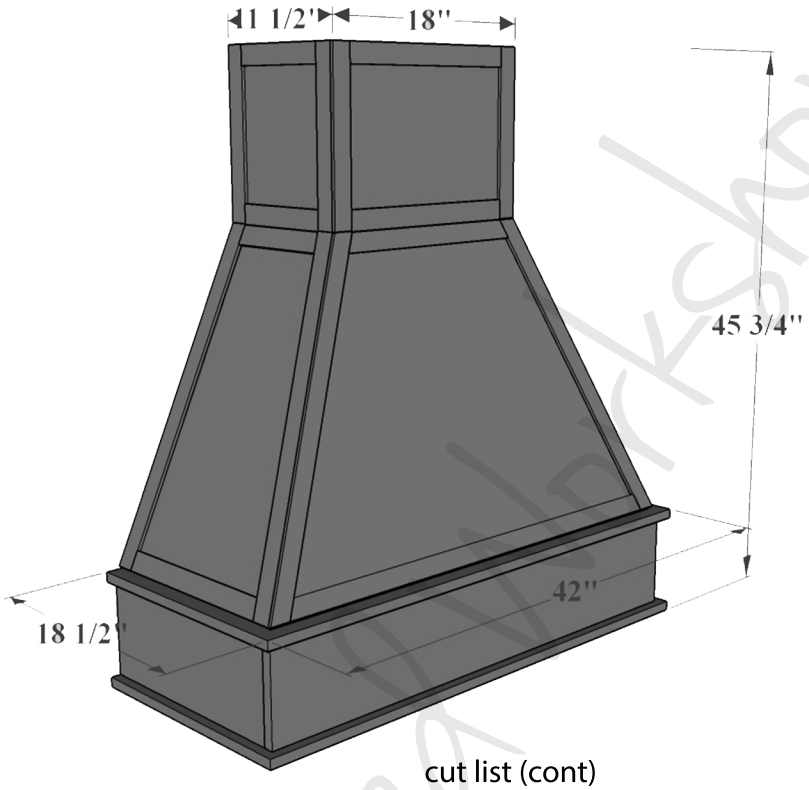
DIY Vent Hood Plans - 36” Insert



Materials:

6 - 2x2x8
1 - 1x8x8
2 - 1x2x8
5- 1/4”x1 1/2” x 8’ lattice strips
1 - 3/4”x2x4 plywood piece

Cut List:

4 - 2x2 @ 39” bottom frame
4 - 2x2 @ 14” bottom frame
4 - 2x2 @ 4 5/8” bottom frame
4 - 2x2 @ 17” top frame
4 - 2x2 @ 8” top frame
4 - 2x2 @ 10” top frame
2 - 2x2 @ 27 5/64” mitered at 24 degrees off square AND beveled at 14 degrees off square, ends parallel (front)
2 - 2x2 @ 26 13/32” ends mitered at 24.6 degrees off square, ends parallel (back)

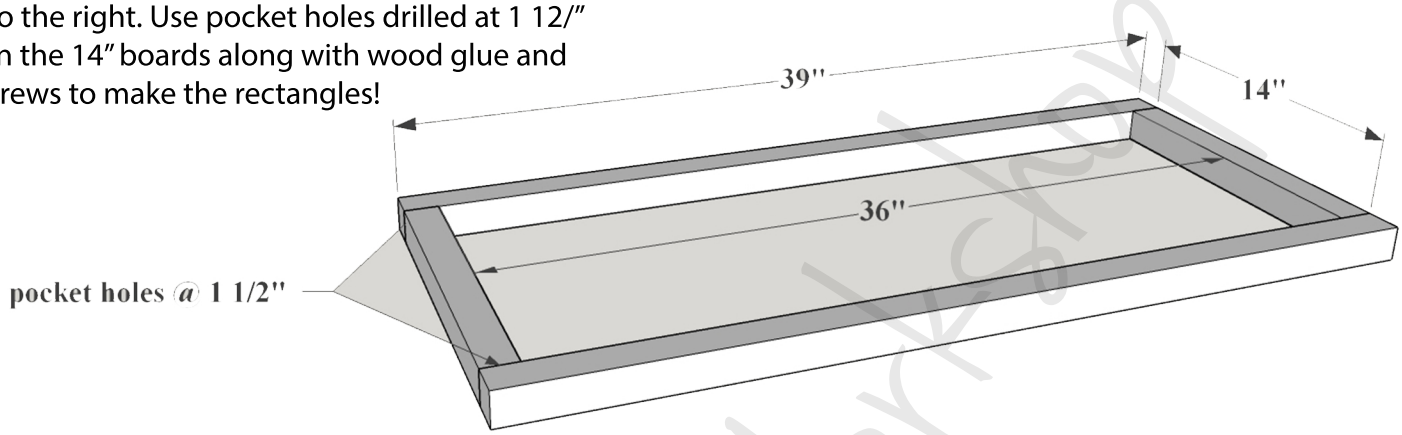
2 - 1x2 @ 42” ends mitered at 45 degrees off square, ends not parallel
4 - 1x2 @ 18 1/2” one end mitered at 45 degrees off square
1 - 1x8 @ 40 1/2” ends beveled at 45 degrees off square, ends not parallel
2 - 1x8 @ 17 3/4” one end beveled at 45 degrees off square

cut list (cont)
2 - 1/4” plywood pieces @ straight along one side, angled on other
1 - 1/4” plywood piece @ 17 29/64” x 39 29/64” both sides angled
2 - 1/4” plywood pieces @ 11” x 12 27/32” top sides
1 - 1/4” plywood piece @ 17 1/2” x 12 53/64” top front

