

ARTICLE III. RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS

Sec. 18-57. Adoption of International Residential Code (2006); amendments.

The *International Residential Code* (2006), promulgated by the International Code Council, is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of this section. Provisions of this article are in addition to the provisions of the *International Residential Code*. The following provisions coinciding with provisions of the *International Residential Code* supercede, or delete, when indicated, the corresponding provisions of the *International Residential Code*:

All references within the model codes to any building, electrical, gas, mechanical, plumbing, sewage disposal, elevator, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, gas, mechanical, plumbing, sewage disposal, elevator, energy conservation, or existing building code specifically adopted by reference in articles II through XIV of this code.

Part I, Chapter I, Administrative, is deleted. See article I of this chapter.

For temporary erosion and sediment control requirements see section 3307.2 of Article II of this chapter.

In **Section R202**, the following definitions have been revised or added:

BRACED WALL LINE, CONTINUOUSLY-SHEATHED. A braced wall line with structural sheathing applied to all sheathable surfaces including the areas above and below openings.

TOWNHOUSE. An attached single-family dwelling unit, in which each unit extends from foundation to roof and with open space on at least two sides, constructed:

In a group of three or more attached units; or,

In a group of two units where a property line exists between the units on the underlying parcels.

WATER SERVICE PIPE. The pipe from the water main or other source of potable water supply to the first shut-off valve downstream of all of the following (as applicable):

1. the point of entrance into the building; 2. the water meter; or 3. the service backflow prevention device.

Table R301.2 (1)

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD	WIND SPEED ^d (mph)	SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			
			Weathering ^a	Frost line depth ^b	Termite ^c	
20 psf	90	A	Severe	36"	Moderate To Heavy	

WINTER DESIGN TEMP ^e	ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
6°F	No	See Ordinance Chapter 28	1000° F-days	53° F

(See 2006 International Residential Code for footnotes.)

Table R301.5 Minimum Uniformly Distributed Live Loads – Amend footnotes b, d and h to read as follows:

b. ‘Attics without storage’ are those where any one of the following conditions apply:

(i) the maximum clear height between joist and rafter is less than 42 inches, or where there are not two or more adjacent trusses with the same web configuration capable of containing a rectangle 42 inches high by 2 feet wide, or greater, located within the plane of the truss; or,

(ii) there is no attic access greater than the minimum access opening required by Section R807; or,

(iii) the ceiling joist or truss bottom chord pitch is greater than 2:12.

For ‘attics without storage,’ this live load need not be assumed to act concurrently with any other live load requirements.

g. For ‘attics with limited storage’ and constructed with trusses, this live load need be applied only to those portions of the bottom chord where there are two or more adjacent trusses with the same web configuration capable of containing a rectangle 42 inches high or greater by 2 feet wide or greater, located within the plane of the truss. The rectangle shall fit between the top of the bottom chord and the bottom of any other truss member.

h. Attic spaces meeting the minimum requirements of Sections R304 and R305 and served by a fixed stair or a doorway shall be designed to support the minimum live load specified for sleeping rooms.

**Table R302.1
EXTERIOR WALLS**

Add or amend the following rows from Table R302.1 as follows (remainder of Table unchanged):

EXTERIOR ELEMENT	WALL	MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
Projections	Not Allowed	N/A	< 2 feet
	(Fire-resistance rated)	1 hour on the underside	2 feet
	(Not fire-resistance rated)	0 hours	5 feet

R308.4 Hazardous Locations (Glazing)

Exception 5. Glazing in Section R308.4, Item 7, when a protective bar is installed on the accessible side(s) of the glazing 36 inches ± 2 inches (914 mm ± 51 mm) above the floor. The bar shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass and be a minimum of 1 1/2 inches (38 mm) in height.

Exception 9. Safety glazing in Section R308.4, Items 10 and 11, is not required where:

- 9.1. The side of a stairway, landing or ramp has a guardrail or solid wall complying with Section R312 and Table R301.5; and
- 9.2. The plane of the glass is more than 18 inches (457 mm) from the railing or wall.

