



TOPIC: Residential Construction - ORSC/3/#1 & ORSC/11/#1

CODE: Oregon Residential Specialty Code: 2017 Edition

REVISED: December 21, 2018 [Rebecca Esau] , Director

REFERENCE: Oregon Residential Specialty Code, Chapters 3 and 11

SUBJECT: Habitable Space Standards for Existing Elements within One- and Two-Family Dwellings

QUESTION: Are any alternatives to the requirements of the Oregon Residential Specialty Code (ORSC) allowed when non habitable space is being converted to habitable space, or when the habitable use of a space is changing within an existing one- or two-family dwelling?

RESPONSE: This code guide establishes minimum standards for changing a space to habitable space or for changes in the use of an existing habitable space. These alternative standards only apply to existing elements in existing one and two family dwellings and existing detached accessory structures constructed with a permit. This code guide does not apply to new construction (additions or new buildings) or to the creation of Accessory Dwelling Units or other rental units such as duplexes. When designs for alterations comply with the provisions of this code guide, no administrative appeal will be required. Conditions not addressed in this code guide must comply with the ORSC.

A. CEILING HEIGHT

Ceiling heights in habitable spaces shall be as provided below. All ceiling heights shall be measured from the top of the finished floor surface to the bottom of the ceiling finish or overhead projection. Any ceiling heights or projections below 6 feet 8 inches must be located at least 3 feet away from any door leading into the room and meet the following requirements.

1. Flat Ceilings. Where the ceiling is flat, its height must be a minimum of 6 feet 8 inches, except that lowered soffits and overhead beams, ducts, pipes or similar overhead projections below 6 feet 8 inches may be as follows:

- a. Soffits and overhead projections may be as low as 6 feet above the floor if they are located entirely within 2 feet from a wall; or
- b. Soffits and overhead projections may be as low as 6 feet 2 inches above the floor when they do not take up more than 10 percent of the floor area in the room that they are located.
- c. The listed exceptions for soffits and overhead projections may not be used in combination.

2. Sloped Ceilings.

a. **General.** Where the ceiling is sloped, the height may be as follows:

- 1) The minimum ceiling height must be at least 6 feet 8 inches over an area comprising at least 50 percent of the required room area; and
- 2) Portions of the room with a ceiling height less than 5 feet may not be counted toward minimum overall room area as required by the ORSC.

b. **Bathrooms.** In bathrooms with a sloped ceiling, 75 percent of the floor area may have a ceiling height less than 6 feet 8 inches. The ceiling height at fixtures shall comply with the ORSC.

B. DOORS

The clear opening of doors leading to converted spaces shall be at least 6 feet 2 inches high and shall be at least 30 inches wide.

C. STAIRS

1. General. Existing stairways providing access to new habitable spaces shall be as provided below. Stair headroom is measured vertically from the lowest overhead element to a line that is tangent to the stair nosings and must meet the following conditions:

- a. Stairways must be at least 30 inches wide; and
- b. Stairway headroom must be at least 6 feet 2 inches; and
- c. Tread run must be 9 inches minimum; and
- d. Riser height must be 9 inches maximum; and

- e. Stair landings at top and bottom must be at least 30 inches wide and 30 inches long, with at least 6 feet 2 inches headroom. A top landing is not required for interior stairs where a door does not swing over the stairs and the door does not open to the exterior.
 - f. A maximum variation of 3/8 inch will be allowed between the largest and smallest riser height or tread run.
2. **Winder stairs.** Existing "winder" stairs, which are triangular in shape, are allowed.
3. **Rebuilding existing stairs in the same opening.** New stairs in the same opening shall be a minimum of 30 inches wide, have a maximum riser height of nine inches and a minimum of 6 feet 4 inches headroom provided the balance of the ORSC requirements for new stair construction are met. Where this is not feasible due to existing conditions, a building code appeal may be an option. Appeals where the minimum headroom height is less than 6 feet 2 inches are typically not granted by the appeals board.
4. **Noncompliant stairs in basement converted to living space.** Existing stairs in a basement converted to habitable space must comply to the requirements of this code guide. Where the stair cannot be made to comply and another compliant means of egress is provided, such as a new stair in another location or an exterior door, the noncompliant stair shall either be reconstructed or walled off. A building code appeal to retain the noncompliant stair may be an option in some cases.

D. LIGHT

All habitable rooms must have either natural or artificial lighting.

- 1. Artificial lighting must meet the provisions of the ORSC.
- 2. Windows used to meet this requirement must have a glass area of at least 6.8 percent of the room's floor area.

