BE LESS THAN OR EQUAL TO4 CFM (113.3 L/MIN) PER 100 SQUARE FEET (9.29 M2) OF CONDITIONED FLOOR AREA OR TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM (113.3 L/MIN) PER 100 SQUARE FEET (9.29 M2) OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. (25 PA) ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTER BOOTS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.

R403.3.5 BUILDING CAVITIES. BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS. INSTALLATION OF DUCTS IN EXTERIOR WALLS, FLOORS OR CEILINGS SHALL NOT DISPLACE REQUIRED ENVELOPE INSULATION. R403.3.6 DUCTS BURIED WITHIN CEILING INSULATION. WHERE SUPPLY AND RETURN AIR DUCTS ARE PARTIALLY OR COMPLETELY BURIED IN CEILING INSULATION, SUCH DUCTS SHALL COMPLY WITH ALL OF THE FOLLOWING:

1. THE SUPPLY AND RETURN DUCTS SHALL HAVE AN INSULATION R-VALUE NOT LESS THAN R-8.

2. AT ALL POINTS ALONG EACH DUCT, THE SUM OF THE CEILING INSULATION R-VALUE AGAINST AND ABOVE THE TOP OF THE DUCT, AND AGAINST AND BELOW THE BOTTOM OF THE DUCT, SHALL BE NOT LESS THAN R-19, EXCLUDING THE R-VALUE OF THE DUCT INSULATION.

EXCEPTION: SECTIONS OF THE SUPPLY DUCT THAT ARE LESS THAN 3 FEET (914 MM) FROM THE SUPPLY OUTLET SHALL NOT BE REQUIRED TO COMPLY WITH THESE REQUIREMENTS.

R403.3.6.1 EFFECTIVE R-VALUE OF DEEPLY BURIED DUCTS. WHERE USING A SIMULATED ENERGY PERFORMANCE ANALYSIS, SECTIONS OF DUCTS THAT ARE: INSTALLED IN ACCORDANCE WITH SECTION R403.3.6; LOCATED DIRECTLY ON, OR WITHIN 5.5 INCHES (140 MM) OF THE CEILING; SURROUNDED WITH BLOWN-IN ATTIC INSULATION HAVING AN R□VALUE OF R-30 OR GREATER AND LOCATED SUCH THAT THE TOP OF THE DUCT IS NOT LESS THAN 3.5 INCHES (89 MM) BELOW THE TOP OF THE INSULATION, SHALL BE CONSIDERED AS HAVING AN EFFECTIVE DUCT INSULATION R-VALUE OF R-25.

DUCTS, CNTD

R403.3.7 DUCTS LOCATED IN CONDITIONED SPACE. FOR DUCTS TO BE CONSIDERED AS INSIDE A CONDITIONED SPACE, SUCH DUCTS SHALL COMPLY WITH EITHER OF THE FOLLOWING:

1. ALL DUCT SYSTEMS SHALL BE LOCATED COMPLETELY WITHIN THE CONTINUOUS AIR BARRIER AND WITHIN THE BUILDING THERMAL ENVELOPE.

2. ALL HEATING, COOLING AND VENTILATION SYSTEM COMPONENTS SHALL BE INSTALLED INSIDE THE CONDITIONED SPACE INCLUDING, BUT NOT LIMITED TO, FORCED AIR DUCTS, HYDRONIC PIPING, HYDRONIC FLOOR HEATING LOOPS, CONVECTORS AND RADIATORS. COMBUSTION EQUIPMENT SHALL BE DIRECT VENT OR SEALED COMBUSTION.

3. FOR FORCED AIR DUCTS, A MAXIMUM OF 10 LINEAR FEET OF RETURN DUCTS AND 5 LINEAR FEET OF SUPPLY DUCTS IS PERMITTED TO BE LOCATED OUTSIDE THE CONDITIONED SPACE, PROVIDED THEY ARE INSULATED TO A MINIMUM OF R-8.

3.1. METALLIC DUCTS LOCATED OUTSIDE THE CONDITIONED SPACE MUST HAVE BOTH TRANSVERSE AND LONGITUDINAL JOINTS SEALED WITH MASTIC.

3.2. IF FLEX DUCTS ARE USED, THEY CANNOT CONTAIN SPLICES. FLEX DUCT CONNECTIONS MUST BE MADE WITH NYLON STRAPS AND INSTALLED USING A PLASTIC STRAPPING TENSIONING TOOL.

DRYER EXHAUST DUCTS:
DRYER EXHAUST DUCT LENGTH SHALL COMPLY WITH IRC M1502.4.5. PROTECTIVE SHIELD PLATES SHALL BE CONSTRUCTED OF STEEL, HAVING A THICKNESS OF 0.062" AND EXTEND A MINIMUM OF 2 INCHES ABOVE SOLE PLATES AND BELOW TOP PLATES. DRYER EXHAUST DUCT REQUIRES THAT PROTECTIVE SHIELD BE PLACED ON THE FINISHED FACE OF ALL FRAMING MEMBERS WHERE THERE IS LESS THAN 1-1/4" BETWEEN THE DUCT AND THE FINISHED FACE OF THE FRAMING MEMBER. DUCTS SHALL HAVE SMOOTH INTERIORS AND BE MADE OF MIN. 28 GAUGE METAL AND BE NO MORE THAN 35 FEET IN LENGTH FROM DRYER CONNECTION TO OUTLET TERMINAL (IRC M1502). FOR DUCT RUNS WITH ELBOWS, MAXIMUM ALLOWABLE LENGTH SHALL BE REDUCED PER IRC M1502.4.5.1.

DRAFT STOPPING AND FIRE BLOCKING

DRAFT STOPPING:
WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR/ CEILING ASSEMBLY, DRAFT STOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000 SQUARE FEET. DRAFT STOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS. WHERE THE ASSEMBLY IS ENCLOSED BY A FLOOR MEMBRANE ABOVE AND A CEILING MEMBRANE BELOW, DRAFT STOPPING SHALL BE PROVIDED IN FLOOR/ CEILING ASSEMBLIES UNDER THE FOLLOWING CIRCUMSTANCES:
1) CEILING IS SUSPENDED UNDER THE FLOOR FRAMING.
2) FLOOR FRAMING IS CONSTRUCTED OF TRUSS TYPE OPEN WEB OR PERFORATED MEMBERS.
DRAFT STOPPING SHALL CONSIST OF MATERIALS LISTED IN IRC SECTION R302.12.

FIRE BLOCKING:
FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICALLY AND HORIZONTALLY) AND TO FORM AN EFFECTIVE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. FIRE BLOCKING SHALL BE PROVIDED IN WOOD FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:
1) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS AS FOLLOWS:
1.1) VERTICALLY AT THE CEILING AND FLOOR LEVELS
1.2) HORIZONTALLY AT INTERVALS NOT EXCEEDING 10'-0"
2) AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS, AND COVE CEILINGS.
3) IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH IRC SECTION R311.2.2.
4) AT OPENINGS AROUND VENTS, PIPES, AND DUCTS AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION.
5) FOR THE FIRE BLOCKING OF CHIMNEYS AND FIREPLACES, SEE IRC SECTION R1003.19.
6) FIRE BLOCKING OF CORNICES OF A TWO FAMILY DWELLING IS REQUIRED AT THE LINE OF DWELLING UNIT SEPARATION.
FIRE BLOCKING SHALL CONSIST OF MATERIALS LISTED IN IRC SECTION R302.11.1. LOOSE FILL INSULATION MATERIAL SHALL NOT BE USED AS A FIRE BLOCK UNLESS SPECIFICALLY TESTED IN THE FORM AND MANNER INTENDED. THE INTEGRITY OF ALL FIRE BOX SHALL BE MAINTAINED.

FLOOR FIRE PROTECTION:
FIRE PROTECTION OF FLOORS REQUIRES A MINIMUM OF 1/2" GYPSUM BOARD (OR EQUIVALENT) MATERIAL TO BE APPLIED TO THE UNDERSIDE OF FLOOR ASSEMBLIES OF DWELLING UNITS AND ACCESSORY BUILDINGS.

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LOCHWOOD | LOZIER
ARCHITECTURAL DESIGNS
8708 152ND AVE NE | REDMOND, WA 98052
(425) 576-9200 | www.lochwoodlozier.com

DRAWN BY: MM
CHECKED BY: TL
DATE: 02/27/19
SCALE:

PROJECT
WELLMON SFR
6333 77TH AVE SE
MERCER ISLAND, WA 98040
22069WEL

REV	DATE	ISSUE/REVISION
	01/09/22	PRE-APP SUBMITTAL
1	05/12/23	PERMIT SUBMITTAL

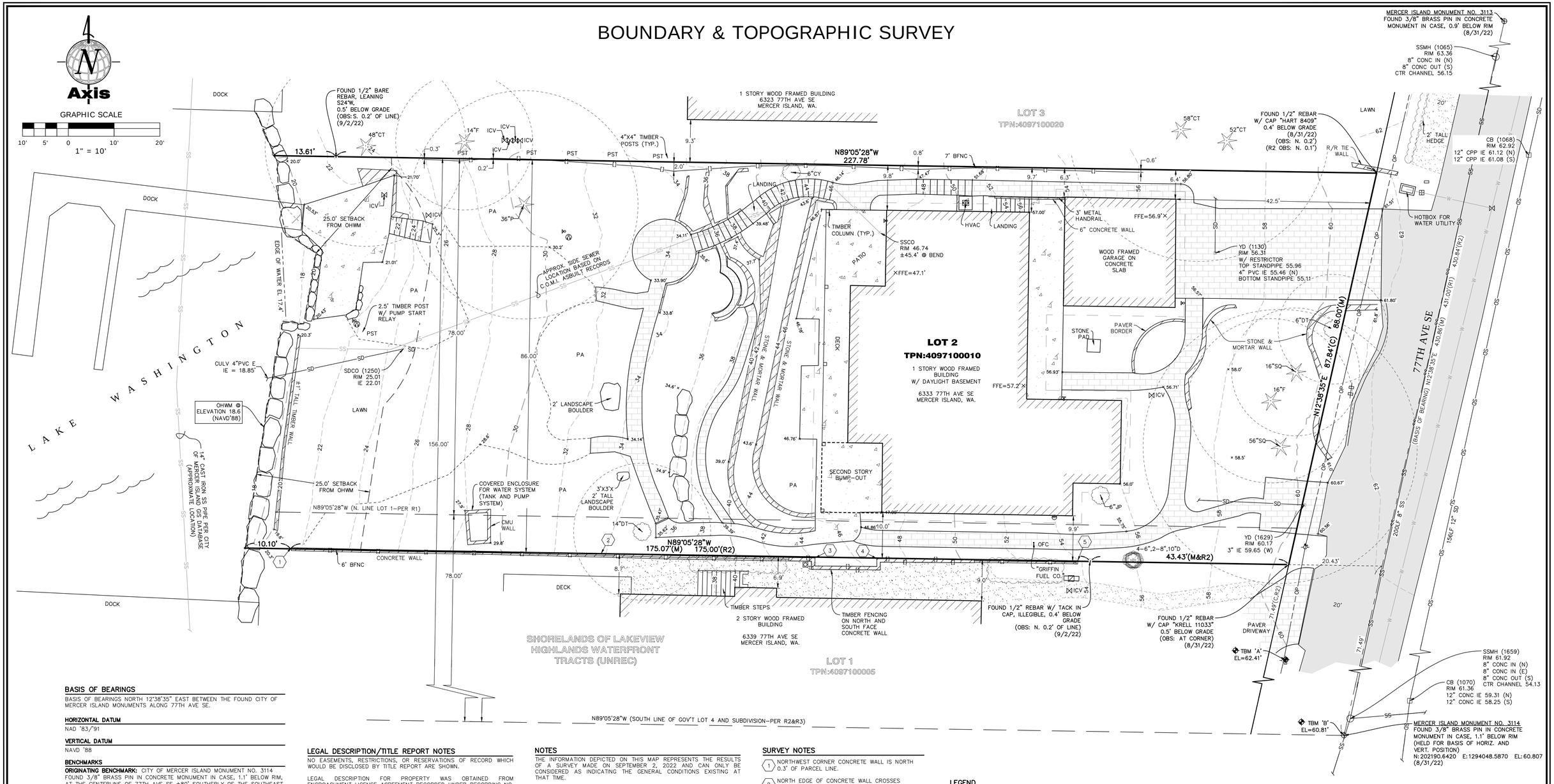
SHEET TITLE
GENERAL NOTES

REVISION NO.
1
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
G0.5

10/2/2023 11:38:21 AM

BOUNDARY & TOPOGRAPHIC SURVEY



BASIS OF BEARINGS

BASIS OF BEARINGS NORTH 12°38'35" EAST BETWEEN THE FOUND CITY OF MERCER ISLAND MONUMENTS ALONG 77TH AVE SE.

HORIZONTAL DATUM

NAD '83/'91

VERTICAL DATUM

NAVD '88

BENCHMARKS

ORIGINATING BENCHMARK: CITY OF MERCER ISLAND MONUMENT NO. 3114 FOUND 3/8" BRASS PIN IN CONCRETE MONUMENT IN CASE, 1.1' BELOW RIM, AT THE CENTERLINE OF 77TH AVE SE ±80' SOUTHERLY OF THE SOUTHEAST CORNER PAVER DRIVEWAY FRO HOUSE NO. 6339.

ELEVATION: 60.807'

TEMPORARY BENCHMARKS:

TBM 'A'
SET RAILROAD SPIKE IN THE EASTERLY FACE OF A UTILITY POLE WITH CONDUIT LOCATED ON THE WESTERLY SIDE OF 77TH/ AVE SE, ±5' SOUTHERLY OF THE SOUTHEAST CORNER CONCRETE PAVER DRIVEWAY FOR HOUSE NO. 6339.

ELEVATION: 62.41'

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AT FOUND 3/8" BRASS PIN IN CONCRETE MONUMENT IN CASE, 1.1' BELOW RIM, AT THE CENTERLINE OF 77TH AVE SE ±80' SOUTHERLY OF THE SOUTHEAST CORNER PAVER DRIVEWAY FRO HOUSE NO. 6339.

ELEVATION: 60.81'

LEGAL DESCRIPTION/TITLE REPORT NOTES

NO EASEMENTS, RESTRICTIONS, OR RESERVATIONS OF RECORD WHICH WOULD BE DISCLOSED BY TITLE REPORT ARE SHOWN.

LEGAL DESCRIPTION FOR PROPERTY WAS OBTAINED FROM ENCROACHMENT LICENSE AGREEMENT RECORDED UNDER RECORDING NO. 20061003000526, RECORDS OF KING COUNTY, WASHINGTON.

THE NORTH 86 FEET OF THE SOUTH 156 FEET OF THAT PORTION OF GOVERNMENT LOT 4 AND OF SHORE LANDS ADJOINING, IN SECTION 24, TOWNSHIP 24 NORTH, RANGE 4 EAST, W.M., IN KING COUNTY, WASHINGTON, LYING WEST OF A LINE DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTH LINE OF GOVERNMENT LOT 890.60 WEST OF SOUTHEAST CORNER THEREOF; AND RUNNING THENCE NORTHEASTERLY TO A POINT OF THE NORTH LINE OF SAID GOVERNMENT LOT 613.24 WEST OF THE NORTHEAST CORNER THEREOF;

(ALSO KNOWN AS THE NORTH 8.21 FEET OF LOT 1 AND ALL OF LOT 2 AND ADJOINING SHORELANDS OF LAKE VIEW HIGHLANDS WATER FRONT TRACTS, UNRECORDED).

EQUIPMENT NOTES

PRIMARY CONTROL POINTS AND ACCESSIBLE MONUMENT POSITIONS WERE FIELD MEASURED UTILIZING GLOBAL POSITIONING SYSTEM (GPS) SURVEY TECHNIQUES USING LEICA GS14 GPS/GNSS EQUIPMENT. MONUMENT POSITIONS THAT WERE NOT DIRECTLY OBSERVED USING GPS SURVEY TECHNIQUES WERE TIED INTO THE CONTROL POINTS UTILIZING LEICA ELECTRONIC TS16 TOTAL STATIONS FOR THE MEASUREMENT OF BOTH ANGLES AND DISTANCES. THIS SURVEY MEETS OR EXCEEDS THE STANDARDS SET BY WACS 332-130-080/090.

REFERENCES

(R1) UNRECORDED PLAT OF LAKE VIEW HIGHLANDS, DATED JUNE 23, 1928, RECORDS OF DEPARTMENT OF NATURAL RESOURCES.

(R2) SURVEY BY JIM HART, RECORDED UNDER RECORDING NO. 20030305900012, RECORDS OF KING COUNTY, WASHINGTON.

(R3) SURVEY BY GEODIMENSIONS, RECORDED UNDER RECORDING NO. 20130322900011, RECORDS OF KING COUNTY, WASHINGTON.

NOTES

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2' CONTOURS INTERVAL DERIVED FROM DIRECT FIELD OBSERVATION.

THIS SURVEY MEETS UNITED STATES NATIONAL MAP ACCURACY STANDARDS FOR VERTICAL ACCURACY OF ONE HALF THE CONTOUR INTERVAL.

ORDINARY HIGH WATER MARK (OHWM) DETERMINED BY LAKE ELEVATION OF 18.6 (NAVD '88) PER MICC 19.16.010.

THE AVERAGE CONTOUR ELEVATION WITHIN THE VICINITY OF THE EXISTING BUILDING FOOTPRINT IS ACCURATE TO LESS THAN 6 INCHES VERTICALLY AND HORIZONTALLY.

SURVEY NOTES

1. NORTHWEST CORNER CONCRETE WALL IS NORTH 0.3' OF PARCEL LINE.
2. NORTH EDGE OF CONCRETE WALL CROSSES PARCEL LINE 67.8' EASTERLY OF WEST END WALL.
3. CORNER OF CONCRETE WALL IS SOUTH 0.2' OF PARCEL LINE.
4. CORNER OF CONCRETE WALL IS SOUTH 0.1' OF PARCEL LINE.
5. NORTHEAST CORNER OF CONCRETE WALL IS NORTH 0.1' OF PARCEL LINE.

LEGEND

SET BENCHMARK	OFC	OIL TANK FILL CAP	SANITARY SEWER LINE
FOUND MONUMENT IN CASE	MB	MAIL BOX	SEWER LINE (PER CITY OF MERCER ISLAND GIS DATABASE AND ASBUILT RECORDS, AS NOTED)
FOUND REBAR AND CAP AS NOTED	PST	POST	STORM DRAIN LINE
POWER JUNCTION BOX	PA	PLANTER AREA	WATER LINE (PER CITY OF MERCER ISLAND GIS DATABASE)
HVAC	(C)	CALCULATED	OVERHEAD POWER LINE
POWER METER	(M)	MEASURED	GAS LINE
TELECOMMUNICATIONS RISER	(R#)	REFER TO REFERENCE LIST	WOOD FENCE LINE (BFNC)
UTILITY POLE W/UNDERGROUND CONDUIT	12"CFR	CONIFER	ROOF OVERHANG/EAVE
UTILITY POLE W/ TRANSFORMER & UNDERGROUND CONDUIT	12"F	FIR	EDGE OF WATER
SANITARY SEWER CLEANOUT	12"P	PINE	EDGE OF LANDSCAPING
SANITARY SEWER MANHOLE	12"SQ	SEQUOIA	
CATCH BASIN	12"CY	CHERRY	
STORM DRAIN CLEANOUT	HEDGE		
YARD DRAIN	DRIPLINE		
CULVERT			
HOSE BIB			
IRRIGATION CONTROL VALVE			
WATER METER			
WATER VALVE			
GAS METER			
GAS VALVE			

EXISTING RETAINING WALL
ROCKERY
LANDSCAPE BOULDER

CONCRETE | BUILDINGS | ASPHALT | GRAVEL | PAVERS

SW 1/4, SE 1/4, SEC. 24, TWP. 24N., RGE. 4E., W.M.
CITY OF MERCER ISLAND, KING COUNTY, WASHINGTON

REV#	DESCRIPTION OF REVISION	DATE	BY
#1	ADDITION OF 18.6' ELEVATION SETBACK	9/21/22	ERM
#2			
#3			
#4			
#5			

7/24/2023,Zane.Nall,22131_C3D

Axis
Survey & Mapping
15241 NE 90TH ST, SUITE 100
REDMOND, WA 98052
TEL 425-823-5700
FAX 425-823-6700

ZANE LEE NALL — STATE OF WASHINGTON — 40064 — REGISTERED PROFESSIONAL LAND SURVEYOR — 9/21/22

LOCHWOOD LOZIER CUSTOM HOMES

8708 152ND AVE NE
REDMOND, WA. 98052

BOUNDARY & TOPOGRAPHIC SURVEY

FOR

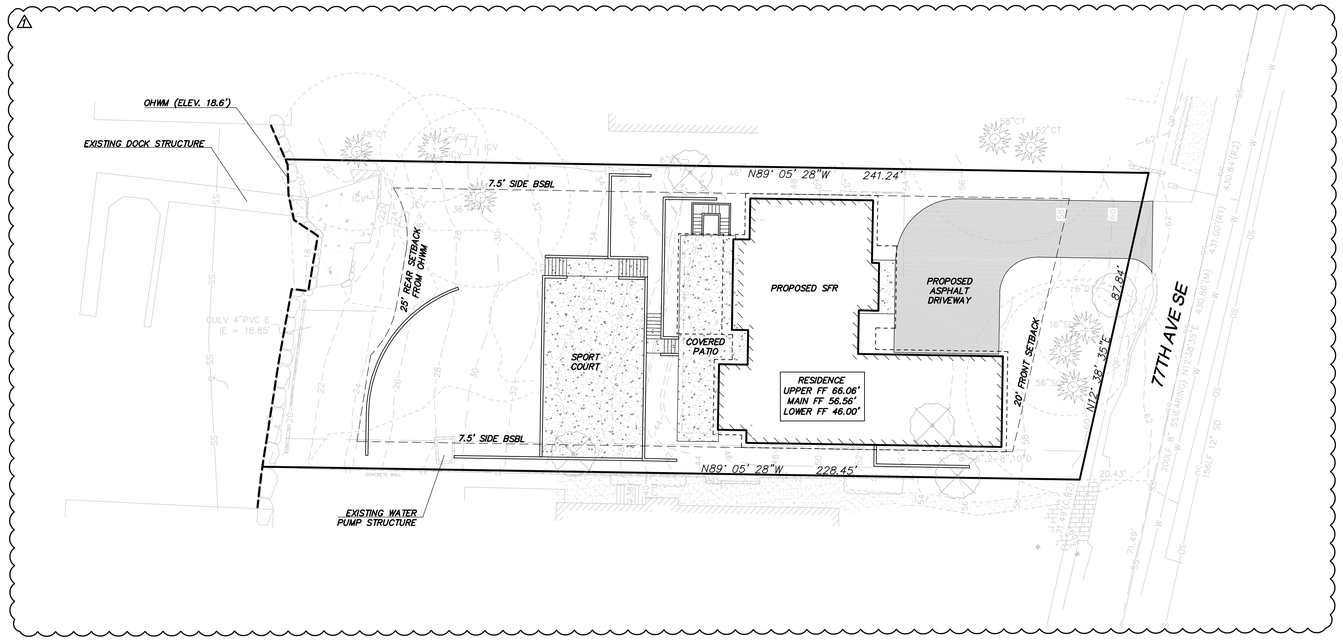
TPN: 4097100010

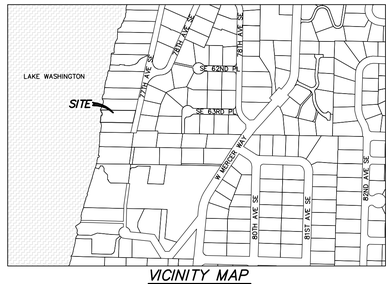
www.axismap.com

JOB NO. 22-131	DATE 9/21/2022
DRAWN BY ARB	CHECKED BY ZLN
SCALE 1"=10'	SHEET 1 OF 1

SE 1/4, SECTION 24, TOWNSHIP 24, RANGE 04, W.M.

WELLMON RESIDENCE





VICINITY MAP
1"=500'

PROJECT CONTACTS:

OWNER:	NICK & LINDSEY WELLMON 6333 77TH AVE SE MERCER ISLAND, WASHINGTON 98040
ARCHITECT:	LOCHWOOD LOZIER 8708 152ND AVE NE REDMOND, WASHINGTON 98052 425.576.9200 CONTACT: MATT MAMIYA M.MAMIYA@LOCHWOODLOZIER.COM
CIVIL ENGINEER:	D.R. STRONG CONSULTING ENGINEERS, INC. 620 7TH AVE NE KIRKLAND, WASHINGTON 98033 425.827.3063 CONTACT: LUAY R. JOUDEH, P.E. LUAY.JOUDEH@DRSTRONG.COM
SURVEYOR:	AXIS SURVEY & MAPPING 15241 NE 90TH ST, SUITE 100 REDMOND, WASHINGTON 98052 425.823.5700 CONTACT: ZANE LEE NALL, P.L.S.

SHEET INDEX:

C1 OF 6 COVER SHEET
C2 OF 6 T.E.S.C. PLAN
C3 OF 6 T.E.S.C. NOTES & DETAILS
C4 OF 6 STORM DRAINAGE PLAN
C5 OF 6 NOTES & DETAILS
C6 OF 6 NOTES & DETAILS

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NAD '83/'91

VERTICAL DATUM: (BY SURVEYOR)

NAVD '88

BASIS OF BEARINGS: (BY SURVEYOR)

BASIS OF BEARINGS NORTH 12°38'35" EAST BETWEEN THE FOUND CITY OF MERCER ISLAND MONUMENTS ALONG 77TH AVE SE.

BENCHMARK: (BY SURVEYOR)

ORIGINATING BENCHMARK: CITY OF MERCER ISLAND MONUMENT NO. 3114 FOUND 3/8" BRASS PIN IN CONCRETE MONUMENT IN CASE, 1.1' BELOW RIM, AT THE CENTERLINE OF 77TH AVE SE ±80' SOUTHERLY OF THE SOUTHEAST CORNER PAVER DRIVEWAY FRO HOUSE NO. 6339.

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SITE VOLUME CALCULATIONS

CUT VOLUME (CU. YDS.)	FILL VOLUME (CU. YDS.)	NET VOLUME (CU. YDS.)
186	189	3 FILL

ALL VOLUMES ARE APPROXIMATE AND ARE PROVIDED FOR PERMITTING PURPOSES AND REPRESENT FINISH GRADE TO EXISTING GRADE AS SHOWN. CONTRACTOR SHALL RELY ON HIS/HER OWN ESTIMATES FOR DETERMINING ACTUAL EARTHWORK QUANTITIES.
THE VOLUMES DO NOT INCLUDE STRIPPING, STRUCTURAL EXCAVATION, EXPANSION/COMPACTION FACTOR OR ANY SOIL TYPE RESTRICTIONS.

GRADING NOTE:

TOTAL AREA TO BE DISTURBED ON-SITE.....15,686 S.F.
TOTAL AREA TO BE DISTURBED OFF-SITE..... 173 S.F.
TOTAL AREA TO BE DISTURBED FOR PROJECT....15,859 S.F.
FILL SHALL CONSIST OF SUITABLE MATERIAL ORIGINATING FROM THE SITE OR FROM AN APPROVED SUPPLIER.

NORTH
GRAPHIC SCALE
0 10 20 40
1 INCH = 20 FT.

Call 2 Working Days Before You Dig
811
Utilities Underground Location Center
(ID,MT,ND,OR,WA)

9/29/2023 9:01:59 AM COPYRIGHT © 2019, D.R. STRONG CONSULTING ENGINEERS INC.

D.R. STRONG CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

WELLMON RESIDENCE
COVER SHEET & SITE PLAN
6333 77TH AVE SE
MERCER ISLAND, WA 98040
PARCEL NO. 4097100010

NICK & LINDSEY WELLMON
6333 77TH AVE SE
MERCER ISLAND, WA 98040

PHILIP L. PIEDALUE
STATE OF WASHINGTON
53210
REGISTERED PROFESSIONAL ENGINEER
9-28-2023

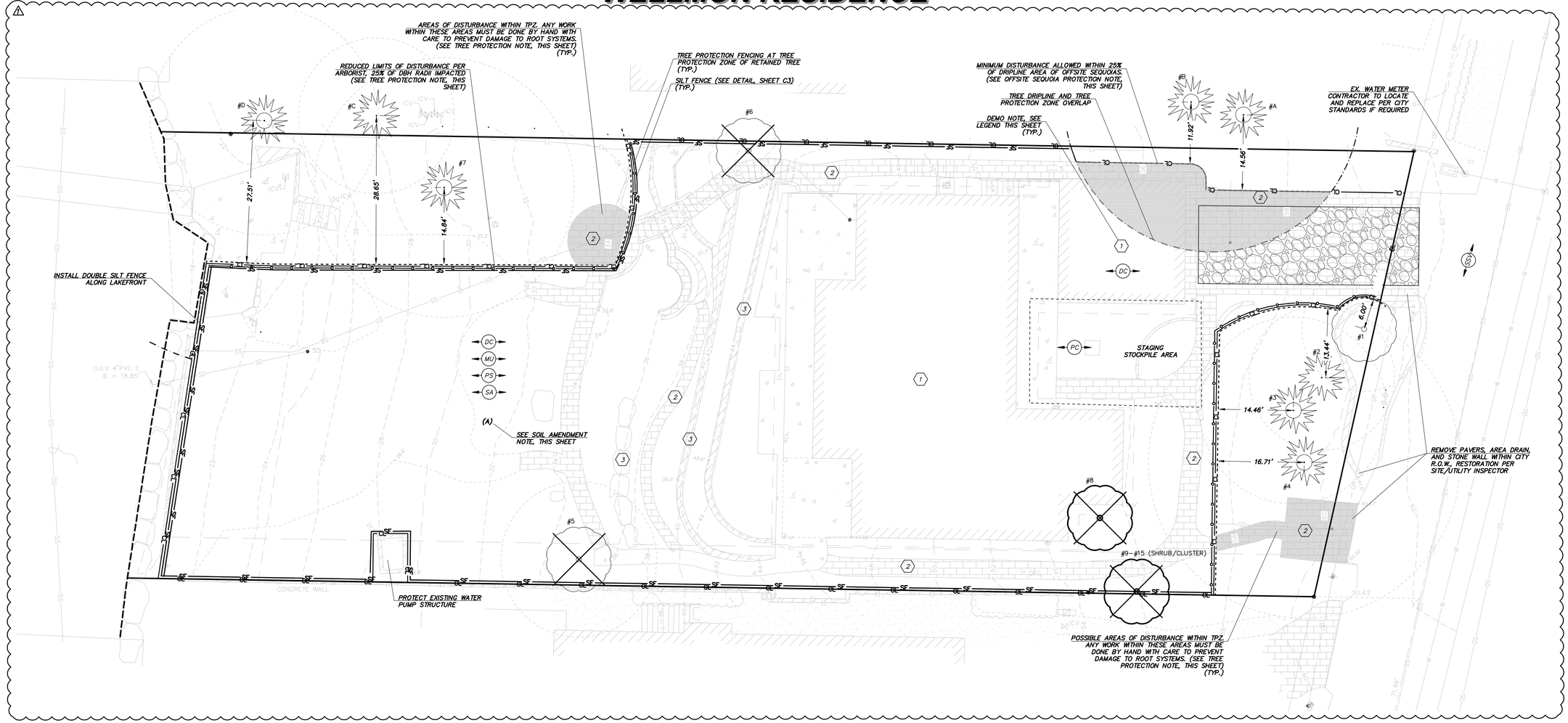
DATE	REVISION	APR
9.28.2023	CITY COMMENTS (8.18.2023) AND SITE PLAN REVISION	YLP

DRAFTED BY: PHB/NBM
DESIGNED BY: NBM
PROJECT ENGINEER: YLP
DATE: 5/12/2023
PROJECT NO.: 22109

DRAWING: C1
SHEET: 1 OF 6

SE 1/4, SECTION 24, TOWNSHIP 24, RANGE 04, W.M.

