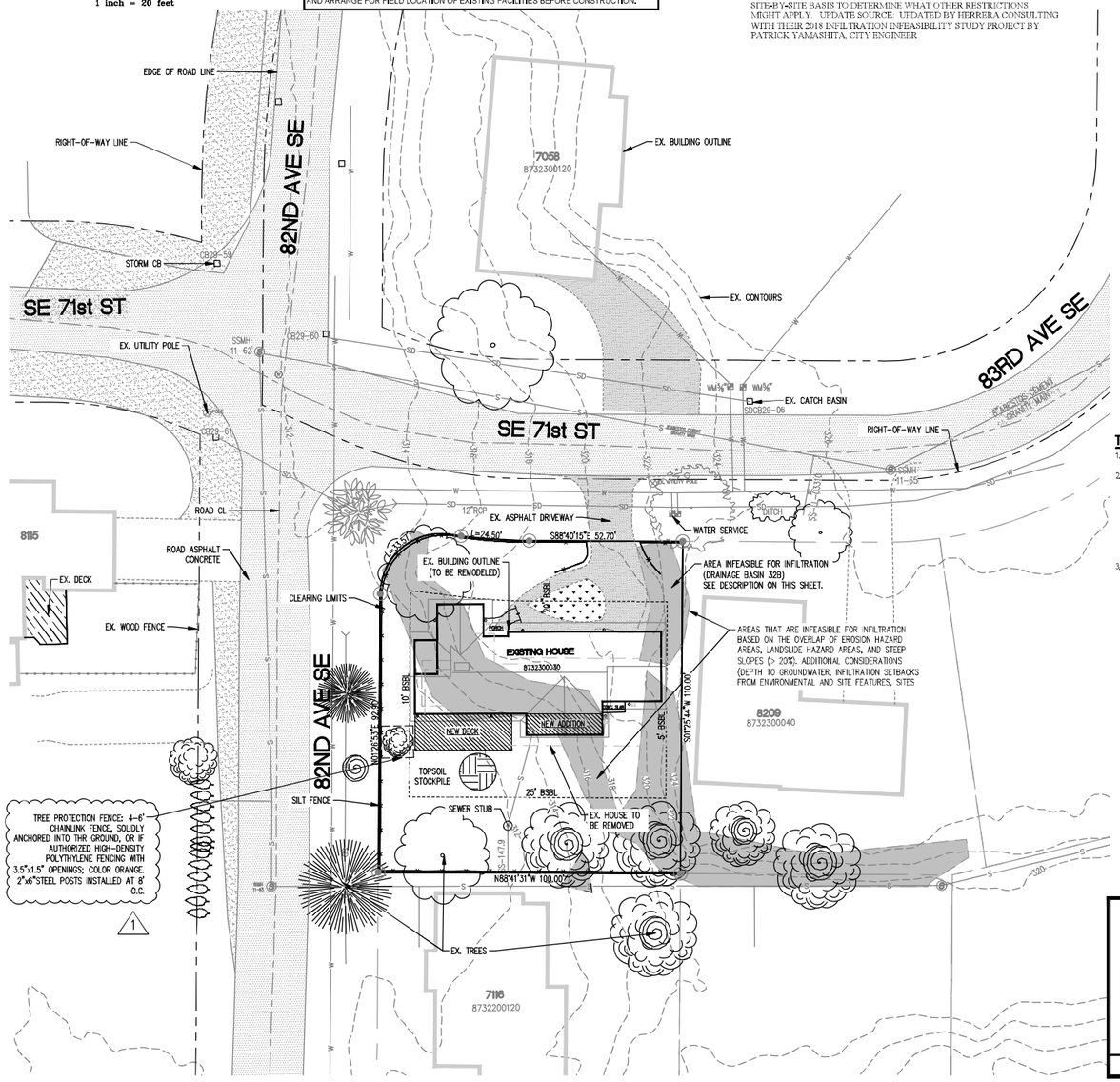
LEE-PSC PROJECT
SITE PLAN
A PORTION OF S 1/2 OF THE NE 1/4, SEC.25 T24N, R4E WILLAMETTE MERIDIAN, KING COUNTY, WASHINGTON

UTILITIES:
SEWER: CITY OF MERCER ISLAND PUBLIC WORKS
WATER: SEATTLE PUBLIC UTILITIES
POWER: PUGET SOUND ENERGY
SCHOOL: MERCER ISLAND #400

EXISTING UTILITY NOTE:
EXISTING UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

AREAS INFEASIBLE FOR INFILTRATION DESC.
AREAS THAT ARE INFEASIBLE FOR INFILTRATION BASED ON THE OVERLAP OF EROSION HAZARD AREAS, LANDSLIDE HAZARD AREAS, AND STEEP SLOPES (> 20%). ADDITIONAL CONSIDERATIONS (DEPTH TO GROUNDWATER, INFILTRATION SETBACKS FROM ENVIRONMENTAL AND SITE FEATURES, SITE SOILS, ETC.) SHOULD BE ASSESSED ON A SITE-BY-SITE BASIS TO DETERMINE WHAT OTHER RESTRICTIONS MIGHT APPLY. UPDATE SOURCE: UPDATED BY HERRERA CONSULTING WITH THEIR 2018 INFILTRATION INFEASIBILITY STUDY PROJECT BY PATRICK YAMASHITA, CITY ENGINEER



SITE ADDRESS:
8205 SE 71st ST
MERCER ISLAND, WA 98040

PARCEL NUMBER:
8732300030

LEGAL DESCRIPTION:
TWIN VIEW # 2
PLat Block 2
Plat Lot 1

OWNERS:
ORION INVESTMENT LLC
12100 NORTHUP WAY STE. 110
BELLEVUE, WA 98005
PHONE: (425) 625-1740

CLIENT:
JOHN LEE
PUGET SOUND CONSTRUCTION
930 INDUSTRY DRIVE
TUKWILA, WA 98188
EMAIL: JOHN.LEE@PSCP-INC.COM
PHONE: (425) 625-1740

EXISTING PROJECT STATISTICS:

JURISDICTION:	MERCER ISLAND
COUNTY:	KING COUNTY
ZONING:	R-9.6 (RESIDENTIAL)
ZONING DESCRIPTION:	UNIFIED LAND DEVELOPMENT CODE 19.02
LAND USE PROJECT:	SUB6007-001 TYPE: LONG PLAT DESC. TWIN VIEW #2 (51 LOTS)
FIRE ZONE:	III
EX. LAND USE DESIGNATION:	SINGLE-FAMILY (RESIDENTIAL)
URBAN GROWTH AREA:	URBAN
LOT SIZE AREA:	10,980 SQ. FT. (0.25 AC)
1ST FLOOR:	1,692 SQ. FT.
BASEMENT:	1,696 SQ. FT.
EXISTING TOTAL HEATED:	3,388 SQ.FT.
ATTACHED GARAGE:	461 SQ. FT.
OPEN PORCH:	300 SQ. FT.
DRIVEWAY:	1,150 SF
MAX. BUILDING HEIGHT:	30 FEET
MINIMUM LOT AREA:	9,600 SQ. FT.
MINIMUM LOT WIDTH:	75 FEET
MINIMUM LOT DEPTH:	80 FEET

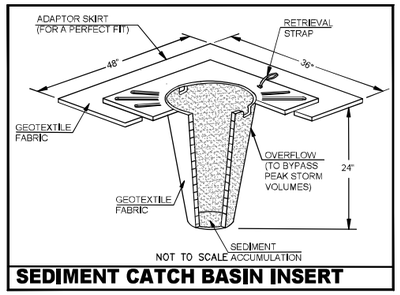
PROPOSED NEW ADDITION:

MAIN UPPER FLOOR:	176 SF
NEW DECK:	385 SF

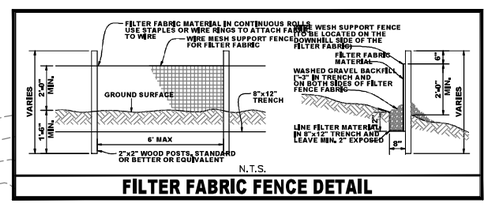
SETBACKS:

FRONT YARD:	20 FEET MIN.
REAR YARD:	25 FEET MIN.
SIDE YARD:	MUST SUM 15 FEET WITH NO SIDE YARD LESS THAN 5 FEET
PUBLIC RIGHT-OF-WAY:	10 FEET
VEHICLE ACCESS EASEMENT:	10 FEET
BUILDING HEIGHT:	30 FEET
GROSS FLOOR AREA:	40% OF NET LOT AREA

TESC NOTES:
1. THE CONTRACTOR SHALL HAVE TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) MEASURES IN PLACE PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY SEDIMENTATION COLLECTION FACILITIES TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE NATURAL OR PUBLIC DRAINAGE SYSTEM AS CONSTRUCTION PROGRESSES AND UNEXPECTED (SEASONAL) CONDITIONS DICTATE. MORE SILTATION CONTROL FACILITIES MAY BE REQUIRED TO INSURE COMPLETE SILTATION CONTROL OF THE PROJECT. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES THAT MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES.
3. THE CITY MAY DIRECT MAINTENANCE AND REPAIR OF TESC FACILITIES AS THE HIGHEST PRIORITY WORK AT ANY TIME THE TESC FACILITIES DO NOT MEET THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS.



SEDIMENT CATCH BASIN INSERT



FILTER FABRIC FENCE DETAIL

VICINITY MAP
NTS

SHEET INDEX:

SP-1 - PRELIMINARY SITE PLAN
SP-2 - NOTES & DETAILS

BASIS OF BEARING
NAD 83-2011 (EPOCH 2010.00), WASHINGTON STATE PLANE, NORTH ZONE, PER THE WASHINGTON STATE REFERENCE NETWORK.

VERTICAL DATUM
NAVD88 (PER THE WASHINGTON STATE REFERENCE NETWORK)

STORM NOTE:
TIGHTLINE ROOF RUNOFF TO STORM STUB-OUT. ROUTE DRIVEWAY RUNOFF TO ROAD STORM SYSTEM. AMEND ALL DISTURBED SOILS PER SOIL AMENDMENT GUIDELINES.

IMPERVIOUS SURFACE:
TOTAL IMPERVIOUS SURFACE PERMITTED ON A RESIDENTIAL LOT IS GOVERNED BY THE LOT SLOPE.

LOT SLOPE:	HARDSCAPE:	LOT COVERAGE:
LESS THAN 15%	9%	40%
15 - LESS THAN 30%	9%	35%
30-50%	9%	30%
GREATER THAN 50%	9%	20%

(LOT SLOPE IS CALCULATED BY SUBTRACTING THE LOWEST ELEVATION ON A LOT FROM THE HIGHEST ELEVATION, AND DIVIDING THE RESULTING NUMBER BY THE SHORTEST HORIZONTAL DISTANCE BETWEEN THESE TWO ELEVATION POINTS.)

LEGEND

DESCRIPTION	EXISTING LINETYPE
PROPERTY CORNER	
CENTER LINE	
PROPERTY LINE	
RIGHT OF WAY LINE	
EASEMENT LINE	
BUILDING SETBACK LINE	
CHAIN LINK FENCE	
WOOD FENCE	
SIDEWALK	
CURB & GUTTER	
EDGE OF PAVEMENT	
CONTOURS	500
STREET SIGN	
STORM DRAIN CATCH BASIN	
STORM DRAIN MANHOLE	
STORM DRAIN CLEANOUT	
STORM DRAIN LINE	SD
ROOF DRAIN LINE	RD
SANITARY SEWER MANHOLE	
SANITARY SEWER CLEANOUT	
SANITARY SEWER LINE	S
SANITARY SEWER STUB	SS
FIRE HYDRANT	
WATER VALVE	
WATER METER	
WATER MAIN	W
LUMINAIRE	
POWER/UTILITY POLE	
ASPHALT CONCRETE	
CEMENT CONCRETE	
GRASS/LANDSCAPE	
TREES	
AREA INFEASIBLE FOR INFILTRATION	
SILT CONTROL FENCE	
CLEARING LIMITS	
TOPSOIL STOCKPILE	

FEATURES CONTAINED IN THIS DRAWING, INCLUDING BUT NOT LIMITED TO: BOUNDARY, RIGHT-OF-WAY, EASEMENT, PARCEL LINES, BEARINGS, DISTANCES, WETLANDS AND BUFFERS, WERE DERIVED FROM PUBLIC RECORDS OR ACQUIRED FROM AUTOCAD DRAWINGS SUPPLIED BY OTHERS.

THESE PLANS AT ALL TIMES REMAIN THE PROPERTY OF RUEPPELL PROFESSIONAL ENGINEERING, PLLC AND WERE CREATED AND DEVELOPED FOR USE ON THE DESCRIBED PROJECT. NONE OF THE IDEAS, DESIGNS, ARRANGEMENTS OR PLANS INDICATED OR REPRESENTED BY THIS DRAWING SHALL BE USED BY OR DISCLOSED TO ANY PERSON, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN PERMISSION OF RUEPPELL PROFESSIONAL ENGINEERING, PLLC. VISUAL CONTACT WITH THESE PLANS SHALL CONSTITUTE PRIMA FACIE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

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RUEPPELL
Home Design

Plan: Lee Addition/Remodel
Job#:
Date: 08/11/2025
Revision Date: 10/20/2025
Drawn by: NDA, BP
Phone: (253) 251-2501

[SP-1]

GENERAL NOTES:

ALL CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING BUILDING CODES AND AMENDMENTS PER THEIR ADOPTING ORDINANCES:
2021 WASHINGTON STATE AMENDMENTS INCLUSIVE OF:
2021 INTERNATIONAL RESIDENTIAL CODE (IRC)
2021 INTERNATIONAL MECHANICAL CODE (IMC)
2021 UNIFORM PLUMBING CODE (UPC)
2023 NATIONAL ELECTRICAL CODE (NEC)
2021 INTERNATIONAL FIRE CODE (IFC 2021)
2021 WASHINGTON STATE ENERGY CODE (WSEC) RESIDENTIAL PROVISIONS

REQUIRED ADDITIONAL SUBMITTAL FROM MANUFACTURERS AT TIME OF PERMIT SUBMITTAL:

1. MANUFACTURED FLOOR JOIST/ TRUSS DESIGN AND LAYOUT
2. MANUFACTURED ROOF TRUSS DESIGN AND LAYOUT.
3. ENGINEERED TRUSS DRAWINGS SHALL BE ON SITE AT TIME OF FIELD INSPECTION.

SITE WORK:

1. FOUNDATION DESIGN IS BASED ON AN ASSUMED AVERAGE SOIL BEARING OF 1500 PSF, UNLESS A SOILS INVESTIGATION BY A QUALIFIED SOILS ENGINEER IS PROVIDED.
2. EXTERIOR FOOTING SHALL BEAR 18" (MIN.) BELOW FINISHED GRADE.
3. FOOTINGS TO BEAR ON FIRM UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS.
4. BACKFILL MATERIALS TO BE THOROUGHLY COMPACTED.

INSULATION AND MOISTURE PROTECTION

R302.10 FLAME SPREAD INDEX AND SMOKE-DEVELOPED INDEX FOR INSULATION
FLAME SPREAD AND SMOKE-DEVELOPED INDEX FOR INSULATION SHALL BE IN ACCORDANCE WITH SECTIONS R302.10.1 THROUGH R302.10.5.

R302.10.1 INSULATION
INSULATING MATERIALS INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES AND ATTICS SHALL COMPLY WITH THE REQUIREMENTS OF THIS SECTION. THEY SHALL EXHIBIT A FLAME SPREAD INDEX NOT TO EXCEED 25 AND A SMOKE-DEVELOPED INDEX NOT TO EXCEED 450 WHERE TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723. INSULATING MATERIALS, WHERE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION, SHALL INCLUDE FACINGS, WHER USED, SUCH AS VAPOR RETARDERS, VAPOR PERMEABLE AND SIMILAR COVERINGS.

