



Thank You!

You have successfully downloaded your document from Workbenchmagazine.com. Below are some tips for Trouble-Free Printing

- 1)** Clear printer memory. If you are unable to print this document, turn off your printer for at least 15 seconds and try again.
- 2)** Print two or three pages at a time. If clearing the printer memory didn't help, try printing only two or three pages at one time, rather than sending the entire file
- 3)** If a document is required to be at an accurate scale set the page scaling option to "none" in your printer settings.
- 4)** Get advanced printer help. Visit Adobe Support for instructions in troubleshooting common printer problems.

<http://www.adobe.com/support/techdocs/316508.html>





BUILT-IN BookNook

Open up a new chapter in the story of your home with this built-in window seat and bookcase. It brings stylish seating, storage, and display space to any room. Best of all, you can put it all together in a couple of weekends for about \$500.

Almost every home could benefit from additional storage, more seating, and an influx of extra style. This built-in book nook delivers all three.

The project starts with a broad bench seat that offers a comfortable place to kick back and relax while you read under the warm glow of built-in puck lights overhead. Underneath, you'll find a serious amount of storage space. Two tall bookcases that flank the bench are the perfect place for books, of course, but also for displaying your favorite collectibles.

The transformation this project brings to the style and feel of a room is nothing less than astonishing. And no less amazing is that the project is easy to build, a breeze to install, and remarkably affordable.

All you need are standard woodworking tools, some plywood and solid poplar stock, a couple weekends, and a few hundred dollars. Of course, you'll also want the solid advice offered in the upcoming pages that show you how to plan and build a book nook to fit your space.



Even a relatively bare room offered plenty of information about building the book nook. The painted woodwork and beaded paneling offered styling cues that help the book nook design blend in. An electrical outlet and cold-air return needed to be accommodated in the project design.

PLAN YOUR PROJECT

TO SUIT THE SPACE

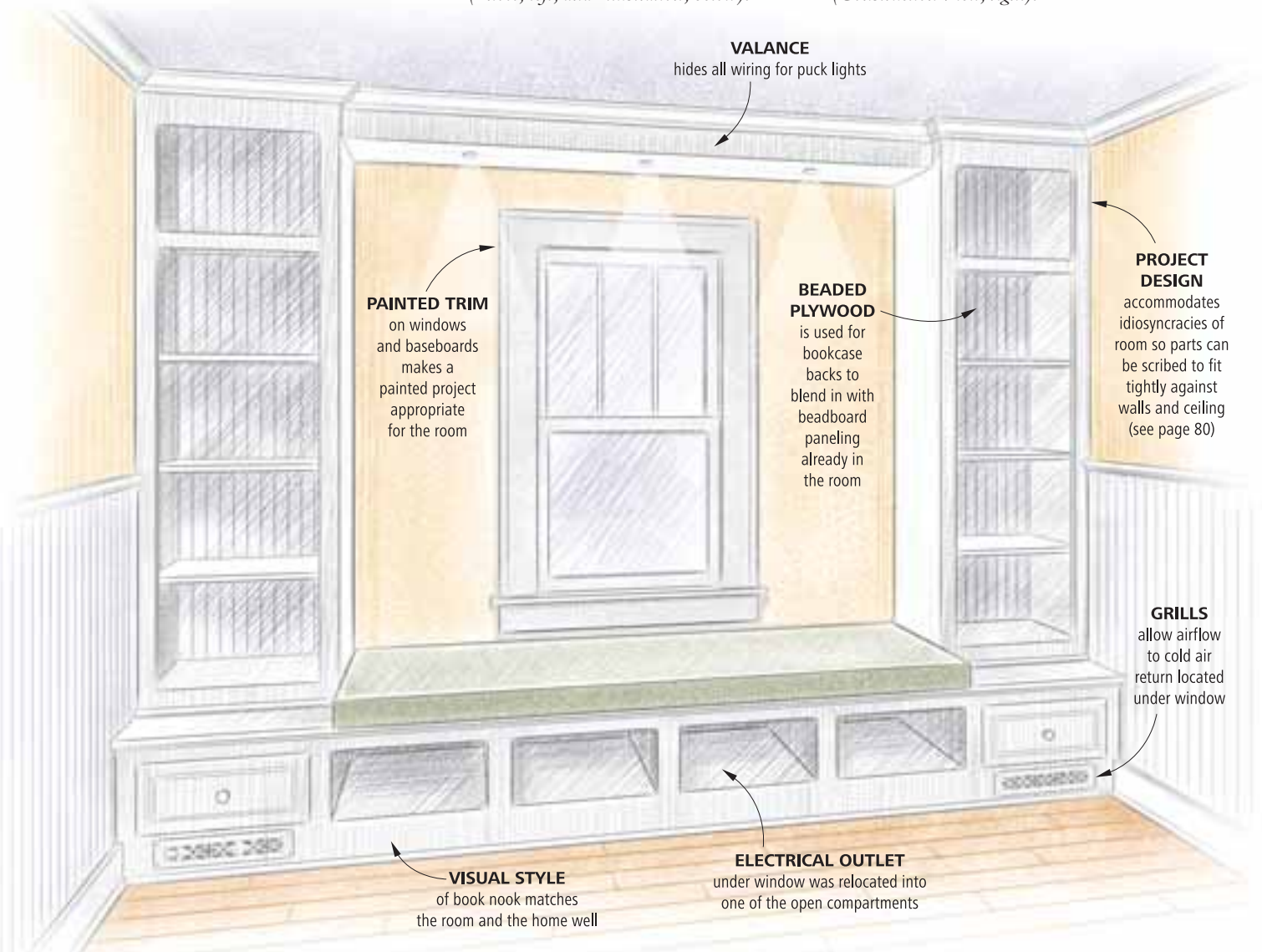
All projects require planning before getting underway. That's no secret. But to get an integrated, seamless look with a built-in, the planning process is especially important.

