# Houses of Cards

by John Carty   photos by author

I have to admit that I love to try new techniques and materials. I also must confess to being a bit of a cheapskate, especially since my hobby funds are strictly limited. A couple of years ago the Division sponsored a paper diorama contest in which I happily participated. The results of my

efforts exceeded my expectations. I employed what can only be called "old school" techniques in constructing my diorama. In this article I will detail how you may build models using cardboard, card stock, and paper.
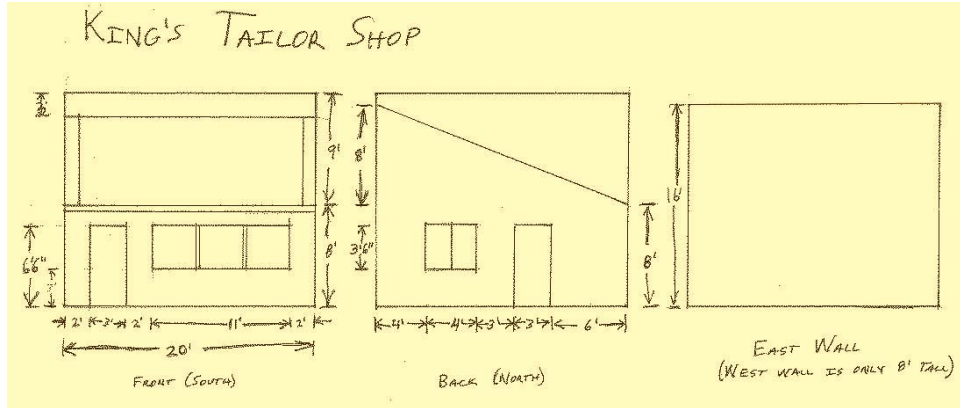

King's Tailor Shop

The first structure I built for this demonstration is King's Tailor Shop. Start by drawing the shop to scale. Next, lay out the walls and roof on a piece of cardboard. Subtract about a sixteenth of an inch from the length of each of the side walls to compensate for the thickness of the front and back walls. Next draw guide lines on the walls to assist in adding the siding after

cutting everything out: the lowest line is for the foundation, the line for the lowest piece of siding is an eighth of an inch higher, while the remaining siding will locate every three thirty-seconds above this line to allow the strips of siding to overlap.

Cut out the windows and doorways before cutting the walls from the sheet of cardboard in order to minimize distortion. Use a sharp knife for this and remember that paper products are
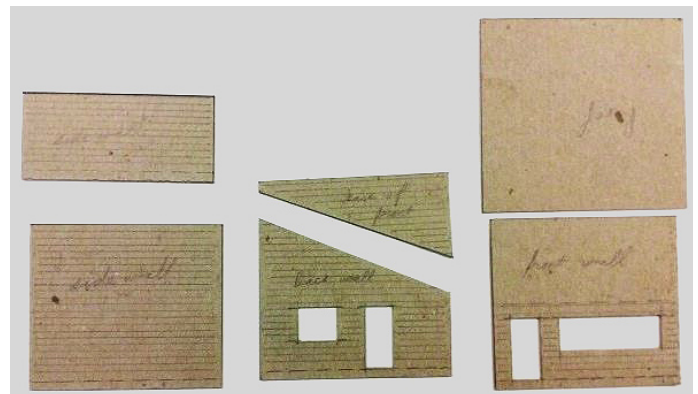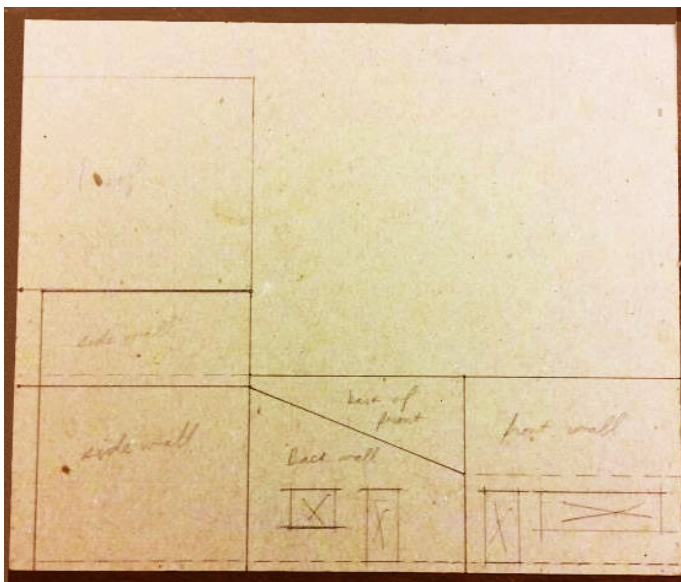

extremely abusive to cutting edges. Next, cut one foot thick strips of brick paper (4 bricks high)

and glued these to the bottom of each wall to serve as the foundation. Cut the strips over length to allow for trimming after assembly. During most of the project I used a glue stick. I wish I had been more patient and waited to get white glue as I was not as satisfied with the results.