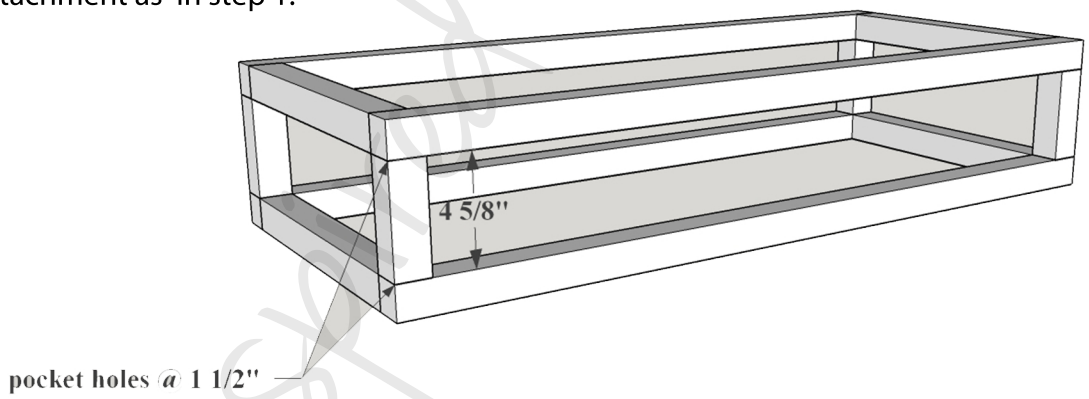
Lattice:
4 - strips @ 12 27/32” top side
4 - strips @ 8 1/2” top side
2 - strips @ 15” top front
2 - strips @ 12 53/64” top front
2 - strips @ 26 7/16” middle- side- back
2 - strips @ 27 13/64” ends mitered at 14 degrees off square, ends parallel- middle - side - front
2 - strips @ 27 1/64” ends mitered at 24 degrees off square, ends parallel middle - front- sides
1 - strip @ 16 1/4” longest end - ends mitered at 24 degrees off square - middle - front - top
1 - strip @ 36 49/64” longest end - ends mitered at 24 degrees off square - middle - front - bottom

Measure your vent hood as you go as these measurements are extremely precise coming from Sketchup, they don’t account for human error but you have to account for my human error when drawing up plans! Lol!

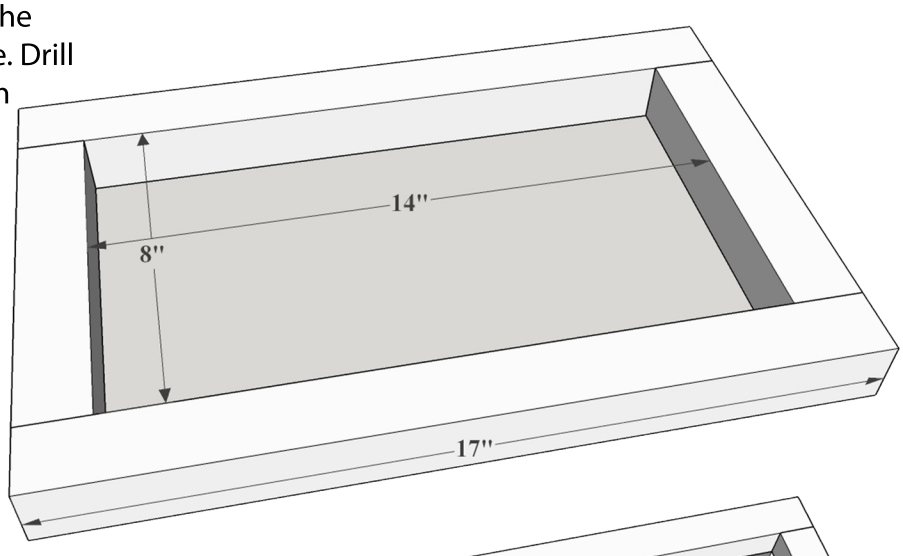
Step 1:
Build the bottom frame. Using the 2x2s @ 39" and 2x2s @ 14" build two rectangles just as the one shown to the right. Use pocket holes drilled at 1 12/" depth on the 14" boards along with wood glue and 2 1/2" screws to make the rectangles!



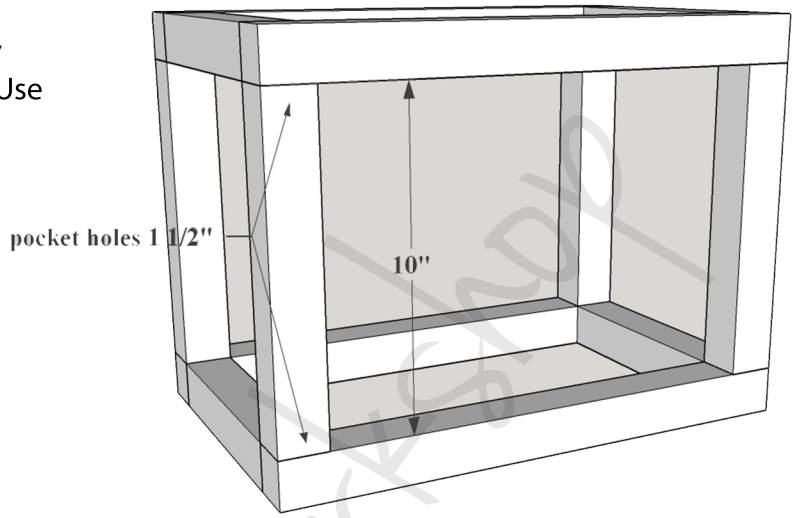
Step 2:
Once you have the two rectangles built, use the 2x2s @ 4 5/8" to create the bottom frame. The 4 5/8" boards will have the pocket holes drilled into them, same depth, same attachment as in step 1.



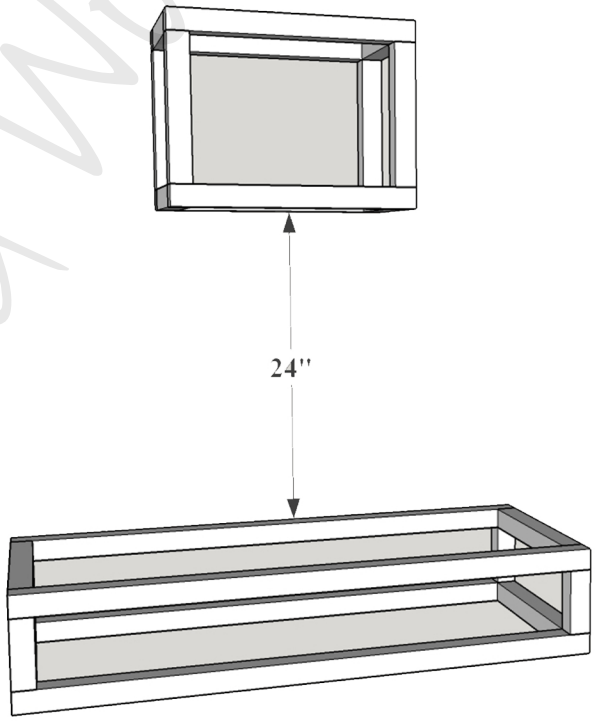
Step 3:
Build the top frame! Use the 2x2s @ 17" and the 2x2s @ 8" to make two rectangles like this one. Drill 1 1/2" pocket holes into the 8" 2x2s and attach with wood glue and 2 1/2" screw.



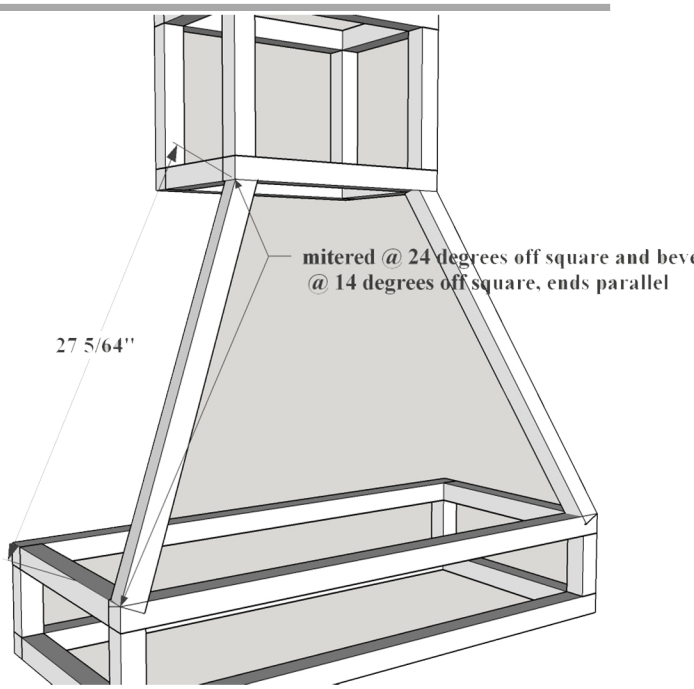
Step 4:
Using the 2x2s @ 10" complete the top frame by connecting the 2 rectangles you built in step 3. Use pocket holes and attach the same as in step 3.



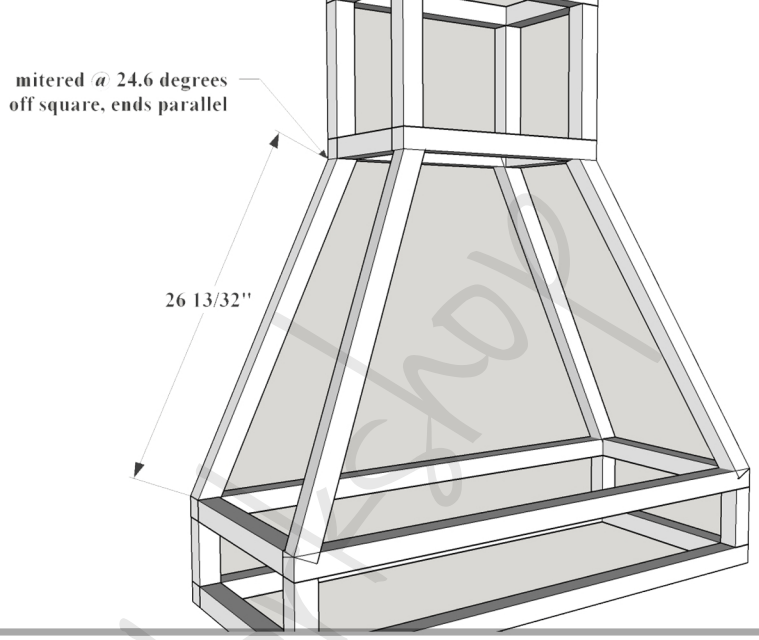
Step 5:
Attach the top and bottom frame to the wall 24" apart from each other, and the bottom frame should be 24-30" from the stove. See the blog post for details on how to attach to the wall.