Build to Fit — Obviously, you need to make sure the project will *fit* the room where it will be installed. That means you'll need to thoroughly survey the location and record all the critical measurements, as shown on page 80.

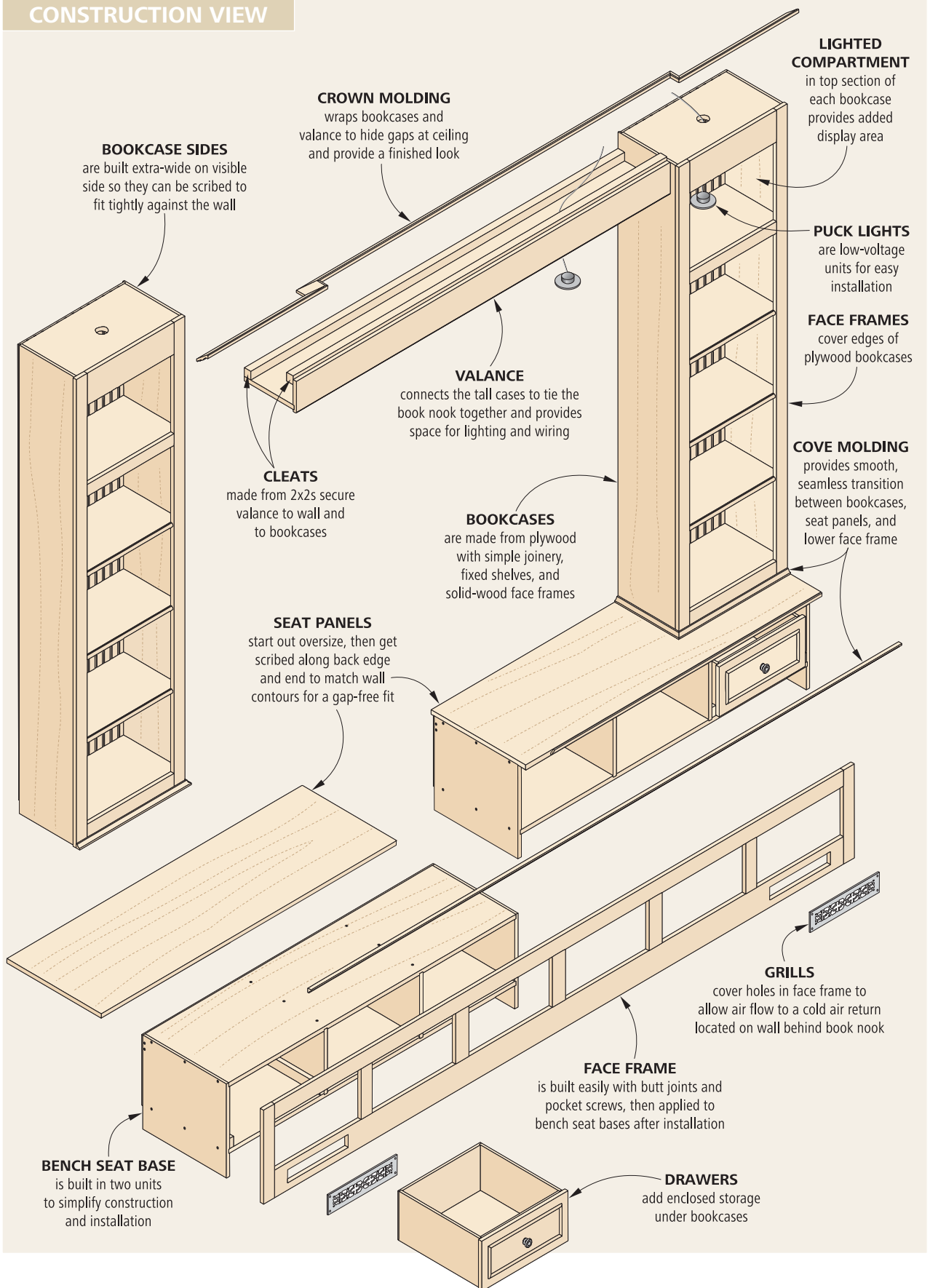
Build To Suit — Equally important with a built-in, though, is making the project *complement* the room. To do that, you need to pay close attention to the stylistic elements of the room (*Photo, left, and Illustration, below*).

In this room, the woodwork is painted, so we painted the project, as well. We also echoed the room's beadboard paneling by using beadboard for the backs of the bookcases. Plus, we removed paneling behind the book nook to make sure it would look built *in*, not tacked *on*.

Results May Vary — This all means you're likely to build your book nook differently than ours. The measurements will almost certainly be different (our wall was 11-feet, 3" wide and the ceiling, at 98", is higher than normal). And you may want to alter the style, as well. In spite of the inevitable changes, however, this project will remain simple to build (*Construction View, right*).



CONSTRUCTION VIEW



A BENCH SEAT STARTS IT OFF

The foundation for the book nook is this broad bench seat. With its ample seating and built-in storage, the bench seat would make a great project on its own.

The seat starts off with two plywood base units (built separately to simplify installation) that are assembled with

dado and rabbet joints. A face frame encloses the front, and a plywood seat panel tops it off (*Base Assembly, below*).

To determine the length of each unit, measure the wall it will rest against, and then subtract an inch for clearance (*see page 80*). Then divide this number in half.

Once you've determined how long to make each base top (A), ends (B), and dividers (C) to size from $\frac{3}{4}$ " plywood.

