APPLYING DRIP EDGE

1. Drip edge must be applied so that the higher pieces will overlap the lower pieces.
2. Drip edge may be applied either over or under WinterGuard along the rake.
3. ★ Along the eaves, WinterGuard must be installed first. However, if using a drip edge ventilation system, be sure not to cover the ventilator openings.
4. When WinterGuard overlaps fascia along the eaves, standard or special drip edge must be installed to completely protect WinterGuard from damaging ultraviolet rays.

DEFEATING ICE BUILD-UP IN GUTTERS: Ice build-up in gutters will often allow meltwater to intrude behind fascia boards. Depending on construction of the eaves, deterioration of soffits or even interior damage can occur that looks like a roof leak. One method to solve this problem is shown in *Figure 5-8*. Wrap WinterGuard™ down the fascia onto the soffit, and nail a furring strip to hold WinterGuard tightly in place. This strip also serves as a UV block. Install the gutter in front of the WinterGuard-covered fascia. Then install the drip edge on the eaves over WinterGuard. Make sure the drip edge extends well into the rain gutter as shown in *Figure 5-8*, so UV rays are prevented from reaching WinterGuard. If fascia is wider than about 6" WinterGuard must be stopped behind the gutter to prevent exposure to UV. This approach won't be acceptable on many aluminum or vinyl fascia systems. Also, refer to Figure 5-10 for proper gutter placement.

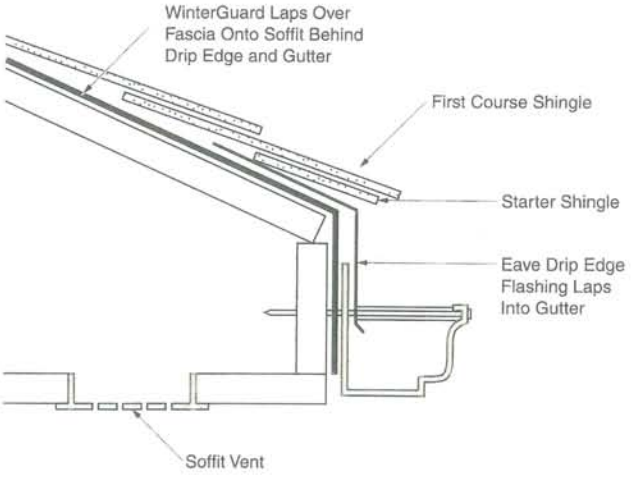

Figure 5-8: Application down the fascia and onto the soffit to protect against ice build-up in gutters.

APPLYING WINTERGUARD ON VALLEYS AND RIDGES

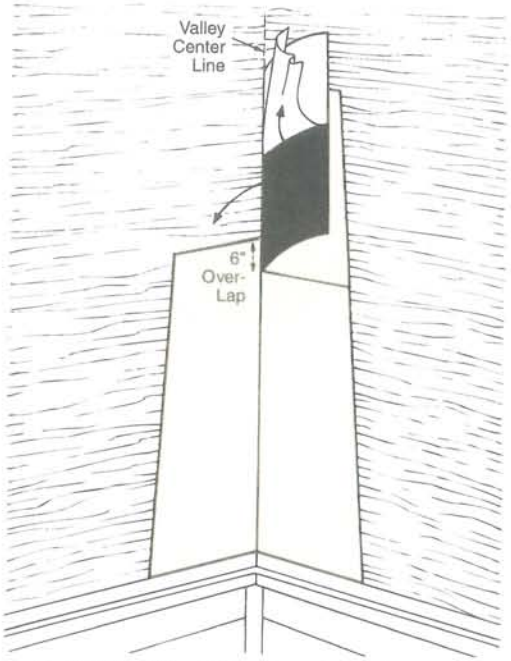

Figure 5-9: Valley application using the two-man "Peel and Flop" Method.

1. In valleys, the width of the material must be 36" minimum.
2. Apply WinterGuard using the "Peel and Flop" method described earlier. This time, however, be sure to use two workers to handle the sheet.
3. Be sure you're getting good adhesion down the valley centerline. WinterGuard must conform smoothly to the valley. If fasteners are required (because of cold weather or a steep slope), they must be no closer than 6" to the valley centerline.
4. In valleys, start the application at the low point and work upward.
5. To assure waterproofing, overlap all WinterGuard sheets 6" at lap joints. The uppermost portion must overlap the lower portion. A hard roller is recommended to roll and press WinterGuard in place at the laps.
6. Do not use WinterGuard as a permanent weathering surface in open valleys (or elsewhere).

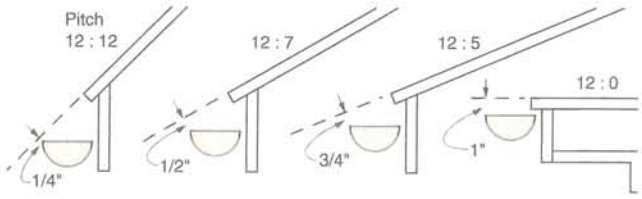

Figure 5-10: Gutter placement. Place gutters below slope line to allow snow and ice to slide clear.

