

### **RESIDENTIAL REROOF**

Building permit information for one- or two-family dwellings and townhomes.

#### **Permit Fees**

- Reroof only = \$61.00
- Reroof & reside = \$76.00
- Reroof & replacement windows and/or doors = \$121.00
- Reroof, reside, & replacement windows and/or doors = \$136.00
  - All fees include the \$1.00 Minnesota State Surcharge.
  - **Contractors must add an additional \$5.00 license check fee to each permit.**
  - Applicants must be licensed as a residential roofer, residential contractor, or homeowner.

#### **Inspection Information**

- It is the responsibility of the person doing the work to schedule ALL the required inspections.
  - Call 320-255-7238, 8:00 a.m. to 4:30 p.m. to arrange an inspection at least one business day in advance.
  - Inspection appointments are scheduled on a first-come first-serve basis, and there is no guarantee that you can get an inspection within 24 hours of calling.
  - Inspections are available from 9:00 a.m. to 11:30 a.m. and 1:30 p.m. to 3:30 p.m. Monday through Friday.
  - Due to OSHA requirements, the inspectors are NOT allowed to physically go on the roof unless OSHA safety requirements are met.
  - Permits are considered expired when work has been suspended or abandoned for over 6 months. A building inspection is required at least every 6 months to allow the Building Safety Department to verify that work is progressing. If an inspection is not completed and the 6 month time line has lapsed, the permit will be considered to be expired, closed without the required inspections approved, and the permit will need to be re-opened to finish the project.
    - When needed, a one-time extension may be requested in writing.

#### **Required Inspections**

1. **Tear-off inspection.** The tear-off inspection is required when the existing shingles are torn off and a portion of the ice/water barrier is installed.
  - The tear-off inspection is only required if you are removing the existing shingles, if you are overlaying the shingles no tear-off inspection is needed.
  - If your project is being done in sections, call for your tear-off inspection for the first section and the inspector will determine at that time if additional inspections are required for each section.
  - Pictures are allowed in lieu of a tear-off inspection. Pictures must include the deck (with repairs if needed), flashing, ice and water, and some identifying features of the home, including house numbers, you are reroofing. Pictures must be available either:
    - Onsite, someone must be present at the final inspection with the pictures. Pictures can either printed or on a phone, camera, computer, etc.
    - Emailed to: [building.scheduling@ci.stcloud.mn.us](mailto:building.scheduling@ci.stcloud.mn.us) **PRIOR** to scheduling the final inspection.
2. **Final inspection.** The final inspection is required when the roofing project is completed.

## Roof Pitch

- The angle at which a roof is constructed is called the pitch. Pitch is normally expressed as a ratio (2/12, 3/12, etc.). A 4/12-pitch roof has 4" vertical for every 12" horizontal.

## Tear-off or Overlay of Existing Roofing

(R908.3.1.1)

- Tear-off of the existing roof coverings is required where any of the following occur:
  - The existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
  - The existing roof covering is slate, clay, cement or asbestos-cement tile.
  - Where the existing roof has two or more applications of any type of roof covering.
    - Exceptions:
      - Tear-off of existing roof covering is not required when the new roof covering is a complete and separate roofing systems, such as standing-seam metal roof systems, that are designed to transmit the roof loads directly to the building's structural system and that do not rely on existing roofs and roof coverings for support.

## Roof Decking or Sheathing

(R803)

- Roof decking or sheathing is the actual wood or wood product that is attached to the roof trusses or rafters.
- Roof decking or sheathing must be checked prior to reroofing and replaced if rotten/decayed or unsound.
  - Maximum spans of replacement sheathing are per manufacturer's span rating.
- Gaps in the existing roof decking or sheathing must be addressed (overlaid, filled in, double layer of underlayment, etc.) per manufacturers requirements. If no specific requirements are stated, gaps over 1/4" must be overlaid a minimum 3/8" sheathing overlay or infilled with wood.

## HVAC Intakes and/or Vents

- Covers for HVAC intakes and/or vents on the roof must be replaced with the same type of cover that was removed (damper/flapper, screened, etc.).
  - Installing the wrong type of cover can result in carbon monoxide building up within the house.

## Exhaust Vents

- Care should be taken to ensure that kitchen and bathroom exhaust fan pipes are connected to the appropriate dampered exhaust roof vent with no openings into the attic that would allow exhaust air back into the attic space. The exhaust vents should be installed on the roof the same as other attic vents and other vent pipe flashing.
- When reroofing around furnace flues, take care to not dislodge the joints of the flue pipe within the attic or within interior chases this pipe might pass through. If in doubt, consult a licensed heating contractor.

## Fasteners

(R905, multiple subsections)

- Asphalt shingles
  - Fasteners shall be galvanized steel, stainless steel, aluminum or copper roofing nails.
    - Minimum 12-gage shank with a minimum 3/8" diameter head.
    - Length to penetrate through the roofing materials and into the roof sheathing a minimum of 3/4".
      - Where the sheathing is less than 3/4" thick, the fasteners shall penetrate through the sheathing.
  - Minimum number of fasteners required by the manufacturer.
    - For normal applications (Up to 21/12 pitch) a minimum of 4 fasteners per strip shingle or 2 fasteners per individual shingle is required.
    - For roof pitches exceeding 21/12 special methods of fastening are required per manufacturer's installation instructions.
  - Shingles must meet 110 maximum ultimate design wind speed, **3-tab shingles typically do not meet this**, if you are using 3-tab shingles please contact the City prior to installation for information/approval. Shingles must meet ASTM D7158 D, G or H classification, or ASTM D3161 A, D or F classification.

