

SINGLE FAMILY RESIDENCE

4332 W MERCER WAY
MERCER ISLAND, WA 98040

AS-BUILT DOCUMENTATION

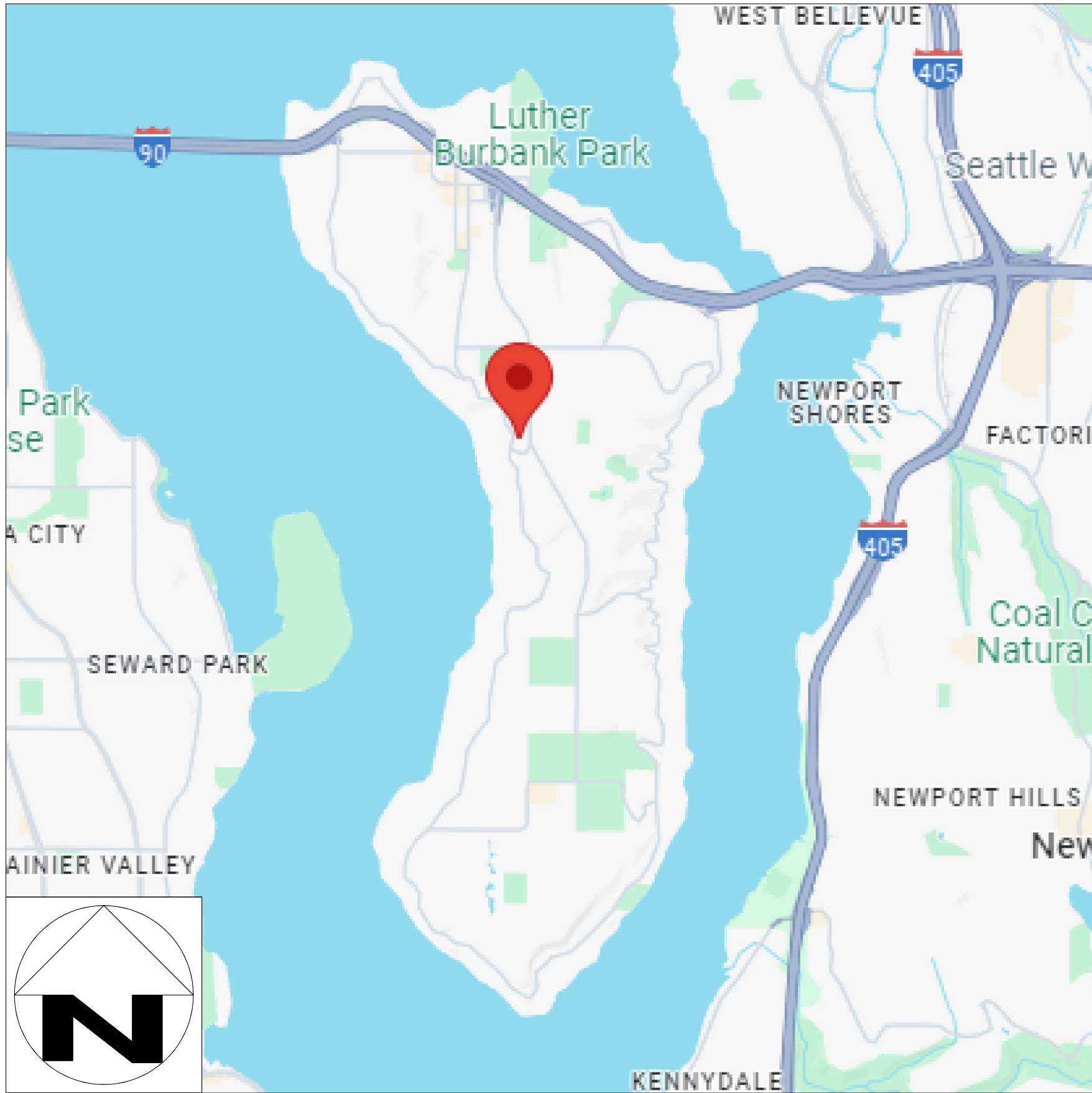
PROJECT LINKS

CLICK HERE TO VIEW YOUR PLANS USING
PPM'S WEB VIEWER POWERED BY

AUTODESK



VICINITY MAP



AERIAL VIEW



PPM PROJECT CONTACTS

SEATTLE REGIONAL OFFICE

COLIN MALONEY
REGIONAL DIRECTOR
CMALONEY@PPMCO.NET
(206) 690-8960 EXT. 261

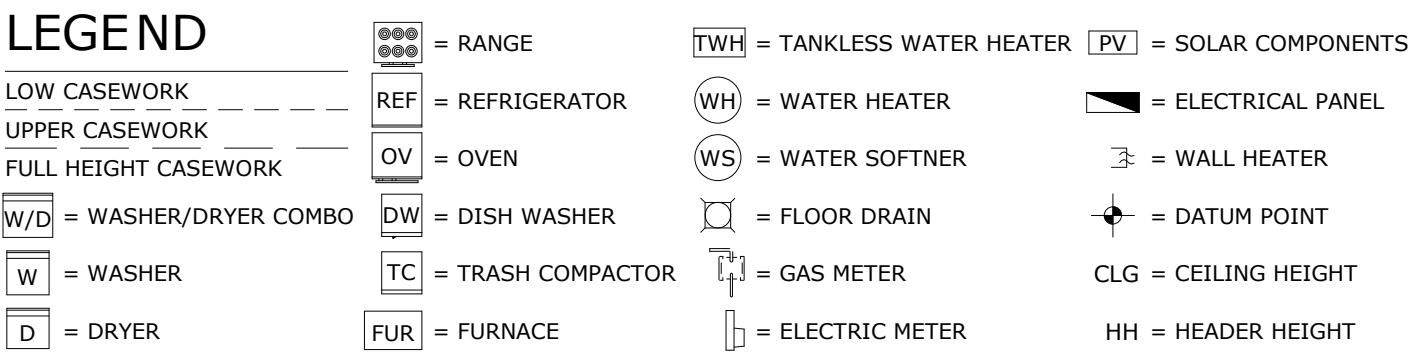
BEN JOHNSON
PROJECT MANAGER
BJOHNSON@PPMCO.NET
(206) 621-9100

CORPORATE OFFICE

OFFICE@PPMCO.NET
(855) 272-8458 EXT. 100
HTTPS://PPMCO.NET/CONTACT/

SHEET INDEX

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7	EXTERIOR ELEVATIONS
8	EXTERIOR ELEVATIONS

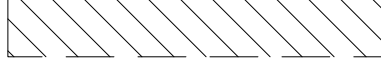


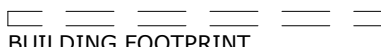
LEGEND

SOFFIT LINE		= HVAC RETURN VENT		= TRACK LIGHTING		= MOTION DETECTOR		= STROBE LIGHT		
BEAM LINE		= CEILING DUPLEX		= ROUND SUPPLY VENT		= CEILING MOUNTED FIXTURE		= MISC. EQUIPMENT		= SPRINKLER
	= CEILING QUADRAPLEX		= EXHAUST FAN w/o LIGHT		= RECESSED FIXTURE		= SECURITY CAMERA		= EMERGENCY LIGHT w/o EXIT	
	= COVER PLATE		= EXHAUST FAN w/ LIGHT		= HANGING FIXTURE		= WIFI BOOSTER		= EMERGENCY LIGHT w/ EXIT	
	= ROUND SPEAKER		= CEILING FAN w/o LIGHT		= WALL MOUNTED FIXTURE		= GARAGE DOOR OPENER		= CEILING SHOWER HEAD	
	= SQUARE SPEAKER		= CEILING FAN w/ LIGHT		= CEILING HATCH		= EXIT SIGN		= DATUM POINT	



LEGEND

- 

CHIMNEY OUTLINE
- 

BUILDING FOOTPRINT
- 

= AIR CONDITIONER
- 

= ROOF DRAIN
- 

= DOWNSPOUT
- 

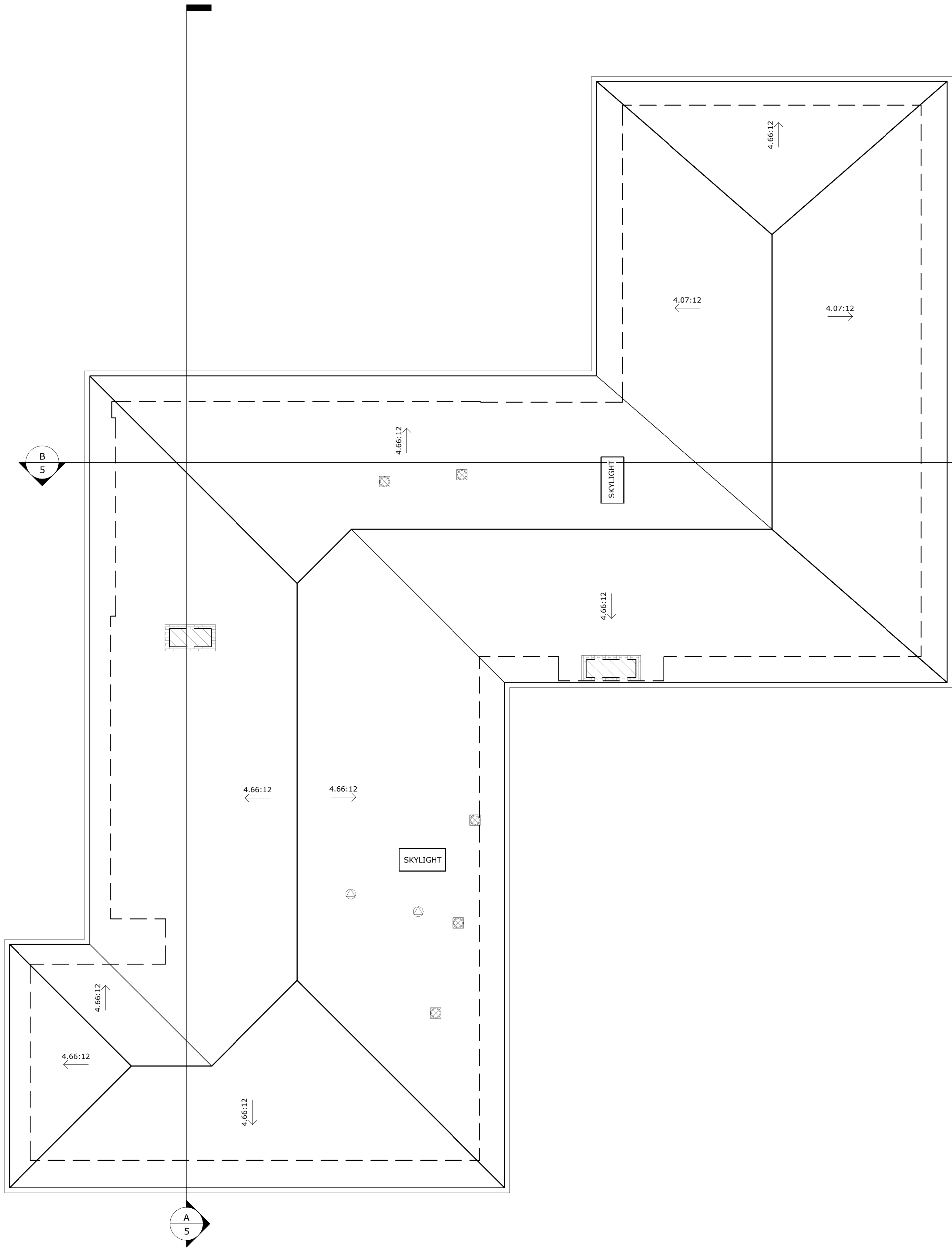
= ROOF TOP UNIT
- 

= ROOF TOP HATCH
- 

= UTILITY BOX
- 

= ROOF VENT
- 

= DATUM POINT

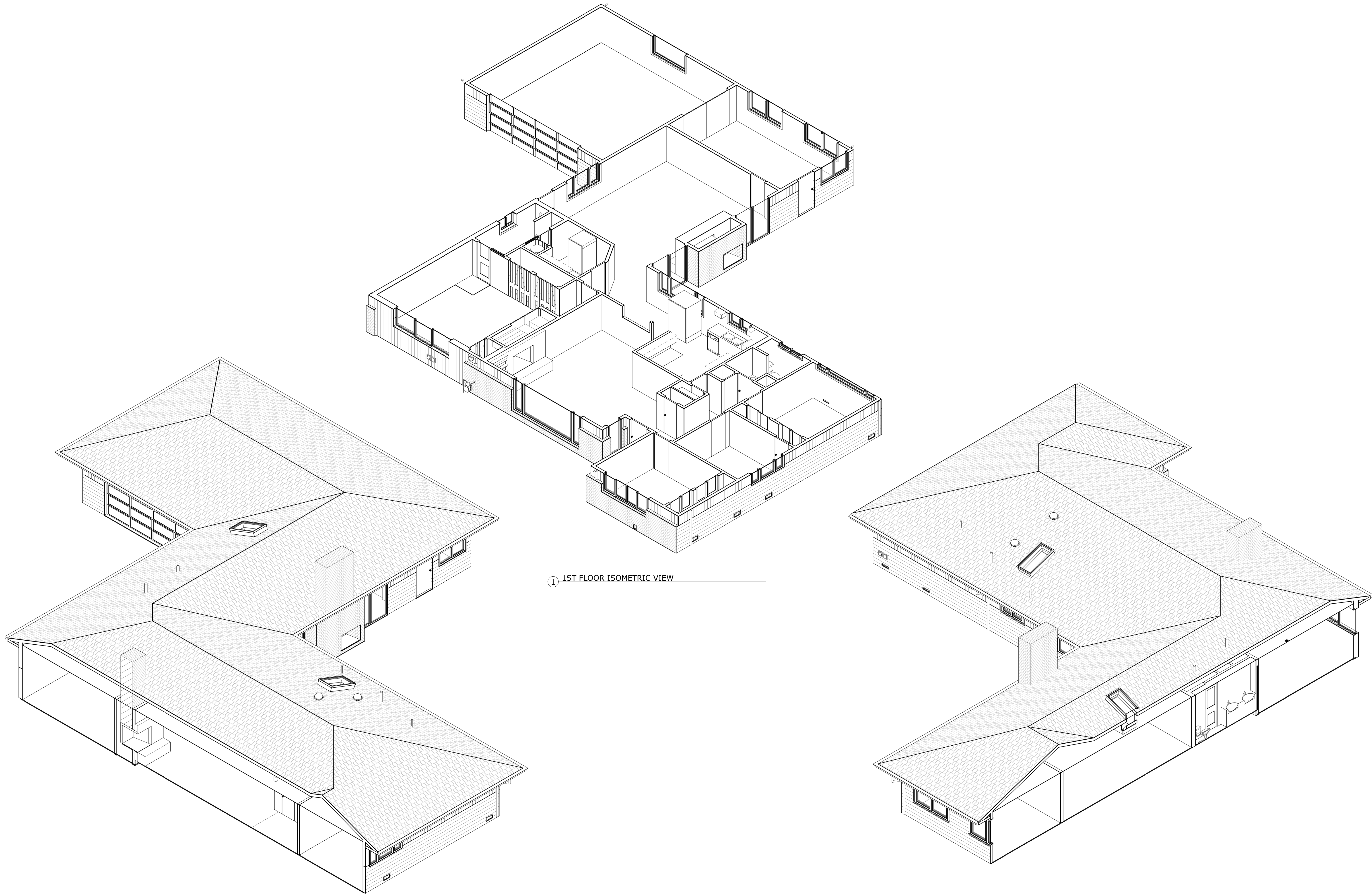




SECTION A
1/4" = 1'-0"



SECTION B
1/4" = 1'-0"



① 1ST FLOOR ISOMETRIC VIEW

③ SECTION A ISOMETRIC VIEW

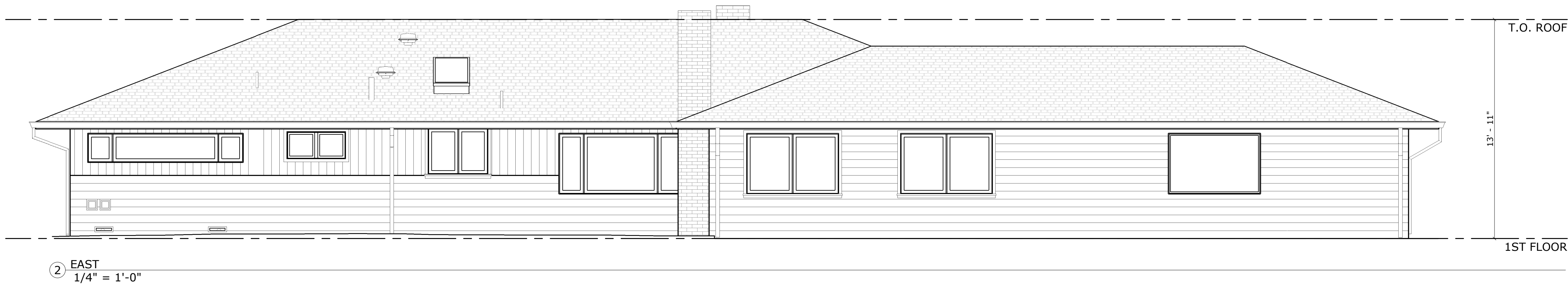
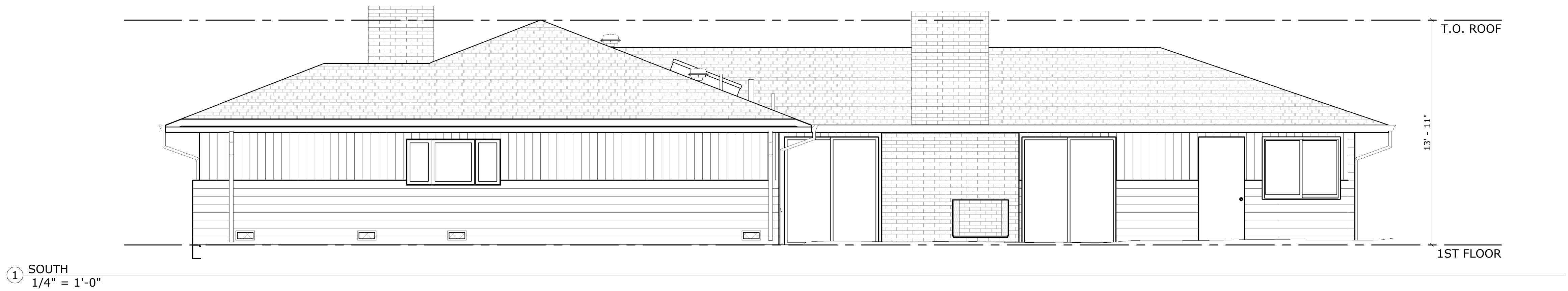
④ SECTION B ISOMETRIC VIEW

LEGEND

FINISHED GRADE LINE

FINISHED FLOOR LINE

X:12
ROOF PITCH LABEL (RISE:RUN)

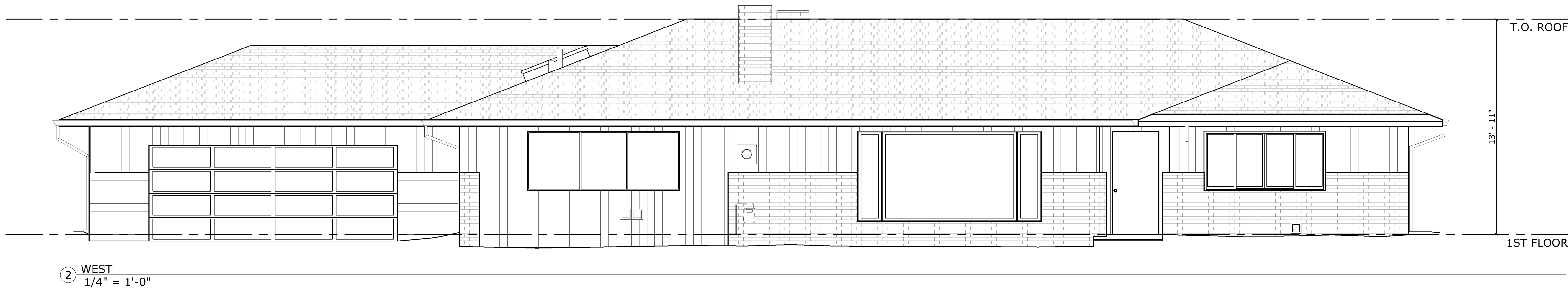
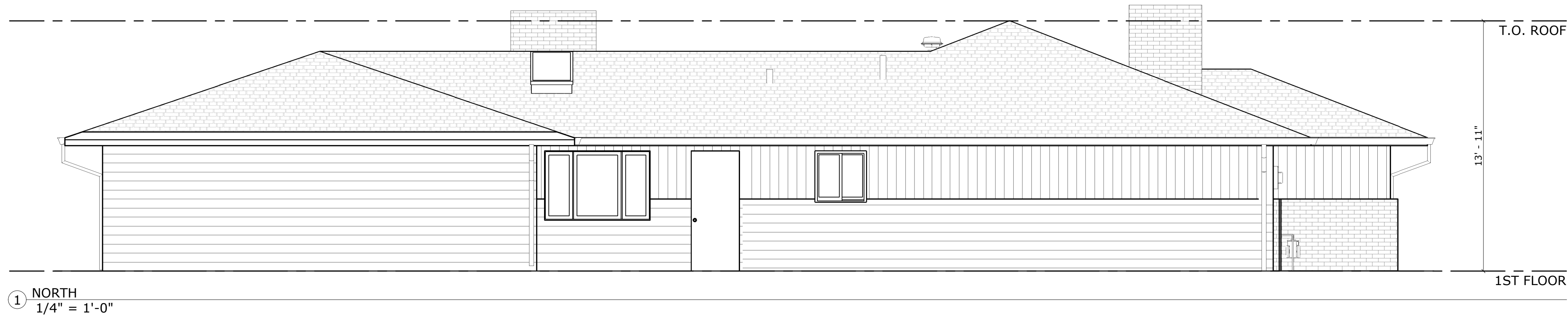


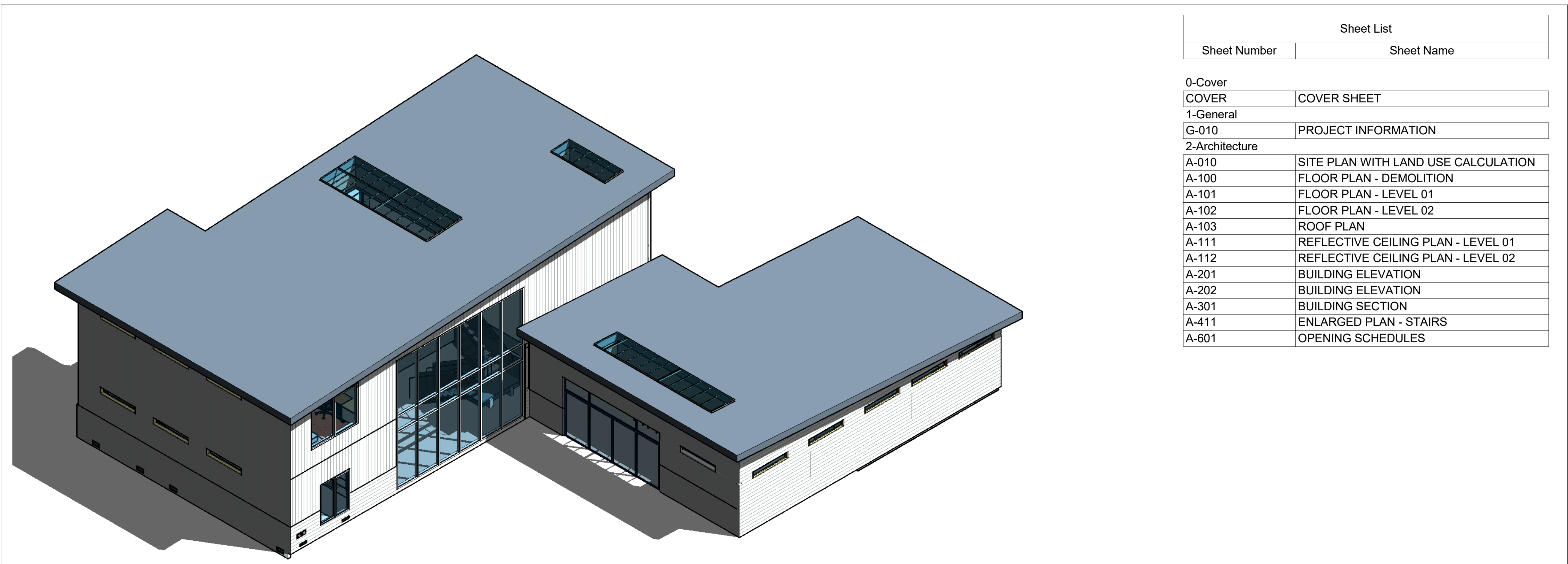
LEGEND

FINISHED GRADE LINE

FINISHED FLOOR LINE

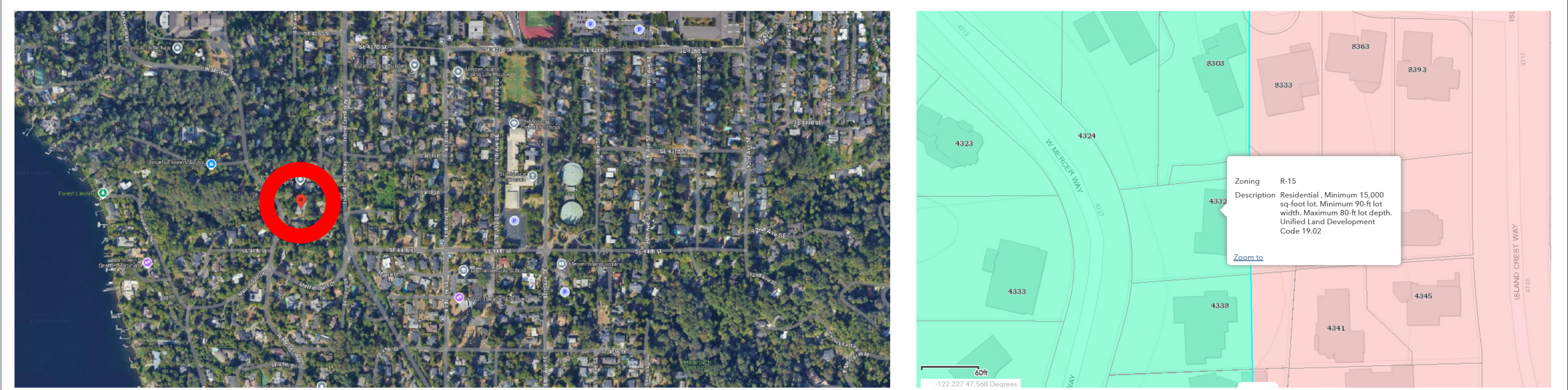
X:12
ROOF PITCH LABEL (RISE:RUN)





Sheet List	
Sheet Number	Sheet Name
0-Cover	
COVER	COVER SHEET
1-General	
G-010	PROJECT INFORMATION
2-Architecture	
A-010	SITE PLAN WITH LAND USE CALCULATION
A-100	FLOOR PLAN - DEMOLITION
A-101	FLOOR PLAN - LEVEL 01
A-102	FLOOR PLAN - LEVEL 02
A-103	ROOF PLAN
A-111	REFLECTIVE CEILING PLAN - LEVEL 01
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A-201	BUILDING ELEVATION
A-202	BUILDING ELEVATION
A-301	BUILDING SECTION
A-411	ENLARGED PLAN - STAIRS
A-601	OPENING SCHEDULES

HILLHAVEN GROVE - Mercer Island Home Addition



VICINITY MAP

SITE MAP

	SHUDAN HE ARCHITECTURE		<table border="1"><thead><tr><th>Date</th><th>Description</th><th>Revision Number</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table>	Date	Description	Revision Number																	HILLHAVEN GROVE Project number 0433220241014 4332 West Mercer Way, Mercer Island, WA		COVER SHEET		<table border="1"><tr><td colspan="2">Date 10/31/2024</td><td rowspan="2">COVER</td></tr><tr><td>SH</td><td>12" = 1'-0"</td></tr></table>	Date 10/31/2024		COVER	SH	12" = 1'-0"
	Date	Description	Revision Number																													
Date 10/31/2024		COVER																														
SH	12" = 1'-0"																															
Revision			Stamp	Owner	Project	Sheet Title		Drawn by	Scale	Sheet Number																						

PROJECT DESCRIPTION

THE PROJECT IS TO RENOVATE THE LEVEL ONE AND ADD A SECOND LEVEL ON TOP OF THE LEVEL ONE CONDITIONED AREA.

SEPARATE PERMIT

MECHANICAL HVAC SYSTEM
ELECTRICAL
PLUMBING

DEFERRED SUBMITTALS

ROOF TRUSSES
PREMANUFACTURED STRUCTURES (STAIRS, ETC.)
EXTERIOR CLADDING
CURTAIN WALL CONSTRUCTION
HVAC SYSTEM
PLUMBING SYSTEM

APPLICABLE CODE

2021 International Building Code (IBC)
2021 International Residential Code (IRC)
2021 International Fire Code (IFC)
2021 International Energy Conservation Code (IECC)
2021 International Plumbing Code (IPC)
2021 International Mechanical Code (IMC)
2021 International Fuel Gas Code (IFGC)
2021 International Existing Building Code (IEBC)
2021 Washington State Existing Building Code
2021 Washington State Building Code
2021 Washington State Mechanical Code
2021 Washington State Residential Code
2021 Washington State Energy Code - Residential Provisions
2021 Washington State Fire Code

PER R406.3: DUE TO THE ADDITIONAL CONDITIONED SPACE IS LARGER THAN 1500 SQFT, IT IS CONSIDERED AS MEDIUM DWELLING UNIT: THE REQUIRED CREDIT IS 8.0. (SEE CODE SECTION ON THIS SHEET)

SYSTEM TYPE 4: 3 CREDIT
OPTION 3.7: 2 CREDIT
OPTION 5.1: 0.5 CREDIT
OPTION 5.2: 0.5 CREDIT
OPTION 5.6: 2 CREDIT
TOTAL: 8 CREDIT

BUILDING INFORMATION

OWNER: PHEBE XU & KEN CHU
ADDRESS: 4332 WEST MERCER WAY, MERCER ISLAND, WA 98040
PARCEL NUMBER: 936570-0382-03, 321090-0051-09, 321090-0061-07
LOT SIZE (GROSS): 18,817 SF
LOT SIZE (NET): 18,138.7 SF
LOT SLOPE: 20.67% (SEE CALCULATION IN SITE PLAN A-010)
LEVEL 2 ADDITIONAL AREA: 1914.65 SF
ZONING DISTRICT: R-15
OCCUPANCY TYPE: IRC-1 SINGLE-FAMILY DWELLINGS
CONSTRUCTION TYPE: TYPE VB
PRIMARY STRUCTURAL FRAME: 0 HR
EXTERIOR BEARING WALLS: 0 HR
INTERIOR BEARING WALLS: 0 HR
INTERIOR NONBEARING WALLS AND PARTITIONS: 0 HR
FLOOR CONSTRUCTION AND SECONDARY MEMBERS: 0 HR
ROOF CONSTRUCTION AND SECONDARY MEMBERS: 0 HR

ZONING CODE REQUIREMENT

ALLOWABLE LOT COVERAGE: 35% X 18,138.7 SF = 6,348.5 SF
ALLOWABLE MAXIMUM HEIGHT: 30' ABOVE AVERAGE BUILDING ELEVATION
REQUIRED LANDSCAPE AREA: 65% X 18,138.7 SF = 11,790.2 SF
ALLOWABLE HARDSCAPE AREA: 9% X 18,138.7 SF = 1,632.48 SF
MAX. GROSS FLOOR AREA: 40% X 18,817 SF = 7,526.80 SF
FOR DETAILED INFORMATION, PLEASE REFER TO SHEET A-010 AND THE SITE DEVELOPMENT WORKSHEET.

2021 INTERNATIONAL RESIDENTIAL CODE (IRC)

EMERGENCY EGRESS WINDOWS SHALL MEET THE REQUIREMENTS OF IRC R310. EACH SLEEPING ROOM SHALL HAVE AN OPERABLE RESCUE OPENING. EMERGENCY ESCAPE MINIMUM DIMENSION SHALL MEET IRC R310.2. THE SILL HEIGHT SHALL NOT BE MORE THAN 44" FROM THE FINISH FLOOR TO THE BOTTOM OF THE OPENING. MINIMUM NET CLEAR OPENING SHALL BE 5.7 SQUARE FEET; MINIMUM CLEAR WIDTH 20"; MINIMUM HEIGHT 24".
STAIRWAYS SHALL MEET THE REQUIREMENTS OF IRC R311.7. STAIRWAYS SHALL HAVE A MINIMUM CLEAR WIDTH OF 36" ABOVE HANDRAIL, AND BE NOT LESS THAN 31 1/2" IN WIDTH BELOW HANDRAIL. MINIMUM HEADROOM SHALL NOT BE LESS THAN 6'-8". MAXIMUM RISER IS 7 3/4" AND MINIMUM TREAD IS 10". HANDRAILS SHALL NOT BE LESS THAN 34" OR MORE THAN 38" ABOVE THE SLOPE OF THE PLANE OF THE STAIRS AND SHALL BE CONTINUOUS FOR THE FULL RUN OF THE FLIGHT AND SHALL HAVE A MINIMUM SPACE OF 1 1/2" BETWEEN WALL AND TAILING.
PER IRC R312 GURADS SHALL BE INSTALLED ON ALL OPEN SIDED WALKING SURFACES INCLUDING STAIRS, RAMPS, LANDINGS, THAT ARE LOCATED MORE THAN 30" MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW. GUARDS SHALL HAVE OPENINGS SMALL ENOUGH THAT A 4" DIAMETER BALL CANNOT PASS. ALL GUARDS SHALL HAVE A MINIMUM OVERTURN RESISTANCE 200 LBS. PER IRC TABLE 301.5. SEE R311.7.8 FOR STAIR RAILING REQUIREMENTS.

CLIMATE ZONE 5 AND MARINE 4

Fenestration U-Factor ^b	0.30
Skylight U-Factor	0.50
Ceiling U-Factor	0.024
Above-Grade Wall U-Factor	0.056
Floor U-Factor	0.029
Slab on Grade F-Factor	0.54
Below Grade 2' Depth	
Wall U-Factor	0.042
Slab F-Factor	0.59
Below Grade 3.5' Depth	
Wall U-Factor	0.040
Slab F-Factor	0.56
Below Grade 7' Depth	
Wall U-Factor	0.035
Slab F-Factor	0.50

For SI: 1 foot = 304.8 mm, ci = continuous insulation, int = intermediate framing.

a. U-factors or F-factors shall be obtained from measurement, calculation or an approved source, or as specified in Section R402.1.5.

b. A maximum U-factor of 0.32 shall apply to vertical fenestration products installed in buildings located above 4000 feet in elevation above sea level, or in windborne debris regions where protection of openings is required under Section R301.2.1.2 of the International Residential Code.

CLIMATE ZONE 5 AND MARINE 4

Fenestration U-Factor ^{b, i}	0.30
Skylight ^b U-Factor	0.50
Ceiling R-Value ^a	60
Wood Frame Wall ^{9 j} R-Value	20+5 or 13+10
Floor R-Value	30
Below-Grade ^{c, h} Wall R-value	10/15/21 int + 5TB
Slab ^{d, i} R-Value & Depth	10, 4 ft

a. R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix A Table A101.4 of chapter 51-11C WAC 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 slab 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-7.5 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 percent of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

i. The first value is cavity insulation, the second value is continuous insulation. Therefore, as an example, "R13+10" means R-13 cavity insulation plus R-10 continuous insulation.

j. A maximum U-factor of 0.32 shall apply to vertical fenestration products installed in buildings located above 4000 feet in elevation above sea level, or in windborne debris regions where protection of openings is required under Section R301.2.1.2 of the International Residential Code.

2021 Washington State Energy Code

RE-21

SECTION R406
ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS

R406.1 Scope. This section establishes additional energy efficiency requirements for all new construction covered by this code, including additions subject to Section R502 and change of occupancy or use subject to Section R505 unless specifically exempted in Section R406. Credit from both Sections R406.2 and R406.3 are required.

R406.2 Carbon emission equalization. This section establishes a base equalization between fuels used to define the equivalent carbon emissions of the options specified. The permit shall define the base fuel selection to be used and the points specified in Table R406.2 shall be used to modify the requirements in Section R406.3.

TABLE R406.2
ENERGY EQUALIZATION CREDITS

System Type	Description of Primary Heating Source	Credits	
		All Other	Group R-2 ^a
1	For combustion heating equipment meeting minimum federal efficiency standards for the equipment listed in Table C403.3.2(5) or C403.3.2(6)	0	0
2	For an initial heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) and supplemental heating provided by electric resistance or a combustion furnace meeting minimum standards listed in Table C403.3.2(5) ^b	1.5	0
3	For heating system based on electric resistance only (either forced air or Zonal)	0.5	-0.5
4 ^c	For heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or C403.3.2(9) 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	3.0	2.0
5	For heating system based on electric resistance with: 1. Inverter-driven ductless mini-split heat pump system installed in the largest zone in the dwelling, or 2. With 2kW or less total installed heating capacity per dwelling	2.0	0

- a. See Section R401.1 and residential building in Section R202 for Group R-2 scope.
- b. The gas back-up furnace will operate as fan-only when the heat pump is operating. The heat pump shall operate at all temperatures above 38°F (3.3°C) (or lower). Below that "changeover" temperature, the heat pump would not operate to provide space heating. The gas furnace provides heating below 38°F (3.3°C) (or lower).
- c. Additional points for the HVAC system are included in Table R406.3.

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2021 Washington State Energy Code

TABLE R406.3 (continued)
ENERGY CREDITS

OPTION	DESCRIPTION	CREDIT(S)	
		All Other	Group R-2 ^b
5. EFFICIENT WATER HEATING OPTIONS Only one option from Items 5.3 through 5.8 may be selected in this category. Items 5.1 and 5.2 may be combined with any option.			
5.1	A drain water heat recovery unit(s) shall be installed, which captures waste water heat from at least two showers, including tub/shower combinations. It is acceptable, but not required, for sink water to be connected. Unit shall have a minimum efficiency of 40% if installed for equal flow or a minimum efficiency of 54% if installed for unequal flow. Such units shall be rated in accordance with CSA B55.1 or IAPMO IGC 346-2017 and be so labeled. To qualify to claim this credit, the building permit drawings shall include a plumbing diagram that specifies the drain water heat recovery units and the plumbing layout needed to install it. Labels or other documentation shall be provided that demonstrates that the unit complies with the standard.	0.5	0.5
5.2	For Compact Hot Water Distribution system credit, the volume shall store not more than 18 ounces of water between the nearest source of heated water and the termination of the fixture supply pipe where calculated using Section R403.5.2. <i>Construction documents</i> shall indicate the ounces of water in piping between the hot water source and the termination of the fixture supply. When the hot water source is the nearest primed plumbing loop or trunk, this must be primed with an On Demand recirculation pump and must run a dedicated ambient return line from the furthest fixture or end of loop to the water heater. To qualify for this credit, the dwelling must have a minimum of 1.5 bathrooms.	0.5	0.5
5.3	Water heating system shall include the following: 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.	0.5	0.5
5.4	Water heating system shall include one of the following: Energy Star rated gas or propane water heater with a minimum UEF of 0.91 or Solar water heating supplementing a minimum standard water heater. Solar water heating will provide a rated minimum savings of 85 therms or 2000 kWh based on the Solar Rating and Certification Corporation (SRCC) Annual Performance of OG-300 Certified Solar Water Heating System or Water heater heated by ground source heat pump meeting the requirements of Option 3.4. 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 and, for solar water heating systems, the calculation of the minimum energy savings.	1.0	1.0

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2021 Washington State Energy Code

TABLE R406.3 (continued)
ENERGY CREDITS

OPTION	DESCRIPTION	CREDIT(S)	
		All Other	Group R-2 ^b
3.4 ^{d, e}	Closed-loop ground source heat pump; with a minimum COP of 3.3 or Open loop water source heat pump with a maximum pumping hydraulic head of 150 feet and minimum COP of 3.6. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.	1.5	1.0
3.5 ^f	Ductless mini-split heat pump system, zonal control: In homes where the primary space heating system is zonal electric heating, a ductless mini-split heat pump system with a minimum HSPF2 of 9 (HSPF of 10.0) shall be installed and provide heating to the largest zone of the housing unit. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.	1.5	2.0
3.6 ^g	Air-source, centrally ducted heat pump with minimum HSPF2 of 9.4 (HSPF of 11.0). A centrally ducted air source cold climate variable capacity heat pump (cc-VCHP) found on the NEEP cc-VCHP qualified product list with a minimum of 9.8 HSPF2 (10 HSPF) may be used to satisfy this requirement. In areas where the winter design temperature as specified in Appendix RC is 23°F or below, an air source centrally ducted heat pump shall be a cold climate variable capacity heat pump as listed on the NEEP qualified product list. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.	1.0	N/A
3.7 ^{d, e, h}	Ductless split system heat pumps with no electric resistance heating in the primary living areas. A ductless heat pump system with a minimum HSPF2 of 9 (HSPF of 10) shall be sized and installed to provide heat to entire dwelling unit at the design outdoor air temperature. Exception: In homes with total heating loads of 24,000 or less using multi-zone mini-split systems with nominal ratings of 24,000 or less, the minimum HSPF s to claim this credit shall be 8.19 HSPF2 (or 9 HSPF). To qualify to claim this credit, the building permit drawings shall specify the option being selected, the heated floor area calculation, the heating equipment type(s), the minimum equipment efficiency, and total installed heat capacity (by equipment type).	2.0	3.0
3.8 ^{d, i}	Air-to-water heat pump with minimum COP of 3.2 at 47°F, rated in accordance with AHRI 550/590 by an accredited or certified testing lab. To qualify to claim this credit, the building permit drawings shall specify the option being selected, the heated floor area calculation, the heating equipment type(s), the minimum equipment efficiency, and total installed heat capacity (by equipment type).	1.0	NA

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2021 Washington State Energy Code

TABLE R406.3 (continued)
ENERGY CREDITS

OPTION	DESCRIPTION	CREDIT(S)	
		All Other	Group R-2 ^b
5.5	Water heating system shall include one of the following: Gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0. or For R-2 Occupancy, gas-fired heat pump water heater(s) meeting Tier 2 of the NEEA Advanced Water Heating Specification for Gas-Fueled Residential Storage Water Heaters Version 1.0. shall supply domestic hot water to all units. or For R-2 Occupancy, gas-fired heat pump water heater(s) meeting ANSI Z21.40.2 and Z21.40.4 or CSA, with a minimum UEF of 1.15, shall supply domestic hot water to all units. 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 and, for solar water heating systems, the calculation of the minimum energy savings.	1.5	1.5
5.6	Water heating system shall include one of the following: Electric heat pump water heater meeting the standards for Tier III of NEEA's advanced water heating specification or For R-2 Occupancy, electric heat pump water heater(s), meeting the standards for Tier III of NEEA's advanced water heating specification, shall supply domestic hot water to all units. If one water heater is serving more than one dwelling unit, all hot water supply and recirculation piping shall be insulated with R-8 minimum pipe insulation. 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.	2.0	2.5
5.7	Water heating system shall include one of the following: Electric heat pump water heater with a minimum UEF of 2.9 and utilizing a split system configuration with the air-to-refrigerant heat exchanger located outdoors. Equipment shall meet Section 4, requirements for all units, of the NEEA standard <i>Advanced Water Heating Specification</i> with the UEF noted above or For R-2 Occupancy, electric heat pump water heater(s), meeting the standards for Tier III of NEEA's advanced water heating specification and utilizing a split system configuration with the air-to-refrigerant heat exchanger located outdoors, shall supply domestic hot water to all units. If one water heater is serving more than one dwelling unit, all hot water supply and recirculation piping shall be insulated with R-8 minimum pipe insulation. 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.	2.5	3.0

2021 Washington State Energy Code

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SHUDAN
HE
ARCHITECTURE

Date	Description	Revision Number

23017354

REGISTERED
ARCHITECT

SHUDAN HE
STATE OF WASHINGTON

RevisionStampOwnerProjectSheet TitleDrawn byScaleSheet Number

HILLHAVEN GROVE

Project number 0433220241014

4332 West Mercer Way, Mercer Island, WA

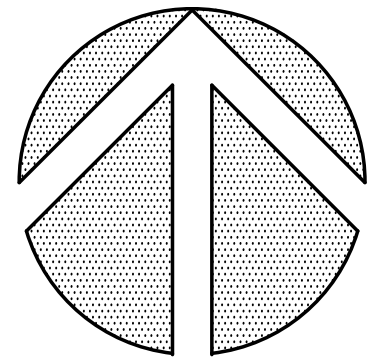
PROJECT
INFORMATION

Date
10/31/2024

SH12" = 1'-0"

G-010

12/11/2024 6:08:47 PM



SCALE: 1"=10'
0 5 10 20

NOTES NORTH

- THIS SURVEY WAS PERFORMED BY FIELD TRAVERSE USING A 10 SECOND "TOTAL STATION" THEODOLITE SUPPLEMENTED WITH A 100 FT. STEEL TAPE. THIS SURVEY MEETS OR EXCEEDS THE STANDARDS FOR LAND BOUNDARY SURVEYS AS SET FORTH IN WAC CHAPTER 332-130-090.
- CONTOUR INTERVAL = 1 FT.
- VERTICAL DATUM = NAVD'88, AS PER DIRECT OBSERVATIONS USING GPS EQUIPMENT ON NOV. 15, 2021.
HORIZONTAL DATUM = NAD 83/91
- PARCEL AREA = 18,817 SQ. FT.
- THIS SURVEY IS RELIANT UPON THE INFORMATION CONTAINED WITHIN CHICAGO TITLE COMPANY TITLE ORDER NO. 0208804-ETU, DATED JULY 01, 2021.
- UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS APPROXIMATE ONLY AND IS BASED UPON TIES TO ABOVE GROUND STRUCTURES.
- TAX PARCEL NO(S). 9365700382, 3210900051 & 3210900061
- TREE DIAMETERS AND DRIPLINES DISPLAYED HEREON ARE APPROXIMATE. FOR SPECIFIC GENUS AND DIAMETER, TREES SHOULD BE EVALUATED BY A CERTIFIED ARBORIST.
- THE AREA OF ON-SITE STEEP SLOPES 40% OR GREATER = 2,004 SQ. FT. OR 10% OF TOTAL PARCEL AREA.
- THE LOCATION AND AREA OF STEEP SLOPES AS DISPLAYED HEREON ARE APPROXIMATE AND HAVE BEEN DETERMINED TO THE BEST OF OUR ABILITY FROM FIELD DATA COLLECTED BY US DURING THE COURSE OF THIS SURVEY. FINAL DETERMINATION OF THE LOCATION OF STEEP SLOPES, AND ANY ASSOCIATED BUFFERS, IS DEPENDENT UPON REVIEW AND APPROVAL BY THE CITY OF SEATTLE.
- WE HAVE DETERMINED TO THE BEST OF OUR ABILITY THE OVERHEAD HIGH VOLTAGE POWERLINE WHICH IS CLOSEST TO THE PROJECT SITE AND HAVE DISPLAYED ITS HORIZONTAL AND VERTICAL LOCATION HEREON. HOWEVER, ADDITIONAL OVERHEAD SERVICE LINES MAY EXIST WHICH ARE NOT OBVIOUS TO US BY FIELD OBSERVATION AND POTENTIALLY IMPACT PROJECT DESIGN. THEREFORE, PRIOR TO DESIGN AND CONSTRUCTION WE RECOMMEND THAT SEATTLE CITY LIGHT BE CONSULTED REGARDING THE POSSIBLE EXISTANCE OF ADDITIONAL SERVICE LINES NOT DISPLAYED HEREON WHICH SHOULD BE CONSIDERED FOR PROJECT DESIGN.

