

GENERAL NOTES

BUILDING CODE: 2018 INTERNATIONAL BLDG. CODE (IBC), AND BY REFERENCE WHERE APPLICABLE
THE 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED BY LOCAL JURISDICTION.
ROOF LIVE LOAD • 25 PSF (9K/0U)
ROOF DEAD LOAD • 15 PSF
FLOOR LIVE LOAD • 40 PSF
FLOOR DEAD LOAD • 15 PSF
WIND LOAD • 110 MPH WIND SPEED, EXPOSURE 'B', RISK CAT. II
TYPE: V OCCUPANCY GROUP: R-3

Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.

DESIGN CRITERIA: TABLE R302.1(1)											
GROUND SURF LOAD	WIND DESIGN			SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP.	ICE SHIELD UNDER-LAYMENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX
	SPEED (MPH)	TOPOGRAPHIC EFFECTS	SPECIAL WIND REGION		WEATHERING	FROST LINE DEPTH	THERMITE				MEAN ANNUAL TEMP
25	110				D/C2	MOD	18	SLIGHT-MOD	II	NO	50

ADDITIONAL REQUIRED SUBMITTAL ITEMS

- ITEMS TO BE SUBMITTED BY THE OWNER OR CONTRACTOR AT TIME OF PERMIT SUBMITTAL:
- MFG. JST. DESIGN AND LAYOUT IF APPLICABLE (FROM MANUFACTURER)
- MFG. TRUSS DESIGN AND LAYOUTS (FROM MANUFACTURER)

SITE WORKS

GENERAL

UNLESS A SOILS INVESTIGATION BY A QUALIFIED SOILS ENGINEER IS PROVIDED, FOUNDATION DESIGN IS BASED ON AN ASSUMED AVERAGE SOIL BEARING OF 15000 PSF. EXTERIOR FOOTINGS SHALL BEAR 18" (MINIMUM) BELOW FINISHED GRADE. ALL FOOTINGS TO BEAR ON FIRM UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. BACKFILL TO BE THOROUGHLY COMPACTED.

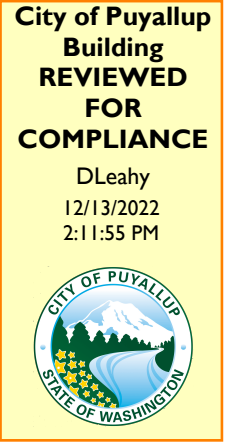
BUILDING/PLUMBING/MECHANICAL PERMIT 2018 CODES

CONCRETE

MINIMUM COMPRESSIVE STRENGTH OF CONCRETE PER TABLE R402.2

TYPE OR LOCATIONS OF CONCRETE CONSTRUCTION	MINIMUM COMPRESSIVE STRENGTH (f'c) AT 28 DAYS
	MODERATE WEATHERING POTENTIAL
BASEMENT SLABS & INTERIOR SLAB ON GRADE, EXCEPT GARAGE FLOOR SLABS (NON-STRUCTURAL)	2500 psi
BASEMENT WALLS, FOUNDATION WALLS, EXTERIOR WALLS & OTHER VERTICAL CONCRETE WORK EXPOSED TO THE WEATHER	3,000 psi (5% to 7% air entrained)
PORCHES, CARPORT SLABS & STEPS EXPOSED TO THE WEATHER & GARAGE FLOOR SLAB	3,000 psi (5% to 7% air entrained)

CONCRETE "BATCH TICKET" SHALL BE AVAILABLE ON SITE FOR REVIEW BY BUILDING OFFICIAL REINFORCING STEEL TO COMPLY WITH ASTM A618 GRADE 60, UNCL. (SEE STRUCTURAL.)



FOUNDATION

BOLT HEADS AND NUTS BEARING AGAINST WOOD TO BE PROVIDED WITH 1/4"x3"x3" PLATE WASHERS. WOOD BEARING ON OR INSTALLED WITHIN 1" OF MASONRY OR CONCRETE TO BE PRESURE TREATED WITH AN APPROVED PRESERVATIVE. FOUNDATION SILL BOLTS TO BE 5/8" DIAMETER AT 5'-0" O.C. UNCL. WITH MIN. 1" EMBEDMENT METAL FRAMING CONNECTORS TO BE MANUFACTURED BY SIMPSON STRONG-TIE OR USP STRUCTURAL CONNECTORS. ALL WOOD IN CONTACT WITH CONCRETE TREATED. FIELD CUT ENDS, NOTCHES, AND DRILLED HOLES OF PRESURE TREATED LUMBER SHALL BE RETREATED IN THE FIELD IN ACCORDANCE WITH AULFPA M4. (END CUT SOLUTION BY WOLMANIZED WOOD) PER IRC R331.11, FASTENERS FOR PRESURE PRESERVATIVE AND FIRE RETARDANT TREATED WOOD SHALL BE OF HOT-DIPPED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER. 6" MIN. CLEARANCE BETWEEN WOOD AND GRADE. 12" MIN. CLEARANCE BETWEEN FLOOR BEAMS AND GRADE. 18" MIN. CLEARANCE BETWEEN FLOOR JOIST AND GRADE.

DAMP-PROOFING EXCEPT WHERE REQUIRED BY SEC. R406.2 TO BE WATERPROOFED, FOUNDATION WALLS THAT RETAIN EARTH AND ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE DAMPROOFED FROM THE HIGHER OF (a) THE TOP OF THE FOOTING OR (b) 6 INCHES BELOW THE TOP OF THE BASEMENT FLOOR. TO THE FINISHED GRADE. MASONRY WALLS SHALL HAVE NOT LESS THAN 3/8 INCH PORTLAND CEMENT FARGING APPLIED TO THE EXTERIOR OF THE WALL. THE FARGING SHALL BE DAMPROOFED IN ACCORDANCE WITH ONE OF THE FOLLOWING:

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

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

CONCRETE WALLS SHALL BE DAMPROOFED BY APPLYING ANY ONE OF THE LISTED DAMPROOFING MATERIALS OR ANY ONE OF THE WATERPROOFING MATERIALS LISTED IN SECTION R406.2 TO THE EXTERIOR OF THE WALL.

WATERPROOFING R406.2 - IN AREAS WHERE A HIGH WATER TABLE OR OTHER SEVERE SOIL-WATER CONDITIONS ARE KNOWN TO EXIST, EXTERIOR FOUNDATION WALLS THAT RETAIN EARTH AND ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE WATERPROOFED FROM THE HIGHER OF (a) THE TOP OF THE FOOTING, OR (b) 6 INCHES BELOW THE TOP OF THE BASEMENT FLOOR, TO THE FINISHED GRADE. WALLS SHALL BE WATERPROOFED IN ACCORDANCE WITH ONE OF THE FOLLOWING:

1. 2-PLY HOT-MORPED FELTS.
2. 55 POUND ROLL ROOFING.
3. 6-MIL POLYVINYL CHLORIDE.
4. 6-MIL POLYETHYLENE
5. 40-MIL POLYMER-MODIFIED ASPHALT.
6. 60-MIL FLEXIBLE POLYMER CEMENT.

7. 1/4" CEMENT-BASED, FIBER-REINFORCED, WATERPROOF COATING.
8. 60-MIL SOLVENT-FREE LIQUID-APPLIED SYNTHETIC RUBBER.
EXCEPTION: ORGANIC-SOLVENT-BASED PRODUCTS SUCH AS HYDROCARBONS, CHLORINATED HYDROCARBONS, KETONES AND ESTERS SHALL NOT BE USED FOR ICF WALLS WITH EXPANDED POLYSTYRENE FOAM MATERIAL. USE OF PLASTIC ROOFING CEMENTS, ACRYLIC COATINGS, LATEX COATINGS, MORTARS AND FARGINGS TO SEAL ICF WALLS IS PERMITTED. COLD-SETTING ASPHALT OR HOT ASPHALT SHALL CONFORM TO TYPE C OF ASTM D 449. HOT ASPHALT SHALL BE APPLIED AT A TEMPERATURE OF LESS THAN 200°F. ALL JOINTS IN MEMBRANE WATERPROOFING SHALL BE LAPPED AND SEALED WITH AN ADHESIVE COMPATIBLE WITH THE MEMBRANE.

VENTILATION R402.1 - THE UNDER-FLOOR SPACE BETWEEN THE BOTTOM OF THE FLOOR JOISTS AND THE EARTH UNDER ANY BUILDING (EXCEPT SPACE OCCUPIED BY THE BASEMENT) SHALL HAVE VENTILATION OPENING THROUGH FOUNDATION WALLS OR EXTERIOR WALLS. A GROUND COVER OF SIX MIL (0.006) IN THICK BLACK POLYETHYLENE OR APPROVED EQUAL SHALL BE LAID OVER THE GROUND WITHIN CRAWL SPACES. THE GROUND COVER SHALL BE OVERLAPPED SIX INCHES MINIMUM AT THE JOINTS AND SHALL EXTEND TO THE FOUNDATION WALL.

EXCEPTION: THE GROUND COVER MAY BE OMITTED IN CRAWL SPACES IF THE CRAWL SPACE HAS A CONCRETE SLAB FLOOR WITH A MINIMUM THICKNESS OF TWO INCHES.

DRAFTSTOPPING & FIRE BLOCKING

DRAFTSTOPPING R302.12

IN COMBUSTIBLE CONSTRUCTION WHERE THERE IS USABLE SPACE BOTH ABOVE & BELOW THE CONCEALED SPACE OF A FLOOR/CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 10000 SQUARE FEET. DRAFTSTOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS. WHERE THE ASSEMBLY IS ENCLOSED BY A FLOOR MEMBRANE ABOVE & A CEILING MEMBRANE BELOW, DRAFTSTOPPING SHALL BE PROVIDED IN FLOOR/CEILING ASSEMBLIES UNDER THE FOLLOWING CIRCUMSTANCES:

1. CEILING IS SUBSTANTIAL UNDER THE FLOOR BEARING.
2. FLOOR FRAMING IS CONSTRUCTED OF TRUSS-TYPE OPEN-UEB OR PERFORATED MEMBERS. DRAFTSTOPPING SHALL CONSIST OF MATERIALS LISTED IN IRC SECTION R302.12.1.

FIREBLOCKING R302.11

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-FRAMED 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:
 11. VERTICALLY AT THE CEILING AND FLOOR LEVELS.
 12. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10ft.
 2. AT CONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, ROOF CEILINGS, AND ABOVE CEILING.
 3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH IRC SECTION R302.1 (1/2" GUEB).
 4. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND 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 IRC SECTION R102.9.3.
 6. FIREBLOCKING OF CORNICES OF A TWO-FAMILY DWELLING AT THE LINE OF DUELLING UNIT SEPARATION.
- FIREBLOCKING SHALL CONSIST OF MATERIALS LISTED IN IRC SECTION R302.11. LOOSE-FILL INSULATION MATERIAL SHALL NOT BE USED AS A FIREBLOCK UNLESS SPECIFICALLY TESTED IN THE FORM AND MANNER INTENDED. THE INTEGRITY OF ALL FIREBLOCKS SHALL BE MAINTAINED.

WALL CONSTRUCTION/FRAMING

GENERAL: ALL MINIMUM NAILING SHALL BE IN ACCORDANCE WITH IBC TABLE 2304.1(2) AND IRC TABLE R602.3(1) UNLESS NOTED OTHERWISE. GYPSUM WALL BOARD AT INTERIOR WALLS TO BE FASTENED ACCORDING TO TABLE R102.3.5

MINIMUM THICKNESS AND APPLICATION OF GYPSUM BOARD									
TABLE R102.3.5									
THICKNESS OF GYPSUM BOARD OR GYPSUM PANEL PRODUCTS (INCHES)	APPLICATION	ORIENTATION OF GYPSUM BOARD OR GYPSUM PANEL PRODUCTS TO FRAMING	MAXIMUM SPACING OF FASTENERS (INCHES O.C.)	MAXIMUM SPACING OF FASTENERS (INCHES O.C.)	MAXIMUM SPACING OF FASTENERS (INCHES O.C.)	SIZE OF NAILS FOR APPLICATION TO WOOD FRAMING			
3/8"	CEILING	PERPENDICULAR	16	8	12	15 GAGE, 1 1/4" LONG, 15/64" HEAD, 0.0095" DIA, 1 1/4" LONG, ANNULAR-RINGED, OR 6d COOLER NAIL, 0.0095" DIA, 1-1/8" LONG, 1/8" HEAD.			
	WALL	EITHER DIRECTION	16	8	12	15 GAGE, 1 1/4" LONG, 15/64" HEAD, 0.0095" DIA, 1-1/8" LONG, 1/8" HEAD, OR 6d COOLER NAIL, 0.0095" DIA, 1-1/8" LONG, 1/4" HEAD, OR GYPSUM BOARD NAIL, 0.0095" DIA, 1-1/8" LONG, 3/32" HEAD.			
1/2"	CEILING	EITHER DIRECTION	24	7	12	15 GAGE, 1-3/8" LONG, 15/64" HEAD, 0.0095" DIA, 1-1/4" LONG, ANNULAR-RINGED, OR 6d COOLER NAIL, 0.0095" DIA, 1-1/8" LONG, 1/8" HEAD, OR GYPSUM BOARD NAIL, 0.0095" DIA, 1-1/8" LONG, 3/32" HEAD.			
	WALL	EITHER DIRECTION	24	7	12	15 GAGE, 1-3/8" LONG, 15/64" HEAD, 0.0095" DIA, 1-1/8" LONG, 1/8" HEAD, OR 6d COOLER NAIL, 0.0095" DIA, 1-1/8" LONG, 1/4" HEAD, OR GYPSUM BOARD NAIL, 0.0095" DIA, 1-1/8" LONG, 3/32" HEAD.			
5/8"	CEILING	EITHER DIRECTION	24	6	16	15 GAGE, 1-5/8" LONG, 15/64" HEAD, 0.0095" DIA, 1-3/8" LONG, ANNULAR-RINGED, OR 6d COOLER NAIL, 0.0095" DIA, 1-1/8" LONG, 1/8" HEAD, OR GYPSUM BOARD NAIL, 0.0095" DIA, 1-1/8" LONG, 3/32" HEAD.			
	WALL	EITHER DIRECTION	24	6	16	15 GAGE, 1-5/8" LONG, 15/64" HEAD, 0.0095" DIA, 1-3/8" LONG, ANNULAR-RINGED, OR 6d COOLER NAIL, 0.0095" DIA, 1-1/8" LONG, 1/8" HEAD, OR GYPSUM BOARD NAIL, 0.0095" DIA, 1-1/8" LONG, 3/32" HEAD.			
3/8"	CEILING	PERPENDICULAR	16	16	16	SAME AS ABOVE FOR 3/8" GYPSUM BOARD AND GYPSUM PANEL PRODUCTS.			
	WALL	EITHER DIRECTION	16	16	16	SAME AS ABOVE FOR 1/2" AND 5/8" GYPSUM BOARD AND GYPSUM PANEL PRODUCTS, RESPECTIVELY.			
1/2" OR 5/8"	CEILING	PERPENDICULAR	24	16	16	SAME AS ABOVE FOR 1/2" AND 5/8" GYPSUM BOARD AND GYPSUM PANEL PRODUCTS, RESPECTIVELY.			
TWO 3/8" LAYERS	CEILING	PERPENDICULAR	24	16	24	BASE PLY NAILED AS ABOVE FOR 3" GYPSUM BOARD AND GYPSUM PANEL PRODUCTS.			
	WALL	EITHER DIRECTION	24	24	24	BASE PLY NAILED AS ABOVE FOR 3" GYPSUM BOARD AND GYPSUM PANEL PRODUCTS.			

FASTENERS: ALL NAILS SPECIFIED IN THIS PLAN SHALL BE COMMON OR GALVANIZED BOX (UNLESS NOTED OTHERWISE) OF THE DIAMETER AND LENGTH LISTED BELOW OR AS PER APPENDIX L OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) 6d COMMON (0.013" DIA, 2-1/2" LENGTH), 8d BOX (0.013" DIA, 2-1/2" LONG), 10d COMMON (0.148" DIA, 3" LONG) 16d BOX (0.128" DIA, 3" LENGTH), 16d COMMON (0.163" DIA, 3-1/2" LONG), 16d SINKER (0.148 DIA, 3-1/4" LONG) 8d COOLER (0.086" DIA, 1-5/8" LONG), 6d COOLER (0.059" DIA, 1-1/8" LONG).
LUMBER GRADES: FRAMING LUMBER SHALL COMPLY TO THE LATEST EDITION OF WUPA GRADING RULES FOR THE WESTERN LUMBER. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY AND SHALL HAVE THE FOLLOWING UNADJUSTED DESIGN MINIMUM PROPERTIES:

JOISTS:	WOOD TYPE:
2X4	HF *2 - Fb=850 psi, Fv=75 psi, Fc=1300 psi, E=1200000 psi
2X6 OR LARGER	HF *2 - Fb=850 psi, Fv=75 psi, Fc=1300 psi, E=1200000 psi
BEAM:	
4X	DF-L *2 - Fb=900 psi, Fv=95 psi, Fc=1350 psi, E=1600000 psi
6X OR LARGER	DF-L *2 - Fb=975 psi, Fv=95 psi, Fc=1600 psi, E=1300000 psi
STRUC:	
2X4	HF *2 - Fb=850 psi, Fv=75 psi, Fc=1300 psi, E=1200000 psi
2X6 OR LARGER	HF *2 - Fb=850 psi, Fv=75 psi, Fc=1300 psi, E=1200000 psi
POSTS:	
4X4	HF *2 - Fb=900 psi, Fv=95 psi, Fc=1350 psi, E=1600000 psi
4X6 OR LARGER	HF *2 - Fb=900 psi, Fv=95 psi, Fc=1350 psi, E=1600000 psi
6X6 OR LARGER	DF-L *1 - Fb=100 psi, Fv=85 psi, Fc=475 psi, E=1300000 psi
6X6 OR LARGER	DF-L *2 - Fb=100 psi, Fv=85 psi, Fc=475 psi, E=1300000 psi

GLUED-LAMINATED BEAM (GLB) SHALL BE 24F-V4 FOR SINGLE SPANS & 24F-V8 FOR CONTINUOUS OR CANTILEVER SPANS WITH THE FOLLOWING MINIMUM PROPERTIES:
Fb = 2,400 PSI, Fv = 165 PSI, Fc = 650 PSI (PERPENDICULAR), E = 1,800,000 PSI.
ENGINEERED WOOD BEAMS AND JOIST:
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SPECIFICATIONS FOR APPROVAL BY BUILDING OFFICIAL. DESIGN, FABRICATION AND ERECTION IN ACCORDANCE WITH THE LATEST ICC EVALUATION REPORT.
BEAMS DESIGNATED AS "LVL" SHALL HAVE THE MINIMUM PROPERTIES:
Fb = 2,300 PSI, Fv = 230 PSI, Fc = 150 PSI (PERPENDICULAR), E = 2,000,000 PSI. BEAMS DESIGNATED AS "LVL" SHALL HAVE THE MINIMUM PROPERTIES:
Fb = 2,600 PSI, Fv = 285 PSI, Fc = 150 PSI (PERPENDICULAR), E = 1,300,000 PSI. BEAMS DESIGNATED AS "LSL" SHALL HAVE THE MINIMUM PROPERTIES:
Fb = 1,100 PSI, Fv = 400 PSI, Fc = 600 PSI (PERPENDICULAR), E = 1,300,000 PSI. CALCULATIONS SHALL INCLUDE DEFLECTION AND CAMBER REQUIREMENTS. DEFLECTION SHALL BE LIMITED AS FOLLOWS:
FLOOR LIVE LOAD MAXIMUM = 1/480, FLOOR TOTAL LOAD MAXIMUM = 1/240.

PRE-FABRICATED WOOD TRUSSES

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

ROOF/WALL/FLOOR SHEATHING

TYPICAL WALL & ROOF SHEATHING SHALL BE 1/2" RATED SHEATHING MINIMUM UNLESS OTHERWISE SPECIFIED. MINIMUM NAILING SHALL BE 8d COMMON @ 6" O.C. @ PANEL EDGES AND 12" O.C. IN FIELD UNCL. ON SHEARWALL SCHEDULE. SPAN INDEX SHALL BE 24/0 FOR WALLS AND 24/6 FOR ROOF. ROOF SHEATHING SHALL BE 3/4" 1/4" RATED (40/20) SHEATHING UNLESS OTHERWISE SPECIFIED. MINIMUM NAILING SHALL BE 8d COMMON AT 6" O.C. @ PANEL EDGES AND 12" O.C. IN FIELD. SPAN INDEX SHALL BE 40/20 UNLESS NOTED OTHERWISE. STAGGER END LAPS AT ROOF AND FLOOR SHEATHING.

WALL FLASHING

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

1. AT TOP OF ALL EXTERIOR WINDOW AND DOOR OPENINGS IN SUCH A MANNER AS TO BE LEAKPROOF.
2. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO OPENINGS.
3. UNDER AND AT THE ENDS OF MASONRY, WOOD, OR METAL COPINGS AND SILLS.
4. CONTINUOUSLY ABOVE ALL PROJECTING TIES.
5. WHERE EXTERIOR PORCHES, DECKS, OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD CONSTRUCTION.
6. AT WALL AND ROOF INTERSECTIONS.
7. AT BUILT-IN GUTTERS.

EXTERIOR DOORS, WINDOWS AND SKYLIGHTS

PER 2018 WASHINGTON STATE ENERGY CODE

WINDOWS SHALL BE INSTALLED AND FINISHED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. WRITTEN INSTALLATION INSTRUCTIONS SHALL BE PROVIDED BY THE MANUFACTURER FOR EACH WINDOW. ALL SKYLIGHTS AND SKY WALLS TO BE LAMINATED GLASS UNLESS NOTED OTHERWISE.

SECTION R310-EMERGENCY ESCAPE & RESCUE OPENINGS

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 ONE OR MORE SLEEPING ROOMS, AN EMERGENCY ESCAPE AND RESCUE OPENING SHALL BE REQUIRED IN EACH SLEEPING ROOM. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL OPEN DIRECTLY INTO A PUBLIC WAY, OR TO A YARD OR COURT THAT OPENS TO A PUBLIC WAY.

EXCEPTION: STORM SHELTERS AND BASEMENTS USED ONLY TO HOUSE MECHANICAL EQUIPMENT NOT EXCEEDING A TOTAL FLOOR AREA OF 200 SQ. FT.

MINIMUM OPENING AREA: ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MIN. NET CLEAR OPENING OF 5.7 SQ. FT. EXCEPTION: GRADE FLOOR OPENINGS SHALL HAVE A MIN. 5.0 SQ. FT.

MINIMUM OPENING HEIGHT: THE MIN. NET CLEAR OPENINGS HEIGHT SHALL BE 24 INCHES. MINIMUM OPENING WIDTH: THE MIN. NET CLEAR OPENING WIDTH SHALL BE 20 INCHES.

MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE PER IRC SECTION R308.4.5.

HEIGHT OF NOT MORE THAN 44" ABOVE THE FLOOR, WHERE THE SILL HEIGHT IS BELOW GRADE, IT SHALL BE PROVIDED WITH A WINDOW WELL IN ACCORDANCE WITH SEC. R302.3.

