

# Installing Stair Skirtboards

Notching the skirtboard over the risers for a better-looking job

by Bob Syvanen

I used to trim closed-stringer stairways by installing 1x10 skirtboards first and butting the treads and risers into them. Setting the first riser was simple enough—scribe, cut and nail in place. The difficulty started with the first tread. If it was the least bit long, it pushed the skirtboard, opening the joint below between the riser and the skirt. Installing the second riser then risked opening the joint at the first tread, and so on up the stairway.

A few years ago a young carpenter showed me a technique that involves notching the skirtboard for the treads and risers (it looks like an upside-down carriage). This method still requires scribe-fitting the treads, but eliminates scribe-fitting the risers because they slip behind the skirtboard. It produces a better-looking job quicker and with less aggravation.

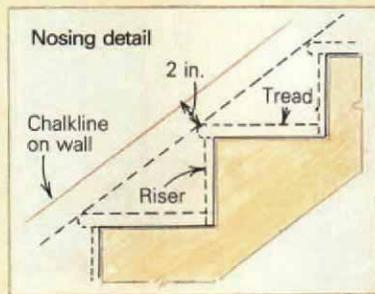
**Positioning the skirtboards**—As an example, let's consider a straight-run stairway with walls on both sides. I install the outside carriages 3 inches in from the finished walls. This leaves access for work that must be done from the backside. Also, the underside of the stairway should be open (no drywall) for nailing and gluing access.

I lay a 1x10 skirtboard against a wall so that the bottom can be scribed to fit the floor (drawing left). If the carriage was against the wall, then I could rest the skirtboard on the carriage points. But I have to jockey the skirt a bit to make sure it's parallel to the carriage. With its bottom corner resting on the first floor and its upper edge resting on the second floor, I move the 1x10 up or down until the angle looks right. I check it by measuring the distance from the points on the carriage to the upper edge of the 1x10.

I tack the 1x10 in place and mark the wall along the upper edge of the board—one mark near the top and one near the bottom. These serve as parallel reference marks for determining the skirtboard's final position.

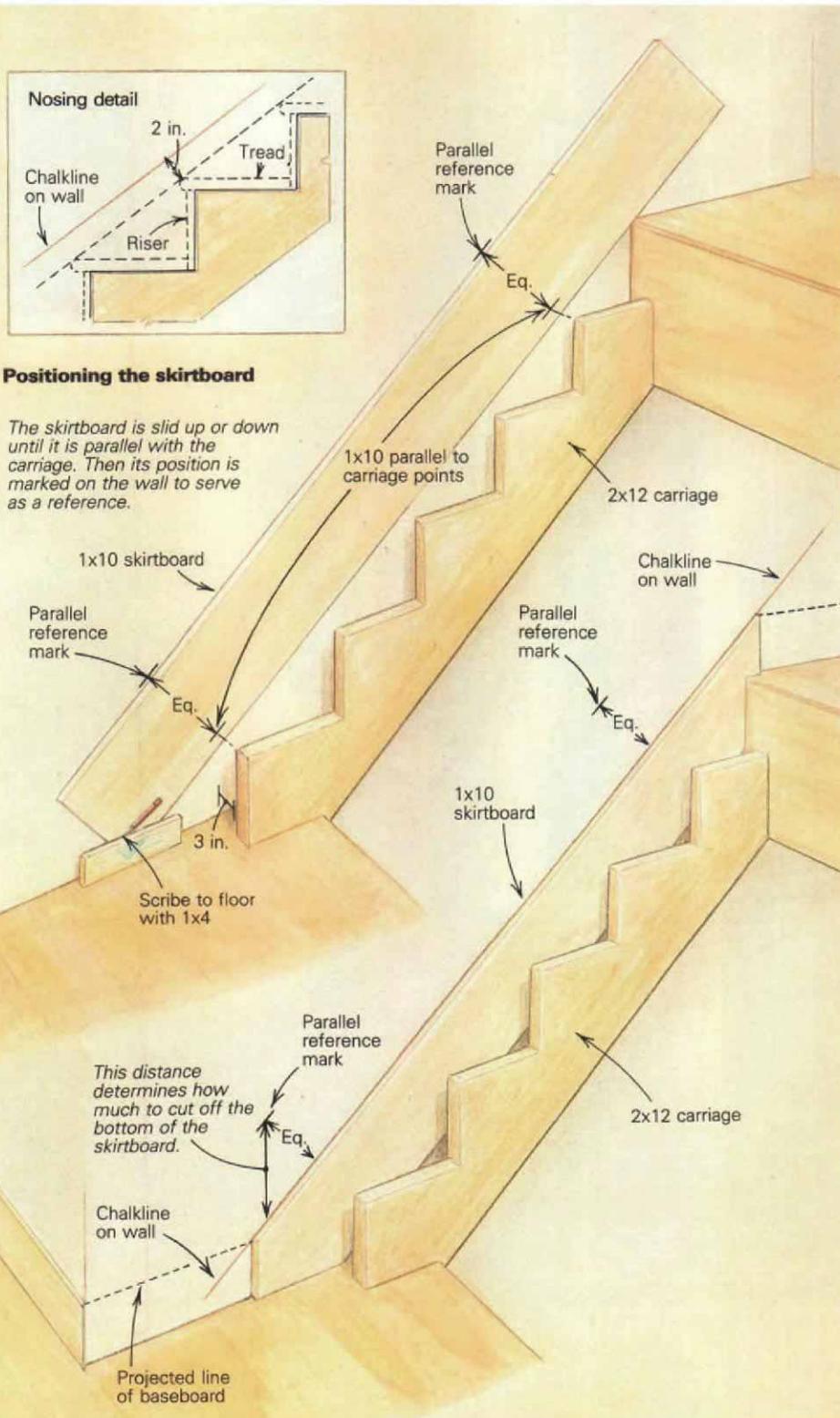
While the 1x10 is tacked in place I scribe the bottom end to fit the floor. The simplest way to do this is to place a short length of 1x4 flat against the bottom end of the 1x10. The top edge of this piece will be parallel to the floor. Marking along this line will provide the angle at which to cut the skirtboard. Later I'll calculate exactly how much I need to cut off.

