

# BUILD YOUR OWN PICNIC TABLE

The seemingly simple task of building a picnic table is one of the most collaborative building activities to bring people together. Whether your goal is to create a communal table to eat, work or gather outdoors or an onsite workbench for your tools, This BYO Picnic Table Guide walks you through the process.

Designing and building a picnic table with neighbors in public areas is a great way to engage local stakeholders about the spaces and places that are important to them. It also instantly encourages (new) usage of a place and can be a tool to immediately assess how a space or place is used, or not used, instead of traditional research methods.

We've seen community members move picnic tables several times a day to where the shade is at a particular time of day. In other cases, the picnic table became the new outdoor conference room or classroom, enabling people to safely gather during the pandemic.

**5-7 HOURS**

**COST \$250-300**



Eat, rest, converse, or just hang out. Picnic tables are a versatile tool in public spaces to encourage community members to utilize spaces and places for a variety of purposes. Customize the table with a paint color to match the space your picnic table calls home!





## WHAT DO YOU NEED?



## MATERIALS

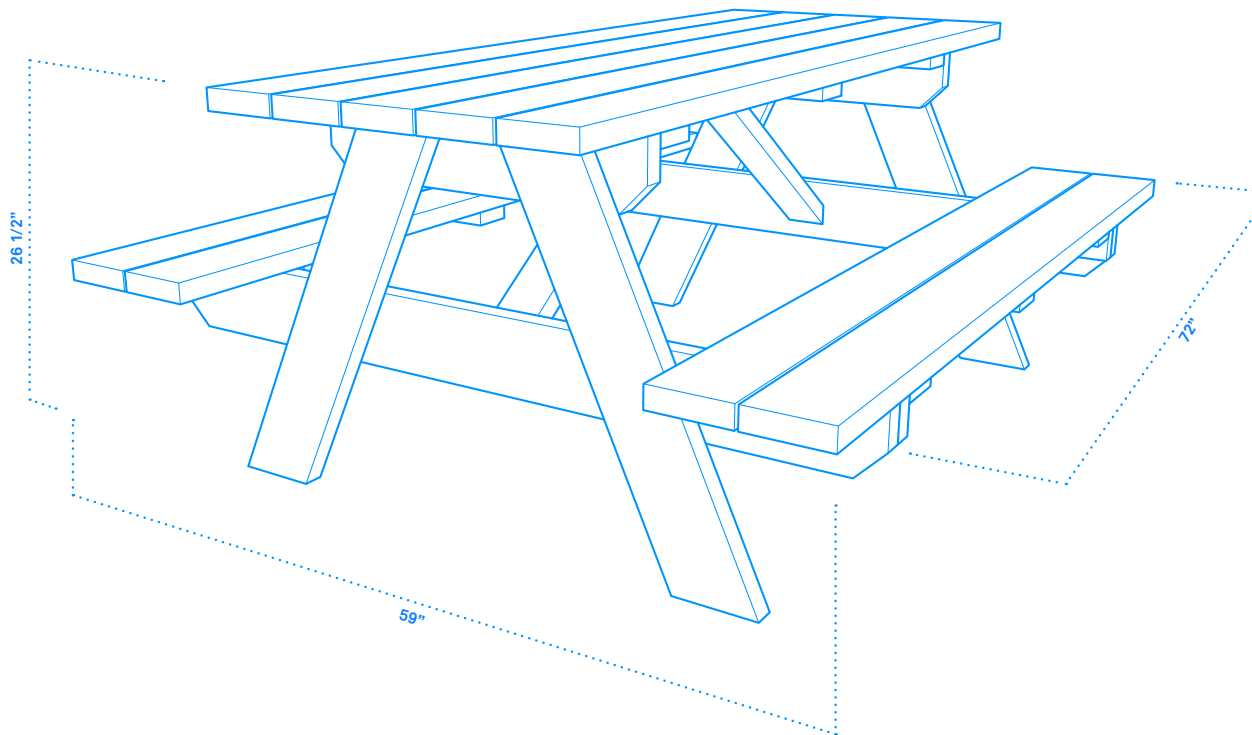
- 9 2 x 6 x 8ft common pine or douglas fir
- 4 2 x 6 x 8ft pressure treated pine
- 3 2 x 4 x 8ft pressure treated pine
- 3 sheets 80-120 grit sandpaper or orbital sanding discs
- 1 qt semi-gloss exterior paint with primer
- 8 ¼" x 3 ½" Galvanized Carriage Bolts (with nuts and washers)
- 2 boxes of 2 ½" exterior wood screws (minimum 125 screws)
- 8 ¼" wood spacers

