



# Pikes Peak Regional Building Code

**2009 IRC Edition**

**DRAFT**

## **PREFACE**

### **HISTORY, FUNCTION AND ADMINISTRATION OF THE BUILDING DEPARTMENT**

The Pikes Peak Regional Building Department is responsible for the permitting and inspection of all construction activity within the unincorporated areas of El Paso County as well as the participating incorporated municipalities within the county. These currently include the cities of Colorado Springs, Fountain and Manitou Springs and the towns of Green Mountain Falls, Monument and Palmer Lake.

The department was formed by an intergovernmental agreement between the City Council of Colorado Springs and the El Paso County Board of County Commissioners in 1966 to provide uniform service to those two jurisdictions. Then, in 1982, the suburban jurisdictions entered into the same agreement with the department for building permit and inspection services.

The primary function of the department is to issue permits for and inspect construction work under building, mechanical, plumbing, electrical, and elevator codes and standards as well as enforce floodplain and enumeration regulations. The department also licenses and registers contractors who perform work within the jurisdictions served by the department.

The department is administered by the Regional Building Commission, a three-member governing body consisting of an El Paso County Commissioner, a Colorado Springs Councilperson and a representative from one of the five suburban jurisdictions. This Building Commission generally supervises departmental administration and directs policy. It is also responsible for preparation of the department budget.

The department is self-funded by permit, plan review and licensing fees. An independent auditor performs a cost analysis annually. Fee adjustments are proposed when the Building Commission determines them to be necessary to maintain the department's operation.

### **LOCAL CODE AND ADOPTION PROCESS**

The code in effect for building construction or the installation of systems or equipment is this edition of the Pikes Peak Regional Building Code. This Code provides for the administration of the department, licensing and registration of contractors, and enforcement of adopted model building codes and locally developed standards. Sections of this Code are denoted by the prefix "RBC" to differentiate this Code from other codes.

As new model building codes are developed and published, the department reviews these codes and updates the Pikes Peak Regional Building Code. New codes are promulgated approximately every three years. The past ten years have seen a drastic change in model building codes in the United States. This edition of the Pikes Peak Regional Building Code is the first to cite and adopt a majority of the International Codes promulgated by the International Code Council (ICC).

Proposed modifications to this Code may be made in writing to the Building Department during the official comment period. Comments are forwarded to the appropriate advisory committee for consideration. The advisory committees then undertake a review process of each proposed code involving committee meetings and one or more public hearings before making recommendation to the Board of Review for each proposed code.

The Board of Review then holds their own session of review and public hearing before making final recommendation of a new Pikes Peak Regional Building Code to the participating jurisdictions.

Each Jurisdiction has the final authority regarding proposed code content prior to adoption. The Code becomes enforceable when each Jurisdiction legally adopts the Code by resolution or ordinance.

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## CHAPTER 3 – CONSTRUCTION CODES

### SECTION RBC301 - GENERAL

#### **RBC301.1 CODES ADOPTED BY REFERENCE.**

Pursuant to Sections 30-15-407, 30-28-201 and 31-16-202 of the Colorado Revised Statutes, as amended, and the Colorado Constitution, Article XX, as applicable, codes in this chapter may be adopted by reference.

**RBC301.2 OTHER REFERENCED CODES.** Where other codes or standards are referenced in these adopted codes, these shall not apply unless they have been specifically adopted by the Jurisdiction either in this Code or elsewhere.

**RBC301.3 APPLICATION.** This Chapter shall apply to every building, structure, equipment or installation within the Jurisdiction in accordance with Section RBC101.3 of this Code.

**RBC301.4 INTERPRETATION.** The Codes in this Chapter shall be interpreted and construed as to effectuate their general purpose to make uniform the local regulations contained therein. Chapter and section headings of this Code and adopted codes and standards shall not be deemed to govern, limit, modify, or in any manner affect the scope, meaning, or extent of provisions of any chapter or section.