After removing the 1x10, I return to the wall with the parallel reference marks and deter-



## Positioning the skirtboard

The skirtboard is slid up or down until it is parallel with the carriage. Then its position is marked on the wall to serve as a reference.



mine the top edge of where the skirt will eventually go. The skirtboard should sit as high as possible without exposing any wall where the riser and tread meet. The top edge of the skirtboard usually ends up about 2 in. beyond the finished tread nosings (detail drawing facing page). I snap a chalkline on the wall representing the upper edge of the skirtboard; I then use a level to draw the plumb cut at the top and bottom of the wall, where the baseboard will meet the skirtboard. I also draw a plumb line through one of the parallel reference marks and then measure along it between the reference mark and the chalkline. This distance determines how much I need to cut off the bottom of the skirtboard.

If I'm using 1x stock for baseboard, I'll extend the skirt as far as necessary to intersect it. Next I transfer the layout of the plumb cuts to the skirtboard. To do this I measure the height of the plumb line on the wall and use an adjustable bevel square for the angle. Then I find the point on the skirtboard where I can get the height I need at that angle.

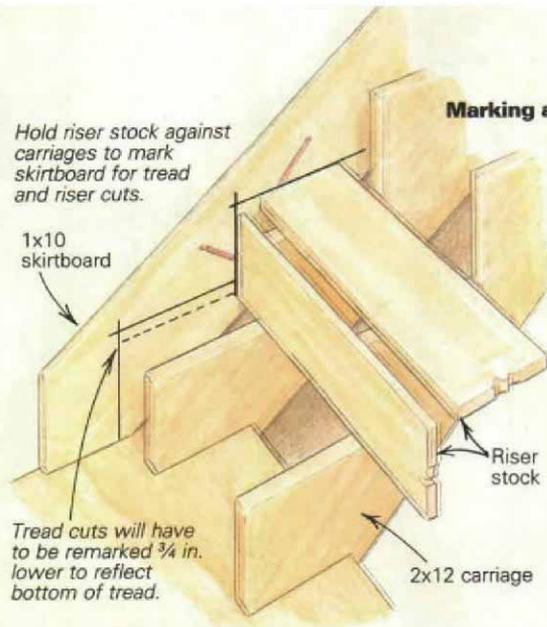
I follow the same procedures for both skirtboards, make the necessary cuts and then tack them in place. At this point the skirtboard is between the wall and the carriage, and I'm ready to mark the cuts for treads and risers.