## TOOLS

- 1 chop saw
- 1 drill with a driver bit
- 1 ⅛" drill bit
- 1 ⅝" drill bit
- 1 orbital sander or sanding block
- 4 speed clamps
- 1 tape measure
- 1 framing square
- 1 speed square
- 1 safety glasses
- 1 adjustable wrench
- 1 drop cloth
- 1 paint brush or roller
- 1 paint tray

### Optional:

- 1 18 gauge finish nailer (see more in the Tips! section)



## TIPS!

Here are a couple of tips and things you should consider before you head to the hardware store to purchase materials.

### Material Length

Getting some of your wood cut at the store? We recommend adding at least 3" to the measurement of anything you are having them cut and then make all final cuts on your own.

### Don't Trust the Factory Ends!

The ends of the boards may look straight, but rarely are. They are rough, crooked, and often treated with a waxy coating that won't accept paint. Always cut both ends of your boards to ensure a precise final result.

### Stops and Tools

Stops are great when using the chop saw. Simply clamp a piece of scrap wood to the table or saw at the length you need to cut, double check the measurement, and start chopping!

You'll make your first tool with your very first cut! Many of our steps will be using 11", or the width of two 2x6 pieces, offcuts make a quick and easy measuring tool.

### Using a Finish Nailer

While not required, a finish nailer will help you 'set' your joints in place as you pre-drill and screw your table together. It results in a significantly improved final product.

### Pre-Drill All of Your Screw Holes

To prevent the wood from splitting, always pre-drill holes for your screws. This creates space and a path for the screw. When pre-drilling, an extra set of hands (and clamps) will help hold everything together.

### Use a 'Zig-Zag' Pattern with Screws

When screwing across a whole length of wood, a zig-zag pattern will exponentially add strength to anything you're building, and helps to prevent splitting. You're essentially making little triangles, and triangles are one of the strongest shapes out there!

### Gaps Between Boards are Bad!

A gap of any size between any two boards on your table means that the connection is 50% weaker than if they were touching. If a gap exists, you will need to remove ALL of the screws and then screw it back together.

### This is at Least a Two Person Job

Just as seesawing requires two people, building one is a lot easier with two people, particularly during assembly.

