

# Craftsman-Style Fireside Retreat



**BEFORE**

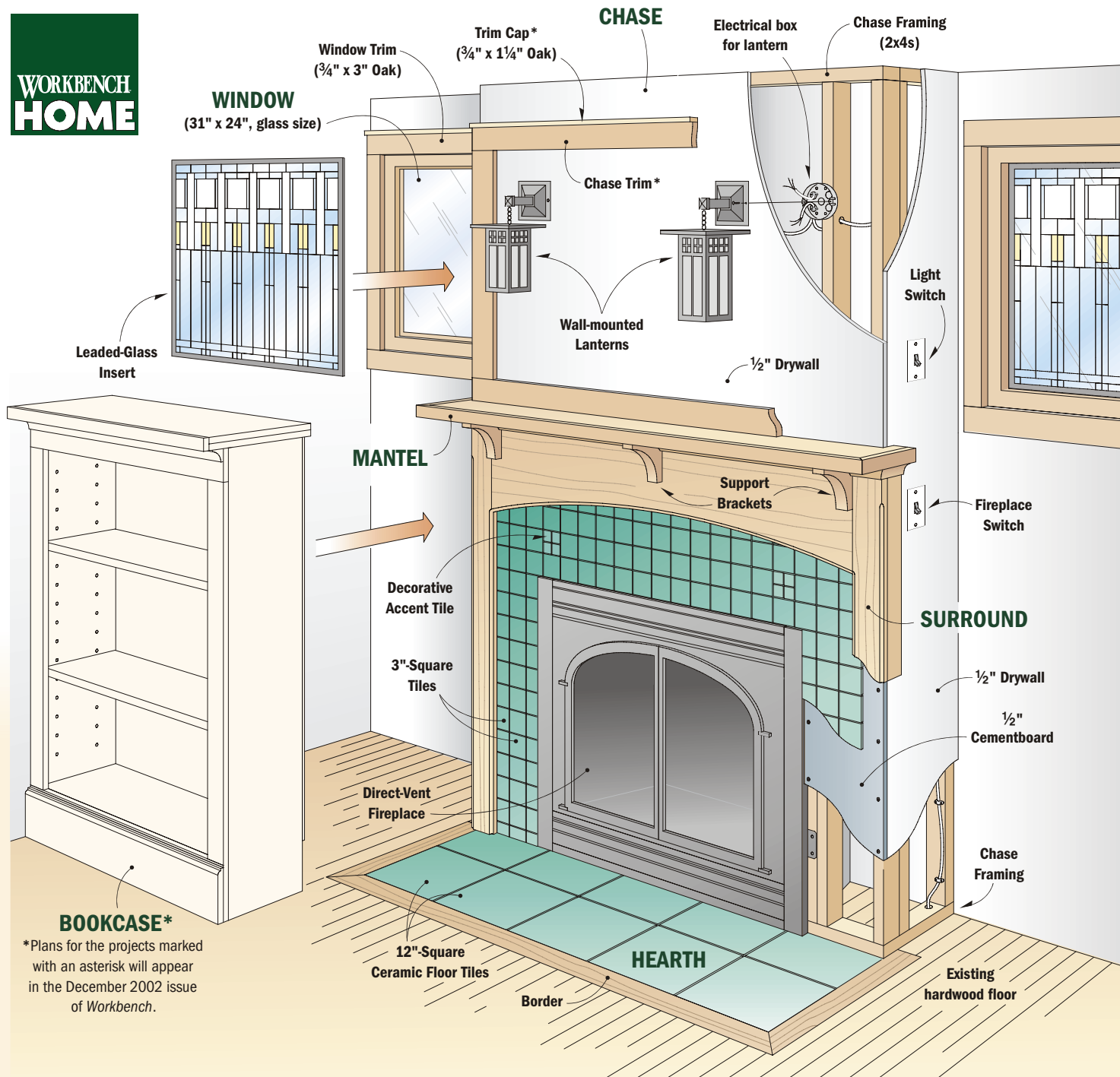
▲ We transformed this ordinary living room into the warm, inviting retreat shown above — one project at a time.

**I**t's pretty obvious, right? A living room is meant to be *lived* in. But to be honest, some living rooms just don't have that warm, inviting feel that makes you want to sit for awhile, read a good book, and relax.

That was the case for the living room shown in the *Before* photo at left. It looked alright, but it lacked a focal point that would really make a statement. So we decided to add one.

Our solution was to create a warm, inviting, fireside retreat that reflected the Craftsman style of the house. To accomplish that, we added a pair of leaded glass windows, a direct-vent fireplace with a tile hearth, an oak mantel and surround, and two built-in bookcases.

**LEADED GLASS WINDOWS.** The first big improvement was to replace the tall window with two leaded glass windows. This is easier than it sounds. The windows are installed as separate



**BOOKCASE\***  
\*Plans for the projects marked with an asterisk will appear in the December 2002 issue of *Workbench*.

units. Then a special leaded-glass insert is “clipped” into the window frame. (Sources for these windows, inserts, and the other items used in this project are listed on page 26.)

**GAS FIREPLACE.** The windows are like bookends for the centerpiece of the room — a gas-fired, direct-vent fireplace. As its name implies, the fireplace vents directly out the wall, which means there’s no need for a chimney. This

makes installing the fireplace a very “do-able” project.

**CERAMIC TILE.** The fireplace sits on a hearth made of 12”-square ceramic tiles. Smaller tiles (3”-square) cover the lower part of a floor-to-ceiling chase that’s built around the fireplace. Even if you don’t build this project, be sure to check out our simple technique for making a four-piece, decorative accent using the small tiles (*page 23*).