EXCEPTIONS:
1. WHERE SUCH MATERIALS ARE INSTALLED IN CONCEALED SPACES, THE FLAME SPREAD INDEX AND SMOKE-DEVELOPED INDEX LIMITATIONS DO NOT APPLY TO THE FACINGS, PROVIDED THAT THE FACING IS INSTALLED IN SUBSTANTIAL CONTACT WITH THE UNEXPOSED SURFACE OF THE CEILING, FLOOR OR WALL FINISH.
2. CELLULOSE FIBER LOOSE-FILL INSULATION, THAT IS NOT SPRAY APPLIED, COMPLYING WITH THE REQUIREMENTS OF SECTION R302.10.3, SHALL NOT BE REQUIRED TO MEET THE SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450 WHERE TESTED IN ACCORDANCE WITH CAN/ULC S102.2.
3. FOAM PLASTIC INSULATION SHALL COMPLY WITH SECTION R316.

R302.10.2 LOOSE-FILL INSULATION
LOOSE-FILL INSULATION MATERIALS THAT CANNOT BE MOUNTED IN THE ASTM E 84 OR UL 723 APPARATUS WITHOUT A SCREEN OR ARTIFICIAL SUPPORTS SHALL COMPLY WITH THE FLAME SPREAD AND SMOKE-DEVELOPED LIMITS OF SECTION R302.10.1 WHERE TESTED IN ACCORDANCE WITH CAN/ULC S102.2.
EXCEPTION: CELLULOSIC FIBER LOOSE-FILL INSULATION SHALL NOT BE REQUIRED TO BE TESTED IN ACCORDANCE WITH CAN/ULC S102.2 PROVIDED THAT SUCH INSULATION COMPLIES WITH THE REQUIREMENTS OF SECTIONS R302.10.1 AND R302.10.3.

R302.10.3 CELLULOSIC FIBER LOOSE-FILL INSULATION
CELLULOSIC FIBER LOOSE-FILL INSULATION SHALL COMPLY WITH CPSC 16 CFR, PARTS 1209 AND 1404, EACH PACKAGE OF SUCH INSULATING MATERIAL SHALL BE CLEARLY LABELED IN ACCORDANCE WITH CPSC 16 CFR, PARTS 1209 AND 1404.

R302.10.4 EXPOSED ATTIC INSULATION
EXPOSED INSULATION MATERIALS INSTALLED ON ATTIC FLOORS SHALL HAVE A CRITICAL RADIANT FLUX NOT LESS THAN 0.12 WATT PER SQUARE CENTIMETER.

R302.10.5 TESTING
TESTS FOR CRITICAL RADIANT FLUX SHALL BE MADE IN ACCORDANCE WITH ASTM E 970.
INFILTRATION:
CONTROL EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAMES, PENETRATIONS IN FLOORS, ROOFS AND WALLS AND ALL SIMILAR OPENINGS SHALL BE SEALED, CAULKED, GASKETED OR WEATHERSTRIPPED TO LIMIT AIR LEAKAGE.

R702.7 VAPOR RETARDERS
VAPOR RETARDERS SHALL BE CLASSIFIED IN ACCORDANCE WITH TABLE R702.7(1). A VAPOR RETARDER SHALL BE PROVIDED ON THE INTERIOR SIDE OF FRAME WALLS OF THE CLASS INDICATED IN TABLE R 702.7(2) INCLUDING COMPLIANCE WITH TABLE R 702.7(3) OR R 702.7(4) WHERE APPLICABLE. AN APPROVED DESIGN USING ACCEPTED ENGINEERING PRACTICE FOR HYGROTHERMAL ANALYSIS SHALL BE PERMITTED AS AN ALTERNATIVE. THE CLIMATE ZONE SHALL BE DETERMINED IN ACCORDANCE WITH SECTION N1101.7.

EXCEPTIONS:
1. BASEMENT WALLS
2. BELOW-GRADE PORTION OF ANY WALL
3. CONSTRUCTION WHERE ACCUMULATION, CONDENSATION OR FREEZING OF MOISTURE WILL NOT DAMAGE THE MATERIALS.
4. A VAPOR RETARDER SHALL NOT BE REQUIRED IN CLIMATE ZONES 1, 2 AND 3.

TABLE R702.7.(1) VAPOR RETARDER MATERIALS AND CLASSES

CLASS	ACCEPTABLE MATERIALS
I	SHEET POLYETHYLENE, NONPERFORATED ALUMINUM FOIL OR OTHER APPROVED MATERIALS WITH A PERM RATING LESS THAN OR EQUAL TO 0.1
II	KRAFT-FACED FIBERGLASS BATTS, VAPOR RETARDER PAINT OR OTHER APPROVED MATERIALS APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR A PERM RATING GREATER THAN 0.1 AND LESS THAN OR EQUAL TO 1.0
III	LATEX PAINT, ENAMEL PAINT OR OTHER APPROVED MATERIALS APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR A PERM RATING GREATER THAN 1.0 AND LESS THAN OR EQUAL TO 10.0.

R 703.3 WALL COVERING NOMINAL THICKNESS AND ATTACHMENTS
THE NOMINAL THICKNESS AND ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE IN ACCORDANCE WITH TABLE R 703.3(1), THE WALL COVERING MATERIAL REQUIREMENTS OF THIS SECTION, AND THE WALL COVERING MANUFACTURE'S INSTALLATION INSTRUCTIONS. CLADDING ATTACHMENT OVER FOAM SHEATHING SHALL COMPLY WITH THE ADDITIONAL REQUIREMENTS AND LIMITATIONS OF SECTION R 703.15 THROUGH R 703.17. NOMINAL MATERIAL THICKNESSES IN TABLE R 703.3(1) ARE BASED ON A MAXIMUM STUD SPACING OF 16 INCHES ON CENTER, WHERE SPECIFIED BY THE SIDING MANUFACTURER'S INSTRUCTIONS AND SUPPORTED BY A TEST REPORT OR OTHER DOCUMENTATION, ATTACHMENT TO STUDS WITH GREATER SPACING IS PERMITTED. FASTENERS FOR EXTERIOR WALL COVERINGS ATTACHED TO WOOD FRAMING SHALL BE IN ACCORDANCE WITH SECTION R 703.3.3 AND TABLE R 703.3(1). EXTERIOR WALL COVERINGS COVERINGS SHALL BE ATTACHED TO COLD-FORMED STEEL LIGHT FRAME CONSTRUCTION IN ACCORDANCE WITH THE CLADDING MANUFACTURER'S INSTALLATION INSTRUCTIONS, THE REQUIREMENTS OF TABLE R 703.3(1) USING SCREW FASTENERS SUBSTITUTED FOR THE NAILS SPECIFIED IN ACCORDANCE WITH TABLE R 703.3(2), OR AN APPROVED DESIGN.

WSEC R402.4 AIR LEAKAGE
THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS OF R402.4.1 THROUGH R402.4.6.

R402.4.12 TESTING
THE BUILDING OR DWELLING UNIT SHALL BE TESTED FOR AIR LEAKAGE. THE MAXIMUM AIR LEAKAGE RATE FOR ANY BUILDING OR DWELLING UNIT UNDER ANY COMPLIANCE PATH SHALL NOT EXCEED 5.0 AIR EXCHANGES PER HOUR.

R302.12 DRAFTSTOPPING:

IN COMBUSTIBLE CONSTRUCTION WHERE THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR-CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000 SQUARE FEET (92.9 SQ. M.).
DRAFTSTOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS. WHERE THE ASSEMBLY IS ENCLOSED BY A FLOOR MEMBRANE ABOVE AND A CEILING MEMBRANE BELOW, DRAFTSTOPPING SHALL BE PROVIDED IN FLOOR-CEILING ASSEMBLIES UNDER THE FOLLOWING CIRCUMSTANCES:
1. CEILING IS SUSPENDED UNDER THE FLOOR FRAMING.
2. FLOOR FRAMING IS CONSTRUCTED OF TRUSS-TYPE OPEN-WEB OR PERFORATED MEMBERS.

R302.12.1 MATERIALS.
DRAFTSTOPPING MATERIALS SHALL NOT BE LESS THAN 1/2" GYPSUM BOARD, 3/8" WOOD STRUCTURAL PANELS OR OTHER APPROVED MATERIALS ADEQUATELY SUPPORTED. DRAFTSTOPPING SHALL BE INSTALLED PARALLEL TO THE FLOOR FRAMING MEMBER UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL. THE INTEGRITY OF THE DRAFTSTOPS SHALL BE MAINTAINED.

FIREBLOCKING:

IN COMBUSTIBLE CONSTRUCTION, FIREBLOCKING SHALL BE PROVIDED TO CUT OFF BOTH VERTICAL AND HORIZONTAL CONCEALED DRAFT OPENINGS AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE.
FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:
1. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS.
   1.1. VERTICALLY AT THE CEILING AND FLOOR LEVELS.
   1.2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FT.
2. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVE CEILINGS.
3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH SECTION R302.7.1/12" GWB)
4. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES WIRES AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION. THE MATERIAL FILLING THIS ANNULAR SPACE SHALL NOT BE REQUIRED TO MEET THE ASTM E 136 REQUIREMENTS.
5. FOR THE FIREBLOCKING OF CHIMNEYS AND FIREPLACES, SEE SECTION R1003.19.
6. FIREBLOCKING OF CORNICES OF A TWO-FAMILY DWELLING IS REQUIRED AT THE LINE OF DWELLING UNIT SEPARATION. FIREBLOCKING SHALL CONSIST OF MATERIALS LISTED IN IRC SECTION R 302.11
LOOSE FILL INSULATION MATERIAL SHALL NOT BE USED AS A FIREBLOCK UNLESS SPECIFICALLY TESTED IN THE FORM AND MANNER INTENDED.

EXTERIOR DOORS, WINDOWS AND SKYLIGHTS PER 2021 WASHINGTON STATE ENERGY CODE

WINDOWS AND DOORS SHALL BE INSTALLED IN ACCORDANCE WITH THE FENESTRATION MANUFACTURER'S WRITTEN INSTRUCTIONS. WINDOW AND DOOR OPENINGS SHALL BE FLASHED IN ACCORDANCE WITH SECTION R 703.4 WRITTEN INSTALLATION INSTRUCTIONS SHALL BE PROVIDED BY THE FENESTRATION MANUFACTURER FOR EACH WINDOW OR DOOR.

R310.1 EMERGENCY ESCAPE AND RESCUE OPENING REQUIRED.
BASEMENTS, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE NOT LESS THAN ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING. WHERE BASEMENTS CONTAIN MORE THAN ONE SLEEPING ROOMS, AN EMERGENCY ESCAPE AND RESCUE OPENING SHALL BE REQUIRED IN EACH SLEEPING ROOM. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL OPEN DIRECTLY TO A PUBLIC WAY, OR TO A YARD OR COURT HAVING A MINIMUM WIDTH OF 36 INCHES (914 mm) THAT OPENS TO A PUBLIC WAY.
EXCEPTION:
1. STORM SHELTERS OR BASEMENTS USED ONLY TO HOUSE MECHANICAL EQUIPMENT NOT EXCEEDING A TOTAL FLOOR AREA OF 200 SQ FT.
2. WHERE THE DWELLING UNIT OR TOWNHOUSE UNIT IS EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION P 2904, SLEEPING ROOMS IN BASEMENTS SHALL NOT BE REQUIRED TO HAVE EMERGENCY ESCAPE AND RESCUE OPENINGS PROVIDED THAT THE BASEMENT HAS ONE OF THE FOLLOWING:
   2.1 ONE MEANS OF EGRESS COMPLYING WITH SECTION R 311 AND ONE EMERGENCY ESCAPE AND RESCUE OPENING.
   2.2 TWO MEANS OF EGRESS COMPLYING WITH SECTION R 311.
   3. A YARD SHALL NOT BE REQUIRED TO OPEN DIRECTLY INTO A PUBLIC WAY WHERE THE YARD OPENS TO AN UNOBSTRUCTED PATH FROM THE YARD TO THE PUBLIC WAY. SUCH PATH SHALL HAVE A WIDTH OF NOT LESS THAN 36 INCHES (914mm).

R 310.2.1 MINIMUM SIZE. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.7 SQ. FT. (0.530 SQ. METERS)
EXCEPTION:
THE MINIMUM NET CLEAR OPENING FOR GRADE-FLOOR EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE 5 SQUARE FEET (0.465 SQ. METERS).

R310.2.2 MINIMUM DIMENSIONS.
THE MIN. NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24 INCHES (610 mm).
THE MIN. NET CLEAR OPENING WIDTH DIMENSION SHALL BE 20 INCHES (508mm).

R 310.2.3 MAXIMUM HEIGHT FROM FLOOR.
EMERGENCY ESCAPE AND RESCUE OPENING SHALL HAVE THE BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44" (1118 mm) ABOVE THE FLOOR.

R308 GLAZING

R308.1 IDENTIFICATION.
EXCEPT AS INDICATED IN SECTION R308.1.1 EANCH PANE OF GLAZING INSTALLED IN HAZARDOUS LOCATIONS AS DEFINED IN SECTION R308.4 SHALL BE PROVIDED WITH A MANUFACTURER'S DESIGNATION SPECIFYING WHO APPLIED THE DESIGNATION, THE TYPE OF GLASS AND THE SAFETY GLAZING STANDARD WITH WHICH IT COMPLIES, AND THAT IS VISIBLE IN THE FINAL INSTALLATION. THE DESIGNATION SHALL BE ACID ETCHED, SANDBLASTED, CERAMIC-FIRED, LASER ETCHED, EMBOSSED, OR BE OF A TYPE THAT ONCE APPLIED CANNOT BE REMOVED WITHOUT BEING DESTROYED. A LABEL SHALL BE PERMITTED IN LIEU OF THE MANUFACTURER'S DESIGNATION.
EXCEPTIONS:
1. FOR OTHER THAN TEMPERED GLASS, MANUFACTURE'S DESIGNATIONS ARE NOT REQUIRED PROVIDED THAT THE BUILDING OFFICIAL APPROVES THE USE OF A CERTIFICATE, AFFIDAVIT OR OTHER EVIDENCE CONFIRMING COMPLIANCE WITH THIS CODE.
2. TEMPERED SPANDREL GLASS IS PERMITTED TO BE IDENTIFIED BY THE MANUFACTURER WITH A REMOVABLE PAPER DESIGNATION.

R 308.4.1. GLAZING IN DOORS
GLAZING IN DOORS - GLAZING IN FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BIFOLD DOORS SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION.

EXCEPTIONS
1. GLAZED OPENINGS OF A SIZE THROUGH WHICH A 3 INCH DIAMETER (76mm) SPHERE IS UNABLE TO PASS
2. DECORATIVE GLAZING

R 308.4.2 GLAZING ADJACENT TO DOORS
GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE AND IT MEETS EITHER OF THE FOLLOWING CONDITIONS:
1. WHERE GLAZING IS WITHIN 24 INCHES (610mm) OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION
2. WHERE THE GLAZING IS ON A WALL LESS THAN 180 DEGREES (3.14 RADIUS) FROM THE PLANE OF THE DOOR IN A CLOSED POSITION AND WITHIN 24 INCHES (610mm) OF THE HINGE SIDE OF AN IN-SWINGING DOOR.

R 308.4.3 GLAZING IN WINDOWS
GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE THAT MEETS ALL OF THE FOLLOWING CONDITIONS SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION:
1. THE EXPOSED AREA OF AN INDIVIDUAL PANE IS LARGER THAN 9 SQUARE FEET.
2. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18 INCHES ABOVE THE FLOOR.
3. THE TOP EDGE OF THE GLAZING IS MORE THAN 36 INCHES ABOVE FLOOR.
4. ONE OR MORE WALKING SURFACES ARE WITHIN 36 INCHES, MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING.

