



Building Services
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SFR-14
Bathroom Addition or
Remodel in a Residence

Reference: International Residential Code and Washington State Energy Code (WSEC)

1. To add or remodel a bathroom in a residence, please provide a floor plan of the bathroom showing the dimensions and the proposed location of the plumbing fixtures along with a key plan showing the location of the bathroom on the floor level within the house (note which floor level the bathroom is on). If this is the only project being done, we will need an approximate total cost, labor and material. If the homeowner is providing the labor, we still need an approximate materials cost, and we will then determine a labor cost.
2. Adding or remodeling a bathroom normally requires building, plumbing, electrical and mechanical permits. The building permit is required if you are adding or relocating walls or have removed a wall and/or ceiling finish to the studs and joists. The plumbing permit is required if you are adding, replacing, relocating or reinstalling any plumbing fixtures. An electrical permit is required if you are adding a circuit or relocating switches, lights or outlets. If the bathroom outlet is added or relocated, it must be on a GFI circuit, with nothing else on the circuit except bathroom outlets. A new bathroom or one that has had the ceiling opened, or if an existing bathroom does not have an exterior window, it must have a minimum 50 CFM exhaust fan vented to the outside with a positive connection to the outside. If the fan exhaust has a 3-inch diameter exhaust, the Washington State Ventilation and Indoor Air Quality Code requires the duct to be upsized to a minimum of 4 inches. If the duct leaves the heated space or goes above the insulation, it must be insulated to a minimum R-4 rating.
3. If the bathroom is in an unfinished basement, any existing exposed exterior concrete walls in the area being remodeled need to be insulated to a minimum of R-21. (See [SFR-13 Basement—Finish a Bedroom or Other Room—Requirements.](#))
4. Each fixture is required to be vented. The water closet (toilet) requires a minimum 3-inch drain and a minimum 2-inch vent, a wash basin requires a minimum 1½-inch drain and vent, and a bathtub can have a 1½-inch trap and trap arm, but after it connects to the vent if the drain runs horizontally, it must be a minimum 2-inch drain with a 1½-inch vent. A shower requires a minimum 2-inch trap, trap arm and drain with a minimum 1½-inch vent. The vents can be combined if they are more than 42 inches above the floor level.
5. The shower or tub/shower valve is required to meet ASSE A1016 to provide scald and thermal shock protection. Water to a shower or tub/shower cannot exceed 120 degrees and the water heater thermostat is not considered a suitable control for this provision.
6. At least 1 GFI-protected outlet is required on the counter by the sink, but all outlets in the bathroom shall be GFI-protected. The light and exhaust fan can be controlled by separate switches.
7. If the bathtub/shower area is going to be tiled, use cementitious backer board and not blue or green gypsum wallboard.
8. If the new bathroom is on the second floor, you cannot connect the new drain line to the vent, even if it is a 3- or 4-inch line, from a main floor bathroom. A new, minimum 3-inch, drain line must be connected to the building.