Shopping List Per Bench

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x4x8'</td>
<td>8</td>
</tr>
<tr>
<td>2-1/2&quot; pocket hole screws</td>
<td>22</td>
</tr>
<tr>
<td>2-1/2&quot; decking screws</td>
<td>24</td>
</tr>
<tr>
<td>Wood glue</td>
<td></td>
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</table>
All angles at 15 degrees - and to create a 15 degree angle, measure 15/16th of an inch from the end of a board, draw a diagonal line, and cut.
Step 1:

The legs are assembled with the horizontal members on top. Start with securing the 20” piece to both legs first. When these pieces intersect they form a parallelogram. Be sure to put your 2-1/2” outdoor screws along the long diagonal of this parallelogram as shown with this small image to the left (disregard the colors of this image). This will provide greater support. Use glue and two 2-1/2” screws at every joint. Use another piece of 2×4 as a spacer to locate the lower horizontal member (23-3/4”).
Step 2:
Next, attach the back supports so that they intersect the top corner of the leg assembly and are flush with the bottom of the lower horizontal leg member.

Each overlapping parallelogram gets glue and two screws along the long diagonal. It is also important to make sure these are attached at the same angle. I always secure one all the way and start with one screw on the second assembly. This way I can place them on the ground and make a slight adjustment if needed. Then finish securing the second back support.
Step 3:
The 40” seat stretcher is attached next. This piece connects both leg assemblies together. Use two 2-1/2” outdoor screws to attach directly into the lower part of the back supports.
Step 4:
I always attach the back seat slat first. Make sure the good side is visible on all of your slats. Push it all the way against the back supports and attach it with glue and screws.

The rest of the seat slats are secured the same way. I designed this bench so that you could use a standard wood pencil as a spacer in between slats. If you don’t have one handy, the gap is 1/4” between slats.
Step 5:
The back slats are secured the same way. However, I always increase the spacing between the seat and the first back slat just slightly. I use a permanent marker for my first spacing here (about 1/2\”). Then I use the pencil again to space the rest of the back slats. I think it just flows a little better this way.

**TIP** - Draw a line down the front of all of your back slat where the slats will be screwed into the (blue, vertical) 2x4. This will eliminate guesswork.
That's it for the bench. And here is the completed result. Nice an clean...