**RBC301.5 SALE OF COPIES.** The Jurisdiction shall delegate to the Building Department responsibility to maintain a reasonable supply of copies of the primary codes adopted by reference. These shall be available for purchase by the public at a reasonable price.

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## SECTION RBC303 - RESIDENTIAL BUILDING CODE

**RBC303.1 SHORT TITLE.** This section will be known and cited as the Residential Building Code.

**RBC303.2 SCOPE.** The provisions of the Residential Building Code shall apply in accordance with Section RBC101.3 of this Code specifically to detached one- and two-family dwellings and townhomes not more than three (3) stories above grade plane with a separate means of egress and their accessory structures.

**RBC303.3 CODE ADOPTED BY REFERENCE.** There is hereby adopted by reference the International Residential Code for One-and Two-Family Dwellings of the International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795, 2009 Edition. Three (3) copies of the Code are now filed in the office of the Clerk of the Jurisdiction and may be inspected during regular business hours. Only the following sections of the Code are being adopted:

1. Chapter 2, Definitions
2. Chapter 3, Building Planning
3. Chapter 4, Foundations
4. Chapter 5, Floors
5. Chapter 6, Wall Construction
6. Chapter 7, Wall Covering
7. Chapter 8, Roof-Ceiling Construction
8. Chapter 9, Roof Assemblies
9. Chapter 10, Chimney and Fireplaces
10. Appendix H, Patio Covers
11. Chapter 43, Referenced Standards

All other Chapters and Appendices are either addressed by separate codes or declared to be non-applicable to the Jurisdiction and are therefore expressly deleted.

**RBC303.4 ADDITIONS AND MODIFICATIONS.** The adopted Code is subject to the following additions and modifications:

**RBC303.4.1 Section R202.** Delete the definition of BASEMENT and replace with the following:

**BASEMENT.** That portion of a building that is partly or completely below grade plane, having a permanent floor of approved material and not defined as a crawlspace. (See the definitions of "Story above grade plane" in the International Residential Code, 2009 Edition and "Crawlspace" below.)

Add the following definitions:

**CRAWLSPACE.** An under-floor space between the bottom of a floor and the earth under any building that is not more than 5 feet (1,524 mm) in height measured from the average interior grade to the underside of the floor framing. (See Section R408 of the International Residential Code, 2009 Edition.)

**GARAGE.** An attached or detached, finished or unfinished structure or portion thereof provided with a vehicular access door and intended for storage of one or more motor vehicles.

**SLEEPING ROOM.** A habitable space used primarily for sleeping purposes and containing a closet 16 inches (406.4 mm) or greater in depth.

See Appendix D of this code for additional modifications to Section 202 of the International Residential Code, 2009 Edition, by the City of Colorado Springs.

**RBC303.4.2 Table R301.2(1).** Delete and replace with the following:

**TABLE R301.2(1)**

**CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

ROOF SNOW LOAD <sup>j</sup>	WIND DESIGN		SEISMIC DESIGN CATEGORY <sup>f</sup>	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP <sup>e</sup>	ICE BARRIER UNDER-LAYMENT REQUIRED <sup>b</sup>	FLOOD HAZARDS <sup>g</sup>	AIR FREEZING INDEX <sup>i</sup>	MEAN ANNUAL TEMP <sup>l</sup>
	Speed <sup>d</sup> (mph)	Topographic effects <sup>k</sup>		Weathering <sup>a</sup>	Frost line Depth <sup>b</sup>	Termite <sup>c</sup>					
30/40	100 Exp. C (min)	NO	B	Severe	30 inches (762 mm)	Slight to moderate	0°F (-18°C)	YES	12/18/1986	1,000	45°F (7°C)

Add the following to the end of **Footnote h**: Required only for buildings and structures with a grade plane at or above 7,000 ft (2,134 m) elevation.