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

1. GLAZING IN DOORS - SIDE HINGED DOORS, SLIDING GLASS DOORS AND PANELS IN SLIDING, & BIFOLD DOOR ASSEMBLIES PER IRC SECTION R308.4.1.
2. GLAZING ADJACENT TO DOORS - PANELS WITHIN 24" OF EITHER SIDE OF THE DOOR IN CLOSED POSITION PER IRC SECTION R308.4.2.
3. CEILING GLAZING IN WINDOWS - THE FRAME IS LARGER THAN 9 SQ. FT. THE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR. THE TOP EDGE IS MORE THAN 36" ABOVE THE FLOOR AND ONE OR MORE WALKING SURFACES ARE WITHIN 36", MEASURED HORIZONTALLY AND IN A STRAIGHT LINE OF THE GLAZING PER IRC SECTION R308.4.3.
4. GLAZING IN GUARDS AND RAILS PER IRC SECTION R308.4.4.
5. GLAZING IN UET SURFACES - WALLS, ENCLOSURES OR FENCES CONTAINING OR FACING HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60" MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE PER IRC SECTION R308.4.5.
6. GLAZING ADJACENT TO STAIRS AND RAMPS - WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 36" ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF STAIRWAYS, LANDING BETWEEN FLIGHTS OF STAIRS AND RAMPS PER IRC SECTION R308.4.6.
7. GLAZING ADJACENT TO THE BOTTOM STAIR LANDING - WHERE THE GLAZING IS LESS THAN 36" ABOVE THE LANDING AND WITHIN A 60" HORIZONTAL ARC LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING PER IRC SECTION R308.4.7.

LIGHTING

WSEC SECTION R404

LIGHTING EQUIPMENT PER SEC R404.1 - A MINIMUM OF 90 PERCENT OF LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS.

INTERIOR STAIRWAY ILLUMINATION PER SEC R302.11.2

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 NOT LESS THAN 1 FOOT-CANDLE 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.

EXTERIOR STAIRWAY ILLUMINATION PER SEC R302.8.1.2

EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED AT THE TOP LANDINGS OF THE STAIRWAY. STAIRWAY ILLUMINATION SHALL RECEIVE PRIMARY POWER FROM THE BUILDING WIRING. EXTERIOR STAIRWAYS PROVIDING ACCESS TO A BASEMENT FROM THE OUTDOOR GRADE LEVEL SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED AT THE BOTTOM LANDING OF THE STAIRWAY.

INSULATION AND MOISTURE PROTECTION

R302.10.1 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

INSULATION MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS AND VAPRO-PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES AND ATTICS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 WITH AN ACCOMPANYING SMOKE-DEVELOPED INDEX NOT TO EXCEED 450 WHERE TESTED IN ACCORDANCE WITH ASTM E 84 OR UL T23.

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 AND SHALL BE REQUIRED TO MEET A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450 WHERE TESTED IN ACCORDANCE WITH CANULC 8102.2.
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 T23 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 CANULC 8102.2.

EXCEPTION: CELLULOSIC FIBER LOOSE-FILL INSULATION SHALL NOT BE REQUIRED TO BE TESTED IN ACCORDANCE WITH CANULC 8102.2, PROVIDED 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.

R302.10.1 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.

VENTILATION REQUIREMENTS

ROOF ATTIC VENTILATION CALCULATIONS

VENTILATION CALCULATIONS & REQUIREMENTS

AT LEAST 40% & NOT MORE THAN 50% OF REQUIRED VENTS SHALL BE IN UPPER PORTION OF VENTILATED ROOF SPACE (NO MORE THAN 3' BELOW THE RIDGE OR HIGHEST POINT) WITH THE BALANCE OF REQUIRED VENTILATION PROVIDED BY EAVE VENTING.

PER IRC 806.1 ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FOR WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION OF EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATING OPENINGS SHALL BE PROVIDED WITH CORROSION RESISTANT WIRE MESH, WITH 1/8" MIN. & 1/4" MAX. OPENINGS.

IF EAVE VENTS ARE INSTALLED INSULATION SHALL NOT OBSTRUCT THE FREE FLOW OF AIR (MIN. 1" SPACE BETWEEN INSULATION AND ROOF SHEATHING @ VENT LOCATION). BAFFLING OF THE VENT OPENINGS SHALL BE INSTALLED. BAFFLER SHALL BE RIGID AND WIND-DRIVEN. MOISTURE RESISTANT. IF FEASIBLE BAFFLER SHOULD BE INSTALLED FROM THE TOP OF THE OUTSIDE OF THE EXTERIOR WALL, EXTENDING INWARD, TO A POINT 6" VERTICALLY ABOVE THE HEIGHT OF NON-COMPRESSED INSULATION, & 12" VERTICALLY ABOVE LOOSE FILL INSULATION. (ALL CALCULATIONS WILL BE NET FREE AREA)

UPPER ROOF: (AREA 1)

2,713 SQ. FT. OF ATTIC AREA/300 = 9.04 SQ. FT. OF VENTILATION REQUIRED (1502 SQ. INCHES)

UPPER VENTS = 651 sq. in. (14 AF50 VENTS)

LOWER VENTS = 651 sq. in.

55 EAVE VENTS x 12" PER BLOCK = 660 sq. in.

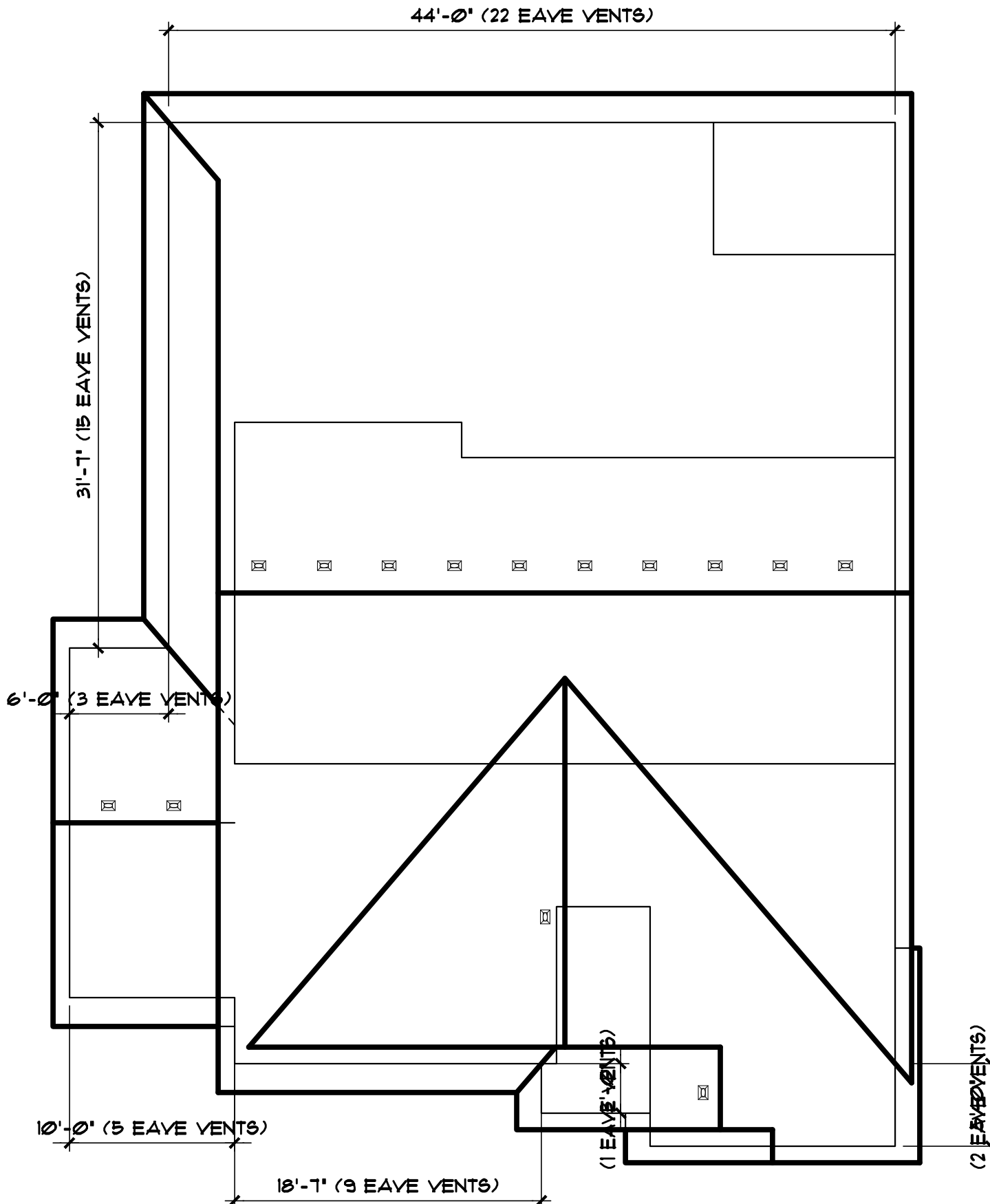
2 AF50 VENTS x 50" PER VENT = 100 sq. in.

NOTE: UPPER ROOF VENTING PROVIDED BY T1X10" AF50 ROOF VENTS. (50" x IN. PER VENT)

NOTE: EAVE VENTING PROVIDED BY (4-2 1/8" DIA) HOLE'S PER EAVE BLOCK

(4-2 1/8" DIA HOLES = 14.16 sq. in. w/O MESH

N.F.A. w/ MESH = 12" sq. in. PER BLOCK



M1505.4.1.6 Testing. Whole-house mechanical ventilation systems shall be tested, balanced and verified to provide a flow rate not less than the minimum required by Sections M1505.4.3 and M1505.4.4. Testing shall be performed according to the ventilation equipment manufacturer's instructions, or by using a flow hood, flow grid, or other airflow measuring device at the mechanical ventilation fan's inlet terminals, outlet terminals or grilles or in the connected ventilation ducts. Where required by the building official, testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the building official and be posted in the dwelling unit per Section M1505.4.1.7.

M1505.4.1.7 Certificate. A permanent certificate shall be completed by the mechanical contractor, test and balance contractor or other approved party and posted on a wall in the space where the furnace is located, a utility room, or an approved location inside the building. When located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label, or other required labels. The certificate shall list the flow rate determined from the delivered airflow of the whole-house mechanical ventilation system as installed and the type of mechanical whole house ventilation system used to comply with Section M1505.4.3.1.

HOUSE NUMBERS TO BE VISIBLE & LEGIBLE WITH CONTRASTING BACKGROUND FROM THE STREET FRONTING THE HOUSE. ADDRESS NUMBER SHALL BE MIN. 4" HIGH & A MIN. STROKE WIDTH OF 1/2" PER SEC. R319.1

WHOLE HOUSE VENTILATION USING EXHAUST FANS

SEC. M1505

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 OR 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 AND WHICH GENERATES A GLOW, SPARK OR FLAME CAPABLE OF IGNITING FLAMMABLE VAPORS SHALL BE INSTALLED WITH THE PILOTS AND BURNERS OR HEATING ELEMENTS AND SWITCHES AT LEAST 18" ABOVE THE FLOOR LEVEL.

TEMPERATURE CONTROL. THE PRIMARY SPACE CONDITIONING SYSTEM WITHIN EACH DWELLING UNIT SHALL BE PROVIDED WITH AT LEAST ONE PROGRAMMABLE THERMOSTAT FOR THE REGULATION OF TEMPERATURE W50C SEC. 403.11

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 PROVIDED BY OTHER APPROVED MEANS.

3. 100 SQ. INCH TRANSFER GRILL PER IRC G2439.5 (614.6)

WHOLE HOUSE VENTILATION SYSTEM USING EXHAUST FANS SEC. M1505

AS AMENDED BY WASHINGTON STATE

M1505.1 GENERAL. WHERE LOCAL EXHAUST OR WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS AND EQUIPMENT SHALL BE DESIGNED IN ACCORDANCE WITH THIS SECTION.

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

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

M1505.4 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM

EACH DWELLING UNIT SHALL BE EQUIPPED WITH A VENTILATION SYSTEM. THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH SECTIONS M1505.4.1 THROUGH M1505.4.4.

M1505.4.1 SYSTEM DESIGN. THE WHOLE-HOUSE VENTILATION SYSTEM SHALL CONSIST OF ONE OR MORE SUPPLY FANS, ONE OR EXHAUST FANS, OR AN EVR/HV WITH INTEGRAL FANS, ASSOCIATED DUCTS AND CONTROLS. WHOLE HOUSE MECHANICAL VENTILATION SUPPLY AND EXHAUST FANS PER SECTIONS M1505.4.1.2 THE SYSTEM SHALL BE DESIGNED AND INSTALLED TO EXHAUST AND/OR SUPPLY THE MINIMUM OUTDOOR AIRFLOW RATES PER SECTION M1505.4.3 AS MODIFIED BY THE WHOLE HOUSE VENTILATION SYSTEM COEFFICIENTS IN SECTION M1505.4.3.1 WHERE APPLICABLE. THE WHOLE HOUSE VENTILATION SYSTEM SHALL OPERATE CONTINUOUSLY AT THE MINIMUM VENTILATION RATE DETERMINED PER SECTION M1505.4.2 UNLESS CONFIGURED WITH INTERMITTENT OFF CONTROLS PER SECTION M1505.4.3.2

M1505.4.1.1 WHOLE HOUSE SYSTEM COMPONENT REQUIREMENTS. WHOLE HOUSE VENTILATION SUPPLY AND EXHAUST FANS SPECIFIED IN THIS SECTION SHALL HAVE A MIN. EFFICACY AS PRESCRIBED IN THE WASHINGTON STATE ENERGY CODE. DESIGN AND INSTALLATION OF THE SYSTEM OF EQUIPMENT SHALL BE CARRIED OUT IN ACCORDANCE WITH MANUFACTURERS' INSTALLATION INSTRUCTIONS. WHOLE HOUSE VENTILATION FANS SHALL BE RATED FOR SOUND NO LESS THAN THE MIN. AIRFLOW RATE REQUIRED BY SECTION M1505.4.3.1. VENTILATION FANS SHALL BE RATED FOR SOUND AT A MAX. OF 10 SONE. THIS SHOULD RATING SHALL BE AT A MIN. OF 0.1 IN. WC STATIC PRESSURE IN ACCORDANCE WITH HVAC PROCEDURES SPECIFIED IN SECTIONS M1505.4.1.2 AND M1505.4.1.3.

M1505.4.1.2 EXHAUST FANS. EXHAUST FANS REQUIRED SHALL BE DUCTED DIRECTLY TO THE OUTSIDE. EXHAUST AIR OUTLETS SHALL BE DESIGNED TO LIMIT THE PRESSURE DIFFERENCE. TO THE OUTSIDE AND EQUIPPED WITH BACKDRAFT DAMPERS OR MOTORIZED DAMPERS IN ACCORDANCE WITH THE WASHINGTON STATE ENERGY CODE. EXHAUST FANS SHALL BE TESTED AND RATED IN ACCORDANCE WITH THE AIRFLOW AND SOUND RATING PROCEDURES OF THE HOME VENTILATING INSTITUTE. EXHAUST FANS REQUIRED IN THIS SECTION MAY BE USED TO PROVIDE LOCAL VENTILATION. BATHROOM EXHAUST FANS THAT ARE DESIGNED FOR INTERMITTENT EXHAUST AIRFLOW RATES HIGHER THAN THE CONT. EXHAUST AIRFLOW RATES IN TABLE M1505.4.3(3) SHALL BE PROVIDED WITH OCCUPANCY SENSORS OR HUMIDITY SENSORS TO AUTOMATICALLY OVERRIDE THE FAN TO THE HIGH SPEED AIRFLOW RATE. THE EXHAUST FANS SHALL BE TESTED AND THE TESTING RESULTS SHALL BE SUBMITTED AND POSTED IN ACCORDANCE WITH SECTION M1505.4.1.6.

M1505.4.1.3 SUPPLY FANS. SUPPLY FANS USED IN MEETING THE REQUIREMENTS OF THIS SECTION SHALL SUPPLY OUTDOOR AIR FROM INTAKE OPENINGS IN ACCORDANCE WITH IMC SECTIONS 401.4 AND 401.5. WHEN DESIGNED FOR INTERMITTENT OFF OPERATION, SUPPLY SYSTEMS SHALL BE EQUIPPED WITH MOTORIZED DAMPERS IN ACCORDANCE WITH THE WASHINGTON STATE ENERGY CODE.

M1505.4.1.4 BALANCED WHOLE HOUSE VENTILATION SYSTEM. A BALANCED WHOLE HOUSE VENTILATION SYSTEM SHALL INCLUDE BOTH SUPPLY AND EXHAUST FANS. THE SUPPLY AND EXHAUST FANS SHALL HAVE AIRFLOW THAT IS WITHIN 10 PERCENT OR 5 CFM, WHICHEVER IS GREATER, OF THE TOTAL MECHANICAL SUPPLY AIRFLOW RATE.

M1505.4.1.5 WHOLE-HOUSE VENTILATION INTEGRATED SUPPLY. SYSTEMS USING SPACE HEATING AND OR COOLING AIR HANDLER FANS FOR OUTDOOR AIR SUPPLY DISTRIBUTION ARE NOT PERMITTED.

M1505.4.1.6 TESTING. WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE TESTED, BALANCED AND VERIFIED TO PROVIDE A FLOW RATE NOT LESS THAN THE MINIMUM REQUIRED BY SECTIONS M1505.4.3 AND M1505.4.4. TESTING SHALL BE PERFORMED ACCORDING TO THE VENTILATION EQUIPMENT MANUFACTURER'S INSTRUCTIONS, OR BY USING A FLOW HOOD, FLOW GRID, OR OTHER AIRFLOW MEASURING DEVICE AT THE MECHANICAL VENTILATION FANS' INLET TERMINALS, OUTLET TERMINALS OR GRILLES OR IN THE CONNECTED VENTILATION DUCTS.

M1505.4.1.7 CERTIFICATE. A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE MECHANICAL CONTRACTOR, TEST AND BALANCE CONTRACTOR 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.

M1505.4.2 SYSTEM CONTROLS. THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE PROVIDED WITH CONTROLS THAT COMPLY WITH THE FOLLOWING:

1. THE WHOLE HOUSE VENTILATION SYSTEM SHALL BE CONTROLLED WITH MANUAL SWITCHES, TIMERS OR OTHER MEANS THAT PROVIDE FOR AUTOMATIC OPERATION OF THE VENTILATION SYSTEM WITH READY ACCESS BY THE OCCUPANT.

2. WHOLE HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE PROVIDED WITH CONTROLS THAT ENABLE MANUAL OVERRIDE OFF OF THE SYSTEM BY THE OCCUPANT DURING PERIODS OF POOR OUTDOOR AIR QUALITY. CONTROLS SHALL INCLUDE PERMANENT TEXT OR A SYMBOL INDICATING THEIR FUNCTION. RECOMMENDED CONTROL PERMANENT LABELING TO INCLUDE TEXT SIMILAR TO THE FOLLOWING: 'LEAVE ON UNLESS OUTDOOR AIR QUALITY IS VERY POOR'. MANUAL CONTROLS SHALL BE READILY ACCESSIBLE BY THE OCCUPANT.

3. WHOLE HOUSE VENTILATION SYSTEMS SHALL BE CONFIGURED TO OPERATE CONTINUOUSLY EXCEPT WHERE INTERMITTENT OFF CONTROLS AND SIZING ARE PROVIDED PER SECTION M1505.4.3.2

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

M1505.4.3.1 VENTILATION QUALITY ADJUSTMENT. THE MINIMUM WHOLE HOUSE VENTILATION RATE FROM SECTION M1505.4.3 SHALL BE ADJUSTED BY THE SYSTEM COEFFICIENT IN TABLE M1505.4.3(2).

M1505.4.3.2 INTERMITTENT OFF OPERATION. WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE PROVIDED WITH ADVANCED CONTROLS THAT ARE CONFIGURED TO OPERATE THE SYSTEM WITH INTERMITTENT OFF OPERATION SHALL OPERATE FOR AT LEAST TWO HOURS IN EACH FOUR-HOUR SEGMENT.

M1505.4.4 LOCAL EXHAUST. BATHROOMS, TOILET ROOMS, AND KITCHENS SHALL INCLUDE A LOCAL EXHAUST SYSTEM. SUCH LOCAL EXHAUST SYSTEMS SHALL HAVE THE CAPACITY TO EXHAUST THE MINIMUM AIRFLOW RATE IN ACCORDANCE WITH TABLE M1505.4.4(1). FANS REQUIRED BY THIS SECTION SHALL BE PROVIDED WITH CONTROLS THAT ENABLE MANUAL OVERRIDE OR AUTOMATIC OCCUPANCY SENSOR, HUMIDITY SENSOR OR POLLUTANT SENSOR CONTROLS. AN 'ON/OFF' SWITCH SHALL MEET THIS REQUIREMENT FOR MANUAL CONTROLS. MANUAL FAN CONTROLS SHALL BE READILY ACCESSIBLE IN THE ROOM SERVED BY THE FAN.

M1505.4.4.2 LOCAL EXHAUST FANS. EXHAUST FANS MEET THE FOLLOWING CRITERIA:

1. EXHAUST FANS SHALL BE TESTED AND RATED IN ACCORDANCE WITH THE AIRFLOW AND SOUND RATING PROCEDURES OF THE HOME VENTILATION INSTITUTE.

TABLE M1505.4.3(1) CONTINUOUS WHOLE HOUSE MECHANICAL VENTILATION SYSTEM AIR FLOW RATE REQUIREMENTS.

DWELLING UNIT FLOOR AREA (SF.)	NUMBER OF BEDROOMS				
	0-1	2	3	4	5 OR MORE
	AIRFLOW IN CFM				
-500	30	30	35	45	50
501-1,000	30	35	40	50	55
1,001-1,500	30	40	45	55	60
1,501-2,000	35	45	50	60	65
2,001-2,500	40	50	55	65	70
2,501-3,000	45	55	60	70	75
3,001-3,500	50	60	65	75	80
3,501-4,000	55	65	70	80	85
4,001-4,500	60	70	75	85	90
4,501-5,000	65	75	80	90	95

TABLE M1505.4.3(3) 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

TABLE M1505.4.4(1) MINIMUM REQUIRED LOCAL EXHAUST RATES FOR ONE- AND TWO-FAMILY DWELLINGS

AREA TO BE EXHAUSTED	EXHAUST RATES	
	INTERMITTENT	CONTINUOUS
KITCHENS	100 CFM	30 CFM
BATHROOM-TOILET ROOM	50 CFM	20 CFM

2018 ENERGY CODE COMPLIANCE AND OPTIONS

2018 WSEC: 6.0 ENERGY CREDITS REQUIRED PER TABLE 406.2

2 - 13 - 21 - 3.2a - 42 - 5.5 = 6 ENERGY CREDITS

FUEL NORMALIZATION CREDITS (TABLE R402.2)

2 (1.0 CREDITS)

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

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

13 (0.5 CREDIT)

PRESCRIPTIVE COMPLIANCE IS BASED TABLE R402.11 WITH THE FOLLOWING MODIFICATIONS:

VERTICAL PENETRATION U=0.20

FLOOR R=38

SLAB ON GRADE R=10 PERIMETER AND UNDER ENTIRE SLAB

COMPLIANCE BASED ON SECTION R402.1.4: REDUCE THE TOTAL CONDUCTIVE UA BY 5%

21 (0.5 CREDIT)

COMPLIANCE IS BASED TABLE R402.12:

REDUCE THE TESTED AIR LEAKAGE TO 3.0 AIR CHANGES PER HOUR MAX. AT 50 PASCALS OR

FOR R-2 OCCUPANCIES, OPTIONAL COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 0.3 CFM/FT SQUARED MAX AT 50 PASCALS

AND

ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M1505.3 OF THE INTERNATIONAL RESIDENTIAL CODE OR SECTION 403.3 OF THE INTERNATIONAL MECHANICAL CODE SHALL BE MET WITH A HIGH EFFICIENCY FAN(S) (MAX. 0.35 WATTS/CFM), NOT INTERLOCKED WITH THE FURNACE FAN IF PRESENT. VENTILATION SYSTEMS USING A FURNACE INCLUDING AN ECM MOTOR ARE ALLOWED, PROVIDED THAT THEY ARE CONTROLLED TO OPERATE AT LOW SPEED IN VENTILATION ONLY MODE

TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED, THE MAX. TESTED BUILDING AIR LEAKAGE, AND SHALL SHOW THE QUALIFYING VENTILATION SYSTEM AND ITS CONTROL SEQUENCE OF OPERATION.

