

Marginal Markings

- Solid vertical lines indicate technical changes from 2012 IBC.
- - - Dashed vertical lines indicate technical changes in Seattle amendments.
- ➔ Solid deletion arrow indicates IBC text has been deleted.
- ⇨ Hollow arrow indicates Seattle amendments have been deleted.

Text Markings

- Underlining indicates Seattle amendments. ADULT FAMILY HOME.
- Italics indicate a defined term. *A dwelling* licensed.
- Strikethrough indicates Seattle deletions. (~~ADULT FAMILY HOME~~)
- A bracketed and underlined W indicates Washington state amendments. [W]

CHAPTER 8 ROOF-CEILING CONSTRUCTION

Note: this chapter includes only those sections of the 2015 International Residential Code for which amendments are proposed.

SECTION R806 ROOF VENTILATION

R806.5 Unvented attic and unvented enclosed rafter assemblies. Unvented *attics* and unvented enclosed roof framing assemblies created by ceilings that are applied directly to the underside of the roof framing members and structural roof sheathing applied directly to the top of the roof framing members/rafters, shall be permitted where all the following conditions are met:

1. The unvented *attic* space is completely within the building thermal envelope.
2. No interior Class I vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly or on the ceiling side of the unvented enclosed roof framing assembly.
3. Where wood shingles or shakes are used, a minimum 1/4-inch (6.4 mm) vented airspace separates the shingles or shakes and the roofing underlayment above the structural sheathing.
4. (~~In Climate Zones 5, 6, 7 and 8, any~~) Any air-impermeable insulation shall be a Class II vapor retarder, or shall have a Class II vapor retarder coating or covering in direct contact with the underside of the insulation.
5. Insulation shall be located in accordance with the following:
 - 5.1. Item 5.1.1, 5.1.2, 5.1.3 or 5.1.4 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing.
 - 5.1.1. Where only *air-impermeable insulation* is provided, it shall be applied in direct contact with the underside of the structural roof sheathing.
 - 5.1.2. Where air-permeable insulation is provided inside the building thermal envelope, it shall be installed in accordance with Section 5.1. In addition to the air-permeable insulation installed directly below the structural sheathing, minimum R-10 rigid board or sheet insulation shall be installed directly above the structural roof sheathing (~~in accordance with the R values in Table R806.5~~) for condensation control.

- 5.1.3. Where both air-impermeable and air-permeable insulation are provided, ~~((the))~~ minimum R-10 air-impermeable insulation shall be applied in direct contact with the underside of the structural roof sheathing in accordance with Item 5.1.1. ~~((and shall be in accordance with the R values in Table R806.5))~~ for condensation control. The air-permeable insulation shall be installed directly under the *air-impermeable insulation*.
- 5.1.4. Alternatively, sufficient rigid board or sheet insulation shall be installed directly above the structural roof sheathing to maintain the monthly average temperature of the underside of the structural roof sheathing above 45°F (7°C). For calculation purposes, an interior air temperature of 68°F (20°C) is assumed and the exterior air temperature is assumed to be the monthly average outside air temperature of the three coldest months.
- 5.2. Where preformed insulation board is used as the *air-impermeable insulation* layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer.