SHAKOPEE

Asphalt Shingle Roofing

OVERLAY or TEAR-OFF?

The re-roofing of a structure having asphalt shingles may be accomplished by either adding an additional layer of asphalt shingles (up to one overlay is permitted over an original shingle roof) or completely removing the existing shingles, underlayment, flashing, etc. (tear-off) and installing the roof as if it were new construction.

To assist in making the decision whether to overlay or tear-off,,consider the following:

- Check the framing beneath. It must be adequate to carry the additional weight if new materials plus the weight of roofers and their equipment.
- Check the condition of the existing deck sheathing. It must be adequate for both support and anchorage for new roofing fasteners.
- Check the condition of the roofing surface. If it is warped, curled or so badly weathered that providing a level surface for the new material will be difficult, it should be removed.

SHEATHING

Roofsheathing shall be inspected by the Shakopee Building Department prior to re-roofing and rotted or unsound sheathing shall be repaired or replaced. Replacement sheathing shall conform to the requirements of the Building Code.

ROOF PITCH

Asphalt shingles shall not be used on roofs with a pitch less than a 2:12 pitch 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 per shingle. 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 minimum crown width. Nails or

staples shall be of sufficient length to penetrate through roofing material and at least ¾ inch into roof sheathing or through the thickness of the sheathing, whichever is less. Staple crown or nail head shall be 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 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 (New or tear-offs only)

- For roof pitches of 2:12 to less than 4:12:
  Two layers of 15# felt applied shingle fashion. Starting with anl 8-inch wide sheet and a 36-inch wide sheet over it at the eaves, each subsequent sheet shall be lapped 19-inches horizontally.

- For roof pitches of 4:12 and over:

  One layer of 15# felt lapped two inches horizontally and four-inches vertically.

ICE DAM PROTECTION MEMBRANES (New or tear-offs only)

- 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 a point no less than 24" inside the interior wall line. This product must be installed per the manufacturer's instructions.

- For roof pitches of 4:12 and over:
  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 edge to a point not less than 12-inches measured horizontally inside the 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 of all fascia boards.
  Ice Dam Protection Membranes are required on all roofs (garage roofs included)

VALLEY FLASIDNG

When existing flashing is no longer serviceable it shall be replaced. Valley flashing shall consist of not less than No. 28 galvanized sheet gauge corrosion resistant metal. The metal shall extend at least eight-inches from the center each way. Sections of flashing shall have an end lap of not less than four-inches. Alternately, the valley may consist of woven asphalt shingles or closed-cut style - applied in accordance with the manufacturer's instructions.

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 flashings 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 uppermost shingles. Any replacement of flashing at masonry chimneys must be properly cut in and re-tuck pointed or caulked with an approved product.

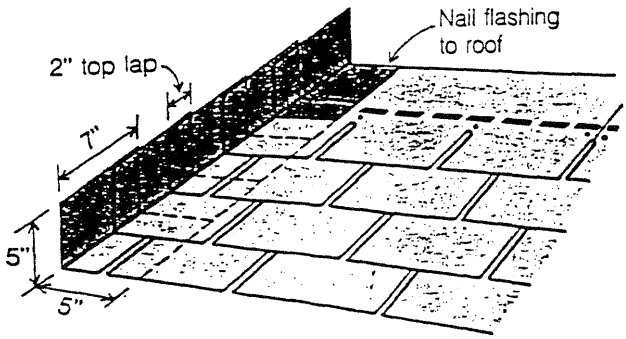
ROOF AND SOFFIT VENTS

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 in the roof with half of the ventilation in the soffit.

