



Town of Berthoud  
Planning and Building Department  
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SAFEbuilt®

Inspection Line: 970-305-3161 - ext. 1

## Roofing Regulations

I-CODES: 2024

NEC: 2023

IECC: 2024

**Building Permits shall be posted on house prior to starting work.**

The Town of Berthoud has adopted the 2024 International Residential Code – Chapter 9. All contents of this handout are substantiated in this code. For personal verification of related code requirements, go to [iccsafe.org](http://iccsafe.org)

**Roofing Contractor:** \$100,000.00 combined single limit liability insurance required. Certificate of insurance shall be submitted at time of application. The certificate shall identify the limits of the insurance, policy number, name of insurance company, effective date, and expiration of policy.

\*\*\*Repair or replacement of less than 1 square of shingles does not require a permit.

### Design Criteria:

Table R301.2(1)

Climatic and Geographic Design Criteria											
Ground Snow Load	Wind Design		Seismic Design Category	Subject to Damage From			Winter Design Temp	Ice Barrier Underlayment Required	Flood Hazard	Air Freezing Index	Mean Annual Temp
	Speed (mph)	Topographic Effects		Wintering	Frost Line Depth	Termite					
35 psf	115-140 Special Wind Region	Yes	B	Severe	30 in	Slight to Moderate	1	Yes	Per Town Code Regs	1000	45°F

*IBC Section 1609.3 (Basic Design Wind Speed) is amended to read as follows The basic design wind speed, V, in mph, for the determination of site wind loads shall comply with the Colorado Front Range Gust Map – ASCE 7-10 Compatible, published by the Structural Engineers Association of Colorado (dated November 18, 2013) or the Larimer County Basic Design Wind Speed Map*

*\*Ice Barrier IS REQUIRED per section R905.1.2. Drip Edge per section R905.2.8.5*

**Tear-off:** All roofing material shall be removed prior to new application (except one (1) layer of asphalt shingles is allowed to have an additional layer of asphalt shingles applied).

**Underlayment:** Roofs with 4:12 and greater slopes shall be minimum 1-layer. 2:12 to 4:12 slope shall be 2-layer. Less than 2:12 slope requires modified bitumen. Low slope patio covers, and accessory buildings require modified bitumen if dimensional shingles are used to match shingles on principle building.

Plank deck underlayment is allowed if spacing does not exceed 3/8". Replace damaged or questionable roof sheathing.

**Roof covering:** Dimensional shingles. 3-tab shingle are NOT allowed. Replace damaged roof jacks, vents and flashing. Add roof vents per R806 or where needed case by case. Roof recover not allowed where the existing roof has two or more applications of any type of roof covering. (R908.3.1.1)

**\*Impact Resistance Asphalt Shingles required per R905.2.4 (Amended):** Asphalt shingles shall be Class 4 impact resistant, tested in accordance with UL2218, and installed in accordance with the manufacturer's installation instructions.

**Fasteners:** Per manufacturer's installation instructions and ASTM F 1667 to meet 140 Ultimate Wind Exposure C.

**Inspections:** A mid-roof inspection is required for commercial flat roof assemblies and for roof tile. All shingles are expected to lay flat. Permit Card must be available for inspector. **Contractor is required to provide a secured ladder for the inspector** per IRC 109.3 and IBC 110.5.

Tile roofing guideline was put together in collaboration and advise form JBA Consulting LLC

- Seal all shiners, i.e.: roof jacks, roof vents and ridge caps.
- PRIOR to calling for inspections clean up all debris in yard, roof and clean out gutters/downspouts.
- Please respect the citizens of the Town of Berthoud and their property.
- **Mid-Roof Inspection required for Tile Roof Assemblies.**

### **MINIMUM REQUIREMENTS FOR ROOF TILE SYSTEMS:**

*“New Construction & Reroofing”*

- R903.1 General: Roof Tile assemblies shall be designed and installed in accordance with this code and approved manufacturer's instructions. Refer to Concrete and Clay Roof Tile Installation Manual / Uniform ES ER 2015
- **Battens:** Elevated batten system or approved counter batten systems are required. Batten fastened at 12" O.C. with one 8d corrosive resistant nail or two No. 16 gauge corrosive resistant staple, 7/16" crown by 2.0" length.
- **Roof Tile Fastening:** Two corrosive resistant nails, 5/16" head, 11-gauge diameter and sufficient length to penetrate 3/4" into batten or one #8 corrosive resistant screw in upper right nail-hole. Nail or screw shall not penetrate underlayment.
- **Wind Clip:** Install one wind clip per roof tile at eave-line at lower 1/3 of roof tile underlap near eave-line.
- **Penetration Flashing:** Double flashing is required. Install base flashing into underlayment and top flashing into roof tile.
- **Ridge/Hip Trim Tiles:** Trim fastened with on fastener with minimum 3/4' penetration into properly attached ridge/hip board. Apply dab of approved adhesive between trim overlap.
- **Rake Trim Tiles:** Rakes fastened with two fasteners with minimum 3/4" penetration into gable. Apply dab of approved adhesive between rake and field tile overlap.
- **Weather Blocking:** Install approved UV resistive weather blocking at all openings at hips, ridges, headwalls, chimneys, and skylights.
- **Roof Ventilation:** Roof ventilation is required and shall be compliant with 2021 IRC / SECTION 806.1

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