



City of Covington
Community Development Department
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For appointments: PermitServices@covingtonwa.gov or call (253) 480-2400, ext. 0.

SINGLE FAMILY MINIMUM DRAWING CHECKLIST

This checklist applies to new single family residences, residential remodels, and additions. Some items may not be required based on the scope of the project. Structural plans and calculations are required to be stamped by a Washington State Licensed Architect or Engineer. Please contact permitservices@covingtonwa.gov with questions.

Construction documents shall be drawn to scale upon suitable material. Electronic media documents are permitted to be submitted where approved by the building official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the building official.

PLANS (4 sets):

Construction drawings shall include but are not limited to the following:

- Site Plan** – Four (4) copies ([Sample Site Plan](#))
 - North arrow
 - Minimum scale of 1" = 20' with scale shown
 - Property boundary
 - Existing topography
 - New topography
 - Cut and fill quantities
 - Building, driveway, patio, deck and other structures footprint
 - Existing drainage facilities on and adjacent to the property
 - Easements
 - Sensitive areas and buffers (with description)
 - Street address, subdivision and lot number (if applicable)
 - Name of designer, signature & date
 - Clearing limits
 - Perimeter silt fence on all downstream areas - no exceptions
 - Cutoff ditches or other conveyance features
 - Catch basin protection
 - Construction entrance (12' by 25' by 2' of 4"-6" quarry spalls)
 - Location of storm pipes
 - Location and elevation of storm stub
 - Location of septic field (if applicable)
 - Lowest finished floor elevation
 - Downspout elevations
 - Utility structures (boxes, transformers, meters, light poles, hydrants, etc.)
 - Location and height of rockeries and retaining walls
 - Driveway centerline profile showing property line; length and slope of driveway; elevations of curb cut, back edge of sidewalk (ROW) and garage floor; and vertical curve in accordance with road standards
 - Setbacks

Construction Drawings

Soils Report:

Investigation and analysis of soils per IRC Sec 401 prepared by a Washington State licensed geotechnical engineer will be required under the following conditions:

- When foundations are supported by fill material.
- Unless the foundation design is based on 1500 psf.
- For structures on or adjacent to slopes when the building clearance from ascending or descending slopes is less than shown in IRC Figure R403.1.7.1 (below).

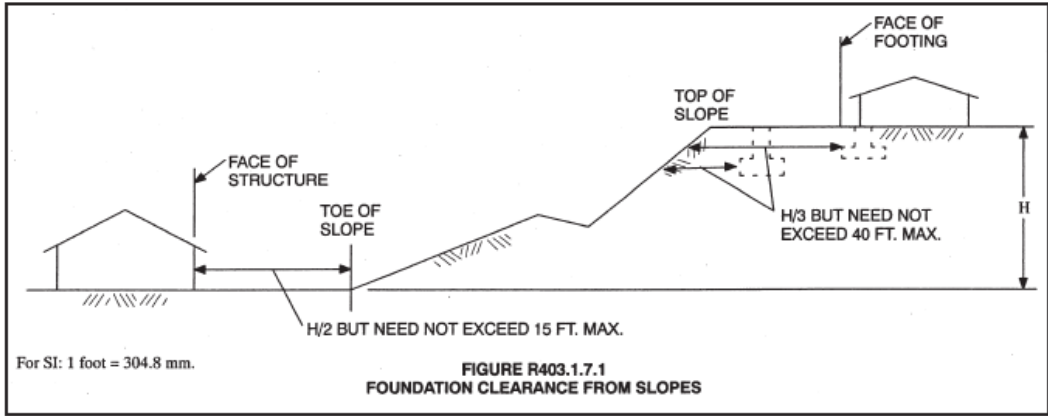


Table R401.4.1—Presumptive Load-bearing Values of Foundation Materials	
Class of Material	Load-Bearing Pressure (pounds per square foot)
Crystalline bedrock	12,000
Sedimentary and foliated rock	4000
Sandy gravel and/or gravel (GW and GP)	3000
Sand, silty sand, clayey sand, silty gravel, and clayey gravel (SW, SP, SM, SC, GM, and GC)	2000
Clay, sandy clay, silty clay, clayey silt, silt and sandy silt. (CI, ML, MH, and CH)	1500 ^b

