Stage Cubes

Introduction

Simple, Versatile, Rehearsal Furniture

The ornate Parisian rococo settee and the intricately carved Louis Quatorze table will come later. On the first day of rehearsal, actors just need something to play on. The answer: rehearsal cubes. Cheap, sturdy, and practical, rehearsal cubes can also be pressed into service as actual scenic elements in non-realistic productions. Built with an open end or one hinged side, they will double as storage containers between shows. They're a good beginning drafting and building project for technical theatre students and an excellent way to put otherwise useless pieces of plywood and other lumber to work. Plus, now you can get rid of those ratty sofas and chairs that live in your wing space and green room.

Helpful Tips

At the most basic level, the rehearsal cube is a five- or six-sided box – not necessarily a perfect cube – built in dimensions that it to substitute for a chair, a table, couch, or other piece of furniture. There are many ways to assemble rehearsal cubes; this article concentrates on a method that is simple, sturdy, and uses joiner that can be adapted to other projects.

PRO TIP: There are really no standard sizes, but you will probably make best use of your lumber if you build in increments of 16". The real determinants of size will be the plywood you have available and how you plan on using the finished pieces.

Building the Cube

Tools and Materials

- wood glue
- pneumatic stapler or power drill
- table or panel saw
- jigsaw
- safety glasses
- dust mask
- corner clamps (optional)
- sandpaper and/or palm sander/orbital sander
- router (optional)
- ½" BC plywood (may also use ⅜" or ¾" AC plywood, MDF)

You will need a cut list to make one 16" square cube.   Using a table saw or panel saw, cut the ½" plywood into the following shapes and sizes:

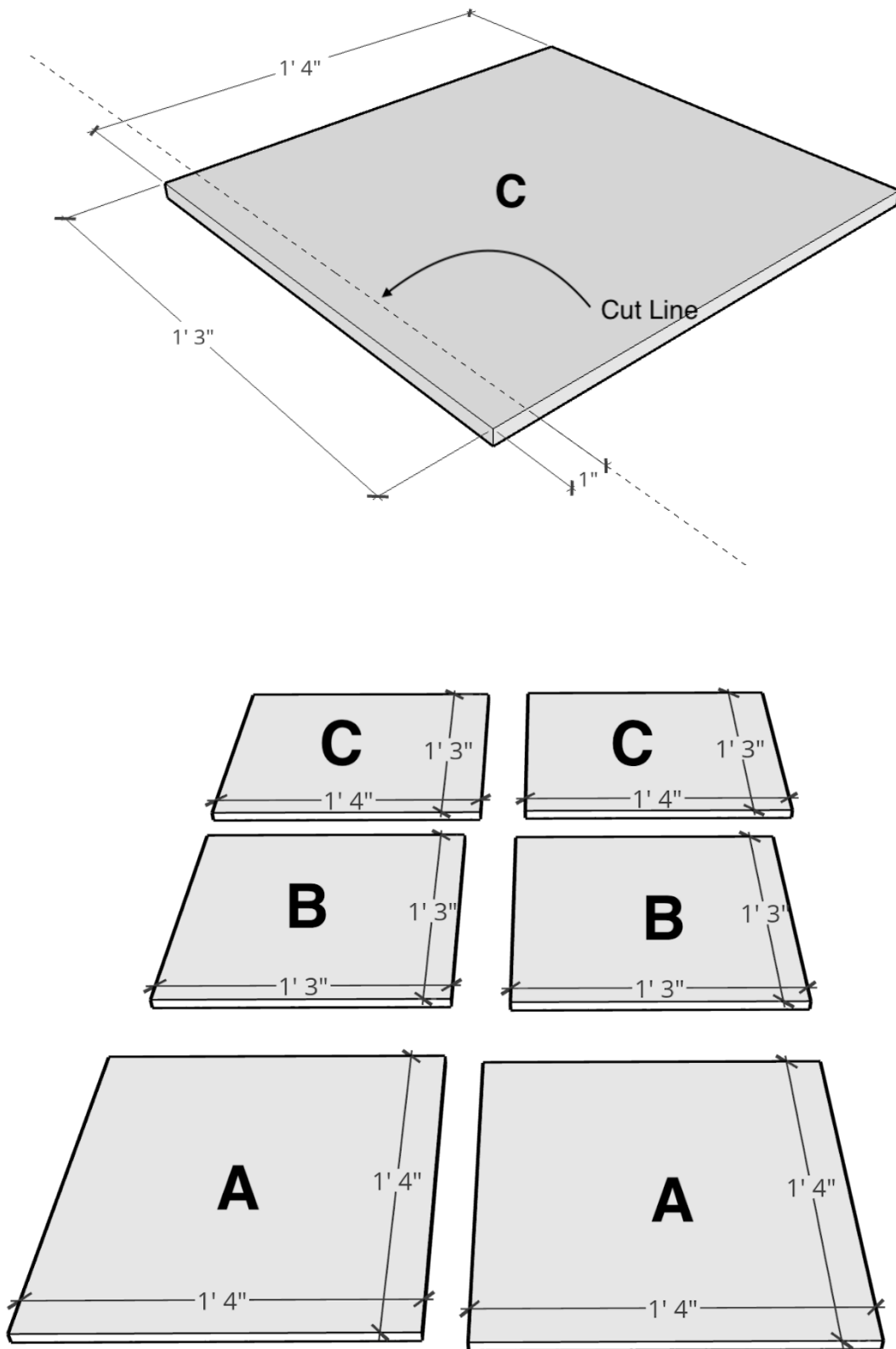Cut one strip of plywood that is 1'-4" wide (16") and 8' long.
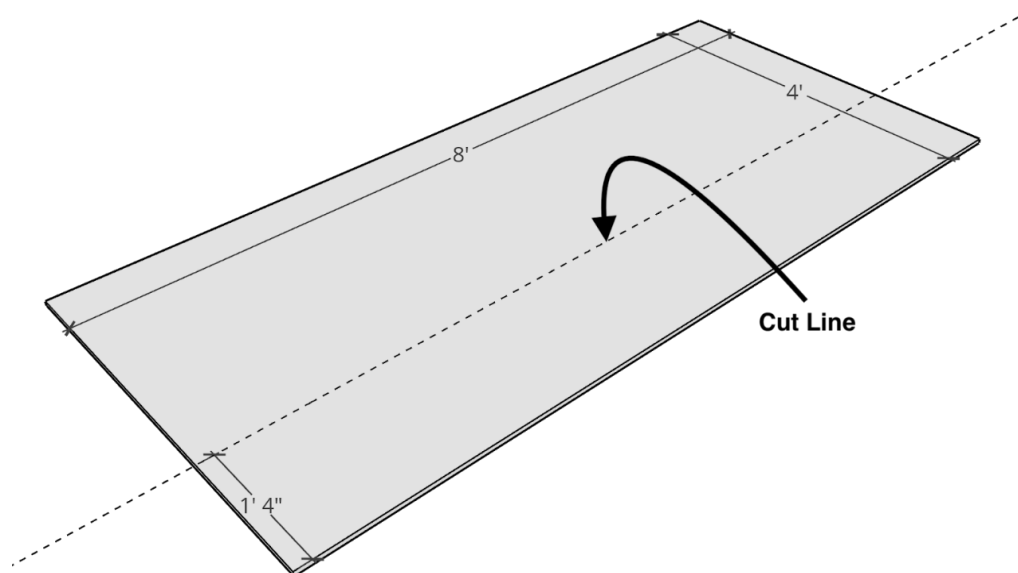
Then make the following cuts across that board:
    A: 2 @ 1'-4" (16") x 1'-4" (16") squares (these will be the top and bottom of the cube).
    B: 2 @ 1'-3" (15") x 1'-4" (16") (These will be two of the sides of the cube).
    C: 2 @ 1'-3" (15") x 1'-3" (15") squares (these will be the other two sides).
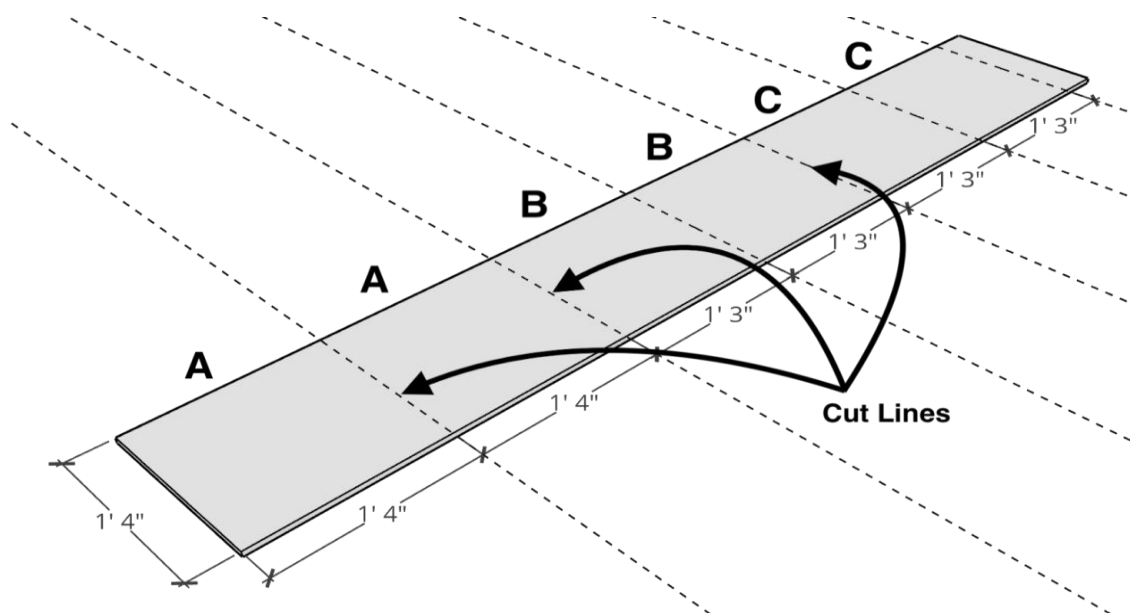
Note about cut C: This will be a two-part cut. First you will cut the pieces at 1'-4" x 1'-3", then you will cut an additional 1" to create a finished square of 1'-3" x 1'-3" that matches the cuts made to the B sides of the cube.
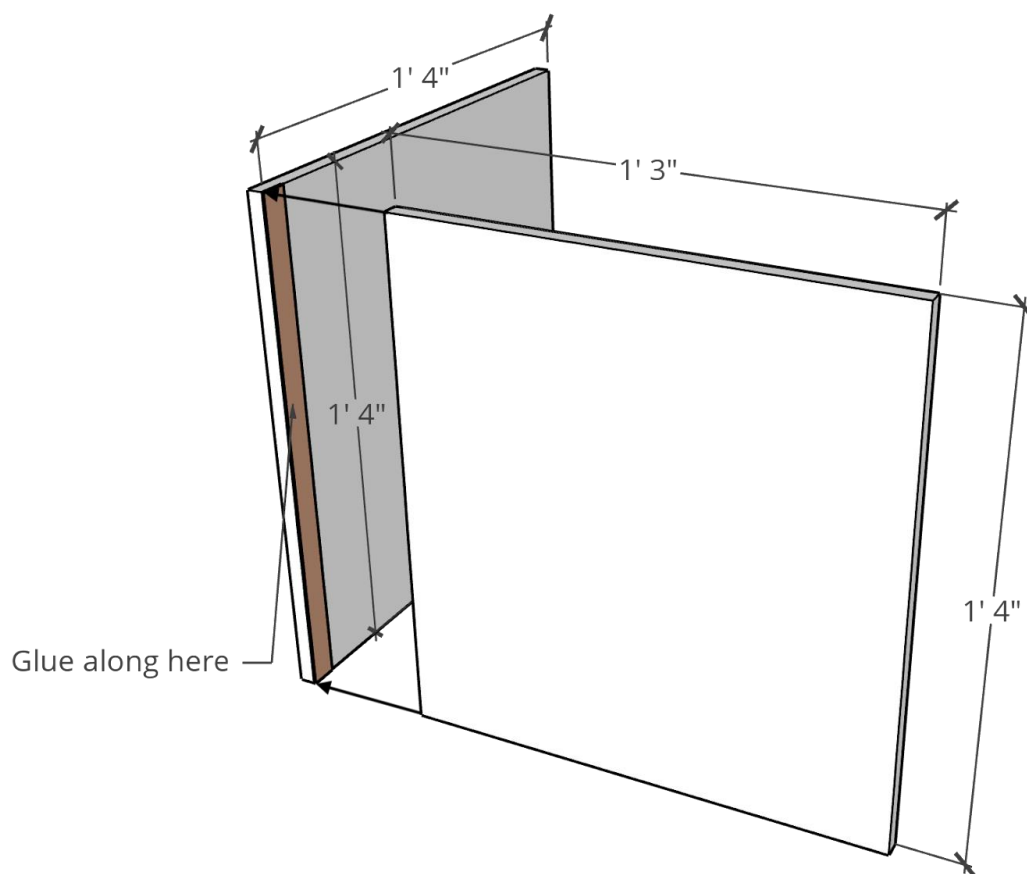
1' 4"

1' 3"

C

Cut Line

1"

C   1' 3"
1' 4"

C   1' 3"
1' 4"

B   1' 3"
1' 3"

B   1' 3"
1' 3"

A   1' 4"
1' 4"

A   1' 4"
1' 4"

Assembly

Once you have completed all cuts, you're ready to build your cube, following these steps:

1. Run a bead of wood glue along one edge of the top panel (A) and position one of the 16" sides of panel C on it, perpendicular to the top.
   *Note: If you have a corner clamp, it will make assembly significantly easier.*

2. With the two pieces fitted flush to each other, make sure that the edges are also flush, and then staple or screw through the face of panel A into the edge of panel B.

Staple Here

1' 4"

1' 4"

A

B

1' 4"

1' 4"

1' 3"
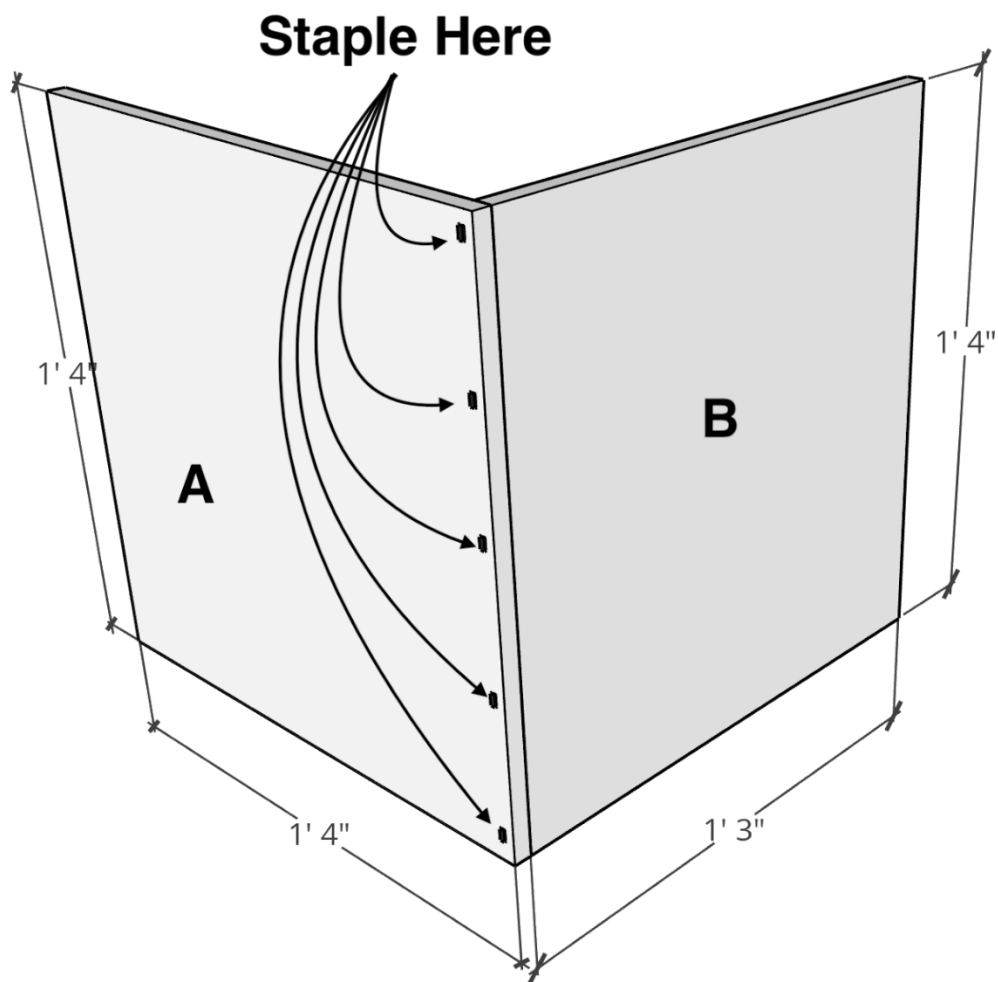
3. Glue along the inside bottom edges of panels A and B, then slide a panel C piece into the corner.

1' 3"

1' 4"

B

1' 4"

Glue Here

A

1' 4"

1' 3"

C

1' 3"
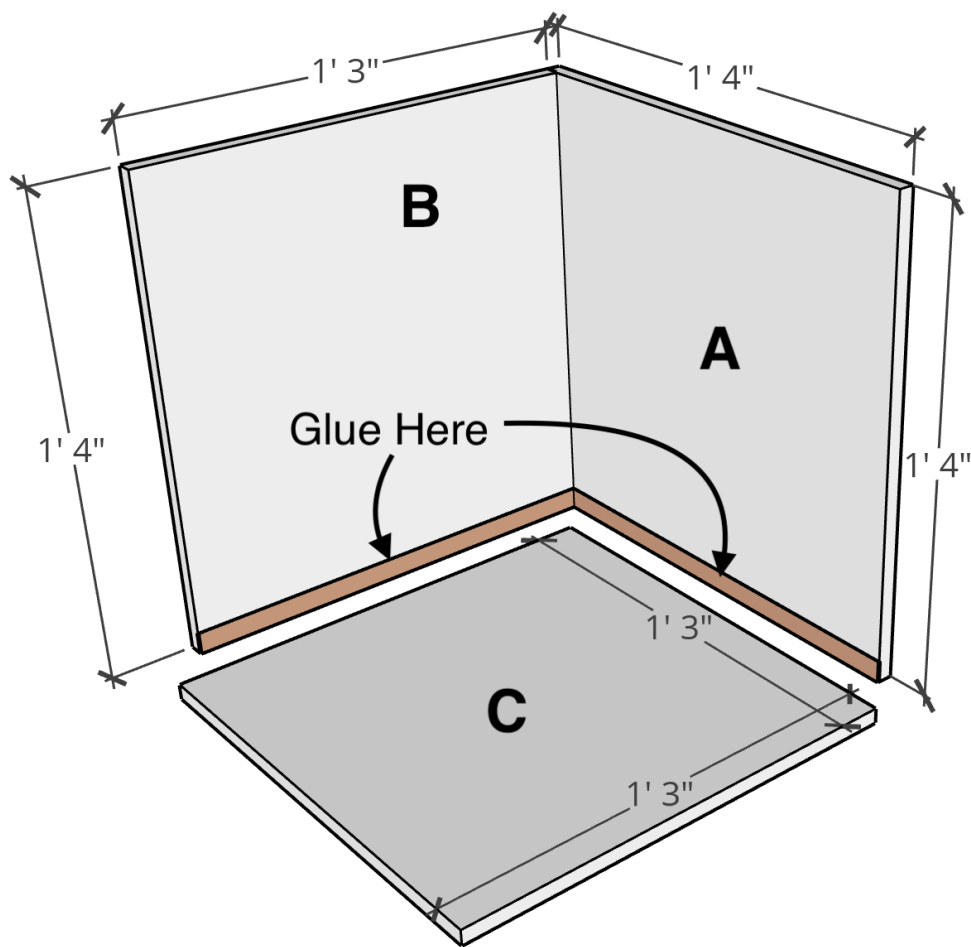
4. Staple through the outsides of panels A and B into the edge of panel C. If you have a reliably flat work surface, you can move the piece to the edge of your surface and use it as a guide to ensure that the pieces remain properly flush while stapling. If not, I would recommend rotating the piece as you work so that you have a clear view of how the panels are lining up as you attach them to each other.

1' 4"   1' 3"
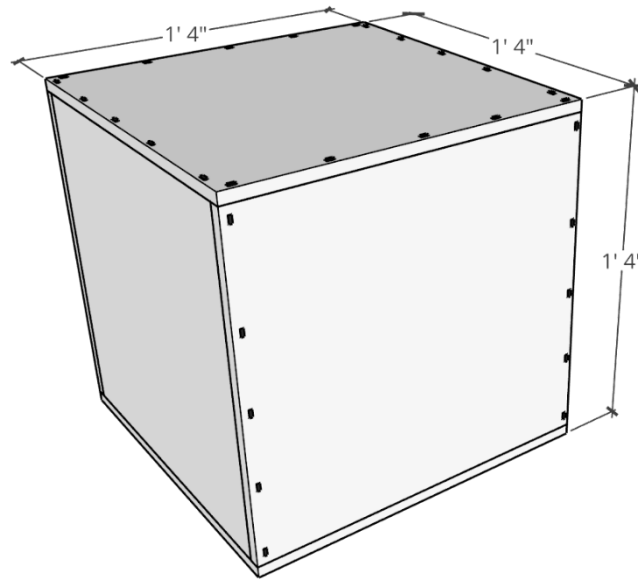
Staple Here

1' 4'   1' 4"

1' 3"   1' 3"
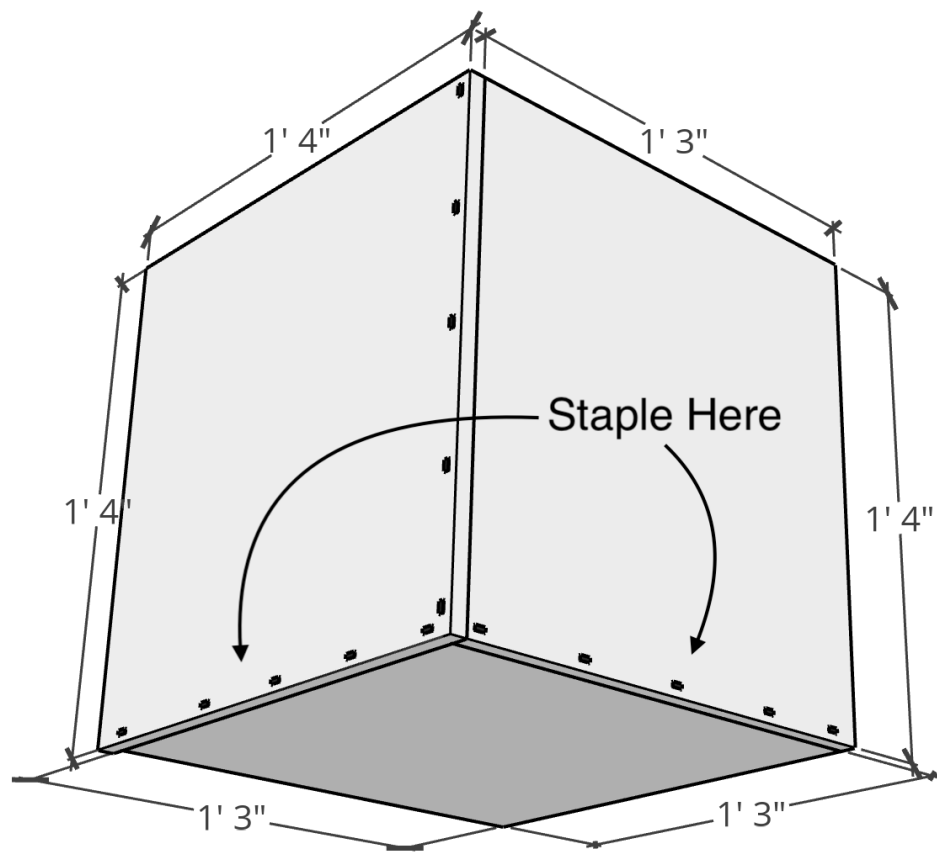
5. Flip the piece over, glue along the inside edges of the corner pieces, and fit the other panel B into the corner then staple along the outside edges in the same way as step 4.

1' 4"

1' 3"

B

1' 3"

1' 3"

A

C

1' 4"

Glue here

1' 4"

B

1' 3"

1' 3"
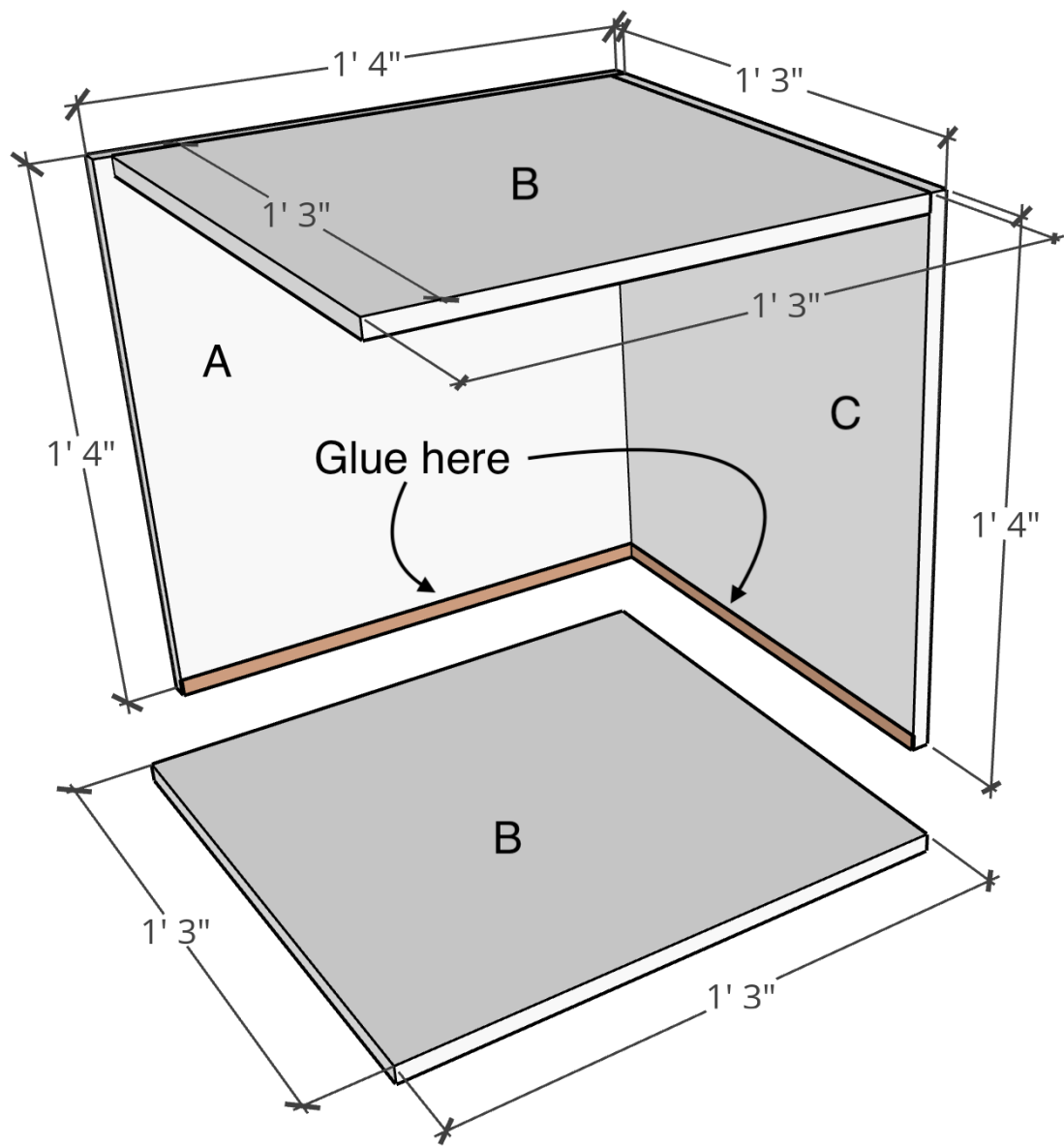
6. Glue along the exposed edges of the box, and place and staple the final panel A piece into place.