Add the following **Footnote l**:

- l. For buildings or structures with a grade plane below 7,000 ft (2,134 m) elevation, the uniform snow load shall be 30 pounds per square foot (1,436 N/m<sup>2</sup>) of horizontal projected area. For all buildings and structures with a grade plane at or above 7,000 ft (2,134 m) elevation, the uniform snow load shall be 40 pounds per square foot (1,915 N/m<sup>2</sup>) of horizontal projected area.

**RBC303.4.3 Table R301.5.**

**Footnote b:** Add the following after the first sentence:

This provision shall only apply to attics located directly above a garage.

**Footnote g:** Replace items 1 and 3 with the following:

1. The attic area is accessible by a pull-down stairway.
3. Required insulation depth at the bottom chord is less than the bottom chord member depth or required insulation is placed at the top chord of the truss.

**RBC303.4.4 Section R302.1.** Add the following exception:

6. The following modifications to R302.1 shall apply to exterior walls of single family dwellings only:
  - 6.1 A fire-resistance rating is not required on projections 18" (457.2 mm) or less measured from the point at which fire-resistant wall protection is required.
  - 6.2 The underside of the projection shall be protected with an approved minimum 7/16" (11.11mm) sheeting. Finish materials are not limited.

6.3 Where provided, soffit vents shall be of fire resistance construction and approved for use by the Building Official.

6.4 Vent terminations including but not limited to dryer vents, bath exhaust and appliance vents may be unprotected.

**RBC303.4.5 Section R302.2.** Revise the exception to "Exception 1."

Add the following exception:

2. A common 2-hour fire-resistance rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses in accordance with R313.1, exception 2 if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. Penetrations of electrical outlet boxes shall be in accordance with R317.3.

**RBC303.4.6 Section R302.2.4, Exception 5.** Delete and replace with the following:

5. Townhouses separated in accordance with Section R302.2.

**RBC303.4.7 Table R302.6.** Delete and replace with the following:

**TABLE R302.6.**

**DWELLING/GARAGE SEPARATION**

SEPARATION <sup>a, b</sup>	MATERIAL
From dwelling unit and attics.	Not less than ½-inch gypsum board or equivalent applied to the garage side.
From habitable space above the garage.	<sup>c</sup> Not less than 5/8-inch Type X gypsum board or equivalent applied at the garage side.
Structure(s) supporting floor-ceiling assemblies required by this section.	Not less than ½-inch gypsum board or equivalent applied to the garage side.
Accessory structures located less than 6 feet from a dwelling unit on the same lot	<sup>d, e</sup> Not less than ½-inch gypsum board or equivalent applied to the interior side of the accessory structure.

- a. In lieu of these requirements any wall or floor-ceiling assembly with a fire resistance rating of one hour or greater from the garage side may be used.
- b. Garages attached to the residence by means of a covered breezeway where not more than 50 percent of the perimeter of the breezeway is enclosed may be considered detached.
- c. Attached to framing members not more than 16 inches on center with screws or other approved fastening systems.
- d. This provision does not apply to walls that are perpendicular to the adjacent dwelling unit wall.
- e. Openings shall be in accordance with R302.5.1.

**RBC303.4.8 Section R305.1.** Add the following after the first sentence:

Projections beyond the finished ceiling shall not extend below 6 feet, 8 inches (2,032 mm).

**RBC303.4.9 Section R305.1.** Add the following exception:

3. In finished basements, the required ceiling height may be reduced to 6 feet, 8 inches (2,032 mm) under furred-down beams, pipes and ducts up to 50 percent of the floor area of the room or over a width of not more than 8 feet (2,438.4 mm).

**RBC303.4.10 Section R305.1.1.** Delete and replace with the following:

**Minimum height in unfinished basements.** Unfinished basements shall have a ceiling height of not less than 7 feet, 1½ inches (2,171.7 mm). The required ceiling height shall be measured from the unfinished floor to the underside of floor joists.

**Exception:** Beams, girders, ducts or other obstructions may project up to 4 inches (101.6 mm) below the required ceiling height.