R 308.4.4 GLAZING IN GUARDS AND RAILINGS
GLAZING IN GUARDS AND RAILING, INCLUDING STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL IN-FILL PANELS, REGARDLESS OF AREA OR HEIGHT ABOVE A WALKING SURFACE SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION.

R 308.4.5 GLAZING AND WET SURFACES
GLAZING IN/ALLS, ENCLOSURES OR FENCES CONTAINING OR ADJACENT TO HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS, AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION. THIS SHALL APPLY TO SINGLE GLAZING AND EACH PANE IN MULTIPLE GLAZING.

R 308.4.6 GLAZING ADJACENT TO STAIRS AND RAMPS
GLAZING WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 36 INCHES ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF STAIRWAYS, LANDING BETWEEN FLIGHTS OF STAIRS AND RAMPS SHALL BE CONSIDERED TO BE A HAZARDOUS.

R 308.4.7 GLAZING ADJACENT TO THE BOTTOM STAIR LANDING
GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF A STAIRWAY WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN A 60 INCHES HORIZONTAL ARC LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION. (SEE FIGURE R 308.4.7)

INSPECTIONS AND ENFORCEMENT POSTING OF CERTIFICATE WSEC R401.3

A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR OTHER APPROVED PARTY AND POSTED ON A WALL IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM, OR AN APPROVED LOCATION INSIDE THE BUILDING. WHEN LOCATED ON AN ELECTRICAL PANEL, THE CERTIFICATE SHALL NOT COVER OBSTRUCT THE VISIBILITY OF THE CIRCUIT DIRECTORY LABEL, SERVICE DISCONNECT LABEL, OR OTHER REQUIRED LABELS. THE CERTIFICATE SHALL INDICATE THE FOLLOWING
1. THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN OR ON CEILING/ROOF, WALLS, FOUNDATION (SLAB, BELOW-GRADE WALL, AND/OR FLOOR) AND DUCTS OUTSIDE CONDITIONED SPACES;
2. U-FACTORS FOR FENESTRATION AND THE SOLAR HEAT GAIN COEFFICIENT (SHGC) OF FENESTRATION. WHERE THERE IS MORE THAN ONE VALUE FOR EACH COMPONENT, THE CERTIFICATE SHALL INDICATE THE AREA WEIGHTED AVERAGE VALUE.
3. THE RESULTS FROM ANY REQUIRED DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING DONE ON THE BUILDING;
4. THE RESULTS FROM THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FLOW RATE TEST.
5. THE TYPES, SIZES AND EFFICIENCIES OF HEATING, COOLING, WHOLE-HOUSE MECHANICAL VENTILATION, AND SERVICE WATER HEATING APPLIANCES, WHERE A "GAS-FIRED UNVENTED ROOM HEATER," "ELECTRIC FURNACE" OR "BASEBOARD ELECTRIC HEATER," IS INSTALLED IN THE RESIDENCE, THE CERTIFICATE SHALL LIST "GAS-FIRED UNVENTED ROOM HEATER", "ELECTRIC FURNACE" OR BASEBOARD ELECTRIC HEATER", AS APPROPRIATE. AN EFFICIENCY SHALL NOT BE LISTED FOR GAS-FIRED UNVENTED ROOM HEATERS, ELECTRIC FURNACES OR ELECTRIC BASEBOARD HEATERS.
6. WHERE ON SITE PHOTOVOLTAIC PANEL SYSTEMS HAVE BEEN INSTALLED, THE ARRAY CAPACITY, INVERTER EFFICIENCY, PANEL TILT, ORIENTATION AND ESTIMATED ANNUAL ELECTRIC GENERATION SHALL BE NOTED ON THE CERTIFICATE.
7. THE CODE EDITION UNDER WHICH THE STRUCTURE WAS PERMITTED, AND THE COMPLIANCE PATH USED.
THE CODE OFFICIAL MAY REQUIRE THAT DOCUMENTATION FOR ANY REQUIRED TEST RESULTS INCLUDE AN ELECTRIC RECORD OF THE TIME, DATE AND LOCATION OF THE TEST. A DATE-STAMPED SMART PHONE OR AIR LEAKAGE TESTING SOFTWARE MAY BE USED TO SATISFY THIS REQUIREMENT.

R 403.3.5 DUCT TESTING:
DUCTS SHALL BE LEAK TESTED IN ACCORDANCE WITH WSU RS-33, USING THE MAXIMUM DUCT LEAKAGE RATES SPECIFIED.
EXCEPTION: A DUCT AIR LEAKAGE SHAL NOT BE REQUIRED FOR DUCTS SERVING VENTILATION SYSTEMS THAT ARE NOT INTEGRATED WITH DUCTS SERVING SPACE OR COOLING SYSTEMS.
A WRITTEN REPORT OF THE RESULTS SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL.

R 402.4 AIR LEAKAGE
THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS R402.4.1 THROUGH R402.4.4.6.

ROOF GENERAL NOTES:

A. CONTRACTOR SHALL PROVIDE ATTIC VENTILATION AS PER CODE.
B. PROVIDE FLASHING AT ALL VALLEYS, PITCH CHANGES, AND AT VERTICAL PLANES.
C. PROVIDE FLASHING AND COUNTER FLASHING AT CHIMNEYS A MIN. OF 8" ABOVE ROOF SHEATHING AND CRICKETS AS SHOWN.
D. RAFTERS WILL BEAR DIRECTLY ON TRUSSES OR BLOCKING BETWEEN THE TRUSSES.
E. HEADERS TO BE A MIN. 4x8 DFPP, U.N.O.
F. PROVIDE DOUBLE FELT UNDERLAYMENT FOR COMPOSITION ROOFING (TYP.) FOR SLOPES UNDER 4:12.
G. UNDERLAYMENT SHALL BE APPLIED IN SHINGLE FASHION, PARALLEL TO AND STARTING FROM THE EAVE AND LAPPED 2", FASTENED SUFFICIENTLY TO HOLD IN PLACE. END LAPS SHALL BE OFFSET BY 6 FEET.

VENTILATION CALCULATIONS AND REQUIREMENTS

R806.2 MINIMUM VENT AREA
THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE.

EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET.
1. IN CLIMATE ZONES 6, 7 & 8, A CLASS 1 OR 2 VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
2. NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NOT MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

VENTILATION GENERAL NOTES:

A. ROOFS TALLER THAN 3' WILL USE BIRD BLOCKING AND AFSO VENTS.
B. ROOFS SHORTER THAN 3' WILL USE BIRD BLOCKING AS REQUIRED.
NOTE
RAKES ON GABLE ENDS MUST EXTEND A MIN. OF 2 INCHES (2") FROM THE SURFACE OF EXTERIOR SIDING MATERIALS.

FLASHING.

APPROVED CORROSION-RESISTANT FLASHING SHALL BE APPLIED SHINGLE-FASHION IN A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS. SELF-ADHERED T MEMBRANES USED AS FLASHING SHALL COMPLY WITH AAMA 711. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH. APPROVED CORROSION-RESISTANT FLASHINGS SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS:
1. EXTERIOR WINDOW AND DOOR OPENINGS. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER-RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL BE INSTALLED IN ACCORDANCE WITH ONE OR MORE OF THE FOLLOWING: IN THE FENESTRATION MANUFACTURER'S INSTALLATION AND FLASHING INSTRUCTIONS, OR FOR APPLICATIONS NOT ADDRESSED IN THE FENESTRATION MANUFACTURERS INSTRUCTIONS, WHERE FLASHING INSTRUCTIONS OR DETAILS ARE NOT PROVIDED, PAN FLASHING SHALL BE INSTALLED AT THE SILL OF EXTERIOR DOOR AND WINDOW OPENINGS. PAN FLASHING SHALL BE SEALED OR SLOPED IN SUCH A MANNER AS TO DIRECT WATER TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER-RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE. OPENINGS USING PAN FLASHING SHALL ALSO INCORPORATE FLASHING OR PROTECTION AT THE HEAD AND SIDES, IN ACCORDANCE WITH THE FLASHING DESIGN OR METHOD OF A REGISTERED DESIGN PROFESSIONAL. 13. IN ACCORDANCE WITH OTHER APPROVED METHODS.
2. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS. ON BOTH SIDES UNDER STUCCO COPINGS.
3. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS.
4. CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM.
5. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION.
6. AT WALL AND ROOF INTERSECTIONS.
7. AT BUILT-IN GUTTERS.

WEATHER RESISTIVE SHEATHING PAPER: R703.2 WATER-RESISTIVE BARRIER. ONE LAYER OF NO. 15 ASPHALT FELT, FREE FROM HOLES AND BREAKS, COMPLYING WITH ASTM D 226 FOR TYPE I FELT OR OTHER APPROVED WATER-RESISTIVE BARRIER SHALL BE APPLIED OVER STUDS OR SHEATHING OF ALL EXTERIOR WALLS. SUCH FELT OR MATERIAL SHALL BE APPLIED HORIZONTALLY, WITH THE UPPER LAYER LAPPED OVER THE LOWER LAYER NOT LESS THAN 2 INCHES (51 MM). WHERE JOINTS OCCUR, FELT SHALL BE LAPPED NOT LESS THAN 6 INCHES (152 MM). THE FELT OR OTHER APPROVED MATERIAL SHALL BE CONTINUOUS TO THE TOP OF WALLS AND TERMINATED AT PENETRATIONS AND BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE AS DESCRIBED IN SECTION R703.1.1

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Rueppell
Home Design
Address: 8205 SE 71st St. Mercer Island WA 98040
Plan: 255 (Remodel/Addition)
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Drawn by: AF, BP
Phone: (253) 251-2501

[C-0]

MECHANICAL

HEATING EQUIPMENT. ALL WARM-AIR FURNACES SHALL BE LISTED AND LABELED BY AN APPROVED AGENCY AND INSTALLED TO LISTED SPECIFICATIONS.
NO WARM-AIR FURNACES SHALL BE INSTALLED IN A ROOM USED OR DESIGNED TO BE USED AS A BEDROOM, BATHROOM, CLOSET OR IN ANY ENCLOSED SPACE WITH ACCESS ONLY THROUGH SUCH ROOM OR SPACE, EXCEPT DIRECT VENT FURNACE, ENCLOSED FURNACES AND ELECTRIC HEATING FURNACES.
LIQUIFIED PETROLEUM GAS-BURNING APPLIANCES SHALL NOT BE INSTALLED IN A PIT, BASEMENT OR SIMILAR LOCATION WHERE HEAVIER THAN AIR GAS MIGHT COLLECT. APPLIANCES SO FUELED SHALL NOT BE INSTALLED IN AN ABOVE GRADE UNDER FLOOR SPACE OR BASEMENT UNLESS SUCH LOCATION IS PROVIDED WITH AN APPROVED MEANS FOR REMOVAL OF UNBURNED GAS.
HEATING AND COOLING EQUIPMENT LOCATED IN A GARAGE WHICH GENERATES A GLOW, SPARK OR FLAME CAPABLE OF IGNITING FLAMMABLE VAPORS SHALL BE INSTALLED WITH THE PILOTS AND BURNERS FOR HEATING ELEMENTS AND SWITCHES AT LEAST 18" ABOVE THE FLOOR LEVEL.

TEMPERATUERE CONTROL. THE PRIMARY SPACE CONDITIONING SYSTEM WITHIN EACH DWELLING UNIT SHALL BE PROVIDED WITH AT LEAST ONE PROGRAMMABLE THERMOSTAT FOR THE REGULATION OF TEMPERATURE WSEC SEC403.1.1

VENTILATION EVERY FACTORY BUILT CHIMNEY, TYPE L VENT, TYPE B GAS VENT OR TYPE BW GAS VENT SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF ITS LISTING, MFR'S INSTALLATION INSTRUCTIONS AND APPLICABLE CODE REQUIREMENTS. A TYPE L VENTING SYSTEM SHALL TERMINATE NOT LESS THAN 2 FEET ABOVE THE HIGHEST POINT WHERE THE VENT PASSES THROUGH THE ROOF OF THE BUILDING AND AT LEAST 2' HIGHER THAN ANY PORTION OF THE BUILDING WITHIN 10' OF THE VENT.

UTILITY ROOM NOTES/MAKE UP AIR:
1. WHERE THE EXHAUST DUCT IS CONCEALED WITHIN THE BUILDING CONSTRUCTION, THE EQUIVALENT LENGTH OF THE EXHAUST DUCT SHALL BE IDENTIFIED ON A PERMANENT LABEL OR TAG. THE LABEL OR TAG SHALL BE LOCATED WITHIN 6 FEET OF THE EXHAUST DUCT CONNECTION.
2. INSTALLATIONS EXHAUSTING MORE THAN 200 CFM SHALL BE PROVIDED WITH MAKE UP AIR WHERE A CLOSET IS DESIGNED FOR THE INSTALLATION OF A CLOTHES DRYER, AN OPENING HAVING AN AREA OF NOT LESS THAN 100 SQ. INCHES FOR MAKE UP AIR SHALL BE PROVIDED IN THE CLOSET ENCLOSURE, OR MAKE UP AIR SHALL BE PROVEDED BY OTHER APPR. MEANS.
- 100 SQ INCH TRANSFER GRILL PER IRC G2439.4 (6146)

CONTINUOUS WHOLE-HOUSE

MECHANICAL VENTILATION SYSTEM | APPLIAN RATE REQUIREMENTS

FLOOR AREA (SQ FT)	NUMBER OF BEDROOMS				
	1	2	3	4	> 5
	AIRFLOW IN CFM				
< 500	30	30	30	45	50
501 - 1000	30	30	45	50	55
1001 - 1500	30	45	45	50	60
1501 - 2000	30	45	50	60	65
2001 - 2500	45	50	50	60	70
2501 - 3000	45	50	60	70	75
3001 - 3500	50	60	60	75	80
3501 - 4000	50	65	70	80	85
4001 - 4500	60	70	75	85	90
4501 - 5000	60	75	80	90	95

INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS

RUN-TIME % IN EACH 4-HOUR SEGMENT	50%	66%	75%	100%
FACTOR	2	1.5	1.3	1.0

MINIMUM REQUIRED EXHAUST RATES

AREA TO BE VENTED	EXHAUST RATE/MODE
KITCHENS	100 CFM INTERMITTENT OR 30 CFM CONTINUOUSLY
BATHROOM / LAUNDRY / SIMILAR AREAS	50 CFM INTERMITTENT OR 20 CFM CONTINUOUSLY

2021 WASHINGTON STATE ENERGY CODE-RESIDENTIAL

HIGH EFFICIENCY HVAC EQUIPMENT 3.7 - 2.0 CREDITS
DUCTLESS SPLIT SYSTEM HEAT PUMPS WITH NO ELECTRIC RESISTANCE HEATING IN THE PRIMARY LIVING AREAS.
A DUCTLESS HEAT PUMP SYSTEM WITH A MINIMUM 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 BTUs OR LESS USING MULTI-ZONE MINI-SPLIT SYSTEMS WITH NOMINAL RATINGS OF 24,000 OR LESS, THE MINIMUM HSPF TO CLAIM THIS CREDIT SHALL BE 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).

