

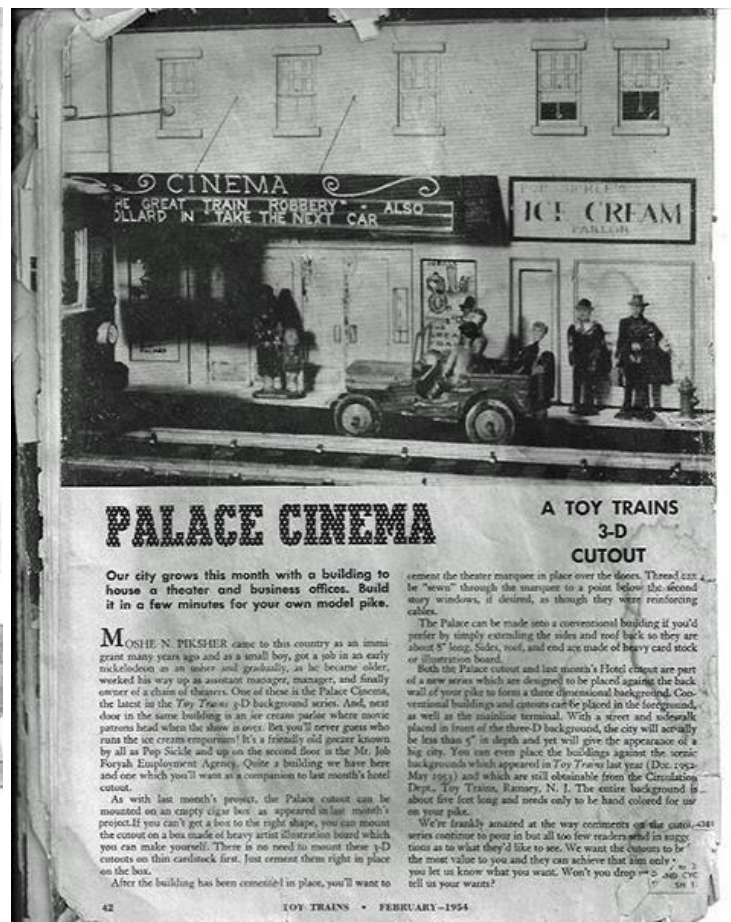
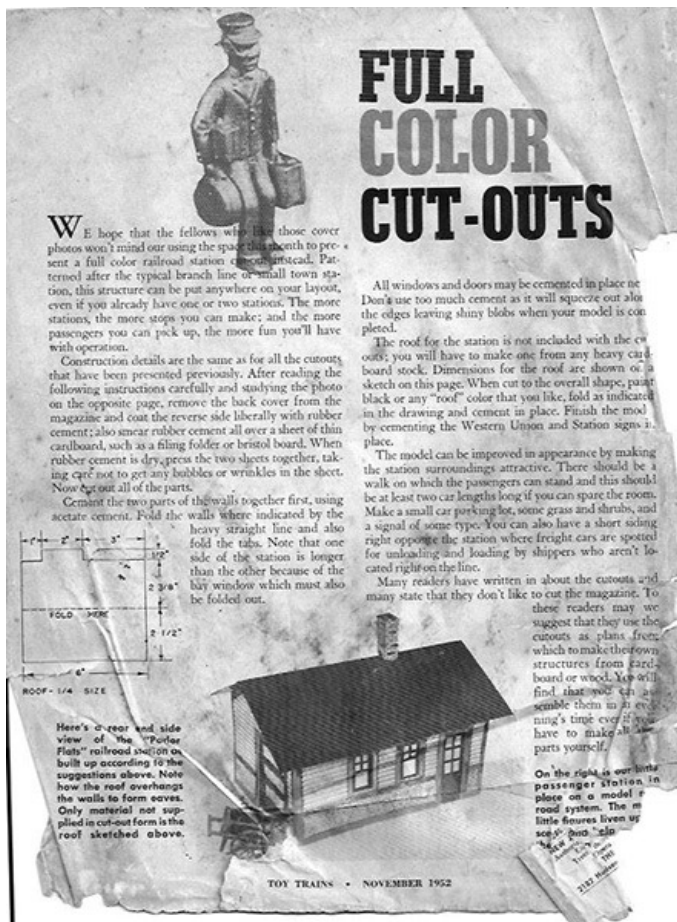
I had found a mentor and was I lucky. Not only was he going to help me, he modeled in a part of the world and about ports and some other subjects I knew well. So it was a marriage made in heaven. My education began. Please meet a modeler who, I believe, may stimulate your interest in card modeling just like he did for me.



### Kenneth L. Anthony: "A LIFE IN CARDBOARD"

Actually, I have not been building cardboard models all my life. I didn't start until I was three years old, with railroad model cutouts printed on the back and insides of Kix cereal boxes. I had some Marx electric trains which were better than the cardboard ones, but I liked being able to make train models for myself. That was in 1947.

In 1951, I was in second grade and I liked reading the *Toy Trains Magazine* Dad was bring home, which focused on Lionel, American Flyer and Marx trains, which it called "tinplate". I also saw the same company had a magazine called *Model Railroad Craftsman*, but it looked too complicated for me. I thought the big Lionel 3-rail trains were better than the small two-rail trains. After all, they were bigger. *Toy Trains Magazine* featured cutouts on their back cover to build model railroad structures. I learned how buildings are laid out on a flat sheet that is bent and assembled. The magazine also ran a series of what they called 3-D cutouts that were actually shallow depth background buildings, made to be pasted or glued over standard cigar boxes. The buildings themselves disappeared with my childhood, but I kept the magazines and a



few years ago scanned the inside pages with descriptions and instructions for the cutouts. (Now the magazines are gone too, along with 800 issues of rail and model magazines I disposed of so I could actually have space to build a layout...)