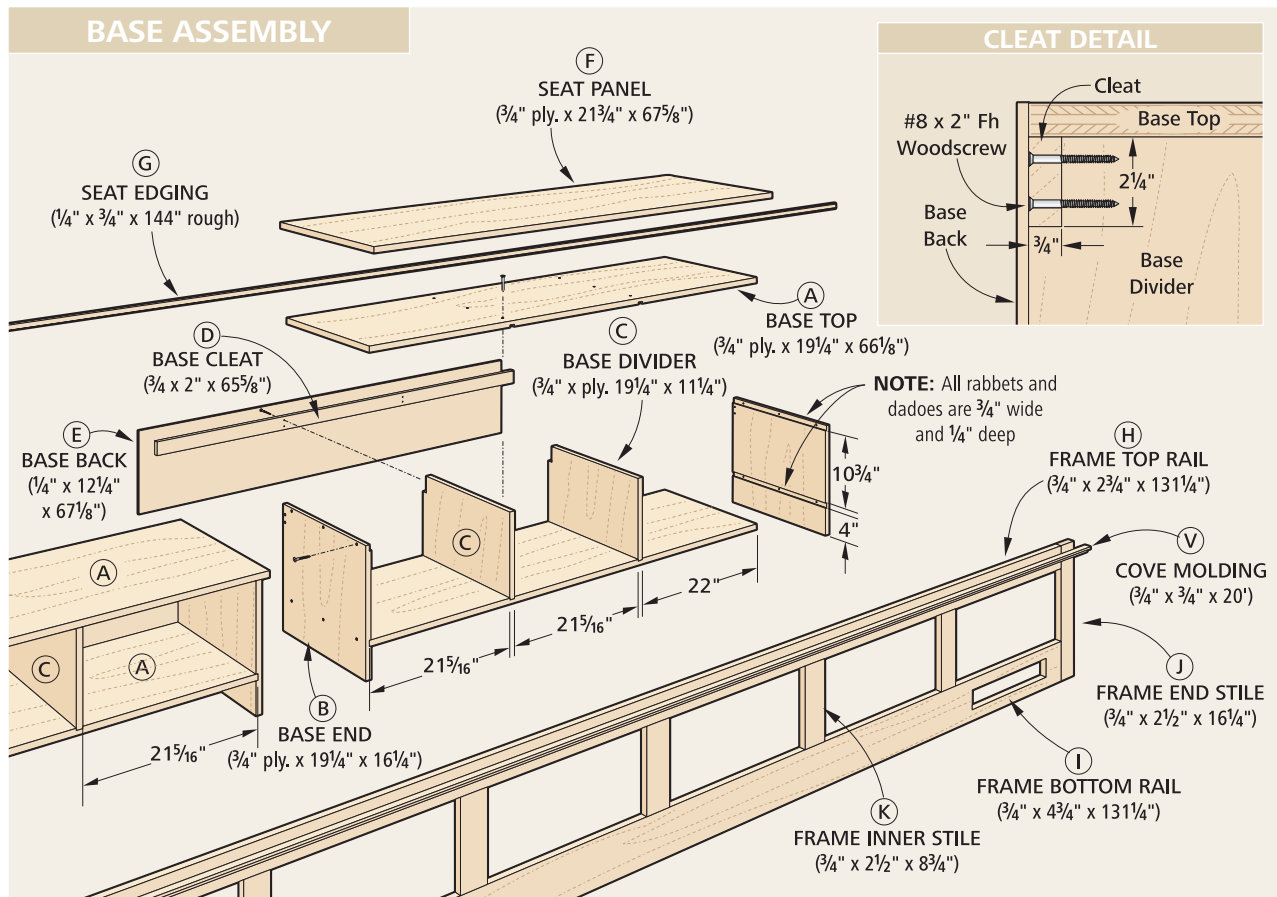
Before moving on, cut a notch in each divider. These will receive a cleat that's used to secure each base unit to the wall (*Cleat Detail, below*).

Dado for Secure Joints — Now it's time to lay out a series of dadoses in the base top and bottom, as well as a dado and rabbet in each base end. These are shown in the *Base Assembly* below.

You'll notice that the dadoses that house the dividers aren't spaced equally. This is because of the bookcases that get added later. As the *Photo* at left shows, those bookcases sit directly above the outermost compartments in the bench seat. So I wanted the width of these outer openings in the seat to match the width of the openings in the bookcases.

After laying out the position of the first divider dado, I located the dado for the other divider midway on the remaining length of the base unit.

With all the dado locations laid out, you can cut or rout the dadoses and rabbets. Then drill counterbored shank holes for the screws that will hold each base together.



Next, you can assemble the bases. As you do this, be sure to orient the pieces correctly — with the wider compartments at the *outer* ends, and the notches in the dividers toward the *back*.

Now, turn your attention to the backs of the base units. First, add base cleats (D). These get attached by screws driven in from the base ends, as well as through the cleats into the dividers. Finally, cut back panels (E) to fit from 1/4" hardboard, and then attach each back with 1" brads.

Seat Panels Top It Off — The base units are topped by a pair of plywood seat panels (F) made from 3/4" plywood. Each starts out 1/2" longer and 2 1/4" wider than the assembled base unit it sits on.

At the front, this overhang allows the seat panel to extend past the face frame and molding that get added when the bench seat is installed. At the back and outside edges, it gives an extra 1/2" so you can scribe the seat to match the walls. For now, cut the seat panels to these oversize dimensions, and then set them aside.

You can also make the seat edging (G) now. It's just a length of 1/4"-thick solid stock that gets applied later to conceal the edge of the plywood seat panels. The *Sidebar* at right shows an easy way to make the edging.

I cut my edging from a single piece of 12-ft. long poplar. If you can't find a board long enough, you can make the edging in two pieces. That's one of the benefits of a painted project: You can simply fill the seam before painting, and nobody will ever know.

In either case, set the seat panel edging aside for now, too. It doesn't get applied until the book nook is installed.

Best Face Forward — The final element of the bench seat is a face frame that covers the front of both base units. This frame is made up of long rails connected by stiles that align with the dividers in the base units. When installed, these stiles will conceal the dividers in the base units.

The face frame couldn't be simpler to build. Butt joints and pocket screws hold it together (*Pocket Screw Detail*, below).

Like the seat panels, the face frame is also built longer than the distance between the walls it spans — 1/2", in this case. The reason for oversizing remains the same here, too: You can scribe and trim the face frame to fit tightly against the walls on both ends.

After calculating how long to make your face frame, cut the top rail (H), bottom rail (I), end stiles (J), and middle stiles (K) to size.

Once again, I was lucky enough to find 12-ft. long boards for my rails. If you can't find stock that's long enough, you can make two-piece rails and join them together with pocket screws.

Now bore the pocket holes in the stiles, align them with the rails, and then screw the face frame together. Set it aside until it's time for installation.

MOLDING MADE EASY

The long seat edging is just a simple 1/4" strip dressed up with rounded edges. That means the edging is simple to make, but one trick makes it even easier.

Rather than trying to round over the edges of a thin strip, you'll get better results by rounding the edges of a wide board first, and then ripping the 1/4"-thick edging free. It's a three-step process at the router table and table saw, as shown in the *Photos* below.



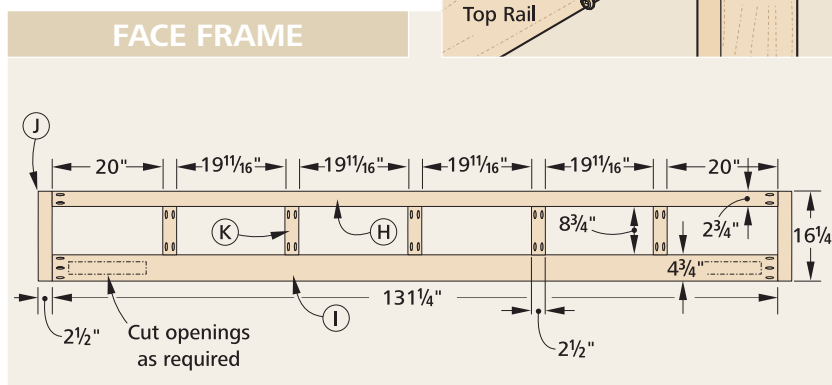
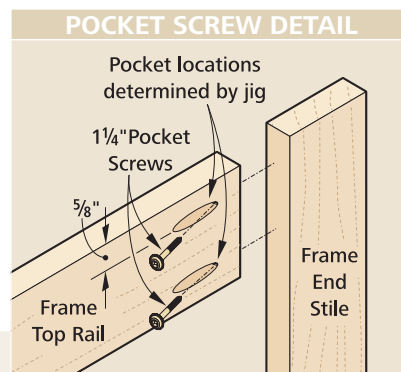
1] After ripping one edge of a long board straight, rout a 1/8" roundover along the edge.



2] Flip the board end-for-end, and round over the second edge using the same router-table setup.



3] To complete the seat edging, move to the table saw and rip the rounded edge free of the board.





BOOKCASES COME NEXT

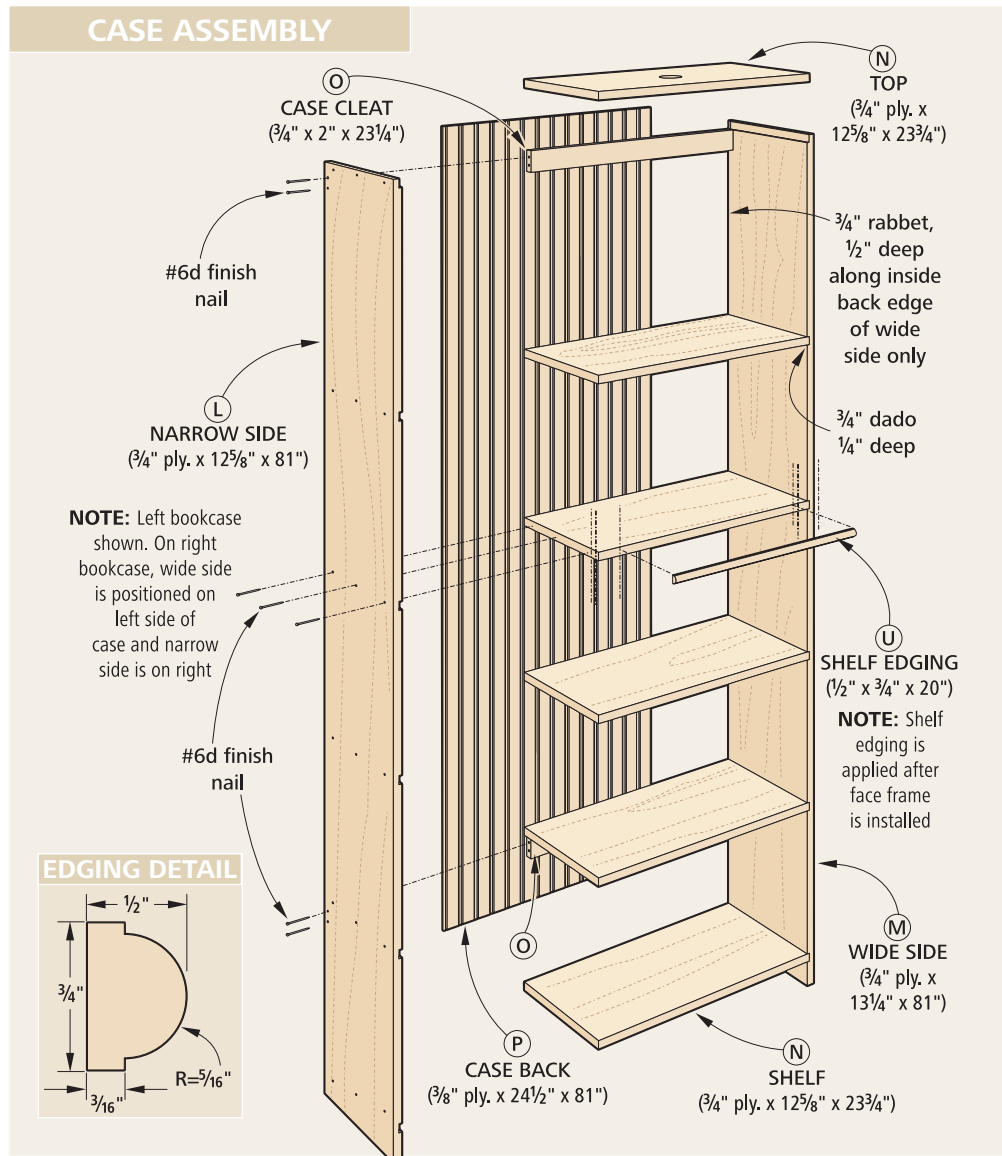
The tall bookcases are built almost like the base units. Each has a plywood case made up of two sides that are connected by shelves that fit into shallow dados. A face frame covers the front of the plywood case, while edging covers the plies on the front edge of the shelves (*Case Assembly, below*).

There is one very notable thing about the way the bookcases are built. Each has one side that's wider than the other, as shown in the *Case Parts View*, below right. You'll see why if you look at the *Photo* at left. One side of each cabinet is visible. That means it likely

will need to be scribed to fit tightly against the back wall. To allow for this, the side is extra-wide and extends beyond the back of the case (*Wide Side Rabbet Detail*). The other side of the cabinet is hidden. That means it doesn't have to be scribed or built extra-wide.

As you might guess by now, we also accounted for scribing with the face frames. Each is $\frac{1}{4}$ " wider than the case it attaches to. The overhang sits toward the outside of each case where it abuts the side wall of the room.

Build the Bookcases — With all this in mind, you can start construction.



Rather than cutting all the sides at once, I started with two 26" × 81" blanks made from 3/4" plywood. Each blank is wide enough to produce one narrow side (L) and one wide side (M).

The next step is to cut five dados and a rabbet across each blank (*Case Parts View*). These receive the shelves, and cutting them across a wide blank ensures that, when assembled, the shelves in each case will align exactly.

You can cut the dados and rabbet in a couple of ways. I used my table saw, which has a 52" rip fence — plenty of capacity to cut the dados. If your saw lacks that much capacity, use a router and straight bit guided by a straightedge.

That done, rip each blank to make a narrow side (L) that's 12⁵/₈" wide, and a wide side (M) that measures 13¹/₄".

Run the Rabbets— Now you need to lay out a rabbet along the back edge of each wide side. The rabbet serves two purposes. It decreases the amount of material you'll need to trim when scribing. And it provides a notch for the back panel to rest in (*Wide Side Rabbet Detail*).

As you lay out the rabbet, remember this: On the left-hand bookcase, the wide side will go on the *right*. On the right-hand bookcase, the wide side goes on the *left*. Mark each side, so you don't accidentally rabbet the wrong edge.

Bring on the Shelves — With the case sides complete, you can cut the shelves and tops (N) to size. In my bookcases, the upper compartment is a lighted display area. So before assembling the cases, I bored a 2¹/₈" hole centered in the two tops for the puck lights to fit into.

After that, the bookcases can be assembled. I attached the shelves using glue and 6d finish nails instead of screws so that I didn't have large holes to fill in the visible (wide) sides before painting.

Next, cut two case cleats (O) for each case and nail them to the case sides. You'll drive screws through these cleats to secure the bookcases to the wall.

The case backs (P) come next. To echo the look of the beadboard paneling in the room, I made these backs from 3/8"-thick beaded plywood (I used Ply-Bead from Georgia Pacific; Plytanium.com). The backs get tacked on with 1" brads.

Fit the Face Frames — A solid-wood face frame comes next for each case (*Face Frame Assembly, below left*). To make them, cut frame stiles (Q), as well as top (R), middle (S), and bottom (T) rails to size from solid stock. Then assemble the frames with pocket screws.

You can glue and nail the face frames to the cases now. Make sure when doing so that each face frame sits flush with the wide side of each case and overhangs the side which will sit against the wall.

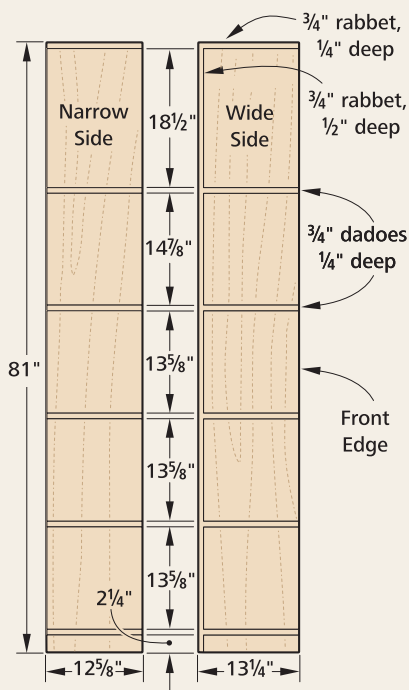
Add Shelf Edging — All that's left now is to add edging (U) to the three shelves that aren't covered by the face frame. This edging features a beaded roundover profile (*Edging Detail*) made using the same three-step technique that was used for the seat panel edging (*Molding Made Easy, page 45*). Start with extra-long edging pieces, then cut each to fit the shelves. Glue and nails hold the edging in place without clamps.

A Good Time to Paint — With the bookcases assembled, most of the major construction is complete for this project. But before you move on to installation, I advise painting most of the parts. That way, you can take your time without making a big mess in the room where the book nook will be installed. See page 21 for tips that will ensure a great paint job.

I primed and painted everything but the seat panels. Those were left bare because fitting the bookcases means sliding them in and out of place a few times, which could scratch up the paint.