**OAK MANTEL.** To complete the installation, we added a mantel and a fireplace “surround,” both made of quartersawn red oak. Thanks to an extremely simple design, both projects can be easily modified to fit any fireplace.

**BOOKCASES.** Finally, the fireplace is flanked by two built-in bookcases. Plans for these bookcases, and also the oak wall trim, will appear in the next issue of *Workbench*.



# HEARTH & FIREPLACE

The heart of this project is a gas-fired, direct-vent fireplace that sits on a ceramic tile hearth.

The fireplace I installed is manufactured by the Heat-n-Glo company. This particular unit is only 16" deep, so unlike deeper units, it doesn't "invade" the living room.

Besides its compact size, it features a sealed firebox that uses outside air for combustion. In other words, it doesn't draw warm air from the room. This results in an extremely energy-efficient unit.

## PLANNING

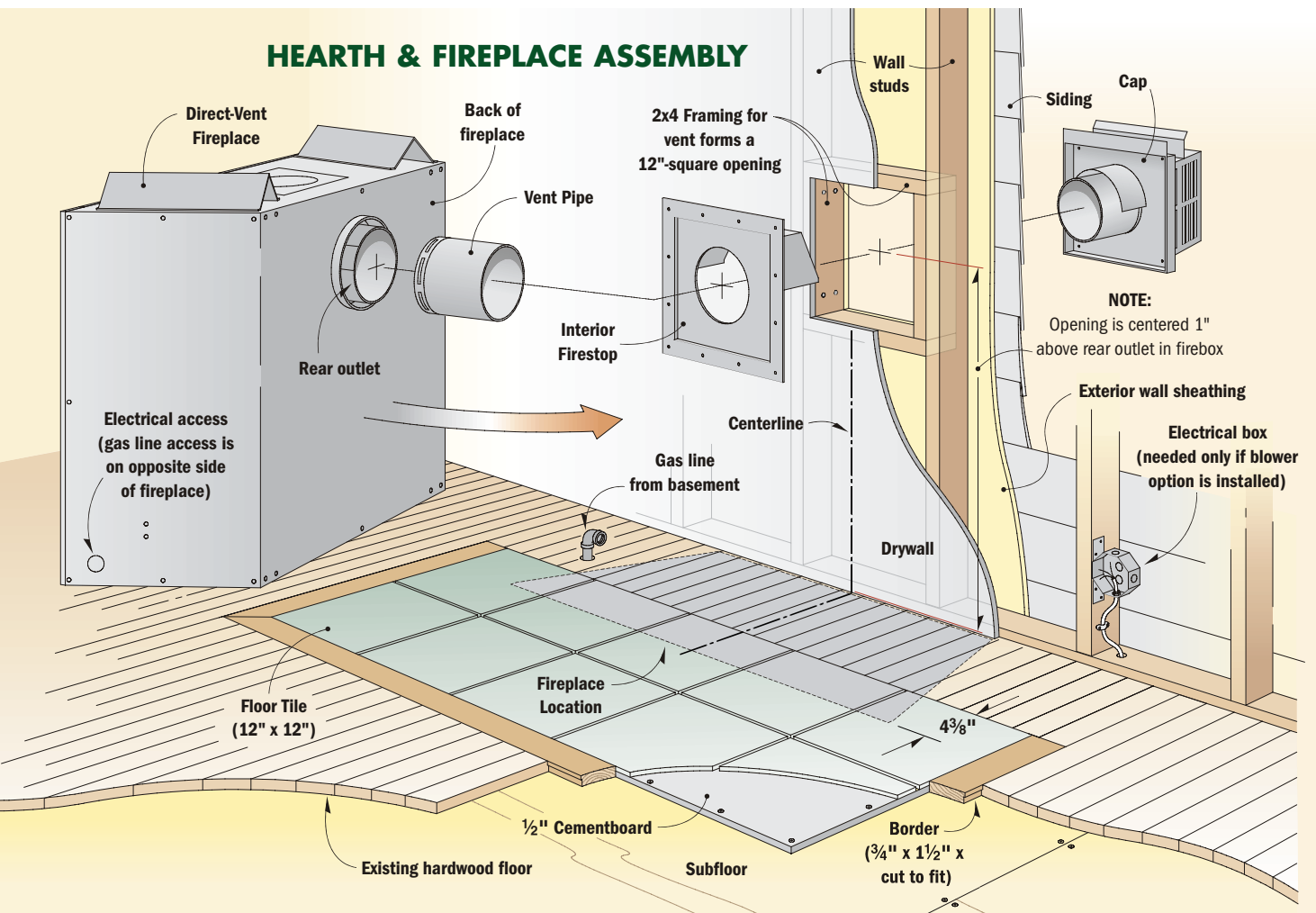
Before installing the fireplace, there's some preliminary planning that needs to be taken care of.

**FIREPLACE LOCATION.** The first decision is where to locate the fireplace. I decided to center it on the wall and the floor to use as references for locating the fireplace, the hearth, and the opening for the vent (*Hearth & Fireplace Assembly*).

Just a quick note about the vent opening. Be sure to check what's opposite the opening, *outside* of the wall. You'll want to consider the distance between the vent and any nearby windows, walls, or shrubs. Consult your fireplace manual for minimum clearances. Also, don't forget to check local building codes.

One final thing to take care of is to have the gas line installed that

▲ This attractive and efficient gas-fired fireplace is a "zero-clearance" unit, so it can be installed next to a wall without being a fire hazard.







▲ To create a weatherproof fit, slip the top lip of the vent cap under the siding. After screwing it in place, caulk around the vent unit.

## VENT OPENING

After completing the hearth, the next step is to make the opening for the fireplace vent.

The vent pipe passes through a 12"-square opening. It's centered on the fireplace, 1" above the center of the rear outlet on the fireplace, as shown on page 18.