LEGAL DESCRIPTION:

THAT PORTION OF TRACT 25, HARRY WHITE'S PLAT OF EAST SEATTLE ACRE TRACTS, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 3 OF PLATS, PAGE(S) 36, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTH LINE OF SAID TRACT 25, DISTANT 216.37 FEET SOUTH 84°58'30" WEST FROM THE NORTHWEST CORNER THEREOF; THENCE CONTINUING SOUTH 84°58'30" WEST 195 FEET, MORE OR LESS, TO A POINT ON THE EAST MARGINAL LINE OF WEST MERCER WAY AS NOW ESTABLISHED; THENCE SOUTHERLY ALONG SAID EAST MARGINAL LINE OF WEST MERCER WAY, A DISTANCE OF 93.64 FEET; THENCE NORTH 86°38'10" EAST 170.86 FEET, MORE OR LESS, TO A POINT WHICH BEARS SOUTH 4°52'41" WEST FROM THE POINT OF BEGINNING; THENCE NORTH 4°52'41" EAST 103.23 FEET TO THE POINT OF BEGINNING; ALSO

THAT PORTION OF TRACT 5, HEATHER BRAE, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 81 OF PLATS, PAGE(S) 56, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

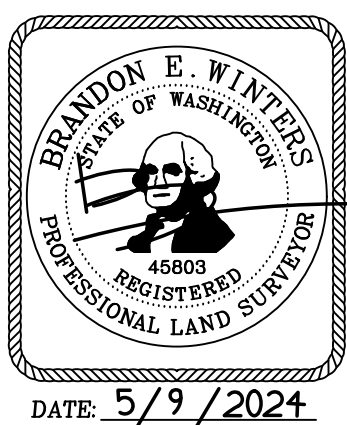
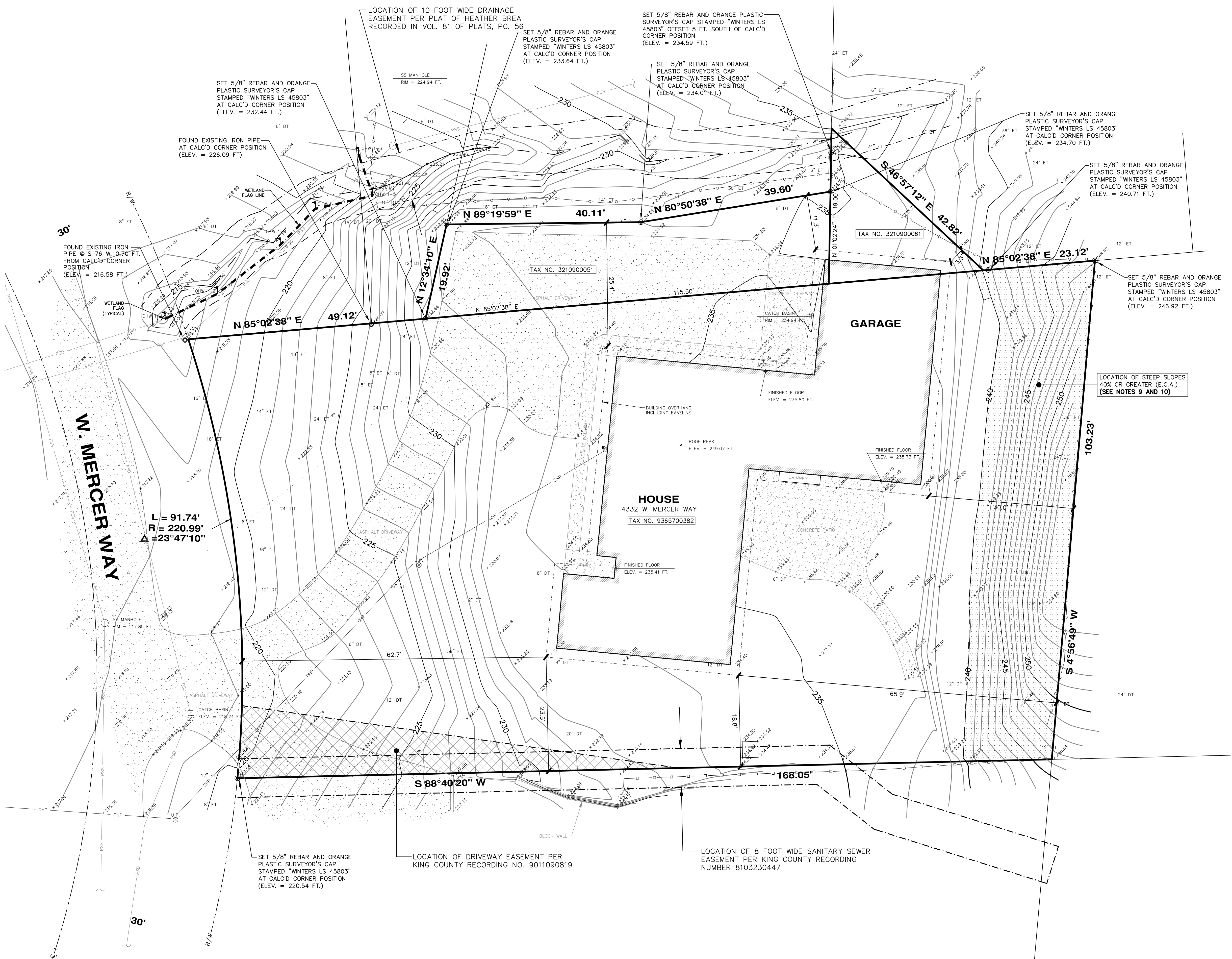
BEGINNING AT THE SOUTHEAST CORNER OF SAID TRACT 5; THENCE SOUTH 83°53'45" WEST ALONG THE SOUTH LINE THEREOF 83.50 FEET; THENCE NORTH 11°25'17" EAST 19.92 FEET; THENCE NORTH 88°11'06" EAST 40.11 FEET; THENCE NORTH 79°41'45" EAST 39.60 FEET TO THE EAST LINE OF SAID TRACT 5; THENCE SOUTH 0°05'56" EAST 19.00 FEET TO THE POINT OF BEGINNING;

AND THAT PORTION OF LOT 6 OF SAID PLAT OF HEATHER BRAE LYING SOUTHWESTERLY OF A LINE EXTENDING FROM A POINT ON THE WESTERLY LINE OF SAID LOT WHICH IS 32 FEET NORTHERLY OF THE SOUTHWEST CORNER THEREOF, TO A POINT ON THE SOUTHERLY LINE OF SAID LOT WHICH IS 32 FEET EASTERLY OF SAID SOUTHWEST CORNER.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

LEGEND:

	GAS METER		ROCKERY		UTILITY POLE
	ELECTRIC METER		CONCRETE PAVING		OVERHEAD POWER LINE
	WATER VALVE		ASPHALT PAVING		OVERHEAD COMMUNICATIONS LINE
	FIRE HYDRANT		CHAIN LINK FENCE		UNDERGROUND COMMUNICATIONS LINE
	WATER METER		WOODEN FENCE		UNDERGROUND POWER LINE
	MANHOLE COVER		GAS VALVE		UNDERGROUND GAS LINE
	CATCH BASIN		POWER POLE		UNDERGROUND WATER LINE
					UNDERGROUND SANITARY SIDE SEWER
					X" DIAMETER STORM MAIN
					X" DIAMETER SEWER MAIN
					X" DIAMETER WATER MAIN



TOPOGRAPHIC SURVEY

4332 WEST MERCER WAY

MERCER ISLAND, WASHINGTON

CHADWICK WINTERS
LAND SURVEYING AND MAPPING
1422 N.W. 85TH ST., SEATTLE, WA 98117
PHONE: 206.297.0996
FAX: 206.297.0997
WEB: WWW.CHADWICKWINTERS.COM

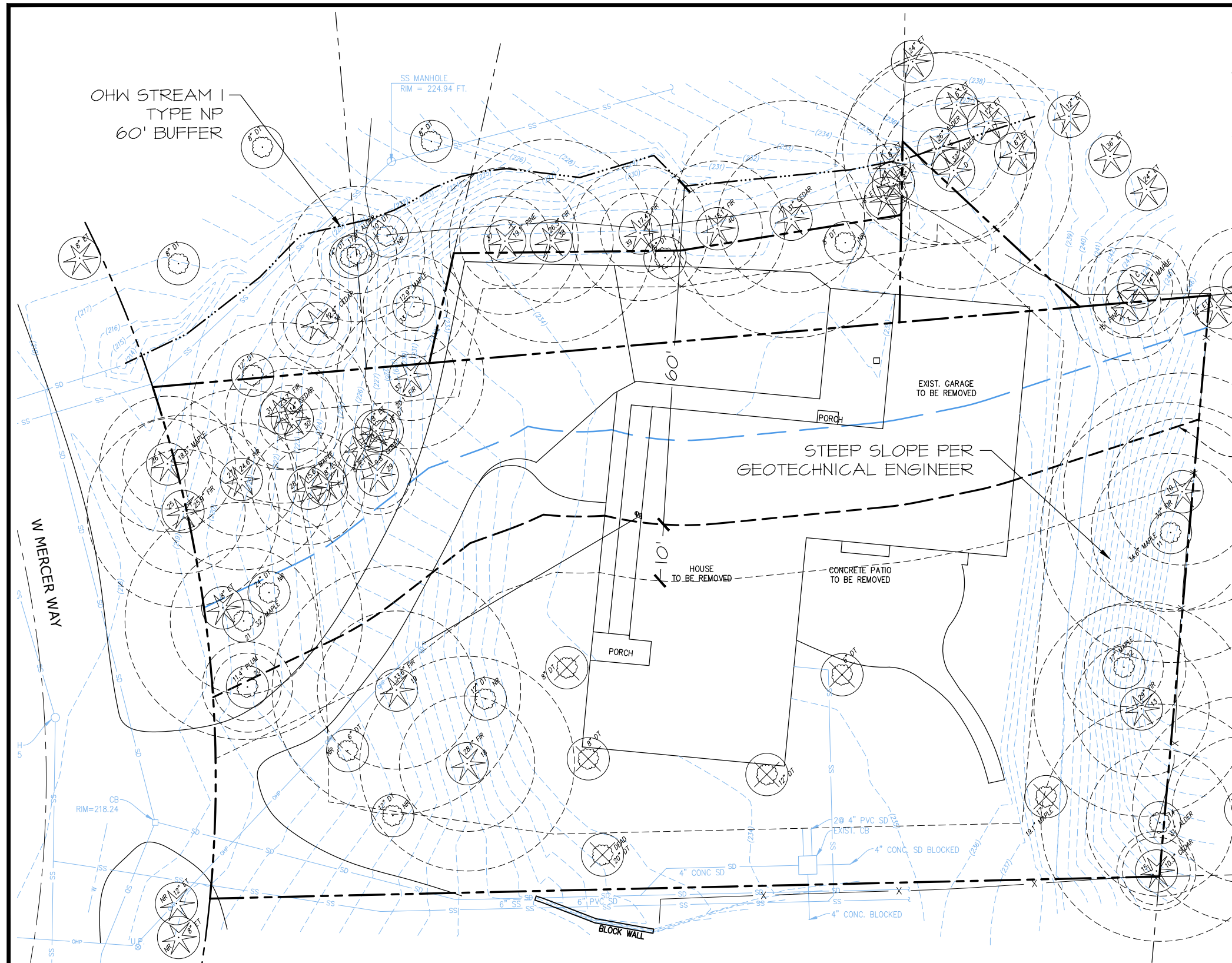
PROJECT #: 21-7329

DRAWING: 21-7329 TOP0.DWG

CLIENT: KEN CHU

DATE: 05/9/2024

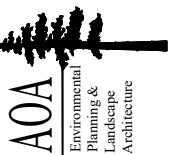
DRAWN BY: RCS



PLAN LEGEND

- PROPERTY LINE
- SOUTH STREAM ORDINARY HIGH WATER LINE
- 60' STREAM BUFFER
- 10' STRUCTURE SETBACK

FIGURE 1: EXISTING CONDITIONS
CHU PROPERTY
4332 WEST MERCER WAY
MERCER ISLAND, WASHINGTON
PARCEL 9365700382



Almann Oliver Associates, LLC
Environmental
Planning &
Landscape
Architecture

PO Box 578 Camanah, WA 98014 Office (425) 333-4333 Fax (425) 333-4599

PROJECT
6625

DRAWN
SO

SCALE
AS NOTED

DATE
05-31-24

REVISED

1/5

NOTES

- BASE INFORMATION PROVIDED BY NICK BOSSOFF ENGINEERING, INC., 191 NE TARI LANE, STEVENSON, WA 98648, 425.881.5904.

PLANT SCHEDULE

TREES

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY	SIZE (MIN.)	NOTES
AC	ACER CIRCINATUM	VINE MAPLE	9' O.C.	5	2 GAL.	MULTI-STEM (3 MIN.)
CD	CALOCEDRUS DECURRENS	INCENSE CEDAR	9' O.C.	2	2 GAL.	FULL & BUSHY
CC	CORYLUS CORNUTA	WESTERN HAZELNUT	9' O.C.	4	2 GAL.	MULTI-STEM (3 MIN.)
PM	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	9' O.C.	2	2 GAL.	FULL & BUSHY
QG	QUERCUS GARRYANA	GARRY OAK	9' O.C.	2	2 GAL.	FULL & BUSHY
RP	RHAMNUS PURSHIANA	CASCARA	9' O.C.	3	2 GAL.	SINGLE TRUNK

SHRUBS

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY	SIZE (MIN.)	NOTES
HD	HOLODISCUS DISCOLOR	OCEAN SPRAY	5' O.C.	6	1 GAL.	MULTI-STEM (3 MIN.)
M	MAHONIA AQUIFOLIUM	TALL OREGON GRAPE	3' O.C.	18	1 GAL.	FULL & BUSHY
OC	OEMLERIA CERASIFORMIS	INDIAN PLUM	5' O.C.	8	1 GAL.	MULTI-STEM (3 MIN.)
RS	RIBES SANVINEUM	RED FLOWERING CURRANT	5' O.C.	8	1 GAL.	MULTI-STEM (3 MIN.)
R	ROSA GYMNOCARPA	BALDHIP ROSE	3' O.C.	23	1 GAL.	MULTI-STEM (3 MIN.)
N	ROSA NUTKANA	NOOTKA ROSE	3' O.C.	19	1 GAL.	MULTI-STEM (3 MIN.)
S	SYMPHORICARPOS ALBUS	SNOWBERRY	3' O.C.	39	1 GAL.	MULTI-STEM (3 MIN.)
V	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	3' O.C.	33	1 GAL.	FULL & BUSHY

GROUND COVER

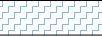
KEY	SCIENTIFIC NAME	COMMON NAME	DENSITY	QTY	SIZE (MIN.)	NOTES
	FRAGARIA CHILOENSIS	COAST STRAWBERRY	2' O.C.	350	1 GAL.	FULL & BUSHY
	GAULTERIA SHALLON	SALAL	2' O.C.	25	1 GAL.	FULL & BUSHY
	POLYSTICHUM MUNITUM	SWORD FERN	3' O.C.	200	1 GAL.	FULL & BUSHY

FIGURE 4: PLANT SCHEDULE
CHU PROPERTY
4332 WEST MERCER WAY
MERCER ISLAND, WASHINGTON
PARCEL 9365700382

Altmann Oliver Associates, LLC
PO Box 578 Camano, WA 98014
Office (425) 333-4333 Fax (425) 333-4599



Environmental
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Architecture

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PROJECT
6625

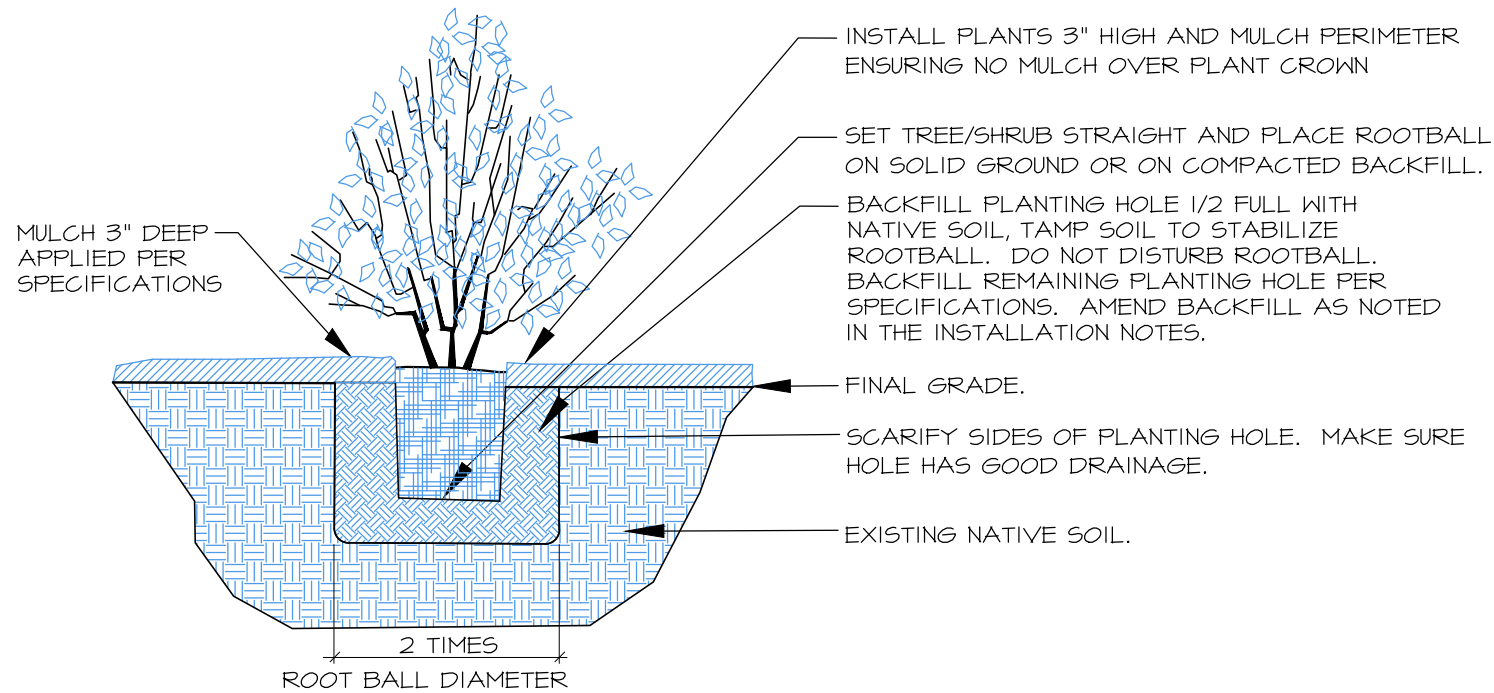
SCALE

AS NOTED

DATE
05-31-24

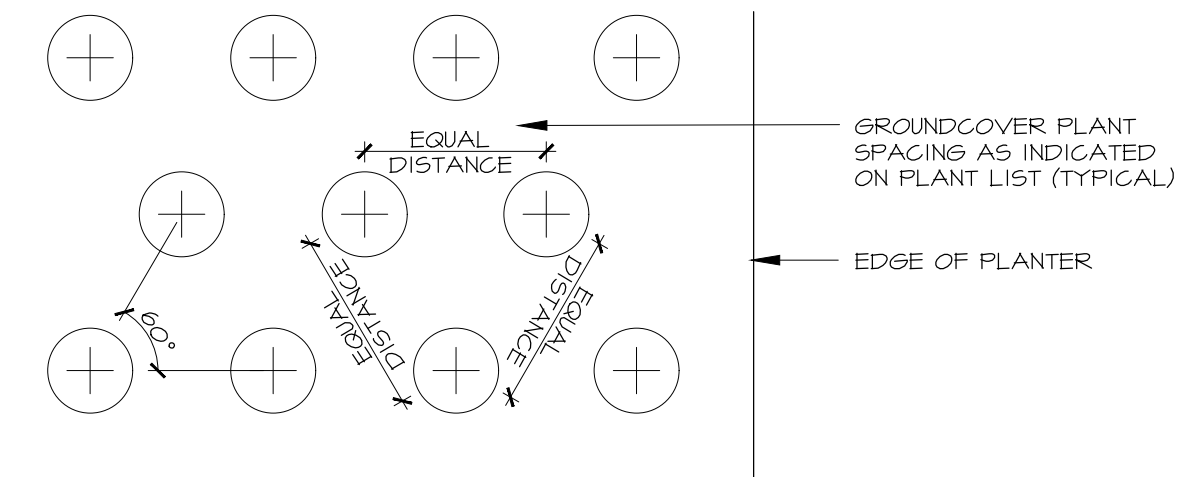
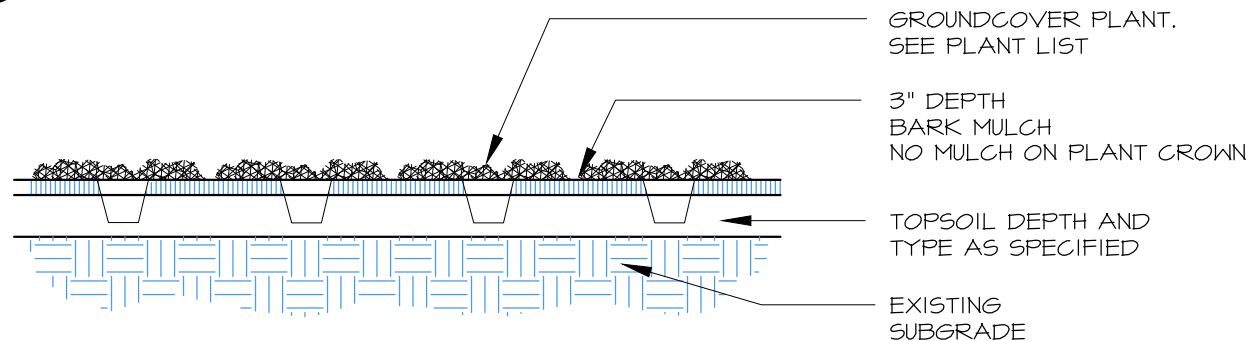
REVISED

4/5



1 CONTAINER TREE/SHRUB PLANTING (TYP.)

SCALE: NTS



2 GROUNDCOVER PLANTING (TYP.)

SCALE: NTS

SPECIFICATIONS

- PRIOR TO PLANTING, ALL NON-ORGANIC DEBRIS AND NON-NATIVE, INVASIVE VEGETATION SHALL BE HAND-REMOVED AND EXPORTED OFF SITE. EXISTING RHODODENDRON SHALL BE PRUNED BACK. IRRIGATION SHALL BE ADJUSTED TO COVER MITIGATION AREA.
- PRIOR TO PLANTING, ALL NON-NATURAL MATERIALS SHALL BE REMOVED (GRAVEL, ROCK, CONCRETE) FROM EXISTING DEVELOPED AREAS AND YARD. A 6" LIFT OF IMPORTED CEDAR GROVE 3-WAY TOPSOIL SHALL BE PLACED AND TILLED INTO THE TOP 6" OF SUBGRADE PRIOR TO PLANTING.
- IMPORTED CEDAR GROVE 3-WAY TOPSOIL SHALL BE PLACED IN THE NON-GRADED AREAS AFTER WEED REMOVAL TO PRE-REMOVED GRADES PRIOR TO PLANTING AND MULCHING.
- ALL PLANTS SHOULD BE INSTALLED BETWEEN DECEMBER 1ST AND MARCH 15TH.
- ALL PLANTS SHALL BE PIT-PLANTED IN PLANTING PITS EXCAVATED 2X THE DIAMETER OF THE PLANT. PITS SHALL BE BACKFILLED WITH A 30/70 MIX OF STEERCO TO NATIVE SOIL. PLANTS SHALL BE INSTALLED 2" HIGH AND SURFACED MULCHED TO A DEPTH OF 3" WITH WOOD CHIPS PLACED CONTINUOUSLY THROUGHOUT THE PLANTING BED.
- ALL PLANTS SHALL BE NURSERY GROWN (IN W. WA OR OR.) FOR AT LEAST 1 YEAR FROM PURCHASE DATE, FREE FROM DISEASE OR PESTS, WELL-ROOTED, BUT NOT ROOT-BOUND AND TRUE TO SPECIES.
- LANDSCAPE CONTRACTOR TO INSTALL DRIP OR LOW-FLOW IRRIGATION SYSTEM CAPABLE OF HEAD TO HEAD COVERAGE OF ALL PLANTINGS.
- ALL PLANTINGS SHALL BE IRRIGATED AT A RATE OF 1/2" OF FLOW 2-3 TIMES WEEKLY, FROM JUNE 15-OCT 15 THE FIRST YEAR AFTER PLANTING. THE SECOND YEAR, FLOW SHOULD BE REDUCED TO PROVIDE 1/2" OF FLOW 1-2 TIMES WEEKLY FROM JULY 1-SEPT 30. THE SYSTEM CAN BE REMOVED AFTER 3 YEARS.
- UPON APPROVAL OF PLANTING INSTALLATION BY AOA, MERCER ISLAND WILL BE NOTIFIED TO CONDUCT A SITE REVIEW FOR FINAL APPROVAL OF CONSTRUCTION.
- MAINTENANCE SHALL BE IMPLEMENTED ON A REGULAR BASIS ACCORDING TO THE SCHEDULE BELOW.

ANNUAL MAINTENANCE SCHEDULE

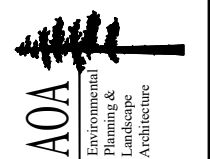
MAINTENANCE ITEM	J	F	M	A	M	J	J	A	S	O	N	D
WEED CONTROL			1		1		1			1		
GENERAL MAINT.			1		1		1			1		
WATERING - YEAR 1						4	8	8	8	4		
WATERING - YEAR 2							4	4	4			

1-8 = NUMBER OF TIMES TASK SHALL BE PERFORMED PER MONTH.

MAINTENANCE WILL INCLUDE:

- REMOVAL OF NON-NATIVE PLANTS, BY HAND, AS LISTED ABOVE.
- CONTINUED APPLICATION OF IRRIGATION, AS NOTED ABOVE.
- REMOVAL OF PEST INFESTATIONS, LIKE TENT CATERPILLAR AND SPRUCE APHID.
- THINNING OF RED ALDER AND MOWING OF TALL GRASSES, AS DIRECTED BY AOA TO ENSURE SURVIVAL OF PLANTED SPECIES.

FIGURE 5: PLANTING DETAILS & SPECIFICATIONS
CHU PROPERTY
4332 WEST MERCER WAY
MERCER ISLAND, WASHINGTON
PARCEL 9365700382



Almann Oliver Associates, LLC
PO Box 578
Carnation, WA 98014
Office (425) 333-4333 Fax (425) 333-4599

NE 1/4 SEC. 13, TWP. 24 N., RGE. 4 E., W.M.

ALL DISTURBED SOILS
SHALL BE AMENDED
PER NOTES ON C-3

10' DRAINAGE EASEMENT PER PLAT OF HEATHER BREA
RECORDED IN VOL. 81 OF PLATS, PG. 56

SS MANHOLE
RIM = 224.94

SET 5/8" REBAR AND ORANGE
PLASTIC SURVEYOR'S CAP
STAMPED "WINTERS LS 45803"
AT CALC'D CORNER POSITION
EL=233.64

SET 5/8" REBAR AND ORANGE
PLASTIC SURVEYOR'S CAP
STAMPED "WINTERS LS 45803"
OFFSET 5 FT. SOUTH OF
CALC'D CORNER POSITION
EL=234.59

SET 5/8" REBAR AND ORANGE
PLASTIC SURVEYOR'S CAP
STAMPED "WINTERS LS 45803"
AT CALC'D CORNER POSITION
EL=234.01

SET 5/8" REBAR AND ORANGE
PLASTIC SURVEYOR'S CAP
STAMPED "WINTERS LS 45803"
AT CALC'D CORNER POSITION
EL=234.70

SET 5/8" REBAR AND ORANGE
PLASTIC SURVEYOR'S CAP
STAMPED "WINTERS LS 45803"
AT CALC'D CORNER POSITION
EL=240.73

SET 5/8" REBAR AND ORANGE
PLASTIC SURVEYOR'S CAP
STAMPED "WINTERS LS 45803"
AT CALC'D CORNER POSITION
EL=246.92

SET 5/8" REBAR AND ORANGE
PLASTIC SURVEYOR'S CAP
STAMPED "WINTERS LS 45803"
AT CALC'D CORNER POSITION
EL=232.44

FOUND EXISTING IRON PIPE
AT CALC'D CORNER POSITION
EL=226.09

FOUND EXISTING IRON PIPE
@ S 76 W, 0.70 FT. FROM
CALC'D CORNER POSITION
EL=216.58

WORK INSIDE DRIPLINE LIMITED
TO DRIVEWAY REMOVAL.
EXERCISE CAUTION AND
DO NO TRIM ROOTS
WITHOUT CONSULTING
PROJECT ARBORIST.

SAWCUT EXIST. PAVEMENT
FULL DEPTH AND REMOVE
PAVEMENT EAST OF THE SAWCUT

CONCRETE DRIVEWAY
TO BE REMOVED

EXIST. GARAGE
TO BE REMOVED

CATCH BASIN
RIM=234.94
TO BE REMOVED

RECOMMENDED LIMIT
OF DISTURBANCE (TYP.)

MINIMUM LIMIT OF
DISTURBANCE (TYP.)

45' OHWM BUFFER

LIMIT OF CONSTRUCTION
ACTIVITY

ROCK CONSTRUCTION ENTRANCE
SEE DETAIL 3/C-3

CONCRETE WALKWAY
TO BE REMOVED

HOUSE
TO BE REMOVED

CONCRETE PATIO
TO BE REMOVED

EXIST. TREE
TO BE REMOVED (TYP.)

STAGING AND
STOCKPILE LOCATION
AS NECESSARY.
COVER IF RAIN IS IMMINENT.

EXIST. TREE
TO REMAIN (TYP.)

LOCATION OF STEEP SLOPES
40% OR GREATER (E.C.A.)
(SEE NOTES 9 AND 10)

WORK INSIDE OF LIMITS
OF DISTURBANCE LIMITED TO
INSTALLATION OF SOLDIER
PILE WALL AND FRENCH DRAIN.
ARBORIST TO BE PRESENT ON
SITE DURING INSTALLATION.

SILT FENCE
SEE DETAIL 2/C-3
MAY BE REPLACED W/
ORANGE BARRIER FENCE
AT UPSLOPE PERIMETER

MULCH OR SEED
DISTURBED SOIL (TYP.)

2" @ 4" PVC SD
EXIST. CB

4" CONC. SD BLOCKED

PROTECT REWORKED SLOPES
TEMPORARILY WITH MULCH
AND PERMANENTLY WITH SEEDING.
SLOPES EXCEEDING 2H:1V AT
TRANSITION TO EXIST. SLOPES SHALL
BE PROTECTED WITH JUTE MAT.

DATUM

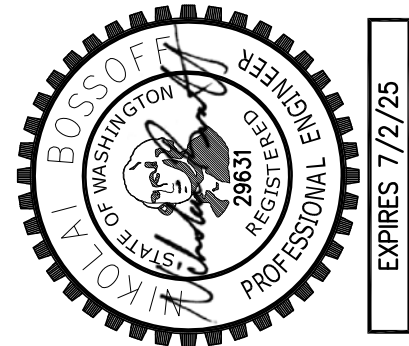
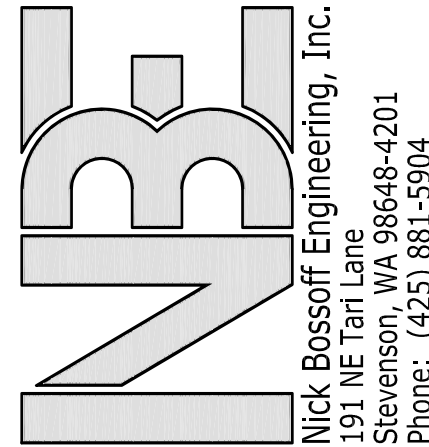
VERTICAL DATUM
NAVD'88, AS PER DIRECT OBSERVATIONS USING GPS EQUIPMENT ON
NOV. 15, 2021.
HORIZONTAL DATUM
NAD 83/91

DEWATERING

WATER COLLECTED IN THE BUILDING EXCAVATION, DETENTION FACILITY TRENCH, OR UTILITY TRENCHES MAY BE DISPERSED OVER ONSITE PERVIOUS AREAS SUBJECT TO THE FOLLOWING RESTRICTIONS.

1. THE PERVIOUS AREAS SHALL BE AMENDED PER THE NOTES ON SHEET C-3, AND STABILIZED WITH VEGETATION OR MULCH.
2. THE SLOPE OF THE PERVIOUS SURFACE SHALL NOT EXCEED 5%.
3. THE WATER SHALL BE DISCHARGED ONTO THE SURFACE IN A DISPERSED MANNER TO NOT CAUSE EROSION NOR CREATE RUNOFF THAT HAS POTENTIAL TO FLOW OFFSITE.
4. THE DISCHARGE LOCATION SHALL BE A MINIMUM OF 25 FEET FROM A PROPERTY LINE, MEASURED ALONG THE LINE OF FALL, UNLESS OTHERWISE APPROVED BY THE CITY INSPECTOR.
5. DISCHARGE TO PERVIOUS AREAS SHALL CEASE IF THE ABSORPTION CAPACITY OF THE SOIL IS EXCEEDED CREATING POTENTIAL FOR RUNOFF. DEWATERING SHALL CEASE UNTIL A SATISFACTORY ALTERNATIVE, SUCH AS TRANSPORTING OFFSITE TO AN APPROVED DUMP SITE, IS APPROVED BY THE CITY INSPECTOR.

NOTE: This Civil Plan was produced during the previous "New Construction" design package. In this application for "Interior Renovation and Second Level Addition", there is no demolition nor addition of hard surface. No trees are removed neither.



NO.	DATE	REVISION
1	05/14/24	PERMIT SUBMITAL
2		
3		
4		
5		

N. BOSSOFF, P.E.
PROJECT MANAGER:
DESIGNED:
TKB
DRAWN:
ECTY-2301
JOB NUMBER:
ECTY-2301
FILE NAME:
ECTY-2301.pln.dwg

WASHINGTON

CHU RESIDENCE
4332 W MERCER WAY

MERCER ISLAND

TITLE:	T.E.S.C. PLAN
SHEET:	C-1

CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555

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 PERMITTING. 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 ESC 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. ANY AREA NEEDING ESC MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.
9. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY-EIGHT (48) HOURS FOLLOWING A STORM EVENT.
10. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A 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.
11. STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
12. ANY PERMANENT FLOW CONTROL FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
13. WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2 TO 3 INCHES.
14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE DDES INSPECTOR. THE DDES INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.

POLLUTION PREVENTION AND SPILL CONTROL

STORAGE AND HANDLING OF LIQUIDS

1. MINIMIZE AMOUNT OF LIQUIDS STORED ON SITE.
2. STORE AND CONTAIN LIQUID MATERIALS IN SUCH A MANNER THAT IF A VESSEL IS RUPTURED OR LEAKS, THE CONTENTS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORM DRAINAGE SYSTEM, SURFACE WATERS, OR GROUNDWATER. TYPICALLY THIS MEANS INSTALLING SECONDARY CONTAINMENT, SUCH AS A LINED EXCAVATION, LARGER CONTAINER, OR USING A DOUBLE-WALLED TANK OR SIMILAR COMMERCIALLY AVAILABLE CONTAINMENT FACILITY.
3. PLACE TIGHT-FITTING LIDS ON ALL CONTAINERS.
4. ENCLOSE OR COVER THE CONTAINERS WHERE THEY ARE STORED TO PROTECT FROM RAIN. THE LOCAL FIRE DISTRICT MUST BE CONSULTED FOR LIMITATIONS ON CLEARANCE OF ROOF COVERS OVER CONTAINERS USED TO STORE FLAMMABLE MATERIALS.
5. RAISE THE CONTAINERS OFF THE GROUND BY USING A SPILL CONTAINMENT PALLET OR SIMILAR METHOD THAT HAS PROVISIONS FOR SPILL CONTROL.
6. PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH ALL MOUNTED CONTAINER TAPS, AND AT ALL POTENTIAL DRIP AND SPILL LOCATIONS DURING FILLING AND UNLOADING OF CONTAINERS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
7. STORE AND MAINTAIN ABSORBENT PADS OR APPROPRIATE SPILL CLEANUP MATERIALS NEAR THE CONTAINER STORAGE AREA, IN A LOCATION KNOWN TO ALL. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH THE SITE'S SPILL PLAN AND/OR PROPER SPILL CLEANUP PROCEDURES.
8. CHECK CONTAINERS (AND ANY CONTAINMENT SUMPS) DAILY FOR LEAKS AND SPILLS. REPLACE CONTAINERS THAT ARE LEAKING, CORRODED, OR OTHERWISE DETERIORATING. IF THE LIQUID CHEMICALS ARE CORROSIVE, CONTAINERS MADE OF COMPATIBLE MATERIALS MUST BE USED INSTEAD OF METAL DRUMS. NEW OR SECONDARY CONTAINERS MUST BE LABELED WITH THE PRODUCT NAME AND HAZARDS.
9. PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH A CONTAINER THAT IS FOUND TO BE LEAKING. REMOVE THE DAMAGED CONTAINER AS SOON AS POSSIBLE. MOP UP THE SPILLED LIQUID WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.

FUELING

1. LOCATE THE FUELING OPERATION TO ENSURE LEAKS OR SPILLS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORM DRAINAGE SYSTEM, SURFACE WATER, OR GROUNDWATER.
2. USE DRIP PANS OR ABSORBENT PADS TO CAPTURE DRIPS OR SPILLS DURING FUELING OPERATIONS.
3. IF FUELING IS DONE DURING EVENING HOURS, LIGHTING MUST BE PROVIDED.
4. STORE AND MAINTAIN APPROPRIATE SPILL CLEANUP MATERIALS IN THE MOBILE FUELING VEHICLE. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH PROPER SPILL CONTROL AND CLEANUP PROCEDURES.
5. IMMEDIATELY MOP UP ANY SPILLED FUEL WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.

CONCRETE SAW CUTTING, SLURRY, AND WASHWATER DISPOSAL

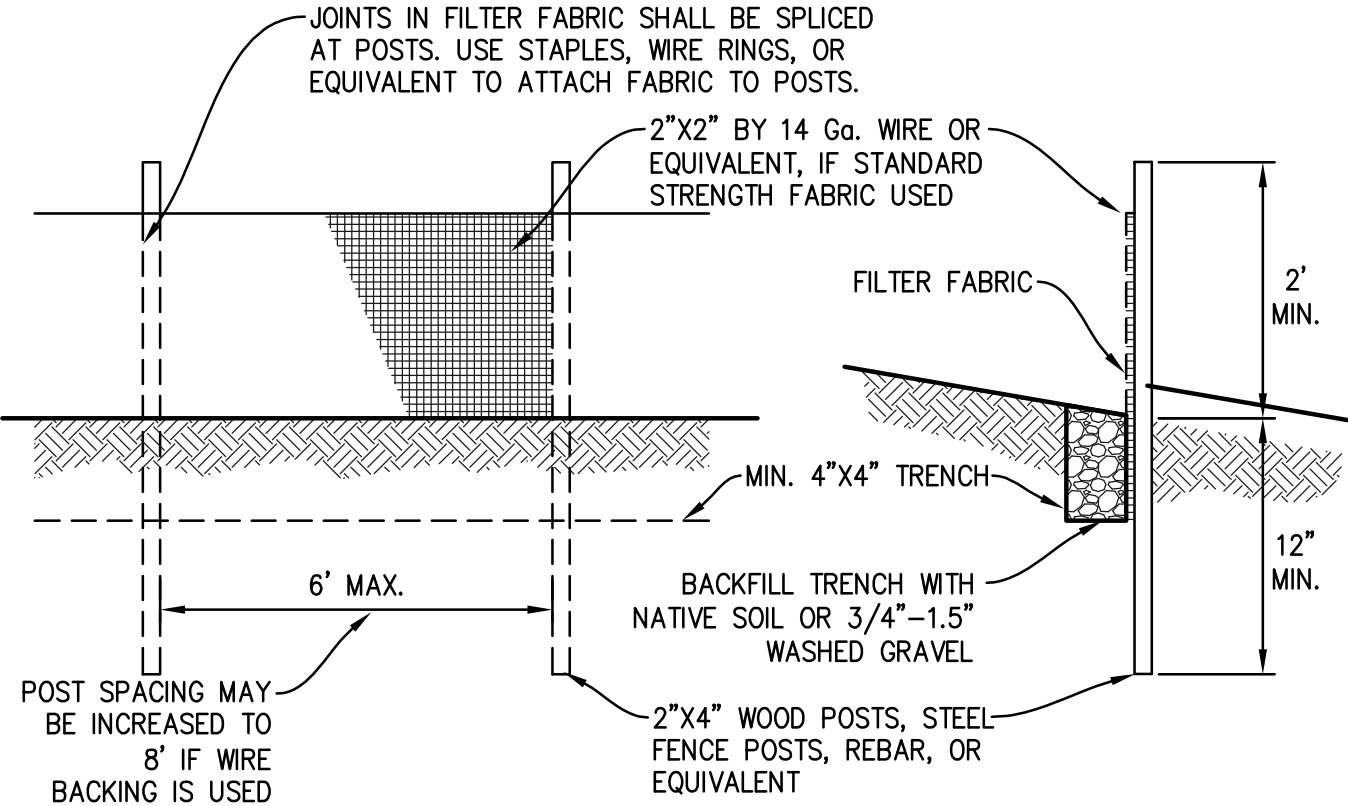
1. SLURRY FROM SAW CUTTING THE SIDEWALK SHALL BE VACUUMED SO THAT IT DOES NOT ENTER NEARBY STORM DRAINS.
2. CONCRETE TRUCK CHUTES, PUMPS, AND INTERNALS SHALL BE WASHED OUT ONLY INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE.
3. UNUSED CONCRETE REMAINING IN THE TRUCK AND PUMP SHALL BE RETURNED TO THE ORIGINATING BATCH PLANT FOR RECYCLING.
4. HAND TOOLS INCLUDING, BUT NOT LIMITED, SCREEDS, SHOVELS, RAKES, FLOATS, AND TROWELS SHALL BE WASHED OFF ONLY INTO FORMED INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE OR IMPERMEABLE ASPHALT.
5. EQUIPMENT THAT CANNOT BE EASILY MOVED, SUCH AS CONCRETE PAVERS, SHALL ONLY BE WASHED IN AREAS THAT DO NOT DIRECTLY DRAIN TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.
6. WASHDOWN FROM AREAS SUCH AS CONCRETE AGGREGATE DRIVEWAY SHALL NOT DRAIN DIRECTLY TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.
7. WHEN NO FORMED AREAS ARE AVAILABLE, WASHWATER AND LEFTOVER PRODUCT SHALL BE CONTAINED IN A LINED CONTAINER. CONTAINED CONCRETE SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS.
8. CONTAINERS SHALL BE CHECKED FOR HOLES IN THE LINER DAILY DURING CONCRETE POURS AND REPLACED THE SAME DAY.