Next, cut the siding from card stock using a
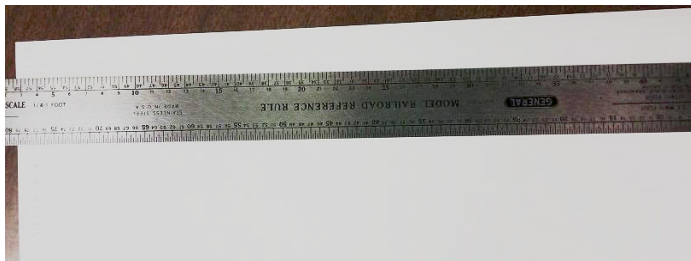
hobby knife and steel rule, which warps the pieces far less than using scissors. Each strip measures an eighth of an inch wide. After the foundation is in place, add the siding one strip at a time, aligning the top of each strip with the guidelines on the walls. Once again leave the strips longer than needed, trimming will come later. Add trim around the sign area now, leaving a sixteenth inch gap where the overhang will be installed.

After all of the siding has been applied, trim the
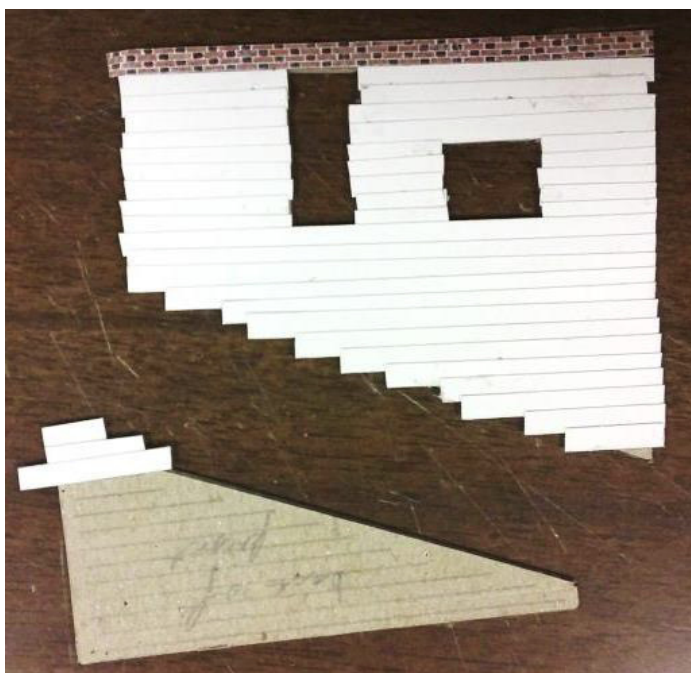
siding from the window and door openings as well as cutting the excess from the front and back. Leave the sides over hung until the walls are assembled. A scissors works well for this task. Cut pieces of card stock about an eighth of an inch larger than the window openings. Mark the window opening on the back of each piece and glue in place to the outside of the wall. After the glue dries, cut diagonally (about 45°) from each corner. Bend the resulting flaps into the window opening to create the window frame and secure with glue. If you are using white glue, be a little generous with the glue so as to soften the card stock and allow it bend more easily. Cut pieces of card stock a sixteenth of an inch taller than the door openings and an eighth of an inch wider and install just like the windows, but do not overlap the bottom of the door opening. Cut and fold just like the windows, only on three sides not four.

