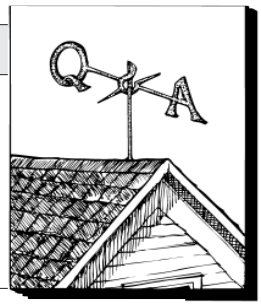
Poolside Deck



Q. *What is the best decking material to use around pools? We have used CCA-treated southern pine, but this splinters within five years. We have also looked into plastic decking and commercial roof-top membranes. Both would put us over budget.*

A. *Craig Savage responds*: In a word, our answer is masonry. Most of the decks we build sit on hillsides. This means the pool — a cistern built of rebar and gunnite — sticks out of the ground, and is supported on "table legs," or concrete caissons that typically run 50 or 60 feet down. Around this structure, we build a wooden deck on all sides. As a surface decking material, we always use some type of masonry. We typically use brick or sandstone flagstones. But slate or just plain concrete would do as well.

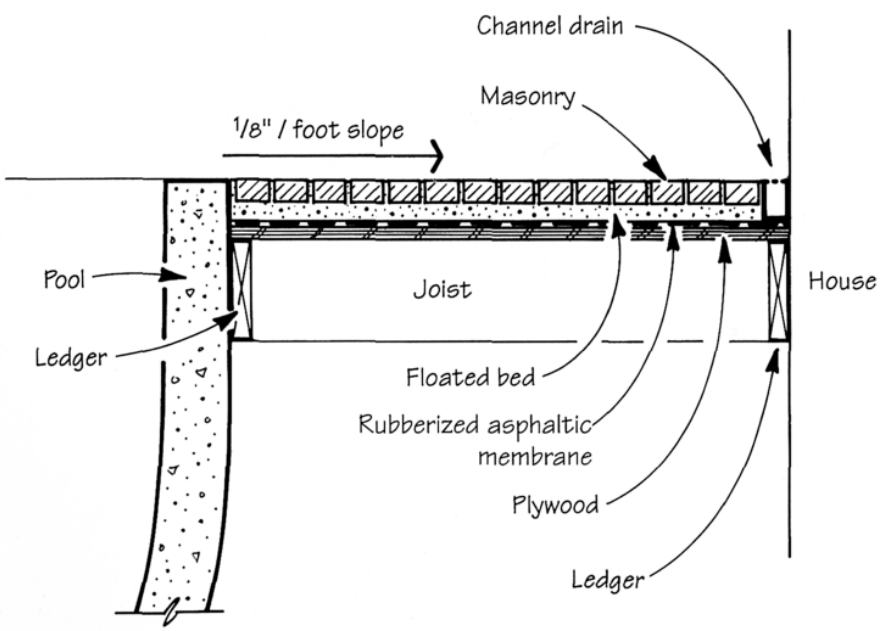
We hang the deck ledgers right off the pool and run our joists sloping at 1/8 inch per foot from the pool edge to the outside perimeter. We then deck the framing with pressure-treated plywood.

Over the plywood we lay down some type of rubberized membrane. We typically use *Miradri* (Mirafi, 3500 Parkway Ln., Suite 500, Norcross, GA 30092; 404/447-6272) — a rubberized asphaltic membrane with a paper-backed adhesive that sticks to the plywood. This comes in 3-foot-wide rolls and goes down fast.

Along the perimeter of the deck we run a plastic channel drain, such as NDS *Micro Channel* (National Diversified Sales, P.O. Box 6038, Camarillo, CA 93011; 805/389-6700). In section, this plastic drain material has the same dimensions as a 2x4. Along the top edge are slots, so we install it on edge, then float our masonry flush to the top, as shown in the illustration.

Craig Savage is a builder in Carpinteria, Calif.

Masonry Poolside Deck



Masonry, floated over a membrane-protected wooden structure, is a durable choice for a poolside deck. Slope the surface away from the pool and install a channel drain around the perimeter of the deck.

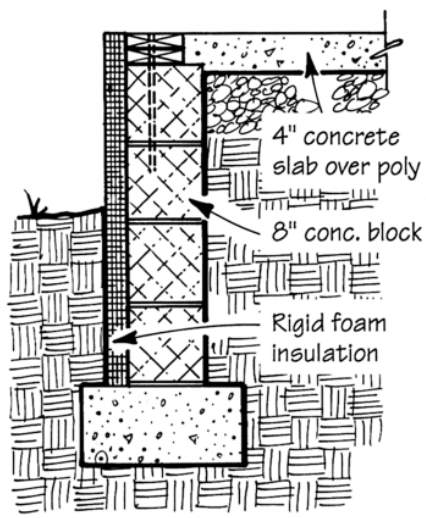
Termite-Proof Foundations

Q. *We have termites in a timber-frame house whose slab-on-grade foundation is insulated with rigid foam (Illustration A). I understand that some exterminators will not guarantee treatments on homes with exterior foundation insulation. What is the best way to detail a foundation to help keep termites out?*

