

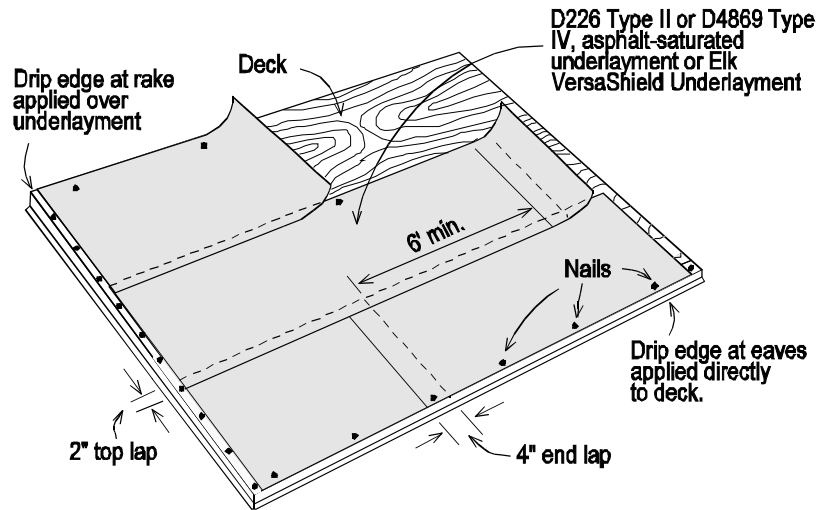
Panelshake™ Application Instructions

Roof Pitch: Panelshake is only recommended for roof pitches of 4/12 or greater.

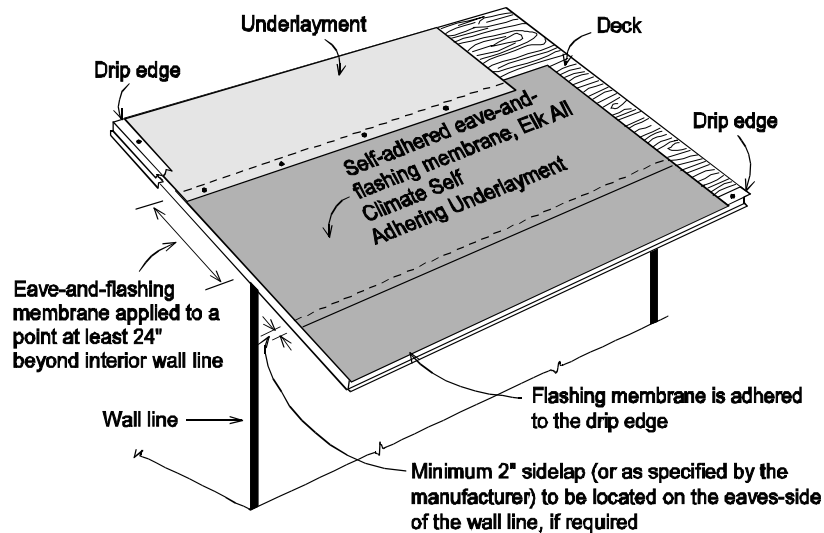
Deck: The roof deck should be constructed of dry, well-seasoned 1" x 6" boards, or at least 1/2" thick exterior grade plywood (exposure 1 rated sheathing conforming to the specifications of the Engineered Wood Association) or minimum 7/16" thick oriented strandboard or chipboard.

Drip edge: Drip edge with a minimum width of 2 1/2" is required for use on the rake and eave edges.

Underlayment: Apply underlayment conforming to ASTM D226 Type II, ASTM D4869 Type III or IV, or Elk VersaShield Underlayment. Cover drip edge at eaves only.

