3DIMENSIONAL VIEW SHOWS ROUGH DESIGN INTENT ONLY. FOR ALL TECHNICAL DETAILS OR PROJECT SPECIFICS REFER TO ORTHOGRAPHIC DRAWINGS.

1 VIEW FROM REAR YARD

AVERAGE BUILDING HEIGHT CALCULATION

(9'-6 1/4" x 112'-9 1/2") + (7'-1 1/4" x 112'-11") + (9'-7" x 113'2 1/2") + (12'-7 1/2" x 114'-7 1/2") +(12'-3" x 114'-8") + (8'-7" x 114'-10") + (15'-0 1/2" x 114'-10") + (8'-7" x 114'-10") + (14'-3" x 114'-8") + (12'-7 1/2" x 114'-8") + (14'-4 1/2" x 113'-0 1/4") + (11'-10" x 112'-7 1/4") + (4'-10" x 112'-11 1/2") + (13'-10 1/4" x 112'-9 1/2") + (10'-6" x 115'-3 1/2") + (14'- 3 3/4" x 107'-11") = 20359.01 SF = **113'-5 7/8" A.B.E**

(9'-6 1/4" + 7'-1 1/4" + 9'-7" + 12'-7 1/2" + 12'-3" + 8'-7" + 15'-0 1/2" + 8'-7" + 14'-3" + 12'-7 1/2" + 14'-4 1/2" + 11'-10" + 4'-10" + 13'-10 1/4" + 10'-6" +14'-3 3/4") 179'-10 1/2"

LOT SLOPE CALCULATION

122'-3" (HIGHEST POINT) - 109'-11"(LOWEST POINT) = 12' - 4"

HORIZONTAL DISTANCE BETWEEN HIGH AND LOW POINTS= 112' - 0 1/2"

LOT SLOPE = 12'-4" / 112'-0 1/2" = .1100781 = 11%

LOT COVERAGE CALCULATION

EXISTING HOUSE = 1391.84 SF
DRIVE WAY = 205.47 SF
ADDITION = 422.37 SF
EXISTING HOUSE REMOVED = -53.32 SF

TOTAL PROPOSED COVERAGE = 1966.36 SF

GROSS LOT AREA = 6000 SF
EXISTING EASEMENTS = 1050 SF
NET LOT AREA = 4950 SF
ALLOWED COVERAGE (40%) = 1980 SF

GROSS FLOOR AREA CALCULATION

BUILDING AREA	EXISTING BUILDING AREA	NEW ADDITION AREA	TOTAL
UPPER FLOOR	1015 SF	0	1015 SF
MAIN FLOOR	1105.81 SF	336.83 SF	1442.64 SF
BASEMENT AREA	636.33 SF	0	636.33 SF
BASEMENT GARAGE AREA	361.49 SF	0	361.49 SF
EXCLUDED BASEMENT AREA	-785.28 SF	0	-785.28 SF

BASEMENT EXCLUSION CALC

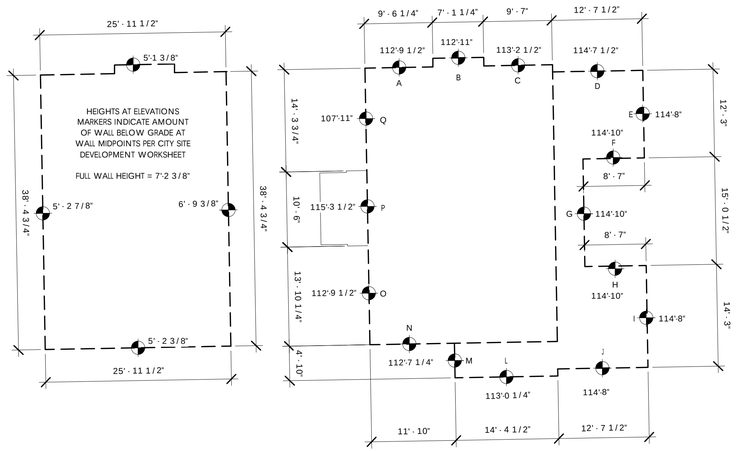
WALL	WALL LENGTH	COVERAGE	RESULT
NORTH	25' - 11 1/2"	5'-1 3/8" / 7'-2 3/8"= 71.06%	18.45
SOUTH	25' - 11 1/2"	5'-2 3/8" / 7'-2 3/8" = 72.2%	18.74
EAST	38' - 4 3/4"	6'-9 3/8" / 7'-2 3/8" = 94.2%	36.17
WEST	38' - 4 3/4"	5'-2 7/8" / 7'-2 3/8" = 72.79%	27.94
TOTAL	128.71'		101.3

101.3 / 128.71 = 78.7% EXCLUSION
TOTAL BASEMENT AREA = 997.82 SF
TOTAL EXCLUDED AREA = 785.28 SF

ALLOWED GROSS FLOOR AREA = 2700 SF (45% OF LOT AREA FOR LOTS UNDER 7500SF)
PROPOSED GROSS FLOOR AREA = 2670.18 SF (44.5% OF LOT AREA)

HARDSCAPE CALCULATION

GROSS LOT AREA = 6000 SF
EXISTING EASEMENTS = 1050 SF
NET LOT AREA = 4950 SF
EXISTING HARDSCAPE = 706.4
ADDED HARDSCAPE = 132.97
REMOVED HARDSCAPE = 399.56 SF
ALLOWED HARDSCAPE (9% + LEFTOVER LOT COVERAGE) = 445.5 SF + 14.31 = 459.96 SF
TOTAL PROPOSED HARDSCAPE = 439.81



3 BASEMENT WALL COVERAGE DIAGRAM
1" = 10'-0"

2 GRADE DIAGRAM
1" = 10'-0"

GENERAL INFORMATION

PROJECT ADDRESS	2420 63RD AVE SE MERCER ISLAND, WA 98040
ASSESSOR'S PARCEL #	409950-0515
LEGAL DESCRIPTION	LAKE VIEW PLACE EAST SEATTLE PLAT BLOCK: 5 PLAT LOT: 7-8
PROJECT DESCRIPTION	REPAIR AND REFINISH BASEMENT STAIRS, ADD A SUNROOM AND AN OFFICE, RELOCATE AND RENOVATE THE POWDER ROOM, DEMO THE DECK AND ADD A NEW PATIO.
ZONE	R8.4
BUILDING TYPE	SINGLE FAMILY RESIDENCE

PROJECT DIRECTORY

OWNER	GEORGIA MILLER AND TIMOTHY BLOOD 2420 63RD AVE SE MERCER ISLAND, WA 98040
ARCHITECT	RAIN CITY ARCHITECTURE 206.636.1163 clint@raincityarchitecture.com
GENERAL CONTRACTOR	TOEPHER CONSTRUCTION

PROJECT DATA

SQUARE FOOT SUMMARY

EXISTING (NET CONDITIONED)	1935.31 SF
PROPOSED (NET CONDITIONED)	2240.66 SF
EXISTING (NET NON-CONDITIONED)	891.29 SF
PROPOSED (NET NON-CONDITIONED)	891.29 SF, NO CHANGE
PROPOSED TOTAL SF	**3131.95 SF**

LOT COVERAGE SUMMARY

EXISTING LOT	6000 SF
NET LOT AREA	4951.67 SF
TOTAL PROPOSED COVERAGE	1966.36 SF
PROPOSED LOT COVERAGE	**39.7%** (40% ALLOWED BASED ON LOT 11% LOT SLOPE)

SETBACKS

SIDE YARD	5' MIN, SUM OF SIDEYARDS SHALL BE 15'
FRONT YARD	20'
REAR YARD	25'

OCCUPANCY SUMMARY

EXISTING TYPE -	R-3
OCCUPANT LOAD -	SINGLE FAMILY

ENERGY CODE SUMMARY

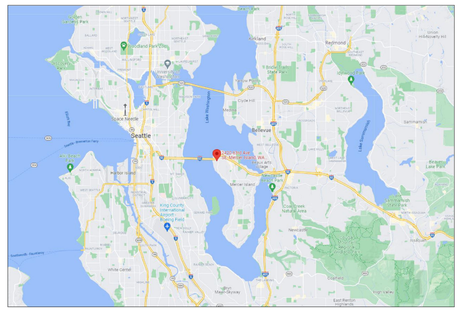
CLIMATE ZONE 1 (TABLE 6-1)	
PRESCRIPTIVE OPTION III	
UNLIMITED GLAZING -	
GLAZING U-FACTOR (VERTICAL):	.30
GLAZING U-FACTOR (OVERHEAD):	.50
DOOR U-FACTOR:	.20
CEILING:	R-49
VAULTED CEILING:	R-38
WALL ABOVE GRADE:	R-21
WALL BELOW GRADE (INT.)	R-21 (INT.) OR R-10 (EXT.)
SLAB ON GRADE @ BASEMENT	R-10

HEATING
INSTALLED PER MERCER ISLAND MECHANICAL CODE, WORK TO BE COMPLETED UNDER A SEPARATE PERMIT.

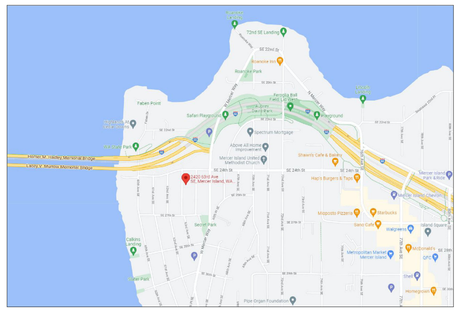
VENTILATION
FANS ON TIMERS, PER PLANS. VOLUME OF REQUIRED OUTDOOR VENTILATION AIR TO BE PROVIDED BASED ON TABLE 403.3 OF THE MERCER ISLAND MECHANICAL CODE.

* PLUMBING, MECHANICAL, ELECTRICAL WORK TO BE PERMITTED SEPARATELY.

SHEET INDEX



VICINITY PLAN



LOCATION PLAN

11228 REGISTERED ARCHITECT STATE OF WASHINGTON

MILLER BLOOD RESIDENCE

2420 63RD AVE SE
MERCER ISLAND, WA 98040

COVERSHEET

REVISIONS

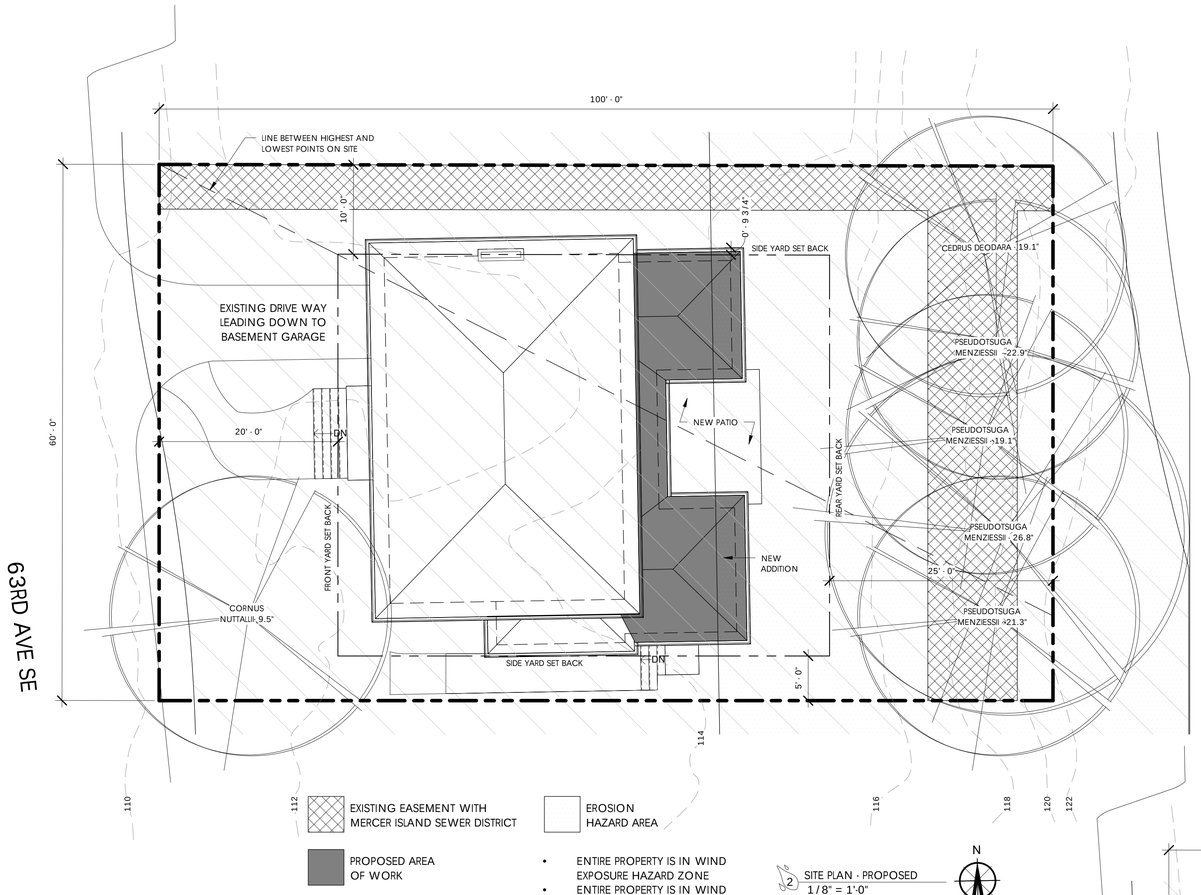
A000

PERMIT SET

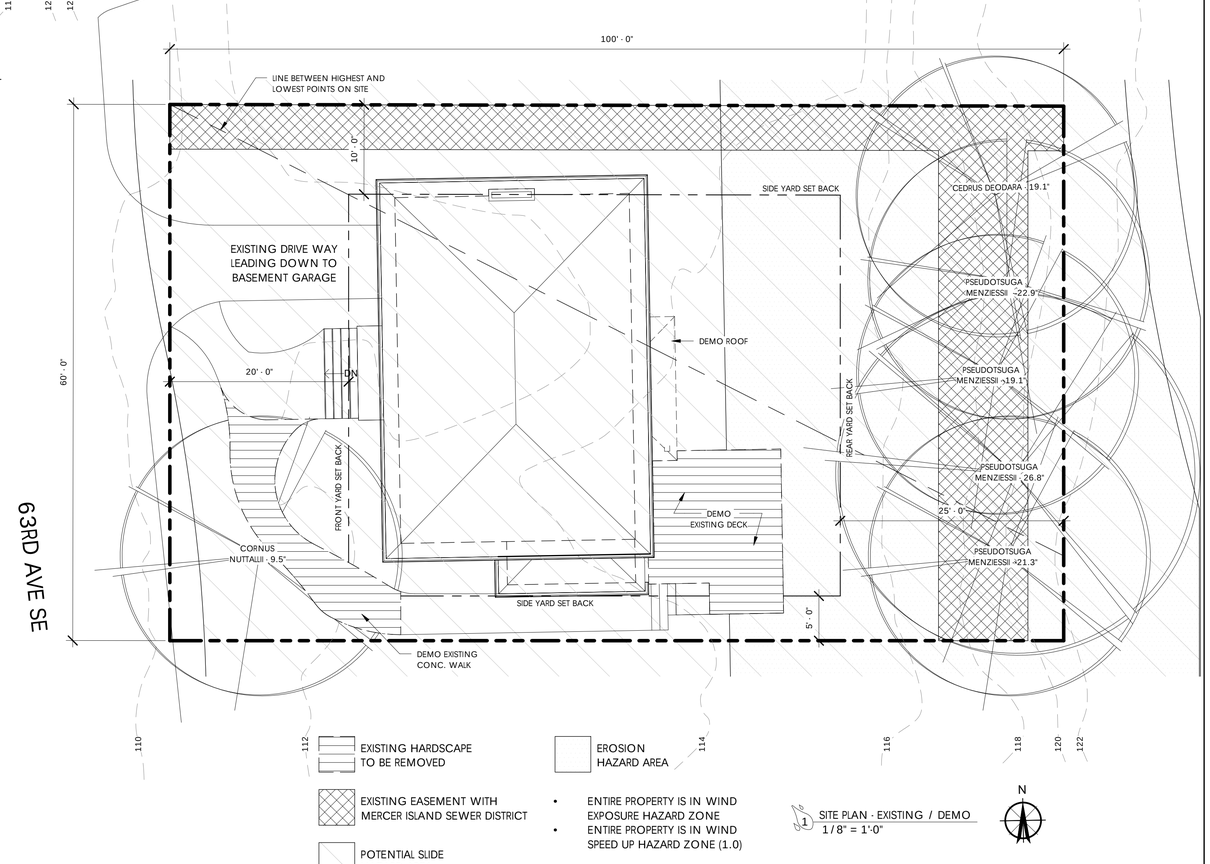
11/18/2021
5:13:27 PM

As indicated

RAIN CITY ARCHITECTURE



2 SITE PLAN - PROPOSED
1/8" = 1'-0"



1 SITE PLAN - EXISTING / DEMO
1/8" = 1'-0"

11228
REGISTERED ARCHITECT
STATE OF WASHINGTON

MILLER BLOOD RESIDENCE

2420 63RD AVE SE
MERCER ISLAND, WA 98040

SITE PLAN

REVISIONS

A001

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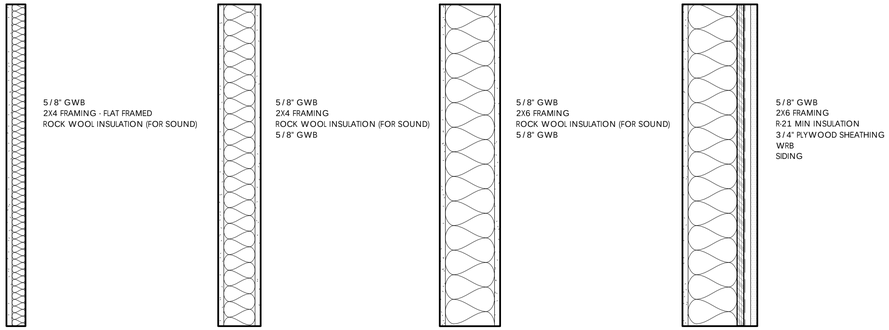
1/8" = 1'-0"

RAIN CITY ARCHITECTURE

ASSEMBLY DETAILS

VERTICAL ASSEMBLIES



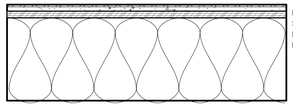
W2b
5/8" GWB
2X4 FRAMING - FLAT FRAMED
ROCK WOOL INSULATION (FOR SOUND)

W4a
5/8" GWB
2X4 FRAMING
ROCK WOOL INSULATION (FOR SOUND)
5/8" GWB

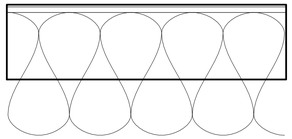
W6a
5/8" GWB
2X6 FRAMING
ROCK WOOL INSULATION (FOR SOUND)
5/8" GWB

W6e
5/8" GWB
2X6 FRAMING
R21 MIN INSULATION
3/4" PLYWOOD SHEATHING
WRB
SIDING

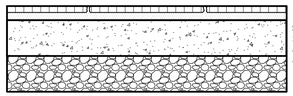
HORIZONTAL ASSEMBLIES



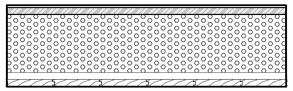
F1
FINISH PER SCHEDULE
SHEATHING PER STRUCTURAL
FRAMING PER STRUCTURAL
R-30 INSULATION MIN



R1
STANDING SEEM METAL ROOF
ROOFING MEMBRANE
SHEATHING PER STRUCTURAL
1" MIN AIR SPACE
R-49 INSULATION MIN
FRAMING PER STRUCTURAL



F2
STONE PAVERS
3/4" MORTAR BED
4" CONCRETE - REINFORCING PER STRUCT
4" FREE DRAINING GRAVEL



R2
STANDING SEEM METAL ROOF
ROOFING MEMBRANE
SHEATHING PER STRUCTURAL
R-38 CLOSED CELL SPRAY FOAM INSULATION
FRAMING PER STRUCTURAL
TOUNGE AND GROOVE, STAINED AND SEALED

ABBREVIATIONS

ABV	ABOVE
AFF	ABOVE FINISH FLOOR
ADDL	ADDITIONAL
ADJ	ADJUSTABLE
ALT	ALTERNATE
ARCH	ARCHITECT, ARCHITECTURAL
BLW	BELOW
BSMT	BASEMENT
BTW	BETWEEN
BLD	BUILDING
CAB	CABINET
CALC	CALCULATION
CLG	CEILING
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
DEMO	DEMOLISH
DIA	DIAMETER
DIM	DIMENSION
DW	DISHWASHER
DBL	DOUBLE
EA	EACH
ELEC	ELECTRIC, ELECTRICIAN
ELEV	ELEVATION
ENGR	ENGINEER
EQUIV	EQUIVALENT
EXIST OR (E)	EXISTING
EXT	EXTERIOR
FF	FINISH FLOOR
GALV	GALVANIZED
GWB	GYPSUM WALL BOARD
HDR	HEADER
HT	HEIGHT
HORIZ	HORIZONTAL
INSUL	INSULATION
INT	INTERIOR
LOC	LOCATE, LOCATION
MAX	MAXIMUM
MFR	MANUFACTURER
MECH	MECHANICAL
MTL	METAL
MIN	MINIMUM
NTS	NOT TO SCALE
O.C.	ON CENTER
PLY	PLYWOOD
PRELIM	PRELIMINARY
PT	PRESSURE-TREATED
PL	PROPERTY LINE
REFR	REFRIGERATOR
REINF	REINFORCE, REINFORCING
REQD	REQUIRED
SCHED	SCHEDULE
SW	SHEARWALL
SIM	SIMILAR
SF	SQUARE FOOT
SPECS	SPECIFICATIONS
SSTL	STAINLESS STEEL
STL	STEEL
STRUCT	STRUCTURE, STRUCTURAL
TEMP	TEMPORARY
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
VERT	VERTICAL
WP	WATERPROOF, WEATHERPROOF
WNDW	WINDOW
W/	WITH
W/O	WITHOUT
WD	WOOD

PROJECT LEGEND

INTERIOR ELEVATION — A6.01 — DRAWING NUMBER / SHEET NUMBER

ELEVATION DATUM — FINISH FLOOR 101'-3" — LOCATION / ELEVATION

FINISH MATERIAL — 7-1 — FINISH TYPE: SEE FINISH SCHEDULE / FINISH NUMBER

REVISION BUG — 1 — NOTE: ONLY MOST RECENT REVISION SHOWN CLOUDED. FOR PREVIOUS REVISIONS DELTAS REMAIN. DATE OF REVISIONS INDICATED AT RIGHT MARGINS.

