TILE



Tiling a Walk-In Shower

Old and new materials and methods combine for an attractive, accessible, and watertight shower

BY TOM MEEHAN

few years ago, I wrote an article about making a traditional mud pan for a leak-proof shower ("Preventing Leaks in Tiled Showers," Oct/16), and I still often use those methods. The project in that article was a simple stall shower with a curb. Recently, I was asked to tile a larger, curbless shower with a linear drain. This complex project was a perfect showcase for many important tiling techniques. The introduction here gives a quick overview of them, and the photos on the subsequent pages show the basics. Online (at jlconline.com), I'll cover each topic individually in much greater detail.

Dropped floor. Unlike in the project mentioned above, the waterproofing system in this one allowed us to install the wallboard before waterproofing the shower floor. Instead of installing a curb for the shower, the builder dropped the shower floor framing 3 inches, making it easier to create a drainage slope with an even transi-

tion from the bathroom floor. No shower curb also meant that the shower could be wheelchair accessible for age-in-place clients.

Mud base. After covering the subfloor with 30-pound felt paper and galvanized wire lath, I created a sloped floor with the same drypack mortar I used in the previous project. I had dry-fit the drain earlier, so I knew how much to slope the mud layer. I packed the mortar with a wooden float trowel and used two levels to screed the mortar in two directions.

Linear drain. Another difference for this shower was the linear drain along the back wall. I put the drain in during the mud-base installation, making sure to set it at the proper slope. From there, I finished packing and screeding the rest of the mud layer over to and around the threshold of the shower.

Floor heat. After letting the mud cure overnight, I installed Ditra membrane for a warm floor, the same system I describe in the

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The author adjusts the height of the linear drain so that the floor will slope properly (1). To allow for a flush transition from the bathroom floor into the shower, the shower subfloor had been dropped 3 inches. The author then puts down a layer of 30-pound felt paper and attaches galvanized wire lath over the paper with galvanized roofing nails (2).









The author begins installing the dry-pack mortar bed with trowels at the back of the shower, screeding it in two directions with long levels (3). He digs out a shallow trench for the drain, butters the back of the drain with unmodified thinset (4), and glues the drain into place, with a rubber coupling added for flexibility (5). He finishes up by packing and screeding the rest of the mud layer (6).

article "Tiling a Three Season Porch" (May/19). The heated floor extended from the shower into the rest of the bathroom. We put the bathroom-floor heat and shower heat on separate lines; that way, if one area has a problem, the other can continue to provide heat.

Waterproofing membrane. The next layer was the waterproofing membrane. We opted for Schluter's Kerdi membrane, which is installed with unmodified thinset. The drain (also made by Schluter) comes with membrane that is integrated into the membrane on the rest of the floor. I lapped the membrane up the walls and onto the waterproof wallboard and installed specially made pieces to seal the inside and outside corners.

Shower seat. Modern, lightweight materials make it easy to build durable, waterproof structures, such as seats and shelves, in a shower. For this shower, we created a built-in seat that extended along the wall opposite the faucets.

Wall tile layout. The tile for the walls was white subway tile. Tile layout should always be based on the most visual aspect of the shower, which in this case was an awning window. We centered the layout on the window and set the level of the courses so there would be a full tile at the back of the shower seat. The layout for adjacent walls was taken directly from the back wall, and a story pole was instrumental in determining the side-to-side layout.

Wall tile installation. Once the layout was completed, the tile installation went quickly. The crew staggered tiles between courses and used plastic wedges to set the horizontal grout lines. All straight cutting was done with a score-and-snap cutter, and cutouts for the faucets were done with a wet saw.

We tiled the back wall first, using a long level as a ledger to support the first course. For the adjacent walls, we set the ledger below the first course on the back wall and worked up from there. When we'd finished the walls from the ledgers up, we removed the ledgers and the wedges and filled in the spaces down to the floor.

Pebble floor. The client chose pebbles for the shower floor. The random look of the pebble sheets meant that a precise layout was not necessary. The sheets fit into one another quite neatly, and we cut small pieces from the pebbles to fill in along the wall and drain.

Grout and out. The final step was grouting the tile. This step was fairly routine, with unsanded grout used for the smaller lines between the wall tiles, and sanded grout used between the pebbles on the floor tile. After allowing the grout to sit for a few days, I applied a sealer to the shower floor.

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The first membrane layer for the heated floor is bedded in unmodified mortar. The author then installs the wire for the heat (7). Over the heating layer, the author beds the waterproofing membrane in unmodified thinset, beginning with the membrane around the drain (8). Pieces of membrane lap over the drain membrane and up the walls (9), with special pieces for the inside corners (10). Layers overlap by at least 2 inches (11). The installation required special outside corners, as well (12).





Final prepwork before tiling the shower included constructing a built-in seat. Here, a crew member applies waterproofing membrane to the edges of the seat (13). The seat face will be tiled, but the horizontal surface will be covered by a slab. As a final waterproofing measure, he runs membrane a couple of feet up the corners of the shower (14).

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Wall layout begins at the most visible wall, starting with a vertical line drawn at the center of the window. Using a story board, the author then measures over from the line to check where the tiles will fall with the window trim (15). To ensure a full tile over the shower seat, a crew member draws a level line from the back of the seat (16). Measuring down from that line with the story board, the crew member sets the height of the ledger (a long level) for setting the first course (17).







After spreading unmodified thinset on the wall with a $^{3}/_{8}$ -inch notched trowel, a crew member begins the subway-tile installation with a grout line centered on the vertical layout line drawn earlier (18). Tiny plastic wedges set the width of the horizontal grout lines and support the tiles for subsequent courses. All of the straight cuts were made with a snap cutter, including the angled cuts where the wall meets the seat (19). Every few courses, the work is checked with a level to verify the tile is straight and level (20).

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To lay out the adjacent wall, a crew member levels over from the bottom course on the first wall (21), then checks the side-to-side layout with the story pole (22). Metal edging was used to finish the outer edge of the tile (23) to prepare for a glass-block partition that will butt into the edging. For cuts around faucet stubs, the worker traces the cutout on the tile with a felt pen (24), and then cuts out the shape with a wet saw (25). The story pole was used to ensure the face of the seat will have a full tile at the top (26).

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The last tiling detail to finish was a niche below the window (33). The author spreads unsanded grout for the wall tile in the usual fashion, making diagonal strokes with a grout trowel to ensure that the joints are filled completely (34). Next, he strikes the horizontal joints with the rounded barrel end of a marking pen to pack the joint and to remove the excess grout (35). Then he wipes the wall with a damp sponge (36). After letting the grout set for a few minutes, he wipes the wall with paper towels to absorb more of the moisture from the grout (37). He then gives the wall a final wipe with a terry-cloth towel to remove the haze from the grout and leave the tile shining (38).







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