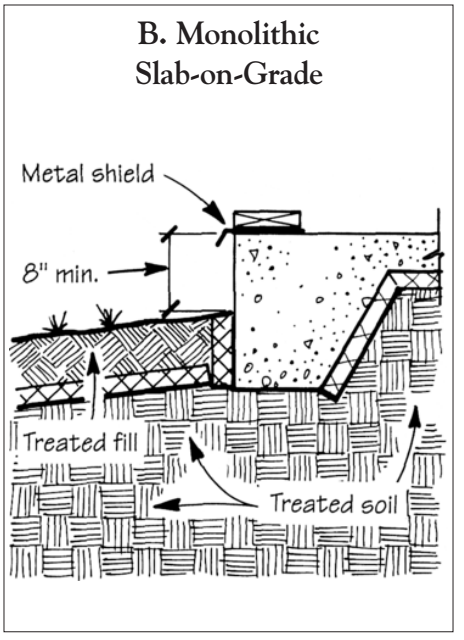
A. *Stephen Smulski responds:* Pest-control professionals are right not to make promises when faced with an insulated foundation, because it's impossible to inspect inside and behind the insulation.

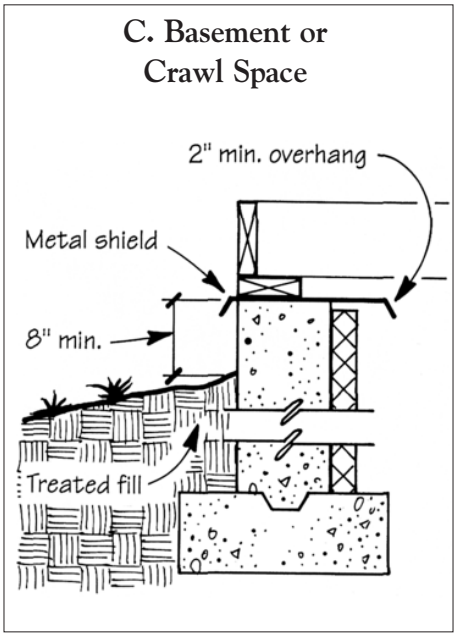
A 1/32-inch gap is all termites need to sneak into a house. To eliminate these gaps, begin by choosing a foundation type and materials that present the fewest possible entryways.

A. Slab-on-Grade With Stem Wall



This slab-on-grade foundation is a poor choice in areas where termites are a problem. Termites can slip through the foundation/slab joint, inside the hollow concrete blocks, or between the insulation and foundation.





A monolithic slab (top) or a cast concrete wall (above) presents fewer entry routes than a slab resting on a stem wall. It's important to leave at least 8 inches of the foundation exposed above grade. Although some insulation value is lost, this allows an exterminator to inspect for the presence of termites.

Of all foundation types, slabs-on-grade are the most vulnerable. In your design, for example, termites can slip through the foundation/slab joint, inside the hollow concrete blocks, or between the insulation and foundation (Illustration A, previous page). Monolithic slabs, where grade beam and slab are cast in one pour, lack joints and therefore present fewer entry routes than slabs supported on foundation walls. Likewise, a cast concrete stem wall, with its solid center and reinforcement to minimize cracking, is better than a hollow block wall. However, block walls can be made more termite-resistant by capping them with reinforced concrete or solid blocks, or by plugging the hollows in the top course with mortar.

Making *any* foundation termite-resistant requires treating the soil under the slab and surrounding the foundation with a termiticide. Treating the soil under the slab, of course, is best done before the slab is cast, and treating the surrounding soil should be done during finish grading.

Termites prefer wetter soils, so make sure water is directed away from the foundation by properly sloping finish grades, and by using gutters and downspouts. Also, keep the below-slab drainage pad higher than the outside soil by elevating the slab surface at least 8 inches above the finish grade. Reinforce the slab to minimize cracking, and design utilities so that the slab penetrations are minimized or eliminated. All penetrations and joints should be sealed with roofing-grade coal-tar pitch. Also, make sure that all wood (read "termite food"), such as stumps, grade stakes, formwork, and scraps, is removed and disposed of off site, and not buried during backfilling.

When detailing the insulation, you may have to sacrifice some energy efficiency in return for being able to properly inspect for termites. The details in Illustrations B and C show two ways to leave the foundation exposed for inspection and also reduce the number of possible entries. The metal shields shown in these details should be thought of as only *one part* of a home's anti-termite defenses. They're seldom fabricated and installed as tightly and as carefully as is really necessary. ■

Dr. Stephen Smulski is a wood scientist and president of Wood Science Specialists in Shutesbury, Mass. His article "A Builder's Guide to Wood-Destroying Insects" appeared in September 1992.

Got a question about a building or renovation project? Send it to On the House, JLC, RR#2, Box 146, Richmond, VT 05477.