32 (1.0 CREDIT)

AIR-SOURCE CENTRALLY DUCTED HEAT PUMP WITH MIN. HSEF OF 9.5

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

42 (1.0 CREDIT)

HVAC EQUIPMENT AND ASSOCIATED DUCT SYSTEM(S) INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF SECTION R403.3.1.

LOCATING SYSTEM COMPONENTS IN CONDITIONED CRAWL SPACES IS NOT PERMITTED UNDER THIS OPTION.

ELECTRIC RESISTANCE HEAT AND DUCTLESS HEAT PUMPS ARE NOT PERMITTED UNDER THIS OPTION.

DIRECT COMBUSTION HEATING EQUIPMENT WITH AFUE LESS THAN 80% IS NOT PERMITTED UNDER THIS OPTION.

TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND SHALL SHOW THE LOCATION OF THE HEATING AND COOLING EQUIPMENT AND ALL THE DUCTWORK.

5.5 (2.0 CREDIT)

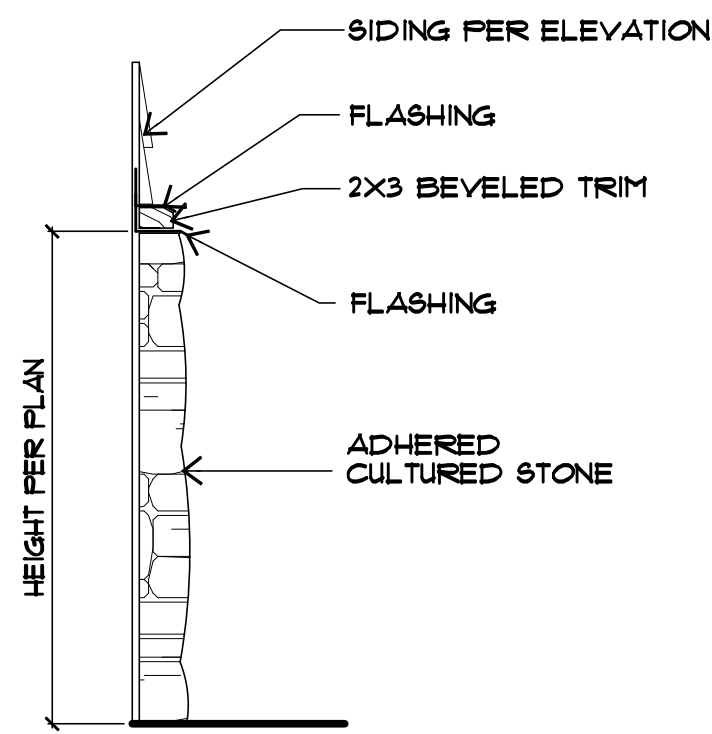
WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING:

ELECTRIC HEAT PUMP WATER HEATER MEETING THE STANDARDS FOR TIER III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION

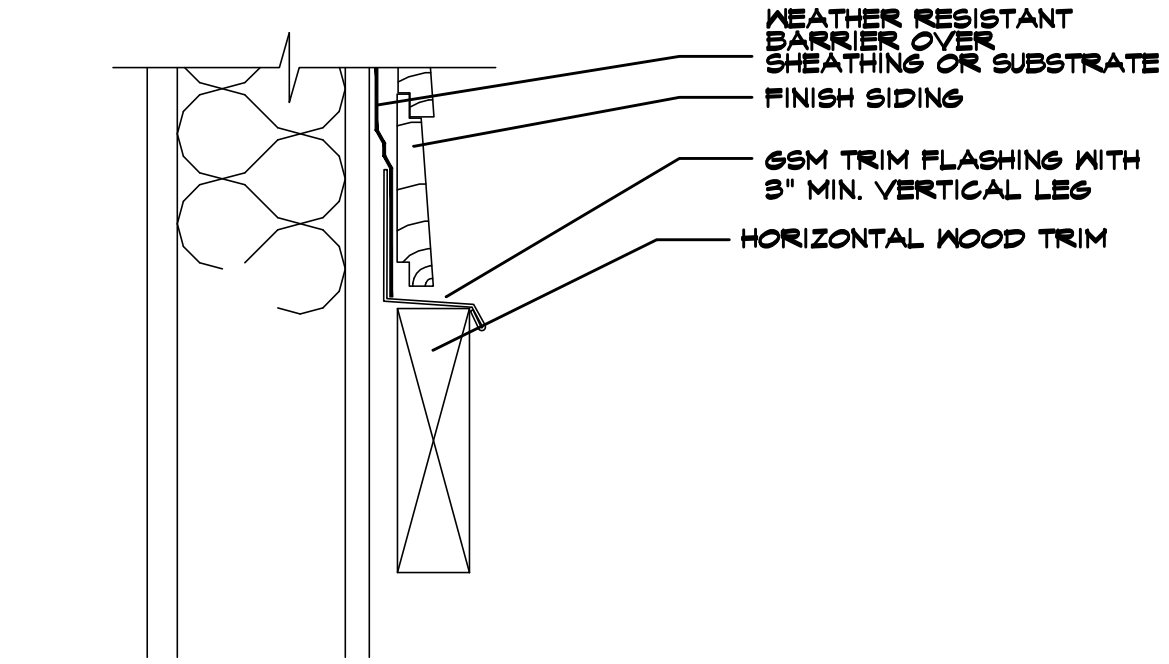
OR

FOR R-2 OCCUPANCY, ELECTRIC HEAT PUMP WATER HEATER(S) MEETING THE STANDARDS FOR TIER III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION SHALL SUPPLY DOMESTIC HOT WATER TO ALL UNITS. IF ONE WATER HEATER IS SERVING MORE THAN ONE DWELLING UNIT, ALL HOT WATER SUPPLY AND RECIRCULATION PIPING SHALL BE INSULATED WITH R-8 MIN. PIPE INSULATION.

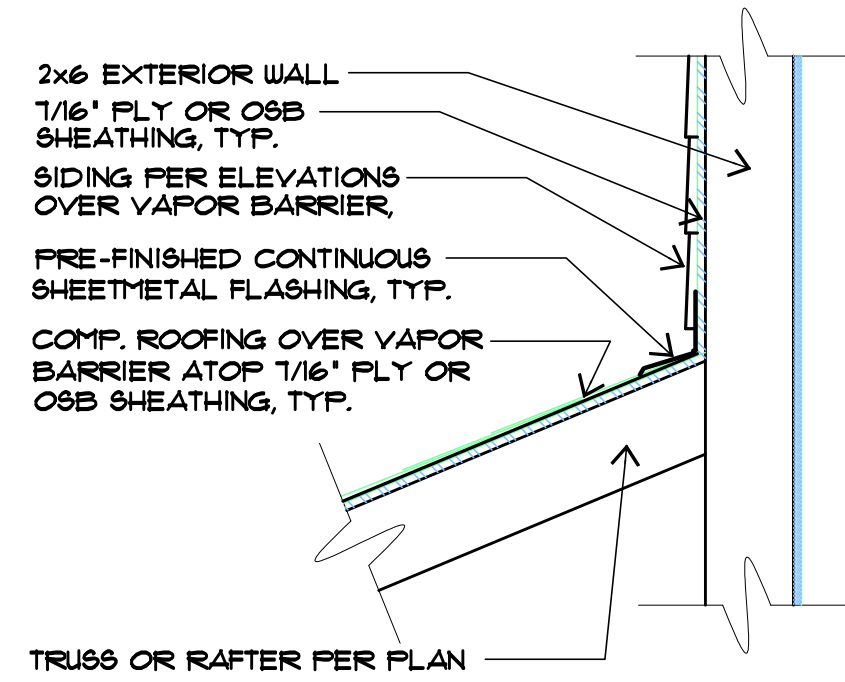
TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MIN. EQUIPMENT EFFICIENCY AND FOR SOLAR WATER HEATING SYSTEMS, THE CALCULATION OF THE MIN. ENERGY SAVINGS.



STONE VENEER
NT.S.



HORIZ. TRIM AT SHEATHING/WOOD STUDS
NT.S.

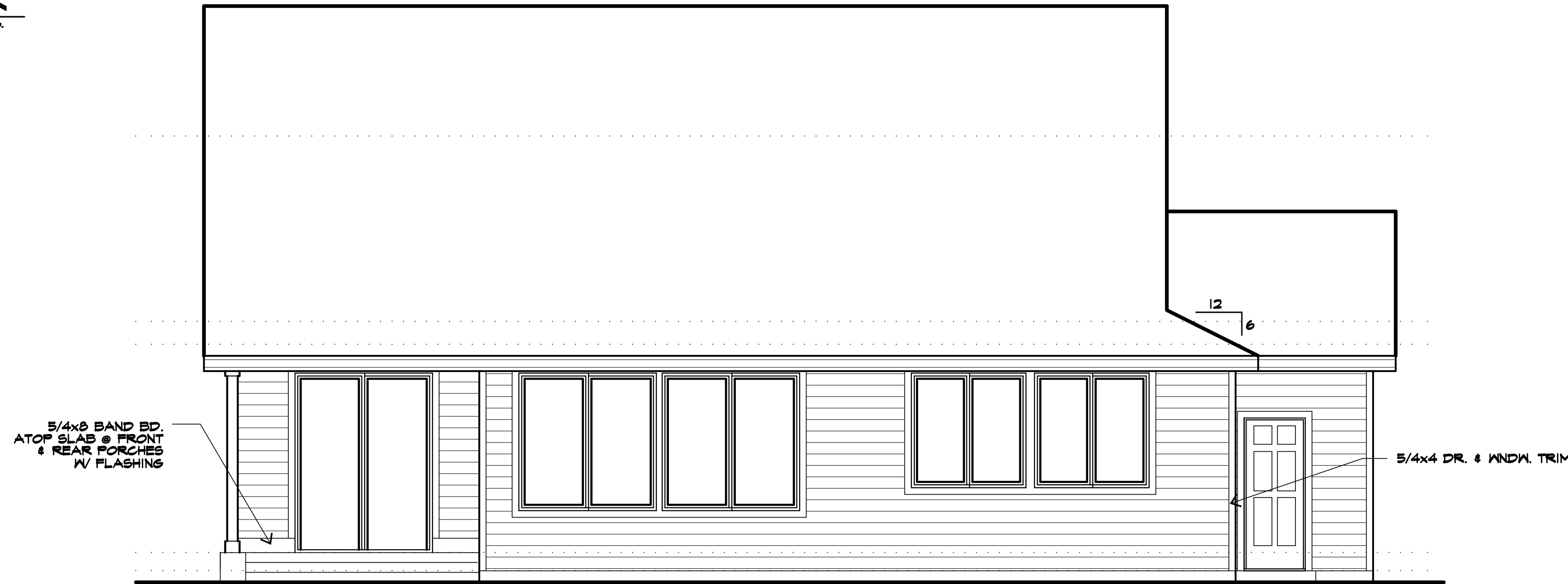


ROOF TO WALL FLASHING DETAIL
NT.S.

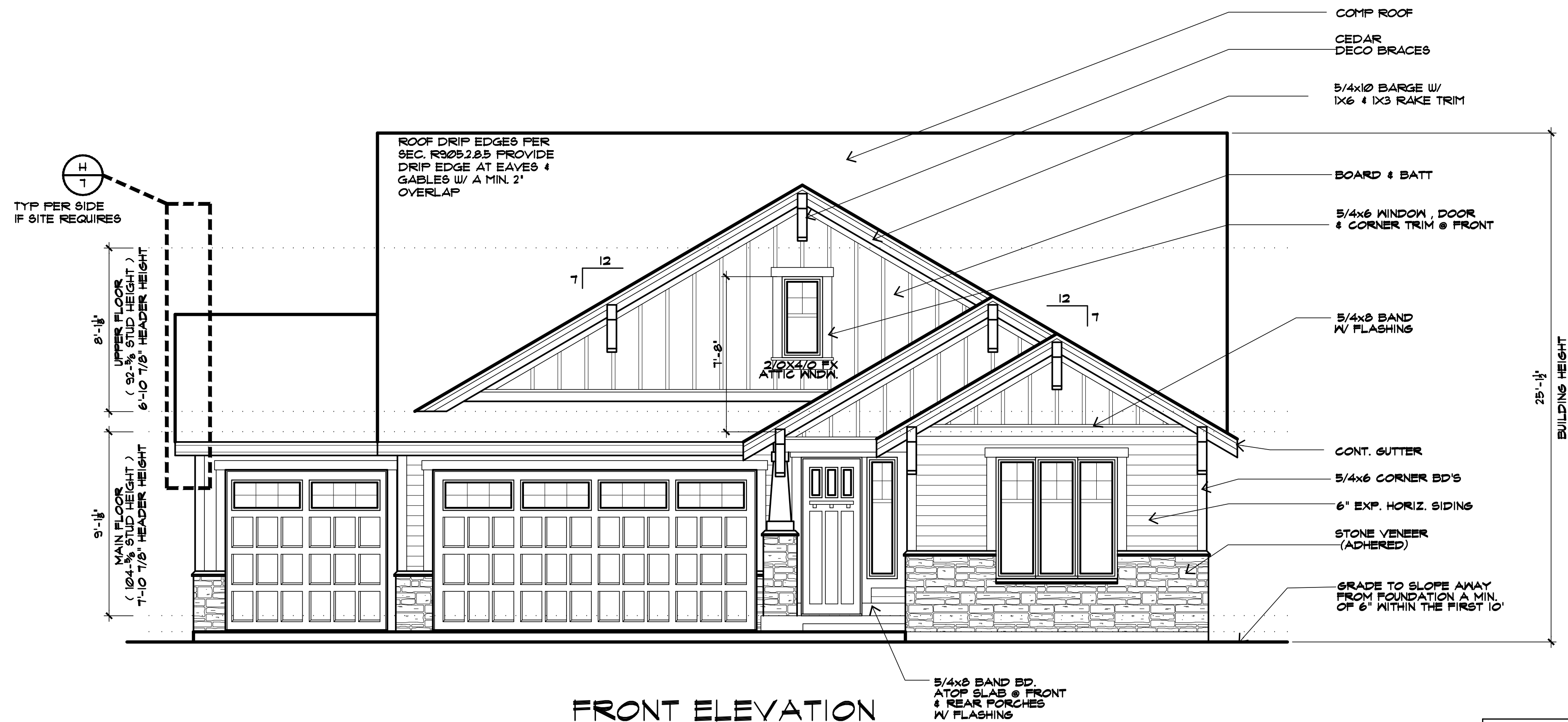
MASONRY VENEER - GENERAL NOTES PER SEC. R103.12

ADHERED MASONRY VENEER SHALL COMPLY WITH THE REQUIREMENTS OF SECTION R103.13 AND THE REQUIREMENTS IN SECTIONS 12.1 AND 12.3 OF TMS 402/ACI 530/ASCE 5. ADHERED MASONRY VENEER SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R103.11, ARTICLE 3.3C OF TMS 602/ACI 530/ASCE 6 OR THE MANUFACTURER'S INSTRUCTIONS.

- CLEARANCES - MINIMUM OF 4 INCHES ABOVE THE EARTH, MINIMUM OF 2 INCHES ABOVE PAVED AREAS; OR MINIMUM OF 1/2 INCH ABOVE EXTERIOR WALKING SURFACES THAT ARE SUPPORTED BY THE SAME FOUNDATION THAT SUPPORTS THE EXTERIOR WALL.
- FLASHING AT FOUNDATION - A CORROSION-RESISTANT SCREED OR FLASHING OF A MINIMUM 0.019-INCH OR 26-GAGE GALVANIZED OR PLASTIC WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3 1/2 INCHES SHALL BE INSTALLED TO EXTEND A MINIMUM OF 1 INCH BELOW THE FOUNDATION PLATE LINE ON EXTERIOR STUD WALLS IN ACCORDANCE WITH SECTION R103.4.
- WATER-RESISTIVE BARRIER - A WATER-RESISTIVE BARRIER SHALL BE INSTALLED AS REQUIRED BY SECTION R103.2 AND SHALL COMPLY WITH THE REQUIREMENTS OF SECTION R103.6.3. THE WATER-RESISTIVE BARRIER SHALL LAP OVER THE EXTERIOR OF THE ATTACHMENT FLANGE OF THE SCREED OR FLASHING PROVIDED IN ACCORDANCE WITH SECTION R103.12.2.



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

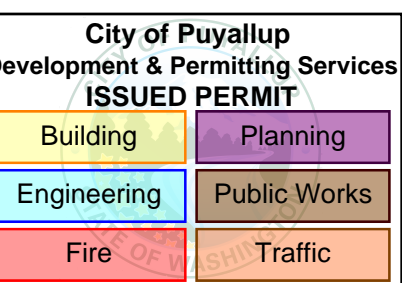


FRONT ELEVATION
1/4"=1'-0"

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PRRNSF20220550

HOUSE NUMBERS TO BE VISIBLE & LEGIBLE WITH CONTRASTING BACKGROUND FROM THE STREET FRONTING THE HOUSE. ADDRESS NUMBER SHALL BE MIN. 4" HIGH & A MIN. STROKE WIDTH OF 1/2" PER SEC. R319.1



1. Contractor or builder must verify all dimensions before proceeding with construction.
2. This plan was designed to be marketed throughout many municipalities. The purchaser must verify compliance with all local applicable building codes where the home is to be constructed.
3. Purchaser should have plans reviewed by a licensed builder and structural engineer for compliance to specific site conditions.
4. These plans should not be altered by other than a qualified designer, architect, or structural engineer.

Plan No:
L2-2600-3L
Date:
11-21-22



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



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

PRRNSF20220550

HOUSE NUMBERS TO BE VISIBLE &
LEGIBLE WITH CONTRASTING
BACKGROUND FROM THE STREET
FRONTING THE HOUSE.
ADDRESS NUMBER SHALL BE MIN.
4" HIGH & A MIN. STROKE WIDTH OF
1/2" PER SEC. R319.1

City of Puyallup Development & Permitting Services ISSUED PERMIT			
Building	Planning	Engineering	Public Works
Fire	Traffic		

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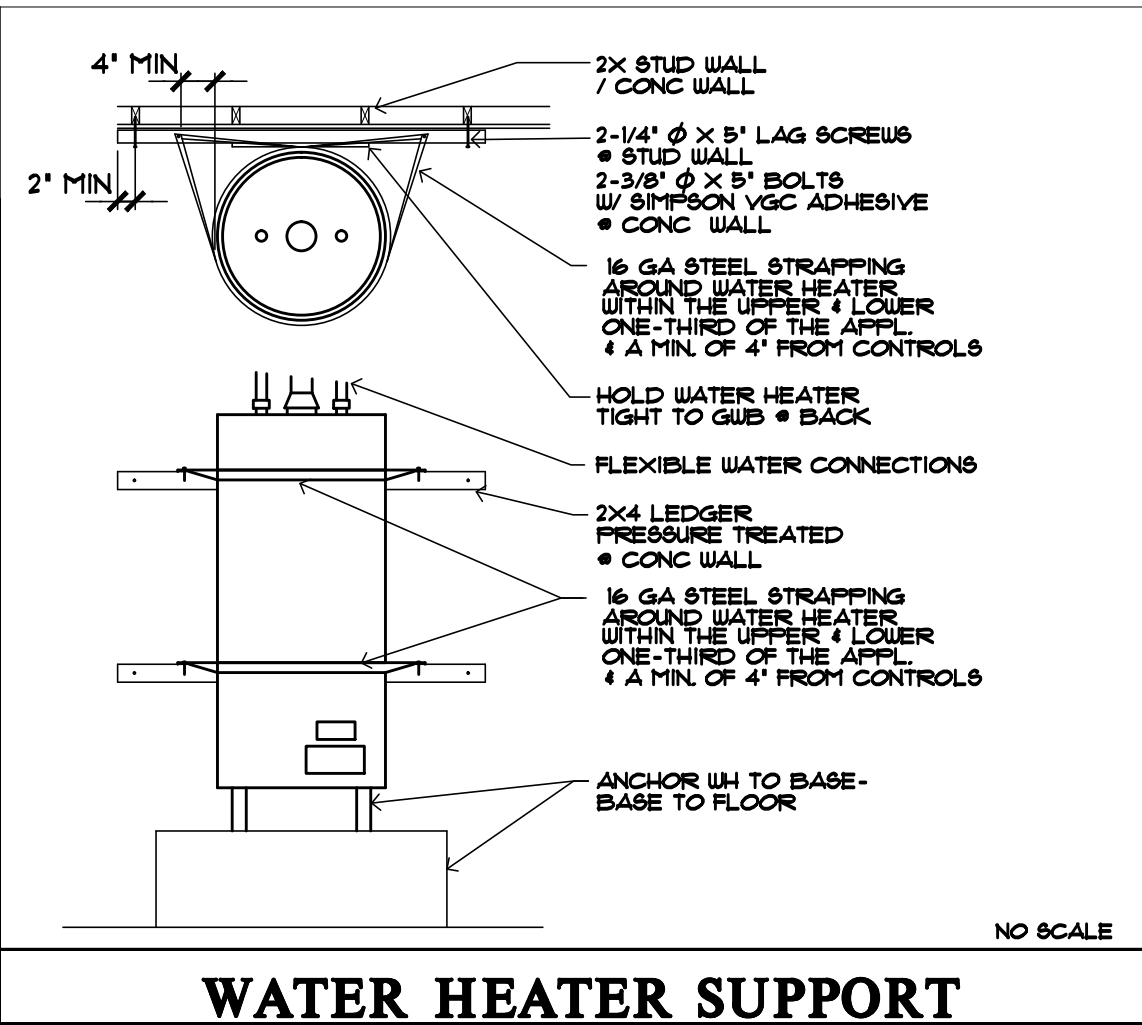
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504.7 Protection required.
Protective shield plates shall be placed where nails or screws from finish or other work are likely to penetrate the clothes dryer exhaust duct. Shield plates shall be placed on the finished face of all framing members where there is less than 1 1/4 inches (32 mm) between the duct and the finished face of the framing member. Protective shield plates shall be constructed of steel, have a thickness of 0.062 inch (1.6 mm) and extend not less than 2 inches (51 mm) above sole plates and below top plates.

IF INSTALLING SHOWER PANS THEN MANUFACTURE SPECS AND INSTALLATION DETAILS MUST BE ON SITE AT TIME OF SHOWER PAN TESTING OR BEFORE IF THE INSPECTOR REQUEST IT. NOTHING TO BE COVERED UP WITHOUT AN APPROVED INSPECTION. ANY JOISTS CUT OR OVER BORED MAY REQUIRE AN ENGINEER'S FIX BEFORE APPROVED.

M1505.4.1.6 Testing. Whole-house mechanical ventilation systems shall be tested, balanced and verified to provide a flow rate not less than the minimum required by Sections M1505.4.3 and M1505.4.4. Testing shall be performed according to the ventilation equipment manufacturer's instructions, or by using a flow hood, flow grid, or other airflow measuring device at the mechanical ventilation fan's inlet terminals, outlet terminals or grilles or in the connected ventilation ducts. Where required by the building official, testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the building official and be posted in the dwelling unit per Section M1505.4.1.7.