WELLMON RESIDENCE



TESC LEGEND:

FOR ADDITIONAL TESC DETAILS REFER TO DOE 2014 SWMMWW

- CL — CONSTRUCTION LIMITS (LIMITS OF DISTURBANCE) (BMP C103)
- SF — SILT FENCE (SEE DETAIL SHEET C3) (BMP C233)
- TREE PROTECTION (SEE DETAIL SHEET C3)
- TREE PROTECTION AREA PER ARBORIST
- DBH RADIUS OF SAVED TREE
- SCE — STABILIZED CONSTRUCTION ENTRANCE (SEE DETAIL SHEET C3) (BMP C105)
- DC — DUST CONTROL (BMP C140)
- MU — MULCHING, MATTING, AND COMPOST BLANKETS (BMP C121, C125)
- PS — PERMANENT SEEDING AND PLANTING (BMP C120)
- SSV — STREET SWEEPING AND VACUUMING
- SA — POST–CONSTRUCTION SOIL AMENDMENT (BMP T5.13)
- 1 — DEMO NOTE, REMOVE EXISTING STRUCTURE
- 2 — DEMO NOTE, REMOVE EXISTING CONCRETE TO MATCH FINAL LANDSCAPE PLANS
- 3 — DEMO NOTE, REMOVE EXISTING WALL TO MATCH FINAL LANDSCAPE PLANS
- TREE TO BE REMOVED
- EXCEPTIONAL TREE (≥24")
- #N — TREE TAG (SEE TREE TABLE, SHEET C3)

GENERAL EROSION CONTROL NOTES:

ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WILL BE PROTECTED WITH HIGH VISIBILITY CONSTRUCTION FENCING.

AT THE COMPLETION OF THE PROJECT ALL DISTURBED AREAS WILL BE STABILIZED WITH COMPOST AMENDED SOILS AND HYDROSEEDING OR SOD.

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SOIL AMENDMENT NOTE:

AREA (A): STOCKPILE SITE DUFF AND TOPSOIL FOR ALL DISTURBED PERVIOUS AREAS AND REAPPLY WITH SOIL AMENDMENT AFTER GRADING AND CONSTRUCTION. MINIMUM SCARIFICATION DEPTH 8–INCHES. PROVIDE A TOTAL OF 275 C.Y. OF AMENDMENT OVER AN AREA OF 11,260 S.F.

ON–SITE SOILS:

THE ENTIRE SITE CONTAINS KITSAP SILT LOAM (KpD) SOILS PER THE USDA WSS.

P.E. CERTIFICATION FOR SECTION B:

I HEREBY STATE THAT THIS CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN FOR 6333 77TH AVE HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND MEETS THE STANDARD OF CARE AND EXPERTISE WHICH IS USUAL AND CUSTOMARY IN THIS COMMUNITY FOR PROFESSIONAL ENGINEERS. I UNDERSTAND THAT THE CITY OF MERCER ISLAND DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE SUFFICIENCY, SUITABILITY, OR PERFORMANCE OF CONSTRUCTION SWPPP BMPS PREPARED BY ME.

CONSTRUCTION SEQUENCE

1. ARRANGE AND ATTEND A PRE–CONSTRUCTION MEETING WITH THE CITY INSPECTOR.
2. FLAG OR FENCE CLEARING LIMITS.
3. CALL ONE–CALL UTILITY LOCATE SERVICE PRIOR TO ANY EXCAVATION WORK.
4. GRADE ACCESS ROAD & CONSTRUCT/INSTALL ROCK CONSTRUCTION ENTRANCE IF NECESSARY.
5. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
6. CONSTRUCT RESIDENCE AND OTHER SITE IMPROVEMENTS.
7. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OR COUNTY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
8. MAINTAIN ACCESS TO OFF–SITE ROADS AND DRIVEWAYS AT ALL TIMES DURING THE DURATION OF THE PROJECT.
9. RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY TESC MINIMUM REQUIREMENTS.
10. COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING OR EQUIVALENT.
11. STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
12. SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
13. UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BMPS REMOVED IF APPROPRIATE AFTER ACCEPTANCE BY INSPECTOR.

TREE PROTECTION NOTES:

1. THE TREE PROTECTION ZONE (TPZ) IS EQUAL TO THE DBH RADIUS, UNLESS NOTED OTHERWISE.
2. TREE PROTECTION FENCING SHALL REMAIN IN PLACE THROUGHOUT THE PROJECT.
3. ANY WORK WITHIN THE TPZ AREAS (DEMO OR REPLACEMENT OF EXISTING PAVERS AND WALKWAYS) MUST BE DONE BY HAND WITH CARE TO AVOID DAMAGING TREE ROOT SYSTEMS.

PER THE ARBORIST RECOMMENDATIONS, THE FOLLOWING TREES CAN BE SUCCESSFULLY RETAINED WITH A REDUCED LIMIT OF DISTURBANCE.

ONSITE TREES:
- #3: TPZ REDUCED TO 14.46' ON THE WEST SIDE. GRADING MUST NOT IMPACT MORE THAN 25% OF TPZ AREA
- #4: TPZ REDUCED TO 16.71' ON THE WEST SIDE. GRADING MUST NOT IMPACT MORE THAN 25% OF TPZ AREA
- #7: TPZ REDUCED TO 14.84' ON THE SOUTH SIDE. GRADING MUST NOT IMPACT MORE THAN 25% OF TPZ AREA.

OFFSITE TREES:
- #A: TPZ SET TO DRIPLINE. WORK WITHIN TPZ MUST BE LIMITED TO REPLACEMENT OF DRIVEWAY PAVEMENT AND MUST NOT EXCEED 25% OF THE DRIPLINE AREA. NO GRADING IS ALLOWED WITHIN THE DRIPLINE. SOIL/BASE COURSE DISTURBANCE MUST NOT EXCEED 2" IN DEPTH. SEE OFFSITE SEQUOIA PROTECTION NOTES, THIS SHEET.
- #B: TPZ SET TO DRIPLINE. WORK WITHIN TPZ MUST BE LIMITED TO REPLACEMENT OF DRIVEWAY PAVEMENT AND MUST NOT EXCEED 25% OF THE DRIPLINE AREA. NO GRADING IS ALLOWED WITHIN THE DRIPLINE. SOIL/BASE COURSE DISTURBANCE MUST NOT EXCEED 2" N DEPTH. SEE OFFSITE SEQUOIA PROTECTION NOTES, THIS SHEET.
- #C: TPZ REDUCED TO 28.65' ON THE SOUTH SIDE. GRADING MUST NOT IMPACT MORE THAN 25% OF DBH RADIUS AREA.
- #D: TPZ REDUCED TO 27.51' ON THE SOUTH SIDE. GRADING MUST NOT IMPACT MORE THAN 25% OF DBH RADIUS AREA.

TREE CALCULATIONS:

TREE CALCULATIONS PER ARCHITECTURAL PLANS:

TOTAL DBH OF EXISTING REGULATED TREES ONSITE: 148"
TOTAL DBH OF EXISTING REGULATED TREES TO BE REMOVED: 24"
TOTAL PERCENTAGE OF REGULATED TREE DBH TO BE REMOVED 16.2%
REQUIRED REPLACEMENT TREES (8 TREES UNDER 10", 2 TREE 10"–24"): 10

OFFSITE SEQUOIA PROTECTION NOTES:

OFFSITE TREES #A AND #B ARE LARGE SEQUOIAS, LOCATED CLOSE TO PROPOSED DEMO AND PAVEMENT REPLACEMENT AREAS. THE ARBORIST HAS SET THE TREE PROTECTION ZONE (TPZ) TO THE DRIPLINE OF THESE TWO TREES. LIMITED WORK IS ALLOWED WITHIN THE TPZ, UNDER THE FOLLOWING RESTRICTIONS:

1. WORK WITHIN TPZ MUST BE LIMITED TO DEMO OR REPLACEMENT OF DRIVEWAY PAVEMENT AND MUST NOT EXCEED 25% OF THE DRIPLINE AREA.
2. NO GRADING IS ALLOWED WITHIN THE TPZ/DRIPLINE.
3. EXISTING PAVERS CAN BE REMOVED CAREFULLY WITH EXCAVATOR BUCKET, PROVIDED THERE IS NO SOIL OR TREE ROOT DISTURBANCE. ALL OTHER WORK MUST BE DONE BY HAND WITH CARE TO AVOID DAMAGING TREE ROOT SYSTEMS.
4. SOIL/BASE COURSE DISTURBANCE MUST NOT EXCEED 2" IN DEPTH.
5. IN AREAS WHERE EXISTING PAVEMENT WILL BE REPLACED WITH LANDSCAPING, BASE COURSE MAY BE REMOVED BY HAND TO A DEPTH OF 2" BELOW EXISTING, AND REPLACED WITH MULCH.

NORTH
GRAPHIC SCALE
0 5 10 20
1 INCH = 10 FT.

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MERCER ISLAND, WA 98040
PARCEL NO. 4097100010

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6333 77TH AVE SE
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DATE	REVISION	APR
9.28.2023	CITY COMMENTS (8.18.2023) AND SITE PLAN REVISION	YLP

DRAFTED BY: PHB/NBM
DESIGNED BY: NBM
PROJECT ENGINEER: YLP
DATE: 5/12/2023
PROJECT NO.: 22109

DRAWING: C2
SHEET: 2 OF 6

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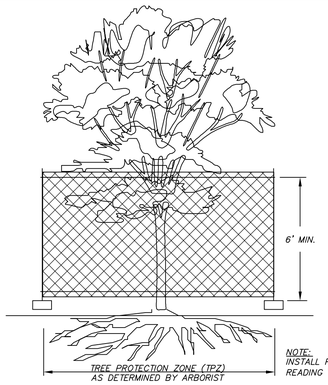
SE 1/4, SECTION 24, TOWNSHIP 24, RANGE 04, W.M.

WELLMON RESIDENCE



NOTE:
INSTALL FLAGGING INCLUDING SIGNS READING "TREE SAVE AREA"

TREE PROTECTION DETAIL

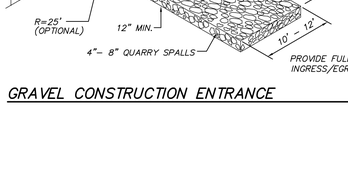
NTS

TREE PROTECTION DURING CONSTRUCTION

1. SIX FOOT–HIGH TEMPORARY CHAIN–LINK FENCE SHALL BE PLACED AT THE TREE PROTECTION ZONE OF TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE TREE(S). INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.

2. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER 1" IN DIA., MAKE A CLEAN, STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND COVERED WITH SOIL AS SOON AS POSSIBLE.

3. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMITS OF THE FENCING.



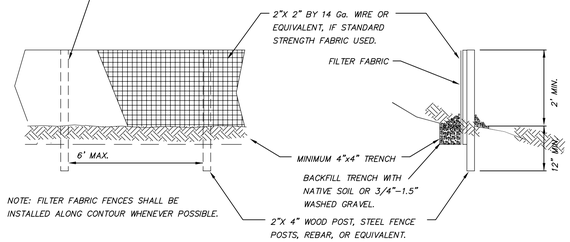
NOTE: ONLY TO BE USED WHERE PONDING OF WATER ABOVE THE CATCH BASIN WILL NOT CAUSE TRAFFIC PROBLEMS AND WHERE OVERFLOW WILL NOR RESULT IN EROSION OF SLOPES.

CATCH BASIN INLET FILTER

CATCH BASIN INSERT MAINTENANCE STANDARDS

1. ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC PROTECTION SHALL BE REMOVED IMMEDIATELY. SEDIMENT SHALL NOT BE REMOVED WITH WATER, AND ALL SEDIMENT MUST BE DISPOSED OF AS FILL ON SITE OR HAULED OFF SITE.
2. ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN THE SEDIMENT HAS FILLED ONE–THIRD OF THE AVAILABLE STORAGE. THE FILTER MEDIA FOR THE INSERT SHALL BE CLEANED OR REPLACED AT LEAST MONTHLY.
3. REGULAR MAINTENANCE IS CRITICAL FOR BOTH FORMS OF CATCH BASINS PROTECTION. UNLIKE MANY FORMS OF PROTECTION THAT FAIL GRADUALLY, CATCH BASIN PROTECTION WILL FAIL SUDDENLY AND COMPLETELY IF NOT MAINTAINED PROPERLY.

NTS

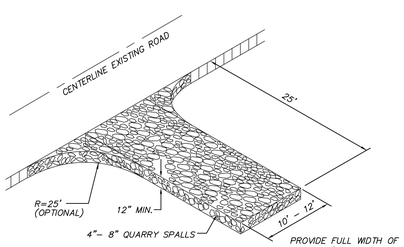


NOTE: FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

1. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.
3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6 INCHES HIGH.
5. IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

SILT FENCE DETAIL

NTS



DRIVEWAYS SHALL BE PAVED TO THE EDGE OF R–O–W PRIOR TO INSTALLATION OF THE CONSTRUCTION ENTRANCE TO AVOID DAMAGING OF THE ROADWAY

IT IS RECOMMENDED THAT THE ENTRANCE BE CROWNED SO THAT RUNOFF DRAINS OFF THE PAD

GRAVEL CONSTRUCTION ENTRANCE

NTS

NTS

TREE PROTECTION AREA (TPZ)

KEEP OUT!

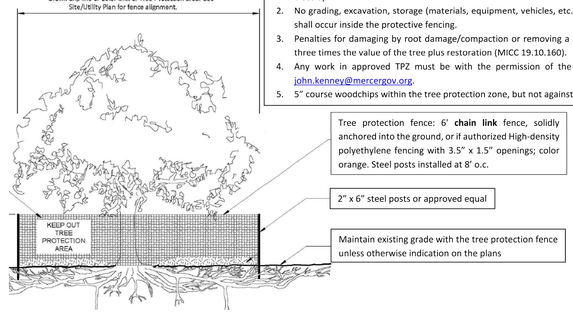
DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

Trees enclosed by this fence are protected and are subject to the conditions of the tree permit. Violation of tree conditions may lead to:

1. Correction Notices or Stop Work Orders until compliance is achieved
2. RE Inspection Fees/financial penalties
3. Arborist reports recommending mitigation

Notes

1. No pruning shall be performed unless under the direction of the Project Arborist. Including limbing trees up.
2. No grading, excavation, storage (materials, equipment, vehicles, etc.), or other unpermitted activity shall occur inside the protective fencing.
3. Penalties for damaging by root damage/compaction or removing a saved tree may be a fine up to three times the value of the tree plus restoration (MICC 19.10.160).
4. Any work in approved TPZ must be with the permission of the City Arborist (206) 275-7713, john.kenney@mercergov.org.
5. 5" course woodchips within the tree protection zone, but not against the tree trunk.



Any Work in the protected area must be with the permission of the City Arborist john.kenney@mercergov.org

TREE TABLE

Onsite Trees							
#	Type (Per Survey)	Size (IN)	DBH (FT)	TPZ (FT)	% TPZ Impacted	Save/Remove	Notes
1	Deciduous	6	6	6	0.0%	Save	
2	Evg (Sequoia)	16	16	16	6.7%	Save	
3	Evg (Fir)	16	16	16	1.8%	Save	
4	Evg (Sequoia)	**56	56	30	16.5%	Save	TPZ set to dripline
5	Deciduous	14	14	N/A	N/A	Remove	
6	Deciduous	6	6	N/A	N/A	Remove	
7	Evg (Pine)	**36	36	36	24.5%	Save	
8	Deciduous	6	6	N/A	N/A	Remove	
9	Chokecherry	6	6	N/A	N/A	Remove	Shrub/Cluster
10	Chokecherry	6	6	N/A	N/A	Remove	Shrub/Cluster
11	Chokecherry	6	6	N/A	N/A	Remove	Shrub/Cluster
12	Chokecherry	6	6	N/A	N/A	Remove	Shrub/Cluster
13	Chokecherry	8	8	N/A	N/A	Remove	Shrub/Cluster
14	Chokecherry	8	8	N/A	N/A	Remove	Shrub/Cluster
15	Chokecherry	10	10	N/A	N/A	Remove	Shrub/Cluster

Offsite Trees							
#	Type (Per Survey)	Size (IN)	DBH (FT)	TPZ (FT)	% TPZ Impacted	Save/Remove	Notes
A	Evg (Sequoia)	**52	52	24	*19.8%	Save	TPZ set to dripline
B	Evg (Sequoia)	**58	58	23	*19.8%	Save	TPZ set to dripline
C	Evg (Fir)	14	14	14	0.0%	Save	
D	Evg (Sequoia)	**48	48	48	11.2%	Save	

(*) Minimal disturbance allowed. Replacement of driveway only, no grading. See civil plans.
(**) Exceptional tree >24"

TREE CALCULATIONS:

TREE CALCULATIONS PER ARCHITECTURAL PLANS:

TOTAL DBH OF EXISTING REGULATED TREES ONSITE: 148"
TOTAL DBH OF EXISTING REGULATED TREES TO BE REMOVED: 24"
TOTAL PERCENTAGE OF REGULATED TREE DBH TO BE REMOVED 16.2%
REQUIRED REPLACEMENT TREES (8 TREES UNDER 10", 2 TREE 10"–24"): 10

SOIL AMENDMENT

PER BMP T5.13. 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 AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.

SOIL AMENDMENT NOTES

•SOIL RETENTION: RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.

•SOIL QUALITY: ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:

1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
2. MULCH PLANTING BEDS WITH 2–4 INCHES OF ORGANIC MATERIAL
3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
   A. THE ORGANIC CONTENT FOR "PRE–APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIFICATION FOR BIORETENTION (BMP T7.30), WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65% AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
   B. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220–B, TESTING PARAMETERS, IN WAC 173–350–220.

THE RESULTING SOIL SHOULD BE CONDUCIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

•IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:

1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE–APPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
3. STOCKPILE EXISTING TOPSOIL DURING GRADING, AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE–APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.

MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

MAINTENANCE:
•ESTABLISH SOIL QUALITY AND DEPTH TOWARD THE END OF CONSTRUCTION AND ONCE ESTABLISHED, PROTECT FROM COMPACTION, SUCH AS FROM LARGE MACHINERY USE, AND FROM EROSION.
•PLANT VEGETATION AND MULCH THE AMENDED SOIL AREA AFTER INSTALLATION.
•LEAVE PLANT DEBRIS OR ITS EQUIVALENT ON THE SOIL SURFACE TO REPLENISH ORGANIC MATTER.
•REDUCE AND ADJUST, WHERE POSSIBLE, THE USE OF IRRIGATION, FERTILIZERS, HERBICIDES AND PESTICIDES, RATHER THAN CONTINUING TO IMPLEMENT FORMERLY ESTABLISHED PRACTICES.

EROSION AND SEDIMENT CONTROL NOTES:

1. APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY A CONTINUOUS LENGTH OF SURVEY TAPE (OR FENCING, IF REQUIRED) PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
4. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
5. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.)
6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE TESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
7. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
8. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
9. ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WILL BE PROTECTED WITH HIGH VISIBILITY CONSTRUCTION FENCING.
10. ALL SOIL STOCKPILES TO BE COVERED WITH PLASTIC SHEETING UNTIL SUCH TIME THAT THE SOIL IS EITHER USED OR REMOVED. PILES SHOULD BE SITUATED AND LOCATED SUCH THAT SEDIMENT DOES NOT RUN INTO THE STREET OR ONTO ADJOINING PROPERTIES.
11. ALL EXPOSED SOIL AREAS SHALL BE COVERED OR PROTECTED USING AN APPROPRIATE BMP. STABILIZE DENUDED AREAS OF THE SITE BY MULCHING, SEEDING, PLANTING, OR SODDING.
12. ALL ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY APPROPRIATE USE OF VEGETATION BUFFER STRIPS, SEDIMENT BARRIERS, OR FILTERS, DIKES, MULCHING, OR BY A COMBINATION OF THESE MEASURES AND OTHER APPROPRIATE BMP'S.
13. PROVIDE FOR PERIODIC STREET CLEANING TO REMOVE ANY SEDIMENT THAT MAY HAVE BEEN TRACKED OFF–SITE. SEDIMENT SHOULD BE REMOVED BY SHOVELING OR SWEEPING AND CAREFULLY REMOVED TO A SUITABLE DISPOSAL AREA WHERE IT WILL NOT BE RE–ERODED.
14. ALL INSTALLED EROSION AND SEDIMENT CONTROL BMP'S SHALL BE INSPECTED REGULARLY BY THE GENERAL CONTRACTOR ESPECIALLY AFTER ANY LARGE STORM. MAINTENANCE, INCLUDING REMOVAL AND PROPER DISPOSAL OF SEDIMENT SHOULD BE A NECESSARY TO INSURE THAT SEDIMENT AND EROSION IS CONTROLLED ON SITE.

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PHILIP L. PIEDSCHE — STATE OF WASHINGTON — 23232 — REGISTERED PROFESSIONAL ENGINEER
9-28-2023

DATE	REVISION	APR
9.28.2023	CITY COMMENTS (8.18.2023) AND SITE PLAN REVISION	YLP

DRAFTED BY: PHB/NBM
DESIGNED BY: NBM
PROJECT ENGINEER: YLP
DATE: 5/12/2023
PROJECT NO.: 22109

DRAWING: C3
SHEET: 3 OF 6

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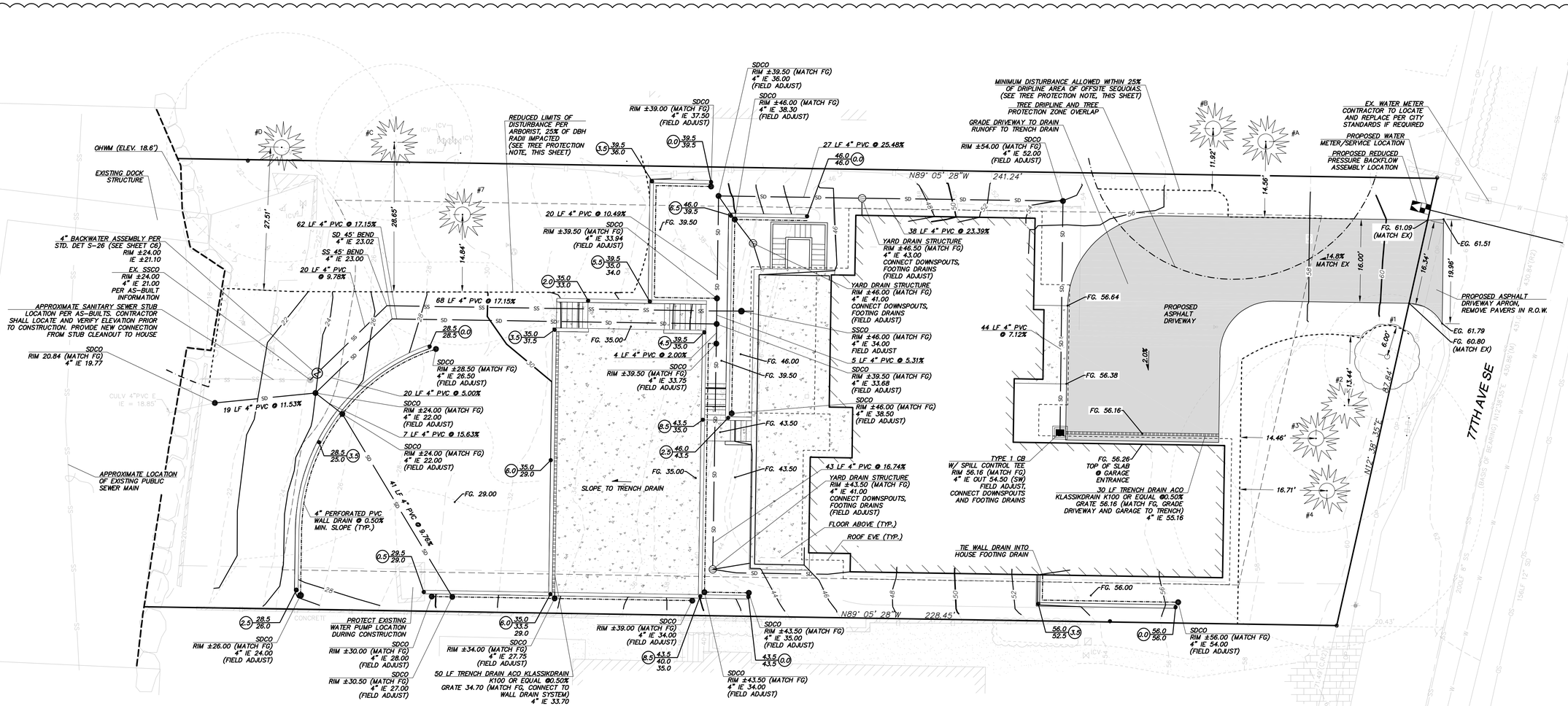
WELLMON RESIDENCE



SITE VOLUME CALCULATIONS

CUT VOLUME (CU. YDS.)	FILL VOLUME (CU. YDS.)	NET VOLUME (CU. YDS.)
186	189	3 FILL

ALL VOLUMES ARE APPROXIMATE AND ARE PROVIDED FOR PERMITTING PURPOSES AND REPRESENT FINISH GRADE TO EXISTING GRADE AS SHOWN. CONTRACTOR SHALL RELY ON HIS/HER OWN ESTIMATES FOR DETERMINING ACTUAL EARTHWORK QUANTITIES.
THE VOLUMES DO NOT INCLUDE STRIPPING, STRUCTURAL EXCAVATION, EXPANSION/COMPACTION FACTOR OR ANY SOIL TYPE RESTRICTIONS.

GENERAL NOTES:

1. SITE PLAN PER ARCHITECT PROVIDED ON 3/06/2023.
2. EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES SHOWN, OR NOT SHOWN IN THEIR PROPER LOCATION.
3. CONTRACTOR SHALL POT-HOLE LOCATION OF EXISTING UTILITIES TO BE RECONNECTED PRIOR TO BEGINNING CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS.
4. CONTRACTOR TO VERIFY CONDITION AND GOOD WORKING ORDER OF ANY EXISTING UTILITIES TO BE RECONNECTED OR RE-USED PRIOR TO START OF CONSTRUCTION.
5. REINSTALL ANY AND ALL REMOVED R.O.W. SIGNS PER CITY STANDARDS.
6. UNDERGROUND ALL NEW AND EXISTING ON-SITE TRANSMISSION LINES FROM THE BUILDING TO THE POINT OF ORIGIN AT THE PRIMARY/DISTRIBUTION LINES FOR THE UTILITIES.
7. ADJUST ANY EXISTING UTILITY WHICH MAY CONFLICT WITH STREET OR UTILITY IMPROVEMENTS.
8. ALWAYS CALL 811 TWO WORKING DAYS BEFORE YOU DIG.

STORM DRAINAGE NOTES:

1. ROOF DRAINS SHALL BE 4" PVC SDR 35 TIGHTLINE WITH A MINIMUM SLOPE OF 2.00% UNLESS OTHERWISE NOTED.
2. FOOTING DRAINS SHALL BE 4" PERFORATED PVC WRAPPED IN FILTER FABRIC PER CITY STANDARDS.
3. FOOTING DRAINAGE SYSTEM AND ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED UNLESS SUCH CONNECTION IS MADE AT LEAST ONE FOOT BELOW THE FOOTING DRAINAGE SYSTEM AND DOWN SLOPE OF THE BUILDING FOUNDATION.
4. USE SAND COLLARS AT CB CONNECTIONS TO PVC PIPE.
5. PROVIDE SLEEVES THROUGH ALL WALLS/ ROCKERIES.

TREE PROTECTION NOTES:

1. THE TREE PROTECTION ZONE (TPZ) IS EQUAL TO THE DBH RADIUS, UNLESS NOTED OTHERWISE.
2. TREE PROTECTION FENCING SHALL REMAIN IN PLACE THROUGHOUT THE PROJECT.
3. ANY WORK WITHIN THE TPZ AREAS (DEMO OR REPLACEMENT OF EXISTING PAVERS AND WALKWAYS) MUST BE DONE BY HAND WITH CARE TO AVOID DAMAGING TREE ROOT SYSTEMS.

PER THE ARBORIST RECOMMENDATIONS, THE FOLLOWING TREES CAN BE SUCCESSFULLY RETAINED WITH A REDUCED LIMIT OF DISTURBANCE.

ONSITE TREES:
- #3: TPZ REDUCED TO 14.46' ON THE WEST SIDE. GRADING MUST NOT IMPACT MORE THAN 25% OF TPZ AREA
- #4: TPZ REDUCED TO 16.71' ON THE WEST SIDE. GRADING MUST NOT IMPACT MORE THAN 25% OF TPZ AREA
- #7: TPZ REDUCED TO 14.94' ON THE SOUTH SIDE. GRADING MUST NOT IMPACT MORE THAN 25% OF TPZ AREA.

OFFSITE TREES:
- #A: TPZ SET TO DRIPLINE. WORK WITHIN TPZ MUST BE LIMITED TO REPLACEMENT OF DRIVEWAY PAVEMENT AND MUST NOT EXCEED 25% OF THE DRIPLINE AREA. NO GRADING IS ALLOWED WITHIN THE DRIPLINE. SOIL/BASE COURSE DISTURBANCE MUST NOT EXCEED 2" IN DEPTH. SEE OFFSITE SEQUOIA PROTECTION NOTES, THIS SHEET.
- #B: TPZ SET TO DRIPLINE. WORK WITHIN TPZ MUST BE LIMITED TO REPLACEMENT OF DRIVEWAY PAVEMENT AND MUST NOT EXCEED 25% OF THE DRIPLINE AREA. NO GRADING IS ALLOWED WITHIN THE DRIPLINE. SOIL/BASE COURSE DISTURBANCE MUST NOT EXCEED 2" N DEPTH. SEE OFFSITE SEQUOIA PROTECTION NOTES, THIS SHEET.
- #C: TPZ REDUCED TO 28.65' ON THE SOUTH SIDE. GRADING MUST NOT IMPACT MORE THAN 25% OF DBH RADIUS AREA.
- #D: TPZ REDUCED TO 27.51' ON THE SOUTH SIDE. GRADING MUST NOT IMPACT MORE THAN 25% OF DBH RADIUS AREA.

OFFSITE SEQUOIA PROTECTION NOTES:

OFFSITE TREES #A AND #B ARE LARGE SEQUOIAS, LOCATED CLOSE TO PROPOSED DEMO AND PAVEMENT REPLACEMENT AREAS. THE ARBORIST HAS SET THE TREE PROTECTION ZONE (TPZ) TO THE DRIPLINE OF THESE TWO TREES. LIMITED WORK IS ALLOWED WITHIN THE TPZ, UNDER THE FOLLOWING RESTRICTIONS:

1. WORK WITHIN TPZ MUST BE LIMITED TO DEMO OR REPLACEMENT OF DRIVEWAY PAVEMENT AND MUST NOT EXCEED 25% OF THE DRIPLINE AREA.
2. NO GRADING IS ALLOWED WITHIN THE TPZ/DRIPLINE.
3. EXISTING PAVERS CAN BE REMOVED CAREFULLY WITH EXCAVATOR BUCKET, PROVIDED THERE IS NO SOIL OR TREE ROOT DISTURBANCE. ALL OTHER WORK MUST BE DONE BY HAND WITH CARE TO AVOID DAMAGING TREE ROOT SYSTEMS.
4. SOIL/BASE COURSE DISTURBANCE MUST NOT EXCEED 2" IN DEPTH.
5. IN AREAS WHERE EXISTING PAVEMENT WILL BE REPLACED WITH LANDSCAPING, BASE COURSE MAY BE REMOVED BY HAND TO A DEPTH OF 2" BELOW EXISTING, AND REPLACED WITH MULCH.

NORTH

GRAPHIC SCALE
0 5 10 20
1 INCH = 10 FT.

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WELLMON RESIDENCE
STORM DRAINAGE PLAN
6333 77TH AVE SE
MERCER ISLAND, WA 98040
PARCEL NO. 4097100010

NICK & LINDSEY WELLMON
6333 77TH AVE SE
MERCER ISLAND, WA 98040

PHIL L. FIELDSAL — STATE OF WASHINGTON — 53232 — REGISTERED PROFESSIONAL ENGINEER
9-28-2023

DATE	REVISION	APR
9.28.2023	CITY COMMENTS (8.18.2023) AND SITE PLAN REVISION	YLP

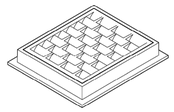
DRAFTED BY: PHB/NBM
DESIGNED BY: NBM
PROJECT ENGINEER: YLP
DATE: 5/12/2023
PROJECT NO.: 22109

DRAWING: C4
SHEET: 4 OF 6

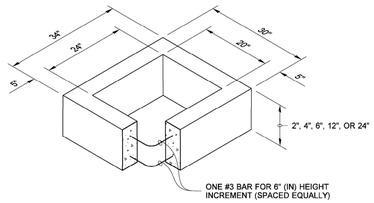
SE 1/4, SECTION 24, TOWNSHIP 24, RANGE 04, W.M.

