



Dining Table

We looked around for the perfect table for the dining room. Some were too big, some too small, and most were just too expensive. So we built this one, and we are happy with the result. It seats six comfortably, but doesn't take up the entire room.



Materials

- 32 linear feet of 1 x 4 pine
- 18 linear feet of 1 x 6 pine
- 20 linear feet of 2 x 4 pine
- Enough pre-made laminated pine panels to form a tabletop 33 x 58 inches*
- 4 newel posts, at least 27-1/2 inches long

***Notes on Materials**

The center of the dining tabletop is constructed of pre-made sections of laminated 3/4-inch-thick pine strips, which we purchased at a building supply store. You will need enough laminated sections for a center top measuring 33 x 58 inches. Of course, you can laminate the boards yourself, but I would not suggest it unless you are an experienced woodworker and possess heavy-duty tools. If that is the case,

you don't need any instructions from us on how to make it, but the trimmed size of the finished laminate should be 33 x 58 inches.

If you live in an area with distinct seasons, the cross-grain expansion and contraction that accompany alternating moist and dry conditions may cause trouble. Therefore, you should consider using a nicely-veneered plywood for the center section of the table.

If you don't want to (or can't) turn table legs yourself, just purchase four newel posts from a building supply store and cut them to length. When the posts are turned upside down, who would know?

Hardware

- 36 1-1/4" screws
- 36 1 1/2" screws
- 16 2 1/2" screws
- 16 3" screws
- 28 1-1/4" (3d) finishing nails

Special Tools and Techniques

- Long bar or pipe clamps
- Mitters
- Large chisel

Cutting List

Code	Description	Qty.	Materials	Dimensions
A	Center Top	1	pre-made laminations	58" x 33"
B	Long Top Frame	2	1 x 4 pine	65" long
C	Short Top Frame	2	1 x 4 pine	40" long
D	Leg	4	newel posts	27-1/2" long
E	Long Side Rail	2	2 x 4 pine	56-1/2" long
F	Short Side Rail	2	2 x 4 pine	31-1/2" long
G	Corner Support	4	2 x 4 pine	10" long
H	Short Bottom Frame	2	1 x 6 pine	40" long
I	Long Bottom Frame	2	1 x 6 pine	65" long
J	Long Trim	2	1 x 4 pine	53" long
K	Short Trim	2	1 x 4 pine	28" long

Constructing the Table Top

1. The initial step is to join the pre-made laminated sections to form a center tabletop (A). It is a good idea to glue the sections together first and then trim the resulting laminate to the exact size. Wipe glue on the meeting edges of the laminates and clamp them together with bar clamps for a few hours. Then trim the laminated center top (A) to 33 x 58 inches.
2. The dining tabletop is composed of a top and a bottom layer. The top layer consists of two long and two short frame pieces surrounding the center laminated pine. The bottom layer will be attached to the dining table base later. To form the top layer, cut two long top frames (B) from 1 x 4 pine, each measuring 65-inches long.
3. Miter the ends of each of the long frames (B) at opposing 45-degree angles, as shown in *Figure 1*.



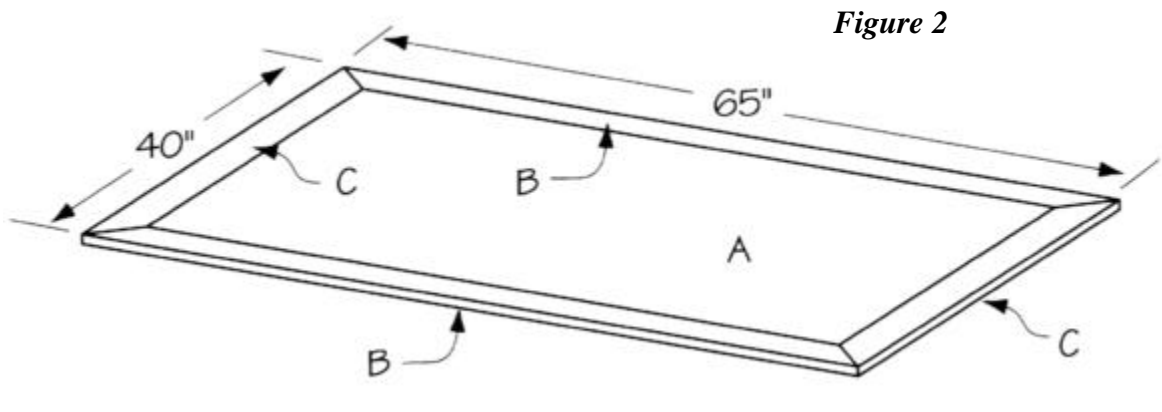
Figure 1

4. Cut two short frames (C) from 1 x 4 pine, each measuring 40 inches long.
5. Miter the ends of each of the short frames (C) at opposing 45-degree angles, as shown in *Figure 1*.
6. Place the center top (A) on a level surface. Position the short and long top frames (B and C) along the outer edges of the center top (A), as shown in *Figure 2*. Apply glue to the meeting edges and clamp the five pieces of wood together with bar clamps for a few hours. The result is a tabletop that now measures 40 x 65 inches.