NE 1/4 SEC. 13, TWP. 24 N., RGE. 4 E., W.M.
POST-CONSTRUCTION SOIL QUALITY AND DEPTH NOTES

- A. 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.
- B. 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 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 DEFINITION OF "COMPOSTED MATERIALS" IN WAC 173-350-220, 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.
- C. THE RESULTING SOIL SHOULD BE CONDUCTIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.
- C. 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 "PREAPPROVED" 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.

ADDITIONAL NOTES:

1. ALL CONSTRUCTION MATERIALS AND PRACTICE SHALL CONFORM TO THE CITY OF MERCER ISLAND STANDARDS AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARDS.
2. EXISTING UTILITIES AS SHOWN ARE FROM CITY RECORDS AND ARE APPROXIMATE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO IDENTIFY, LOCATE AND PROTECT ABOVE AND BELOW GRADE UTILITIES. CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION IF A CONFLICT EXISTS BETWEEN EXISTING UTILITIES AND THE PROPOSED IMPROVEMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL AND SHALL MAINTAIN THE NECESSARY SAFEGUARDS AND MANAGE THE CONSTRUCTION SO AS TO PREVENT WATERBORNE SEDIMENTS FROM LEAVING THE SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR.
5. ON-SITE PRIVATE STORM AND SEWER PIPE SHALL BE SOLVENT WELDED SCHEDULE 40 PVC OR PVC ASTM D3034 SDR35 UNLESS SHOWN OTHERWISE. PVC PIPE LAID AT A SLOPE IN EXCESS OF 20% SHALL BE SOLVENT WELDED SCHEDULE 40 PVC. STORM PIPE IN THE RIGHT-OF-WAY SHALL BE HIGH-DENSITY POLYETHYLENE DOUBLE-WALLED SMOOTH INTERIOR PIPE SUCH AS ADS N-12 OR EQUIVALENT.
6. FOOTING DRAINS SHALL BE INSTALLED AROUND THE BASE OF ALL FOUNDATION FOOTINGS THAT ENCLOSE A CRAWL SPACE, CELLAR, BASEMENT, GARAGE OR OTHER BUILDING SPACE. FOOTING DRAINS SHALL BE PERFORATED 4-INCH DIAMETER PVC PIPE CONFORMING TO D2729, PERFORATIONS DOWN, AND SURROUNDED BY AT LEAST 6" OF 1" MINUS WASHED ROCK. THE WASHED ROCK SHALL EXTEND UP THE BACK OF THE WALL AS A 12" THICK LAYER TO 2/3 OF THE WALL HEIGHT. FILTER FABRIC (MIRAFI 140N, SUPAC 4NP OR EQUIVALENT) SHALL BE PLACED BETWEEN THE WASHED ROCK AND NATIVE SOILS. AT ITS HIGHEST POINT, THE PERFORATED PIPE INVERT SHALL BE AT LEAST 6" BELOW THE BOTTOM OF THE FLOOR SLAB OR CRAWL SPACE SURFACE AND SHOULD BE SLOPED FOR DRAINAGE. TIE THE FOOTING DRAIN INTO THE STORM LINE AT A LOCATION WHERE THE FOOTING DRAIN ELEVATION IS AT LEAST 12" ABOVE THE STORM LINE. ALL ROOF AND SURFACE WATER DRAINS SHALL BE KEPT SEPARATE FROM THE FOOTING DRAIN SYSTEM UPSTREAM OF THE POINT OF CONNECTION.
7. EXISTING SIDE SEWER AND STORM DRAIN DEPTH AND LOCATION SHALL BE DETERMINED PRIOR TO ANY CONSTRUCTION, INCLUDING BUILDING CONSTRUCTION. REPORT CONFLICTS WITH PROPOSED CONSTRUCTION TO ENGINEER. NEW SIDE SEWER CONNECTION TO MAIN OR SEWER EJECTOR PUMP MAY BE NECESSARY FOR BASEMENT.
8. PROPOSED METER LOCATION, IF SHOWN, IS APPROXIMATE. CONTRACTOR TO COORDINATE EXACT LOCATION OF NEW SERVICE/METER/ SUPPLY LINE WITH CITY WATER DEPARTMENT DURING CONSTRUCTION.
9. EACH DOWNSPOUT SHALL CONNECT TO A RIGID NON-PERFORATED PIPE AT THE BUILDING PERIMETER. UNDER NO CIRCUMSTANCES SHALL DOWNSPOUTS CONNECT DIRECTLY TO THE PERFORATED FOOTING DRAIN.
10. USE SAND COLLARS FOR PVC PIPE CONNECTIONS TO MANHOLES.
11. VERTICAL BENDS ON THE STORM DRAINS MAY BE NECESSARY TO MAINTAIN MIN. 1.5' SOIL COVER OVER PIPE. MAX. PIPE BENDS TO BE 45'.
12. DOWNSPOUT LOCATIONS SHOWN ARE PRELIMINARY. REFER TO ARCHITECTURAL PLANS FOR FINAL DOWNSPOUT LOCATIONS.
13. AN UNDERSLAB DRAINAGE SYSTEM MAY BE NECESSARY DEPENDENT ON GEOTECHNICAL EVALUATION BY OTHERS.
14. WINDOW WELLS SHALL BE DESIGNED FOR PROPER DRAINAGE BY CONNECTING TO THE BUILDING'S FOUNDATION DRAINAGE SYSTEM REQUIRED PER SECTION R3102.3.2 OF THE INTERNATIONAL RESIDENTIAL CODE. A DRAINAGE SYSTEM FOR WINDOW WELLS IS NOT REQUIRED WHERE THE FOUNDATION IS ON WELL-DRAINED SOIL OR SAND-GRAVEL MIXTURE SOILS IN ACCORDANCE WITH THE UNITED SOIL CLASSIFICATION SYSTEM, GROUP I SOILS, AS DETAILED IN TABLE R405.1 OF THE IRC.

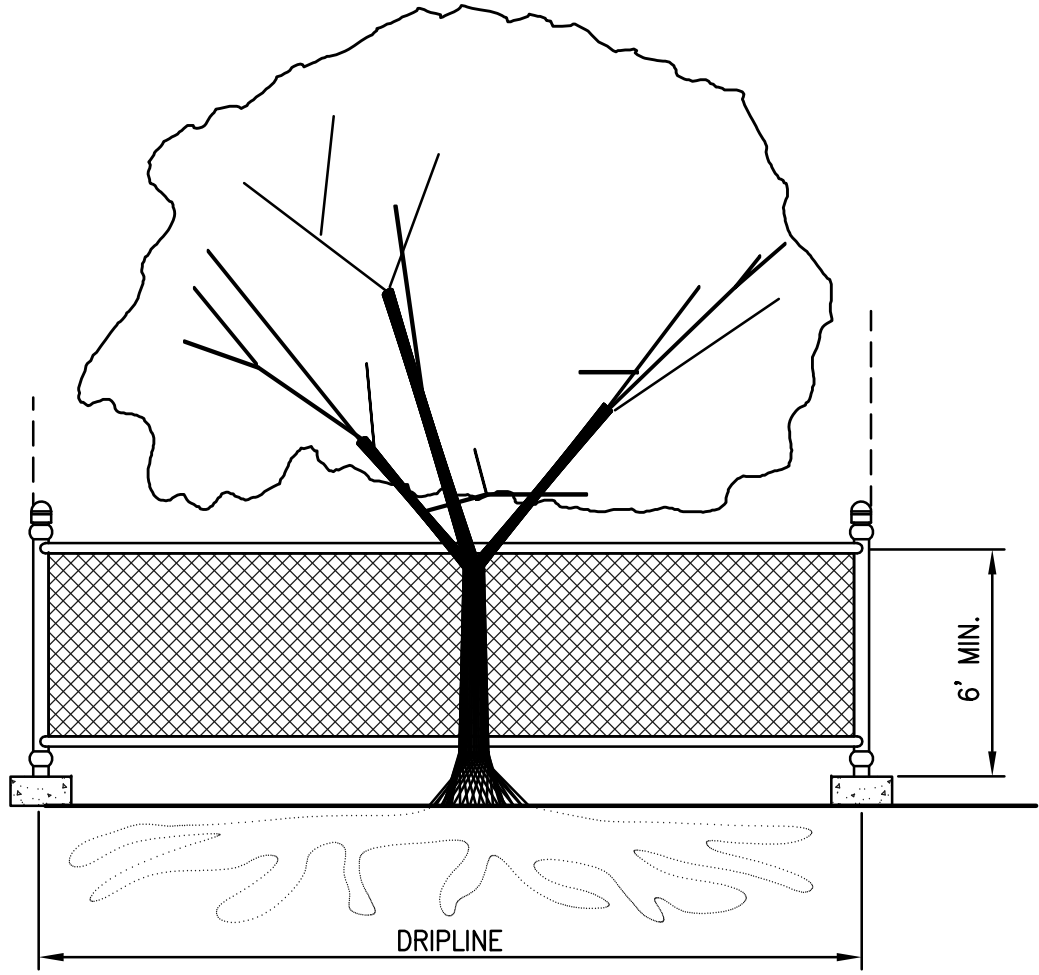


NOTE: FILTER FABRIC FENCE SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

MAINTENANCE STANDARDS

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 SIGN 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 AND/OR REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6" HIGH.
5. IF THE FILTER FABRIC HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

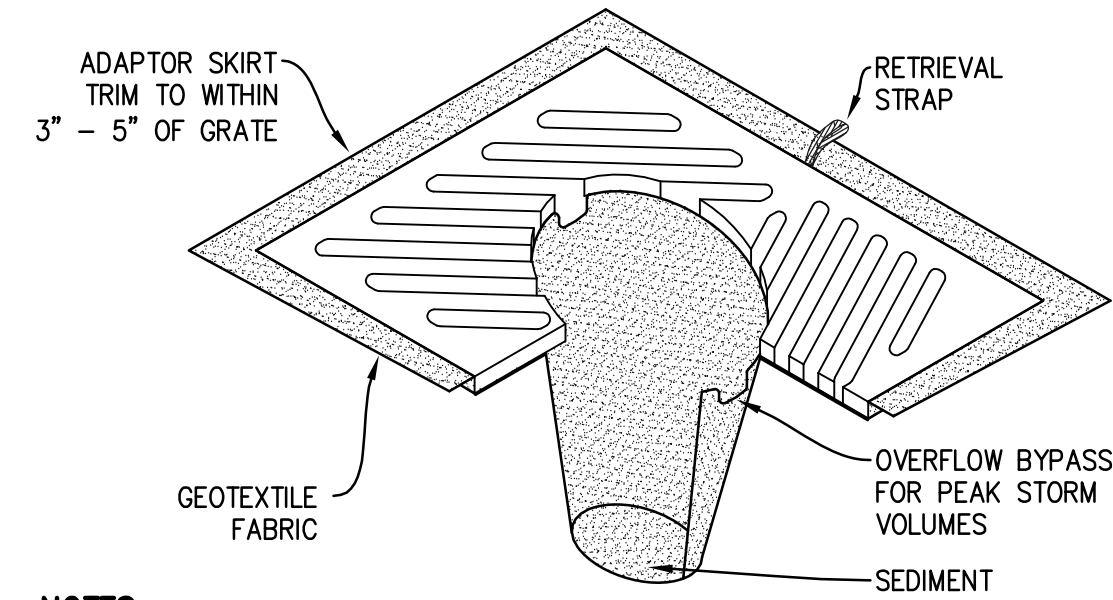
SILT FENCE



TREE PROTECTION DURING CONSTRUCTION

1. 6-FT. HIGH TEMPORARY CHAIN LINK FENCE SHALL BE PLACED AT THE DRIPLINE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE THE TREE(S). INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.
2. FOR ROOTS OVER 1-IN DIA. THAT ARE DAMAGED DURING CONSTRUCTION, MAKE A CLEAN, STRAIGHT CUT TO REMOVE THE DAMAGED PORTION. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND SHALL BE 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 LIMIT OF THE FENCING.

TREE PROTECTION

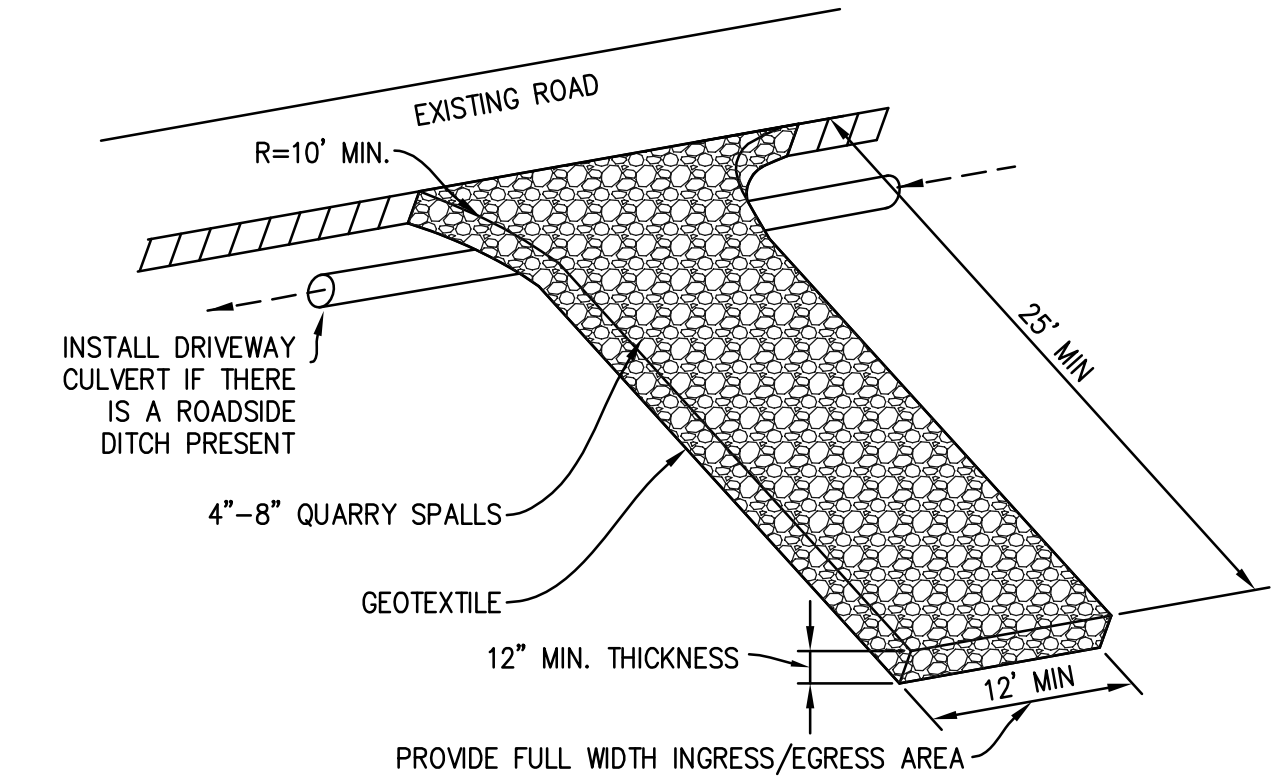


NOTES

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

CB INSERT

ROCK CONSTRUCTION ENTRANCE



MAINTENANCE STANDARDS

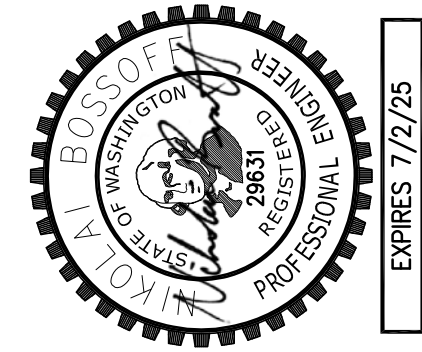
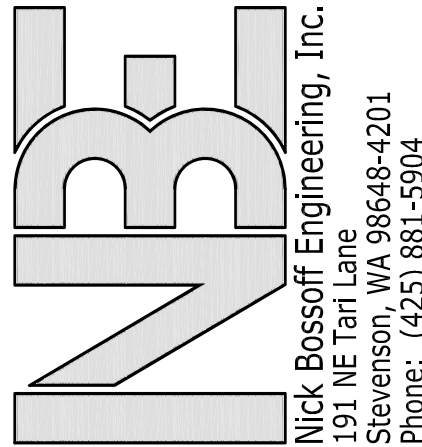
1. QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
2. IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK, AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
3. ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON-SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREET, THE CONSTRUCTION OF A SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP.
4. ANY ROCK SPALLS THAT ARE LOOSENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
5. IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTRANCE(S), FENCING (SECTION 5.4.1) SHALL BE INSTALLED TO CONTROL TRAFFIC.

SCALE: NTS

3

SCALE: NTS

4



REVISION	DATE	NO.	PROJECT MANAGER	DESIGNED	DRAWN	JOB NUMBER	FILE NAME
PERMIT SUBMITAL	06/14/24	1	N. BOSSOFF, P.E.	NB	TKB	ECTY-2301	ECTY-2301.pln.dwg

WASHINGTON

CHU RESIDENCE
4332 W MERCER WAY

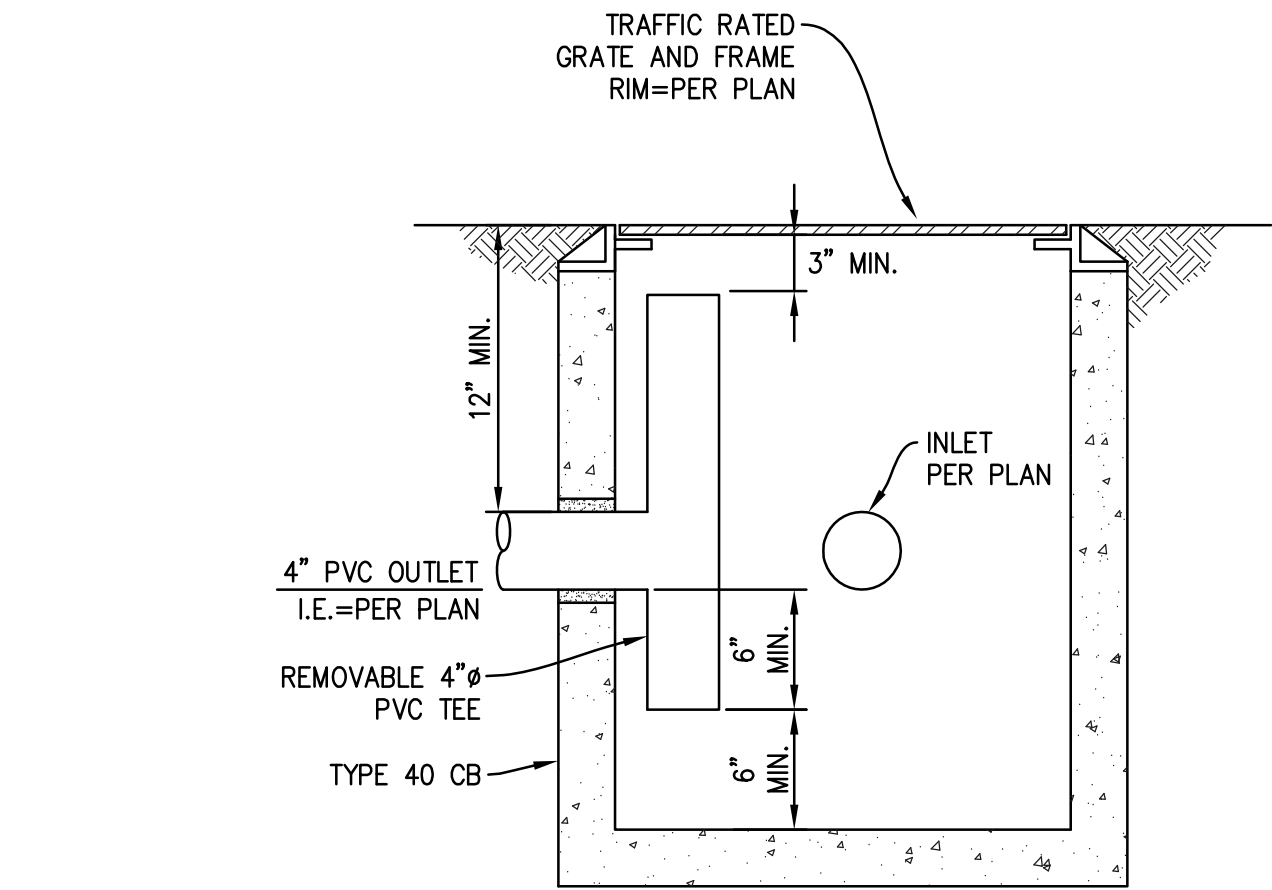
MERCER ISLAND

TITLE:

NOTES &
DETAILS

SHEET:

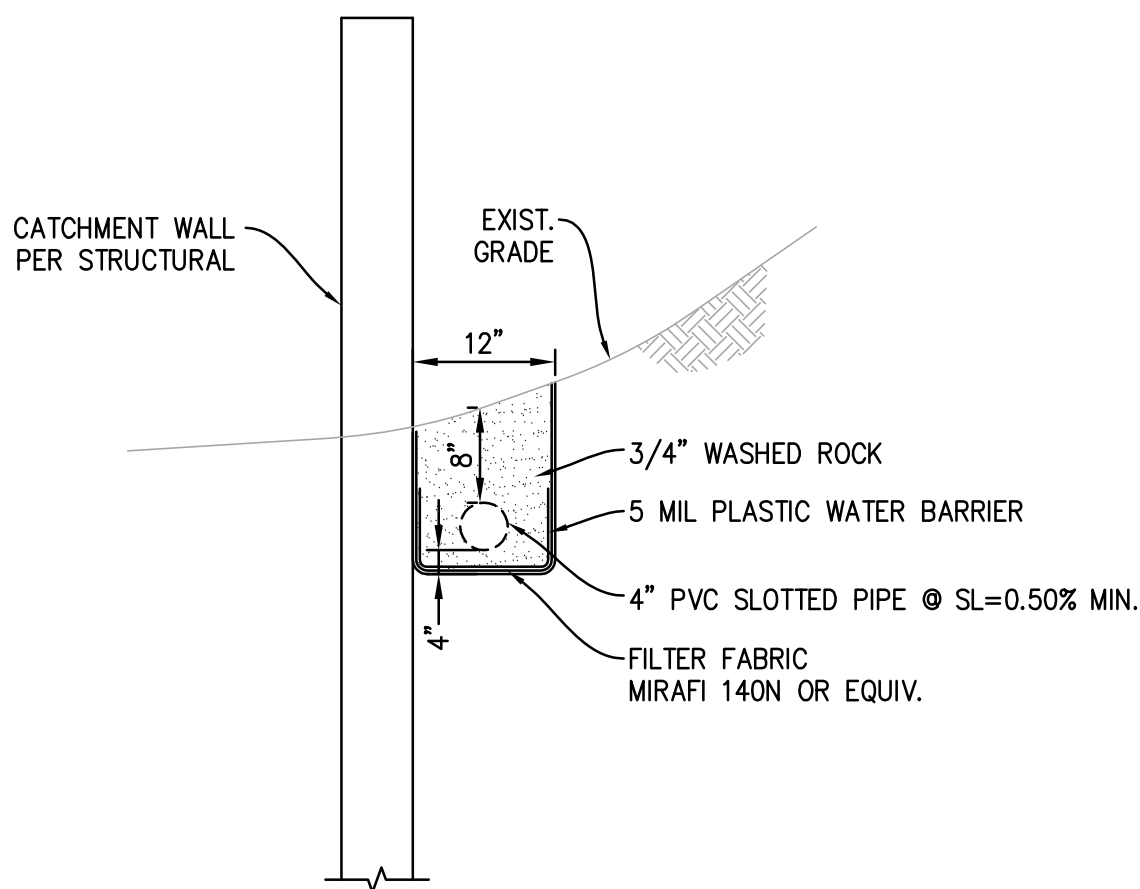
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OIL SEPARATOR CB

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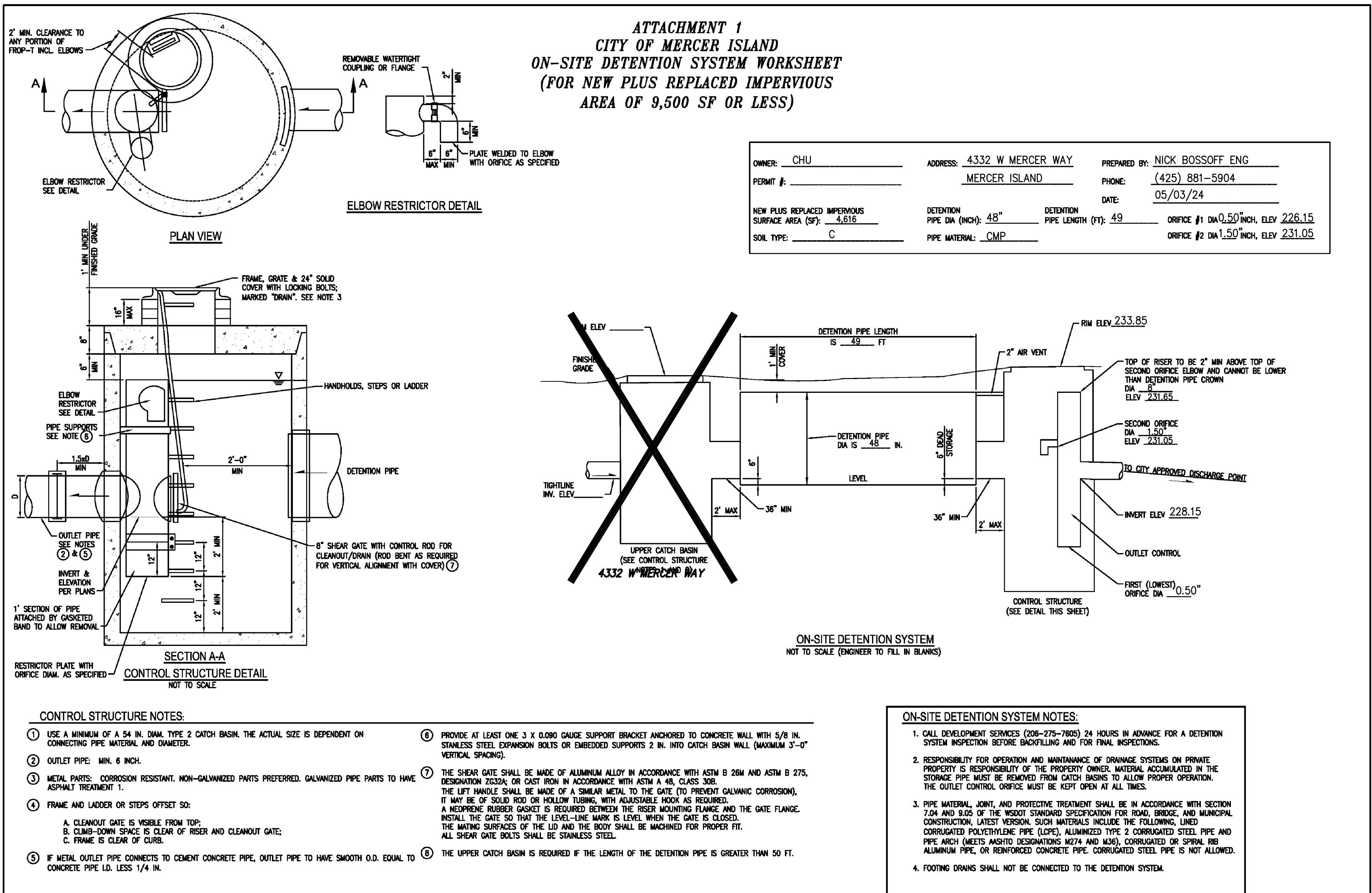
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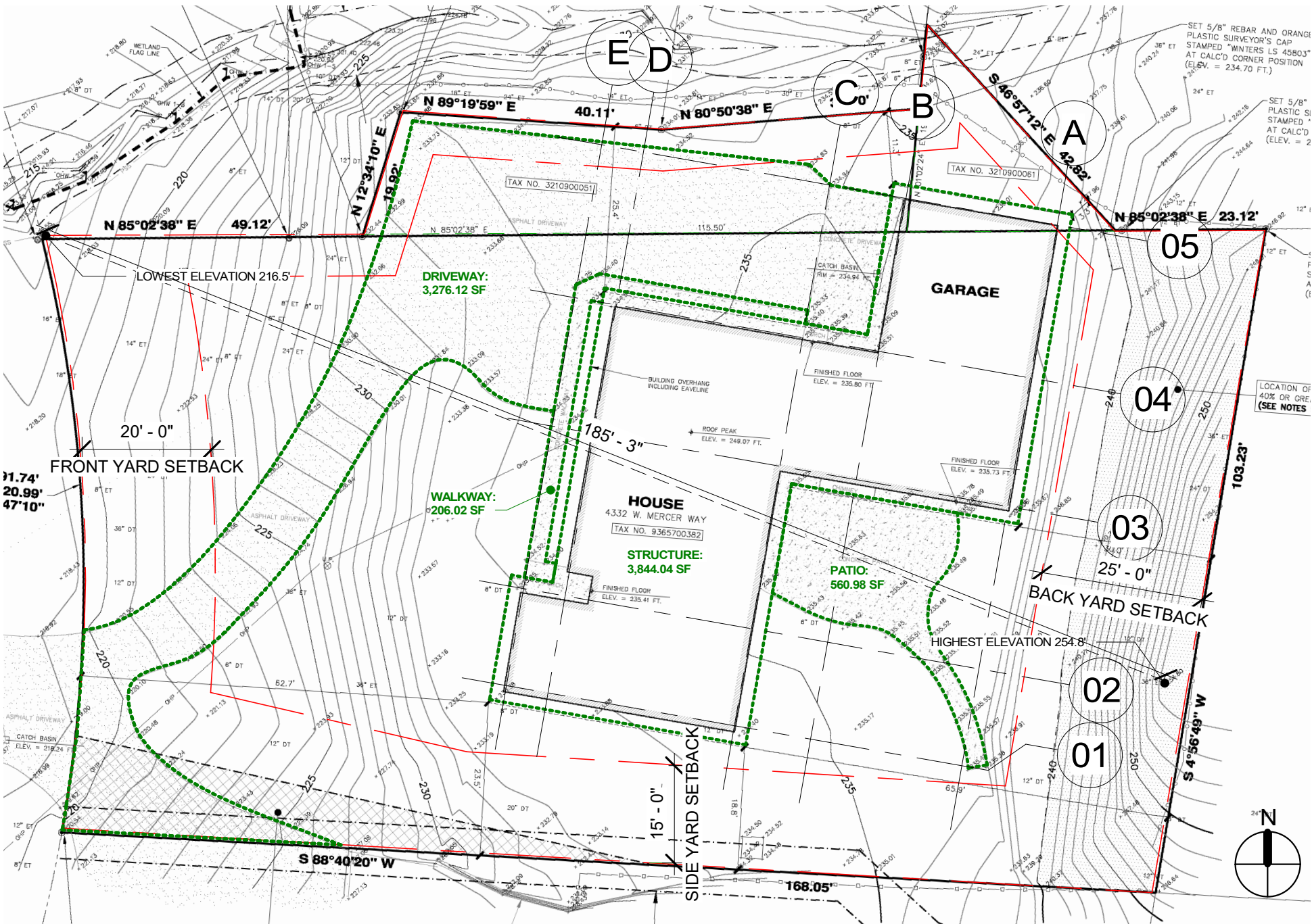


FRENCH DRAIN

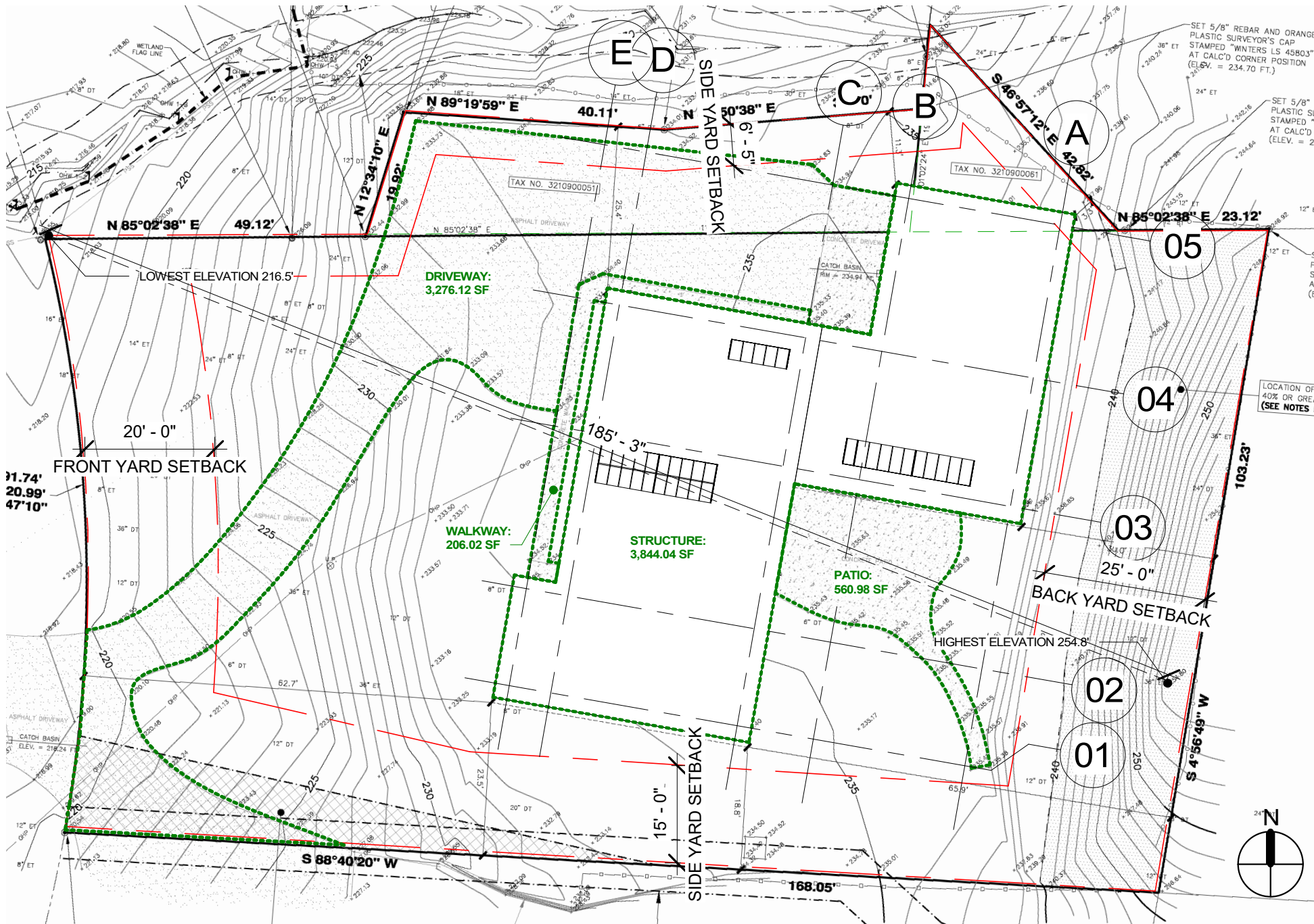
SCALE: NTS

2





① EXISTING SITE PLAN
1" = 20'-0"



② NEW SITE PLAN
1" = 20'-0"

SITE DATA:

LOT SLOPE CALCULATION:
HIGHEST ELEVATION: 254.8' - LOWEST ELEVATION: 216.5' = ELEVATION DIFFERENCE: 38.3'
HORIZONTAL DISTANCE BETWEEN HIGH AND LOW: 185.29'

LOT SLOPE: $ELEVATION\ DIFFERENCE / DISTANCE = 38.3' / 185.29' = 20.67\%$

TOTAL PARCEL LOT AREA: 18,138.7 SF

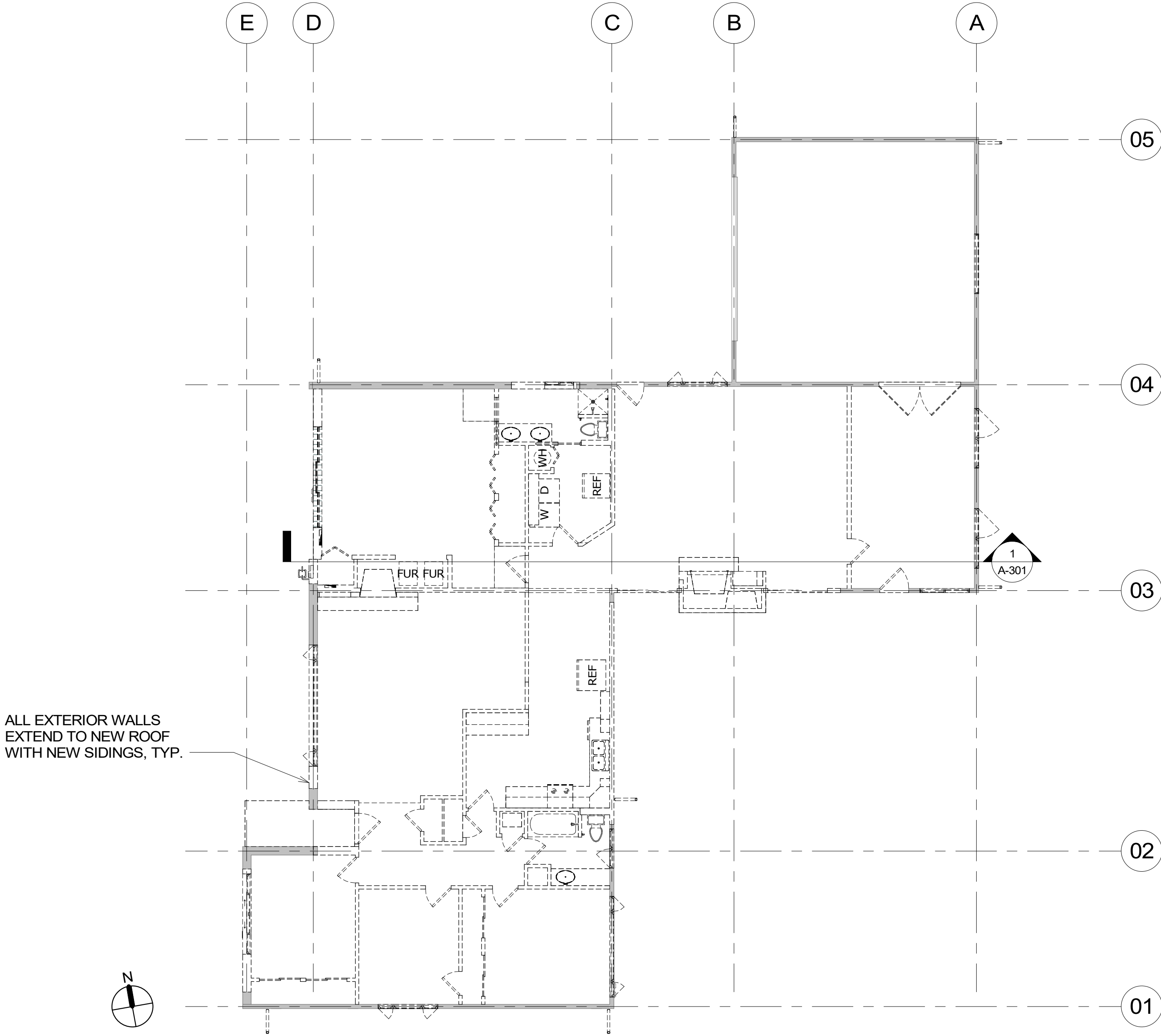
FRONT YARD SETBACK: 20'
BACK YARD SETBACK: 25'
TOTAL SIDE YARD SETBACK (MIN. 17% OF THE LOT WIDTH): 20'

AVERAGE HEIGHT (AVERAGE 33 SPOT ELEVATION @ 10' INTERVAL): 235.03'
FINISHED FLOOR ELEVATION PER SURVEY: 235.41'

ALLOWABLE MAXIMUM HEIGHT: 30' ABOVE ABE
PROPOSED STRUCTURE HEIGHT: 26' 5" < 30' MAX. IN BUILDING HEIGHT

NEW GROSS FLOOR AREA: L1 AREA + L2 AREA = 3,226.58 SF + 1914.65 SF = 5,141.23 SF < 7,255.48 SF

NOTE:
1. NO TREE ARE PROPOSED FOR REMOVAL;
2. LOT COVERAGE, HARDSCAPE AND IMPERVIOUS SURFACE AREAS REMAIN UNCHANGE.

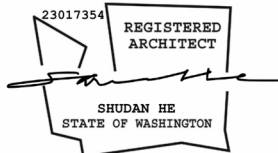


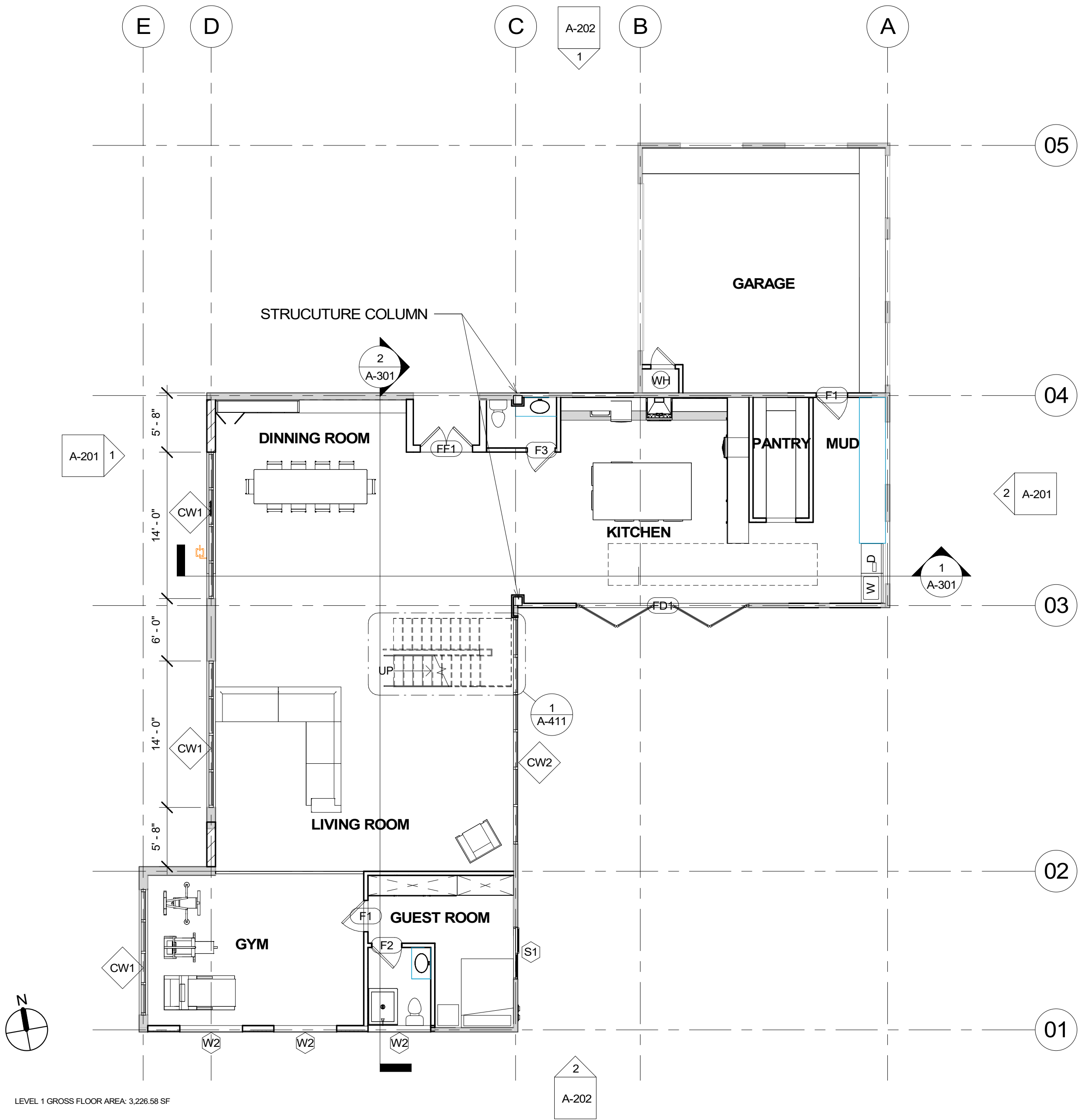
- GENERAL NOTES**
- CODES: ALL WORK SHALL CONFORM APPLICABLE LAND USE AND BUILDING CODES AS AMENDED BY AUTHORITIES HAVING JURISDICTION.
 - DO NOT SCALE DIMENSIONS FROM DRAWINGS. USE CALCULATED DIMENSIONS ONLY. NOTIFY THE ARCHITECT IMMEDIATELY IF ANY CONFLICTS EXIST.
 - CONTRACTOR SHALL VERIFY ALL CONDITIONS PRIOR TO INITIATING THE WORK. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
 - VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT. PROVIDE ALL BUCK-OUT, BLOCKING, BACKING, AND JACKS REQUIRED FOR INSTALLATIONS.
 - DIMENSIONS ARE TO FINISH FACE OF WALL UNLESS OTHERWISE NOTED.
 - INTERIOR WALL FRAMING 2x4 WOOD STUDS UNLESS OTHERWISE NOTED.
 - HALFTONE ELEMENTS ARE EXISTING CONDITION THAT ARE NOT IN THE SCOPE OF WORK
 - EXISTING CONDITION ARE BASED ON SITE OBSERVATION, PHOTO DOCUMENTATION AND CLIENT DESCRIPTION. VERIFY DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION.

