

# PIKES PEAK REGIONAL BUILDING DEPARTMENT

## Residential Building Inspection List

Unless otherwise noted, references are to 1999 Pikes Peak Regional Building Code (PPRBC) and 1997 Uniform Building Code (UBC).

- **OPEN HOLE** (if required) UBC Chapter 18
  - Engineering report on site.
- **CAISSONS/DRILLED PIERS**
  - Notify RBD when pouring will start. Copy of engineer's log on site for the inspector..... PPRBC 16-4-102: A
- **FOOTER**
  - Address posted & Permit posted..... PPRBC 16-4-105
  - Compaction test result (if overdig).
  - Engineering soils letter on site
  - Engineer stamped foundation design on site
  
  - Ground frost free..... UBC 1905.12.2
  - Footing & Structural Pads.
  - Water removed before concrete is poured..... UBC 1905.7.1
  - Placement of steel.
  - Reinforcing steel is clean..... UBC 1907.4.1
  - Voids (if required).
  - Concrete protection in cold conditions..... UBC 1905.12.1
- **FOUNDATION**
  - Address & Permit posted..... PPRBC 16-4-102:A & 16-4-105
  - Compaction test result (if overdig).
  - Engineering soils letter on site
  - Engineer stamped foundation design on site
  - Ground frost free..... UBC 1905.12.2
  - More than 2 sill plates..... PPRBC 16-2-103:BB
  - Cripple walls..... PPRBC 16-2-103:BF
  - Frost line..... PPRBC 16-2-103:BC & UBC1806.1
  
  - Water removed before concrete poured..... UBC 1905.7.1
  - Measure height, depth of wall per design.
  - Where foundation supports wood, extend minimum 6 inches above adjacent finish grade..... UBC 1806.1
  - Spacing of reinforcing steel.
  - Reinforcing steel is clean..... UBC 1907.4.1
  - Placement of voids (if applicable).
  - Concrete protection in cold conditions..... UBC 1905.12.1
- **PERIPHERAL DRAIN**
  - Address & Permit posted..... PPRBC 16-4-105
  - Foundation wall damp proofed..... UBC 1402.4
  - Peripheral drain placement..... UBC Section 209
  - Soils Report must be on site.
- **RETAINING WALLS**
  - Permit required if wall is higher than 4 feet..... PPRBC 16-3-102, A.4
  - Engineering is not required for retaining walls having less than 9 feet difference in grade unless the wall supports a surcharge..... PPRBC 16-3-103, B
  - Call for inspection on the first day construction begins on retaining wall.
  - Engineer design andnd Soils Report (if required).
  - Compaction test result (if required).
- **FRAMING PREREQUISITES**
  - RBD approved plans on site for the inspector..... BC 106.4.2
  - Framing complete. Mechanical, plumbing and electrical inspections completed..... PPRBC 16-4-102:A
  - Fireplaces, flue, blocking, bracing, exterior sheathing, windows and doors installed and roof in place so the house is dried in..... PPRBC 16-4-102:A
- **TRUSSES AND ROOF**

**Note:** Refer to the approved truss design/detail.

  - Truss detail bears an engineer's seal. Each truss is branded or marked permanently with the truss manufacturer identification, design load and spacing of trusses. Identity of truss manufacturing company,
  - Design and wind load meet code.
  - Trusses with mechanical/furnace loads show additional bottom cord dead load when applicable.
  - Web configuration meets the detail drawing.
  - Cantilevered trusses are not turned backwards.
  - Flat trusses are not installed upside down.
  - Trusses are not cut or damaged.
  - Trusses have proper bearing.
  - Are any truss bearing enhancers required?
  - Lumber sizes match the detail for top cord, bottom cord, and web members.
  - Gusset plate sizes match the detail.
  - If lateral bracing is shown, it is installed and braced properly.
  - If 10 or more of the same trusses are installed does the design require additional diagonal bracing for the lateral bracing?
  - Trusses are hurricane clipped at all bearing points.
  - Trusses have proper uplift anchoring.
  - Girder trusses contain the correct number of plies.
  - Girder truss plies nailed or connected together properly at the top cord, bottom cord and web members.
  - Girder to girder/girder to truss connections are correct.
  - Hangers or connectors are listed on the truss layout.
  - Gable truss web members 6 feet in height or more are provided with a stiff back or diagonal brace.
  - Trusses are supported laterally at points of bearing by solid blocking to prevent rotation when the depth of the member at bearing point exceeds 8 inches..... PPRBC 16-2-103: BH
  - Attic areas are ventilated 1 square foot per 150 square feet of area..... UBC 1505.3
  - A minimum of 22 inches x 30 inches attic access is provided with 30 inches minimum of unobstructed head room above it..... UBC 1505.1
  - Size, length and spacing of rafters..... UBC 2320.12.2
  - Ridge board at least 1 inch thick and not less in depth than cut end of rafter..... UBC 2320.12.3
  - Notched, cut or rafters with bored holes repaired..... UBC 2320.12.4
  - Size and thickness of roof sheathing..... UBC 2320.12.9

