



Building The Clever Models
Board and Batten 'O' Scale Crossing Tower

By Ben Streeter
January 2010

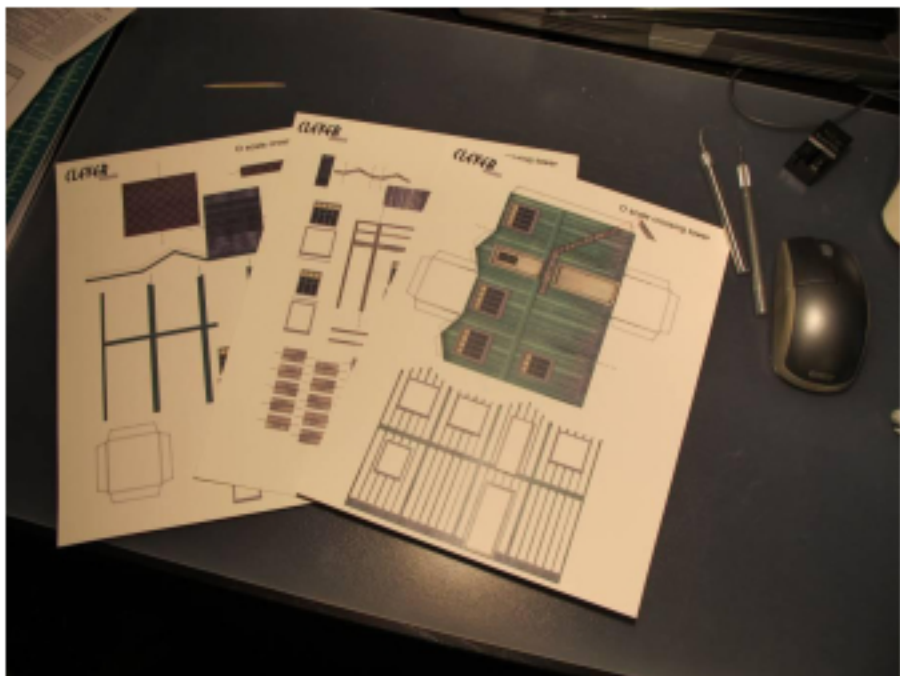
NOTE:

Some of Ben's methods and materials may differ from what you read in other Clever Models LLC documents. This DOES NOT mean that one of us is wrong, but rather demonstrates that there are many ways to correctly build paper models. YOU WILL develop some of your own. Please share them with us by posting in the DISCUSSION area of the website.

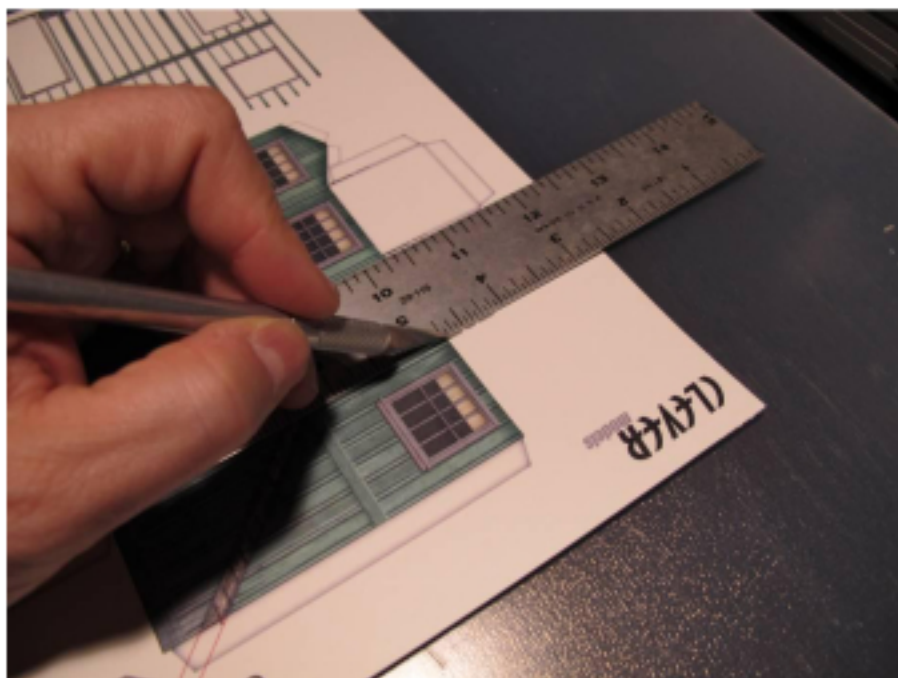
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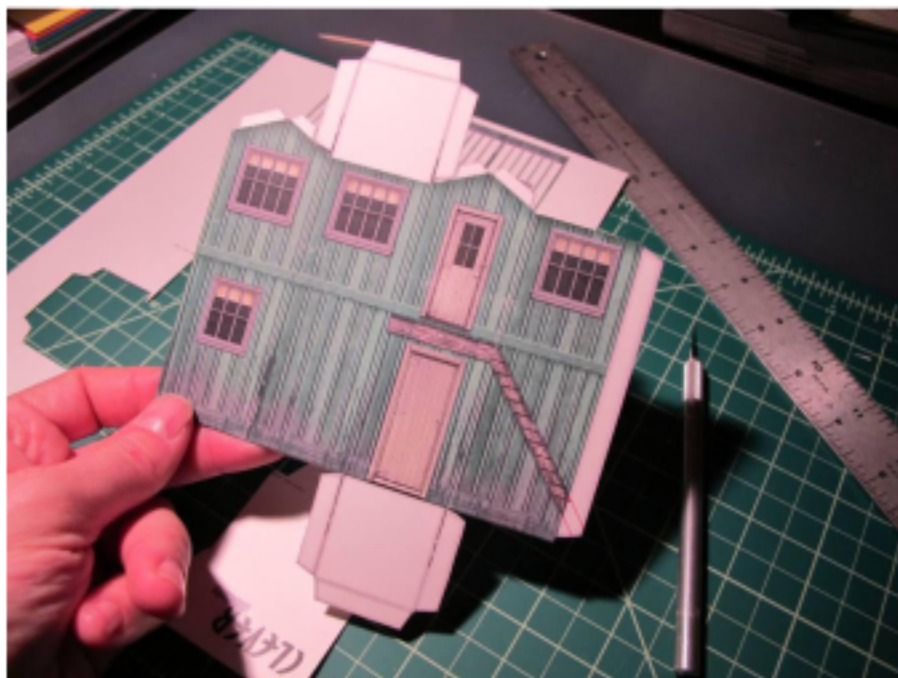
1. Print drawings on HP color laser jet. Paper may incur a slight curl from the printing process, but just reverse curl the paper to remove it. Be careful not to crease the paper.



