Q&A

Q. Stiffening a Pony Wall for Tile

I'm framing a new slab-on-grade home where the master shower is enclosed by a pair of 6-foot-tall pony walls that are connected to the flanking walls only at their ends. Because both partitions will be covered with ceramic tile, I'm wondering how I can frame a wall rigid enough to prevent cracks.

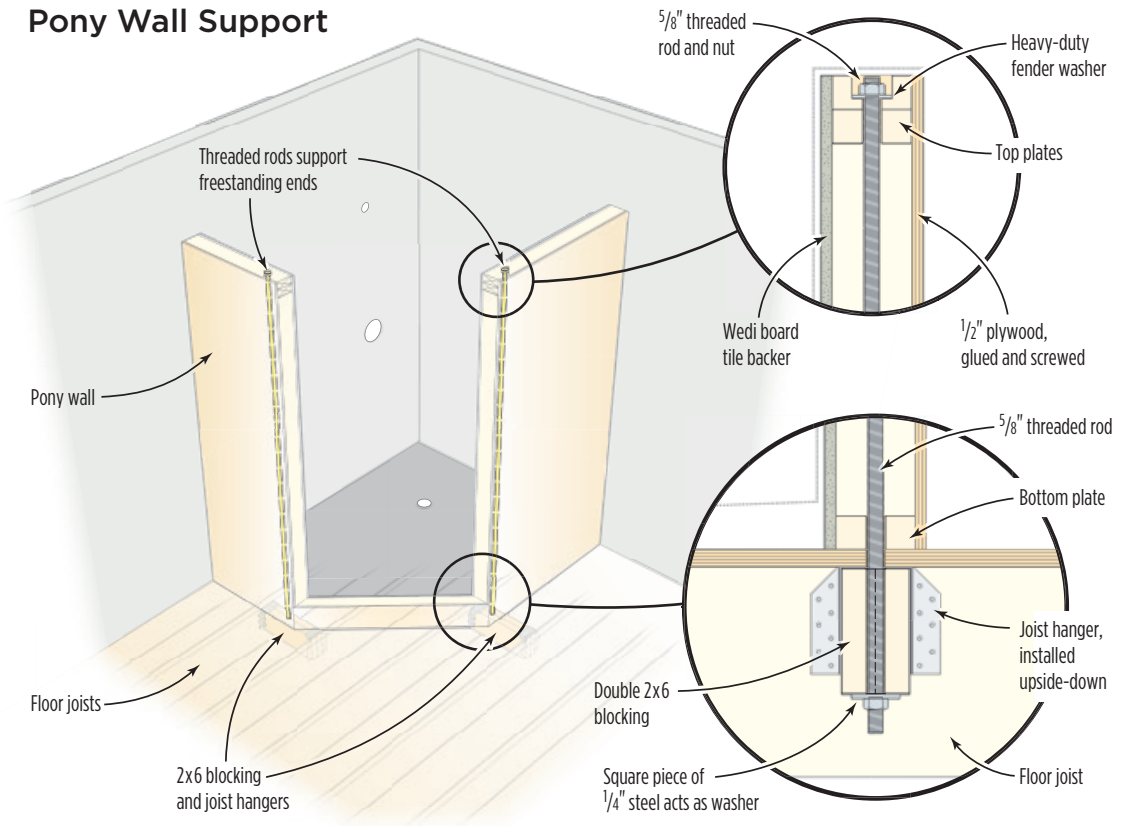
A. *Robert Zschoche, a tile-setter in Chantilly, Va., responds:* I was faced with a similar situation in the second-floor bathroom of a recent remodel (see illustration, below). I used upside-down joist hangers to fasten double 2x6 blocking between the floor joists directly under the freestanding end of the wall, then ran a length of 5/8-inch threaded rod through the wall plates and blocking, with a square piece of 1/4-inch steel under the blocking and a heavy fender washer at the top to distribute the pressure on the wood as I tightened the nuts. For added stiffness, I glued and screwed some 1/2-inch plywood to the back of the wall. I used Wedi board tile backer on the side facing the tub. Once I'd cranked down on the top nut, the wall felt stiff enough to convince me it wasn't going anywhere; that was several years ago and there have been no problems with the tile since.

On a slab, I'd use that same approach, but would anchor the threaded rod to the concrete with an epoxy capsule. Ideally, an engineer would spec this sort of detail, but in my experience — probably because there's no life-safety issue — the solution is left up to the contractor.

Q. Walking on Attic Cellulose

A lot of the attics in my area are being insulated with loose-fill cellulose, which is typically piled much deeper than the framing. What's the best way to move around in this kind of space, and will disturbing the cellulose damage its R-value?

A. *Michael Uniacke, an insulation and hvac contractor in Prescott, Ariz., responds:* The answer to the first part of your question is "very cautiously." If possible, I grab an overhead truss or rafter before stepping onto the buried framing. In addition to making it much easier to keep your balance, that centers you in relation to the framing and makes it easier to find with your foot. Probe the area carefully and



don't commit to the next step until you know you're on solid lumber. If you're not sure of your balance, you can bring along a piece of 2x10 that's long enough to span three framing members and use it as a moveable walkway; the cellulose will easily compress under your weight until it rests on the framing.

Energy efficiency is important to me, so I smooth the surface out behind me on my way out. I find that most subs who go into an attic don't bother. But because cellulose tends to spring back after being stepped on, the effect of a few footprints on the overall R-value is minimal, as long as you fill in the places where cellulose has been cleared away to provide access to the ceiling.

Q. Does the Code Allow Ground-Supported Decks?

I want to build a freestanding deck where the joists are supported by horizontal pressure-treated 8x8 timbers lying on a bed of compacted crushed stone, with joists toenailed to the timbers — a normal residential deck, in other words, except the support beams would rest on the ground rather than being bolted to posts. The deck surface will be about 18 inches above the ground, with two steps up to the house's entry door. Is this feasible, and are there any code issues I should be aware of?

A. *Glenn Mathewson, technical adviser to the North American Deck and Railing Association, responds:* Although the approach you describe doesn't follow any industry standard practices for deck construction, there are some model code provisions that seem to argue for it. For example, code provisions that deal with wood foundations also involve wood members bearing on gravel or crushed stone. The usual minimum requirement in that application is for a 2x8 bottom member on an aggregate bed at least 6 inches deep. The 8x8 you propose should work, but it would be a good idea to cross-check the actual loads on the beams against the bearing capacity of your soil.

You also need to consider guards (as the code designates railings at the edge of a drop). They're required where there's a drop of 30 inches or more within a horizontal distance of 36 inches from an edge. Assuming that the ground in the area of your deck is relatively flat, guards probably wouldn't be needed at the edge of the deck itself.

But the two risers leading to the house are subject to the same requirement. Since their combined height could come to 12 inches or more, adding that figure to the 18-inch height of the deck would equal or exceed the 30-inch threshold. In that case, a guard would be required at the edge of stairs within 36 inches of the edge of the deck. Stairs further than 36 inches from the edge would not require either a guard or a handrail, since graspable handrails are required only for stairs with four or more risers.