R310.1, Exception 2. Except where sleeping rooms are created, emergency rescue openings need not be increased in existing basements undergoing interior finish renovation.

R319.3 Fasteners, Exception 3.

- 3. Borate-treated wood (limited to interior use only).

R325 Moved Structures. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

R404.5 Retaining Walls. Retaining walls that are not laterally supported at the top and that retain in excess of 48 inches (610 mm) of unbalanced fill, that support a surcharge, or are adjacent to a public right-of-way shall be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Retaining walls shall be designed for a safety factor of 1.5 against lateral sliding and overturning.

R602.10.5 Continuously-sheathed braced wall line using Method 3 (wood structural panel). Continuously sheathed braced wall lines using wood structural panels shall comply with this section. Different bracing methods shall not be permitted within a continuously sheathed braced

wall line. Other bracing methods prescribed by this code shall be permitted on other braced wall lines on the same story level or on different story levels of the building.

R602.10.5.1 Continuously-sheathed braced wall line requirements. Continuously-sheathed braced wall lines shall be in accordance with Figures R602.10.5.3 (1 through 4) and shall comply with all of the following requirements:

1. Structural sheathing shall be applied to all exterior sheathable surfaces of a braced wall line including areas above and below openings.
2. Only full-height braced wall panels shall be used for calculating the braced wall amount percentage in accordance with Table R602.10.1.

R602.10.5.2 Braced wall panel length. In a continuously-sheathed wood structural panel braced wall line, the minimum braced wall panel length shall be permitted to be in accordance with Table R602.10.5.

R602.10.5.3 Braced wall panel location and corner construction. A braced wall panel shall be located at each end of a continuously sheathed braced wall line. A minimum 24-inch wood structural panel corner return shall be provided at both ends of a continuously-sheathed braced wall line in accordance with Figure R602.10.5.3(1). In lieu of the corner return, a tie-down device with a minimum uplift design value of 800 lb shall be fastened to the corner stud and to the foundation or framing below in accordance with Figure R602.10.5.3(2).

Exception: The first braced wall panel shall be permitted to begin 12 feet from each end of the braced wall line provided one of the following is satisfied:

1. A minimum 2-foot-long, full-height wood structural panel is provided at both sides of a corner constructed in accordance with Figure R602.10.5 at the braced wall line ends in accordance with Figure R602.10.5.3(3); or,
2. The braced wall panel closest to the corner shall have a tie-down device with a minimum uplift design value of 800 lb fastened to the stud at the edge of the braced wall panel closest to the corner and to the foundation or framing below in accordance with Figure R602.10.5.3(4).

R602.10.5.4 Braced wall amount percentage. In addition to bracing percentage adjustments specified elsewhere in this code, the braced wall percentages for Method 3 from Table 602.10.1 shall be permitted to be multiplied by a factor in accordance with Table R602.10.5.4.

TABLE R602.10.5.4 ADJUSTMENT FACTORS TO THE PERCENTAGE OF REQUIRED BRACING PER WALL LINE -- CONTINUOUSLY SHEATHED ^a

ADJUSTMENT BASED ON MAXIMUM WALL CLEAR OPENING HEIGHT:	MULTIPLY PERCENTAGE OF BRACING PER
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		WALL LINE BY:
Continuous wood structural panel sheathing when maximum opening height in wall line does not exceed:	85% of wall height	0.9
	67% of wall height	0.8

a. Percentage of bracing for continuous wood structural panel sheathing shall be based on Method 3 requirements.