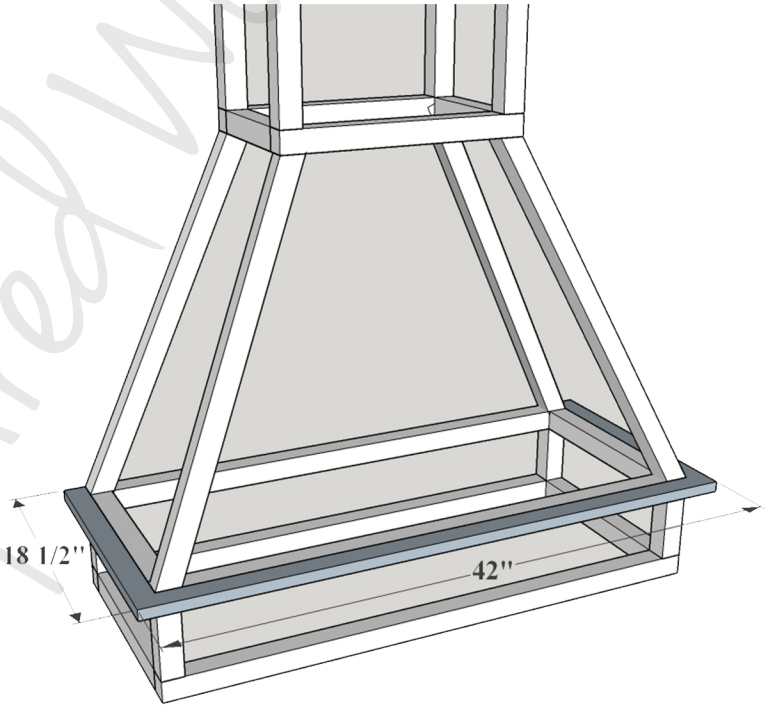
Step 6:
Complete the whole frame now by connecting the top and bottom frames with the 2x2s@ 27 5/64" (ends mitered @ 24 degrees off square, AND beveled @ 14 degrees off square... since the front ones are compound angles I couldn't drill pocket holes into them, so I just used wood glue and brad nails to hold them in place until the wood glue dried.



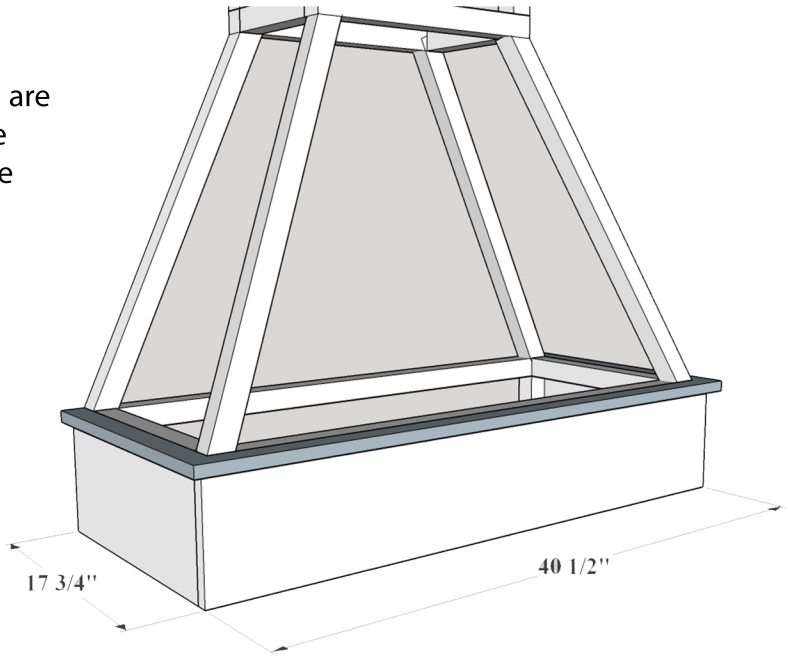
Step 6 (cont)
Add the back 2x2s just the same as the front.



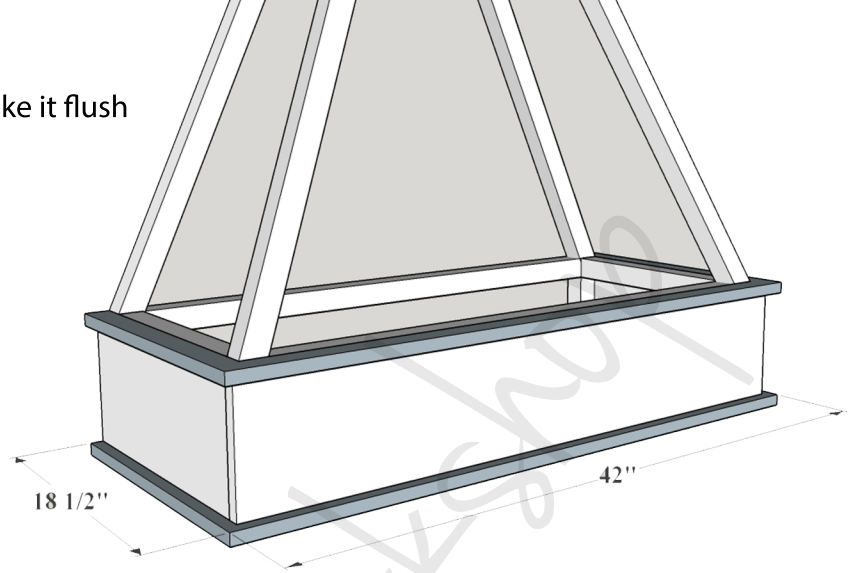
Step 7:
Add the 1x2 around the top of the bottom frame...this gives a ledge to hold the plywood up when you attach it later! Use wood glue and brad nails to attach.