Foundation Plan:

- Scale and North Arrow (preferred scale is 1/4" = 1 foot)

- Outline of perimeter foundation, concrete slabs, patios, etc., **with dimensions**
- Location and size of exterior and interior bearing footings/foundations
- Interior pier locations and sizes, **with dimensions**
- Specify the size and spacing of required reinforcing steel. Specify thickness of concrete cover over rebar.
- Location and sizes of foundation vents and crawl space access
- Provide complete foundation sections and details showing the minimum footing and foundation sizes required by the 2015 IRC Sec. R403 and R404, or approved structural design.
- All required hold-downs shall be shown on the foundation plans and shall be consistent with engineering when building has been engineered.
- Show the locations, sizes, embedment and spacing of anchor bolts, hold-downs, and post-to-footing connections. Foundation plates or sills shall be bolted to the foundation or foundation wall with not less than ½" bolts embedded at least 7" into the concrete or masonry spaced not more than 6' apart. There shall be a minimum of two bolts per piece with one bolt located not more than 12" or less than 7 bolt diameters from each end of the plate section. IRC Sec. R403.1.6. and IRC Sec. R403.1.6.1
- A properly sized nut and washer shall be tightened on each bolt to the plate. IRC Sec. 403.1.6.1. Washer size to be 0.229 inch by 3 inches x 3 inches in size per IRC Sec. R602.11.1.
- For engineered buildings, the size and spacing of all anchor bolts shall be shown on the shear wall schedule. Shear wall schedule shall be shown on the plans and be consistent with foundation sections.
- Foundations with stem walls shall be shown with a minimum of one No. 4 horizontal bar located in the upper 12 inches of the wall per IRC Sec. R403.1.3. Additionally, stem walls shall be provided with a minimum of one No. 4 bar at the top of the wall and one No. 4 bar at the bottom of the footing per IRC Sec. R403.1.3.1. See IRC Sec. R403.1.3 for additional requirements from footing to wall connection.
- Construction details of any unusual construction practice
- Stamped engineering calculations are required for foundation/ retaining walls 4 feet in height and over.

Floor Plan, Showing All Rooms and Garages:

- Scale (preferred scale is ¼" = 1 foot)
- Use and size of each room
- Window and door locations and size
- Header sizes over openings
- Beam locations, materials, spacing, and sizes
- Floor joist sizes, directions of run, spans, and spacing (in lieu of separate framing plans)
- Ceiling joists, floor joists, trusses, and roof rafter sizes, directions of run, spans, and spacing (in lieu of separate framing plans)
- Locations of plumbing and heating fixtures and equipment
- Shear wall location
- Show locations for all switches, outlets, receptacles, and electrical appliances

Framing Plans:

Information requested here is required, whether or not separate framing plans are submitted

- Size, lumber species, grade, spacing, and spans of all framing members; specify panel identification index for sheathing.
- Buildings designed prescriptively for wall bracing, lateral force-resisting systems will have to comply IRC Sections R602.10, R602.11 & R602.12.
- Buildings designed by engineers shall be consistent with engineer's calculations and a complete shear wall schedule shall be shown on the plans. A Washington State licensed professional engineer shall stamp structural calculations-
- Drawings must clearly show the sizes, species, grades, spacing and spans of all framing members.
- Show floor joists sizes, directions of run, spans and spacing.
- If I-joists, also submit the manufacturer's proprietary floor system design layout with all requirements.