Project Information
Plan 255 (Lee)

Contact Information
Rueppell Home Design
253-251-2501

Messages / Comments *
UA Reduction = 0.11, Proposed UA is better than baseline by 0.2%

Window area is 29% of floor area

Whole House Mechanical Ventilation Airflow Rate: 30 CFM with Run Time Percent of 100%, Balanced, Distributed

* Results assume your inputs are complete and correct. Results do not constitute an approval. Analysis should be reviewed by your AHJ

ANALYSIS SET UP

What code compliance pathway are you using?	3.Factor Compliance Path / Total UA Alternative
Project Building Type?	Addition
Occupancy Type?	R3 Single family dwellings and townhouses
Code Version?	WSEC 2021
Classification:	Addition 150 sf to 500 sf – 250 sq. ft.
baseline Description:	Code Baseline - Baseline and proposed window areas are equal
Ideal Your Selection:	Up to 15 sf exempt window and 24 sf exempt door allowable

WSEC-R Rev: Oct. 2023, https://www.sbcc.wa.gov/sites/default/files/2023-12/C

RESULTS - Comparison of Baseline and Proposed Design **

Component	Performance, R-occupancies	Baseline Area	Baseline UA	Proposed Design U	Proposed Design Area	Proposed Design UA
Doors U-F		0.300	0		0	0.0
Overhead Glazing U-F		0.500	0		0	0.0
Vertical Glazing U-F		0.300	75	0.30	75	22.5
Flat/Vaulted Ceilings U-F		0.024	250	0.025	255	6.4
Wall (above grade) U-F		0.056	180	0.054	180	9.7
Floors over Crawlspace U-F		0.029	255	0.029	255	7.4
Slab-on-Grade F-F		0.540	0		0	0.0
Below Grade Wall U-F		N/A	0		0	0.0
Bulow Grade Slab F-F		N/A	0		0	0.0

* Values from Table R402.1.3 (Oct 2023)

Baseline UA Total	45.1
Required Credits	2.0
Proposed UA * total	40.0
Proposed Credits	2.0 from Tables 406.2 and 406
UA Percent Reduction	3%
UA Reduction	5.1

If the Proposed UA ≤ the Target UA, and the Proposed Credits from Table 406 are ≥ those required in Section R406, then the home meets the WSEC

* Results assume your inputs are complete and correct. Results do not constitute an approval. Analysis should be reviewed by your AHJ

Table R406.2 Energy Equalization Credits

System No.	Full Description	Select System Type	Fuel Normalization Credits (406.2)	Energy Credits (406.2)	Total Credits (406.2 & 406.3)
	Error: Reseted System Type		NA	2.0	2.0

Table R406.3 Energy Credits

Option No.	Category	Select Options	Energy Credits	Brief Description of Selected Options*
1	Efficient Building Envelope	Not Selected	0.0	-
2	Air Leakage Control and Efficient Ventilation	Not Selected	0.0	0.00
3.1 -3.10	High Efficiency HVAC	Option 3.7	2.0	Ductless Split System with no electric resistance in primary living areas. HSPF2, of 9 (HSPF of 10), except HSPF2 of 8.1 (HSPF of 9) if heating load is 24000 BTUs or less.
3.11	High Efficiency HVAC: Smart Thermostat	Not Selected	0.0	-
4	High Efficiency HVAC Distribution System	Not Selected	NA	- Not applicable to ductless system selected in Option 3
5.1	Efficient Water Heating: Drain Heat Recovery		0.0	
5.2	Efficient Water Heating: Compact Hot Water Distribution		0.0	
5.3-5.8	Efficient Water Heating	Not Selected	0.0	-
6	Renewable Electric Energy	kWh	0.0	
7	Appliance Package		0.0	
		Energy Credits:	2.0	

*Refer to WSEC 2015 Table R406.2 for complete option descriptions and requirements

THERMAL ENVELOPE DETAILS - Proposed Design

Conditioned Floor Area of Addition, Proposed Design: 255 sq. ft.
Classification: Addition 150 sf to 500 sf
Notes:

Exterior Doors

Plan ID	Component Description	Ref.	Door U	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Area	UA
Exempt									0	0.0
									0	0.0
									0	0.0
									0	0.0
									0	0.0
									0	0.0
									0	0.0
									0	0.0
									0	0.0
									0	0.0

Sum of Area and UA: 0 0.0
Exterior Doors Area Weighted U: 0.000

Overhead Glazing

Plan ID	Component Description	Ref.	Glazing U	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Area	UA
									-	-
									-	-
									-	-
									-	-
									-	-
									-	-

Sum of Area and UA: 0.0 0
Overhead Glazing Area Weighted U: 0.000

Vertical Glazing Schedule

Rows to Show: 12

Plan ID	Component Description	Ref.	Glazing U	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Area	UA
Exempt									-	-
	U=0.30 (Code Baseline)	Table 406.2	0.30	1	10	4	8	0	80.0	12.00
	U=0.30 (Code Baseline)	Table 406.2	0.30	2	5	00	3	0	15.0	13.50
									-	-
									-	-
									-	-
									-	-
									-	-
									-	-
									-	-
									-	-

Sum of Area and UA: 75.0 22.5
Vertical Glazing Area Weighted U: 0.300
Vertical Glazing and Doors Area Weighted U: 0.300

Flat/Vaulted Ceilings

Plan ID	Component Description	Ref.	Attic U		Area	UA
	R60 blown Attic STD baffled	U-7	0.025		255	6.4

Sum of Area and UA: 255 6.4

Walls (Above Grade)

Plan ID	Component Description	Ref.	Wall U		Net area	UA
	R21 (cavity+R9 foam INT 2X6W .ag (Code Baseline)	U-5	0.054		180	10

Sum of Area and UA: 180 10

Floor (over crawl or exterior)

Plan ID	Component Description	Ref.	Floor U	Area	UA
	R30 vented Joist (Code Baseline)	10-3	0.029	255	7

Sum of Area and UA: 255 7

Slab on Grade (less than 2 feet below grade)

Plan ID	Component Description	Ref.	Slab F	Slab Perim	Slab FP

Sum of Perimeter and FP: 0 0

Below Grade Walls and Slabs

Plan ID	Component Description	Slab Depth	Ref.	Wall U	Wall Area	Wall UA	Slab F	Slab Perim	Slab UA

Sum of Area, Length and UA: 0 0.0 0 0

Links to Download Forms, Checklists and Other Resources

Compliance Certificate	Compliance Certificate	Instructions
Insulation Certificate for Residential New Construction	Insulation Certificate	
Duct Testing Affadavits	Existing Construction	Affidavit, Existing
	New Construction	Affidavit, New
Prescriptive Checklist for 2018 WSEC	Prescriptive Checklist	
Alterations (Remodel) Worksheet	Worksheet	
EER SEER2 COP HSPF2 Converter	https://www.alliedengineering.com/ier-seer2-cop-hspf2-keton-converter	

Ventilation Requirements

Show Ventilation Calculator? Show

Conditioned Floor Area	255 sq. ft.
Number of Bedrooms	1
Run-Time Percent in Each 4-Hour Segment	100%
Is the system Balanced?	Balanced — Verify system meets definition of 'Balanced Whole-House Ventilation'
Is the system Distributed?	Distributed — Verify system meets definition of 'Distributed Whole-House Ventilation'
Ventilation Code Section	IRC, Chapter 15
Whole House Mechanical Ventilation Airflow Rate	30 CFM

HVAC Thermal Distribution System

Show Distribution System Calculator? Show
Download R8-33 (2018): http://www.energy.wsu.edu/Documents/Duct%20Testing%20Standards.

Is this a hydronic heating system?	No
Location of Ducts	Unducted
Location of Air Handler	Unducted
Is Duct Testing Required?	No

Maximum Duct Leakage:
Maximum total measured duct leakage per square foot: 0.03 CFM25 per sq. ft.
Maximum allowable total measured duct leakage: 9 CFM25

Heating System Sizing - Proposed Design

Show Heating System Sizing? Show
Try Out BetterBuiltNW's HVAC Sizing Tool: https://betterbuiltnw.com/resources/hvac-sizing-tool/

Nearest Weather Station	Mercer Island
Indoor Design Temperature	70 F
Outdoor Design Temperature	25 F
Design Temperature Difference (DT)	45 F
Conditioned Floor Area of Addition, Proposed Design	255 ft2
Conditioned Volume (Leave blank to use default of 8.0 ft. ceiling height)	2,040 ft3
HVAC System Type	All Other Systems (not heat pump)
Location of HVAC Distribution System	Unducted
Sum of UA, including exempt door and window	45
Envelope Heat Load (Sum of UA X dT)	2,070 Btu / Hour
Air Leakage Heat Load (Volume X .335 X dT X .018)	991 Btu / Hour
Building Design Heat Load (Air Leakage + Envelope Heat Loss)	3,061 Btu / Hour
Building and Duct Heat Load (For ducts located in unconditioned space: Sum of Building Heat Loss X 1.1 / For ducts located in conditioned space or ductless: Sum of Building Heat Loss X 1	3,061 Btu / Hour
Maximum Heat Equipment Output (Building and Duct Heat Loss X 1.25 for heat pumps / Building and Duct Heat Loss X 1.40 for all other systems)	4,285 Btu / Hour / 1.3 kW

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Rueppell Home Design
Address: 8205 SE 71st St. Mercer Island WA 98040
Plan: 255 (Remodel/Addition)
Job#: Lee
Date: 07/16/2025
Revision Date: 10/20/25
Drawn by: AF, BP
Phone: (253) 251-2501

[E-1]

NEW ROOF ADDITION CALCULATIONS

255 SQ. FT ATTIC AREA / 150 = 1.7 SQ. FT.
OF VENTILATION REQUIRED (246 SQ. INCHES)

UPPER ROOF VENTING PROVIDED BY: AF150 ROOF VENTS (150 SQ. IN. PER VENT)
246 SQ. IN. x 50% = 123 SQ. IN. REQUIRED.
PROVIDE (4) AF150 ROOF VENTS = 600 SQ. IN.

LOWER ROOF VENTING PROVIDED BY: BIRDBLOCKING: (4) 2" DIA. HOLES (3.14" EA.) = (12.5 SQ. INCHES)
AND WITH AF150 ROOF VENTS (150 SQ. IN. PER VENT)
246 SQ. IN. x 50% = 123 SQ. IN. REQUIRED.
PROVIDE (10) BIRDBLOCKS = 125 SQ. IN. @ FRONT & REAR OF HOUSE AND NOT WITHIN 2' OF THE SIDES.

ROOF PLAN

WALL LESS THAN 5' TO A PROPERTY LINE MUST BE 1-HOUR. PROJECTIONS GREATER THAN 2' FEET TO LESS THAN 5' FROM PROPERTY LINE MUST HAVE 1-HOUR FIRE-RESTRICTIVE CONSTRUCTION ON THE UNDERSIDE OR FIRE BLOCKED FROM WALL PLATE TO UNDERSIDE OF ROOF SHEATHING WITH NO VENT OPENINGS.

1/8"=1'-0"

D.S. = DOWNSPOUT
□ = ROOF VENT

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Rueppell Home Design

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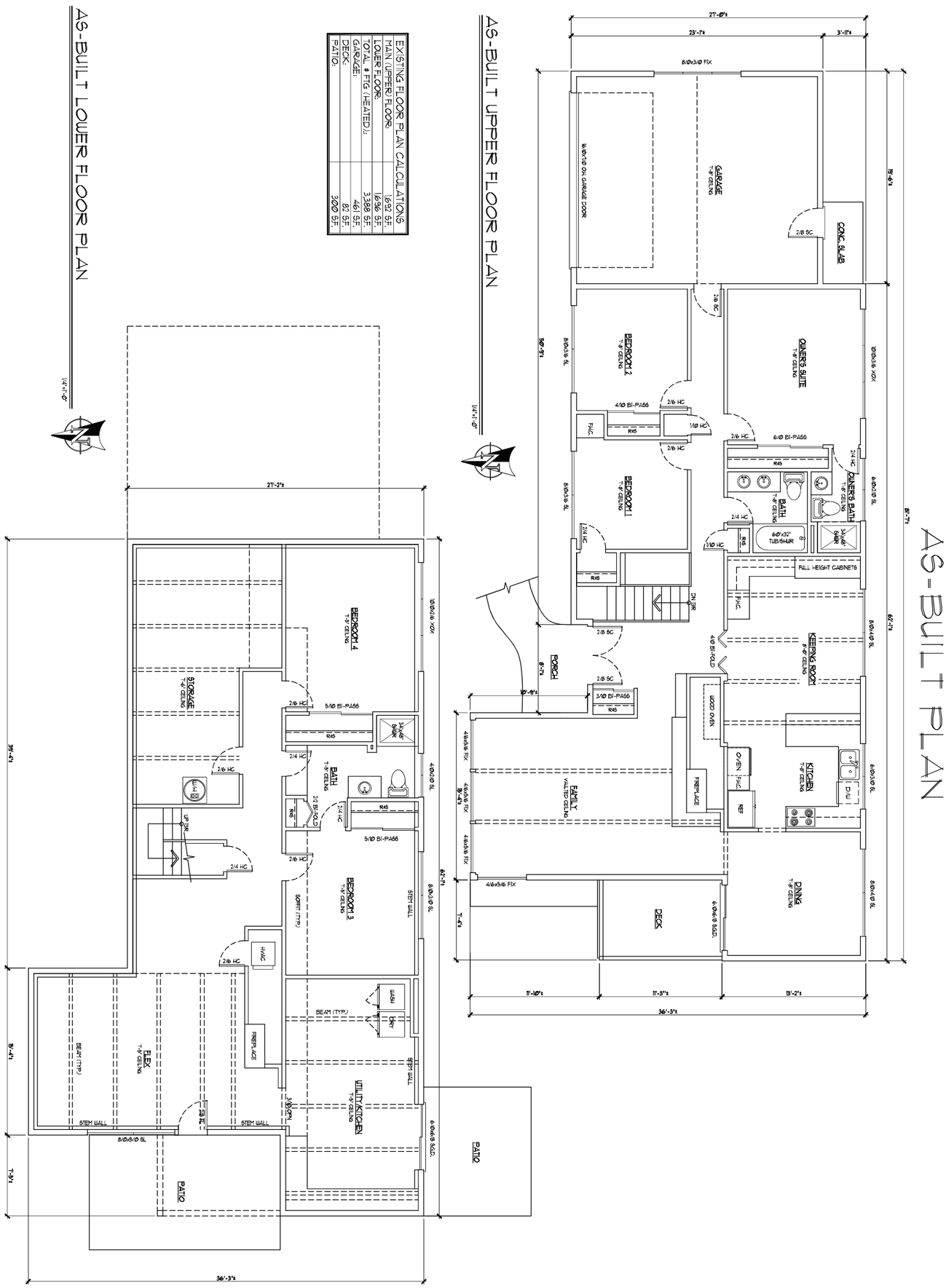
[A-0]



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A SEPARATE NOTE AND SPECIFIC PLAN SHEETS PLEASE SEE GENERAL NOTES OF THESE DRAWINGS AND INDIVIDUALLY THE LAST SHEET OF THE SET.

