Q Some roofing-underlayment manufacturers and the building code seem to be at odds when it comes to installing drip edge with an ice-dam-leak protection membrane (the IRC term is "ice barrier"). Is there a way to satisfy both?

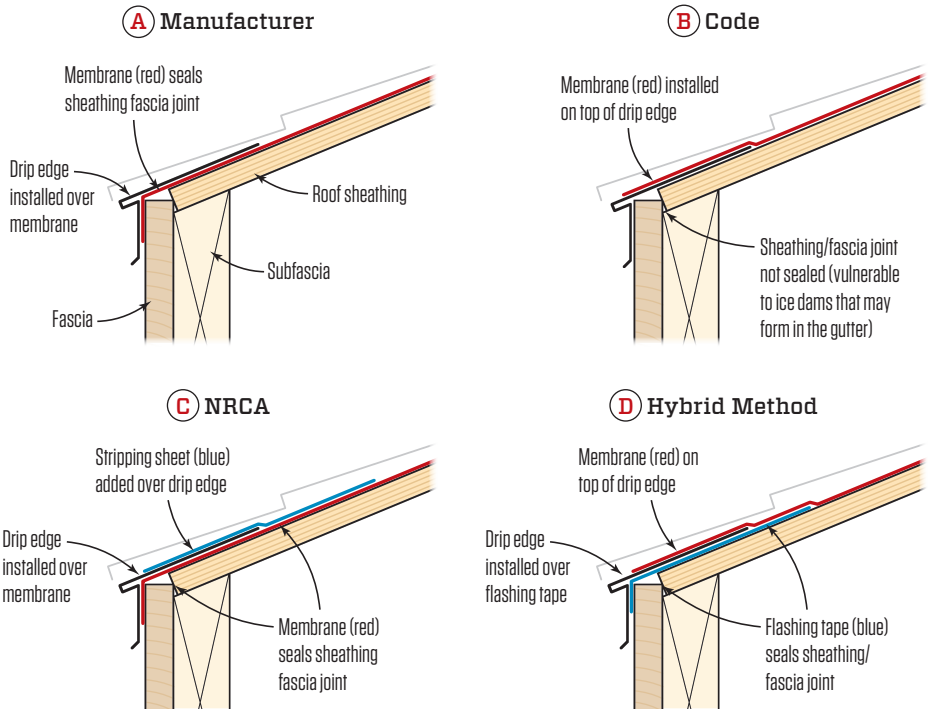
A Mike Guertin (instagram.com/mike_guertin), a builder and remodeler in East Greenwich, R.I., and a presenter at JLC Live, responds: You are correct that some manufacturers of roof ice-barrier membrane seem to be in disagreement with the International Residential Code (IRC) about the correct way to install drip edge with an ice-dam protection membrane. The IRC is clear on this subject: R905.2.8.5 Drip Edge says, "Underlayment shall be installed over the drip edge along eaves … ." Because the ice-barrier membrane in this situation is taking the place of the underlayment along the eaves edge, it should be installed over the drip edge according to the code.

But ice dams can form *in the gutter*, as well as on the roof. With the code-recommended installation of the ice barrier over the drip edge, water can back up at the eaves edge and get behind the vertical leg of the drip edge, where it can end up flowing into the joint between the fascia and the roof sheathing.

Once inside the eaves or soffit, the water may drain out harmlessly through a continuous soffit vent (best case). In the worst case, however, the water flows back towards the wall. Once water reaches the wall, it can get between the siding and the housewrap, between the housewrap and the sheathing, and inside the wall cavity itself, all of which are bad situations.

As you point out, some manufacturers of ice-barrier membranes (particularly plastic-surfaced types) recommend installing

Drip Edge and Ice Dam Protection Membrane



Different approaches to ice-barrier installation. Some ice-barrier manufacturers recommend applying their product under the drip edge to seal the sheathing–fascia joint **(A)**. The IRC calls for the membrane to be installed over the drip edge, leaving the joint vulnerable **(B)**. The NRCA puts the drip edge over the membrane with a stripping sheet added from the drip edge onto the ice barrier **(C)**. A hybrid method seals the joint with a strip under the drip edge, and the membrane installed on top **(D)**.

Illustration by Tim Healey

the ice-barrier membrane before the drip edge goes in. They suggest that the membrane lap down about an inch onto the face of the fascia and then up onto the roof sheathing. This seals the sheathing–fascia joint and blocks the water's pathway into the eaves and soffit. The drip edge is then installed on top of the ice barrier.

In my experience, most building inspectors understand the logic behind a manufacturer's recommendations once those recommendations have been explained to them. I would suggest showing the manufacturer's installation guide to the inspector and explaining why the recommendations make sense. Hopefully, the inspector will then approve the "drip edge over the ice barrier" installation method (which inspectors have the authority to do). If the inspector still doesn't approve the drip-edge-over-ice-barrier method, there are a couple of workarounds that will seal the fascia-to-roof-sheathing joint and comply with the code.

Method 1: Install the ice-barrier membrane according to the manufacturer's instructions with the drip edge installed on top of the membrane. Then install regular roofing underlayment (tar paper) over the top of the drip edge (and over the ice barrier) and continuing all the way up the roof. This approach will satisfy a code-conscious inspector as well as the manufacturer's recommendations.

Method 2: The National Roofing Contractors Association (NRCA)—a recognized authority on roofing installation—offers a different solution. Install the ice barrier first with the drip edge over the top, then apply a 4- to 6-inch-wide self-adhering "stripping ply" to bridge over the top of the drip edge and onto the ice barrier. The stripping-sheet method relies on the adhesive bond of the stripping ply to seal out water. This does run counter to the shingling method that we all use for shedding water properly.

Method 3: I recommend this hybrid method—just think of it as the NRCA stripping-ply method but in reverse. Before installing the drip edge, apply a 4- to 6-inch-wide "eaves" strip of membrane (many companies make narrow rolls of membrane for detailing around roof joints and penetrations that will work for this application, or you can cut strips from full-width ice-barrier membrane). Be sure that the eaves strip seals the joint between the roof sheathing and the fascia and that the strip is wide enough to extend a few inches above the roof leg of the drip edge. After applying the eaves strip, install the drip edge on top of it. Finally, apply the ice-barrier membrane over the eaves drip edge, running it up to the code-required height (see "Ice Barrier Roof Coverage," Feb/18). This hybrid approach seals the joint between the sheathing and the fascia, and it satisfies the code.