**Marking and cutting**—To locate the riser cuts, I use a length of riser stock, cut square at the ends, and press it up against the riser surface of the carriages and hard against the skirtboard (drawing above). I mark the location of each riser on the skirtboard with a sharp pencil. I do the same for the treads, still using the riser stock, marking horizontal tread lines. These tread lines, however, have to be re-marked  $\frac{3}{4}$  in. lower to represent the bottom face of the treads (or the horizontal surfaces of the carriage). I re-mark them later.

You can use a circular saw to cut the skirtboards, but I prefer to cut them by hand. A sharp finish handsaw is best for the riser cuts. I back-cut them (cut them at a slight angle) for a good, tight joint at the face. The tread cut will be hidden so I use an 8-point crosscut saw here.

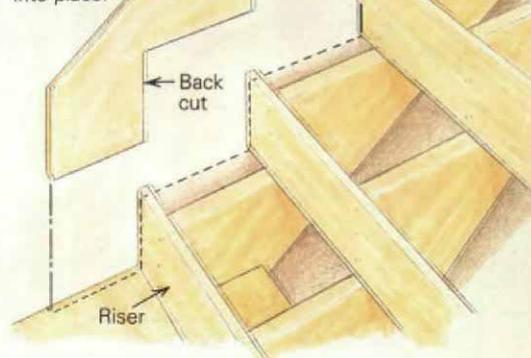
**Running the risers**—I like to rip all the risers to width before assembly. I keep the risers a hair narrower than called for and a bit short in length for a loose fit between the finished walls on each side of the stairway. I rip the treads to allow for a 1-in. nosing and crosscut them about  $\frac{3}{4}$  in. longer than the dimension between the skirtboards. This allows me to slip them into position at a low enough angle to get a good scribe at one end while leaving enough stock to scribe and cut the other end.

When nailing the risers in place, I hold the top edge flush with the tread surface of the



### Marking and placing the skirtboard

After cutting the skirtboard and nailing the risers to the carriages, the skirtboard is lowered into place.



carriages. After all the risers are in, I'll nail the skirtboards in place, but before doing that I locate the studs and blocking behind the drywall and mark the locations on the wall just above the chalkline that represents the top edge of the skirtboard. If there's a lack of solid blocking, I nail where I can and glue elsewhere with construction adhesive. Sticks wedged over to the opposite wall will secure the skirtboards firmly until the adhesive sets.

No matter how carefully the skirtboards are marked and cut, some joints will be open where they butt against the risers. This is easily fixed by driving shims between the riser and the carriage, and then nailing with 5d box nails through the back of the riser into the skirtboard. I do this nailing after all the risers are in.

**Scribing the treads**—Next the treads are scribed to the skirtboards on each end. Having allowed  $\frac{3}{4}$  in. for scribing when I cut the treads to length, I set the scribes at  $\frac{3}{8}$  in. I put the tread in place with the end to be scribed down on the carriage and against the skirtboard (drawing right). The other end will ride high on the opposite skirtboard. The tread must be snug to the riser along the entire length. With the scribes riding against the skirtboard, I mark a line on the tread.

I back-cut the tread using a finish handsaw, but keep the cut square at the front where the nosing projects. Back-cutting makes it easier to correct the cut with a block plane.

After the first end is fitted, I carefully measure the distance between the skirtboards, using a folding rule with a sliding extension. Measuring for the length of either the front or back of the tread should be good enough, but I prefer to measure both as a doublecheck. With the tread in place, the scribes should be set to one of the marks and then should hit the other. If the scribe misses the second mark, it means the tread is tipped, and adjusting the tipping will ensure a good scribe line. □

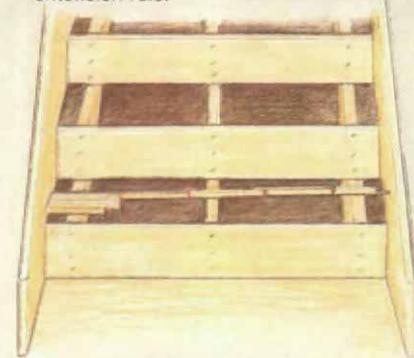
*Bob Syvanen is a builder in Brewster, Massachusetts, and a consulting editor for Fine Homebuilding.*

### Scribing treads

1. With tread ripped to width and cut  $\frac{3}{4}$  in. long, scribes are set at  $\frac{3}{8}$  in. to mark left side.



2. After scribing and cutting left side, measurements are taken to determine length of tread. Measure back and front with folding extension rule.



3. Right side is scribed to fit contours of skirtboard and marked for length at the same time.

Set scribes between skirtboard and measurement mark.