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AS-BUILT ELEVATIONS

AS BUILT REAR (SOUTH) ELEVATION

1/4"=1'-0"

AS BUILT RIGHT (EAST) ELEVATION

DOWNHILL FACADE

1/4"=1'-0"

AS BUILT LEFT (WEST) ELEVATION

1/4"=1'-0"

AS BUILT FRONT (NORTH) ELEVATION

1/4"=1'-0"

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DEMOLITION PLAN

UPPER FLOOR DEMO. PLAN

1/4"=1'-0"

ELEVATION NOTES:

1. CONTRACTOR SHALL VERIFY ALL NOTES, MATERIALS AND CONDITIONS PRIOR TO CONSTRUCTION.
2. CAULK ALL EXTERIOR JOINTS AND PENETRATIONS.
3. PROVIDE GALVANIZED OR ANODIZED SHEET METAL FLASHING AND COUNTERFLASHING AT ALL ROOF PENETRATIONS, CHIMNEYS, AND SKYLIGHTS.
4. PROVIDE CONTINUOUS GUTTERS AND DOWNSPOUTS AT ALL EAVES, TYP.
5. PROVIDE HEADER FLASHING AT ALL DOORS, WINDOWS, AND SHUTTERS PER DETAIL
6. ALL PAPER AND TAPE TO LAP FROM TOP DOWN.
7. HOLD ALL SIDING MATERIAL 1 ¼" OFF ROOF.
8. HOLD ALL SIDING MATERIAL 6" OFF FINISHED GRADE.
9. SOFFIT ALL FLAT AREAS W/ ½" OVERHANG AT HORIZONTAL EDGES.
10. METAL FLASHING AT ALL TRIM AND HORIZONTAL SIDING BREAKS.
11. RUN SECOND LAYER OF TAR PAPER VERTICAL AT INTERIOR AND EXTERIOR CORNERS UNLESS TAR PAPER IS CONTINUOUS.
12. FOUNDATION VENTS TO BE SPACED PER PLAN.
13. ALL FOUNDATION VENTS ON STREET SIDE OF HOUSE I.E. FRONT AND/OR SIDE AND GABLE END AND GARAGE FRESH AIR VENTS TO BE LOUVERED.
14. ALL LIGHT BLOCKS ON FACADE TO BE FURRED OUT AN ADDITIONAL ½".
15. GUTTERS TO LAP UNDER DRIP EDGE AT GABLE ENDS, HOLD ½" DRIP EDGE CUT ¼" AWAY FROM FASCIA TO EXCEPT GUTTERS TO LAP UNDERNEATH.
16. ALL TRIM WORK TO BE APPLIED PRIOR TO SIDING MATERIALS (SIDING TO BUTT UP TO TRIM WORK).
17. CONTRACTOR TO VERIFY IN FIELD ALL EXISTING PLATE HEIGHTS, ROOF PITCH AND ROOF CONNECTIONS (NEW + EXISTING) PRIOR TO CONSTRUCTION, TO AVOID MISCELLANEOUS ERRORS.

WALL LEGEND:

EXISTING (TO BE RETAINED)

EXISTING (TO BE DEMOLISHED)

LOWER FLOOR DEMO. PLAN

1/4"=1'-0"

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DEMOLITION PLAN

REAR (SOUTH) ELEVATION DEMO. PLAN

1/4"=1'-0"

RIGHT (EAST) ELEVATION DEMO. PLAN

1/4"=1'-0"

ELEVATION NOTES:

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3. PROVIDE GALVANIZED OR ANODIZED SHEET METAL FLASHING AND COUNTERFLASHING AT ALL ROOF PENETRATIONS, CHIMNEYS, AND SKYLIGHTS.
4. PROVIDE CONTINUOUS GUTTERS AND DOWNSPOUTS AT ALL EAVES, TYP.
5. PROVIDE HEADER FLASHING AT ALL DOORS, WINDOWS, AND SHUTTERS PER DETAIL.
6. ALL PAPER AND TAPE TO LAP FROM TOP DOWN.
7. HOLD ALL SIDING MATERIAL 1 ½" OFF ROOF.
8. HOLD ALL SIDING MATERIAL 6" OFF FINISHED GRADE.
9. SOFFIT ALL FLAT AREAS @ ½" OPEN-RAKE AT HORIZONTAL EDGES.
10. METAL FLASHING AT ALL TRIM AND HORIZONTAL SIDING BREAKS.
11. RUN SECOND LAYER OF TAR PAPER VERTICAL AT INTERIOR AND EXTERIOR CORNERS UNLESS TAR PAPER IS CONTINUOUS.
12. FOUNDATION VENTS TO BE SPACED PER PLAN.
13. ALL FOUNDATION VENTS ON STREET SIDE OF HOUSE I.E. FRONT AND/ OR SIDE AND GABLE END AND GARAGE FRESH AIR VENTS TO BE LOUVERED.
14. ALL LIGHT BLOCKS ON FACADE TO BE FURRED OUT AN ADDITIONAL ½".
15. GUTTERS TO LAP UNDER DRIP EDGE AT GABLE ENDS. HOLD ½" DRIP EDGE CUT ¼" AWAY FROM FASCIA TO EXCEPT GUTTERS TO LAP UNDERNEATH.
16. ALL TRIM WORK TO BE APPLIED PRIOR TO SIDING MATERIALS (SIDING TO BUTT UP TO TRIM WORK).
17. CONTRACTOR TO VERIFY IN FIELD ALL EXISTING PLATE HEIGHTS, ROOF PITCH AND ROOF CONNECTIONS (NEW + EXISTING) PRIOR TO CONSTRUCTION, TO AVOID MISCELLANEOUS ERRORS.

FRONT (NORTH) ELEVATION DEMOLITION PLAN

1/4"=1'-0"

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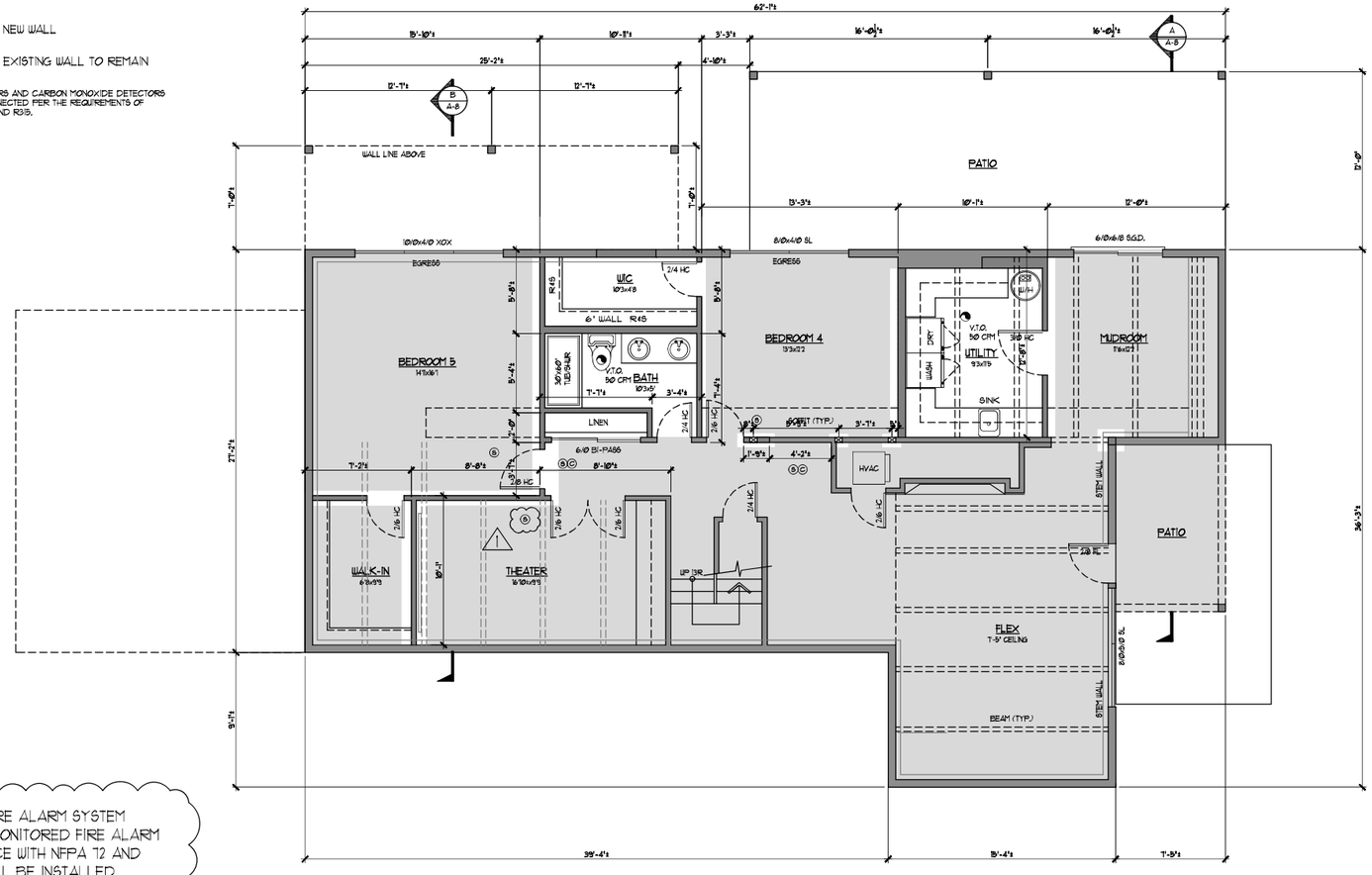
NEW LOWER FLOOR PLAN

WALL LEGEND:

NEW WALL

EXISTING WALL TO REMAIN

NOTE:
NEW SMOKE DETECTORS AND CARBON MONOXIDE DETECTORS ARE TO BE INTERCONNECTED PER THE REQUIREMENTS OF USRC SECTION R314 AND R315.



NFPA 72 MONITORED FIRE ALARM SYSTEM
NFPA 72-CHAPTER 29 MONITORED FIRE ALARM SYSTEMS IN COMPLIANCE WITH NFPA 72 AND CoMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE.
A SEPARATE FIRE PERMIT IS REQUIRED.

1

NEW LOWER FLOOR PLAN

1/4"=1'-0"

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NEW UPPER FLOOR PLAN

WALL LEGEND:

NEW WALL

EXISTING WALL TO REMAIN

NOTE:
NEW SMOKE DETECTORS AND CARBON MONOXIDE DETECTORS ARE TO BE INTERCONNECTED PER THE REQUIREMENTS OF WSRC SECTION R314 AND R315.

EXISTING FLOOR PLAN CALCULATIONS	
MAIN (UPPER) FLOOR:	1,692 S.F.
LOWER FLOOR:	1,696 S.F.
TOTAL # FTG (HEATED):	3,388 S.F.
GARAGE:	461 S.F.
PATIO:	300 S.F.
NEW ADDITION:	
UPPER FLOOR (HEATED):	255 S.F.
NEW OPEN DECK:	385 S.F.

NEW UPPER FLOOR PLAN

1/4"=1'-0"

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NEW ELEVATION

NEW REAR (SOUTH) ELEVATION

1/4"=1'-0"

ELEVATION NOTES:

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4. PROVIDE CONTINUOUS GUTTERS AND DOWNSPOUTS AT ALL EAVES, TYP.
5. PROVIDE HEADER FLASHING AT ALL DOORS, WINDOWS, AND SHUTTERS PER DETAIL
6. ALL PAPER AND TAPE TO LAP FROM TOP DOWN.
7. HOLD ALL SIDING MATERIAL 1 ½" OFF ROOF.
8. HOLD ALL SIDING MATERIAL 6" OFF FINISHED GRADE.
9. BOFFIT ALL FLAT AREAS w/ ¾" OPENINGS AT HORIZONTAL EDGES.
10. METAL FLASHING AT ALL TRIM AND HORIZONTAL SIDING BREAKS.
11. RUN SECOND LAYER OF TAR PAPER VERTICAL AT INTERIOR AND EXTERIOR CORNERS UNLESS TAR PAPER IS CONTINUOUS.
12. FOUNDATION VENTS TO BE SPACED PER PLAN.
13. ALL FOUNDATION VENTS ON STREET SIDE OF HOUSE I.E. FRONT AND/ OR SIDE AND GABLE END AND GARAGE FRESH AIR VENTS TO BE LOUVERED.
14. ALL LIGHT BLOCKS ON FACADE TO BE FURRED OUT AN ADDITIONAL ¾".
15. GUTTERS TO LAP UNDER DRIP EDGE AT GABLE ENDS, HOLD ¾" DRIP EDGE CUT ¼" AWAY FROM FASCIA TO EXCEPT GUTTERS TO LAP UNDERNEATH.
16. ALL TRIM WORK TO BE APPLIED PRIOR TO SIDING MATERIALS (SIDING TO BUTT UP TO TRIM WORK).
17. CONTRACTOR TO VERIFY IN FIELD ALL EXISTING PLATE HEIGHTS, ROOF PITCH AND ROOF CONNECTIONS (NEW & EXISTING) PRIOR TO CONSTRUCTION, TO AVOID MISCELLANEOUS ERRORS.

NEW RIGHT (EAST) ELEVATION
DOWNHILL FACADE

1/4"=1'-0"

NEW LEFT (WEST) ELEVATION

1/4"=1'-0"

NEW FRONT (NORTH) ELEVATION

1/4"=1'-0"

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BLDG. SECTIONS & DETAILS

1 TYPICAL WALL SECTION

SCALE: N.T.S.

ATTACH A SILL STRIP OF FLASHING MATERIAL AT LEAST 11" WIDE WITH THE TOP EDGE EVEN WITH THE TOP EDGE OF THE ROUGH SILL. EXTEND THIS SILL STRIP AT LEAST 11" BEYOND THE EDGE OF THE ROUGH OPENING FOR WINDOW. ATTACH FLASHING WITH GALVANIZED ROOFING NAILS OR RUST-RESISTANT STAPLES.

AFTER SILL STRIP IS IN PLACE, ATTACH JAMB STRIPS INSIDE OF OPENING AT LEAST 11" WIDE WITH INSIDE EDGE OF FLASHING EVEN WITH EDGE OF WINDOW OPENING. START JAMB STRIPS 1" BELOW THE SILL STRIP AND EXTEND JAMB STRIPS 6" ABOVE THE LOWER EDGE OF THE HEADER TOP OF WINDOW OPENINGS.

APPLY A BEAD OF CAULKING TO THE BACK SURFACES OF THE WINDOW, THEN PLACE THE WINDOW INTO THE ROUGH OPENING WITH FLANGES OVER THE INSTALLED FLASHING STRIPS. AFTER WINDOW IS PLACED, INSTALL THE HEAD FLASHING OVER THE WINDOW FLANGE. THIS IS ANOTHER STRIP OF FLASHING AT LEAST 11" WIDE.

STARTING AT THE BOTTOM OF THE WALL (SOLE PLATE) LAY WATER RESISTANT PAPER UNDER THE SILL STRIP. CUT ANY EXCESS WATER RESISTANT PAPER THAT MAY EXTEND ABOVE THE SILL FLANGE ON EACH SIDE OF THE OPENING. (SHOWN IN DIAGRAM AS SHORT DASHED LINES) INSTALL SUCCEEDING COURSES OF WATER RESISTANT PAPER OVER JAMB AND HEAD FLANGES IN SHINGLE-BOARD FASHION.

4 WINDOW FLASHING DETAIL

N.T.S.

SECTION-B

1/4"=1'-0"

2 INSIDE CORNER TRIM DETAIL

3 WRAP POST DETAIL

N.T.S.

ELEVATION NOTES:

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4. PROVIDE CONTINUOUS GUTTERS AND DOWNSPOUTS AT ALL EAVES, TYP.
5. PROVIDE HEADER FLASHING AT ALL DOORS, WINDOWS, AND SHUTTERS PER DETAIL
6. ALL PAPER AND TAPE TO LAP FROM TOP DOWN.
7. HOLD ALL SIDING MATERIAL 1½" OFF ROOF.
8. HOLD ALL SIDING MATERIAL 6" OFF FINISH GRADE.
9. SOFFIT ALL FLAT AREAS W/ 1½" OFFERINGS AT HORIZONTAL EDGES.
10. METAL FLASHING AT ALL TRIM AND HORIZONTAL SIDING BREAKS.
11. RUN SECOND LAYER OF TAR PAPER VERTICAL AT INTERIOR AND EXTERIOR CORNERS UNLESS TAR PAPER IS CONTINUOUS.
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13. ALL FOUNDATION VENTS ON STREET SIDE OF HOUSE I.E. FRONT AND/ OR SIDE AND GABLE END AND GARAGE FRESH AIR VENTS TO BE LOUVERED.
14. ALL LIGHT BLOCKS ON FACADE TO BE FURRED OUT AN ADDITIONAL 1½".
15. GUTTERS TO LAP UNDER DRIP EDGE AT GABLE ENDS. HOLD 1½" DRIP EDGE CUT ¼" AWAY FROM FASCIA TO EXCEPT GUTTERS TO LAP UNDERNEATH.
16. ALL TRIM WORK TO BE APPLIED PRIOR TO SIDING MATERIALS (SIDING TO BUTT UP TO TRIM WORK).
17. CONTRACTOR TO VERIFY IN FIELD ALL EXISTING PLATE HEIGHTS, ROOF PITCH AND ROOF CONNECTIONS (NEW & EXISTING) PRIOR TO CONSTRUCTION, TO AVOID MISCELLANEOUS ERRORS.