**RBC303.4.11 Section R309.1.** Add the following exception after the second paragraph:

**Exception:** The floor surface shall not be required to slope when the foundation is in accordance with exception 4 of section RBC303.4.33 of this code.

**RBC303.4.12 Section R310.1.** Add the following after the first paragraph:

Unfinished basements and portions of unfinished basements more than 500 square feet (46.5 m<sup>2</sup>) in gross area shall be provided with one emergency escape and rescue opening for each additional 500 square feet (46.5 m<sup>2</sup>) in gross floor area or fraction thereof.

**RBC303.4.13 Section R310.2.** Add the following exception:

**Exception:** Dwellings that were issued a building permit prior to January 1, 2000 may have window wells with a minimum horizontal projection of 30 inches (762 mm).

**RBC303.4.14 Section R310.2.1.** Add the following exception:

**Exception:** Window wells with a depth exceeding 44 inches in unfinished basements and portions thereof need only be equipped with one permanently affixed ladder at final inspection regardless of the number of emergency escape and rescue openings.

**RBC303.4.15 Section R310.4.** Add the following after the first sentence:

The force required for normal operation of any device shall not exceed 30 pounds.

**RBC303.4.16 Section R310.5.** Delete and replace with the following:

**R310.5. Emergency escape openings below horizontal projections.** Emergency escape openings may be located below decks, porches, cantilevers, and similar horizontal projections provided one of the following:

1. The location of the projection allows the emergency escape opening to be fully opened and provides a path not less than 36 inches (914.4 mm) in height and width to a yard or court.
2. The minimum horizontal area of 9 square feet (8,361 cm<sup>2</sup>) is provided clear of the projection and the horizontal projection of the operable portion of the egress window and ladder, if required, remain clear of the projection.

**RBC303.4.17 Section R311.3.2.** Revise the exception to "Exception 1."

Add the following exception:

2. When more than two risers are required landing length at the exterior side of the door may be reduced to 18 inches (457.2 mm), provided the door does not swing over the stairway. Maximum height of the reduced landing shall not exceed 30 inches (762 mm) above adjacent grade.

**RBC303.4.18 Section R311.7.7.2.** Add the following exception:

3. Where a handrail supported by a wall terminates and a new handrail along the same stairway is then supported by a guard, continuity is not required provided the terminus of the handrail supported by the wall is flush with or overlaps the vertical wall surface in which the handrail supported by the guard terminates.

**RBC303.4.19 Section R313.1.** Revise the exception to "Exception 1."

Add the following exception:

2. An automatic residential fire sprinkler system shall not be required in *townhouses* with four or less attached units when separated in accordance with R302.2, exception 2.

**RBC303.4.20 Section R313.1.1.** Delete "Section P2904." and replace with "NFPA 13D."

**RBC303.4.21 Section R313.2.** Delete.

**RBC303.4.22 Section R313.2.1.** Delete.

**RBC303.4.23 Section R315.2.** Add the following exception:

**Exception:** Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, are exempt from the requirements of this section.

**RBC303.4.24 Section R317.1**

**Item 2.** Delete and replace with the following:

2. All exterior wood framing members that are less than 6 inches (152.4 mm) from exposed ground or less than 2 inches (51 mm) from concrete slab or similar surface.

**Item 7.** Modify as follows:

7. Delete "Wood furring strips or other wood" and replace with "Structural wood"

**RBC303.4.25 Section R318.** Add the following under the heading of this Section:

This Section is to be used for reference only.

**RBC303.4.26 Section R319.1.** Delete and replace with the following:

**R319.1. Premises identification.** Street addressing shall be in accordance with Section RBC312 of this Code.

**RBC303.4.27 Section R320.** Add the following after the first sentence:

See also Colorado Revised Statutes Title 9, Section 9-5-105.

**RBC303.4.28 Section R321.1.** Delete and replace with the following:

**R321.1. Elevators.** Where provided, passenger elevators, limited-use/limited-applications elevators or private residence elevators shall comply with Section RBC310 of this code.

