Crown Detail Hides Truss Movement

Q. *We all know truss uplift can be a problem at the intersection of ceilings and interior walls. Is there a way to install crown molding so that you don't see a paint-line reveal when the ceiling moves?*

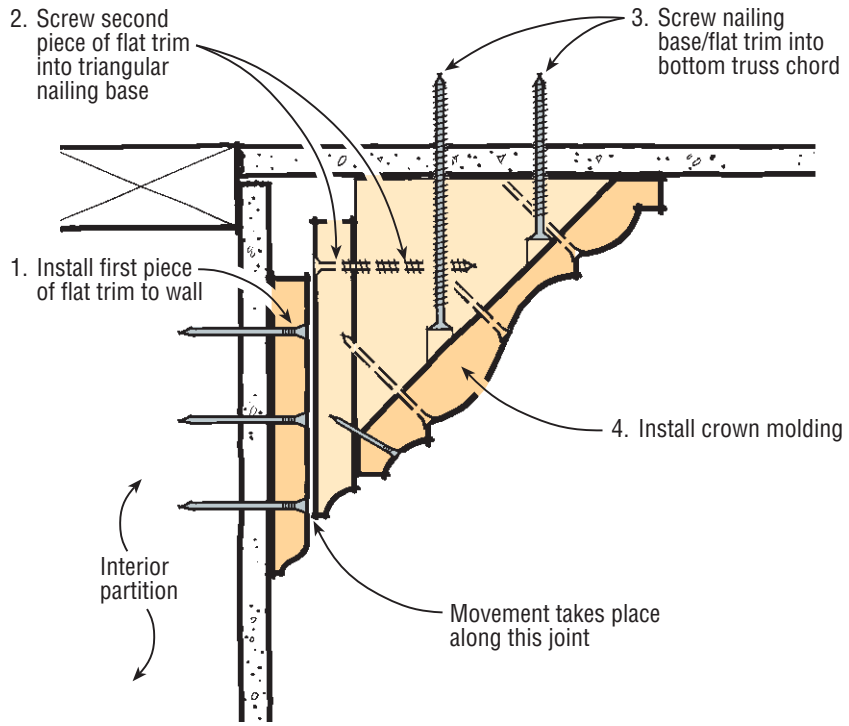
A. *Chuck Green, NARI-certified remodeler and owner of Four Corners Construction in Ashland, Mass., responds:* Truss framing can lead to major separations at the intersection of ceilings and interior walls. If your crown molding is assembled from at least two components that can slide independently, it should help disguise some truss uplift movement, rather than be part of the problem. The aim is not to resist the movement but to hide any gaps as much as possible. Where truss uplift is a major problem — that is, where a truss-framed ceiling moves seasonally an inch or more — the solution suggested here may need to be scaled up.

I typically install crown molding with a rough base underneath it. This nailing base is triangular in section, with the outer face fitting between the back of the crown molding and the wall. I also usually install at least one additional piece of flat trim stock — which can be square edged, beveled, rounded, or molded at the bottom — against the wall, behind the crown molding. This additional trim improves the look of most simple moldings. When truss uplift is a concern, two pieces of flat trim will be needed.

Start by installing the first piece of flat trim stock to the wall. Then, before installing the triangular nailing base, nail or screw the second piece of flat trim to the back of the triangular nailing base. Next, install the triangular nailing base by nailing it or screwing it to the ceiling. Finally, the crown molding can be installed, using longer finish nails at the top of the crown, and very short brads at the bottom. Since the crown molding is fastened to the ceiling not the wall, some truss uplift movement can be accommodated between the two pieces of flat trim stock.

All of the pieces except the triangular nailing base will need to be prefinished, to allow movement to occur without revealing a line where the finish or paint stops. The crown molding will look best if the second piece of flat trim has a molded bottom, to help disguise the unsecured sliding joint between the two pieces of flat stock.