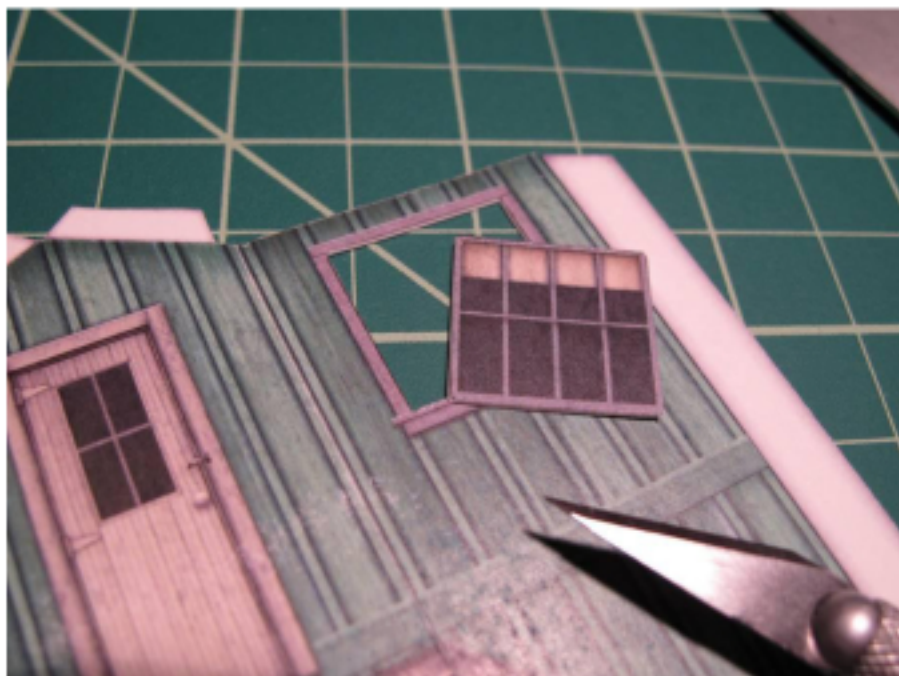
2. Lightly score the fold lines on the main structure part, BEFORE cutting it out from the sheet.



3. Carefully cut the main structure away from the sheet. Use a straightedge to guide long cuts. It helps to lightly cut and then make a second pass to cut through the paper. Even with a straightedge, the blade can wander if care is not taken.



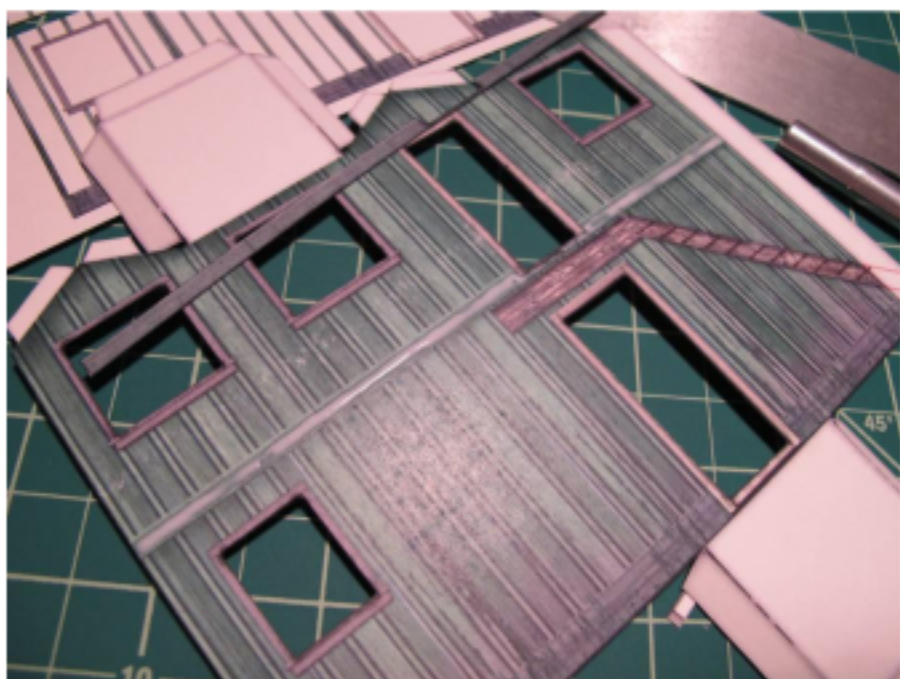
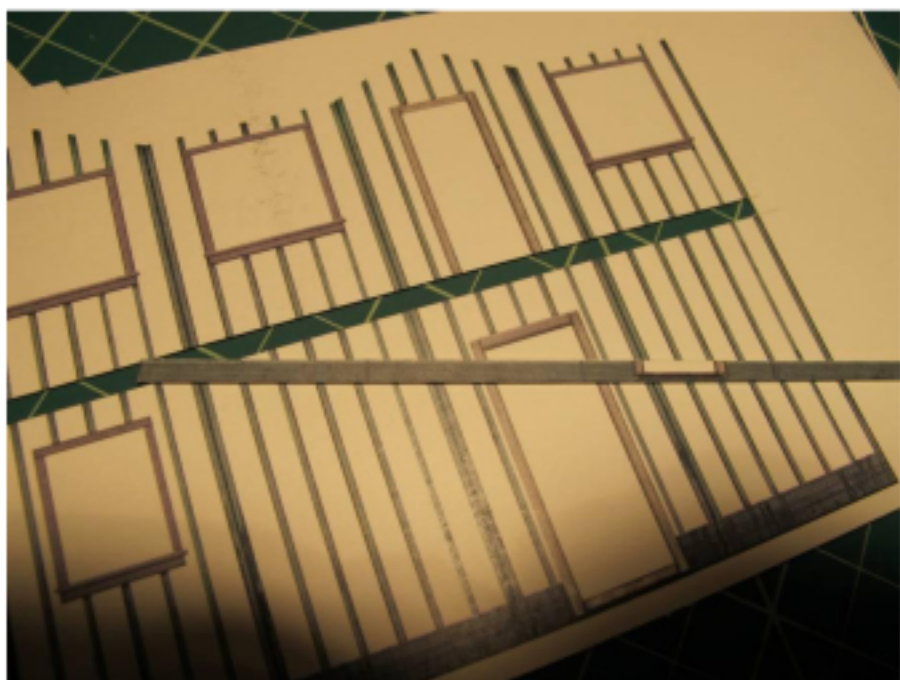
4. Cut 4 windows and 2 doors out of main structure. Do not cut out the frames.



5. Use gray marker to color in the white edges of the cut lines. Do this to all of the cut edges, and work from the inside. That way, if you slip of the mark, you don't draw a gray line down the visible side of your model!