M1505.4.1.7 Certificate. A permanent certificate shall be completed by the mechanical contractor, test and balance contractor or other approved party and posted on a wall in the space where the furnace is located, a utility room, or an approved location inside the building. When located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label, or other required labels. The certificate shall list the flow rate determined from the delivered airflow of the whole-house mechanical ventilation system as installed and the type of mechanical whole house ventilation system used to comply with Section M1505.4.3.1.

WHOLE HOUSE VENTILATION:

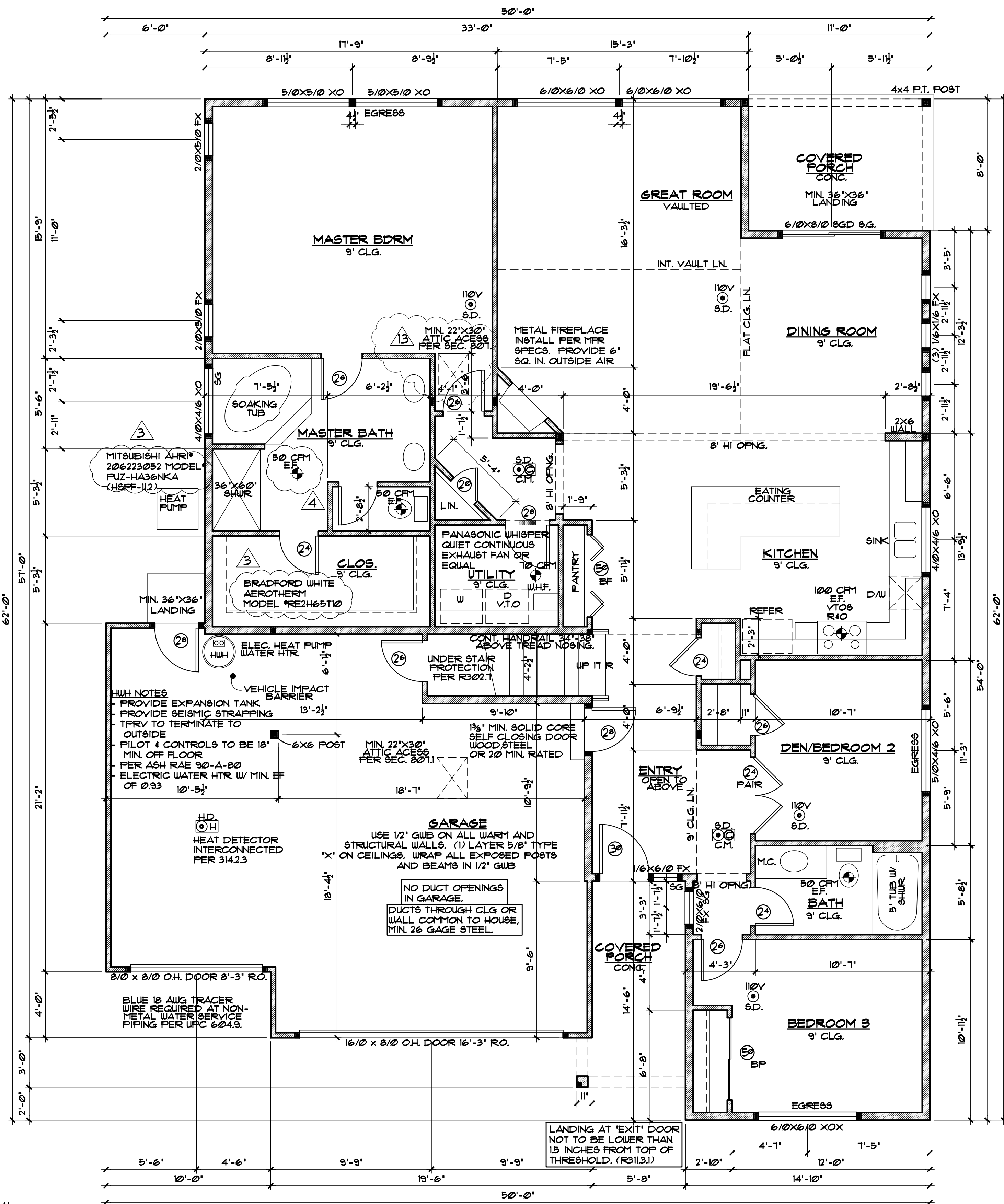
*REFER TO SHEET N-2 TABLE 1505.4.3(1) & 1505.4.3(2) FOR FAN SIZING AND RUN TIMES

UTILITY ROOM NOTES/MAKE UP AIR:

- PER IRC G2439
- WHERE THE EXHAUST DUCT IS CONCEALED WITHIN THE BUILDING CONSTRUCTION AND THE EXHAUST DUCT EQUIVALENT LENGTH EXCEEDS 35 FT, 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 FT OF THE EXHAUST DUCT CONNECTION PER G2439.15.
 - 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 PROVIDED BY OTHER APPROVED MEANS PER G2439.5.
- = 100 SQ. INCH TRANSFER GRILL

INTERIOR STAIRWAY ILLUMINATION PER SEC. R302.1 IRC
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 NOT LESS THAN 1 FOOT-CANDLE 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.

EXTERIOR STAIRWAY ILLUMINATION PER SEC. R302.2 IRC
EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED AT THE TOP LANDING OF THE STAIRWAY. STAIRWAY ILLUMINATION SHALL RECEIVE PRIMARY POWER FROM THE BUILDING WIRING. EXTERIOR STAIRWAYS PROVIDING ACCESS TO A BASEMENT FROM THE OUTDOOR GRADE LEVEL SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED AT THE BOTTOM LANDING OF THE STAIRWAY.



MAIN FLOOR PLAN

1/4"=1'-0"

MAIN FLOOR: 1913 SQ. FT.
UPPER FLOOR: 687 SQ. FT.
TOTAL: 2600 SQ. FT.
GARAGE: 639 SQ. FT.

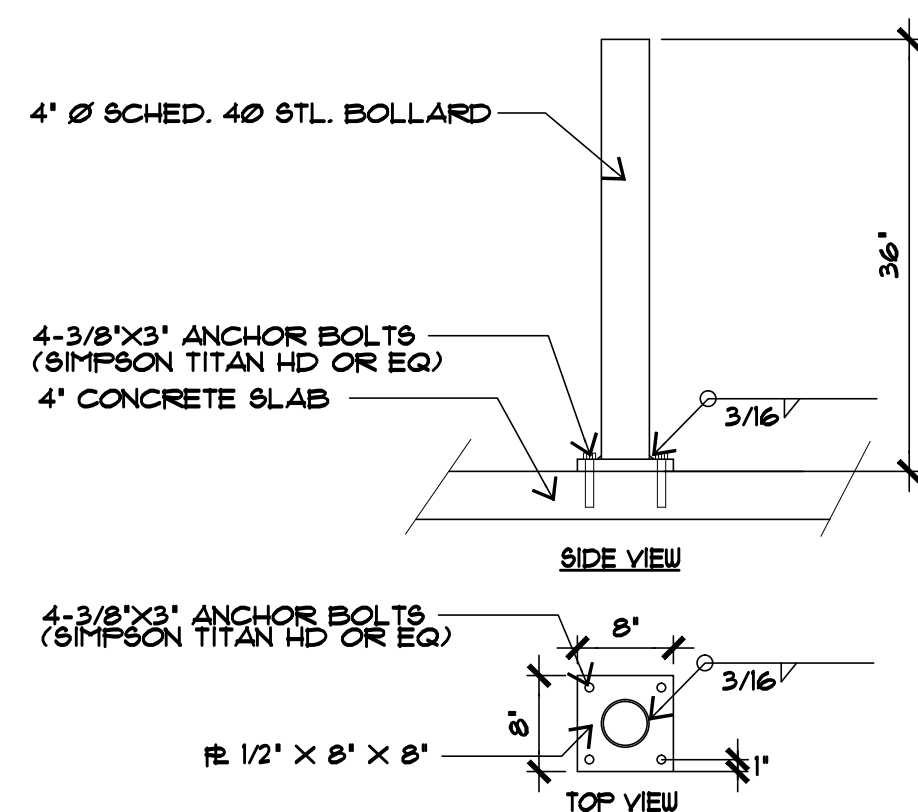
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GENERAL NOTES:

- ALL WORK TO BE IN CONFORMANCE WITH 2018 IRC.
- VENT ALL EXHAUST FANS, DRYER VENTS AND RANGES TO OUTSIDES.
- VENT WATER HEATER PRESSURE RELIEF VALVES TO OUTSIDE.
- PROVIDE FIRE BLOCKING AT ALL PLUMBING AND MECHANICAL PENETRATIONS.
- ALL SHOWER WALLS TO BE WATERPROOF TO MINIMUM 12" ABOVE DRAIN.
- SHOWERHEADS & KITCHEN FAUCET TO BE LIMITED TO MAXIMUM 1.75 G.P.M. FLOW. ALL OTHER LAVATORY FAUCETS TO BE LIMITED TO MAXIMUM 1.0 G.P.M. FLOW.
- ALL GLAZING WITHIN 60" ABOVE DRAIN INLET TO BE SAFETY GLASS.
- ALL GLAZING WITHIN 24" OF DOOR OR WITHIN 18" OF FLOOR TO BE SAFETY GLASS.
- SMOKE ALARMS - TO BE INSTALLED PER SEC. R314.3 IN THE FOLLOWING LOCATIONS: IN EACH SLEEPING ROOMS, OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS, AND ALARMS TO BE INSTALLED NOT LESS THAN 3 FT. HORIZONTALLY FROM A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER. ALARMS TO BE INTERCONNECTED IN SUCH A MANNER THAT ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.

☼ = SMOKE ALARM-CARBON MONOXIDE COMBO. C.M.

- PROVIDE CARBON MONOXIDE ALARMS PER SEC. R315.
AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED ON EACH FLOOR & OUTSIDE OF EACH SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, PER 2018 IRC & WA. STATE AMENDMENTS SEC. R315.
- INSULATE ALL WATER PIPES TO MINIMUM R-3 PER USBC R403.5.3.
- ALL DUCTS & EXHAUST DUCTS IN UNCONDITIONED SPACES SHALL BE INSULATED TO A MINIMUM OF R-8 PER USBC R403.3.1. DUCTS WITHIN A CONCRETE SLAB OR IN THE GROUND SHALL BE INSULATED TO R-10 WITH INSULATION DESIGNED TO BE USED BELOW GRADE.
- EXHAUST AIR SHALL NOT BE DIRECTED ONTO WALKWAYS. ALL EXHAUST DUCTS SHALL TERMINATE OUTSIDE THE BUILDING. PER R303.5.2.
- GAS PIPING IS TO BE PROTECTED PER G2415.1. WHERE PIPING IS INSTALLED THROUGH HOLES OR NOTCHES IN FRAMING MEMBERS AND THE PIPING IS LOCATED LESS THAN 1-1/2 INCHES FROM THE FRAMING MEMBER FACE TO WHICH WALL, CEILING OR FLOOR MEMBERS WILL BE ATTACHED, THE PIPE SHALL BE PROTECTED BY SHIELD PLATES THAT COVER THE WIDTH OF THE PIPE AND THE FRAMING MEMBER AND THAT EXTEND NOT LESS THAN 4 INCHES TO EACH SIDE OF THE FRAMING MEMBER WHERE THE FRAMING MEMBER THAT THE PIPING PASSES THROUGH IS A BOTTOM PLATE, BOTTOM TRACK, TOP PLATE OR TOP TRACK, THE SHIELD PLATES SHALL COVER THE FRAMING MEMBER AND EXTEND NOT LESS THAN 4 INCHES ABOVE THE BOTTOM FRAMING MEMBER AND NOT LESS THAN 4 INCHES BELOW THE TOP FRAMING MEMBER.
- ATTIC & CRAWL ACCESS HATCHES OR DOORS SHALL BE WEATHERSTRIPPED AND INSULATED TO A LEVEL EQUIVALENT TO THE INSULATION ON THE SURROUNDING SURFACES.
- WHOLE HOUSE VENTILATION 24 HR. TIMER, READILY ACCESSIBLE & WITH LABEL AFFIXED TO CONTROL THAT READS 'WHOLE HOUSE VENTILATION' (SEE OPERATING INSTRUCTIONS).
- DRYER DUCT SPECIFIED LENGTH PER SEC. M1502.4.3.1. THE MAXIMUM LENGTH OF THE EXHAUST DUCT SHALL BE 35 FEET (10.668m) FROM THE CONNECTION TO THE TRANSITION DUCT FROM THE DRYER TO THE OUTLET TERMINAL. WHERE FITTINGS ARE USED, THE MAXIMUM LENGTH OF THE EXHAUST DUCT SHALL BE REDUCED IN ACCORDANCE WITH THE TABLE M1502.4.3.1. THE MAXIMUM LENGTH OF THE EXHAUST DUCT DOES NOT INCLUDE THE TRANSITION DUCT.
- CAVITIES WITHIN CORNERS AND HEADERS OF FRAME WALLS SHALL BE INSULATED BY COMPLETELY FILLING THE CAVITY WITH A MATERIAL HAVING A THERMAL RESISTANCE OF R-3 PER INCH MINIMUM PER 2018 USBC TABLE R402.4.1.1.



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Building	Planning	Engineering	Public Works
Fire	Traffic		

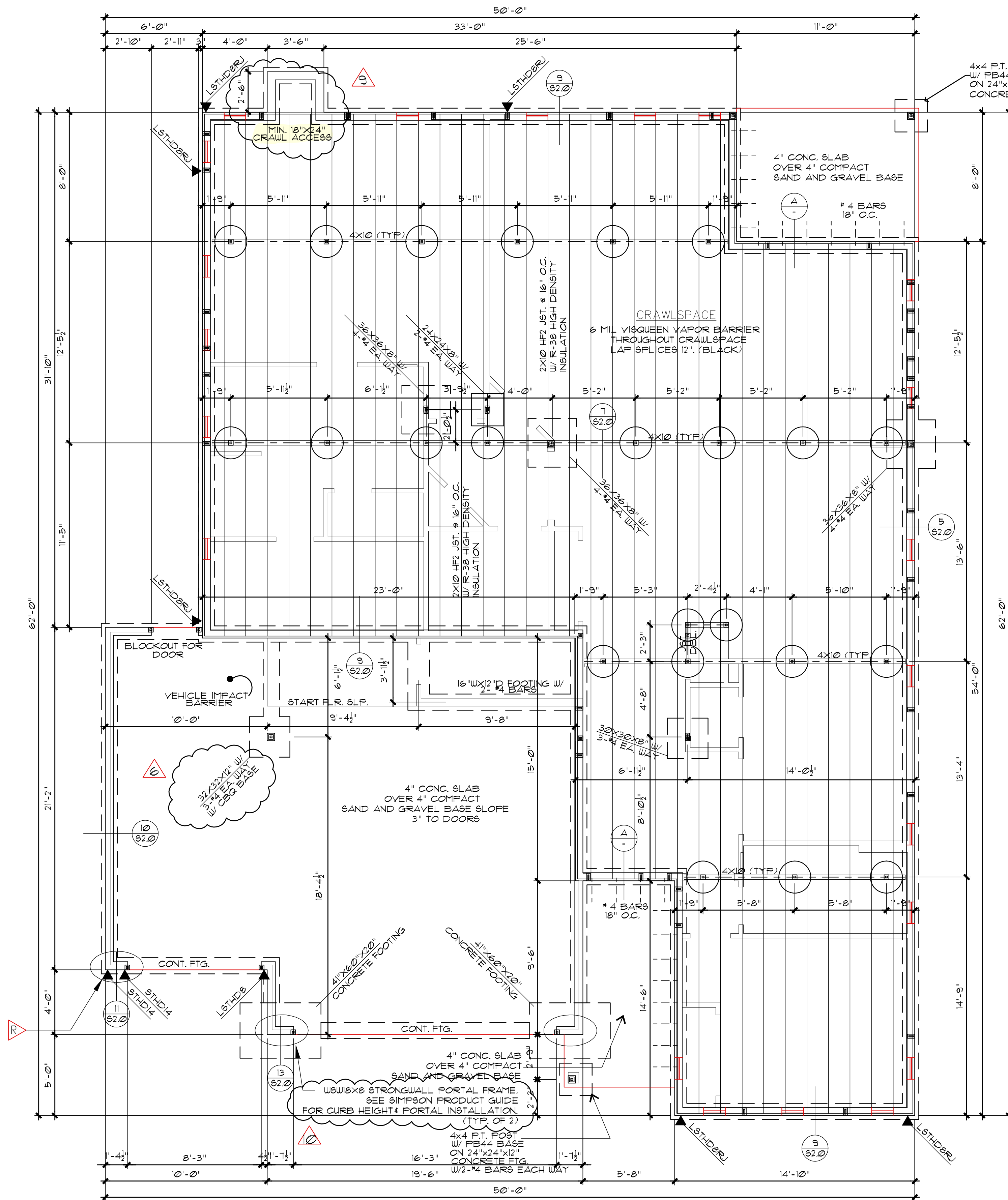
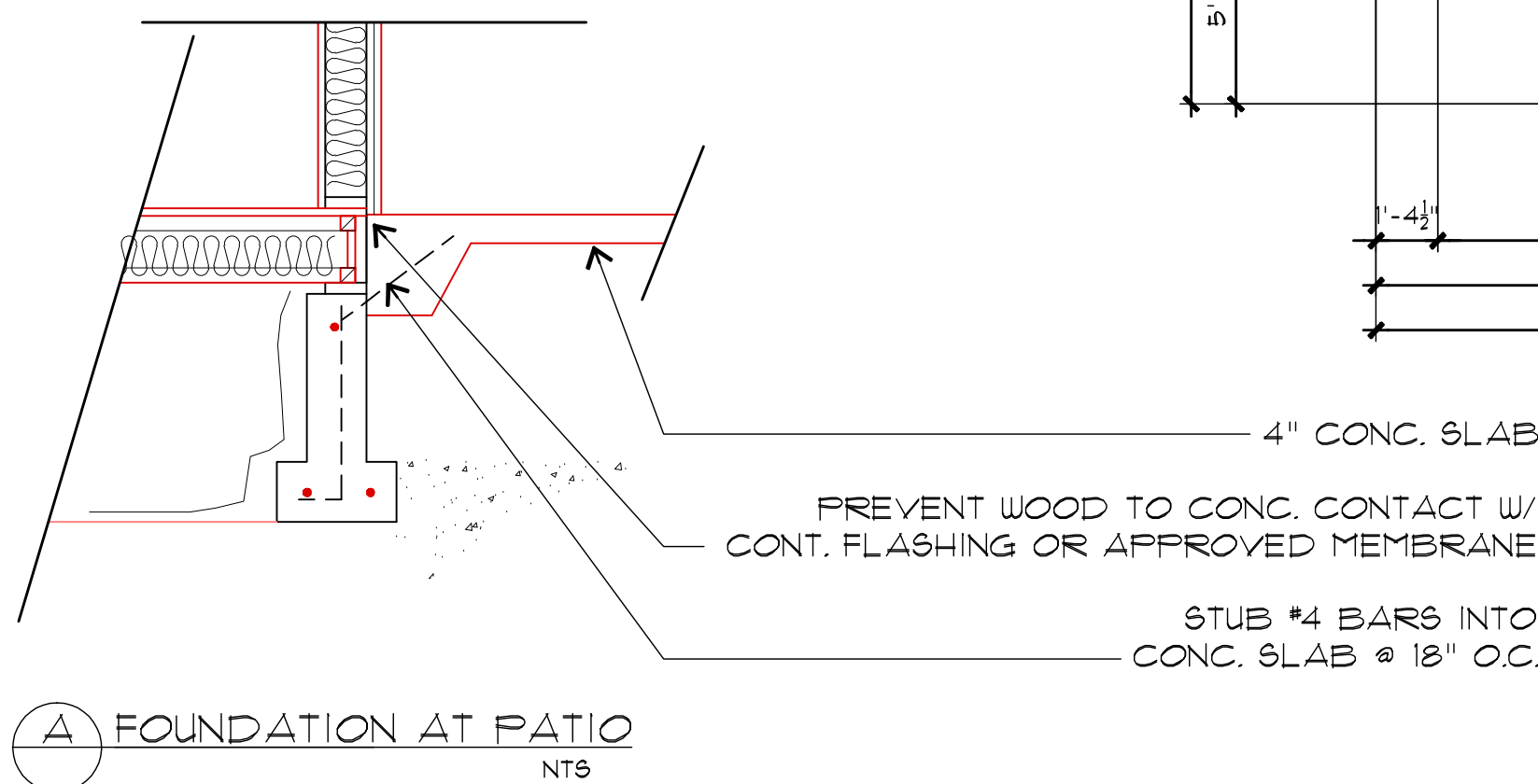
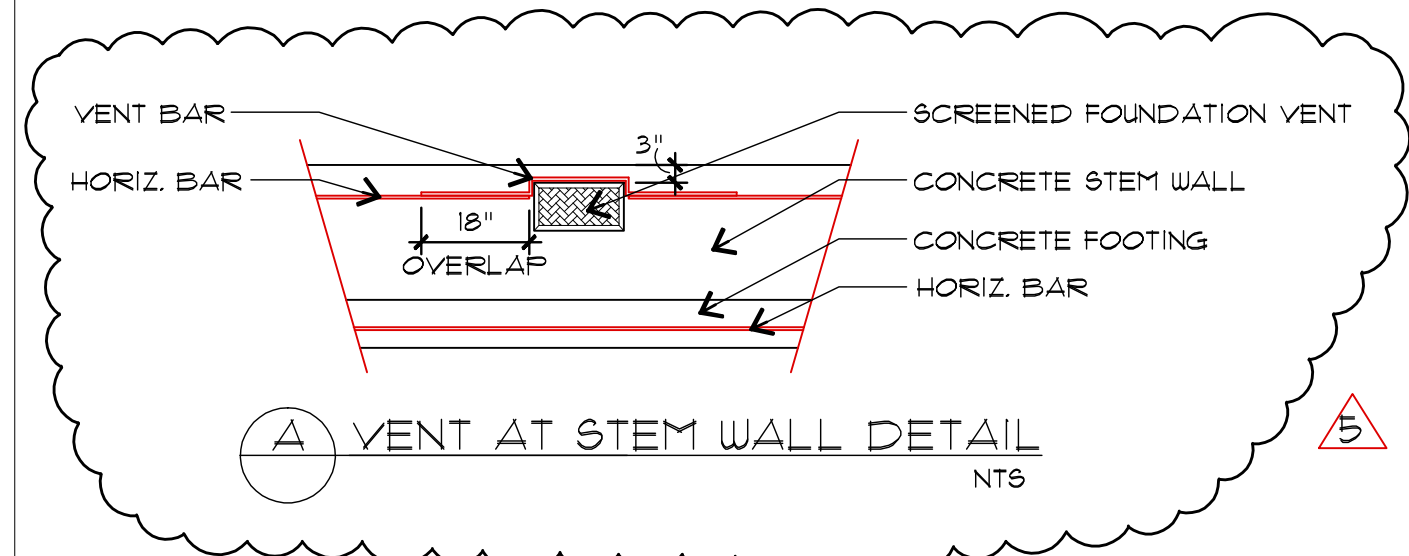
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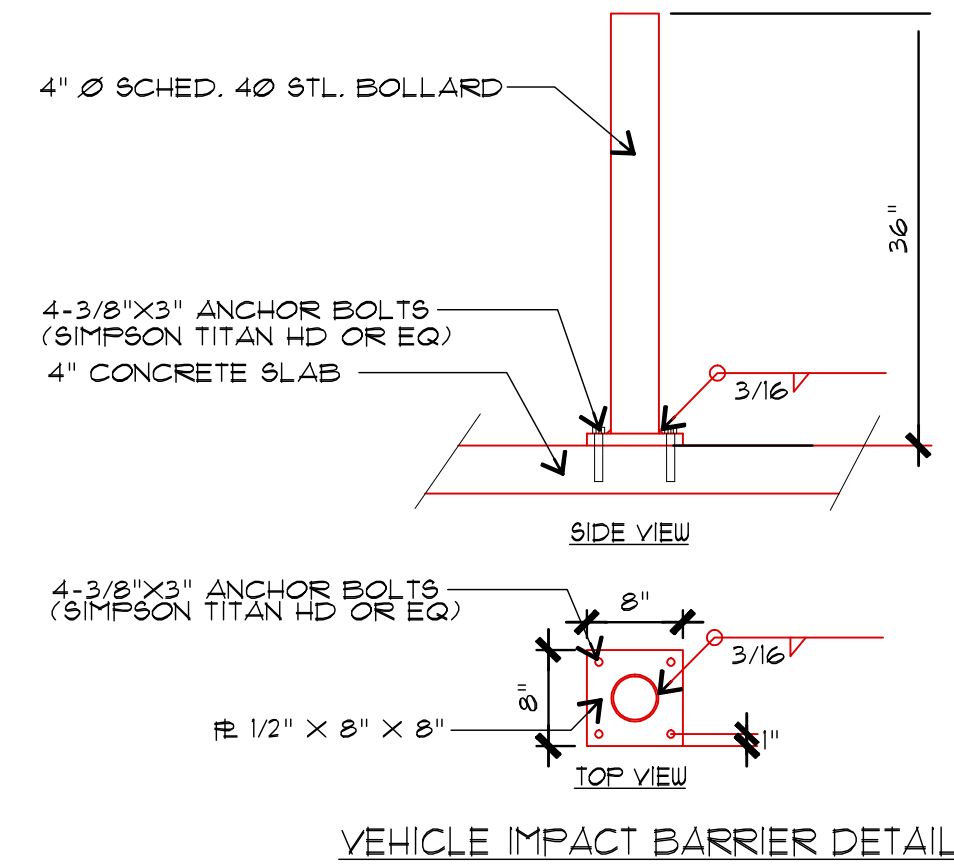
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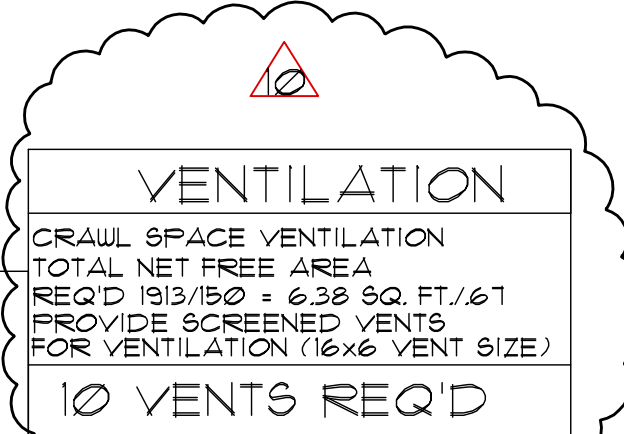
Plan No:
L2-2600-3L
Date:
11-21-22