Here's a Tip... When applying felt paper to the roof deck, use 3/8" staples every 16", staple nylon string along all laps and joints in the paper. We use string that is typically used by a mason and have never tripped on it since it's small and lies flat on the paper. The string will prevent wind blow offs and avoid the need to nail down strapping which will have to be removed before shingle installation. Simply shingle right over the string. We use this method whenever the roof deck will be open to the weather and wind overnight. (Thanks to Ken Cowan, Winnisquam, NH.)

APPLYING WINTERGUARD ON LOW SLOPES

1. WinterGuard can be applied under shingles to provide protection against wind-driven rain water on low-slope applications.
2. The minimum approved slope for WinterGuard application is 2/12. If applied to cover the entire roof, ensure sufficient ventilation to avoid condensation.
3. It is especially important to assure adhesion at the laps by pressing all overlaps into place with a hard roller.

REQUIREMENTS BY UNDERWRITERS LABORATORIES (UL) FOR FIRE-RATED PREPARED ROOFING

- UL classified underlayment is required under Class A fire-resistant shingles when plywood or non-veneer (OSB, WB, etc.) APA sheathing is at least 3/8" thick but less than 15/32".
- When sheathing thicker than 15/32" is used under fiber glass-type shingles, shingle underlayment is not required for a UL Class A fire rating.
- UL does not require underlayment under Class C shingles applied to sheathing with a minimum thickness of 3/8" due to a large safety margin.

APPLYING UNDERLAYMENT BETWEEN SHINGLE LAYERS

CertainTeed advises against applying underlayment over existing roofing. The underlayment may cover or create soft areas in the roof surface. These soft spots can cause shingle fasteners to be under- or over-driven, thereby weakening the shingle hold-down strength (potential blow-offs) or tearing holes in the shingles that can allow water intrusion (potential leaks). Underlayment applied over existing roofing interferes with the ability to nest the new shingles into the old. Nesting is an accepted and time-proven method of applying same-size new shingles over old ones.

So, if the old shingles are to be left in place and the new shingles can be nested into the old, then no additional underlayment is required. There are some who believe that the introduction of an additional vapor retarder between the roofing layers can cause moisture collection and deterioration. This is not proven but seems worth avoiding.

APPLYING MINERAL SURFACED ROLL ROOFING

NOTE: Mineral-surfaced and selvage edge roll roofing is considered to be suitable only for utility roofing. The material carries no warranty against manufacturing defects.

PREPARING THE DECK

Standard mineral-surfaced roll roofing is used on decks that have slopes of 2 or more inches per foot. For slopes down to 1 inch per foot, use selvage edge ("half-lap") roll roofing.

For new-roof applications, the deck must consist of:

- 3/8" (minimum) plywood, or
- 7/16" (minimum) non-veneer, or
- 1" (nominal/minimum) lumber

The plywood and non-veneer must comply with the specifications of the American Plywood Association. The wood must be well-seasoned. Do not use green, unseasoned plywood or non-veneer, or undried, recently stripped form lumber. Cover knotholes with small pieces of metal securely nailed in place. The deck must be clean and smooth.

FOR OLD-ROOF APPLICATIONS, SECURE AN EVEN BASE BY:

1. Replacing missing shingles and nailing down all curled shingles.
2. Cutting out old wooden shingles for 3" along the eaves and rakes, and installing lengths of wood strips measuring 7/8" by 3".
3. Installing beveled wooden strips on a very irregular roof consisting of old thick-butt, curled, or wooden shingles.

Air must circulate freely under the deck to prevent heat buildup in hot weather and harmful condensation in cold weather. FHA Minimum Property Standards for the proper ventilation of the area under the roof deck require:

1. A minimum of 1 square foot of open area for each 150 square feet of roof area.
2. If a vapor barrier has been installed under the deck, or if at least one-half of the open area is near the ridge, then a minimum of 1 square foot of open area is required for each 300 square feet of roof area.

MATERIALS

FASTENERS: Use 11- or 12-gauge barbed shank nails made of aluminum, copper or galvanized steel with 3/8" (minimum) heads. The nails must be long enough to go all the way through the plywood or non-veneer, or at least 3/4" into the lumber decking.

LAP CEMENT: It is important that the entire area between layers where one sheet of roofing overlaps another be cemented using a lap cement that complies with ASTM specification D3019 Type I, Grade 1 or Grade 2. Typically, about 1 pint is required to apply a one-square roll, or 1 gallon per 10 squares of roll material. Apply an even layer over the entire lap area of the lower sheet using a soft-bristle paint brush. Press the upper sheet firmly into the cement until a small bead appears along the edge of the entire sheet.

CAUTION: Using too much lap cement can cause the roofing to blister!