Planning and Community Development
1812 Main Street• PO Box 257 • Lake Stevens, WA 98258
Phone: (425) 622-9400 • www.lakestevenswa.gov
permits@lakestevenswa.gov

Garage Conversions

This Tip Sheet reflects code requirements of the 2021 International Residential Code (IRC) and the Washington State Energy Code (WSEC) with Washington State Amendments

General Requirements

- Permits and Plans are required for converting an unconditioned garage to conditioned living space pursuant to 2021 IRC R105.2.
- Newly conditioned (heated) area must be fully insulated (ceiling, walls, foundation walls and floor) to the same R-Values required for new construction.
- Additional energy credits must be selected (based on square footage) and plans must show the required information.
- Bedrooms cannot have openings directly into the garage pursuant to 2021 IRC R302.5 and require egress windows or doors in compliance with 2021 IRC Section R310.
- Infill the existing garage door opening in order to anchor the proposed wall and prevent water intrusion. See Figure 1 curb detail on next page.

Floor plans must show all proposed work, to include but not limited to:

- Existing/Proposed walls and any walls to be removed.
- Existing/Proposed windows, doors, and stairs.
- Room uses labeled: bedroom, bathroom, family room, storage, mechanical closet, etc...
- Smoke detectors, carbon monoxide detectors, and heat detectors shall be provided in accordance with 2021 IRC Sections R314 & R315.
- Proposed plumbing fixtures and exhaust fans for new bathrooms (if applicable).
- Identify heating elements and demonstrate energy code compliance in accordance with 2021 WSEC Chapter 4.
- Detailed cross section(s) indicating floor, wall and roof construction, materials, insulation, and ceiling height.

Planning and Community Development
1812 Main Street• PO Box 257 • Lake Stevens, WA 98258
Phone: (425) 622-9400 • www.lakestevenswa.gov
permits@lakestevenswa.gov

Creating a New Footing under the Slab

Some existing garage slabs will not have a thickened footing that runs beneath the slab in the garage door opening. In these cases, it is often required to dig under the slab and add a footing to support the new wall above. Figure 2 provides one example to satisfy this requirement. Speak with a design professional or the building department for additional options.

