



Porch Bench

# PROJECT PLANS

**Finished Dimensions:** 96"W x 29-1/2"H x 44-1/2"D

**Skill Level:** Beginner

## Materials

Item	Qty
2" x 4" x 8' Board*	12
2" x 6" x 8' Board*	10
4" x 4" x 8' Post (Kiln-Dried Douglas Fir)	1
#9 x 2-1/2" Star Flat-Head Wood Deck Screws	1 Box
#9 x 3" Star Flat-Head Wood Deck Screws	1 Box
1/2" x 4" Eye Bolt with Hex Nut	4
1/2" Washers	8
1/2" Lock Washers	4
Sandpaper** : 150g, 220g & 320g	
Drill Bits: 1/2"	

\* Board Dimensions are "nominal". Actual dimensions are smaller due to lumber industry standards. Cuts are actual length.

\*\* Starting grit will depend on board surface condition, a rough surface will require starting with a coarse grit first.

**R** Grit is measured in the coarseness of the particles on the sandpaper. The lower the grit number, the coarser the paper. Heavy sanding would require 60 to 80 grit, medium sanding would require 120 to 220 grit, and finish sanding would require 320 to 400 grit. Super fine sanding would be 600 grit and higher.

**R** A select/premium board or plywood comes with a smoother surface finish. It is clear or has very few tight knots, and it will have straight and sharp edges. This grade of wood pairs well with other boards or panels better and requires less time to sand and finish.

## Tools Used



7-1/4" Sliding  
Compound Miter Saw

or



Circular Saw



Drill/Driver



5" Random Orbit  
Sander



Tape Measure



Drill Bits



Driver Kit



5" Orbit Sandpaper

Also Needed: Safety Glasses and Clamps



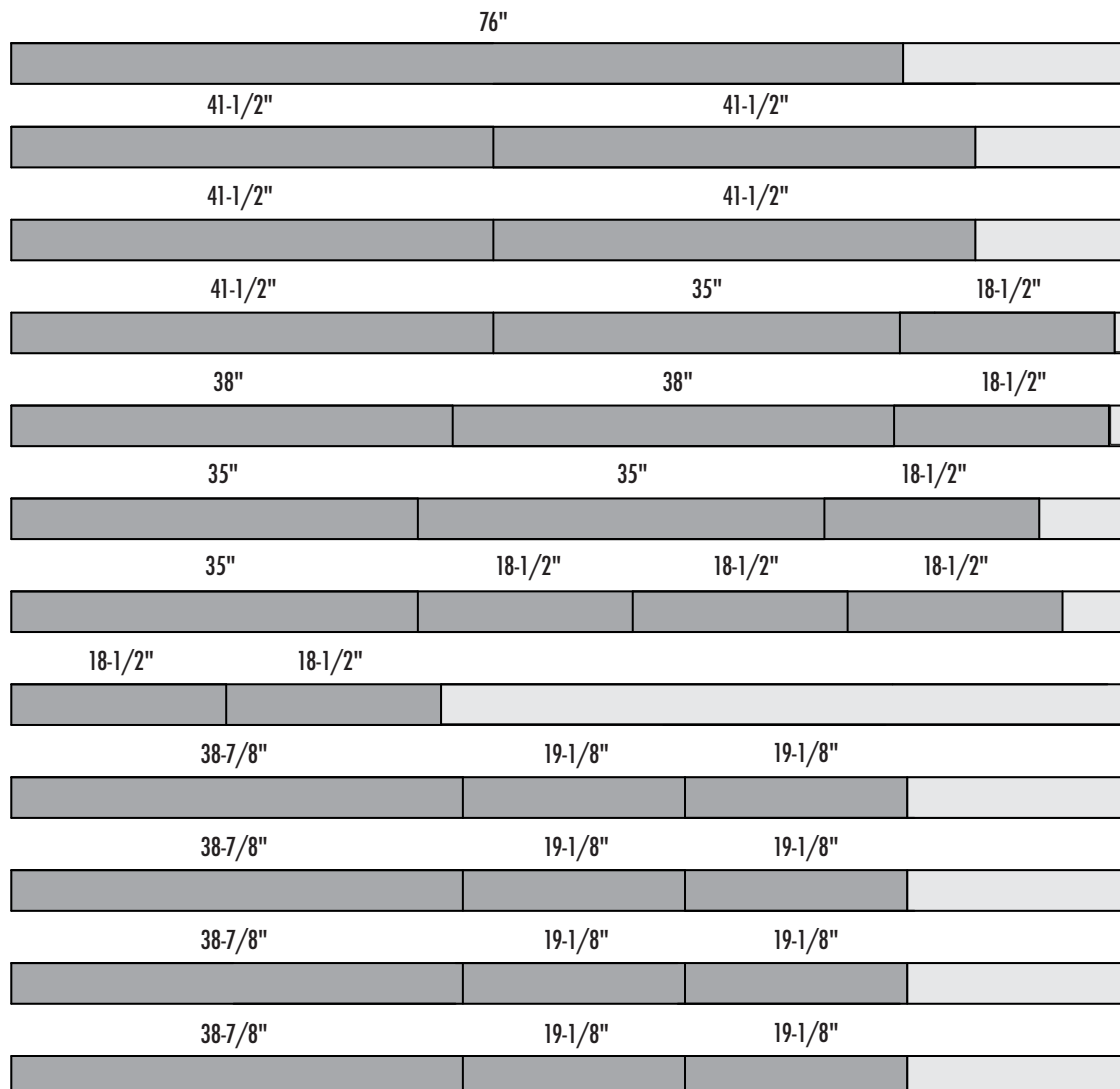
Battery Tip: A 4.0 Ah battery is recommended to be paired with high amp draw tools for maximum efficiency.