- Show ceiling joists, trusses, and roof rafter sizes, directions of run, spans and spacing. If trusses, also submit engineered truss sheets and cross-referenced lay-out plan.
- Show on the drawings the numbers and sizes of nails connecting wood members, or include on the drawings IRC Tables 602.3.(1) & 602.3.(2).
- Connections that resist seismic forces shall be completely and clearly detailed on the drawings. All of the engineer's requirements must be shown on the drawings. Show the locations and specify the brand names and model numbers of all framing connectors.
- Clearly show bearing and shear walls. Provide nailing schedules.
- Show posts under all beams. Specify sizes, grades, species and heights. Show connections top/bottom.
- Where decks are shown, provide complete framing plans including sizes, grades, spacing, and species of all framing members including posts, lateral bracing, and guards. Show sizes and depths of concrete footing pads. Show all connections. IRC R507
- Each dwelling unit shall have one exit door that is side-hinged and provides a minimum clear width of not less than 32 inches and a minimum clear opening height of not less than 78 inches. IRC Sec. R311.2.
- Show landings at doors. The width of each landing shall not be less than the door served and a minimum length in the direction of travel of not less than 3 feet. Exterior door shall have an interior landing not more than 1½" lower than the top of the threshold and an exterior landing not more than 7 3/4" below the top of the threshold if the door does not swing over it. IRC Sec R311.3 and R311.3.1.
- Show dimensions of stair treads & risers. Maximum riser height shall be 7¾" per IRC Sec R311.7.5.1, and minimum tread depth shall be 10" per IRC Sec R311.7.5.2.
- Show 6'8" minimum headroom in stairway. IRC Sec. R311.7.2. q 21. Show landings for stairways. IRC Sec. R311.7.6.
- Show handrails for stairways. IRC Sec. R311.7.8.
- Show maximum slope of one unit vertical in twelve units horizontal for all ramps. IRC Sec. R311.8.1.
- Show exterior windows and glass doors comply with IRC Sec. R308.
- Wall construction, including fire blocking (IRC Sec. R302.11), notching and drilling (R602.6) shall comply with IRC Chapter 6 and IRC R302.11.
- Wall covering shall comply with IRC Chapter 7.
- Roof-Ceiling construction shall comply with IRC Chapter 8.
- Roof Assemblies shall comply with IRC Chapter 9.
- Chimneys and Fireplaces shall comply with IRC Chapter 10.
- Show materials and method of connection of all posts to beams
- Call out any special connection method in detail and clearly show how the building is held together
- Designs out of the scope of the conventional framing provisions of the International Residential Code shall be designed and stamped by a Washington State Registered Professional Engineer

Elevations:

Elevations are required for all proposed structures with a roof or partial cover

- Show height from finish grade to: 1) finished floor; 2) top plate/ceiling; 3) highest point of structure
- Specify all finished materials to be utilized in construction
- Show all doors and windows (distinguish between openable vs. fixed; single-glazed vs. dual-glazed)
- Specify roof pitch and material; chimney in relation to roof

Building Cross-Sections:

Show sections of structure that clarify in detail typical conditions. Describe otherwise hidden conditions.

- Blocking, bridging, straps, approved framing anchors or mechanical fasteners shall be installed to provide continuous ties from the roof to the foundation system.
- Specify mudsill material (naturally durable wood or wood that is preservative-treated). IRC Sec. R317 & R318.

- Where post and beam or girder construction is used, the design shall be in accordance with the provisions of this code. Detail positive connections to ensure against uplift and lateral displacement. IRC Sec. R407.3.
- Wood joists closer than 18 inches, or wood girders closer than 12 inches to grade shall be shown as an approved wood of natural resistance to decay or treated wood. IRC Sec. R317.1
- Show components of wall construction including exterior and interior wall finishes and insulation R-value. Show double top plates at top of stud walls per IRC Sec. R602.3.2.
- Habitable rooms above a garage need minimum 5/8" Type X gypsum board or equivalent applied to garage side of ceiling per IRC Sec.R302.6 and Table R302.6 See nailing schedule in IRC Table R702.3.5.
- Show ceiling construction (sizes and spacing of joists) and R-value of insulation.
- Roof structure (sizes and spacing of joists, rafters, or pre-manufactured trusses) and R-value of insulation. Show insulation baffles.
- Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on the enclosed side with ½" gypsum wallboard. IRC Sec. R302.7
- Provide full height section through stairways. Show riser and tread framing materials; riser height, tread width; handrail/guard height above tread nosing; and clearance to ceiling above the stairs measured from a line drawn at and parallel to tread nosings per IRC Sec. R311.7.2.
- Stairways shall be 36" wide above the handrail which may project no more than 4½" into the stairway. IRC R311.7.1.
- Illumination required for all stairways IRC R303.7.
- Balconies, porches or raised floor surfaces more than 30" above the floor or grade below shall have guards no less than 36" in height. The open sides of stairs with a total rise of more than 30" above the floor or grade below shall have guards not less than 34" in height measured vertically from the nosing of the treads. IRC Sec. R312.1. The guards shall have intermediate rails or an ornamental pattern such that a sphere 4" in diameter cannot pass through per IRC Sec. R312.2. See exception for guard on stairs IRC Sections R312.3 1 & 2.
- Provide Window fall protection in accordance with IRC Sec R312.2.
- Complete detailed cross-sections of footing/foundations; show backfill to top of interior footings
- Mud sill and anchorage material (cedar or pressure-treated)
- Post-to-beam connections
- Floor construction (size and spacing of joists or pre-manufactured truss spacing) and insulation
- Components of roof covering
- Show compliance with ventilation requirements for attic space
- Full height section through fireplace and chimney, including reinforcing materials