The information for the portal frames needs to be defined on plans as the product guides are not on the job sites until after the foundation inspections.



- FOUNDATION NOTES:
1. ALL FOOTINGS TO BEAR ON FIRM UNDISTURBED SOIL.
 2. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED.
 3. ALL BEAMS TO BE 4x10 DFL #2 ON 4x4 POSTS (4x6 AT SPLICES) ON 24\"/>
 4. ALL POSTS TO BE ANCHORED AGAINST LATERAL MOVEMENT.
 5. SOLID BLOCK AT ALL POINT LOADS FROM ABOVE.
 6. FLOOR JOISTS SHOULD BE SUPPORTED Laterally, at each end and at each support, by solid blocking or by another approved method.
 7. PROVIDE MINIMUM 18\"/>
 8. PROVIDE CRAWL SPACE VENTILATION PER IRC SECTION R408. FOUNDATION VENTS SHALL BE PLACED SO THAT THE TOP OF THE VENT IS BELOW THE LOWER SURFACE OF THE FLOOR INSULATION.
 9. INTERIOR GRADE OF CRAWL SPACE SHALL BE SLOPED TO DRAIN AND INSURE THE REMOVAL OF WATER.
 10. PREVENT WOOD TO CONC. CONTACT W/CONT. FLASHING OR APPROVE MEMBRANE.
 11. ◀ INDICATES 'SIMPSON' HOLDDOWN.
 12. ◀ SEE SHEARWALL SCHEDULE FOR ANCHOR BOLT SIZE & SPACING (SHT SLO).

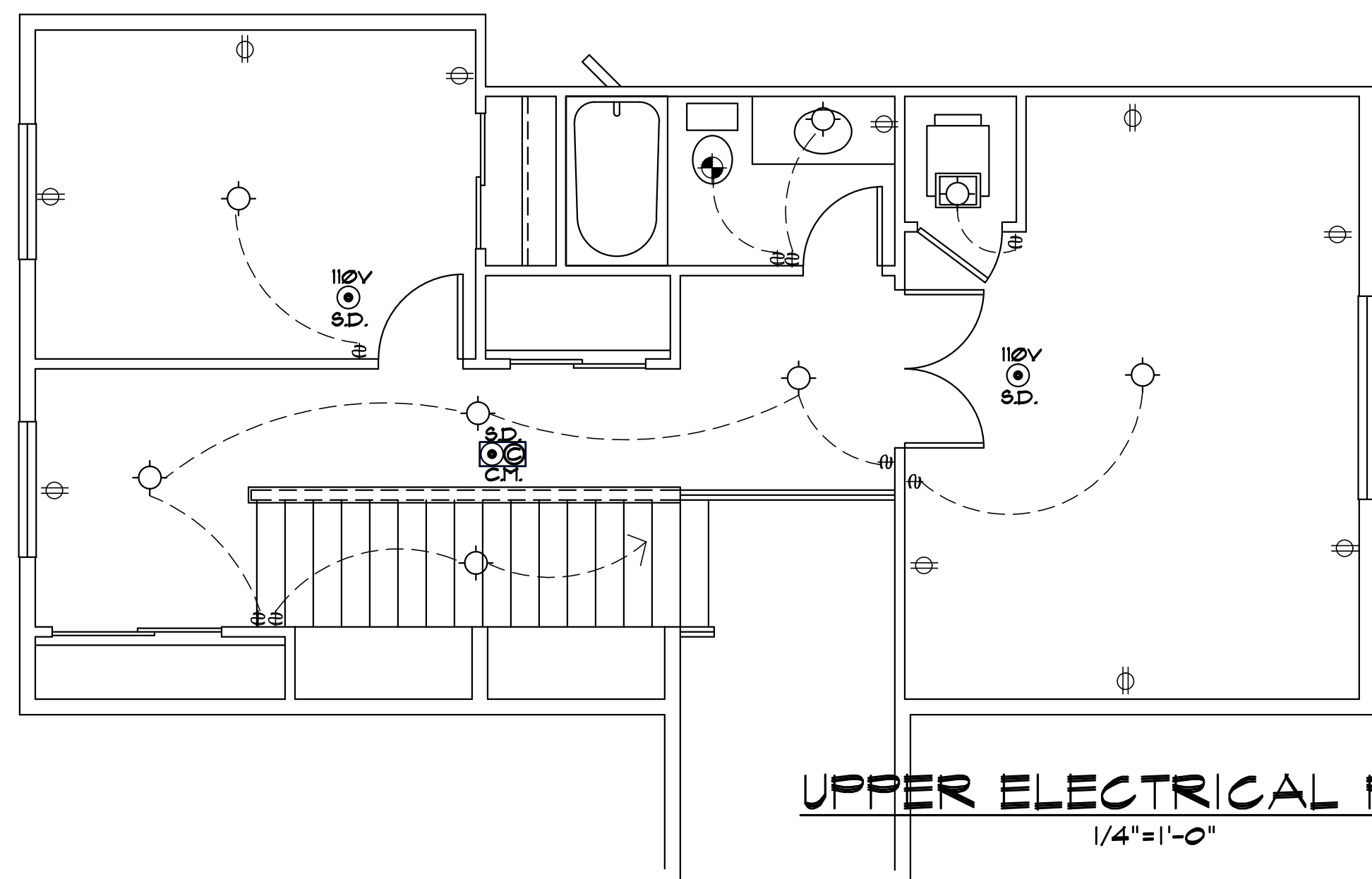


City of Puyallup Development & Permitting Services ISSUED PERMIT			
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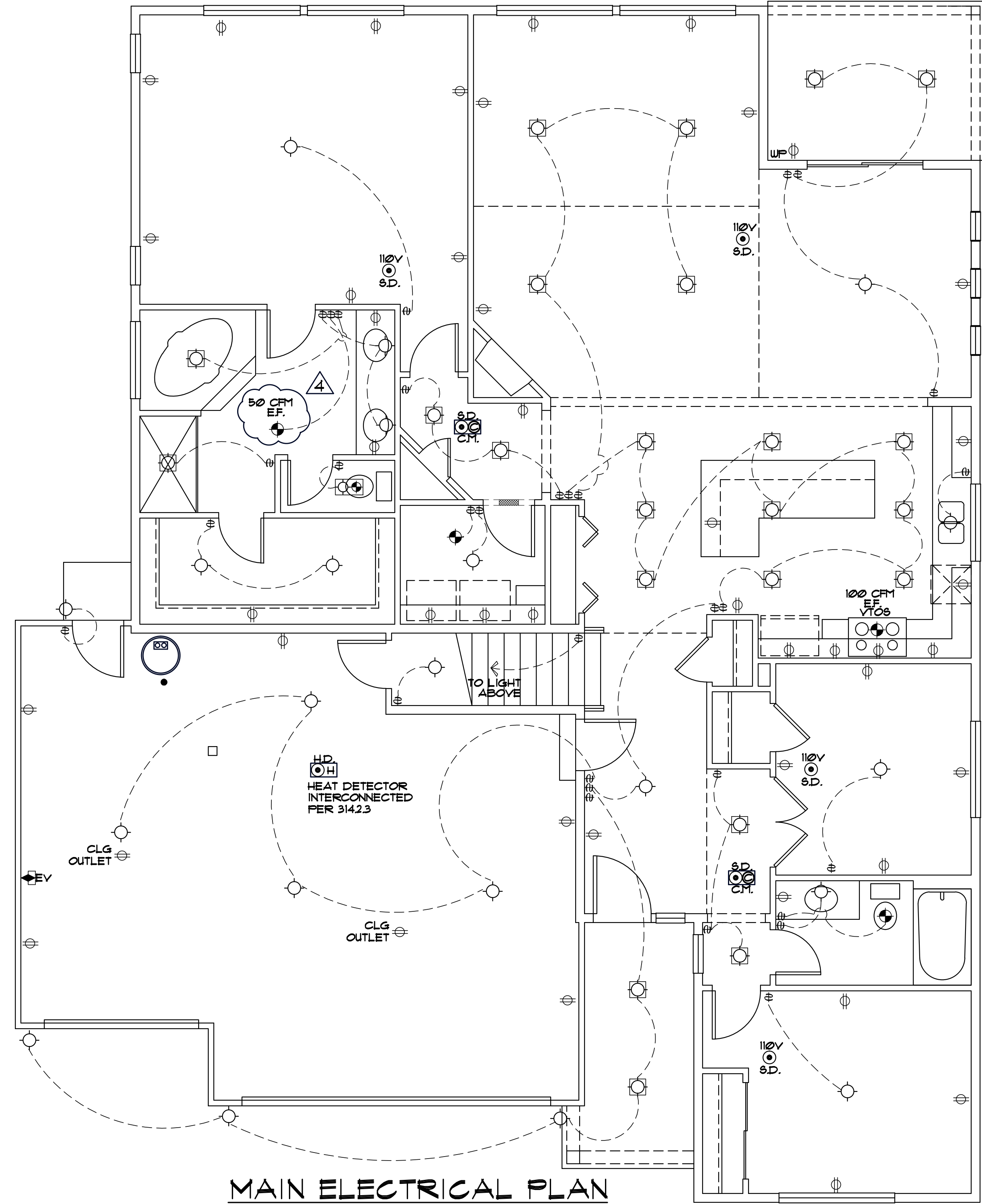


UPPER ELECTRICAL PLAN
1/4"=1'-0"

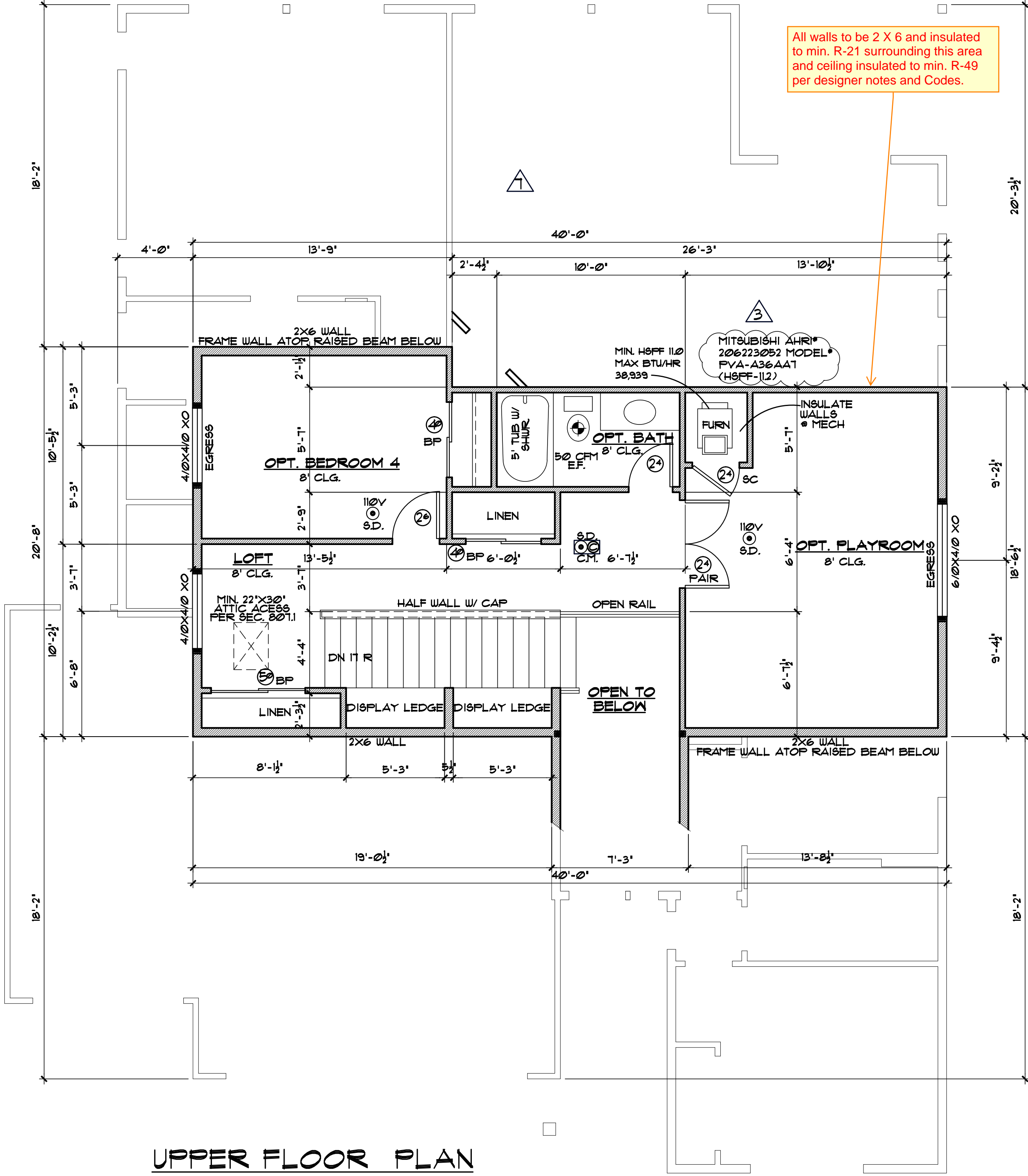
ELECTRICAL KEY	
OVERHEAD	○
CAN	□
OUTLET	⊙
DUPLEX OUTLET	⊕
220V OUTLET	⊕
COMBO. EXT. FAN (VTOG) & LIGHT	⊕
COMBO SMOKE ALARM-CARBON MONO. DET. 110 V W/ BATTERY BACKUP	⊕
CABLE T.V. JACK	⊕
PHONE	▽
UNDER COUNTER LIGHTS	⊕ UC
GAS OUTLET	●
HOSE BIBB	⊕
EXT. FAN VTOG	⊕
HEAT DETECTOR INTERCONNECTED PER 31423 (GARAGE)	⊕ H.D.
EV CHARGER (ELECTRIC VEHICLE) ONE PER DUELLING PER SEC R335 IRC	⊕ EV

INTERIOR STAIRWAY ILLUMINATION PER SEC. R303.1 IRC
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 NOT LESS THAN 1 FOOT-CANDLE 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.

EXTERIOR STAIRWAY ILLUMINATION PER SEC. R303.8 IRC
EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED AT THE TOP LANDING OF THE STAIRWAY. STAIRWAY ILLUMINATION SHALL RECEIVE PRIMARY POWER FROM THE BUILDING WIRING. EXTERIOR STAIRWAYS PROVIDING ACCESS TO A BASEMENT FROM THE OUTDOOR GRADE LEVEL SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED AT THE BOTTOM LANDING OF THE STAIRWAY.



MAIN ELECTRICAL PLAN
1/4"=1'-0"



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

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SECOND FLOOR FRAMING PLAN

1/4"=1'-0"

ROOF VENTILATION CALCULATIONS & REQUIREMENTS

AT LEAST 40% & NOT MORE THAN 50% OF REQUIRED VENTS SHALL BE IN UPPER PORTION OF VENTILATED ROOF SPACE (NO MORE THAN 3' BELOW THE RIDGE OR HIGHEST POINT) WITH THE BALANCE OF REQUIRED VENTILATION PROVIDED BY EAVE VENTING.

VENTILATION REQUIRED PER SEC. R806.1 - ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FORMED WHERE CEILING ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATION OPENINGS SHALL HAVE A LEAST DIMENSIONS OF 1/16" INCH MINIMUM AND 1/4" INCH MAXIMUM. VENTILATION OPENINGS HAVING A LEAST DIMENSION LARGER THAN 1/4" SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH OR SIMILAR MATERIAL WITH OPENINGS HAVING A LEAST DIMENSION OF 1/16" MINIMUM AND 1/4" MAXIMUM. OPENINGS IN ROOF FRAMING MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF SECTION R802.7. REQUIRED VENTILATION OPENINGS SHALL OPEN DIRECTLY TO THE OUTSIDE AIR.

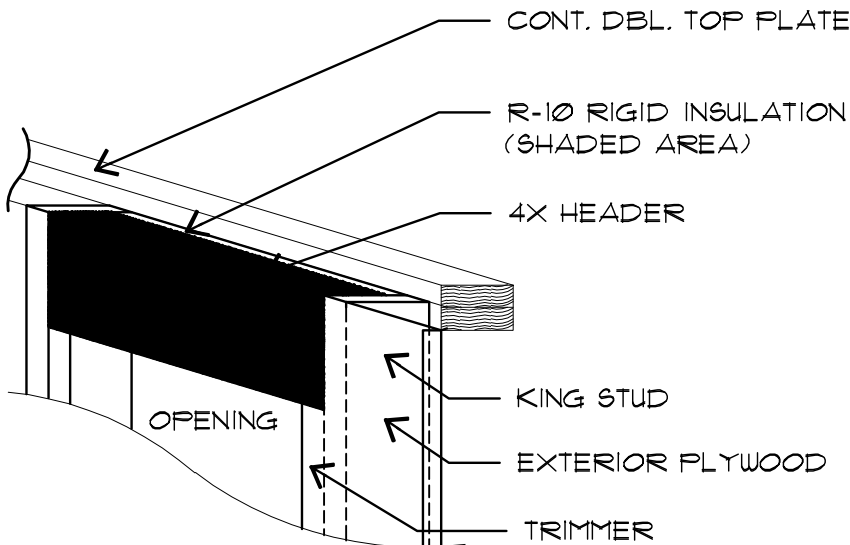
MINIMUM VENT AREA PER SEC. R806.2 - THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/50 OF THE AREA OF THE VENTED SPACE.

VENT AND INSULATION CLEARANCE PER SEC. R806.3 - WHERE EAVE OR CORNICE VENTS ARE INSTALLED, INSULATION SHALL NOT BLOCK THE FREE FLOW OF AIR, NOT LESS THAN A 1-INCH SPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING AND AT THE LOCATION OF THE VENT.

SEE SHEET N2 FOR ROOF VENTILATION CALCULATIONS AND LOCATIONS

FRAMING NOTES:

- ALL MULTIPLE JOISTS OR BEAMS MUST BE BOTH GLUED AND NAILED W/8d NAILS @ 24" O.C. NAILED TOP & BOTTOM STAGGERED EACH SIDE.
- ALL HEADERS TO BE 4x8 DF #2, UNLESS NOTED OTHERWISE. HEADERS AT EXTERIOR WALLS & WARM WALLS TO BE INSULATED W/R-10 RIGID INSULATION.
- SOLID BLOCK BENEATH ALL POINT LOADS FROM ABOVE.
- FLOOR JOISTS SHOULD BE SUPPORTED LATERALLY AND SUPPORTED BY SOLID BLOCKING OR BY ANOTHER APPROVED METHOD.
- MISC 40 STRAPS PER STRUCTURAL, UNLESS NOTED OTHERWISE
- REFER TO SHEAR WALL SCHEDULE.



HEADER/INSULATION DETAIL

NTS

ROOF FRAMING NOTES:

- ALL HEADERS TO BE 4x8 DF #2, UNLESS NOTED OTHERWISE. HEADERS AT EXTERIOR WALLS & WARM WALLS TO BE INSULATED W/R-10 RIGID INSULATION.
- ALL OTHER TRUSSES:
 - SHALL CARRY MANUFACTURERS STAMP.
 - SHALL HAVE DESIGN DETAILS AND SPECIFICATIONS ON SITE FOR FRAME INSPECTION.
 - SHALL BE INSTALLED AND BRACED PER MANUFACTURERS SPECIFICATIONS PER IRC SEC. R802.12 AND R802.103 AS WELL AS THE TRUSS INSTITUTE'S BUILDING COMPONENT SAFETY INFORMATION.
- NO TRUSS SHALL BE FIELD-MODIFIED WITHOUT PRIOR CONSENT OF THE TRUSS ENGINEER AND THE BUILDING DEPARTMENT.
- PROVIDE ATTIC ACCESS AT A MINIMUM OF 22"x30" PER IRC SEC. R802.1. ACCESS HATCHES OR DOORS SHALL BE WEATHERSTRIPPED AND INSULATED TO A LEVEL EQUIVALENT TO THE INSULATION ON THE SURROUNDING SURFACES.
- PROVIDE ATTIC VENTILATION PER IRC SEC. R806. ALL FRAMING TO COMPLY WITH IRC SEC. R802.
- REFER TO SHEAR WALL SCHEDULE.