## Lumber Cut List

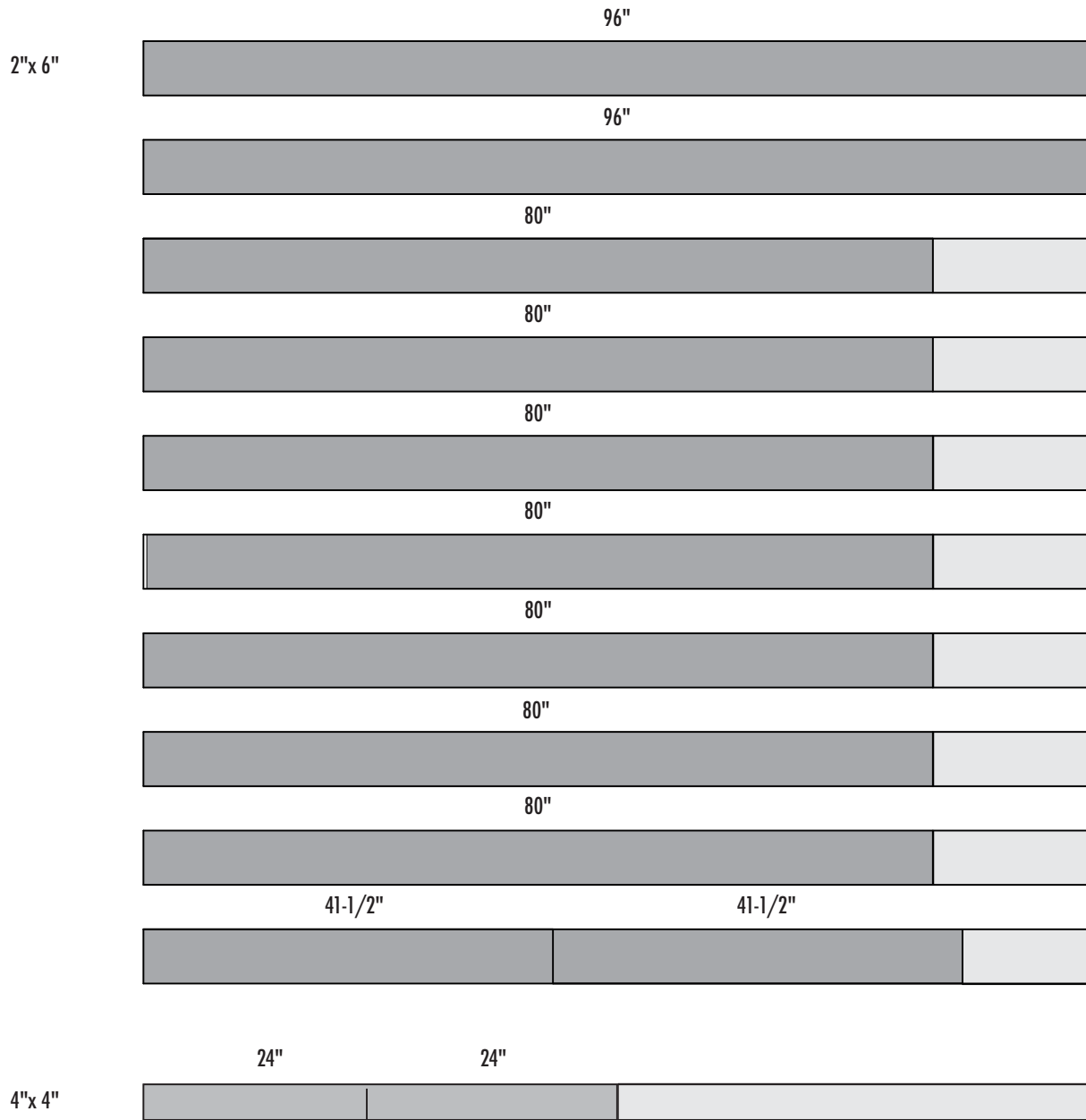
Board *	Description	Cut to	Qty
2" x 4"	Slats	41-1/2"	5
2" x 4"	Arms	38"	2
2" x 4"	Stretchers	35"	4
2" x 4"	Arm Supports	18-1/2"	8
2" x 4"	Long Cross Bracing	38-7/8"	4
2" x 4"	Short Cross Bracing	19-1/8"	8
2" x 4"	Top Rail	76"	1
2" x 6"	Long Rails	96"	2
2" x 6"	Short Rails	41-1/2"	2
2" x 6"	Seat Boards	80"	7
4" x 4"	Posts	24"	2

\*Board Dimensions are "nominal". Actual dimensions are smaller due to lumber industry standards. Cuts are actual length.