Brace the side walls by out lining the inside of
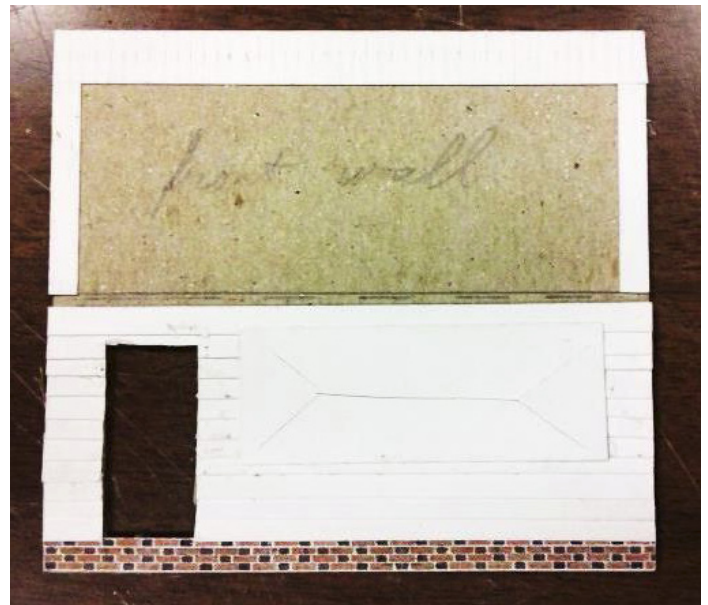

each with eighth inch thick bass wood using wood glue (I like Elmer's). Apply the glue sparingly to both the wall and the wood. Make sure the strips of wood came right to the edges of each wall except the top of the taller wall, where the roof has to clear; otherwise you will have to file the excess to allow the roof to ride properly. Making sure everything is square; add

one side wall to the front wall, using the overhanging siding as a guide. Next add the second side wall and then the rear wall. Add the back of the false front using either wood or white glue. Brace the front and back walls locating the upper brace of the front wall right against the back of the false front.

Trim the overlapping siding and foundation to
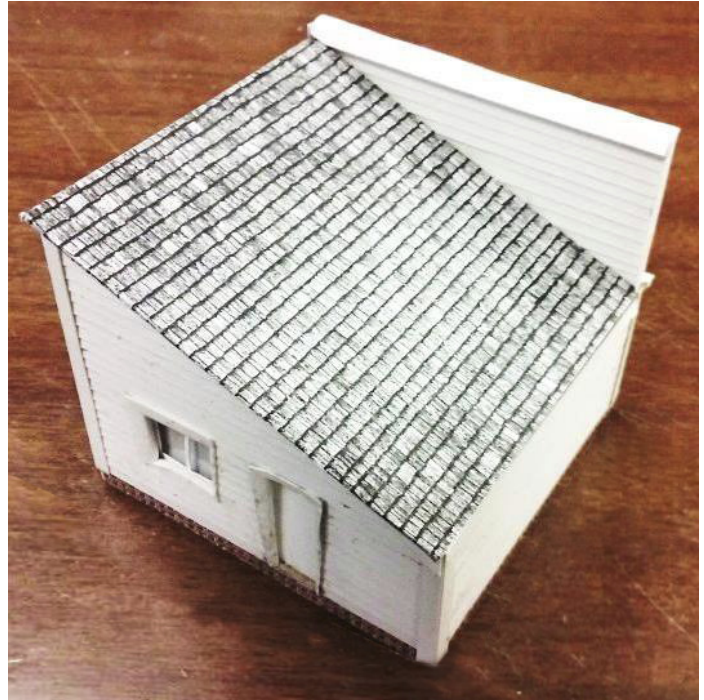
corner of the building. Trim to the top of the wall and bottom of the siding. Add the roof, securing it with wood glue. Add eighth inch strips of card stock for fascia boards under the roof. Cut pieces of card stock larger than the window openings and cut out the windows themselves leaving the mullions and glue in place along with pieces of card stock for the doors. Affix acetate or styrene behind the windows with tape and add curtains
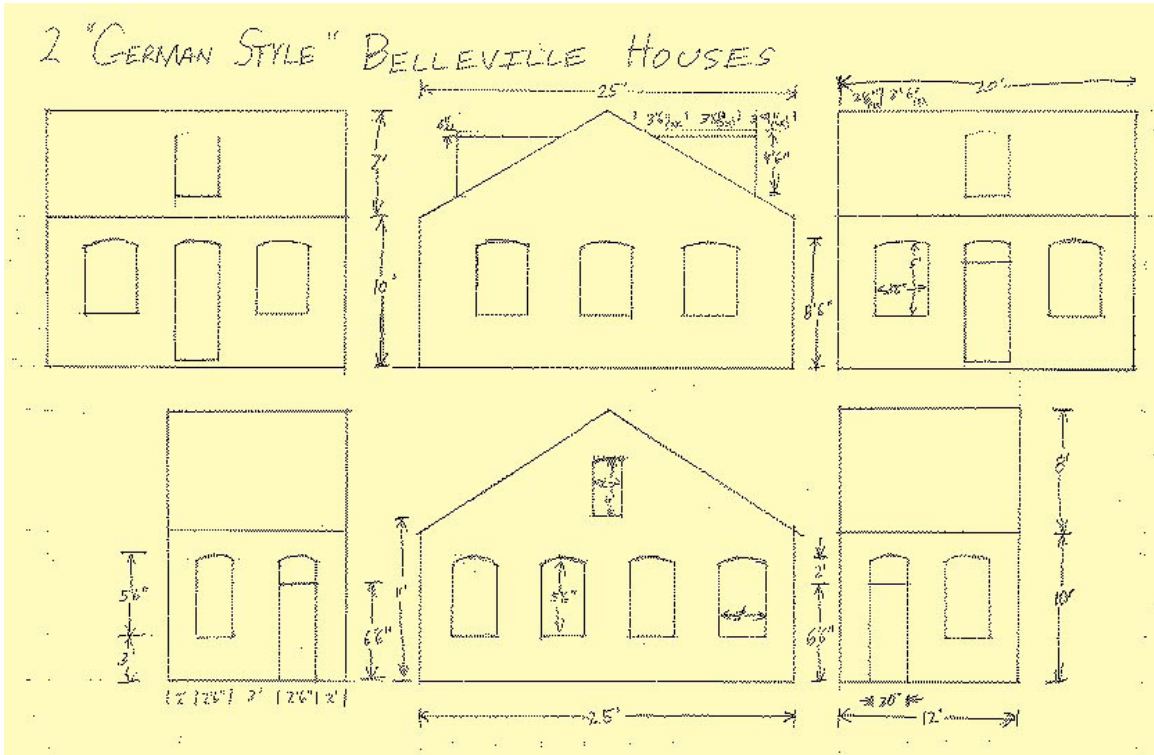