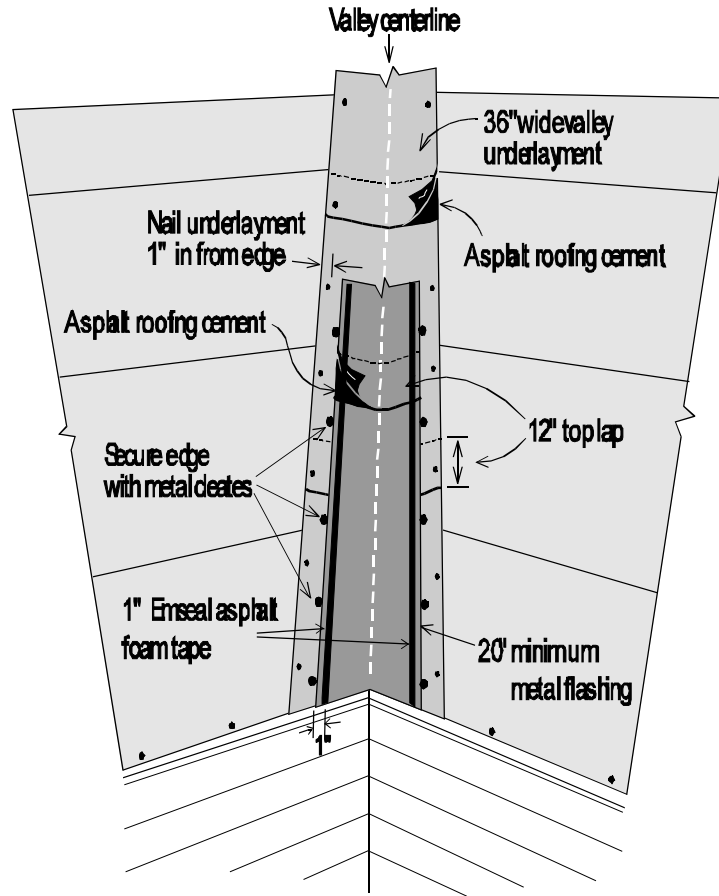


Eave flashing for ice dams: Use Elk All Climate self-adhering underlayment (or equivalent) extending from the eave edge to a point at least 24" beyond the inside wall of the living space below.

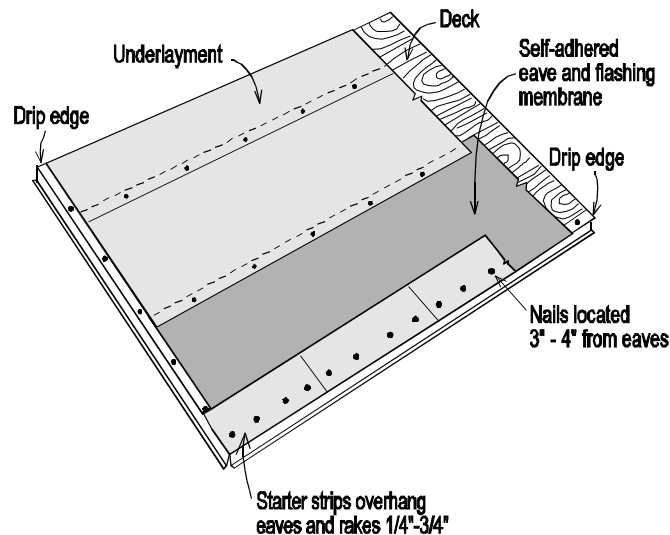


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Valley: The open valley is the only valley for use with Panelshake. Emseal asphalt foam tape or equivalent is required for use in the valleys. The tape is 1" wide and is positioned 1" in from each side of the valley metal edges.