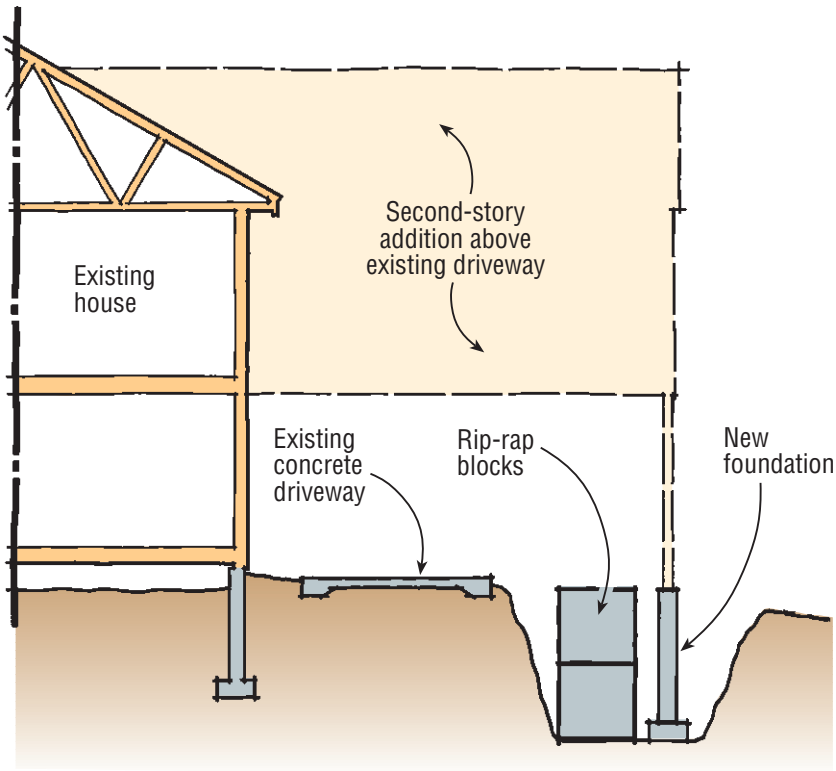
Two-Piece Crown Molding



Foundation Trench Near Concrete Driveway

Q. *Our remodeling company has contracted to do a room addition that will be elevated over an existing concrete driveway. We will need to install a concrete footing at the edge of the existing driveway slab. I'm worried that when we excavate for the footing, the fill under the slab will cave into the trench, leaving a void. How should we repair the undermined area?*

Foundation Trench Near Concrete Driveway



A. *Jay Meunier, contracting specialist at S.T. Griswold and Co. in Williston, Vt., responds:* The amount of erosion or undermining will depend on the soil type. While a heavy clay soil may stay in place, a light sand will easily erode.

It is important to take steps to minimize undermining soon after excavating for the new footing. Provided there are no space limitations, rip-rap blocks — large one- or two-ton concrete blocks — can be used to contain the material under the concrete driveway. A more expensive option would be to pour a retaining kneewall, separate from the new foundation, against the exposed soils. This requires building a one-sided form.

You want to avoid any undermining that causes structural problems to the driveway. If some undermining does occur, flowable fill can be used to fill voids and provide support to the driveway slab. Flowable fill, however, cannot correct extreme undermining that has threatened the integrity of the driveway.

Inserting flowable fill will be easier if there is at least 6 inches between the existing driveway and the new foundation, allowing room for the hose. If the undermined area is not accessible any other way, it is possible to core holes in the slab, every 4 feet above the undermined area, for inserting flowable fill.

Grounding a Steel-Framed House

Q. *Do steel-framed homes have special requirements for electrical grounding?*

A. *Jeff Kubala, an engineer at Dietrich Industries, which manufacturers light-gauge steel framing materials, responds:* There are no special requirements for grounding steel-framed houses, although it is always best to review grounding requirements with your local electrical inspector.