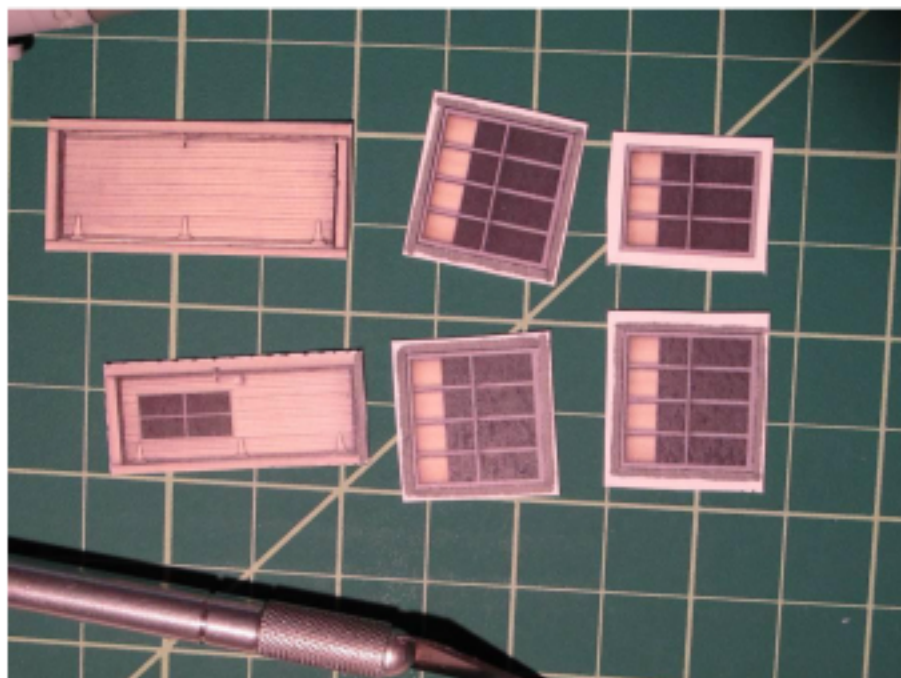


6. Cut out the wide board separating the second story battens from the first story battens. Color the cut edges with the gray marker and notch the doorway and fit it to the main structure. If the fit is good, apply a light bead of elmers glue, spread with a tooth pick, and attach the board.



7. Repeat with the bottom horizontal wide board.

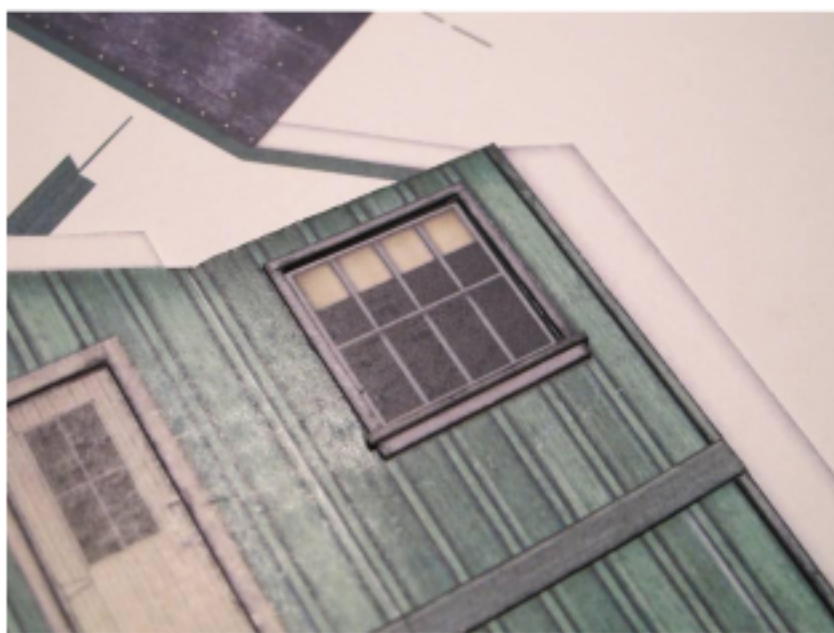
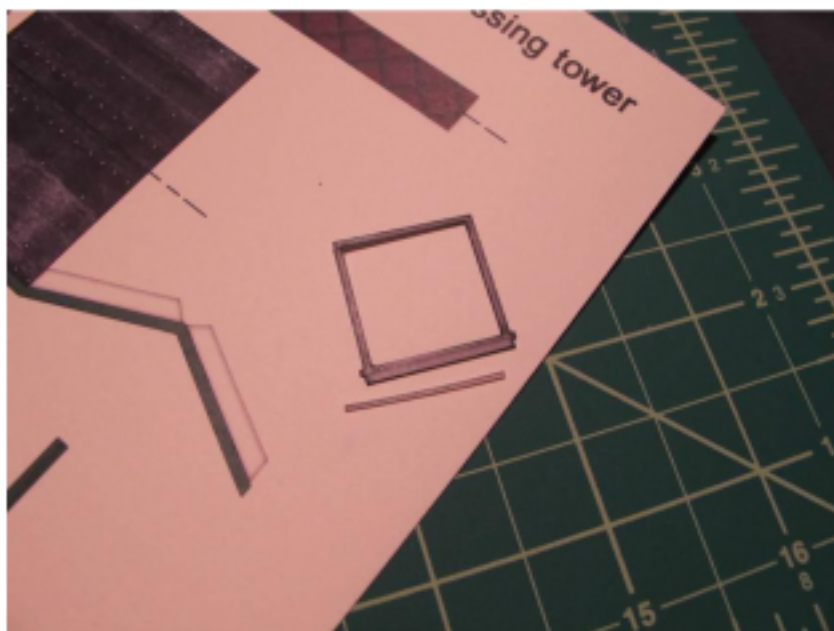
8. Using the extra doors and windows supplied on the sheets, cut out an extra set, leaving a small border of paper around the peripheries of each. Cut the doors on the outsides of their frames, as the extra border of paper is only necessary on the bottom edges of the doors. Color the paper around the windows and doors gray with the marker. You don't want to see any white on the finished model.



