

**WAC 51-51-0302 Section R302—Fire-resistant construction.**

**R302.2.2 Common walls.** Common walls separating *townhouse units* shall be assigned a fire resistance rating in accordance with Item 1 or 2 and shall be rated for fire exposure from both sides. Common walls shall extend to and be tight against the exterior sheathing of the exterior walls, or the inside face of exterior walls without stud cavities, and the underside of the roof sheathing. The common wall shared by two *townhouse units* shall be constructed without plumbing or mechanical equipment, ducts or vents, other than water-filled fire sprinkler piping in the cavity of the common wall. Electrical installations shall be in accordance with chapter 296-46B WAC, Electrical safety standards, administration, and installation. Penetrations of the membrane of common walls for electrical outlet boxes shall be in accordance with Section R302.4.

1. Where an automatic sprinkler system in accordance with Section P2904 is provided, the common wall shall be not less than a 1-hour fire-resistance-rated wall assembly tested in accordance with ASTM E119, UL 263 or Section 703.2.2 of the *International Building Code*.

2. Where an automatic sprinkler system in accordance with Section P2904 is not provided, the common wall shall be not less than a 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E119, UL 263 or Section 703.2.2 of the *International Building Code*.

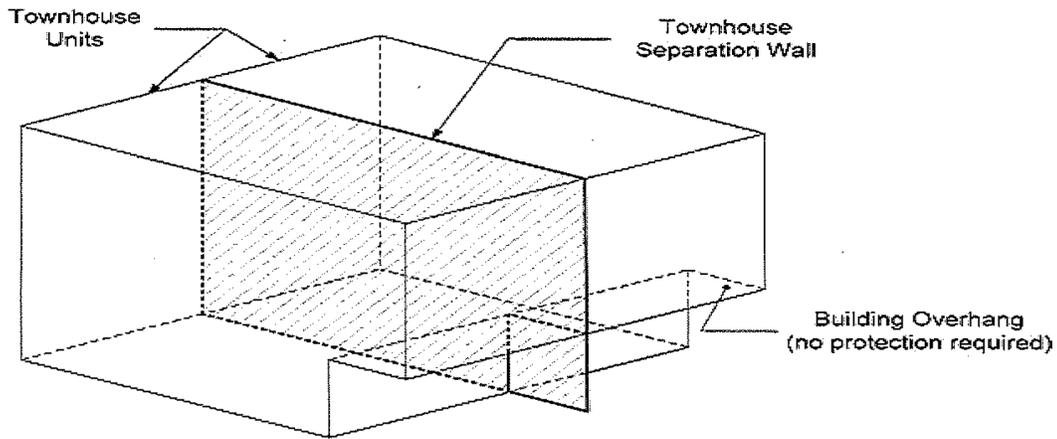
EXCEPTION: Common walls are permitted to extend to and be tight against the interior side of the exterior walls if the cavity between the end of the common wall and the exterior sheathing is filled with a minimum of 2-inch nominal thickness wood studs.

**R302.2.3 Continuity.** The fire-resistance-rated wall or assembly separating *townhouse units* shall be continuous from the foundation to the underside of the roof sheathing, deck or slab. The fire-resistance rating shall extend the full length of the wall or assembly, including wall extensions through and separating attached enclosed accessory structures.

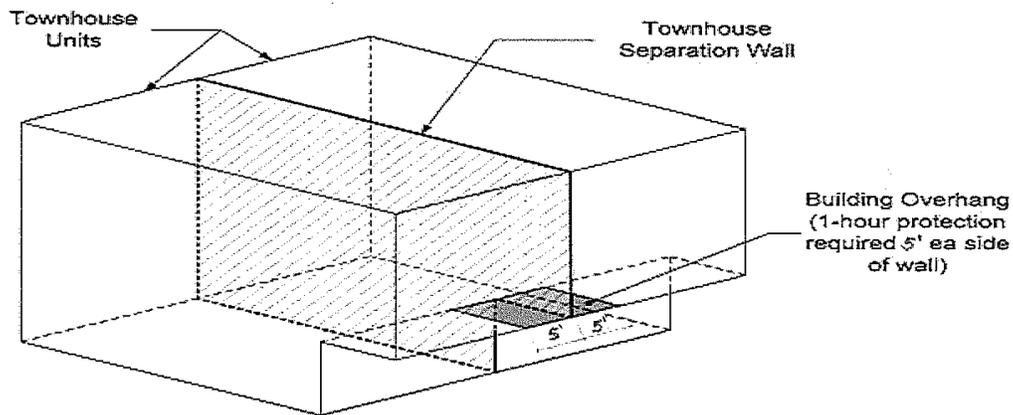
Where a story extends beyond the exterior wall of a story below:

1. The fire-resistance-rated wall or assembly shall extend to the outside edge of the upper story (see Figure R302.2(1)); or

2. The underside of the exposed floor-ceiling assembly shall be protected as required for projections in Section R302 (see Figure R302.2(2)).