After laying out the opening and removing the drywall, frame the opening with 2x4's. Depending on the location of the wall studs, use one of the framing methods shown below in *Framing Options*.

To complete the opening, you'll need to cut through the exterior sheathing and siding. A reciprocating saw comes in handy here. To make a

controlled cut, it's best to use the 2x4 framing as a guide for the blade.

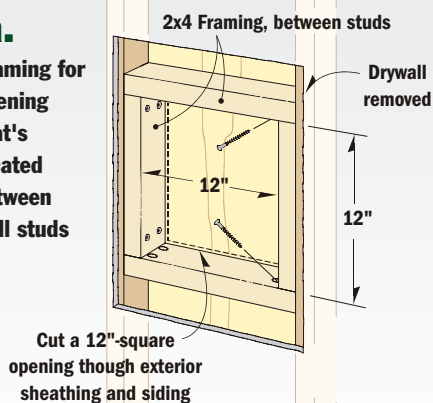
**TRIM SIDING.** To make the vent cap sit flat against the sheathing, you'll have to trim the siding. I used the vent cap as a template to mark the siding (Fig. 1) and then trimmed it with a circular saw (Fig. 2.)

**INSTALL FIREPLACE.** Now it's just a matter of installing the fireplace and connecting the vent. The *Vent Installation* illustration below shows the completed hook-up. Notice how the lip of the vent cap fits under the siding to produce a weatherproof installation. Be sure to apply high-temperature sealant (included with the unit) when connecting the pipe to the fireplace.

## FRAMING OPTIONS

**a.**

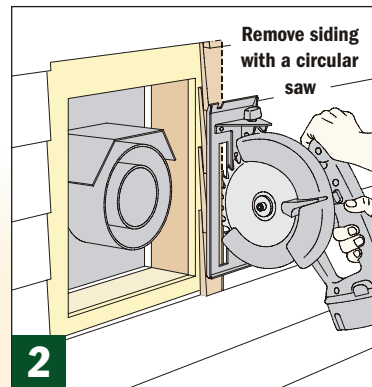
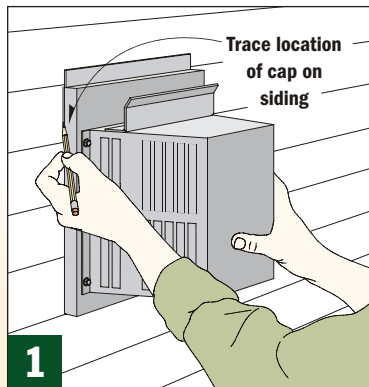
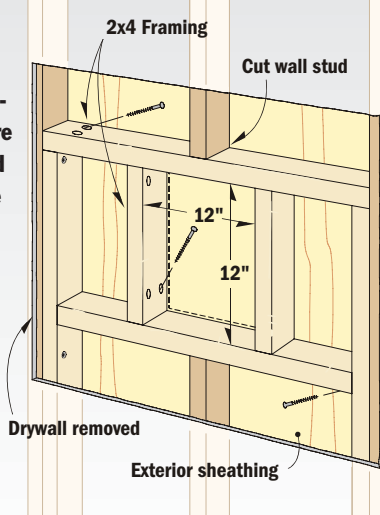
Framing for opening that's located between wall studs



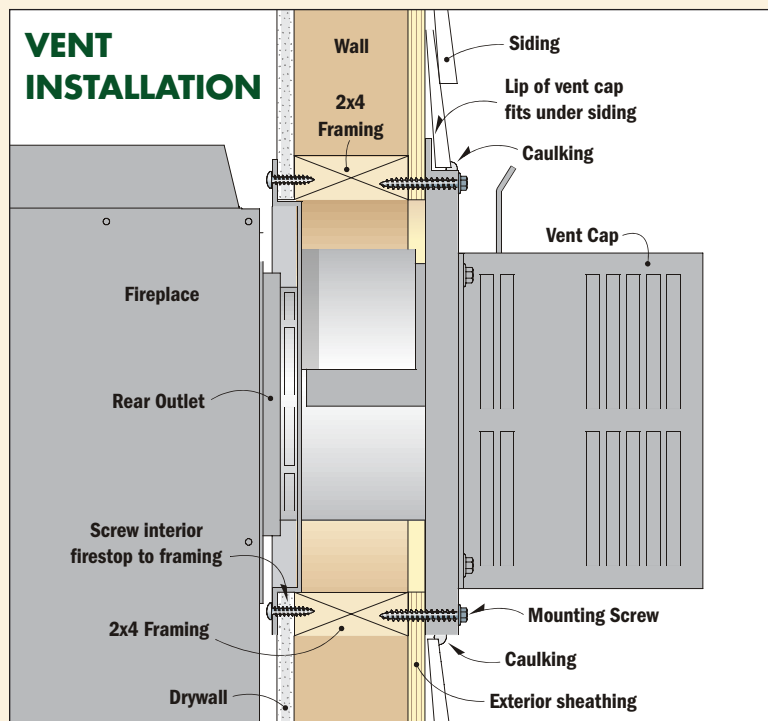
Cut a 12"-square opening through exterior sheathing and siding

**b.**

Framing for opening where wall stud is in line with opening



## VENT INSTALLATION



# a chase for your fireplace

This fireplace is surrounded by a floor-to-ceiling, built-in enclosure called a chase (*Chase Construction View*). The chase is constructed of 2x dimension lumber and then covered with cementboard and drywall. I used cementboard where I planned to install ceramic tile. But covering the entire chase with drywall would also work fine.

## BUILD THE WALLS

The first step is to frame two end walls and a front wall for the chase. The *Framing Detail* below shows the dimensions for the 41"-wide fireplace I used, but they can be easily changed to suit your application.