- LEGEND**
- GYPSUM WALL BOARD
 - WOOD
 - CONCRETE
 - GRAVEL
 - PLYWOOD
 - BATT INSULATION
 - WOOD FRAMING
 - SKYLIGHT OPENING
 - TO BE DEMOLISHED

1 FLOOR PLAN - DEMOLITION
1/8" = 1'-0"

Date	Description	Revision Number





LEVEL 1 GROSS FLOOR AREA: 3,226.58 SF

1 FLOOR PLAN - NEW
1/8" = 1'-0"

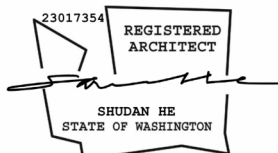
GENERAL NOTES

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LEGEND

- | | |
|--|-------------------|
| | GYPSUM WALL BOARD |
| | WOOD |
| | CONCRETE |
| | GRAVEL |
| | PLYWOOD |
| | BATT INSULATION |
| | WOOD FRAMING |
| | SKYLIGHT OPENING |
| | TO BE DEMOLISHED |

Date	Description	Revision Number



HILLHAVEN GROVE

Project number 0433220241014
4332 West Mercer Way, Mercer Island, WA

FLOOR PLAN - LEVEL
01

Date
10/31/2024

SH

As indicated

A-101

Revision

Stamp

Owner

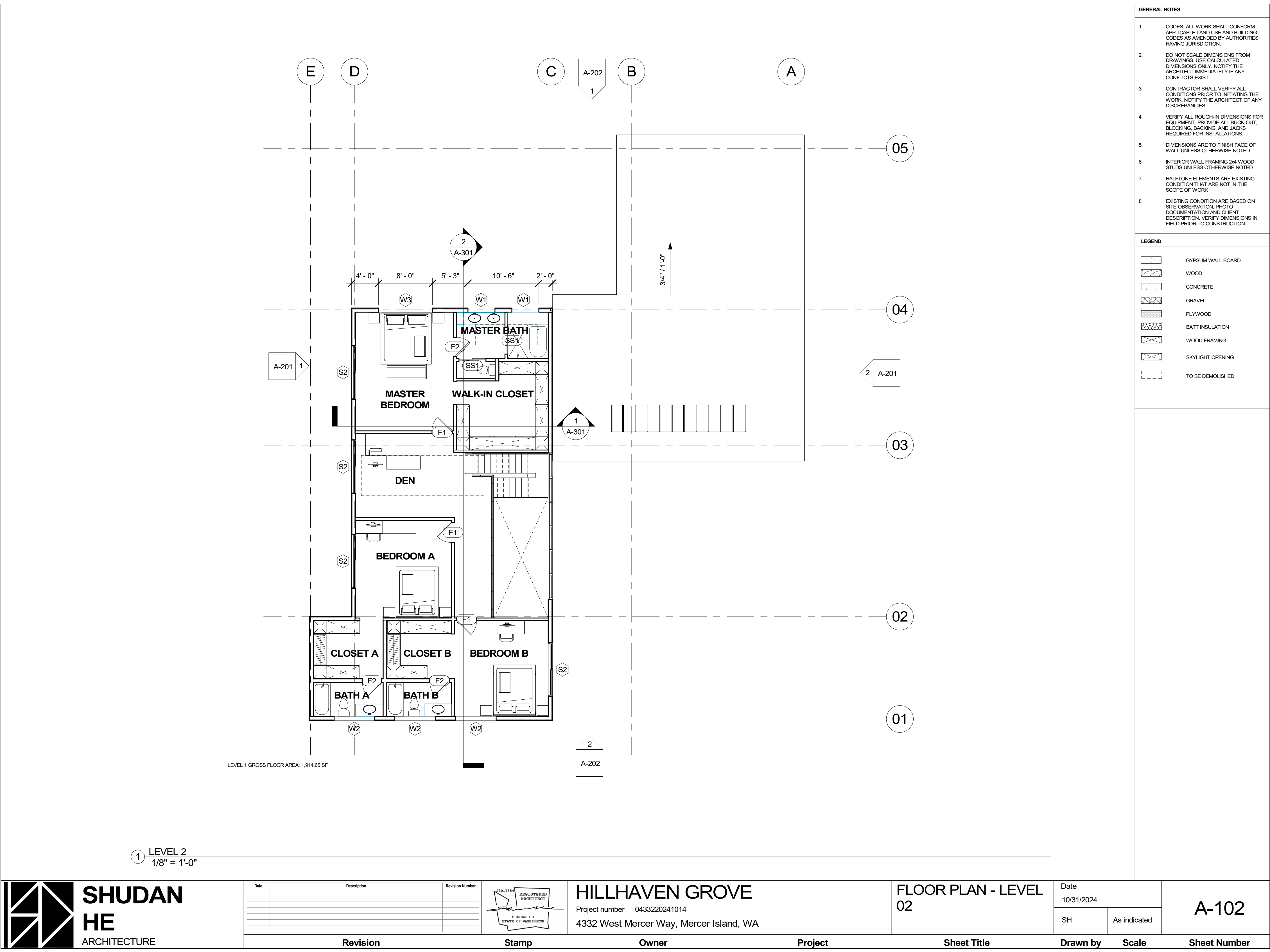
Project

Sheet Title

Drawn by

Scale

Sheet Number



- GENERAL NOTES**
- CODES: ALL WORK SHALL CONFORM APPLICABLE LAND USE AND BUILDING CODES AS AMENDED BY AUTHORITIES HAVING JURISDICTION.
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- LEGEND**
- GYPSUM WALL BOARD
 - WOOD
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SHUDAN HE
ARCHITECTURE

Date	Description	Revision Number

HILLHAVEN GROVE

Project number 0433220241014

4332 West Mercer Way, Mercer Island, WA

FLOOR PLAN - LEVEL 02

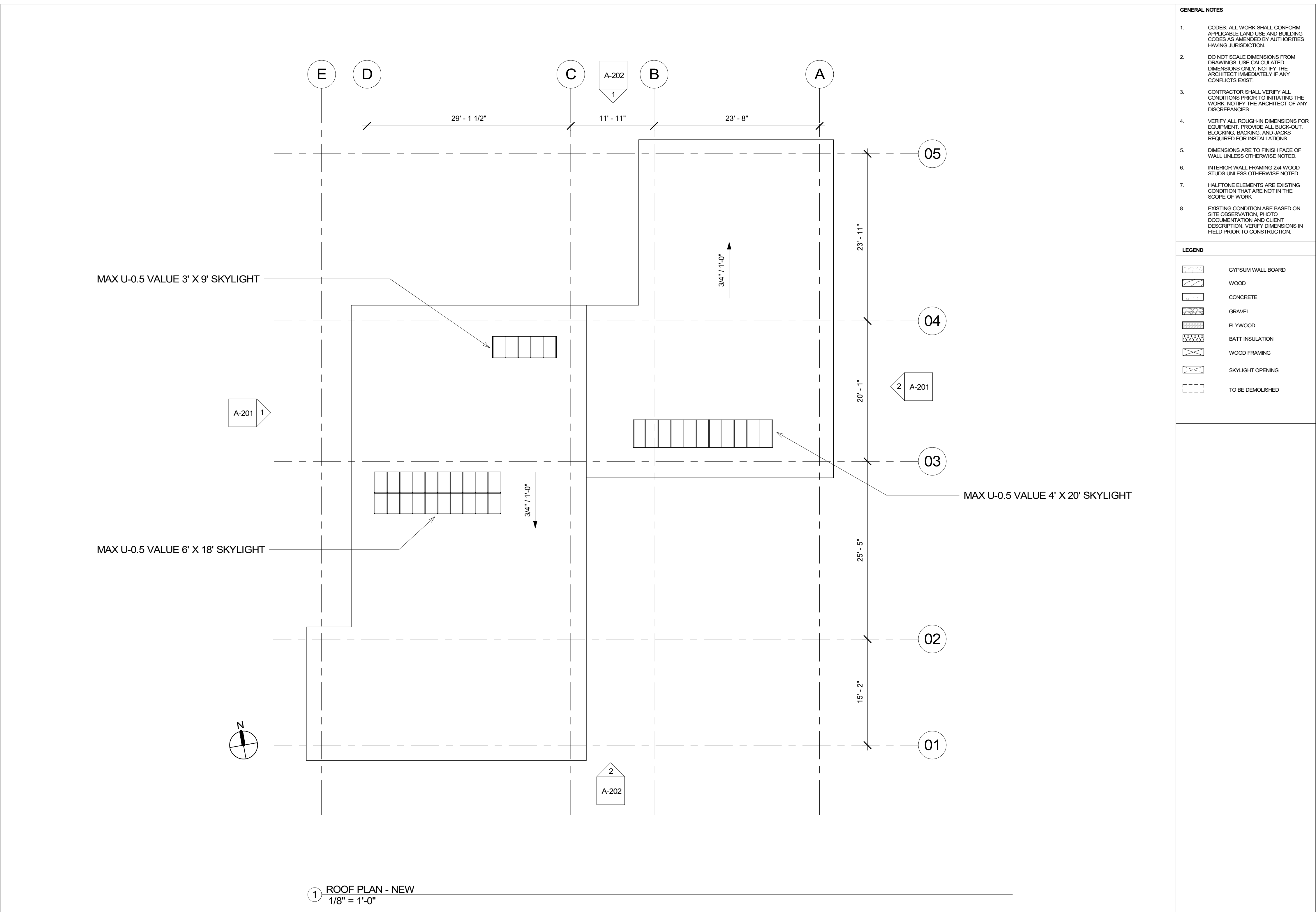
Date 10/31/2024

SH As indicated

A-102

Revision	Stamp	Owner	Project	Sheet Title	Drawn by	Scale	Sheet Number
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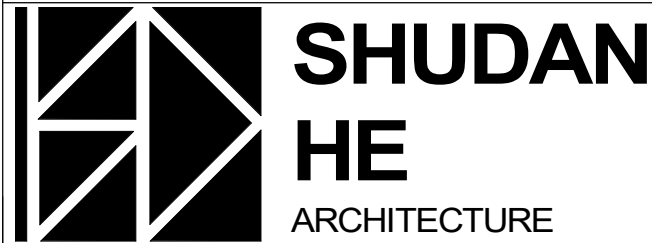
GENERAL NOTES

- CODES: ALL WORK SHALL CONFORM APPLICABLE LAND USE AND BUILDING CODES AS AMENDED BY AUTHORITIES HAVING JURISDICTION.
- DO NOT SCALE DIMENSIONS FROM DRAWINGS. USE CALCULATED DIMENSIONS ONLY. NOTIFY THE ARCHITECT IMMEDIATELY IF ANY CONFLICTS EXIST.
- CONTRACTOR SHALL VERIFY ALL CONDITIONS PRIOR TO INITIATING THE WORK. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT. PROVIDE ALL BUCK-OUT, BLOCKING, BACKING, AND JACKS REQUIRED FOR INSTALLATIONS.
- DIMENSIONS ARE TO FINISH FACE OF WALL UNLESS OTHERWISE NOTED.
- INTERIOR WALL FRAMING 2x4 WOOD STUDS UNLESS OTHERWISE NOTED.
- HALFTONE ELEMENTS ARE EXISTING CONDITION THAT ARE NOT IN THE SCOPE OF WORK
- EXISTING CONDITION ARE BASED ON SITE OBSERVATION, PHOTO DOCUMENTATION AND CLIENT DESCRIPTION. VERIFY DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION.

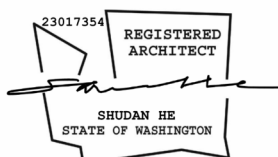
LEGEND

- | | |
|--|-------------------|
| | GYPSUM WALL BOARD |
| | WOOD |
| | CONCRETE |
| | GRAVEL |
| | PLYWOOD |
| | BATT INSULATION |
| | WOOD FRAMING |
| | SKYLIGHT OPENING |
| | TO BE DEMOLISHED |

1 ROOF PLAN - NEW
1/8" = 1'-0"



Date	Description	Revision Number



HILLHAVEN GROVE

Project number 0433220241014
4332 West Mercer Way, Mercer Island, WA

ROOF PLAN

Date
10/31/2024

SH

As indicated

A-103

Revision

Stamp

Owner

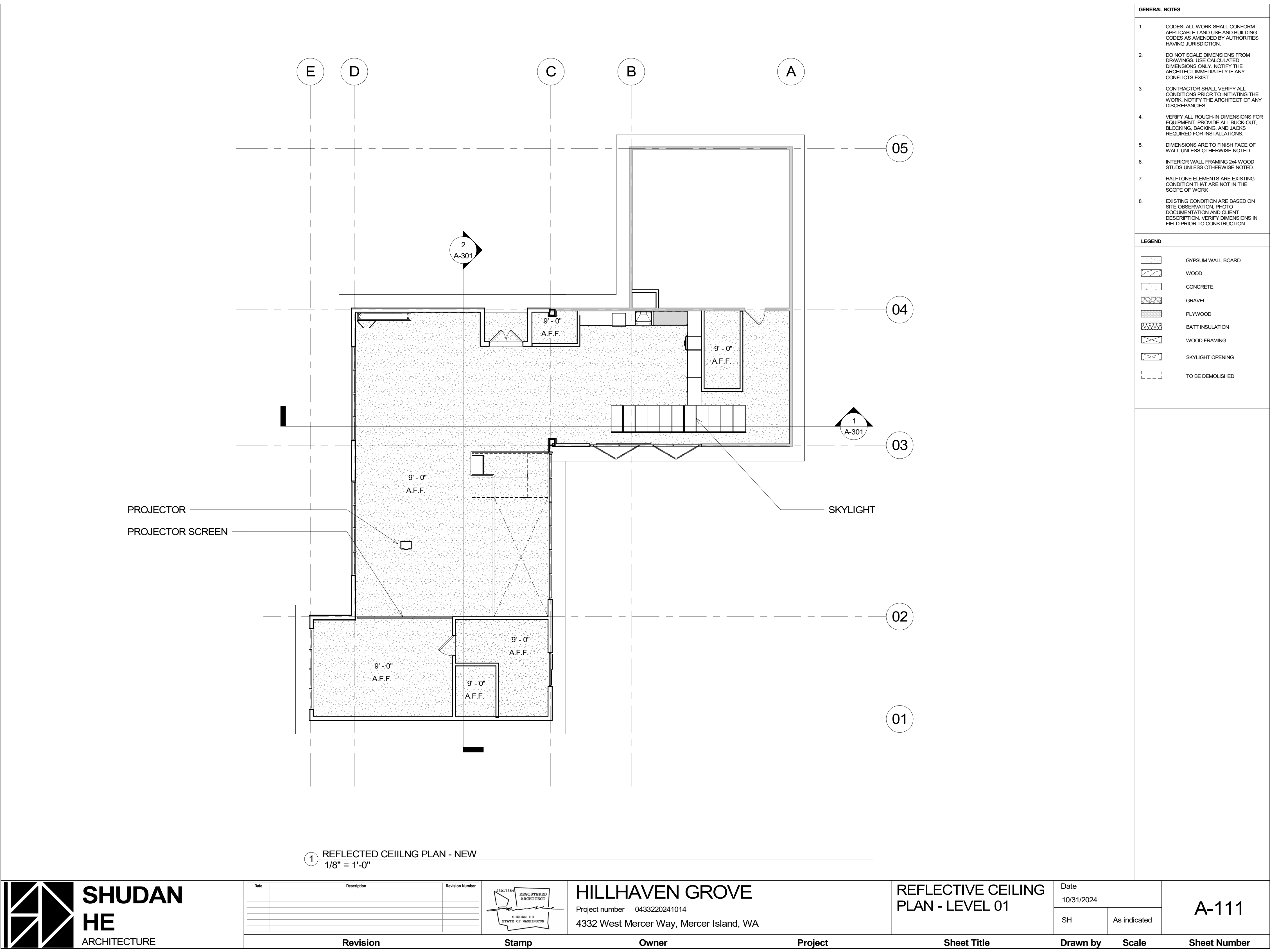
Project

Sheet Title

Drawn by

Scale

Sheet Number



GENERAL NOTES

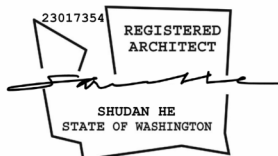
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6. INTERIOR WALL FRAMING 2x4 WOOD STUDS UNLESS OTHERWISE NOTED.
7. HALFTONE ELEMENTS ARE EXISTING CONDITION THAT ARE NOT IN THE SCOPE OF WORK
8. EXISTING CONDITION ARE BASED ON SITE OBSERVATION, PHOTO DOCUMENTATION AND CLIENT DESCRIPTION. VERIFY DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION.

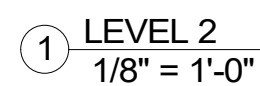
LEGEND

- | | |
|--|-------------------|
| | GYPSUM WALL BOARD |
| | WOOD |
| | CONCRETE |
| | GRAVEL |
| | PLYWOOD |
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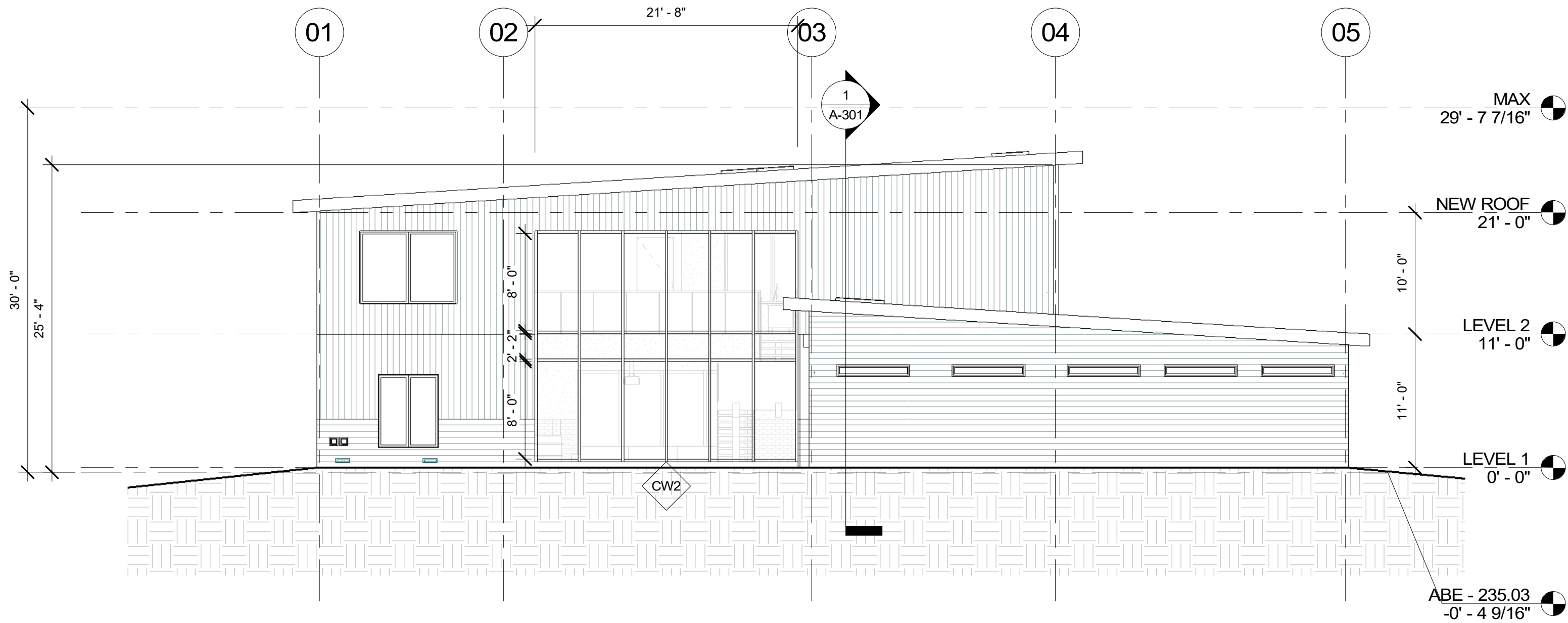
① REFLECTED CEILING PLAN - NEW
1/8" = 1'-0"

Date	Description	Revision Number

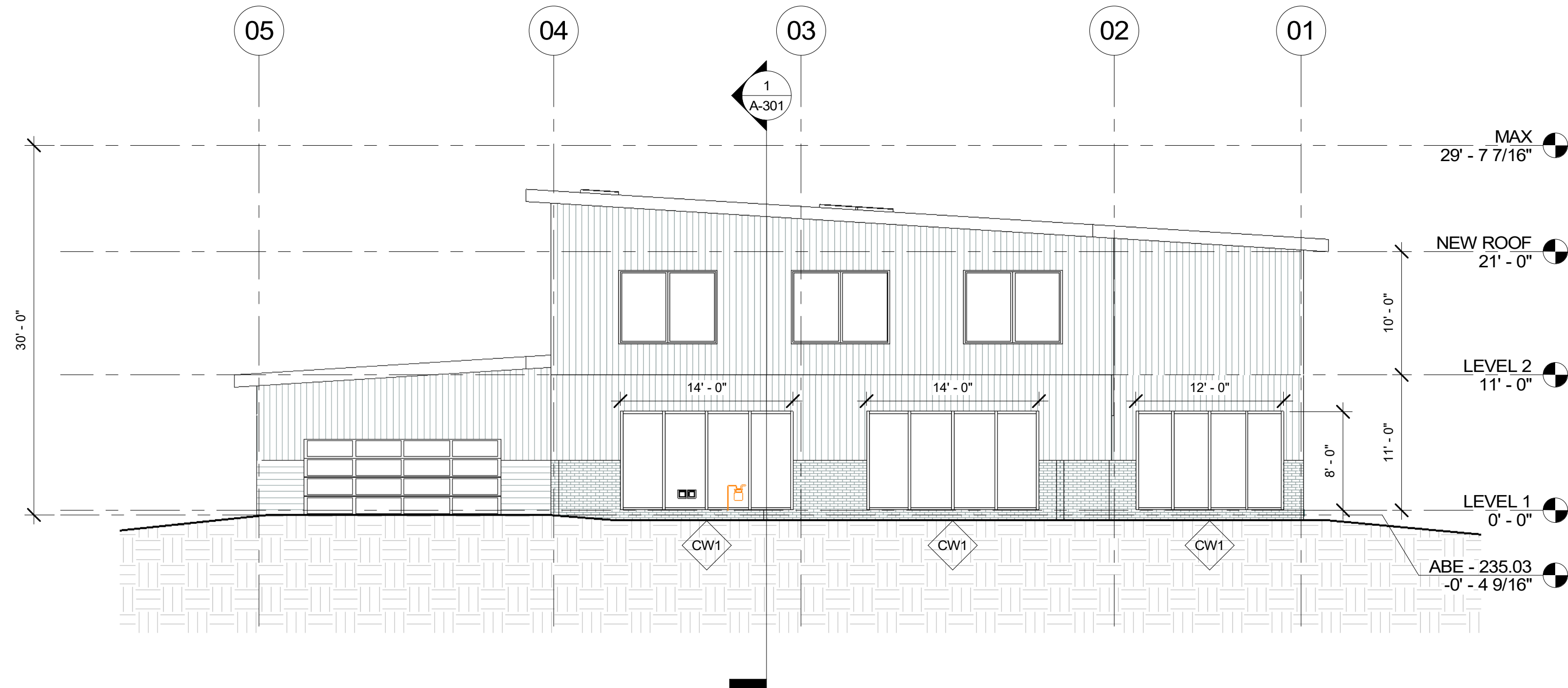




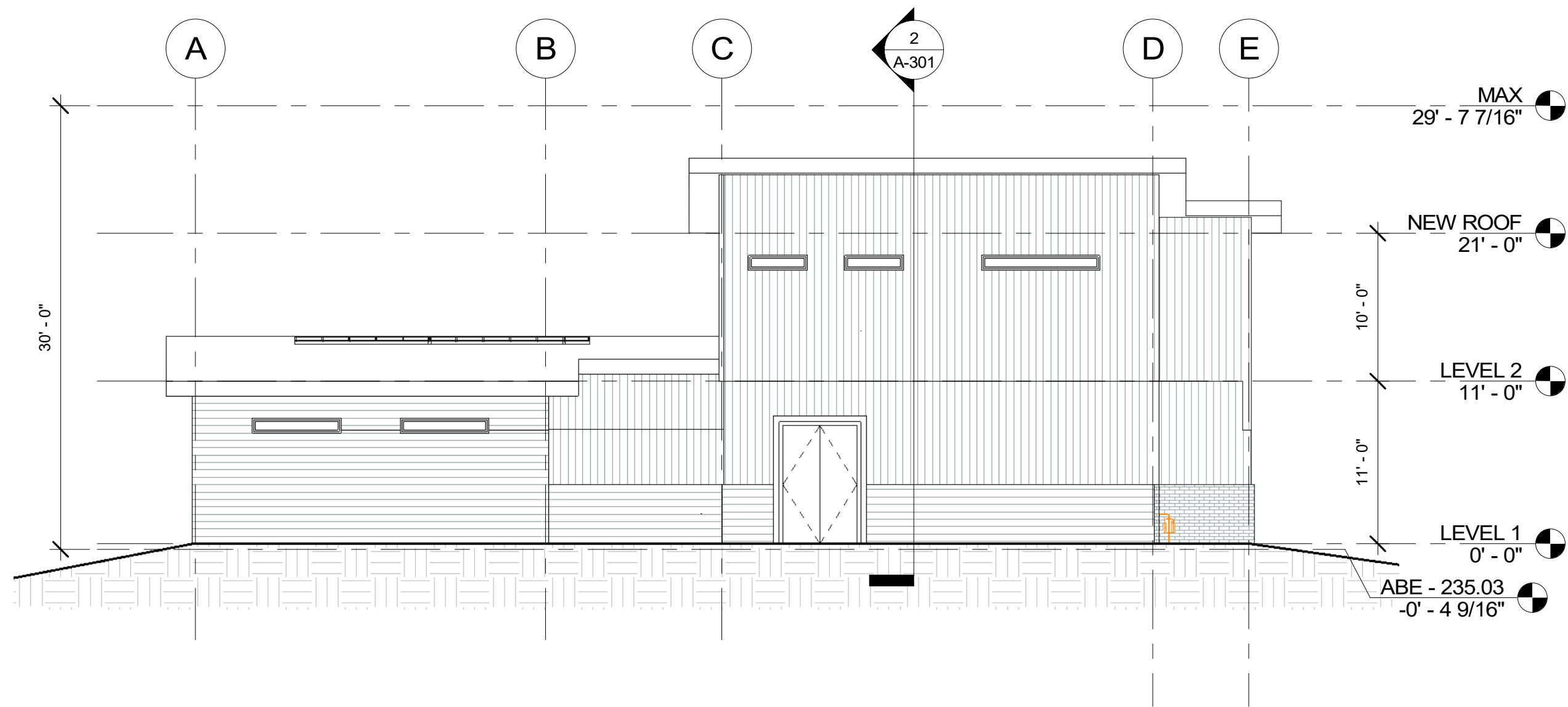
- | LEGEND | |
|---|-------------------|
|  | GYPSUM WALL BOARD |
|  | WOOD |
|  | CONCRETE |
|  | GRAVEL |
|  | PLYWOOD |
|  | BATT INSULATION |
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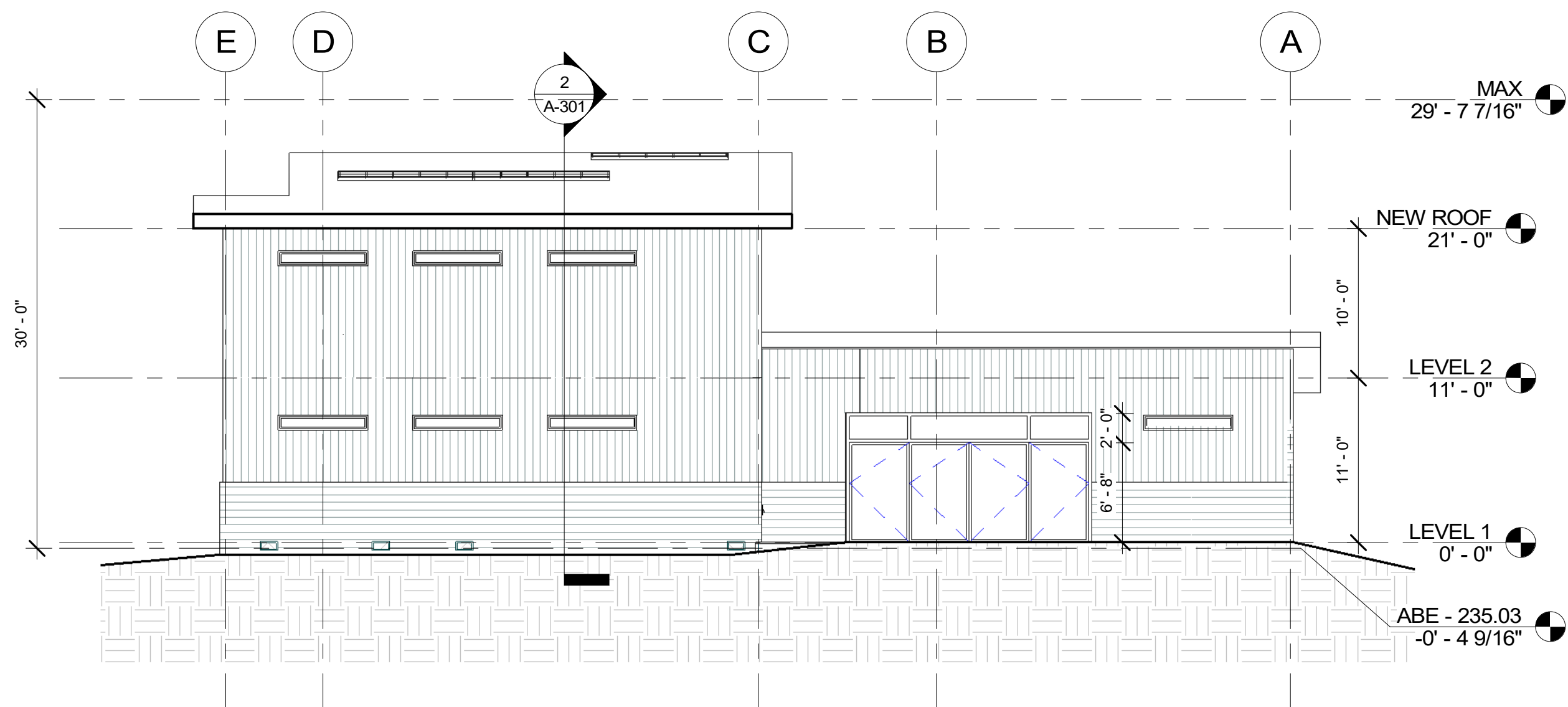
② ELEVATION - E
1/8" = 1'-0"



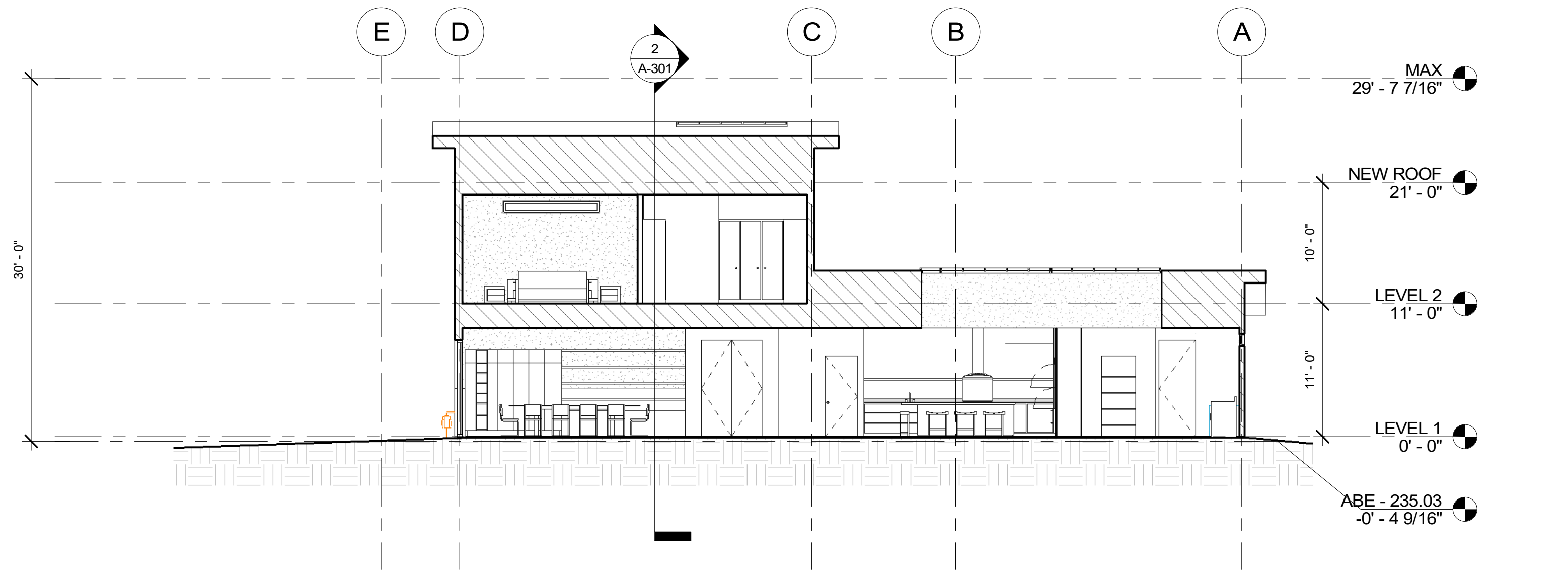
① ELEVATION - W
1/8" = 1'-0"



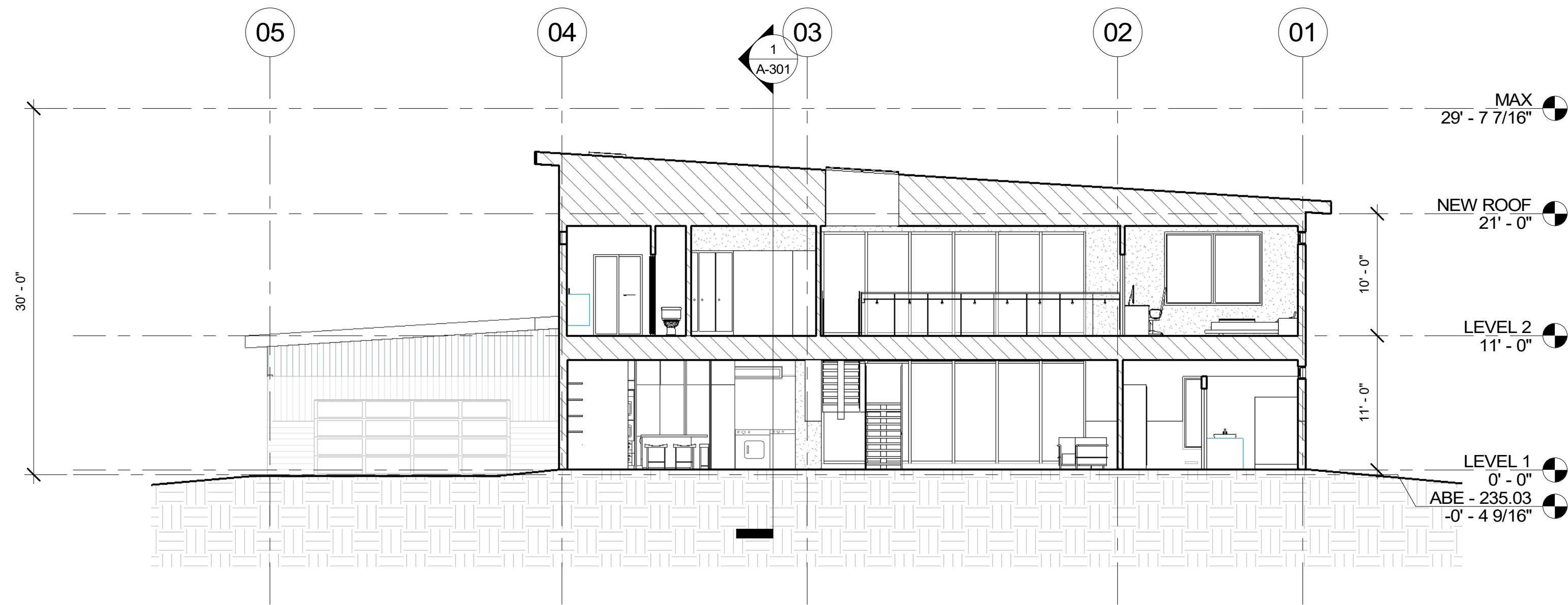
1 ELEVATION - N
1/8" = 1'-0"



2 ELEVATION - S
1/8" = 1'-0"

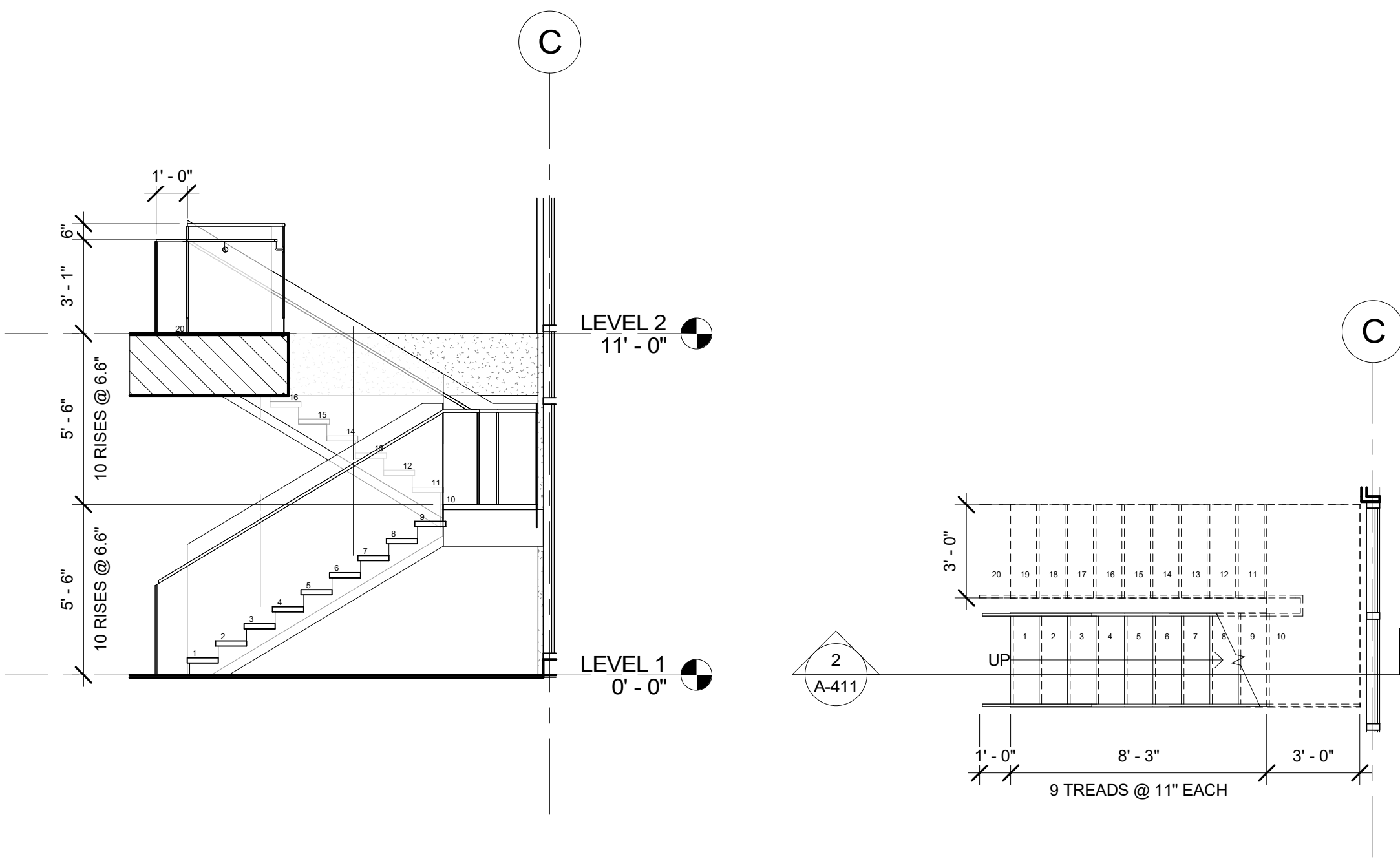


① Section 1
1/8" = 1'-0"



② Section 2
1/8" = 1'-0"

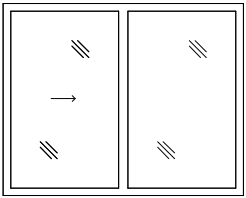
NOTE:
CEILING R-VALUE: MIN. 60 TYP.
WOOD FRAME WALL R-VALUE: MIN. 20 CAVITY INSULATION + MIN. 5 CONTINOUS INSULATION OR MIN. 13 CAVITY INSULATION + MIN. 10 CONTINOUS INSULATION TYP.



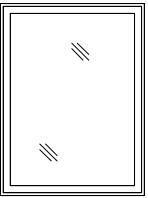
2 ENLARGED SECTION - STAIRS
1/4" = 1'-0"

1 ENLARGED PLAN - STAIRS
1/4" = 1'-0"

Window Schedule				
Type Mark	Height	Width	Sill Height	Phase Created
S1	6' - 0"	5' - 0"	2' - 6"	New Construction
S2	6' - 0"	8' - 0"	2' - 6"	New Construction
W1	1' - 0"	4' - 0"	7' - 6"	New Construction
W2	1' - 0"	6' - 0"	7' - 6"	New Construction
W3	1' - 0"	8' - 0"	7' - 6"	New Construction

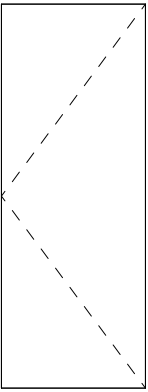


S

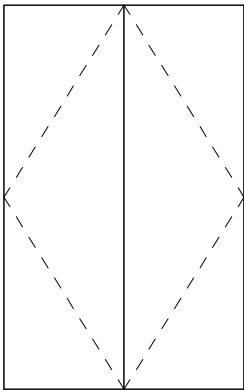


W

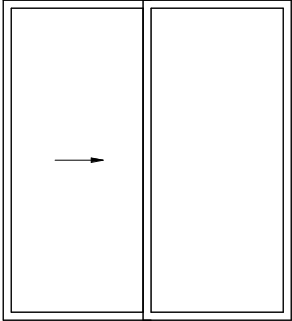
Door Schedule			
Type Mark	Clear Width	Height	Phase Created
F1	3' - 0"	8' - 0"	New Construction
F2	2' - 10"	6' - 8"	New Construction
F3	2' - 8"	6' - 8"	New Construction
F5	2' - 4"	6' - 8"	New Construction
FD1	16' - 0"	6' - 8"	New Construction
FF1	5' - 0"	8' - 0"	New Construction
SS1	4' - 0"	6' - 8"	New Construction



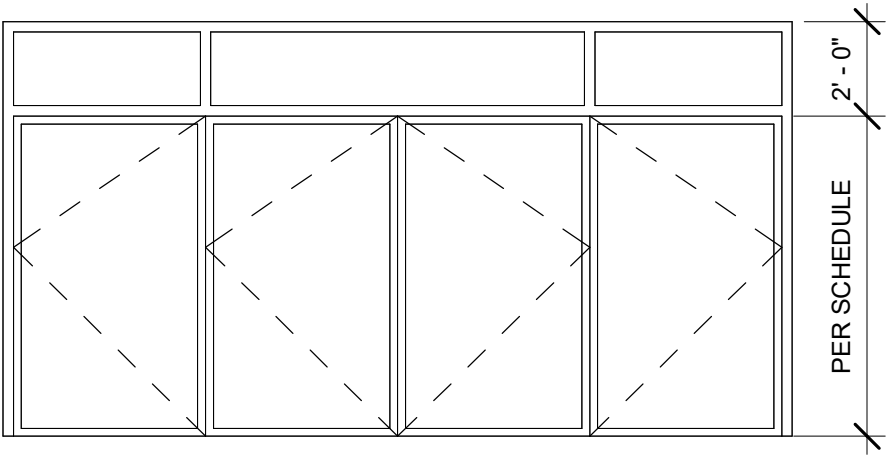
F



FF



SS



FD

NOTE: PER WSEC 2021:
VERTICAL FENESTRATION U-VALUE SHALL BE 0.3 OR LESS;

GENERAL NOTES

ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2021 EDITION.