WELLMON RESIDENCE

DRAWN BY: FERN LIDDELL



FRAME AND VANED GRATE



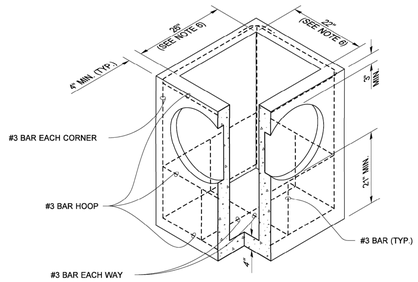
RECTANGULAR ADJUSTMENT SECTION

PIPE ALLOWANCES	
PIPE MATERIAL	**MAXIMUM INSIDE DIAMETER (INCHES)**
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP ✱ **(STD. SPEC. SECT. 9-05.20)**	12"
SOLID WALL PVC **(STD. SPEC. SECT. 9-05.12(1))**	15"
PROFILE WALL PVC **(STD. SPEC. SECT. 9-05.12(2))**	15"

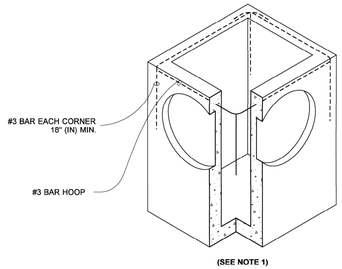
✱ CORRUGATED POLYETHYLENE STORM SEWER PIPE

NOTES

1. As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the **ALTERNATIVE PRECAST BASE SECTION**. Wire mesh shall not be placed in the knockouts.
2. The knockout diameter shall not be greater than 20" (in). Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.
3. The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
4. The frame and grate may be installed with the flange down, or integrally cast into the adjustment section with flange up.
5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
6. The opening shall be measured at the top of the **Precast Base Section**.
7. All pickup holes shall be grouted full after the basin has been placed.



PRECAST BASE SECTION



(SEE NOTE 1)

ALTERNATIVE PRECAST BASE SECTION

JULIE HEILMAN — STATE OF WASHINGTON — 43875 — REGISTERED PROFESSIONAL ENGINEER

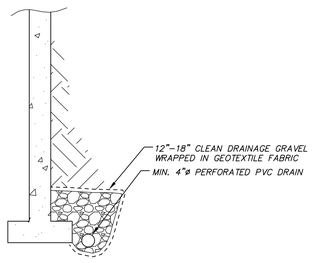
Julie Heilman
2020.09.01 07:52:50 -07'00'

CATCH BASIN TYPE 1

STANDARD PLAN B-5.20-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Roark, Steve — Digitally signed by Roark, Steve Date: 2020.09.09 09:45:23 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation

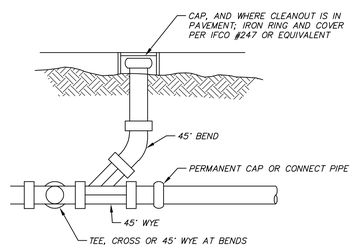


WALL DRAINS

NTS

WALL DRAIN NOTES:

FOOTING/WALL DRAINAGE SYSTEMS AND ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED UNLESS SUCH CONNECTION IS MADE AT LEAST ONE FOOT BELOW THE FOOTING/WALL DRAINAGE SYSTEM AND DOWN SLOPE OF THE FOOTING/WALL.



STORM DRAIN CLEAN–OUT

NTS

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O 425.827.3063 F 425.827.2423

WELLMON RESIDENCE

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MERCER ISLAND, WA 98040
PARCEL NO. 4097100010

NICK & LINDSEY WELLMON

6333 77TH AVE SE
MERCER ISLAND, WA 98040

MICHAEL L. PIEDALUE — STATE OF WASHINGTON — 53232 — REGISTERED PROFESSIONAL ENGINEER
9-28-2023

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DRAFTED BY: PHB/NBM
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PROJECT ENGINEER: YLP
DATE: 5/12/2023
PROJECT NO.: 22109

DRAWING: C5
SHEET: 5 OF 6

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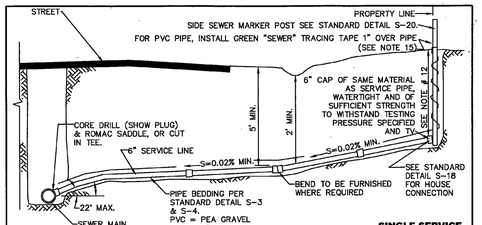
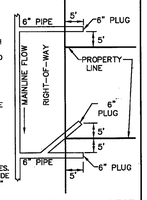
SE 1/4, SECTION 24, TOWNSHIP 24, RANGE 04, W.M.

WELLMON RESIDENCE



SINGLE SERVICE

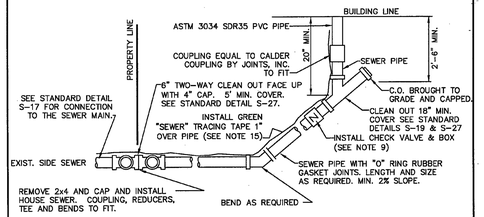


DOUBLE SERVICE

NOTES

1. ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
2. CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
3. RIGHT-OF-WAY RESTORATION SHALL MATCH OR EXCEED THE ORIGINAL CONDITION AND BE IN ACCORDANCE WITH CITY STANDARDS.
4. ALL TRENCH BACKFILL IN PUBLIC RIGHT-OF-WAY OR ROADWAY AREAS SHALL BE CRUSHED SURFACING PER WSDOT 9-09.9(3) OR BANK RUN GRAVEL PER WSDOT 9-03.19, COMPACTED IN 6" LIFTS OR MAY BE CDF WHEN DIRECTED BY THE CITY ENGINEER (SEE DETAIL S-2).
5. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH 1/8 BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
6. 6" SEWER PIPE MINIMUM SIZE IN RIGHT-OF-WAY, AND ELSEWHERE AS DIRECTED BY ENGINEER. 2% MIN. GRADE (UNLESS DIRECTED BY ENGINEER), 50% MAXIMUM.
7. ALL A.C. MAINS TO BE TAPPED IN ACCORDANCE WITH WAC 296-62-00775 STATE/FEDERAL GUIDELINES AND CERTIFICATION.
8. CONSTRUCTION IN RIGHT-OF-WAY MUST BE DONE BY A REGISTERED AND LICENSED CONTRACTOR.
9. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT CITY SEWER ORDINANCES.
10. WHERE CITY ENGINEER ALLOWS SIDE SEWER CONNECTIONS TO MANHOLE, INVERT OF SIDE SEWER SHALL BE EQUAL TO OR ABOVE MAIN SEWER CROWN, BUT NOT TO EXCEED 18" ABOVE INVERT OF MAIN SEWER.
11. UNLESS OTHERWISE INDICATED ON PLAN, SIDE SEWER SHALL BE MIN. OF 6' DEEP AT PROPERTY LINE, OR 5' LOWER THAN THE LOWEST ELEVATION, WHICH EVER IS LOWER.
12. ALL PIPE MATERIALS NOT TO STANDARDS WILL BE ABANDONED AND REPLACED WITH DUCTILE IRON OR PVC PIPE OF THE SAME SIZE.
13. IF A BUILDING SEWER IS TO SERVE MORE THAN ONE PROPERTY, BY JOINT AGREEMENT OF THE OWNERS, AN APPROVED EASEMENT INSURING THAT ALL PROPERTIES SHALL HAVE PERPETUAL USE OF THE SIDE SEWER, HAVING PROVISIONS FOR OPERATION, MAINTENANCE, RECONSTRUCTION AND FOR ACCESS FOR REPAIR PURPOSES, SHALL BE SIGNED BY THE OWNERS. THIS EASEMENT SHALL BE RECORDED WITH THE COUNTY AUDITOR. A SIX INCH (MINIMUM) DIAMETER PIPE SHALL BE USED FOR THE COMMON LINE AND A SIX INCH CLEANOUT EXTENDING TO WITHIN 12 INCHES OF THE GROUND SURFACE SHALL BE PROVIDED AT THE WYE WHERE THE UPPER GRADE CONNECTIONS ARE MADE. BACKWATER VALVES SHALL BE INSTALLED ON SERVICE LINES UPSTREAM OF THE CONNECTION TO THE SHARED SIDE SEWER.
14. THE CITY ENGINEER MAY REQUIRE BACKWATER VALVES ON SIDE SEWERS WHEN DEEMED NECESSARY. THE EFFECTIVE OPERATION AND MAINTENANCE OF ANY BACKWATER VALVE SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE SIDE SEWER.
15. UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
SIDE SEWER CONNECTION AND STUB
6-5-2009 | NO SCALE | **S-17**
REV DATE | APPROVED

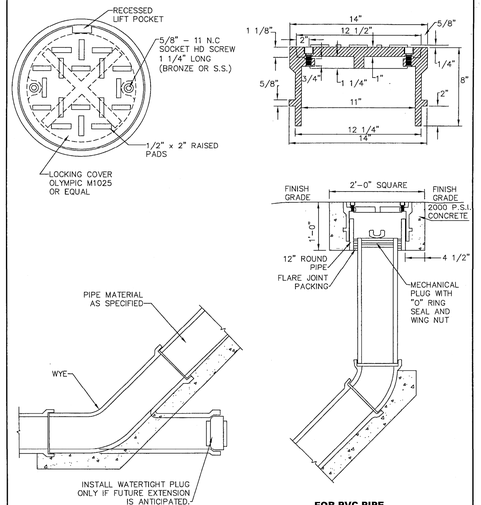


BUILDING CONNECTION

NOTES

1. ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
2. CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
3. ALL HOUSE PLUMBING OUTLETS MUST BE CONNECTED TO THE SEWER. NO DOWN SPOUTS OR STORM DRAINAGE MAY BE CONNECTED TO THE SEWER SYSTEM.
4. 18" MINIMUM COVERAGE OVER PIPE.
5. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH 1/8 BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
6. 4" SEWER PIPE MINIMUM SIZE ON PROPERTY. 2% MINIMUM GRADE.
7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT SEWER ORDINANCES.
8. ALL CONSTRUCTION REQUIRES A PLAN SHOWING PROPERTY AND DIMENSIONS AND COMPLETION OF SIDE SEWER APPLICATION AND MAINTENANCE AGREEMENT, AS NEEDED.
9. BACK WATER VALVE (CHECK VALVE) IS REQUIRED:
   A. IF CONNECTED TO A SHARED SIDE SEWER.
   B. IF CONNECTION AT HOUSE IS LOWER THAN BOTH UPSTREAM AND DOWNSTREAM MANHOLE.
   C. SEE S-23 & S-24 FOR LAKE LINE REQUIREMENTS.
10. AS-BUILT DRAWING SHOWING LOCATION OF SIDE SEWER & ALL BENDS, C.O. ETC., IN RELATION TO THE HOUSE IS REQUIRED AFTER INSPECTION & INSTALLATION. SEE STANDARD DETAIL S-38 FOR A TYPICAL "AS BUILT".
11. THE MINIMUM PIPE SIZE FOR SIDE SEWERS SHALL BE:
    6" – WITHIN THE PUBLIC RIGHT-OF-WAY.
    4" – SINGLE FAMILY RESIDENCES.
    6" – 2 TO 6 SINGLE FAMILY RESIDENCES.
    6" – BUILDINGS OTHER THAN SINGLE FAMILY RESIDENCES.
12. UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
HOUSE SEWER CONNECTION
6-5-2009 | NO SCALE | **S-18**
REV DATE | APPROVED

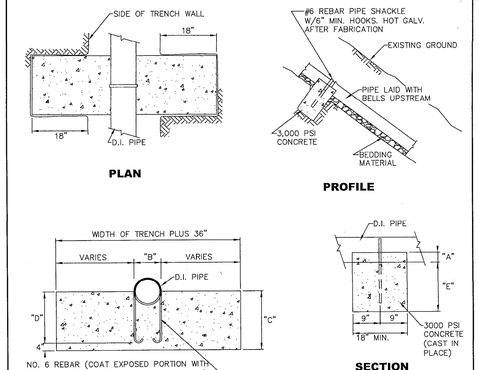


FOR PVC PIPE

NOTES

1. SEE S-27 FOR INSTALLATION DETAILS.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
CLEAN OUT DETAIL
6-5-2009 | NO SCALE | **S-19**
REV DATE | APPROVED



PLAN **PROFILE** **ELEVATION** **SECTION**

PIPE SIZE	DIMENSIONS INCHES				
	A	B	C	D	E
4"	2.4	4.8	17	13	14.6
6"	3.5	6.9	18	14	14.5
8"	4.5	9.1	19	15	14.5
10"	5.6	11.1	20	16	14.4
12"	6.6	13.2	21	17	14.4
14"	7.7	15.3	22	18	14.3
16"	8.7	17.4	23	19	14.3
18"	9.8	19.5	24	20	14.2

NOTES

1. PIPE ANCHORS TO BE USED ONLY AS APPROVED BY THE ENGINEER.
2. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 P.S.I.
3. TIE ROD ASSEMBLIES SHALL BE COATED WITH ROYSTON ROSKOTE #612SM OR APPROVED EQUAL.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
PIPE ANCHOR DETAIL
6-5-2009 | NO SCALE | **S-21**
REV DATE | APPROVED

DISCONNECTION

WHEN DEMOLISHING AN EXISTING BUILDING, THE BUILDING SIDE SEWER SHALL BE DISCONNECTED PRIOR TO REMOVAL OF BUILDING FOUNDATIONS. THE CONTRACTOR SHALL INSTALL A MECHANICAL PLUG WITH NON-SHRINK GROUT AT THE END OF THE SIDE SEWER TO REMAIN IN PLACE. DISCONNECTION'S SHALL BE PERFORMED IN THE PRESENCE OF THE CITY'S UTILITY INSPECTOR. THE CONTRACTOR SHALL PROVIDE AN AS-BUILT DRAWING DEPICTING THE DISCONNECTED SIDE SEWER UPON COMPLETION OF THE WORK.

RECONNECTION

WHEN RECONNECTING TO AN EXISTING SIDE SEWER, THE POINT OF RECONNECTION WILL BE DETERMINED BASED ON THE MAGNITUDE OF THE CONSTRUCTION ON THE PROPERTY.

1. PARTIAL INTERIOR REMODEL AND/OR BUILDING ADDITION WITH NO ADDITIONAL PLUMBING FIXTURES – NO SIDE SEWER REPLACEMENT REQUIRED UNLESS A KNOWN PROBLEM EXISTS IN THE SIDE SEWER.
2. PARTIAL INTERIOR REMODEL AND/OR BUILDING ADDITION WITH ADDITIONAL PLUMBING FIXTURES– ASSESS CONDITION OF EXISTING SIDE SEWER THROUGH VIDEO INSPECTION FROM BUILDING TO PROPERTY LINE AND REPLACE AS NEEDED.
3. COMPLETE INTERIOR REMODEL OF RESIDENCE – ASSESS CONDITION OF EXISTING SIDE SEWER THROUGH VIDEO INSPECTION FROM BUILDING TO PROPERTY LINE AND REPLACE AS NEEDED. IF EXISTING SIDE SEWER IS ASBESTOS CEMENT OR CONCRETE, SIDE SEWER SHALL BE REPLACED FROM BUILDING TO PROPERTY LINE, UNLESS THE APPLICANT PROVES, TO THE SATISFACTION OF THE CITY ENGINEER, THAT THE SIDE SEWER IS WATER TIGHT AND IN SOUND CONDITION.*
4. COMPLETE INTERIOR REMODEL AND BUILDING ADDITION – NEW SIDE SEWER FROM BUILDING TO PROPERTY LINE.*
5. CONSTRUCTION OF A NEW SINGLE FAMILY RESIDENCE – NEW SIDE SEWER FROM BUILDING TO PROPERTY LINE.*

BACK WATER VALVE INSTALLATION PER CITY ENGINEER, IF SCENARIO 2, 3, 4, OR 5 IS DIRECTLY ATTACHED TO THE LAKE (UNLESS THE ELEVATION OF THE LOWEST DRAIN IN THE RESIDENCE IS LOWER THAN THE RIM ELEVATION OF THE UPSTREAM SEWER MANHOLE ON THE MAIN.

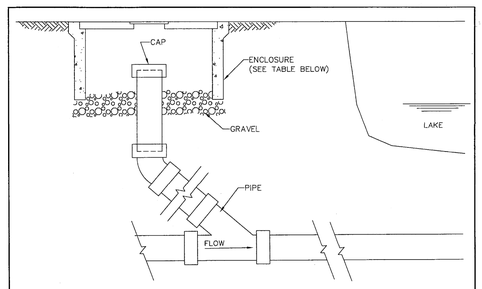
VIDEO INSPECTION OF THE EXISTING SIDE SEWER, BETWEEN THE PROPERTY LINE AND THE SEWER MAIN SHALL BE PERFORMED FOR SCENARIOS NUMBER 4 AND 5.

PROVIDE A COPY OF THE VIDEO DOCUMENTATION (VIDEO AND HARDCOPY REPORT) TO THE CITY ENGINEER.

REPLACEMENT OR REPAIR OF THAT PORTION OF THE SIDE SEWER BETWEEN THE PROPERTY LINE AND THE SEWER MAIN, WILL BE DETERMINED BY THE CITY ENGINEER, BASED ON THE VIDEO INSPECTION.

*IF THE EXISTING SIDE SEWER IS PVC AND IS LESS THAN TEN YEARS OLD, THE SIDE SEWER DOES NOT HAVE TO BE REPLACED IF A VIDEO INSPECTION AND/OR HYDROSTATIC PRESSURE TEST CONFIRMS THAT THE SIDE SEWER IS IN PROPER WORKING CONDITION. THESE TESTS SHALL BE PERFORMED AFTER ALL HEAVY EQUIPMENT THAT COULD DAMAGE THE SIDE SEWER IS OFF OF THE SITE.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
RESIDENTIAL SIDE SEWER DISCONNECTION & RECONNECTION
6-5-2009 | NO SCALE | **S-22**
REV DATE | APPROVED



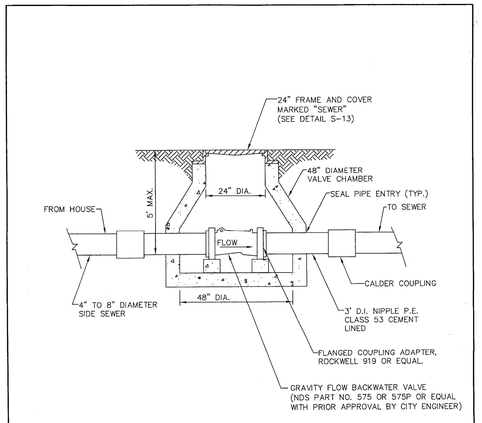
LAKE LINE CLEANOUT

PIPE SIZE	MATERIAL	CAP	ENCLOSURE	COMMENTS
6"	PVC	SIDU MECHANICAL SEWER PLUG	CONC. METER BOX, FOGTITE 1-D	INSTALLATION BELOW HYDRAULIC GRADIENT
6"	PVC	PVC CAP W/O GASKET	CONC. METER BOX, FOGTITE 1-D	INSTALLATION ABOVE HYDRAULIC GRADIENT
6"	DIP	MECHANICAL JOINT CAP	CONC. METER BOX, FOGTITE 1-D	INSTALLATION ABOVE HYDRAULIC GRADIENT
8"	PVC	PVC CAP W/O GASKET	CONC. METER BOX, FOGTITE NO. 2 (CONC. LID W/ ALUM. INS. PLATE)	INSTALLATION ABOVE HYDRAULIC GRADIENT
8"	DIP	MECHANICAL JOINT CAP	CONC. METER BOX, FOGTITE NO. 2 (CONC. LID W/ ALUM. INS. PLATE)	INSTALLATION ABOVE HYDRAULIC GRADIENT

NOTES

1. IF POSSIBLE, CLEANOUT TO BE LOCATED JUST ABOVE HYDRAULIC GRADIENT OF LAKE LINE. CLEANOUT SHOULD ALSO BE LOCATED TO PROVIDE EASY ACCESS FOR INSPECTION AND MAINTENANCE BY THE HOME OWNER.
2. SEE S-23 & S-24 FOR BACK WATER VALVE LOCATION.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
SIDE SEWER CLEANOUT FOR LAKE LINE CONNECTIONS
6-5-2009 | NO SCALE | **S-25**
REV DATE | APPROVED



CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
BACK WATER VALVE ASSEMBLY FOR JOINT USE SIDE SEWER (4" OR 6" DIAMETER)
6-5-2009 | NO SCALE | **S-26**
REV DATE | APPROVED

SIDE SEWER NOTES:

1. *FOUR-INCH (4") PIPE MUST BE LAID AT A MINIMUM 2% GRADE. SIX-INCH (6") PIPE MUST BE LAID AT A MINIMUM 1.2% GRADE.*
2. *SIDE SEWERS MUST NOT BE CLOSER THAN 30" TO ANY FOUNDATION WALL OR OUTER LINE OF ANY FOOTINGS, PILINGS, OR BUILDING SUPPORTS. A CLEAN-OUT MUST BE INSTALLED AT THE CONNECTION, AND MUST BE 36" FROM THE FOUNDATION.*
3. *MINIMUM COVER MUST BE 42" IN THE PUBLIC RIGHT-OF-WAY, 30" IN PRIVATE ROADWAYS AND UNDER DITCHES, AND 18" ON PRIVATE PROPERTY.*
4. *SEWER MAINS MAY BE CORED OR A "T" INSTALLED IN THE MAIN LINE WHERE NO SEWER STUB EXISTS.*
5. *SIDE SEWERS WHEN USING OPEN CUT CONSTRUCTION METHODS MUST BE BEDDED WITH IMPORTED MATERIAL TO 4" BELOW AND 6" ABOVE THE INSTALLED PIPE. THE BROAD, "BELL" ENDS OF PIPE MUST BE LAID UPHILL.*
6. *IMPORTED BACKFILL MATERIAL WILL BE REQUIRED IN ALL PAVED AREAS AND MUST BE COMPACTED TO 95% OF MAXIMUM DENSITY IN 1 FT. LIFTS. IN PUBLIC RIGHT OF WAY, ONLY SELECT MATERIAL (5/8" MINUS C.R.) WILL BE ALLOWED FOR BEDDING AND BACKFILL.*
7. *PARALLEL SEWER AND WATER SERVICE LINES MUST BE AT LEAST 4 FEET APART WHEN LAID HORIZONTALLY, AND AT LEAST 2 FEET APART WHEN LAID VERTICALLY, WITH THE SEWER THE DEEPER OF THE TWO LINES. IF THE LINES MUST CROSS, THEY MUST CROSS AT 90 DEGREES TO ONE ANOTHER AND HAVE AT LEAST 2 FEET OF VERTICAL CLEARANCE.*
8. *ALL CHANGES IN DIRECTION MUST BE MADE WITH 1/8 BENDS (45 DEGREES), 1/16 BENDS (22 ½ DEGREES), OR "Y" BRANCHES WITH THE STRAIGHT-THROUGH OPENING PLUGGED FOR CLEAN-OUT. NO MORE THAN TWO BENDS ARE PERMITTED BETWEEN CLEAN-OUTS, WHICH MUST BE PLACED AT LEAST EVERY 100 FEET. CLEAN-OUTS MUST EXTEND TO WITHIN 12" OF THE FINISHED GRADE AND CAPPED WITH A WATER-TIGHT PLUG. CLEAN-OUTS IN PAVED AREAS, PATIOS, OR SIDEWALKS MUST HAVE CAST IRON FRAMES AND COVERS WITH LOCKING LIDS SET TO FINISHED PAVED GRADE.*
9. *PIPE MATERIALS: ASTM 3034 SDR 35 PVC PIPE, FUSED SOLID WALL HDPE, SCHEDULE 40 ABS, DIP OR CIP (UP TO 8 FT. DEPTH). OVER 8 FT. DEPTH AND SLOPES MORE THAN 20% DIP, CIP, OR FUSED SOLID WALL HDPE ARE REQUIRED.*
10. *BEDDING MATERIAL FOR OPEN CUT CONSTRUCTION MUST BE PEA GRAVEL, SAND, CONTROL DENSITY FILL (CDF), OR 5/8" MINUS C.R.*
11. *SELECT BACKFILL MATERIAL SHALL BE 5/8" MINUS C.R. OR CONTROL DENSITY FILL (CDF).*
12. *IMPORTED BACKFILL MATERIAL SHALL BE BANK RUN GRAVEL OR PIT RUN GRAVEL FROM AN APPROVED SUPPLIER MEETING APWA/WSDOT GRADATION SPECIFICATIONS. NOT ALLOWED IN RIGHT-OF-WAY.*
13. *RUBBER GASKETS MUST BE USED WHEN APPROPRIATE.*
14. *RIGID COUPLINGS MUST BE USED FOR CONNECTIONS TO EXISTING STUBS IN RIGHT-OF-WAY.*
15. *A STAINLESS STEEL STRAP AND SADDLE (ROMAC) MUST BE USED FOR CORING.*
16. *TESTING: THE RATE OF LEAKAGE MUST NOT EXCEED THE FOLLOWING AMOUNTS PER 100 FT. OF PIPE:*
    4" PIPE 1.6 GAL/HR 6" PIPE 2.4 GAL/HR
17. *INSPECTION IS REQUIRED PRIOR TO BACKFILLING. THE CITY REQUIRES AT LEAST 24 HOURS NOTICE PRIOR TO INSPECTIONS.*

D.R. STRONG CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

WELLMON RESIDENCE
NOTES & DETAILS
6333 77TH AVE SE
MERCER ISLAND, WA 98040
PARCEL NO. 4097100010

NICK & LINDSEY WELLMON
6333 77TH AVE SE
MERCER ISLAND, WA 98040

DATE	REVISION	APR
9.28.2023	CITY COMMENTS (8.18.2023) AND SITE PLAN REVISION	YLP

DRAFTED BY: PHB/NBM
DESIGNED BY: NBM
PROJECT ENGINEER: YLP
DATE: 5/12/2023
PROJECT NO.: 22109

DRAWING: C6
SHEET: 6 OF 6

Call 2 Working Days Before You Dig
811
Utilities Underground Location Center
(ID,MT,ND,OR,WA)

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KING COUNTY PARCEL NUMBER:

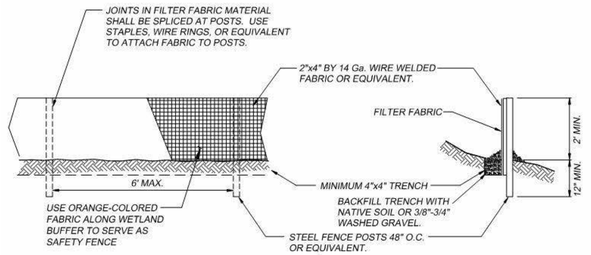
1424200040

LEGAL DESCRIPTION:

TRACT 8, CASCADE PEAK, ACCORDING TO THE PLAT RECORDED IN VOLUME 43 OF PLATS, PAGE 39, IN KING COUNTY, WASHINGTON.

SILT FENCE MAINTENANCE STANDARDS

1. *SILTATION BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.*
2. *ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.*
3. *IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.*
4. *IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.*
5. *SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6 INCHES HIGH.*
6. *IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.*



NOTE: FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

FILTER FENCE

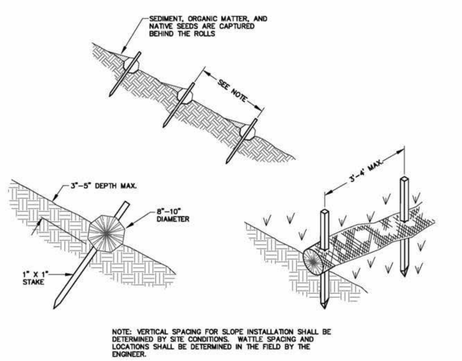
NOT TO SCALE

SITE PLAN NOTES:

1. ALL PLANTERS, RETAINING WALLS, AND SITE FEATURES WITHIN THE SITE SETBACK LINES TO NOT EXCEED 30" ABOVE THE ORIGINAL GRADE PLANE.

2. NO PART OF STRUCTURE TO EXCEED 25' HEIGHT LIMIT ABOVE ORIGINAL GRADE PLANE. SEE ELEVATIONS FOR MAXIMUM ENVELOPE AND COMPLIANCE TO HEIGHT LIMIT, AS WELL AS ROOF HEIGHT DIAGRAM ON SHEET G0.2.

3. FOR CODE COMPLIANCE DIAGRAMS, INCLUDING IMPERVIOUS SURFACE, STRUCTURAL COVERAGE, AND ROOF HEIGHT, SEE SHEET G0.2.



STRAW WATTLE INSTALLATION
N.T.S.

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NOTES FROM BMP C180: SMALL PROJECT CONSTRUCTION STORMWATER POLLUTION PREVENTION

1. SOIL SHALL BE MANAGED IN A MANNER THAT DOES NOT PERMANENTLY COMPACT OR DETERIORATE THE FINAL SOIL AND LANDSCAPE SYSTEM. IF DISTURBANCE AND/OR COMPACTION OCCUR THE IMPACT MUST BE CORRECTED AT THE END OF THE CONSTRUCTION ACTIVITY. THIS SHALL INCLUDE RESTORATION OF SOIL DEPTH, SOIL QUALITY, PERMEABILITY, AND PERCENT ORGANIC MATTER. CONSTRUCTION PRACTICES MUST NOT CAUSE DAMAGE TO OR COMPROMISE THE DESIGN OF PERMANENT LANDSCAPE OR INFILTRATION AREAS.

2. LOCATE EXCAVATED BASEMENT SOIL A REASONABLE DISTANCE BEHIND THE CURB, SUCH AS IN THE BACKYARD OR SIDE YARD AREA. THIS WILL INCREASE THE
DISTANCE ERODED SOIL MUST TRAVEL TO REACH THE STORM SEWER SYSTEM. SOIL PILES SHOULD BE COVERED UNTIL THE SOIL IS EITHER USED OR REMOVED. PILES SHOULD BE SITUATED SO THAT SEDIMENT DOES NOT RUN INTO THE STREET OR ADJOINING YARDS.

3. BACKFILL BASEMENT WALLS AS SOON AS POSSIBLE AND ROUGH GRADE THE LOT. THIS WILL ELIMINATE LARGE SOIL MOUNDS, WHICH ARE HIGHLY ERODIBLE, AND
PREPARES THE LOT FOR TEMPORARY COVER, WHICH WILL FURTHER REDUCE EROSION POTENTIAL.