## Lumber Layout Guide 2"x 4"

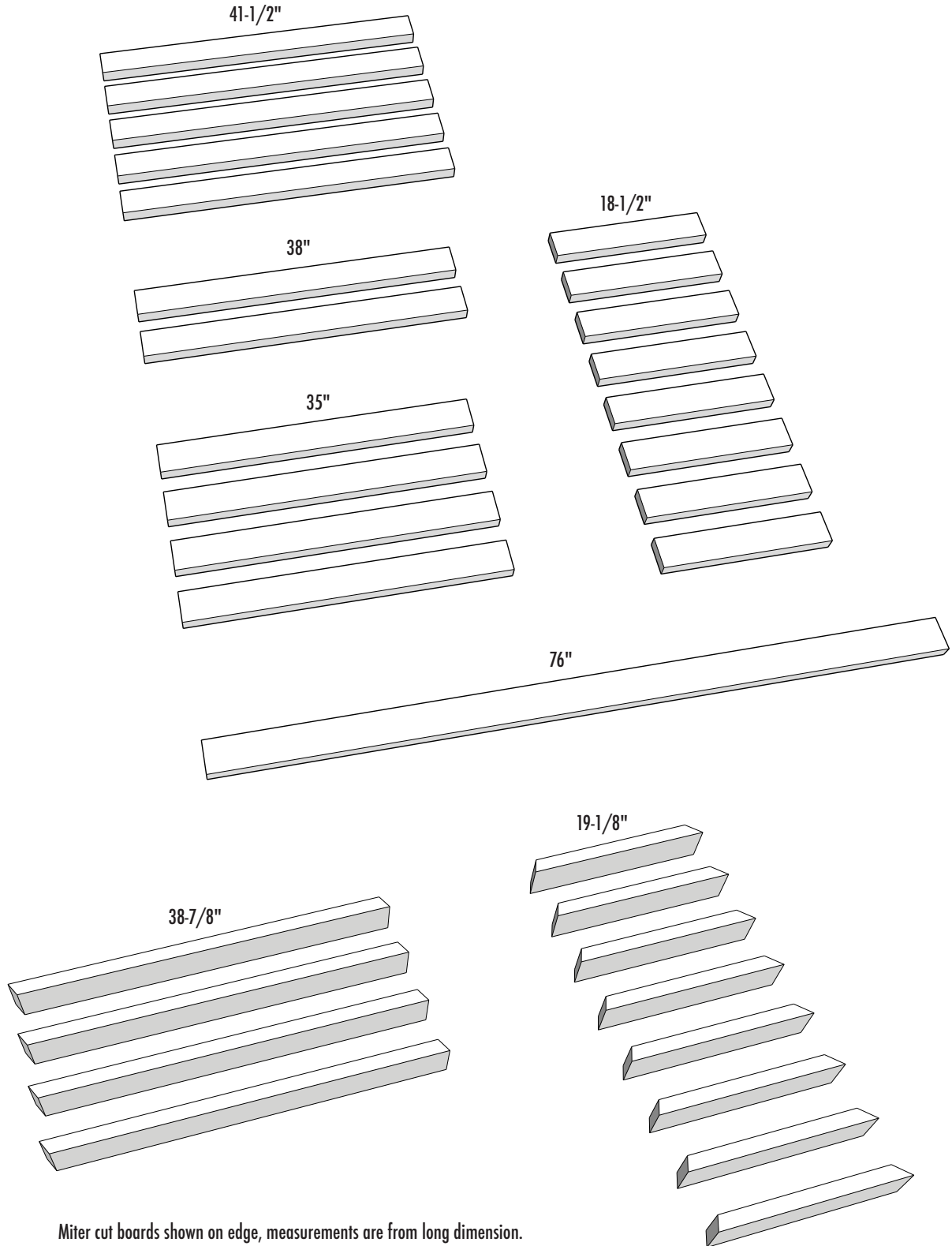


# Lumber Layout Guide 2"x 6" & 4"x 4"



# Lumber & Sheet Cut Layout Guide

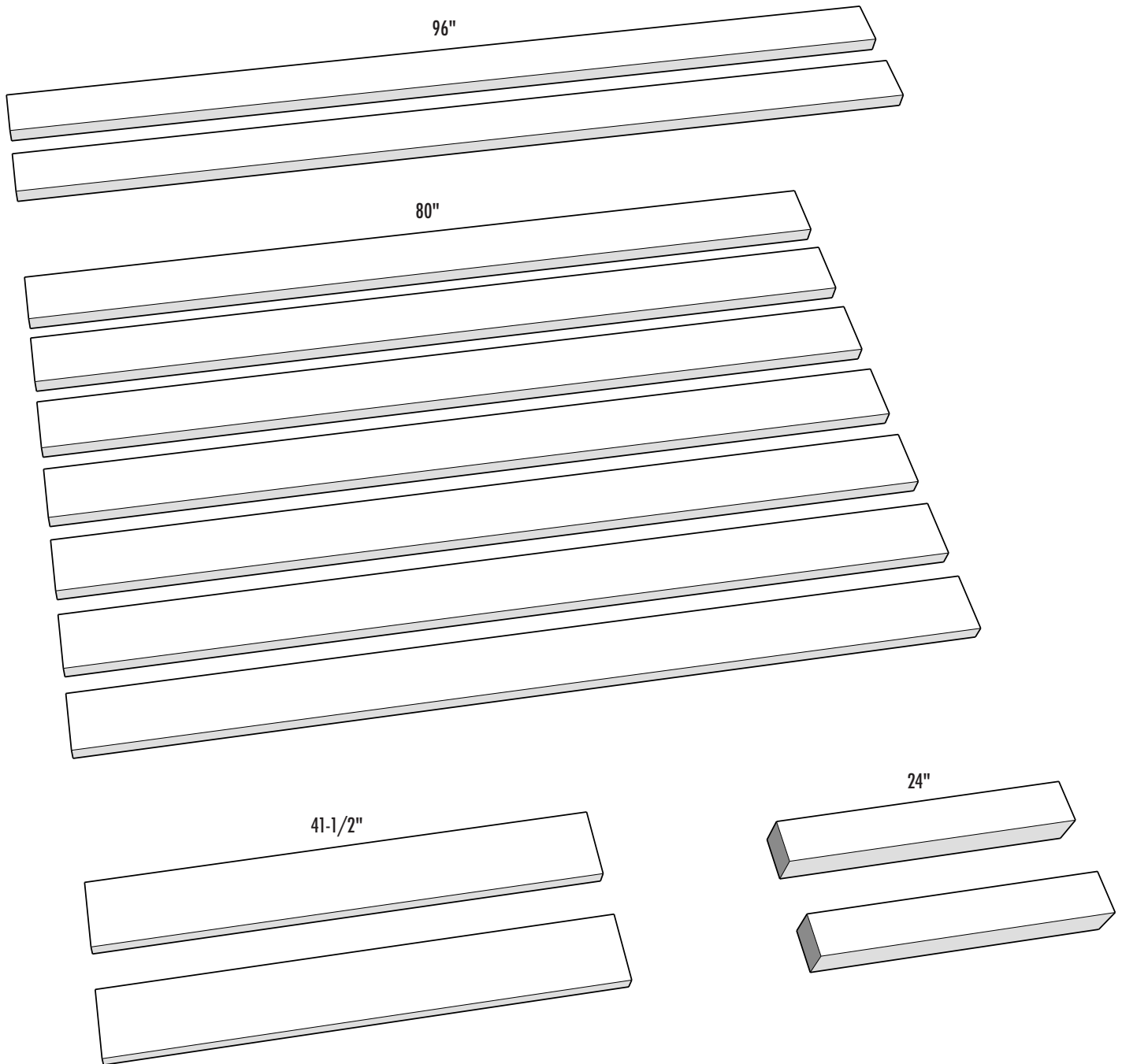
## Boards



Miter cut boards shown on edge, measurements are from long dimension.

