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IN EVERY ISSUE

10 ON THE WEB
12 CONTRIBUTORS
14 LETTERS
18 HOW IT WORKS
   High winds vs. houses
22 TIPS & TECHNIQUES
   Loosening a router collet,
   Protecting a smartphone,
   Removing a damaged
   bathtub drain
28 TOOLS & MATERIALS
   Production-style paint
   removal, Lighter worm-
   drive saw, Safer head-
   phones, Router bits that
   leave smooth surfaces
38 WHAT’S THE DIFFERENCE?
   Metal-cutting snips
84 PROJECT GALLERY
86 QUESTIONS & ANSWERS
   Impact-rated glass,
   Identifying an existing
   floor finish
90 ENERGY-SMART DETAILS
   Insulating rim joists
92 BUILDING SKILLS
   Cutting an exterior
   wood door
96 DRAWING BOARD
   Comfortable cathedral
   ceilings
100 TAILGATE
   Mike Sloggatt, volunteer
102 FINISHING TOUCH
   Porch from the past

ON THE COVER: Combining style and functionality in a small house can be a challenge, but architect Cathy Schwabe achieved that goal in an 800-sq.-ft. cottage nestled in the California redwoods. Explore 10 key design lessons from this home on pp. 44-49. Cover photo by Charles Miller.
Magnolia pavilion

Designed by architect Tony F. Miller for homeowners in North Carolina, this timber-frame pool pavilion has its own guest entry and distinct areas for cooking, dining, and relaxing. The custom-designed pool features a spa, a sunbathing pool ledge, a diving area, a two-story slide, and an area with the exact depth and dimensions for water volleyball.

Along with his associate James Nevada, Miller modeled the pavilion in SketchUp, the same program that was used by the timber-framing firm Carolina Timberworks. Before the construction process began, the two firms exchanged their SketchUp files. This allowed each firm to contribute technical and design information at all stages of the project and enabled the clients to review each step.

Western red cedar from British Columbia was used for the timber-framing, connected by hand-cut traditional pegged mortises and tenons. Timber surfaces were sanded, and the edges were eased with a draw knife. The pavilion’s ceiling has a floral motif that mimics a magnolia tree near the pool slide. The inner ceiling of the pavilion has no ledges or horizontal surfaces for birds to roost or for pollen to collect.

The homeowners preferred the durability of Pennsylvania bluestone for the pool deck.
The timber framer’s tale

The first time I saw the project, it was on the computer screens of our designers, Craig Kitson and Chris Miller. Even though the drawings were not complete, I immediately told them I wanted to build it. I knew these clients liked challenging curves. We had already built them a timber-frame trellis, which involved a large ellipse designed to mirror a radial window above the trellis. The architect called for an impressive level of detail in the pavilion. Structurally, the round sections are built in an octagonal hammer-beam configuration with octagonal finials on the end of each hammer post, all braced back to the radial top plate by braces that have segmental arches cut in them. It was as complicated as it sounds.

Prefitting in our shop made for a great show for visiting clients. Because our shop wasn’t big enough for the whole structure, we had to fit it in sections, sometimes right side up, sometimes upside down. It was always a bit of a spectacle, and as word got around town, a lot of visitors came to the shop and took lots of photos.

We try to ship timber frames in assembled sections whenever possible. We also try hard to disturb the building site as little as possible. In this case, we wound up weaving through the pines surrounding the adjacent golf course with giant arches dangling from the forks of an all-terrain-type forklift. I am certain that golf scores suffered that day.

It’s a joy to work with people passionate about design and quality construction. In the final assessment, my hat is off to the architect, the contractor, and of course, the homeowners.

James Heaton, lead craftsman, Carolina Timberworks