ASSEMBLY TYPE — W4a — R: ROOF TYPE / W: WALL TYPE / F: FLOOR TYPE / SEE ASSEMBLIES FOR MORE INFO

CENTERLINE — ℄

GRID LINES — 0 — 0

ROOM REFERENCE — ROOM NAME / 101 — ROOM NAME / ROOM NUMBER

DOOR REFERENCE — 100A — ROOM NUMBER / DOOR NUMBER

WINDOW REFERENCE — 200A — ROOM NUMBER / WINDOW NUMBER

EXTERIOR ELEVATIONS — 1 / A4.0 — DRAWING NUMBER / SHEET NUMBER

WALL SECTION — SIM — 1 / 3.0 — DRAWING NUMBER / SHEET NUMBER

SECTION DETAIL — 1 / 8.0 — DRAWING NUMBER / SHEET NUMBER

AREA DETAIL — 1 / 9.0 — DRAWING NUMBER / SHEET NUMBER

GLASS
CONCRETE
STEEL
EARTH
GRAVEL
WATER
BRICK
ALUMINUM

BATT INSULATION
RIGID INSULATION
PLYWOOD
FINISH WOOD
STUCCO
CLOSED-CELL SPRAY FOAM INSULATION
GYPSUM WALLBOARD

NOT TO SCALE

GENERAL NOTES

CODE COMPLIANCE

ALL WORK SHALL BE IN COMPLIANCE WITH THE 2018 INTERNATIONAL RESIDENTIAL CODE AS ADOPTED AND MODIFIED BY THE CITY OF MERCER ISLAND, MERCER ISLAND LAND USE CODE, AND ALL OTHER LAWS, CODES, ORDINANCES AND REGULATIONS OF THE COUNTY, STATE, AND FEDERAL JURISDICTIONS. (LATEST EDITION AND AMENDMENTS)

ALL WORK SHALL BE IN COMPLIANCE WITH 2018 ENERGY CODE

UTILITIES AND SITE

ALL UNDERGROUND UTILITIES MUST BE VERIFIED AS TO EXACT LOCATIONS SO AS NO INTERFERENCE BY DISRUPTION WILL BE CAUSED. GENERAL CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITIES BY THE METHODS RECOMMENDED BY THE GEOTECHNICAL ENGINEER AND DPD REPRESENTATIVE AT THE PRE-CONSTRUCTION SITE MEETING. DAMAGE THAT MAY BE CAUSED BY GENERAL CONTRACTOR OR SUBCONTRACTOR TO ANY OF THE ABOVE MENTIONED SHALL BE REPAIRED BY HIM AND LEFT IN AS GOOD A CONDITION AS EXISTED PRIOR TO DAMAGING.

CONTRACTOR TO PROVIDE 8" OF TOP SOIL MIN AND HYDROSEED GRASS AT ALL IMPACTED AREAS OF SITE UNLESS NOTED OTHERWISE. TOPSOIL AND PLANTINGS MUST MEET ALL LOCAL CODES.

ALL FINAL SURFACE GRADING SHALL BE COMPLETED TO FACILITATE POSITIVE DRAINAGE AWAY FROM THE BUILDING UNLESS NOTED OTHERWISE.

CONSTRUCTION DOCUMENTS

ALL TRADES SHALL REFER TO THE ARCHITECTURAL DRAWINGS REGARDING LOCATIONS OF WORK TO BE INSTALLED, INCLUDING FRAMING. ANY DISCREPANCY BETWEEN ARCHITECTRUAL AND STRUCTURAL SHALL BE REPORTED TO THE ARCHITECT BEFORE AFFECTED WORK CONTINUES.

CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND JOB CONDITIONS RELATED TO THIS WORK. ALL DIMENSIONS SHALL BE CONSIDERED "NOMINAL" UNLESS NOTED OTHERWISE. DO NOT SCALE DRAWINGS. USE WRITTEN DIMENSIONS ONLY. DIMENSIONS ON LARGE SCALE DRAWINGS OR DETAILS WILL PREVAIL OVER SMALLER SCALED DRAWINGS. WRITTEN DIMENSIONS ARE DRAWN TO THE FACE OF FINISH, U.N.O. VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT, PROVIDE ALL BUCKOUTS, BLOCKING, AND JACKS AS REQUIRED BY THE DRAWINGS AND OTHER TRADES. ANY DISCREPANCY IN DIMENSIONS SHALL BE REPORTED IN WRITING TO THE PROJECT MANAGER/ DESIGNER FOR CLARIFICATION, OR APPROVAL OF MODIFICATION BEFORE COMMENCING WORK. THE RESPONSIBILITY TO THE PROJECT MANAGER/DESIGNER, SHALL REST WITH THE CONTRACTOR OR ANY OTHER PERSON APPROVING SUCH A CHANGE.

UNLESS OTHERWISE NOTED, PROVIDE ALL MISCELLANEOUS FASTENERS, HARDWARE AND ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION. EVEN THOUGH SUCH ITEMS MAY NOT HAVE BEEN SPECIFICALLY MENTIONED IN THE DRAWINGS AND SPECIFICATIONS, NOTIFY THE ARCHITECT OF ANY REVISIONS OR ADDITIONAL INFORMATION OBTAINED FROM THE MANUFACTURER OF SPECIFIED MATERIALS OR EQUIPMENT WHICH MAY AFFECT THE CONTRACT TIME, COST OR QUALITY OF WORK.

WARRANTY

ALL WARRANTIES OR GUARANTEES AS TO MATERIALS OR WORKMANSHIP ON OR WITH RESPECT TO THE OWNER'S WORK SHALL BE CONTAINED IN THE CONTRACT OR SUBCONTRACT WHICH SHALL BE SO WRITTEN THAT SUCH GUARANTEE OR WARRANTIES SHALL INSURE TO THE BENEFIT OF OWNER.

ALL WORKMANSHIP AND MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF CERTIFICATE OF OCCUPANCY UNLESS SPECIFIED FOR A LONGER PERIOD OF TIME ON SPECIFIED ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING OR REPAIRING HIS OWN DEFECTIVE WORK AS WELL AS PAY ALL COSTS INCIDENTAL THERETO INCLUDING DAMAGE TO OTHER WORK, FURNISHINGS OR EQUIPMENT.

INSURANCE

PRIOR TO THE COMMENCEMENT OF WORK THE GENERAL CONTRACTOR SHALL DELIVER TO THE OWNER CERTIFICATES OF INSURANCE FOR BOTH COMPREHENSIVE GENERAL LIABILITY AND WORKMAN'S COMPENSATION INCLUDING THE TOTAL AMOUNT OF COVERAGE AND CONDITIONS STIPULATED AND AGREED BY BOTH PARTIES.

PERMITTING

THE OWNER SHALL BE RESPONSIBLE FOR PAYING FOR THE BUILDING PERMIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED OR NECESSARY FOR THE COMPLETION OF THE WORK FROM THE RESPECTIVE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE GOVERNING AGENCIES AS REQUIRED FOR SITE INSPECTIONS.

GENERAL CONDITIONS

THE GENERAL CONTRACTOR, ALL SUB-CONTRACTORS AND ALL MAJOR SUPPLIERS SHALL SUBMIT TO THE OWNER WITHIN 30 DAYS AFTER COMPLETION ALL "RELEASE OF LIENS" FOR ALL WORK PERFORMED PRIOR TO FINAL PAYMENT.

PARTIAL LIEN WAIVERS TO BE SUBMITTED WITH MONTHLY REQUISITION.

ALL MANUFACTURERS AND/OR SUPPLIERS SHALL SUBMIT SHOP DRAWINGS AND/OR MATERIAL SAMPLES TO THE DESIGNER/OWNER FOR APPROVAL PRIOR TO FABRICATION.

ALL OF THE GENERAL CONTRACTOR'S EQUIPMENT, SCAFFOLDING HOISTS, ETC., SHALL BE AVAILABLE TO THE OWNER/ DESIGNER AND THEIR STAFF FOR INSPECTION OF ANY AND ALL WORK DURING NORMAL WORKING HOURS.

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL DELIVERY POINTS, HOISTS LOCATIONS, ACCESS TO AND FROM THE SITE OF THE BUILDING AND UTILITY SERVICES. BID TO INCLUDE ALL NECESSARY AND REQUIRED PERMITS, LICENSES, FEES, BONDS AND INSURANCE - EVIDENCE OF WHICH MUST BE SUBMITTED TO OWNER/ DESIGNER PRIOR TO ANY CONSTRUCTION.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBCONTRACTORS WORKING AT JOB SITE AND FOR ALL COORDINATION OF WORK.

THE MECHANICAL, PLUMBING AND ELECTRICAL CONTRACTOR SHALL FULLY COORDINATE ALL EQUIPMENT WITH THE OTHER TRADES. THESE CONTRACTORS SHALL BE RESPONSIBLE FOR FINAL HOOK-UP OF ALL EQUIPMENT NOT FURNISHED BY THEM BUT REQUIRING THE SAME FOR FINAL COMPLETION.

GENERAL CONTRACTOR TO BE RESPONSIBLE FOR SECURITY OF ALL MATERIALS AT JOB SITE AND GENERAL SITE SECURITY UNTIL THE POINT OF FINAL ACCEPTANCE OF WORK BY OWNER.

ANY SUBCONTRACTOR CUTTING INTO WORK ALREADY COMPLETED, CUTTING CHASES AND TRENCHES FOR THE INTRODUCTION OF HIS WORK AND EQUIPMENT IN THE BUILDING SHALL DO OR PAY FOR ALL BACK FILLING, REPARATION OF WALLS, FLOOR, ETC., DAMAGE BY SUCH A COMPANY. ALL REPAIRS SHALL MATCH EXISTING SURFACES.

CONSTRUCTION SPECIFICATIONS

NO SUBSTITUTIONS ARE ALLOWED FOR MATERIALS WHERE SPECIFIC MANUFACTURERS ARE INDICATED, UNLESS APPROVED BY THE OWNER/ARCHITECT. REQUESTS FOR SUBSTITUTIONS SHALL BE MADE IN WRITING PRIOR TO ORDERING MATERIALS OR COMMENCING WORK. SUCH REQUESTS SHALL INCLUDE THE DATE, SCOPE OF WORK, ANY ADDITIONAL COSTS TO THE OWNER, AND ANY ANTICIPATED DELAYS CAUSED BY SUCH CHANGES.

NO EXTRA WORK OR CHANGE SHALL BE MADE UNLESS A WRITTEN CHANGE ORDER IS SUBMITTED AND SIGNED BY THE OWNER AND ARCHITECT. THE ORDER SHALL STATE THAT THE OWNER HAS AUTHORIZED THE EXTRA WORK OR CHANGE, AND NO CLAIM FOR AN ADDITIONAL SUM SHALL BE VALID UNLESS SO OFFERED AS DESCRIBED ABOVE.

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

WOOD SPECIFICATIONS TO CONFORM TO OUTLINE SPECIFICATIONS, FINISH SCHEDULE, STRUCTURAL PLANS, NOTES, AND GENERAL CONDITIONS.

CAULKING AND SEALANTS: INSTALLED SHALL BE GUARANTEED WATERTIGHT. EXTERIOR METAL WORK, INCLUDING WINDOWS AND DOOR FRAMES AND ALL JUNCTIONS BETWEEN MASONRY, CONCRETE AND METAL SHALL BE SEALED WITH NEOPRENE OR POLYURETHANE FILLER AND APPROVED SEALANT COMPOUNDS.

PROVIDE GALVANIC INSULATION BETWEEN ALL DISSIMILAR METALS.

PROVIDE WATERPROOFING MEMBRANE AND DIMPLE DRAINMAT AT ALL WALLS EXPOSED TO EARTH.

ALL PIPING AND CONDUIT UNDER SLAB SHALL BE A MINIMUM OF 2'-0" CLEAR OF UNDERSIDE OF FOOTING.

INSULATION

PROVIDE AND INSTALL INSULATION AT EXTERIOR WALLS, ROOF, FLOOR LOCATIONS AS SHOWN, SPECIFIED AND IN ACCORDANCE WITH MERCER ISLAND ENERGY CODE.

ALL INTERIOR WALLS SHALL BE INSULATED WITH SOUND ATTENUATING INSULATION

WATER PIPES TO BE INSULATED IN ALL UNHEATED AREAS.

INSULATE ALL ROUGH-IN PLUMBING IN WALLS, FLOORS, AND CEILINGS FOR SOUND TRANSMISSION.

11228
REGISTERED ARCHITECT
STATE OF WASHINGTON

MILLER BLOOD RESIDENCE

2420 63RD AVE SE
MERCER ISLAND, WA 98040

GENERAL NOTES, SYMBOLS, & ABBREV

REVISIONS

A002

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RAIN CITY ARCHITECTURE

WHOLE HOUSE VENTILATION CALC

DWELLING UNIT FLOOR AREA (square feet)	NUMBER OF BEDROOMS				
	0 – 1	2 – 3	4 – 5	6 – 7	> 7
	Airflow in CFM				
< 1,500	30	45	60	75	90
1,501 – 3,000	45	60	75	90	105
3,001 – 4,500	60	75	90	105	120
4,501 – 6,000	75	90	105	120	135
6,001 – 7,500	90	105	120	135	150
> 7,500	105	120	135	150	165

For SI: 1 square foot = 0.0929 m^2, 1 cubic foot per minute = 0.000471 m^3/s.

RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	25%	33%	50%	66%	75%	100%
Factor[a]	4	3	2	1.5	1.3	1.0

PROPOSED CONDITIONED SQUARE FOOTAGE = 2240.66 SF
NUMBER OF BEDROOMS = 3
AIRFLOW IN CF REQUIRED FOR CONTINUOUS VENTILATION = 60 CFM
RUNTIME PERCENTAGE IN EACH 4 HOUR SEGMENT = 66%
FACTOR =1.5

CALC 60 CFM X 1.5 = **90CFM**

HEAT RECOVERERY VENTILATOR SYSTEM TO BE INSTALLED TO PROVIDE
REQUIRED VENTILATION WITH SENSIBLE HEAT RECOVERY OF .75

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

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

Project Information	*Contact Information*
2420 63RD AVE SE MERCER ISLAND, WA 98040	RAIN CITY ARCHITECTURE 206 838 1163

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

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

Authorized Representative Clint Bailey — Digitally signed by Clint Bailey, Date: 2021.09.23 16:17:05 -07'00' — *Date* 09/23/2021

All Climate Zones (Table R402.1.1)

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

a. *R*-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity that is less than the label or design thickness of the insulation, the compressed *R*-value of the insulation from Appendix Table A101.4 shall not be less than the *R*-value specified in the table.
b. The fenestration *U*-factor column excludes skylights. "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.
c. R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.
d. 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.
e. 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.
f. For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400.
g. int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78% of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

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

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

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

before selecting your credits on this Summary table, review the details in Table 406.3 (Single Family), on page 4.

Summary of Table R406.2

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

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

Summary of Table R406.2 (cont.)

Energy Options	Energy Credit Option Descriptions (cont.)	Credits - select ONE energy option from each category [d]		User Notes
5.1*	Efficient Water Heating	0.5	☐	
5.2	Efficient Water Heating	0.5	☐	
5.3	Efficient Water Heating	1.0	☐	
5.4	Efficient Water Heating	1.5	☐	
5.5	Efficient Water Heating	2.0	☐	
5.6	Efficient Water Heating	2.5	☐	
6.1*	Renewable Electric Energy (3 credits max)	1.0	☐	
7.1	Appliance Package	0.5	☐	
	Total Credits	1.5	CLEAR FORM	

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

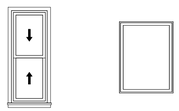
ENERGY CODE SUMMARY

CREDITS REQUIRED: 1.5 (ADDITIONS LESS THAN 500 SF)
HEATING OPTIONS: COMBUSTION HEATING MINIMUM NAECA 0.0 CREDITS
ENERGY OPTIONS SELECTED: 2.3 AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 1.5 CREDITS

2.3 : COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 1.5 AIR CHANGES PER HOUR MAXIMUM AT 50 PASCALS AND ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M1507.3 OF THE INTERNATIONAL RESIDENTIAL CODE OR SECTION 403.8 OF THE INTERNATIONAL MECHANICAL CODE SHALL BE MET WITH A HEAT RECOVERY VENTILATION SYSTEM WITH MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY OF .75

WINDOW SCHEDULE

PLAN ID	TYPE	QTY.	WIDTH (ft)	HEIGHT (ft)	HEAD HT	UNIT AREA (sf)	U VALUE	UA	NOTES
12A	A	1	4' - 0"	3' - 8"	6' - 8"	15 SF	0.3	4 SF	1
12B	A	1	2' - 11"	5' - 2"	6' - 8"	15 SF	0.3	5 SF	1
12C	A	1	2' - 11"	5' - 2"	6' - 8"	15 SF	0.3	5 SF	1
13A	A	1	2' - 0"	3' - 0"	6' - 8"	6 SF	0.3	2 SF	1,2
14A	A	1	3' - 1"	5' - 2"	6' - 8"	16 SF	0.3	5 SF	1,2
15A	A	1	2' - 9 3/4"	6' - 4 1/2"	7' - 10 1/2"	18 SF	0.3	5 SF	1
15B	A	1	2' - 9 3/4"	6' - 4 1/2"	7' - 10 1/2"	18 SF	0.3	5 SF	1
15C	A	1	2' - 9 3/4"	6' - 4 1/2"	7' - 10 1/2"	18 SF	0.3	5 SF	1
15D	A	1	2' - 9 3/4"	6' - 4 1/2"	7' - 10 1/2"	18 SF	0.3	5 SF	1
15E	A	1	2' - 9 3/4"	6' - 4 1/2"	7' - 10 1/2"	18 SF	0.3	5 SF	1
15F	A	1	2' - 9 3/4"	6' - 4 1/2"	7' - 10 1/2"	18 SF	0.3	5 SF	1
15G	A	1	2' - 9 3/4"	6' - 4 1/2"	7' - 10 1/2"	18 SF	0.3	5 SF	1
15H	A	1	2' - 9 3/4"	6' - 4 1/2"	7' - 10 1/2"	18 SF	0.3	5 SF	1
17A	B	1	1' - 9 31/32"	2' - 2 1/2"	7' - 1 9/16"	4 SF	0.3	1 SF	3
17B	B	1	3' - 7 11/16"	2' - 2 1/2"	7' - 1 9/16"	8 SF	0.3	2 SF	3
17C	B	1	1' - 9 31/32"	2' - 2 1/2"	7' - 1 9/16"	4 SF	0.3	1 SF	3



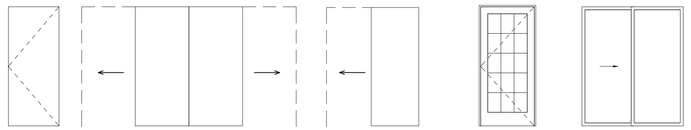
WINDOW TYPES
1/4" = 1'-0"

1. ALL WINDOW HEADERS SHALL BE INSULATED WITH A MIN OF R-10 INSULATION
2. TEMPERED SAFETY GLAZING REQUIRED
3. NEW WINDOW IN EXISTING OPENING, CONTRACTOR TO VERIFY SIZE IN FIELD

DOOR SCHEDULE

PLAN ID	TYPE	QTY.	WIDTH (ft.)	HEIGHT (ft.)	AREA (sf.)	U VALUE	UA	NOTES
12A	D	1	3' - 0"	6' - 8"	20 SF	0.3	6 SF	1,2
12B	B	1	6' - 0"	6' - 8"	40 SF			
13A	C	1	2' - 6"	6' - 8"	17 SF			
14A	D	1	3' - 0"	6' - 8"	20 SF	0.3	6 SF	1,2
14B	A	1	3' - 0"	6' - 11 3/4"	21 SF			
15A	E	1	6' - 0"	7' - 10 1/2"	47 SF	0.3	14 SF	1,2

1. ALL GLAZING IN DOOR TO BE TEMPERED
2. ALL EXTERIOR DOOR HEADERS SHALL BE INSULATED WITH A MIN OF R-10 INSULATION



DOOR TYPES
1/4" = 1'-0"