Just a couple of notes here. Plan the wall framing so the front wall sits directly *behind* the mounting

tabs on the fireplace (*Installation Detail*). Screwing the tabs to the wall studs will secure the fireplace.

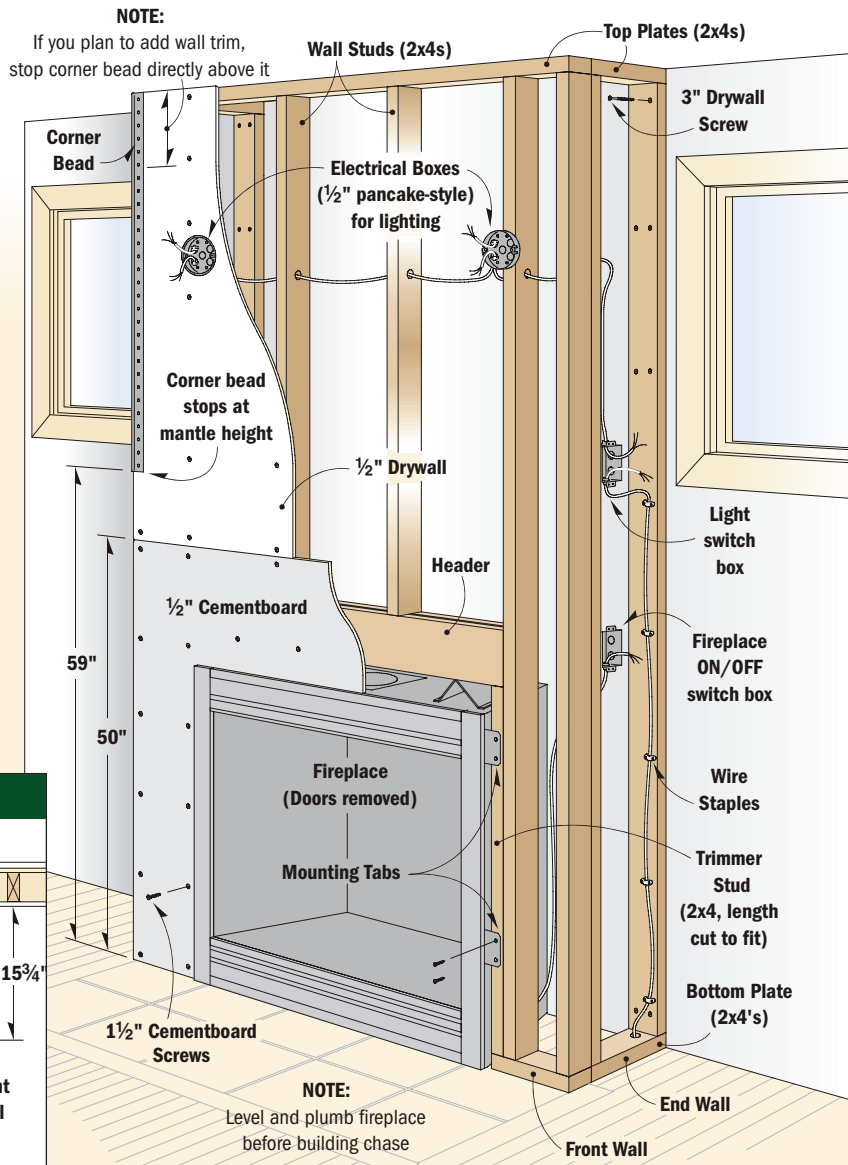
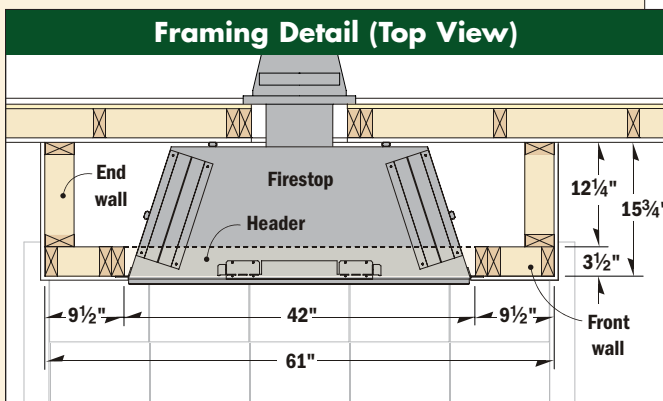
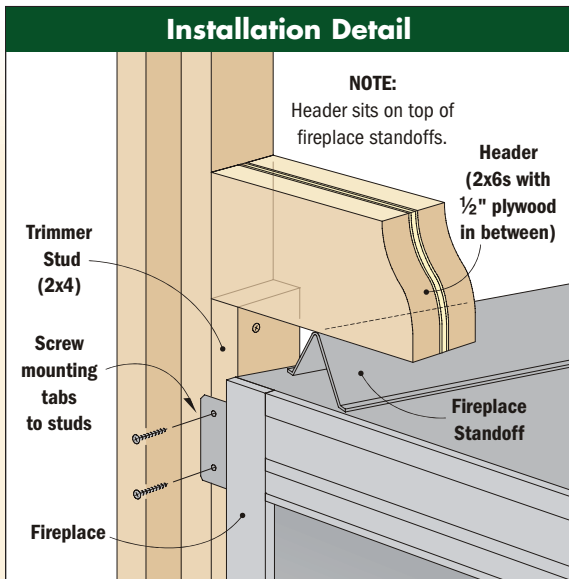
Also, notice that the header in the front wall sits on a pair of metal standoffs attached to the fireplace. These standoffs ensure proper clearance above the fireplace.