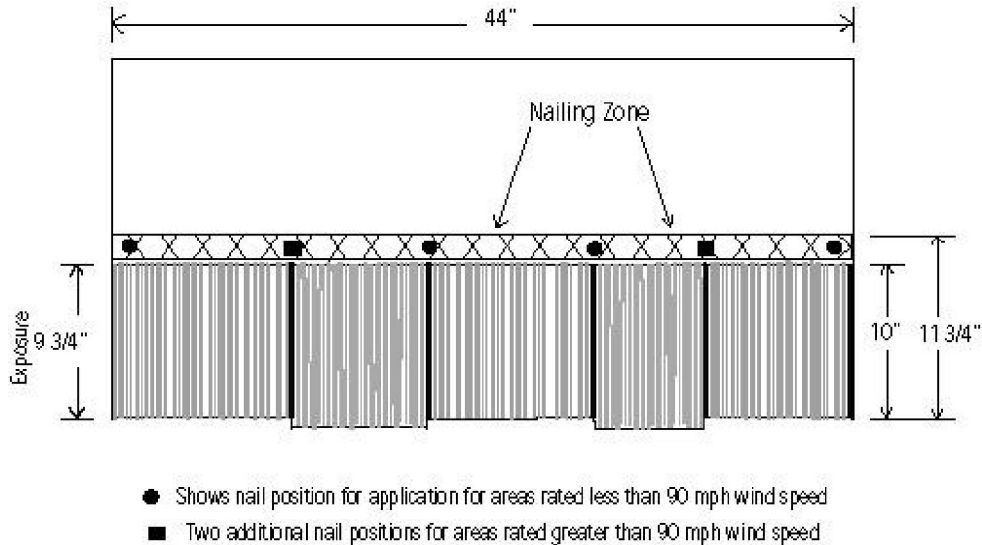


Starter shingle course: Use Elk Grande Starter Strip at the eave edge. Start at a rake edge with the starter flush with the drip edge and overhang the eave $\frac{1}{2}$ " to $\frac{3}{4}$ ". Fasten the Grande Starter Strip 2" from the eave edge and 1" from each side with an additional 3 nails evenly spaced between each end fastener 2" above the eave edge.



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Fasteners: Galvanized ring shank nails minimum 1 3/4" long with 3/8" minimum diameter head are required. Four nails are required for normal application where maximum wind speeds are rated by local building code wind maps as 90 mph or less. For areas where the wind speed is over 90 mph 6 fasteners must be used.



Course offsets:

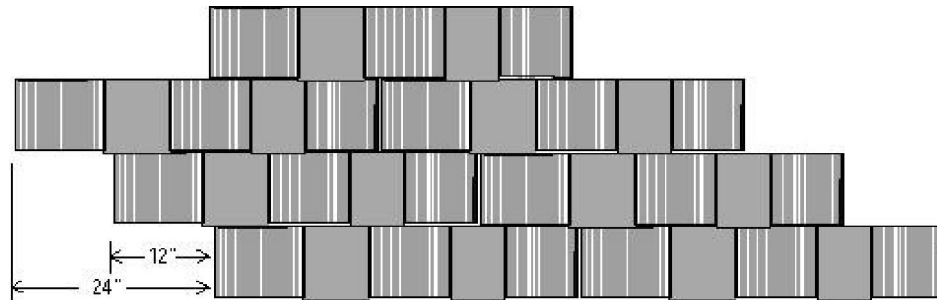
The first course is applied using the rake edge piece lined up on the side of the shingle from the bottom edge of the shingle. Both the rake edge trim piece and shingle are lined up flush with the rake edge and with only the long tabs flush with the starter strip. The edge fastener should be placed 1-1/2" in from the edge of the shingle and rake edge piece. This insures the fastener will go into the roof deck.

The second course has 12" removed from the rake edge side on the first shingle. The rake edge piece is aligned with the bottom edge of the shingle. The edge nail should be located 1-1/2" from the edge of the shingle. The following shingles on the second course uses full shingles.

The third course has 24" removed from the rake edge side on the first shingle. The rake edge piece is aligned with the bottom edge of the shingle. The edge nail should be located 1-1/2" from the edge of the shingle. The following shingles on the third course uses full shingles.

The fourth course repeats the same instructions as the first course.

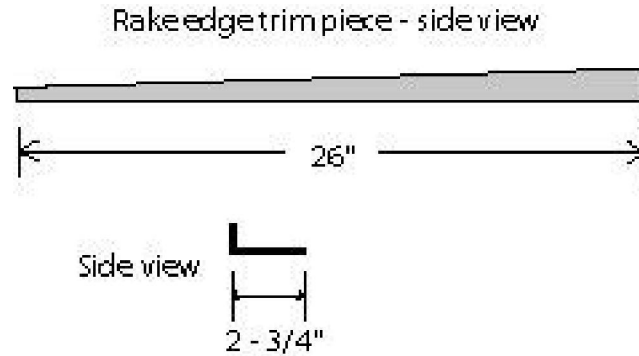
The fifth and succeeding courses repeat the application as shown for the second, third and fourth courses.