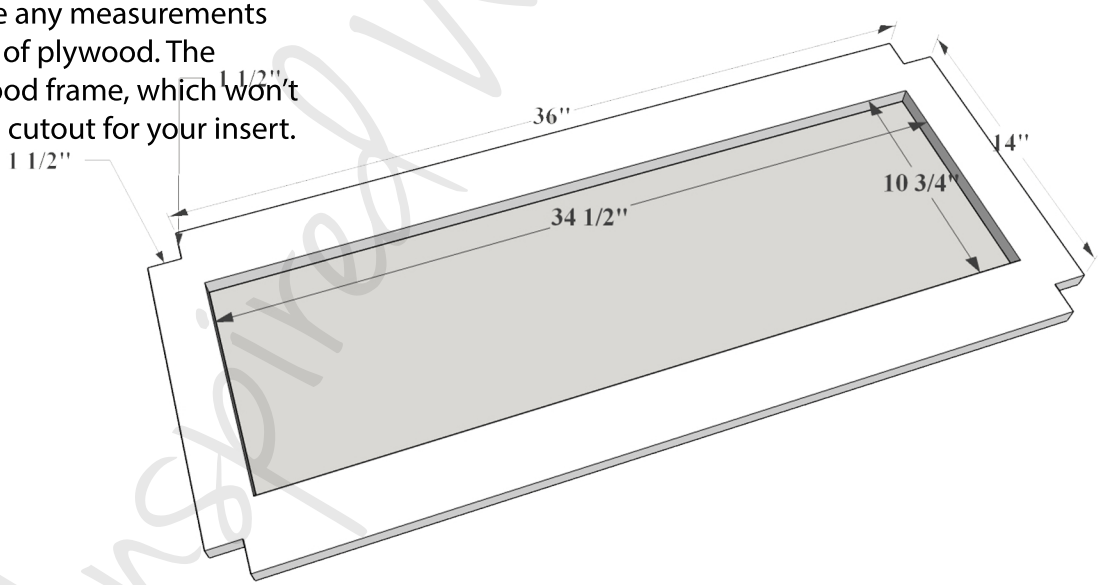
Step 8:
Add the 1x8 underneath the 1x2 that you added in step 7. It is beveled on the edges at the front, if you are painting it, you can easily just cut them without the bevel and it probably won't be noticeable. If you are staining, I would go ahead and bevel them.



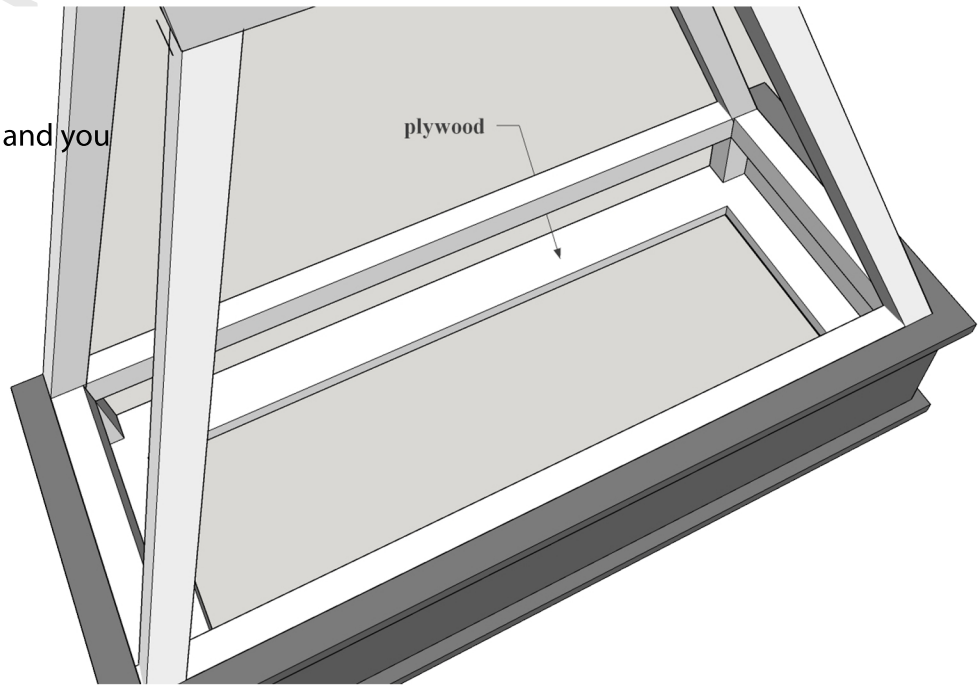
Step 9:
Add the 1x2 along the bottom of the 1x8. Make it flush to the inside of the 1x8.



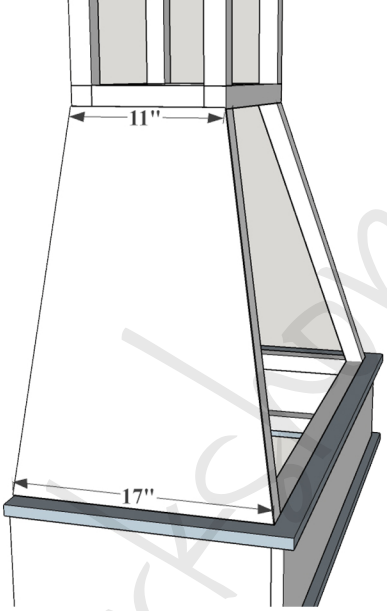
Step 10:
I created the plans to where you can easily use any 36" insert without having to change any measurements besides the cutout of this piece of plywood. The plywood is cut to fit the vent hood frame, which won't change, you will only adjust the cutout for your insert.

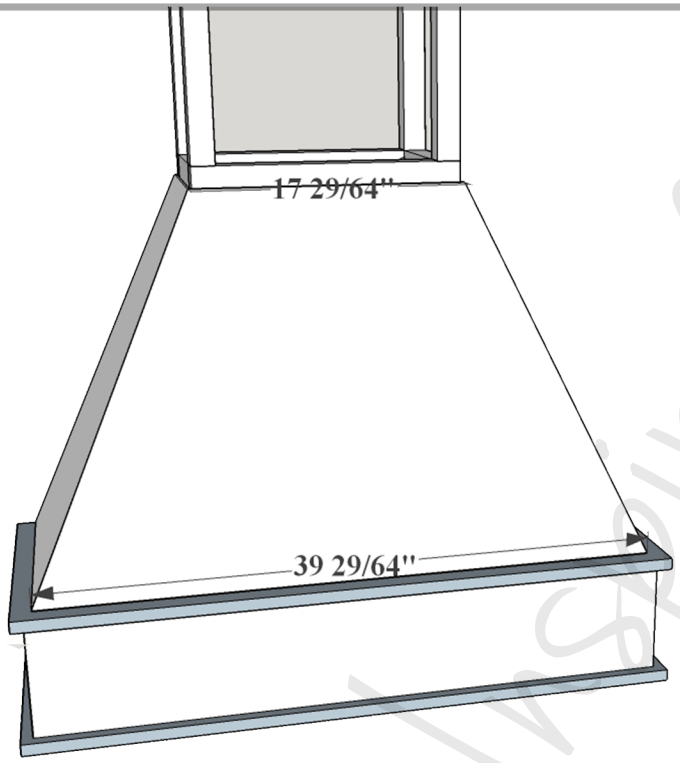


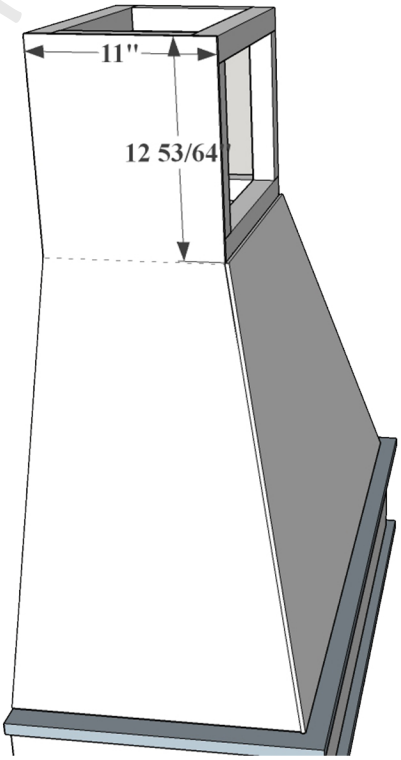
Step 10 (cont)
You can screw this on top of the 2x2s or underneath, I show it on top of the 2x2s and you would just screw it into place.

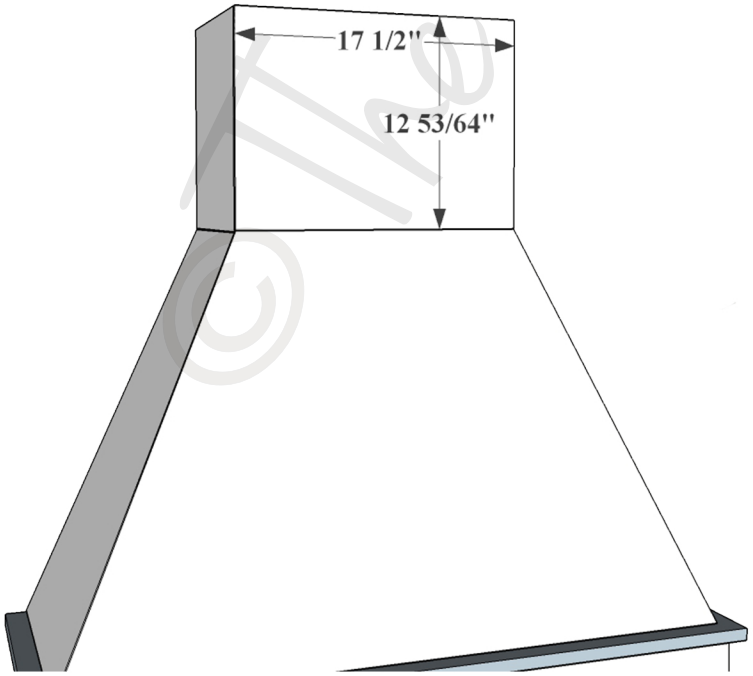


Step 11:
Start adding the 1/4" plywood to cover the entire frame. Just brad nail into place.