**GAS CONNECTION.** Before enclosing the walls, you'll need to have the gas line connected to the fireplace. The unit I installed had a flex-pipe and valve already attached, which connect to the gas pipe.

**ELECTRICAL.** All the electrical work for the remodeling project also has to be roughed in at this point. The fireplace comes with a special switch, *not* connected to the household wiring, that turns the unit on and off and controls the flame. I mounted this switch to the end wall of the chase. Also, the wiring for a blower (if your unit has one) has to be installed now.

In addition to the fireplace hook-ups, I planned to install two wall lanterns above the mantel.

## CHASE CONSTRUCTION VIEW



They're wired into shallow (1/2") "pancake-style" boxes. Here again, I'd recommend hiring an electrician for all the electrical work.

**ENCLOSE THE WALLS.** Once the installation has been approved by a building inspector, you can "button up" the walls. To provide an underlayment for the tile, I screwed cementboard to the front wall. The rest of the chase is covered with drywall, and the corners are finished with corner bead.

One thing to be aware of is the length of the corner bead. As it's shown here, it extends down to where the top of the mantel will be. If you plan to add oak trim above the mantel, as on page 17, cut the corner bead shorter. Otherwise, the trim pieces won't lie flat.

**TIME FOR TILE**

Traditionally, fireplaces were surrounded by non-combustible material. There's no need to do that with this direct-vent fireplace. But to create a more elegant look, I decided to apply ceramic tile to the front of the chase.

**SHEET TILES.** To speed up the installation, I used 3" tiles that are held together on 12"-square sheets of plastic webbing. Small dabs of glue between the tiles keep them from falling off the sheet.

**INSTALL TILES.** With tiles in hand, you're ready to begin. The step-by-step sequence I used to lay out and apply the tiles is shown below. After the adhesive cures (about 24 hours), remove the glue between the tiles with a utility knife. Then grout the joints with a sanded grout. (Once again, refer to page 28 for some tips and techniques for installing tile.)

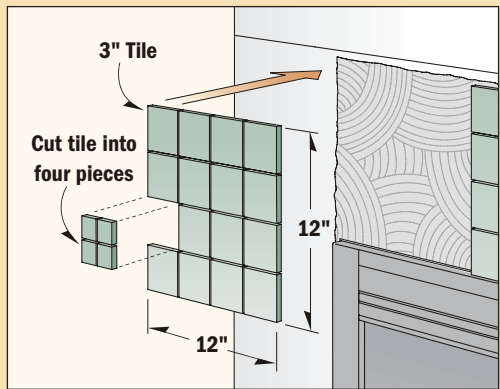
**ACCENT TILES.** One of the interesting things about this installation is the two accent tiles near the upper corners of the fireplace. This accent tile is made by using one of the 3" tiles from the sheet.

To do this, remove one tile from the sheet and cut it into four equal pieces, as shown at right. After you've installed all the sheets of tile (and before grouting) tape the four tiles back in place. Then grout the joints to highlight the small tiles.

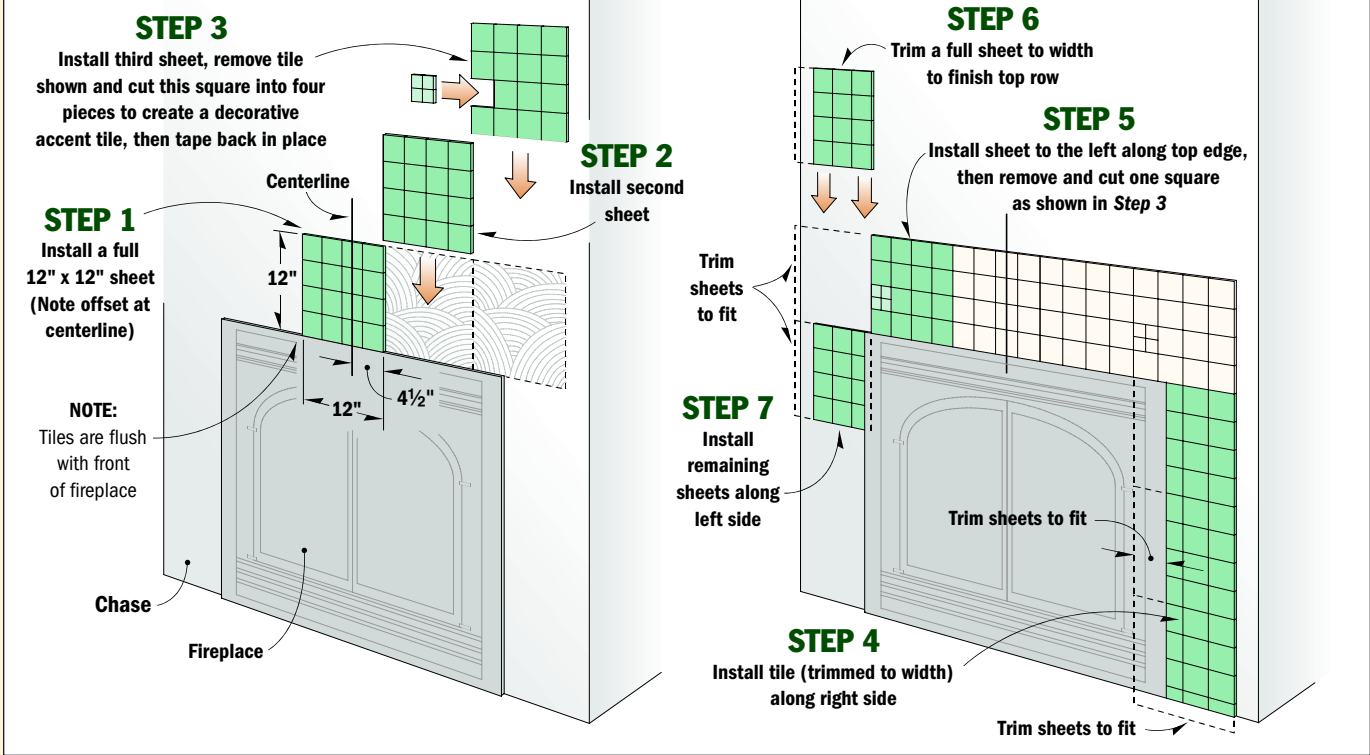
**DECORATIVE ACCENT TILES**



▲ A "wet wheel" tile saw makes quick work of cutting the 3" tile into four pieces. Be sure to keep your fingers back.