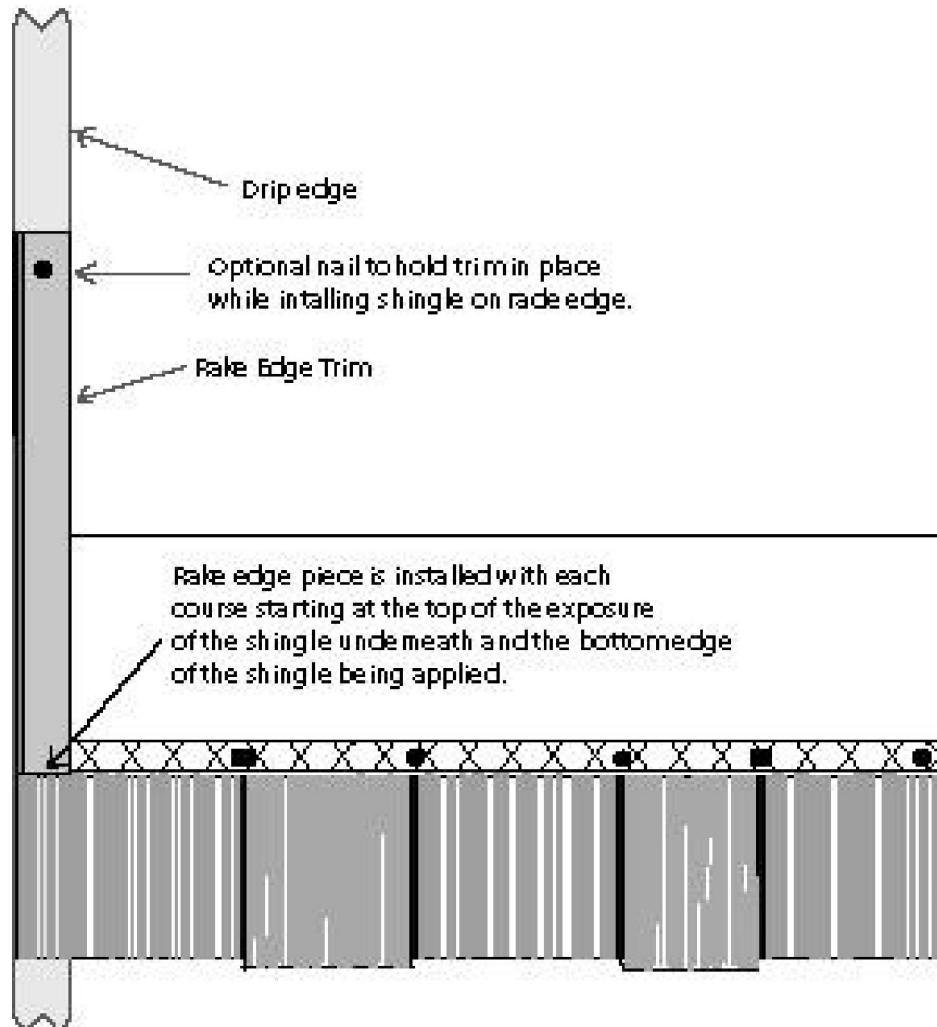
Offsets:
 First Course - full shingle
 Second Course - 12" removed
 Third Course - 24" removed
 Fourth Course - Start pattern over with full shingle

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Rake Edge Trim Pieces: This piece is used on all rake edges and is installed with the rake edge shingle.



There are two rake edge pieces, one for the right edge and one for the left edge. The rake edge piece is tapered to match the shingle taper. The bottom edge should be flush with the end of the shingle. It doesn't matter if it is the long tab or short tab on the shingle. The rake edge piece may be lined up a nail put in the upper 2" to hold it in place while the shingle is lined up and fastened to the deck. The end nail in the shingle should penetrate the rake edge piece.



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Side wall application: Step flashing is required with at least 5" up the vertical side wall and 3" under the shingles. 12" x 8" pieces of copper, aluminum, or galvanized metal must be used for the step flashing. 12" long pieces of Emseal 1" asphalt foam tape (or equivalent) must be used on each step flashing on each course.

