Details for Successful Stucco

The secret to longlasting stucco lies in the details

by Steve Thomas

In 1915 an Austrian-born practitioner of the stucco trade founded the company I work for today. Gabe Reitter had traveled all over Europe learning his craft, and brought to America an old-world sense of how a job ought to be done. He knew how to detail a job to make it last. In 1990 Reitter Stucco revisited the first local job Gabe did back in 1915 — not to make repairs, but to finish an addition for the current owner. The house had changed hands several times, but the original stucco still looked fine.

If you're planning to finish with stucco, here are some details you'll want to pay attention to.

Expansion Joints

The stucco contractor who assumes he can "die into" the backside of a brick facing on a house (and this assumes the brick guy had enough sense to leave him adequate plumb-overhang beyond the sheathing) and have it wear well is goofy. Brick is basically inert; it's not subject to the same kind of expansion and contraction as the frame studs the work will be attached to. If the brick *does* move, it will be at a different rate than the wood.

To correctly execute this detail, a J-bead (or stud bead) should be mounted 1/4- to 5/8-inch behind the back of the overhanging brick face, leaving a gap between the brick and the metal bead (see Figure 1). The normal three-coat stucco over lath should then be applied up to the bead.

Finally, you should caulk the gap between the back of the brick and the back of the J-bead. Be sure to use a caulk that has adequate resilience to tolerate movement of the frame construction, such as a urethane caulk by Sonneborn (ChemRex Inc., 7711 Computer Ave., Minneapolis, MN 55435; 612/835-3434) or Tremco (Treuhaft Blvd., Barbourville, KY 40906; 606/546-5181). If you use a cheap caulk, you'll eventually get a vertical crack at the joint — something that's unsightly and practically impossible to fix.

Concrete Patios

Patios and decks are often poured after our scaffolding has been taken down and we're off the job. Too often, inept or lazy concrete guys will use the stuccoed house wall as the fourth side of their forms for a patio or deck (see Figure 2). With the severe winters we have in Ohio, frost will cause slabs to lift and drop during the winter.

Had the concrete man used a *bond breaker* between his work and the stucco surface, this movement could have been tolerated. Instead, the slab, because it's attached to the stucco, pulls the stucco off the house. In addition, the slab will commonly shift into a position sloped toward the house, and will channel water toward the foundation. Once the stucco has been broken away, the water will penetrate to the substrate, and real

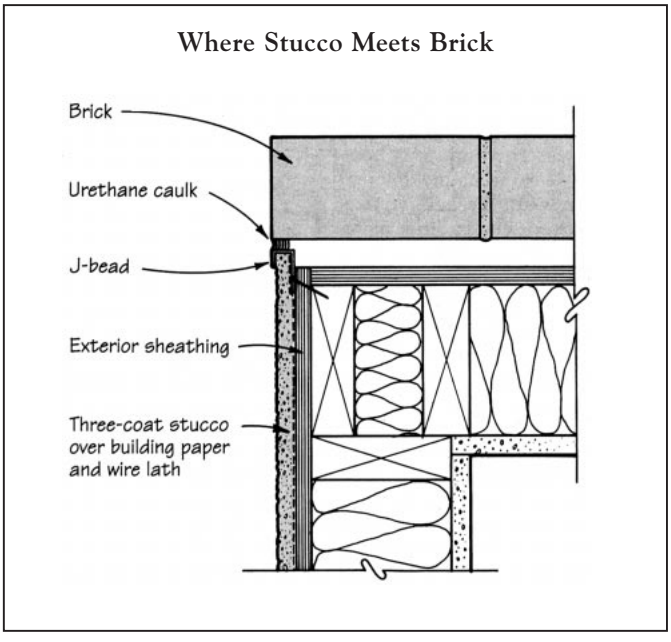

Figure 1. *Wherever stucco meets the back of a brick facing, install a J-bead strip to create a narrow, uniform gap. The stucco runs up to the J-bead and the gap is filled with a high-quality caulk. This control joint prevents movement in the frame wall from cracking the stucco.*