**STEP-BY-STEP TILE INSTALLATION**



# FIREPLACE SURROUND



It's called a *fireplace* surround. But to be more accurate, this oak surround actually wraps around the *chase*, covering the unfinished edges of the tile. It also supports the oak mantel.

As you can see in the illustration below, the fireplace surround consists of a curved front rail and two tall, L-shaped stile assemblies. A set of three curved brackets support the mantel, and pre-made cove moldings complete the package.

## STILE ASSEMBLIES

The first step is to make the two stile assemblies. Each assembly consists of a  $\frac{3}{4}$ "-thick front (A) and side stile (B) assembled with biscuits.

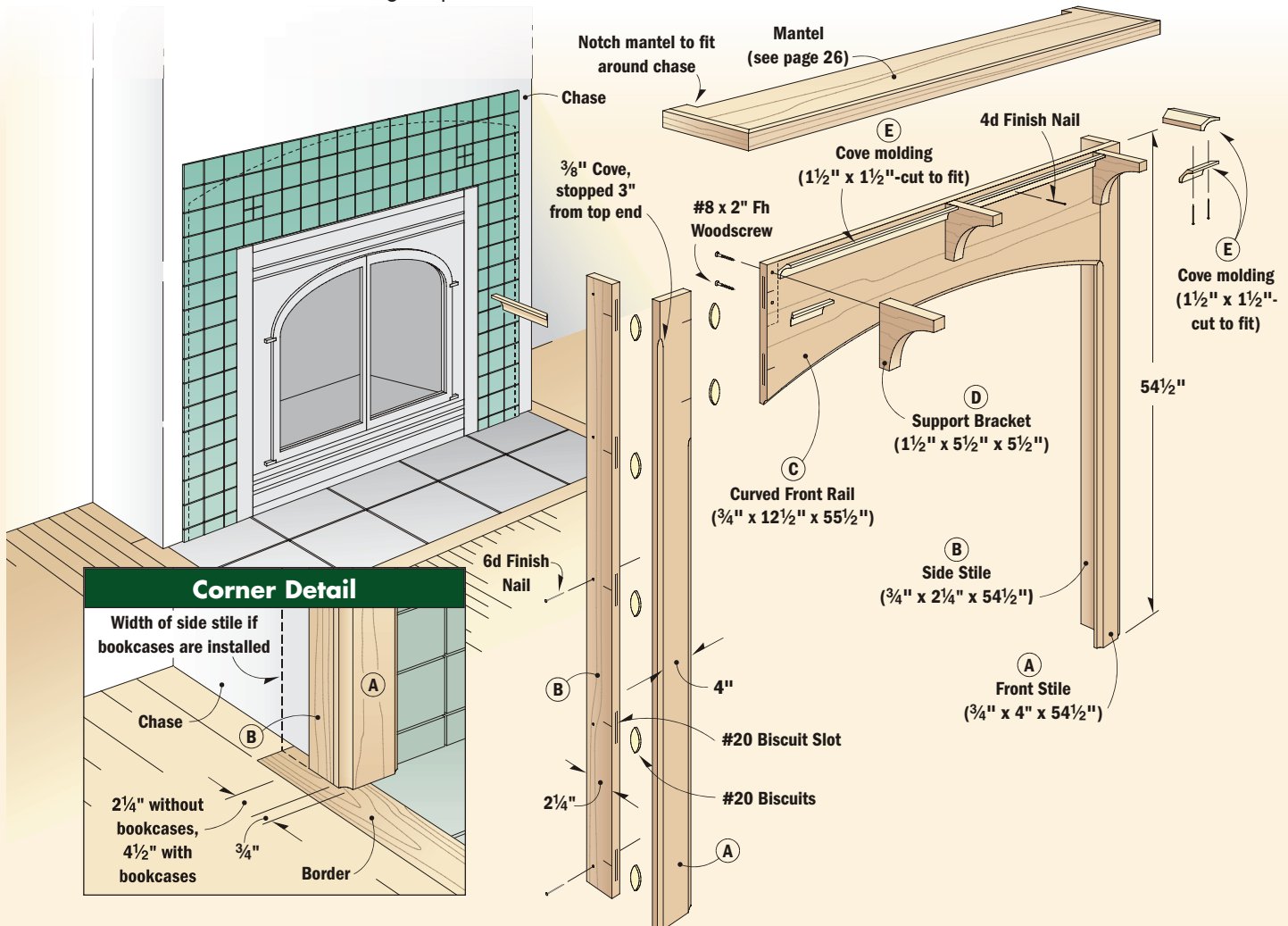
The size of the stiles will vary depending upon your installation. Here are some guidelines that will help you determine their size.

**WIDTH.** To determine the width, the idea is to rip the front stile to width so it overlaps the tile by  $\frac{3}{4}$ ". (My front stile is 4" wide.)

As for the side stile, the width depends on whether you plan to build the bookcases. If so, rip the stile  $4\frac{1}{2}$ " wide so it will fit against the front of the bookcase (*Corner Detail*). If not, a narrower stile looks better. As you can see in the *Surround Assembly* illustration below (*and Photo at left*), I ripped the side stile  $2\frac{1}{4}$ " wide.