11228
REGISTERED ARCHITECT
STATE OF WASHINGTON

MILLER BLOOD RESIDENCE

2420 63RD AVE SE
MERCER ISLAND, WA 98040

DOOR AND WINDOW SCHEDULES AND ENERGY CODE WORKSHEET

REVISIONS

A003

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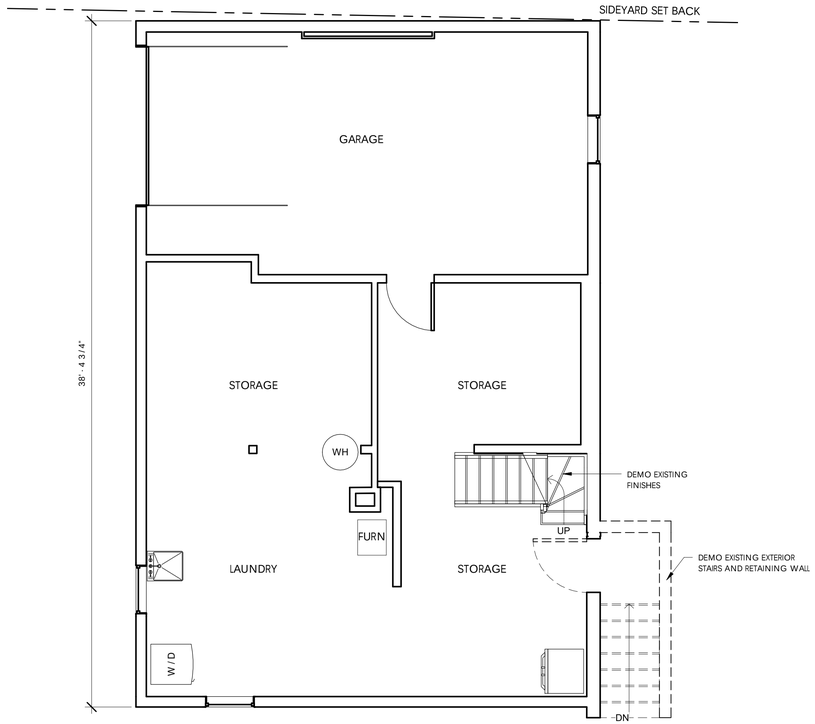
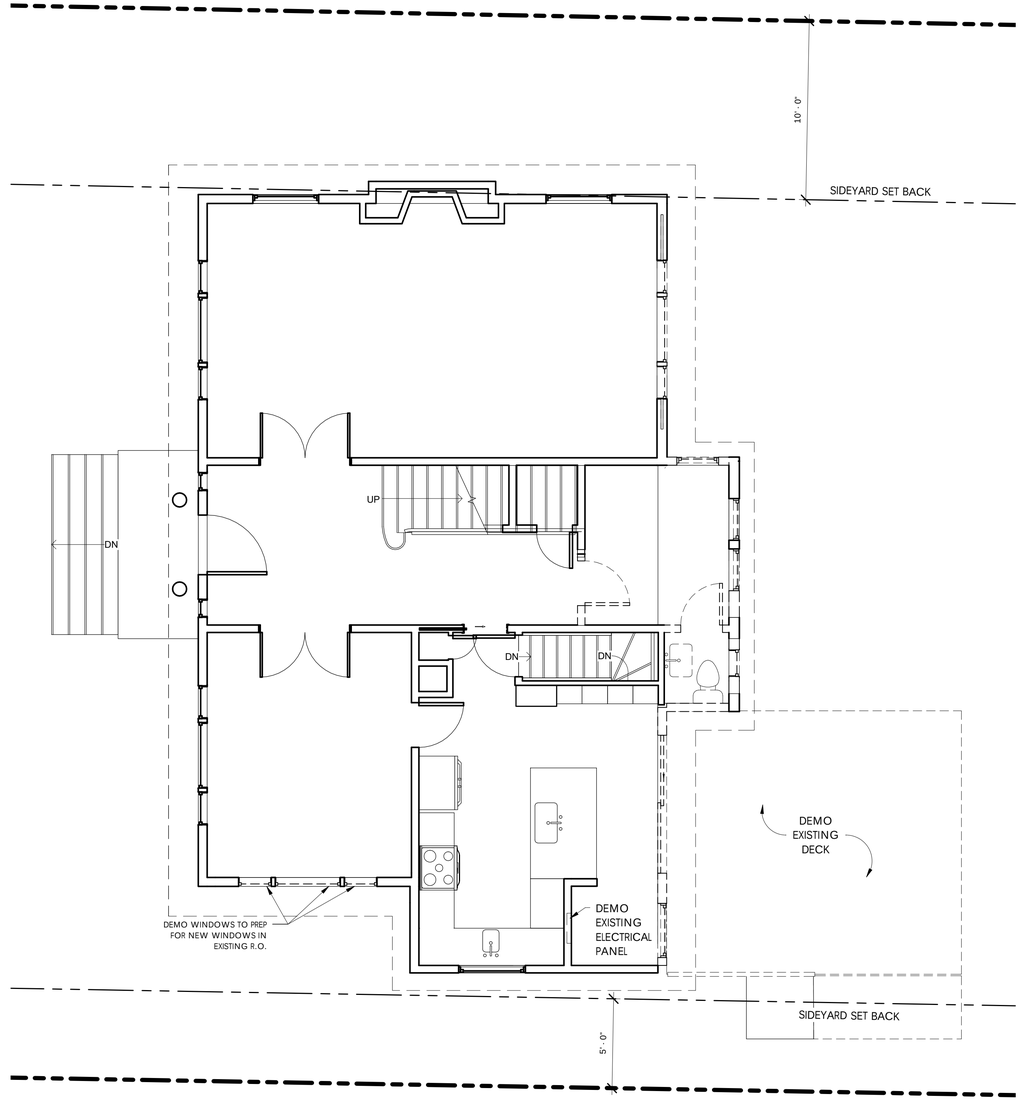
1/4" = 1'-0"

RAIN CITY ARCHITECTURE



1 1_BASEMENT DEMO
1/4" = 1'-0"



2 01_MAIN LEVEL DEMO
1/4" = 1'-0"

LEGEND

- SMOKE DETECTOR
- SMOKE / CARBON MONOXIDE DETECTOR
- FAN - 110 CFM U.N.O.
- NEW CONSTRUCTION
- EXISTING TO REMAIN
- TO BE REMOVED
- 1-HOUR RATED ASSEMBLY

NOTES

1. ALL DIMENSIONS AT EXTERIOR WALLS TO FACE OF FRAMING AT EXT. FACE OF WALL AND TO FACE OF FINISH (5/8" GWB ASSUMED) AT INT. FACE OF WALL, U.N.O.
2. ALL DIMENSIONS AT INTERIOR ALLS TO FACE OF FINISH (5/8" GWB ASSUMED AT EA. SIDE OF WALL), U.N.O.
3. ALL DIMENSIONS AT KITCHEN TO EDGE OF COUNTERTOPS, U.N.O.
4. ALL NEW WOOD HEADERS SHALL BE (2) 2X8 U.N.O., INSULATE HEADERS TO R-10 MIN

11228
REGISTERED ARCHITECT
STATE OF WASHINGTON

MILLER BLOOD RESIDENCE

2420 63RD AVE SE
MERCER ISLAND, WA 98040

DEMO MAIN FLOOR

REVISIONS

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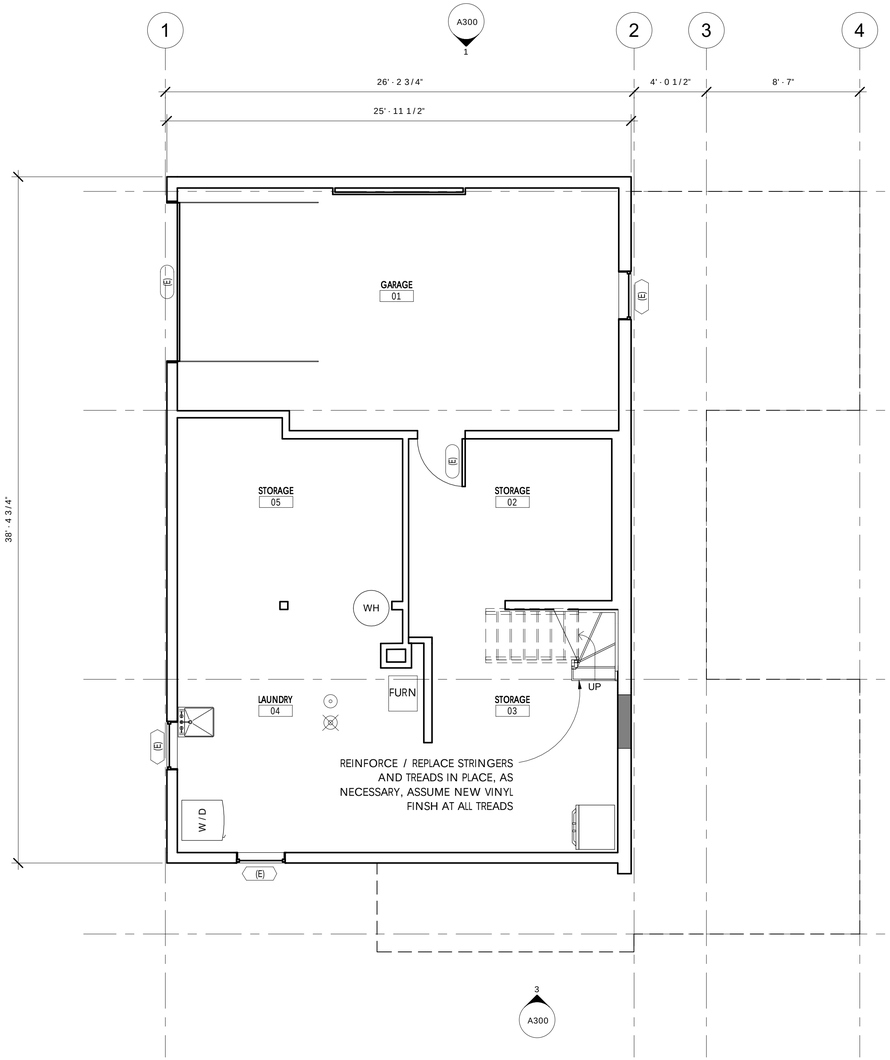
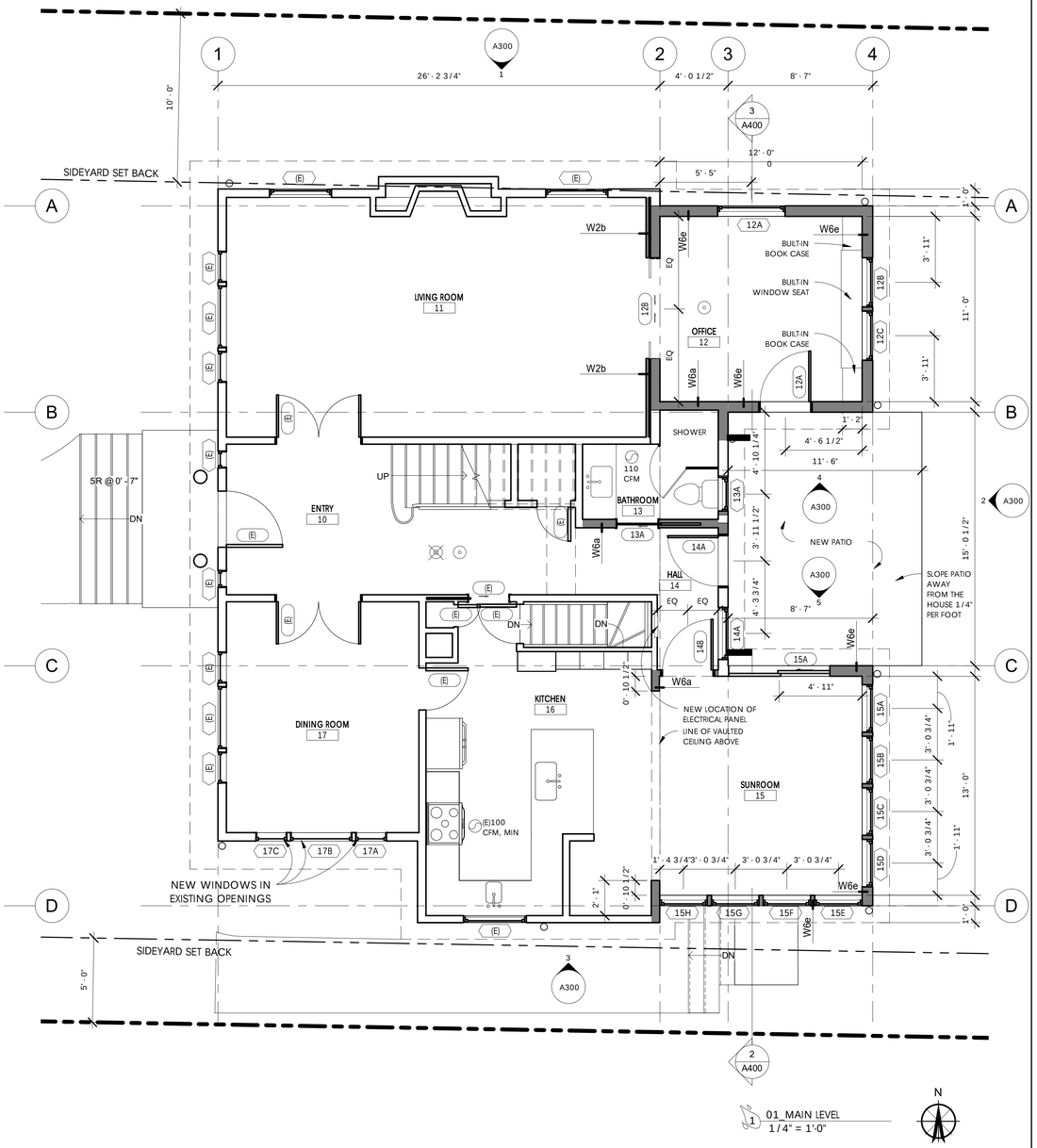
As indicated

RAIN CITY ARCHITECTURE



2 -1_BASEMENT
1/4" = 1'-0"



1 01_MAIN LEVEL
1/4" = 1'-0"

LEGEND

- SMOKE DETECTOR
- SMOKE / CARBON MONOXIDE DETECTOR
- FAN - 110 CFM U.N.O.
- NEW CONSTRUCTION
- EXISTING TO REMAIN
- TO BE REMOVED
- 1-HOUR RATED ASSEMBLY

NOTES

1. ALL DIMENSIONS AT EXTERIOR WALLS TO FACE OF FRAMING AT EXT. FACE OF WALL AND TO FACE OF FINISH (5/8" GWB ASSUMED) AT INT. FACE OF WALL, U.N.O.
2. ALL DIMENSIONS AT INTERIOR ALLS TO FACE OF FINISH (5/8" GWB ASSUMED AT EA. SIDE OF WALL), U.N.O.
3. ALL DIMENSIONS AT KITCHEN TO EDGE OF COUNTERTOPS, U.N.O.
4. ALL NEW WOOD HEADERS SHALL BE (2) 2X8 U.N.O., INSULATE HEADERS TO R-10 MIN

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STATE OF WASHINGTON

MILLER BLOOD RESIDENCE

2420 63RD AVE SE
MERCER ISLAND, WA 98040

MAIN FLOOR AND BASMENT AS-BUILT PLANS

REVISIONS

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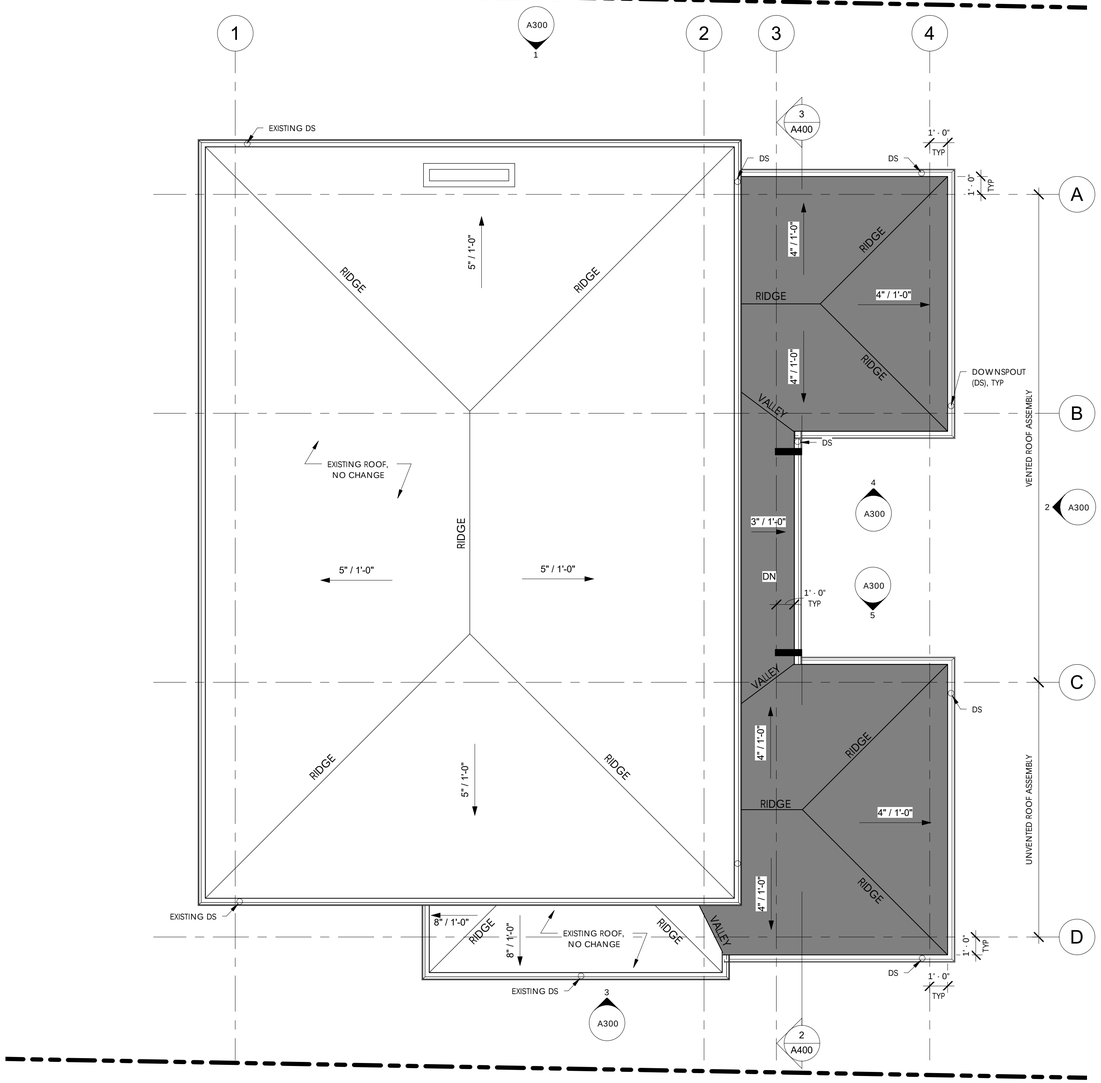
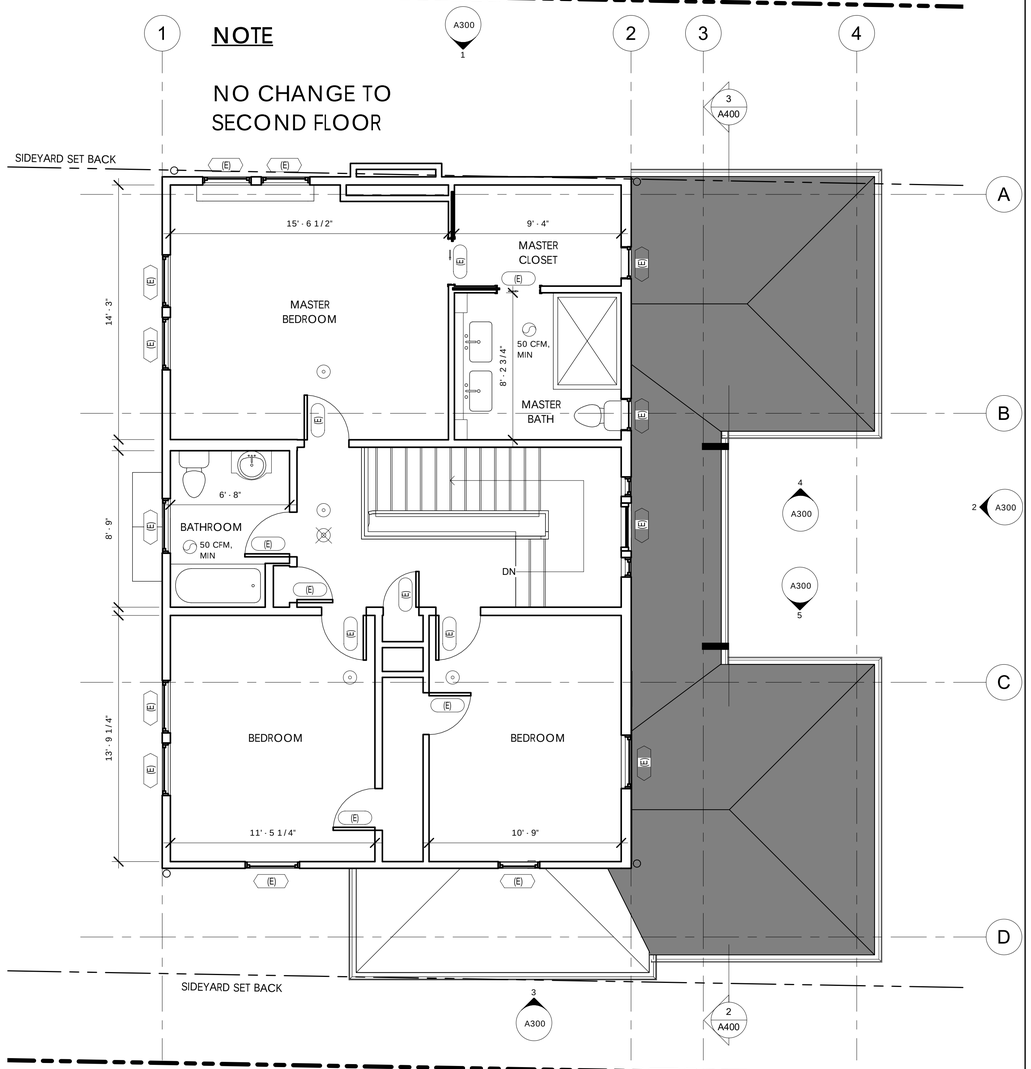
As indicated

