

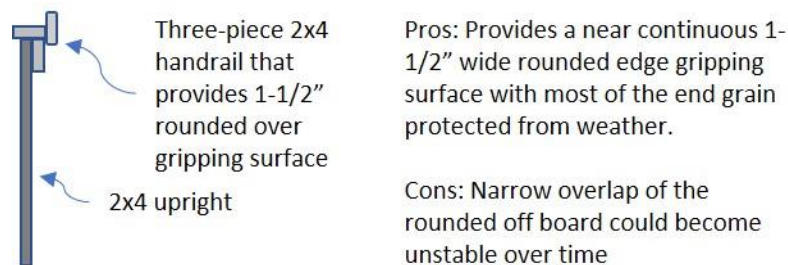
## Building Basics

For this month's column we have three follow-up items from previous Building Basics articles. One is another handrail design prompted by last month's edition. The second is a jig for installing uprights and finally an improvement for the end of the tail, or starter module, plywood. These came from readers, so please check them out then send your own questions, comments or suggested construction topics to royh85@verizon.net.

### First, another handrail design

This additional design is used by Fred Martin who coordinates builds in Kendall country (Boerne) and eastern Bandera County (Bandera and Pipe Creek).

As shown in the diagram and picture below, this is a variation of the first design in last month's article. First, they buy 10' 2x4s and lay them out to dry for a couple of weeks. Then a team member uses a router to give the 2x4s a rounded edge (which I couldn't represent well in the diagram below). Then these routed 2x4s are installed on the inside of the top flat railing and flush with its bottom. This provides a nice, rounded grip for the client. Installation of the rounded 10' boards is started at the bottom end of the ramp and should overlap the joints of the other two handrail boards when possible to add a bit more strength. For a 20' ramp, Fred estimates this approach only adds about \$25 to the ramp cost.



### Next, a jig for installing uprights

Gary Poe coordinates our Abilene Region where they have created a jig for installing uprights that has proven to be very useful and time saving. As you can see in the pictures below, their prototypes were built out of some scrap C Perlin and angle iron but square tubing, etc. could also be used. The first picture shows the jig being used by one team member to install an upright.



The remaining pictures show a couple of the jigs closer up. Gary will be happy to help you out with more pictures and dimensions, if you think this would be a useful addition to your ramp build toolbox.



### **Last but not least, gluing on the end cap**

Gary Poe also submitted this final suggestion. When attaching the  $\frac{3}{4}$ "x48" shelf standard (see the June newsletter) he recommends using Gorilla Glue (water activated) in between the shelf standard and the

edge of the plywood to strengthen the joint and help seal the plywood edge. In addition to the glue, they use #8 X 2.5" deck screws. The glue foams up and seals very well.

**What tips and tricks do you have?**

Please let me know if you have found a way to build ramps better, stronger or faster that might help other teams in the state. Send your comments suggestions or other ideas to [royh85@verizon.net](mailto:royh85@verizon.net).