Energy/Ventilation: Indicate compliance with energy code. ([Energy Code Worksheet](#))

The plans shall show in sufficient detail all pertinent data and features of the building and the equipment and systems including, but not limited to: design criteria, exterior envelope component materials, U-factors of the envelope systems, R-values of insulating materials, size and type of apparatus and equipment, and equipment controls. Energy code forms should be incorporated into the construction drawings.

- Specify selected design approach: 1) component performance; 2) systems analysis; or 3) prescriptive
- Provide documentation verifying compliance
- Submittals for energy code compliance must include the model numbers, frame type, and U-values for windows – this information must appear in the compliance form for Prescriptive Compliance or as part of a window schedule included in the plans for Component Performance or Systems Analysis compliance

Roof Plan: (1/4" or 1/8" scale)

IRC Chapter 8 – Roof-Ceiling Construction

- Show roof drainage per IRC Sec R801.3 where required.
- Show sizes, directions of run, spans, and spacing of framing members of all framing members.
- Cutting and notching shall comply with IRC Sec R802.7.
- If using trusses, provide engineer stamped truss drawings and cross-referenced lay-out sheet.

General:

- 110-volt smoke detectors shall be shown in each sleeping room and at a point centrally-located in the corridor or area giving access to each separate sleeping area
- The open sides of stairways, landings, balconies, or porches, which are more than 30 inches above grade or floor below, shall be shown to have a 36' guardrail with intermediate rails or an ornamental pattern such that a sphere 4 inches in diameter cannot pass through
- Glazing in doors and enclosures for bathtubs and showers and in any portion of a building wall enclosing these compartments shall be specified as safety glazing where the bottom exposed edge of glazing is less than 60 inches above a standing surface and drain inlet.

- Water Supply and Waste Disposal**

Proof of potable water supply must be presented at the time of permit application along with premises isolation in some cases. Provide one of the following:

[Certificate of Water Availability](#): (OS1WaterAvailability.pdf)

Contact Covington Water District: (253) 631-0565 www.covingtonwater.com

OR Lake Meridian Water District (253) 631-3770 www.lakemeridianwater.com

OR Private Well - King County Health Department approval required: (206) 296-4932

[Private Water System](#): Provide well approval.

Contact King County Health Department (206) 296-4932.

[Certificate of Sewer Availability](#): (OS1SewerAvailability.pdf)

Contact Soos Creek Water & Sewer District: (253) 630-9900 www.sooscreek.com

OR [Septic Tank](#) – King County Health Department approval required: (206) 296-4932

<http://www.kingcounty.gov/depts/health/environmental-health/piping/onsite-sewage-systems.aspx>

Plan review fee is due at time of submittal with Technology Surcharge. Remaining fees to be paid at permit issuance.

Permit Fees:

The plan review fee and technology surcharge fee are due at time of submittal. Remaining fees will be paid at permit issuance.

You may contact permitservices@covingtonwa.gov for a fee estimate prior to permit submittal. Please provide a square footage breakdown of dwelling area, garage, deck, covered porch, patio, etc.

Appointments Required:

Appointments are required for permit submittals and pickups and you may schedule by email: permitservices@covingtonwa.gov or by phone: 253-480-2400, dial 0 to reach reception.