MANUFACTURED TRUSSES

MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON SITE AT TIME OF INSPECTION, FOR THE INSPECTOR'S USE AND REFERENCE

ROOF FRAMING PLAN

1/4"=1'-0"

ROOF OVERFRAME NOTES:

- RAFTERS SHALL BE FRAMED TO 2x RIDGE BOARD PER PLAN. RIDGE BOARD SHALL NOT BE LESS IN DEPTH THAN THE CUT END OF THE RAFTER AT ALL VALLEYS AND HIPS THERE SHALL BE A 2x VALLEY OR HIP RAFTER AND NOT LESS IN DEPTH THAN THE CUT END OF THE RAFTER (FULL COVERAGE AT RIDGE, HIPS AND VALLEYS).

NOTE - FASTENERS FOR TREATED WOOD TO BE HOT-DIPPED GALVANIZED, STAINLESS STEEL, SILICONE, BRONZE OR COPPER

- STUD NOTCHING AND BORING
- BEARING OR EXTERIOR WALL NOTCH 25% BORING 40%.
 - 60% BORING IF DOUBLED & LESS OR EQUAL SUCCESSIVE STUDS.
 - NON-BEARING MAXIMUM NOTCH 40% BORING 60%.
 - HOLES NO CLOSER THAN 5/8 INCH TO FACE OF STUD.



STRUCTURAL ONLY

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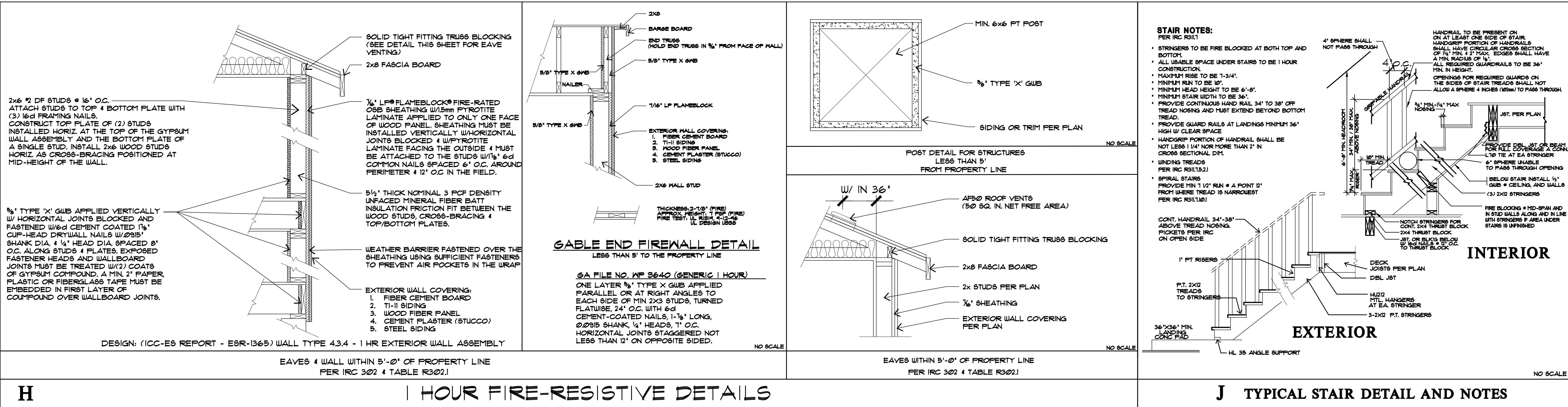
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Plan No:

L2-2600-

Date:

3-16-22



GENERAL STRUCTURAL NOTES

ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION, WITH WASHINGTON STATE AMENDMENTS.

DESIGN LOADS:

ROOF

LIVE LOAD 25 PSF (SNOW)
DEAD LOAD 15 PSF

FLOOR

LIVE LOAD 40 PSF (RESIDENTIAL)
60 PSF (DECKS)
DEAD LOAD 10 PSF

WIND

BASIC WIND SPEED 110 MPH (3 SECOND GUST, ULTIMATE LOAD)
RISK CATEGORY II, EXPOSURE B, $K_z = 1.0$

SEISMIC

EQUIVALENT LATERAL FORCE PROCEDURE
BEARING WALL SYSTEM (LIGHT-FRAMED WALLS)
SITE CLASS: D
SEISMIC DESIGN CATEGORY: D
 $S_s = 1.5$ - IBC FIGURE 1613.3(1)
 $S_{DS} = 1.0$, $I_e = 1.0$, $R = 6.5$
 $C_s = 0.154$

INSPECTIONS:

NO SPECIAL INSPECTIONS ARE REQUIRED. NOTIFY THE BUILDING DEPARTMENT FOR INSPECTIONS REQUIRED BY LOCAL ORDINANCE. ALL PREPARED SOIL BEARING SURFACES SHALL BE INSPECTED BY A SOILS ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL.

FOUNDATIONS:

PLACE FOOTINGS ON NATIVE OR COMPACTED SOIL WITH 1500 PSF BEARING CAPACITY (ASSUMED). BOTTOM OF EXTERIOR FOOTINGS SHALL BE MINIMUM 1'-6" BELOW OUTSIDE FINISHED GRADE. BACKFILL WALLS WITH A WELL DRAINING MATERIAL FREE OF ORGANIC OBJECTS OR DEBRIS.

CONCRETE:

THE SELECTION OF MATERIALS FOR AND THE MIXING AND PLACING OF ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2018 EDITION. MATERIALS SHALL BE PROPORTIONED TO PRODUCE A DENSE, WORKABLE MIX HAVING A MAXIMUM SLUMP OF 4 INCHES WHICH CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER. USE MINIMUM $f'_c = 3000$ PSI WITH 5.5 BAGS OF CEMENT PER CUBIC YARD OF CONCRETE AND A MAXIMUM OF 5.2 GALLONS OF WATER PER 94 LB SACK OF CEMENT. ALL CONCRETE SHALL CONTAIN AN AIR ENTRAINING AGENT. THE AMOUNT OF ENTRAINED AIR SHALL BE $4\frac{1}{2}\%$ $\pm 1\%$ BY VOLUME. MAXIMUM SIZE OF AGGREGATE IS $1\frac{1}{2}"$. ALL CONCRETE SHALL BE POURED MONOLITHICALLY BETWEEN CONSTRUCTION OR EXPANSION JOINTS UNLESS SHOWN OTHERWISE. CONCRETE PURVEYORS/SUPPLIERS DELIVERY OR BATCH TICKET TO BE ON JOB SITE FOR BUILDING INSPECTOR VERIFICATION.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE MINIMUM GRADE 60 ($F_y = 60000$ PSI) DEFORMED BARS IN ACCORDANCE WITH ASTM SPECIFICATION A-615. LAP ALL SPLICES 32 BAR DIAMETERS OR 1'-6" MINIMUM UNLESS OTHERWISE SHOWN. PROVIDE ELBOW BARS (32 DIA) TO LAP HORIZONTAL STEEL AT CORNERS AND INTERSECTIONS IN FOOTINGS AND WALLS. REINFORCEMENT SHALL BE ACCURATELY PLACED AND ADEQUATELY SUPPORTED BY APPROVED CHAIRS, SPACERS, OR TIES AND SECURED IN PLACE DURING GROUT OR CONCRETE PLACEMENT.

MINIMUM CONCRETE COVER FOR REINFORCING STEEL:

USE	PROTECTION
SLAB AND WALL BARS:	
INTERIOR FACES	$1\frac{1}{2}"$
EXPOSED TO WEATHER OR EARTH	$1\frac{1}{2}"$ (#5 AND SMALLER) $2"$ (#6 AND LARGER)

FOOTING BARS

3"

TIMBER:

ALL LUMBER SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

BEAMS DF2 OR BETTER
POSTS DF2 OR BETTER
2x FRAMING HF2 OR BETTER

ALL 2x TIMBER SHALL BE KILN DRIED. ALL GRADES SHALL CONFORM TO "NUPA GRADING RULES FOR WESTERN LUMBER", LATEST EDITION. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESURE TREATED IN ACCORDANCE WITH AUPA UI. RE-TREAT ALL CUT ENDS, NOTCHES, AND DRILLED HOLES IN ACCORDANCE WITH AUPA M4. MAINTAIN MINIMUM 6" CLEAR BETWEEN WOOD AND EXPOSED EARTH. MAINTAIN 8" CLEAR BETWEEN EXPOSED EARTH AND NON-TREATED WOOD AT EXTERIOR FOUNDATION WALLS. ALL NAILS SHALL BE GALVANIZED BOX OR COMMON NAILS. FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL IN ACCORDANCE WITH SECTION IBC 2304.10.5. ALL MINIMUM NAILING SHALL BE PER IBC TABLE 2304.10.1 UNO. MACHINE BOLTS TO BE A-307. BOLT HEADS AND NUTS BEARING AGAINST WOOD SHALL BE PROVIDED WITH STANDARD CUT WASHERS. MISCELLANEOUS HANGERS TO BE BY SIMPSON STRONG TIE. ALL HANGERS TO BE FASTENED TO WOOD WITH PROPER NAILS AND ALL HOLES SHALL BE NAILED.

GLUED LAMINATED WOOD MEMBERS:

GLUED LAMINATED WOOD BEAMS (GLB) TO BE IN ACCORDANCE WITH ANSI/AITC STANDARD A190.1, AMERICAN NATIONAL STANDARD FOR STRUCTURAL GLUED LAMINATED TIMBER. USE STRESS GRADE COMBINATION 24F-V4 ($F_b = 2400$ PSI) FOR SIMPLE SPANS AND 24F-V8 FOR CANTILEVER AND CONTINUOUS SPANS. SIMPLE SPANS SHALL BE CAMBERED ON A 3500' RADIUS UNO. GLUE SHALL BE CASEIN WITH MOLD INHIBITOR UNLESS OTHERWISE SPECIFIED. SEALER SHALL BE APPLIED TO ENDS OF ALL MEMBERS. BOTTOM LAMINATION TO BE FREE OF UNSOUND KNOTS LARGER THAN $\frac{1}{2}"$ DIAMETER. AITC STAMP AND CERTIFICATION REQUIRED.

PREFABRICATED JOISTS:

JOISTS SHALL BE AS NOTED ON THE PLANS AND AS MANUFACTURED BY TRUSS JOIST WEYERHAEUSER OR APPROVED EQUIVALENT. JOISTS TO BE ERECTED IN ACCORDANCE WITH THE PLANS AND THE MANUFACTURER'S DRAWINGS AND INSTALLATION INSTRUCTIONS. CONSTRUCTION LOADS BEYOND THE DESIGN LOADS ARE NOT PERMITTED. PROVIDE ERECTION BRACING UNTIL SHEATHING MATERIAL HAS BEEN INSTALLED. PROVIDE SOLID BLOCKING AT CONCENTRATED LOADS FROM ABOVE AND WEB STIFFENERS PER MANUFACTURER'S DIRECTIONS. JOIST HANGERS TO BE SIZED AND PROVIDED BY THE MANUFACTURER OR SUPPLIER.

LAMINATED VENEER LUMBER (LVL):

LAMINATED VENEER LUMBER (LVL) TO BE BY TRUSS JOIST WEYERHAEUSER (MICROLAM - $F_b = 2600$ PSI, $E = 1920000$ PSI). MATERIAL SHALL BE DESIGNED & MANUFACTURED TO THE STANDARDS SET FORTH IN NER-481 OR CCMC REPORT NO. 08615-R. BEARING LENGTH SHALL NOT BE LESS THAN $1\frac{1}{2}"$. DO NOT CUT OR NOTCH BEAMS WITHOUT PRIOR APPROVAL OR ENGINEER. HEEL CUTS SHALL NOT OVERHANG INSIDE FACE OF SUPPORTING MEMBER.

BEARING WALL FRAMING:

ALL DOOR AND WINDOW HEADERS NOT CALLED OUT OR OTHERWISE NOTED ON THE PLANS SHALL BE 4x8 DF2 WITH ONE CRIPPLE AND ONE STUD EACH END FOR OPENINGS 5'-0" OR LESS AND TWO CRIPPLES AND ONE STUD FOR OPENINGS MORE THAN 5'-0" WIDE. ALL COLUMNS NOT CALLED OUT ON THE PLANS SHALL BE TWO (2) STUDS. SPIKE LAMINATED COLUMNS TOGETHER WITH 16d @ 12" O.C. STAGGERED. STAGGER SPLICES AT TOP PLATES MINIMUM 48" AND NAIL WITH 16d @ 8" O.C.

SHEAR WALLS:

ALL SHEAR WALL SHEATHING NAILING AND ANCHORS SHALL BE AS DETAILED ON THE DRAWINGS AND NOTED IN THE SHEAR WALL SCHEDULE. USE APA RATED SHEATHING (24/16) WITH A MINIMUM PANEL EDGE NAILING OF 8d @ 6" O.C. UNLESS NOTED OTHERWISE. ALL SHEAR WALL NAILING SHALL BE COMMON WIRE OR GALVANIZED BOX NAILS. FASTENERS IN PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL. BLOCK ALL UNSUPPORTED PANEL EDGES. DESIGNATED 3x FRAMING MAY BE (2) 2x MEMBERS FACE-NAILED WITH 16d @ 12" O.C. STAGGERED. ALL HEADERS SHALL HAVE STRAP CONNECTORS TO THE TOP PLATE AT EACH END WHEN THE HEADER INTERRUPTS THE TOP PLATE. USE 'SIMPSON' LSTA24 CONNECTOR UNO.

FLOOR AND ROOF FRAMING:

DIMENSIONAL FRAMING MEMBERS SHALL BE FREE OF SPLITS, CHECKS, AND SHAKES. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE LENGTH AND ALL AROUND ALL OPENINGS IN FLOORS AND ROOFS UNO. PROVIDE SOLID BLOCKING AT RIM JOISTS BELOW CONCENTRATED LOADS FROM ABOVE. APPLY $\frac{3}{4}"$ RATED SHEATHING (40/20) GLUED AND NAILED TO FLOOR FRAMING MEMBERS WITH 8d COMMON OR GALVANIZED BOX NAILS AT 6" O.C. AT ALL SUPPORTED EDGES AND 8d COMMON OR GALVANIZED BOX NAILS AT 12" O.C. AT INTERIOR SUPPORTS. APPLY $\frac{1}{2}"$ RATED SHEATHING (24/16) ON ROOF NAILED TO STIFFENERS OR RAFTERS WITH 8d COMMON OR GALVANIZED BOX NAILS AT 6" O.C. AT SUPPORTED EDGES AND 8d COMMON OR GALVANIZED BOX NAILS AT 12" O.C. AT INTERIOR SUPPORTS. LAY SHEATHING PERPENDICULAR TO FRAMING AND STAGGER PANEL EDGES.

FLOOR AND ROOF TRUSSES:

TRUSSES TO BE DESIGNED AND SUPPLIED IN ACCORDANCE WITH ANSI/TPI 1-2014. THE TRUSS CALCULATION PACKAGE SHALL BE PREPARED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON. THE TRUSS ENGINEER SHALL ASSUME ALL RESPONSIBILITY FOR THE WORK OF ALL SUBORDINATES INVOLVED IN THE PREPARATION OF THE TRUSS PLACEMENT PLAN AND TRUSS DESIGN DRAWINGS. EACH TRUSS SHALL BE PLANT FABRICATED AND SHALL BEAR THE QUALITY CONTROL STAMP, MANUFACTURER'S NAME, DESIGN LOAD, AND MAXIMUM SPACING. ALL MECHANICAL CONNECTORS SHALL BE ICC APPROVED. LOADS SHALL BE IN ACCORDANCE WITH THE RECOMMENDED DESIGN LOADS AND IBC CHAPTER 16. MANUFACTURER SHALL PROVIDE ALL TRUSS-TO-TRUSS CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE BUILDING DEPARTMENT FOR APPROVAL AND MAINTAIN DRAWINGS ON SITE FOR INSPECTION. CONTRACTOR TO VERIFY ALL TRUSS LENGTHS PRIOR TO FABRICATION AND INSTALLATION. TRUSSES SHALL BE BRACED TO PREVENT ROTATION AND PROVIDE LATERAL STABILITY IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS AND INDIVIDUAL TRUSS DRAWINGS. NO TRUSS SHALL BE ALTERED WITHOUT PRIOR WRITTEN CONSENT OF THE TRUSS DESIGNER AND ENGINEER OF RECORD.

GENERAL CONSTRUCTION NOTES:

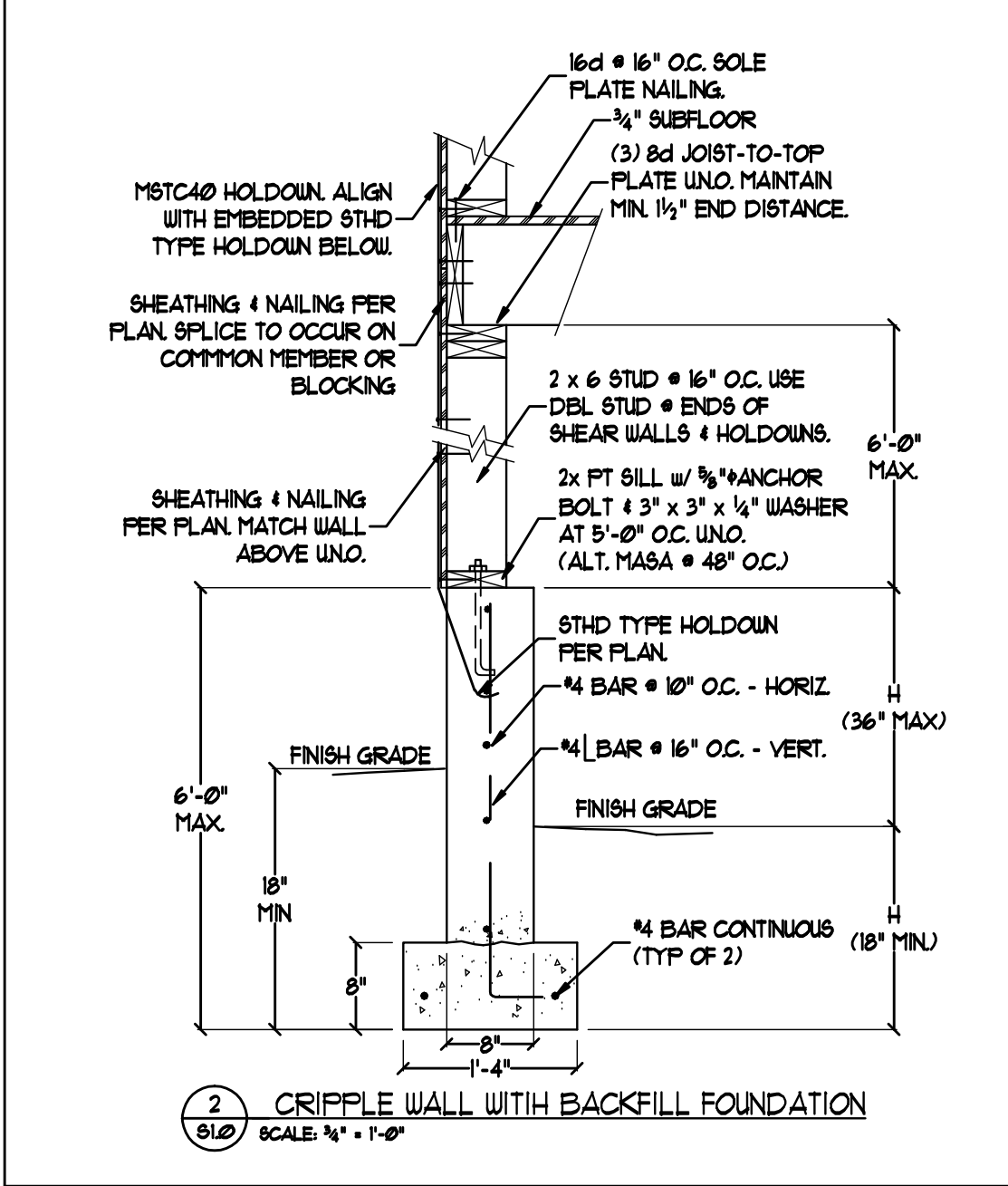
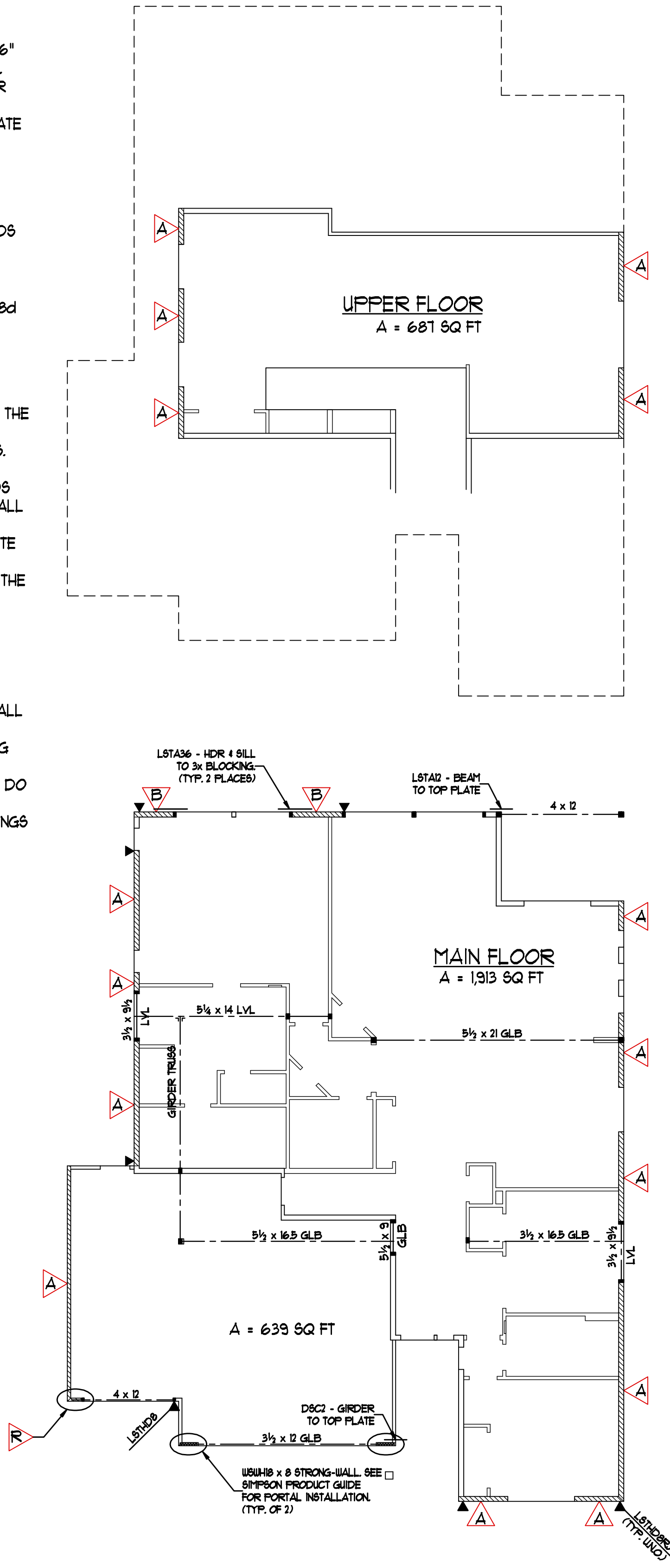
ALL CONSTRUCTION SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND METHODS, TECHNIQUES, AND SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE SPECIFIED WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ALL CONDITIONS AT THE JOB SITE INCLUDING BUILDING AND SITE CONDITIONS BEFORE COMMENCING WORK AND BE RESPONSIBLE FOR SAME. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS AND STIFFENERS HAVE BEEN INSTALLED. THE CONTRACTOR SHALL COORDINATE WITH THE BUILDING DEPARTMENT FOR ALL BUILDING DEPARTMENT REQUIRED INSPECTIONS. DO NOT SCALE DRAWINGS. USE ONLY WRITTEN DIMENSIONS. THE DETAILS SHOWN ARE TYPICAL AND SHALL BE USED FOR LIKE OR SIMILAR CONDITIONS NOT SHOWN. VARIATIONS AND MODIFICATIONS TO WORK SHOWN ON THE DRAWINGS SHALL NOT BE CARRIED OUT WITHOUT THE WRITTEN PERMISSION FROM THE ARCHITECT OR ENGINEER.