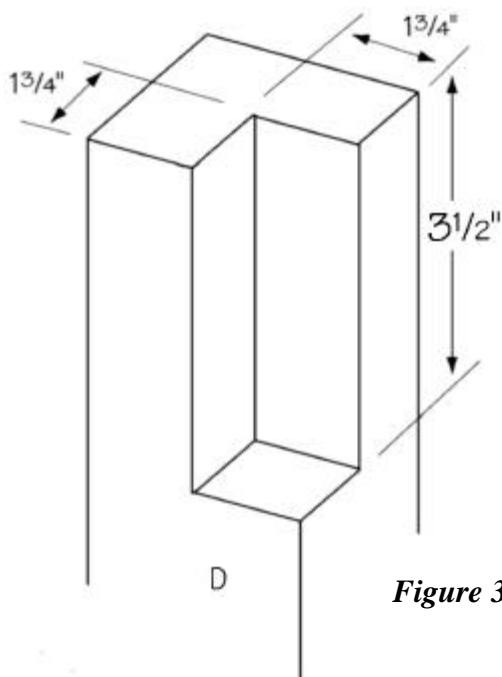
Adding the Legs

1. Cut each of four newel posts to a length of 27-1/2 inches to form the legs (D)
2. In order to support the side rails of the table, we must remove a corner section of wood from the square top of each of the four table legs (D). Follow *Figure 3* to mark the area to be removed. Use a depth stop or simply wrap a piece of tape around a 1/2-inch or 3/4-inch drill bit approximately 1 3/4-inch from the end. Bore away as much waste as possible. Then use a sharp chisel to cut an accurate, 1-3/4 x 1-3/4 x 3-1/2-inch space, as shown in *Figure 3*.

3. Cut two long side rails (E) from 2 x 4 pine, each measuring 56-1/2 inches long.
4. Cut two short side rails (F) from 2 x 4 pine, each measuring 31-1/2-inches long.
5. Set each of the four side rails (E) and (F) on edge and miter both ends of each board at a 45-degree angle, as shown in *Figure 4*.



6. This next step probably requires the assistance of a willing helper and it should be performed on a level surface. Each of the legs (D) must be connected to the side rails (E and F) and the entire assembly must be perfectly level. It is easier to make certain that you have every thing level if you perform the assembly with the legs upside down.



7. Carefully fit the ends of one long rail (E) and one short rail (F) inside the opening that you previously cut in the leg (D), matching miters (refer to *Figure 5*.) Glue and screw them in place using two 2-1/2-inch screws through each end of the side rails (E and F).
8. Repeat Step 7 to attach the remaining three legs (D) to the remaining two side rails (E and F). A word of caution: It is easy to get involved in what you are doing and forget that you are constructing a rectangular base. The two short side rails (F) must be opposite each other on the base and the two long side rails (E) must also be opposite each other.

9. Cut four corner supports (G) from 2 x 4 pine, each measuring 10 inches long.
10. Miter both ends each of the four corner supports (G) at opposing 45-degree angles, as shown in *Figure 1*.
11. Glue and screw the corner supports (G) in each of the four corners, as shown in *Figure 5*, flush with the tops of the legs (D) and the long and short rails (E and F). Use two 3-inch screws in each corner support (G), driving them into the side rails (E and F).