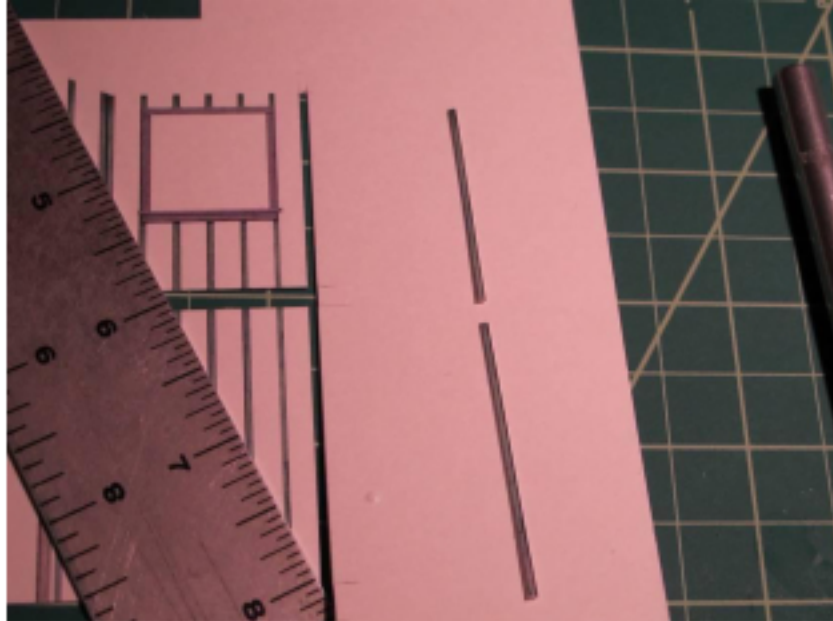
9. Glue each door and window in place, behind its corresponding cut-out on the main structure.



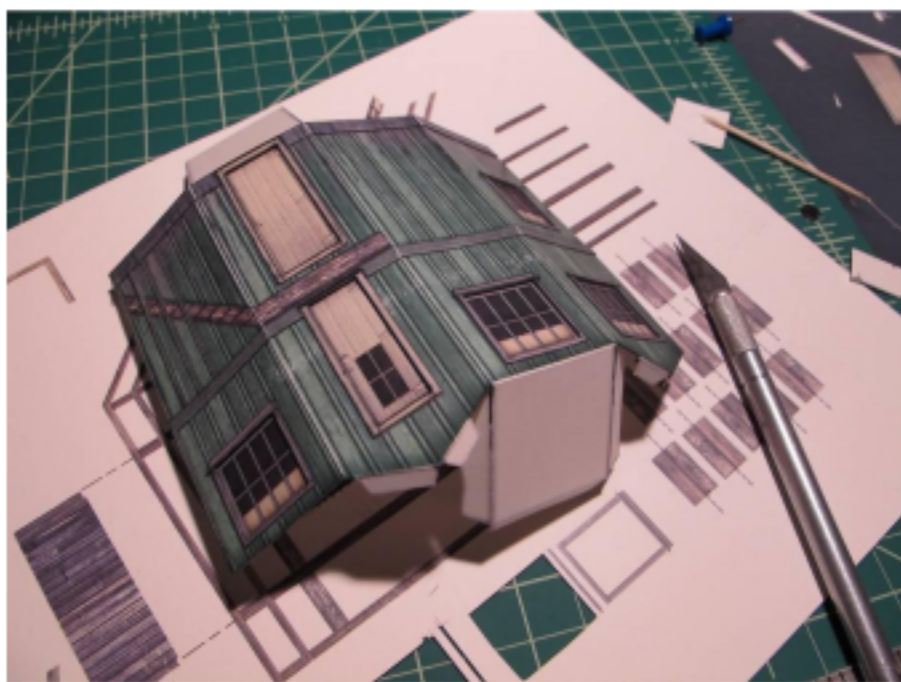
10. Cut out the extra window frames and sill pieces. Color the edges and stack them up over each window on the main structure.



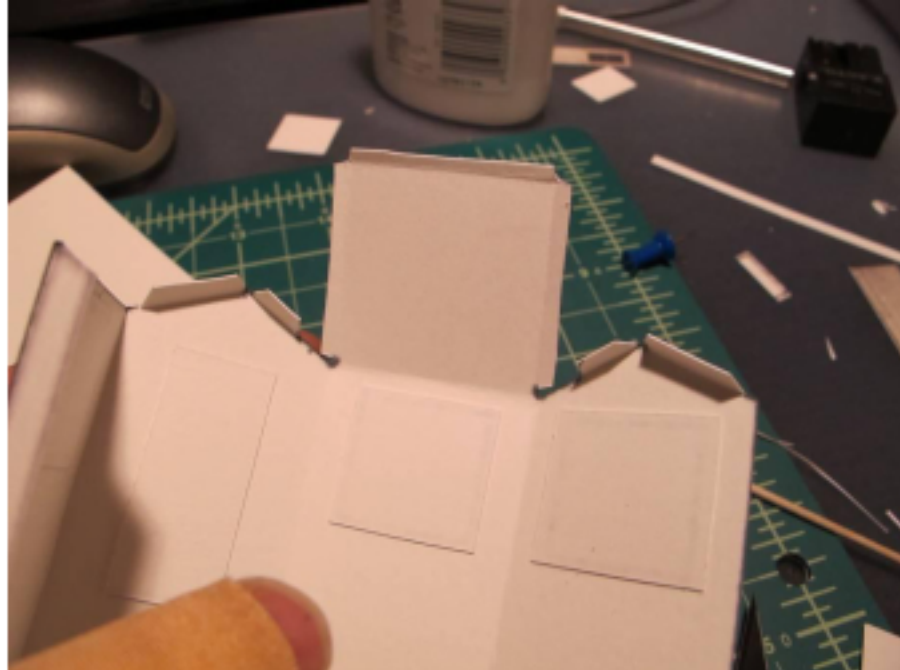
11. Cut out the extra door frames. Color their edges and glue them over the door frames on the main structure.
12. For the nicest look, the battens should be individually cut out and applied on the main structure. I did a few of the battens before folding the main structure into its cube form.



13. Use the marker to color all of the exposed white edges on the now folded model BEFORE the final gluing to hold it together. Dried white glue does not allow the gray marker to penetrate, so it must be colored BEFORE gluing, in the dry fit state.



14. Some of the tabs need to be trimmed short to clear the windows that we glued inside the model in step 9.

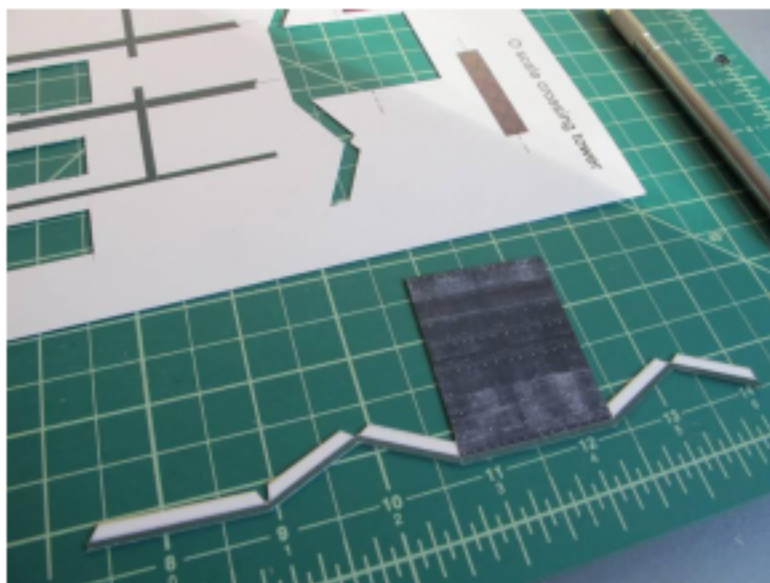


15. I like to fit one tab at a time, confirm it is trimmed and fits properly, and then glue it permanently. Proceed with all of the tabs in the order that makes most sense to you, but do one at a time if possible.