RAIN CITY ARCHITECTURE



03_ROOF PLAN
1 / 4" = 1'-0"



02_UPPER LEVEL
1 / 4" = 1'-0"

ROOF VENTILATION CALCULATION

REQUIRED VENTILATION = 1 / 150 OF TOTAL AREA, PER R806.2

NEW VENTED ROOF AREA = 203.83 SF
REQUIRED VENTILATION = 1.36 SF OF VENTILATION

PROPOSED VENTILATION = VERSA VENT AT ROOF TO WALL CONDITION = 8.5 SQ IN PER LF X 15.5625 LF = .91862 SF
COR A VENT RAFT-A-VENT AT SOFFIT CONDITIONS = 10 SQ IN PER LF X 48.646 LF = 3.38 SF
VERSA VENT AT RIDGE CONDITIONS = 8.5 SQ IN PER LF X 26.39 LF = 1.56 SF
TOTAL PROPOSED VENTILATION = 5.86 SF

LEGEND

- SMOKE DETECTOR
- SMOKE / CARBON MONOXIDE DETECTOR
- FAN - 110 CFM U.N.O.
- NEW CONSTRUCTION
- EXISTING TO REMAIN
- TO BE REMOVED
- 1-HOUR RATED ASSEMBLY

NOTES

1. ALL DIMENSIONS AT EXTERIOR WALLS TO FACE OF FRAMING AT EXT. FACE OF WALL AND TO FACE OF FINISH (5 / 8" GWB ASSUMED) AT INT. FACE OF WALL, U.N.O.
2. ALL DIMENSIONS AT INTERIOR ALLS TO FACE OF FINISH (5 / 8" GWB ASSUMED AT EA. SIDE OF WALL), U.N.O.
3. ALL DIMENSIONS AT KITCHEN TO EDGE OF COUNTERTOPS, U.N.O.
4. ALL NEW WOOD HEADERS SHALL BE (2) 2X8 U.N.O., INSULATE HEADERS TO R-10 MIN

11228
REGISTERED ARCHITECT
STATE OF WASHINGTON

MILLER BLOOD RESIDENCE

2420 63RD AVE SE
MERCER ISLAND, WA 98040

UPPER FLOOR AND ROOF PLAN

REVISIONS

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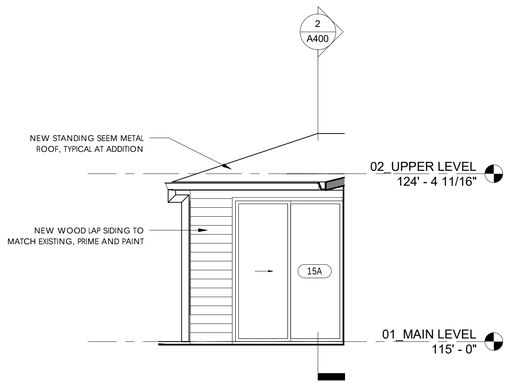
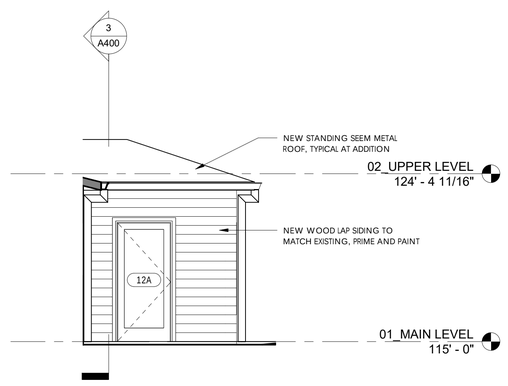
As indicated

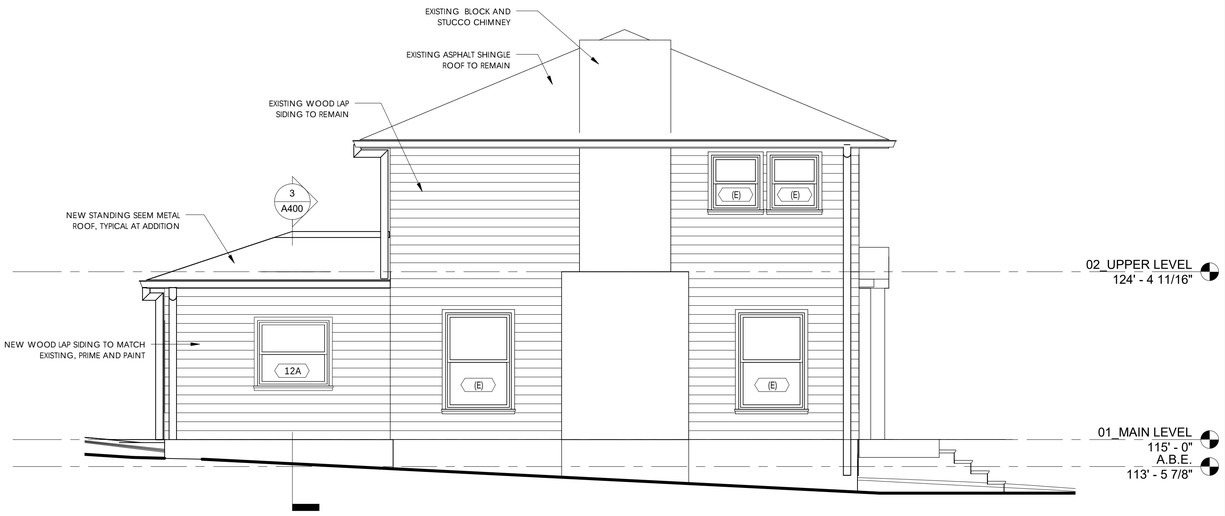
RAIN CITY ARCHITECTURE



5 SUNROOM - NORTH
1 / 4" = 1'-0"

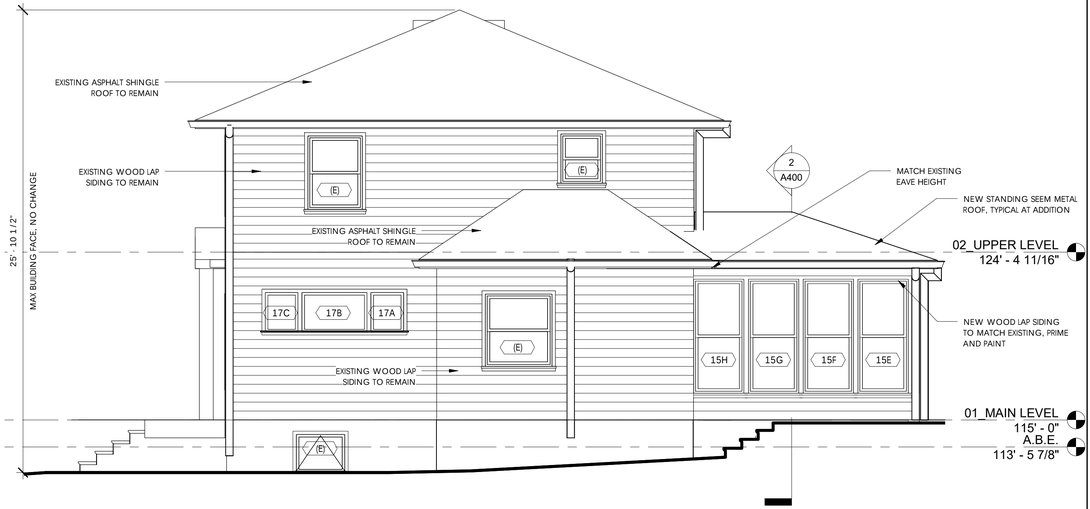


4 OFFICE - SOUTH
1 / 4" = 1'-0"



1 NORTH ELEVATION
1 / 4" = 1'-0"

2 EAST ELEVATION
1 / 4" = 1'-0"



3 SOUTH ELEVATION
1 / 4" = 1'-0"

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REGISTERED ARCHITECT
STATE OF WASHINGTON

MILLER BLOOD RESIDENCE

2420 63RD AVE SE
MERCER ISLAND, WA 98040

EXTERIOR ELEVATIONS

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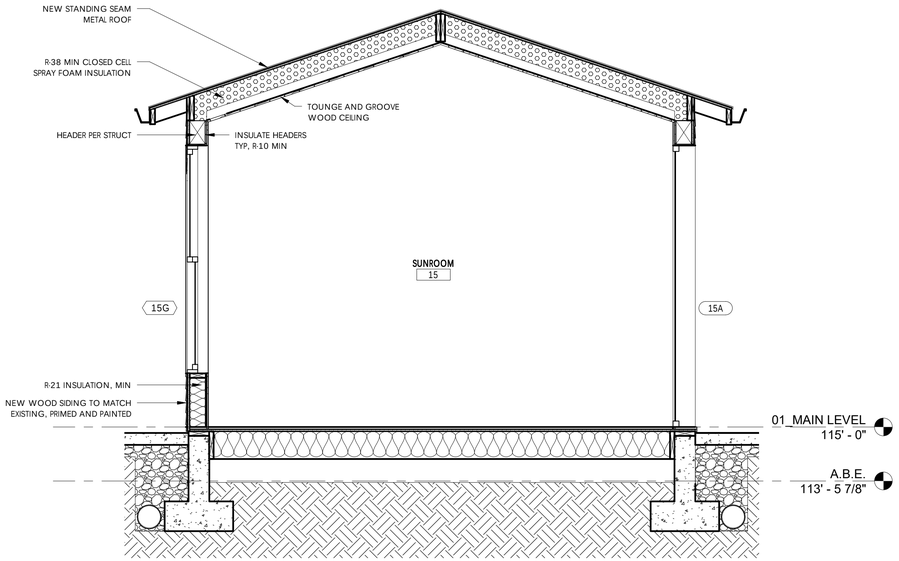
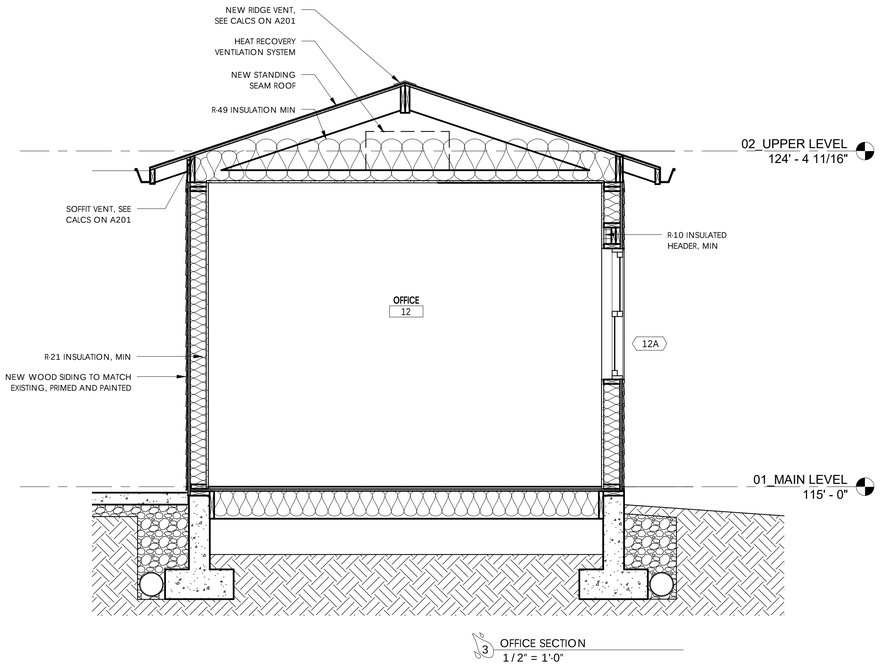
1/4" = 1'-0"

RAIN CITY ARCHITECTURE



2 SUNROOM SECTION
1 / 2" = 1'-0"



3 OFFICE SECTION
1 / 2" = 1'-0"

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REGISTERED ARCHITECT
STATE OF WASHINGTON

MILLER BLOOD RESIDENCE

2420 63RD AVE SE
MERCER ISLAND, WA 98040

SECTIONS

REVISIONS

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As indicated

RAIN CITY ARCHITECTURE

General Structural Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (2018 EDITION).

2. DESIGN LOADING CRITERIA:
RESIDENTIAL - ONE AND TWO-FAMILY DWELLINGS
FLOOR LIVE LOAD . . . . 40 PSF
ROOF
ROOF LIVE LOAD . . . . 25 PSF
ENVIRONMENTAL LOADS
RAIN . . . . 1.5 IN/HR
SNOW . . . . . . Ce=1.0, Is=1.0, Ct=1.1, Cs=1.0, Pg=25 PSF, Pf=20 PSF
WIND . . . . GCpi=0.18, 100 MPH, RISK CATEGORY II, EXPOSURE "B"
EARTHQUAKE . ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS, SITE CLASS=D,
Ss=1.40, Sds=1.12, S1=0.49, SD1=0.59, Cs=0.172
SDC D (DEFAULT), Ie=1.0, R=6.5

3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATION, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK.

4. PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL PLANS AND DETAILS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL WALL SECTIONS, BUILDING SECTION, AND PLANS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION".

7. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

8. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. ALL TYPICAL NOTES AND DETAILS SHOWN ON DRAWINGS SHALL APPLY, UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE PLANS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO TYPICAL DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED OR REQUEST ADDITIONAL INFORMATION. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.

9. ALL STRUCTURAL SYSTEMS, WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED, SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

GEOTECHNICAL

10. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH OR COMPACTED STRUCTURAL FILL AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND SOILS ENGINEER. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

PILE CAPACITY (COMPRESSION) 3T

SOILS REPORT REFERENCE:

FOUNDATION & CRITICAL AREA CONSIDERATIONS
JN 21452
2420 63RD AVE SE
MERCER ISLAND, WA

PREPARED BY
GEOTECH CONSULTANTS INC. ON NOV 11, 2021

11. PIN PILES SHOWN ON THE PLAN SHALL BE 2" DIAMETER EXTRA-STRONG, GRADE A, GALVANIZED, UNLESS OTHERWISE NOTED. THE MAXIMUM CAPACITY OF 2" PILES SHALL BE 3 TONS. ALL PILES SHALL BE DRIVEN TO REFUSAL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. AS A MINIMUM, PILE REFUSAL SHALL BE DEFINED AS 1 INCH OF PENETRATION IN 60 SECONDS DURING CONTINUOUS DRIVING OF A 90 LB JACK HAMMER UNDER THE FULL WEIGHT AND EFFORT OF THE OPERATOR. PILES USED IN COMMON TO RESIST LATERAL EARTH PRESSURES SHALL HAVE THE ADDITIONAL REQUIREMENT OF BEING EMBEDDED A MINIMUM OF 10 FEET BELOW RETAINED GRADE. THE MAXIMUM PILE ECCENTRICITY SHALL BE 2 INCHES. GEOTECHNICAL SPECIAL INSPECTION SHALL BE SUBJECT TO THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND THE BUILDING DEPARTMENT. SEE PLANS FOR OTHER SIZES AND CRITERIA.

RENOVATION

12. DEMOLITION: CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF.

13. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER IF EXISTING CONDITIONS DETERMINED DURING WORK VARY FROM THE EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS.

14. CONTRACTOR SHALL CHECK FOR DRY ROT AT ALL AREAS OF NEW WORK. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

CONCRETE

15. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 3,000 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF SECTION 1904 OF THE IBC. DESIGN STRENGTH IS f'c = 2,500 PSI.

16. ALL CONCRETE WITH SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14, TABLE 19.3.2.1 MODERATE EXPOSURE, F1.

17. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, FY = 40,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. SPIRAL REINFORCEMENT SHALL BE DEFORMED WIRE CONFORMING TO ASTM A615, GRADE 60, FY = 60,000 PSI.

18. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315R-18 AND 318-14. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-14, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

19. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH . . . . 3"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#6 BARS OR LARGER) . . . . 2"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER). . 1-1/2"
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS . . . . 1-1/2"
SLABS AND WALLS (INT. FACE). . . GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"

20. CONCRETE WALL REINFORCING--PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

6" WALLS	#4 @ 16 HORIZ.	#4 @ 18 VERTICAL	1 CURTAIN
8" WALLS	#4 @ 12 HORIZ.	#4 @ 18 VERTICAL	1 CURTAIN
10" WALLS	#4 @ 18 HORIZ.	#4 @ 18 VERTICAL	2 CURTAINS
12" WALLS	#4 @ 16 HORIZ.	#4 @ 18 VERTICAL	2 CURTAINS

21. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRECAST.

22. NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3000 PSI MINIMUM).

ANCHORAGE

23. EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2" WEDGE ANCHORS AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY AND INSTALLED IN STRICT CONFORMANCE TO ICC-ES REPORT NUMBER ESR-3037, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. PERIODIC SPECIAL INSPECTION IS REQUIRED TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, ANCHOR LOCATION, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS.

24. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "AT-XP" AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH IAMPO REPORT NO. ER-0281. MINIMUM BASE MATERIAL TEMPERATURE IS 14 DEGREES, F. RODS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED. PERIODIC SPECIAL INSPECTION OF INSTALLATION IS REQUIRED TO VERIFY ANCHOR OR EMBEDED BAR TYPE AND DIMENSIONS, LOCATION, ADHESIVE IDENTIFICATION AND EXPIRATION, HOLE DIMENSIONS, HOLE CLEANING PROCEDURE, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR HORIZONTAL AND OVERHEAD INSTALLATIONS.

25. CONCRETE SCREW ANCHORS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "TITEN HD" HEAVY DUTY SCREW ANCHOR AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2713 (CONCRETE), NO. ESR-1056 (CMU), INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. SCREW ANCHORS INTO CONCRETE MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION IS REQUIRED.

STEEL

26. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON:

A. AISC 360-16 AND SECTION 2205.2 OF THE INTERNATIONAL BUILDING CODE.
B. JUNE 15, 2016 AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AMENDED AS FOLLOWS: AS NOTED IN THE CONTRACT DOCUMENTS, BY THE DELETION OF PARAGRAPH 4.4.1, AND REVISE REFERENCE FROM "STRUCTURAL DESIGN DRAWINGS" TO "CONTRACT DOCUMENTS" IN PARAGRAPH 3.1.
C. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

27. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, FY = 50 KSI. OTHER ROLLED SHAPES INCLUDING PLATES, SHALL CONFORM TO ASTM A36, FY = 36 KSI. STEEL PIPE SHALL CONFORM TO ASTM A-53, TYPE E OR S, GRADE B, Fy = 35 KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE C, FY = 46 KSI (ROUND), FY = 50 KSI (SQUARE AND RECTANGULAR). CONNECTION BOLTS SHALL CONFORM TO ASTM A307.

28. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

29. ALL STEEL EXPOSED TO THE WEATHER OR IN CONTACT WITH GROUND SHALL BE CORROSION PROTECTED BY GALVANIZATION OR PROVIDED WITH EXTERIOR PAINT SYSTEM, UNLESS OTHERWISE NOTED.

30. SHOP PRIME ALL STEEL EXCEPT:

A. STEEL ENCASED IN CONCRETE.
B. SURFACES TO BE WELDED.
C. CONTACT SURFACES AT HIGH-STRENGTH BOLTS.
D. MEMBERS TO BE GALVANIZED.
E. MEMBERS WHICH WILL BE CONCEALED BY INTERIOR FINISHES.
F. SURFACES TO RECEIVE SPRAYED FIREPROOFING.
G. SURFACES TO RECEIVE OTHER SPECIAL SHOP PRIMERS.

31. ALL A-325N CONNECTION BOLTS NEED ONLY BE TIGHTENED TO A SNUG TIGHT CONDITION, DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH.

32. ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE MADE WITH A FILLER MATERIAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT -20 DEGREES F AND 40 FT - LBS AT 70 DEGREES F, AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

WOOD

33. FRAMING LUMBER SHALL BE S-DRY, KD, OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD No. 17, GRADING RULES FOR WEST COAST LUMBER, 2018, OR WWPA STANDARD, WESTERN LUMBER GRADING RULES 2017. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS AND BEAMS	(2X & 3X MEMBERS)	HEM-FIR NO. 2 MINIMUM BASE VALUE, Fb = 850 PSI
	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1000 PSI
BEAMS	(INCL. 6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1350 PSI
POSTS	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 2 MINIMUM BASE VALUE, Fc = 1350 PSI
	(6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fc = 1000 PSI
STUDS, PLATES & MISC. FRAMING:		DOUGLAS FIR-LARCH NO. 2 OR HEM-FIR NO. 2

34. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv =265 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2400 PSI, Fv = 265 PSI.