# Lumber & Sheet Cut Layout Guide

## Boards



# Assembly Instructions

## Step 1



Cut out all material using the Lumber & Sheet Cut Layout Guide.

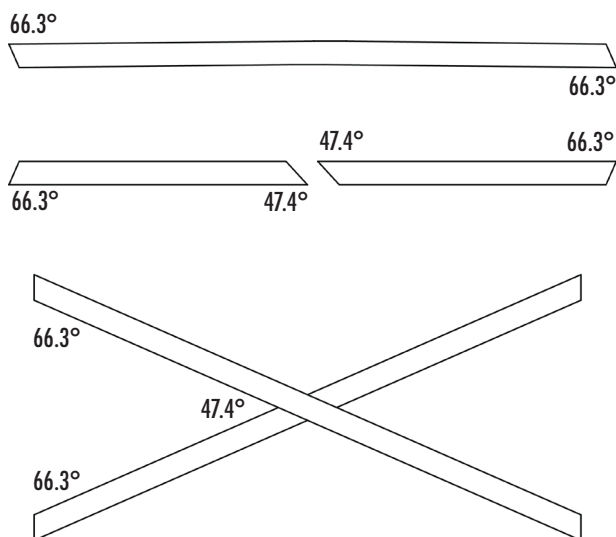
## Step 2



The cross bracing boards are all measured from the long dimensions and then cut with the Miter Saw to the appropriate angles.

Use the Miter Saw and make a cut at  $66.3^\circ$  on both ends of the  $38\text{-}7/8$ " boards. Cut the angles so they are running parallel to each other.

On the  $19\text{-}1/8$ " short cross bracing board, cut a  $66.3^\circ$  angle on (1) end and a  $47.4^\circ$  angle on the opposite end. Make cuts so they are opposing each other. See diagram for cut visuals.

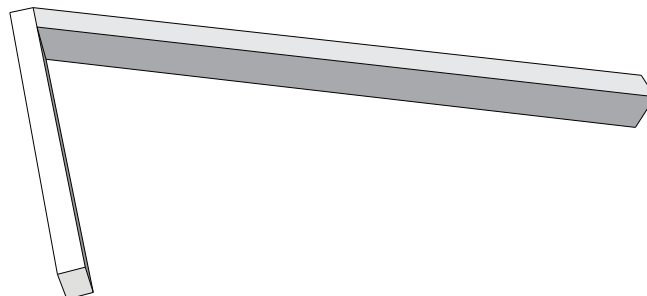


## Step 3



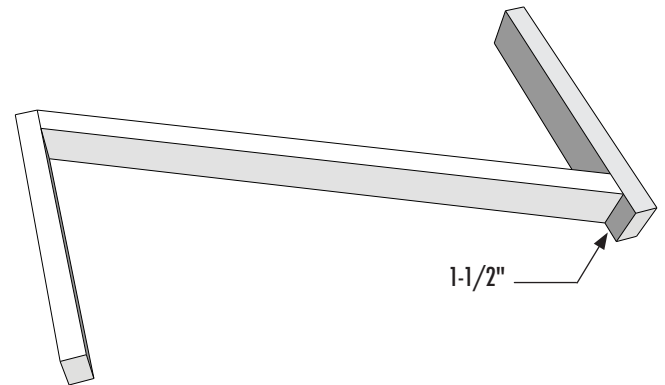
Attach (1)  $18\text{-}1/2$ " support arm to a  $38\text{-}7/8$ " long cross brace. Align the angle cut with (1) end of the cross brace board.

Attach using  $2\text{-}1/2$ " wood screws.



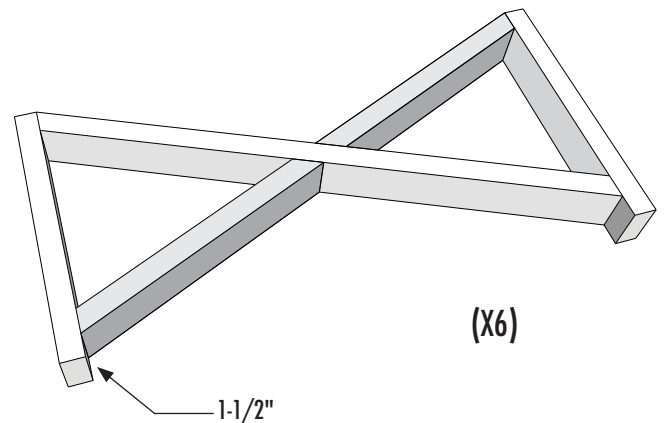
**Step 4**

Attach (1) 18-1/2" arm support to the other end of the cross bracing. Leave 1-1/2" edge and attach with 2-1/2" wood screws.

**Step 5**

Add the 19-1/8" short crossing brace to the assembly. Make sure the lower brace is also offset 1-1/2" from the bottom edge. The upper brace should be even with the top edge of the arm support.