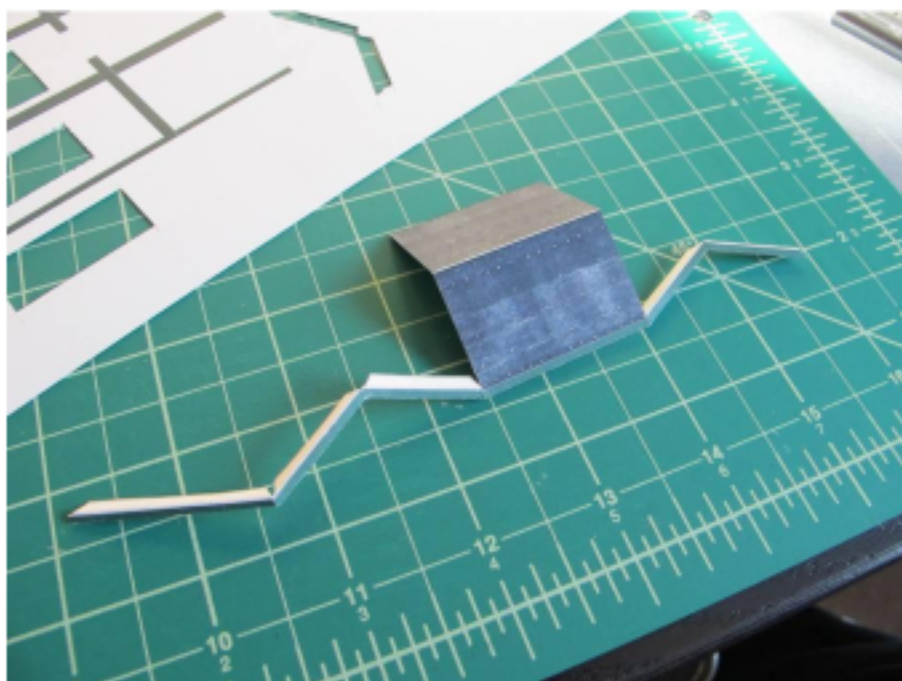


16. Cut out, trim, and glue the remaining battens in place. Tedious, but the results are worth the effort.
17. Touch up any exposed white paper with the gray marker.

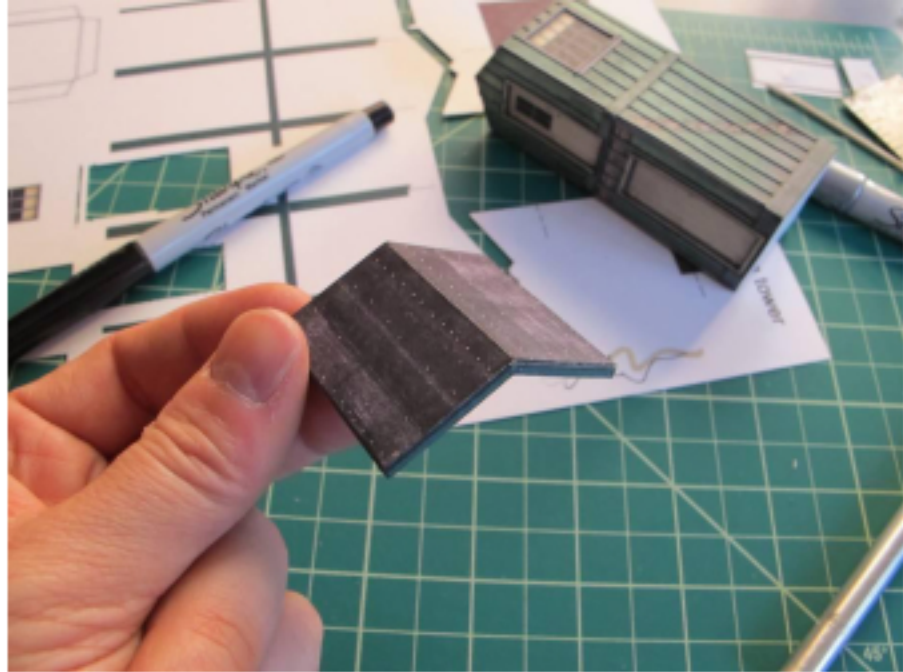
18. Cut out the tar paper roof assembly. I lie to score all of the fold lines before I cut the part away from the sheet.



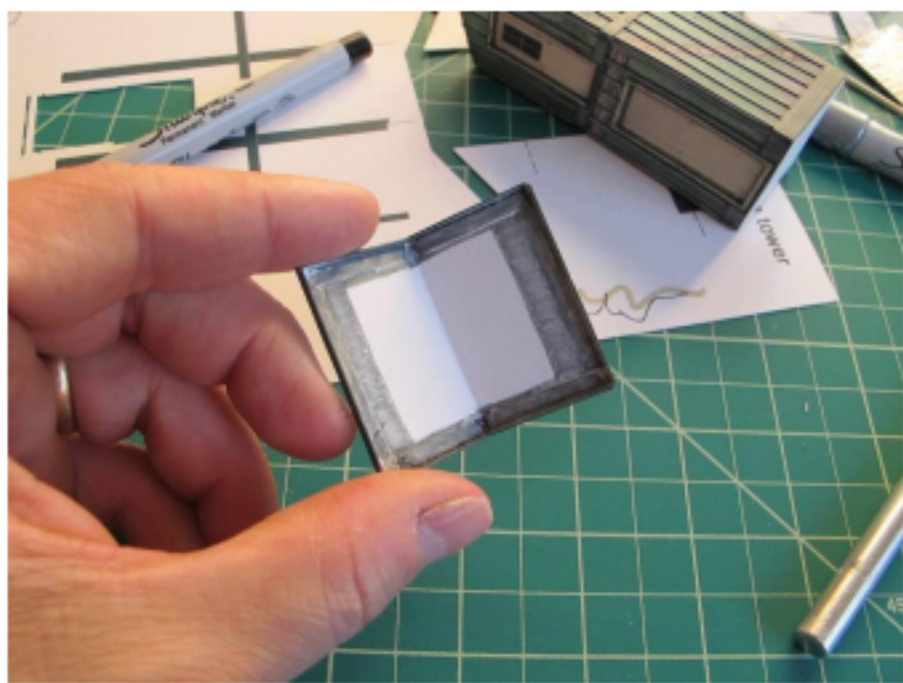
19. Carefully fold all of the tabs and boards on the roof structure and color all of the exposed white edges with the gray marker. When in doubt, color the edge gray.



