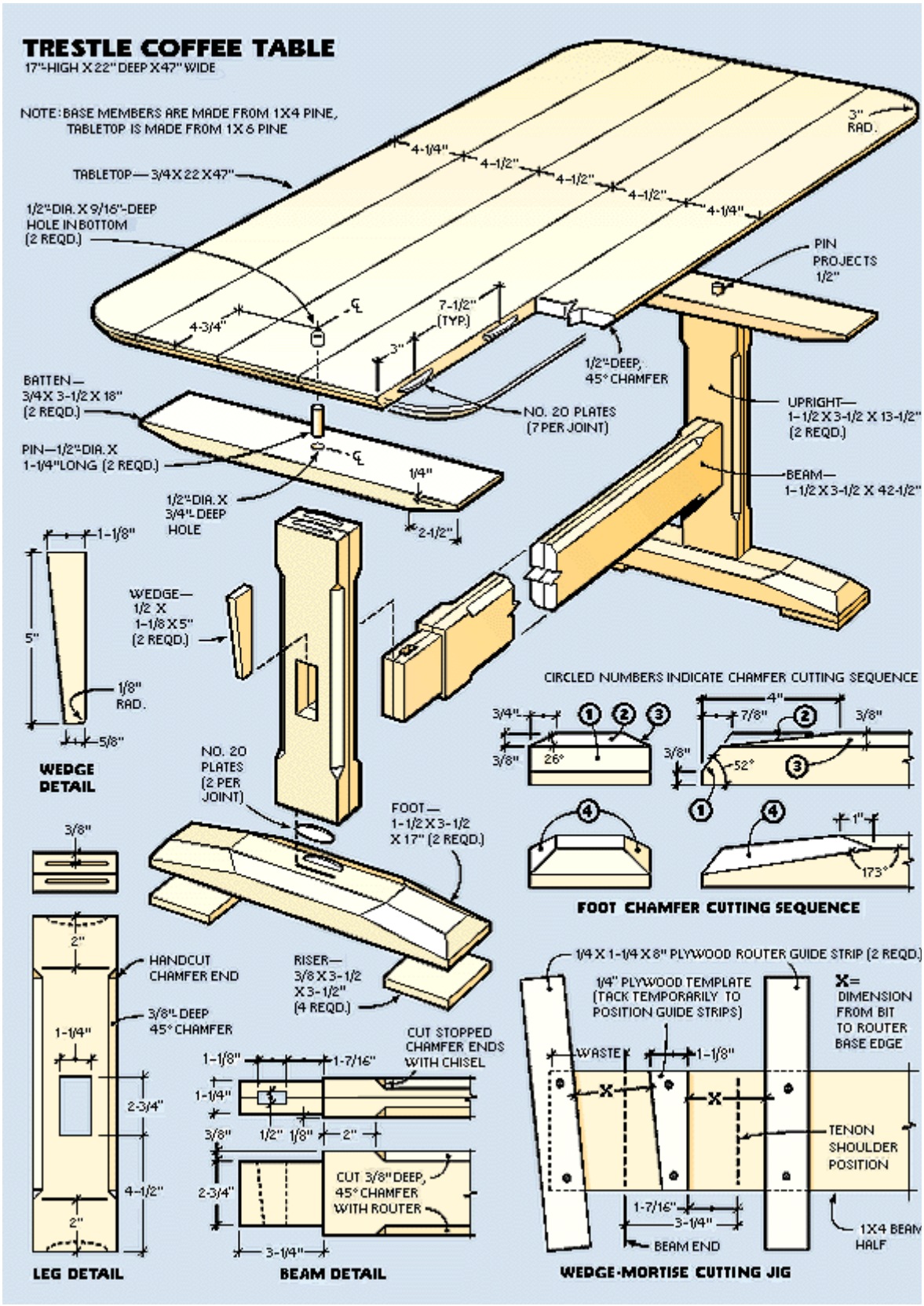
COFFEE TABLE

Believe it or not, knockdown furniture isn't a modern idea. Centuries ago, woodworkers not only realized the usefulness of such a concept, but devised novel solutions that could be created with simple tools and without the fancy hardware we have today. One example is the trestle table.

While the idea isn't new, our coffee-table interpretation is designed to suit any living room of the '90s. It's constructed of ordinary 1-in. Common pine, and the entire piece is made with basic power and hand tools.

Because the table is stained and clear-finished, it pays to choose your wood carefully. Select the straightest pieces you can find and make sure to buy extra so you can work around knots and other types of defects.