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# RESIDENTIAL BUILDING INSPECTIONS

## ● ROOFING — WOOD SHAKES

- ☐ Roof has minimum 3:12 pitch..... UBC Table 15-B-2
- ☐ Underlayment is Type 15 felt. Interlayment is Type 30 felt and 3/8-inch wide between each course..... UBC Table 15-B-2
- ☐ Minimum of 2 corrosion resistant fasteners installed. nails must be minimum 13 gage and 7/32 inch head.... UBC Table 15-B-2
- ☐ Valley flashing is minimum 28 galvanized sheet gage and extends 13 inches from center line. Flashing sections overlap at least 4 inches..... UBC Table 15-B-2
- ☐ Other flashing is minimum 28 galvanized sheet gage.... UBC Table 15-B-2
- ☐ Shakes laid with side lap not less than 1 1/2 inch between joints in adjacent courses..... UBC Table 15-B-2
- ☐ Spacing between shakes is not less than 3/8 inch or more than 5/8 inch. Spacing between preservative treated shakes is 7/4 inch to 3/8 inch..... UBC Table 15-B-2
- ☐ Maximum exposure is 7 1/2 inches for 8-inch shakes, and 10 inches for 24-inch shakes..... UBC Table 15-C
- ☐ Valley #1 grade shakes are used..... PPRBC 16-2-103(AK)
- ☐ Starter course at the eaves..... UBC Table 15-B-2
- ☐ Colorado Springs Historic Overlay Zone requirements..... PPRBC 16-2-103(AK)

## ● ROOFING — CLAY OR CONCRETE TILE

**Note:** Consult the tile manufacturer's installation guide for many requirements.

- ☐ Roof has minimum 4:12 pitch..... UBC Table 15-D-2
- ☐ Underlayment is Type 30 felt..... UBC Table 15-D-2
- ☐ Valley flashing is minimum 28 galvanized sheet gage and sections overlap at least 4 inches..... UBC Table 15-D-2
- ☐ Flashing extends at least 13 inches from center line each way; splash overtop of not less than 1-inch height..... UBC Table 15-D-2
- ☐ Other flashing is minimum 28 galvanized sheet gage..... UBC Table 15-D-2
- ☐ If more than 7:12 roof pitch, horizontal battens are installed..... UBC Table 15-D-2
- ☐ Battens are minimum 1 inch by 2 inch, and attached minimum of 24 inches..... UBC Table 15-D-2
- ☐ If a single batten is used, battens are maximum 4 feet in length with at least 1/2 inch separation between lines for drainage..... UBC Table 15-D-2

**Note:** DFR inspection of above items during dry-in before tile installation.

- ☐ Roof tiles are installed with 2 fasteners or 6 battens are used, 1 fastener..... UBC Table 15-D-2
- ☐ Noses of all ridge, hip and rake tiles have been set in a bed of approved roofers mastic..... UBC Table 15-D-2

**Note:** Above items are inspected after tile installation is completed.

## ● GENERAL ROOFING

- ☐ When tile, asphalt or wood shakes are installed, the fasteners must be long enough to penetrate 3/4 inch into sheathing or through thickness of sheathing..... UBC Tables 15-B-3,
- ☐ If modified bitumen, thermoplastic or thermoset roofing membranes are used, the application must comply with manufacturer's instructions..... UBC 1501.14