TABLE R602.10.5 LENGTH REQUIREMENTS FOR BRACED WALL PANELS IN A CONTINUOUSLY SHEATHED WALL – Amend Footnote C only:

c. Walls on either side of openings in garages that are part of a continuously-sheathed braced wall line shall be permitted to be built in accordance with Section R602.10.6.2 and Figure R602.10.6.2 except that a single bottom plate shall be permitted and two anchor bolts shall be placed at 1/3 points. In addition, tie-down devices shall not be required and the vertical wall segment shall have a maximum 6:1 height-to-width ratio (with height being measured from top of header to the bottom of the sill plate). Corner returns at the ends of the garage opening wall shall be a minimum of 2-feet in length and shall be in accordance with Figure R602.10.5.3(1). This option shall be permitted for the first story of two-story applications.

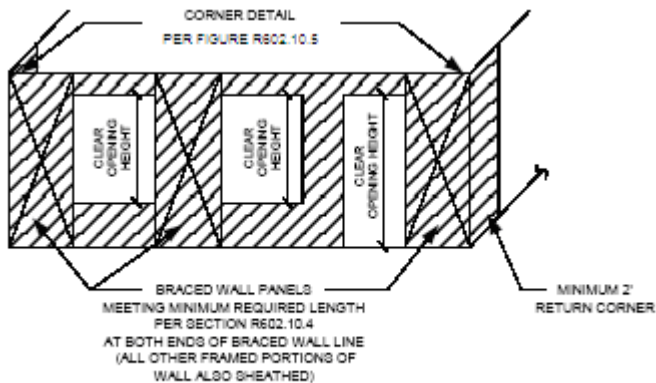


FIGURE R602.10.5.3(1) CONTINUOUSLY-SHEATHED BRACED WALL LINE

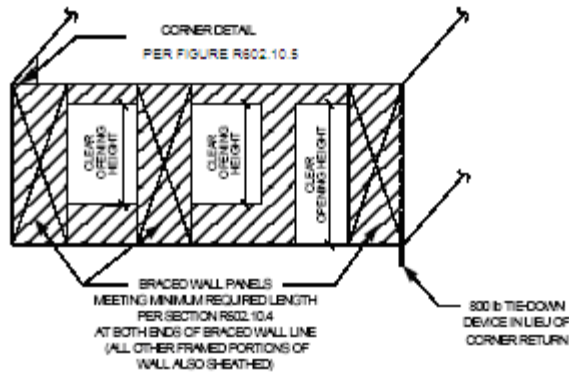


FIGURE R602.10.5.3(2) CONTINUOUSLY-SHEATHED BRACED WALL LINE-WITHOUT CORNER RETURN

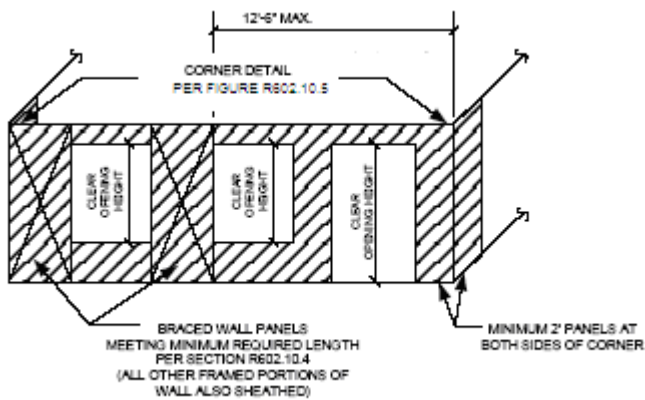


FIGURE R602.10.5.3(3) CONTINUOUSLY SHEATHED BRACED WALL LINE-FIRST BRACED WALL PANEL AWAY FROM END OF WALL LINE WITHOUT TIE DOWN