35. MANUFACTURED LUMBER, PSL, LVL, AND LSL SHOWN ON PLAN ARE BASED PRODUCTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION IN ACCORDANCE WITH ICC-ES REPORT ESR-1387. MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

PSL (2.0E WS)	Fb = 2900 PSI,	E = 2000 KSI,	Fv = 290 PSI
LVL (2.0E-2600FB WS)	Fb = 2600 PSI,	E = 2000 KSI,	Fv = 285 PSI
LSL (1.55E)	Fb = 2325 PSI,	E = 1550 KSI,	Fv = 310 PSI

ALTERNATE MANUFACTURED LUMBER MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE MANUFACTURER'S PRODUCTS SHALL BE COMPATIBLE WITH THE JOIST HANGERS AND OTHER HARDWARE SPECIFIED ON PLANS, OR ALTERNATE HANGERS AND HARDWARE SHALL SUBMITTED FOR REVIEW AND APPROVAL. SUBSTITUTED ITEMS SHALL HAVE ICC-ES REPORT APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES.

MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEEDS THIS VALUE.

36. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1 OR PS 2. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

ROOF SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 32/16.

FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24.

WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 24/0.

PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING.

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

37. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

38. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO AWPA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWPA UC4A. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWPA UC4B.

39. FASTENERS AND TIMBER CONNECTORS USED WITH TREATED WOOD SHALL HAVE CORROSION RESISTANCE AS INDICATED IN THE FOLLOWING TABLE, UNLESS OTHERWISE NOTED.

WOOD TREATMENT	CONDITION	PROTECTION
HAS NO AMMONIA CARRIER	INTERIOR DRY	G90 GALVANIZED
CONTAINS AMMONIA CARRIER	INTERIOR DRY	G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653
CONTAINS AMMONIA CARRIER	INTERIOR WET	TYPE 304 OR 316 STAINLESS
CONTAINS AMMONIA CARRIER	EXTERIOR	TYPE 304 OR 316 STAINLESS
AZCA	ANY	TYPE 304 OR 316 STAINLESS

INTERIOR DRY CONDITIONS SHALL HAVE WOOD MOISTURE CONTENT LESS THAN 19%. WOOD MOISTURE CONTENT IN OTHER CONDITIONS (INTERIOR WET, EXTERIOR WET, AND EXTERIOR DRY) IS EXPECTED TO EXCEED 19%. CONNECTORS AND THEIR FASTENERS SHALL BE THE SAME MATERIAL. COMPLY WITH THE TREATMENT MANUFACTURERS RECOMMENDATIONS FOR PROTECTION OF METAL.

40. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER FOR MAXIMUM LOAD CARRYING CAPACITY. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ALL 2X JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITS" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIT" SERIES JOIST HANGERS.

WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM)AS MEMBERS CONNECTED.

41. WOOD FASTENERS

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETER
6d	2"	0.113"
8d	2-1/2"	0.131"
10d	3"	0.148"
12d	3-1/4"	0.148"
16d BOX	3-1/2"	0.135"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DEGREES WITH THE MEMBER AND STARTED 1/3 THE LENGTH OF THE NAIL FROM THE MEMBER END.

B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS.

42. NOTCHES AND HOLES IN WOOD FRAMING:

A. NOTCHES ON THE ENDS OF SOLID SAWN JOISTS AND RAFTERS SHALL NOT EXCEED ONE-FOURTH THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF SOLID SAWN JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. HOLES BORED IN SOLID SAWN JOISTS AND RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE JOIST.

B. IN EXTERIOR WALLS AND BEARING PARTITIONS, ANY WOOD STUD IS PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.

C. NOTCHES AND HOLES IN MANUFACTURED LUMBER AND PREFABRICATED PLYWOOD WEB JOISTS SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE NOTED.

43. WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:

A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE, THE AITC "TIMBER CONSTRUCTION MANUAL" AND THE AWC "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

B. WALL FRAMING: REFER ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" O.C. UNO. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS, AND AT BEAM OR HEADER BEARING LOCATIONS. TWO 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d @ 12" O.C.. LAP TOP PLATES AT JOINTS A MINIMUM 4'-0" AND NAIL WITH TWELVE 16d NAILS @ 4" O.C. EACH SIDE JOINT.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16d NAILS @ 12" ON-CENTER, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS @ 4'-0" ON-CENTER EMBEDDED 7" MINIMUM, UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @12" ON-CENTER. UNLESS OTHERWISE NOTED, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH NO. 6 X 1-1/4" TYPE S OR W SCREWS @ 8" ON-CENTER. UNLESS INDICATED OTHERWISE, 1/2" (NOMINAL)APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS @ 6" ON-CENTER AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES)AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS @ 12" ON-CENTER ALLOW 1/8" SPACING AT ALL PANEL EDGES AND PANEL ENDS.

C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING BETWEEN RAFTERS AND JOISTS AT ALL BEARING POINTS WITH A MINIMUM OF (3) 16d TOE NAILS EACH END. TOE-NAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI JOIST BEAMS TOGETHER WITH TWO ROWS 16d @ 12" ON-CENTER.

UNLESS OTHERWISE NOTED ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AT 6" ON-CENTER WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" ON-CENTER TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16d @ 12" ON-CENTER, MINIMUM TWO NAILS PER BLOCK, UNLESS OTHERWISE NOTED.

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CHECKED: BDM
APPROVED: BDM

REVISIONS:

DPD:

PROJECT TITLE:
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Mercer Island, WA 98040

ARCHITECT:
Rain City Architecture
clint@raincityarchitecture.com
PH 206.636.1163

ISSUE:
PERMIT

SHEET TITLE:
General Structural Notes

SCALE: -
DATE: November 17, 2021
PROJECT NO: 11947-2021-02
SHEET NO:
S1.1

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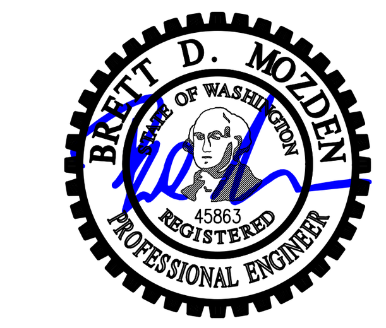
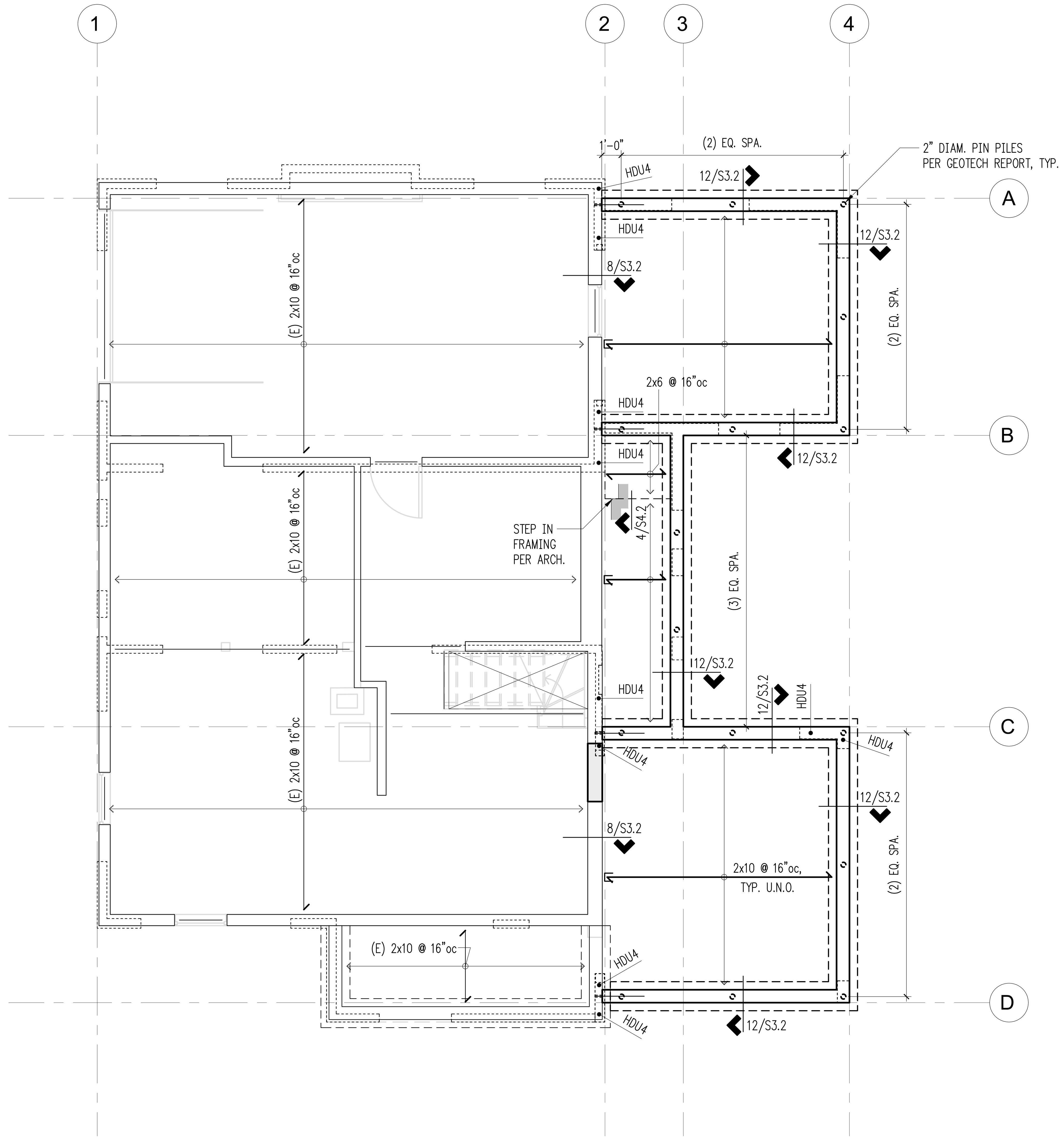




Main Floor Framing Plan

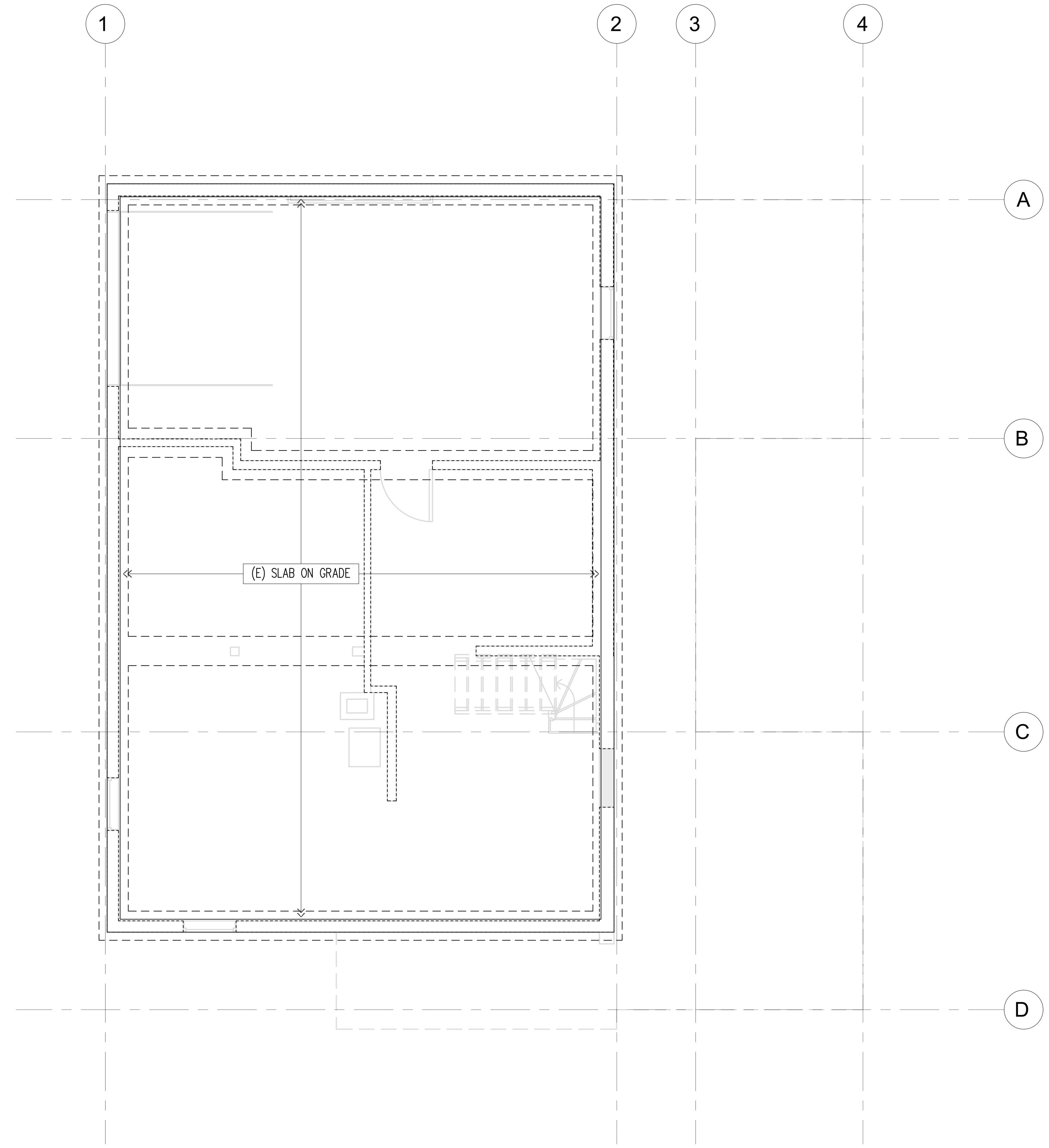
Scale: 1/4" = 1'-0"

Plan Notes

1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
2. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
3. EXISTING FRAMING ON PLANS IS ASSUMED. CONTRACTOR TO VERIFY DIRECTIONS AND EXTENTS. NOTIFY ARCHITECT AND ENGINEER IF DIFFERENT.
4. THE BOTTOM OF ALL NEW EXTERIOR FOOTINGS SHALL BE 18" MINIMUM BELOW EXTERIOR GRADE.
5. ALL NEW POSTS ABOVE SHALL BEAR FULLY ON BEAMS OR POSTS BELOW AND SHALL HAVE FULL CONTINUOUS BEARING THROUGH FLOORS TO FOUNDATION.
6. TYPICAL NEW FLOOR FRAMING CONSISTS OF FLOORING PER ARCHITECT OVER 3/4" T&G APA RATED PLYWOOD OVER JOISTS PER PLAN, FACE GRAIN PERPENDICULAR TO JOISTS, U.O.N.
7. NAIL NEW FLOOR SHEATHING W/ 8d @ 6"oc AT FRAMED PANEL EDGES AND OVER SHEARWALLS, AND @ 12"oc IN FIELD.
8. PROVIDE BLOCKING/BRIDGING @ 8'-0"oc IN NEW FLOOR FRAMING
9. PROVIDE (2) BEARING STUDS AT EACH END OF ALL NEW HEADERS AND BEAMS OVER 3'-0" IN LENGTH, U.O.N.
10. PROVIDE AC, ACE, PC, EPC, LPC, OR LCE COLUMN CAP AND BASE AT ALL NEW BEAM TO COLUMN CONNECTIONS U.O.N.

Legend

- NEW STRUCTURAL WALL OR POST BELOW
- NEW STRUCTURAL WALL OR POST ABOVE
- EXISTING STRUCTURAL WALL OR POST ABOVE
- NON-STRUCTURAL WALL BELOW
- EXISTING WALL OR POST BELOW
- EXISTING STEM WALL & FOOTING
- NEW STEM WALL & FOOTING
- Wx — SHEARWALL PER 12/S4.1
- SPAN DIRECTION
- EXTENT OF JOISTS
- NEW HEADER/BEAM PER PLAN
- EXISTING HEADER/BEAM
- XX — HOLDOWN PER 12/S3.1
- 2"ø PIN PILES PER GEOTECH REPORT
- CHANGE IN ELEVATION



Foundation Plan

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

Plan Notes

1. NO WORK THIS LEVEL.
2. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
3. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
4. EXISTING FRAMING ON PLANS IS ASSUMED. CONTRACTOR TO VERIFY DIRECTIONS AND EXTENTS. NOTIFY ARCHITECT AND ENGINEER IF DIFFERENT.

Legend

- NEW STRUCTURAL WALL OR POST ABOVE
- EXISTING STRUCTURAL WALL OR POST ABOVE
- EXISTING STEM WALL & FOOTING

DESIGN: DMR
DRAWN: NHD / ABH
CHECKED: BDM
APPROVED: BDM

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DPD:

PROJECT TITLE:
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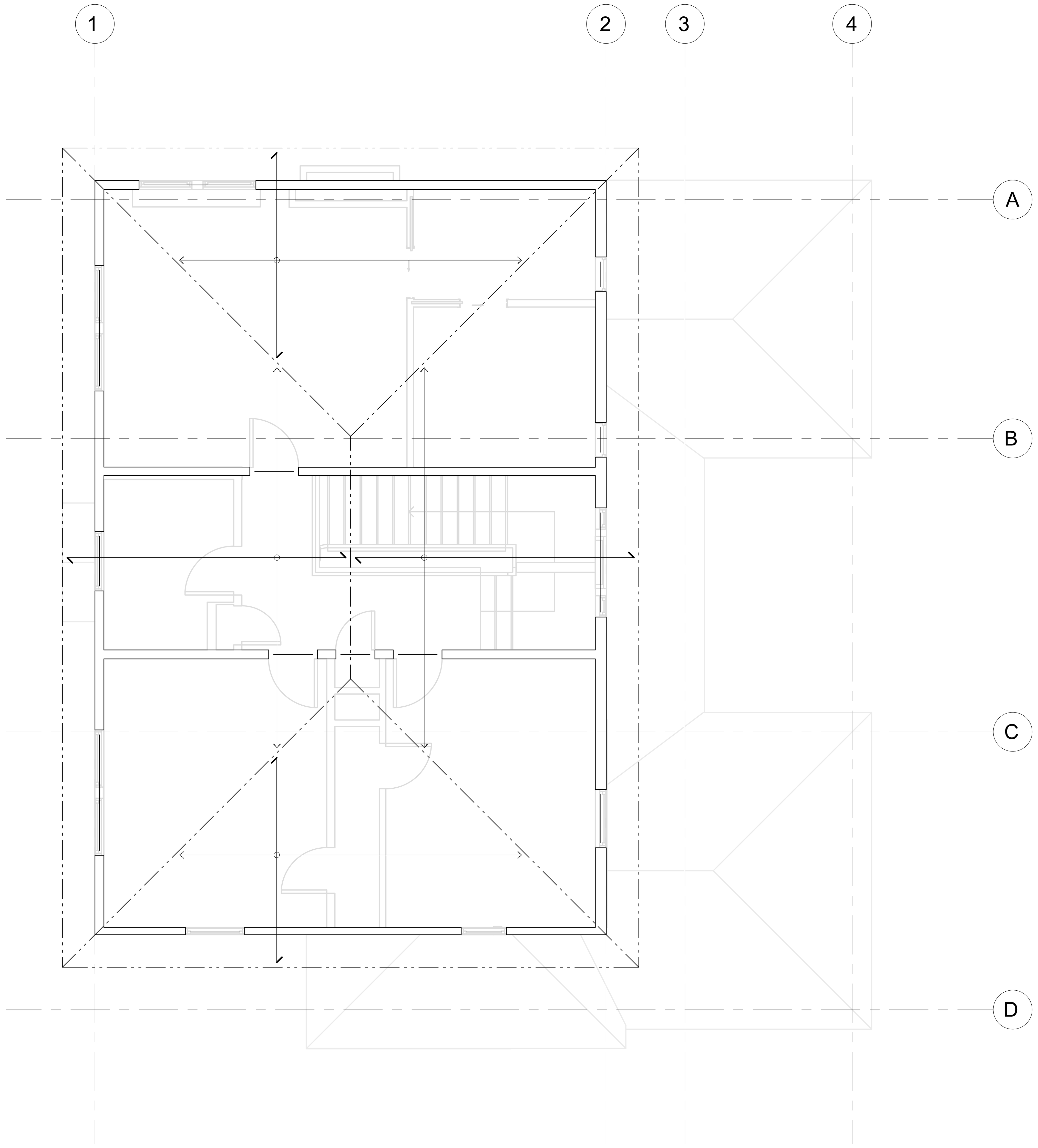
ISSUE:
PERMIT

SHEET TITLE:
Main Floor Framing and Foundation Plans

SCALE: 1/4" = 1'-0" U.N.O.
DATE: November 17, 2021
PROJECT NO: 11947-2021-02
SHEET NO:

S2.1



Roof Framing Plan

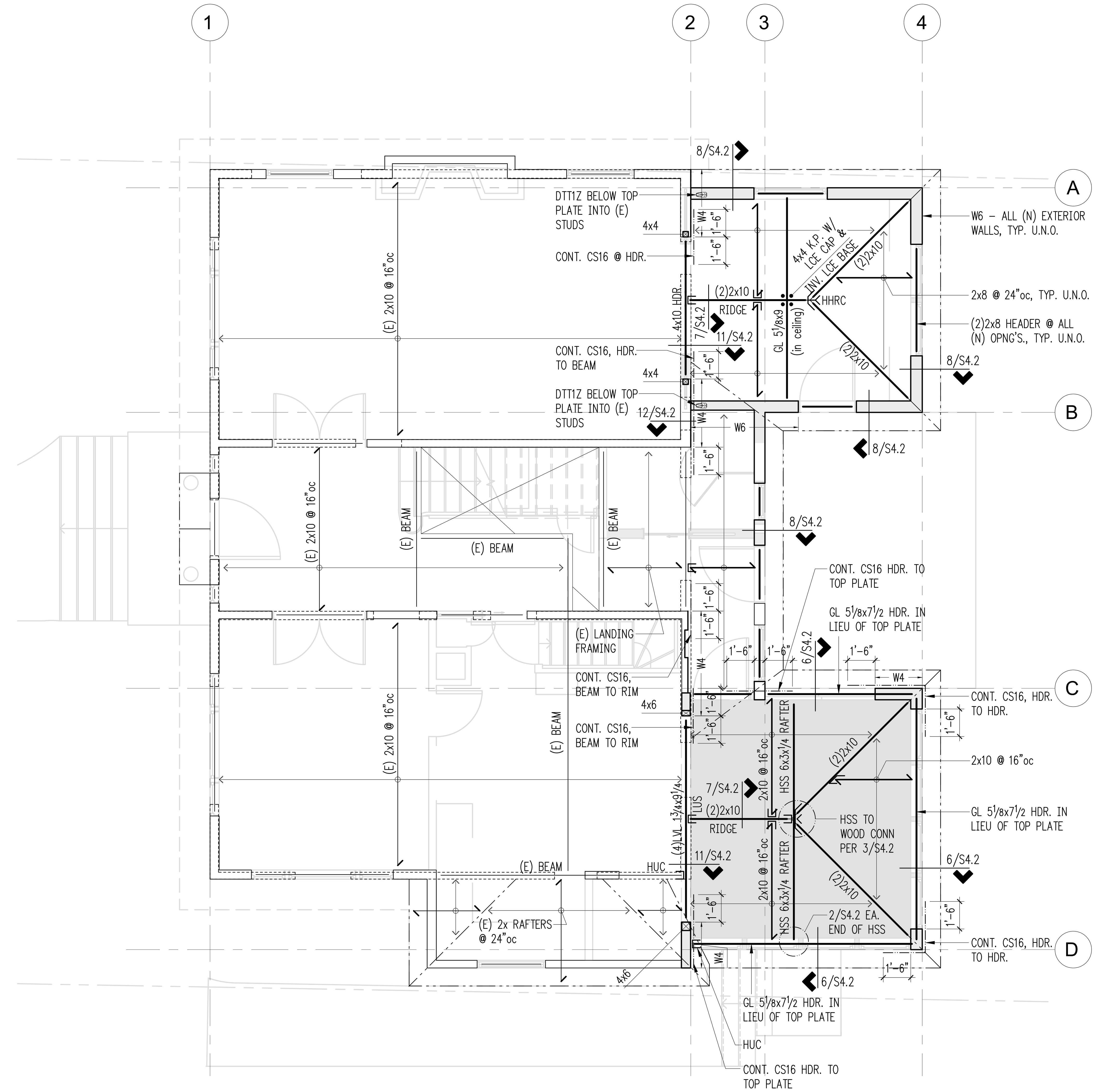
Scale: 1/4" = 1'-0"

Plan Notes

1. NO WORK THIS LEVEL.
2. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
3. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
4. EXISTING FRAMING ON PLANS IS ASSUMED. CONTRACTOR TO VERIFY DIRECTIONS AND EXTENTS. NOTIFY ARCHITECT AND ENGINEER IF DIFFERENT.

Legend

- NON-STRUCTURAL WALL BELOW
- EXISTING WALL OR POST BELOW
- SPAN DIRECTION
- EXTENT OF JOISTS
- EXISTING HEADER/BEAM



Upper Floor/Low Roof Framing Plan

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

Plan Notes

1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
2. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
3. EXISTING FRAMING ON PLANS IS ASSUMED. CONTRACTOR TO VERIFY DIRECTIONS AND EXTENTS. NOTIFY ARCHITECT AND ENGINEER IF DIFFERENT.
4. "W_" INDICATES NEW PLYWOOD SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE FOR WALL ATTACHMENTS. ALL NEW EXTERIOR WOOD FRAMED WALLS ARE W6, U.O.N.
5. ALL NEW WOOD HEADERS SHALL BE (2)2x8, U.O.N
6. PROVIDE (2) BEARING STUDS AT EACH END OF ALL NEW HEADERS AND BEAMS OVER 3'-0" IN LENGTH, U.O.N.
7. NEW MANUFACTURED LUMBER PRODUCTS (LSL, LVL, PSL, GL) SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%.
8. PROVIDE AC, ACE, PC, EPC, LPC, OR LCE COLUMN CAP AND BASE AT ALL NEW BEAM TO COLUMN CONNECTIONS U.O.N.
9. TYPICAL NEW ROOF FRAMING CONSISTS OF ROOFING PER ARCHITECTURAL DRAWINGS OVER 1/2" CDX OR 7/16" O.S.B. APA RATED SHEATHING (EXPOSURE 1), FACE GRAIN PERPENDICULAR TO FRAMING PER PLAN, U.O.N.
10. NAIL NEW ROOF SHEATHING WITH 8d @ 6"oc AT ALL FRAMED PANEL EDGES AND OVER SHEARWALLS, AND @ 12"oc FIELD.
11. PROVIDE H1 AT ENDS OF ALL NEW ROOF FRAMING, U.O.N.

Legend

- NEW STRUCTURAL WALL OR POST BELOW
- EXISTING STRUCTURAL WALL OR POST ABOVE
- NON-STRUCTURAL WALL BELOW
- EXISTING WALL OR POST BELOW
- Wx — SHEARWALL PER 12/S4.1
- SPAN DIRECTION
- EXTENT OF JOISTS
- NEW HEADER/BEAM PER PLAN
- EXISTING HEADER/BEAM
- BLOCKED ROOF DIAPHRAGM: 2x4 FLAT BLKG. AT ALL PLYWOOD PANEL EDGES. NAIL ALL PLYWOOD PANEL EDGES W/ 8d @ 4"oc & @ 12"oc FIELD

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Roof and Upper Floor Framing Plans

SCALE: 1/4" = 1'-0" U.N.O.
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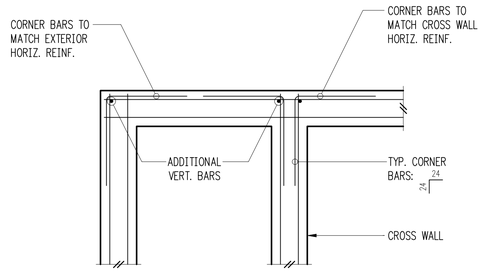
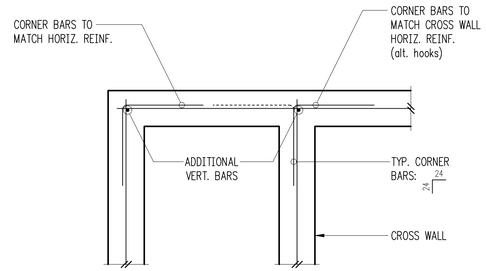
SHEET NO:
S2.2

1

2

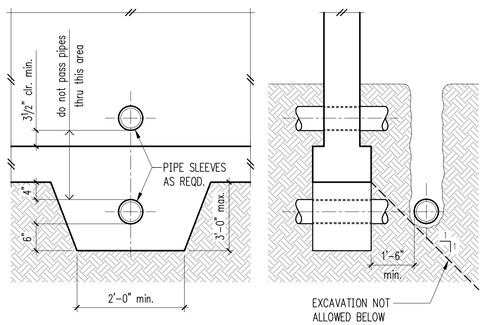


Double Curtain

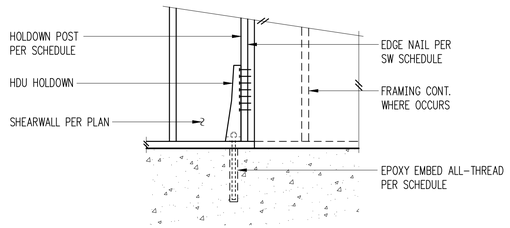


Single Curtain

Typical Corner Bars at Concrete Walls and Footings 4



Pipe and Trench Locations 7



Holdown Schedule

Plan Mark	Screws	Anchor Bolt	A.B. Embed	Holdown Post ① if 2x4	Holdown Post ① if 2x6
HDU2-SDS2.5	(6)SDS ¼"x2½"	⅝"ø	12"	(2) 2x4	(2) 2x6
HDU4-SDS2.5	(10)SDS ¼"x2½"	⅝"ø	16"	4x4	4x6
HDU5-SDS2.5	(14)SDS ¼"x2½"	⅝"ø	20"	4x6	4x6
HDU8-SDS2.5	(20)SDS ¼"x2½"	⅞"ø	24"	4x8	6x6
HDU11-SDS2.5	(30)SDS ¼"x2½"	1"ø	24"	4x10	6x6
HDU14-SDS2.5	(36)SDS ¼"x2½"	1"ø	24"	4x12	6x8

① MINIMUM SIZE OF POST AT END OF WALL UNLESS OTHERWISE NOTED ON FRAMING PLANS.

Typical HDU Holdown 8

5

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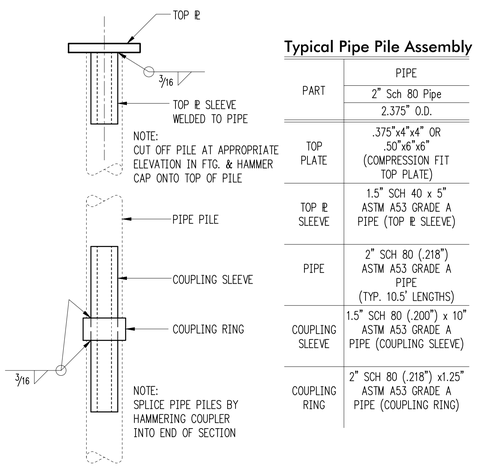
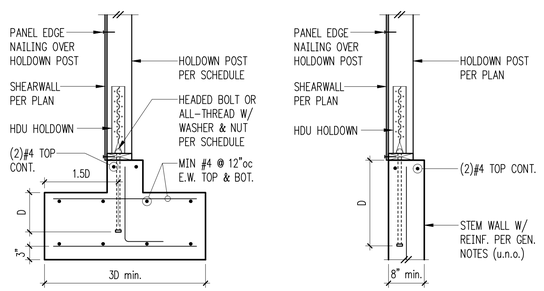


Typical Pipe Pile Assembly

PART	PIPE
	2" Sch 80 Pipe
	2.375" O.D.
TOP PLATE	.375"x4"x4" OR .50"x6"x6" (COMPRESSION FIT TOP PLATE)
TOP ℄ SLEEVE	1.5" SCH 40 x 5" ASTM A53 GRADE A PIPE (TOP ℄ SLEEVE)
PIPE	2" SCH 80 (.218") ASTM A53 GRADE A PIPE (TYP. 10.5' LENGTHS)
COUPLING SLEEVE	1.5" SCH 80 (.200") x 10" ASTM A53 GRADE A PIPE (COUPLING SLEEVE)
COUPLING RING	2" SCH 80 (.218") x1.25" ASTM A53 GRADE A PIPE (COUPLING RING)

3" = 1'-0"

Typical Pipe Pile Assembly Schedule 10



HDU Into Footing Option

HDU Into Stem Wall Option

Holdown Schedule

Plan Mark	Screws	Anchor Bolt	Min. A.B. Embed (D) Stem Wall	Min. A.B. Embed (D) Footing	Holdown Post ① if 2x4	Holdown Post ① if 2x6
HDU2-SDS2.5	(6)SDS ¼"x2½"	⅝"ø	12"	4"	(2) 2x4	(2) 2x6
HDU4-SDS2.5	(10)SDS ¼"x2½"	⅝"ø	18"	6"	4x4	4x6
HDU5-SDS2.5	(14)SDS ¼"x2½"	⅝"ø	SB⅝x24	7"	4x4	4x6
HDU8-SDS2.5	(20)SDS ¼"x2½"	⅞"ø	SSTB28	8"	4x6	6x6
HDU11-SDS2.5	(30)SDS ¼"x2½"	1"ø	SB1x30	10"	4x8	6x6
HDU14-SDS2.5	(36)SDS ¼"x2½"	1"ø	N/A	12"	4x8	6x6

① MINIMUM SIZE OF POST AT END OF WALL UNLESS OTHERWISE NOTED ON FRAMING PLANS.

Typical HDU Holdown 12

9

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SHEET TITLE:

Typical Concrete Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: November 17, 2021
PROJECT NO: 11947-2021-02
SHEET NO:

S3.1

1

2

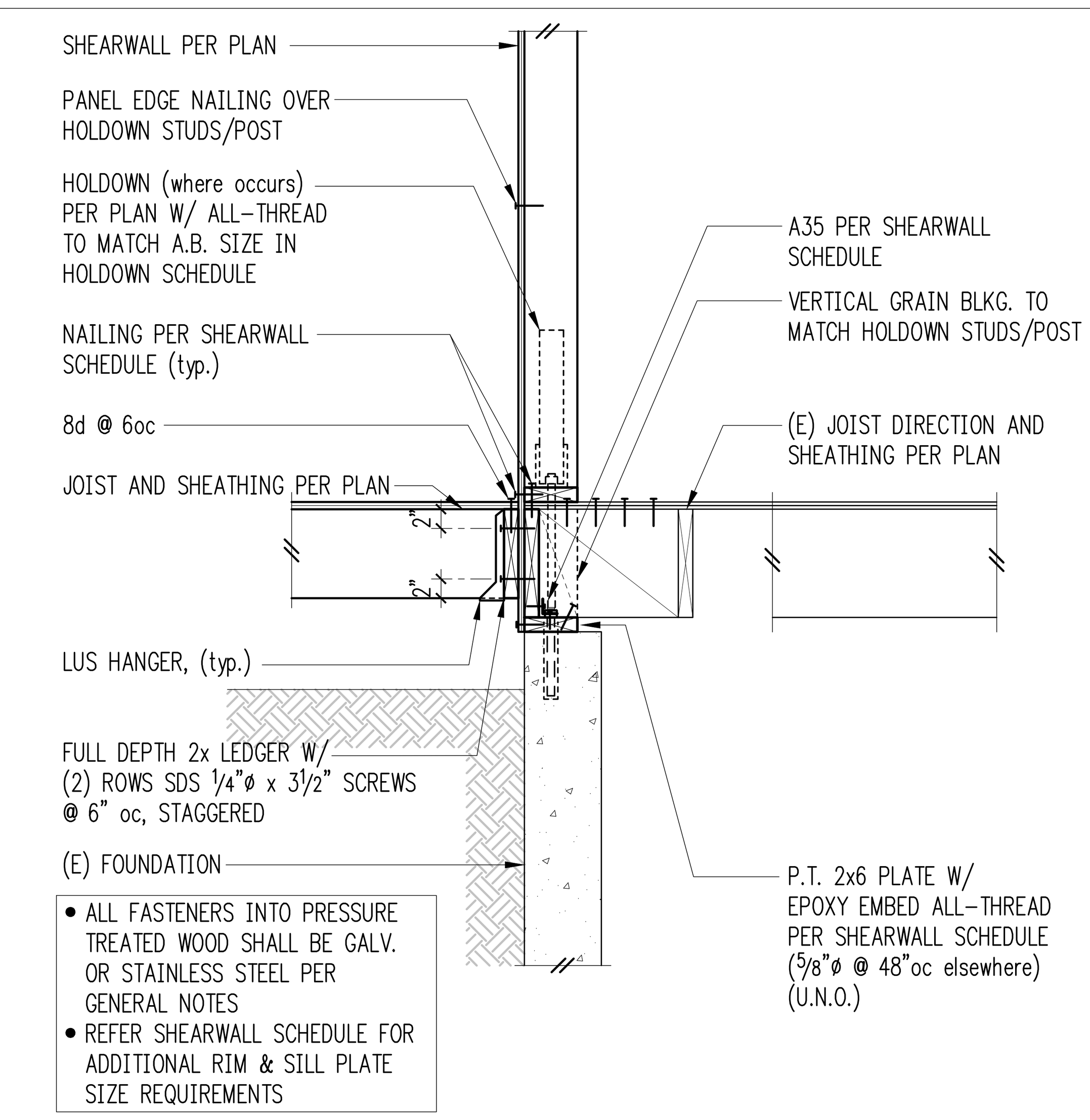
3

4

5

6

7



Exterior Framing at Basement 8

9

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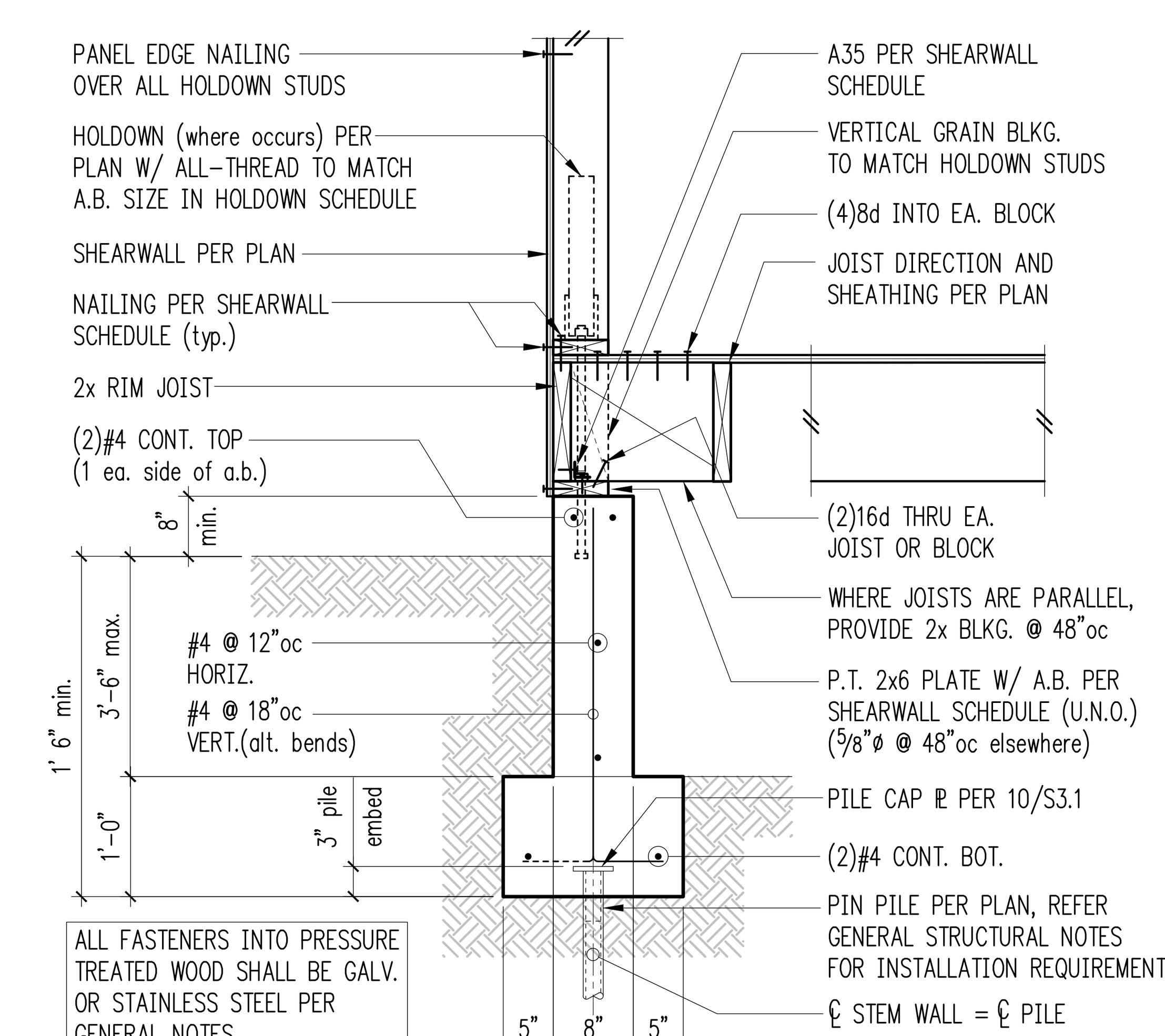
11



Exterior Framing at Crawl Space 12

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SHEET TITLE:
Typical Concrete Details