**FIGURE R302.2(1)  
EXTENDED TOWNHOUSE SEPARATION WALL**



**FIGURE R302.2(2)  
TOWNHOUSE SEPARATION OVERHANG PROTECTION**

**R302.2.4 Parapets for townhouses.** Parapets constructed in accordance with Section R302.2.5 shall be constructed for *townhouses* as an extension of exterior walls or common walls separating *townhouse units* in accordance with the following:

1. Where roof surfaces adjacent to the wall or walls are at the same elevation, the parapet shall extend not less than 30 inches (762 mm) above the roof surfaces.

2. Where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is not more than 30 inches (762 mm) above the lower roof, the parapet shall extend not less than 30 inches (762 mm) above the lower roof surface.

EXCEPTION: A parapet is not required in the preceding two cases where the roof covering complies with a minimum Class C rating as tested in accordance with ASTM E108 or UL 790 and the roof decking or sheathing is of noncombustible materials or fire retardant-treated wood for a distance of 4 feet (1219 mm) on each side of the wall or walls, or one layer of 5/8-inch (15.9 mm) Type X gypsum board is installed directly beneath the roof decking or sheathing, supported by not less than nominal 2-inch (51 mm) ledgers attached to the sides of the roof framing members, for a distance of not less than 4 feet (1219 mm) on each side of the wall or walls and any openings or penetrations in the roof are not within 4 feet (1219 mm) of the common walls. Fire retardant-treated wood shall meet the requirements of Sections R802.1.5 and R803.2.1.2.

3. A parapet is not required where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is more than 30 inches (762 mm) above the lower roof. The common wall construction from the lower roof to the underside of the higher roof deck shall have not less than a 1-hour fire-resistance rating. The wall shall be rated for exposure from both sides.

**TABLE R302.1(1)**  
**EXTERIOR WALLS**

No Change to the Table

- a The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave overhang if fireblocking is provided from the wall top plate to the underside of the roof sheathing.
- b The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the rake overhang where ventilation openings are not installed in the rake overhang or in walls that are common to attic areas.

**TABLE R302.1(2)**  
**EXTERIOR WALLS - DWELLINGS WITH FIRE SPRINKLERS**

No Change to the Table

- a For residential subdivisions where all dwellings are equipped throughout with an automatic sprinkler system installed in accordance with Section P2904, the fire separation distance for exterior walls not fire-resistance-rated and for fire-resistance-rated projections shall be permitted to be reduced to 0 feet, and unlimited unprotected openings and penetrations shall be permitted, where the adjoining lot provides an open setback yard that is 6 feet or more in width on the opposite side of the property line.
- b The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave overhang if fireblocking is provided from the wall top plate to the underside of the roof sheathing.
- c The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the rake overhang where ventilation openings are not installed in the rake overhang or in walls that are common to attic areas.

**R302.3 Two-family dwellings.** Wall and floor/ceiling assemblies separating *dwelling units* in two-family dwellings shall be constructed in accordance with Section R302.3.1 through R302.3.5. One accessory dwelling unit constructed within an existing *dwelling unit* need not be considered a separated dwelling unit in a two-family dwelling where all required smoke alarms, in the accessory dwelling unit and the primary dwelling unit, are interconnected in such a manner that the actuation of one alarm will activate all alarms in both the primary dwelling unit and the accessory dwelling unit.

**R302.3.1 Separation.** *Dwelling units* in two-family dwellings shall be separated from each other by wall and floor assemblies having not less than a 1-hour fire-resistance rating where tested in accordance with ASTM E119, UL 263 or Section 703.2.2 of the *International Building Code*.

EXCEPTIONS: 1. A fire-resistance rating of 1/2 hour shall be permitted in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 2904.  
2. Where an accessory dwelling unit is added within an existing single-family residence to create a two-family dwelling, fire-rated separation between the accessory dwelling unit and the primary dwelling unit is not required when all required smoke alarms are interconnected in such a manner that the actuation of one alarm will activate all alarms in both the primary dwelling unit and the accessory dwelling unit.

**R302.3.2 Continuity.** Fire-resistance-rated floor/ceiling and wall assemblies shall extend to and be tight against the *exterior wall*, and wall assemblies shall extend from the foundation to the underside of the roof sheathing.