the front and back walls. Cut strips of card stock to an eighth of an inch wide and score down the middle. Bend on the scoring and apply to each

(see side bar for links and ideas). I overlaid paper printed to look like shingles over the roof and added a sign made in Microsoft Word. With a little weathering, King's Tailor Shop is ready for installation on the layout.

A Common Style of House in Belleville

The second structure follows a common type of brick house found in Belleville, where I live. One nice feature of this style of house consists of the variety of widths the front and back can be, as well as different heights, materials, and window arrangements. I have seen houses of this type up to three stories tall with store fronts on the ground floor as well as sporting dormers. So feel free to use these drawings as starting points. The early German settlers as well as a good number of their descendants used brick which was not baked as hard as we usually expect brick to be. As a result, many older brick building in Belleville are painted to help keep out moisture and help preserve the buildings. Among the free brick downloads available, I found one which portrays this type of brick in unpainted condition. I printed this out using a color laser printer.

Again lay out the walls on a piece of cardboard.

Since this model will be
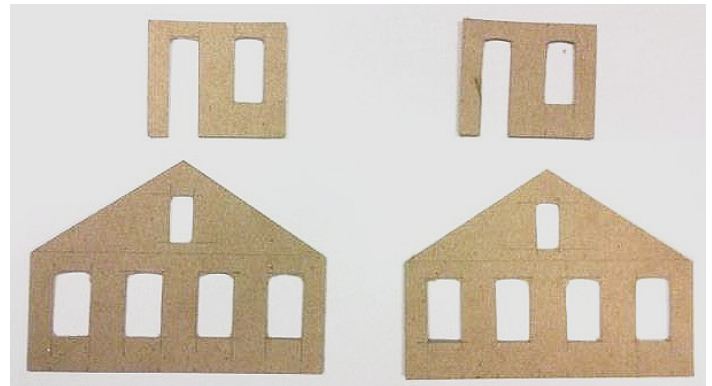
installed on a base which will portray the foundation, I left off the foundation from my walls. Cut out the window and door openings using a metal straight edge and a hobby knife. Next, cut out the walls and roofs. Cut brick paper large enough to overlap the tops and sides of each wall. Be smarter than I was and leave the white border on the paper to make it easier to align measurements. Spread a thin layer of full

strength white glue (I like Elmer's Glue All) over the face of each inner wall (the cardboard piece). The layer of glue should be so thin so as to be tacky. Carefully apply the brick paper to the wall, being aware of alignment since the glue