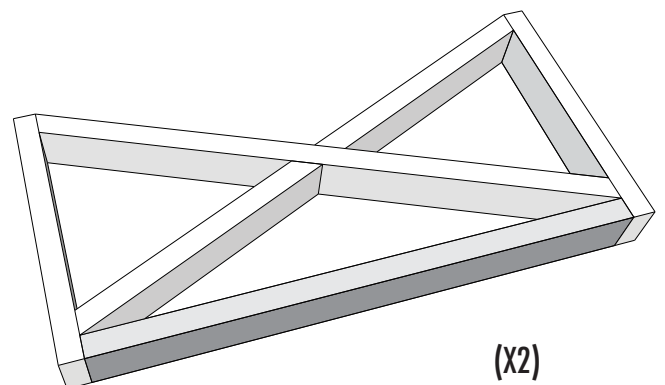
Build all (6) of the arm assemblies following these same instructions.

**Step 6**

Take (2) of the arm assemblies and attach a 35" stretcher to the bottom. It should fit snug in the 1-1/2" offset.

Attach with 3" wood screws.

Set aside for back rest.





## Step 7

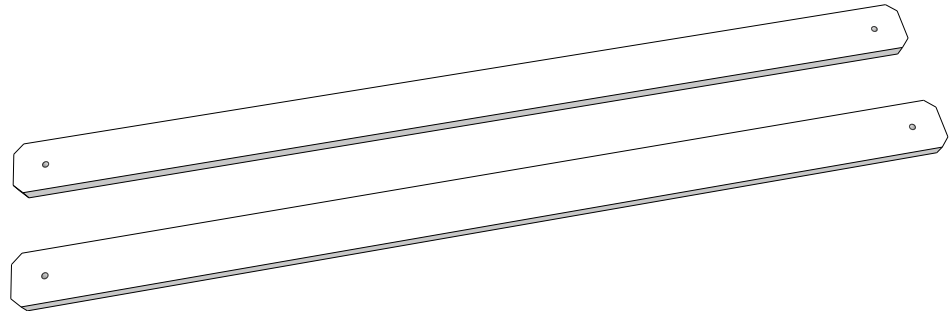
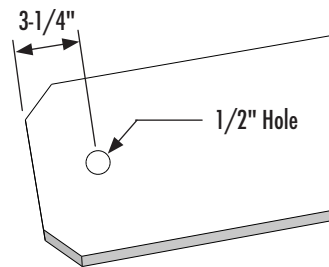
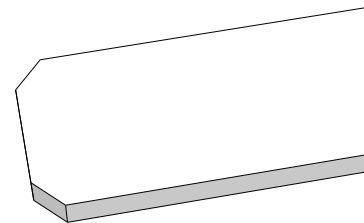
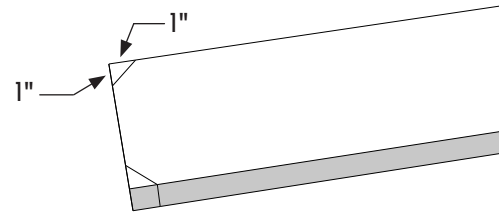


Take (2) 96" long rails and measure 1" from each corner.

Set the Miter Saw to 45° and cut off each corner.

Measure 3-1/4" from each end and mark a drill point.

Drill a 1/2" hole at that point in each board.

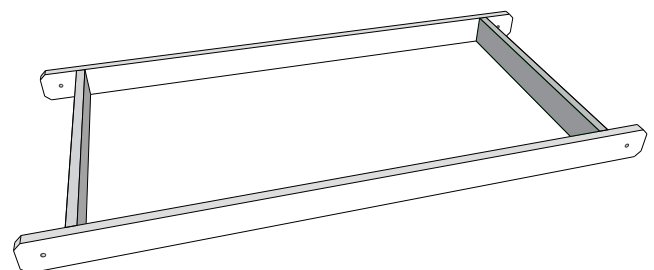
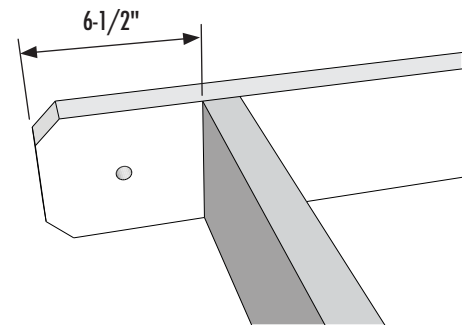


## Step 8



Measure 6-1/2" from the end of each of the 96" long rails and mark a line.

Attach the 41-1/2" short rails using 3" wood screws.



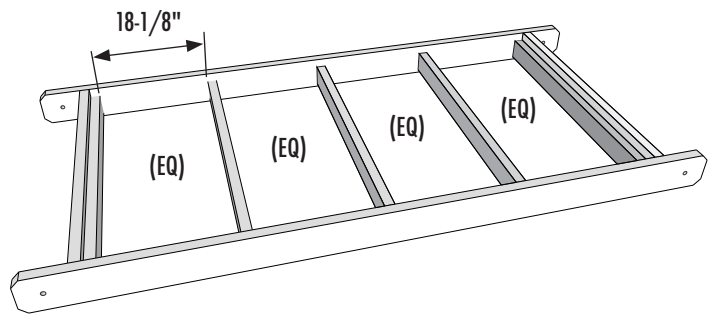
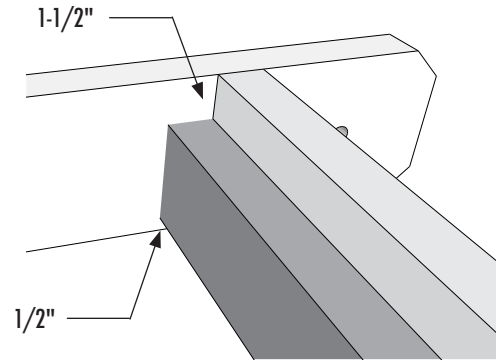
## Step 9



Add the (2) 2" x 4" outer slats next to the inside of both 41-1/2" short rails. Offset the slats 1-1/2" below the top edge of the rails. This will leave a 1/2" gap on the bottom.