CONTRACTOR SHALL VERIFY ALL LEVELS, DIMENSIONS AND EXISTING CONDITIONS IN FIELD BEFORE PROCEEDING WITH ANY CONSTRUCTION OR DEMOLITION. CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR FIELD CHANGES.

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

CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS, EXISTING CONSTRUCTION AND SOIL EXCAVATIONS AS REQUIRED, IN A MANNER SUITABLE TO THE WORK SEQUENCE. TEMPORARY SHORING AND BRACING SHALL NOT BE REMOVED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS AND MATERIALS HAVE ACHIEVED DESIGN STRENGTH. FOUNDATIONS WALLS GREATER THAN 4 FEET SHALL NOT BE BACKFILLED UNTIL THE FLOOR FRAMING AND ALL CONNECTIONS TO THE FLOOR FRAMING PER THESE DETAILS ARE COMPLETE.

CHANGES: NO CHANGES TO THESE STRUCTURAL DRAWINGS ARE PERMITTED WITHOUT WRITTEN CONSENT OF THE ENGINEER. CHANGES WILL BE BILLED TO THE CLIENT, OWNER OR CONTRACTOR AT THE ENGINEER'S HOURLY RATE.

SUBMITTALS: SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO ANY FABRICATION OR CONSTRUCTION FOR ALL THE FOLLOWING: STRUCTURAL STEEL, STEEL CANOPIES, GLUED-LAMINATED MEMBERS AND PRE-MANUFACTURED WOOD MEMBERS.

DESIGN DRAWINGS AND CALCULATIONS, FOR PRE-MANUFACTURED WOOD TRUSSES AND JOISTS SHALL BEAR THE SEAL AND SIGNATURE OF THE WASHINGTON STATE REGISTERED PROFESSIONAL ENGINEER WHO IS RESPONSIBLE FOR THE DESIGN, AND SHALL BE SUBMITTED TO THE ARCHITECT AND BUILDING OFFICIAL FOR REVIEW PRIOR TO FABRICATION.

DESIGN LOADS

LIVE LOADS: LIVE LOADS ARE DETERMINED IN ACCORDANCE WITH ASCE CH. 7
L = 40 PSF (RESIDENTIAL)

SNOW LOADS: SNOW LOADS ARE DETERMINED IN ACCORDANCE WITH ASCE CH. 7 WITH THE FOLLOWING FACTORS:
GROUND SNOW LOAD PG = 25 PSF CT = 1.0 CE = 1.0
ROOF SNOW LOAD PS = 25 PSF IS = 1.0

WIND LOADS: WIND LOADS ARE BASED ON ASCE 7-16 CH. 28 (ENVELOPE PROCEDURE) WITH THE FOLLOWING FACTORS:
EXPOSURE CATEGORY = C IW = 1.0
VELOCITY (3 SEC) = 110 MPH (ULT) KZT = 1.67
DESIGN WIND PRESSURED FOR DETERMINING FORCES ON COMPONENTS AND CLADDING ARE DETERMINED IN ACCORDANCE WITH ASCE 7-16 CHAPTER 30.

SEISMIC LOADS: SEISMIC LOADS ARE BASED ON THE EQUIVALENT LATERAL FORCE PROCEDURE IN ASCE 7-16 SECTION 12.8 WITH THE FOLLOWING FACTORS:
RISK CATEGORY = II SS = 1.427
SITE CLASS = D S1 = 0.496
DESIGN CATEGORY = D SDS = 0.951
IE = 1.0
R = 6.5 (WOOD SHEAR WALL) CS = 0.146 (ULT.)
R = 3.5 (ORDINARY STEEL MOMENT FRAME) CS = 0.27 (ULT.)

FOUNDATIONS

CONCRETE FOUNDATIONS SHALL BEAR ON STIFF, COMPETENT, UNDISTURBED NATIVE SOIL. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN CONFIRMATION FROM THE BUILDING OFFICIAL THAT THE NATIVE SOIL AT THIS PROJECT IS ADEQUATE TO SUPPORT THE FOLLOWING BEARING PRESSURE: 1500 PSF.

WHERE FOOTINGS MUST BEAR ON STRUCTURAL FILL DUE TO INADEQUATE SOIL CONDITIONS, THE FILL SHALL BE MIXED AND COMPACTED IN ACCORDANCE WITH SPECIFICATIONS PROVIDED BY A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF WASHINGTON.

BOTTOM OF FOOTING ELEVATION SHALL BE LOCATED AT MINIMUM FROST DEPTH 18" BELOW TOP OF FINISHED GRADE UNLESS REQUIRED OTHERWISE BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL CONFIRM THE MINIMUM FROST DEPTH WITH THE BUILDING OFFICIAL PRIOR TO EXCAVATION.

CONCRETE

CONCRETE WORK SHALL COMPLY, IN GENERAL, WITH ACI 301 (LATEST EDITION) "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.

CONCRETE MIXES: CONCRETE MIXES SHALL CONFORM ACI 318 CH. 5. MINIMUM CONCRETE STRENGTH F'C AT 28 DAYS SHALL BE AS FOLLOWS:
SLAB-ON-GRADE, CURBS AND PADS - 2500 PSI
FOOTINGS - 2500 PSI
WALLS, STEMS - 2500 PSI

WATER/CEMENT RATIO SHALL BE MEASURED BY WEIGHT AND SHALL BE BASED ON THE TOTAL CEMENTITIOUS MATERIAL. WATER/CEMENT RATIO SHALL BE DETERMINED BY THE SUPPLIER BASED ON STRENGTH REQUIREMENTS AND SHALL NOT EXCEED 0.55. WATER-REDUCING ADMIXTURES MAY BE INCORPORATED IN CONCRETE MIX DESIGNS, BUT SHALL CONFORM TO ASTM C 464 AND BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CAEL AND OTHER WATER-SOLUBLE CHLORIDE ADMIXTURES SHALL NOT BE USED.

REINFORCING STEEL: ALL REINFORCING SHALL BE DEFORMED BAR (REBAR) WITH BAR DIAMETERS SPECIFIED IN THESE DRAWINGS AND PROPERTIES BELOW:
ALL REINFORCING UNLESS NOTED OTHERWISE - ASTM A615, GRADE 60
#3 STIRRUPS AND TIES - ASTM A615, GRADE 40
WELDED REBAR - ASTM A706, GRADE 60
GALVANIZED WELDED WIRE FABRIC - ASTM A165

REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES."

REINFORCING STEEL SHALL BE LAPPED AS NOTED ON THE DRAWINGS. WHERE LAP LENGTH IS NOT SHOWN, REINFORCING BARS SHALL BE LAPPED AS FOLLOWS:
#5 AND SMALLER - 48 BAR DIAMETERS
#6 AND LARGER - 60 BAR DIAMETERS

MINIMUM CONCRETE COVER OVER REINFORCING SHALL BE AS FOLLOWS:
NONSTRUCTURAL SLAB-ON-GRADE - MID-DEPTH
WALL BARS: INTERIOR FACE - 3/4"
EXPOSED TO EARTH/WEATHER - 1-1/2" (#5 AND SMALLER), 2" (#6 AND LARGER)
FOOTINGS: BOTTOM BARS - 3" (CAST AGAINST EARTH)
TOP BARS - 1-1/2"
SIDE BARS - 2"

PROVIDE SUPPORTS AS REQUIRED FOR PROPER ALIGNMENT AND CONCRETE COVER AROUND THE REINFORCEMENT. CONSULT THE CRSI MANUAL OF STANDARD PRACTICE MSP-1 FOR SPECIFIC INFORMATION.

DRYPACK

DRYPACK SHALL BE 5,000 PSI NON-SHRINK GROUT, FIVE STAR OR EQUIVALENT. INSTALL DRYPACK UNDER BEARING PLATES BEFORE FRAMING MEMBER IS INSTALLED.

ANCHORS

USE OF DRILLED CONCRETE ANCHORS, INCLUDING EXPANSION BOLTS AND ADHESIVE ANCHORS, WHERE NOT SPECIFIED IN THESE DOCUMENTS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER, ARCHITECT AND THE BUILDING INSPECTOR

EXPANSION BOLTS: EXPANSION BOLTS IN SOLID CONCRETE SHALL BE WEDGE-TYPE ANCHORS MADE OF CARBON STEEL. BOLT SIZE, SPACING AND EMBEDMENT LENGTH SHALL BE AS DESIGNATED IN THESE DRAWINGS. BOLTS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS WITH INSPECTION PER SCHEDULE. EXPANSION BOLTS SHALL BE SIMPSON STRONG BOLT 2 OR APPROVED EQUAL. A CURRENT ICBO OR ICC REPORT SHALL BE SUBMITTED FOR ALTERNATES.

ADHESIVE ANCHORS: ADHESIVE OR EPOXY TYPE ANCHORS IN SOLID CONCRETE SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. ANCHOR SIZE, SPACING AND EMBEDMENT LENGTH SHALL BE AS DESIGNATED IN THESE DRAWINGS. ADHESIVE SHALL BE SIMPSON SET 3G. A CURRENT ICBO OR ICC REPORT SHALL BE SUBMITTED FOR ALTERNATES.

THREADED RODS SHALL BE CONFORM WITH F1554, GRADE 55. DOWELS SHALL CONFORM WITH ASTM A615, GRADE 60. ALL ADHESIVE (EPOXY) BOLTS SHALL HAVE I.C.C. RATING FOR MATERIAL INTO WHICH INSTALLATION TAKES PLACE. ANCHORS AT EXTERIOR LOCATIONS SHALL BE HOT DIPPED GALVANIZED.

WOOD

SAWN LUMBER: STRUCTURAL SAWN LUMBER SHALL BE KILN DRIED AND BE OF THE SPECIES AND GRADE NOTED BELOW OR BETTER:

USE	GRADE	FB (PSI)
WALL STUDS	HEM FIR STUD	675
PLATES	DOUGLAS FIR #2	1000
4X BEAMS	HEM FIR #2	850
6X BEAMS	HEM FIR #2	675
6X COLUMNS	DOUGLAS FIR #2	1200
4X COLUMNS	DOUGLAS FIR #2	1000

ALL WOOD CONNECTORS SHALL BE MANUFACTURED BY SIMPSON STRONG TIE COMPANY (OR APPROVED EQUAL), AND OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS. ALL WOOD CONNECTORS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE TRIPLE ZINC G-185 GALVANIZED (1.85 OZ/SQ FT COATING).

MINIMUM WOOD NAILING REQUIREMENTS: UNLESS OTHERWISE NOTED ON THE DRAWINGS, TYPICAL WOOD FRAMING SHALL BE FASTENED PER IBC 2021 TABLE 2304.10.2.

RATED SHEATHING: STRUCTURAL PANELS SHALL BEAR THE APA TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION. SHEATHING SHALL BE AS FOLLOWS:
SHEAR WALL SHTG MIN. 7/16" 32/16 MIN. C-D INT APA WITH EXTERIOR GLUE (CDX)
ROOF SHTG MIN. 15/32" 32/16 MIN. C-D INT APA WITH EXTERIOR GLUE (CDX)
SUB FLOOR SHTG MIN. 3/4" 48/24 T&G MIN. C-D INT APA WITH EXTERIOR GLUE (CDX)

SHEATHING SHALL BE ORIENTATED OVER THE SUPPORTS AS SHOWN ON THE DRAWINGS. SHEAR WALL SHEATHING SHALL BE BLOCKED AT ALL PANEL EDGES AS SHOWN IN THE SHEAR WALL SCHEDULE.

PREMANUFACTURED OPEN WEB WOOD TRUSSES: TRUSSES SHALL BE DESIGN BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON, WHO IS REGULARLY ENGAGED IN THE DESIGN OF PLATE-CONNECTED WOOD TRUSSES. TRUSS DESIGN SHALL BE ACCORDANCE WITH IBC SECTION 2303.4.

TRUSSES SHALL BE DESIGN FOR THE FOLLOWING DEAD LOADS:	TOP CHORD	BOTTOM CHORD	TOTAL
	15 PSF	5 PSF	20 PSF
ROOF TRUSSES			

IN ADDITION TO DEAD LOADS, THE DESIGN SHALL INCLUDE THE LIVE, WIND, SNOW AND SNOW DRIFT LOADS AS IDENTIFIED IN THE "DESIGN LOADS" SECTION OF THESE DRAWINGS. IN ADDITION, THE TRUSS DESIGN SHALL INCLUDE CONCENTRATED AND AXIAL LOADS SHOWN ON FRAMING PLANS AND HANGER SCHEDULES IN THESE DRAWINGS. ROOF TRUSSES SHALL BE DESIGNED FOR WIND NET UPLIFT OF 10 PSF UNLESS OTHERWISE NOTED ON THE DRAWINGS. FLOOR TRUSSES SHALL BE DESIGN FOR MAXIMUM LIVE LOAD DEFLECTION = 1/2" AND MINIMUM LIVE LOAD DEFLECTION RATIO = L/480.

TRUSSES SHALL BE FABRICATED BY A MANUFACTURER WHO IS A MEMBER OF THE TRUSS PLATE INSTITUTE. TRUSSES SHALL BE SUPPLIED WITH THE PROPER HANGERS, END CONNECTIONS, BRIDGING, BRACING TO PROVIDE LATERAL STABILITY OF ALL TRUSS MEMBERS, AND TIE-DOWN CONNECTIONS TO BEAMS AND TOPS OF WALLS. TRUSSES SHALL BE SUPPLIED WITH TAPERED HARDWOOD SHIMMING SO THAT EVERY CHORD BEARS ON THE FULL WIDTH OF EVERY SUPPORT, WITHOUT NOTCHING THE TRUSS MEMBERS. THE TRUSS MANUFACTURER IS RESPONSIBLE FOR ENSURING THE BEARING SEAT DOES NOT EXCEED THE SILL PLATE CAPACITY OF THE SUPPORTING ELEMENT.

BUILDING OFFICIAL INSPECTIONS

THE FOLLOWING RECOMMENDED MINIMUM ITEMS SHALL BE INSPECTED BY A QUALIFIED INDIVIDUAL PROVIDED BY THE BUILDING OFFICIAL:
-FOOTINGS BEAR ON COMPETENT NATIVE SOIL PER THE "FOUNDATIONS" SECTION ABOVE
-FOOTING REINFORCEMENT
-SHEAR WALL SILL PLATE ANCHORS AND WASHERS PER SCHEDULE
-SHEAR WALL NAILING AND SHEAR CLIPS PER SCHEDULE
-SHEAR WALL HOLD-DOWNS
-VERIFY TYPE, SIZE AND GRADE OF STRUCTURAL STEEL MEMBERS AND BOLTS

STRUCTURAL STEEL

ALL CONSTRUCTION SHALL BE PER AISC. ALL STRUCTURAL STEEL SHALL BE AS FOLLOWS:

ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 KSI), U.N.O.

ALL WIDE FLANGE STEEL SHALL BE ASTM A572, GRADE 50, OR A992, GRADE 50 (Fy = 50 KSI).

ALL BOLTS SHALL BE ASTM F3125 GRADE A325N, UNLESS NOTED OTHERWISE AND SHALL BE INSTALLED AS BEARING-TYPE CONNECTIONS WITH THREADS INCLUDED IN SHEAR PLANE (I.E. A TYPE "N" CONNECTION). UNO. BOLTS SHALL BE TIGHTENED TO A SMUG-TIGHT CONDITION USING ANY AISC APPROVED METHOD. ALL HIGH-STRENGTH BOLTING SHALL BE PERIODICALLY INSPECTED BY AN INDEPENDENT TESTING LABORATORY.

ALL ANCHOR RODS SHALL BE ASTM F1554 GRADE 55, U.N.O.

STANDARD HOLES SHALL BE USED UNLESS OVERSIZE OR SLOTTED HOLES ARE SPECIFICALLY NOTED. HARDENED WASHERS SHALL BE PROVIDED AT ALL OVERSIZE OR SLOTTED HOLES.

SHOP DRAWINGS OF ALL STRUCTURAL STEEL SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION. SEE "SHOP DRAWINGS" SECTION.

WELDING

WELDERS HOLDING VALID W.A.B.O. CERTIFICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS OR NOTES SHALL PERFORM ALL WELDING. CERTIFICATES SHALL BE THOSE ISSUED BY AN ACCEPTED TESTING AGENCY.

ALL WELDING DONE BY E70 SERIES, U.N.O. ALL WELDING SHALL BE PER LATEST AWS STANDARDS.

THESE DRAWINGS DO NOT DISTINGUISH BETWEEN SHOP AND FIELD WELDS; THE CONTRACTOR MAY SHOP WELD OR FIELD WELD AT THEIR DISCRETION. SHOP WELDS AND FIELD WELDS SHALL BE SHOWN ON THE SHOP DRAWINGS SUBMITTED FOR REVIEW.

PAINTING

PRIOR TO FINISHING CLEAN ALL SURFACES OF RUST, SCALE, GREASE AND FOREIGN MATTER IN ACCORDANCE WITH PAINT MANUFACTURER'S REQUIREMENTS. DO NOT PRIME SURFACES IN DIRECT CONTACT WITH CONCRETE OR WHERE FIELD WELDING IS REQUIRED. FINAL CONDITION OF ALL STEEL SHALL BE PRIMED (MINIMUM (1) COAT) AND PAINTED. VERIFY COLOR WITH OWNER.

SPECIAL INSPECTION – STRUCTURAL ONLY

SPECIAL INSPECTION IS TO BE PROVIDED FOR THE ITEMS LISTED BELOW IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE BUILDING SAFETY DEPARTMENT. "SPECIAL STRUCTURAL INSPECTION" SHALL NOT RELIEVE THE OWNER OR THEIR AGENT FROM REQUESTING THE CITY OR COUNTY INSPECTIONS REQUIRED BY SECTION 110.3 OF THE IBC. SPECIAL INSPECTION IS REQUIRED PER SECTIONS 1704 AND 1705 FOR THE FOLLOWING:

- EPOXY AND ADHESIVE ANCHORS IN CONCRETE:
A) DURING THE PLACEMENT OF ANCHORS IN HARDENED CONCRETE
- WELDING:
A) SEE ATTACHED TABLES FOR THE QUALITY ASSURANCE AND QUALITY CONTROL REQUIREMENTS PER AISC 360-16 CHAPTER N WHICH SHALL APPLY TO ALL STEEL CONNECTIONS.
- HIGH-STRENGTH BOLTING:
A) SEE TABLES ON THIS SHEET FOR THE QUALITY ASSURANCE AND QUALITY CONTROL REQUIREMENTS PER AISC 360-16 CHAPTER N WHICH SHALL APPLY TO ALL STEEL CONNECTIONS.
- SEE FOLLOWING TABLES FOR ADDITIONAL INFORMATION INCLUDING REQUIRED AISC QUALITY ASSURANCE INSPECTIONS FOR WELDING, BOLTING AND OTHER INSPECTION TASKS. PER AISC 360-16 SECTION N5.3 AND AISC 341-10 SECTION J5.4, IT IS ACCEPTABLE, WITH THE ENGINEER AND PIERCE COUNTY'S APPROVAL, FOR THE TASKS NOTED IN THE VARIOUS QUALITY ASSURANCE TABLES TO BE COORDINATED BETWEEN THE FABRICATOR'S INSPECTOR AND THE OWNER'S INSPECTOR SO THAT THE INSPECTION IS PERFORMED BY ONLY ONE OF THE REQUIRED PARTIES. FOR THIS PROVISION, THE FABRICATOR MUST BE AISC CERTIFIED AND HAVE A PIERCE COUNTY APPROVED INSPECTION PROGRAM.
- DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
A) THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN IT CONFORMS WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATION.
B) THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE STRUCTURAL ENGINEER OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE DESIGN AUTHORITY AND THE BUILDING OFFICIAL.
C) UPON COMPLETION OF THE ASSIGNED WORK THE STRUCTURAL ENGINEER SHALL COMPLETE AND SIGN THE APPROPRIATE FORMS CERTIFYING THAT TO THE BEST OF THEIR KNOWLEDGE THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.

FOR ADDITIONAL INFORMATION ON SPECIAL STRUCTURAL INSPECTIONS SEE IBC AND MATERIAL SPECIFIC TABLES ON THE FOLLOWING SHEETS OR CONTACT THE STRUCTURAL ENGINEER PRIOR TO START OF CONSTRUCTION.

SHEET INDEX
S1.0 STRUCTURAL NOTES
S2.0 FOUNDATION PLANS
S2.1 2ND FLOOR FRAMING PLAN
S2.2 ROOF FRAMING PLAN
S3.0 TYPICAL STRUCTURAL DETAILS
S3.1 TYPICAL STRUCTURAL DETAILS
S3.2 TYPICAL STRUCTURAL DETAILS
S3.3 SHEAR WALL DETAILS
S3.4 TYPICAL STRUCTURAL DETAILS

12/11/2024

F.T. ENG. & CONST. MGMT., LLC

PHONE: 5098220489

EMAIL: F.T.ENG.CM@GMAIL.COM



4332 MERCER ISLAND
ADDITION
4332 WEST MERCER WAY
MERCER ISLAND, WA

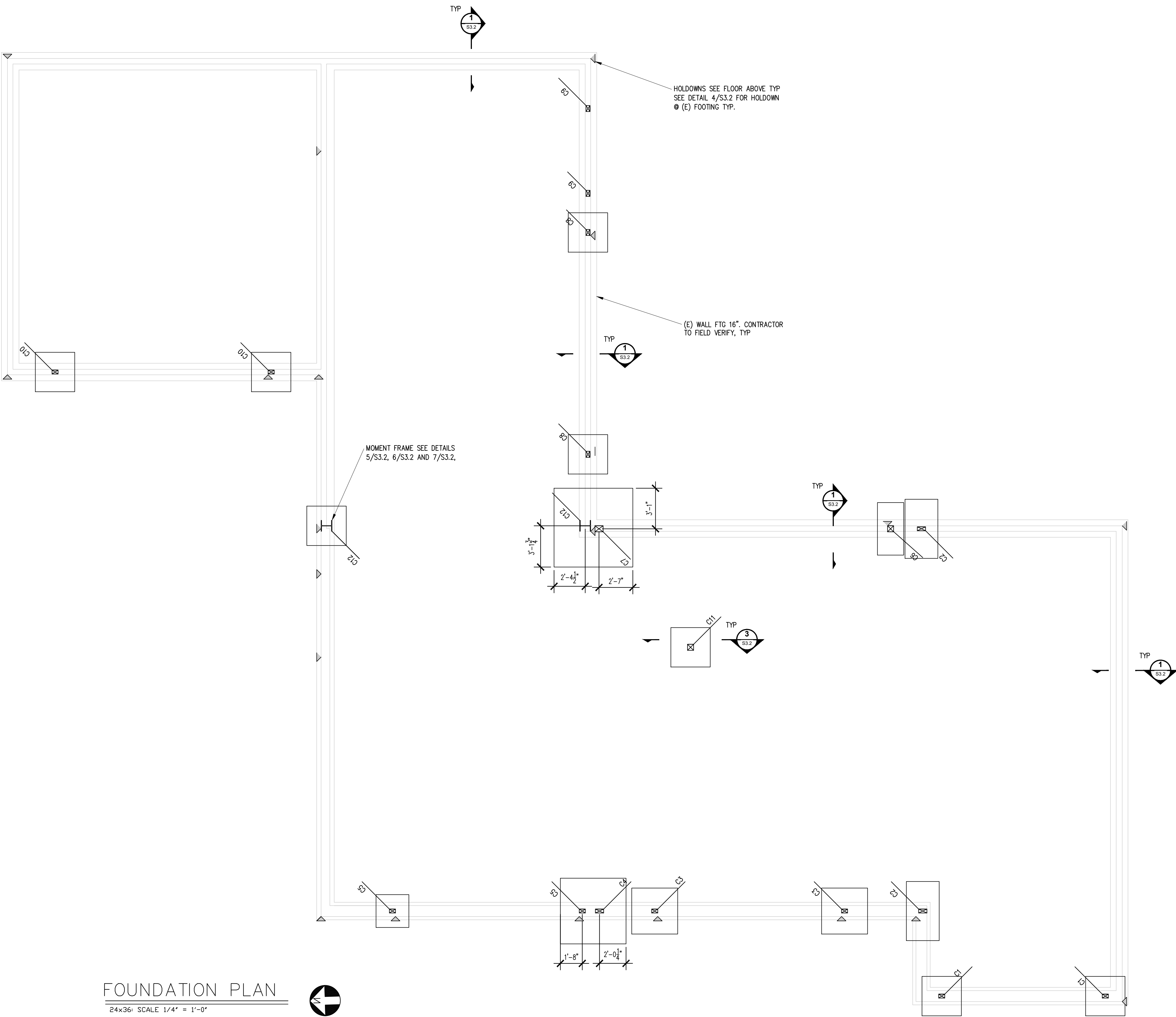
JOB # 2024065

DATE									
DESCRIPTION									
REV									

Drawn By:
Drawing Title:

STRUCTURAL
NOTES

Sheet
S1.0



FOUNDATION PLAN
24x36' SCALE 1/4" = 1'-0"

FLOOR PLAN LEGEND	
	LOAD BEARING WALL
	EXISTING
	BEAM/HEADER, U.N.O
	POST
	HOLD-DOWN LOCATION
	HANGER
	INDICATES SHEAR WALL AND HOLD-DOWN TYPE. SEE SCHEDULE ON SHEET S3.3
	FORCE TRANSFER SHEAR WALL SEE DETAIL S6/3.3

- PLAN NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. STRUCTURAL DRAWINGS ARE SCHEMATIC. DO NOT SCALE. CONTRACTOR TO PROVIDE TEMPORARY SUPPORT FOR THE DEMOLITION.
 2. DIMENSIONS AND LOCATION OF EXISTING FOUNDATION SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
 3. ALL LOAD BEARING WALL WITH OUT SHEAR WALL TYPE SHOULD BE TYPE A.
 4. ALL 4" LOAD BEARING WALL SHOULD BE 2X4 HF#2 @ 16" O.C.
 5. ALL 6" LOAD BEARING WALL SHOULD BE 2X6 HF#2 @ 16" O.C.
 6. ALL POST SHALL BE DF#2 U.N.O.
 7. ALL BEAM AND HEADER SHOULD BE HF#2 U.N.O.
 8. ALL SHEAR WALL DOES NOT LINE UP ABOVE, HOLDDOWN SHOULD BE CONTINUOUS AND CONNECTED TO BEAM OR/AND FOUNDATION.
 9. ALL BEAM AT TOP PLATE/WALL CONNECTION SEE DETAIL 5/S3.3.
 10. TYPICAL STAIR AND STAIR LANDING DETAIL SEE DWG 10/S3.1 - 15/S3.1

Label	FTG SIZE (ft)	FTG THK (in)
C1	3 X 3	12
C2	3 X 4	12
C3	3.5 X 3.5	12
C4	3.5 X 3.5	12
C5	2.5 X 2.5	12
C6	2 X 4	12
C7	4 X 4	12
C8	3 X 3	12
C10	3 X 3	12
C11	3 X 3	12
C12	3 X 3	12
C4+C5	5 X 5	14
C7+C12	6 X 6	14

Label	COLUMN
C1	4x6 DF#2
C2	4x10 DF#2
C3	4x10 DF#2
C4	4x10 DF#2
C5	4x6 DF#2
C6	6x6 DF#2
C7	6x10 DF#2
C8	4x6 DF#2
C9	4x6 DF#2
C10	4x6 DF#2
C11	6X6 DF#2
C12	W10x88

12/11/2024

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PHONE: 509220489

EMAIL: F.T.ENG.CM@GMAIL.COM

YUK KWAN TSUI

STATE OF WASHINGTON

4332

REGISTERED

PROFESSIONAL ENGINEER

12/11/2024

4332 MERCER ISLAND

ADDITION

4332 WEST MERCER WAY

MERCER ISLAND, WA

JOB # 2024065

DATE									
DESCRIPTION									
REV									

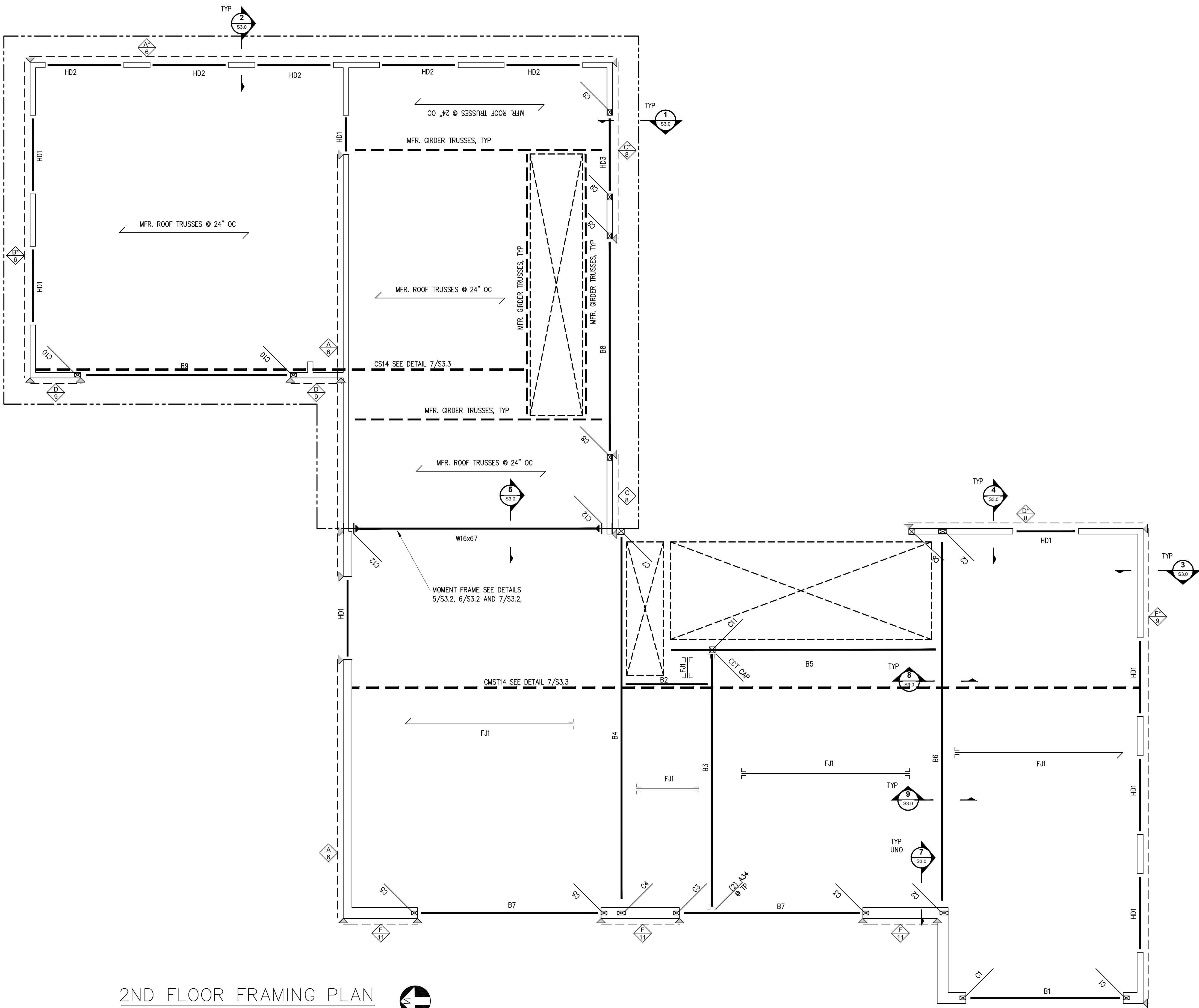
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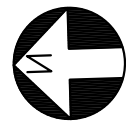
FOUNDATION PLAN

Sheet

S2.0



2ND FLOOR FRAMING PLAN
24x36 SCALE 1/4" = 1'-0"



FLOOR PLAN LEGEND

	LOAD BEARING WALL
	EXISTING
	BEAM/HEADER, U.N.O
	POST
	HOLD-DOWN LOCATION
	HANGER
	INDICATES SHEAR WALL AND HOLD-DOWN TYPE. SEE SCHEDULE ON SHEET S3.3
	FORCE TRANSFER SHEAR WALL SEE DETAIL S6/3.3

PLAN NOTES:

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- TYPICAL STAIR AND STAIR LANDING DETAIL SEE DWG 10/S3.1 - 15/S3.1

Label	Material
RHD1	4 x 8 HF No.2
RHD2	4 x 8 DF No.2
RHD3	3 1/2" x 9" 24F-V4 DF Glulam
RB1	5 1/2" x 18" 24F-V4 DF Glulam
FJ1	16" TJI@ 110
HD1	4 x 12 DF No.2
HD2	4 x 8 HF No.2
HD3	3 1/2" x 9" 24F-V4 DF Glulam
B1	3 1/2" x 13 1/2" 24F-V4 DF Glulam
B2	3 1/2" x 12" 24F-V4 DF Glulam
B3	5 1/2" x 16" 24F-V4 DF Glulam
B4	8 3/4" x 21" 24F-V4 DF Glulam
B5	5 1/2" x 16" 24F-V4 DF Glulam
B6	8 3/4" x 21" 24F-V4 DF Glulam
B7	3 1/2" x 16 1/2" 24F-V4 DF Glulam
B8	3 1/2" x 12" 24F-V4 DF Glulam
B9	3 1/2" x 10 1/2" 24F-V4 DF Glulam

Label	COLUMN
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C5	4x6 DF#2
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C8	4x6 DF#2
C9	4x6 DF#2
C10	4x6 DF#2
C11	6X6 DF#2
C12	W10x88

12/11/2024

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YUK KWAN TUNG

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4334

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PROFESSIONAL ENGINEER

12/11/2024

4332 MERCER ISLAND

ADDITION

4332 WEST MERCER WAY

MERCER ISLAND, WA

JOB # 2024065

DATE									
DESCRIPTION									
REV									

Drawn By:

Drawing Title:

2ND FLOOR FRAMING PLAN

Sheet

S2.1



4332 MERCER ISLAND
ADDITION
4332 WEST MERCER WAY
MERCER ISLAND, WA

JOB # 2024065

REV	DESCRIPTION	DATE

Drawn By:
Drawing Title:

ROOF FRAMING PLAN

Sheet
S2.2

FLOOR PLAN LEGEND

	LOAD BEARING WALL
	EXISTING
	BEAM/HEADER, U.N.O
	POST
	HOLD-DOWN LOCATION
	HANGER
	INDICATES SHEAR WALL AND HOLD-DOWN TYPE. SEE SCHEDULE ON SHEET S3.3
	FORCE TRANSFER SHEAR WALL SEE DETAIL S6/3.3

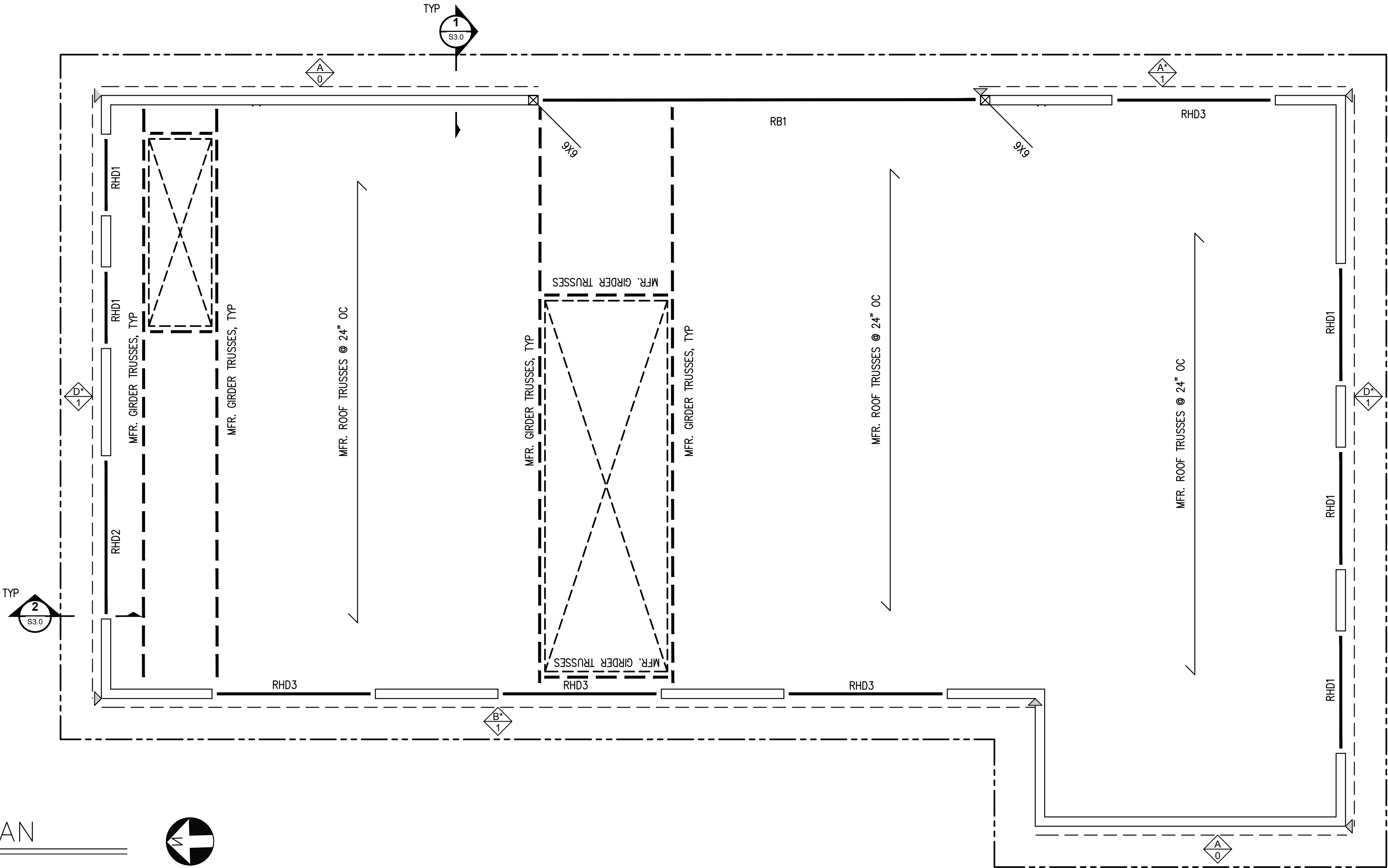
PLAN NOTES:

- SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. STRUCTURAL DRAWINGS ARE SCHEMATIC. DO NOT SCALE. CONTRACTOR TO PROVIDE TEMPORARY SUPPORT FOR THE DEMOLITION.
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Label	Material
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B1	3 1/2" x 13 1/2" 24F-V4 DF Glulam
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B4	8 3/4" x 21" 24F-V4 DF Glulam
B5	5 1/2" x 16" 24F-V4 DF Glulam
B6	8 3/4" x 21" 24F-V4 DF Glulam
B7	3 1/2" x 16 1/2" 24F-V4 DF Glulam
B8	3 1/2" x 12" 24F-V4 DF Glulam
B9	3 1/2" x 10 1/2" 24F-V4 DF Glulam

ROOF FRAMING PLAN

24x36" SCALE 1/4" = 1'-0"



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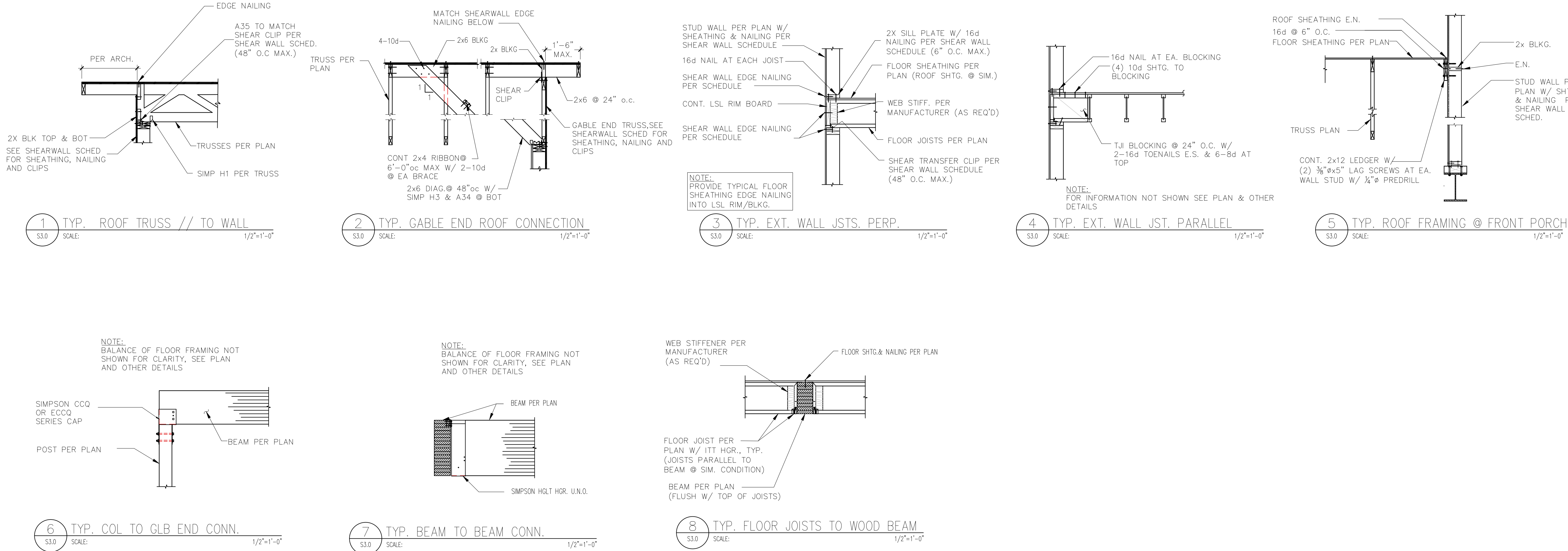