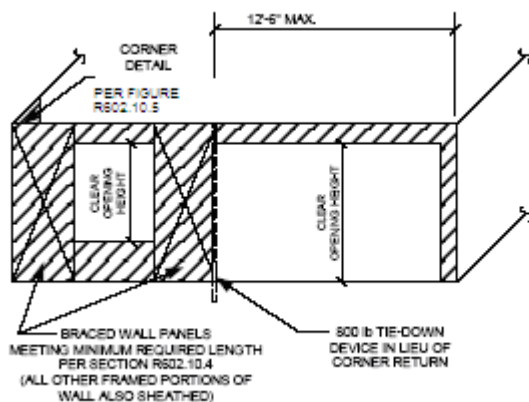


FIGURE R602.10.5.3(4) CONTINUOUSLY SHEATHED BRACED WALL LINE – FIRST BRACED WALL PANEL AWAY FROM END OF WALL LINE WITH TIE DOWN

R602.6.1, Figure R602.6.1 Drilling and notching of top plate. When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling

or notching of the top plate by more than 50 percent of its width, a galvanized metal tie of not less than 0.054 inch thick (1.37 mm) (16 ga) and 1 1/2 inches (38 mm) wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d nails at each side, or equivalent. See Figure R602.6.1.

Exception: When the entire side of the wall with the notch or cut is covered by wood structural panel sheathing.

R613.2 Window Sills is deleted.

R703.6.2, Exception. Plaster installed per an approved listing or evaluation report.

R801.3 Roof drainage. All dwellings shall have a controlled method of water disposal from roofs that will collect and discharge all roof drainage to the ground surface at least 3 feet (1524 mm) from foundation walls or to an approved drainage system.

R901.2 Restrictive covenants. It shall be unlawful for any individual or organization to establish or enforce restrictive covenants which prohibit or effectively prevent the owner of a one- or two-family dwelling or townhouse from using any types of shingles for roof covering materials allowed by this code, including wood shingle, wood shake shingle, composition, slate, tile, clay, or concrete. Nothing in this ordinance shall prohibit a homes association, if it determines to do so, from adopting restrictive covenants or otherwise governing the use of such roofing materials only to the extent of regulating the colors, styles, or dimensions of roofing materials, or other aesthetic factors. Notwithstanding any existing procedural provisions governing the time period for consideration of amendments of restrictive covenants by home associations to the contrary, a home association, if it determines to do so, may amend their restrictive covenants to provide for such aesthetic regulations for a period of 180 days from the effective date of this ordinance. Any such amendments after that 180 day period of time shall be subject to any procedural requirements set forth in such covenants.

R907.3 Recovering versus replacement (Reroofing), Condition #4. For asphalt shingles, when the building is located in an area subject to severe hail exposure according to Figure R903.5.

N1102.2.6 (Insulation), Exception. Concrete or masonry basement walls in unfinished basement areas.

Part V, Chapter 12, Mechanical Administration, is deleted.

M1501.1, Exception #2. Exhaust air from bathrooms and toilet rooms may be discharged to an attic space that is ventilated to the exterior in accordance with Section R806 of this Article.

M1507.2, Exception. Exhaust air from bathrooms and toilet rooms may be discharged to an attic space that is ventilated to the exterior in accordance with Section R806 of this Article.

M1602.2, Prohibited Sources (Return Air), Item #4, Exception. Closets with a minimum floor area of 24 square feet and minimum interior dimension 4 feet, and that are conditioned by a source of supply air.

Sections M2001, M2002, M2003, and G2452 (Boilers) are deleted.

Part VII, Chapter 25, Plumbing Administration, is deleted.

P2602.1.1. For the purpose of this section, available means located in a public way or easement abutting the subject property and within 200 feet of the proposed building.

P2706.2 Standpipes. Standpipes for automatic clothes washers shall extend a minimum of 30 inches (762 mm) and a maximum of 48 inches (1219 mm) above the finished floor. The trap for a clothes washer standpipe shall be installed at a maximum of 12 inches (305 mm) above the finished floor. Access shall be provided to all standpipe traps and drains for rodding.

P2706.2.1 Laundry tray connection. A laundry tray waste line is permitted to connect into a standpipe for the automatic clothes washer drain. The standpipes shall not be less than 30 inches (762 mm) as measured from the crown weir. The outlet of the laundry tray shall be a maximum horizontal distance of 30 inches (762 mm) from the standpipe trap.