Attach on the ends with 3" wood screws and use 2-1/2" screws on the inside surface.

Add the remaining (3) slats to the rail frame. Space the slats 18-1/8" apart and equal distance (EQ) from each other.

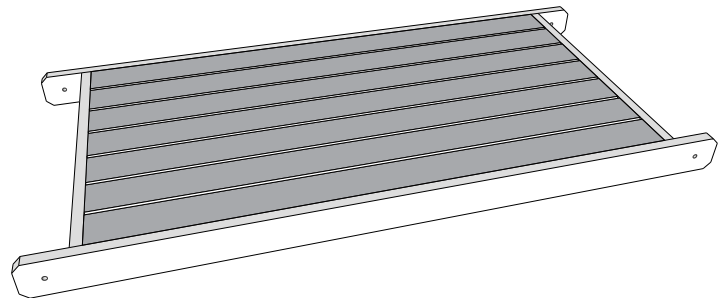


## Step 10



Add the 80" seat boards into the top offset of the rail frame. Leave a 1/2" gap in between each board.

Attach with 3" wood screws.

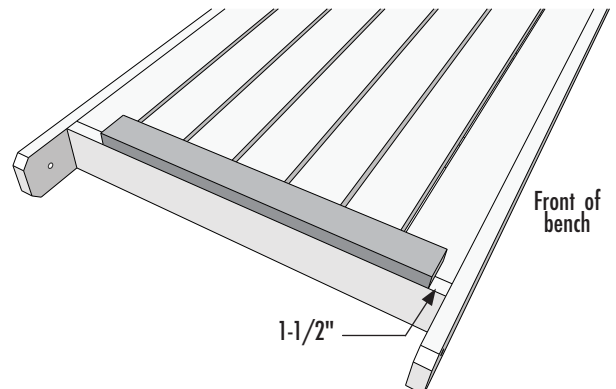


## Step 11



Add the remaining (2) 35" stretchers to each end of the assembly. Leave a 1-1/2" space on the front edge of the short rail and seat board. Align the side of the stretcher with the side of the rail.

Attach from the top using 3" wood screws.

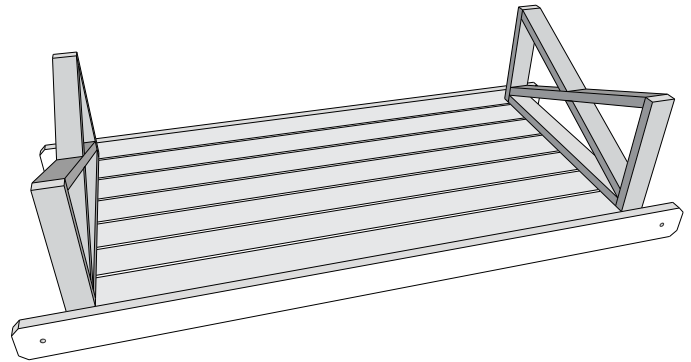


### Step 12



Set the (2) arm assemblies without the stretchers onto the seat assembly.

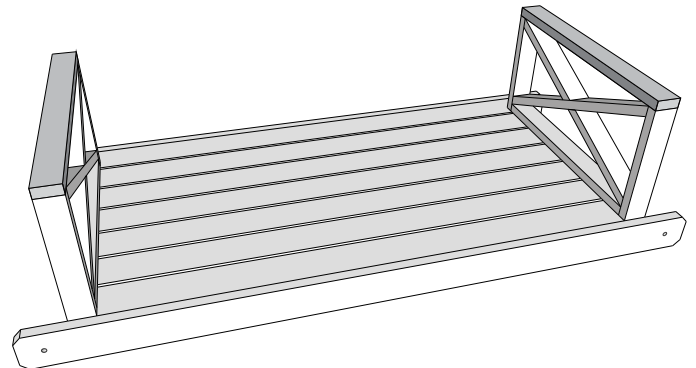
Attach at the base with 3" wood screws on both ends.



### Step 13



Attach the 38" arms to the top of the arm assemblies using 3" wood screws.

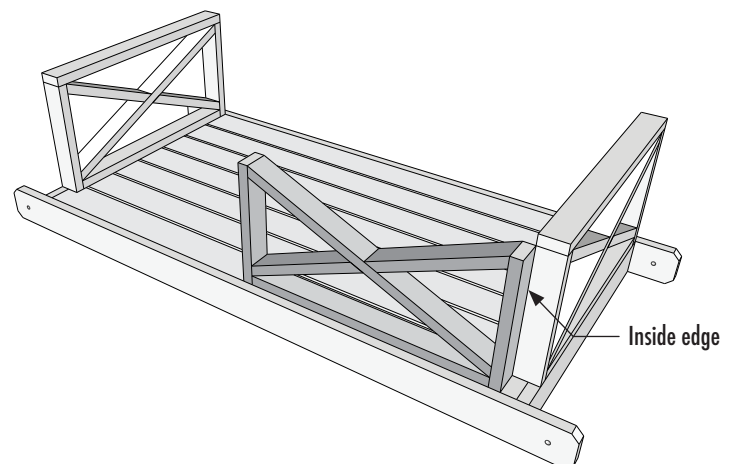


### Step 14



Align (1) of the back rests to the inside edge of the arm assemblies and back edge of the last seat board.