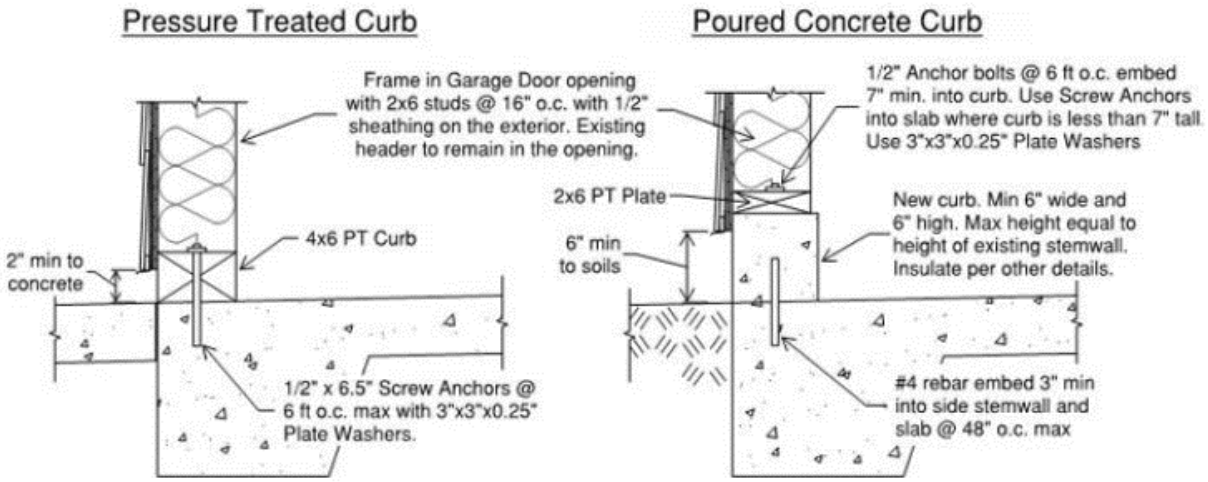


Figure 1: Options for Creating a Curb in the Garage Door Opening

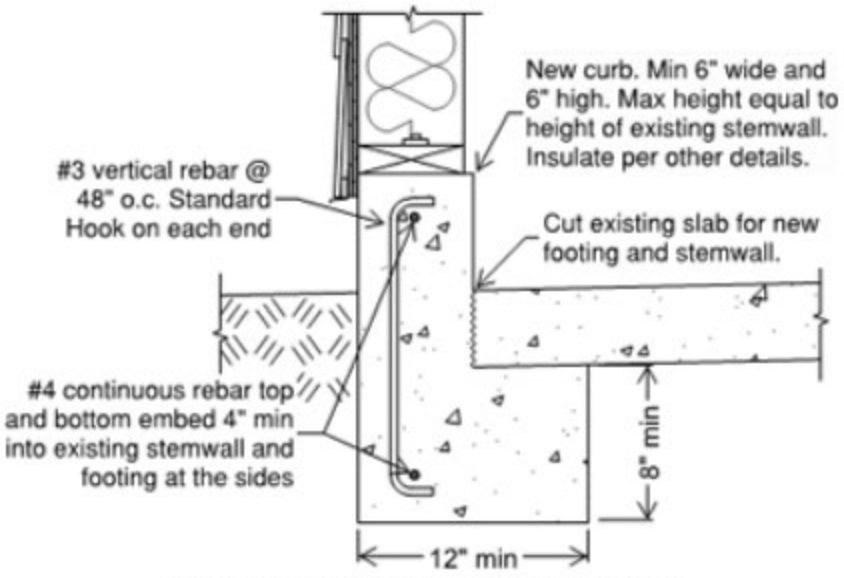


Figure 2: New Footing Under the Slab

Planning and Community Development
1812 Main Street• PO Box 257 • Lake Stevens, WA 98258
Phone: (425) 622-9400 • www.lakestevenswa.gov
permits@lakestevenswa.gov

Energy Code Requirements

Window and Exterior Doors

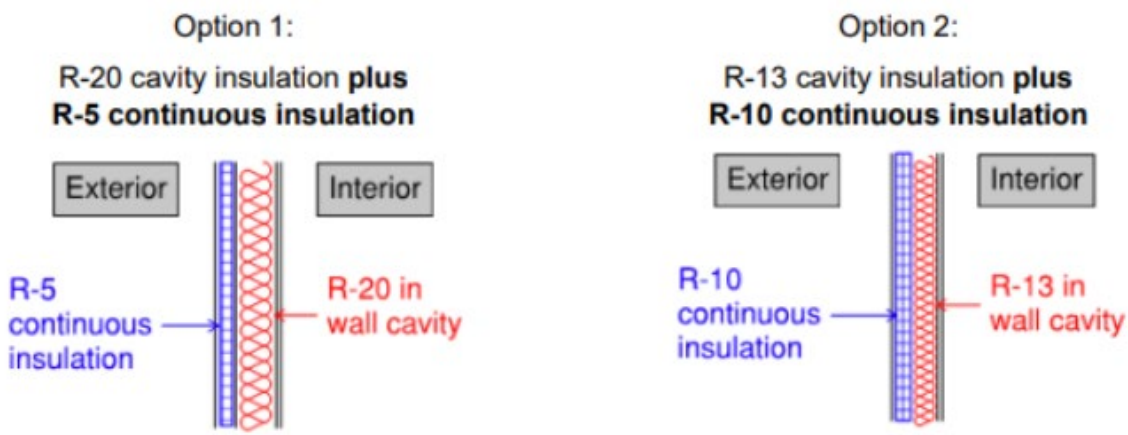
- Windows and exterior doors located in the newly conditioned space must have a maximum U-Factor of 0.30. Please note that replacement of existing windows and doors may be required.