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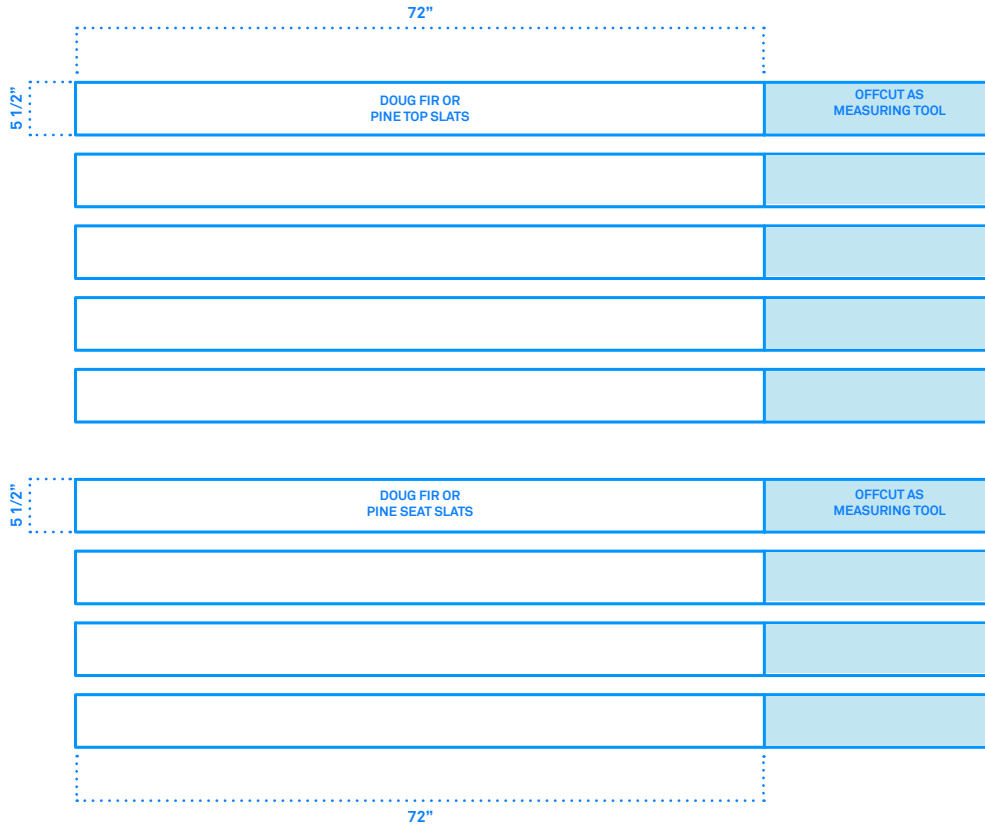


## CUTLIST: TOP SLAT AND SEAT SLAT

Our freshly painted bench and seat tops are what stand out and “make” the picnic table. Setting up a stop on your chop saw will ensure all your cuts end up being the same. We will only be painting these pine or douglas fir boards. The pressure treated will remain unpainted.

### First Cuts

Remove a blade’s width from the factory end of your nine common pine or douglas fir 2x6s, and then cut them down to 72”. Please note that the dimensions of most 2x6s are actually 1 ½” x 4 ½”. This knowledge is helpful when measuring and cutting down your boards.



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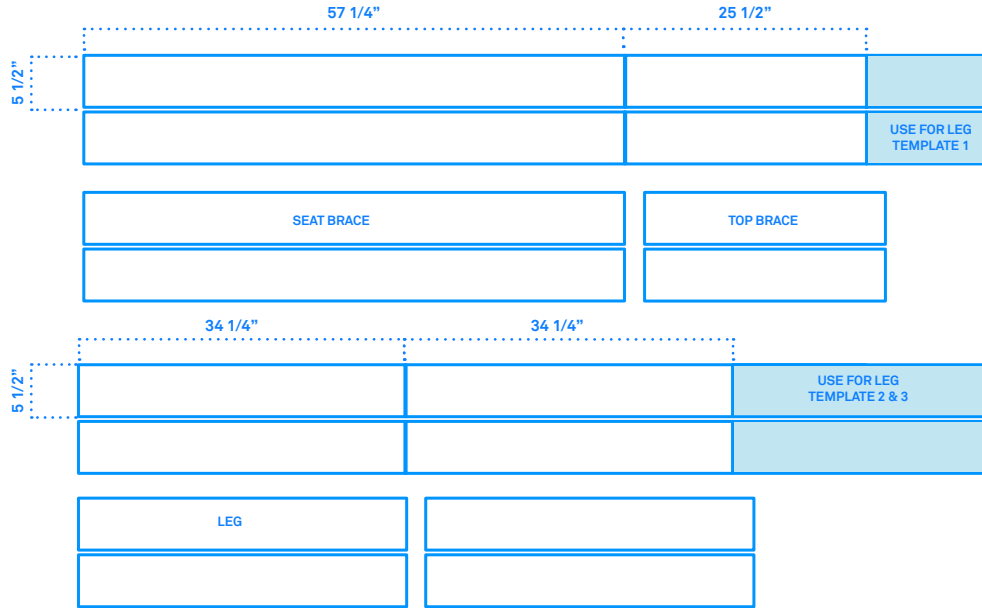


## CUTLIST: "A" ASSEMBLY

Next up are the A-shaped pressure treated legs. We'll want these to be as uniform as possible, so setting up the stop on the chop saw will make this part of the job flow much easier.

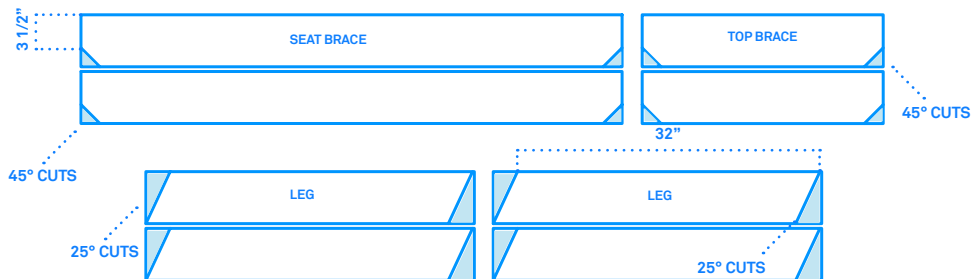
### First Cuts

Remove a blade's width from the factory end of your four pressure treated 2x6s, and then cut them down to the measurements listed below. Off-cuts can be used to create templates.



### Second Cuts

After cutting the length, cut the additional angles from your pieces. The two settings, 45° and 25°, and easy to do on the chop saw.



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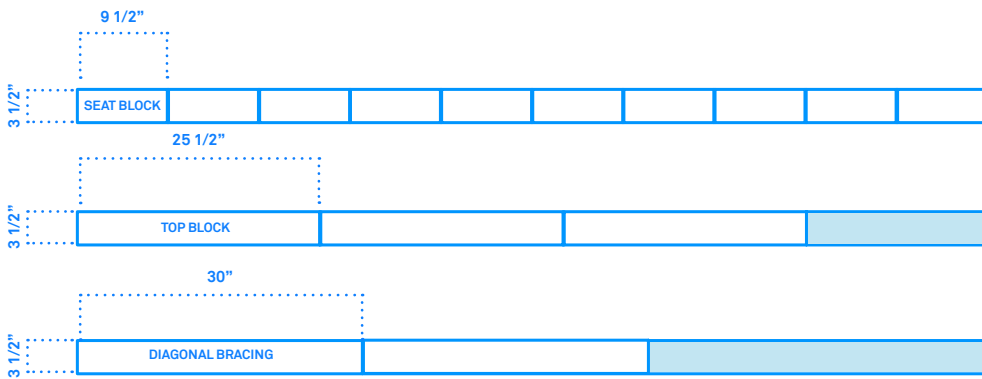


## CUTLIST: SUPPORTS AND BRACING

Next up are the pressure treated supports. We'll again want these to be as uniform as possible, so setting up the stop on the chop saw will make this part of the job much easier.

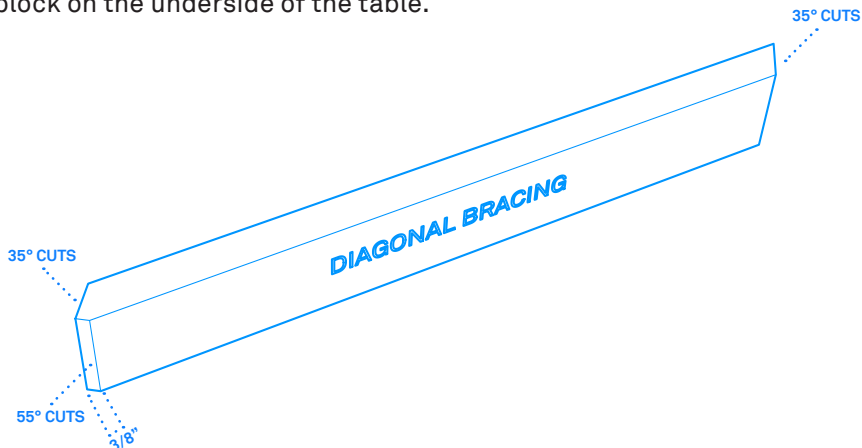
### First Cuts

Remove a blade's width from the factory end of your four pressure treated 2x4s, and then cut them down to the measurements listed above. Please note that the dimensions of most 2x4s are actually  $1\frac{1}{2}$ " x  $3\frac{1}{2}$ ". This knowledge is helpful when measuring and cutting down your boards.



### Second Cuts

These cuts are made on the thin  $1.5$ " side of the 2x4s. The two diagonal braces will need one  $55^\circ$  cut and two  $35^\circ$  cuts. The cuts on the left will create a  $90^\circ$  angle in the corner where the two cuts meet. This corner will sit flush against the top block on the underside of the table.



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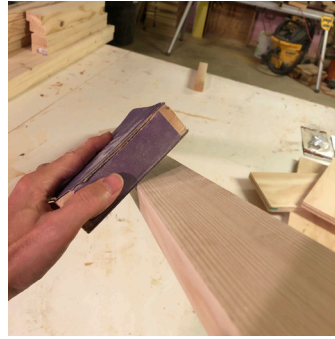




# HERE'S HOW YOU DO IT!



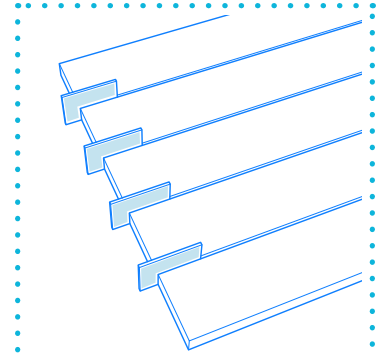
Sand your boards to prevent splintering and injury as you build.



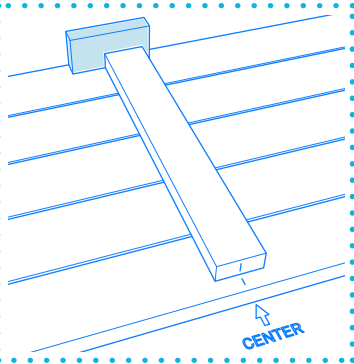
Chamfer all corners with a sanding block. 4 to 5 times.



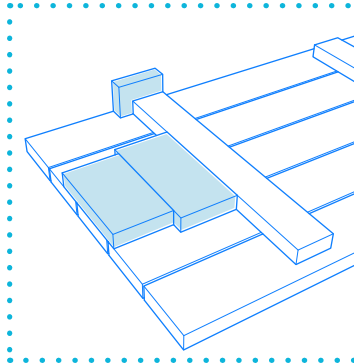
Paint your top and seat boards. 'Less Is More'- plan on doing 3 thin coats of paint.



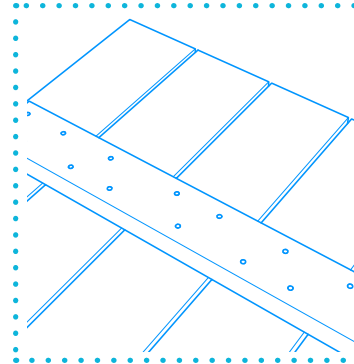
Lay top slats onto wood cut-offs to protect them. Move them 1/4" apart using spacers.



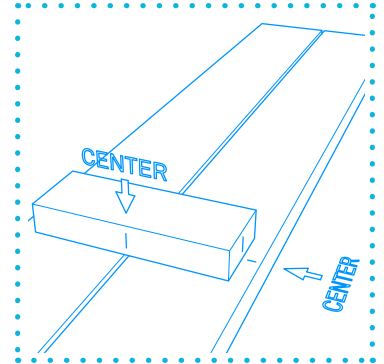
Center backer block on slats. Space block 1 1/2" from edges.



Align the side backer blocks 11" from ends (or two 2x6 cut-offs).



Attach all with 2 1/2" screws in a zig-zag pattern. 3 screws per slat. Remember to pre-drill.



Repeat process with seat slats. Mark and center a 9 1/2" block.



Using 2 1/2" screws, combine two 9 1/2" blocks together in an "L" shape. Remember to pre-drill.



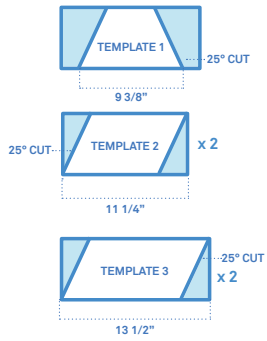
Align these "L" blocks 11" (or two 2x6 cut-offs) from ends of the seat slats.



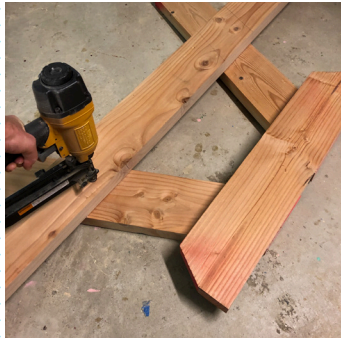
Attach with 2 1/2" screws in a zig-zag pattern. 3 screws per slat. Remember to pre-drill.



# LET'S ASSEMBLE THOSE LEGS!



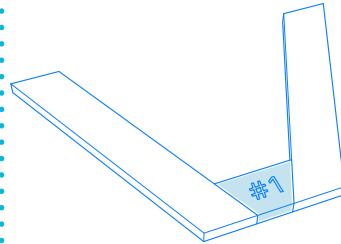
To assist with alignment, use 2x6 off-cuts to create templates for the leg assembly.



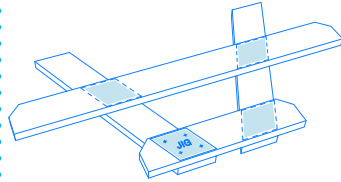
Align and square all pieces. Use 18g nailer to pin everything in place.



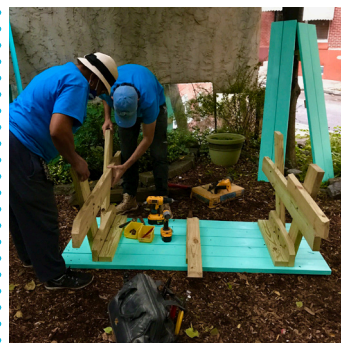
Flip leg assembly and insert 1/4" carriage bolts. Trim excess thread. Flat ends should face outward.



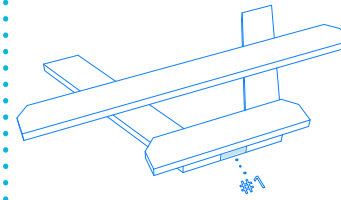
Place "Leg Template 1" between 2 leg pieces and flush with the top of both leg.



Cut out bolt & screw jig from guide (pg 10). Mark & screw legs as shown above.



Position legs outside of backer blocks. Legs facing "out," braces facing "in."



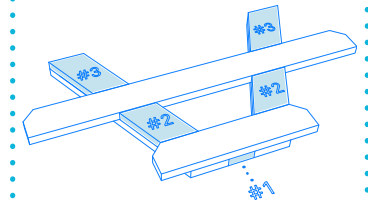
Lay top brace and seat brace over legs.



Pre-drill your holes. Only put the 1/4" bolt holes in the seat support.



Have a friend help, and align edges of top brace to backer blocks.



Position "Leg Templates 2 and 3" between leg braces.

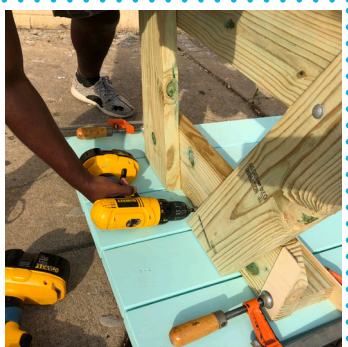


Attach with 2 1/2" screws. In the top assembly add screws where the jig indicates bolts.

