



Cutting Corners

Tips and tricks for building a curved multi-level deck BY STEVE MAXWELL

HERE ARE DECKS, and then there are decks. While design is the thing that separates the ordinary from the extraordinary in the deck world, of all the premium design features out there, curves are one of the most challenging and rewarding. Although each curved deck is unique, there are transferrable construction principles you can apply to any project. Here are four essentials to help you build curves and layers into your deck regardless of the size, shape or location.

> EVERY SIXTH board is tapered on the perimeter of this deck to create the curved shape





THE SOFT, curved lines of this deck (built by Todd Mounsey of Your Deck Company, with Trex decking) complement the natural surroundings so it feels more natural to the setting. One of the challenges, however, was fitting the deck's edges tight around the circumference of the hot tub (above left), as well as around the existing stone steps (right)



UNDERSTAND THE BASICS

The main difference between a linear deck and a curved one is how the edges of the floor frames end. That's obvious enough, but it's worth bringing to mind because that's where your most important work happens. In the image pictured above, at right, you'll see three important things.

First, there's more than one level. Curved deck edges are one thing, but they don't reach their full visual potential without the help of multiple deck layers.

Second, although deck-floor frames are curved, the underlying



CURVED BLOCKING is sawn to shape after installation, spanning the space between the floor joists

support beams are not. Floor joists that extend by varying amounts past the beams that support them are a necessary part of construction. Also, take a look at the ends of the floor joists in the photo below, at left. See how they're cut to match the angle of the curve at that point? More on this later.

And, finally, curved decks typically use horizontal, solidwood blocking between the ends of the floor joists, to create continuous support for the curved headers that bend around the edges of the deck.

DEFINE YOUR DESIGN

Most straight decks are built successfully without a plan, but a curved and layered deck is something else. It's one thing to realize that a 10' x 30' straight deck on the back of your house will work well and look good; but very few people can properly envision the look and feel created by the shapes and layers that are possible with a curved plan. The variables are too great, and that's why you should use cardboard and 1/4"-thick

foam board to model the details of the curve radii, widths and layers before you start to build.

FRAME IT SQUARE; CUT IT CURVED

Start by building the lower layers of your deck, extending each floor joist out beyond its final length but resting on its support beam. The idea is to create a somewhat greater extension of floor frame than you need, allowing enough extra length for cutting the curves. With your floor joists in place and secured to the underlying beam with screws or metal brackets, mark the curve on the top edges of the floor joists using a string and pencil as a compass. This is where your earlier design work with the model pays off.

The next step is to cut pieces of 2x6, 2x8 or 2x10 lumber as needed to fit at right angles between the edges of the floor joists on their flat, extending slightly past the outline of the curve you just marked. (See centre photo, page 21.) The width of wood required varies depending on the degree of curve at that point, so use your judgment. All that's







A LOW cedar deck, built by Todd Mounsey (above, left), blends in with the lagoon style of the pool. A proper drainage system lies unseen beneath it. The custom-curved iron rail (bottom, left) leads the eye into the main focal point of the yard and away from the cedar hedge. These curves match the contours of the pool (above, right) and create a seamless transition to the concrete patio

required is that the lumber extend beyond the outline of the curve, with at least 3" remaining as part of the deck on the inside. Use your string and pencil again to draw the curve on the top faces of these edge boards, matching what's on top of the joists.

If your curve is gentle enough, use a circular saw to cut it. Setting the depth of cut only for what's required to cut through the lumber and no more allows the greatest degree of curve to be cut. If the curve is too tight for a circular saw, an orbital jigsaw with a coarse blade will work, too.

Either way, the objective is to cut curves in the top boards, while also cutting partway down each floor joist. Complete the vertical floorjoist cuts with a handsaw, following the angle established by the powersaw cuts you just completed. Finish up by brushing wood preservative on the fresh cuts.

INSTALL THE CURVED HEADER & DECK BOARDS

A header is the board that defines the edge of a deck-floor frame, and



WITH THE ends of floor joists angled to match the curvature of the deck. preservative has been applied to all cut surfaces

it's the only place where this kind of curved deck requires bent wood. The photo at lower right shows a curved header being installed. Start with some 1/4"-thick lumber that's free of large knots, then create saw cuts partway through the inside face of each board, to aid in bending. These are called "kerfs," and a handheld circular saw with the blade extended by about 1/4" works well. Have the saw follow a guide to keep these kerfs square to the board's edges. You'll find 1" to 3" spacing works in most situations. Dry-fit the kerfed boards along the edges of the deck.

using clamps to pull them in tight. Use construction-grade adhesive and screws to fasten the curved headers (below). Finish up by fastening deck boards on top of the curved frame, then use your string compass to mark them for sawing.

A curved and layered deck won't cost much more in materials than a straight one, but it could easily take two to three times as long to build. That's often the way it is with quality, and not everyone finds it worthwhile. But if you're the kind of person who feels the urge to create the finer things in life, then there's not much to think about.



SAW CUTS partway through the rear faces of the header boards allow them to bend to the curved edge of the deck