SHEAR WALL SCHEDULE

MARK	MINIMUM SHEATHING (1)	SHEATHING NAILING (1)	ANCHOR BOLTS (3)	REMARKS (4, 5)
A	$\frac{1}{2}"$ CDX OR OSB	8d @ 6" O.C.	$\frac{3}{8}"$ @ 60" O.C.	Wall = 230 PLF
B	$\frac{1}{2}"$ CDX OR OSB	8d @ 3" O.C.	$\frac{3}{8}"$ @ 16" O.C.	Wall = 450 PLF USE 3x STUDS AT ABUTTING PANEL EDGES & STAGGER NAILS
R	SEE DETAIL 12 / 520 FOR CONSTRUCTION			

NOTES

- ALL WALLS DESIGNATED "R" ARE SHEAR WALLS. EXTERIOR WALLS SHALL BE SHEATHED WITH RATED SHEATHING (24/20) AND NAILED AT ALL PANEL EDGES (BLOCKED) PER SCHEDULE. NAILING AT TI-II PANELS SHALL BE THROUGH EACH EDGE OF EACH PANEL. NAILING AT INTERMEDIATE FRAMING TO BE AT 12" O.C. NAILING NOT CALLED OUT SHALL BE PER IBC TABLE 2304.10.1. NAILING IN PRESERVATIVE TREATED LUMBER SHALL BE STAINLESS STEEL OR OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL PER ASTM A153.
- HOLDDOWS AND OTHER FRAMING HARDWARE BY SIMPSON STRONG TIE TO BE USED PER PLAN. ENDS OF SHEAR WALLS SHALL USE DOUBLE STUDS MINIMUM.
- USE MINIMUM OF TWO (2) BOLTS PER SILL PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12" NOR LESS THAN 5" FROM EACH END OF EACH PIECE. EMBED BOLTS MINIMUM OF 1" INTO CONCRETE. WASHERS TO BE 3" x 3" x $\frac{1}{4}"$ PER IBC SECTION 2308.3.2 AND OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL IN ACCORDANCE WITH ASTM A153.
- ALLOWABLE LOADS ARE PERMITTED TO BE INCREASED 40% FOR WIND DESIGN IN ACCORDANCE WITH AF&PA SDPUS TABLE 4.3A.
- DESIGNATED 3x STUDS MAY BE (2) 2x MEMBERS FACE-NAILED WITH 16d @ 12" O.C. STAGGERED.