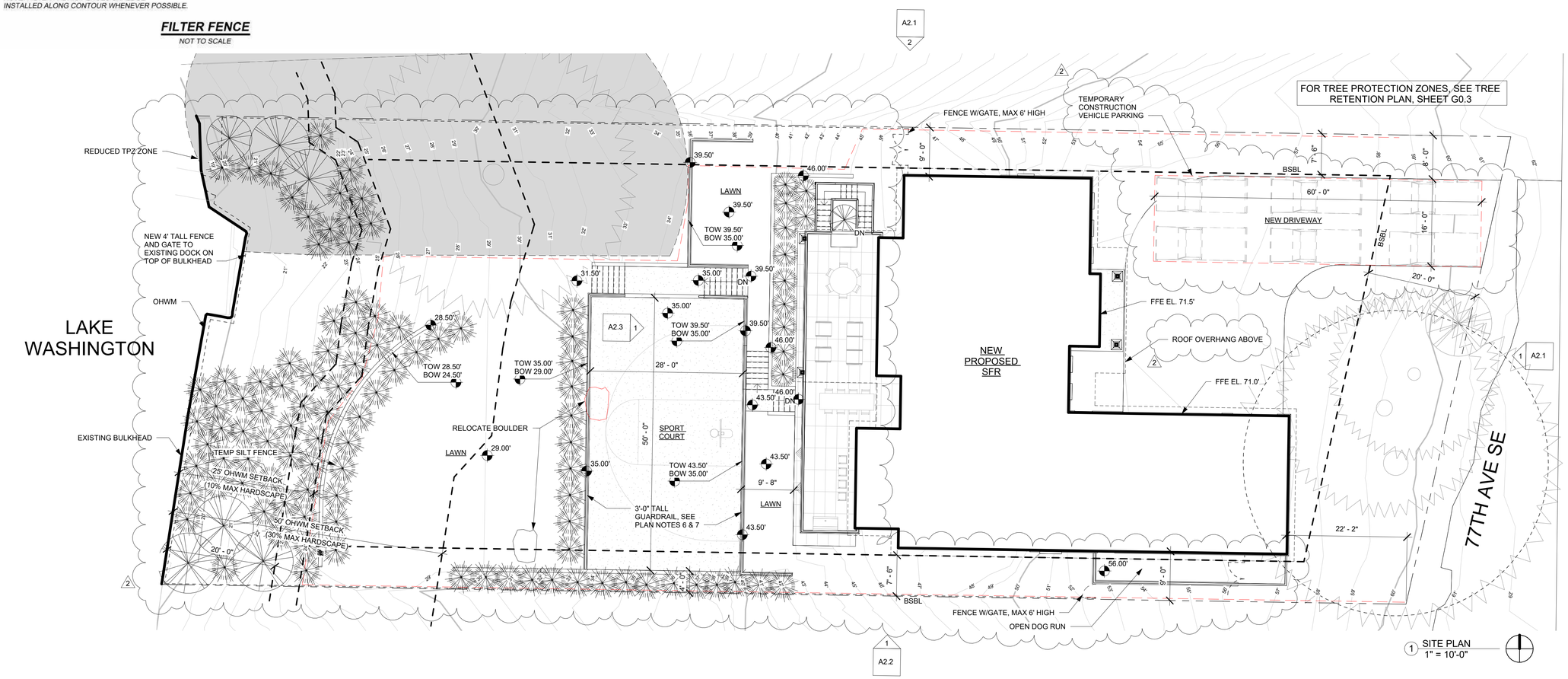
4. REMOVE EXCESS SOIL FROM THE SITE AS SOON AS POSSIBLE AFTER BACKFILLING. THIS WILL ELIMINATE ANY SEDIMENT LOSS FROM SURPLUS FILL. IF A LOT HAS A SOIL BANK HIGHER THAN THE CURB, A TRENCH OR BERM SHOULD BE INSTALLED MOVING THE BANK SEVERAL FEET BEHIND THE CURB. THIS WILL REDUCE THE OCCURRENCE OF GULLY AND RILL EROSION WHILE PROVIDING A STORAGE AND SETTLING AREA FOR STORMWATER.

5. THE CONSTRUCTION ENTRANCE SHOULD BE STABILIZED WHERE TRAFFIC WILL BE LEAVING THE CONSTRUCTION SITE AND TRAVELING ON PAVED ROADS OR OTHER PAVED AREAS WITHIN 1,000 FEET OF THE SITE.

6. PROVIDE FOR PERIODIC STREET CLEANING TO REMOVE ANY SEDIMENT THAT MAY HAVE BEEN TRACKED OUT. SEDIMENT SHOULD BE REMOVED BY SHOVELING OR
SWEEPING AND CAREFULLY REMOVED TO A SUITABLE DISPOSAL AREA WHERE IT WILL NOT BE RE-ERODED.

7. UTILITY TRENCHES THAT RUN UP AND DOWN SLOPES MUST BE BACKFILLED WITHIN SEVEN DAYS. CROSS-SLOPE TRENCHES MAY REMAIN OPEN THROUGHOUT
CONSTRUCTION TO PROVIDE RUNOFF INTERCEPTION AND SEDIMENT TRAPPING, PROVIDED THAT THEY DO NOT CONVEY TURBID RUNOFF OFF SITE.

SITE AREA:	21,100 SF
NET LOT AREA:	19,873 SF
MAX GROSS FLOOR AREA (40% NET LOT AREA):	**7,949 SF**
MAX LOT COVERAGE PERCENTAGE (16.5% SITE SLOPE):	**35% (6,955 SF)**
MAX HARDSCAPE PERCENTAGE(16.5% SITE SLOPE):	**9% (1,788 SF)**



1 SITE PLAN
1" = 10'-0"

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DRAWN BY: MM
CHECKED BY: TL
DATE: 12/17/18
SCALE: 1" = 10'-0"

PROJECT
WELLMON SFR
6333 77TH AVE SE
MERCER ISLAND, WA 98040

22069WEL

REV	DATE	ISSUE/REVISION
	01/09/22	PRE-APP SUBMITTAL
1	05/12/23	PERMIT SUBMITTAL
2	10/02/23	PERMIT COMMENTS

SHEET TITLE
SITE PLAN

REVISION NO.
2
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
A0.0

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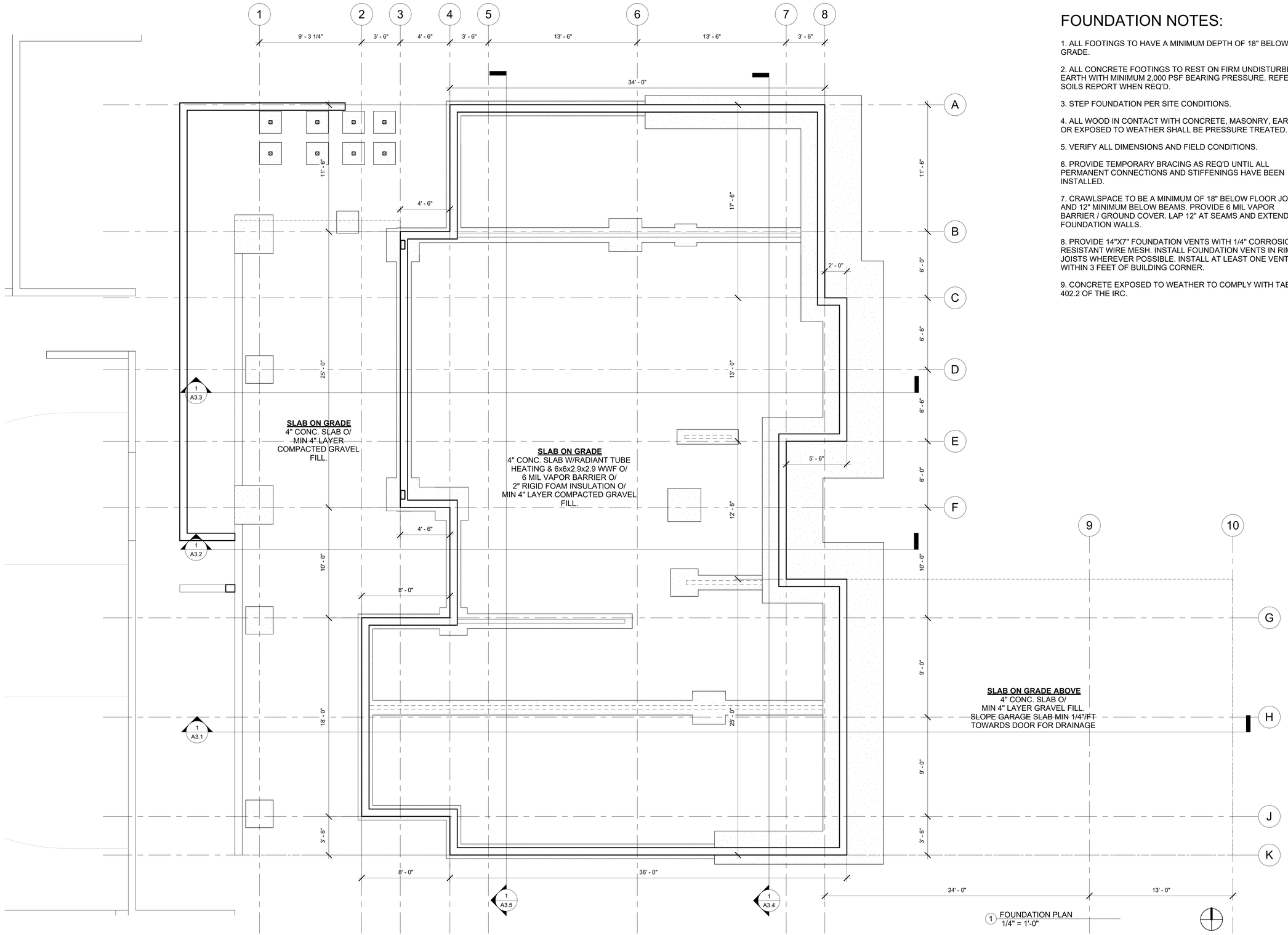

1 FOUNDATION PLAN
1/4" = 1'-0"

FOUNDATION NOTES:

1. ALL FOOTINGS TO HAVE A MINIMUM DEPTH OF 18" BELOW GRADE.

2. ALL CONCRETE FOOTINGS TO REST ON FIRM UNDISTURBED EARTH WITH MINIMUM 2,000 PSF BEARING PRESSURE. REFER TO SOILS REPORT WHEN REQ'D.

3. STEP FOUNDATION PER SITE CONDITIONS.

4. ALL WOOD IN CONTACT WITH CONCRETE, MASONRY, EARTH, OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED.

5. VERIFY ALL DIMENSIONS AND FIELD CONDITIONS.

6. PROVIDE TEMPORARY BRACING AS REQ'D UNTIL ALL PERMANENT CONNECTIONS AND STIFFENINGS HAVE BEEN INSTALLED.

7. CRAWLSPACE TO BE A MINIMUM OF 18" BELOW FLOOR JOISTS AND 12" MINIMUM BELOW BEAMS. PROVIDE 6 MIL VAPOR BARRIER / GROUND COVER. LAP 12" AT SEAMS AND EXTEND TO FOUNDATION WALLS.

8. PROVIDE 14"X7" FOUNDATION VENTS WITH 1/4" CORROSION RESISTANT WIRE MESH. INSTALL FOUNDATION VENTS IN RIM JOISTS WHEREVER POSSIBLE. INSTALL AT LEAST ONE VENT WITHIN 3 FEET OF BUILDING CORNER.

9. CONCRETE EXPOSED TO WEATHER TO COMPLY WITH TABLE 402.2 OF THE IRC.

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REV	DATE	ISSUE/REVISION
	01/09/22	PRE-APP SUBMITTAL
1	05/12/23	PERMIT SUBMITTAL

SHEET TITLE
FOUNDATION PLAN

REVISION NO. 1
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
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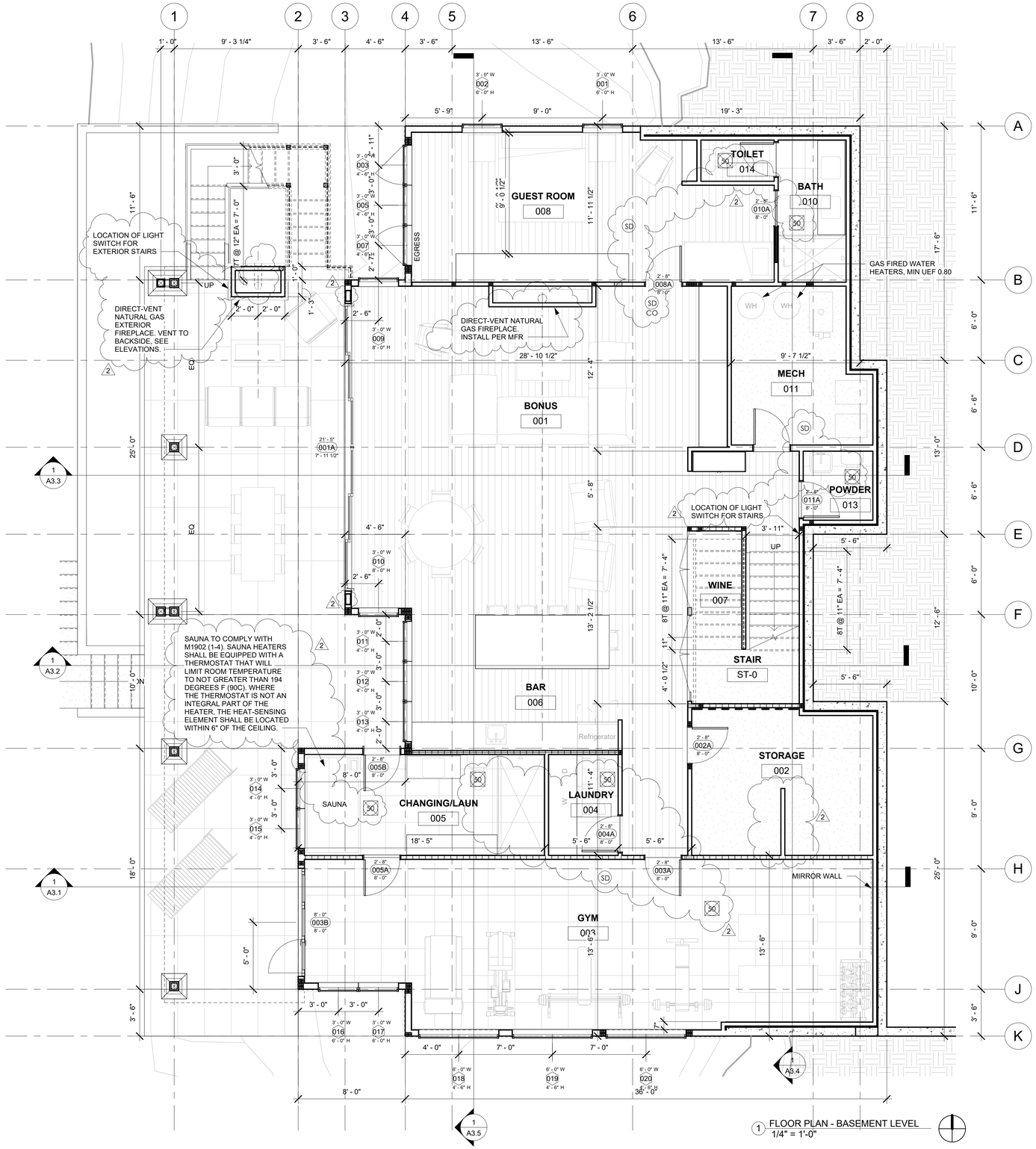

1 FLOOR PLAN - BASEMENT LEVEL
1/4" = 1'-0"

PLAN NOTES:

1. THIS PROJECT SHALL BE DESIGNED, ENGINEERED, AND CONSTRUCTED IN FULL COMPLIANCE WITH ALL CODES AND REGULATIONS.

2. ALL EXTERIOR WALLS TO BE FRAMED WITH 2X6 H.F. (STUD GRADE OR BETTER) UNO. PROVIDE R-21 BATT INSULATION MIN., UNO.

3. ALL INTERIOR WALLS TO BE 2X4 UNO.

4. ALL HANDRAILS SHALL BE LOCATED AT 36" ABOVE STAIR NOSING WITH A GRASP DIMENSION BETWEEN 1 1/4" AND 2".

5. ALL HANDRAILS SHALL BE CONTINUOUS OR TERMINATE IN A NEWEL POST.

6. ALL GUARDRAILS SHALL BE 36" ABOVE FINISHED FLOOR AND DESIGNED SUCH THAT THE MAXIMUM OPENING WILL NOT ALLOW PASSAGE OF A 4" SPHERE.

7. ALL GUARDRAILS SHALL BE DESIGNED TO RESIST A 200LB CONCENTRATED LOAD AT THE TOP RAIL AND 50 PSF ON ALL GUARDRAIL INFILL COMPONENTS.

8. PROVIDE FIRE BLOCKING AT ALL PLUMBING PENETRATIONS AND WALL/ROOF INTERSECTIONS.

9. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NO LESS THAN 1/2" GWB APPLIED TO THE GARAGE SIDE. LIVING AREAS ABOVE THE GARAGE SHALL BE SEPARATED FROM THE GARAGE WITH NO LESS THAN 5/8" TYPE X GWB. ALL SUPPORTING STRUCTURE SHALL BE PROTECTED BY NO LESS THAN 1/2" GWB.

10. FINISH ALL CEILINGS WITH 5/8" TYPE X GWB.

11. ACCESSIBLE SPACES UNDER STAIRS TO BE FINISHED WITH (2) LAYERS 5/8" TYPE X GWB.

12. PROVIDE 26 GA. GALVANIZED SHEET METAL FLASHING ABOVE WINDOWS AND DOORS, LAP BUILDING PAPER OVER.

13. WINDOWS TO BE SPECIFIED BY OWNER/CONTRACTOR. CONTRACTOR TO VERIFY ALL ROUGH OPENINGS PRIOR TO CONSTRUCTION.

14. ALL EXHAUST AIR SHALL VENT DIRECTLY TO THE EXTERIOR OF THE BUILDING PER M1501.1 AND M1506.2.

15. ALL NEW STAIRS SHALL MEET THE FOLLOWING REQUIREMENTS:
- A) MINIMUM 36" WIDTH
- B) MAXIMUM 7 3/4" RISER, MINIMUM 10" TREAD
- C) MINIMUM 6'-8" HEADROOM
- D) MINIMUM LANDING LENGTH 36"

16. WINDOW AND DOOR HEADERS SHALL BE INSULATED WITH A MINIMUM R-10 INSULATION.

17. HVAC DUCTS MUST NOT DISPLACE REQUIRED INSULATION AT ANY GIVEN LOCATION. PROVIDE REQUIRED FLOOR OR CEILING INSULATION ON UNHEATED SIDE OF DUCTS INSTALLED IN JOIST OR RAFTER CAVITIES WHERE UNHEATED SPACES ARE ABOVE OR BELOW.

18. ALL CONCEALED VOIDS TO BE FIRE AND DRAFT STOPPED PER 2018 IRC SECTION R602.8. FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE PER R302.11. 2

19. ALL TUBS AND SHOWER STALLS:
- A) FIRE BLOCK BETWEEN STUDS
- B) LIMIT SHOWER FLOW TO 2.5 GPM
- C) WALLS SHALL BE WATERPROOFED TO A MIN. OF 70" ABOVE DRAIN INLET
- D) ALL GLAZING, INCLUDING WINDOWS, WITHIN 70" OF DRAIN INLET SHALL BE SAFETY GLAZING

20. PROVIDE ELECTRIC ILLUMINATION AT OUTSIDE DOORS SWITCHED FROM INSIDE.

21. PROVIDE ELECTRIC ILLUMINATION AT STAIRWAY, INCLUDING LANDING, SWITCHED AT EACH FLOOR LEVEL.

22. DOORS FROM GARAGE TO LIVING SPACES TO BE 1 3/8" MIN. THICK SOLID CORE DOOR WITH SELF CLOSER AND WEATHER STRIPPING, U-VALUE = 0.20 MAX.

23. (30) DENOTES 50 CFM EXHAUST FAN VENTED TO OUTSIDE.

24. (100) DENOTES 100 CFM MIN EXHAUST FAN VENTED TO OUTSIDE. IF EXHAUST HOOD EXCEEDS 400 CFM MAKE UP AIR SHALL BE PROVIDED.

25. (SD) DENOTES 110 VOLT SMOKE DETECTOR WITH BATTERY BACK UP AND INTERCONNECTED. ADDITION OF "CM" DESIGNATION INCLUDES INTEGRATED CARBON MONOXIDE DETECTOR.

26. A DRAIN WATER HEAT RECOVERY UNIT SHALL BE INSTALLED, WHICH CAPTURES WASTE WATER HEAT FROM ALL THE SHOWERS, AND HAS A MINIMUM EFFICIENCY OF 40% IF INSTALLED FOR EQUAL FLOR OR A MINIMUM EFFICIENCY OF 52% IF INSTALLED FOR UNEQUAL FLOW. SUCH UNITS SHALL BE RATED IN ACCORDANCE CSA B55.1 AND BE SO LABELED.

27. ALL GLAZING IN WET CONDITIONS TO BE TEMPERED SAFETY GLAZING. 2

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

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22069WEL

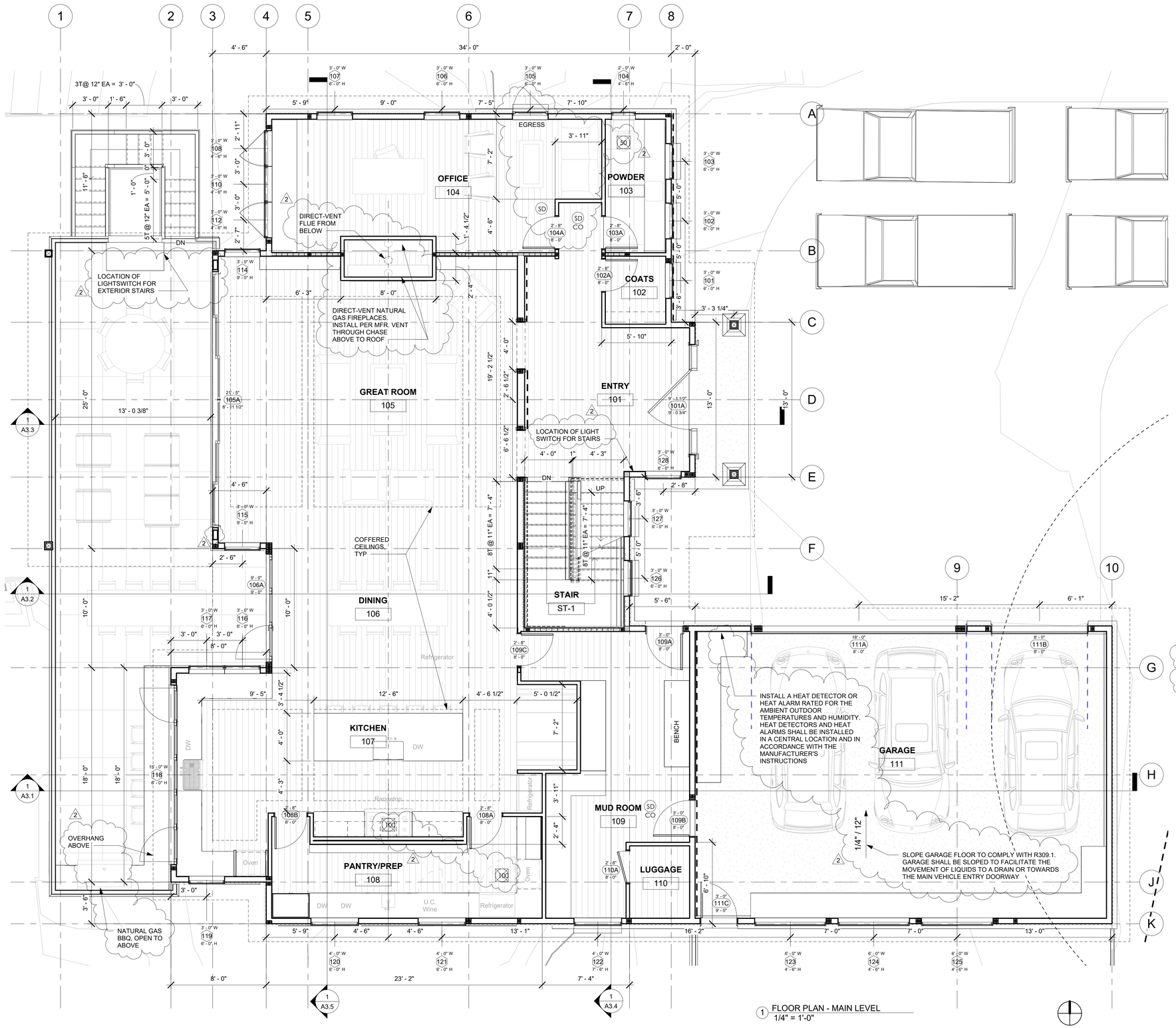
REV	DATE	ISSUE/REVISION
	01/09/22	PRE-APP SUBMITTAL
1	05/12/23	PERMIT SUBMITTAL
2	10/02/23	PERMIT COMMENTS

SHEET TITLE
FLOOR PLAN - BASEMENT LEVEL

REVISION NO. 2
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO. A1.1

10/2/2023 11:38:26 AM



1 FLOOR PLAN - MAIN LEVEL
1/4" = 1'-0"

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1. THIS PROJECT SHALL BE DESIGNED, ENGINEERED, AND CONSTRUCTED IN FULL COMPLIANCE WITH ALL CODES AND REGULATIONS.

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3. ALL INTERIOR WALLS TO BE 2X4 UNO.

4. ALL HANDRAILS SHALL BE LOCATED AT 36" ABOVE STAIR NOSING WITH A GRASP DIMENSION BETWEEN 1 1/4" AND 2".

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14. ALL EXHAUST AIR SHALL VENT DIRECTLY TO THE EXTERIOR OF THE BUILDING PER M1501.1 AND M1506.2.

15. ALL NEW STAIRS SHALL MEET THE FOLLOWING REQUIREMENTS:
- A) MINIMUM 36" WIDTH
- B) MAXIMUM 7 3/4" RISER, MINIMUM 10" TREAD
- C) MINIMUM 6'-8" HEADROOM
- D) MINIMUM LANDING LENGTH 36"

16. WINDOW AND DOOR HEADERS SHALL BE INSULATED WITH A MINIMUM R-10 INSULATION.

17. HVAC DUCTS MUST NOT DISPLACE REQUIRED INSULATION AT ANY GIVEN LOCATION. PROVIDE REQUIRED FLOOR OR CEILING INSULATION ON UNHEATED SIDE OF DUCTS INSTALLED IN JOIST OR RAFTER CAVITIES WHERE UNHEATED SPACES ARE ABOVE OR BELOW.

18. ALL CONCEALED VOIDS TO BE FIRE AND DRAFT STOPPED PER 2018 IRC SECTION R602.8. FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE PER R302.11. 2

19. ALL TUBS AND SHOWER STALLS:
- A) FIRE BLOCK BETWEEN STUDS
- B) LIMIT SHOWER FLOW TO 2.5 GPM
- C) WALLS SHALL BE WATERPROOFED TO A MIN. OF 70" ABOVE DRAIN INLET
- D) ALL GLAZING, INCLUDING WINDOWS, WITHIN 70" OF DRAIN INLET SHALL BE SAFETY GLAZING

20. PROVIDE ELECTRIC ILLUMINATION AT OUTSIDE DOORS SWITCHED FROM INSIDE.

21. PROVIDE ELECTRIC ILLUMINATION AT STAIRWAY, INCLUDING LANDING, SWITCHED AT EACH FLOOR LEVEL.

22. DOORS FROM GARAGE TO LIVING SPACES TO BE 1 3/8" MIN. THICK SOLID CORE DOOR WITH SELF CLOSER AND WEATHER STRIPPING, U-VALUE = 0.20 MAX.

23. (30) DENOTES 50 CFM EXHAUST FAN VENTED TO OUTSIDE.

24. (100) DENOTES 100 CFM MIN EXHAUST FAN VENTED TO OUTSIDE. IF EXHAUST HOOD EXCEEDS 400 CFM MAKE UP AIR SHALL BE PROVIDED.

25. (SD) DENOTES 110 VOLT SMOKE DETECTOR WITH BATTERY BACK UP AND INTERCONNECTED. ADDITION OF "CM" DESIGNATION INCLUDES INTEGRATED CARBON MONOXIDE DETECTOR.

26. A DRAIN WATER HEAT RECOVERY UNIT SHALL BE INSTALLED, WHICH CAPTURES WASTE WATER HEAT FROM ALL THE SHOWERS, AND HAS A MINIMUM EFFICIENCY OF 40% IF INSTALLED FOR EQUAL FLOR OR A MINIMUM EFFICIENCY OF 52% IF INSTALLED FOR UNEQUAL FLOW. SUCH UNITS SHALL BE RATED IN ACCORDANCE CSA B55.1 AND BE SO LABELED.

27. ALL GLAZING IN WET CONDITIONS TO BE TEMPERED SAFETY GLAZING. 2

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22069WEL

REV	DATE	ISSUE/REVISION
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1	05/12/23	PERMIT SUBMITTAL
2	10/02/23	PERMIT COMMENTS

SHEET TITLE
FLOOR PLAN - MAIN LEVEL

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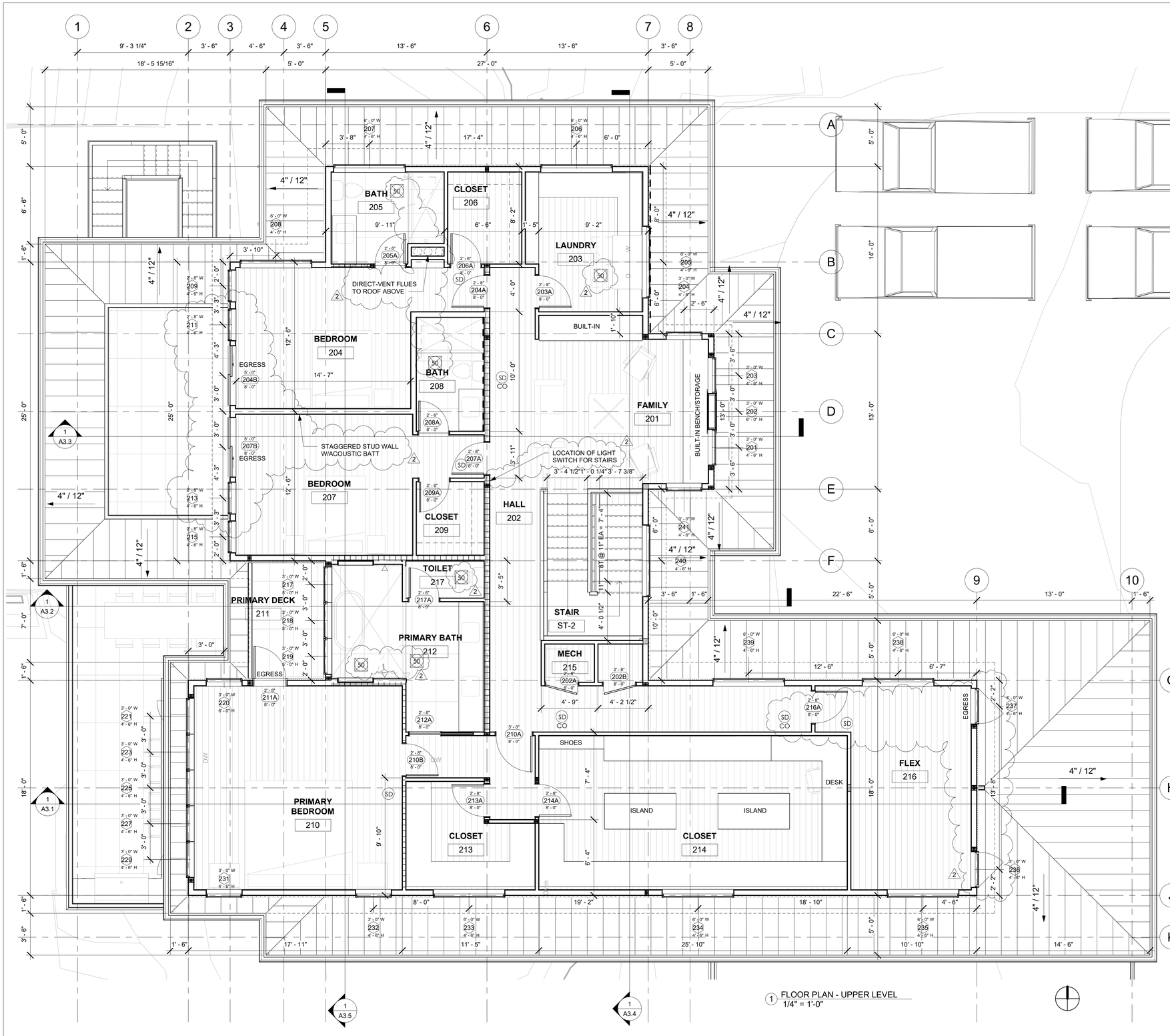

1 FLOOR PLAN - UPPER LEVEL
1/4" = 1'-0"

PLAN NOTES:

1. THIS PROJECT SHALL BE DESIGNED, ENGINEERED, AND CONSTRUCTED IN FULL COMPLIANCE WITH ALL CODES AND REGULATIONS.

2. ALL EXTERIOR WALLS TO BE FRAMED WITH 2X6 H.F. (STUD GRADE OR BETTER) UNO. PROVIDE R-21 BATT INSULATION MIN., UNO.

3. ALL INTERIOR WALLS TO BE 2X4 UNO.

4. ALL HANDRAILS SHALL BE LOCATED AT 36" ABOVE STAIR NOSING WITH A GRASP DIMENSION BETWEEN 1 1/4" AND 2".

5. ALL HANDRAILS SHALL BE CONTINUOUS OR TERMINATE IN A NEWEL POST.

6. ALL GUARDRAILS SHALL BE 36" ABOVE FINISHED FLOOR AND DESIGNED SUCH THAT THE MAXIMUM OPENING WILL NOT ALLOW PASSAGE OF A 4" SPHERE.

