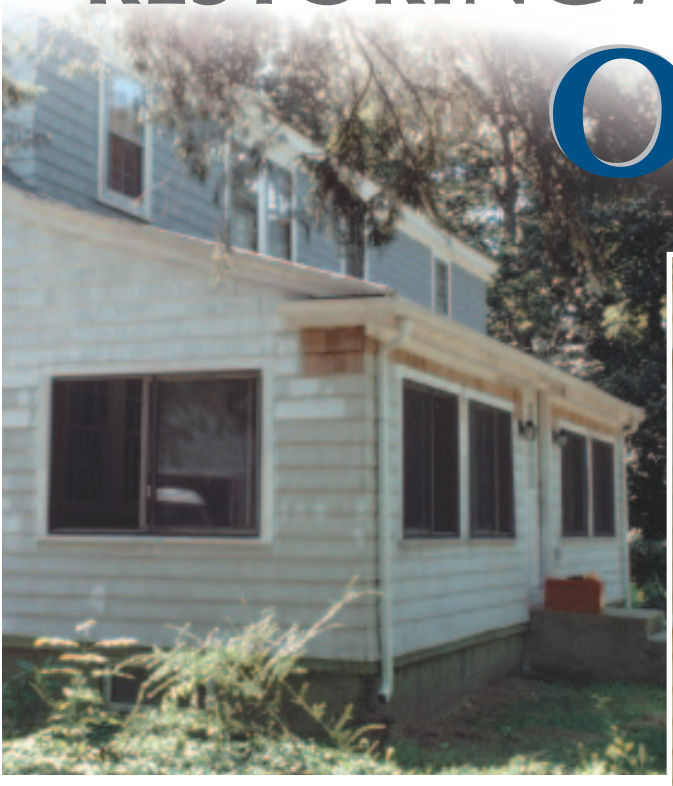
RESTORING AN Open Porch



by Katie Hill

Porches are often among the first architectural elements to be sacrificed on an old house — both because they require a lot of maintenance and because they are obvious candidates for conversion to year-round living space.

On a recent job, we went the opposite way: We were asked by the owners of a 1928 Colonial revival to convert a sunroom back to an open-air porch.

Design Meets Demo

During the design phase, we presented a half dozen alternatives. The client narrowed them down to two choices — a porch with custom posts, handrail, and chamfered balusters, or a porch with round columns atop the shingled half-wall that already existed as part of the sunroom. We estimated the cost of the first design at approximately 65% higher than the second.

To the clients, it was literally a tossup; we watched as the husband flipped a coin. The shingled-wall version won — that is, until we discovered, as demo progressed, thousands of carpenter ants swarming around the sills and the bottom of the half-wall framing, as well as substantial rot and fungus.

So much for the plan to keep the shingled half-wall. There had been no evidence of rot inside the sunroom, and not even a hint

Though it reduced floor space, converting a sunroom back to an open porch added value to this remodel

A Well-Proportioned Column

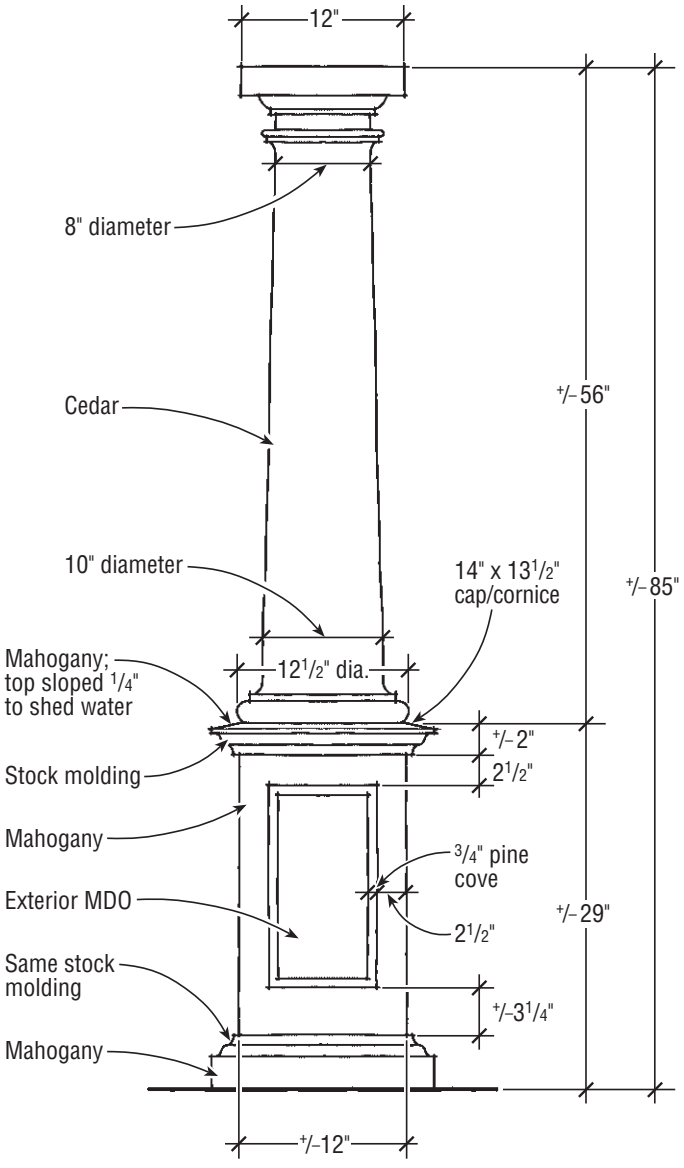


Figure 1. Sometimes scale drawings are not enough: A mock styrofoam column helped the clients visualize what they were getting (above). In the final design (right), manufactured cedar columns sit atop a basic MDO box pedestal trimmed with Honduras mahogany stiles and rails and stock moldings to imitate true raised panels.

of mildew, but given the extent of the damage, it was clear that the roof would eventually collapse without structural repair.