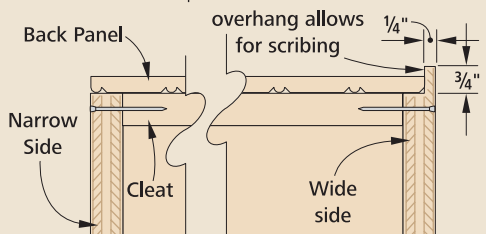
CASE PARTS VIEW

(Left Bookcase Sides Shown)

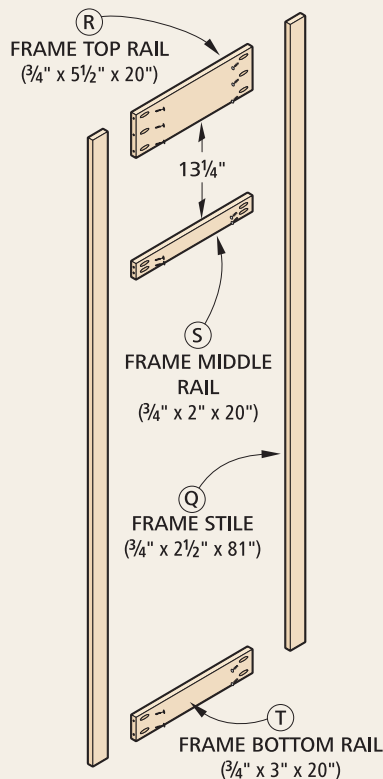


WIDE SIDE RABBET DETAIL

NOTE: Top view of left bookcase shown



FACE FRAME ASSEMBLY



INSTALL THE BENCH SEAT AND BOOKCASES



Before you install the book nook, you may need to do a little prep work in the room. For example, I removed the baseboard behind and beside the bench seat to ensure that I could tuck the back of the base units tight against the wall.

At the same time, I stripped off the beadboard on the back wall where the project would go. To me, that made the book nook truly look built-in rather than tacked on. This, of course, led to a bit of plaster repair.

Then I decided to go ahead and repaint the room, so it would fully match the book nook. These types of tasks are often called “might-as-wells.” They take time, but really do make a built-in project look better.

Bring in the Bench Seat — Start installation by positioning the seat bases (*Base & Frame Installation, below*) They should align without problem, but be sure to double-check that the tops are flush and that the front edge of the assembly is straight (*Photo, left*). That done, level the base units (*Inset*).

Next, shim between the back of the base units and wall if necessary, and then drive #10 × 3½" screws through the base cleat and into wall studs in at least four locations (two in each base unit).

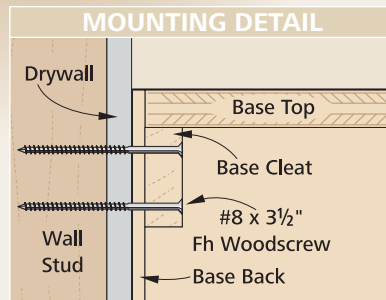
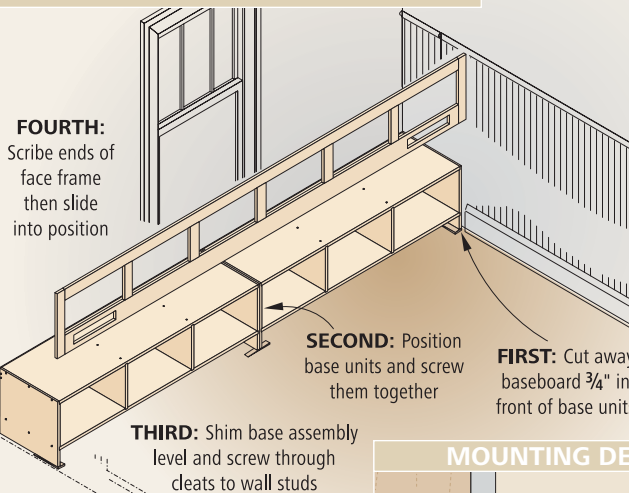
Get Framed — Before attaching the face frame, scribe and trim the end stiles to match the walls. Using a template simplifies this process (*see page 83*). Align the face frame, and secure it with 6d finish nails (*Face Frame Detail*).

Have a Seat — Next up are the seat panels (*Add Seat & Trim, page 49*). Position one panel so it overhangs the face frame consistently. Now scribe and trim the back edge and outer end of the panel,

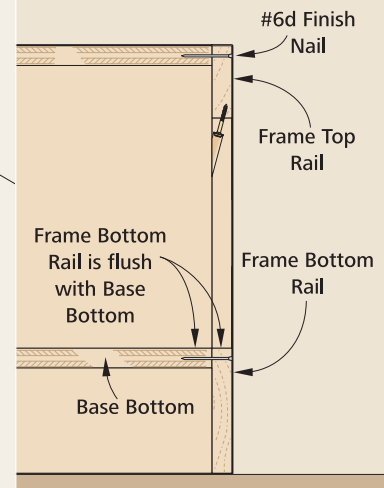
Screw the base units together and make sure they're straight across the front. Then level the assembly using shims as needed.



BASE & FRAME INSTALLATION



FACE FRAME DETAIL



using the techniques on page 82. Remember, once fitted, the panel should overhang the face frame by 1".

Once this first panel fits, clamp it in place. Then fit the second panel the same way (Photo, below). After that, nail the seat panels to the base units.

Slide In the Bookcases — Fitting the bookcases comes next (*Bookcases Top It Off, right*) Be prepared to test fit them a couple of times to get the best fit.

Start by making sure each case sits square on the bench seat (Photo, bottom). Then scribe the face frame, remove the case, and trim it to fit. Refit the case, and then scribe and trim the case side. Now install the bookcase (*Case Cleat Detail*).