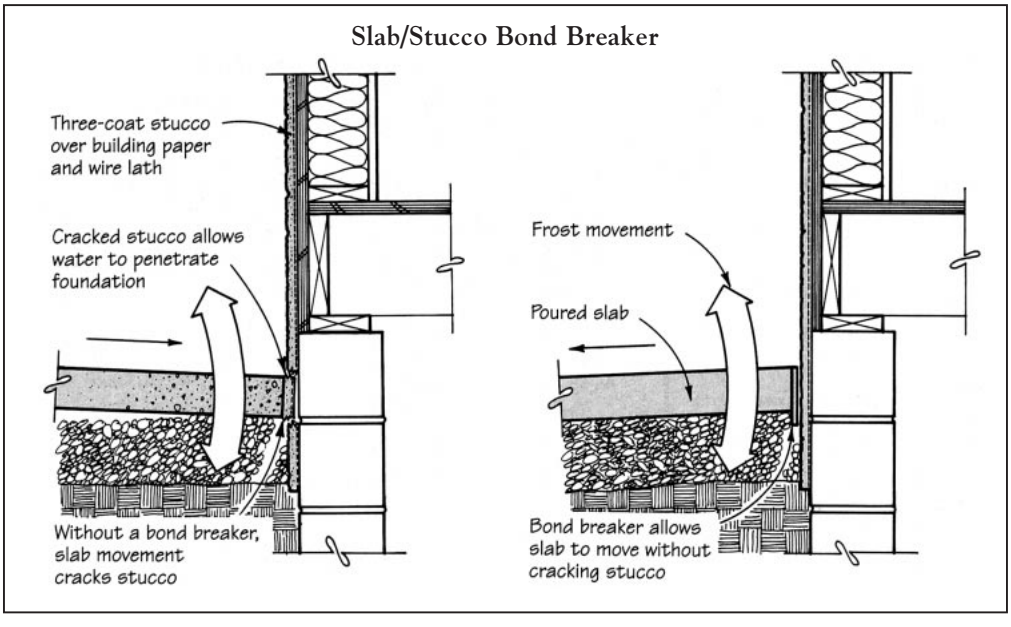

Figure 2. *When a slab patio is poured so that it bonds to a stuccoed wall, the inevitable movement of the slab will crack the stucco (left), providing an entry point for water. Instead, use a bond breaker of rigid foam or fiber board, which allows the slab to move independently (right).*