TRESTLE COFFEE TABLE
17"-HIGH X 22" DEEP X 47" WIDE
NOTE: BASE MEMBERS ARE MADE FROM 1X4 PINE, TABLETOP IS MADE FROM 1X6 PINE
TABLETOP — 3/4 X 22 X 47"
1/2"-DIA. X 9/16"-DEEP HOLE IN BOTTOM (2 REQD.)
4-1/4"
4-1/2"
4-1/2"
4-1/2"
4-1/4"
3" RAD.
PIN PROJECTS 1/2"
4-3/4"
7-1/2" (TYP.)
3"
1/2"-DEEP, 45° CHAMFER
BATTEN — 3/4 X 3-1/2 X 18" (2 REQD.)
NO. 20 PLATES (7 PER JOINT)
UPRIGHT — 1-1/2 X 3-1/2 X 13-1/2" (2 REQD.)
PIN — 1/2"-DIA. X 1-1/4" LONG (2 REQD.)
1/4"
BEAM — 1-1/2 X 3-1/2 X 42-1/2"
1/2"-DIA. X 3/4"-DEEP HOLE
2-1/2"
1-1/8"
5"
WEDGE — 1/2 X 1-1/8 X 5" (2 REQD.)
1/8" RAD.
5/8"
WEDGE DETAIL
NO. 20 PLATES (2 PER JOINT)
FOOT — 1-1/2 X 3-1/2 X 17" (2 REQD.)
CIRCLED NUMBERS INDICATE CHAMFER CUTTING SEQUENCE
3/4"
3/8"
26°
4"
7/8"
3/8"
52°
1"
173°
FOOT CHAMFER CUTTING SEQUENCE
3/8"
2"
HANDCUT CHAMFER END
3/8"-DEEP 45° CHAMFER
1-1/4"
2-3/4"
4-1/2"
2"
RISER — 3/8 X 3-1/2 X 3-1/2" (4 REQD.)
CUT STOPPED CHAMFER ENDS WITH CHISEL
1-1/8"
1-7/16"
1-1/4"
3/8"
1/2"
1/8"
2"
2-3/4"
CUT 3/8" DEEP, 45° CHAMFER WITH ROUTER
3-1/4"
LEG DETAIL
BEAM DETAIL
1/4 X 1-1/4 X 8" PLYWOOD ROUTER GUIDE STRIP (2 REQD.)
1/4" PLYWOOD TEMPLATE (TACK TEMPORARILY TO POSITION GUIDE STRIPS)
X= DIMENSION FROM BIT TO ROUTER BASE EDGE
WASTE
1-1/8"
TENON SHOULDER POSITION
1-7/16"
3-1/4"
BEAM END
1X4 BEAM HALF
WEDGE-MORTISE CUTTING JIG

Making The Top

Use your circular saw to crosscut five 1 x 6 boards slightly longer than finished length. Then, rip the boards oversize in width, using a straight strip as a guide, and joint the edges with a hand plane.

Arrange the boards so the direction of the annual rings alternates from one board to the next and mark the plate-joint centers. To cut the plate slots, place both the work and the joiner on a flat surface. Keep the upper face of each board down to ensure that the upper surfaces of the pieces will be aligned **(Photo 1)**.

1 -- Place both plate joiner and workpiece on a flat surface. Mark and cut the plate slots in the edges of the tabletop stock.

2 -- Apply glue to the plate slots and insert the plates. Then, apply glue along the boards' mating edges and assemble.

Apply glue to the slots, insert the plates and assemble the tabletop **(Photo 2)**. Then clamp the top with pipe clamps. To keep the top from buckling, clamp 2 x 4s across the boards. Place waxed paper under the 2 x 4s to prevent them from becoming glued to the top. After the glue is dry, use a paint scraper to remove excess glue, and level the joints with a cabinet scraper **(Photo 3)**. Smooth the top with a belt sander, followed by a random-orbit or pad sander. Then, cut to exact length and width **(Photo 4)**.

3 -- After removing dried excess glue with a sharp paint scraper, use a cabinet scraper to level and smooth any misaligned joints.

4 -- Use a circular saw to cut the tabletop to exact length and width. Guide the saw with a straight board clamped to the top.

5 -- Cut the 3-in.-rad. rounded corners with a sabre saw and circle-cutting jig. Cut from the bottom side of the tabletop.

To cut the radius at each corner, attach a circle-cutting guide to your sabre saw and set the pivot point 3 in. from each edge on the underside of the top. Then, make the cuts **(Photo 5)**. Finish by routing the chamfer around the lower edge of the tabletop **(Photo 6)** and sanding the top smooth.

6 -- Use a router and piloted chamfer bit to cut the bevel around the bottom edge of the tabletop. Then, sand the top smooth.