1' 4"

1' 4"

Glue Here

1' 4"

1' 4"
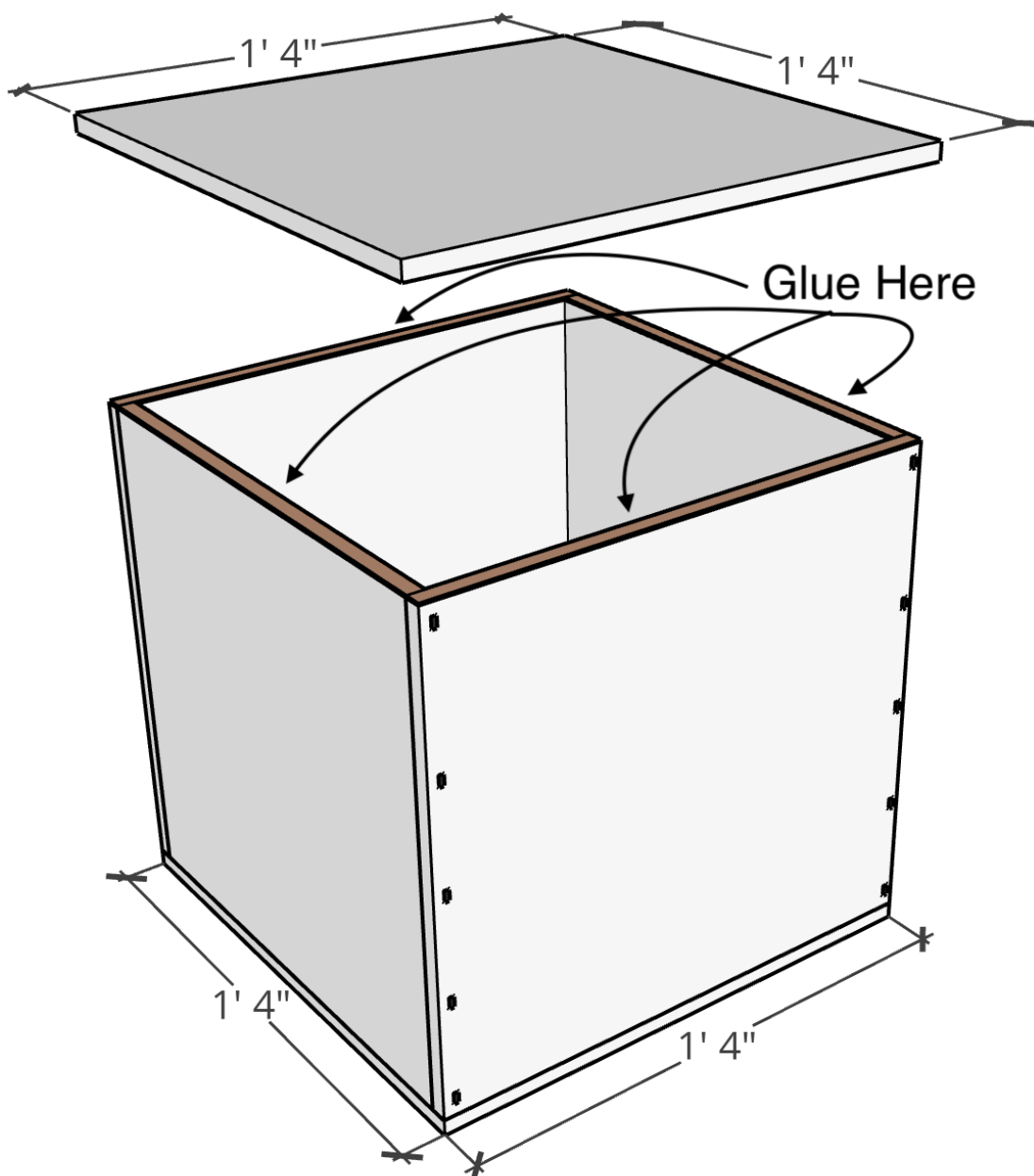
To finish your cube:

- lightly sand all corners and edges to reduce damage and chipping under use.
- fill staple holes with wood putty.
- paint the cube in at least two layers of desired color to ensure a long lasting finish.

PRO TIP: If you would like to make your cubes easier to work with, cut hand holds into two sides of the cube. This can be accomplished by tracing a basic rounded profile onto the face of the cube, pre- drilling a ¼" hole inside that profile, then using a jigsaw to cut out the hole.
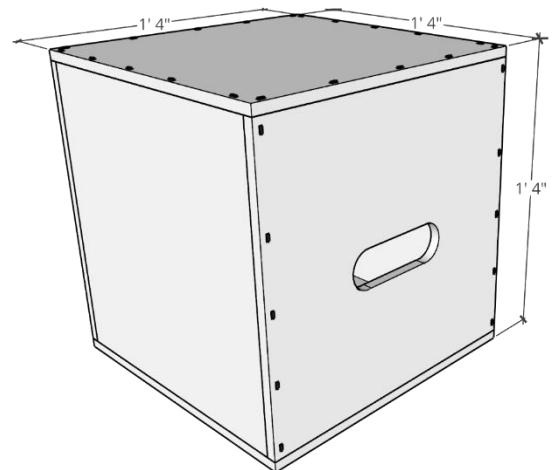
Optional: You may want to use wood cleats to better secure the edge joints and compensate for the potential loss of strength associated with joining plywood along its edge. Cut cleats from scrap (1"x1"x4") and place them along the inside edges of the cube as you're assembling it. They should be glued and fastened as you would with the rest of the cube.