SECTION-A

1/4"=1'-0"

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ALL WORK SHALL BE IN ACCORDANCE WITH ALL CODES, RULES AND REGULATIONS OF GOVERNING AGENCIES AND SHALL COMPLY WITH THE REQUIREMENTS OF THE POWER SERVING AND TELEPHONE COMPANIES.

ALL EQUIPMENT INSTALLED OUTDOORS AND EXPOSED TO WEATHER SHALL BE 'WEATHER-PROOF'.

RECEPTACLES IN KITCHEN AND BATHROOMS SHALL BE INSTALLED ABOVE COUNTER TOP U.N.O. IN THE DRAWINGS.

PROVIDE MINIMUM TWO (2) 20 AMPERE SMALL APPLIANCE CIRCUITS AT THE KITCHEN, DINING ROOM AND/OR BREAKFAST AREAS.

PROVIDE GFI PROTECTION AT BATHROOMS, POUDER ROOMS, OUTDOOR RECEPTACLES, GARAGES AND WITHIN 6 FEET OF THE KITCHEN SINK.

RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY UNBROKEN WALL SPACE IS MORE THAN 6 FEET, MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE. A WALL SPACE SHALL INCLUDE ANY SPACE 2 FEET OR MORE IN WIDTH (INCLUDING SPACE MEASURED AROUND CORNERS) AND UNBROKEN ALONG THE FLOOR LINE BY DOORWAYS, FIREPLACES, AND SIMILAR OPENINGS.

IN KITCHEN AND DINING AREAS AT LEAST ONE RECEPTACLE SHALL BE INSTALLED AT EACH ISLAND OR PENINSULAR COUNTER SPACE WITH A LONG DIMENSION OF 24" OR GREATER AND A SHORT DIMENSION OF 12 INCHES.

A RECEPTACLE SHALL BE INSTALLED IN USABLE WALL SPACE 2 FEET OR MORE IN WIDTH.

RECEPTACLES AND SWITCHES BACK TO BACK IN FIRE SEPARATION WALLS MUST MAINTAIN SEPARATE BAYS.

ALL EQUIPMENT AND MATERIALS FURNISHED AND INSTALLED UNDER THIS SECTION, SHALL BE GUARANTEED BY THE TRADE PARTNER FOR A PERIOD OF TWO YEARS FROM THE DATE OF ACCEPTANCE OF THE WORK.

PROVIDE TWO METHODS OF GROUNDING CLAMP AT HOSEBIBB

ONE ADDITIONAL #4 BAR, 20-FEET LONG IN FOOTING AT ELECTRICAL METER LOCATION FOR UFFER GROUND.

RECEPTACLE OUTLETS FOR RANGES AND CLOTHES DRYERS SHALL BE A 3-POLE WITH GROUND TYPE. FOURURE, GROUNDING-TYPE FLEXIBLE CORDS WILL BE REQUIRED FOR CONNECTION OF RANGES AND CLOTHES DRYERS. THE BONDING JUMPER SHALL NOT BE CONNECTED BETWEEN THE NEUTRAL TERMINAL AND THE FRAME OF THE APPLIANCE.

PROVIDE A MIN. OF TWO 20-AMPERE-RATED BRANCH CIRCUITS FOR RECEPTACLES LOCATED IN THE KITCHEN, PANTRY, BREAKFAST, AND DINING AREAS, A SEPARATE 20-AMPERE-RATED BRANCH CIRCUIT TO THE LAUNDRY, AND A SEPARATE 20-AMPERE-RATED BRANCH CIRCUIT FOR BATHROOM RECEPTACLE(S).

PER IRC E3902.16, ALL BRANCH CIRCUITS THAT SUPPLY 125 VOLT, SINGLE PHASE 15- OR 20 AMPEREE OUTLETS INSTALLED IN DWELLING SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER.

PANEL AND CIRCUIT BREAKERS SHALL BE INSPECTED. 2--5 NEC 210-12, (a) AND (b), ARC-FAULT CIRCUIT INTERRUPTER PROTECTION.

LIGHTING

STAIRWAY ILLUMINATION (R303.7.):
INTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE TO ILLUMINATE THE LANDINGS AND TREADS. STAIRWAY ILLUMINATION SHALL RECEIVE PRIMARY POWER FROM THE BUILDING WIRING. THE LIGHT SOURCE SHALL BE CAPABLE OF ILLUMINATING TREADS AND LANDINGS TO LEVELS OF NOT LESS THAN 1 FOOTCANDLE (11 LUX) MEASURED AT THE CENTER OF TREADS AND LANDINGS. THERE SHALL BE A WALL SWITCH AT EACH FLOOR LEVEL TO CONTROL THE LIGHT SOURCE WHERE THE STAIRWAY HAS SIX OR MORE RISERS.
EXCEPTION: A SWITCH IS NOT REQUIRED WHERE REMOTE, CENTRAL OR AUTOMATIC CONTROL OF LIGHTING IS PROVIDED.

LIGHTING EQUIPMENT (R404.1):
ALL PERMANENTLY INSTALLED LIGHTING FIXTURES, EXCLUDING KITCHEN APPLIANCE LIGHTING FIXTURES, SHALL CONTAIN ONLY HIGH-EFFICACY LIGHTING SOURCES WITH EFFICIENCY OF AS 90 LUMENS PER WATT.

EXTERIOR LIGHTING (R404.1.1):
CONNECTED EXTERIOR LIGHTING FOR RESIDENTIAL BUILDINGS SHALL COMPLY WITH SECTION C405.5.
EXCEPTION: SOLAR POWERED LAMPS NOT CONNECTED TO ANY ELECTRICAL DEVICE.

INTERIOR LIGHTING CONTROLS (R404.2.):
PERMANENTLY INSTALLED INTERIOR LIGHTING FIXTURES SHALL BE CONTROLLED WITH EITHER A DIMMER, AN OCCUPANT SENSOR CONTROL OR OTHER CONTROL THAT IS INSTALLED OR BUILT INTO THE FIXTURE.
EXCEPTION: LIGHTING CONTROLS SHALL NOT BE REQUIRED FOR THE FOLLOWING:
1) BATHROOMS.
2) HALLWAYS.
3) LIGHTING DESIGNED FOR SAFETY OR SECURITY.

EXTERIOR LIGHTING CONTROLS (R404.3.):
WHERE THE TOTAL PERMANENTLY INSTALLED EXTERIOR LIGHTING POWER IS GREATER THAN 30 WATTS, THE PERMANENTLY INSTALLED EXTERIOR LIGHTING SHALL COMPLY WITH THE FOLLOWING:
1) LIGHTING SHALL BE CONTROLLED BY A MANUAL ON AND OFF SWITCH WHICH PERMITS AUTOMATIC SHUT-OFF ACTIONS.
EXCEPTION: LIGHTING SERVING MULTIPLE DWELLING UNITS.
2) LIGHTING SHALL BE AUTOMATICALLY SHUT OFF WHEN DAYLIGHT IS PRESENT AND SATISFIES THE LIGHTING NEEDS.
3) CONTROLS THAT OVERRIDE AUTOMATIC SHUT-OFF ACTIONS SHALL NOT BE ALLOWED UNLESS THE OVERRIDE AUTOMATICALLY RETURNS AUTOMATIC CONTROL TO ITS NORMAL OPERATION WITHIN 24 HOURS.

NOTE:
NEW SMOKE DETECTORS AND CARBON MONOXIDE DETECTORS ARE TO BE INTERCONNECTED PER THE REQUIREMENTS OF WSRC SECTION R314 AND R315.

UPPER FLOOR ELECTRICAL PLAN
(NEW ADDITION & REMODEL)
1/4"=1'-0"

LOWER FLOOR ELECTRICAL PLAN
(NEW ADDITION & REMODEL)
1/4"=1'-0"

ELECTRICAL LEGEND

- SINGLE POLE SWITCH
- 3 POLE SWITCH
- 4 POLE SWITCH
- SINGLE POLE OCCUPANCY SENSOR
- SINGLE POLE SWITCH W/ MOTION SENSOR
- TIMER SWITCH
- LOW VOLTAGE SWITCH
- DUPLEX RECEPTACLE OUTLET
- SPLIT WIRE DUPLEX OUTLET
- GROUND FAULT INTERCEPT OUTLET
- 30 AMP 220 VOLT ELECTRIC CAR OUTLET
- 220V OUTLET
- A/C DISCONNECT
- FLOOR RECEPTACLE
- PUSH BUTTON
- CHIMES
- TELEPHONE
- TELEVISION ANTENNA (STRUCTURED WIRING INSTALLED AT TELEVISION LOCATION)
- SMOKE DETECTOR - PERMANENTLY WIRED AND INTERCONNECTED
- COMBO CARBON MONOXIDE / SMOKE DETECTOR
- STANDARD CEILING MOUNT LIGHT OUTLET
- PORCELAIN SOCKET FIXTURE
- FLUORESCENT CEILING MOUNT LIGHT OUTLET
- WALL MOUNTED STANDARD LIGHT FIXTURE
- WALL MOUNTED FLUORESCENT LIGHT FIXTURE
- RECESSED CFL CAN LIGHT
- RECESSED FLUORESCENT CAN LIGHT
- RECESSED DIRECTIONAL CAN LIGHT
- KICK LIGHT
- EXHAUST FAN
- COMBINATION RECESSED CAN & EXHAUST FAN
- THERMOSTAT
- JUNCTION BOX
- LOW VOLTAGE ADDRESS LIGHT
- BOX FLUORESCENT, REFER TO PLAN FOR SIZE
- 110 CLG. OUTLET FOR GARAGE DOOR OPENER — GARAGE DOOR OUTLET
- CEILING FAN OUTLET (BLOCKED)

V.T.O. = VENT TO OUTSIDE; W.H.F. = WHOLE HOUSE FAN; VP = VAPOR PROOF; WP = WATER PROOF; CH = CHANDELIER; P = PENDANT

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GENERAL STRUCTURAL NOTES
UNLESS NOTED OTHERWISE ON PLANS AND DETAILS)

CODES AND SPECIFICATIONS
1. INTERNATIONAL BUILDING CODE (IBC)/INTERNATIONAL RESIDENTIAL CODE (IRC) – 2021 EDITIONS WITH LOCAL JURISDICTION AMENDMENTS AS APPLICABLE
2. ASCE/SEI 7-16 W/SUPPLEMENT 1 – MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
3. AWC NDS-2018/AWC SPDWS 2021/AWC WFCM 2018 – NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH 2018 NDS SUPPLEMENT/SPECIAL DESIGN PROVISIONS FOR WIND & SEISMIC/WOOD FRAME CONSTRUCTION MANUAL FOR ONE- AND TWO-FAMILY DWELLINGS
4. ACI 318-19 – BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
5. AISC 360-16/341-16 – SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS/SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS
6. AWS D1.4/D1.4M-2018/STRUCTURAL WELDING CODE
7. TMS 402-2016 – BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES

DESIGN CRITERIA
1. WIND – RISK CATEGORY=II, BASIC WIND SPEED (V)=100 MPH, WIND DIRECTIONALITY FACTOR=0.85, EXPOSURE CATEGORY=D, TOPOGRAPHIC FACTOR Kzt=1.00, GUST EFFECT FACTOR=0.85, ENCLOSURE CLASSIFICATION=ENCLOSED, INTERNAL PRESSURE COEFFICIENT (GCPi)=± 0.18
2. SEISMIC – RISK CATEGORY=II, SEISMIC IMPORTANCE FACTOR (Ie)=1.00, SITE CLASS=D (DEFAULT PER 11.4.3), Ss=1.466, S1=0.507, Sds=1.173, Sd1=0.606, SEISMIC DESIGN CATEGORY=D, BASIC SEISMIC-FORCE-RESISTING SYSTEM=A.15 PER ASCE 7-16 TABLE 12.2-1, SEISMIC RESPONSE COEFFICIENT (Cs)=0.180 (ORTHOGONAL 1) & 0.180 (ORTHOGONAL 2), RESPONSE MODIFICATION FACTOR (R)=6.5 (ORTHOGONAL 1) & 6.5 (ORTHOGONAL 2), DESIGN PROCEDURE USED=EQUIVALENT LATERAL FORCE PROCEDURE
3. ROOF – DEAD: 17 PSF, LIVE: 20 PSF, SNOW(Ps): 25 PSF
4. FLOOR – DEAD: 15 PSF (NON-TRUSS FLOOR), 20 PSF (TRUSS FLOOR), LIVE: 40 PSF, LIVE (DECK): 60 PSF
5. SOILS – VERTICAL BEARING PRESSURE (CAPACITY): 1500 PSF
LATERAL BEARING PRESSURE (CAPACITY): 150 PSF/FT OF DEPTH
COEFFICIENT OF FRICTION (CAPACITY): 0.25 (MULTIPLIED BY DEAD LOAD)
ACTIVE DESIGN LATERAL LOAD: 40 PSF/FT OF DEPTH
AT-REST DESIGN LATERAL LOAD: 60 PSF/FT OF DEPTH

STRUCTURAL OBSERVATION
1. STRUCTURAL OBSERVATION IS REQUIRED ONLY WHEN SPECIFICALLY DESIGNATED AS BEING REQUIRED BY THE REGISTERED DESIGN PROFESSIONAL OR THE BUILDING OFFICIAL.

SOIL CONSTRUCTION
1. EXTEND FOOTINGS TO UNDISTURBED SOIL OR FILL COMPACTED TO 95% MODIFIED PROCTOR (ASTM D1557). ALL CONSTRUCTION ON FILL SOILS SHALL BE REVIEWED BY A REGISTERED GEOTECHNICAL ENGINEER. ALL FOOTINGS SHALL BE 18 INCHES MINIMUM BELOW ADJACENT FINISH GRADE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE SITE SOILS PROVIDE THE MINIMUM VERTICAL BEARING PRESSURE CAPACITY STATED ABOVE.

PIPE PILES
1. PIPE SHALL CONFORM TO ASTM A53 GRADE B. UNLESS NOTED OTHERWISE, PIPE IS NOT REQUIRED TO BE GALVANIZED.
2. PIPE SHALL BE DRIVEN TO REFUSAL AND TESTED (AS REQUIRED) PER GEOTECHNICAL ENGINEER'S REQUIREMENTS.

REINFORCED CONCRETE
1. f'c=3000 PSI(*) AT 28 DAYS. MIN 5-½ SACKS OF CEMENT PER CUBIC YARD OF CONCRETE AND MAXIMUM OF 6-3/4 GALLONS OF WATER PER 94 LB. SACK OF CEMENT. (*) SPECIAL INSPECTION IS NOT REQUIRED – 3000 PSI COMPRESSIVE STRENGTH IS SPECIFIED FOR WEATHERING PROTECTION ONLY – STRUCTURAL DESIGN IS BASED ON f'c=2500 PSI.
2. MAXIMUM AGGREGATE SIZE IS 7/8". MAXIMUM SLUMP= 4 INCHES.
3. ALL CONCRETE SHALL BE AIR ENTRAINED – 5% MINIMUM/7% MAXIMUM (PERCENT BY VOLUME OF CONCRETE).
4. MIXING AND PLACEMENT OF ALL CONCRETE SHALL BE IN ACCORDANCE WITH THE IBC AND ACI 318. PROPORTIONS OF AGGREGATE TO CEMENT SHALL BE SUCH AS TO PRODUCE A DENSE, WORKABLE MIX WHICH CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER. PROVIDE 3/4 INCH CHAMFER ON ALL EXPOSED CONCRETE EDGES UNLESS OTHERWISE INDICATED ON ARCHITECTURAL DRAWINGS.
5. NO SPECIAL INSPECTION IS REQUIRED.
6. VIBRATE ALL CONCRETE WALLS. SEGREGATION OF MATERIALS SHALL BE PREVENTED.