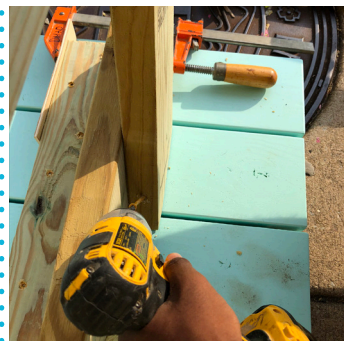




## FINAL STEPS! KEEP GOING, YOU'VE GOT THIS!



Attach with 2 ½" screws in a slight staggering pattern.



Pre-drill and toenail legs to top where Template 1 used to be.



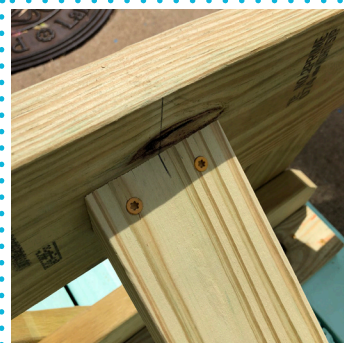
Mark and center diagonals to legs and top. Use 18g nailer to pin in place.



Pre-drill and toenail a screw on each side of diagonals at table top.



Tip! Use a clamp to keep the diagonal from moving left or right.



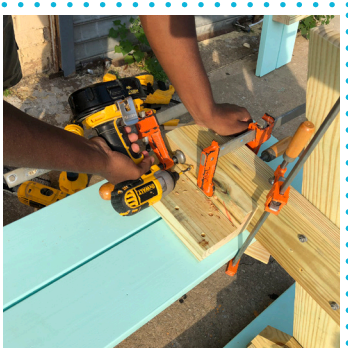
Pre-drill and attach diagonal to legs with 2 ½" screws.



Grab a friend and all your clamps. Attach seats to seat braces.



Align 9 ½" blocks of seat to edge of seat braces of legs.



Clamp in place and use 3 to 4 x 2 ½" screws in zig-zag pattern.