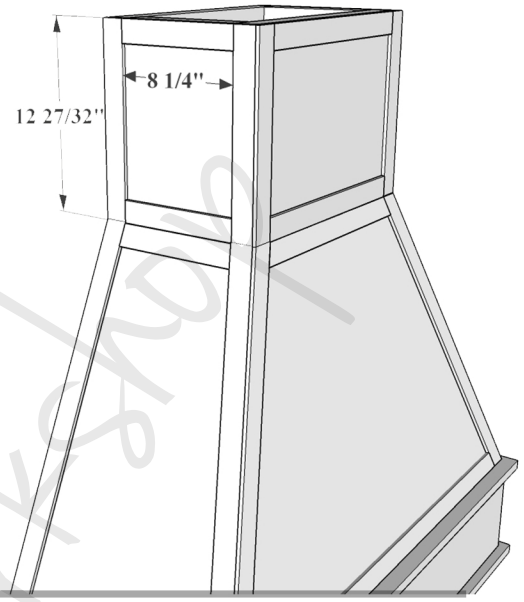


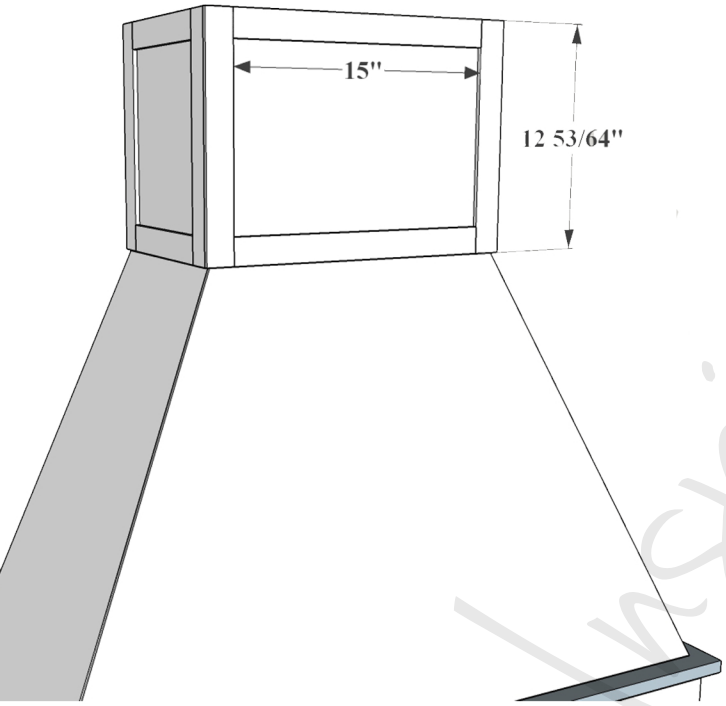


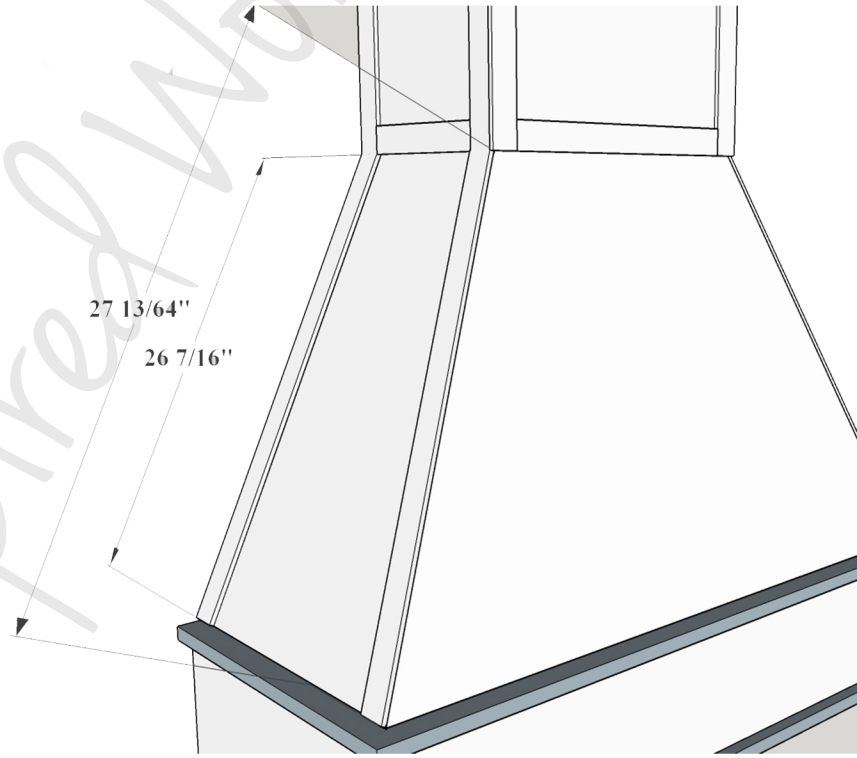


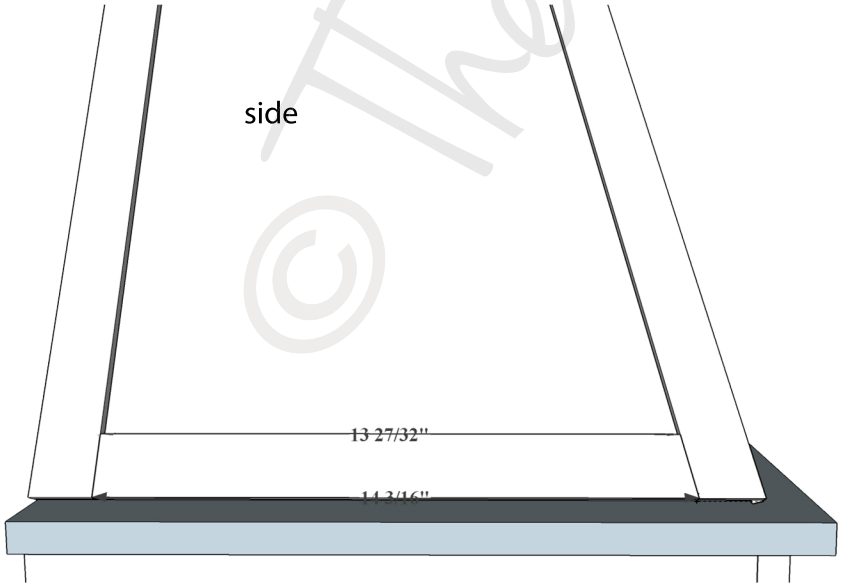


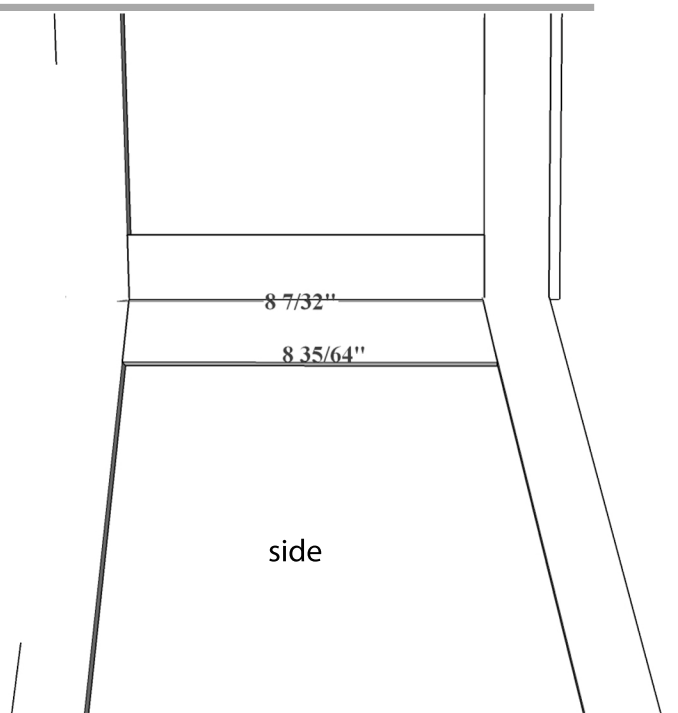
Step 12:
Add the lattice strips. Use brad nails to attach and see post if you need any additional help! Measurements are on the pictures but your measurements and angles may vary slightly.



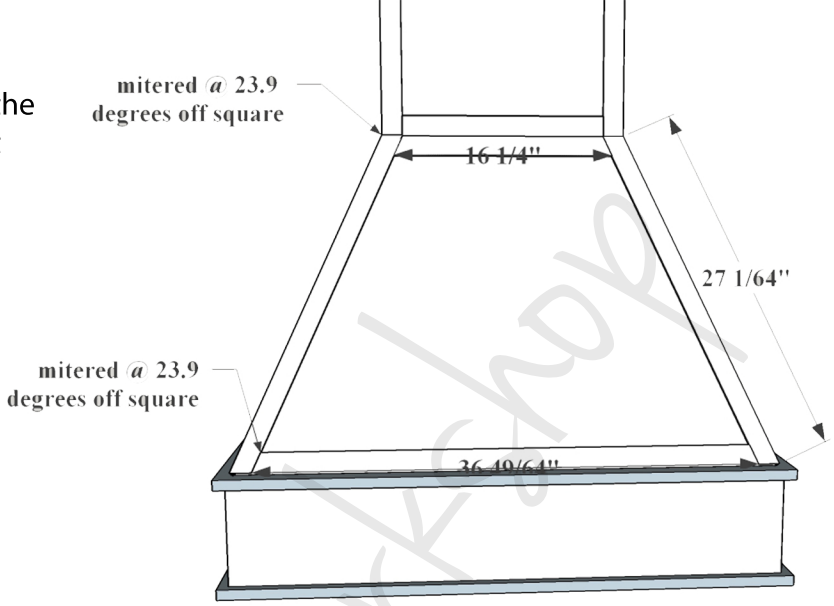








Step 12 (cont)
Keep adding the lattice! I know the photo to the right says those boards are angled at 23.9 but they should be 24 degrees off square if everything is measured to size.



And it's done! Caulk all the seams if you are painting, and wood fill the brad nail holes! Then sand everything and paint!

Just a few notes: make sure and measure your own vent hood frames and such because when you are dealing with angles they are changed by even the slightest change in measurements! Luckily, the frame will be covered with plywood but still make sure and measure as you go! If you need any help or a step doesn't make sense, make sure to check the blog post https://theinspiredworkshop.com/diy-vent-hood-plans-and-kitchen-update/

And if you still need help, email me at cara.theinspiredworkshop@gmail.com! Best of luck on your build, I hope it turns out beautifully!