1' 4"

1' 4"

1' 4"

Cleats
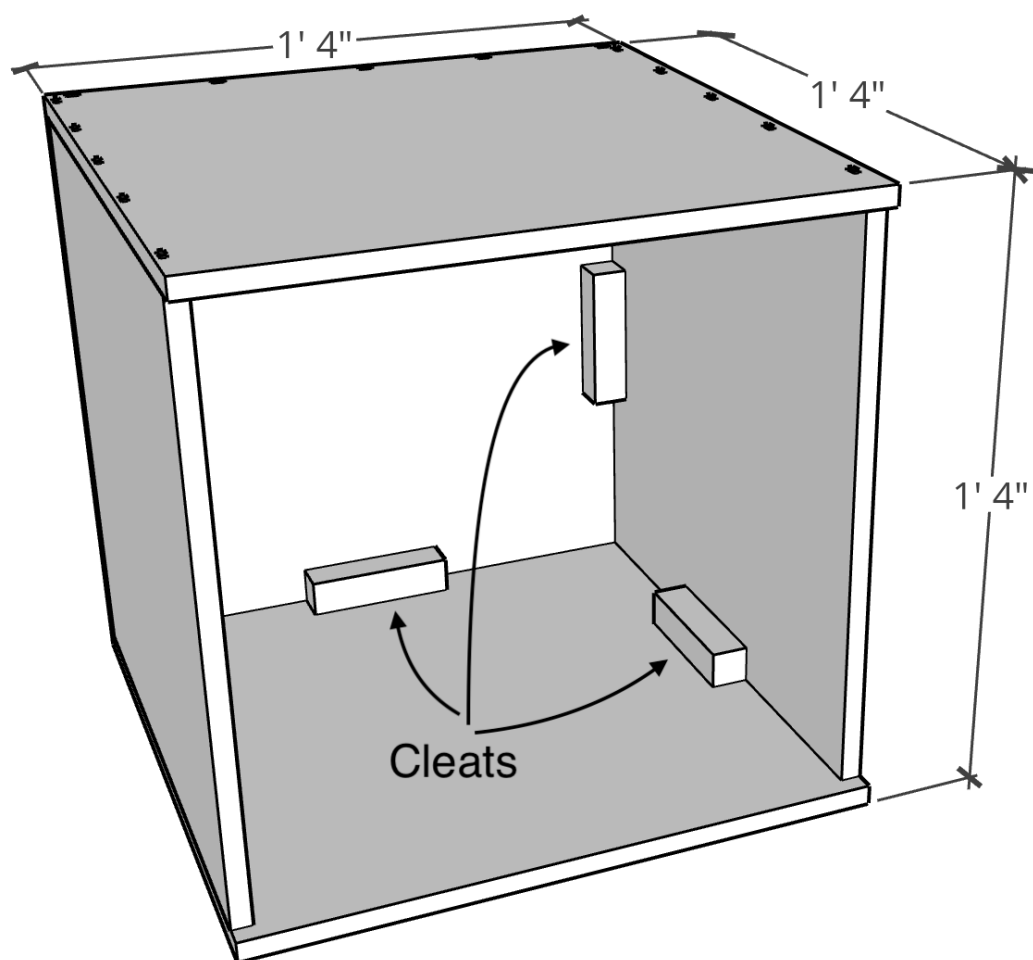
OTHER USEFUL SIZES

Depending on your available materials or your needs you may wish to construct cubes of other sizes. The variation in sizes may better approximate actual furniture heights.

18"x18"x18" - A standard chair seat has a height of 18"; using several together can stand in as a sofa.

> Cut list (using ½" plywood):
> 2@ 18"x18"
> 2@ 17"x18"
> 2@ 17" x 17"

30" (h) x 18" (w) x 18" (L) - A standard table-top height is 30", using multiple of these you could create a quick table by adding a plywood top. For longer blocks you may want to add an additional internal piece in the middle of the cube to support the faces. For this size, a single 17"x17" piece would be sufficient. Alternatively, you could use a series of cleats along each long edge.

> Cut list (using ½" plywood):
> 2 @ 29" x 18"
> 2 @ 29" x 17"
> 2 @ 18" x 18" (end caps)

Relevant Industry Codes

Refer to manufacturer manuals for instructions on specific tool use.

OSHA Standard Number 1926/ Subparts D, E, I, J, K, L, M, N, and X

Links and Resources

"Stage Cubes" - Originally published in *Dramatics* magazine, as an article written by Dana Taylor and excerpted by Donny Covington. Used by permission of the author.

Download the original article here:
https://community.schooltheatre.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=7654bf20-c96b-4dd7-9f63-cd6924d488ba

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