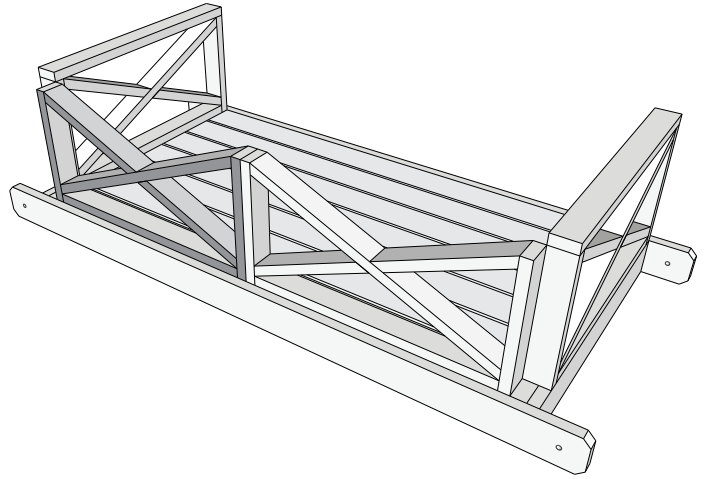
Using 2-1/2" screws, attach the back rest to the seat boards through the stretcher under the cross bracing.



## Step 15



Repeat Step 14 and attach the 2nd back rest.

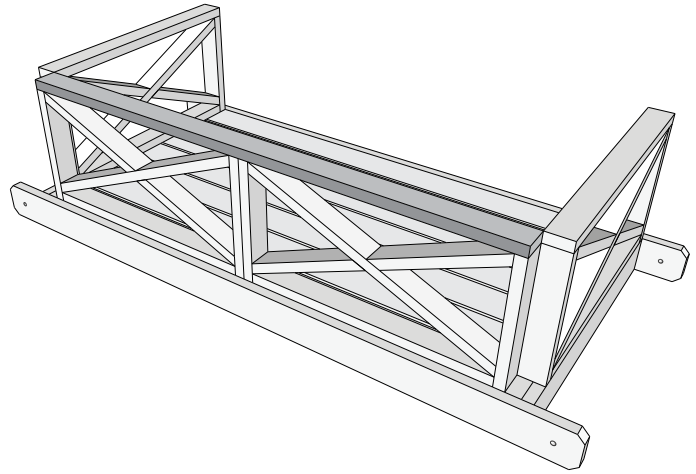


## Step 16



Align the 76" top rail to the back rest.

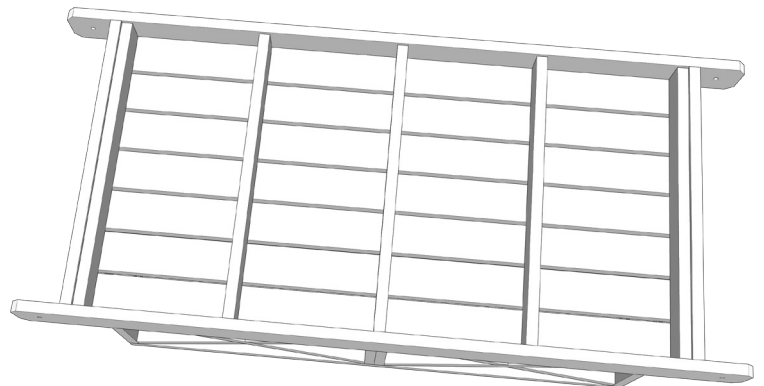
Attach using 3" wood screws.



## Step 17



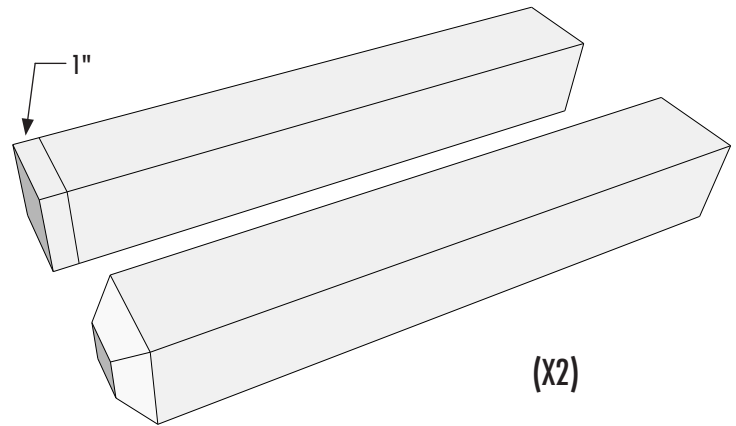
Flip the bench assembly over and add 3" wood screws through the back seat board into the stretchers on the back rest.



## Step 18



On (1) end of each post, mark a 1" line around the 4" x 4" posts. Using a Miter Saw, cut a 45° angle on all (4) sides.