EXCEPTION: Wall assemblies need not extend through attic spaces where the ceiling is protected by not less than 5/8-inch (15.9 mm) Type X gypsum board, an attic draft stop constructed as specified in Section R302.12.1 is provided above and along the wall assembly separating the dwellings and the structural framing supporting the ceiling is protected by not less than 1/2-inch (12.7 mm) gypsum board or equivalent.

**R302.3.3 Supporting construction.** Where floor/ceiling assemblies are required to be fire-resistance rated by Section R302.3, the supporting

construction of such assemblies shall have an equal or greater fire-resistance rating.

**R302.3.4 Openings protection between two-family dwellings.** Openings in the common fire-resistance-rated wall assembly located between units of a two-family dwelling shall be equipped with not less than a 45-minute fire-rated door assembly equipped with a self-closing or automatic-closing device.

EXCEPTION: A 20-minute fire-rated door assembly is permitted in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section P2904 or NFPA 13D.

**R302.3.5 Shared accessory rooms.** Shared accessory rooms shall be separated from each individual dwelling unit in accordance with Table R302.3.5. Openings between the shared accessory room and the dwelling unit shall comply with Section R302.3.5.1. Attachment of gypsum board shall comply with Table R702.3.5.

**R302.3.5.1 Opening protection.** Openings from a shared accessory room or area directly into a room used for sleeping purposes shall not be permitted. Other openings between the shared accessory room or area shall be equipped with solid wood doors not less than 1 3/8 inches in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches thick, or a fire door assembly with a 20-minute fire-protection rating, equipped with a self-closing or automatic-closing device.

**R302.3.5.2 Duct penetration.** Ducts penetrating the walls or ceilings separating the dwelling from the shared accessory room shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material and shall not have openings into the shared accessory room.

**R302.3.5.3 Other penetrations.** Penetrations through the walls, ceiling, and floor level separation required in Section R302.3.5 shall be protected as required by Section R302.11, Item 4.

TABLE R302.3.5  
DWELLING-SHARED ACCESSORY ROOM SEPARATION

SEPARATION	MATERIAL
From the dwelling units and attics.	Not less than 1/2-inch gypsum board or equivalent applied to the accessory room side wall.
From habitable rooms above or below the shared accessory room.	Not less than 5/8-inch Type X gypsum board or equivalent.
Structures supporting floor/ceiling assemblies used for separation required by this section.	Not less than 1/2-inch gypsum board or equivalent.

**R302.13 Fire protection of floors.** Floor assemblies that are not required elsewhere in this code to be fire-resistance rated, shall be provided with a 1/2-inch (12.7 mm) gypsum wallboard membrane, 5/8-inch (16 mm) wood structural panel membrane, or equivalent on the underside of the floor framing member. Penetrations or openings for ducts, vents, electrical outlets, lighting, devices, luminaires, wires, speakers, drainage, piping and similar openings or penetrations shall be permitted.

EXCEPTIONS: 1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Appendix AWU, NFPA 13D, or other approved equivalent sprinkler system.  
2. Floor assemblies located directly over a crawl space not intended for storage or fuel-fired appliances.  
3. Portions of floor assemblies shall be permitted to be unprotected when complying with the following:

- 3.1. The aggregate area of the unprotected portions shall not exceed 80 square feet (7.4 m<sup>2</sup>) per story.
- 3.2. Fire blocking in accordance with Section R302.11.1 is installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly.
4. Wood floor assemblies using dimension lumber or *structural composite lumber* with a cross sectional area equal to or greater than 2-inch by 10-inch (50.8 mm by 254 mm) nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 23-23-104, § 51-51-0302, filed 11/15/23, effective 3/16/24; WSR 23-02-058, 23-12-104, and 23-20-024, § 51-51-0302, filed 1/3/23, 6/7/23, and 9/25/23, effective 3/15/24; WSR 20-03-023, § 51-51-0302, filed 1/6/20, effective 7/1/20; WSR 16-03-025, § 51-51-0302, filed 1/11/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-088, § 51-51-0302, filed 12/1/14, effective 5/1/15. Statutory Authority: Chapters 19.27A and 34.05 RCW. WSR 13-23-084, § 51-51-0302, filed 11/19/13, effective 4/1/14. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-068, § 51-51-0302, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-098, § 51-51-0302, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 09-04-023, § 51-51-0302, filed 1/27/09, effective 7/1/09; WSR 08-01-102, § 51-51-0302, filed 12/18/07, effective 4/1/08.]