**RBC303.4.29 Section R322.** Delete and replace with the following:

**R322.1 General.** Buildings and structures constructed in whole or in part in flood hazard area (as defined by Section RBC313) shall comply with Section RBC313 of this code.

**RBC303.4.30 Section R323.** Add the following under the heading of this Section:

This Section is to be used for reference only.

**RBC303.4.31 Section R401.1.1.** Insert a new section as follows:

**R401.1.1. Design Professional Required.** Construction documents for foundation systems and/or components regulated by this section shall be sealed by a design professional licensed by the State of Colorado.

**Exceptions:**

1. Freestanding, enclosed, accessory structures with an area of 200 square feet (18.6 m<sup>2</sup>) or less and an eave height of 10 feet (3,048 mm) or less;
2. Single-story, enclosed, detached wood frame accessory structures not more than 750 square feet (69.7 m<sup>2</sup>) in area with a thickened edge monolithic slab extending a minimum of 12 inches (304.8 mm) below grade not retaining any soil;
3. Decks, open patio covers, gazebos and similar structures set on piers; and
4. Patio cover enclosures built in accordance with Appendix H of the International Residential Code, 2009 Edition.

**RBC303.4.32 Section R401.4.** Delete and replace with the following:

**R401.4. Soil tests.** A soil test shall be required to determine the soil's characteristics for each building or structure regulated by this Code. This test shall be made and a subsequent report produced by a design professional licensed by the State of Colorado.

**Exception:** A soil test is not required for buildings or structures whose foundation system construction documents are not required to be sealed by a design professional in accordance with Section R401.1.1 of the International Residential Code, 2009 Edition.

**RBC303.4.33 Table R402.2.** Delete and replace footnote d with the following:

- d. Concrete shall be air entrained as required by either the soils test or the foundation design.

**RBC303.4.34 Section R403.1.4.1.** Delete the three (3) exceptions and replace with the following:

**Exceptions:**

1. Freestanding, enclosed accessory structures with an area of 200 square feet (18.6 m<sup>2</sup>) or less and an eave height of 10 feet (3,048 mm) or less shall be permitted to be supported directly on grade.
2. Detached, uncovered decks with a walking surface no greater than 24 inches (609.6 mm) above grade at any point within 36 inches (1,067 mm) horizontally from the edge of the deck may be supported directly on grade by an approved method.
3. Detached landings in conjunction with a temporary set modular or manufactured home less than 32 square feet (2.97 m<sup>2</sup>) and a walking surface no higher than 42 inches at any point within 36 inches (1,067 mm) horizontally from the edge of the deck may be supported directly on grade by an approved method.
4. Single-story detached, enclosed wood frame accessory structures not more than 750 square feet (69.7 m<sup>2</sup>) in area with a thickened edge monolithic slab extending a minimum of 12 inches (304.8 mm) below grade not retaining any soil.

**RBC303.4.35 Section R403.1.8.** Delete "Section 1805.8 of the International Building Code" and replace with "the soils test recommendations as required per Section R401.4 of the International Residential Code, 2009 Edition."

**RBC303.4.36 Section R404.1.** At the end of Section R404.1 add the following:

Where the top of a foundation wall is stepped and the stepped portion of the wall is in excess of 4 feet (1,219.2 mm) in height and 6 feet in length (1,828.8 mm), a design professional licensed by the State of Colorado shall provide a foundation design which resists lateral forces without dependence on the floor framing. Other engineering methods that provide for the structural stability of the foundation system may be approved.

**RBC303.4.37 Section R404.1.1.** Delete the second sentence.

**RBC303.4.38 Section R404.4.** Delete and replace with the following:

**R404.4. Retaining walls.** Retaining walls that do not meet the criteria set forth by Section RBC105.2.1, Item 4 of this code 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 and shall bear the stamp and signature of a design professional licensed in the State of Colorado.