Making The Beam

Build the 1 1/2-in.-thick trestle beam by first cutting two 48-in. lengths of 1 x 4 stock. Temporarily nail the two boards together to establish alignment holes. Then, use a rule and square to lay out the mortise locations **(Photo 7)**. Separate the boards and carry the lines across the mating faces of the workpieces.

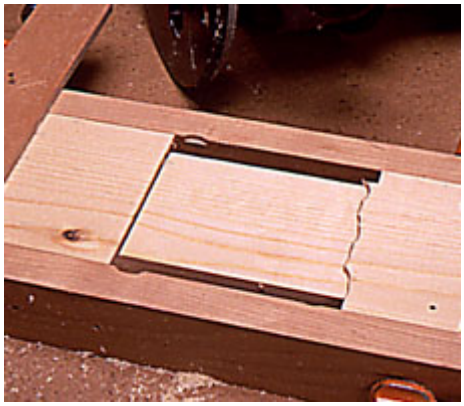
7 -- With the beam halves nailed together temporarily, use a square to lay out the wedge mortises on the beam edges.

To form the beam tenons, first lay out the shoulder cuts on the ends of the workpiece. Clamp two 3/4 x 1 1/2 x 14-in. boards to each face of the beam at one end to provide a wide, stable base for the router. Space guide strips with the cardboard spacer, adding approximately 1/2 in. extra to the length of the tenon. Tack the strips to the beam and make the cut **(Photo 9)**. After finishing the top and bottom shoulder cuts, repeat the process to make the broad cheek tenon cuts **(Photo 10)**. Make the leg and feet blanks by gluing together pieces of 1 x 4 stock. Prepare the pieces oversize in length, and drive a few nails in the waste areas at the ends to keep the assemblies from shifting when they're glued and clamped. Plane the edges after the glue has had time to dry.

9 -- With the beam halves glued, clamp strips to sides and tack guide strips to edge. Then, rout edges of beam tenon.

Legs and Assembly

Lay out the leg mortises, and bore 3/4-in. holes at the ends of each mortise. Remove most of the waste with a sabre saw.



10 -- Repeat the process on the faces of the beams to finish the tenons. Make tenons slightly longer than finished length.

Cut a thin cross-section slice from the end of the beam tenon. Align this on the leg mortise outline and nail plywood strips around it to make a template frame. Install a template bit in your router. This bit has a pilot bearing above the cutting edges. Make the first cut with the bearing aligned with the plywood frame. Then, readjust the bit so it's guided by the first cut and finish the mortise. Square the edges with a sharp chisel **(Photo 11)**.

11 -- Use a router, template and straight bit to trim the leg mortise to exact length and width. Then, chisel the corners square.

Cut the feet and battens to exact length and plane to width. Mark the feet blanks and battens to indicate the leg face positions. Then, mark centerlines across the pieces. With a foot resting on edge on a flat worksurface, shim the plate joiner to cut a slot centered 7/16 in. above the leg face position. After making the first slot in one of the pieces, raise the joiner with an additional 5/8-in.-thick shim and cut the second slot.

12 -- After marking slot centers on the feet, shim the plate joiner to make cuts.

Follow by cutting matching plate slots in leg ends.

Cut the corresponding slots in the leg ends **(Photo 12)**. Make the first set of slots with the joiner and stock laying on your bench. Raise the joiner with the 5/8-in. shim for the second set of slots. Mark the feet ends for the first bevel cut, as shown in the drawing. Make the cut with a handsaw, and plane the bevel smooth **(Photo 13)**. The next step is to mark the sloping face bevel and shape it with a hand plane. Follow by planing the long-grain bevels **(Photo 14)**, and shape the compound bevel.

13 -- After cutting foot end bevel with a handsaw, use a sharp block plane to trim the rough-sawn surface smooth.

14 -- Use a sharp bench plane to cut long bevels along the top edges of the feet. Then, mark and shape compound bevels.

Rout the stopped chamfers, and trim the bevel ends flat **(Photo 15)**. Then, join the legs, battens and feet.

Make the beam wedges, and assemble the table base. Use a drill guide to bore a blind 1/2-in. hole in each batten. Place dowel centers in the holes, align the top and press to transfer the batten hole locations. Glue a 1/2-in. dowel in each batten.

Finish the project with Minwax Wood Conditioner, followed by two coats of Minwax Colonial Maple Stain and three coats of Minwax Clear Semi-

15 -- After routing the stopped bevels on the beam and legs, use a sharp chisel to cut flat, triangular facets at bevel ends.

Gloss Polycrylic Finish.