4332 MERCER ISLAND
ADDITION
4332 WEST MERCER WAY
MERCER ISLAND, WA

JOB # 2024065

REV	DESCRIPTION	DATE

Drawn By: _____
Drawing Title: _____
TYPICAL STRUCTURAL
DETAILS
Sheet
S3.0



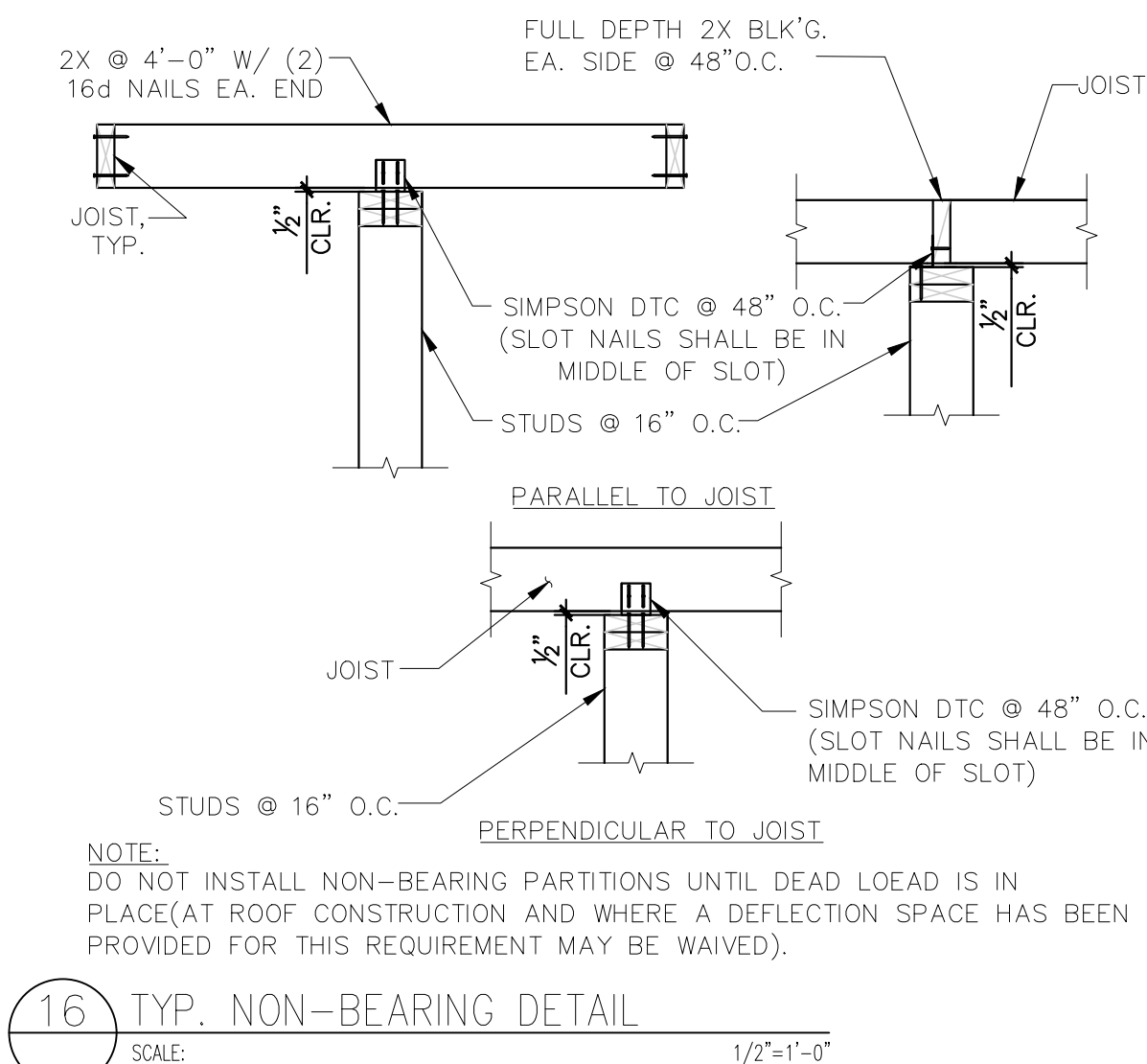
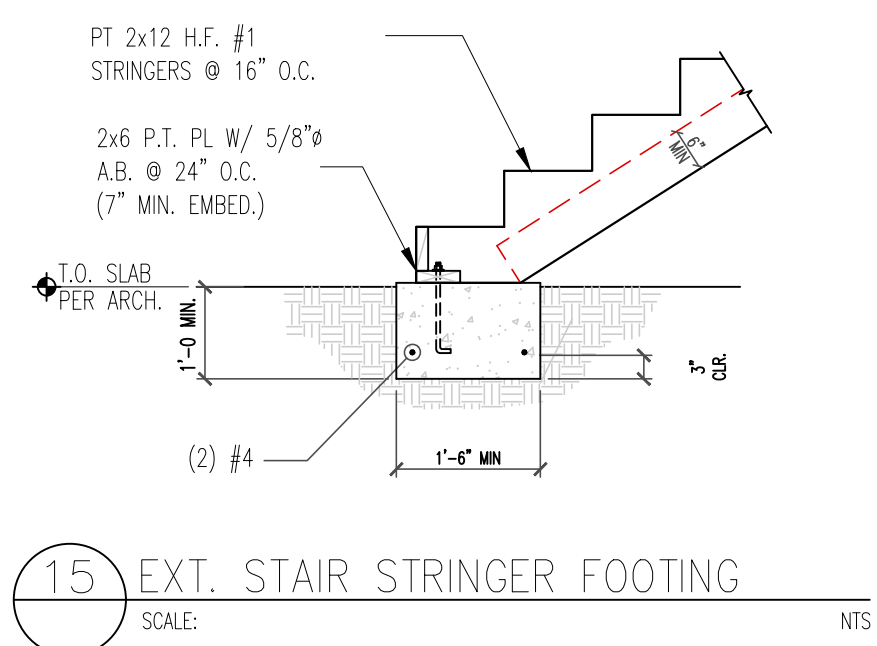
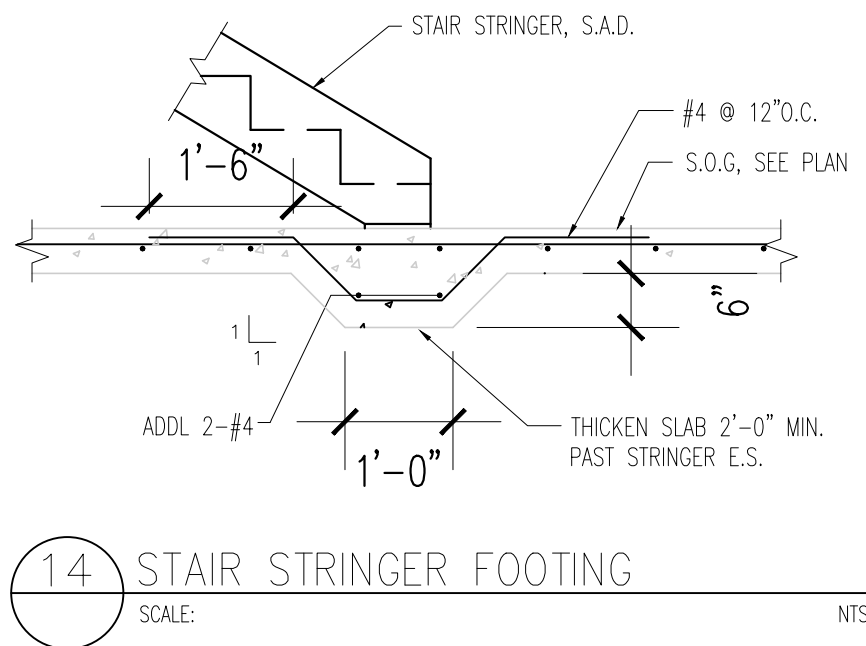
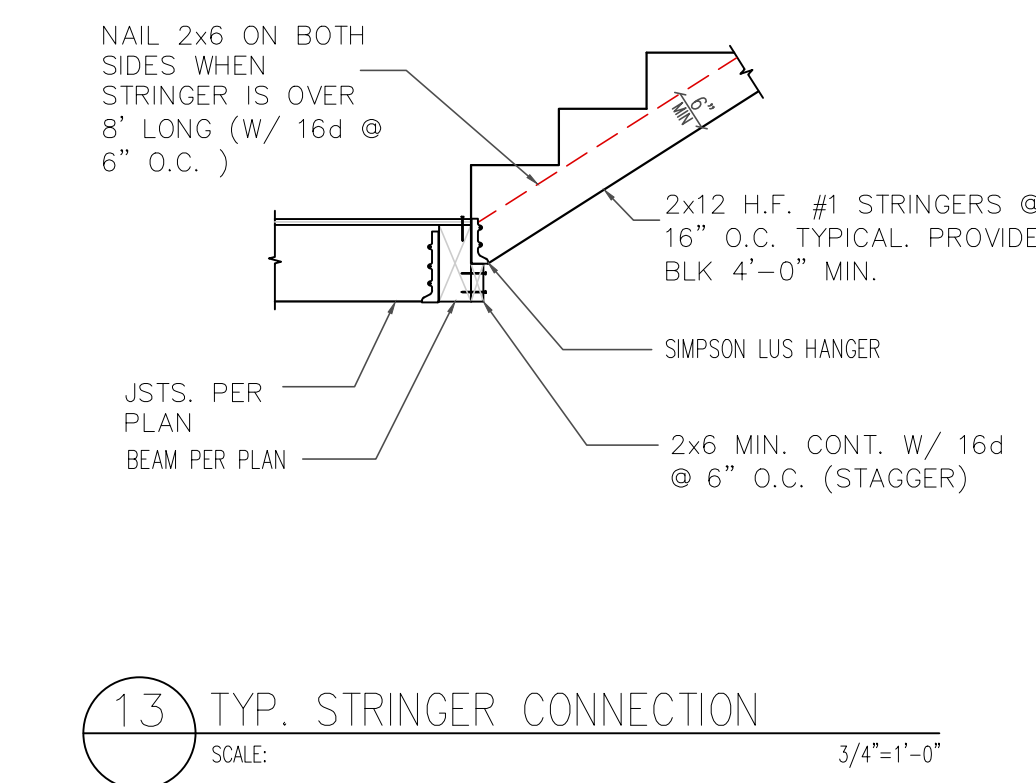
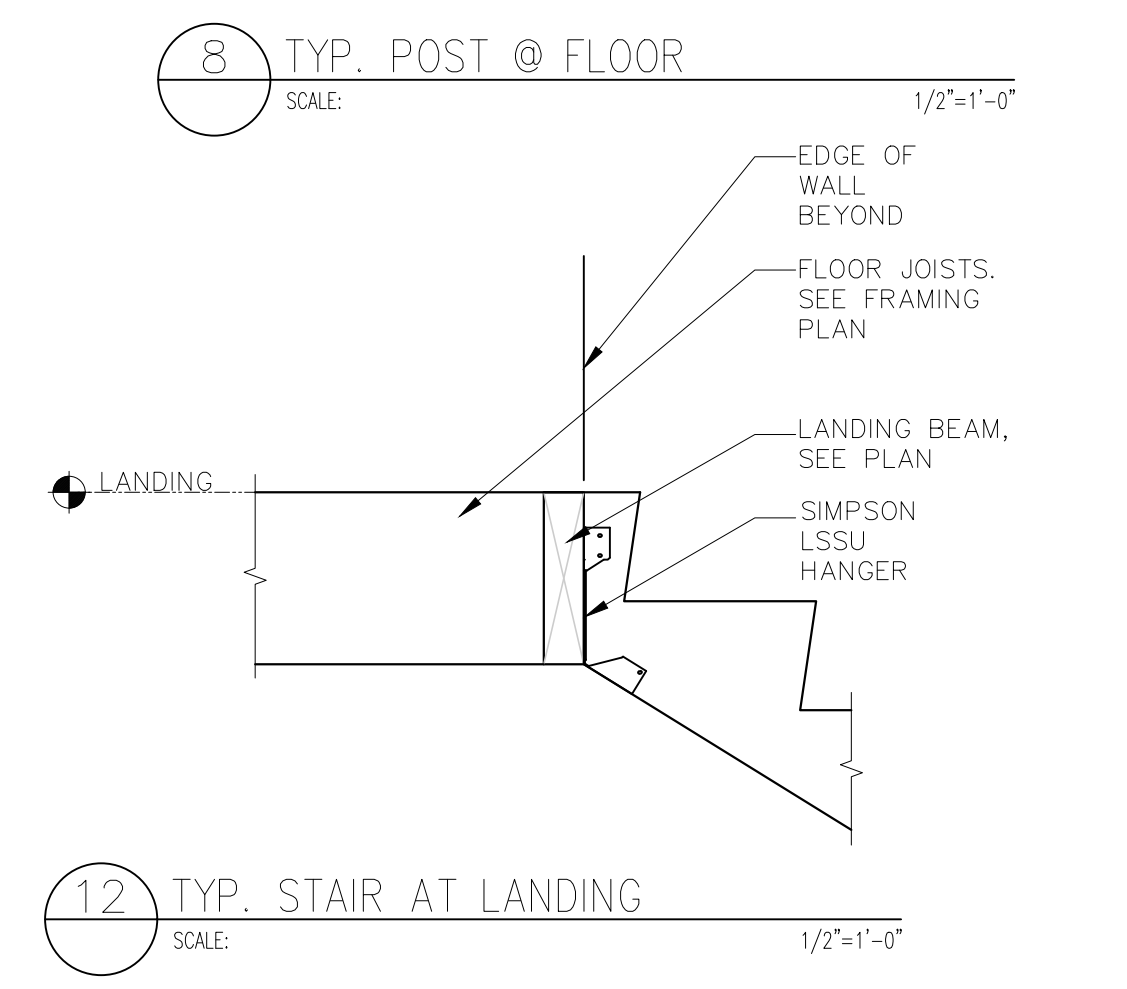
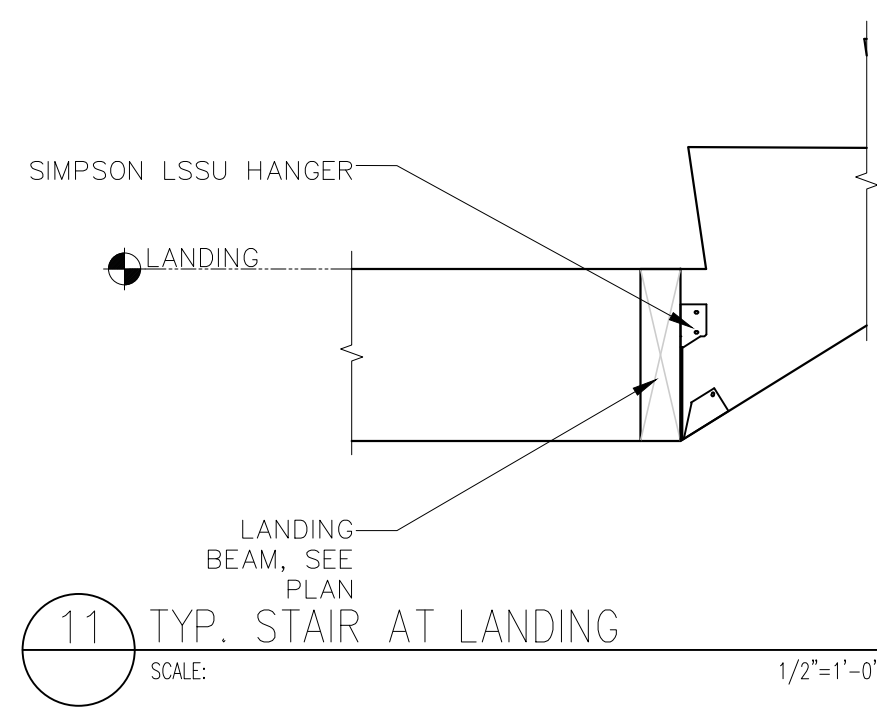
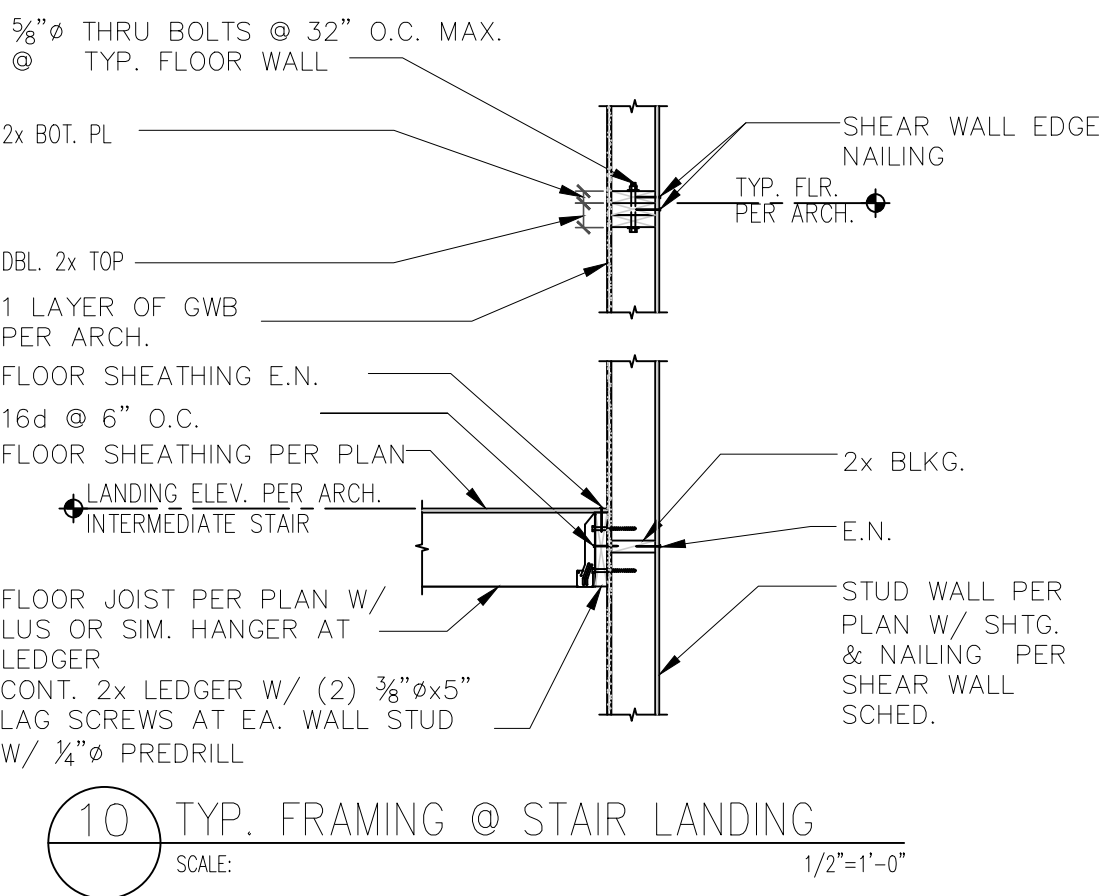
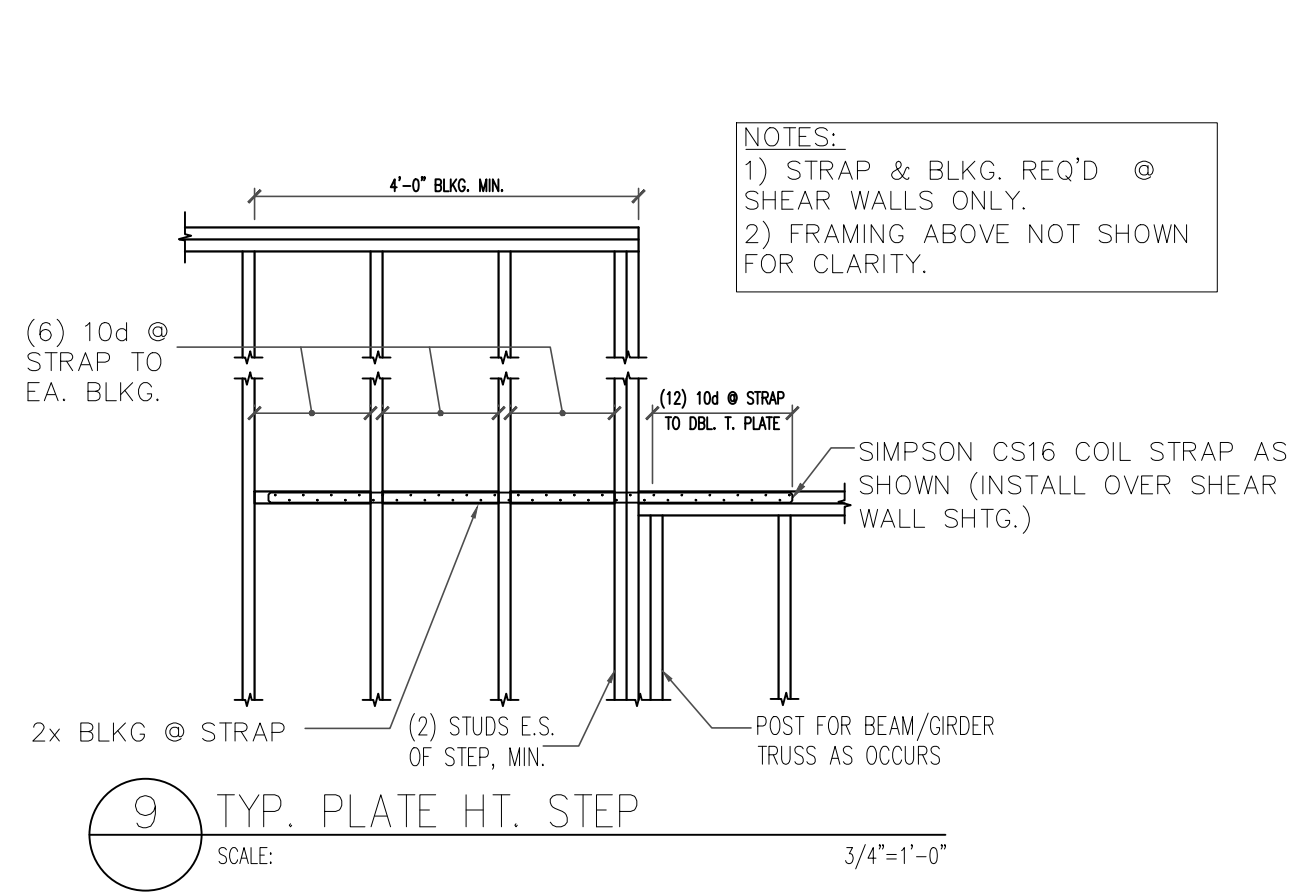
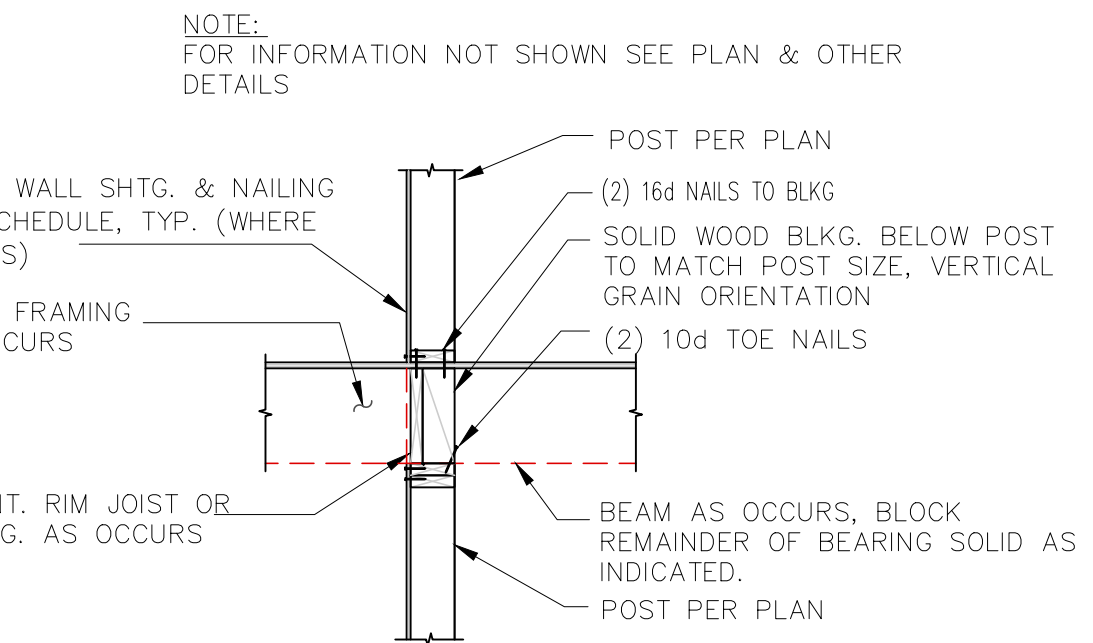
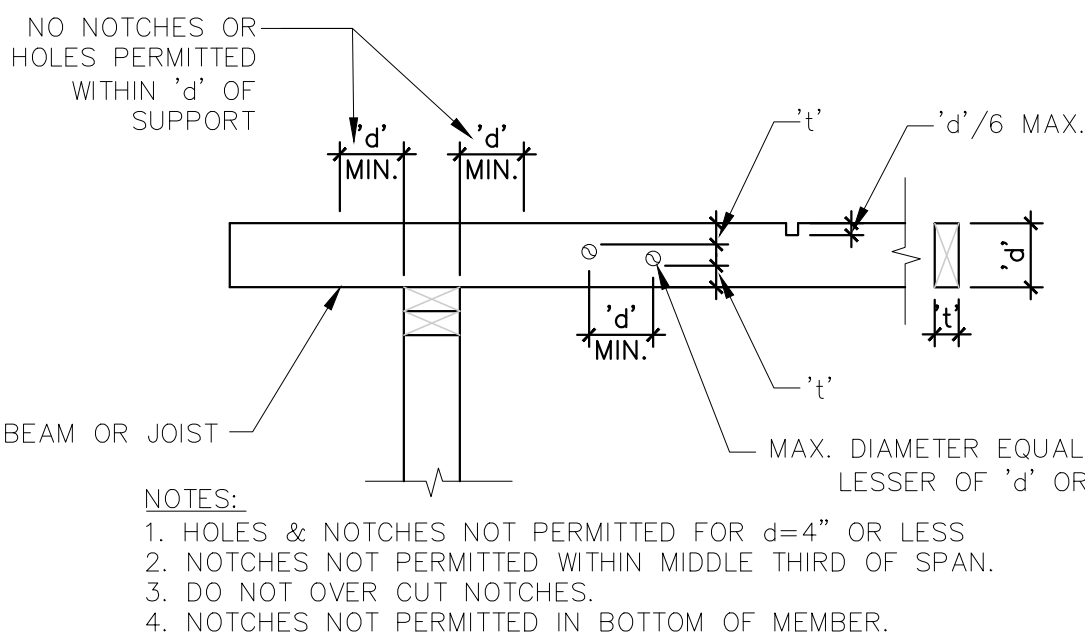
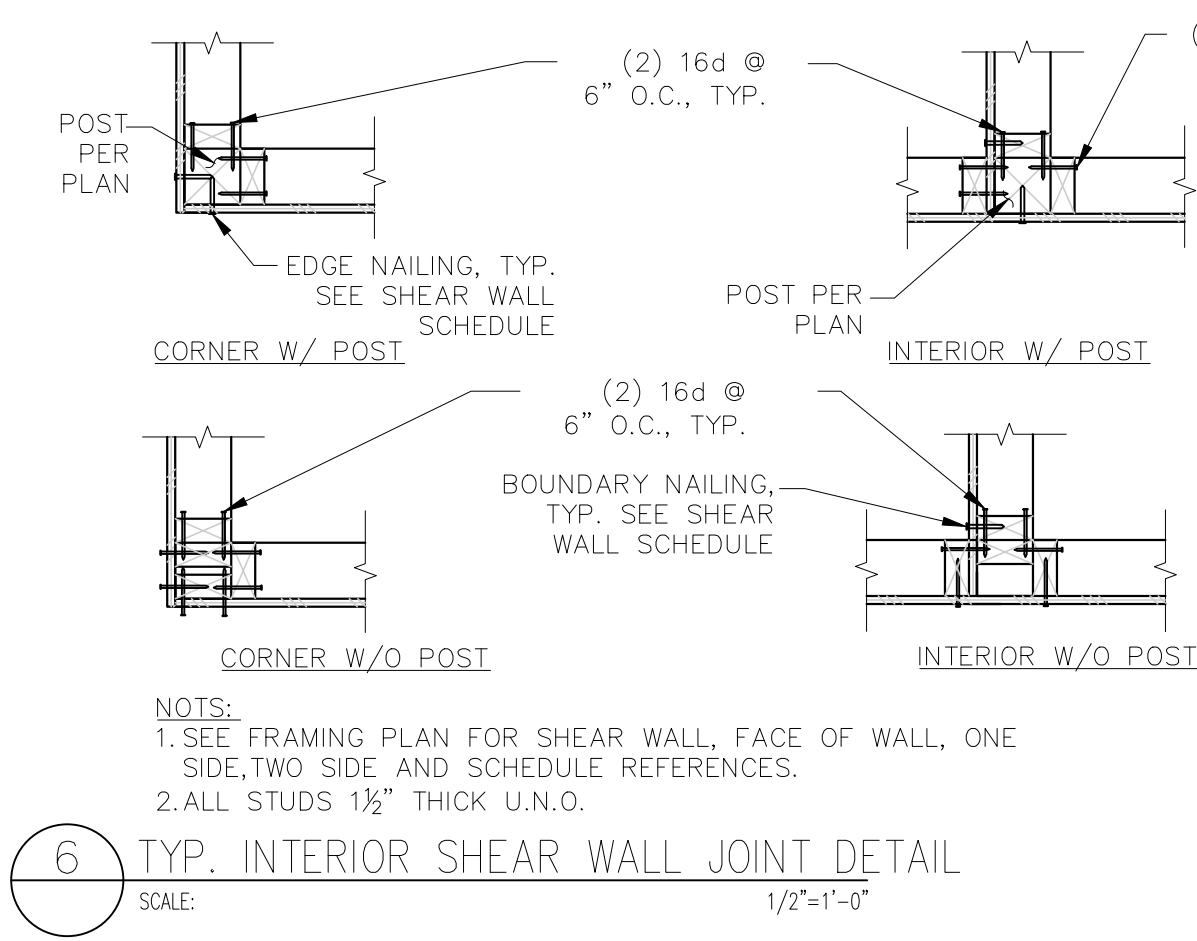
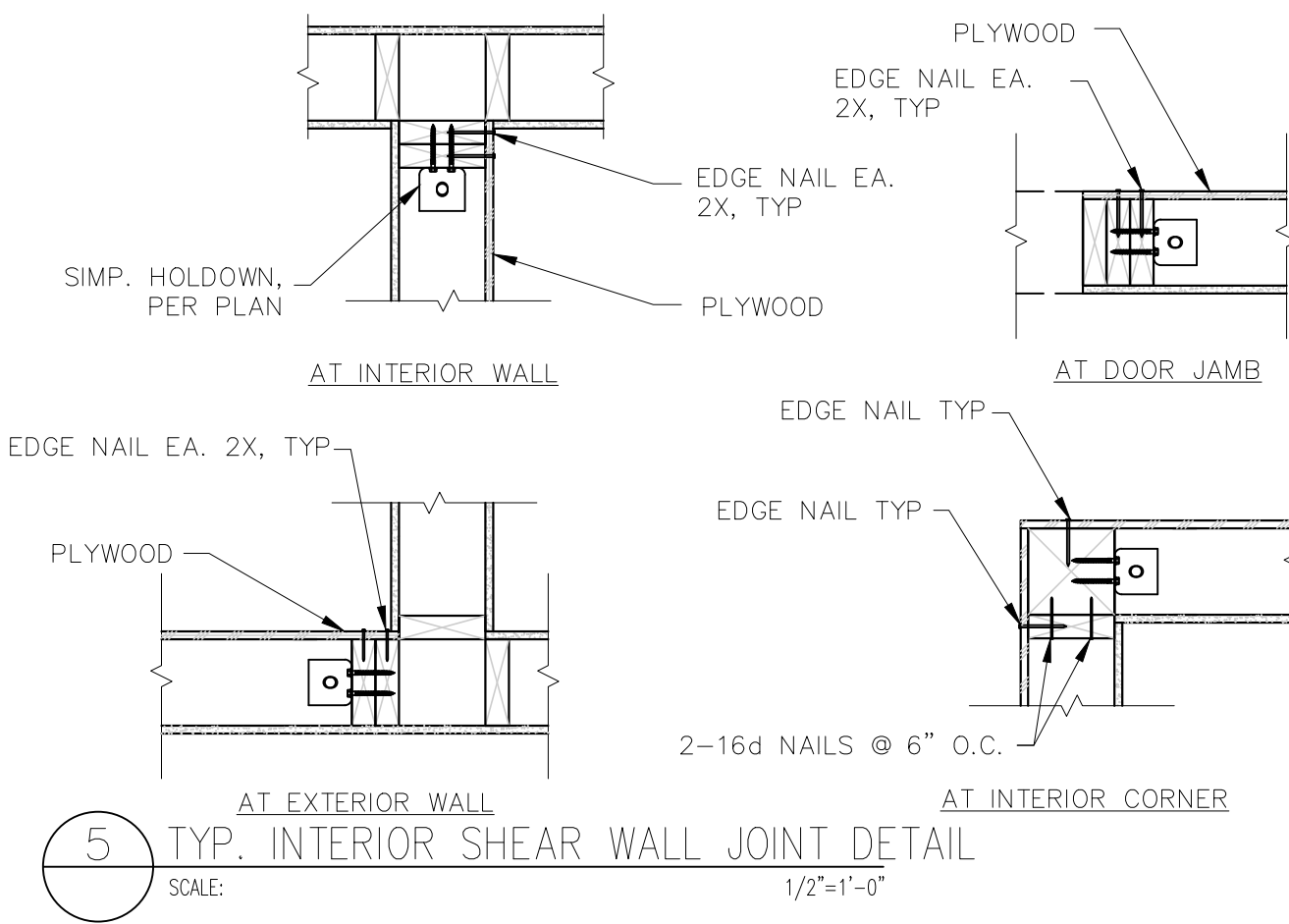
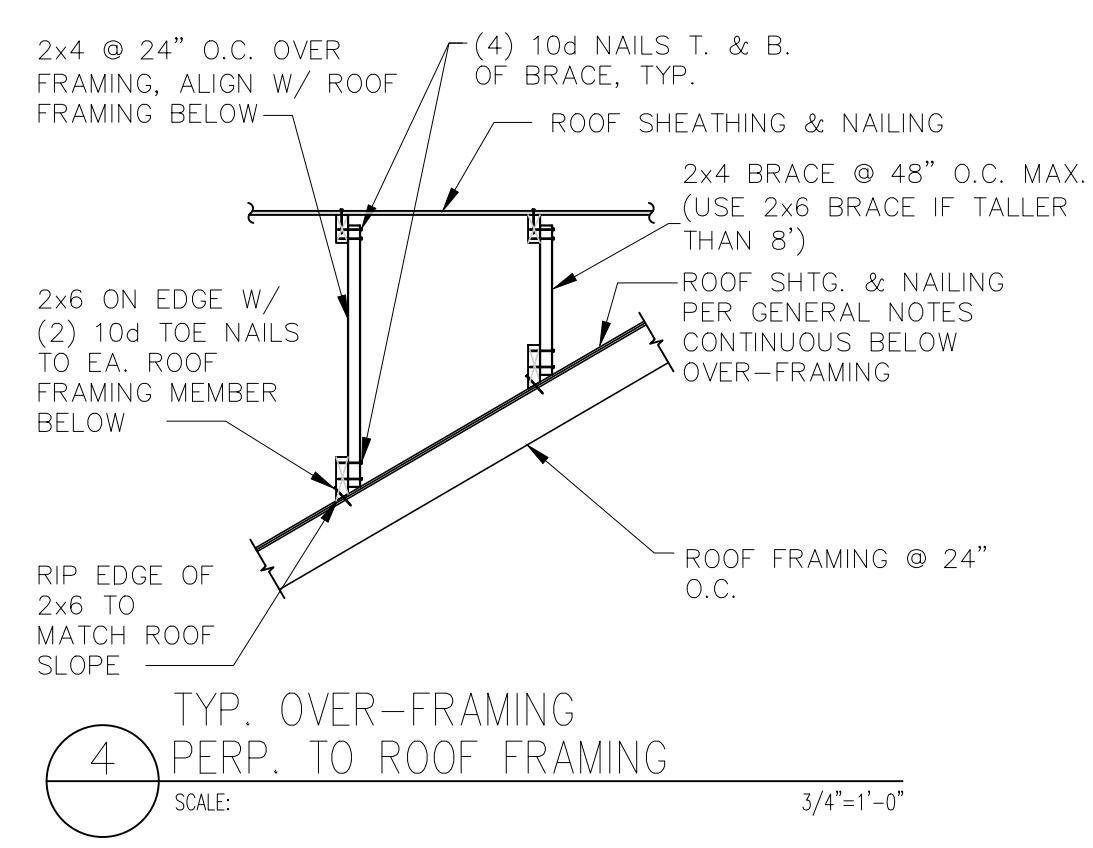
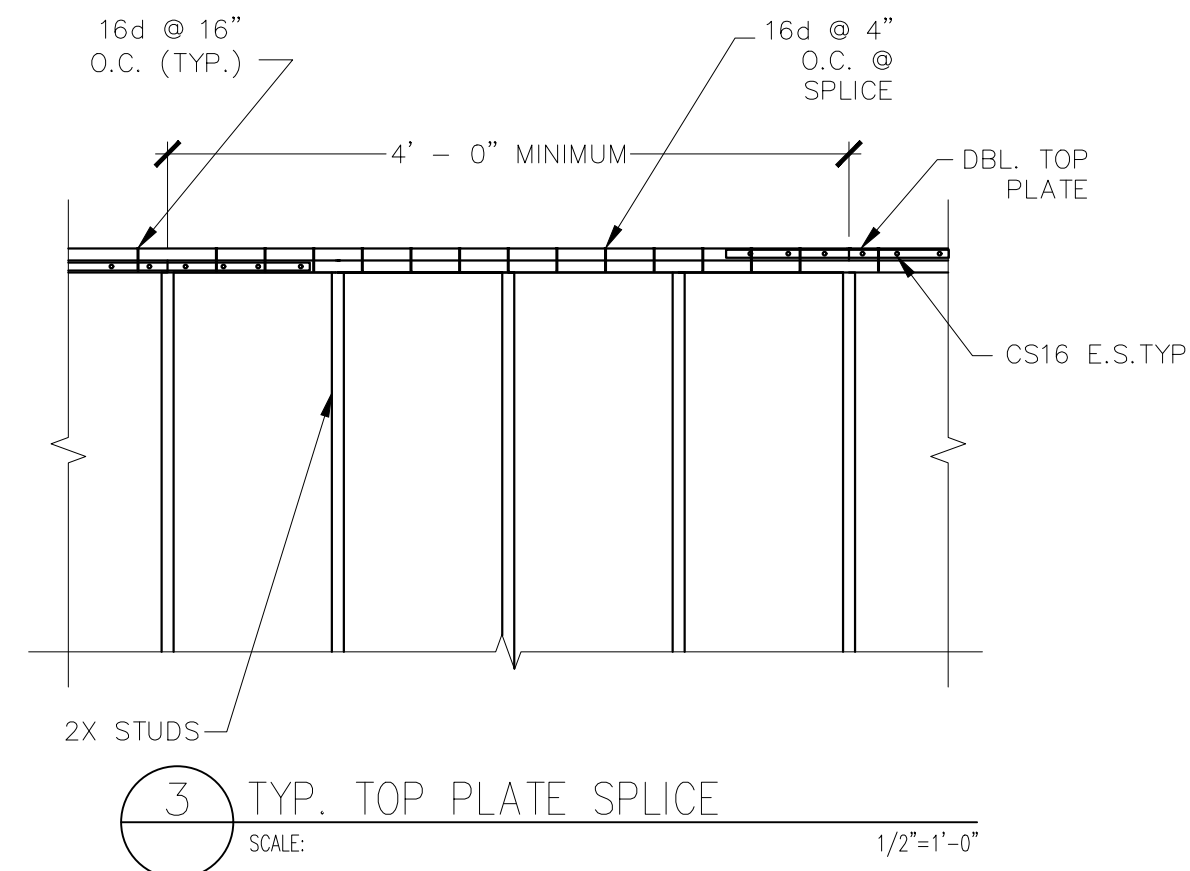
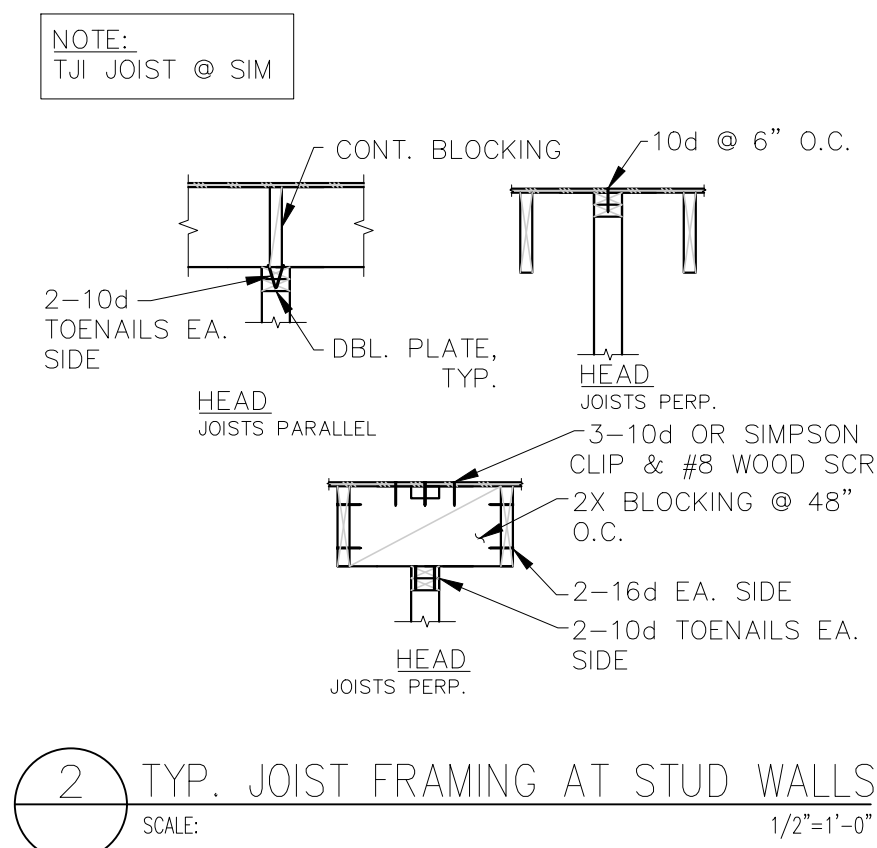
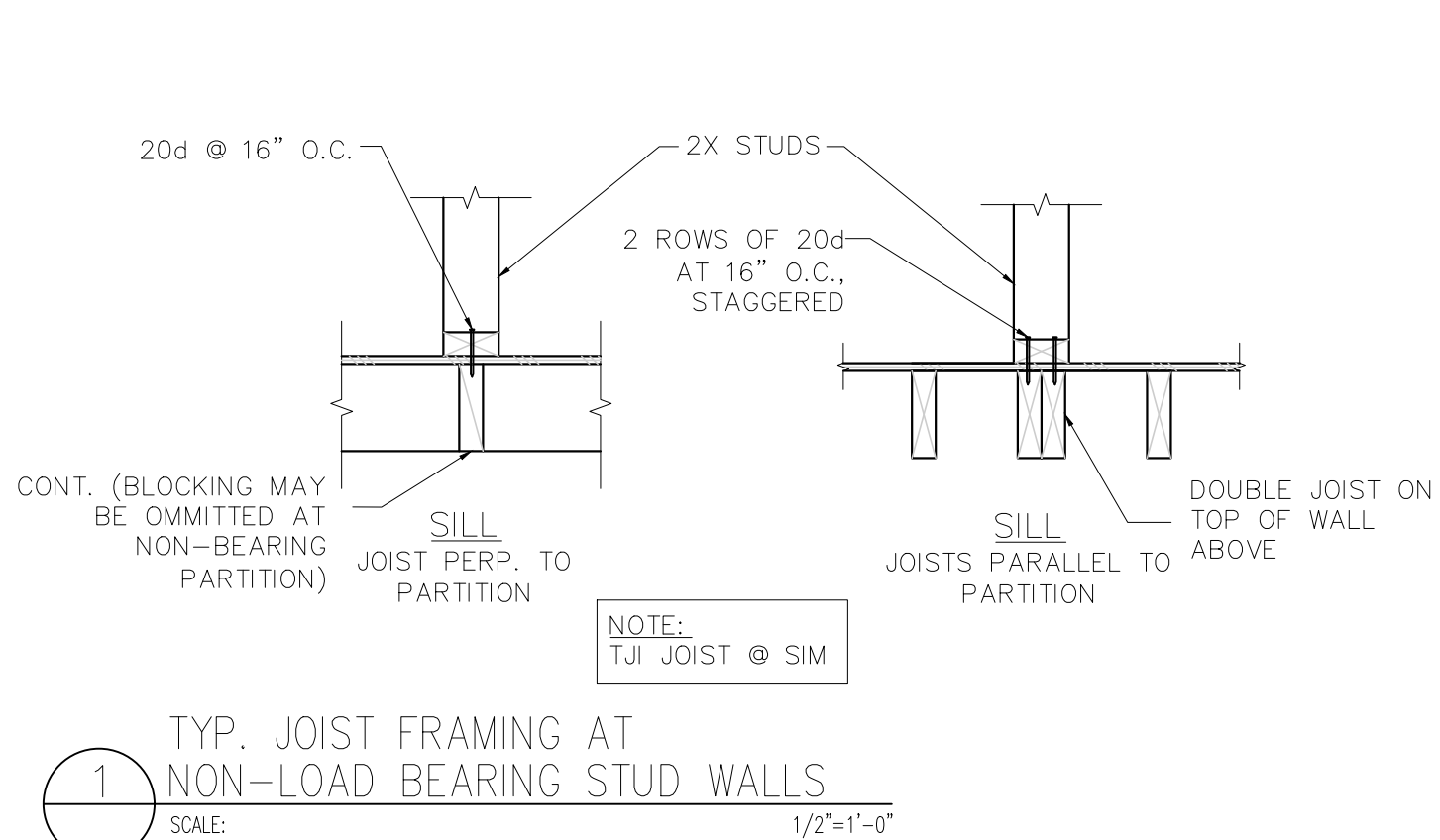


4332 MERCER ISLAND
ADDITION
4332 WEST MERCER WAY
MERCER ISLAND, WA

JOB # 2024065

REV	DESCRIPTION	DATE

Drawn By:
Drawing Title:
TYPICAL STRUCTURAL
DETAILS
Sheet
S3.1



NOTE: DO NOT INSTALL NON-BEARING PARTITIONS UNTIL DEAD LOAD IS IN PLACE (AT ROOF CONSTRUCTION AND WHERE A DEFLECTION SPACE HAS BEEN PROVIDED FOR THIS REQUIREMENT MAY BE WAIVED).