REINFORCING STEEL
1. CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 318.
2. REINFORCING STEEL SHALL BE GRADE 60 MINIMUM AND DEFORMED BILLET STEEL CONFORMING TO ASTM A615.
3. WELDED WIRE MESH SHALL CONFORM TO ASTM A185.
4. REINFORCING STEEL SHALL BE ACCURATELY PLACED AND ADEQUATELY SECURED IN POSITION. THE FOLLOWING PROTECTION FOR REINFORCEMENT SHALL BE PROVIDED:

	MIN COVER
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH–	3"
EXPOSED TO EARTH OR WEATHER–	1.5" FOR #5 BAR AND SMALLER
	2" FOR #6 BAR AND LARGER
SLABS AND WALLS AT INTERIOR FACE–	1.5"

5. LAP CONTINUOUS REINFORCING BARS 32 BAR DIAMETERS (1'-6" MIN) IN CONCRETE. CORNER BARS CONSISTING OF 32 BAR DIAMETER (1'-6" MIN) BEND SHALL BE PROVIDED FOR ALL HORIZONTAL REINFORCEMENT. LAP WELDED WIRE MESH EDGES 1.5 MESH MINIMUM. THIS CRITERIA APPLIES UNLESS NOTED OTHERWISE.

RETAINING WALLS
1. CONCRETE FLOOR SLABS TO BE POURED AND CURED AND FLOOR FRAMING ABOVE SHALL BE COMPLETE BEFORE BACKFILLING BEHIND RETAINING WALLS.

TIMBER
1. UNLESS NOTED OTHERWISE, ALL SAWN LUMBER SHALL BE KILN DRIED AND GRADED/MARKED IN CONFORMANCE WITH WCLIB STANDARD GRADING FOR WEST COAST LUMBER. LUMBER SHALL MEET THE FOLLOWING MINIMUM CRITERIA:
4x AND LARGER– DF #2 (Fb=875 PSI)
3x AND SMALLER– HF #2 (Fb=850 PSI) OR SPF #2 (Fb=875 PSI)
2. WALL STUDS SHALL BE:
BEARING WALLS WITH 10'-0" MAXIMUM STUD LENGTH
2x4 HF STUD GRADE OR BTR AT 24" (MAX) OC – CARRYING ONLY ROOF AND CEILING
2x4 HF STUD GRADE OR BTR AT 16" (MAX) OC – CARRYING ONLY ONE FLOOR, ROOF AND CEILING
2x6 HF STUD GRADE OR BTR AT 24" (MAX) OC – CARRYING ONLY ONE FLOOR, ROOF AND CEILING
2x6 HF STUD GRADE OR BTR AT 16" (MAX) OC – CARRYING ONLY TWO FLOORS, ROOF AND CEILING
NON-BEARING WALLS WITH MAXIMUM STUD LENGTH NOTED
2x4 HF STUD GRADE OR BTR AT 24" (MAX) OC – 10'-0" MAXIMUM STUD LENGTH
2x6 HF STUD GRADE OR BTR AT 24" (MAX) OC – 16'-0" MAXIMUM STUD LENGTH
3. PROVIDE 4x6 DF2 HEADER OVER OPENINGS NOT NOTED OTHERWISE. PROVIDE (1)2x TRIMMER AND (1)2x KING HEADER SUPPORT FOR CLEAR SPANS 5'-0" OR LESS. PROVIDE (2)2x TRIMMER AND (1)2x KING HEADER SUPPORT FOR CLEAR SPANS EXCEEDING 5'-0".
4. PROVIDE SOLID BLOCKING IN FLOOR SPACE UNDER ALL POSTS AND WALL MEMBERS CONNECTED TO HOLDOWNS. ORIENT BLOCKING SUCH THAT WOOD GRAIN IN BLOCKING IS ORIENTED VERTICALLY.
5. PROVIDE DOUBLE FLOOR JOISTS UNDER ALL PARTITION WALLS PARALLEL TO FLOOR JOISTS AND ALONG THE PERIMETER OF ALL DIAPHRAGM OPENINGS.
6. PROVIDE DOUBLE BLOCKING BETWEEN FLOOR JOISTS UNDER ALL PARTITION WALLS PERPENDICULAR TO FLOOR JOISTS.

WOOD CONNECTORS, FASTENERS AND PRESSURE TREATED WOOD
1. ALL WOOD CONNECTORS SHALL BE SIMPSON OR APPROVED EQUAL.
2. ALL NAILS SHALL BE COMMON WIRE NAILS UNLESS NOTED OTHERWISE.
3. ALL NAILING SHALL MEET THE MINIMUM NAILING REQUIREMENTS OF TABLE 2304.10.2 OF THE INTERNATIONAL BUILDING CODE.
4. ALL WOOD IN CONTACT WITH GROUND OR CONCRETE TO BE PRESSURE-TREATED WITH A WOOD PRESERVATIVE.
5. WOOD USED ABOVE GROUND SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA U1 FOR THE FOLLOWING CONDITIONS:
a) JOISTS, GIRDERS, AND SUBFLOORS THAT ARE CLOSER THAN 18" TO EXPOSED GROUND IN CRAWL SPACES OR UNEXCAVATED AREAS LOCATED WITHIN THE PERIMETER OF THE BUILDING FOUNDATION.
b) WOOD FRAMING INCLUDING SHEATHING THAT REST ON EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8 INCHES FROM EXPOSED EARTH.
c) SLEEPERS, SILLS, LEDGERS, POSTS AND COLUMNS IN DIRECT CONTACT WITH CONCRETE OR MASONRY – EXCEPT POSTS AND COLUMNS WITH CODE-APPROVED POST-BASE CONNECTOR WITH 1 INCH STANDOFF.
6. ALL FIELD-CUT ENDS, NOTCHES, AND DRILLED HOLES OF PRESERVATIVE-TREATED WOOD SHALL BE TREATED IN THE FIELD USING THE AWPA M4 STANDARD IN ACCORDANCE WITH THE DIRECTIONS OF THE PRODUCT MANUFACTURER.
7. ALL WOOD CONNECTORS AND ASSOCIATED STEEL FASTENERS (EXCEPT ANCHOR BOLTS AND HOLDOWN ANCHORS, 1/2" DIAMETER AND LARGER) IN CONTACT WITH ANY PRESERVATIVE-TREATED WOOD SHALL CONFORM TO ONE OF THE FOLLOWING CORROSION PROTECTION CONFIGURATION OPTIONS:
a) ALL WOOD CONNECTORS AND ASSOCIATED STEEL FASTENERS SHALL BE TYPE 303, 304, 306 OR 316 STAINLESS STEEL WHEN ACTUAL WOOD PRESERVATIVE RETENTION LEVELS EXCEED THE FOLLOWING LEVELS:

TREATMENT	RETENTION LEVEL (PCF)
ACQ (ALKALINE COPPER QUAT)	GREATER THAN 0.40
MCQ (MICRONIZED COPPER QUAT)	GREATER THAN 0.34
CA-B (COPPER AZOLE)	GREATER THAN 0.21
CA-C & MCA (COPPER AZOLE & AZOLE BIOCIDE)	GREATER THAN 0.15
µCA-C (AZOLE BIOCIDE)	GREATER THAN 0.14

b) WHEN ACTUAL WOOD PRESERVATIVE RETENTION LEVELS DO NOT EXCEED THE LEVELS IN 7.a) ABOVE, ALL WOOD CONNECTORS AND FASTENERS SHALL, AT A MINIMUM, BE HOT-DIPPED GALVANIZED BY ONE OF THE FOLLOWING METHODS:
i) CONTINUOUS HOT-DIPPED GALVANIZING PER ASTM A653, TYPE G185.
ii) BATCH OR POST HOT-DIPPED GALVANIZING PER ASTM 123 FOR INDIVIDUAL CONNECTORS AND AS PER ASTM A153 FOR FASTENERS. FASTENERS, OTHER THAN NAILS, TIMBER RIVETS, WOOD SCREWS AND LAG SCREWS, MAY BE HOT-DIPPED GALVANIZED AS PER ASTM B695, CLASS 55 MINIMUM.
c) PLAIN CARBON STEEL FASTENERS IN SBX/DOT AND ZINC BORATE PRESERVATIVE TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT SHALL BE PERMITTED.
8. DO NOT MIX STAINLESS STEEL AND HOT-DIPPED GALVANIZED WOOD CONNECTORS AND FASTENERS.
9. ALL ANCHOR BOLTS SHALL BE AS SPECIFIED IN THE GENERAL NOTES ON THE SHEARWALL SCHEDULE.
10. WHERE A CONNECTOR STRAP CONNECTS TWO WOOD MEMBERS, INSTALL ONE HALF OF THE TOTAL REQUIRED NAILS OR BOLTS IN EACH MEMBER.
11. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307.
12. PROVIDE STANDARD CUT WASHERS UNDER THE HEAD OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

ANCHORAGE
1. ALL MUDSILL ANCHOR BOLTS EMBEDDED IN CONCRETE OR MASONRY SHALL BE A307 UNLESS NOTED OTHERWISE. RETRO-FIT ANCHOR BOLTS SHALL BE SIMPSON STRONG-BOLT 2 WEDGE ANCHORS PER ICC-ES ESR-3037 OR SIMPSON TITEN HD SCREW ANCHORS PER ICC-ES ESR-2713.
2. ALL SHEAR WALL HOLDOWN BOLTS EMBEDDED IN CONCRETE OR MASONRY SHALL BE A307 UNLESS NOTED OTHERWISE. RETRO-FIT HOLDOWN BOLTS SHALL BE EPOXIED USING SIMPSON SET-3G WITH EMBEDMENT PER PLAN, INSTALLED PER MANUFACTURER'S REQUIREMENTS.

NAILS
1. NAILING OF WOOD FRAMED MEMBERS TO BE IN ACCORDANCE WITH IBC 2018 TABLE 2304.10.1 UNLESS OTHERWISE NOTED. CONNECTION DESIGNS ARE BASED ON NAILS WITH THE FOLLOWING PROPERTIES:

PENNY WEIGHT	DIAMETER (INCHES)	LENGTH (INCHES)
8d SINKER	0.113	2-3/8
8d COMMON	0.131	2-1/2
10d BOX	0.131	3
16d SINKER	0.148	3-1/4
16d COMMON	0.162	3-1/2

SHEARWALLS
1. ALL SHEARWALL PLYWOOD NAILING AND ANCHORS SHALL BE AS DETAILED ON THE DRAWINGS AND NOTED IN THE SHEARWALL SCHEDULE. ALL EXTERIOR WALLS SHALL BE SHEATHED WITH 7/16" APA RATED SHEATHING (24/16) – BLOCKED – WITH MINIMUM NAILING 0.131" DIAMETER x 2.5" NAILS @ 6" OC EDGES/12" OC FIELD UNLESS NOTED OTHERWISE.
2. ALL HEADER/BEAM SHALL HAVE STRAP CONNECTORS TO THE TOP PLATE EACH END WHEN THE HEADER INTERRUPTS THE CONTINUOUS (2)2x TOP PLATE. USE (1) SIMPSON MSTA24 CONNECTOR EACH END UNLESS NOTED OTHERWISE.
3. ALL SHEARWALL HOLDOWNS SHALL BE AS NOTED ON THE PLANS AND SHALL BE SIMPSON OR APPROVED EQUAL.
4. ALL HOLDOWN ANCHORS SHALL BE INSTALLED AS SHOWN ON PLANS AND AS PER MANUFACTURER'S REQUIREMENTS. HOLDOWN ANCHORS SHALL BE DRILLED AND EPOXIED (SIMPSON "SET-3G" EPOXY OR APPROVED EQUAL) WITH PRIOR APPROVAL FROM THE ENGINEER OF RECORD. PROVIDE THE FULL EMBEDMENT INTO CONCRETE AS STATED ON THE PLANS.

FLOOR AND ROOF DIAPHRAGMS
1. APPLY 23/32" APA RATED STURD-I-FLOOR(24" OC) NAILED TO FLOOR FRAMING MEMBERS WITH 0.131" DIAMETER x 2.5" NAILS AT 6" OC AT ALL SUPPORTED EDGES AND AT 12" OC AT INTERIOR SUPPORTS UNLESS NOTED OTHERWISE ON THE PLANS. OFFSET PANEL JOINTS BETWEEN PARALLEL ADJACENT RUNS OF SHEATHING.
2. APPLY 7/16" APA RATED SHEATHING(24/16) NAILED TO ROOF FRAMING MEMBERS WITH 0.113" DIAMETER x 2.375" NAILS AT 6" OC AT SUPPORTED EDGES AND AT 12" OC AT INTERIOR SUPPORTS UNLESS NOTED OTHERWISE ON THE PLANS. OFFSET PANEL JOINTS BETWEEN PARALLEL ADJACENT RUNS OF SHEATHING.
3. BLOCKING OF INTERIOR EDGES IS NOT REQUIRED UNLESS NOTED OTHERWISE ON THE PLANS.

BUILT-UP WOOD COLUMNS
1. ALL COLUMNS NOT SPECIFIED OR OTHERWISE NOTED ON THE PLANS SHALL BE (2)2x STUDS GANG FASTENED PER STANDARD DETAIL.
2. ALL COLUMNS NOT SPECIFIED OR OTHERWISE NOTED ON THE PLANS SUPPORTING GIRDER TRUSSES OR BEAMS SHALL BE (3)2x STUDS GANG FASTENED PER STANDARD DETAIL.

MANUFACTURED WOOD TRUSSES
1. TRUSSES SHALL BE DESIGNED, FABRICATED, AND INSTALLED IN ACCORDANCE WITH THE "DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES" BY THE TRUSS PLATE INSTITUTE.
2. ALL TRUSSES SHALL BE DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON.
3. ROOF TRUSSES SHALL BE FABRICATED OF DOUGLAS FIR-LARCH OR HEM-FIR.
4. ALL MECHANICAL CONNECTORS SHALL BE IBC APPROVED.
5. SUBMIT DESIGN CALCULATIONS, SHOP DRAWINGS AND INSTALLATION DRAWINGS STAMPED BY A LICENSED ENGINEER OF ALL TRUSSES TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND BUILDING DEPARTMENT APPROVAL.
6. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, DRILLED, SPLICED OR OTHERWISE ALTERED IN ANY WAY WITHOUT WRITTEN APPROVAL OF THE REGISTERED DESIGN PROFESSIONAL.
7. WHERE TRUSSES ALIGN WITH SHEARWALLS, A SPECIAL TRUSS SHALL BE PROVIDED THAT HAS BEEN DESIGNED TO TRANSFER THE LOAD BETWEEN THE ROOF SHEATHING AND THE SHEARWALL BELOW. THIS TRUSS SHALL BE DESIGNED TO TRANSFER A MINIMUM OF 100 PLF ALONG THE FULL LENGTH OF THE TRUSS.
8. ALL TEMPORARY AND PERMANENT BRACING REQUIRED FOR THE STABILITY OF THE TRUSS UNDER GRAVITY LOADS AND IN-PLANE WIND OR SEISMIC LOADS SHALL BE DESIGNED BY THE TRUSS ENGINEER. ANY BRACING LOADS TRANSFERRED TO THE MAIN BUILDING SYSTEM SHALL BE IDENTIFIED AND SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW.