**RBC303.4.39 Section R405.1.** Insert the following before the first sentence:

Unless otherwise specified by the Soils test,

**RBC303.4.40 Section R405.1.2.** Insert a new section as follows:

**R405.1.2. Drainage system.** When a foundation peripheral drain is required by the soils test report and the system is not capable of positive gravity drainage to daylight a collection sump shall be provided on the interior or exterior of the building. The sump shall be at least 24 inches (609.6 mm) in diameter or 20 square inches (129 cm<sup>2</sup>), shall extend at least 24 inches (609.6 mm) below the bottom of the basement floor and shall be capable of mechanical drainage to remove any accumulated water. The drainage system shall discharge into an approved storm sewer system or to daylight. An electrical receptacle installed in accordance with the Electrical Code shall be provided within 24 inches (609.6 mm) of the sump pit. When provided on the interior, discharge piping installed in accordance with the Plumbing Code shall be provided to discharge a minimum of 6 inches (152.4 mm) from the exterior of the foundation wall above grade.

**RBC303.4.41 Section R408.3, Item 1.** Delete and replace with the following:

1. Exposed earth shall be covered with a continuous Class I vapor retarder with joints overlapped 6 inches (152 mm) and edges shall extend 6 inches (152 mm) up the stem wall. Where required by the soils report joints shall be taped or sealed and edges shall be sealed to the stem wall; and

**RBC303.4.42 Section R502.2.2.1.** In the first sentence delete "50 pounds per square foot (2,394 Pa)" and replace with "55 pounds per square foot (2,633 Pa)" and delete "10 pounds per square foot (479 Pa) dead load" and replace with "15 pounds per square foot (718 Pa) dead load".

**RBC303.4.43 Table R502.2.2.1.** Delete and replace with the following:

**TABLE R502.2.2.1.**

**DECK LEDGER TO STRUCTURE CONNECTION**  
(Deck live load = 40 psf, deck dead load = 15psf)<sup>e</sup>

JOIST SPAN	MINIMUM NUMBER OF FASTENER(S) AND SIZE <sup>a, b, c, d, f, g, h</sup>				
	STUD		RIM JOIST		
	16" o.c.	24" o.c.	12" o.c.	16" o.c.	24" o.c.
6' and less	(1) 7/16"	(2) 5/16"	(1) 3/8"	(1) 3/8"	(2) 3/8"
6'-1" to 8'	(2) 5/16"	(2) 7/16"	(1) 3/8"	(2) 3/8"	(2) 3/8"
8'-1" to 10'	(2) 3/8"	(2) 7/16"	(2) 3/8"	(2) 3/8"	(3) 3/8"
10'-1" to 12'	(2) 7/16"	(3) 7/16"	(2) 3/8"	(2) 3/8"	(3) 3/8"
12'-1" to 14'	(2) 7/16"	(3) 7/16"	(2) 3/8"	(3) 3/8"	(4) 3/8"
14'-1" to 16'	(3) 3/8"	(4) 3/8"	(2) 3/8"	(3) 3/8"	(4) 3/8"

- a. The tip of the lag screw shall extend beyond the inside face of the rim joist. Through bolts shall be provided with a plate washer at the inside face of the rim joist.
- b. Ledger shall be tight to exterior face the exterior the wall. Ledgers may be spaced with an approved product or a connection designed in accordance with accepted engineering practice.
- c. Ledgers shall be flashed and or sealed at the top to prevent water from contacting the rim joist.
- d. Lag screws and bolts shall be staggered in accordance with Section R502.2.2.1.1.
- e. Alternative ledger connections shall be sized for 120% of live and dead loads.
- f. Deck ledger shall not be attached to an un-supported rim unless such connection is designed in accordance with accepted engineering practice.
- g. Rim joist material shall be 2" nominal lumber or minimum 1<sup>1</sup>/<sub>8</sub>" engineered wood product. When solid sawn deck ledgers are attached to a 1 inch thick or less engineered wood product, the ledger attachment shall be designed in accordance with accepted engineering practice.
- h. Wood structural panel sheathing, gypsum board sheathing, and approved siding materials shall be permitted between the ledger and rim joist provided distance between the face of the rim and face of the ledger does not exceed 1 inch.