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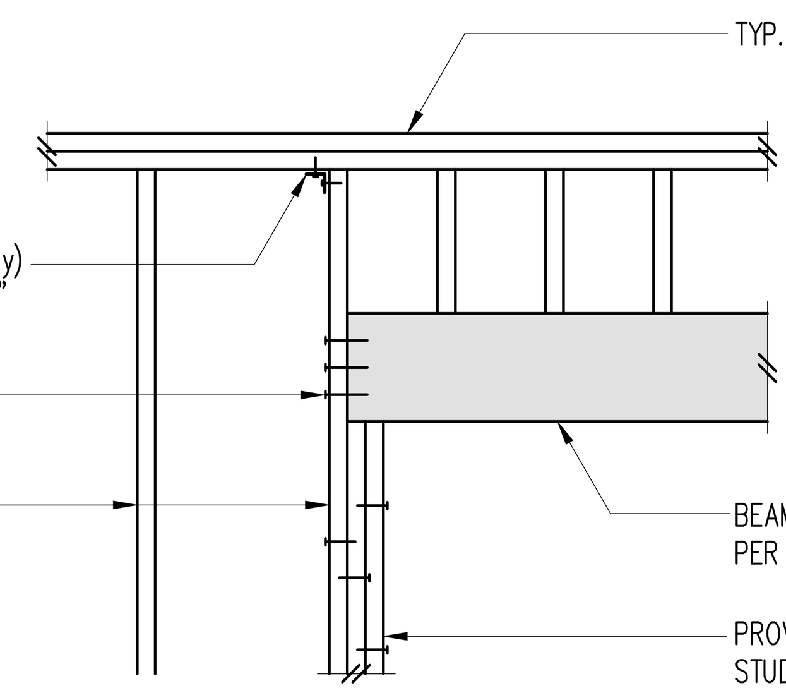
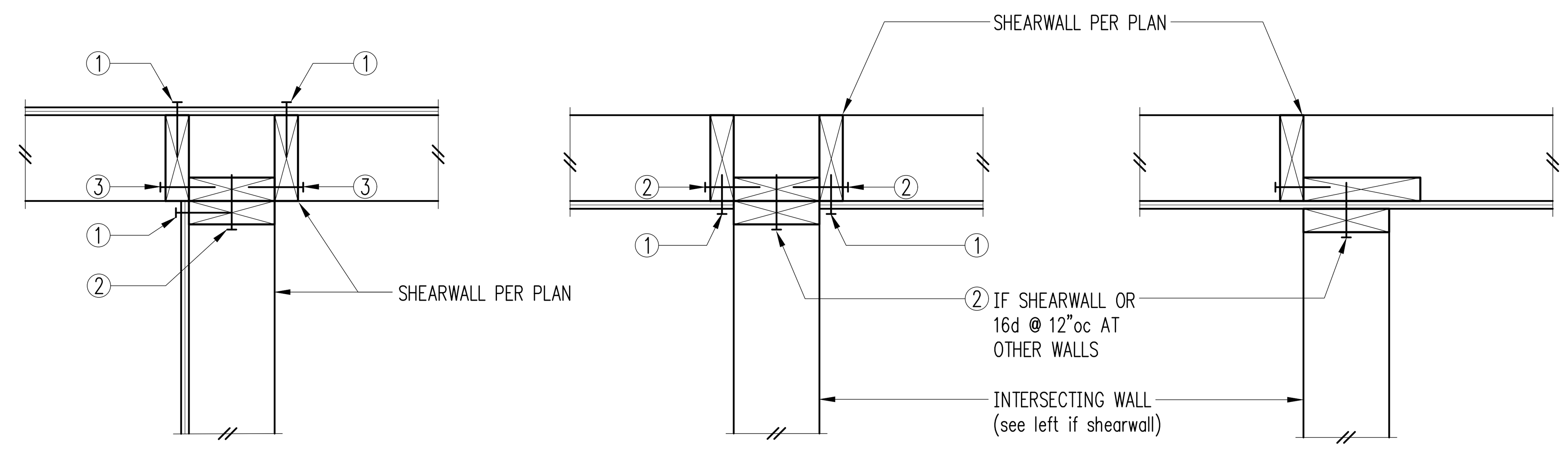
DATE: November 17, 2021
PROJECT NO: 11947-2021-02
SHEET NO:
S3.2

1



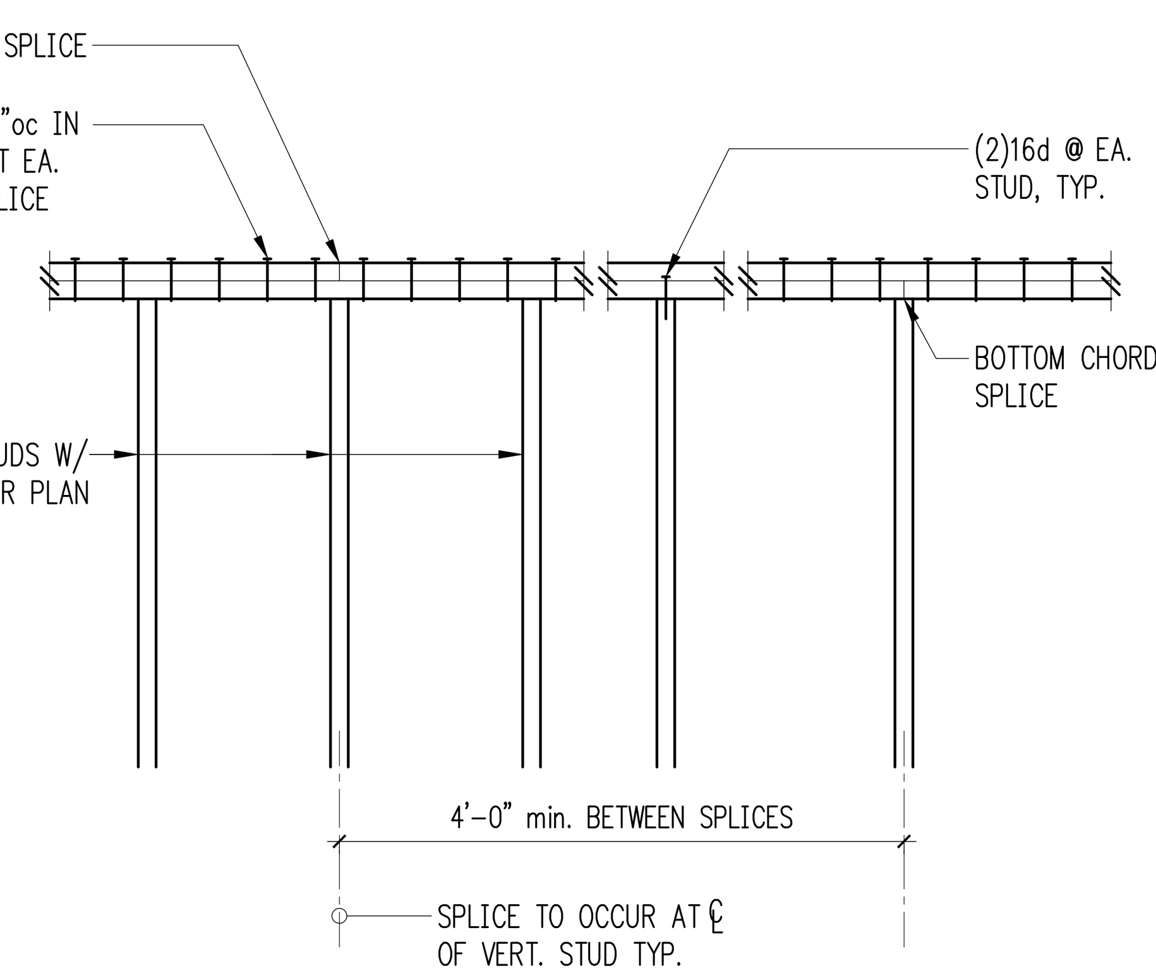
Typical Header Support w/2 Bearing Studs 2



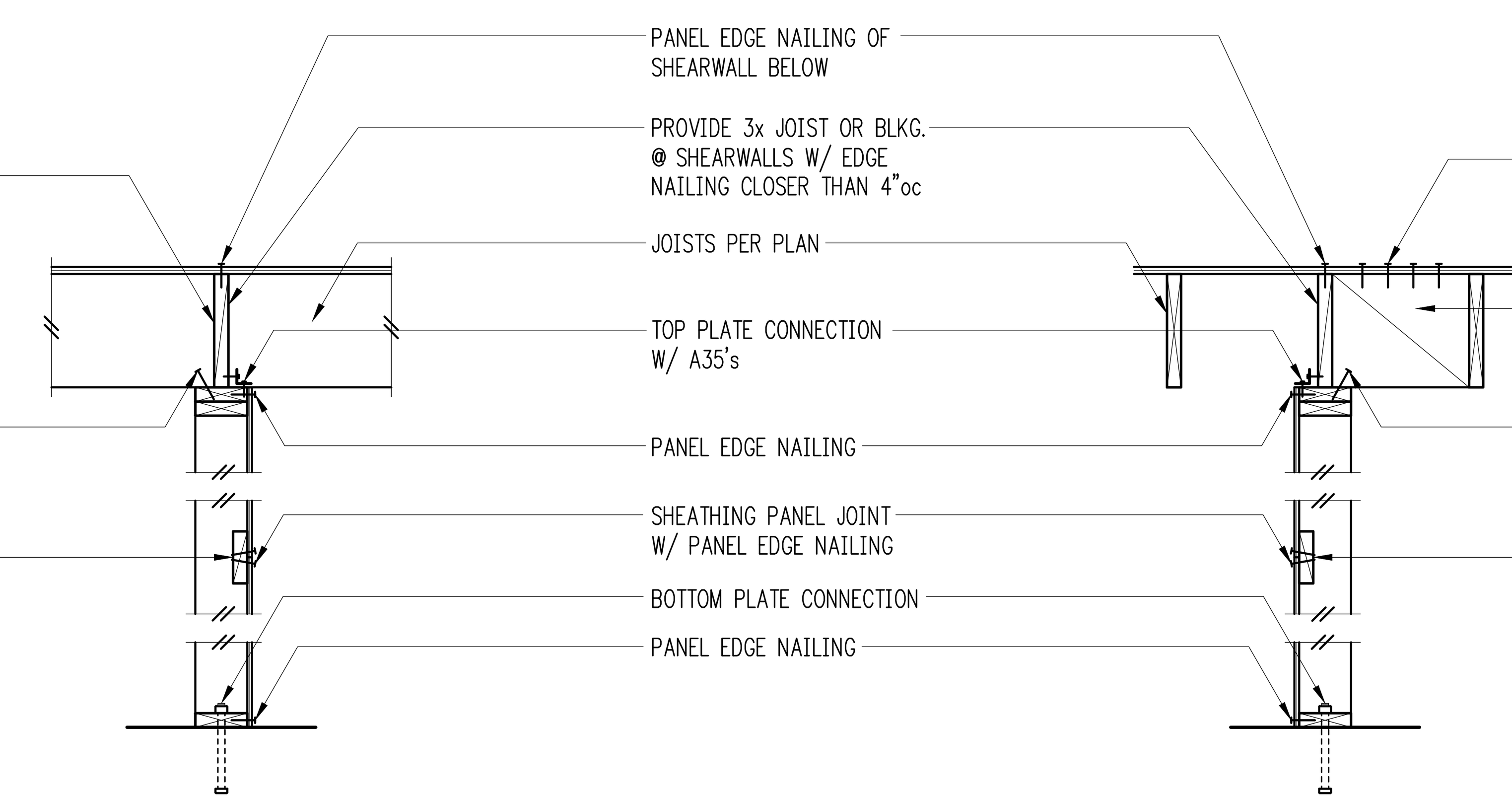
(1) PLYWOOD PANEL EDGE NAILING PER SHEARWALL SCHEDULE
(2) BASE PLATE NAILING PER SHEARWALL SCHEDULE
(3) 16d @ 8"oc

Typical Shearwall Intersections 4

5



Typical Top Plate Splice 6

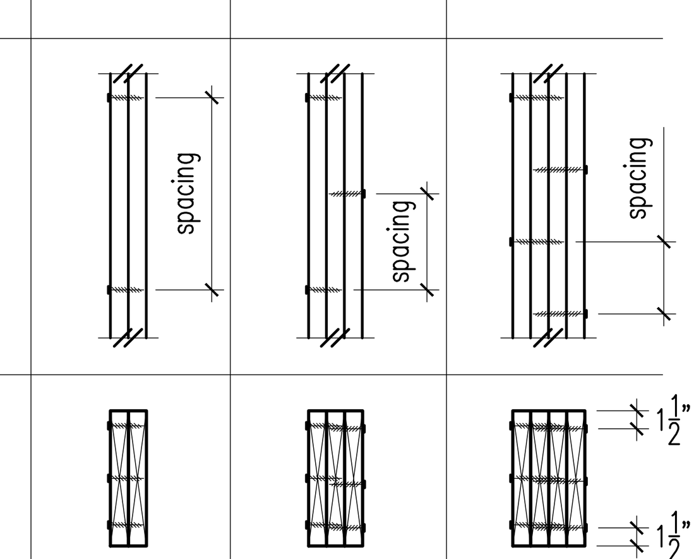


NOTE:
SEE SHEARWALL SCHEDULE FOR ALL NAILING AND CONNECTIONS, NOT OTHERWISE NOTED

Typical Shearwall Construction 8

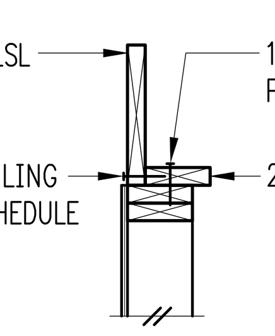
9

	A	B	C
PLAN VIEW			
SECTION			
# OF WOOD BMS (LVL)	2–1 3/4"	3–1 3/4"	4–1 3/4"
SDS SCREW SIZE	1/4"x3 1/2"	1/4"x4 1/2"	1/4"x6"
# OF SDS SCREWS	3	3	3
SPACING OF SDS SCREWS	16"oc	8"oc	6"oc

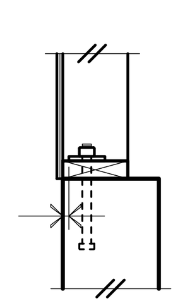


NOTES:
– MIN. SCREW END DISTANCE = 4"

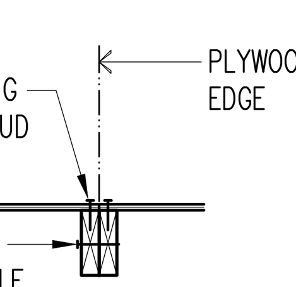
Sistering Schedule for Multi Beams 10



Detail A



Detail C



Detail B

PLAN VIEW AT ABUTTING PANEL EDGES OF W3 & W2

Shearwall Schedule (1)(2)(3)(5)(6)(7)

Mark	Sheathing	Panel Edge Nailing	Top Plate Connection		Base Plate Connection	
			if TJI	if 2x or LSL (8)(9)	at Wood (12)	at Concrete
W6	15/32" CDX PLYWOOD	8d @ 6"oc	16d @ 6"oc	A35 @ 24"oc	16d @ 6"oc	5/8"ø A.B. @ 48"oc
W4	15/32" CDX PLYWOOD	8d @ 4"oc	16d @ 4"oc	A35 @ 16"oc	16d @ 4"oc	5/8"ø A.B. @ 32"oc
W3 (4)	15/32" CDX PLYWOOD	8d @ 3"oc	(2)rows 16d @ 4"oc (11)	A35 @ 12"oc	(2)rows 16d @ 6"oc (10)	5/8"ø A.B. @ 24"oc
W2 (4)	15/32" CDX PLYWOOD	8d @ 2"oc	(2)rows 16d @ 4"oc (11)	A35 @ 9"oc	(2)rows 16d @ 4"oc (11)	5/8"ø A.B. @ 16"oc

(1) BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12"o.c.
(2) 8d NAILS SHALL BE 0.131"ø x 2 1/2" (common) – 16d NAILS SHALL BE 0.135"ø x 3 1/2" (box)
(3) EMBED ANCHOR BOLTS AT LEAST 7". EXPANSION BOLTS MAY BE SUBSTITUTED FOR ANCHOR BOLTS WITH 4" EMBEDMENT. TITEN HD SCREW ANCHORS MAY BE SUBSTITUTED FOR ANCHOR BOLTS W/ 4" EMBEDMENT. ALL BOLTS SHALL HAVE 3" x 3" x 1/4" MIN. PLATE WASHERS. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING. SEE DETAIL C.
(4) 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2. SEE DETAIL B. WHERE 3x STUDS ARE USED FOR W2, STAGGER NAILS AT ADJOINING PANEL EDGES.
(5) TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING.
(6) ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.
(7) 7/16" O.S.B. MAY BE SUBSITUTED FOR 15/32" CDX.
(8) LTP4's W/ 8d COMMON MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
(9) A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
(10) STAGGER NAILS IN ROW W/ 1/2" MIN. OFFSET.
(11) MINIMUM OFFSET BETWEEN ROWS AND ROW SPACING 1/2", STAGGER NAILS 1/2" BETWEEN ROWS, AND MINIMUM RIM OR JOIST 3 1/2" WIDE.
(12) LVL RIMS PERMITTED IN W6 WALLS ONLY

Shearwall Schedule 12

STRUCTURAL ENGINEERING
2124 Third Avenue - Suite 100 - Seattle, WA 98121
p: 206.443.6212 ssfengineers.com
934 Broadway - Tacoma, WA 98402
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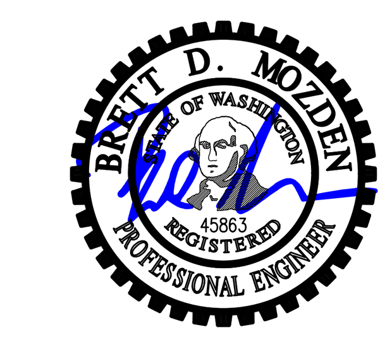


DESIGN: DMR
DRAWN: NHD / ABH
CHECKED: BDM
APPROVED: BDM

REVISIONS:

DPD:

PROJECT TITLE:
Miller Blood Residence
2420 63rd Ave SE
Mercer Island, WA 98040

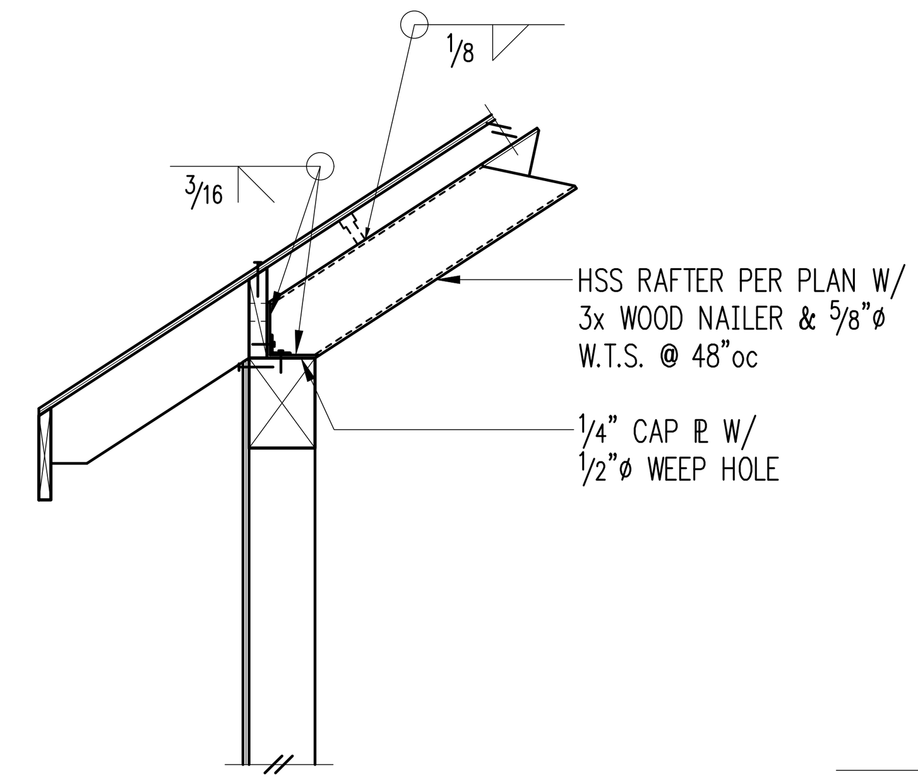
ARCHITECT:
Rain City Architecture
clint@raincityarchitecture.com
PH 206.636.1163