The first orders of business were to call the exterminator and stabilize the structure, while we went back to the drawing board with the clients.

Mock Column Proves Handy

Once the rotted framing had been removed, the clients stepped out onto the porch and loved the open feeling and view across their large front lawn. At that point, we suggested that they retain that open feeling by simply regrading around the foundation to meet code and create a porch with no handrails. They agreed, but, based on our drawings, they couldn't decide between square chamfered columns and classical columns.

So we got out our Japanese saws and rasps and made mockups out of rigid

foam insulation primed with white latex (see Figure 1, previous page). We made square pedestals and moldings, attaching the pieces with bamboo skewers. On top of the pedestals, we attached two-dimensional silhouettes of both the tapered, chamfered posts and the round columns, which we could pivot on the bases so they could be viewed from anywhere on the property. The clients chose round columns, and we were easily able to modify the dimensions until we got a thumbs-up.

Finally, using stock moldings, plywood, and white paint, we mocked up a pedestal to help them decide between raised panels and flat panels with panel moldings; they chose the latter.

As fussy as this process may seem (it took a couple of days), it avoided the problem of the clients not liking the finished project because it didn't look the way they thought it would.

New Support Beam

The original support beam had to be replaced with one that would center over the new columns. Working a section at a time, we installed a built-up beam of three 2x8s, reinforced by galvanized-steel framing anchors at the corners.

We added soffit and fascia to match that on the rest of the house, and installed new wooden gutters to match the originals. We moved the downspouts so they wouldn't be in front of the new columns. All the trim (we used clear pine) was primed, back-primed, and end-primed with oil-based paint. We used stainless-steel fasteners for longevity.

Concrete Repair

The concrete floor of the porch had a rough-textured edge that projected a few inches over the exposed foundation. One corner had broken away and was badly in need of repair. Rather than try to match the texture with a finishing tool, we used a quick-setting two-part rubber molding compound, available at sculpture supply houses. You mix this to the consistency of pizza dough, then press it against the surface you want to make a mold of. It sets up in a few minutes.

We made a mold of the opposite porch corner, which was still in good shape. Then, lining the form with that mold, we poured a new corner, first drilling and epoxying 1/2x8-inch bolts into the broken edge to ensure a strong joint (Figure 2).

Figure 2. To repair a missing corner of the textured concrete floor, the crew first made a latex mold of the opposite corner. The mold was then used to line the small form, to capture the edge texture. Galvanized bolts were epoxied in place to strengthen the new corner.

Figure 3. The first step in installing the columns was to slip the cedar column and the top of the pedestal over the screw jack post and position the jack (left). The cedar column was held in place with a clamp-on standpipe bracket, reinforced with a piece of marine plywood (above).

Figure 4. With the jacks and cedar column in position, the three-sided pedestal was slipped into place and fastened with shop-made aluminum hardware designed to stabilize the column while raising it off the floor to prevent moisture problems (above). After the fourth side was biscuited and screwed on, the base moldings were nailed off (right).

Installing the Columns

The porch roof is actually supported by 3-inch-diameter, adjustable steel jack posts — the kind with a welded base plate at the bottom and a screw plate at the top. The jacks run through the center of the wooden columns.

The paneled pedestals were built in three pieces: a top with a hole in it for the jack post to fit through and planed slightly toward the outer edges to shed water; a box with three sides; and a fourth side that could be screwed in place after installation.

To install the columns, we first slipped the cedar column and the top of the pedestal over the top of the jack post. Next, we put the jack in place and tightened the screw until it was snug against the beam. At this point, we lifted the cedar column and pedestal top — which had been fastened and caulked together — up to their final height (Figure 3, previous page). A two-piece bolt-on standpipe clamp held the column snug.

With the cedar column raised into position, we could now slide the three-sided box into place (Figure 4). We used aluminum bar stock and angle to attach the box to the floor. This ensured that all the wood was out of contact with the concrete floor. Finally, we screwed the remaining panel into place.

Preventing Rot

As restoration contractors, we are always encountering rotted wood. We knew our posts would be vulnerable and had considered three alternatives for the bases of the pedestals: a metal base, a base raised off the floor, and wooden moldings covering the gap between base and floor. For aesthetic reasons, we decided to use mahogany moldings, tapered to match the pitch of the floor. The bottoms were painted with wood consolidant before being primed and topcoated. Even with this care, we anticipate that these trim pieces will eventually deteriorate with the absorption of moisture from the concrete floor, but the pedestals themselves should be fine.

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