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City of Puget Sound
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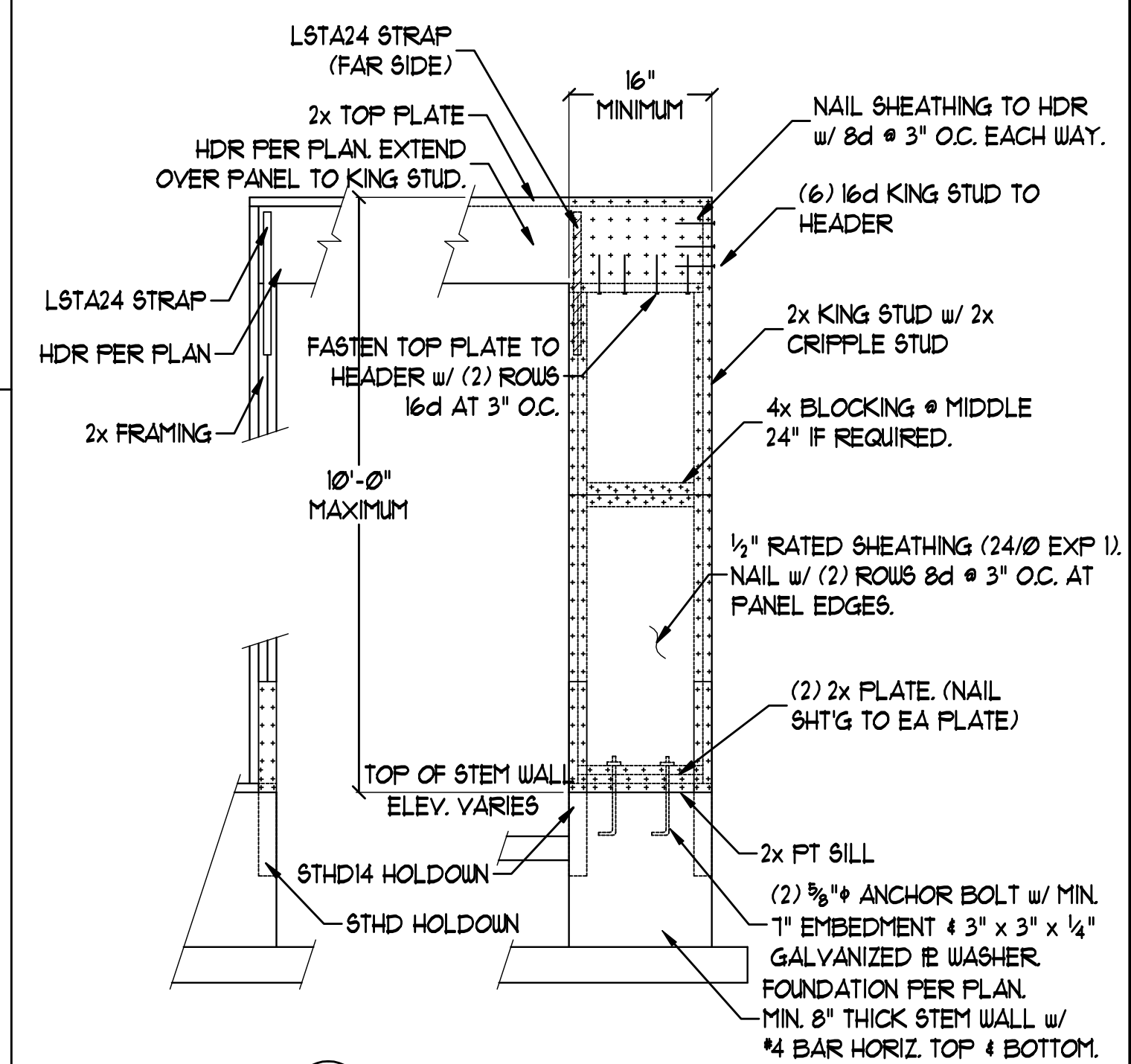
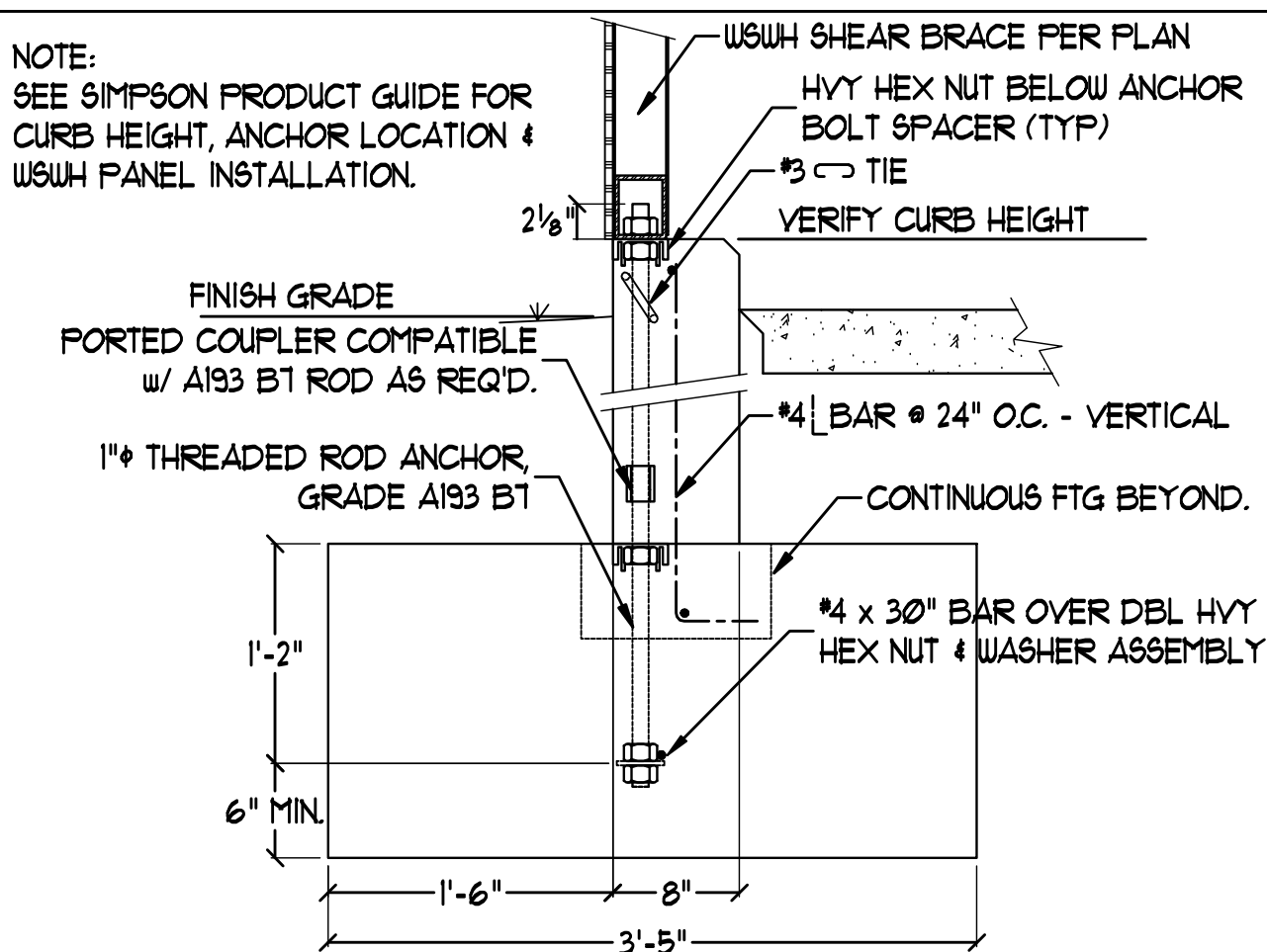
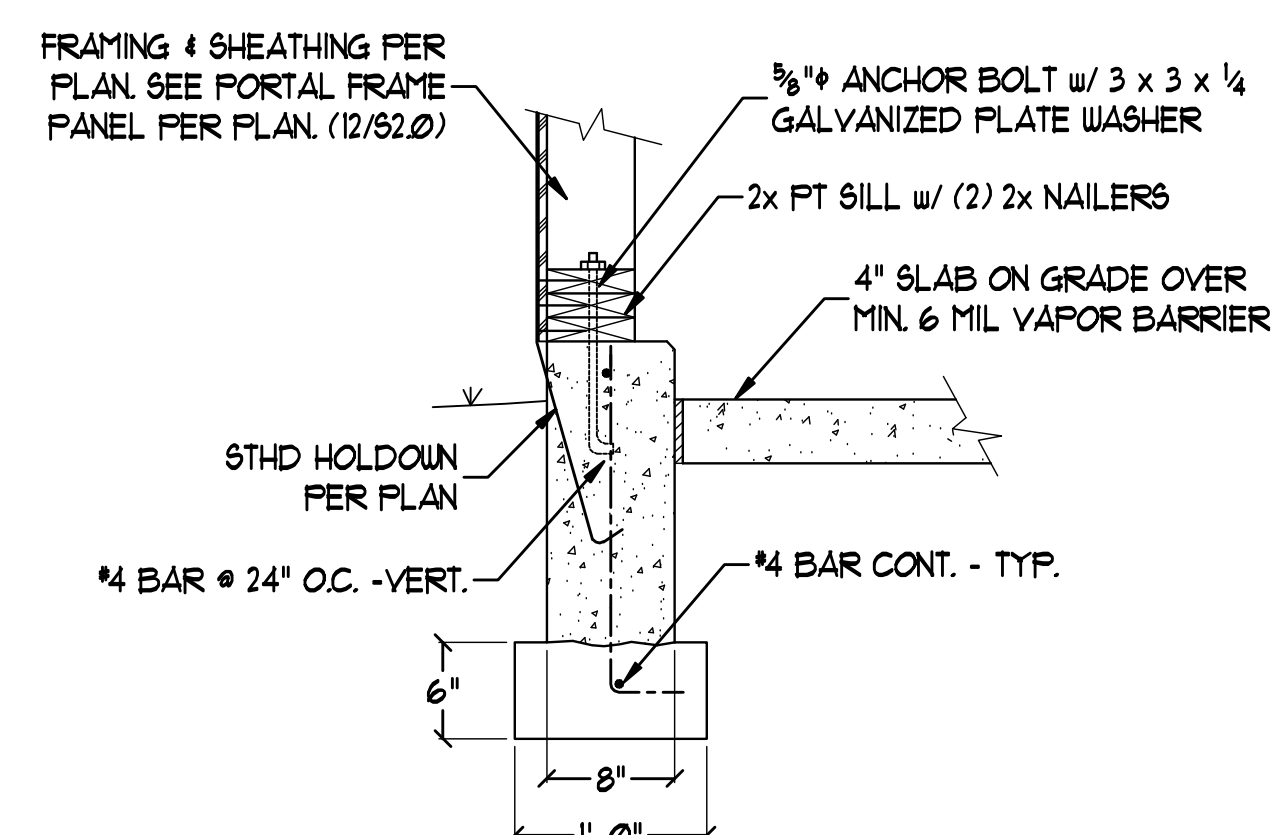
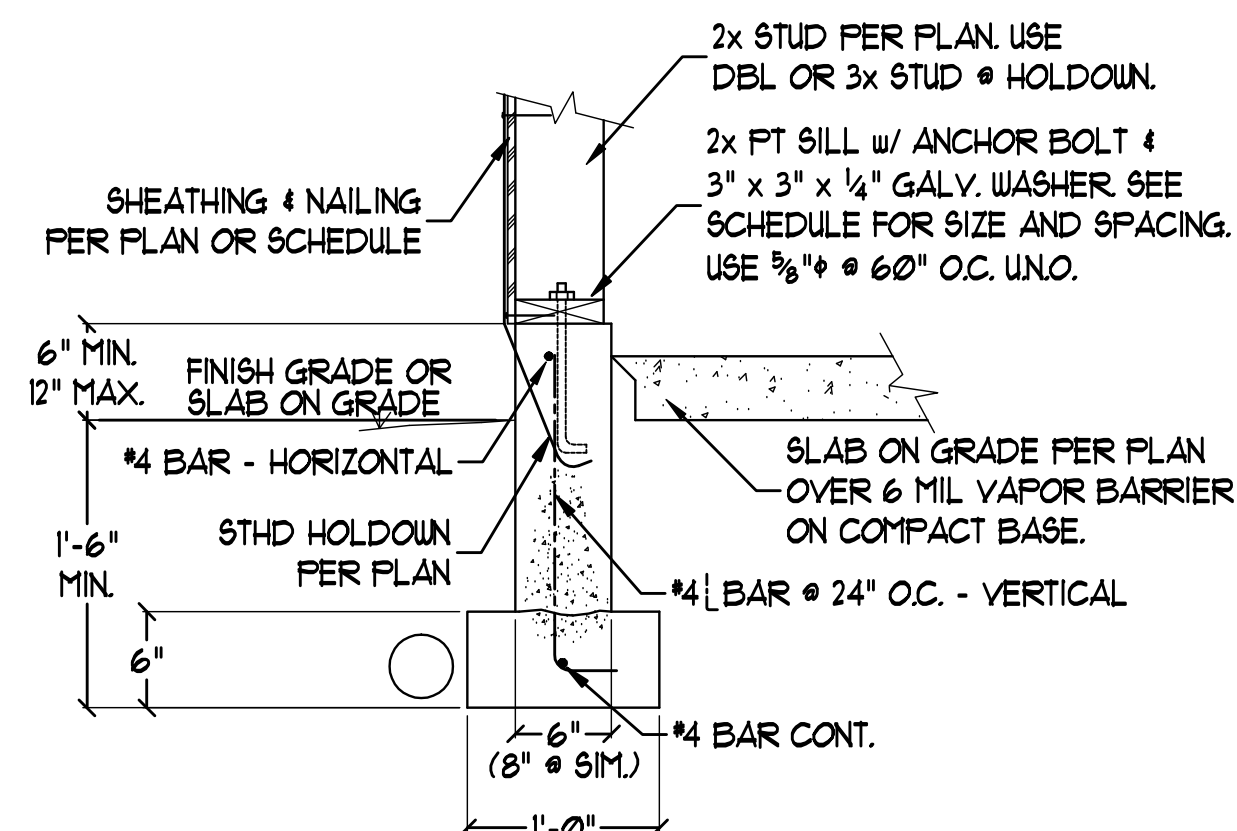
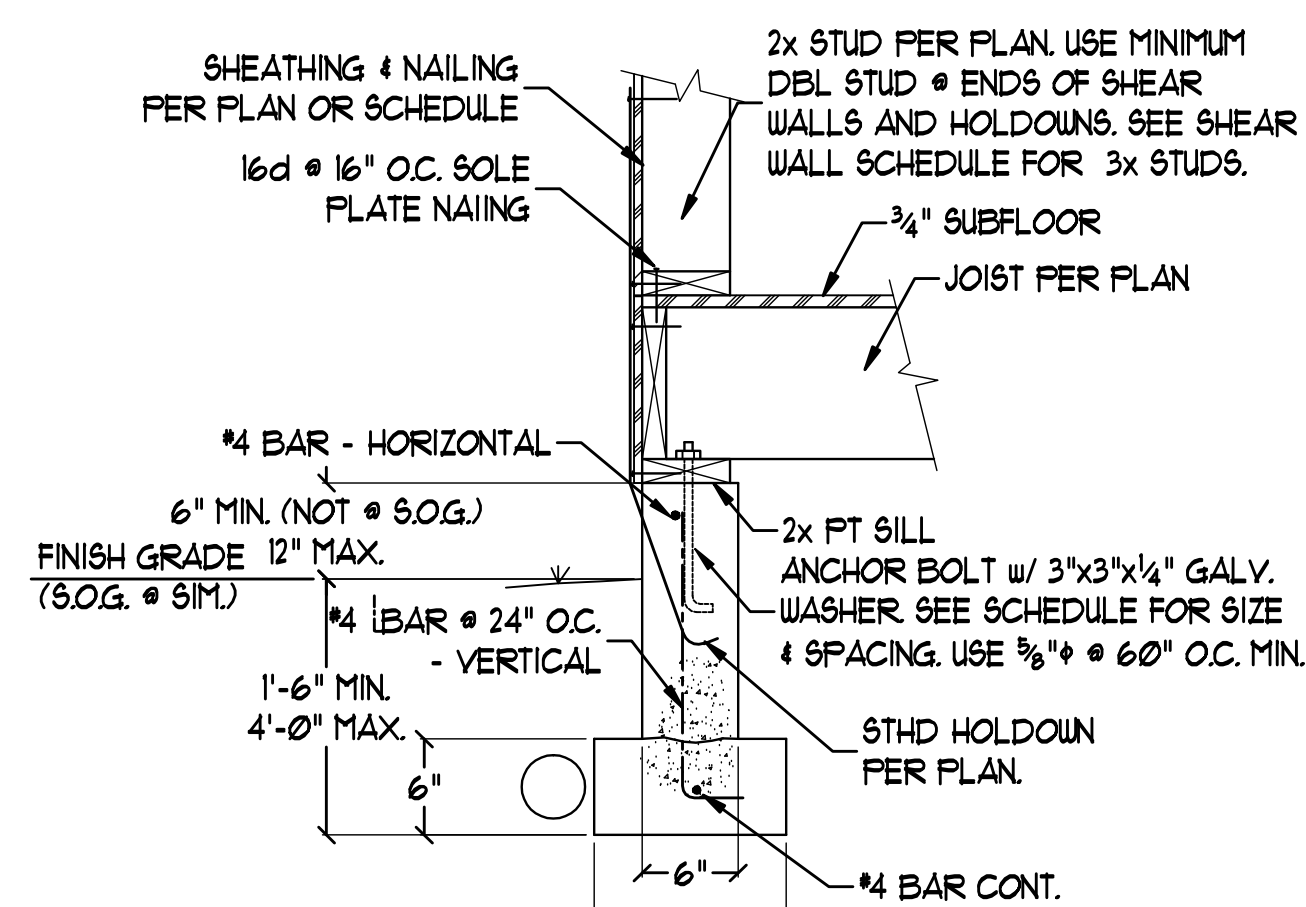
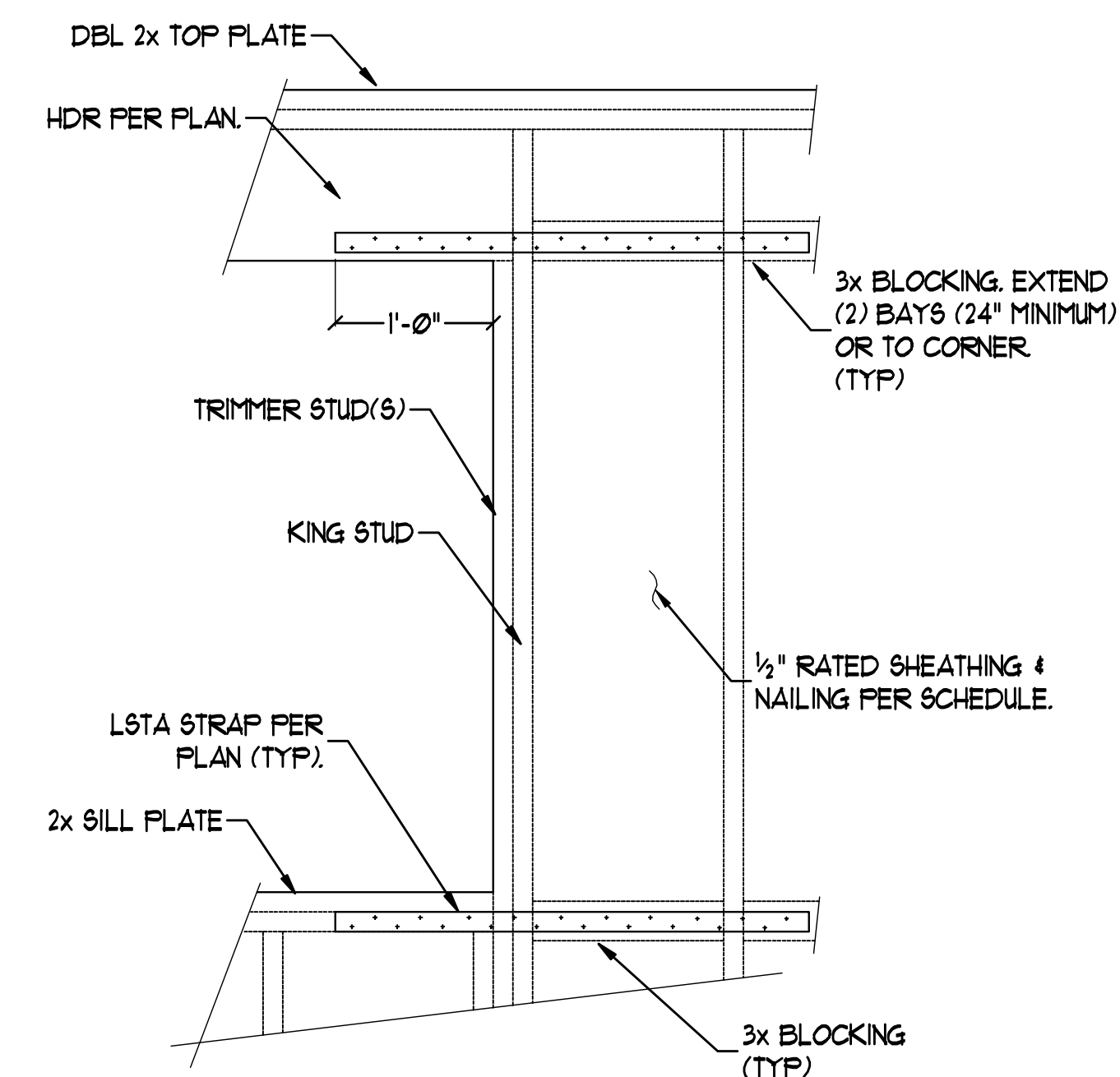
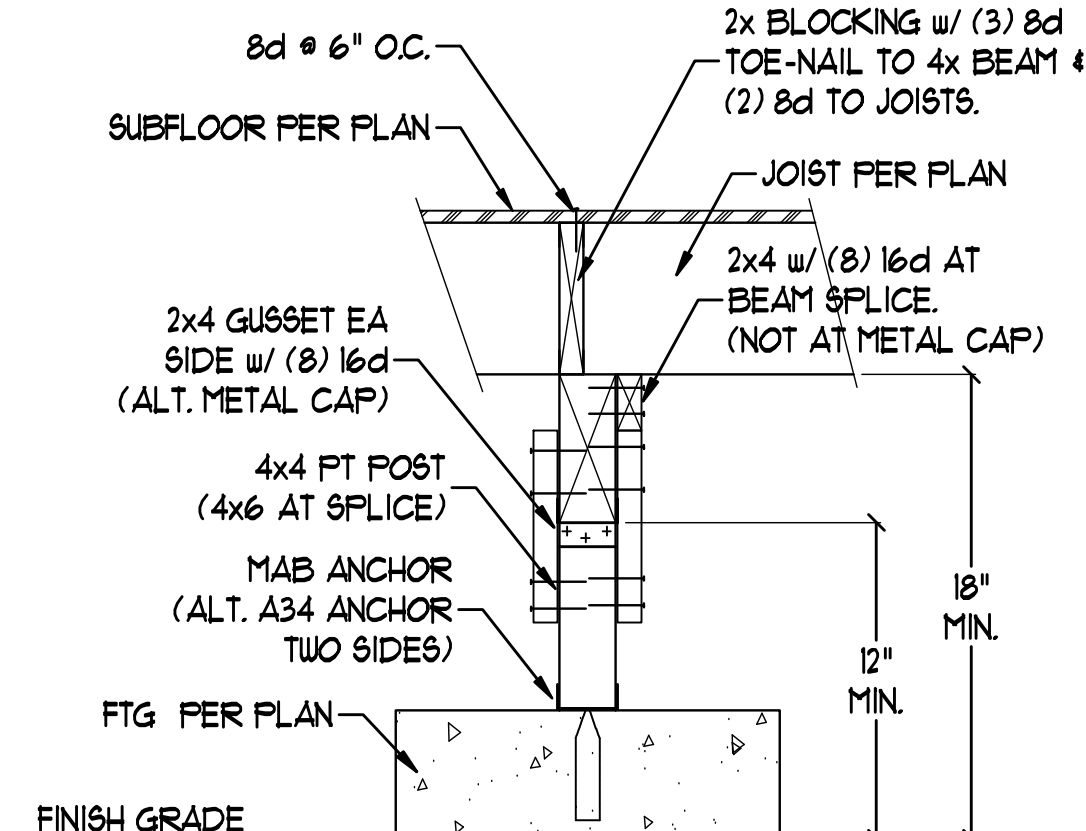
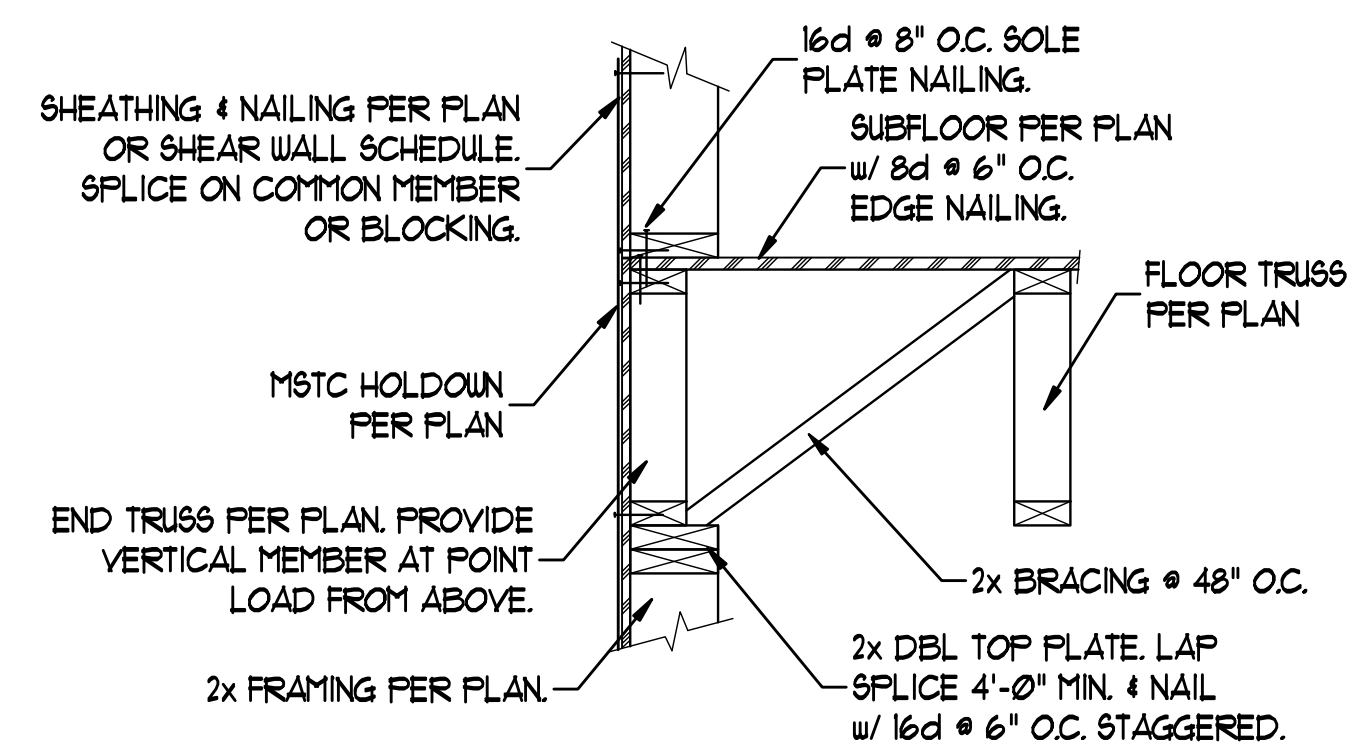
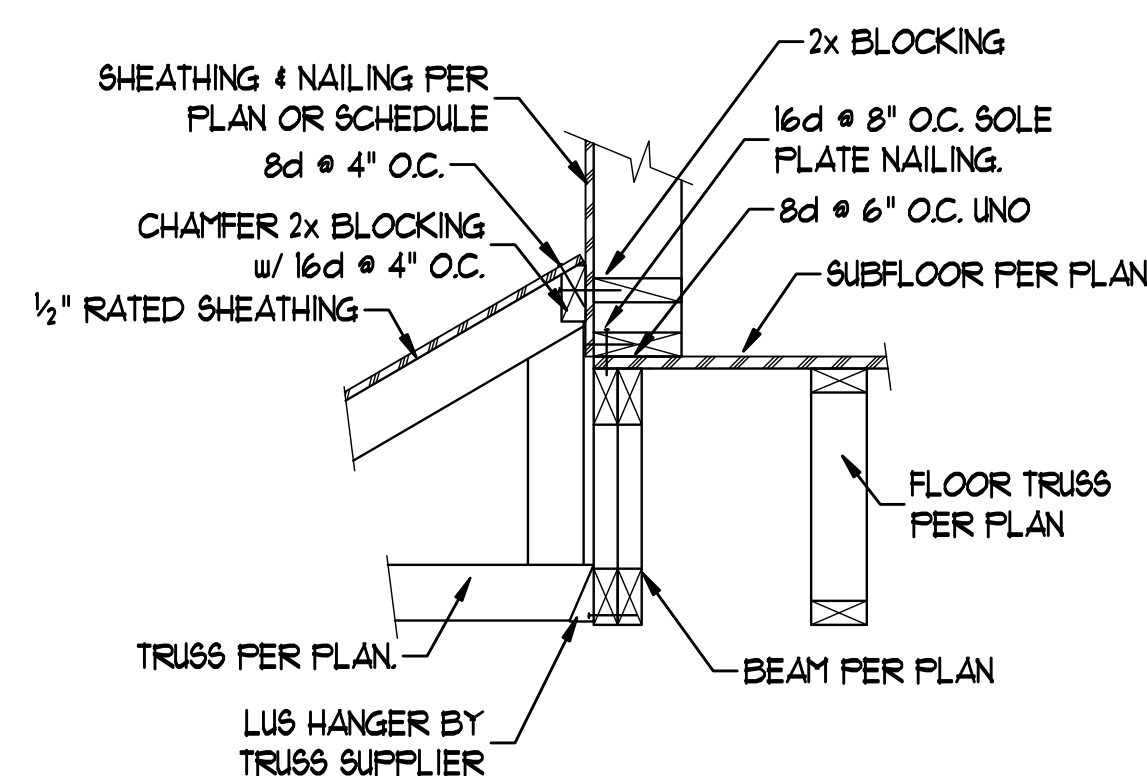
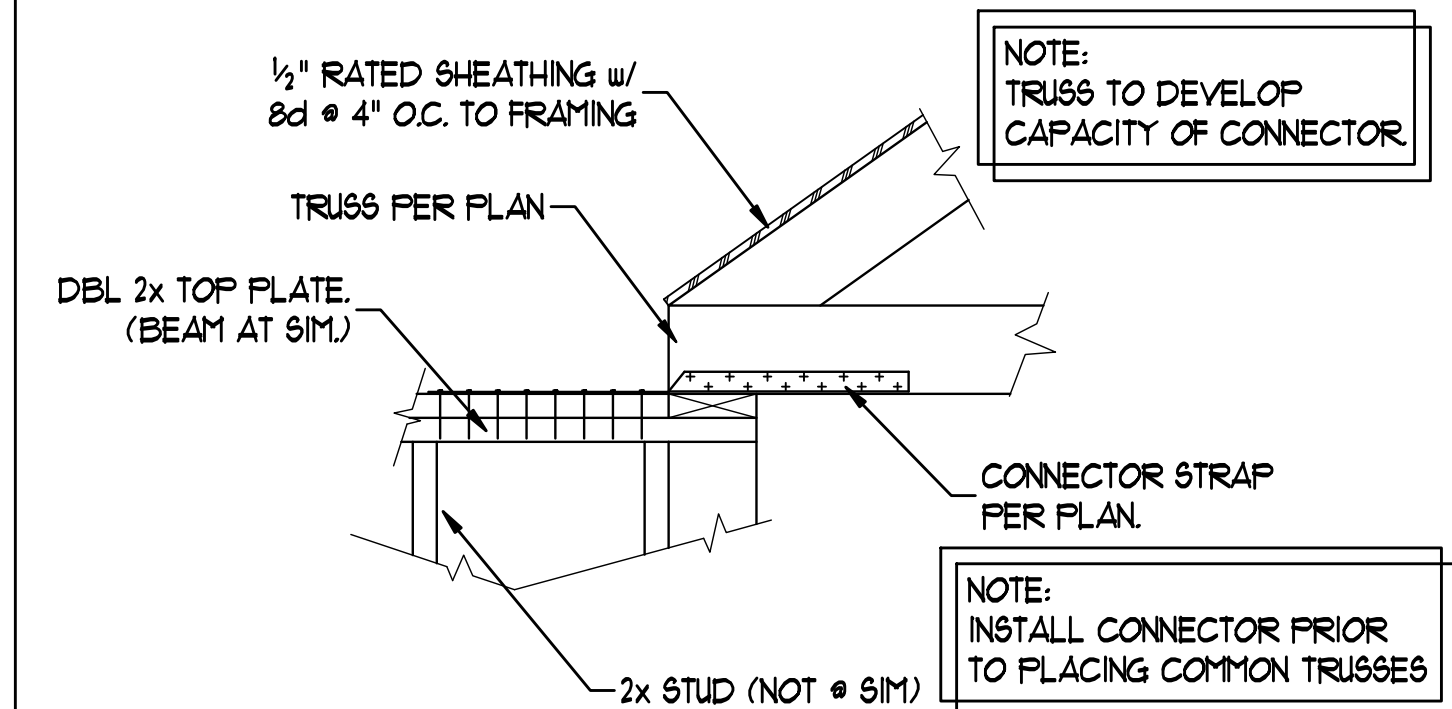
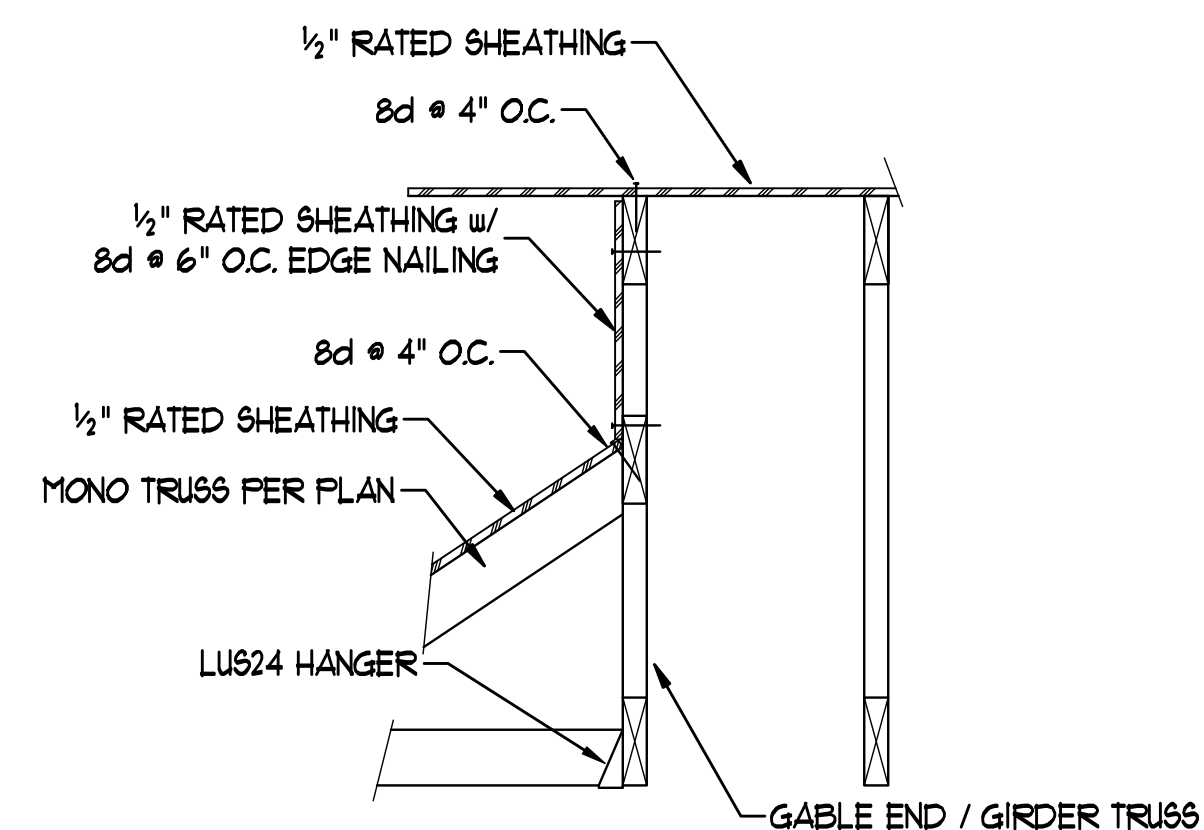
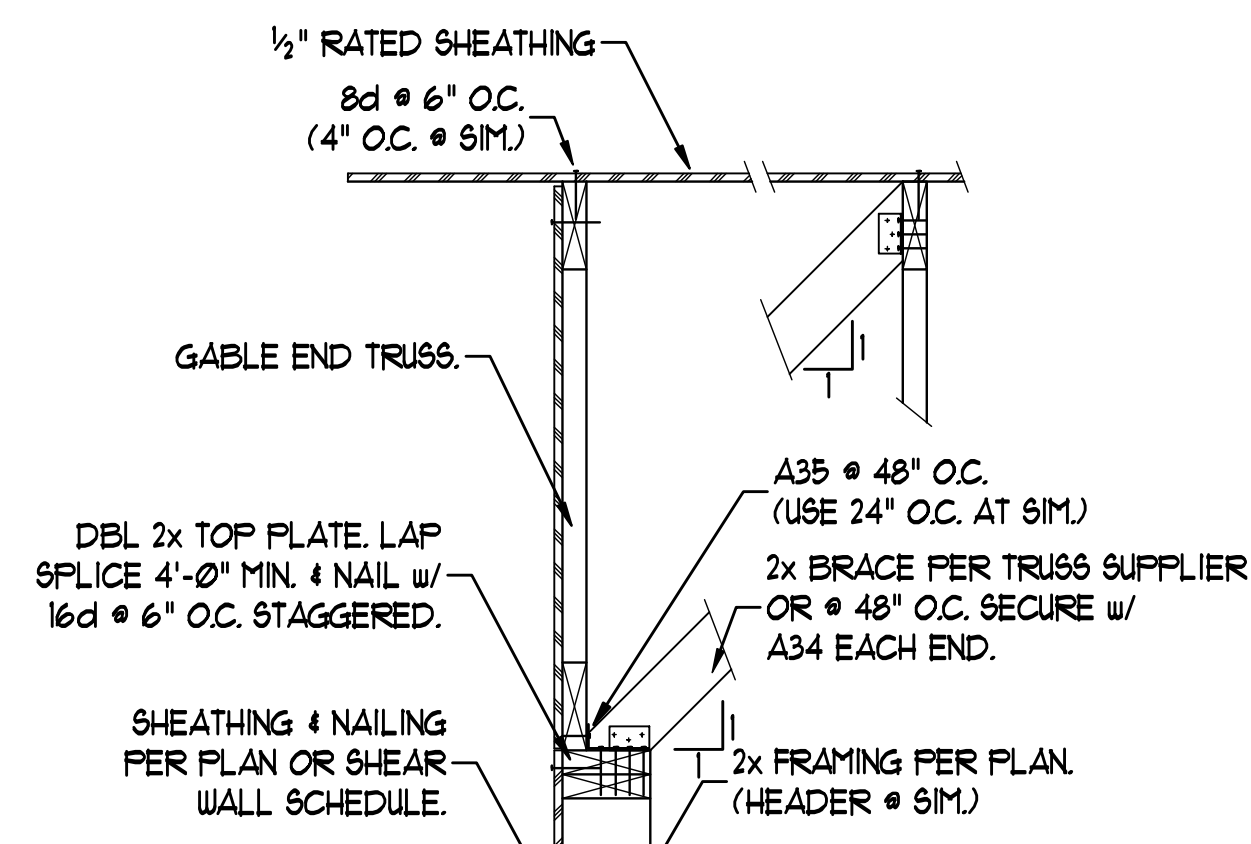
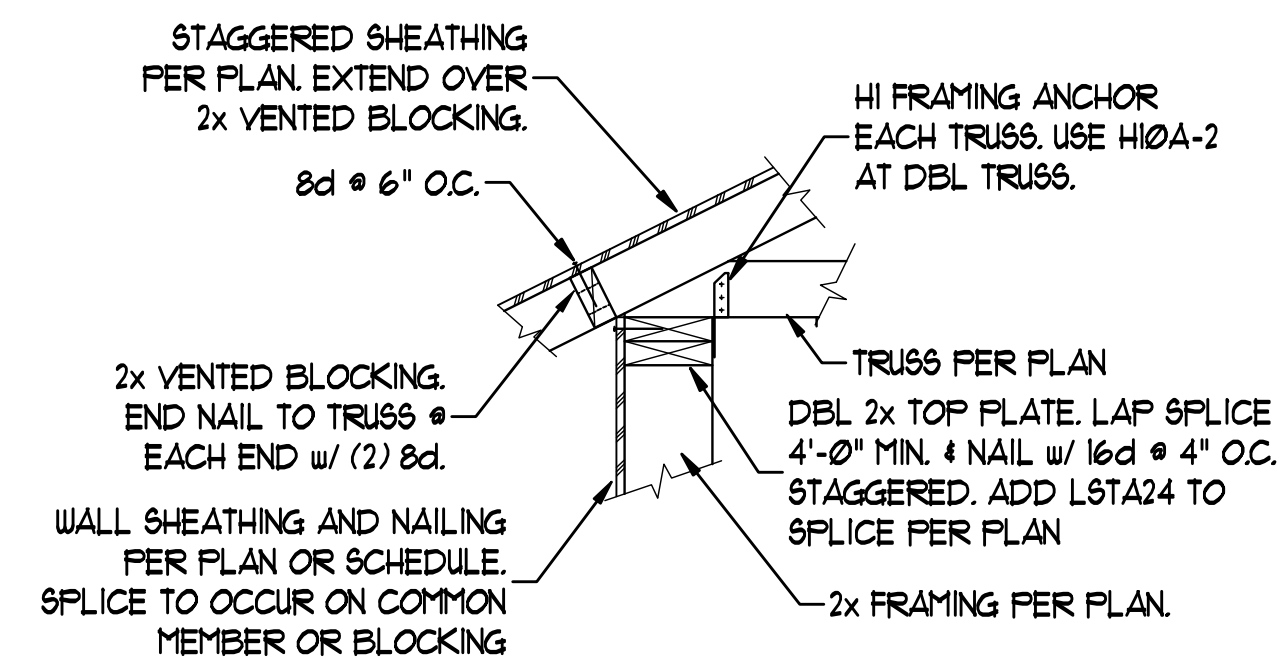


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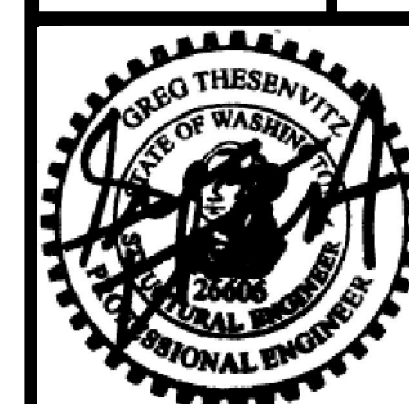


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