Roofing Permit Requirements

City of
Columbia Heights
Community Development

1. **Building Permit Application:**
   A Building Permit is required for roof repair or a complete replacement. Complete and sign a building permit application form. Forms are available on our website.

   Permit Fees: Building Permit fees will be determined after the application is received and will be based on the valuation of the work or the number of squares being applied. A valuation per square will be used per state guidelines.

   Building Inspection Card: Must be posted on the construction site, preferably inside the front storm door for easy access by the Building Inspector.

The following requirements are for asphalt shingles used on residential roofs. This is not intended as a complete list of requirements. Please refer to Chapter 9 of the 2015 MN Residential Code. The shingle manufacturer's installation instructions should always be followed. Asphalt shingles shall not be installed on roofs with less than a 2:12 slope. See item number 5 for additional underlayment requirements for roofs under 4:21 pitch.

2. **New roof coverings shall not be installed without first removing the existing roof covering where any of the following conditions exist:**
   - **A. Existing roof is water soaked or deteriorated.**
   - **B. Existing roof covering is wood shake, slate, clay, cement or asbestos-cement tile.**
   - **C. Existing roof has 2 or more applications of any type of roof covering.**

3. **Damaged sheathing:** If damaged or rotted, the sheathing shall be replaced with new sheathing having a grade stamp and rated for exterior use. **If sheathing is replaced, take pictures of this also.**

4. **Ice and Water Barrier:** Photos are required of the Ice and Water barrier and can be forwarded to the Inspection Dept or taped on the door with the inspection card. All locations should be depicted in the photos. The Ice and Water Barrier is required on all heated structures, including porches, and attached garages. It is not required on unheated detached accessory structures. The Ice and Water Barrier is to be installed from the eave line to a minimum of twenty-four (24) inches inside the exterior wall. **The Ice barrier shall consist of two layers of felt cemented together or a self-adhering polymer modified bitumen sheet**.

5. **Underlayment**: In addition to ice protection, underlayment is required under all asphalt shingles and shall consist of a minimum of one layer of #15 felt or other approved products. **Underlayment for slopes under 4:12 shall consist of two layers of felt, lapped 19 inches horizontally.**

6. **Flashing:** All metal flashing shall be made from corrosion-resistant metal. Flashing is required at sidewalls, valleys, around pipes, stacks, and chimneys. Apply flashing in accordance with manufacturer's installation instructions. Ice protection material may be substituted for metal flashing in closed valleys (when shingles are woven through the valley).

7. If both roof and siding are done together, kick out flashing shall be installed where the lower portion of a sloped roof stops within the same plane of an intersection wall.

8 A cricket or a saddle shall be installed on the ridge side of any chimney or pentration more than 30 inches wide and shall be corrosion-resistent sheet metal or of the same material as the roof covering.

9. Roof vents shall be placed or added to provide attic ventilation. The area of the attic determines the required net free area. For a roof with soffit (eave) vents, divide the area of the attice by 300 to find the net free area of venting required. One half of this enting should be on the roof (near the ridge) and the other half in the soffit.

10. Approved roofing nails shall be used. Nails shall be of sufficient length for secure attachment.

INSPECTIONS: Installer may utilize photographs of the installation of the Ice and Water Barrier and sheathing in lieu of an inspection provided the photographs show the extent of each. Upon completion of the project call for inspection and post the Building Inspection Card with attached photos.

Inspections: Call (763) 706-3678 between 8:00 AM and 4:30 PM Monday through Friday to schedule the inspections needed for your project. Allow 2 to 3 days for scheduling.

SHEATHING

Roof sheathing shall be checked prior to re-roofing and repaired or replaced if rotted or unsound. Replacement sheathing shall conform to the requirements of the building code. Check manufacturer's installation instructions for sheathing/decking requirements.

ROOF PITCH

Asphalt shingles shall not be used on roofs with less than a 2:12 pitch (2" rise in 12" horizontal) and require special application procedures for pitches less than 4:12. Manufacturer's instructions on package must be followed.