**RBC303.4.44 Section R502.2.2.3.** Delete.

**RBC303.4.45 Section R505.1.1.** Delete and replace with the following:

**R505.1.1. Application and Design Professional Required.** The provisions of this section shall control the construction of steel floor framing. Construction documents shall be sealed by a design professional licensed by the State of Colorado.

**RBC303.4.46 Section R506.1.** Delete and replace with the following:

**R506.1 General.** Concrete slab-on-ground floors shall be a minimum 3.5 inches (88.9 mm) thick and in accordance with the soils test per Section R401.4 of the International Residential Code, 2009 Edition.

**RBC303.4.47 Section R506.2.3.** Delete exception 2 and replace with the following:

2. Unless specifically required by the soils test.

**RBC303.4.48 Section R601.3.** In the first sentence delete zone "5".

**RBC303.4.49 Section R602.3.** Delete the exception.

**RBC303.4.50 Table R602.3.1.** Add the following footnotes applicable to Table R602.3.1.

- d. This table is invalid for structures with cementitious toppings exceeding 13 pounds per square foot (622 N/m<sup>2</sup>).
- e. At openings in walls, (such as windows), for each stud removed to allow for the opening, a minimum of 1/2 of a stud must be placed at each side of the opening.
- f. Listed heights are distances between lateral supports placed perpendicular to the plane of the wall.

**RBC303.4.51 Section R602.3.4.** Add the following after the first paragraph:

Wood sole and sill plates supporting floors shall be installed in accordance with this section and shall not be stacked more than two plates high for nominal 2 x 4 plates nor more than three plates high for nominal 2 x 6 or larger plates including the sole plate unless a specific design is provided by a design professional licensed by the State of Colorado.

**RBC303.4.52 Section R602.6.** Add the following:

3. Studs having holes or notches larger than required to accommodate the piping shall be replaced or satisfactorily repaired. Where holes larger than indicated above are required to accommodate the piping in nonbearing studs, the studs may be reinforced by the addition of 0.1046 inch thick (2.657 mm) (12 ga) x 1½ inch wide (38.1 mm) steel straps fastened to each side of the stud with four (4) 16d nails. Where holes or notches larger than allowed above are required to accommodate the piping in bearing studs, engineering calculations shall be submitted to show that the stresses allowed by this section are not exceeded under the design loads.

**RBC303.4.53 Section R603.1.1.** Delete and replace with the following:

**R603.1.1. Application and Design Professional Required.** The provisions of this Section shall control the construction of exterior wall framing and interior load bearing steel wall framing. Construction documents shall be sealed by a design professional licensed by the State of Colorado.

**RBC303.4.54 Section R606.1.1.** Delete and replace with the following:

**R606.1.1. Application and Design Professional Required.** The provisions of this Section shall control the construction of exterior masonry wall construction and interior load bearing masonry wall construction. Construction documents shall be sealed by a design professional licensed by the State of Colorado.

**RBC303.4.55 Section R611.1.** Delete the last sentence and replace with the following:

Construction documents shall be sealed by a design professional licensed by the State of Colorado.

**RBC303.4.56 Section R612.2.** Delete

**RBC303.4.57 Section R613.1.** Delete and replace with the following:

**R613.1. Application and Design Professional Required.** The provisions of this Section shall control the construction of exterior structural insulated panel walls and interior load-bearing structural insulated panel walls. Construction documents shall be sealed by a design professional licensed by the State of Colorado.

**RBC303.4.58 Section R801.3.** Delete and replace with the following:

**R801.3 Roof drainage.** All dwellings shall have a controlled method of water disposal from roofs that will collect and discharge roof drainage to the ground surface or approved drainage system at least 3 feet (914.4 mm) from foundation walls or greater if required by the soils report.