will function like contact cement. Smooth out the brick paper with your fingers and allow to dry. The gabled walls will flank the front and back walls, so trim the paper to the cardboard. A scissors works well for this. Trim the front and back walls only along the top, leaving the ends to cover the ends of the gabled side walls. Placing each wall face down so that the brick paper is against your cutting surface, cut down the middle of each door and window opening and then along the top and bottom. Fold the brick

paper back along both sides of each opening, securing with a thin layer of glue applied to cardboard inner wall. Cut pieces of paper (I used white but you can use colored if you like) to fit the bottom of each window opening drawing a line six scale inches from the bottom. Put a thin

layer of full strength white glue on the lined side of each piece of paper. Attached the strip to the outside bottom of the window opening along the line with the six inch portion on the outside and wrap the remainder through the window. Cut small pieces of brick paper with which to make the lintels. Remember that the brick of the lintels runs perpendicular to the brick of the walls. Apply full strength white glue to the lintels and affix to the wall, again folding the paper into the window opening. If you curved the tops of you window openings like I did, you will need to entice the lintels to conform to the curve.

Take a self-adhesive label in the color you desire for your windows, and affix it to the window glazing you intend to use. Measure out the windows you need on the labels and carefully cut just the label. Leave excess material all around the window openings. Using the tip of
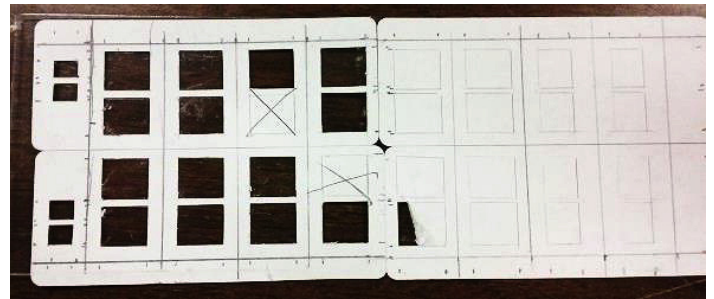
your knife carefully lift the labels away from the window openings. Cut apart the windows. Center a window into each opening affixing with white glue applied to the wall. Cut pieces of card stock for the doors and glue in place. You may add a transom to the doorway or you can use a piece of label affixed to the door to fill in the space above it.

Outline the front and back inner walls with eighth inch square bass strip wood, securing the bracing with wood glue. Assemble a side wall to the front wall and then add the back wall. After adding the other side wall, square your assembly up before the glue sets. Add bracing to the side walls at the bottom, the middle, and along the gables. Trim the front and back brick paper flush

with the side walls. Attach the roof pieces using wood glue, followed by the roofing material of your choice (I used shingle paper) using white glue. Trim the edges after the glue dries. Using the scrap from the original layout of the house, cut out a core for the chimney. Add brick paper

and assemble the chimney. After the glue dries, install the chimney on the roof.
Cut a piece of card stock for the top of the chimney and glue in place. Cut fascia boards from card stock and attach under the eaves using white glue. The white cut edges of the brick walls may be touched up with a colored

paper to give the impression that people are living in the house.
After some light weathering with powders, your abode is ready to install on your layout.

pencil of a similar color to the brick.
Add curtains lifted from an on-line catalog (see side bar) or shades cut from plain or manila

Website: http://www.gatewaynmra.org/

Industrial Buildings

Using the techniques above, I also built Suppigier Canning. One difference appears in the windows, which sport mullions traced with a pen. A second difference may be found in the capping of the walls with a different style of brick. The flat roof follows the common practice of using tape for the rolled roofing and painting it. The various wooden tanks were constructed by scribing card board, gluing it to a core, painting it, and adding paper bands, hatches, and other

Obtaining Materials

I obtain much of the cardboard I use by saving packaging, especially from printed forms. Cardboard used in the packaging of clothing may also be used, as well a cereal boxes, paper tubes, I do not use corrugated cardboard. Brick papers obtained in PDF files may be copied into Word and edited to change the color, allowing the modeling of painted brick. Concrete may be simulated by using various colors of card stock or even by using colored pencils. A little creativity will reap great rewards with these models.

Links:

Free Brick paper: *http://www.passingloop.com/?p=3390*

Free brick generator: *http://paperbrick.co.uk/index.php?action=home*

Brick paper generator: *http://www.modeltrainsoftware.com/brickyard.html*

Card kits for model railways (UK co.): *http://www.modelrailwayscenery.com/*

JC Penny for window treatments: *http://www.jcpenney.com/window/curtains-drapes/cat.jump?id=cat100260226&deptId=dept20022800026*