FASTENERS

Asphalt shingles shall be fastened with not less than four nails or approved staples. Nails shall not be less than 12 gauge with 3/8-inch minimum diameter head. Staples shall not be less than 16 gauge with 15/16-inch crown width. Nails or staples shall be of sufficient length to penetrate through roofing material and at least ¾ inch driven so that it tightly bears against the shingle but does not cut the surface of the shingle. Crown shall be parallel to the long dimension of the shingle. Nails or staples must be installed in the location on each shingle per the manufacturer's instructions. Any crooked fasteners should be removed and replaced.

UNDERLAYMENT (See manufacturer's installation instructions)

A. For roof pitches from 2:12 to less than 4:12: Two layers of 15# felt applied shingle fashion. Starting with an 18-inch wide sheet and a 36-inch wide sheet over it at the eaves. Each subsequent sheet shall be lapped 19-inches horizontally.
B. For roof pitches 4:12 and over: One layer of 15# felt lapped two inches horizontally and four-inches vertically.

ICE DAM PROTECTION MEMBRANES

A. **For roof pitches of 2:12 to less than 4:12**: Same as for UNDERLAYMENT and additionally, an approved waterproofing underlayment shall be installed to no less than twenty-four (24)-inches inside the interior face of the exterior wall line. This product must be installed per the manufacturer's instructions.

B. **For roof pitches of 4:12 or greater:** Same as for UNDERLAYMENT and additionally, a manufactured ice-dam protection membrane or its code approved equivalent assembly must be installed per manufacturer's instructions including but not limited to: the membrane shall extend from over the metal or wood drip edge to a point not less than 24-inches measured horizontally inside the interior face of the exterior wall line. Typically, two rows (six feet) are required but more than two rows may be required depending on the size of the soffit overhang. The underlayments must extend to the outer edge at all facia boards.

VALLEY FLASHING

When existing flashing is no longer serviceable it shall be replaced. Valley flashing shall consist of not less than No.26 galvanized sheet gauge corrosion resistant metal. The metal shall extend at least 8-inches from the centerline each way. Sections of flashing shall have an end lap of not less than 4-inches. Alternately, the valley may consist of woven asphalt shingles or closed-cut style applied in accordance with the manufacturer's instructions

VALLEY UNDERLAYMENT

A 36-inch wide strip of 15# felt shall be centered in the valley on top of the underlayment required for the entire roof. For roof slopes of less than 7:12, an approved manufactured ice-dam protection membrane must be installed directly to the sheathing for the entire length of the valley.

OTHER FLASHING

All other flashing and roof vents shall be checked and if rusted or in bad condition shall be replaced. When replacing flashing of metal, it shall be of not less than No.26 gauge corrosion-resistant metal. Roof vents and other flashing must be installed according to manufacturer's instructions. Generally,

all require the bottom part of the vent to be placed above the shingles so that about half of the vent is above the lower shingles and half is below the upper most shingles. Any replacement of flashing at masonry chimneys must be properly cut in and re-tuckpointed or caulked with an approved product.

ROOF AND SOFFIT VENTS

If necessary, additional roof and soffit vents must be installed so that for every 300 square feet of attic area there is at least one-square foot of ventilation. 50% of the required area shall be in the soffit and the remaining 50% shall be in the upper one-third of the roof. If venting is only feasible in the roof the ratio is 1 square foot of ventilation for every 150 square foot of attic area.

EXHAUST VENTS

Care should be taken to insure 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 re-roofing 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. Also, verify you have a listed vent cap or remove the old one. If in doubt, consult a licensed heating contractor.

KICK-OUT FLASHING:

Kick-out flashing required at intersection of roof and wall line where an adjacent wall extends beyond the eave line.

REROOFING:

Recovering versus replacement: New roof covering s shall not be installed without first removing all existing layers of roof coverings where any of the following conditions exist:

1. Where 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.
2. Where the existing roof covering is wood shake, slate, clay, cement or asbestos-cement tile.
3. Where the existing roof has two or more applications of any type of roof covering.