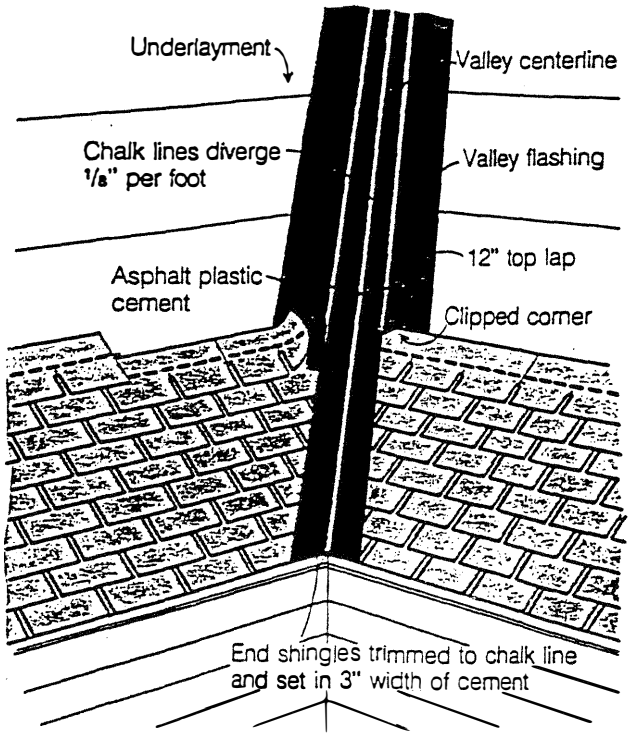
EXHAUST VENTS

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 flashings.

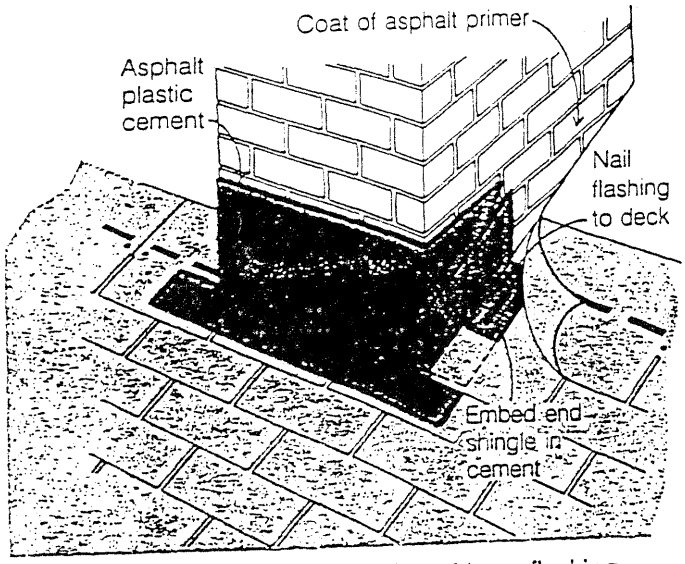
When re-roofing around furnace flues, take care to not dislodge the joints of the flue pipe within the attic or within the interior chases this pipe might pass through. If in doubt, consult a licensed heating contractor.



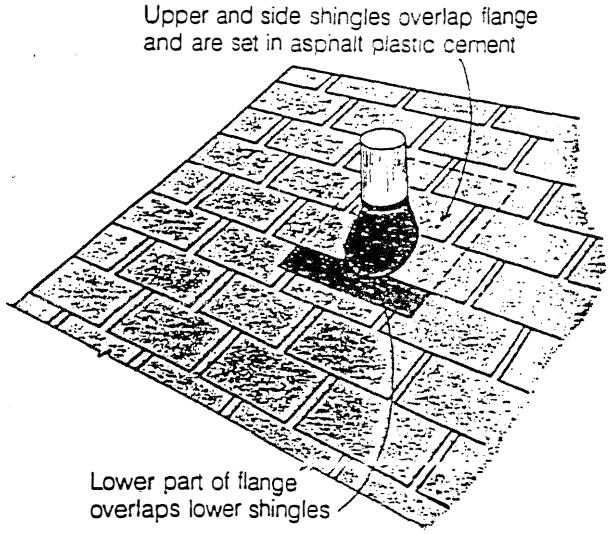
Application of step flashing



Application of shingles
in open valley



Application of base flashing
at side of chimney



Application of shingles
around flashing