P2901.2. References in this code to water service piping shall apply only to water service piping connected to a private source of water supply. All water service piping connected to the public water supply is under the jurisdiction of the Department of Water Services.

P2902.5.3 Lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by a double check valve assembly or a reduced pressure principle backflow preventer. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

P2903.8.2 Minimum size. The minimum size of individual distribution lines shall be ½” (12.7 mm). Certain fixtures such as one-piece water closets and whirlpool bathtubs shall require a larger size where specified by the manufacturer. If a water heater is fed from one end of a cold water manifold, the manifold shall be one size larger than the water heater feed.

Table P2904.4.1, Water Service Pipe. Delete “Polybutylene (PB) plastic pipe and tubing.”

Table P2904.5, Water Distribution Pipe. Delete “pipe and” from “Polybutylene (PB) plastic pipe and tubing.”

P2904.5.1 Under concrete slabs. Inaccessible water distribution piping under slabs shall be copper water tube minimum Type L, brass, ductile iron pressure pipe, cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX), chlorinated polyvinyl chloride (CPVC) or crosslinked polyethylene (PEX) plastic pipe or tubing – all to be installed

with approved fittings or bends. The minimum pressure rating for plastic pipe or tubing installed under slabs shall be 100 psi at 180 degrees F (689 kPa at 82 degrees C).

Table P3002.2 Building Sewer Pipe. Delete “SDR 41” and “SDR 35” from “Polyvinyl chloride (PVC) plastic pipe.”

P3008.1, Exception. The backwater valve is not required unless the structure is connected to a combination storm/sanitary sewer, or the structure or the next downstream sewer manhole is located in the regulatory floodplain.

P3105.4 Floor drain. A floor drain (where used as such) need not be vented, provided it is within 25 feet of a three-inch stack or horizontal drain which has at least a three-inch-diameter vent extension through the roof.

P3114.3 Where permitted. Vents may terminate to an air admittance valve under the following conditions:

- (1) For sinks located where there is no wall accessible from the sink location (eg island sinks); or where access to the vent system would require notching or boring of studs in excess of the limitations of section R602.6.
- (2) In existing construction, where the existing vent system is not accessible to the fixture location without the removal of finish materials or other existing construction.

E3802.12 Arc-fault protection of bedroom outlets. All branch circuits that supply 120-volt, single-phase, 15- and 20-ampere outlets installed in bedrooms shall be protected by a combination type or branch/feeder type arc-fault circuit interrupter installed to provide protection of the entire branch circuit.

Exception: The location of the arc-fault circuit interrupter shall be permitted to be at other than the origination of the branch circuit provided that:

1. The arc-fault circuit interrupter is installed within 6 feet (1.8 m) of the branch circuit overcurrent device as measured along the branch circuit conductors; and,
2. The circuit conductors between the branch circuit overcurrent device and the arc-fault circuit interrupter are installed in a metal raceway or a cable with a metallic sheath.

Part X, Appendices: The following appendix chapters are hereby adopted:

Appendix G, Swimming Pool Enclosures.

Section AG101. Swimming pools shall be completely enclosed by a barrier at least 4 feet (1290 mm) in height. Openings in the barrier shall not permit the passage of a 4-inch (102 mm) diameter sphere. Gates in the barrier shall be self-closing and self-

latching; and shall be maintained locked when the pool is not tended by a responsible person.

Sections AG103 through AG107 are deleted.

Appendix I, Private Sewage Disposal. [See Article VIII of this chapter.]

(Ord. No. 010783, 8-23-01; Ord. No. 020901, 8-29-02; Ord. No. 040477, § 1, 8-12-04; Ord. No. 040580, § 5, 12-16-04; Ord. No. 071193, § 1, 1-3-08)

Secs. 18-58—18-73. Reserved.