7. ALL GUARDRAILS SHALL BE DESIGNED TO RESIST A 200LB CONCENTRATED LOAD AT THE TOP RAIL AND 50 PSF ON ALL GUARDRAIL INFILL COMPONENTS.

8. PROVIDE FIRE BLOCKING AT ALL PLUMBING PENETRATIONS AND WALL/ROOF INTERSECTIONS.

9. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NO LESS THAN 1/2" GWB APPLIED TO THE GARAGE SIDE. LIVING AREAS ABOVE THE GARAGE SHALL BE SEPARATED FROM THE GARAGE WITH NO LESS THAN 5/8" TYPE X GWB. ALL SUPPORTING STRUCTURE SHALL BE PROTECTED BY NO LESS THAN 1/2" GWB.

10. FINISH ALL CEILINGS WITH 5/8" TYPE X GWB.

11. ACCESSIBLE SPACES UNDER STAIRS TO BE FINISHED WITH (2) LAYERS 5/8" TYPE X GWB.

12. PROVIDE 26 GA. GALVANIZED SHEET METAL FLASHING ABOVE WINDOWS AND DOORS, LAP BUILDING PAPER OVER.

13. WINDOWS TO BE SPECIFIED BY OWNER/CONTRACTOR. CONTRACTOR TO VERIFY ALL ROUGH OPENINGS PRIOR TO CONSTRUCTION.

14. ALL EXHAUST AIR SHALL VENT DIRECTLY TO THE EXTERIOR OF THE BUILDING PER M1501.1 AND M1506.2.

15. ALL NEW STAIRS SHALL MEET THE FOLLOWING REQUIREMENTS:
- A) MINIMUM 36" WIDTH
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- C) MINIMUM 6'-8" HEADROOM
- D) MINIMUM LANDING LENGTH 36"

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SHEET TITLE
FLOOR PLAN - UPPER LEVEL

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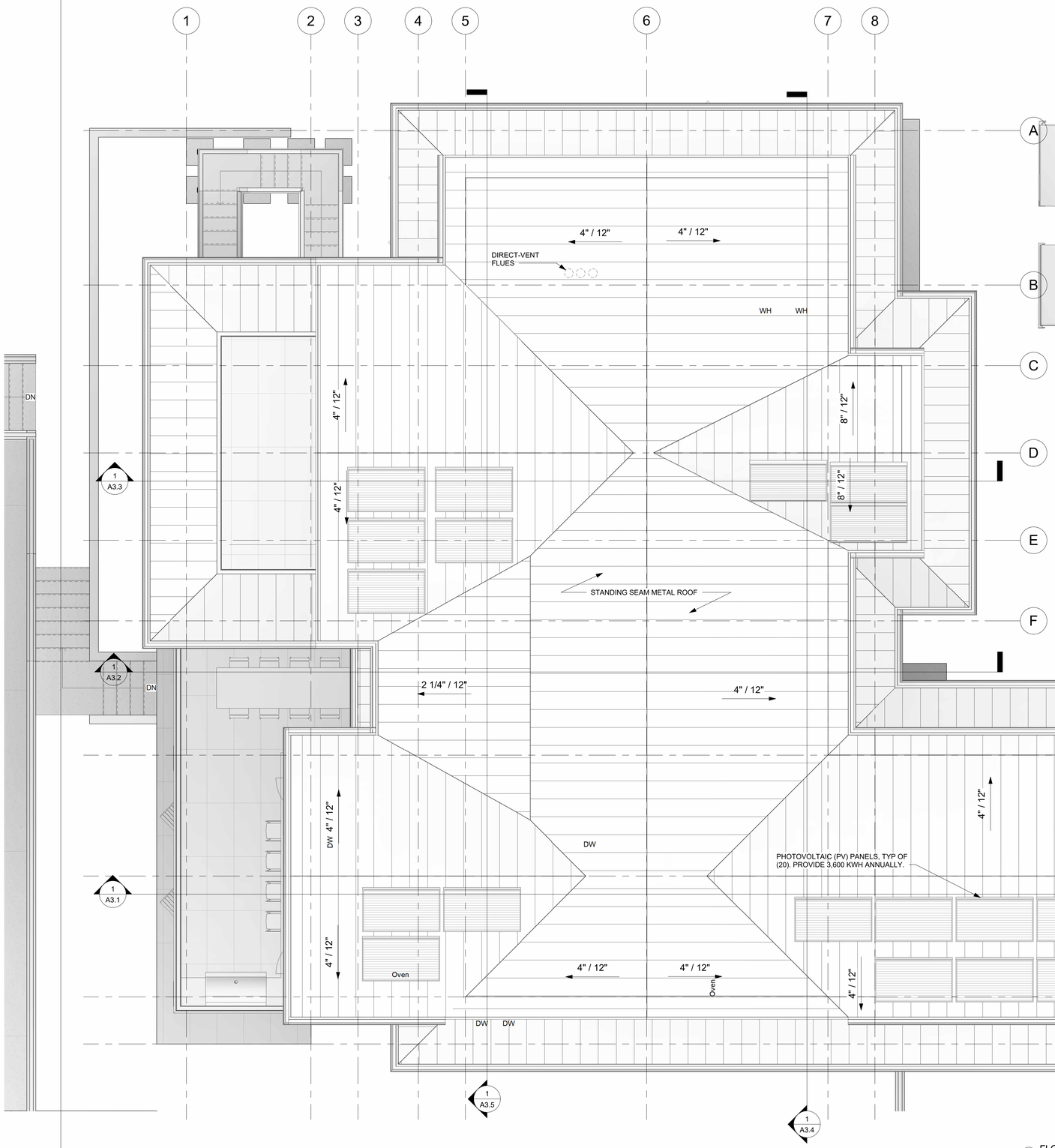


1 FLOOR PLAN - ROOF LEVEL
1/4" = 1'-0"

ROOF NOTES:

1. CHIMNEY SHALL EXTEND A MIN OF 2'-0" ABOVE ROOF OR PARAPET WITHIN 10'-0" RADIUS OF CHIMNEY. PROVIDE APPROVED SPARK ARRESTOR AT ALL CHIMNEY CAPS. ALL ARCHITECTURAL FEATURES MUST BE PERMITTED BY FLU AND SPARK ARRESTOR MFR APPROVAL.

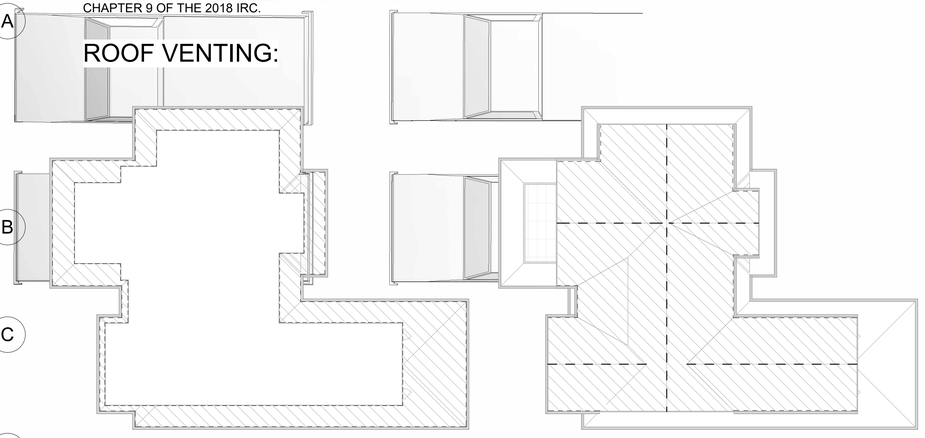
2. ALL VENTS SHALL BE LOCATED AWAY FROM VISIBILITY AT PUBLIC RIGHT OF WAY.

3. ALL ROOF COVERINGS SHALL COMPLY WITH THE PROVISIONS IN CHAPTER 9 OF THE 2018 IRC.

4. PROVIDE VENTED BLOCKING AT EAVES OF UPPER ROOF.

5. APPLY PVA PAINT WITH A PERM RATING OF NOT MORE THAN (1) AT ALL CEILINGS WITH INSULATION ABOVE.

ROOF VENTING:



2 ROOF VENTING DIAGRAM - LOWER
1/16" = 1'-0"

3 ROOF VENTING DIAGRAM - UPPER
1/16" = 1'-0"

ROOF VENT CALCULATIONS

2015 IRC R806.2 MINIMUM VENT AREA

ROOF ZONE	AREA (SF, INCLUDES ENCLOSED SOFFITS	REQ. VENT AREA @ 1/150 (SI)	METHOD						TOTAL AREA PROVIDED (SI)
			SOFFIT (LF)	PROVIDED AREA (SI)	ROOF TO WALL (LF)	PROVIDED AREA (SI)	RIDGE VENT (LF)	PROVIDED AREA (SI)	
LOWER	1,582	**1,519**	347	3,470	290.5	1,888			**5,358**
UPPER	3,120	**2,995**	173.5	1,735			167.5	3,015	**4,750**

- VENTED SOFFITS TO BE COR-A-VENT S-400 1" CONT. STRIP VENT @ 10 SI PER LF OR EQ.
- VENTED ROOF TO WALL TO BE COR-A-VENT ROOF-2-WALL VENT @ 6.5 SI PER LF OR EQ.
- VENTED RIDGE TO BE AIR VENT INC. SHINGLE VENT II @ 18 SI PER LF OR EQ.

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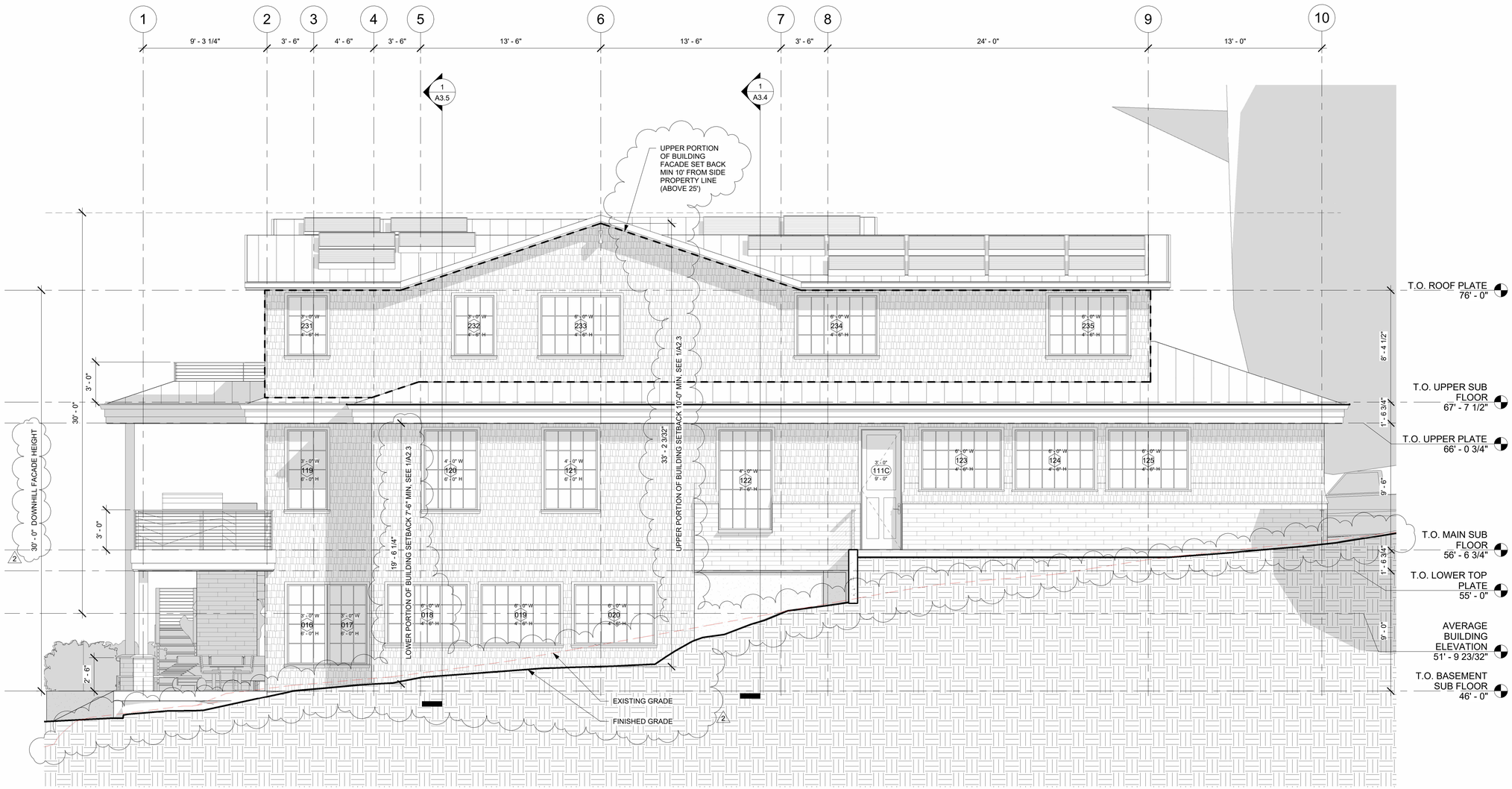

1 SOUTH ELEVATION
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1 WEST ELEVATION
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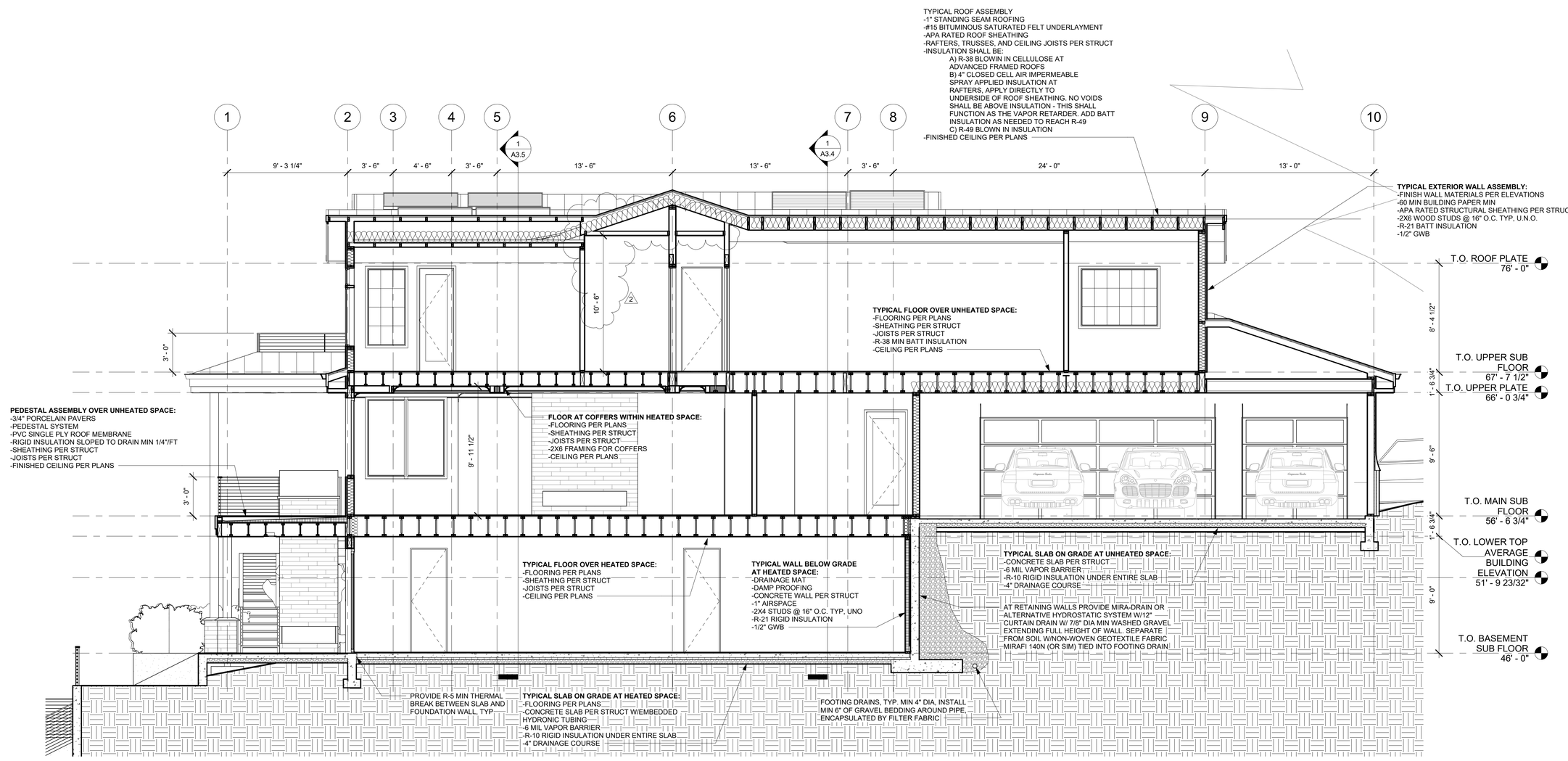

1 E/W SECTION 1
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BUILDING SECTIONS

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A3.1

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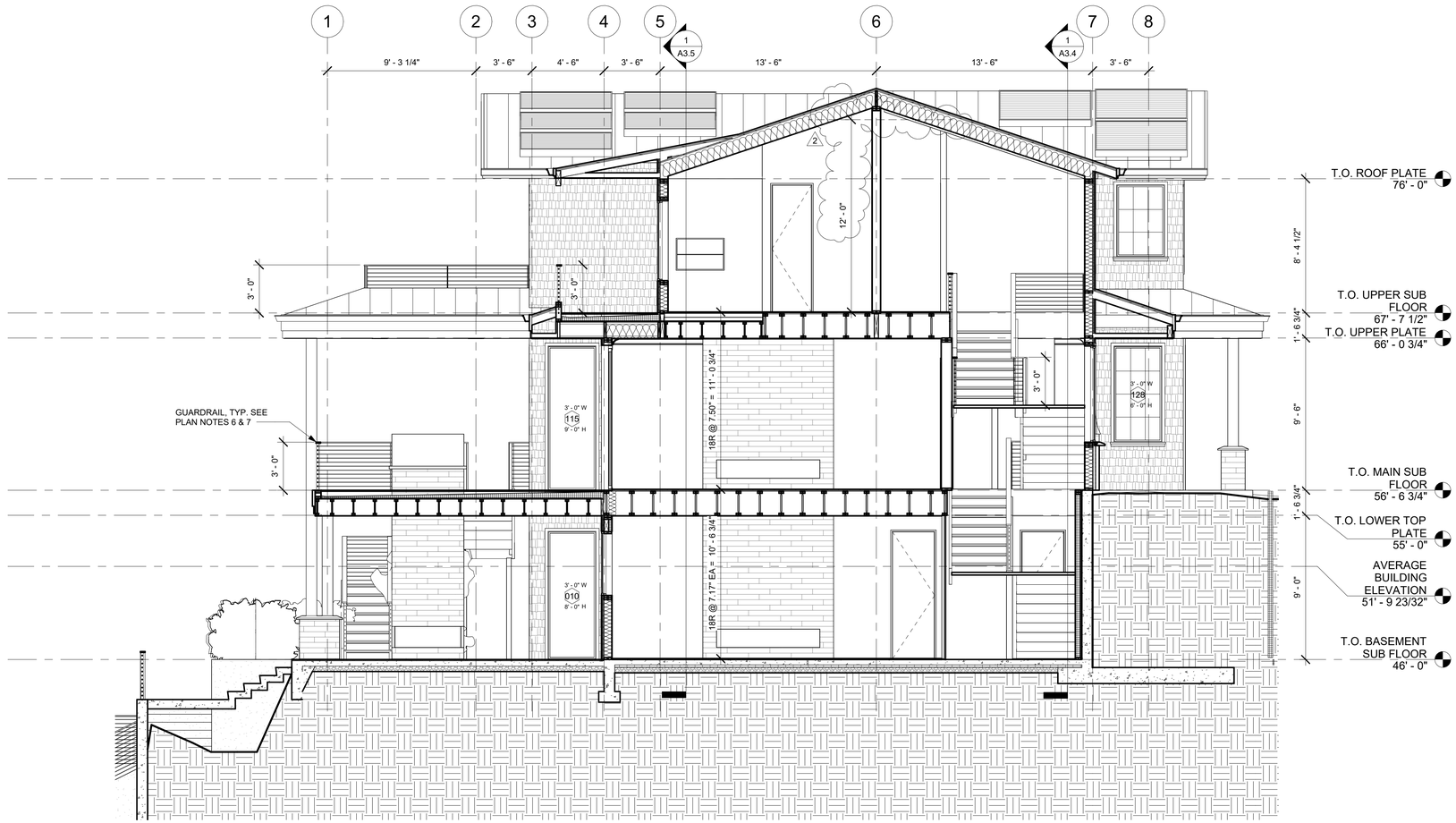

1 E/W SECTION 2
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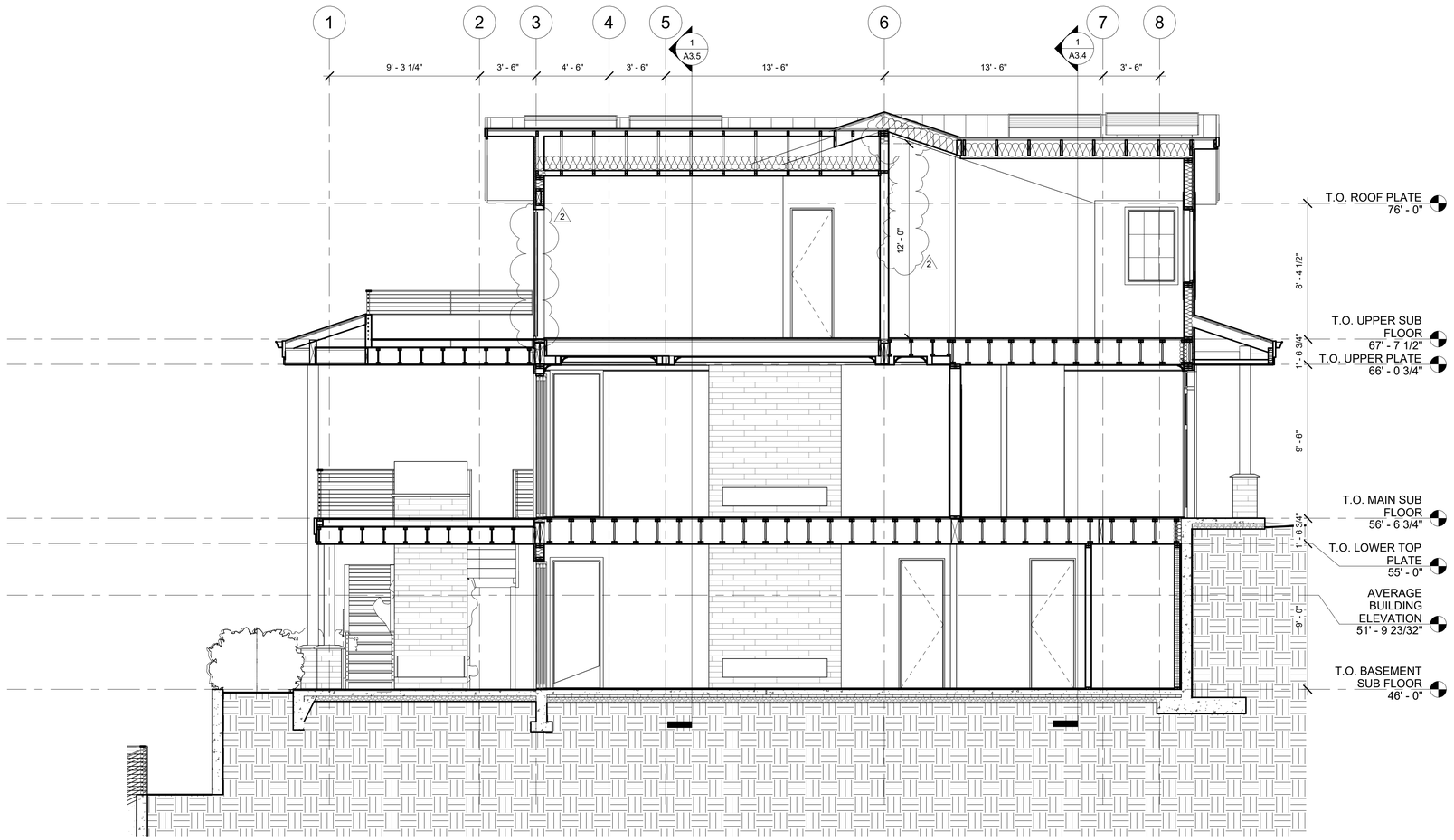

1 E/W SECTION 3
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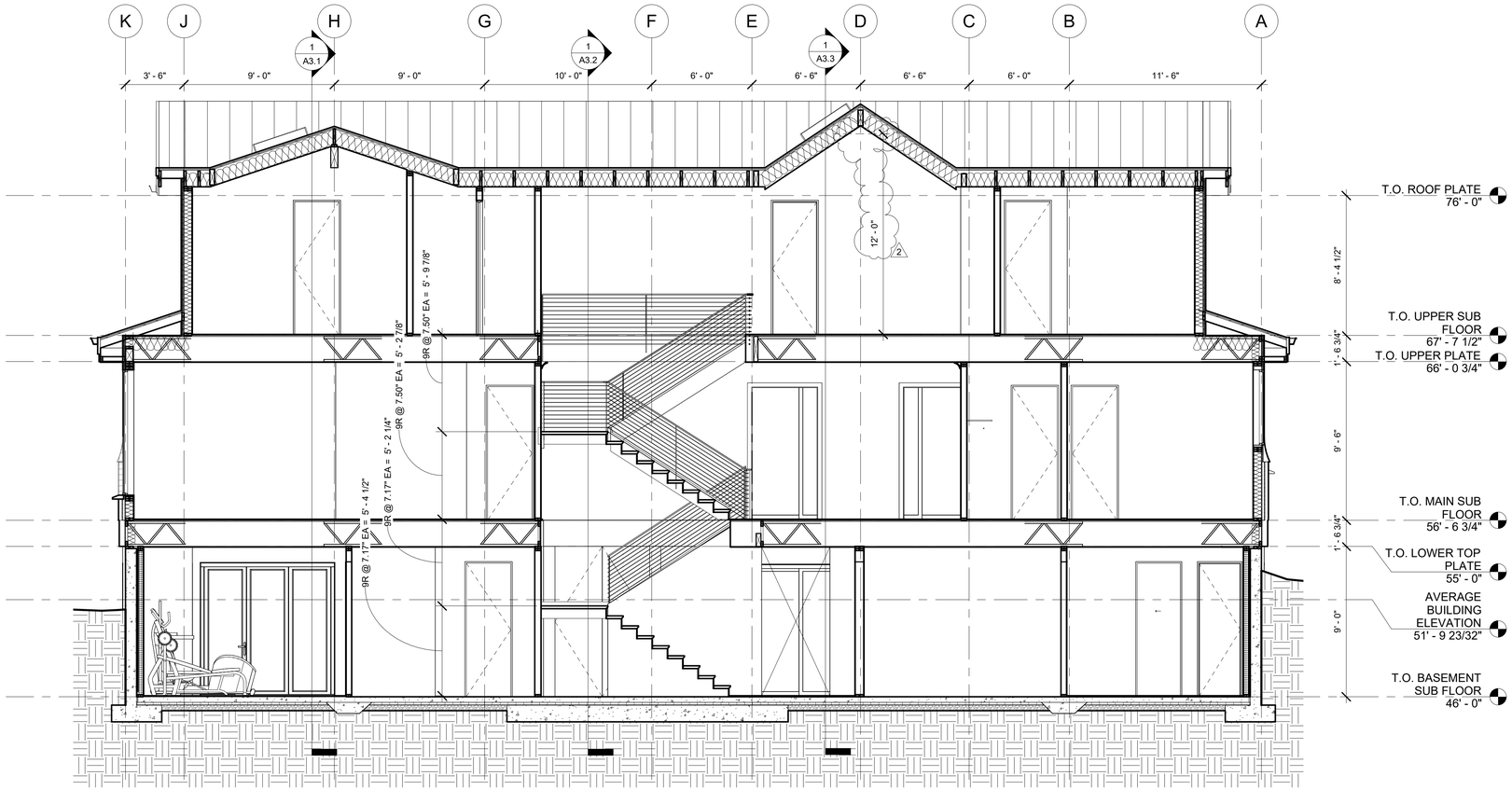

1 N/S SECTION 1
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PROJECT
WELLMON SFR
6333 77TH AVE SE
MERCER ISLAND, WA 98040
22069WEL

REV	DATE	ISSUE/REVISION
	01/09/22	PRE-APP SUBMITTAL
1	05/12/23	PERMIT SUBMITTAL
2	10/02/23	PERMIT COMMENTS

SHEET TITLE
BUILDING SECTIONS

REVISION NO.
2
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SHEET NO.
A3.5

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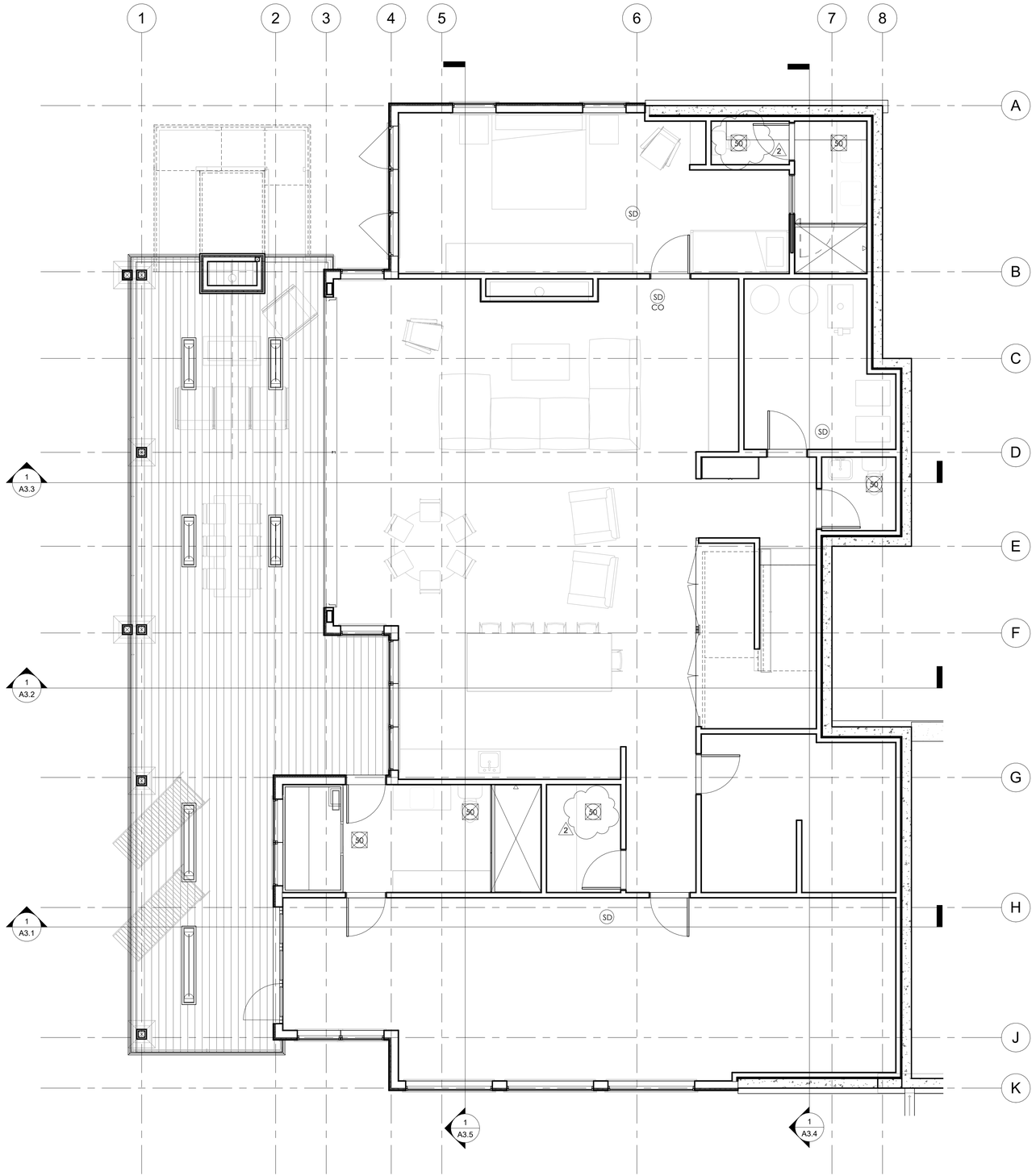