ISSUE:
PERMIT

SHEET TITLE:
Typical Wood Details

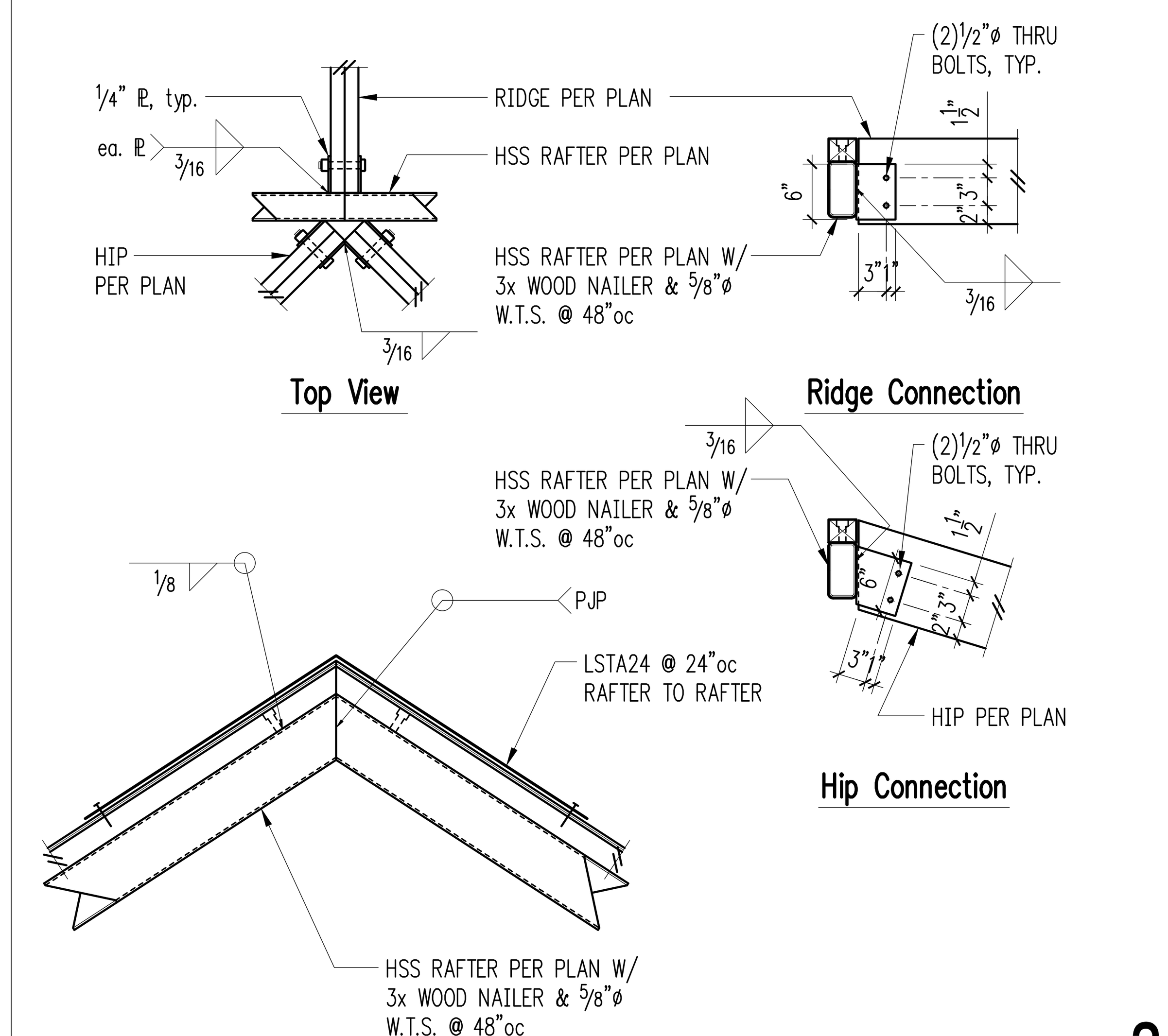
SCALE: 3/4" = 1'-0" U.N.O.
DATE: November 17, 2021
PROJECT NO: 11947-2021-02
SHEET NO:
S4.1

1



FOR CALLOUTS IN COMMON REFER 6/S4.2

Exterior Bearing Wall 2



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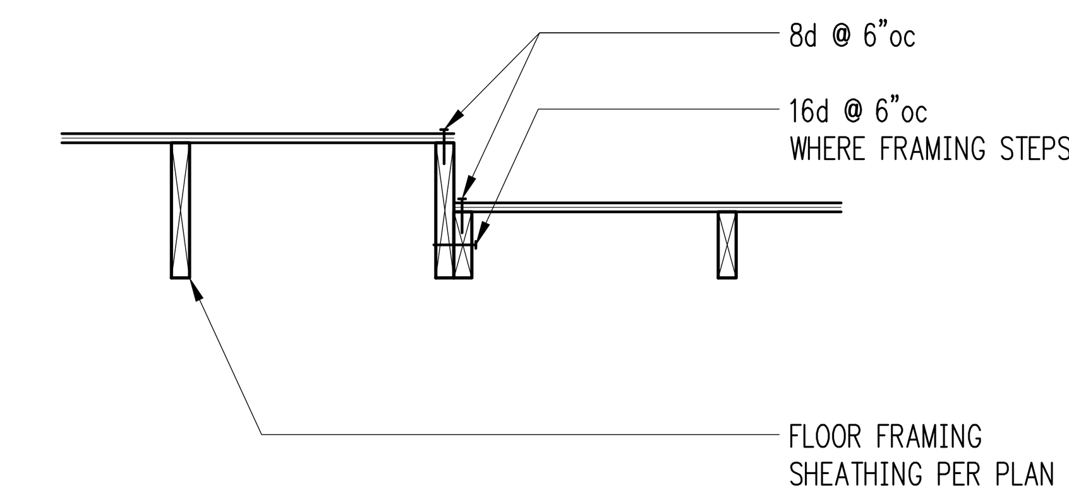

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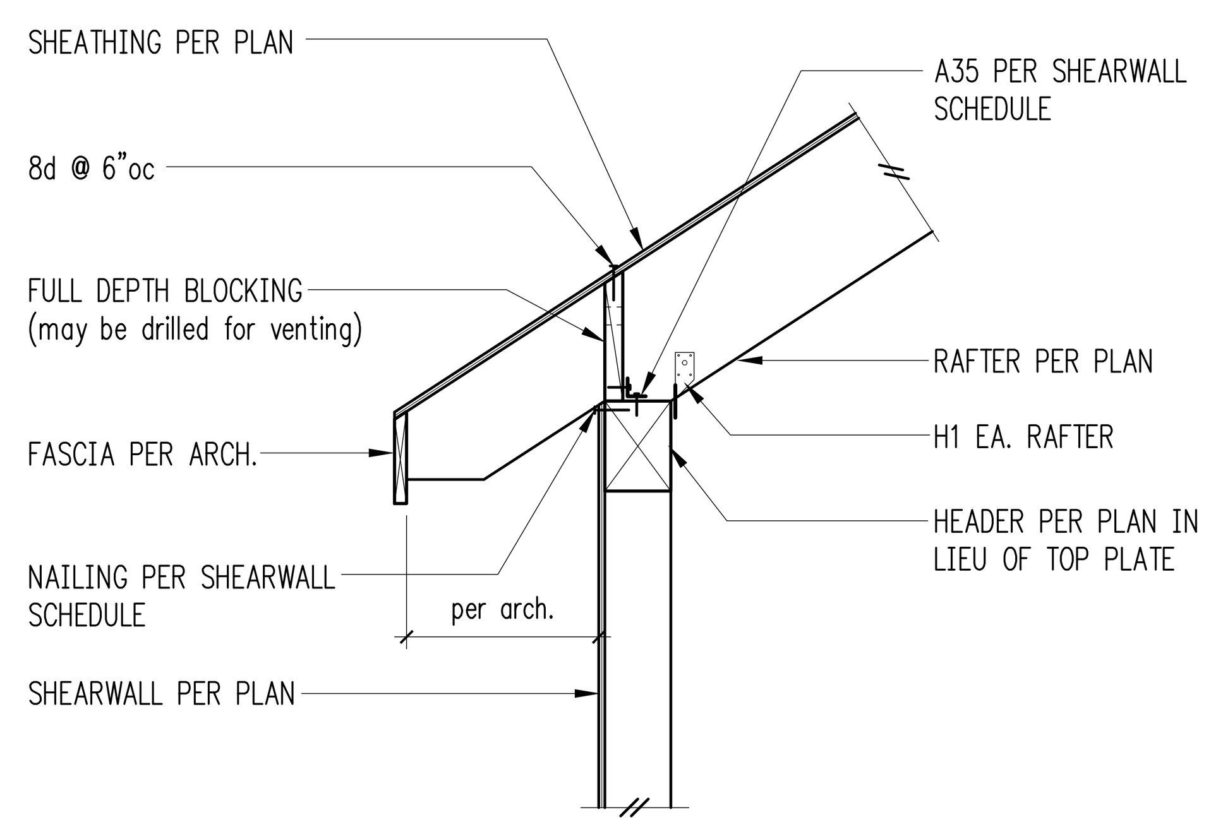
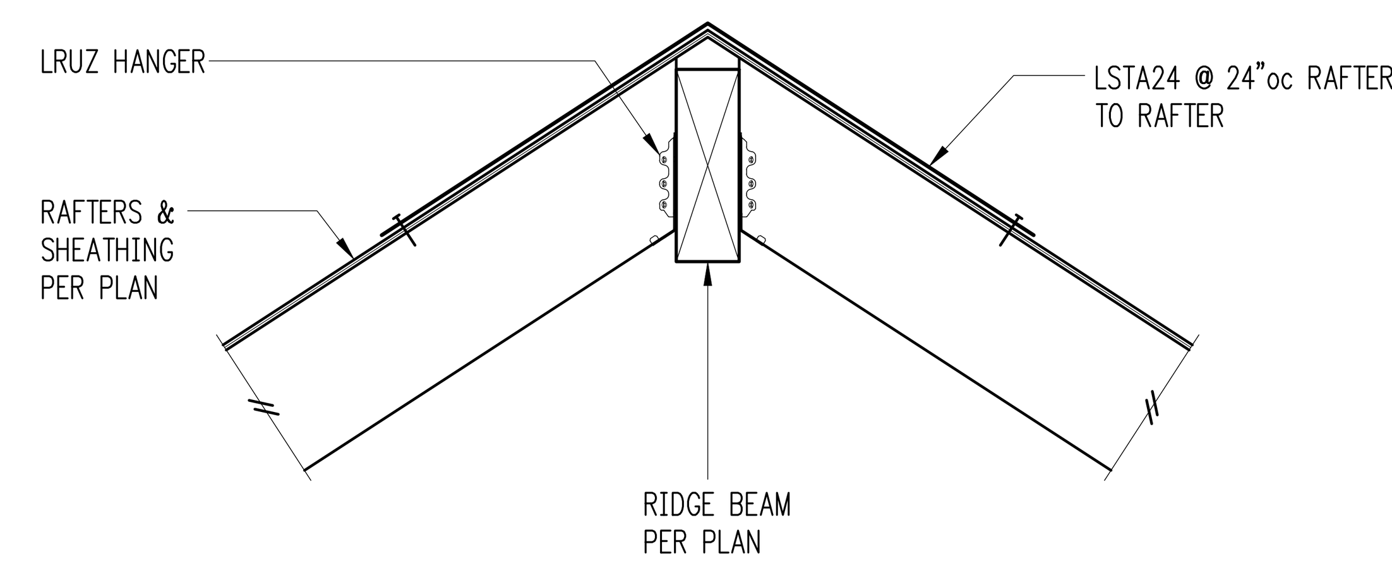
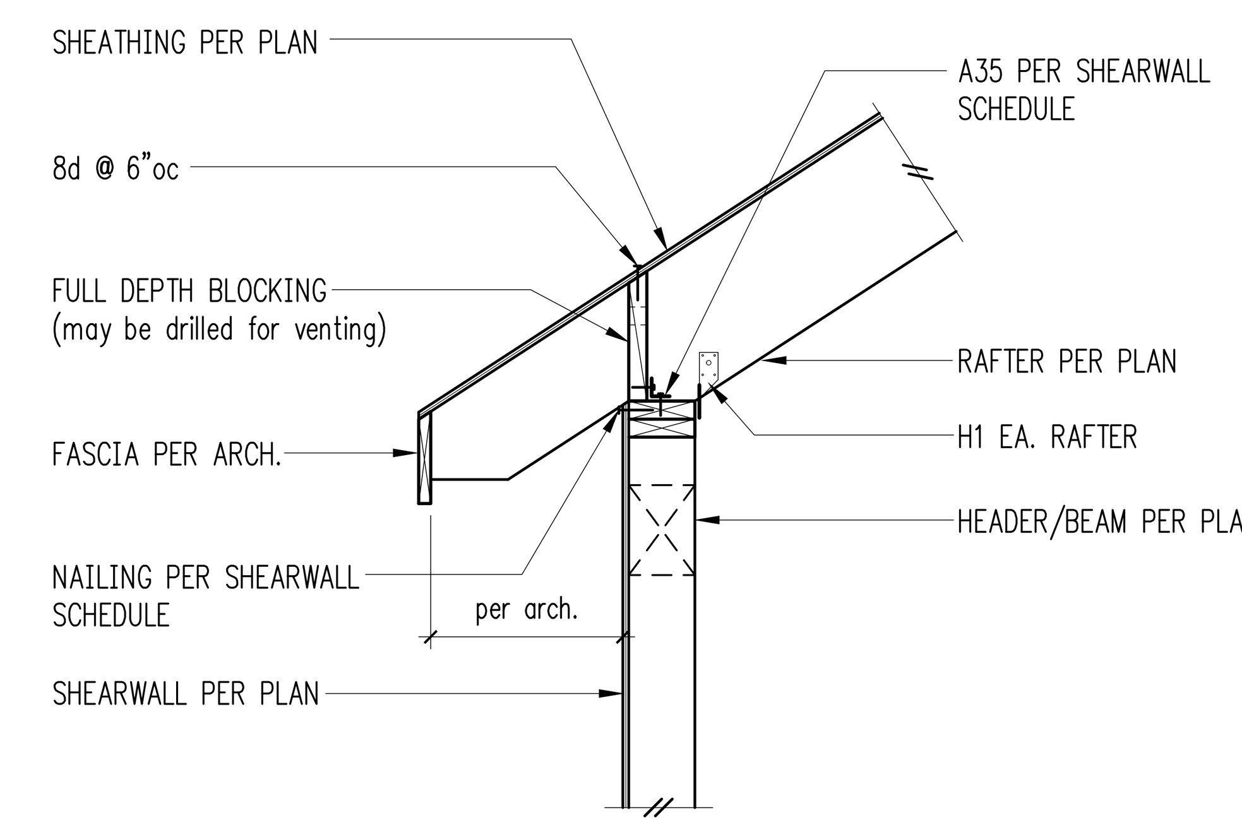
5



Exterior Bearing Wall 6



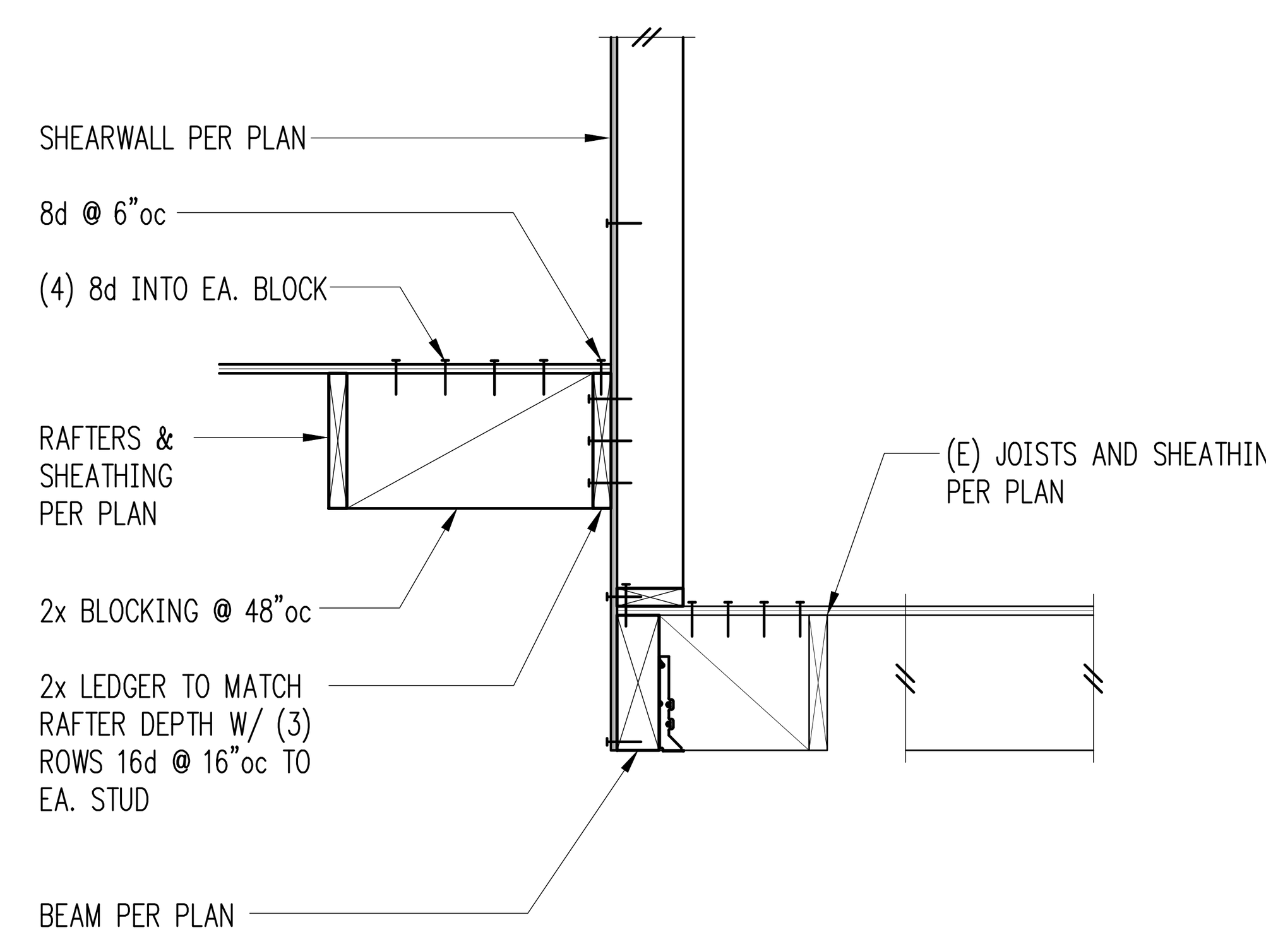
Ridge Beam w/ LRU Hangers 7



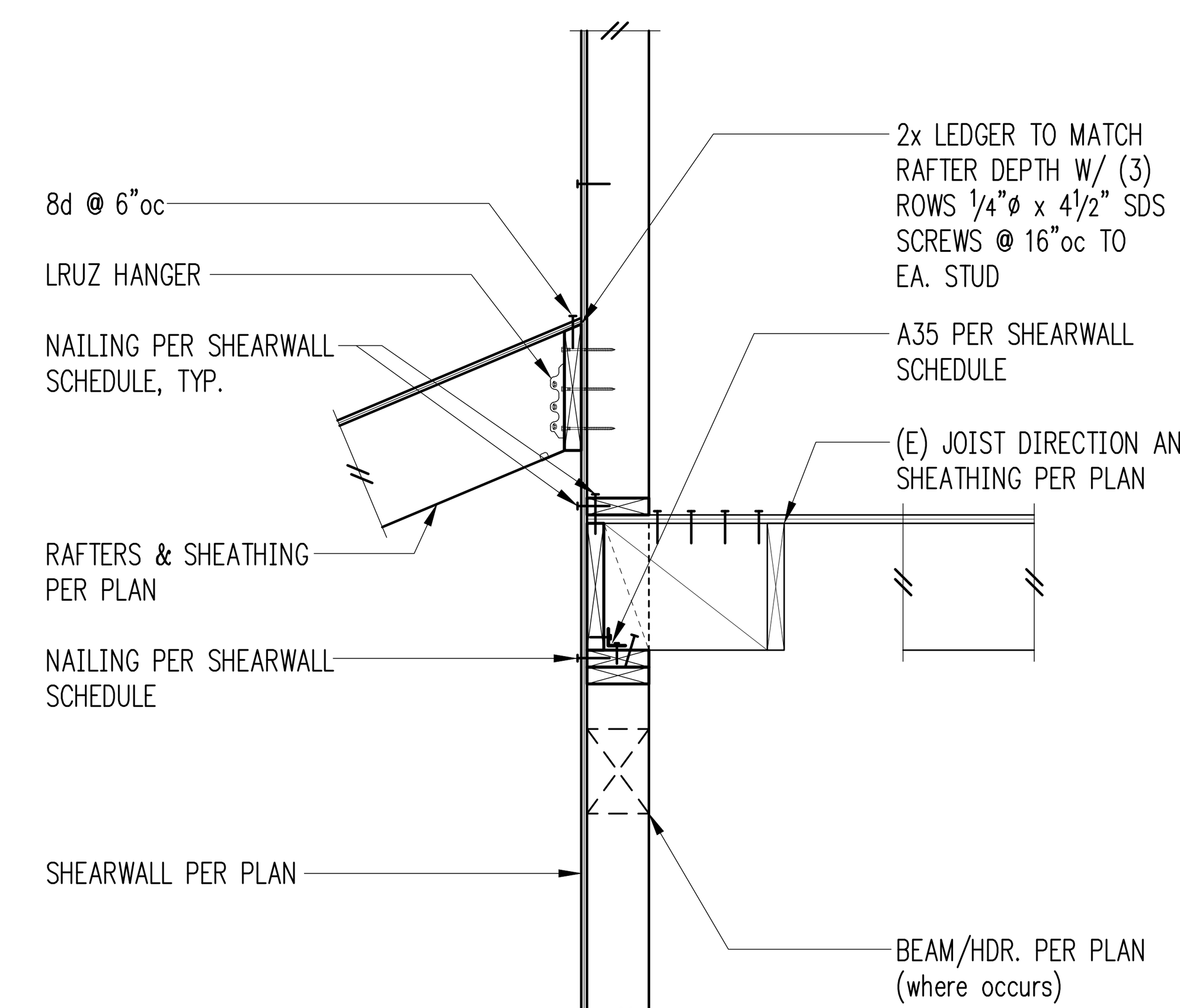
Exterior Bearing Wall 8

9

10



Exterior Floor Beam 11



REFER TO SHEARWALL SCHEDULE FOR ADDITIONAL RIM SIZE REQUIREMENTS

Exterior Floor Framing 12

SSF STRUCTURAL ENGINEERING
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BRETT D. MOZDEN
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER

DESIGN: DMR
DRAWN: NHD / ABH
CHECKED: BDM
APPROVED: BDM

REVISIONS:

DPD:

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ARCHITECT:
Rain City Architecture
clint@raincityarchitecture.com
PH 206.636.1163

ISSUE:
PERMIT

SHEET TITLE:
Typical Wood Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: November 17, 2021
PROJECT NO: 11947-2021-02
SHEET NO:
S4.2