**RBC303.4.59 Section R802.10.3.** Insert a new section as follows:

**R802.10.3.1. Lateral Support.** Trusses with a maximum bearing depth greater than 8 inches (203.2 mm) measured at the inside face of the wall shall be provided with lateral support at points of bearing to prevent rotation.

**RBC303.4.60 Section R804.1.1.** Delete and replace with the following:

**R804.1.1. Application and Design Professional Required.** The provisions of this Section shall control the construction of steel roof framing. Construction documents shall be sealed by a design professional licensed by the State of Colorado.

See Appendix D of this code for additional modifications to Section 902.1 of the International Residential Code, 2009 Edition, by the City of Colorado Springs.

**RBC303.4.61 Section R903.2.3.** Insert a new section as follows:

**R903.2.3. Penetrations.** Roof jacks, attic vents and similar penetrations shall not be located less than 18 inches (457.2 mm) from the center of a valley to the closest edge of the penetration.

**RBC303.4.62 Section R903.4.1.** Add the following:

Scuppers shall be constructed of minimum 26 gage galvanized sheet metal lining at minimum the bottom and sides of the opening and shall extend at least 2 inches (50.8 mm) beyond the exterior wall face. Scuppers shall be installed per Sheet Metal and Air Conditioning Contractor's National Association (SMACNA) installation guidelines.

**RBC303.4.63 Section R905.2.8.2. Item 1.** Delete "24 inches (609.6 mm) wide" and replace with "20 inches (508 mm) wide centered on the valley.

**RBC303.4.64 Section R905.2.8.4.** Add the following to the end of the last sentence:

"or other approved methods."

**RBC303.4.65 Section R905.2.9.** Insert a new section as follows:

**R905.2.9. Face Nailing.** Face nailing of asphalt shingles shall only be permitted in the following locations:

1. The ridge cap as per manufacturer's specifications;
2. Flashing at clearstory, low side of skylights, and roof jacks provided the nail heads are covered with mastic.

**RBC303.4.66 Section R905.3.7.** Delete the first sentence and replace with the following:

Tile shall be applied in accordance with this section and the manufacturer's installation instructions, or the Roof Tile Institute and Western States Roofing Contractors Association (RTI/WSRCA) manual, or the Asphalt Roofing Manufacturers Association (ARMA) manual, based on the following:

**RBC303.4.67 Section R905.7.5.** Add the following after the first paragraph:

Face nailing of wood shingles shall only be permitted in the following locations:

1. The ridge cap as per manufacturer's specifications;
2. Flashing at clearstory, low side of skylights, and roof jacks provided a soldier course is provided over the flashing to nail through.

**RBC303.4.68 Section R905.8.6.** Add the following after the first paragraph:

Face nailing of wood shakes shall be as permitted for wood shingles.

**RBC303.4.69 Section R907.2.1.** Insert a new section as follows:

**R907.2.1. Roof Dead Load.** Where the total weight of the new and / or existing roof covering materials exceed 6.6 pounds per square foot (316 N/m<sup>2</sup>) calculations sealed by a design professional licensed by the State of Colorado shall be submitted demonstrating that the structure will accommodate the increased total roof dead load.

**RBC303.4.70 Section R1003.9.1.** Delete the first sentence and replace with the following:

Spark arrestors shall be installed on all masonry chimneys and meet all of the following requirements:

**RBC303.4.71 Section AH102.** Add the following:

Enclosed patios shall not be conditioned by any heating or cooling means.

**RBC303.4.72 Section AH106.1.** Delete and replace with the following:

Patio covers shall be permitted to be supported on a slab on grade without footings, provided the slab conforms to the provisions of Section R506 of this code and columns spaced a minimum of 6 feet on center do not support live and dead loads in excess of 750 pounds (3.34 kN) per column.