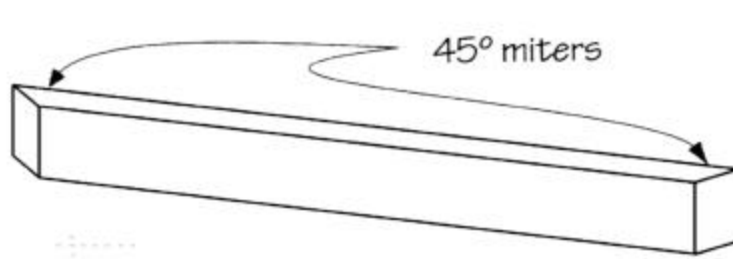


Figure 4

Adding the Table Top Bottom Layer

1. The bottom layer of the tabletop adds visual thickness and also supports the laminated center top (A). In order to avoid screw holes in the tabletop, the bottom layer is connected first to the table base assembly. The bottom layer consists of four additional lengths of wood cut from 1 x 6 pine. Cut two short bottom frames (H) from 1 x 6 pine, each measuring 40 inches long.
2. Miter both ends of each of the two short bottom frames (H) at opposing 45-degree angles, as shown in *Figure 1*.
3. Cut two long bottom frames (I) from 1 x 6 pine, each measuring 65-inches long.
4. Miter both ends of each of the two long bottom frames (I) at opposing 45-degree angles, as shown in *Figure 1*.
5. Place the four bottom frames (H and I) on the base assembly and fit them together to form a rectangle, measuring 65 x 40, as shown in *Figure 6*. This rectangle will extend past the legs (D) by 2-1/2 inches on each side. When you are satisfied with the arrangement, glue and screw the bottom frames (H and I) to the long and short side rails (E and F) and to the corner supports (G), using 1-1/2 inch screws spaced about six inches apart. Use two 3-inch-long screws to screw through the bottom frame pieces (H and I) into each of the table legs (D).

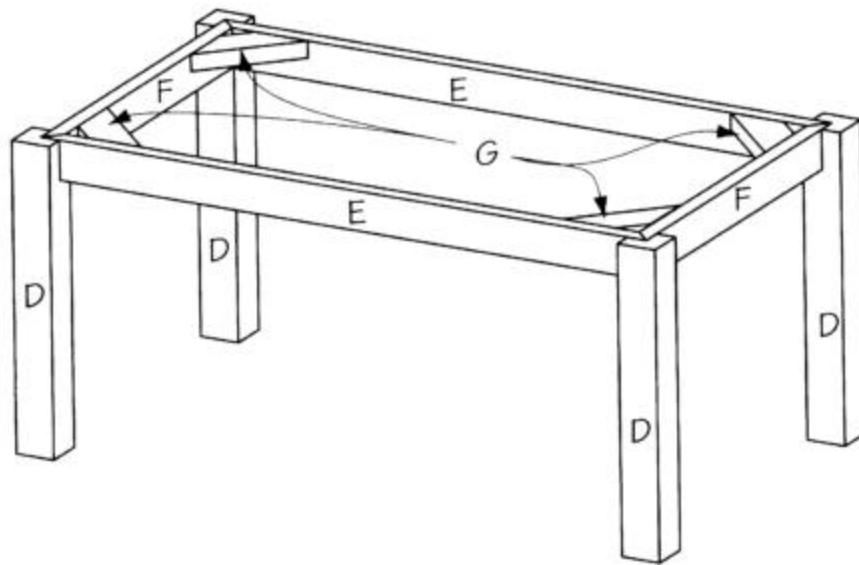


Figure 5

Joining the Table Top to the Base

1. Turn the top assembly (pieces A, B, and C) upside down on a flat surface. Make certain that the best side of the laminate is on the bottom. Place the base assembly upside down over the top assembly. The two short bottom frame pieces (H) and the two long bottom frame pieces (I) should be flush with the outer edges of the top assembly, as shown in *Figure 7*. The inside edges of the bottom frame pieces (H and I) will overlap the center top (C) by 2 inches. Apply glue to the meeting faces of all 4 bottom frame pieces (H and I), and screw through pieces H and I into pieces A, B, and C. Use four 1-1/4 inch screws on each of the short bottom frames (H), and five 1-1/4 inch screws on each of the long bottom frames (I), spacing them evenly along the outside edges of the boards. Use the same numbers of screws spaced along the inside edges of the bottom frames (H and I), attaching them securely to the center top (A). Allow time for the glue to dry.
2. The remaining step in the table assembly is to add the trim to the outside surfaces of the side rails (E and F). We added a length of 1 x 4 pine over the 2 x 4 rails just under the tabletop. Although our measurements should be very close to the cutting size for the trim, we suggest that you measure between your table legs before cutting each of the trim pieces, since your assembly may vary slightly. Even 1/32-inch off on the trim pieces will make your project look less than professional. Cut two long trims (J) from 1 x 4 pine, each measuring 53 inches long.
3. Fit the first long trim (J) between the table legs (D) on one long side of the table against the one long side rail (E). The top edge of the long trim (J) should be flush against the bottom of the tabletop. Apply glue to the meeting surfaces and use 1-1/4 inch (3d) finishing nails to attach the long trim (J) in place, spacing the nails about every six inches.