PARALLEL STRAND LUMBER (PSL)
1. PARALLEL STRAND LUMBER SHALL BE MANUFACTURED AS PER NER-292 AND MEET THE REQUIREMENTS OF ASTM D2559 – Fb=2900 PSI, E=2.2E6 PSI FOR BEAMS AND Fb=2400 PSI, E=1.8E6 PSI FOR COLUMNS.

LAMINATED VENEER LUMBER (LVL)
1. LAMINATED VENEER LUMBER SHALL BE DOUG FIR MEETING THE REQUIREMENTS OF ASTM D2559 – Fb=2600 PSI, E=2.0E6 PSI.
2. FOR TOP LOADED MULTIPLE MEMBER BEAMS ONLY, FASTEN WITH TWO ROWS OF 0.148" DIAMETER x 3" NAILS AT 12" OC. USE THREE ROWS OF 0.148" DIAMETER x 3" NAILS FOR BEAMS WITH DEPTHS OF 14" OR MORE.
3. PROVIDE FULL DEPTH BLOCKING FOR LATERAL SUPPORT AT BEARING POINTS.

LAMINATED STRAND LUMBER (LSL)
1. LAMINATED STRAND LUMBER SHALL BE MANUFACTURED AS PER NER-292 AND MEET THE REQUIREMENTS OF ASTM D2559 – Fb=2325 PSI, E=1.55E6 PSI FOR BEAMS AND Fb=1700 PSI, E=1.3E6 PSI FOR BEAMS/COLUMNS AND Fb=1900 PSI, E=1.3E6 PSI FOR PLANKS.

GLUED LAMINATED WOOD MEMBERS (GLB)
1. GLUED LAMINATED WOOD BEAMS SHALL BE DOUGLAS FIR, KILN-DRIED, STRESS GRADE COMBINATION 24F-V4 (Fb=2400 PSI, E=1.8E6 PSI) UNLESS OTHERWISE NOTED ON THE PLANS.
2. FABRICATION SHALL BE IN CONFORMANCE WITH ANSI/APA A 190.1-2017 AND ASTM D3737-2018E1.
3. AITC STAMP AND CERTIFICATION REQUIRED ON EACH AND EVERY MEMBER.

WOOD I-JOISTS
1. JOISTS BY TRUSS JOISTS/MACMILLAN OR APPROVED EQUAL.
2. JOISTS TO BE ERECTED IN ACCORDANCE WITH THE PLANS AND ANY MANUFACTURERS DRAWINGS AND INSTALLATION DRAWINGS.
3. CONSTRUCTION LOADS IN EXCESS OF THE DESIGN LOADS ARE NOT PERMITTED.
4. PROVIDE ERECTION BRACING UNTIL SHEATHING MATERIAL HAS BEEN INSTALLED.
5. SEE MANUFACTURER'S REFERENCES FOR LIMITATIONS ON THE CUTTING OF WEBS AND/OR FLANGES.

STEEL CONSTRUCTION
1. STRUCTURAL STEEL SHALL BE ASTM A992 (WIDE FLANGE SHAPES) OR A53-GRADE B (PIPE) OR A36 (OTHER SHAPES AND PLATE) UNLESS NOTED OTHERWISE.
2. ALL FABRICATION AND ERECTION SHALL COMPLY WITH AISC SPECIFICATIONS AND CODES.
3. ALL WELDING SHALL BE AS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH AWS AND AISC STANDARDS. WELDING SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70xx ELECTRODES. ONLY PRE-QUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED.

MASONRY
1. CONSTRUCTION SHALL MEET THE REQUIREMENTS OF IBC CHAPTER 21.
2. SPECIAL INSPECTION IS NOT REQUIRED.
3. ALL CONCRETE BLOCK MASONRY SHALL BE LAID UP IN RUNNING BOND AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF f'm = 1500 PSI, USING TYPE "S" MORTAR, f'c = 1800 PSI.
4. ALL CELLS CONTAINING REINFORCING BARS SHALL BE FILLED WITH CONCRETE GROUT WITH AN f'c = 2000 PSI IN MAXIMUM LIFTS OF 4'-0".
5. BOND BEAMS WITH TWO #5 HORIZONTALLY SHALL BE PROVIDED AT ALL FLOOR AND ROOF ELEVATIONS AND AT THE TOP OF THE WALL.
6. PROVIDE A LINTEL BEAM WITH TWO #5 HORIZONTALLY OVER ALL OPENINGS AND EXTEND THESE TWO BARS 2'-0" PAST THE OPENING AT EACH SIDE OR AS FAR AS POSSIBLE AND HOOK.
7. PROVIDE TWO #5 VERTICALLY FOR THE FULL STORY HEIGHT OF THE WALL AT WALL ENDS, INTERSECTIONS, CORNERS AND AT EACH SIDE OF ALL OPENINGS UNLESS OTHERWISE SHOWN.
8. DOWELS TO MASONRY WALLS SHALL BE EMBEDDED A MINIMUM OF 1'-6" OR HOOKED INTO THE SUPPORTING STRUCTURE AND OF THE SAME SIZE AND SPACING AS THE VERTICAL WALL REINFORCING.
9. PROVIDE CORNER BARS TO MATCH THE HORIZONTAL WALLS REINFORCING AT ALL WALL INTERSECTIONS.
10. REINFORCING STEEL SHALL BE SPECIFIED UNDER "REINFORCING STEEL". LAP ALL REINFORCING BARS 40 BAR DIAMETERS WITH A MINIMUM OF 1'-6".
11. MASONRY WALLS SHALL BE REINFORCED AS SHOWN ON THE PLANS AND DETAILS AND IF NOT SHOWN, SHALL HAVE (1)#5 AT 48" OC HORIZONTALLY AND (1) #5 @ 48" OC VERTICALLY.
12. EMBED ANCHOR BOLTS A MINIMUM OF 5".

GENERAL CONSTRUCTION
1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE PROJECT DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE.
2. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
DISCREPANCIES: THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING, DURING THE BIDDING PERIOD, OF ANY AND ALL DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS AND SPECIFICATIONS OR OF ANY VARIATIONS NEEDED IN ORDER TO CONFORM TO CODES, RULES AND REGULATIONS. UPON RECEIPT OF SUCH INFORMATION, THE ENGINEER WILL SEND WRITTEN INSTRUCTIONS TO ALL CONCERNED. ANY SUCH DISCREPANCY, OMISSION, OR VARIATION NOT REPORTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT FRAMING AND CONNECTIONS HAVE BEEN COMPLETED.
4. THE CONTRACTOR SHALL COORDINATE WITH THE BUILDING DEPARTMENT FOR ALL PERMITS AND BUILDING DEPARTMENT REQUIRED INSPECTIONS.
5. DO NOT SCALE DRAWINGS. USE ONLY WRITTEN DIMENSIONS.
6. 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.
7. CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION.
8. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF FIELD ERECTED COMPONENTS SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE KEPT ON THE JOB SITE AT THE TIME OF INSPECTIONS FOR THE BUILDING INSPECTOR'S USE AND REFERENCE.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THE WORK.
10. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE, MUST BE REVIEWED PRIOR TO FABRICATION OR CONSTRUCTION. CONTRACTOR SHALL REVIEW AND STAMP ALL SHOP DRAWINGS PRIOR TO SUBMITTING FOR REVIEW BY THE ENGINEER OF RECORD. SUBMISSIONS SHALL INCLUDE A REPRODUCIBLE AND ONE COPY. REPRODUCIBLE WILL BE MARKED AND RETURNED. RE-SUBMITTALS OF PREVIOUSLY SUBMITTED SHOP DRAWINGS SHALL HAVE ALL CHANGES CLOUDED AND DATED WITH A SEQUENTIAL REVISION NUMBER. CONTRACTOR SHALL REVIEW AND STAMP ALL REVISED AND RESUBMITTED SHOP DRAWINGS PRIOR TO SUBMITTAL AND REVIEW BY THE ENGINEER OF RECORD. IN THE EVENT OF CONFLICT BETWEEN THE SHOP DRAWINGS AND DESIGN DRAWINGS/SPECIFICATIONS, THE DESIGN DRAWINGS/SPECIFICATIONS SHALL CONTROL AND BE FOLLOWED.

Shearwall Schedule

Mark per plan	Sheathing (ply/OSB)	No. sides sheathed	Sheathing nail size (Length x Shank x Head) (17)	Edge fastener spacing (14)	Field fastener spacing	Framing member at adjoining panels(2)	Bottom plate when directly on wood (4,5)	Bottom plate nail size (Length x Shank x Head)	Bottom plate nail spacing in each row	Bottom plate when directly on concrete (4,5)	Anchor bolt dia. (7,8)	Anchor bolt spacing-(2x sill) (3x sill)	Top plate connector (9,15)	Top plate connector spacing (11,15)	Vseismic (plf, ASD, (12))	Vwind (plf, +40%, ASD, (12))
W6A	7/16"	1	2.5"L x 0.131"D x 0.281"H	6"	12"	2xstud & unblocked horz. joint	2x or 3x	3.25"L x 0.148"D x 0.344"H	(1) row 12"	2x or 3x	5/8"	48"(2x) 72"(3x)	A35 or LTP4	50"	145	203
W6B	7/16"	1	2.5"L x 0.131"D x 0.281"H	6"	6"	2xstud & unblocked horz. joint	2x or 3x	3.25"L x 0.148"D x 0.344"H	(1) row 6"	2x or 3x	5/8"	48"(2x) 72"(3x)	A35 or LTP4	36"	194	271
W6	7/16"	1	2.5"L x 0.131"D x 0.281"H	6"	12"(3)	2x	2x or 3x	3.25"L x 0.148"D x 0.344"H	(1) row 7"	2x or 3x	5/8"	48"(2x) 72"(3x)	A35 or LTP4	30"	242	339
W4	7/16"	1	2.5"L x 0.131"D x 0.281"H	4"	12"(3)	2x	2x or 3x	3.25"L x 0.148"D x 0.344"H	(2) row 10" (6)	2x or 3x	5/8"	42"(2x) 58"(3x)	A35 or LTP4	20"	354	495
W3	7/16"	1	2.5"L x 0.131"D x 0.281"H	3"	12"(3)	3x (5)	2x or 3x	3.25"L x 0.148"D x 0.344"H	(2) row 8" (6)	2x or 3x	5/8"	36"(2x) 45"(3x)	A35 or LTP4	16"	455	637
W2	7/16"	1	2.5"L x 0.131"D x 0.281"H	2"	12"(3)	3x (5)	2x or 3x	3.25"L x 0.148"D x 0.344"H	(2) rows 6" (6)	2x or 3x	5/8"	28"(2x) 34"(3x)	A35 or LTP4	12"	595	832
2W3	7/16"	2	2.5"L x 0.131"D x 0.281"H	3"	12"(3)	3x(5, 16)	2x or 3x	3.25"L x 0.148"D x 0.344"H	(3) rows 6" (6)	2x or 3x(16)	5/8"	18"(2x) 22"(3x)	A35 or LTP4	8"	910	1274
2W2	19/32"	2	2.5"L x 0.131"D x 0.281"H	2"	12"(3)	3x(5, 16)	2x or 3x	3.25"L x 0.148"D x 0.344"H	(3) rows 4" (6)	2x or 3x(16)	5/8"	12"(2x) 15"(3x)	A35 or LTP4	5"	1362	1907

GENERAL NOTES: (UNLESS NOTED OTHERWISE)
(1) WALL STUD FRAMING IS ASSUMED TO BE AS PER THE GENERAL STRUCTURAL NOTES.
(2) ALL PANEL EDGES ARE TO BE SUPPORTED BY FRAMING MEMBERS – STUDS, PLATES AND BLOCKING (UNLESS NOTED OTHERWISE IN THE TABLE ABOVE).
(3) ALLOWABLE SHEARS IN THE TABLE ABOVE ASSUME EITHER 1) WALL STUDS AT 16" OC(MAX.) WITH PANEL LONG-AXIS ORIENTED VERTICALLY OR HORIZONTALLY OR 2) WALL STUDS AT 24" OC(MAX.) WITH PANEL LONG-AXIS ORIENTED HORIZONTALLY.
(4) WHERE THE FULL THICKNESS OF (2)2x OR 3x MUDSILLS ARE DIRECTLY CONNECTED TO WALL STUDS, USE (2)0.148" DIA.x4.5" END NAILS (30d BOX) PER STUD.
(5) (2)2x MATERIAL CAN BE USED IN LIEU OF 3x MATERIAL PROVIDED THE (2)2x IS GANG NAILED AS PER THE ASSOCIATED SHEARWALL BOTTOM PLATE NAILING.
(6) WHERE BOTTOM PLATE ATTACHMENT SPECIFIES 2 OR MORE ROWS OF NAILS INTO THE WOOD FLOOR BELOW, PROVIDE RIM JOIST(S), JOIST(S), OR BLOCKING THAT HAS A MINIMUM TOTAL

FOUNDATION PLAN

1/4"=1'-0"

(XX) = 5/8" DIAMETER ANCHOR BOLT SPACING (INCHES, ASSUMES 2x MUDSILL ON STEM WALL) OR 3/8"DIA.x4" TITEN HD SPACING (INCHES, ASSUMES 2x MUDSILL AND 4" MINIMUM SLAB THICKNESS)

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Drawn by: AF, BP, ELR
Phone: (253) 251-2501

[S-1]

NEW ADDITION MAIN FLOOR FRAMING & LOWER FLOOR SW PLAN

1/4"=1'-0"

ALL CONNECTIONS TO SPECIFIED AND/ OR VERIFIED BY JOIST MANUFACTURER.
NOTE: ALL SOLID SAWN BEAMS TO BE DF#2 OR BETTER, UNLESS NOTED OTHERWISE.

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[S-2]

NEW ADDITION ROOF FRAMING & UPPER FLOOR SW PLAN

1/4"=1'-0"

NOTE: ALL OVERFRAMED RAFTERS TO BE 2x6-24"OC FOR SPANS UP TO 8'-0", 2x8-16"OC FOR SPANS UP TO 12'-6".
ALL CONNECTIONS TO SPECIFIED AND/ OR VERIFIED BY TRUSS MANUFACTURER.
NOTE: ALL SOLID SAWN BEAMS TO BE DF#2 OR BETTER, UNLESS NOTED OTHERWISE.
NOTE: ENGINEERING FOR SUPPORT OF ROOF FRAMING IS BASED ON THE BUILDING DESIGNER'S PROVIDED ROOF TRUSS LAYOUT.
VERIFY CONSISTENCY WITH TRUSS MANUFACTURER'S ENGINEERING/LAYOUT WHEN AVAILABLE.

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13 TOP PLATE SPLICE DETAIL
N.T.S.

14 TYP. DRAG STRUT CONNECTION DETAIL
N.T.S.

19 EXTERIOR HEADER TYPICAL DETAIL
N.T.S.

20 INTERIOR HEADER TYPICAL DETAIL
N.T.S.

22 ROOF GIRDER/TRUSS CONNECTION DETAIL
N.T.S.

6 WALL FRAMING DETAILS
N.T.S.

7 TYPICAL SHEARWALL DETAIL
N.T.S.

8 TYPICAL DETAIL OF SHEARWALL DESIGNED FOR FORCE TRANSFER AROUND OPENING
N.T.S.

9 TYPICAL SHEARWALL CONNECTIONS DET. TOP & BOTTOM OF WALL
N.T.S.

26 BUILT-UP COLUMN FASTENING
FASTENING REQ'T'S SHOWN ABOVE APPLY ALONG FULL POST HEIGHT
N.T.S.

32 DECK LEDGER DETAIL
N.T.S.

33 DECK GUARDRAIL DETAIL
APPLICABLE WHERE REQ'D BY CODE
N.T.S.

34 SECTION AT TOP OF LOWER STORY WALLS
(ASSUMED TYP, VERIFY)
N.T.S.

35 SECTION AT TOP OF UPPER STORY WALLS
(ASSUMED TYP, VERIFY)
N.T.S.

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