E. VENTILATION

- 1. **General.** All habitable rooms must have either natural or mechanical ventilation.
 - a. Mechanical ventilation must meet the provisions of the ORSC.
 - b. Windows used to provide ventilation must open directly to the outside, with an opening area equal to at least 2.5 percent of the room's floor area.

2. **Fuel burning appliances.** Combustion air for fuel burning appliances shall be provided in accordance with the ORSC and the manufacturer's installation requirements.

F. EMERGENCY EGRESS AND RESCUE OPENINGS

1. **General.** New sleeping rooms shall comply with emergency egress requirements of the ORSC except as noted below.
2. **Existing Windows.** Where an existing window is used for emergency egress, the bottom of the window clear opening must be not more than 44 inches above the floor. A single permanently installed step located below the window may be used to reduce the bottom of the window clear opening height to 44 inches provided all of the following conditions are met:
 - a. Be no higher than 12 inches and not less than 12 inches deep; and
 - b. Extend the full width of the window; and
 - c. Provide a minimum of 6 feet from the top of the step to the ceiling.
3. **Doors.** In basements, an exterior door at least 6 feet 2 inches high and at least 30 inches wide, may be used to meet emergency egress requirements with no limit to the bottom of the clear opening height as long as the door is located at least one step below the level of the floor above.
4. **Skylights.** A new or existing skylight may also be used where it meets the requirements as outlined above except a step may not be used to achieve the maximum 44-inch dimension to the bottom of the clear opening.

G. ENERGY CONSERVATION

The following energy conservation provisions must be provided:

1. **Windows, Doors.** Existing double-glazed windows and doors, or storm windows over existing single-glazed windows, will be accepted.
2. **Wall insulation.**
 - a. Where wallboard, lath and plaster and other finishes are removed from an existing exterior wall, exposed cavities must be insulated to at least R-15.
 - 1) If there is existing insulation in the exposed cavities it can be retained provided it has a thermal value of R-11 or better.

- 2) Where no existing insulation was found in exposed cavities or where new cavities are created by furring out of walls, insulation of not less than R-15 value shall be installed.
 - b. Existing concrete exterior walls must be furred out with 2- by 4-inch framing.
 - 1) A minimum space of 1/2 inch shall be provided between the furred out framing and the concrete wall.
3. **Ceilings.**
 - a. **General.** Where finishes are removed from an existing ceiling, and in attics and garages being converted to living space, exposed areas of ceilings must be insulated to current code standards where framing depth allows. A minimum of R-15 insulation will be accepted in existing 2 by 4 rafter spaces.
 - b. Where attic space can be accessed without removing finishes they shall be insulated to the maximum extent practical.
 - c. **Dormer additions.** Minor dormer additions may be constructed and insulated to match existing construction.
 - d. **Roof insulation ventilation.** All roof insulation must be ventilated using insulation baffles that provide at least a 1-inch air space between the insulation and the roof deck. Attic ventilation is also required.
4. **Floors.**
 - a. Where new wood floor joists are installed over an existing concrete slab, insulation shall be installed between the joists to the depth the new framing allows. A vapor barrier shall be installed against the concrete slab.
 - b. Slab edge perimeter insulation at existing foundations is not required.
5. **Additional Measures.** The requirements of N1101.2.3.1 for changes of use shall be met.

H. Covenants

- a. Exemptions for ceiling height and / or room dimensions may be possible by use of a covenant. A covenant is a legal document that attaches to the property title and is a notification to future owners of non code compliant condition(s). A covenant may be used by an owner only once every 5 years. Covenants may not be utilized where the space is nonowner occupied, such

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as for a rental or an Accessory Dwelling Unit. A covenant may not be used for reduced ceiling height at stairs or plumbing fixtures.

I. Building Code Appeals

- a. Where existing conditions do not permit full compliance with this code guide or the provisions of the ORSC a building code appeal may be an option. Refer to <https://www.portlandoregon.gov/bds/34196> for additional information.

Updates December 21, 2018 edition, Code Guide IRC/3#1 & IRC/11#1

Updates October 13, 2014 edition, Code Guide IRC/3/#1

Updates January 16, 2013 edition

Updates August 22, 2007 edition, Code Guide IBC/3/#3 & IRC/3/#1

Updates February 1, 2006 edition

Updates March 1, 1999 edition

Replaces July 1, 1996 edition, Code Guide UBC/12/#2 & CABO/2/#4