## ● BUILDING FINAL — EXTERIOR

- ☐ Sidewalk inspection complete.
- ☐ Plumbing, mechanical & electrical final inspections complete.
- ☐ Address numbers are properly posted on house, legible and plainly visible from street..... PPRBC 16-3-511
- ☐ Grading around structure allows surface water to flow away (percentage complies with soils engineer letter)..... UBC 1804.7
- ☐ Finished grade is minimum 6 inches below untreated wood siding or sill plate..... UBC 2306.8
- ☐ Skips more than 1 inch vertical to 2 inch horizontal retained..... UBC 3301.1
- ☐ Engineering plan & permit obtained for retaining walls 6 feet high measured from the lower to upper grade..... PPRBC 16-3-101 & 16-3-102

## ● BUILDING FINAL — EXTERIOR (Continued)

- ☐ House is protected against weather..... UBC 1402.1
- ☐ Egress window wells are minimum 9 square feet with minimum dimension of 36 inches. If vertical well depth more than 44 inches, ladder is permanently installed..... UBC 310.4
- ☐ Light and ventilation window wells are equal in area to the portion of the window below grade and extend a minimum 16 inches from foundation wall..... PPRBC 16-2-103(A),AJ
- ☐ Overhangs above windows required for light and ventilation are minimum 18 inches above the top of the window well..... PPRBC 16-2-103(A),AJ
- ☐ Overhangs above windows required for egress are minimum 24 inches above top of window well..... PPRBC 16-2-103.1
- ☐ Front and other entry landings are minimum 36 inches in direction of travel, not lower than 6 inches from floor level..... PPRBC 1003.3.16-7
- ☐ Deck landings that serve patio, deck or exterior balcony are minimum 18 inches in direction of travel..... PPRBC 16-2-103(A)

### Deck and porch requirements including:

- ☐ Post, beams, joist, ledger attachment..... UBC 509
- ☐ Guards on deck 36 inches above grade..... UBC 509
- ☐ Guardrail balusters spacing..... UBC 1003.3.3.2
- ☐ Stairs maximum 36 inches wide..... UBC 1003.3.3.3
- ☐ Stair treads and nosings..... UBC 1003.3.3.6
- ☐ Handrail height full length of stairs..... UBC 1003.3.3.6
- ☐ Handrail grip width and projection..... PPRBC 16-2-103.2

### Deck, porch or patio roof covering (if applicable):

- ☐ If located in Colorado Springs Historic Overlay Zone, roofing material complies..... PPRBC 16-2-103(A)
- ☐ Roof ventilation..... UBC 1505.3
- ☐ Restrictions on 3-tab shingle installation..... PPRBC 16-2-103(A)

## ● BUILDING FINAL — INTERIOR

- ☐ Safety glazing installed at hazardous locations..... UBC 2406.4
- ☐ Crawl space ventilation..... UBC 2306.7
- ☐ Smoke detectors installed..... UBC 310.9.1.3 & 4
- ☐ Minimum landing or floor at top and bottom of stairs..... UBC 1003.3.6
- ☐ Stairway headroom clearance..... UBC 1003.3.4
- ☐ Stairway minimum 36-inch width..... UBC 1003.3.3.2
- ☐ Stair treads and stair nosings..... UBC 1003.3.3.3
- ☐ Handrails when 4 or more stair risers..... UBC 1003.3.3.6
- ☐ Handrail placement and extension..... UBC 1003.3.3.6
- ☐ Handrail grip..... PPRBC 16-2-103.2
- ☐ Hallways meet minimum 36-inch width..... UBC 1004.3.3.2
- ☐ Ceiling height in habitable areas and rooms..... UBC 310.6.1
- ☐ Ceiling height in basement..... PPRBC 16-2-103(N)
- ☐ Soffit width in basement..... PPRBC 16-2-103(N)
- ☐ Bathroom ventilation..... UBC 1203.3
- ☐ Shower wall tile or nonabsorbent material..... UBC 807
- ☐ Windows percentage requirements of natural light and ventilation..... PPRBC 16-2-103(A) & (A)
- ☐ Sleeping room window requirements for dimension and opening for escape or rescue..... UBC 310.4
- ☐ Entry door dead bolts & interlock requirements..... UBC 1003.3.3.8
- ☐ Enclosed stairs that can be used for storage meet fire-rated drywall and ceiling requirements..... UBC 1003.3.3.9
- ☐ Fire-rated drywall between house & garage..... UBC 302.4
- ☐ Fire-rated door requirements at the 1 hour separation between house & garage..... PPRBC 16-2-103(A)
- ☐ Insulation certificate posted in garage..... UBC 302.4
- ☐ Wood-burning or factory-built fireplace meets hearth extension and clearance to combustibles requirements..... UBC Chapter 31
- ☐ Laundry chute and dumbwaiter requirements for shaft lining and openings (if either installed)..... UBC 711.6