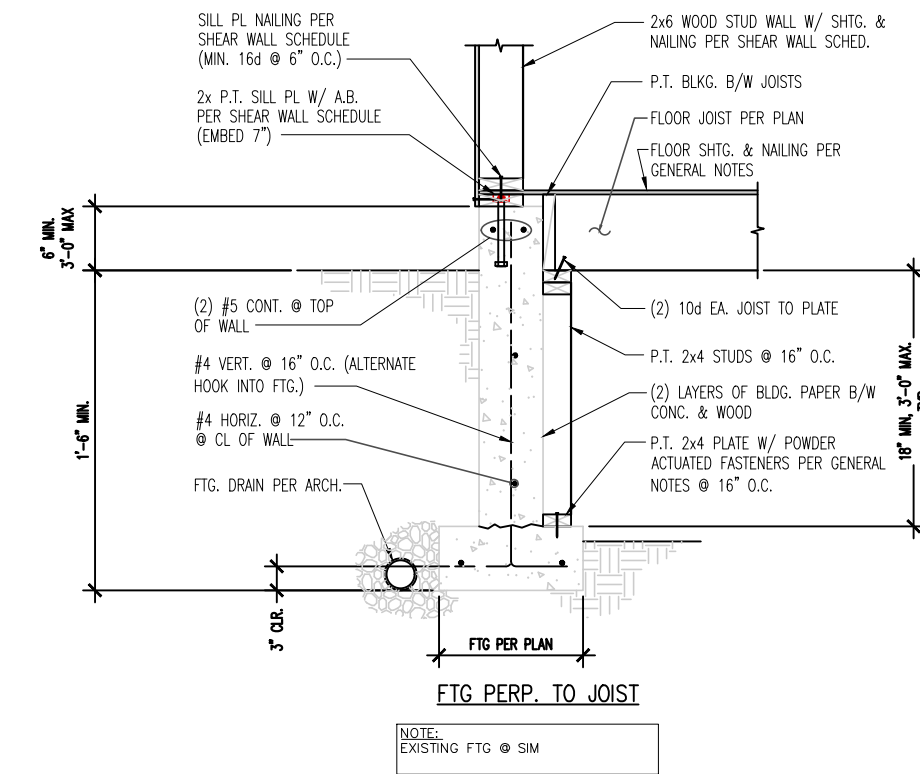


4332 MERCER ISLAND
ADDITION
4332 WEST MERCER WAY
MERCER ISLAND, WA

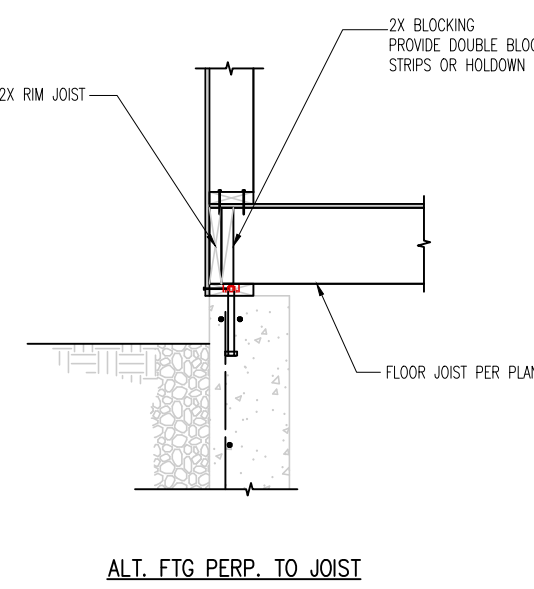
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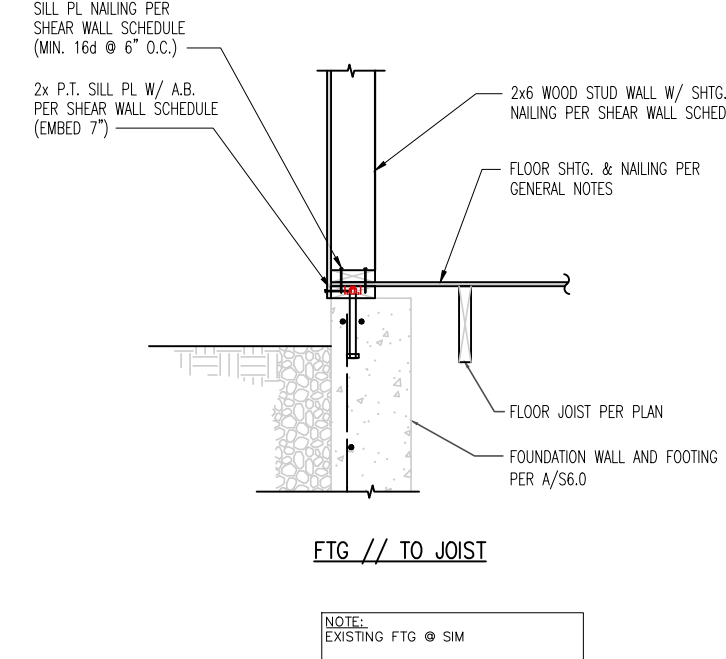
Drawn By:
Drawing Title:
TYPICAL STRUCTURAL
DETAILS
Sheet
S3.2



1 TYP. EXTERIOR FOUNDATION PERP. TO JOIST
SCALE: 3/4"=1'-0"

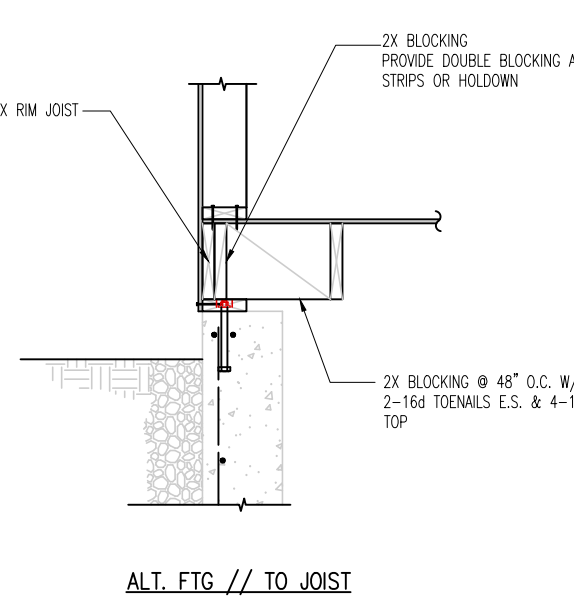


ALT. FTG. PERP. TO JOIST

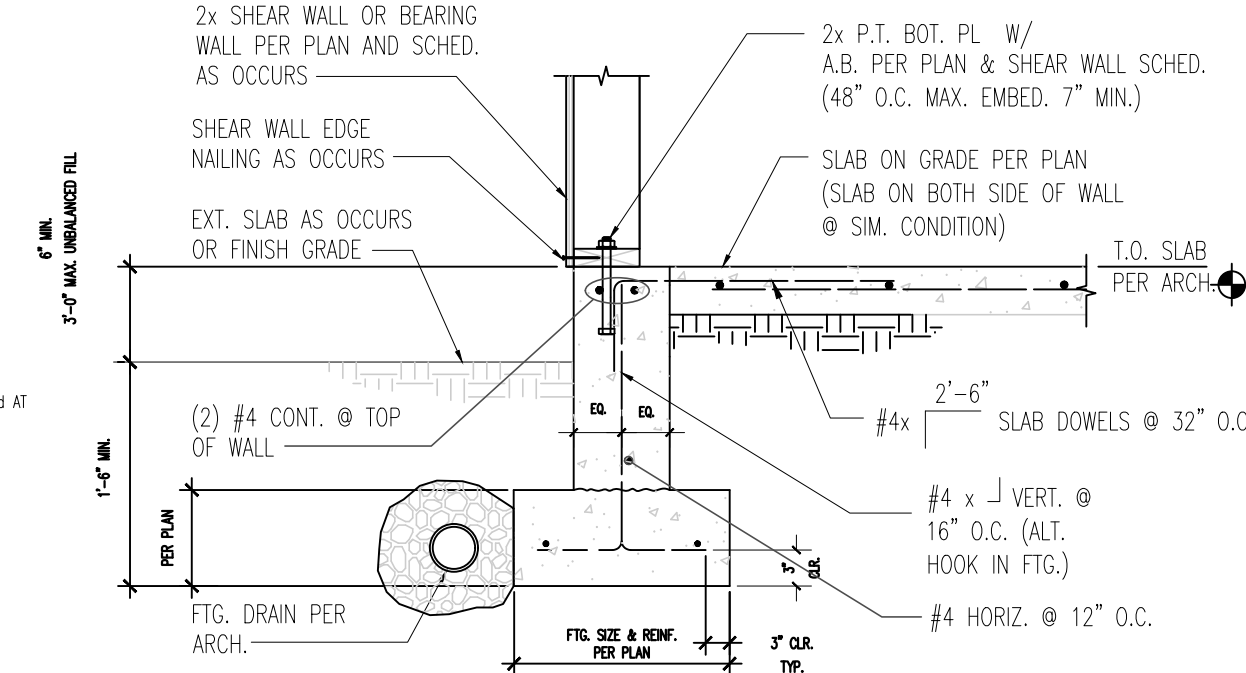


FTG. // TO JOIST

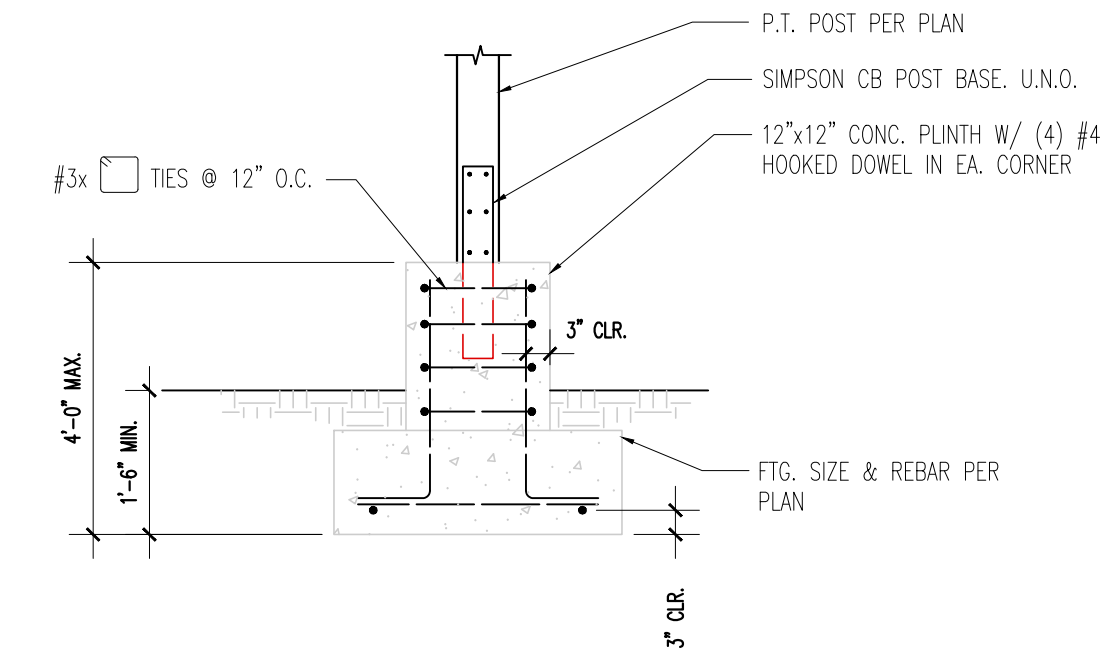
NOTE:
EXISTING FTG. @ SW



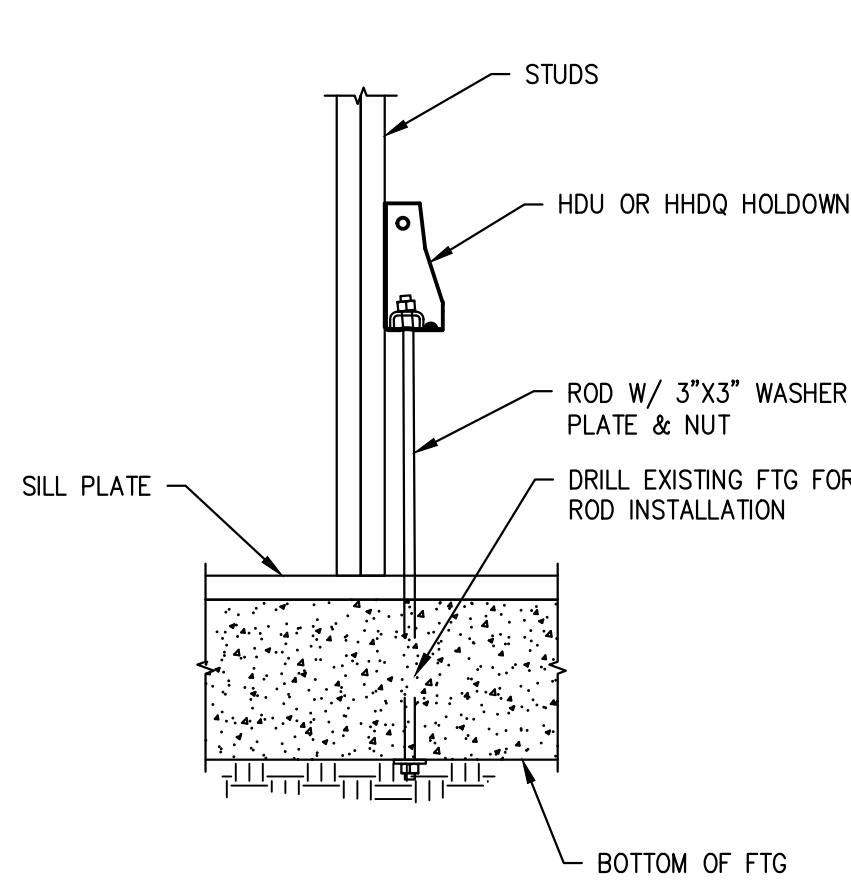
ALT. FTG. // TO JOIST



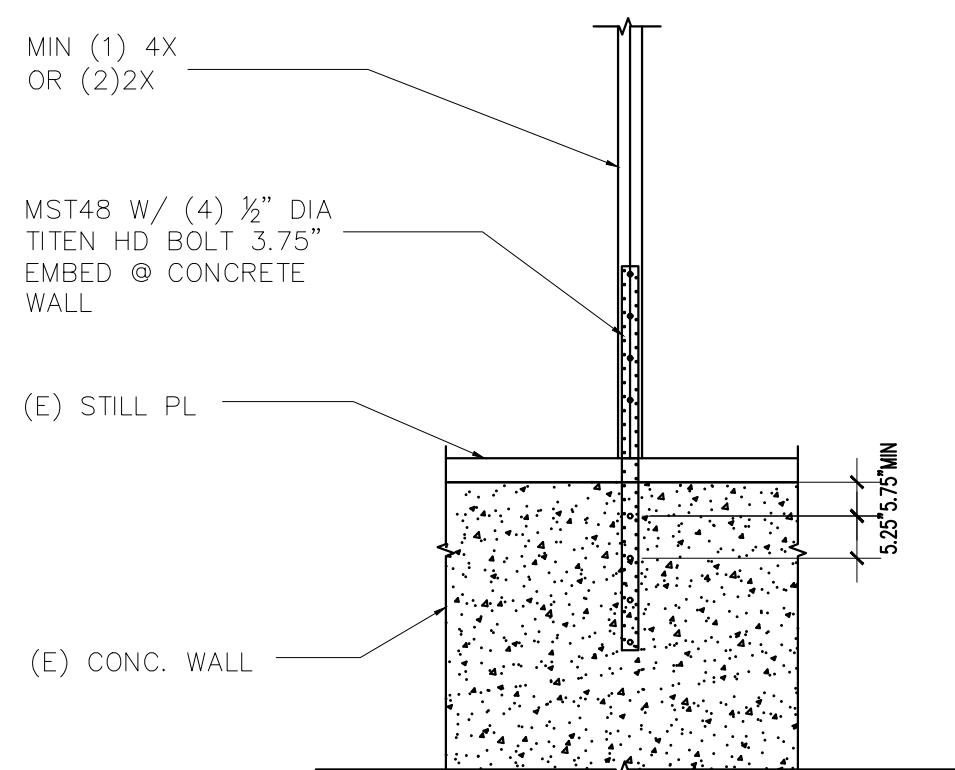
2 TYP. EXT. STUD WALL FTG.
SCALE: 1/2"=1'-0"



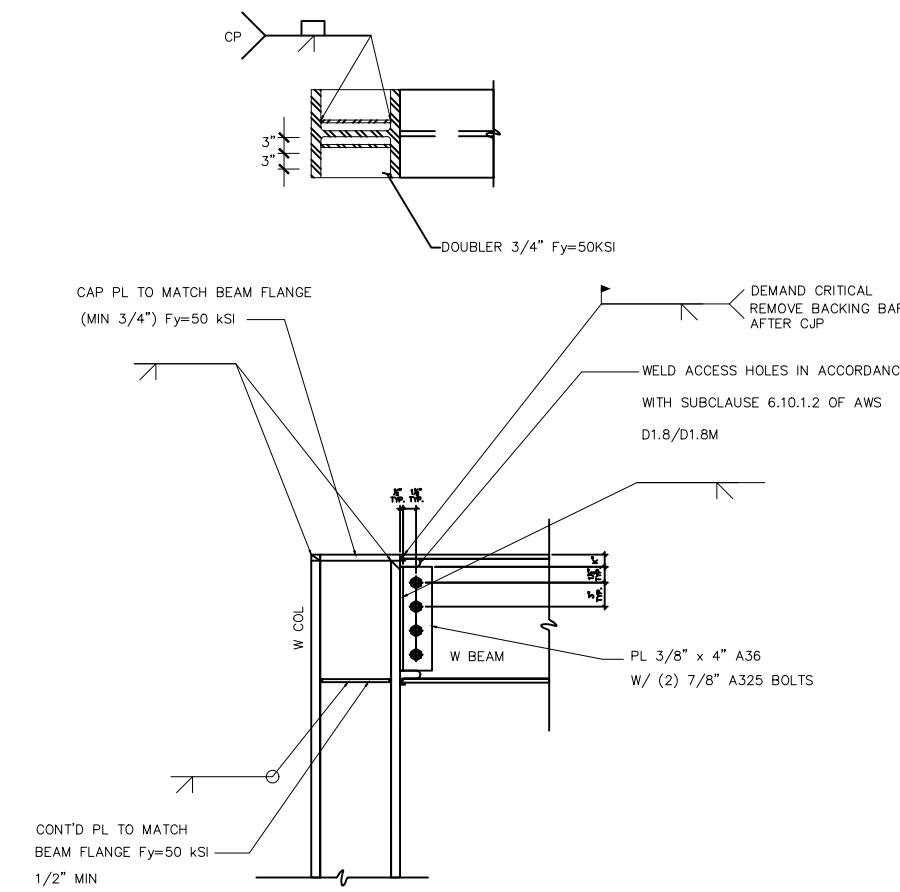
3 TYP. EXTERIOR SQUARE FTG.
SCALE: 1/2"=1'-0"



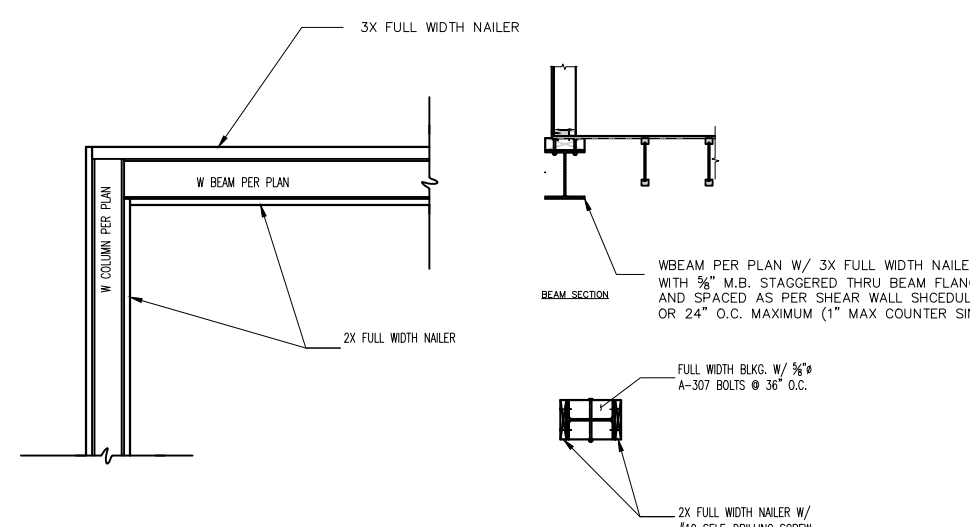
4 HOLDWOODN @ EXISTING WALL FTG
SCALE: 3/4"=1'-0"



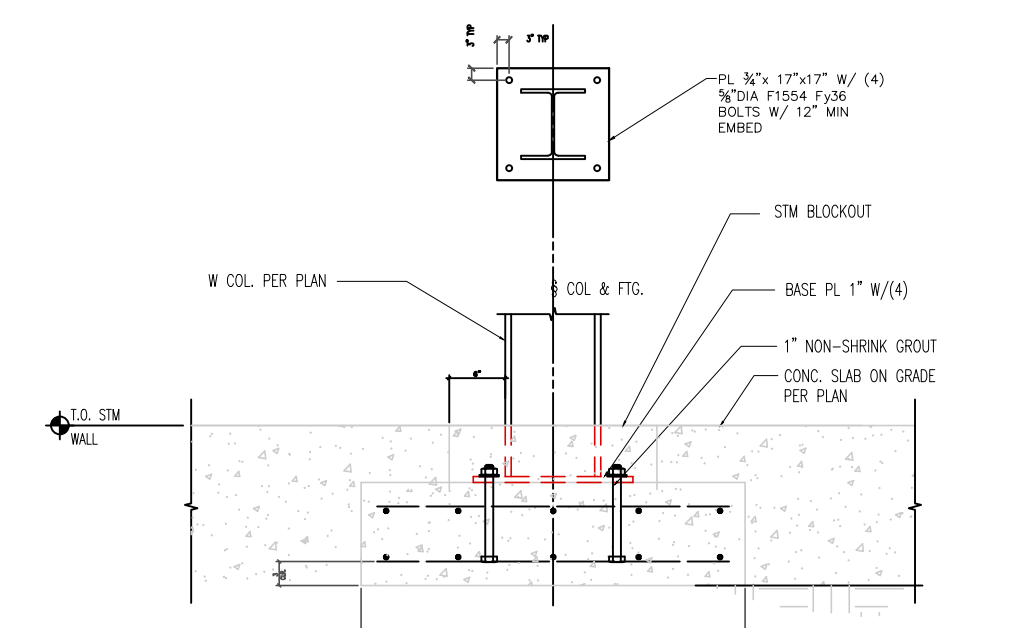
(E) CONC. WALL



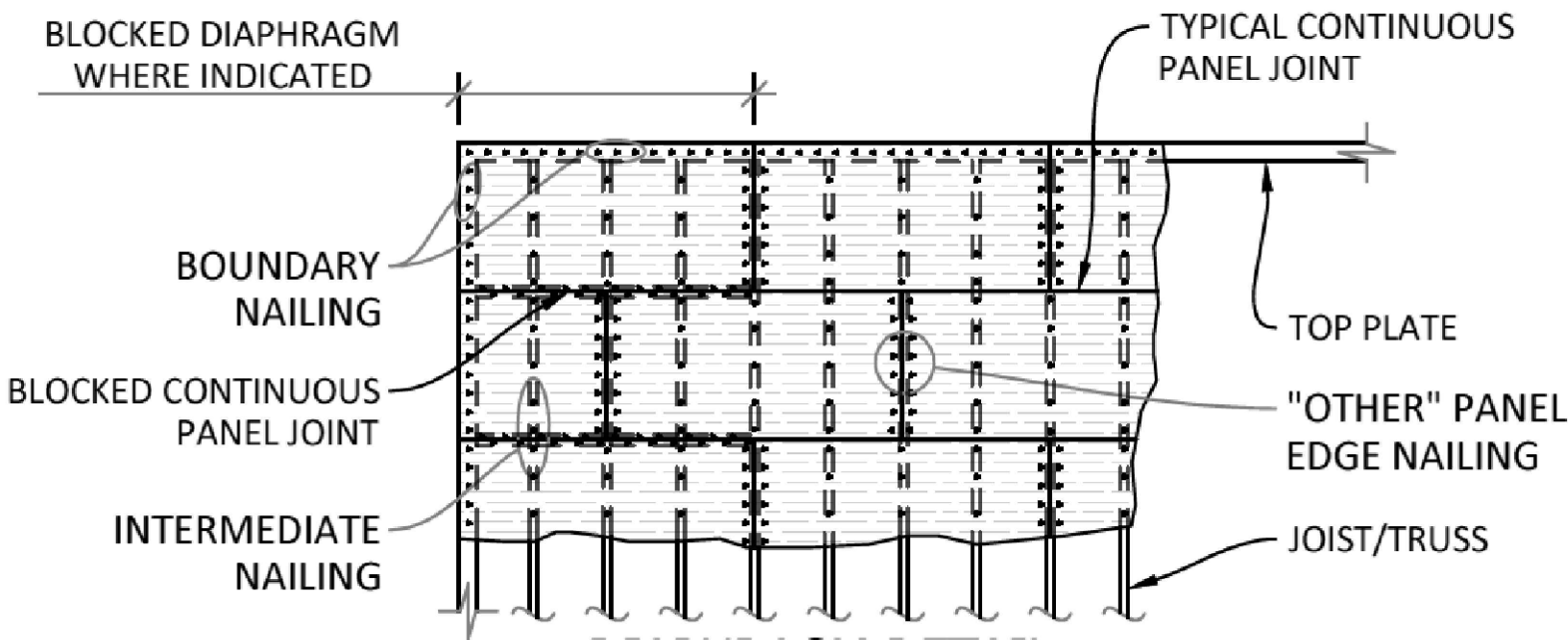
5 RBS BEAM TO COL. MOMENT CONN. @ TOP
SCALE: 1"=1'-0"



6 W BEAM & COL DETAILS
SCALE: 3/4"=1'-0"



7 TYP. W COLUMN DETAIL
SCALE: 3/4"=1'-0"

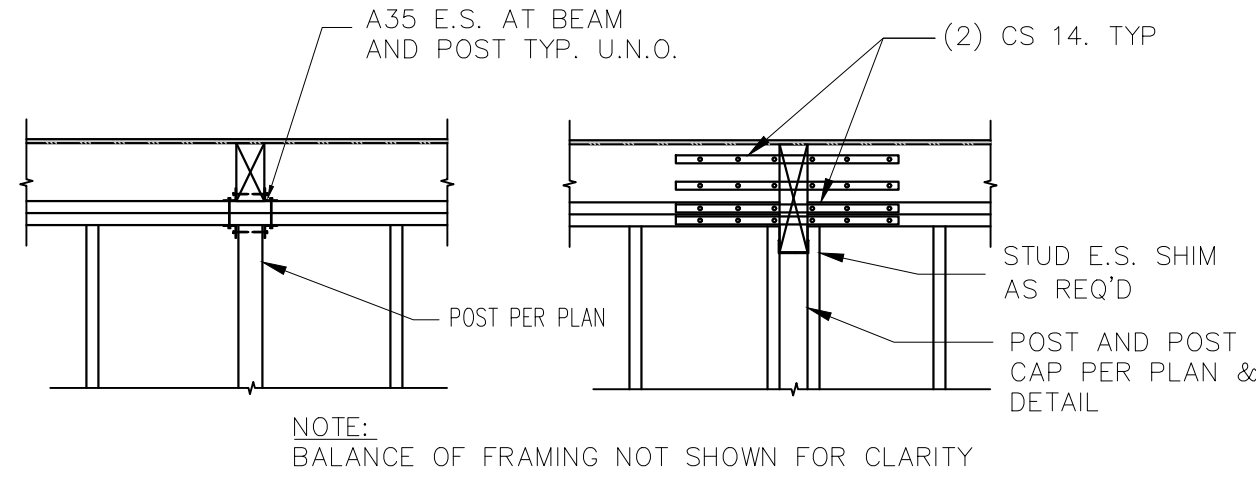


DIAPHRAGM NAILING SCHEDULE						
LOCATION	SHEATHING	BLKG REQD	SIZE OF NAIL	NAIL SPACING AT BOUNDARIES AND "OTHER" PANEL EDGES	NAIL SPACING AT INTERMEDIATE FRAMING MEMBERS	NAIL SPACING AT BLOCKED PANEL JOINTS
ROOF	SEE STRUCT	NO	10d	6" OC	12" OC	6" OC
SUB-FLR	NOTES	NO	10d & GLUE	4" OC	12" OC	4" OC

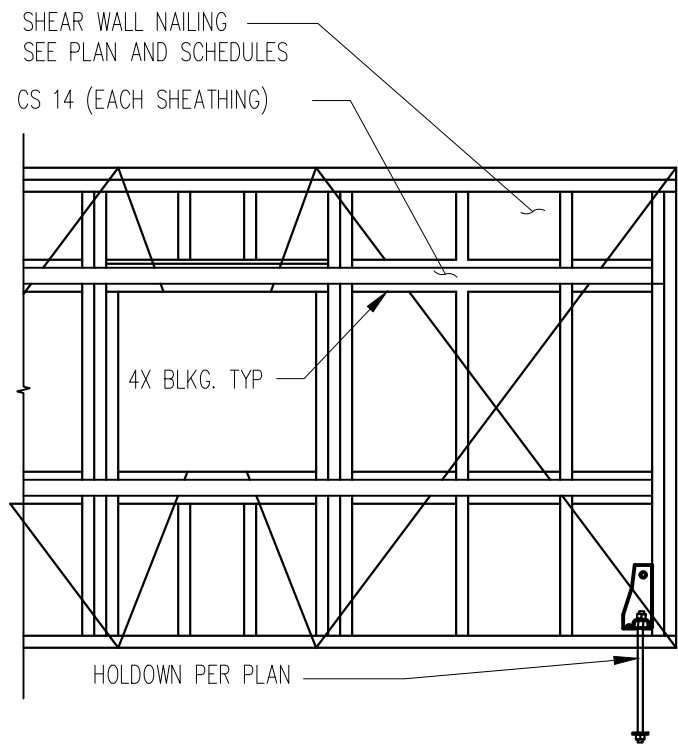
DIAPHRAGM NOTES

- ALL DIAPHRAGM SHEATHING IS TO BE STAGGERED IN THE DIRECTION OF THE PLYWOOD SPAN PER DIAPHRAGM DETAIL.
- PROVIDE BOUNDARY NAILING CONTINUOUS AROUND THE ENTIRE PERIMETER OF THE DIAPHRAGM
- NAILS SHALL BE COMMON OR GALVANIZED BOX
- ALL FRAMING MEMBERS SHALL BE 2x MINIMUM NOMINAL WIDTH

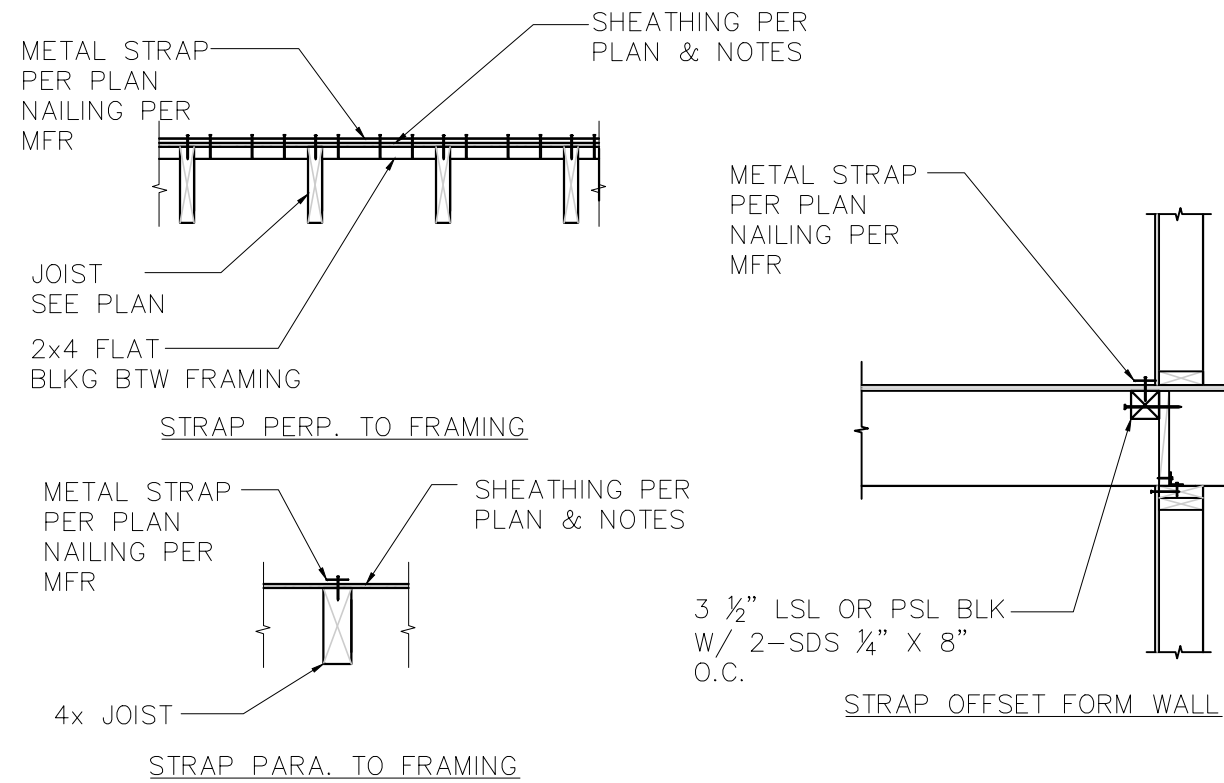
1 TYP. PLY. DIAPHRAGM NAILING
SCALE 1/4" = 1'-0"



5 TYP. BEAM @ WALL CONNECTION
SCALE NTS

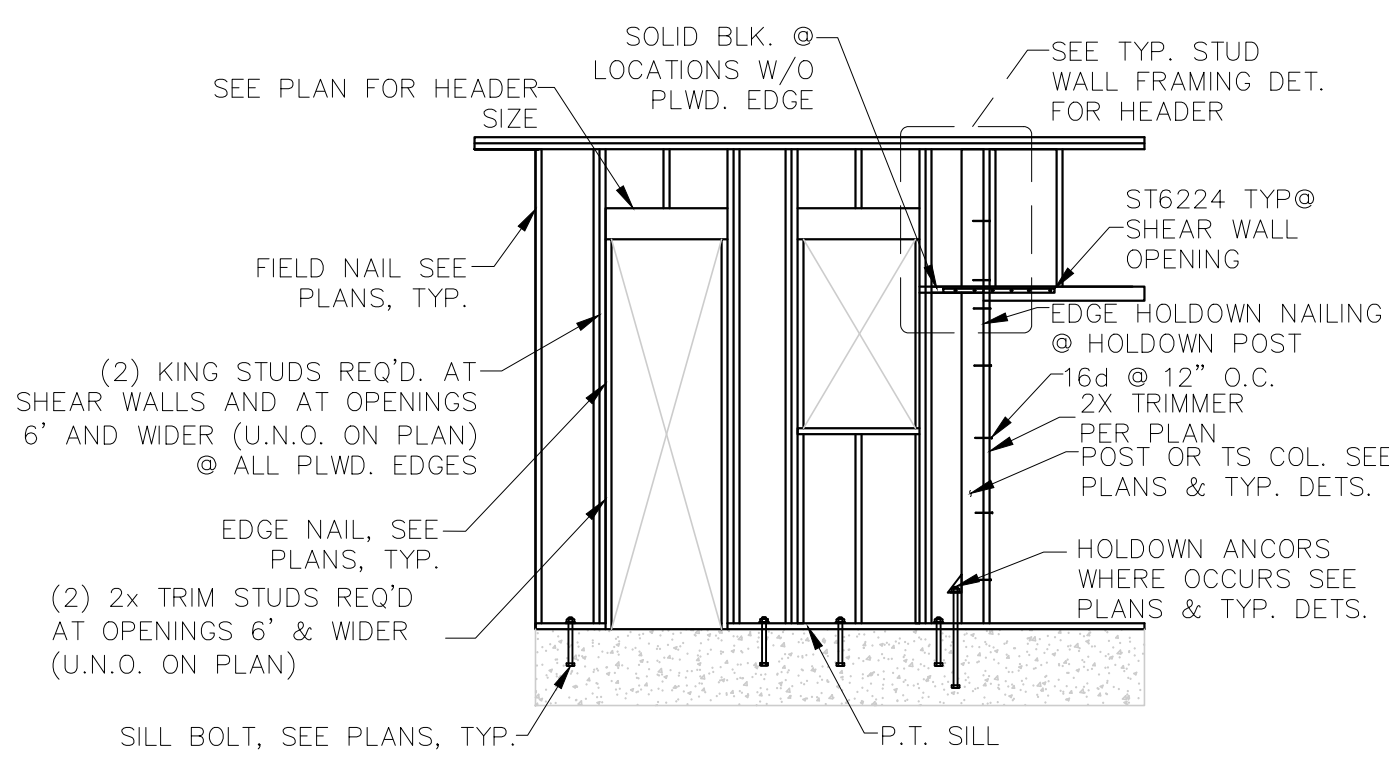


6 TYP. PERFORATED SHEAR WALL
SCALE NTS



7 TYP. COIL STRAP AT FRAMING
SCALE NTS

NOTE:
*PROVIDE 1/8" GAP @ TYP. PANEL JOINT



TYP MINIMUM KING STUD AND TRIM			
WIDTH OF OPENING	8'-0"	6'-0"	4'-0"
NUMBER OF TRIMMERS	3	2	1
NUMBER OF KING STUD	4	3	2

NOTES:

- USE 2x6 AT 16" O.C. AT ALL EXTERIOR WALLS.
- SEE PLANS FOR SPECIAL FRAMING REQUIREMENTS.
- HEADER SIZES SHOWN IN SCHEDULES ABOVE ARE MINIMUM HEADER SIZES, SEE PLANS FOR WHERE LARGER HEADER SIZES ARE REQUIRED.
- IF CALLED OUT STUD HEIGHTS AT ANY GIVEN FLOOR LEVEL EXCEED LIMITATIONS, CONTACT STRUCTURAL ENGINEER FOR CLARIFICATION.
- TRIMMERS AT 4x4 USE 1-4x4 AND 1-2x4 AND AT 3x4 USE 1-3x4 AND 1-2x4.
- NAIL TRIMMERS TOGETHER W/ 16d NAILS @ 12" O.C. STAGGERED EACH FACE.
- SEE PLANS FOR SHEAR WALL FRAMING REQUIREMENTS.

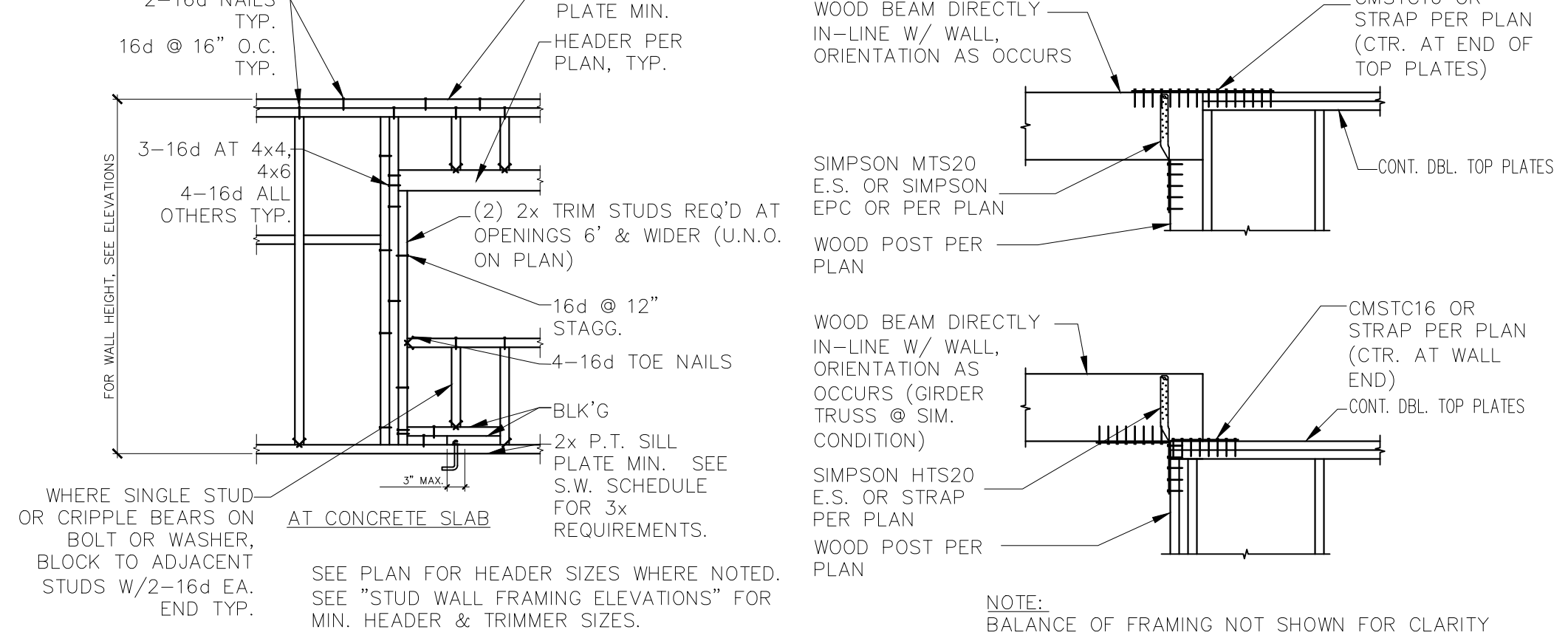
2 TYP. SHEAR WALL FRAMING
SCALE NTS

SHEAR WALL SCHEDULE											
MARK	SHEATHING	SIDE	PANEL NAILING			PANEL BLOCKING	BOT PLATE FASTENING	SILL PLATE	ANCHOR BOLTS (MIN. 7" EMBED)	SHEAR CLIP	VALUE (PLF)
			SIZE	EDGE	FIELD						
A	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	ONE	8d	6" O.C.	12" O.C.	2x	16d @ 6"OC	2x	5/8" x 10" @ 48" O.C. OR TITEN HD 5/8"x8 @48" O.C.	SIMPSON LTP4/A35 @ 18" O.C.	230
B	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	ONE	8d	4" O.C.	12" O.C.	3x	16d @ 4"OC	3x	5/8" x 12" @ 42" O.C. OR TITEN HD 5/8"x8 @36" O.C.	SIMPSON LTP4/A35 @ 18" O.C.	380
								(2) 2x			
C	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	ONE	8d	3" O.C.	12" O.C.	3x	16d @ 3"OC	3x	5/8" x 12" @ 36" O.C. OR TITEN HD 5/8"x8 @32" O.C.	SIMPSON LTP4/A35 @ 16" O.C.	420
								(2) 2x			
D	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	ONE	10d	3" O.C.	12" O.C.	3x	16d @ 3"OC	3x	5/8" X 12" @ 24" O.C. OR TITEN HD 5/8"x8 @24" O.C.	SIMPSON LTP4/A35 @ 12" O.C.	560
E	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	TWO	8d	6" O.C.	12" O.C.	3x	(2) ROW 16d @ 6"OC	3x	5/8" x 12" @ 32" O.C. OR TITEN HD 5/8"x8 @24" O.C.	SIMPSON LTP4 & A35. @ 24" O.C.	520
								(2) 2x			
F	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	TWO	8d	4" O.C.	12" O.C.	3x	(2) ROW 16d @ 4"OC	3x	5/8" X 12" @ 24" O.C. OR TITEN HD 5/8"x8 @18" O.C.	SIMPSON LTP4 & A35. @ 16" O.C.	760
								(2) 2x			
G	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	TWO	8d	3" O.C.	12" O.C.	3x	(2) ROW 16d @ 3"OC	3x	5/8" x 12" @ 16" O.C.	SIMPSON LTP4 & A35. @ 12" O.C.	980
H	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	TWO	10d	3" O.C.	12" O.C.	3x	(2) ROW 16d @ 3"OC	3x	5/8" x 12" @ 12" O.C.	SIMPSON LTP4 & A35. @ 9" O.C.	1,200
								(2) 2x			

NOTES:

- SOME SHEAR WALLS LISTED MAY NOT BE USED IN THIS PROJECT. REFER TO PLAN FOR TYPES USED.
- 8d NAIL = 2 1/2" x 0.131" COMMON OR 2 1/2" x 0.113" GALVANIZED BOX. 10d NAIL = 3" x 0.148" COMMON OR 3" x 0.128" GALVANIZED BOX.
- IF ANCHOR BOLT SPACING IS GREATER THAN SHEAR WALL LENGTH INSTALL (1) ANCHOR BOLT WITHIN 12" OF EACH END.
- NAIL SIZES SHOWN ARE FOR COMMON NAILS OR GALVANIZED BOX. POWER DRIVEN NAILS SHALL COMPLY WITH ESR 1539 FOR RECOMMENDED SPACING AND INSTALLATION TO COMPLY WITH THE ABOVE SHEAR WALL SCHEDULE.
- SILL PLATE ANCHORS SHALL INCLUDE A STEEL PLATE WASHER NOT LESS THAN 0.229"x3"x3" IN SIZE PER AF&PA SDPWS SECTION 4.3.6.4.3. THE HOLE IN THE PLATE WASHER SHALL BE PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4". PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING.
- IN SEISMIC DESIGN CATEGORY D, E, OR F, WHERE SHEAR DESIGN VALUES EXCEED 700 POUNDS PER LINEAR FOOT (350 PLF ASD), ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3-INCH NOMINAL MEMBER, OR TWO 2-INCH NOMINAL MEMBERS FASTENED TOGETHER IN ACCORDANCE WITH SECTION 2306.1 TO TRANSFER THE DESIGN SHEAR VALUES BETWEEN FRAMING MEMBERS. WOOD STRUCTURAL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES.
- WHERE PANELS ARE APPLIED TO BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6" O.C. ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS. ALTERNATIVELY, THE WIDTH OF THE NAILED FACE OF FRAMING MEMBERS SHAL BE 3" NOMINAL OR GREATER AT ADJOINING PANEL EDGES AND NAILS AT ALL PANEL EDGES SHALL BE STAGGERED.
- SHEAR WALL NAILING MUST BE INSTALLED SUCH THAT THE NAIL HEAD OR CROWN IS FLUSH WITH THE SURFACE OF SHEATHING. OVERDRIVEN OR OVER PENETRATED NAILS WILL NOT BE ALLOWED OR COUNTED AS APPROPRIATE NAILING.