20. One by one, glue the tabs to the roof and form the structure.

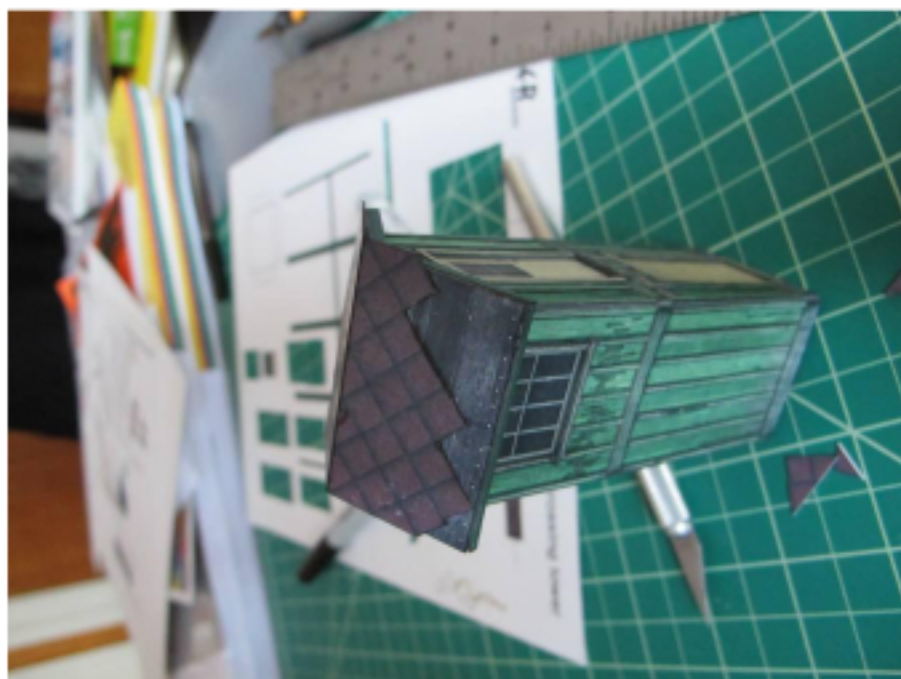
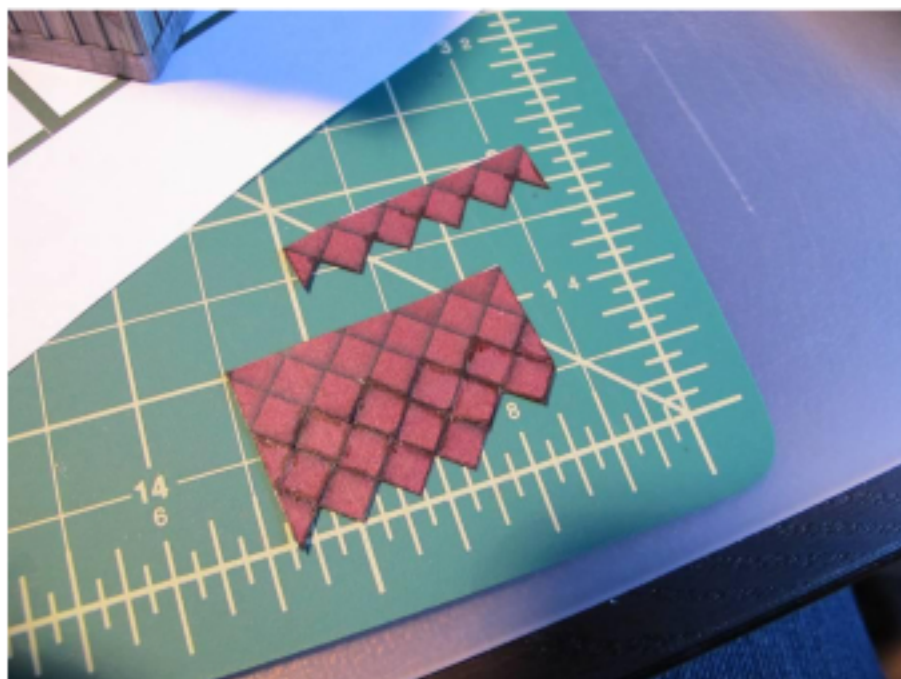


21. Use the marker to color in the underside of the roof where it will be visible once glued to the main building structure. Dry fit the roof assembly to see how much you need to color gray.



22. Glue the roof structure to the building structure. Be sure to line it up carefully and keep the overhang even on all sides.

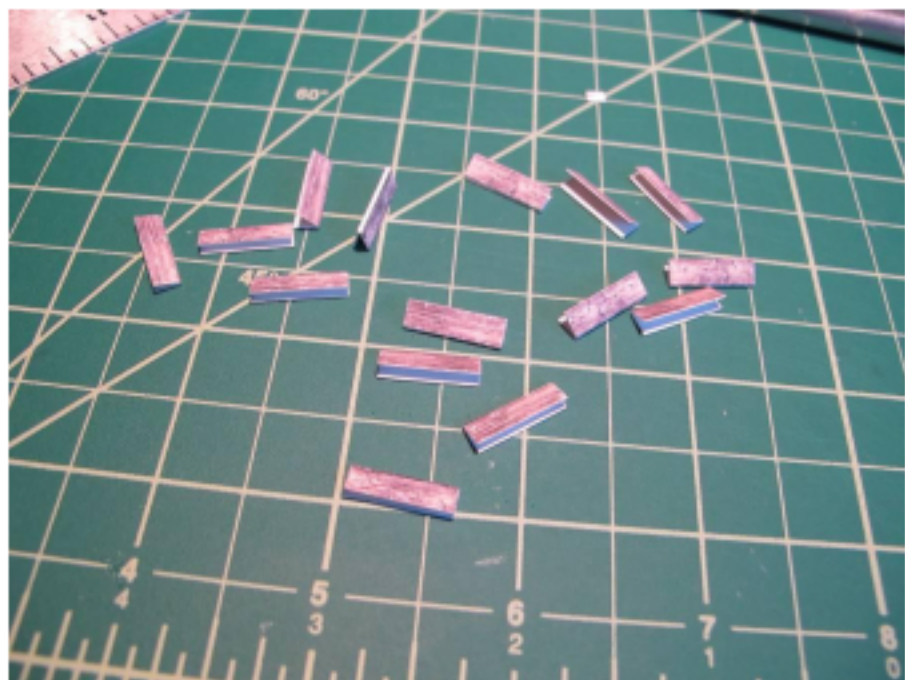
23. This next step is optional. If you like the tar paper roof, stop here on the roof. I decided to try and make a dilapidated shingled roof by cutting away some of the red shingles. I also printed some extra shingles on regular copy paper, and cut them out and applied them to achieve a 3d shingle look. Leaving some of the edges lifted up looks nice, in my opinion.