Finally, glue and nail on the seat edging (Seat Trim Detail). A piece of 3/4" cove molding (V) goes below. More cove wraps around the bookcases (*Case Molding Detail*). Now you can paint these parts.



Each seat panel gets trimmed to fit the wall on the back and outside end. The panels should meet tightly at the center.



Use a framing square to make sure each tall case is positioned properly before scribing it and before installing it.

ADD SEAT & TRIM

SECOND:
Scribe and fit second seat panel, then nail both to base units

FIRST: Scribe back edge and outside end of first seat panel to fit, then clamp in place

THIRD: Cut seat-panel edging and cove molding to length and nail them in place

SEAT TRIM DETAIL

BOOKCASES TOP IT OFF

THIRD: Attach bookcases to wall by driving screws through case cleats and into studs

FIRST: Mark Rough position of bookcase on paneling, then remove paneling that would be covered by case

SECOND: Scribe and trim face frame and cabinet side to match wall contours

FOURTH: Miter cove molding to fit and attach to bookcases at base

CASE CLEAT DETAIL

CASE MOLDING DETAIL



Deep drawers add a lot of enclosed storage for blankets, games, or just about anything. Like the rest of the project, they're attractive yet very easy to build.

ADD DRAWERS & A VALANCE

With the bench seat and bookcases installed, I decided to add some enclosed storage to the project with a pair of drawers (*Photo, left*). You could choose to leave all the compartments open, or build even more drawers. It all depends on what suits your needs.

Each drawer is just a simple box covered by a false front with a decorative molding (*Drawer Assembly*).

Start by cutting the drawer fronts and backs (W) and sides (X) to size from $\frac{1}{2}$ " hardwood. Then rabbet the fronts and backs (*Drawer Joinery Detail*), and cut grooves for the plywood bottoms (Y) before assembling the boxes.

The false fronts (Z) come next. They're cut to size from $\frac{3}{4}$ "-thick poplar. Then you can add the drawer trim (AA). It's made using the techniques on page 45, mitered to length, and secured with glue and 1" brads.

Spacers Position the Slides — Before you can install the drawer slides, you'll need to "build out" the bench seat compartments so that the slides fit flush with the edges of the face-frame stiles. Spacers (BB) accomplish this (*Drawer Slide Detail*). Plane or rip each spacer to thickness, and then mount it to the divider.

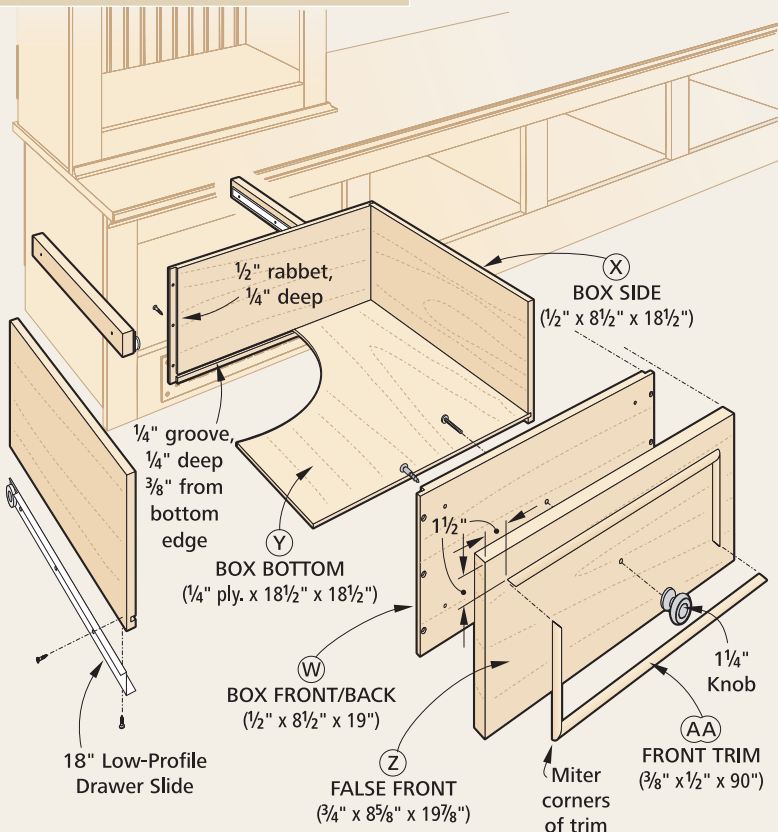
From there, you can install the drawer slides, and then slip the drawer boxes into position. Finally, align and mount the false fronts.

Top It Off with a Valance — The finishing touch for the book nook is a valance. It spans between the bookcases to tie the project together, and provides a place to mount lights and run wiring (*Valance Assembly, page 51*). Consisting of just two pieces, it's one of the easiest parts of this project to build.

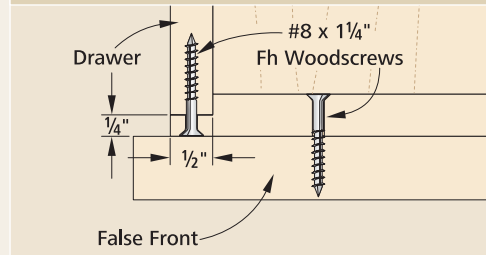
Construction begins by cutting the valance bottom (CC) from $\frac{3}{4}$ " plywood. It starts out oversize. If you want to add lighting, bore holes for puck lights.

The extra-long valance face (DD) comes next. It gets a full-length groove to receive the valance bottom, and roundovers on the lower edge (*Valance Mounting Detail, page 51*).