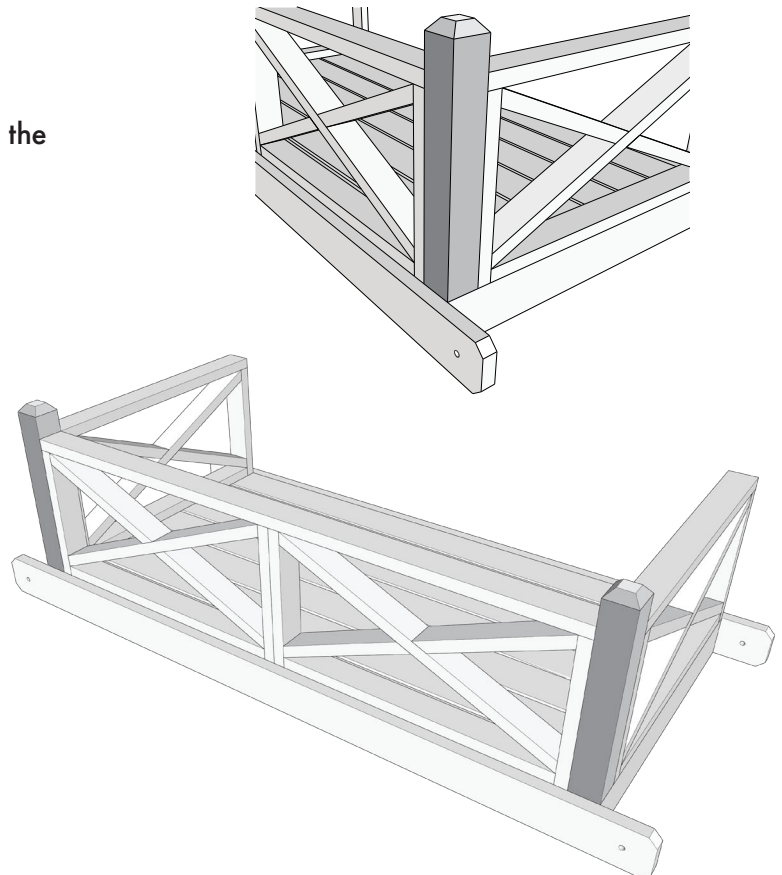


## Step 19



Align the 4" x 4" posts to the back corners of the bench.

Attach post with 3" wood screws by going through the arm supports into the posts.

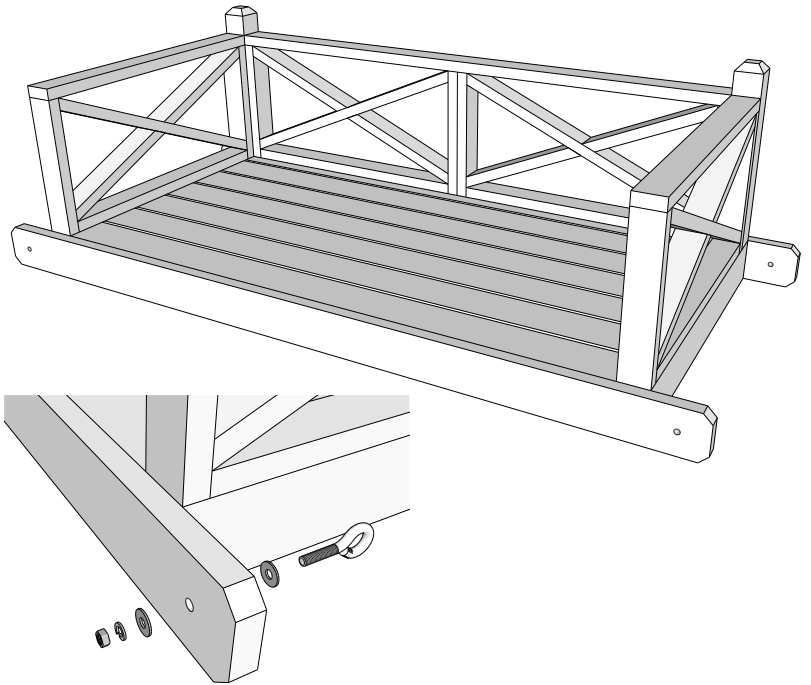


## Step 20



Sand any sharp edges and finish to your desire.

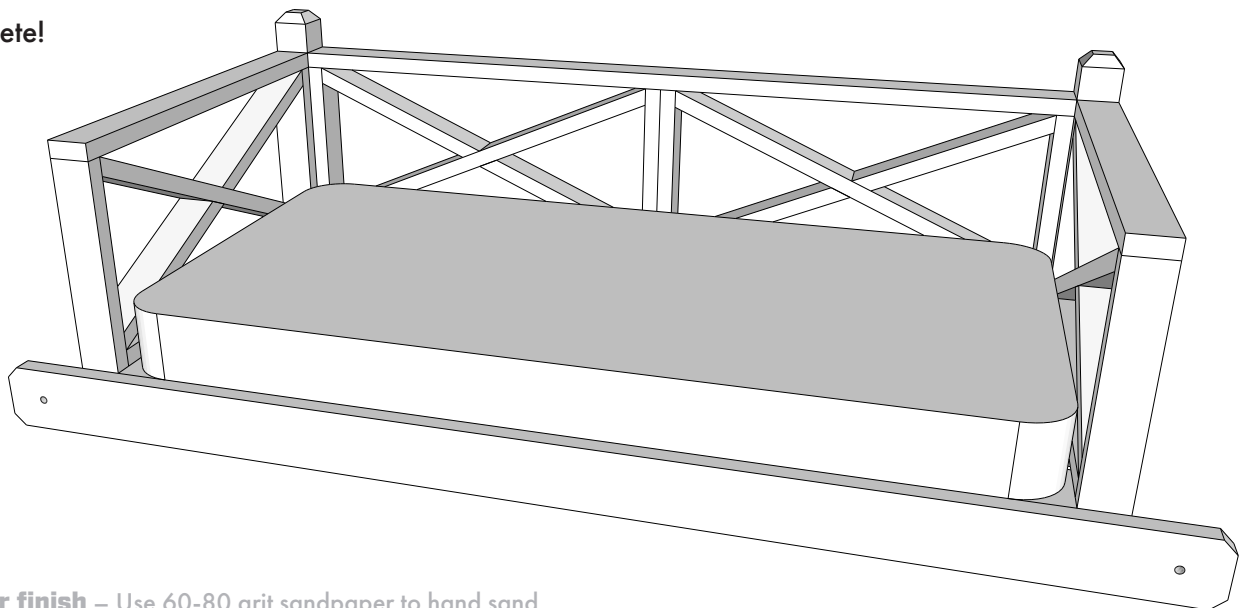
Insert eye bolts through holes on the rails.



## Step 21

A standard twin mattress will fit the porch bench. Use heavy duty rope to hang bench where you desire.

Project complete!



**R** **Rougher finish** – Use 60-80 grit sandpaper to hand sand with the grain of the wood.

**Smoother finish** – Use 60-80 grit sandpaper to remove scratches & imperfections.

Followed by using 120-220 grit to smooth.

**Finish Sanding** – Use 320-400 grit sandpaper

**Super fine sanding** – Use 600+ grit sandpaper