▲ This quartersawn red oak surround is installed as a single unit. Its simple design makes it easy to add the surround to a new or existing fireplace.

## SURROUND ASSEMBLY





**LENGTH.** The length of the stiles also has to do with the tile installation on the surround. Here again, the curved rail on the surround has to cover the top edges of the tiles. To accomplish that, I crosscut the stiles 54½" long. This allowed the rail to overlap the tile about 1½" at the center of the arc.

**BISCUIT JOINTS.** After cutting the stiles to size, you can turn your attention to the biscuit joints. As you can see, I cut the slots for the biscuits in the *edge* of the side stile and the back *face* of the front stile. Once the slots are cut, insert the biscuits and dry clamp the stiles to check the fit of the joints.

The dry-assembled stiles make it easy to determine the length of the curved front rail. To do that, temporarily attach them to the chase and measure the distance between the front stiles.

### CURVED FRONT RAIL

In addition to its stunning quarter-sawn red oak, the fireplace surround is highlighted by the graceful curve on the front rail.

Like the stiles, the rail is made from ¾"-thick stock. It's 12" wide, which means you'll need to edge-glue two narrow boards together to get a wide enough rail.

**LAY OUT ARC.** After cutting the rail to final size, it's time to lay out the arc (*Curved Front Rail*). To draw a smooth, consistent arc, I used a simple idea for a drawing jig that was sent in by one of our readers. (See page 10.)

Now it's just a matter of cutting and shaping the arc. A jig saw makes quick work of this job. Then sand the edge smooth using a drum sander chucked in the drill press.

The next step is to join the rail to the front stiles. Here again, it's assembled with biscuits. Notice the location of the bottom slot (3" up instead of 2" like the top). This prevents the blade on the plate joiner from cutting through the curved edge of the rail.

After cutting the slots, go ahead and glue the curved rail and front stiles together. But don't add the side stiles yet. The next step is easier if you're working on a flat assembly.

**ROUT COVES.** To create a decorative profile, rout a cove around the inside edges of the surround (*Figs. 1 and 1a*). Using the same setup, rout another cove on the outside edge of the front stile, stopping it 3" shy of the top.

**FINAL GLUE-UP.** Now you can complete the assembly by gluing on the side stiles.

### BRACKETS & MOLDING

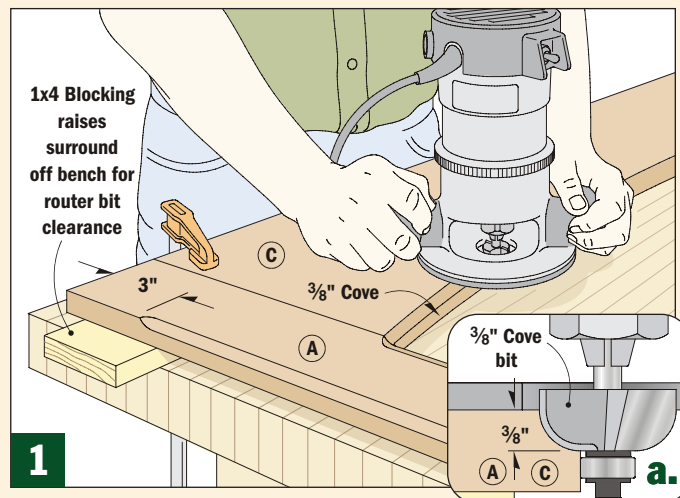
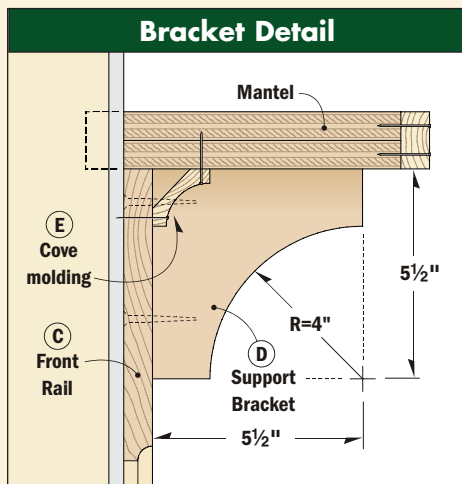
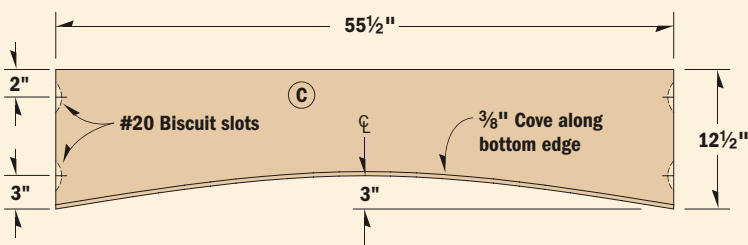
All that's left on the surround is to add the curved support brackets and some cove molding.

**SUPPORT BRACKETS.** Like their name implies, the support brackets (D) hold up the mantel. The brackets are made of 1½"-thick oak. (Or, you can also glue up two pieces of ¾"-thick stock.) After laying out each bracket (*Bracket Detail*), cut it to shape using a jig saw and sand the edge smooth.

**DECORATIVE MOLDINGS.** The next step is to add strips of cove molding (E) to the top edge of the surround. These pre-made strips are cut to length to fit between the brackets and fastened with finish nails. Two short pieces of molding, mitered to fit around the corners, complete the job.

**INSTALL SURROUND.** All that's left is to install the surround, as shown in the photo on page 24. Start by positioning it around the chase. Then, after checking the fit, pre-drill holes and nail through the side stiles to secure the surround.