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# RESIDENTIAL BUILDING INSPECTIONS

## ● WALLS

- ☐ Size, height and spacing of wood studs..... UBC 2308; 2320.11.3 & PPRBC Table 23-1-R-3
- ☐ Bearing and exterior wall studs capped with double top plate. End joints in the double top plates offset by minimum 48 inches..... UBC 2320.11.2
- ☐ Studs have full bearing on a plate or sill not less than 2 inches in thickness and width equal to wall studs..... UBC 2320.11.2
- ☐ Sills bolted to the foundation with anchor bolts..... UBC 2320.11.3 & UBC 1606.6
- ☐ Foundation plates and sills stamped treated wood or foundation-treated wood..... UBC 2320.4; 1606.5
- ☐ Exterior wall wind bracing installed. If 1-ply, Plyform or fiberboard sheathing is used for bracing, a separate racking inspection must be requested..... UBC 2320.11.3; 2315.6 & Table 23-1-J
- ☐ Headers sized per the approved plans and contain the correct number of bracers and king studs..... UBC 2320.11.5
- ☐ Exterior openings provide the proper amount of natural light and ventilation..... UBC 1203 & PPRBC 16-2-103 AD, AF
- ☐ All sleeping rooms have a window that meets requirements for escape or rescue. (Minimum net opening height 24 inches, width 20 inches, area of 4.5 square feet and finished sill height no more than 44 inches above floor)..... UBC 310.4 & PPRBC 16-2-103 J
- ☐ Notched or cut studs spaced. (Maximum 25 % notch for exterior or bearing studs, and 40 % notch for non-bearing studs)..... UBC 2320.11.8 & PPRBC 16-2-103 BG
- ☐ Studs with bored holes repaired. (Maximum 40 % for bearing studs; 60 % for non-bearing studs)..... UBC 2320.11.7 & PPRBC 16-2-103 BG
- ☐ Notched or cut top plates repaired..... UBC 2320.11.7
- ☐ Solid blocking or plywood sheathing used to brace cripple walls have studs height of 14 inches or less... UBC 2320.11.5 & Table 23-1V-C-2
- ☐ Unless engineering provided, there are no more than two (2) foundation plates including the sill plate..... PPRBC 16-2-103 BE
- ☐ Inspection of "finished" walls on basement slab, if required by soils letter from soils engineer
- ☐ Each wood column or post exposed to weather bear on a 1 inch metal pedestal. (Exception: Use of approved decay resistant natural or treated wood).... UBC 2306.5
- ☐ Squash blocks, solid blocking or gung studs installed to transfer concentrated loads down to foundation... UBC 1605.2
- ☐ Approved connectors in post and beam construction to prevent uplift and lateral displacement..... UBC 2306.5

## ● FLOORS

- ☐ Engineering floor joist system is installed according to approved plan and manufacturer's guidelines..... UBC 2309
- ☐ Size, span and spacing of joists and beams..... UBC 2320.8.1
- ☐ Joist supported on ends or solid blocked..... UBC 2320.8.3
- ☐ Notched, cut or bored holes in joists are repaired... UBC 2320.8.3
- ☐ Joists framed from opposite sides overlap each other by a minimum of 3 inches..... UBC 2320.8.3
- ☐ Joists have minimum of 1 1/2 inch bearing on wood or 1 inch on concrete..... UBC 2320.8.2
- ☐ Ends of beams have minimum 3 inch bearing on concrete or masonry..... UBC 2320.7
- ☐ Crawlspace access minimum 18 inches by 24 inches..... UBC 2308.3
- ☐ Crawl space joists minimum 18 inch clearance above earth, wood beams minimum 12-inch clearance..... UBC 2306.3
- ☐ Crawl space areas are ventilated 1 square foot for every 150 square feet of area..... UBC 2308.7