Roof Insulation and Ventilation

- The attic space above the newly conditioned area is required to have R-60 insulation. Single joist rafter/vaulted ceilings require R-38 insulation. Reference 2021 WSEC Table R402.1.3.
- Ventilated provided with a minimum vent area of 1 square foot for every 150 square feet of attic space or 1 square foot for every 300 square feet if 40%-50% of the vents are within 3' vertically of the ridge. Reference 2021 IRC R806.2
- Attics with a height of 30" or more and an area of 30 square feet or more must have an access opening 22"x30" minimum. Reference 2021 IRC Section R807

Foundation and Framed Walls

- The previous edition of the energy code (2018 WSEC) required R-21 cavity insulation only in exterior walls. The 2021 WSEC now requires continuous insulation in addition to cavity insulation in accordance with WSEC Table R402.1.3. There are two prescriptive options:



Planning and Community Development
1812 Main Street• PO Box 257 • Lake Stevens, WA 98258
Phone: (425) 622-9400 • www.lakestevenswa.gov
permits@lakestevenswa.gov

Floor Framing and Insulation

- The floor of the newly conditioned area is required to be insulated. While the energy code requires R-10 insulation **under** the slab perimeter, alternative and approved methods are provided without requiring removal and replacement of the existing slab. See figure 4
- If batt insulation is to be used in the raised framing without the R-7.5 rigid insulation indicated in figure 4, the minimum value is R-30 and the space below the floor joists will either need to be ventilated in accordance with IRC Section R408 or filled to capacity with rigid insulation.

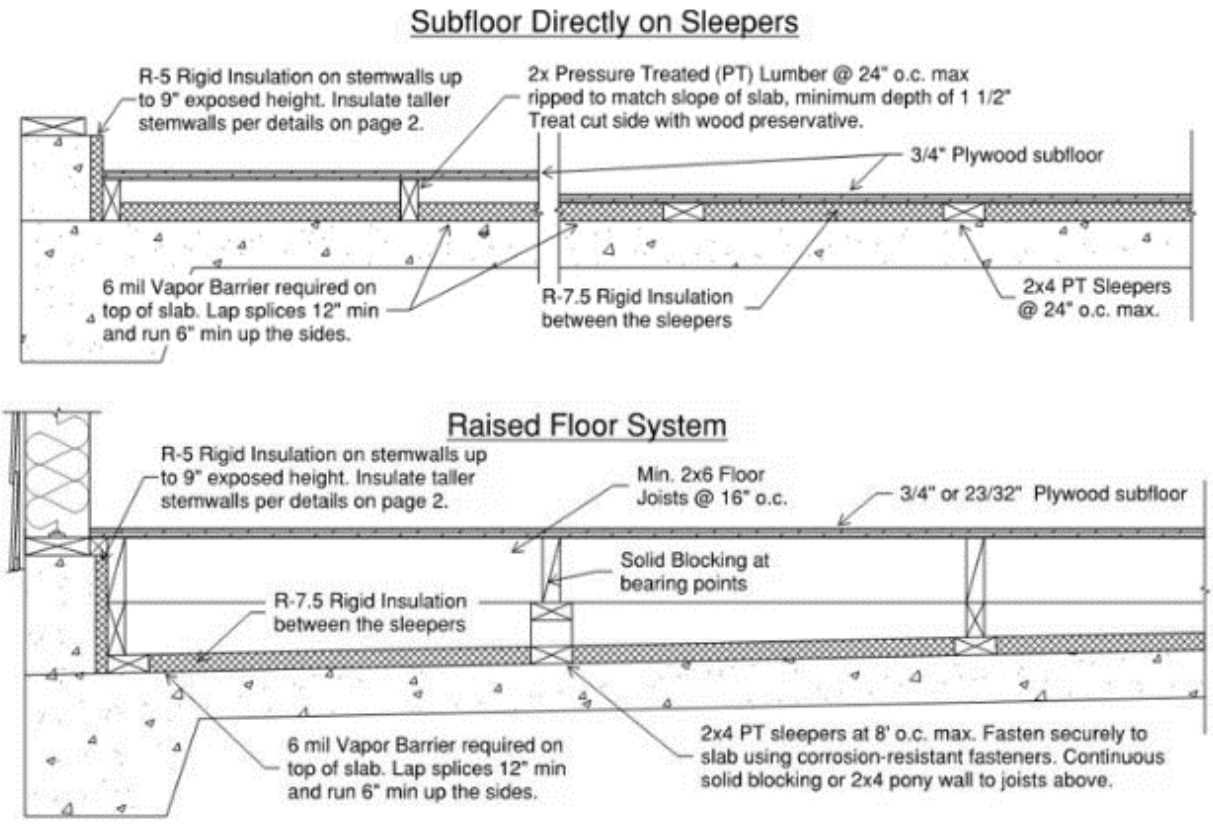


Figure 4: Approved Insulation Options Above the Slab