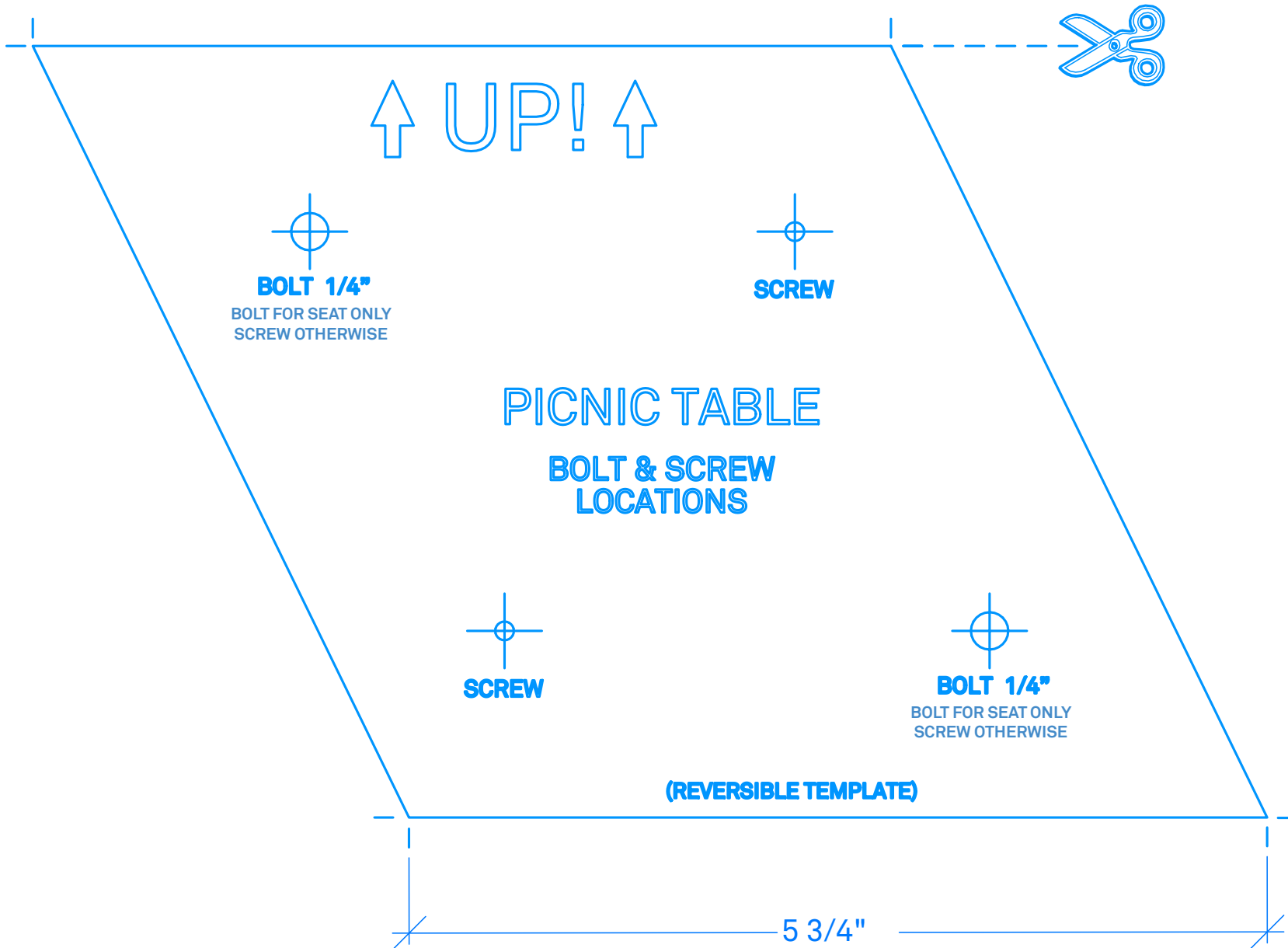


Chamfer feet.

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## BOLT AND SCREW JIG

Cut this jig template out to pre-drill your picnic table legs. Two holes will be for 2 1/2" screws, and two holes will be for 1/4" thru bolts on the seat brace. On the top brace, use screws in all 4 locations. NOTE- the screws go on the back of the legs and the bolts go on the front.

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## MORE NOTES ON BUILDING YOUR PICNIC TABLE!

Here are a few more tips for finishing up the beautiful picnic table you are making!

### Focus Sanding High Touch Areas

We've said it before, but we will say it again: focus your sanding and chamfering on high touch and seating areas, especially if you're using the cedar. It's a wonderful material, but it can chip if the edges are left sharp.

### All the Dimensions Matter!

While there is some flexibility in how the table gets finished, getting the dimensions correct as we've designed it is absolutely important.

### Did We Mention Gaps are Bad?

A gap means there is a TINY amount of room for the joint to move. If the joint starts to move it WILL get weaker and weaker over time. Again, you will need to remove ALL of the screws and then screw it back together. And wood glue is magical, by the way.

### Maintain your Table Properly

If you do paint, we recommend repainting every two years to keep your table looking sharp. When you are ready to repaint, lightly sand your table to allow new paint to adhere better. It's also important to look for any nicks, scrapes or cracks and do touch-ups as needed. Remember: any exposed wood will absorb water, causing the wood to rot. Paint "seals" the wood, protecting it from rain and mold. Lastly, keep the feet out of standing water or frequently damp

ground by using screw-in adjustable leveling feet to elevate the wood off the ground. The adjustable feet are great at leveling your table too, since sidewalks, floors, etc. are often uneven.

### Run into Problems? We can Help!

Have questions or need help working through a fabrication problem? We are happy to help. Email Tiny WPA at [info@tinywpa.org](mailto:info@tinywpa.org).

### Post Pictures of Your Building Process on Instagram and Tiny WPA!

We want to cheerlead for you and give you some visibility for your efforts! Tag us (@tinywpa) and we will happily repost any photos or stories that you share.

Don't have an Instagram account? Send photos to [info@tinywpa.org](mailto:info@tinywpa.org), and we will post them!



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