24. Cut out all of the stair steps



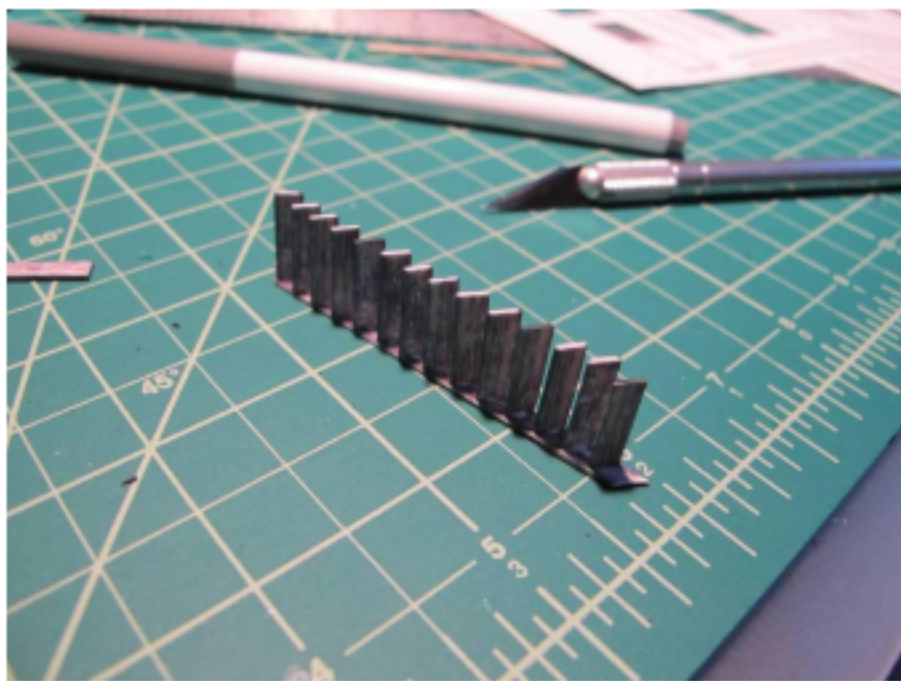
25. Score and fold them in half, color the edges gray, and glue them in half.



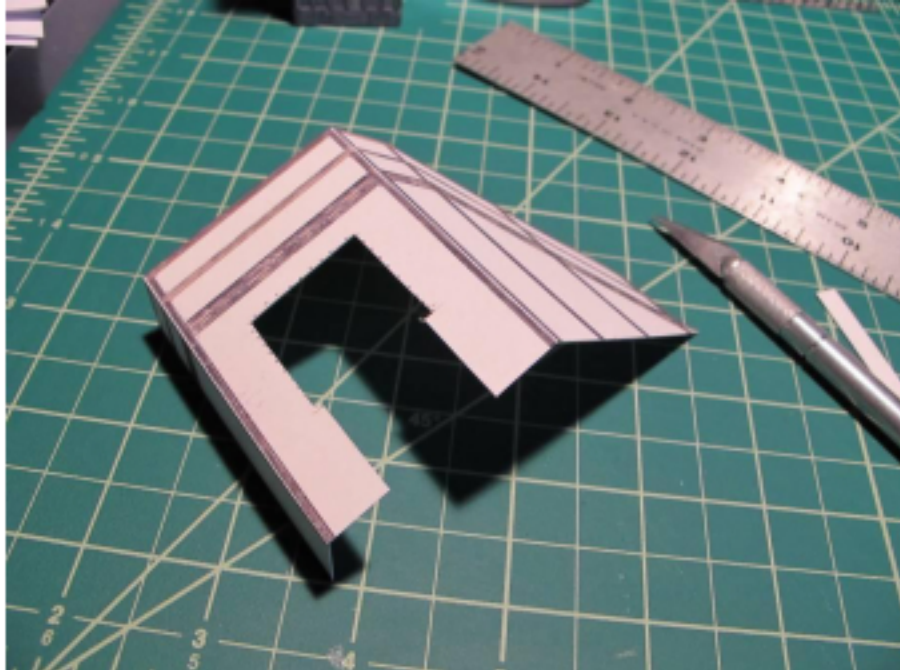
26. Cut out the stairway riser (building side), and color its edges gray.



27. Glue the individual stairs onto the riser, and let them dry. Mine were stable enough to stay vertical while drying, but you may need to hold them or brace them.

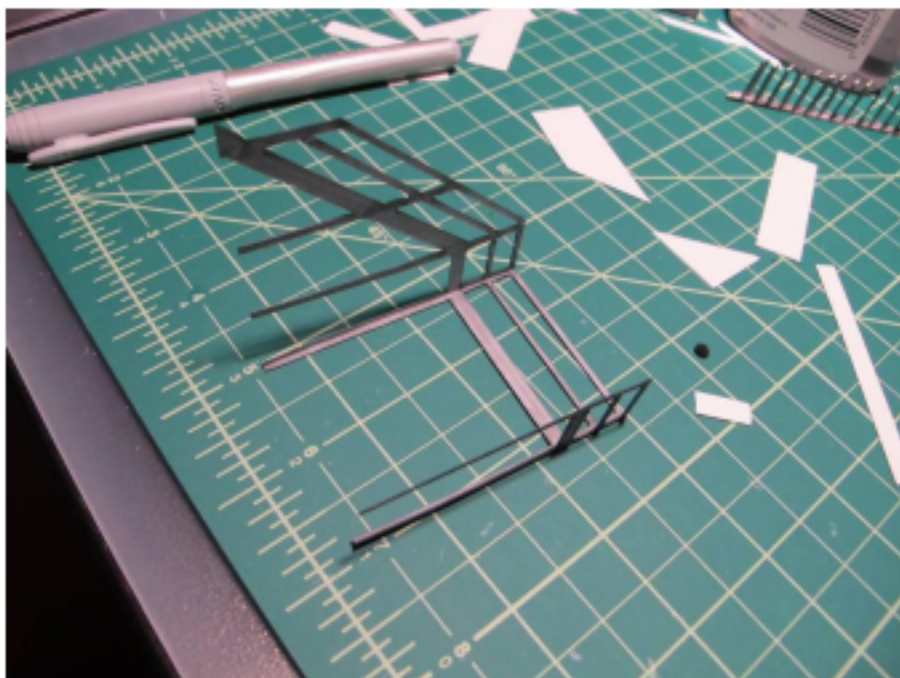


28. Score the fold lines on the main structure assembly and fold BEFORE cutting out all of the individual railings, beams, etc. The spindly little legs are near impossible to fold any other way.