1 BASEMENT
1/4" = 1'-0"

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22069WEL

REV	DATE	ISSUE/REVISION
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1	05/12/23	PERMIT SUBMITTAL
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SHEET TITLE
REFLECTED CEILING PLAN - BASEMENT LEVEL

REVISION NO.
2
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A6.1

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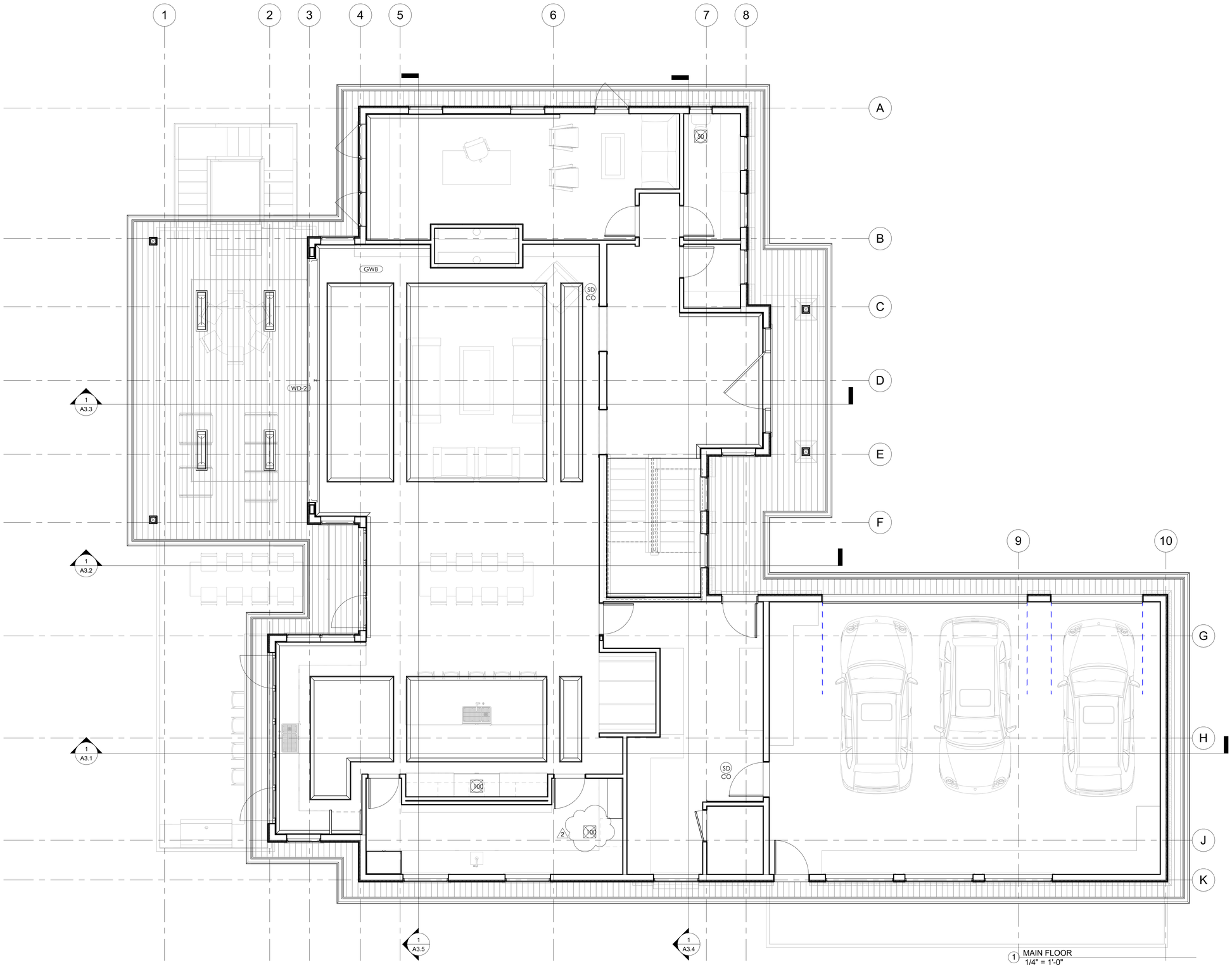

1 MAIN FLOOR
1/4" = 1'-0"

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PROJECT
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22069WEL

REV	DATE	ISSUE/REVISION
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1	05/12/23	PERMIT SUBMITTAL
2	10/02/23	PERMIT COMMENTS

SHEET TITLE
REFLECTED CEILING PLAN - MAIN LEVEL

REVISION NO.
2
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
A6.2

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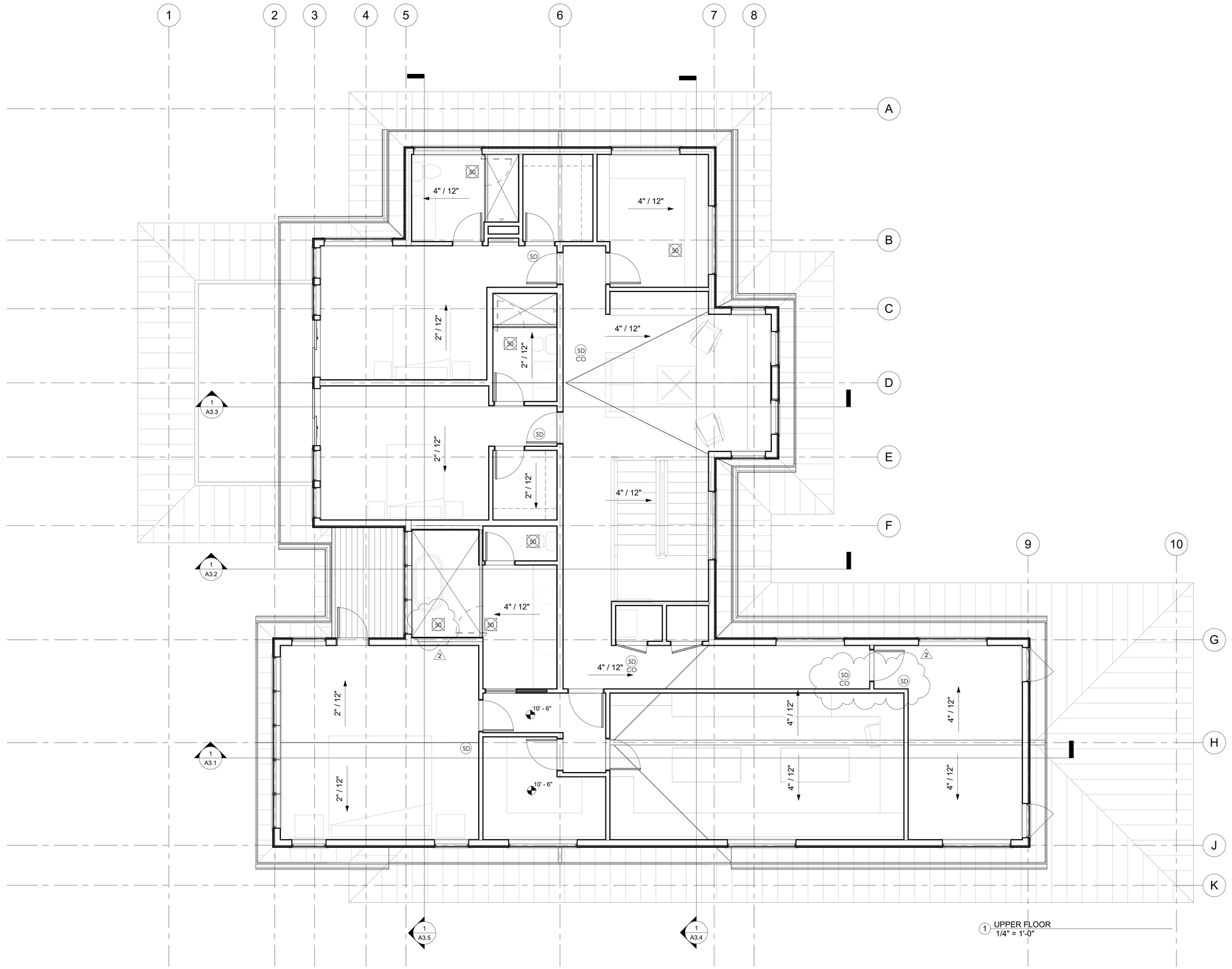

1 UPPER FLOOR
1/4" = 1'-0"

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REV	DATE	ISSUE/REVISION
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SHEET TITLE
REFLECTED CEILING PLAN - UPPER LEVEL

REVISION NO.
2
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SHEET NO.
A6.3

10/2/2023 11:39:31 AM

WINDOW SCHEDULE

Mark	Room	Description	Height	Width	Area	U-Value	UA	Safety Glazing Required	Egress Window	Obscured Glass	Roller Shade
001	008 - GUEST ROOM	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				Yes
002	008 - GUEST ROOM	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				Yes
003	008 - GUEST ROOM	Fixed Window	4' - 6"	3' - 0"	13.5 SF	0.26	3.5 SF		Yes		Yes
004	008 - GUEST ROOM	Fixed/Muntins	1' - 4"	3' - 0"	4.0 SF	0.26	1.0 SF		Yes		Yes
005	008 - GUEST ROOM	Fixed Window	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				Yes
006	008 - GUEST ROOM	Fixed/Muntins	1' - 4"	3' - 0"	4.0 SF	0.23	0.9 SF				Yes
007	008 - GUEST ROOM	Fixed Window	4' - 6"	3' - 0"	13.5 SF	0.26	3.5 SF		Yes		Yes
008	008 - GUEST ROOM	Fixed/Muntins	1' - 4"	3' - 0"	4.0 SF	0.26	1.0 SF				Yes
009	001 - BONUS	Fixed Window	8' - 0"	3' - 0"	24.0 SF	0.23	5.5 SF	Yes			
010	001 - BONUS	Fixed Window	8' - 0"	3' - 0"	24.0 SF	0.23	5.5 SF	Yes			
011	006 - BAR	Fixed Window	4' - 0"	3' - 0"	12.0 SF	0.23	2.8 SF				
012	006 - BAR	Fixed Window	4' - 0"	3' - 0"	12.0 SF	0.23	2.8 SF				
013	006 - BAR	Fixed Window	4' - 0"	3' - 0"	12.0 SF	0.23	2.8 SF				
014	210 - PRIMARY BEDROOM	Fixed Window	4' - 0"	3' - 0"	12.0 SF	0.26	3.1 SF				
015	210 - PRIMARY BEDROOM	Fixed Window	4' - 0"	3' - 0"	12.0 SF	0.23	2.8 SF				
016	003 - GYM	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				
017	003 - GYM	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				
018	003 - GYM	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
019	003 - GYM	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
020	003 - GYM	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
101	102 - COATS	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF			Yes	
102	103 - POWDER	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF			Yes	
103	103 - POWDER	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF			Yes	
104	103 - POWDER	Fixed/Muntins	4' - 6"	2' - 0"	9.0 SF	0.23	2.1 SF				
105	104 - OFFICE	Casement/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF		Yes		Yes
106	104 - OFFICE	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				Yes
107	008 - GUEST ROOM	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				Yes
108	104 - OFFICE	Fixed Window	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				Yes
109	104 - OFFICE	Fixed/Muntins	1' - 4"	3' - 0"	4.0 SF	0.23	0.9 SF				Yes
110	104 - OFFICE	Fixed Window	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				Yes
111	104 - OFFICE	Fixed/Muntins	1' - 4"	3' - 0"	4.0 SF	0.23	0.9 SF				Yes
112	104 - OFFICE	Fixed Window	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				Yes
113	104 - OFFICE	Fixed/Muntins	1' - 4"	3' - 0"	4.0 SF	0.23	0.9 SF				Yes
114	105 - GREAT ROOM	Fixed Window	9' - 0"	3' - 0"	27.0 SF	0.23	6.2 SF	Yes			Yes
115	105 - GREAT ROOM	Fixed Window	9' - 0"	3' - 0"	27.0 SF	0.23	6.2 SF	Yes			Yes
116	107 - KITCHEN	Fixed Window	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				Yes
117	107 - KITCHEN	Fixed Window	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				Yes
118	107 - KITCHEN	Folding Patio Windows	6' - 0"	15' - 0"	90.0 SF	0.3	27.0 SF				
119	107 - KITCHEN	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				Yes
120	108 - PANTRY/PREP	Fixed/Muntins	6' - 0"	4' - 0"	24.0 SF	0.23	5.5 SF				
121	108 - PANTRY/PREP	Fixed/Muntins	6' - 0"	4' - 0"	24.0 SF	0.23	5.5 SF				
122	109 - MUD ROOM	Fixed/Muntins	7' - 6"	4' - 0"	30.0 SF	0.23	6.9 SF				
123	111 - GARAGE	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
124	111 - GARAGE	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
125	111 - GARAGE	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				

WINDOW SCHEDULE

Mark	Room	Description	Height	Width	Area	U-Value	UA	Safety Glazing Required	Egress Window	Obscured Glass	Roller Shade
126	ST-1 - STAIR	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF	Yes			
127	ST-1 - STAIR	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF	Yes			
128	101 - ENTRY	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				
201	201 - FAMILY	Custom/Muntins	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				
202	201 - FAMILY	Custom/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				
203	201 - FAMILY	Custom/Muntins	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				
204	201 - FAMILY	Custom/Muntins	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				
205	203 - LAUNDRY	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
206	203 - LAUNDRY	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
207	205 - BATH	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
208	204 - BEDROOM	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				Yes
209	204 - BEDROOM	Fixed Window	4' - 6"	2' - 8"	12.0 SF	0.23	2.8 SF				
210	204 - BEDROOM	Fixed/Muntins	1' - 4"	2' - 8"	3.6 SF	0.23	0.8 SF				
211	204 - BEDROOM	Fixed Window	4' - 6"	2' - 8"	12.0 SF	0.23	2.8 SF				Yes
212	204 - BEDROOM	Fixed/Muntins	1' - 4"	2' - 8"	3.6 SF	0.23	0.8 SF				Yes
213	207 - BEDROOM	Fixed Window	4' - 6"	2' - 8"	12.0 SF	0.23	2.8 SF				Yes
214	207 - BEDROOM	Fixed/Muntins	1' - 4"	2' - 8"	3.6 SF	0.23	0.8 SF				Yes
215	207 - BEDROOM	Fixed Window	4' - 6"	2' - 8"	12.0 SF	0.23	2.8 SF				
216	207 - BEDROOM	Fixed/Muntins	1' - 4"	2' - 8"	3.6 SF	0.23	0.8 SF				
217	212 - PRIMARY BATH	Fixed Window	5' - 0"	3' - 0"	15.0 SF	0.26	3.9 SF	Yes			
218	212 - PRIMARY BATH	Fixed Window	5' - 0"	3' - 0"	15.0 SF	0.23	3.5 SF	Yes			
219	212 - PRIMARY BATH	Fixed Window	5' - 0"	3' - 0"	15.0 SF	0.23	3.5 SF	Yes			
220	210 - PRIMARY BEDROOM	Fixed/Muntins	6' - 0"	3' - 0"	18.0 SF	0.23	4.1 SF				
221	210 - PRIMARY BEDROOM	Fixed Window	4' - 6"	3' - 0"	13.5 SF	0.26	3.5 SF				
222	210 - PRIMARY BEDROOM	Fixed/Muntins	1' - 4"	3' - 0"	4.0 SF	0.26	1.0 SF				
223	210 - PRIMARY BEDROOM	Fixed Window	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				
224	210 - PRIMARY BEDROOM	Fixed/Muntins	1' - 4"	3' - 0"	4.0 SF	0.23	0.9 SF				
225	210 - PRIMARY BEDROOM	Fixed Window	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				
226	210 - PRIMARY BEDROOM	Fixed/Muntins	1' - 4"	3' - 0"	4.0 SF	0.23	0.9 SF				
227	210 - PRIMARY BEDROOM	Fixed Window	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				
228	210 - PRIMARY BEDROOM	Fixed/Muntins	1' - 4"	3' - 0"	4.0 SF	0.23	0.9 SF				
229	210 - PRIMARY BEDROOM	Fixed Window	4' - 6"	3' - 0"	13.5 SF	0.26	3.5 SF				
230	210 - PRIMARY BEDROOM	Fixed/Muntins	1' - 4"	3' - 0"	4.0 SF	0.26	1.0 SF				
231	210 - PRIMARY BEDROOM	Custom/Muntins	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				
232	210 - PRIMARY BEDROOM	Custom/Muntins	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				Yes
233	213 - CLOSET	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
234	214 - CLOSET	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
235	214 - CLOSET	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
236	216 - FLEX	Casement/Muntins	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				
237	216 - FLEX	Casement/Muntins	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF		Yes		
238	216 - FLEX	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF	Yes			
239	202 - HALL	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
240	ST-2 - STAIR	Fixed/Muntins	4' - 6"	6' - 0"	27.0 SF	0.23	6.2 SF				
241	201 - FAMILY	Custom/Muntins	4' - 6"	3' - 0"	13.5 SF	0.23	3.1 SF				
					1502.7 SF		354.8 SF				

	AREA	UA	AVERAGE U-FACTOR
TOTAL FROM WINDOW SCHEDULE:	1,502.7 SF	354.8 SF	0.24
TOTAL FROM GLAZED DOOR SCHEDULE:	608.6 SF	245.0 SF	0.40
TOTAL VERTICAL GLAZING WEIGHTED AVERAGE U-FACTOR:	2,111.3 SF	599.8 SF	**0.28**

GLAZED DOOR SCHEDULE

Mark	Room Number	Room Name	Description	Door Material	Width	Height	Area	U - Value	UA	Comments
001A	001	BONUS	Glazed Slider 6 Panel OXXXXO	Glass/Alum Clad Wood	21' - 5"	7' - 11 1/2"	170.4 SF	0.41	69.9 SF	
003B	003	GYM	Glazed Folding Patio Doors	Glass/Alum Clad Wood	8' - 0"	8' - 0"	64.0 SF	0.41	26.2 SF	
105A	105	GREAT ROOM	Glazed Slider 6 Panel OXXXXO	Glass/Alum Clad Wood	21' - 5"	8' - 11 1/2"	191.9 SF	0.41	78.7 SF	
106A	106	DINING	Glazed Folding Patio Doors	Glass/Alum Clad Wood	9' - 0"	9' - 0"	81.0 SF	0.41	33.2 SF	
204B	204	BEDROOM	Glazed Slider 2 Panel XO	Glass/Alum Clad Wood	5' - 0"	8' - 0"	40.0 SF	0.38	15.2 SF	
207B	207	BEDROOM	Glazed Slider 2 Panel XO	Glass/Alum Clad Wood	5' - 0"	8' - 0"	40.0 SF	0.38	15.2 SF	
211A	210	PRIMARY BEDROOM		Glass/Alum Clad Wood	2' - 8"	8' - 0"	21.3 SF	0.31	6.6 SF	
							608.6 SF		245.0 SF	

DOOR SCHEDULE

Mark	Function	Description	Width	Height	Thickness	Door Material	Comments
	Exterior		5' - 8"	9' - 0"			
	Exterior		5' - 8"	9' - 0"			
002A	Interior		2' - 8"	8' - 0"	1 3/8"		
003A	Interior		2' - 8"	8' - 0"	1 3/8"		
004A	Interior		2' - 8"	8' - 0"	1 3/8"		
005A	Interior		2' - 8"	8' - 0"	1 3/8"		
005B	Interior		2' - 8"	8' - 0"	1 3/8"		
008A	Interior		2' - 8"	8' - 0"	1 3/8"		
010A	Interior		2' - 8"	8' - 0"	1 3/8"		
010B	Interior		2' - 6"	8' - 0"	1 3/8"		
011A	Interior		2' - 8"	8' - 0"	1 3/8"		
101A	Exterior	Front Door. Door Panel 5'x9'. All glazing in door and in side lights to be tempered safety glazing	9' - 1 1/2"	9' - 0 3/4"	1 3/4"		
102A	Interior		2' - 8"	8' - 0"	1 3/8"		
103A	Interior		2' - 8"	8' - 0"	1 3/8"		
104A	Interior		2' - 8"	8' - 0"	1 3/8"		
108A	Interior		2' - 8"	8' - 0"	1 3/8"		
108B	Interior		2' - 8"	8' - 0"	1 3/8"		
109A	Exterior		3' - 0"	8' - 0"	1 3/4"		
109B	Interior		3' - 0"	8' - 0"	1 3/8"		
109C	Interior		2' - 8"	8' - 0"	1 3/8"		
110A	Interior		2' - 8"	8' - 0"	1 3/8"		
111A	Exterior		18' - 0"	8' - 0"	1 1/2"		

DOOR SCHEDULE

Mark	Function	Description	Width	Height	Thickness	Door Material	Comments
111B	Exterior		8' - 0"	8' - 0"	1 1/2"		
111C	Exterior		3' - 0"	9' - 0"	1 3/8"		
202A	Interior		2' - 8"	8' - 0"	1 3/8"		
202B	Interior		2' - 8"	8' - 0"	1 3/8"		
203A	Interior		2' - 8"	8' - 0"	1 3/8"		
204A	Interior		2' - 8"	8' - 0"	1 3/8"		
204H	Interior		2' - 8"	8' - 0"	1 3/8"		
205A	Interior		2' - 6"	8' - 0"	1 3/8"		
206A	Interior		2' - 6"	8' - 0"	1 3/8"		
207A	Interior		2' - 8"	8' - 0"	1 3/8"		
208A	Interior		2' - 6"	8' - 0"	1 3/8"		
209A	Interior		2' - 6"	8' - 0"	1 3/8"		
210A	Interior		3' - 0"	8' - 0"	1 3/8"		
210B	Interior		2' - 8"	8' - 0"	1 3/8"		
212A	Interior		2' - 8"	8' - 0"	1 3/8"		
213A	Interior		2' - 8"	8' - 0"	1 3/8"		
214A	Interior		2' - 8"	8' - 0"	1 3/8"		
216A	Interior		2' - 8"	8' - 0"	1 3/8"		
217A	Interior		2' - 6"	8' - 0"	1 3/8"		

NOTE: FOR GLAZED DOORS, SEE GLAZED DOOR SCHEDULE

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SCALE:

PROJECT
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22069WEL

REV	DATE	ISSUE/REVISION
	01/09/22	PRE-APP SUBMITTAL
1	05/12/23	PERMIT SUBMITTAL
2	10/02/23	PERMIT COMMENTS

SHEET TITLE
SCHEDULES

REVISION NO.
2
SUPERSEDES ALL PREVIOUS REVISIONS

SHEET NO.
A8.1

10/2/2023 11:39:31 AM

BASEMENT SLAB

4" CONC. SLAB ON 6 MIL VAPOR BARRIER ON 4" MIN. GRANULAR FILL ON 95% COMPACTED FILL/VIRGIN SOIL

GARAGE SLAB

4" CONC. SLAB ON 4" MIN. GRANULAR FILL ON 95% COMPACTED FILL/VIRGIN SOIL

PORCH SLAB

4" CONC. SLAB ON GRADE ON 6 MIL VAPOR BARRIER ON 4" MIN. GRANULAR FILL ON 95% COMPACTED FILL/VIRGIN SOIL

GENERAL STRUCTURAL NOTES

FOUNDATION

- DESIGN IS BASED ON 2018 INTERNATIONAL RESIDENTIAL CODE & 2018 INTERNATIONAL BUILDING CODE
- DESIGN LOADS:
  - SOIL: 2,500 PSF ALLOWABLE BEARING PRESSURE PER REPORT BY GOBALT GEOSCIENCE (12/16/22)
- CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS IN 28 DAYS, U.N.O.:
  - f'c = 2,500 psi: ..... FOUNDATION WALLS*
  - 2,500 psi: ..... FOOTINGS*
  - 2,500 psi: ..... INTERIOR SLABS ON GRADE
  - 3,500 psi: ..... GARAGE & EXT. SLABS ON GRADE
  - fy = 60,000 psi
  - * UTILIZE 5½" SACK 2500 PSI CONCRETE MIXES THAT ARE EQUIVALENT TO 3,000 PSI CONCRETE FOR WEATHERING POTENTIAL
- ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 7% AIR ENTRAINMENT.
- FOUNDATION WALL DESIGN IS BASED ON SPECIFICATIONS IN GEOTECHNICAL REPORT
- TYPICAL REINFORCEMENT DETAILS: LAP ALL REBAR 24" MIN.; BEND BARS AND LAP AT CORNERS; PROVIDE 6" HOOK INTO SUPPORTING FOOTINGS WHEN FOOTINGS INTERSECT, PROVIDE 3" MINIMUM COVER AT THE BOTTOM BARS AND 1 1/2" COVER AT THE SIDES.
- FOUNDATION WALLS SHALL BE BRACED, PRIOR TO BACKFILLING, BY EITHER ADEQUATE TEMPORARY BRACING OR INSTALLATION OF FIRST FLOOR DECK.
- ALL FOOTINGS SHALL BEAR BELOW FROST LINE. CONSULT SOILS REPORT/ LOCAL MUNICIPALITY FOR MINIMUM DEPTH BELOW GRADE.
- FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 95% COMPACTED FILL.
- PROVIDE CONTROL JOINTS AT ALL INSIDE CORNERS OF SLAB EDGES, AND OTHER LOCATIONS WHERE SLAB CRACKS ARE LIKELY TO DEVELOP. (15'-0" O.C.)
- FASTEN SILL PLATES TO FOUNDATION WALLS WITH ⅝" DIA. ANCHOR BOLTS W/ MIN. 3"x3"x ¼" PLATE WASHERS (EDGE OF WASHER TO BE LOCATED WITHIN ½" OF EXTERIOR EDGE OF SILL PLATE) & NUTS @ 6'-0" O.C. @ 2-STORY & 4'-0" O.C. @ 3-STORY CONDITIONS W/ 7" MIN. EMBEDMENT INTO CONC. PROVIDE A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAXIMUM FROM PLATE ENDS, U.N.O. (SEE FND. DETAILS).
- ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT W/ CONCRETE OR MASONRY FOUNDATION SHALL BE PRESERVATIVE TREATED HEM FIR #2.
- BUILDER TO VERIFY CORROSION-RESISTANCE COMPATIBILITY OF HARDWARE & FASTENERS IN CONTACT W/ PRESERVATIVE-TREATED WOOD. CONTACT LUMBER & HARDWARE SUPPLIERS TO COORDINATE.
- ARCH/BUILDER TO VERIFY ALL DIMENSIONS

HOLD-DOWN SCHEDULE

SYMBOL	SPECIFICATION
HD-1	SIMPSON STHD14 (R.) HOLD-DOWN
HD-5	SIMPSON CS16 STRAP TIE (14" END LENGTH)
HD-6	SIMPSON MSTC40 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)
HD-7	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)

MEANS & METHODS NOTES

THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FINISHED AND ALL PLAN, DETAIL, AND NOTE SPECIFICATIONS HAVE BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, AND TIE-DOWNS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF THE PROJECT.

STRUCTURAL DESIGN AND SPECIFICATIONS ASSUME THAT ALL SUPPORTING AND NON-SUPPORTING ELEMENTS IN CONTACT WITH FLOOR FRAMING ARE LEVEL, INCLUDING, BUT NOT LIMITED TO; FOUNDATIONS, SLABS ON GRADE, BEAMS, WALLS, AND NON-BEARING ELEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY, INCLUDING CONSIDERATION OF THOSE AREAS THAT MAY BE WITHIN CONTRACTUAL, INDUSTRY, OR WARRANTY TOLERANCES.

ADDITIONAL NOTES FOR TRUSS & I-JOIST MANUFACTURER

ROOF TRUSS, FLOOR TRUSS AND ENGINEERED JOISTS SHALL BE DESIGNED TO MEET THE DIFFERENTIAL DEFLECTION CRITERIA BELOW, UNLESS NOTED OTHERWISE ON PLAN. MULHERN & KULP CANNOT BE HELD RESPONSIBLE FOR ANY STRUCTURAL ISSUES RELATED TO ANY BUILDING COMPONENT IF COMPONENT SHOP DRAWINGS ARE NOT SUBMITTED TO MK& FOR REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALLATION.

TRUSSES SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES OR GIRDER TRUSSES DOES NOT EXCEED THE FOLLOWING:

A. ROOF TRUSSES:
   1/4" DEAD LOAD
B. FLOOR TRUSSES, ATTIC TRUSSES, & I-JOISTS:
   1/8" DEAD LOAD
C. FLOOR TRUSSES & ATTIC TRUSSES ADJACENT TO FLOOR FRAMING BY OTHERS:
   LIMIT ABSOLUTE TRUSS DEFLECTION TO 3/16" DEAD LOAD. (NOT DIFFERENTIAL DEFLECTION)

LOADING AND DESIGN PARAMETERS

GRAVITY DESIGN LOADS:

DEAD LOAD (PSF):

ROOF (RAFTERS) :	15
ROOF TRUSS (TOP CHORD) :	10
ROOF TRUSS (BOT. CHORD) :	7
PEDESTAL PAVERS :	15
FLOOR (TRUSSES) :	15
FLOOR (I-JOISTS) :	10
TILE FLOORS :	10
SOLAR PANELS :	4

LIVE LOAD (PSF):

ROOF :	20
RESIDENTIAL LIVING AREAS :	40
RESIDENTIAL SLEEPING AREAS :	30
RESIDENTIAL WOOD DECKS/ROOFTOP DECK:	60
GARAGE :	50

SNOW LOAD:

GROUND SNOW LOAD (Pg) (PSF) :	25
ROOF SNOW LOAD (Pf) (PSF) :	25
SNOW EXPOSURE FACTOR (Ce) :	0.9
SNOW LOAD IMPORTANCE FACTOR (I) :	1.0
THERMAL FACTOR (Ct) :	1.2

LATERAL DESIGN LOADS:

WIND LOAD: (IBC 1609)

SPEED (Vult) (MPH) :	100
WIND RISK CATEGORY :	II
IMPORTANCE FACTOR (Iw) :	1.0
EXPOSURE CATEGORY :	C
INTERNAL PRESSURE COEFF. (GCpi) :	±0.18
TOPOGRAPHIC FACTOR (Kzt) :	1.0

SEISMIC LOAD: (IBC 1613)

SEISMIC RISK CATEGORY :	II
SEISMIC IMPORTANCE FACTOR (Ie) :	1.0
MAPPED SPECTRAL RESPONSE :	
Ss= 1.410	S1= 0.509
SITE CLASS :	D(DEFAULT)
SPECTRAL RESPONSE COEFF. :	
Sds= 1.176	Sd1= 0.808
SEISMIC DESIGN CATEGORY :	D
BASIC SEISMIC-FORCE-RESISTING SYS :	LIGHT FRAMED WALLS w/ WOOD STRUCTURAL PANELS & ORDINARY STEEL MOMENT FRAMES
ULTIMATE BASE SHEAR:	TRANS: 29k LONG: 29k
SEISMIC RESPONSE COEFF. (Cs) :	TRANS: 0.181 LONG: 0.181
RESPONSE MODIFICATION FACTOR (R) :	WOOD FRAMED WALLS: TRANS: 6.5 LONG: 6.5 ORDINARY STEEL MOMENT FRAMES: TRANS: 3.5 LONG: 3.5
ANALYSIS PROCEDURE USED:	EQUIVALENT LATERAL FORCE

LATERAL BRACING NOTES

THIS HOME HAS BEEN ENGINEERED TO RESIST LATERAL FORCES RESULTING FROM: 100 MPH WIND SPEED, EXP. C (ASCE 7-16 WIND MAP, PER IRC R301.2.1.1) RISK CAT. 2 & SEISMIC CAT. D2.