Foam Sheathing Trade-Offs

Q. *Here in Wisconsin, I have always built my homes with 2x6 studs, R-19 fiberglass batts, and 1/2-inch OSB sheathing. I am considering switching to 2x4 studs, R-13 batts, and 1-inch R-7 foam sheathing, using metal T-braces for racking resistance. The cost of the two systems appears to be about the same. I like the fact that the foam sheathing stops thermal bridging at the studs. My question is: Will the metal T-braces provide a frame that is rigid enough?*

A. *Paul Fisette replies:* You are correct that wrapping the entire house in foam reduces the problem of thermal bridging at the studs. By elevating the temperature of the stud cavities, the foam also reduces the likelihood of condensation on the interior face of the sheathing.

However, there are three drawbacks to using foam sheathing. First, the foam complicates the exterior trim details at doors and windows. Second, there is the real risk of ants attacking and nesting in the foam. Third, substituting foam sheathing for OSB will seriously compromise a home's structural rigidity. Metal strap braces alone will not provide the racking resistance that you need. In fact, the technical literature by Simpson Strong-Tie clearly indicates that the metal braces are for temporary use during construction. They are not intended for long-term bracing of the framing. For more information, see "Bracing Foam-Sheathed Walls," *JLC*, 4/93.

Repairing a Chipped Laminate Countertop

Q. *During a countertop installation, one of the screws popped through and chipped off a 1/4-inch-diameter piece of laminate. Is there a way to make a repair without replacing the whole countertop?*

A. *Merrill Glos, engineer at Formica Corp., responds:* Since a repaired countertop will never be equivalent in performance to a perfect top, you will have to negotiate with the homeowner to discover whether they would be willing to accept a repair, perhaps in exchange for a discount price.

If the chip is intact, it can be superglued back into the divot; super-glue is

waterproof. If the chip is missing or broken, a cosmetic repair with paint is still possible.

Scrape away any loose debris from the divot. Use artists' acrylic paint, in a color that closely matches the laminate color, to fill the divot. If the paint shrinks as it dries, re-apply paint to achieve a level surface with the surrounding laminate. After three or four days, when the paint has dried very hard, it will probably be shinier than the laminate. Matching the light reflectance of the repair to the laminate is even more important than matching the color. Use a pencil eraser with light strokes to dull the repair until the gloss achieves a close match.

Such a repair will still be susceptible to heat damage, and the acrylic paint will always be softer than the laminate. If the repair deteriorates, it can be repaired again.

If such a repair disappoints your customers, they will always associate your name with the repair job. In the long run, installing a new countertop may be the best solution.

Painting Asbestos Shingles

Q. *We will be painting a house that's sided with asbestos-cement shingles. What type of paint is best? Assuming the shingles contain asbestos, do we need to take any precautions?*

A. *Bill Feist, an expert on finishes in Middleton, Wisc., responds:* Since asbestos-cement shingles do not expand and contract with humidity changes like wood siding does, they hold paint very well. If the asbestos-cement siding is already painted and the paint is in good condition, clean the siding and then use a high-quality acrylic latex paint. Dirty siding will require a good cleaning (a detergent wash followed by power washing and thorough drying) to remove chalk and dirt.

Priming may not be necessary if the old paint is in good condition (free from peeling, cracking, flaking, etc.). However, if the old paint is glossy, or there are bare spots, it may be best to prime first. Use the primer recommended by the manufacturer of whichever acrylic latex paint you use. Be sure to apply two coats of topcoat paint, since two topcoats can often double the life of the paint job.

If some of the siding is deteriorated, showing loose fibers or broken edges, you may have to take special precautions. Aggressive scraping or sanding of loose paint is not advisable, since this could release asbestos fibers. If you anticipate replacement of damaged siding, you should check with your local authorities to determine any regulations for proper handling and disposal of asbestos-containing material. If you are not well trained in the potential dangers of asbestos, you should not disturb any of the siding.

GOT A QUESTION? Send it to On the House, *JLC*, 186 Allen Brook Ln., Williston, VT 05495; or e-mail to *jlc@bginet.com*.