SHEAR WALL SCHEDULE
SCALE NTS



3 TYP. STUD WALL OPENING FRAMING
SCALE NTS

4 TYP. TIE STRAP CONN. DETAILS
SCALE NTS

HOLDOWN SCHEDULE							
MARK	HOLDOWN	WOOD MEMBER	WOOD FASTENER	ANCHOR BOLT	ANCHOR BOLT EMBEDMENT (IN)	COMMENTS SEE NOTES BELOW	VALUE (LBS)
0	NONE REQUIRED						
1	SIMPSON MST37	(2) 2x	(22) 16d NAILS 1/2 TOP & BOT.	N/A	N/A	WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED	2,135
2	SIMPSON MST48	(2) 2x	(32) 16d NAILS 1/2 TOP & BOT.	N/A	N/A	WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED	3,425
3	SIMPSON MST60	(2) 2x	(48) 16d NAILS 1/2 TOP & BOT.	N/A	N/A	WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED	4,830
4	SIMPSON CMST12	(1) 4x	(86) 16d NAILS 1/2 TOP & BOT.	N/A	N/A	WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED .39" END LENGTH	9,215
5	SIMPSON LSTHD8 OR LSTHDBRJ	(2) 2x SEE NOTES	(24) 16d SINKERS	N/A	8"	SEE NOTES 1, 2, 3, AND 4 USE (3) 2x AT CORNERS	1,220
6	SIMPSON HDU2-SDS2.5	(2) 2x	(6) SIMPSON SDS SCREWS	5/8" DIA. SIMP. SSTB16	12-5/8"	SEE NOTES 1, 2, 3, AND 4	2215
7	SIMPSON HDU4-SDS2.5	(2) 2x	(14) SIMPSON SDS SCREWS	5/8" DIA. SIMP. SSTB20	16-5/8"	SEE NOTES 1, 2, 3, AND 4	3285
8	SIMPSON HDU5-SDS2.5	(2) 2x	(14) SIMPSON SDS SCREWS	5/8" DIA. SIMP. SSTB24	20-5/8"	SEE NOTES 1, 2, 3, AND 4	4340
9	SIMPSON HDU8-SDS2.5	(1) 4x	(20) SIMPSON SDS SCREWS	7/8" DIA. SIMP. SB7/8x24	18"	SEE NOTES 1, 2, 3, AND 4	5820
10	SIMPSON HHQ11-SDS2.5	(1) 6x	(24) SIMPSON SDS SCREWS	1" DIA. A307 THREADED ROD	de = 16" W = 48"	SEE NOTES 1, 2, 3, 4 AND 5	8030
11	SIMPSON HHQ14-SDS2.5	(1) 6x	(30) SIMPSON SDS SCREWS	1" DIA. A307 THREADED ROD	de = 16" W = 48"	SEE NOTES 1, 2, 3, 4 AND 5	12375
12	SIMPSON HDU14-SDS2.5	(1) 6x	(36) SIMPSON SDS SCREWS	1" DIA. A307 THREADED ROD	de = 16" W = 48"	SEE NOTES 1, 2, 3, 4 AND 5	12425

NOTES:

- DOUBLE STUDS ARE REQUIRED AT HOLDOWNS UNLESS NOTED OTHERWISE. DOUBLE STUDS SHALL BE LAMINATED TOGETHER WITH 16d NAILS AT 6" O.C. FULL HEIGHT (TYPICAL).
- PROVIDE HOLDOWN NOTED WITHIN 6" FROM EACH END OF EACH SHEAR WALL SHOWN ON PLANS.
- ADD (2) EXTRA VERTICAL DOWEL WITH STANDARD HOOK IN FOOTING AT EACH ANCHOR BOLT LOCATION.
- ADJUST FOOTING AND STEM WALL HEIGHT TO ACCOMMODATE ANCHOR BOLT EMBEDMENT REQUIREMENTS.
- ADJUST FOOTING AND STEM WALL HEIGHT TO ACCOMMODATE ANCHOR BOLT EMBEDMENT REQUIREMENTS.
- SEE THREADED ROD ANCHOR DETAIL.
- FOR EXISTING STEM WALL, DRILL AND EPOXY ANCHOR. USE A307 THREADED ROD WITH SIMPSON SET-XP EPOXY. SEE PLANS AND DETAILS FOR REQUIRED EMBEDMENT.
- ALL HOLDOWN ANCHORS AND BOLTS SHALL BE INSTALLED IN THE CORRECT LOCATION IN THE TOP OF THE CONCRETE WALL AND SECURED TO THE FORMS PRIOR TO CONCRETE INSTALLATION. THERE IS NO PRACTICAL SOLUTION TO POST-INSTALLED HOLDOWN ANCHORS IN THE TOP OF THE 8" CONCRETE STEM WALL. NO EPOXY OR MECHANICAL ANCHOR BOLT ALTERNATIVES WILL BE OFFERED FOR MISSING OR MISPLACED EMBEDDED ANCHORS. CONCRETE FOOTINGS AND STEM WALLS MAY HAVE TO BE REMOVED AT CONTRACTOR'S EXPENSE TO MITIGATE MISPLACED, MISALIGNED, OR MISSING HOLDOWN ANCHORS OR BOLTS.

HOLDOWN SCHEDULE
SCALE NTS

12/11/2024

F.T. ENG. & CONST. MGMT., LLC

PHONE: 5098220489
EMAIL: F.T.ENG.CM@GMAIL.COM



12/11/2024

4332 MERCER ISLAND
ADDITION
4332 WEST MERCER WAY
MERCER ISLAND, WA

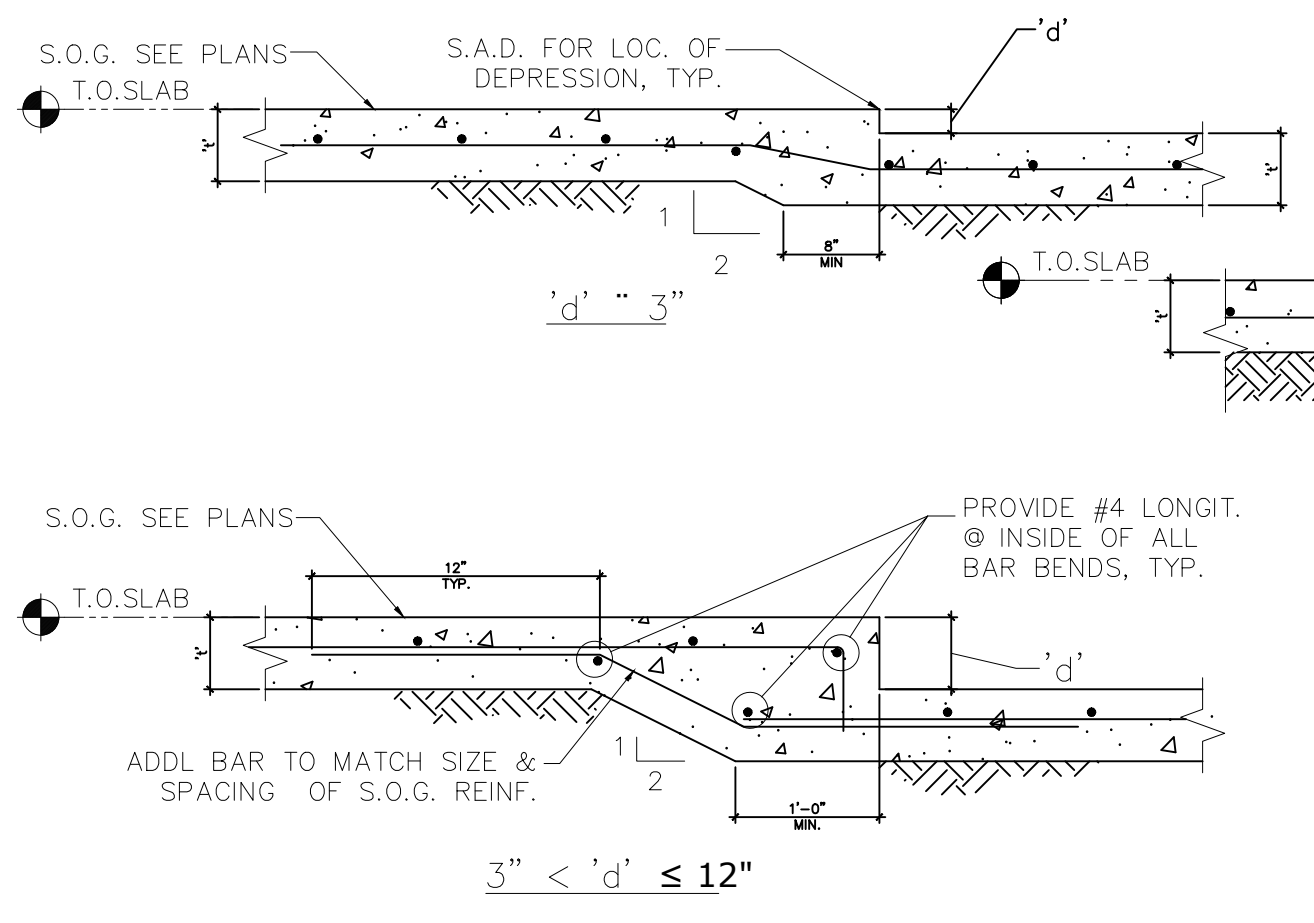
JOB # 2024065

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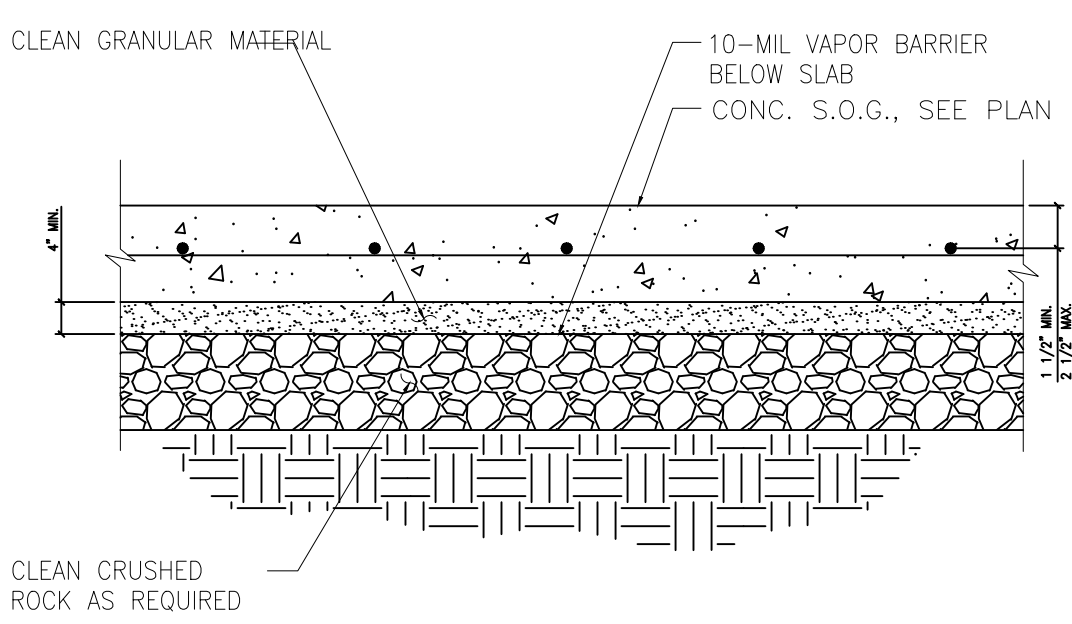
SHEAR WALL DETAILS

Sheet
S3.3



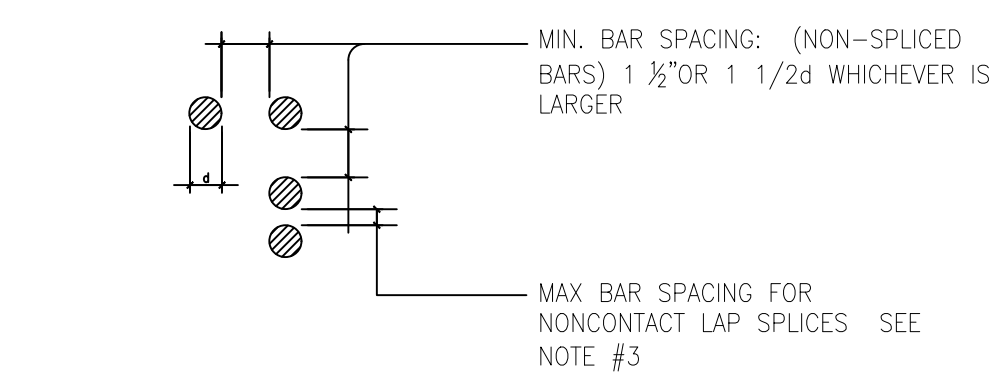
- NOTES:
- THIS DETAIL APPLIES TO ALL DEPRESSIONS AND TRENCHES IN SLAB ON GRADE OR SLAB ON SAND FILL.
 - PROVIDE 1-#5 DIAGONAL, 5'-0" LONG AT ALL INSIDE CORNERS OF DEPRESSION.
 - PIPE SLEEVES TO BE 2" LARGER THAN NOMINAL PIPE DIAMETER. MAXIMUM SLEEVE SIZE=12". MINIMUM=12" CLEAR SPACING BETWEEN ADJACENT PIPES. SEE MECHANICAL AND ELECTRICAL DRAWING FOR LOCATIONS.
 - COORDINATE LOCATION, DEPTH, EXTENT, AND EDGE EMBED CONDITIONS OF ALL DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.

1 SLAB ON GRADE DEPRESSION
SCALE: 1/2"=1'-0"



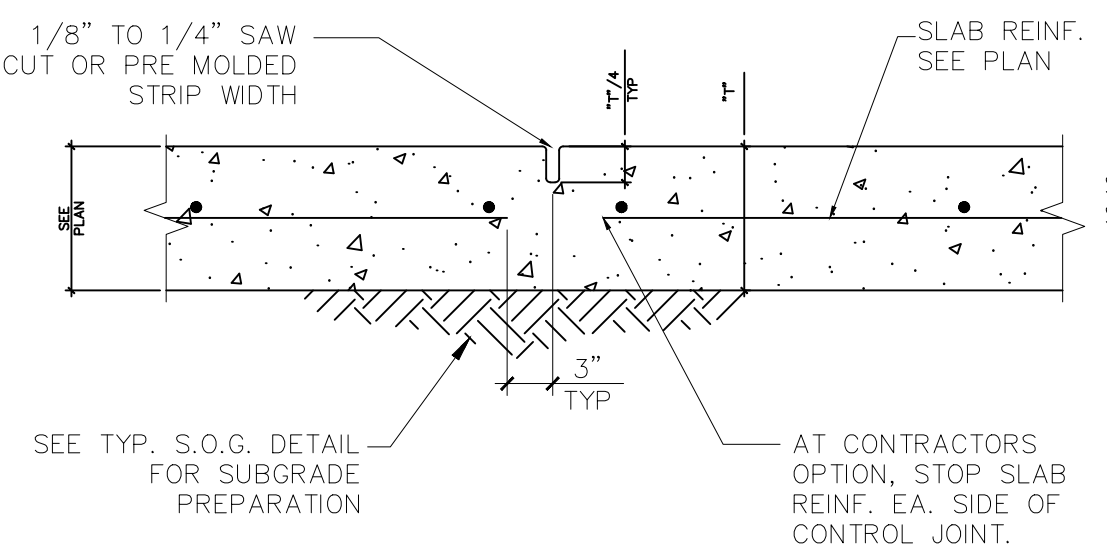
- NOTES:
- SEE GEOTECHNICAL REPORT.
 - SEE SPECIFICATIONS FOR GRANULAR MATERIAL & CRUSHED ROCK.
 - SEE PLANS FOR LOCATIONS OF COLUMN BLOCKOUTS, CONSTRUCTION JOINTS, CONTROL JOINTS AND SLAB DEPRESSIONS.

4 TYP. SUBGRADE PREP. & SLAB ON GRADE DETAIL
SCALE: 1/2"=1'-0"



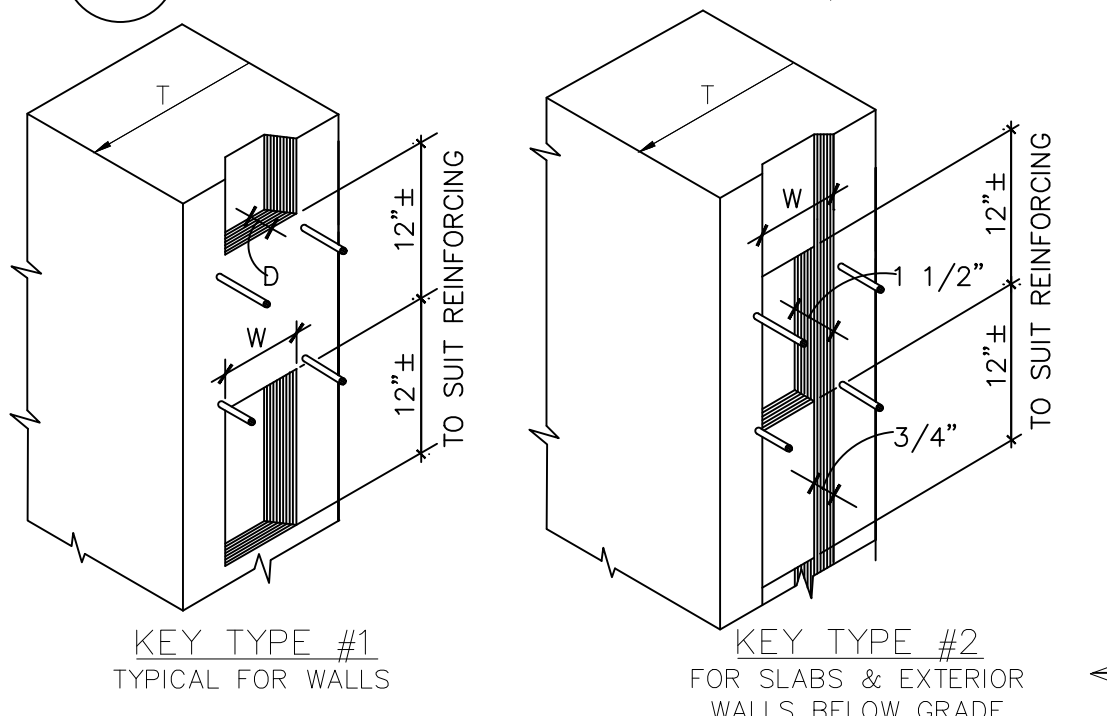
- NOTES:
- COLUMN DOWELS, TYPICAL HORIZONTAL WALL STEEL AND TYPICAL WALL STEEL DOWELS MAY BE WIRED TOGETHER INSTEAD OF SPACING AS SHOWN ABOVE.
 - CLEAR DISTANCE LIMITATION BETWEEN BARS SHALL APPLY ALSO TO THE CLEAR DISTANCE BETWEEN A CONTACT LAP SPICE AND ADJACENT SPLICES OF BARS.
 - BARS SPLICED BY NONCONTACT LAP SPLICES SHALL NOT BE SPLICED TRANSVERSELY FURTHER APART THAN ONE-FIFTH THE REQUIRED LAP SPICE LENGTH, NOR 6".

9 BAR SPACING & SLAB ON GRADE DETAIL
SCALE: NTS



- NOTES:
- WHEN USED, MAKE SAW CUT AS SOON AS SLAB CAN SUPPORT WEIGHT OF WORKERS & EQUIPMENT WITHOUT DAMAGE TO SLAB FINISH, & CUTS CAN BE MADE WITHOUT DAMAGE TO THE CONCRETE MAKE TRIAL CUTS AS REQUIRED.
 - JOINT TO BE THOROUGHLY CLEANED PRIOR TO FILLING. PROVIDE FILLER MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS & APPLY STRICTLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - FILLER MATERIAL SHALL BE APPLIED WHEN SLAB IS UNDER PERMANENT TEMPERATURE CONTROL, SUCH AS AT THE COMPLETION OF THE BUILDING SHELL, WHENEVER POSSIBLE. IF PERMANENT TEMPERATURE CONTROL IS NOT ESTABLISHED, A MINIMUM OF 90 DAYS AFTER THE COMPLETION OF SLAB CONSTRUCTION SHALL ELAPSE PRIOR TO APPLYING THE JOINT FILLER.

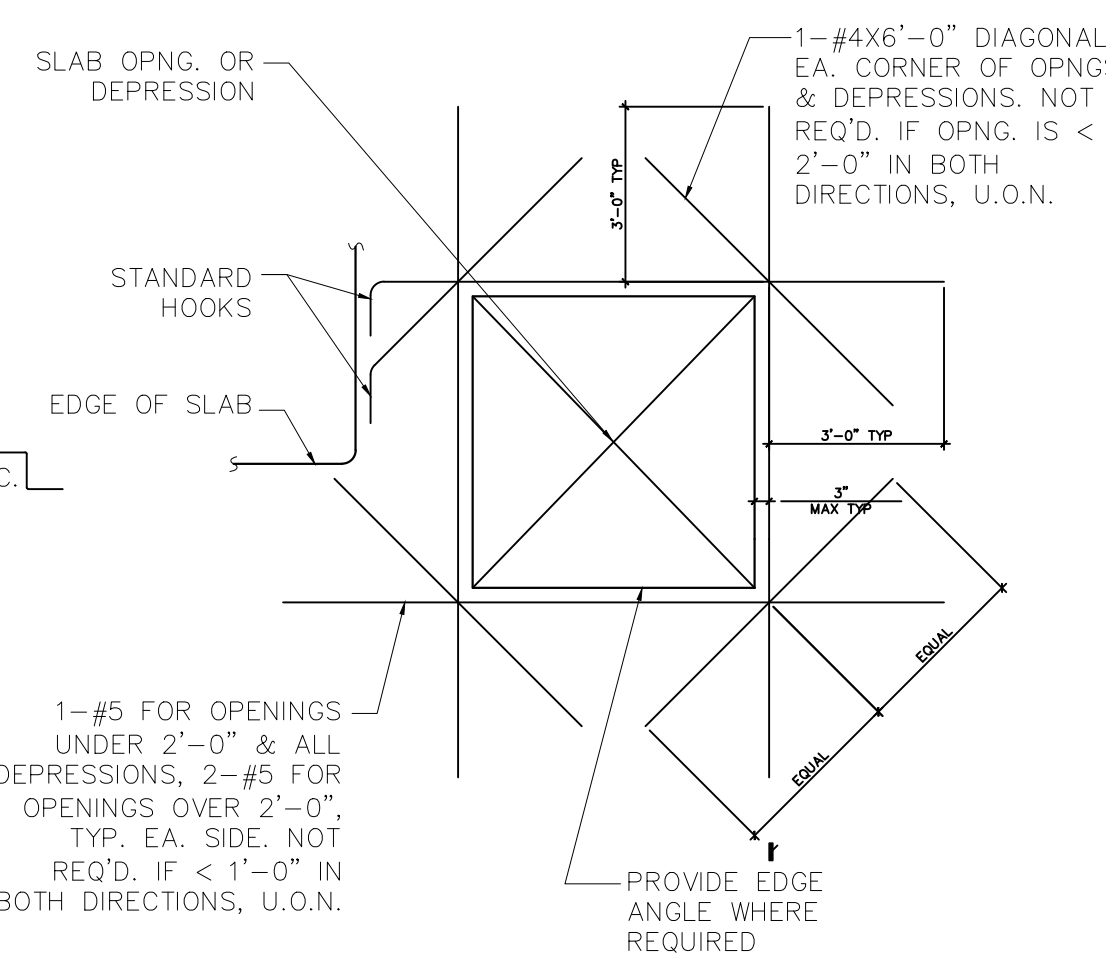
5 CONTROL JOINTS AT SLAB ON GRADE
SCALE: 1/2"=1'-0"



KEY SCHEDULE					
T	W	D	T	W	D
EQUAL LESS THAN 6" WALL OR SLAB	1"	1 1/2"	13"	7 1/4"	1 1/2"
7"	7"	1 1/2"	14" TO 16"	9 1/4"	2 1/2"
8" TO 12"	5 1/2"	1 1/2"	18" & OVER	11 1/4"	2 1/2"

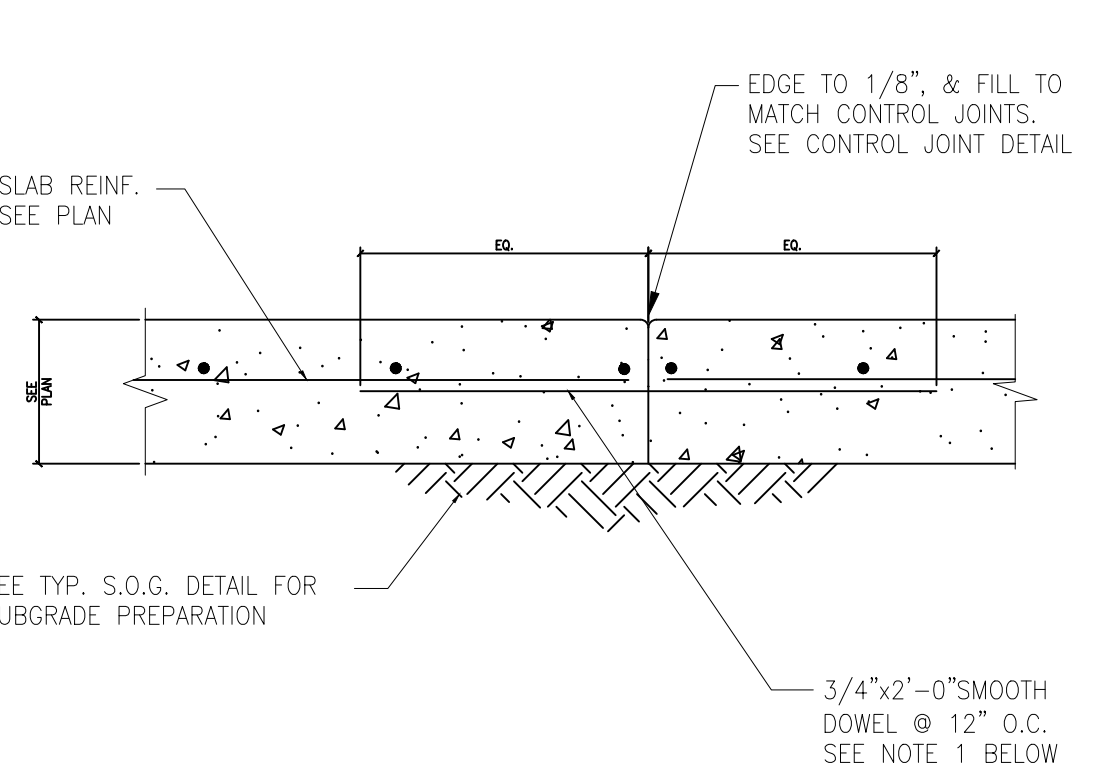
- NOTES:
- BEFORE PLACING 2ND POUR, ALL SURFACES ARE TO BE ROUGHENED TO 1/4" AMPLITUDE & THOROUGHLY CLEANED, SEE SPECIFICATIONS.
 - DETAILS APPLY TO BOTH HORIZONTAL & VERTICAL CONSTRUCTION JOINTS.

10 CONSTRUCTION JOINTS IN WALLS & SLABS
SCALE: 1/2"=1'-0"



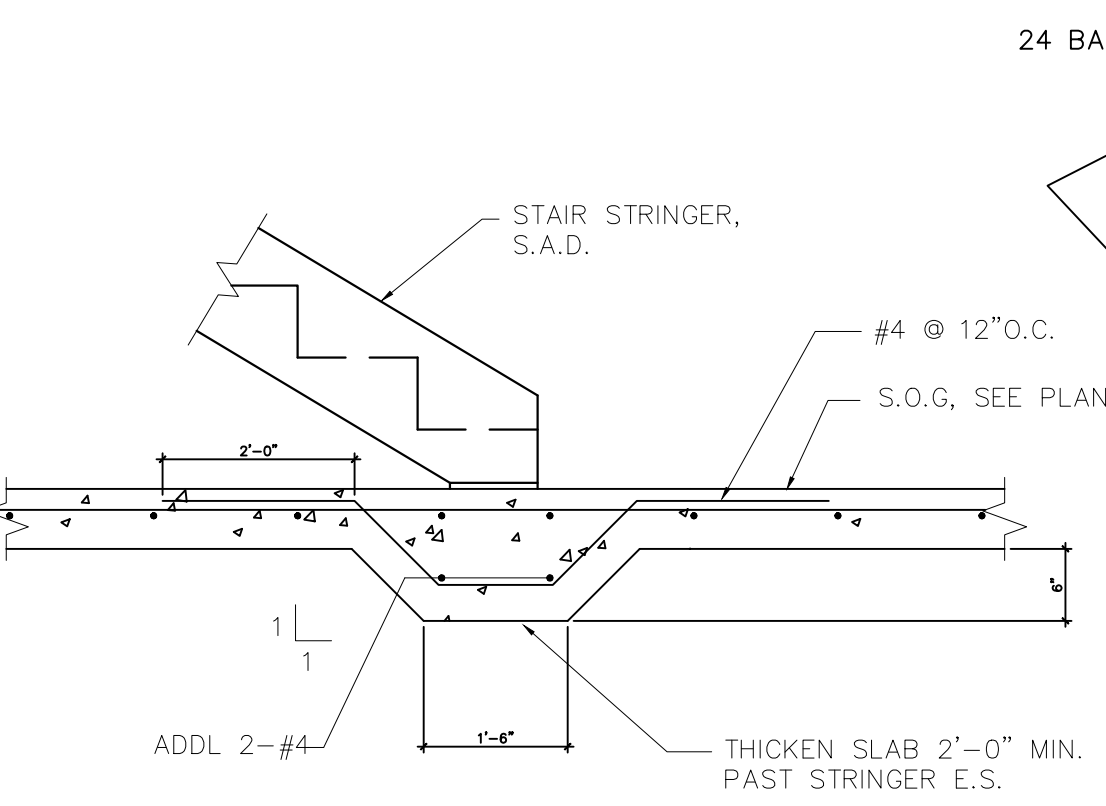
- NOTES:
- 1-#5 FOR OPENINGS UNDER 2'-0" & ALL DEPRESSIONS, 2-#5 FOR OPENINGS OVER 2'-0", TYP. EA. SIDE. NOT REQ'D. IF < 1'-0" IN BOTH DIRECTIONS, U.O.N.

2 SLAB PENETRATION REINFORCING
SCALE: 1/2"=1'-0"

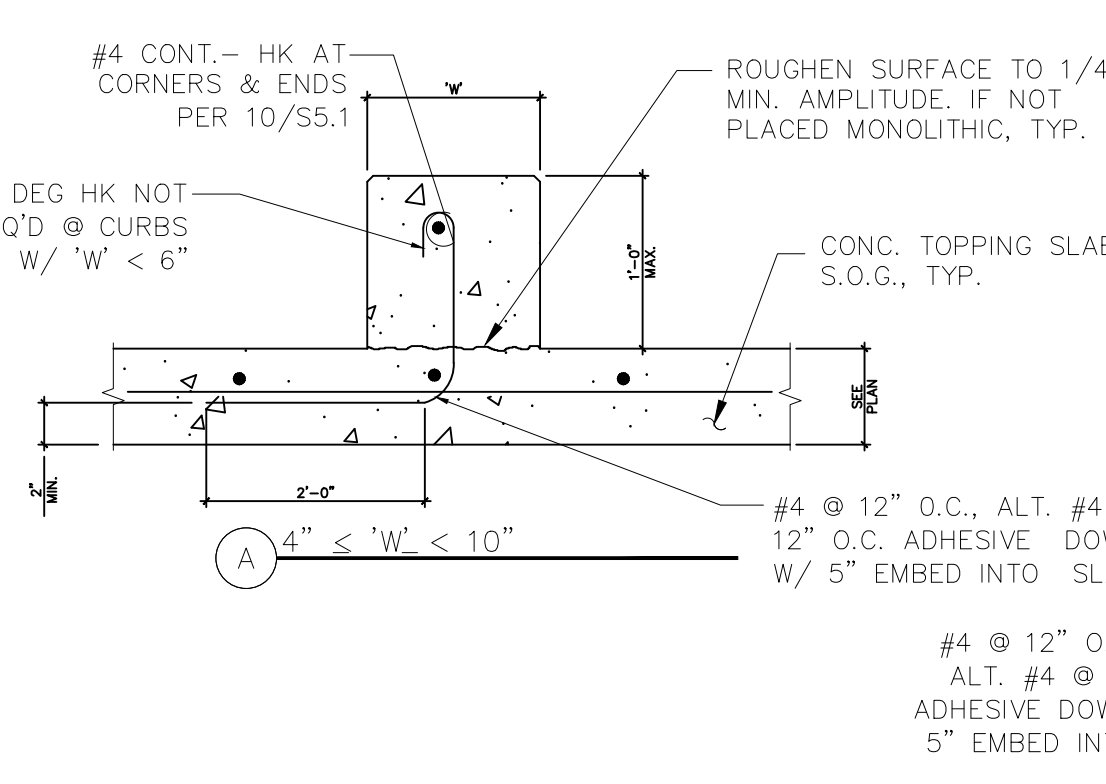


- NOTES:
- BREAK BOND BETWEEN NEW AND PREVIOUSLY POURED SLAB ON GRADE BY SPRAYING OR PAINTING EXPOSED SIDE OF KEY WITH CURING COMPOUND OR FORM OIL.
 - LONG STRIP CONSTRUCTION METHOD SHALL BE USED FOR ALL SLAB ON GRADE, UNLESS OTHERWISE APPROVED BY RESIDENT ENGINEER.
 - SUBGRADE SHALL BE FREE OF STANDING WATER AT TIME OF CONCRETE PLACEMENT.

6 CONSTRUCTION JOINTS AT SLAB ON GRADE
SCALE: 1/2"=1'-0"



11 STAIR STRINGER FOOTING
SCALE: 1/2"=1'-0"



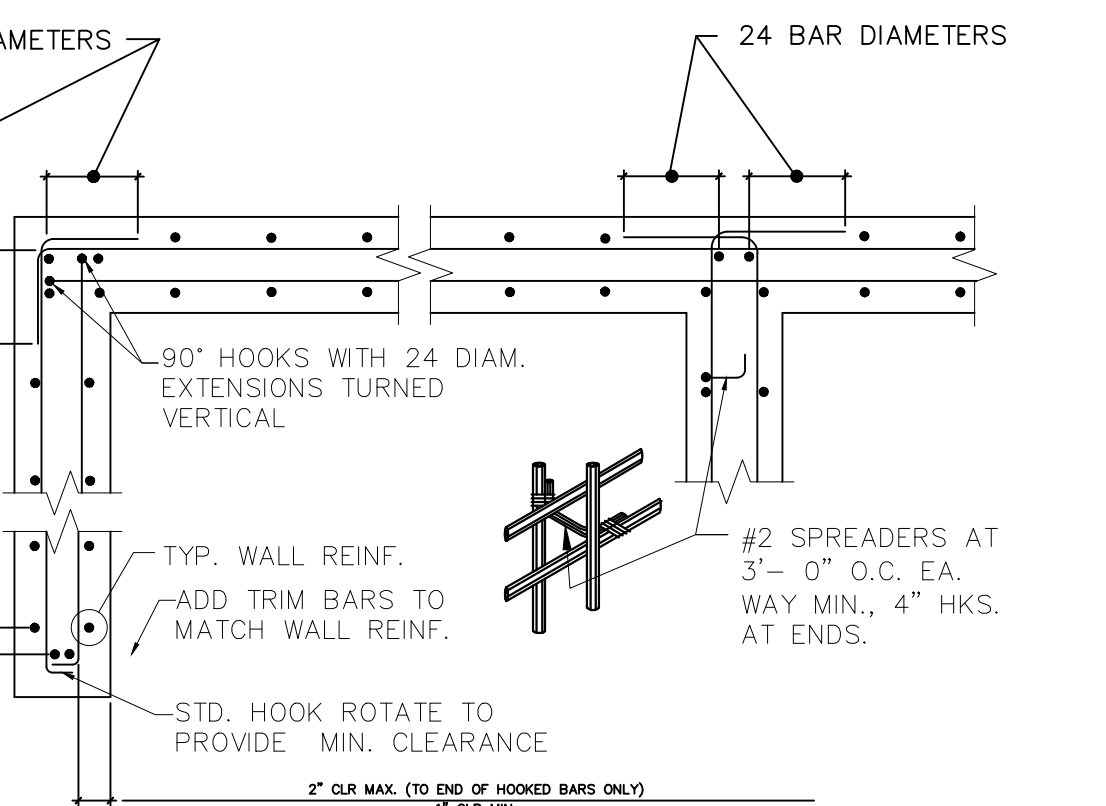
- NOTES:
- SEE ARCHITECTURAL & MECHANICAL DRAWINGS FOR CURB LOCATIONS, DIMENSIONS, CHAMFERS & INSERTS.
 - COORDINATE REINFORCEMENT LOCATIONS TO AVOID INTERFERENCE WITH INSTALLATION OF ADHESIVE DOWELS.
 - USE ALTERNATE IN DOWELS ARE NOT LOCATED IN PROPER LOCATION OF CURB IN CURB IS INSTALLED AT SLAB LOCATIONS WITHOUT DOWELS.

3 TYPICAL RAISED CURBS & PADS
SCALE: 1/2"=1'-0"

LAP SPICE LENGTHS (INCHES)(1,2)											
BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11		
fc' = 3000PSI											
TOP BAR (3)	21	28	35	46	62	82	104	132	162		
OTHER BAR	16	21	27	35	48	63	80	101	124		
fc' = 4000PSI											
TOP BAR (3)	20	24	30	40	54	71	90	114	140		
OTHER BAR	16	19	23	30	41	55	69	88	108		
fc' = 5000 PSI											
TOP BAR (3)	20	22	27	35	48	63	80	102	125		
OTHER BAR	16	17	21	27	37	49	62	79	96		

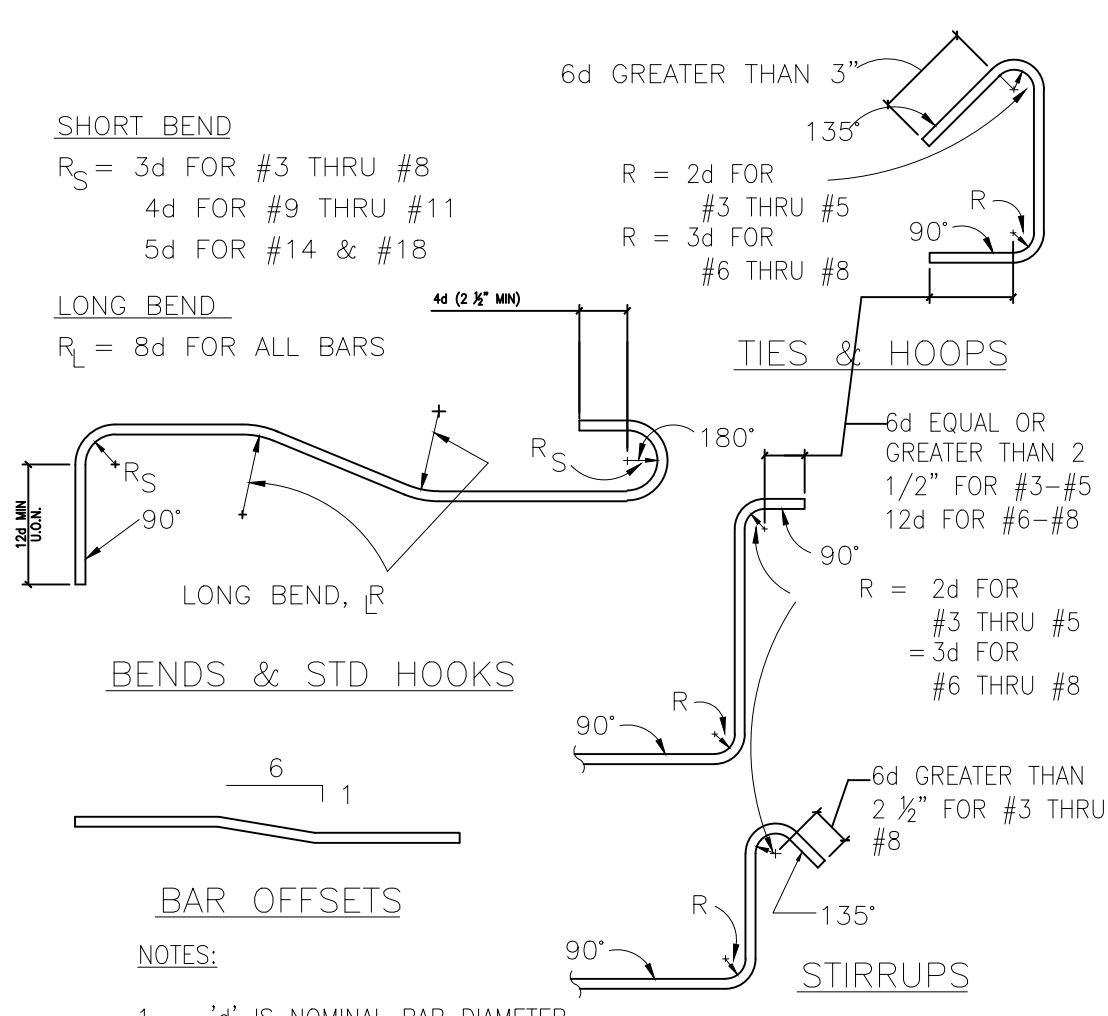
- NOTES:
- LAP SPICE LENGTHS, WHERE PERMITTED, SHALL BE IN ACCORDANCE WITH THIS TABLE UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE.
 - EMBEDMENT LENGTHS OF DOWELS SHALL BE EQUAL TO LENGTHS FOR "OTHER" BARS.
 - TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

7 REINFORCING LAP SPICE TABLE
SCALE: NTS



- NOTES:
- WALLS WITH SINGLE CURTAIN OF STEEL SIMILAR TO ABOVE WITH HORIZONTAL HOOKS AT CORNERS ONLY.
 - SPLICES IN HORIZONTAL REINFORCEMENT SHALL BE STAGGERED.

12 WALL DETAIL REINF. @ CORNERS & INTER.
SCALE: NTS



- NOTES:
- 'd' IS NOMINAL BAR DIAMETER.
 - REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT, UNLESS SPECIFICALLY NOTED ON THE DRAWINGS.

8 HOOKS AND BENDS
SCALE: NTS

12/11/2024

F.T. ENG. & CONST. MGMT., LLC
PHONE: 509220489
EMAIL: F.T.ENG.CM@GMAIL.COM



4332 MERCER ISLAND
ADDITION
4332 WEST MERCER WAY
MERCER ISLAND, WA

JOB # 2024065

DATE									
DESCRIPTION									
REV									

Drawn By:

Drawing Title:

TYPICAL STRUCTURAL DETAILS

Sheet S3.4