110 MPH WIND IN 2018 IRC MAP

ENGINEERED DESIGN WAS COMPLETED PER 2018 IBC (SECTION 1609 & 1613) & ASCE 7-16, AS PERMITTED BY R301.1.3 OF THE 2018 IRC. ACCORDINGLY, THIS HOME, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES, AND DOES NOT NEED TO CONFORM TO THE PRESCRIPTIVE PROVISIONS OF R602.10.

STANDARD EXTERIOR WALL SHEATHING SPECIFICATIONS

(INTERIOR WALL SPECIFICATION WHERE NOTED ON PLANS)

- 7/16" OSB OR 15/32" PLYWOOD:

  FASTEN SHEATHING W/ 2½"x0.131" NAILS @ 6"o.c. AT ALL SUPPORTED PANEL EDGES AND 12" O.C. IN THE PANEL FIELD. ALL SHEATHING SHEET PANEL EDGES SHALL OCCUR OVER WALL FRAMING MEMBERS OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT PANEL EDGE. ALL EXTERIOR WALLS SHALL BE CONSTRUCTED PER THIS SPECIFICATION U.N.O. ON PLANS.

3" o.c. EDGE NAILING

(WHERE NOTED ON PLANS)

- 7/16" OSB OR 15/32" PLYWOOD:

  ONLY AT LOCATIONS INDICATED ON PLANS - SHEATHE WALL SHOWN WITH 7/16" OSB. FASTEN SHEATHING W/ 2½"x0.131" NAILS @ 3" O.C. AT EDGES AND 12" O.C. AT CENTER. ALL SHEATHING SHEET PANEL EDGES SHALL OCCUR OVER WALL FRAMING MEMBERS OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT PANEL EDGE AND 3" O.C. FASTENING.

NOTES:

1. LATERAL ANALYSIS ASSUMES STUD SPACING @ 16" o.c.
2. ALL SHEAR WALLS SHALL HAVE DOUBLE TOP PLATES FASTENED TOGETHER W/ 3"x0.131" NAILS @ 8" O.C. USE (12)8½"x0.135" NAILS AT EACH LAP SPLICE, (6) EACH SIDE OF JOINT (TYP. U.N.O)
3. ALL EXTERIOR WALLS ARE CONTINUOUSLY SHEATHED.
4. ALL INTERIOR SHEAR WALLS AND EXTERIOR WALLS ARE SHEATHED ABOVE AND BELOW OPENINGS.

LEGEND

- ▭▭▭▭ INTERIOR BEARING WALL
- ▭▭▭▭ BEARING WALL ABOVE (B.W.A.), OR SHEARWALL ABOVE (S.W.A.)
- ——— BEAM / HEADER
- ▬ ▬ ▬ INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL W/ 3" O.C. EDGE NAILING
- ····· AREA OF OVERFRAMING
- JL METAL HANGER
- ✳ INDICATES POST ABOVE, PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- ▶ INDICATES HOLDOWN.

RICHARD TABELL — STATE OF WASHINGTON — 21031615 — REGISTERED PROFESSIONAL ENGINEER

GENERAL STRUCTURAL NOTES

DESIGN PARAMETERS

- DESIGN IS BASED ON 2018 INTERNATIONAL RESIDENTIAL CODE & 2018 INTERNATIONAL BUILDING CODE
- WOOD FRAME ENGINEERING IS BASED ON NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" - LATEST EDITION.

GENERAL FRAMING

- EXTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. (W/ DOUBLE TOP PLATE) HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, U.N.O.
- INTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. (W/ DOUBLE TOP PLATE) HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, U.N.O.
- ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x "STUD" GRADE MEMBERS SPACED @ 24" O.C. (MAX.)
- ALL WALLS TALLER THEN TYP. PLATE HEIGHT SHALL BE CONSIDERED BALLOON FRAMED & SHALL BE CONSTRUCTED FROM FLOOR TO UNDERSIDE OF FRAMING AT NEXT LEVEL. B.F. WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) HEM FIR (HF) #2 GRADE LUMBER, OR BETTER.
- ALL HEADERS SHALL BE SUPPORTED BY (1)2x JACK STUD & (1)2x KING STUD, MINIMUM.
  - THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, U.N.O..
- BUILT-UP POSTS SHALL BE 2x4 OR 2x6 HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, U.N.O. & SOLID WOOD COLUMNS SHALL BE SPRUCE PINE FIR (SPF) #2 GRADE LUMBER, OR BETTER, U.N.O.
- ALL 2x6 AND LARGER SOLID SAWN BEAMS/HEADERS SHALL BE HEM FIR #2 (HF #2) OR BETTER. ALL 4x6 AND LARGER SOLID SAWN LUMBER SHALL BE DOUG FIR #2 (DF #2) OR BETTER.
- ALL FRAMING LUMBER SHALL BE KILN DRIED TO 15% MC (KD-15).
- ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN GENERAL NOTES, IN DETAILS, OR ON PLANS. ALL NAILS SPECIFIED ARE MIN DIAMETER AND LENGTH REQUIRED FOR CONNECTION. ALL HANGER NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX CHARTED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING GUN NAILS.
- FASTEN ALL BEAMS TO COLUMNS, OR FLUSH BEAMS TO SUPPORTING BEAMS, W/ (4) 3"x0.131" TOENAILS (MIN.), TYP. U.N.O.
- PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS & HOLD-DOWNS CONTINUOUS TO FOUNDATION/BEARING. BLOCKING TO MATCH POST ABOVE.
- ENGINEERED LUMBER TO MEET OR EXCEED THE FOLLOWING:
  - LSL MEMBERS - Fb=2325 PSI; Fv=310 PSI; E=1.55x10^6 PSI
  - LVL MEMBERS - Fb=2600 PSI; Fv=285 PSI; E=2.0x10^6 PSI
  - GLB MEMBERS - Fb(+)=2400 PSI; Fb(-)=1850 PSI; Fv=265 PSI; E=1.8x10^6 PSI; DF/DF; 24F-V4 (U.N.O)
- ENGINEERED LUMBER POSTS TO MEET OR EXCEED THE FOLLOWING:
  - LVL MEMBERS - Fb=2400 PSI; Fc⊥=2500 PSI; E=1.8x10^6 PSI
- FACE NAIL MULTI-PLY 2x BEAMS & HEADERS W/ 3-ROWS OF 3"x0.131" NAILS (MIN.) @ 12" O.C. STAGGERED. APPLY NAILING FROM BOTH FACES @ 3-PLY OR MORE CONDITIONS. UTILIZE 2 ROWS OF NAILS FOR 2x6 & 2x8 MEMBERS.
- ALL MEMBERS SPECIFIED AS MULTI-PLY 1¾" SHALL BE FASTENED TOGETHER PER MANUFACTURER. EQUIVALENT WIDTH SOLID MATERIAL MAY BE USED AS EQUAL.
- FASTEN 2x WOOD PLATES TO TOP FLANGE OF STEEL BEAMS w/P.A.F.s (HILTI X-U PINS OR EQUAL (0.157" DIA. x 2" LONG MIN.) @ 16" O.C. STAGGERED, OR 1/2" DIA. BOLTS @ 48" O.C., STAGGERED.
- REFER TO IRC FASTENING SCHEDULE TABLE R602.3(1) FOR ALL CONNECTIONS, TYP. U.N.O.

FLOOR FRAMING

- I-JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA AND SHALL SPAN CONTINUOUS OVER SUPPORTS WHEREVER POSSIBLE. ALL LOADS SHOWN ON PLAN FOR MANUF. DESIGNS ARE ASD LEVEL LOADS, U.N.O. (EXCLUDES STONE/MARBLE OR WET BED CONSTRUCTED FLOORS - CONTACT MK& FOR EXCLUDED DESIGNS).
- ALL METAL I-JOIST/TRUSS HANGERS SHALL BE SPECIFIED BY I-JOIST/TRUSS MANUFACTURER, UNLESS OTHERWISE NOTED.
- I-JOIST/TRUSS SHOP DRAWINGS SHALL BE SUBMITTED TO ARCHITECT AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY.
- 2x FLOOR JOISTS HAVE BEEN DESIGNED TO MEET OR EXCEED L/360 LIVE LOAD DEFLECTION CRITERIA.
- TYPICAL 2x JOIST HANGERS (U.N.O. ON PLANS):
  - SINGLE PLY: SIMPSON LUS210
  - DOUBLES: SIMPSON LUS210-2
- FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED 'STURD-I-FLOOR' 24" O.C., EXPOSURE 1 (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS W/ GLUE AND 2 ½" x 0.131" NAILS @ 6"o.c. @ PANEL EDGES & @ 12"o.c. FIELD.
- ALL FLUSH CONNECTIONS SHALL BE CONNECTED WITH HANGER APPROPRIATE FOR MEMBER SIZE. U.N.O.
- FASTEN HANGERS TO SINGLE PLY FLUSH BEAMS w/ ½" LONG NAILS.

ROOF FRAMING

- FASTEN EACH ROOF TRUSS TO TOP PLATE W/ (4) 3"x0.131" TOENAILS (MIN.) & (1) 'SIMPSON' H2.5T CLIP @ ALL BEARING POINTS. PROVIDE (2) 'SIMPSON' H2.5T CLIPS AT 2-PLY GIRDER TRUSSES, (3) 'SIMPSON' H2.5T CLIPS AT 3-PLY GIRDER TRUSSES AT ALL BEARING POINTS.
- FASTEN EACH ROOF RAFTER TO TOP PLATE WITH (1) 'SIMPSON' H2.5T CLIP. PROVIDE (2) 'SIMPSON' H2.5T CLIPS AT FLUSH BEAMS IN THE ROOF - AT ALL BEARING POINTS.
- ROOF SHEATHING SHALL BE 7/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE 1 (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS w/ 2 ½" x 0.131" NAILS @ 6"o.c. AT PANEL EDGES & @ 12" O.C. AT INTERMEDIATE SUPPORTS. ROOF SHEATHING SHALL EXTEND BELOW ALL INSTANCES OF OVERFRAMING. BLOCKING SHALL BE INSTALLED AS REQUIRED TO LIMIT ROOF SHEATHING SPANS TO 24" MAX.
- WITHIN 48" OF ALL ROOF EDGES, RIDGES, & HIPS FASTEN ROOF SHEATHING FIELDS PER EDGE NAILING SPEC.
- ALL METAL HANGERS SHALL BE SPECIFIED BY THE TRUSS MANUFACTURER, UNLESS OTHERWISE NOTED.
- ROOF TRUSS SHOP DRAWINGS SHALL BE SUBMITTED TO ARCHITECT AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY.
- ROOF TRUSS SHOP DRAWINGS & CALCULATIONS SHALL BE PREPARED BY A WASHINGTON STATE LICENSED ENGINEER AND SHALL BE DESIGNED FOR UNBALANCED SNOW LOADING PER ASCE 7-16, SECTION 7.6.
- ERECT AND INSTALL ROOF TRUSSES PER WTCA & TPI'S BCSI 1-08 "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES."
- FASTEN OVER-FRAMED TRUSS SETS TO TRUSSES BELOW w/ (2) 3"x0.131" TOENAILS AT EA. TRUSS.
- SUPPORT PORCH & SHORT SPAN ROOF TRUSSES (UP TO 6' TRIB.) w/2x6 LEDGER FASTENED TO FRAMING w/(3) 3"x0.131" NAILS @ 16" o.c.
- FASTEN ALL INTERIOR NON-BEARING PARTITION WALLS TO TRUSS BOTTOM CHORD ABOVE WITH SIMPSON STG CLIPS AT 24" o.c. MAX. PROVIDE BLOCKING BETWEEN THE TRUSS BOTTOM CHORDS AS REQUIRED FOR THE PARALLEL CONDITIONS.

seal:

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M&K project number: 268-22010

project mgr:	RJZ
drawn by:	RJD
issue date:	12-30-22

REVISIONS:

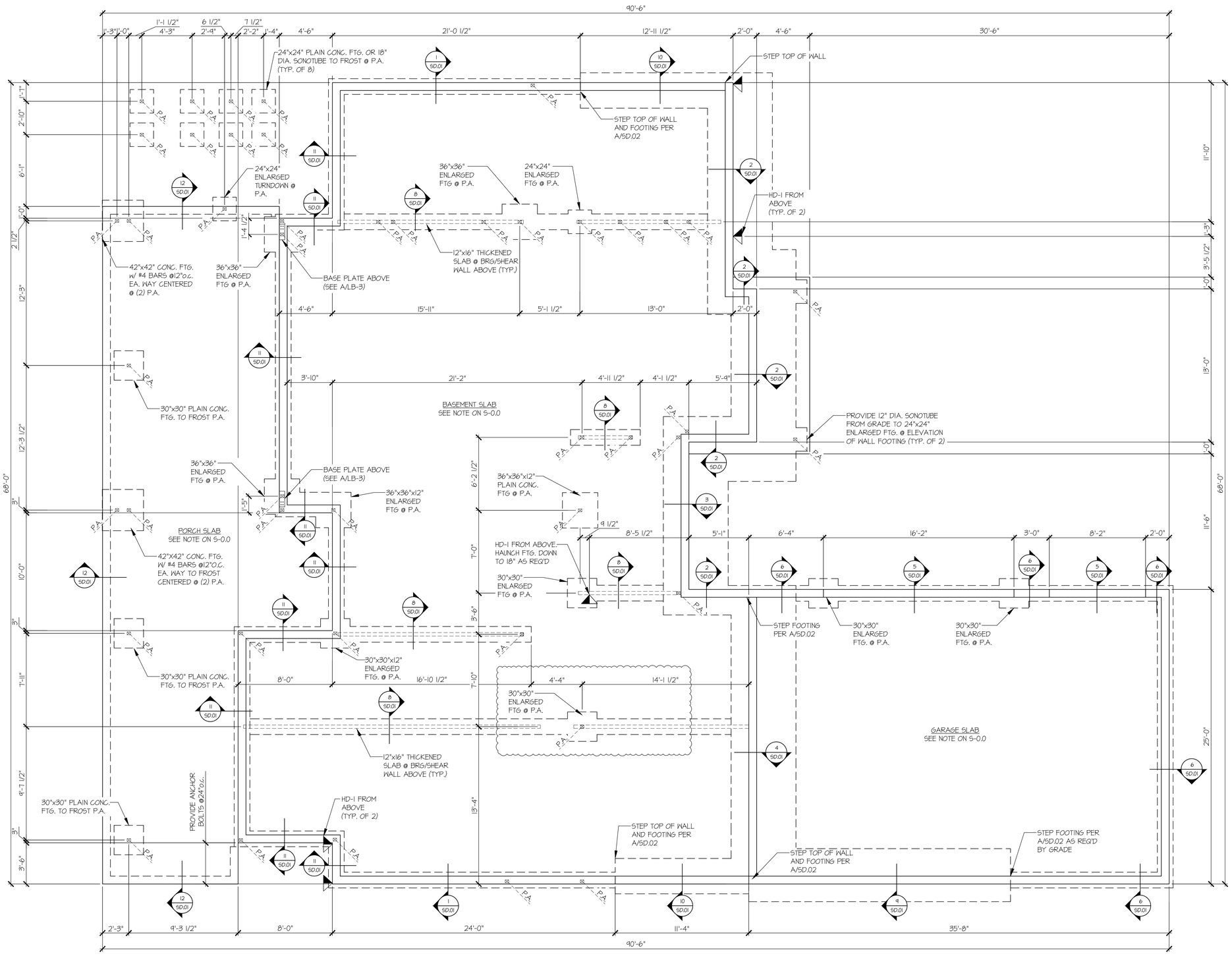
date:	initial:
03/23/23 ARCH REVISIONS	RJD
04/28/23 ARCH REVISIONS	RJD
06/30/23 ARCH REVISIONS	RJD
08/15/23 RETAINING WALL	RSC
04/12/23 PLAN REVIEW COMMENTS	RJD

LOCHWOOD LOZIER

STRUCTURAL NOTES

WELLMON RESIDENCE
6333 77TH AVE SE
MERCER ISLAND, WASHINGTON

sheet: S-0.0



FOUNDATION PLAN

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

LEGEND

- INTERIOR BEARING WALL
- BEARING WALL ABOVE (B.W.A.), OR SHEARWALL ABOVE (S.W.A.)
- BEAM / HEADER
- INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
- AREA OF OVERFRAMING
- JL METAL HANGER
- INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- INDICATES HOLDOWN.

HOLD-DOWN SCHEDULE

SYMBOL	SPECIFICATION
HD-1	SIMPSON STHD14 (R.J) HOLD-DOWN
HD-5	SIMPSON CS16 STRAP TIE (14" END LENGTH)
HD-6	SIMPSON MSTC40 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)
HD-7	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)

REFER TO S-0.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

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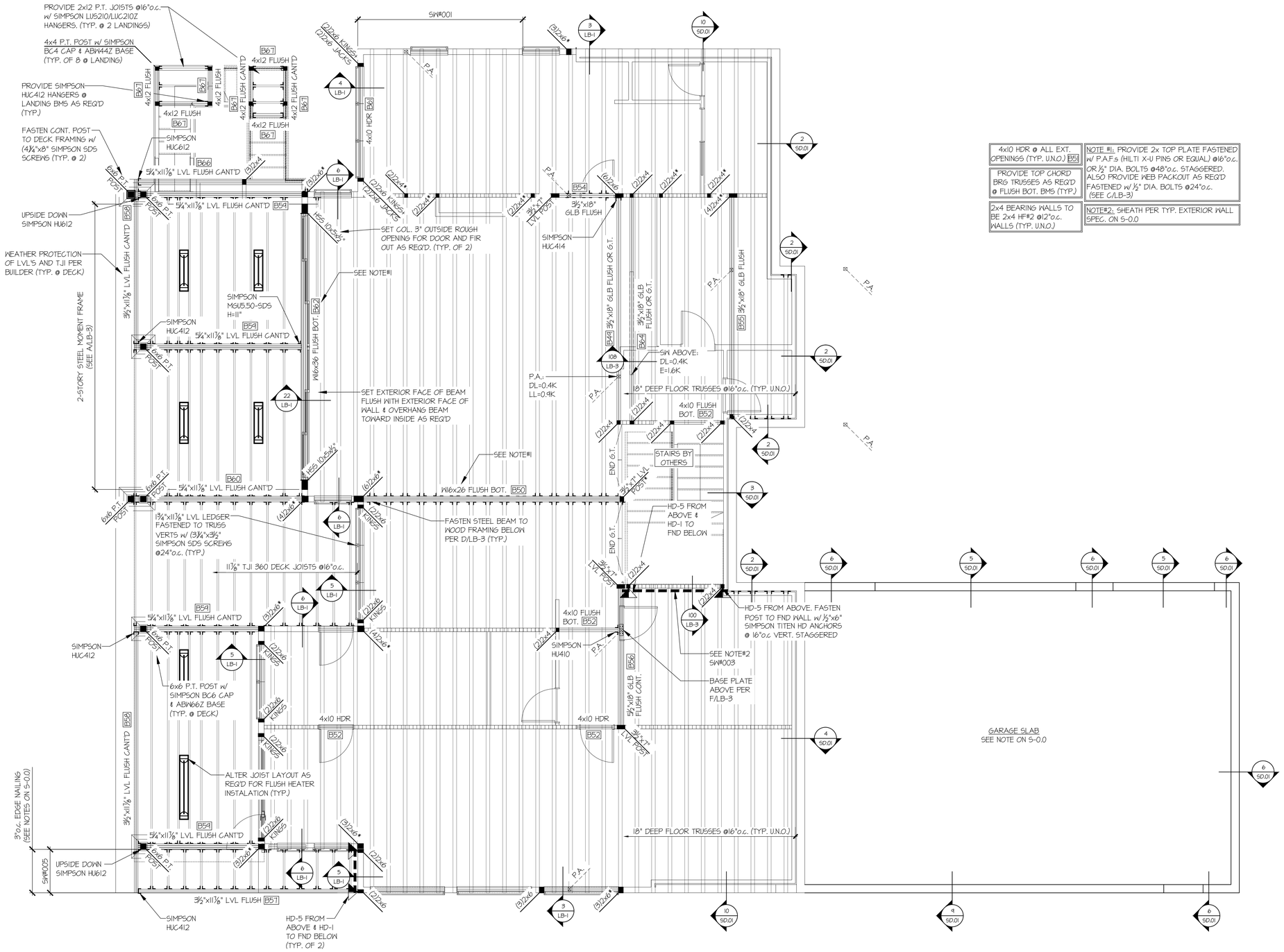
LOCHWOOD LOZIER

FOUNDATION PLAN

WELLMON RESIDENCE

6333 77TH AVE SE
MERCER ISLAND, WASHINGTON

sheet: S-1.0



MAIN FLOOR FRAMING PLAN

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

LEGEND

- INTERIOR BEARING WALL
- BEARING WALL ABOVE (B.W.A.), OR SHEARWALL ABOVE (S.W.A.)
- BEAM / HEADER
- INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
- AREA OF OVERFRAMING
- METAL HANGER
- INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- INDICATES HOLDOWN.

HOLD-DOWN SCHEDULE

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REFER TO S-0.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

seal:

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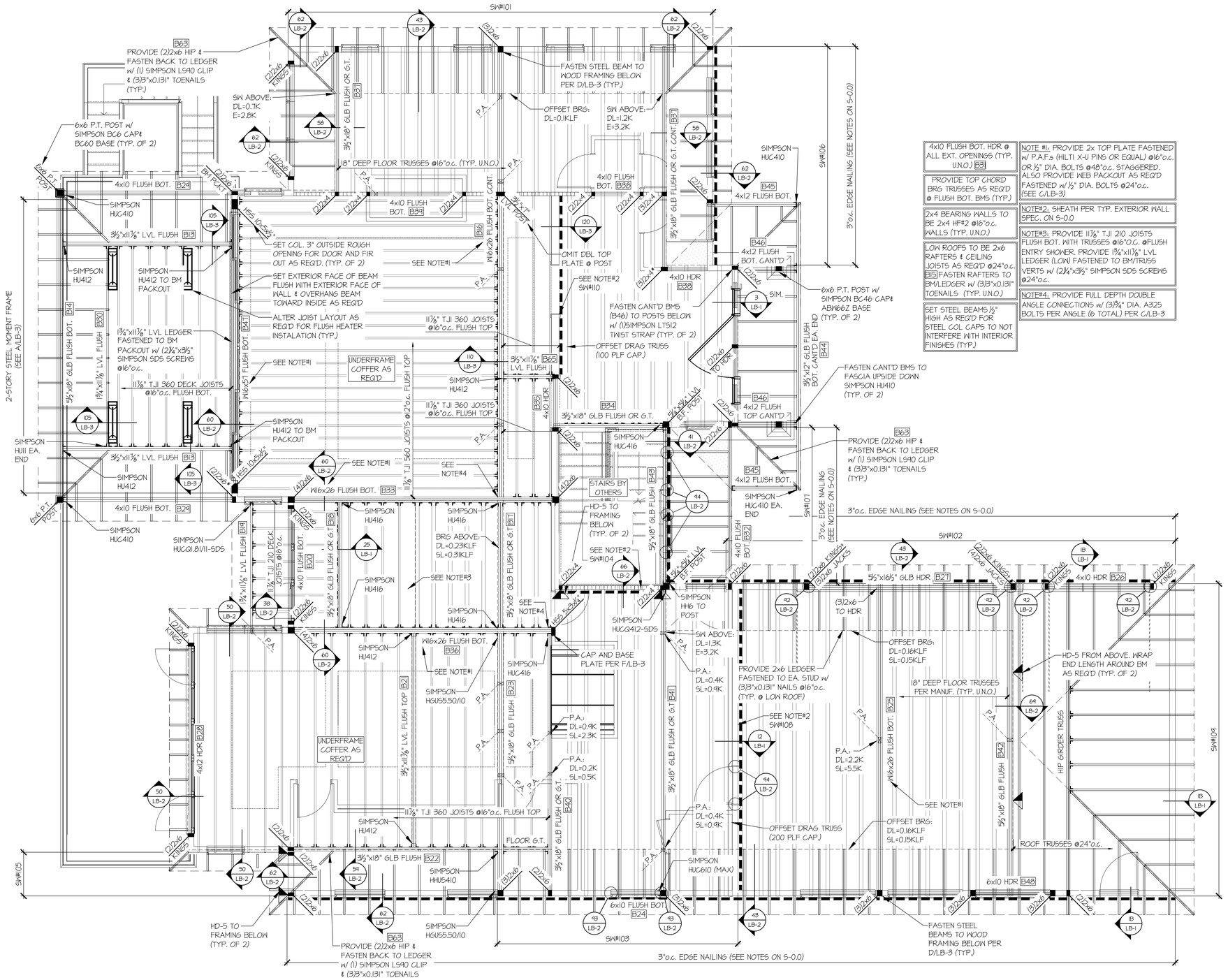
09/12/23 PLAN REVIEW COMMENTS	RJD

LOCHWOOD LOZIER

MAIN FRAMING PLAN

WELLMON RESIDENCE
6333 77TH AVE SE
MERCER ISLAND, WASHINGTON

sheet: S-2.0



UPPER FLOOR FRAMING PLAN

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

4x10 FLUSH BOT. HDR @ ALL EXT. OPENINGS (TYP. U.N.O.) B31
PROVIDE TOP CHORD BRG TRUSSES AS REQ'D @ FLUSH BOT. BMS (TYP.)
2x4 BEARING WALLS TO BE 2x4 HF#2 @16"o.c. WALLS (TYP. U.N.O.)
LOW ROOFS TO BE 2x6 RAFTERS & CEILING JOISTS AS REQ'D @24"o.c. B15 FASTEN RAFTERS TO BM/LEDGER w/ (3)3"x0.131" TOENAILS (TYP. U.N.O.)
SET STEEL BEAMS ½" HIGH AS REQ'D FOR STEEL COL CAPS TO NOT INTERFERE WITH INTERIOR FINISHES (TYP.)

NOTE #1: PROVIDE 2x TOP PLATE FASTENED w/ P.A.F.s (HILTI X-U PINS OR EQUAL) @16"o.c. OR ½" DIA. BOLTS @48"o.c. STAGGERED. ALSO PROVIDE WEB PACKOUT AS REQ'D FASTENED w/ ½" DIA. BOLTS @24"o.c. (SEE C/LB-3)

NOTE#2: SHEATH PER TYP. EXTERIOR WALL SPEC. ON S-0.0

NOTE#3: PROVIDE 11⅞" TJI 210 JOISTS FLUSH BOT. WITH TRUSSES @16"O.C. @FLUSH ENTRY SHOWER. PROVIDE 1¾"x11⅞" LVL LEDGER (LOW) FASTENED TO BM/TRUSS VERTS w/ (2¼"x3½" SIMPSON SDS SCREWS @24"o.c.

NOTE#4: PROVIDE FULL DEPTH DOUBLE ANGLE CONNECTIONS w/ (3)¾" DIA. A325 BOLTS PER ANGLE (6 TOTAL) PER C/LB-3

LEGEND

- INTERIOR BEARING WALL
- BEARING WALL ABOVE (B.W.A.), OR SHEARWALL ABOVE (S.W.A.)
- BEAM / HEADER
- INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
- AREA OF OVERFRAMING
- JL METAL HANGER
- INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- INDICATES HOLDDOWN.

HOLD-DOWN SCHEDULE

SYMBOL	SPECIFICATION
HD-1	SIMPSON STHD14 (R.J) HOLD-DOWN
HD-5	SIMPSON CS16 STRAP TIE (14" END LENGTH)
HD-6	SIMPSON MSTC40 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)
HD-7	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)

REFER TO S-0.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

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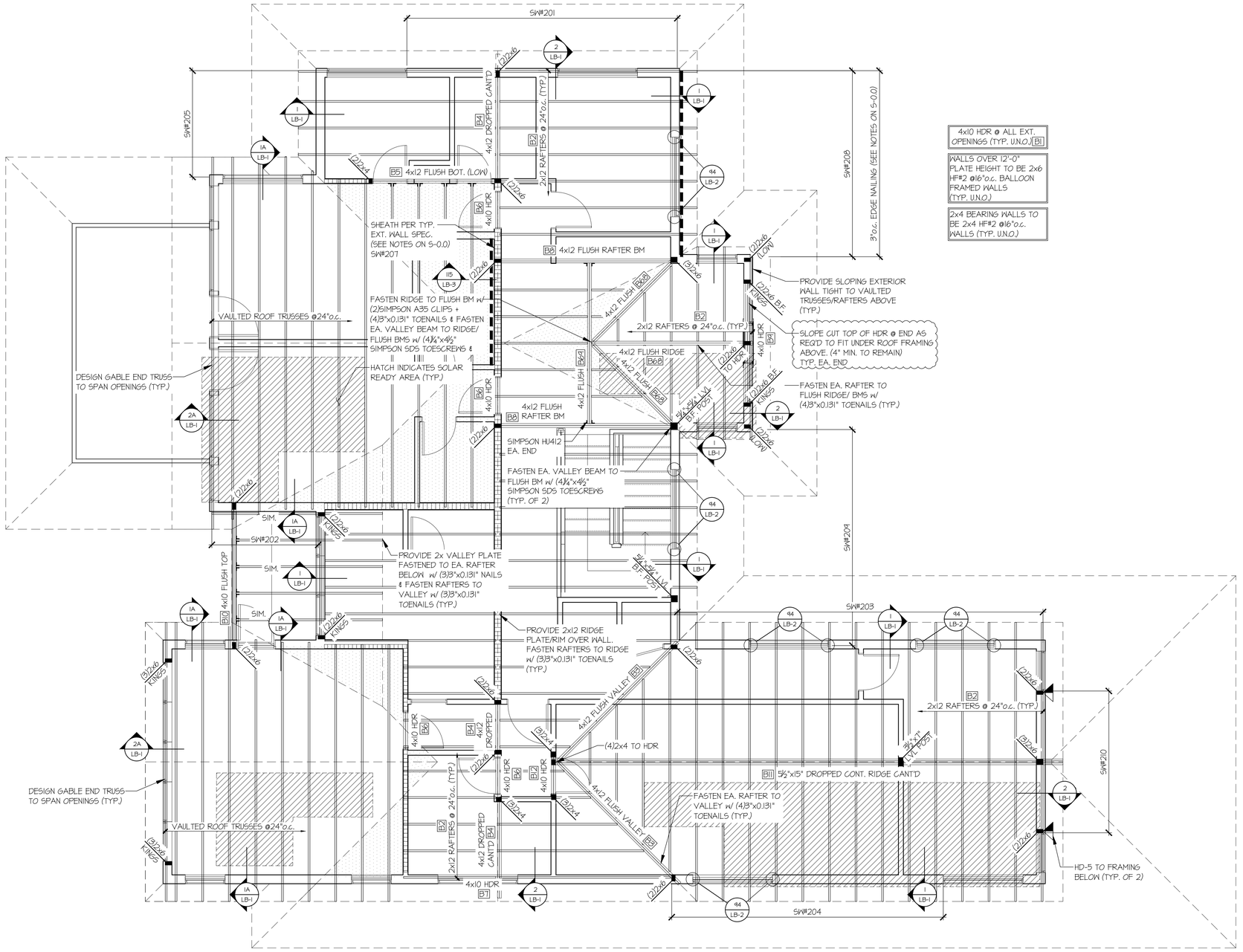
09/12/23 PLAN REVIEW COMMENTS	RJD

LOCHWOOD LOZIER

UPPER FLOOR FRMG PLAN

WELLMON RESIDENCE
6333 77TH AVE SE
MERCER ISLAND, WASHINGTON

sheet: S-2.1



ROOF FRAMING PLAN

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

LEGEND

- INTERIOR BEARING WALL
- BEARING WALL ABOVE (B.W.A.), OR SHEARWALL ABOVE (S.W.A.)
- BEAM / HEADER
- INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
- AREA OF OVERFRAMING
- JL METAL HANGER
- INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- INDICATES HOLDOWN.