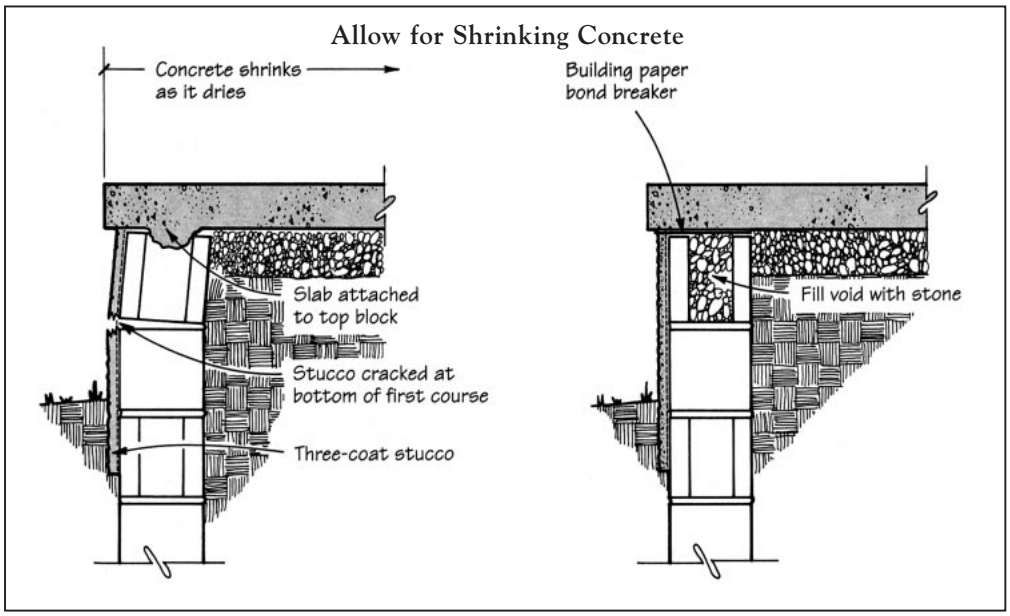

Figure 3. *A patio slab poured directly over a block retaining wall (left) will crack the wall when the concrete dries and shrinks. Using a bond breaker of building paper (right) prevents the slab from attaching to the block, allowing the slab to shrink without cracking the stucco.*

problems can develop for the homeowner.

Watch for Shrinking Concrete

Too often, we're called back to repair a crack in a stuccoed block retaining wall below a poured slab patio. Usually these calls come nine to twelve months after we've completed the job.

A poured concrete deck that measures exactly 10 feet when formed will shrink 1/4 inch as it cures during the first several months. This shrinkage generally results in tipping the topmost block inboard. The result is a crack, parallel to grade, and exactly one block down.

While we warrant our work for 10 years, this is a billable repair, since it's not our fault, but that of an inept concrete man. Often a quick diagram (see Figure 3) will help explain to the homeowner understand why the problem occurred; they can then seek compensation from the correct party — the concrete guy.

Chimney Caps

You can't really fault the block guy: His job was to lay block around the chimney flue liner. When he reached the top, he took his remaining mortar and made a cement "wash" atop his block work to shed rain.

The next guy on the job was the stucco contractor, who applied three coats of stucco to the block chimney. (By now the block guy was at home drinking a beer…)

Like drywall compound, cement and mortar, if applied too thickly, will undergo a process called checking. Otherwise put, it shrinks and cracks and resembles a parched river bed. These cracks in a block chimney wash allow water to enter, and soon you have the "ghosts" of block joints showing through the stucco. Eventually (within three to five years) the layers of stucco delaminate due to water infiltration coupled with the freeze/thaw cycle.

Ideally, a metallic cap should be installed on top of the chimney and caulked properly. Then the stucco applied to the chimney will wear well and look good for a lifetime.

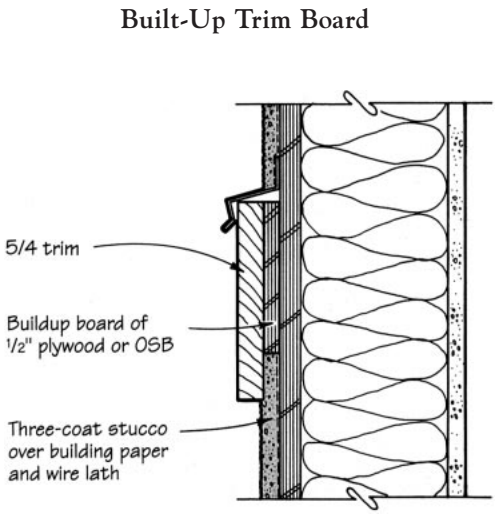

Figure 4. *Tudor-style exteriors typically call for 6/4 or 8/4 trim boards. Because clear, rot-resistant stock of this thickness is at a premium, the author recommends using a buildup board of sheathing material underneath 5/4 trim stock. The trim board should be painted or stained on all surfaces.*

Tudor Trim Details

In older Tudor-style houses, the vertical and horizontal exterior trim boards are usually 2x stock. The old method works great, but nice 2x trim stock is very expensive. We recommend that trim carpenters use a "buildup" board — a piece of scrap 1/2-inch plywood or OSB — underneath, and 5/4 trim stock on top of that (see Figure 4). This is a viable and much less expensive way of achieving the same look.

Make sure, on a Tudor job, that the trim carpenter mounts and continuously cap-flashes all horizontal pieces *before* mounting any vertical trim pieces or their buildup boards. ■

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