



CITY OF ARVADA

Roofing Application Requirements

(Contractors - apply for permits online at www.arvadapermits.org)

Commercial Roofing IBC-2015

- Positive Roof Drainage -It is a requirement that all roofs must have enough pitch to ensure drainage of the roof within 48 hours after precipitation.
- All commercial roofs must be installed in accordance with Chapter 15 of the 2015 International Building Code as amended and in accordance with the manufacture's installation requirements.
- All commercial roofing shall be installed as per manufacture installations requirements for the wind speed at the area of installation.
- Mid roof inspections required for low slope, commercial roofs and specialty roofs.
- ROOFING final inspections are required for all Re-Roofing permits.
- Energy Code Upgrades are only required when roofing is torn down to the original decking.

Residential Roofing / Re-Roofing IRC-2015

General requirements:

- Ice Barrier (Ice and Water Shield) not required. See attached letter.
- Any roof that is installed for residential use in the City of Arvada must meet the requirements of Chapter 9 International Residential Code including local amendments plan and in accordance with the manufacturer's installation requirements.
- The installation of a new roof covering over an existing roof covering shall be permitted per section R908.3.1 of the 2015 IRC.
- Mid-roof inspections are required for low slope, tile, special roofs or special conditions.
- ROOFING final inspections are required for all Re-Roofing permits.
- Energy Code Upgrades are required when; roofs without insulation in the cavity and where the sheathing is exposed during reroofing shall be insulated either above (R30ci) or below (R38 flat/R49 attic) the sheathing.

3-Tab, Laminate and Dimensional

- High wind nails per manufactures specs, but no less than 4 nails per shingle. (R905.2.6)
- 2/12 slope minimum roof pitch for all asphalt strip shingles.
- Slopes 2/12 to 4/12 require double underlayment.
- 90 pound roofing is allowed to 1/12 pitch but must be in accordance with manufacturer's requirements- most stop at 2/12.
- Mansard and steep slope roofs require special fastening as per manufacturer.
- T-Lock roofing shingles are no longer allowed, but can be repaired.
- Flashing for asphalt shingles shall comply with section R905.2.8 and manufacturer instructions.
 - Base and cap flashing, valleys, sidewall flashing, other flashing and drip edge
- Underlayment shall be installed over the drip edge along eaves and under the rake metal along gable ends.
- Exposure of shingles per manufacturer's installation instructions.
- *Valleys - Metal open valley* as per Table R905.2.8.2 - *asphalt open valley* use 2 layers 90 lbs. *closed valley* - bottom Layer 1 - 36" 90 lbs. shingles over top.

Tile

- All tile roofs are required to have horizontal batten system lifted off the roof by vertical battens, pads or per manufactures installation requirements.
- High wind installation as specified by the manufacturer
- Mid-roof inspection required with all battens, laterals and metal applied and roof must not be loaded.

Wind Speed areas

- East of Highway 93 – 136 Vult
- West of Highway 93 – 142 Vult
- All roofing products are required to meet the test ASTM 3161 Class F/110 mph. ASTM 3161 Class F is not associated with the warranty from the shingle manufacturer-three tabs do meet this test as well as laminate or dimensional shingles.

Attic Ventilation – Residential

Re-Roofing Existing Construction:

- Venting is not inspected on re-roof projects if the venting meets the building code in effect at the time of original construction.
- Optional: Venting can be added to meet manufacturer's warranty requirements, as per manufacture's installation instructions.

Other Requirements and Notes

- *Evaporative coolers* – Shall be flashed per R905. (base and cap, sidewall and other flashing)
- *Spaced sheathing* - Spaced sheathing, with spaces not greater than 1/2" can be reused if it is still in good structural shape. If the gaps are greater than 1/2" in a few areas, repairs may be able to be made. If the gaps are greater than 1/2" on the majority of the roof the spaced sheathing should be removed and solid sheathing shall be installed. If a request is made to install new solid sheathing over the existing spaced sheathing- the sheathing must be nailed in accordance with nailing schedule found in the 2015 IRC
- *Crickets* are required for all chimneys and saddles (ridge side) 30" or wider per R903.2.2.
- *Roof overhang into gutter* – 3/8 to 1 inch.
- *Metal Flashing* - Replace all metal flashing when rusted, damaged or deteriorated. (R908.5 -R908.6) (roof jack, step and counter except B-vent, elect mast.)
- *Ladder for inspector* -Contractors and Homeowners do not need to provide a ladder for eave heights less than 12'. Due to the volume of work after hail storms and severe weather, the inspection may not be made for several days after it is requested. The inspection status is available on www.arvadapermits.org.
- *Roof repairs* – the replacement of shingles here and there is ok and no permit required. If any area exceeds 100 sq. ft., a permit is required. We do not require that the entire roof be replaced if only one side or area is damaged only that specific area needs to be installed per adopted code.
- If the furnace flue is damaged or rusted it will need to be replaced by a HVAC contractor. Damaged furnace flu caps can be replaced by the roofing contractor. The furnace flue cap shall be installed correctly so it will allow the escape of dangerous gases from the home.

This information sheet is not all inclusive.

Refer to the 2015 IBC and 2015 IRC and local amendments.



BUILDING INSPECTION SERVICES
FACSIMILE: 720-898-7603 ▲ TDD: 720-898-7869
PHONE: 720-898-7620

September 1, 2017

Re: Ice and Water Shield

To Whom it may Concern;

While the City of Arvada does not require the additional underlayment requirements to protect against ice dams as a general rule, if the manufacturer requires additional measures then the City of Arvada will require it as detailed in the 2015 International Residential Code (IRC).

R905.1 Roof covering application. Roof coverings shall be applied in accordance with the applicable provisions of this section and the **manufacturer's installation instructions**. Unless otherwise specified in this section, roof coverings shall be installed to resist the component and cladding loads specified in Table R301.2(2), adjusted for height and exposure in accordance with Table R301.2(3).

In addition, the City of Arvada is not an area with a history of wide spread ice dams, therefore, we do not make it a requirement for all roof edges however, we leave it up to the expert opinion of roofing contractors to determine if there has been a history of ice damming in a specific area then take the appropriate steps to protect that area when reroofing.

Sincerely,

A handwritten signature in blue ink that reads 'Brita Van Horne'.

Brita Van Horne
Chief Building Official