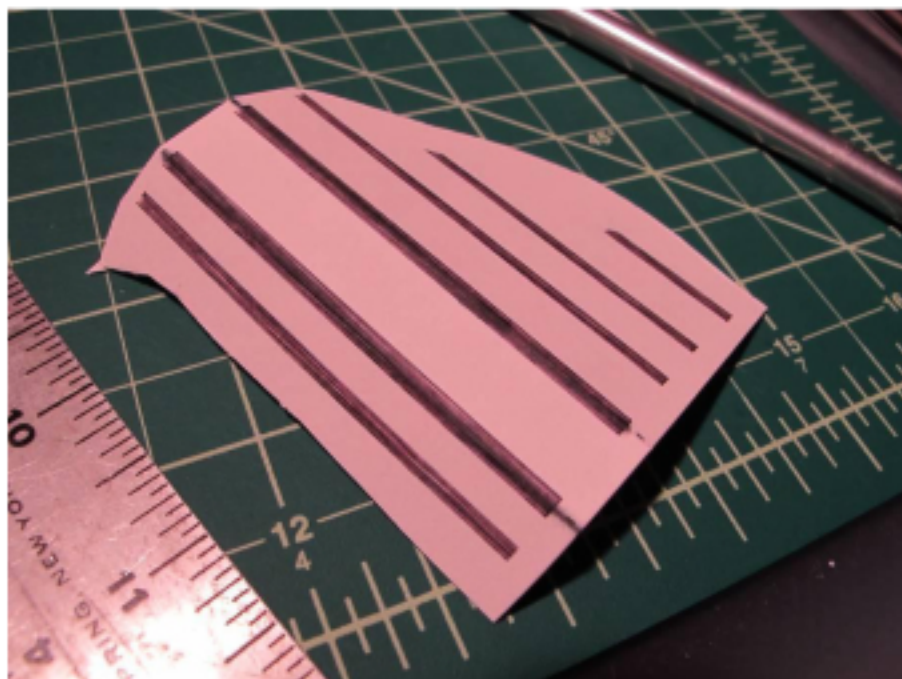


29. Use the push pin to pierce all inside corners before cutting.

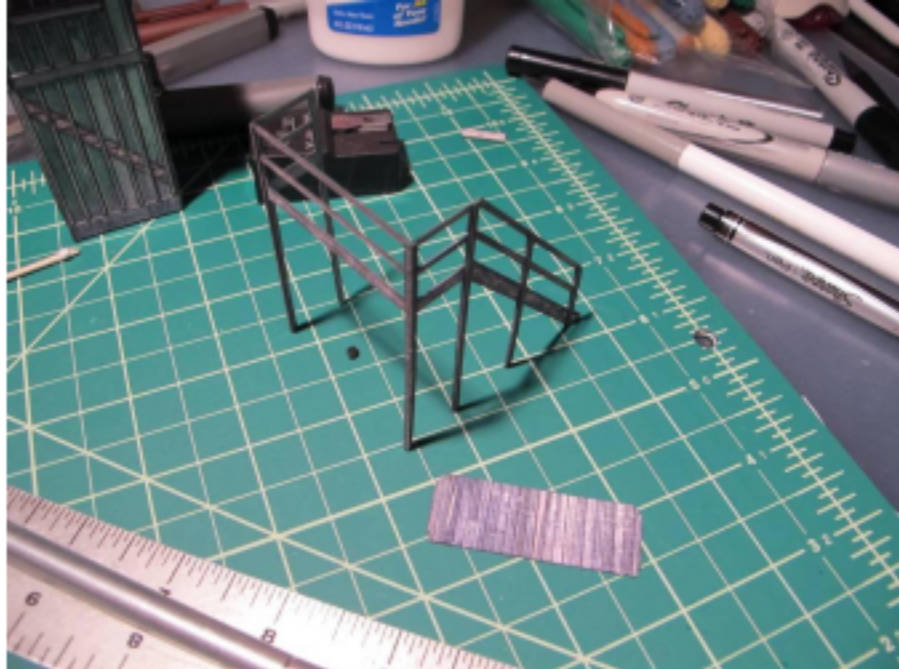
30. Cut out the entire stair/deck assembly and color the backside and edges gray.



31. Cut the group of stairway leg doublers out in a single sheet, and score and fold the corner legs. Bend the legs into a right angle BEFORE cutting them out. Color the bent edge gray.

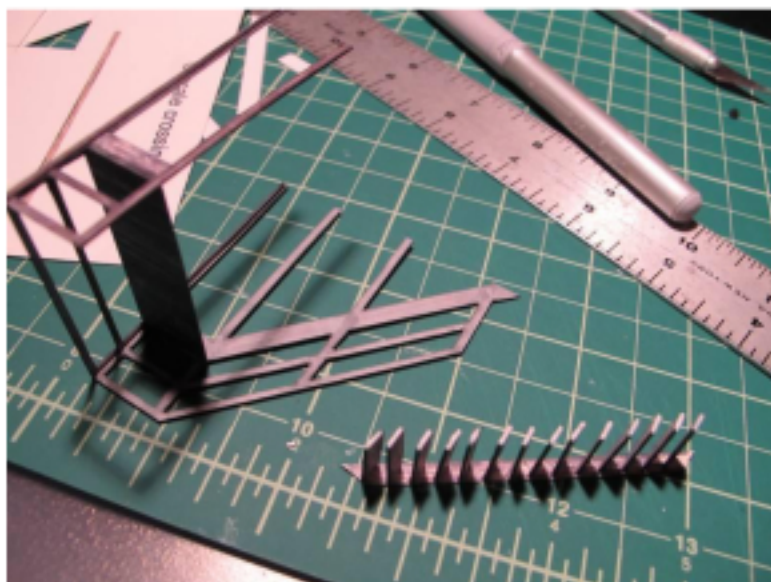


32. Cut all of the leg doublers out, and color their backsides and edges gray.
33. Glue the leg doublers onto their corresponding positions on the stairway.
34. Cut out and color the backside and edges of the landing deck. Dry fit it to the stairway structure, and notch its corners to clear the legs.



35. Glue the deck to the stairway.

36. Lay the stairs and riser assembly on its side, and dot the top of each stair with white glue.



37. Carefully align the stair/riser assembly with the stairway structure, glue together.



38. When the stairs are dry enough (few minutes) dry fit the stairway to the tower. Tweak the stairs to fit, trim if necessary, and glue together.