HOLD-DOWN SCHEDULE

SYMBOL	SPECIFICATION
HD-1	SIMPSON STHD14 (R.J.) HOLD-DOWN
HD-5	SIMPSON CS16 STRAP TIE (14" END LENGTH)
HD-6	SIMPSON MSTC40 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)
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REFER TO S-0.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

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LOCHWOOD LOZIER

ROOF FRAMING PLAN

WELLMON RESIDENCE
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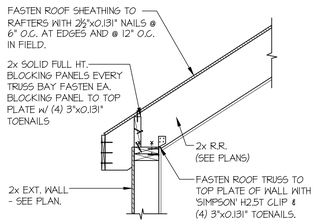
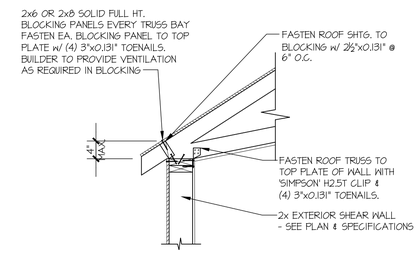
MERCER ISLAND, WASHINGTON

sheet: S-3.0



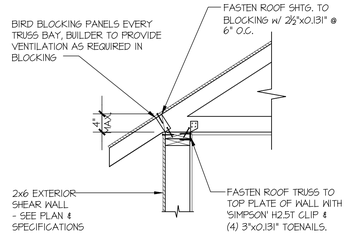
1 TYPICAL SHEAR TRANSFER DETAIL @ ROOF

SCALE: 3/4"=1'-0" CATHEDRAL CLG.



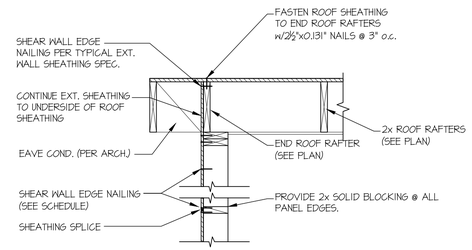
1A TYPICAL SHEAR TRANSFER DETAIL @ VAULTED CEILING

SCALE: 3/4"=1'-0"



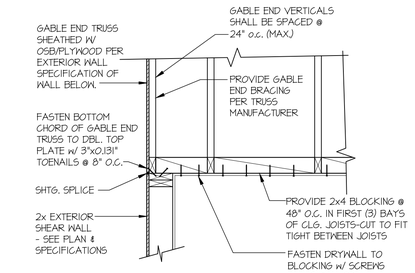
1B TYPICAL SHEAR TRANSFER DETAIL @ ROOF

SCALE: 3/4"=1'-0"



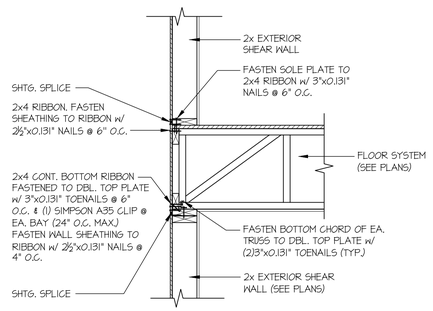
2 TYPICAL BALLOON FRAMED GABLE END BRACING DETAIL

SCALE: 3/4"=1'-0"



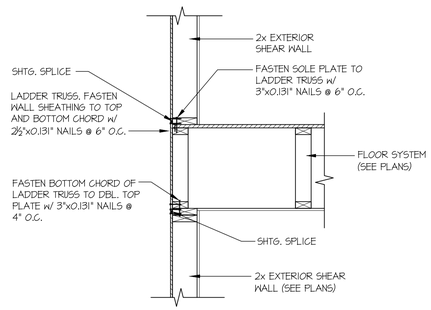
2A TYPICAL GABLE END DETAIL

SCALE: 3/4"=1'-0"



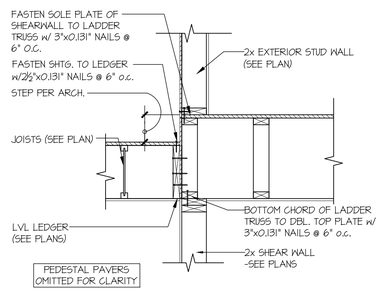
3 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL

SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



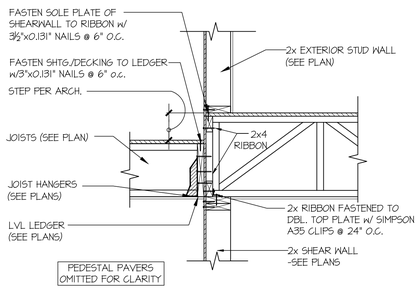
4 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL

SCALE: 3/4"=1'-0" PARALLEL FRAMING



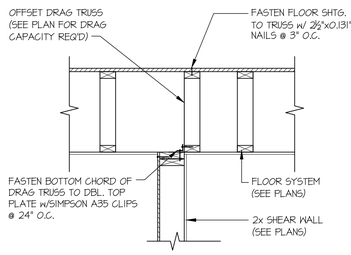
5 TYPICAL SHEAR TRANSFER DETAIL @ EXT. DECK FRAMING

SCALE: 3/4"=1'-0"



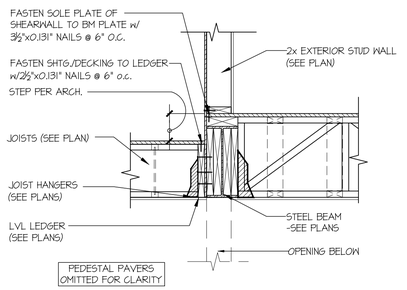
6 TYPICAL SHEAR TRANSFER DETAIL @ EXT. DECK FRAMING

SCALE: 3/4"=1'-0"



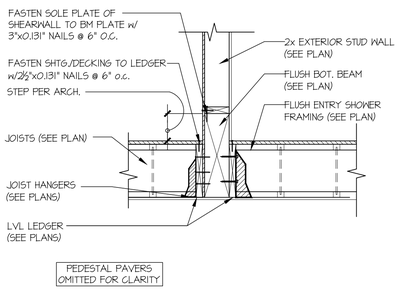
12 SHEAR TRANSFER DETAIL @ SHEAR WALL BELOW

SCALE: 3/4"=1'-0"



22 TYPICAL SHEAR TRANSFER DETAIL @ EXT. DECK FRAMING

SCALE: 3/4"=1'-0"



25 TYPICAL SHEAR TRANSFER DETAIL @ EXT. DECK FRAMING

SCALE: 3/4"=1'-0"

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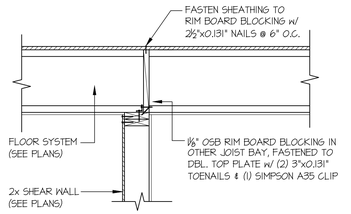
LOCHWOOD LOZIER

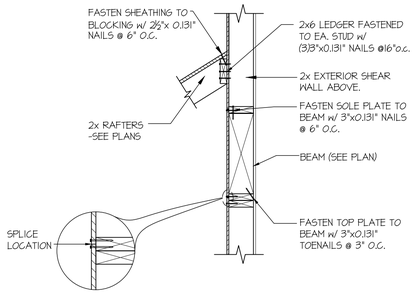
STRUCTURAL DETAILS

WELLMON RESIDENCE
6333 77TH AVE SE
MERCER ISLAND, WASHINGTON

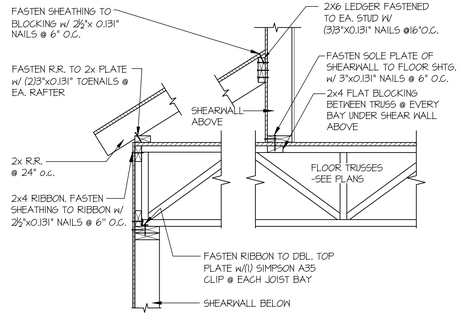
sheet: LB-1



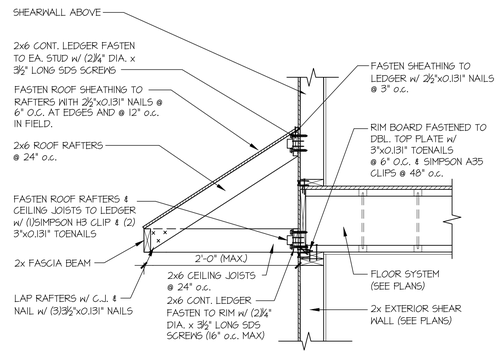
38 SHEAR TRANSFER DETAIL @ INTERIOR SHEAR WALL
SCALE: 3/4"=1'-0"



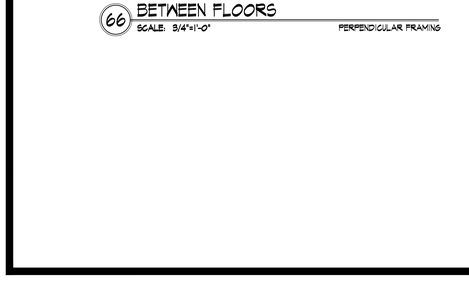
41 SHEAR TRANSFER DETAIL @ PLATFORM FRAMED WALL
SCALE: 3/4"=1'-0"



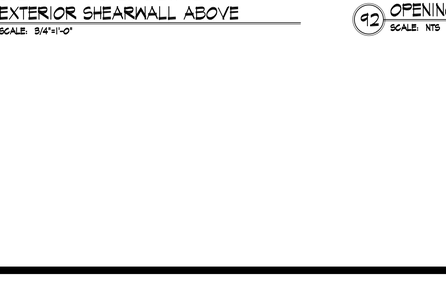
43 SECTION
SCALE: 3/4"=1'-0"



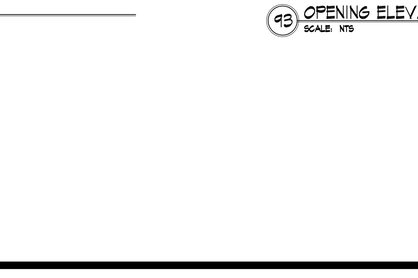
50 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



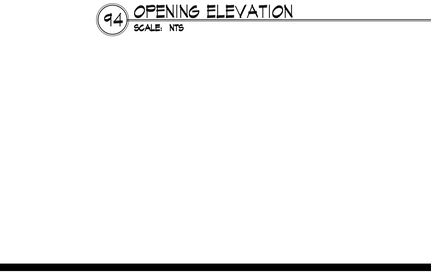
58 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



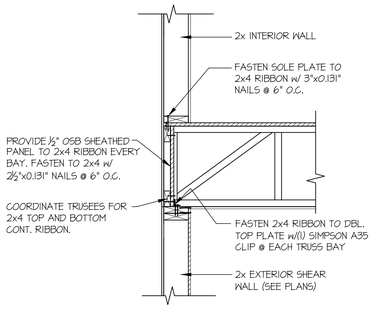
59 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



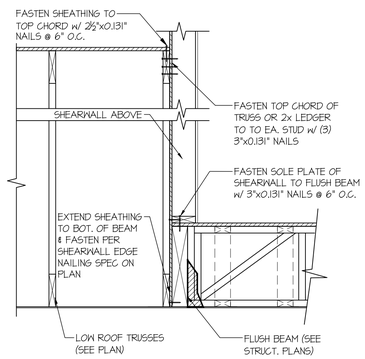
60 TYPICAL SHEAR TRANSFER DETAIL @ EXT. DECK FRAMING
SCALE: 3/4"=1'-0"



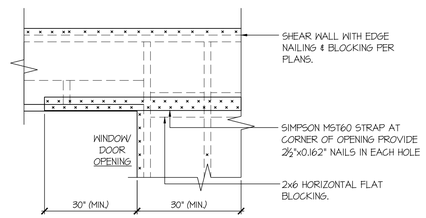
62 TYPICAL SHEAR TRANSFER DETAIL @ ROOF
SCALE: 3/4"=1'-0"



66 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING

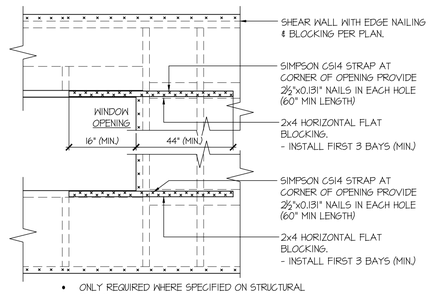


69 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



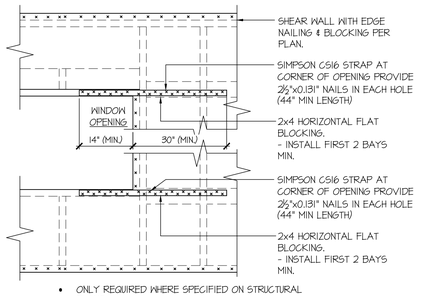
- DETAIL SIMILAR AT BOTTOM CORNERS OF WINDOWS.
- ONLY REQUIRED WHERE SPECIFIED ON STRUCTURAL PLANS
- IF MIN LENGTH IS NOT PROVIDED RUN STRAP TO END OF WALL

92 EXT. WALL & INT. SHEARWALL OPENING ELEVATION
SCALE: NTS



- ONLY REQUIRED WHERE SPECIFIED ON STRUCTURAL PLANS
- IF MIN LENGTH IS NOT PROVIDED RUN STRAP TO END OF WALL

93 EXT. WALL & INT. SHEARWALL OPENING ELEVATION
SCALE: NTS



- ONLY REQUIRED WHERE SPECIFIED ON STRUCTURAL PLANS
- IF MIN LENGTH IS NOT PROVIDED RUN STRAP TO END OF WALL

94 EXT. WALL & INT. SHEARWALL OPENING ELEVATION
SCALE: NTS

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LOCHWOOD LOZIER

STRUCTURAL DETAILS

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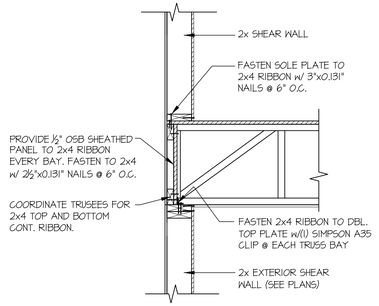
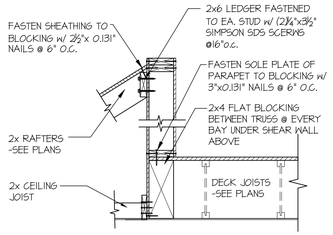
MERCER ISLAND, WASHINGTON

sheet: LB-2



100 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS

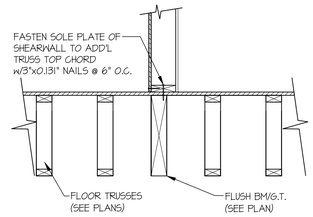
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



PEDESTAL PAVERS OMITTED FOR CLARITY

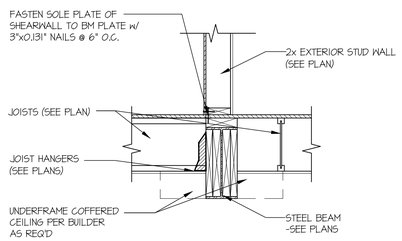
105 SECTION

SCALE: 3/4"=1'-0"



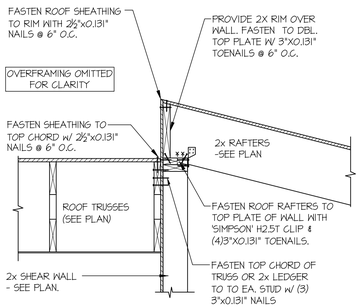
108 SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL ABOVE

SCALE: 3/4"=1'-0" PARALLEL FRAMING



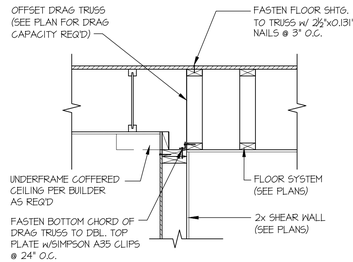
110 SECTION

SCALE: 3/4"=1'-0"



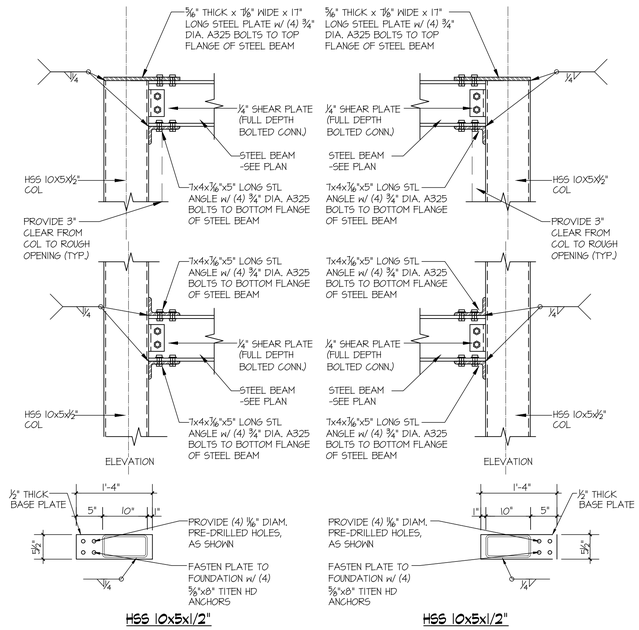
115 TYPICAL SHEAR TRANSFER DETAIL @ ROOF

SCALE: 3/4"=1'-0"



20 SHEAR TRANSFER DETAIL @ SHEAR WALL BELOW

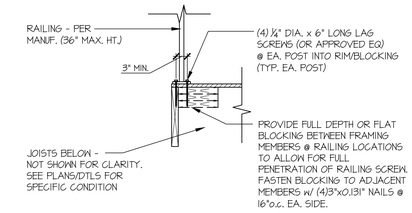
SCALE: 3/4"=1'-0"



BASE PLATE DETAILS

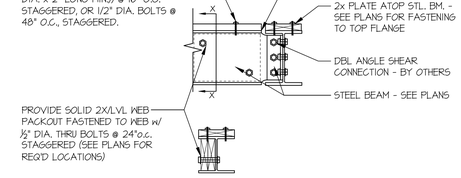
A TYPICAL MOMENT CONNECTION DETAILS

SCALE: 3/4"=1'-0"



B TYP. RAILING CONNECTION

SCALE: 3/4"=1'-0" WOOD FRMG BELOW

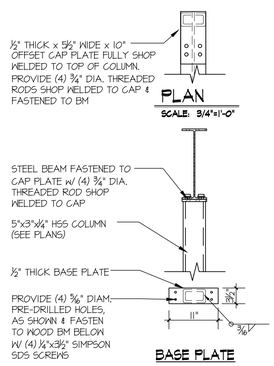


C SECTION X-X

SCALE: 3/4"=1'-0"

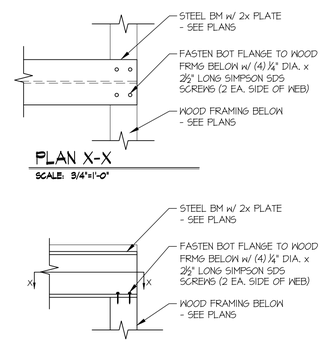
C DOUBLE ANGLE STEEL CONNECTION

SCALE: 3/4"=1'-0"



F STL COL CONNECTION

SCALE: 3/4"=1'-0"



D STL BM TO WOOD FRMG CONNECTION

SCALE: 3/4"=1'-0"

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M&K project number: 268-22010

project mgr: RJZ
drawn by: RJD
issue date: 12-30-22

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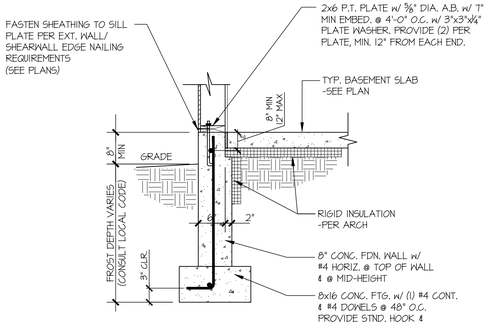
03/23/23 ARCH REVISIONS	RJD
04/28/23 ARCH REVISIONS	RJD
06/30/23 ARCH REVISIONS	RJD
08/15/23 RETAINING WALL	RSC
09/12/23 PLAN REVIEW COMMENTS	RJD

LOCHWOOD
LOZIER

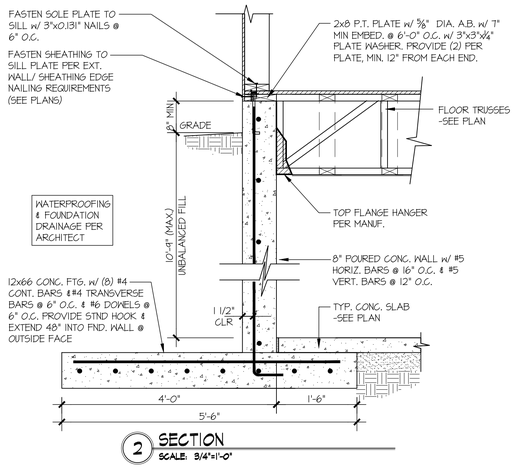
STRUCTURAL DETAILS

WELLMON RESIDENCE
6333 77TH AVE SE
MERCER ISLAND, WASHINGTON

sheet: LB-3



1 TYPICAL FOOTING @ WALKOUT BASEMENT
SCALE: 3/4"=1'-0"



2 SECTION
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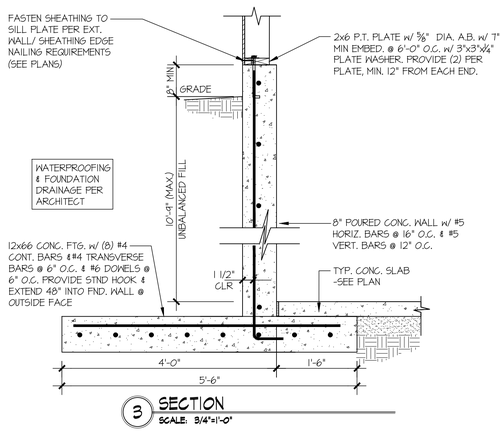
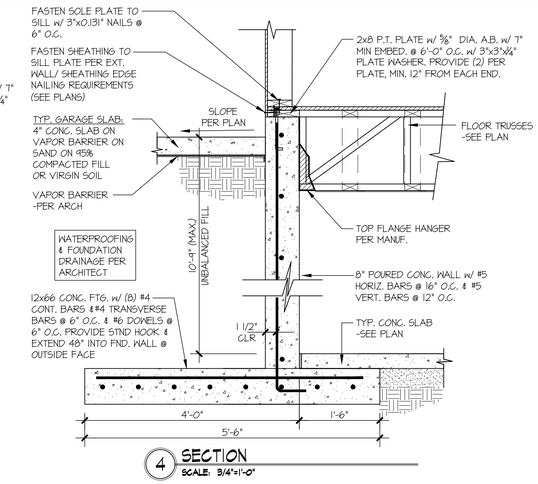


3 SECTION
SCALE: 3/4"=1'-0"



4 SECTION
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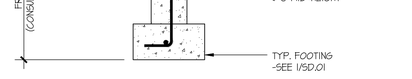
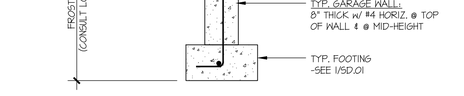
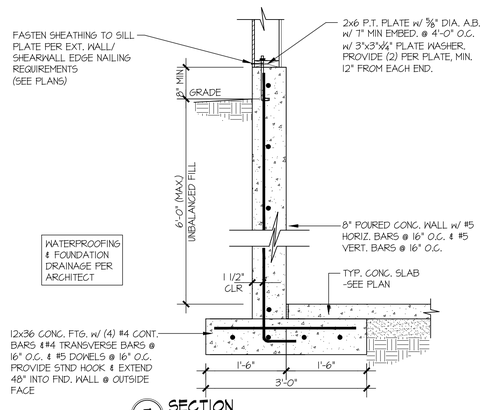


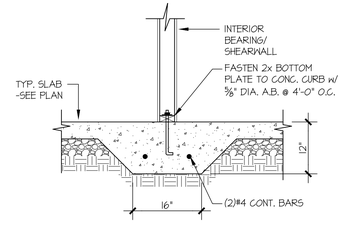
TYPICAL CONCRETE FOOTING @ GARAGE DOOR OPENING
5 SCALE: 3/4"=1'-0"



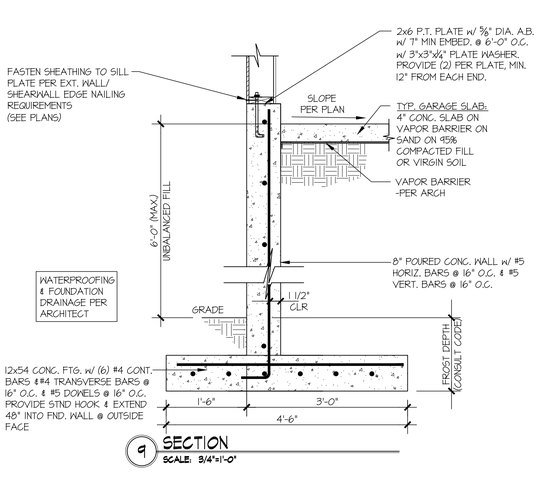
6 TYPICAL EXT. GARAGE FOUNDATION
SCALE: 3/4"=1'-0"



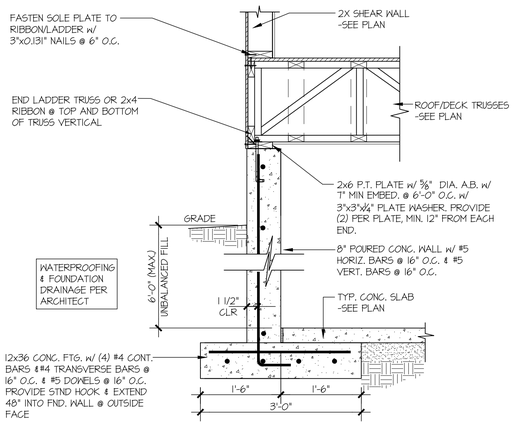
7 SECTION
SCALE: 3/4"=1'-0"



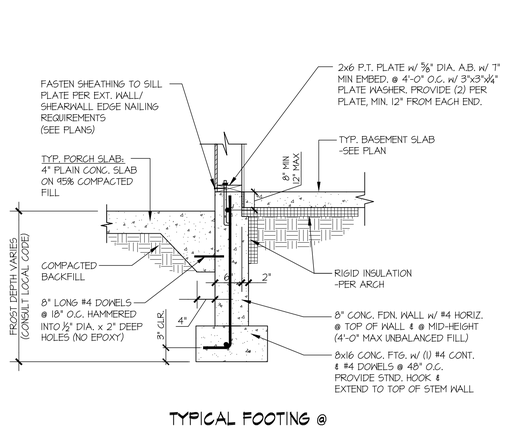
TYPICAL THICKENED SLAB @ INTERIOR BEARING WALL
8 SCALE: 3/4"=1'-0"



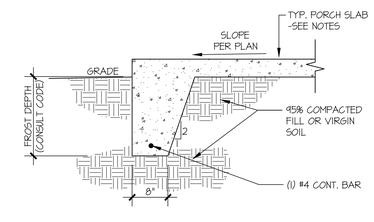
9 SECTION
SCALE: 3/4"=1'-0"



10 SECTION
SCALE: 3/4"=1'-0"



11 TYPICAL FOOTING @ WALKOUT BASEMENT
SCALE: 3/4"=1'-0"



12 TYPICAL FOOTING @ PORCH SLAB
SCALE: 3/4"=1'-0"

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LOCHWOOD LOZIER

FOUNDATION DETAILS

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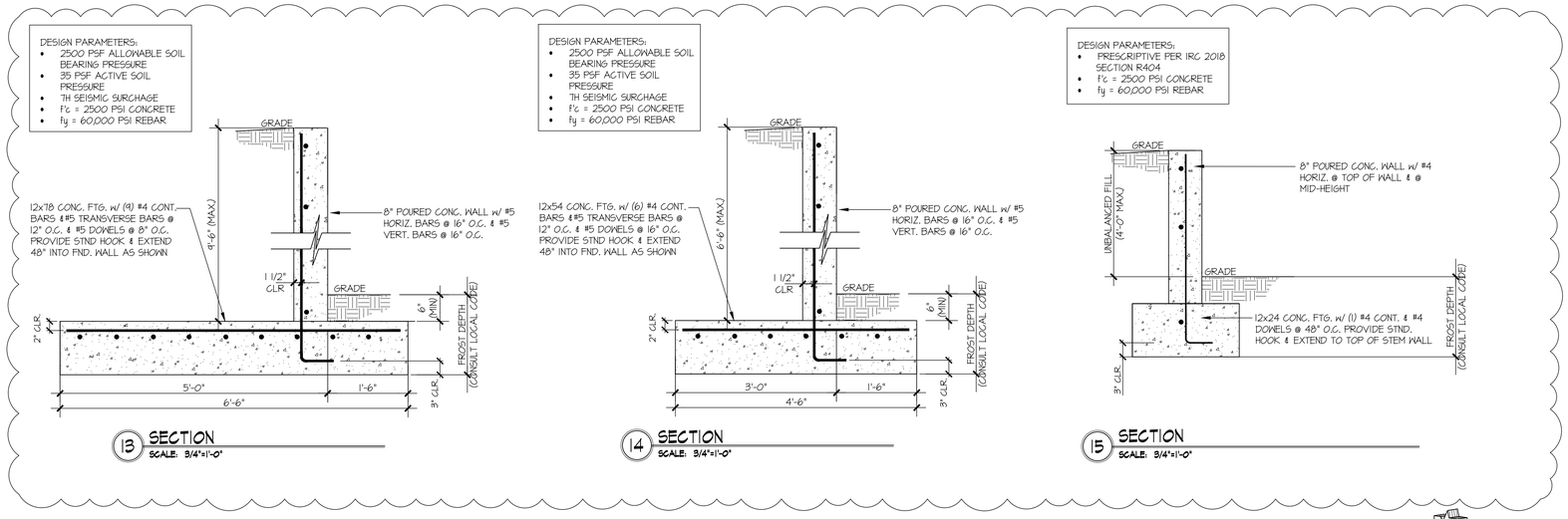
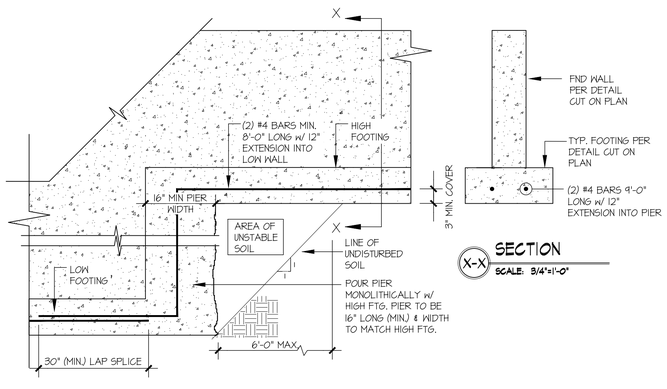
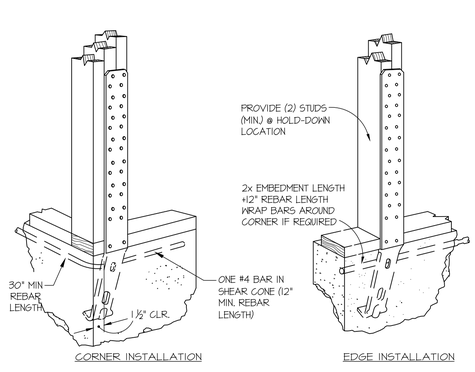
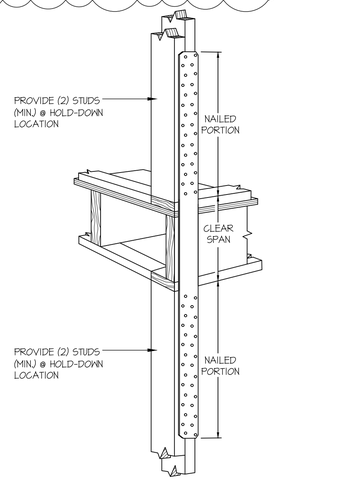
MERCER ISLAND, WASHINGTON

sheet: SD.01









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FOUNDATION DETAILS

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sheet: SD.02