



Single Family Residential Re-Roofing

Purpose of Guide

The purpose of this guide is to address frequently asked questions regarding re-roofing and to list the typical inspections and installation requirements for common types of roofing materials.

Things to be Aware of before Starting

- If there is a Homeowners Association and a change in roof covering material is planned, it is advisable to contact the Homeowners Association.
- For a 3-tab shingle, further documentation is required. Shingles must comply with ASTM D 7158 or ASTM D 3161.
- The basic wind speed for the City of Centennial is 90 miles per hour for classification of asphalt roof shingles.

Frequently Asked Questions

1. Is a permit required to re-roof my house?

Yes.

2. May I, as a homeowner, do the re-roof myself?

Yes.

3. Will my roof be inspected?

Yes, the permit holder must call for inspection(s) required by the City of Centennial.

4. How many layers of roofing are allowed?

No more than two layers are permitted however installations must also comply with the manufacturer's installation instructions. In addition, new roof coverings shall not be installed without first removing all existing layers of roof covering where the existing roof covering is water-soaked or has deteriorated to the point that it is not adequate as a base for additional roofing.

5. May nail guns be used?

If it is properly adjusted and is used correctly, a nail gun is allowed. Refer to requirements under "fasteners".

6. What should be done with the existing roof jacks and vents?

Roof jacks/vents must be raised to the level of the new roof and replaced if they are in poor condition, badly rusted or otherwise deteriorated.

7. What if my roof slope is less than 4:12?

Contact the Building Division to learn about the requirements for low slope applications or refer to requirements under "underlayment".

8. Is an ice and water shield required?

Ice and water shield is not required unless required by the manufacturer.

9. Is drip edge metal required?

Yes. Drip edge metal shall be provided at all eave and rake edges of shingle roofs.

Single Family Residential Re-Roofing

10. Is roof ventilation required?

Yes. Roof ventilation is required per IRC R806.

Roofing Material and Preparation Checklist

Roof Sheathing Preparation (For Complete Tear Offs)

1. The roof sheathing must provide a rigid surface.
2. Repair or replace all boards or sheathing that are warped, cracked or delaminated between supports.

Underlayment (For Complete Tear Offs)

1. Apply new; minimum 15# asphalt saturated felt underlayment over a DRY deck.
2. For roofs with slopes 4:12 or greater, one layer of underlayment is required. For roofs with slopes between 2:12 and 4:12, 19" laps of underlayment are required, starting with a 19" strip, then full sheets.
3. For roofs with slopes of less than 2:12, contact the Building Division.

Fasteners (For All Roofs)

1. Fasteners must be long enough to penetrate through the total thickness of the roofing and a minimum of $\frac{3}{4}$ " into the decking material. This means that if the roof decking material is $\frac{1}{2}$ " thick, the fastener must extend at least $\frac{1}{4}$ " through the decking material.
2. For open soffits, contact the Building Division.
3. Nails must not be over or under driven, the head must be flush with the shingle surface and located per the package instructions. Nails must be driven in, perpendicular to the roof surface.

Shake Shingles

1. Felt interlace on shakes should be 18" type 30, installed at twice the weather exposure of the material (example: 24" shakes with 10" exposure, felt is applied at 20" from the butt).
2. Install type 30 felt under hip and ridge.
3. Replace any damaged or rusted metal.
4. Starter course at eaves shall be doubled.
5. Minimum shake width of 4" required.
6. Offset gaps from course to course with a minimum $1\frac{1}{2}$ " side lap.
7. Provide a $\frac{1}{8}$ " to $\frac{3}{8}$ " gap for shakes.
8. Step flashing must be interfaced at roof to sidewall junctions.
9. Raise flashing at jack vents and sidewall junctions.
10. For hip and ridge caps double the first cap and alternate the overlaps. 10" exposure for 24" shakes and $7\frac{1}{2}$ " for 18".
11. A minimum $1\frac{1}{2}$ " edge and 1" eave overhang is required. Two fasteners per shake/shingle no more than 1" in from edge, no more than 2" up from exposure line.
12. Shakes/Shingles in valleys must be angle cut.
13. Minimum Deck slope required = 3:12

Single Family Residential Re-Roofing

3" Tab of Laminate Shingles

1. Documentation is required in demonstrating how shingles meet the wind requirements.
2. A cricket or saddle should be installed on the ridge side of any chimney greater than 30" wide.
3. A starter course with factory adhesive at the eave line or a manufactured starter with a tar sealant is required.
4. Fasten with 6 nails per strip shingle or per manufacturers installation instructions to meet a 90 mph wind speed requirement. Do not nail into the factory applied adhesive. Locate fasteners per manufacturer's instructions.
5. A 5" maximum exposure is allowed.
6. There should be no tab offset joints closer than 4" between adjacent rows.
7. A maximum 5" exposure for hip and ridge caps is allowed.
8. Raise all roof jacks and vents so that shingles are underneath the lower edge of the flange – shingle over the top and sides at least past the point of roof penetration. Fasten down the lower edge.
9. At roof to vertical junctions, shingle under the flashing.
10. At sidewall junctions, interlace with step flashing.
11. An edge and eave overhang of $\frac{3}{8}$ " – $\frac{1}{2}$ " is required.
12. Closed, woven or open valleys must be properly installed.
13. Replace any damaged or rusted metal.
14. Nail heads must be flush with shingle surface not penetrating the shingles or be above shingle surface.

Tile, Metal & Special Roofs

1. An engineered analysis of the roof structure is required if the roofing material type exceeds 7.5 pounds per square foot.
2. These roofs must be applied as per manufacturer's specifications.
3. A mid roof inspection IS required for concrete, tile, shake shingle, metal and flat roofs.
4. A complete copy of the manufacturer's specifications and installation instructions must be on site and available for the installers and the building inspector.

We hope you find the information in this guide useful. If you have any questions, please feel free to contact us.