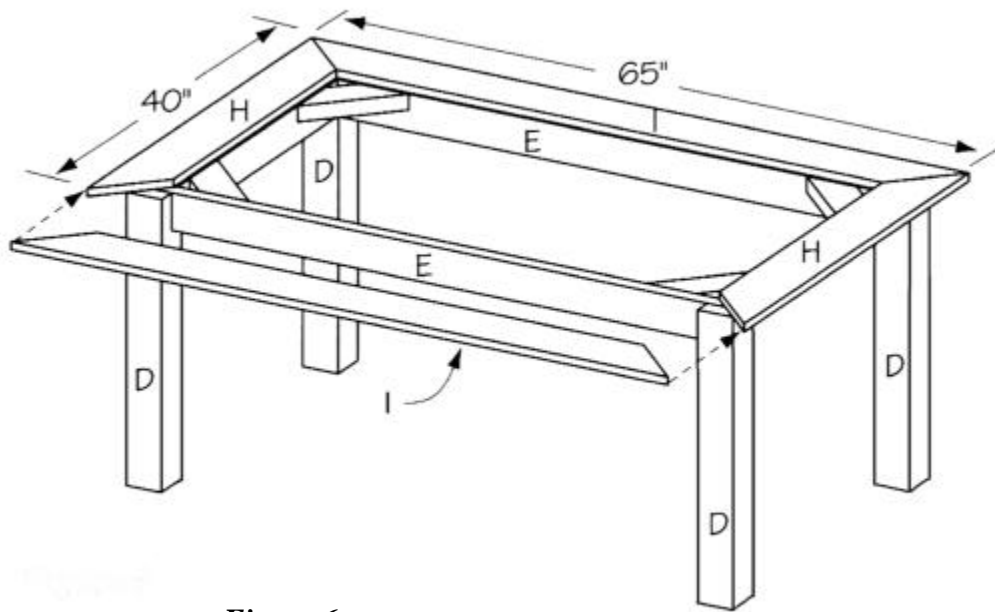


Figure 6

4. Repeat the procedure to attach the remaining long trim (J) to the opposite side of the table.
5. Cut two short trims (K) from 1 x 4 pine, each measuring 28 inches long.
6. Fit the first short trim (K) between the table legs (D) on one short side of the table against one short side rail (F). The top edge of the short trim piece (K) should be flush against the bottom of the tabletop. Apply glue to the meeting surfaces and use 1-1/4 inch (3d) finishing nails to attach the short trim (K) in place, spacing the nails about every six inches.
7. Repeat Step 6 to attach the remaining short trims (K) to the opposite side of the table.

Finishing

1. Fill the screw holes, crevices, and cracks with wood filler.
2. Sand all surfaces of the completed table.
3. Stain or paint the table the color of your choice. We chose to retain the natural color of the pine in the center of the table and paint the rest of the table a bright white. We then sealed it with many coats of high-gloss polyurethane.

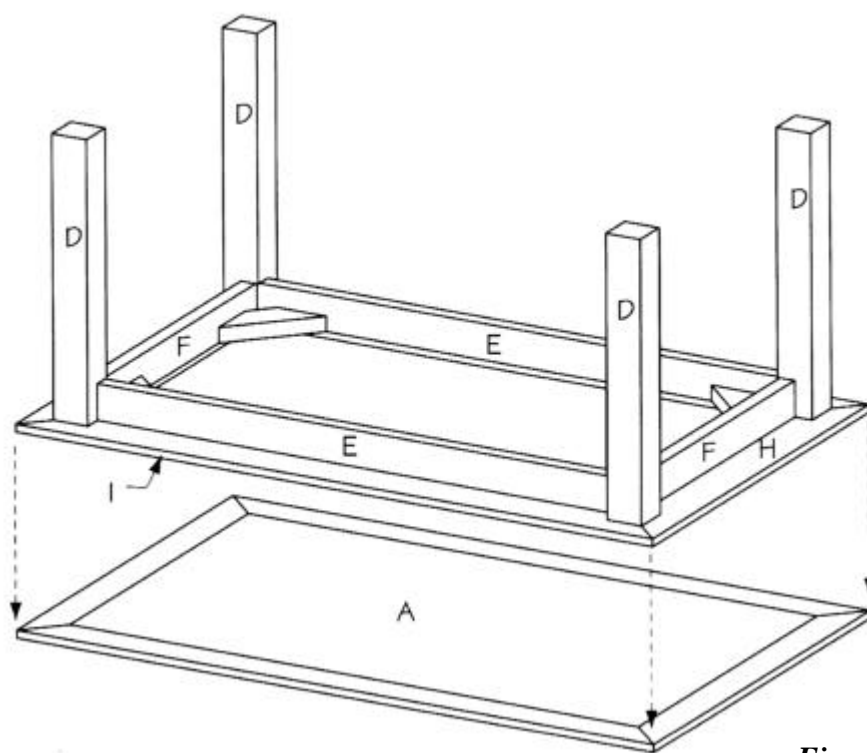


Figure 7