### CURVED FRONT RAIL



# top it off with a mantel



▲ The fireplace surround is capped with a thick oak mantel. It's held in place with construction adhesive so there aren't any visible fasteners.

For the crowning touch on the fireplace surround, I capped it with a thick oak mantel.

The mantel consists of two layers of  $\frac{3}{4}$ " plywood wrapped with wood edging (*Mantel Construction*). A long notch in the back edge of this panel fits around the chase.

Note that the mantel is designed to overhang the surround by  $1\frac{1}{2}$ " all the way around, *with* the edging attached. Since the edging is  $\frac{3}{4}$ "-thick, this means the plywood panels (F) will be  $\frac{3}{4}$ "

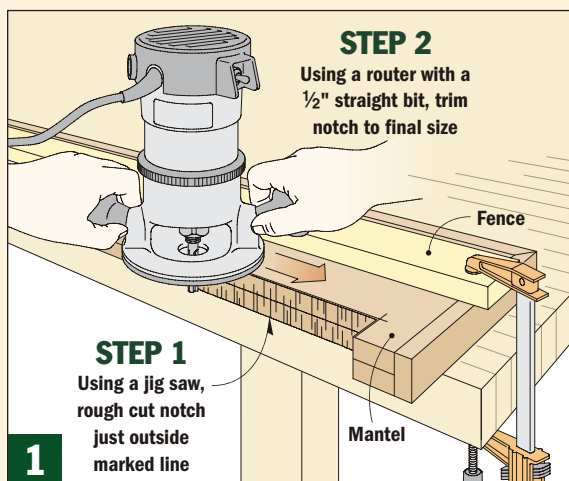
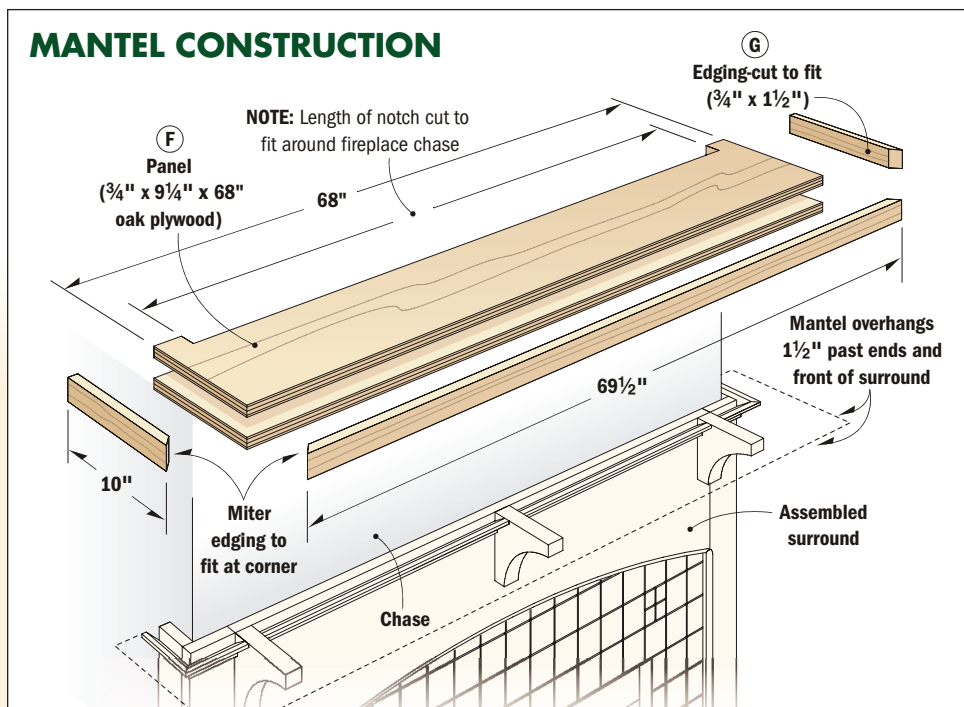
wider and  $1\frac{1}{2}$ " longer than the surround (with the brackets and molding attached). Of course, both measurements represent the *final* size of the panels. You'll want to cut them oversize first. Then, after gluing them together on a *flat* surface, rip and crosscut them to final size.

**EDGING.** The next step is to cover the exposed plies of the panel with edging (G). These edging strips are simply mitered to fit and glued in place.

**NOTCH BACK EDGE.** Now you can lay out and cut the notch in the back edge. It needs to be deep enough that the "ears" formed when cutting the notch end up flush with the back edge of the side stile. To determine the *length* of the notch, center the mantel on the surround, mark lines at the corners of the chase, and then cut the notch, as shown in *Fig. 1*.

**INSTALL MANTEL.** When installing the mantel, there's no need for fasteners. It's attached with construction adhesive applied to the top edge of the surround and to the support brackets (*see photo above*).

**WHAT'S IN STORE?** Well, that wraps up this part of our fireside retreat. We'll show you how to make the built-in bookcases and add the solid oak trim in the next issue of *Workbench*. 📖



## buyer's guide

### Fireplace

#### Heat-N-Glo

- Direct-Vent Fireplace (Model SL-750TR-C)
- 888-743-2887
- [www.heatnglow.com](http://www.heatnglow.com)

### Lighting

#### Arroyo Craftsman

- Wall Lanterns (GB-9LSAC-BZ)
- 510-655-6503
- [www.craftsmanhome.com](http://www.craftsmanhome.com)

### Windows

#### Andersen

- AW31 Awning Windows
- As an option, leaded window inserts called Art Glass Panels are available. Ask for Frank Lloyd Wright Colonade Art Glass Panels.
- 651-264-5150
- [www.andersenwindows.com](http://www.andersenwindows.com)

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