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## ● FLOORS (Continued)

- ☐ If cantilevered floor joist system is used, the rim joist is adequate for deck ledger attachment.
  - ☐ Living area over garage, joists (including framing for dropped soffits) spaced at least 36 inches on center, maintain 1 hour fire resistive occupancy separation.... UBC 302.4, Table 3-18
  - ☐ Solid 2X wood blocking behind overhead garage door ceiling brackets to maintain 1 hour fire resistance..... UBC 302.4, Table 3-18
  - ☐ Size and thickness of subfloor, and proper nailing..... UBC 2312, Table 23-11-B-1
- ## ● MISCELLANEOUS
- ☐ Fire blocking installed..... UBC 708.2
  - ☐ Draft stopping installed in concealed space of a floor ceiling assembly that exceeds 1000 square feet..... UBC 109.3.1.1.1
  - ☐ Minimum finished ceiling heights:  
7 1/2 feet in habitable spaces; 7 feet in kitchens, halls, bathrooms, toilet compartments; 6 feet 8 inches in basements under laced-down beams, pipes & ducts.... UBC 310.5.1.3 & PPRBC 16-2-103.19
  - ☐ Soffit width in basement..... PPRBC 16-2-103.14
  - ☐ Finished gateway head clearance..... UBC 1003.3.3.4
  - ☐ Finished stairway minimum 36-inch width..... UBC 1003.3.3.2
  - ☐ Minimum 3 feet by 2 feet landing or floor for stairways..... UBC 1003.3.5
  - ☐ Rise of steps, after floor covering installed..... UBC 1003.3.3.3
  - ☐ Stair treads, after floor covering installed..... UBC 1003.3.3.3
  - ☐ Garage and basement slab
  - ☐ Telegraphs and columns bear on the center of concrete pads or piers. Tops and bottoms of teleposts/columns are secured. (Check manufacturer's instructions)..... UBC 1605.2
  - ☐ Smoke detectors installed and placed properly..... UBC 310.9.1.4
  - ☐ Enclosed stairways 2X framing members spaced to maintain 1 hour fire resistive construction..... UBC 1003.3.3.9

## ● ROOFING -- ASPHALT

**Note:** Read the wrapper on asphalt products for further information about installation.

- ☐ Roof has minimum 4:12 pitch..... UBC Table 15-B-1
- ☐ Underlayment is Type 15 felt..... UBC Table 15-B-1
- ☐ Self-sealing shingles (3-tab). Roof pitch between 2:12 and 4:12, underlayment of 2 layers of Type 15 felt..... UBC Table 15-B-3
- ☐ 3-tab shingle installation restrictions..... PPRBC 16-2-103.CA
- ☐ Minimum of 4 corrosion resistant fasteners of the manufacturer specifications of more than 4 fasteners.... UBC Table 15-B-1
- ☐ Nails are minimum 12 gage with 3/8 inch head. Staples are minimum 16 gage, 1 1/4 inch crown width..... UBC Table 15-B-1
- ☐ Valley flashing has 36-inch wide underlayment of Type 15 felt running the full length of valley. Flashing is 28 galvanized steel gage and extends at least 8 inches from center line each way. Sections of flashing overlap at least 4 inches. (Or valley has woven asphalt shingles). UBC Table 15-B-1
- ☐ Other flashing is minimum 26 galvanized steel gage.... UBC Table 15-B-1
- ☐ Ridge cap exposed a maximum 5 1/2 inch unless otherwise specified by manufacturer..... PPRBC 16-2-103. AD
- ☐ No exposed nails other than ridge cap and rake of roof... PPRBC 16-2-103. AG

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### CITY OF COLORADO SPRINGS ROOFING REQUIREMENT

*Class A rated roofing materials are required for new and replacement roofs, wood shake roof products are prohibited with the exception of replacement shakes that total no greater than 25 percent of the roof.*

#### ENERGY CODE

*The 2000 edition of the International Energy Conservation Code, as amended by PPRBC, was adopted by the city of Colorado Springs. Permits issued on or after Oct. 22, 2003 must follow the IECC provisions.*