## Underlayment

(R905.1.1, table R905.1.1(2), multiple subsections)

- 2/12 to less than 4/12 roof pitch
  - Apply a 19" strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36" wide sheets of underlayment, overlapping successive sheets 19". End laps shall be 4" and shall be offset by 6'.
- 4/12 and over roof pitch
  - Apply 1 layer of underlayment felt parallel to and starting from the eave and lapped 2". End laps shall be 4" and shall be offset by 6'.

## Ice/Water Barrier

(R905.1.2, multiple subsections)

- Ice/water barrier is required on all roofs, except for a detached accessory structure with no conditioned floor area. Ice/water barrier is required to consist of at least two layers of underlayment cemented together or a self-adhering polymer modified bitumen sheet. The ice/water barrier shall be used in place of normal underlayment and extend from the lowest edge of all roof surfaces to a point at least 24 inches inside the exterior wall line of the building. On roofs with a slope equal to or greater than 8/12, the ice barrier shall also be applied not less than 36" measured along the roof slope from the eave edge of the building.
  - Because of overhangs & roof pitches typical roofs require at least two rows of ice/water barrier.
- Existing ice/water barrier that is adhered to the roof deck can remain with new ice/water barrier installed over the top.

## Roof Ventilation

(R806)

- If necessary, additional roof and soffit vents shall be installed to conform to the State Building Code.
  - Minimum net vent area is 1 square foot of vent for each 150 square feet of roof area (1/150) for roofs without proper soffit venting and/or a vapor retarder on the warm-in-winter side of the ceiling.
  - Minimum net vent area is 1 square foot of vent for each 300 square feet of roof area (1/300) for roofs with proper soffit venting and a Class I or II vapor retarder installed on the warm-in-winter side of the ceiling.
    - Proper soffit venting is at least 40% but not more than 50% of the required ventilation area provided in the upper portion (no more than 3 feet below the ridge or highest portion of the space) of the attic or rafter space, and the remainder of the required ventilation located in the soffit (eave or cornice).
  - Required ventilation openings shall open directly to the outside air and shall be protected to prevent the entry of birds, rodents, snakes and other similar creatures.

## Crickets and Saddles

(R903.2.2)

- A cricket or saddle shall be installed on the ridge side of any chimney or penetration more than 30 inches wide as measured perpendicular to the slope. Cricket or saddle coverings shall be sheet metal or the same material as the roof covering.
  - Exception: Unit skylights that are installed in accordance to the Minnesota Residential Code and flashed in accordance with the manufacturer's instructions are permitted to be installed without a cricket or saddle.

## Flashing

(R903.2 & R905.2.8)

- Any existing flashing that is rusted, damaged, or deteriorated shall be replaced.
- All flashing must be installed in accordance with the roofing manufacturer's installation instructions.
- Base flashing shall consist of one of the following:
  - Corrosion-resistant metal of a minimum nominal 0.019" thickness;
  - Mineral surface roll roofing weighing a minimum of 77 pounds per 100 square feet.
- Cap flashing shall consist of corrosion-resistant metal of a minimum nominal 0.019" thickness.
- Valley flashing (lining) shall conform one of the following:
  - Open valleys shall be a minimum 24" wide (extend 12" from the centerline each way) and consist of one of the following corrosion-resistant metals:
    - 0.0216" nominal thickness cold-rolled or lead-coated copper;

- 0.0162" nominal thickness high-yield or lead-coated high-yield copper;
- 0.024" thick aluminum;
- 28 gage stainless steel;
- 0.0179" thick galvanized steel or 26 gage (zinc coated G90) galvanized steel;
- 0.027" thick zinc alloy;
- 2 1/2 pound lead;
- 20 pound painted terne.
- Two plies of mineral surfaced roll roofing. The bottom layer shall be 18" and the top layer shall be a minimum 36".
- Closed valleys shall consist of one of the following:
  - One of the materials listed for open valleys;
  - One ply of smooth roll roofing complying with ASTM D 6380 a minimum of 36" wide;
  - Self-adhering polymer modified bitumen underlayment complying with ASTM D 1970 (ice & water barrier).
- Sidewall flashing shall direct water away from the vertical sidewall onto the roof and/or gutter, can be continuous or step flashing, and shall be a minimum 4" in height and 4" in width.
- Kick-out flashing/diverter
  - Is required when you are residing or simultaneously residing and reroofing at the same time, it is not required when only re-roofing.
  - Installed where the lower portion of a sloped roof steps within the plane of an intersecting wall cladding, in such a manner as to divert or kick out water away from the assembly.
  - A minimum of 2-1/2" long, corrosion-resistant with a minimum thickness of 0.019".
- Other flashing, such as flashing against a vertical front wall, soil stack, vent pipe and chimney flashing, shall be installed per the roofing manufacturer's installation instructions.

### Chimney Removal

(Chapter 8 MMC & Chapter 5 MFGC)

- When removing a chimney care must be taken to insure any flues that are being exposed meets the Minnesota Mechanical and Fuel Gas Code. When removing chimneys, or portions of chimneys, the remaining flues typically must be a Type B flue (Type A or L for oil-fueled appliances) for the **ENTIRE** run. Please contact the City Mechanical Inspector at 320-255-7233 with any questions.
  - If the flue needs to be replaced a separate heating permit is required.
- Chimneys that are partially removed, and no longer in use (no flues in the chimney) must be permanently sealed (at bottom and top) to prevent future use.

*The information in this handout is just an overview. See the 2020 Minnesota Residential Code for complete information. Additional information on flues can also be found in the 2020 Minnesota Mechanical (MMC) and Fuel Gas (MFGC) Code.*