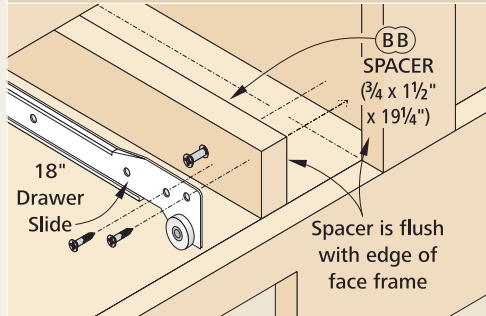
DRAWER ASSEMBLY



DRAWER JOINERY DETAIL



DRAWER SLIDE DETAIL



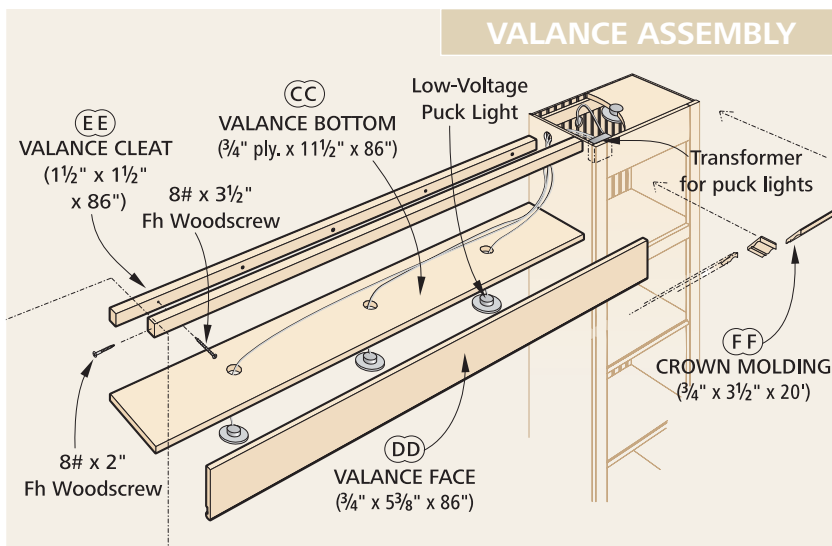
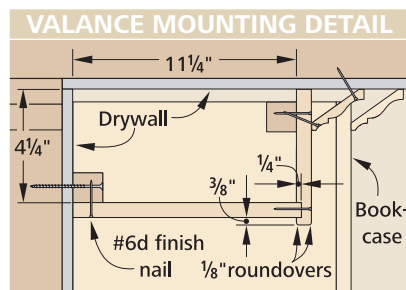
After making the valance parts, paint them, but don't assemble them yet.

Cleats Hold the Valance — A pair of simple cleats (EE) secure the valance. After cutting them to length from 2x2s, screw one to the wall, and the other to the bookcases (*Valance Mounting Detail*).

Finally, scribe the valance bottom and front to fit, nail them together, and then slip the assembly into place after routing all wires into the case (*Photo, above right*).

The Crowning Touch — To hide any gaps around the ceiling, wrap the valance and the bookcases with crown molding (FF). It just gets mitered to fit, and then nailed in place.

With the book nook complete, it's time to kick back and relax — with a good book, of course. 📖



MATERIAL LIST

Part	Qty	Size	Material
BENCH SEAT			
A	4	3/4" x 19 1/4" x 66 1/8"	Birch Plywood
B	4	3/4" x 19 1/4" x 16 1/4"	Birch Plywood
C	4	3/4" x 19 1/4" x 11 1/4"	Birch Plywood
D	2	3/4" x 2" x 65 5/8"	Poplar
E	2	1/4" x 12 1/4" x 67 1/8"	Hardboard
F	2	3/4" x 21 3/4" x 67 5/8"	Birch Plywood
G	2	1/4" x 3/4" x 144"	Poplar
H	1	3/4" x 23 3/4" x 131 1/4"	Poplar
I	1	3/4" x 43 3/4" x 131 1/4"	Poplar
J	2	3/4" x 2 1/2" x 16 1/4"	Poplar
K	5	3/4" x 2 1/2" x 8 3/4"	Poplar
BOOKCASES			
L	2	3/4" x 12 5/8" x 81"	Birch Plywood
M	2	3/4" x 13 1/4" x 81"	Birch Plywood
N	12	3/4" x 12 5/8" x 23 3/4"	Birch Plywood
O	4	3/4" x 2" x 23 1/4"	Poplar
P	2	3/8" x 24 1/2" x 81"	Beaded Ply.
Q	4	3/4" x 2 1/2" x 81"	Poplar
R	2	3/4" x 5 1/2" x 20"	Poplar

Part	Qty	Size	Material
S	2	3/4" x 2" x 20"	Poplar
T	2	3/4" x 3" x 20"	Poplar
U	6	1/2" x 3/4" x 20"	Poplar
V	1	3/4" x 3/4" x 20'	Pine
DRAWERS			
W	4	1/2" x 8 1/2" x 19"	Poplar
X	4	1/2" x 8 1/2" x 18 1/2"	Poplar
Y	4	1/4" x 18 1/2" x 18 1/2"	Plywood
Z	2	3/4" x 8 5/8" x 19 7/8"	Poplar
AA	1	3/8" x 1/2" x 90"	Poplar
BB	4	3/4" x 1 1/2" x 19 1/4"	Poplar
VALANCE/CROWN			
CC	1	3/4" x 11 1/2" x 86"	Birch Plywood
DD	1	3/4" x 5 3/8" x 86"	Poplar
EE	2	1 1/2" x 1 1/2" x 86"	Pine
FF	1	3/4" x 3 1/2" x 20'	Pine

- (64) #8 x 2" Fh Woodscrews
- (66) #8 x 1 1/2" Pocket Screws
- (2 lbs.) 6d Finish Nails
- (1/2 lb.) 4d Finish Nails
- (1 lb.) 1" Wire Brads
- *(2) Pr. 18" Slides (#34580)
- *(2) Puck Light Sets (#39748: 2-Light; #39705: 3-Light)

*Items available from Rockler.com; 800/279-4441