I read in the magazine about building to scale and that O scale was  $\frac{1}{4}$  inch to the foot. When I was ten years old, I got a yardstick and measured the doors and windows on my house to get typical dimensions, and then calculated scale doors and windows on a school ruler to lay out a freelanced model on a shoe box lid. I also took a photo on the first roll of film I shot on my first camera. The camera had a cardboard body too!

When I was 14, my dad was killed in an accident and my mother sold off our 15 sets of Lionel trains for a couple hundred dollars, because she figured my brother and I were getting too old for toys. Within three years, I was back doing trains in my spare time as a college freshman, this time with a cheap HO dockside switcher and a basic oval of track on the dining room table, paid for out of my own money. I couldn't afford those neat craftsman kits I saw in magazines, so I laid out my own buildings on cardboard, either as copies of commercial HO kits or from my imagination. I especially remembering copying the Alexander haunted house model in cardboard. The Revell small-town-station was the only non-cardboard model on the layout.

Jump ahead a few years. After college I went into television news and spent a week in West Berlin in 1971 (and took my first ride on a non-tourist non-amusement park train!). I built a tiny 27 x 34 inch layout representing some elements of Berlin in N scale. I "invented" something that was not-quite cardstock modeling, but related. Nearly all the structures were European plastic kits, but I had a street that converged into the backdrop at a kind of wedge. I needed a very thin building to continue the row of stores into the background. I was looking through catalogues - didn't want to have to order something else from Europe and wait for it to come. I had some photos of street scenes, but they were just TOO realistic next to the models. The box that one of the kits came in had a picture at about the right angle. Then it dawned on me. Using a picture of a MODEL on the background would blend better with a plastic model placed next to it, than a photo of a real building. I cut out the illustration on the kit box lid and mounted it on the background. Seemed to work.



In looking for European structures, I came upon ads for European paper models. I didn't see anything that fit my Berlin scene, but a cutout model of Neuschwanstein Castle looked like fun. It was printed on stock about the weight of index card, and I wasn't sure it would hold up well without wood or heavier cardboard reinforcing inside. I kept planning on figuring out how to do it really well before starting. Finally I got tired and just put it together and it came out so-so. My fault. But still fun.



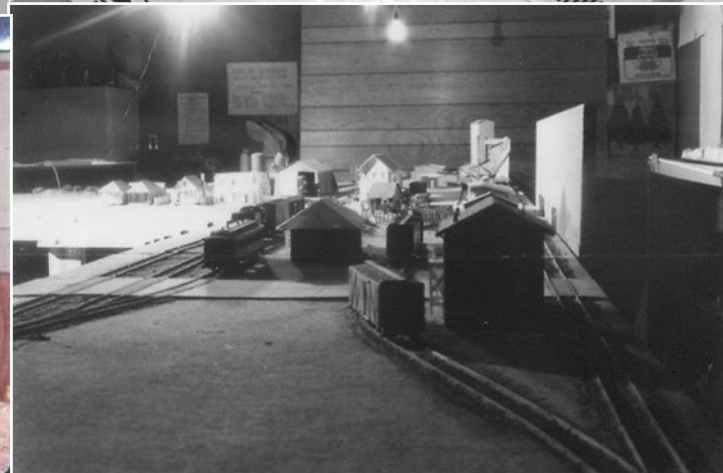
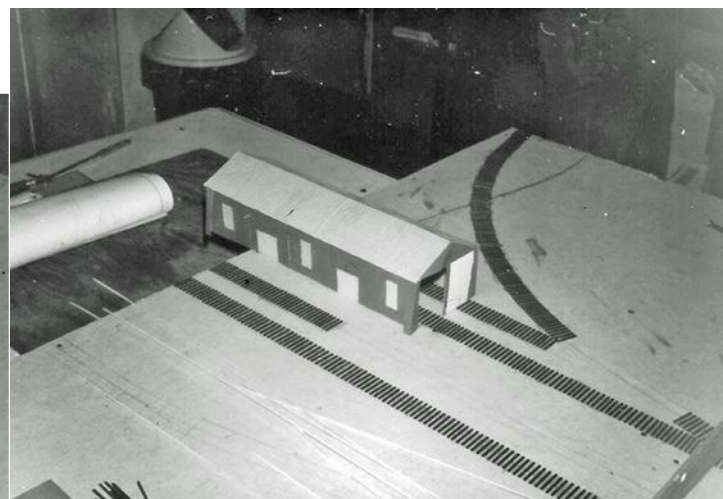
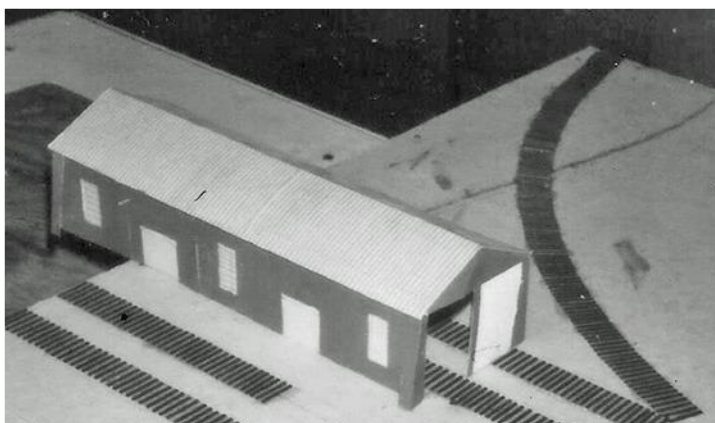




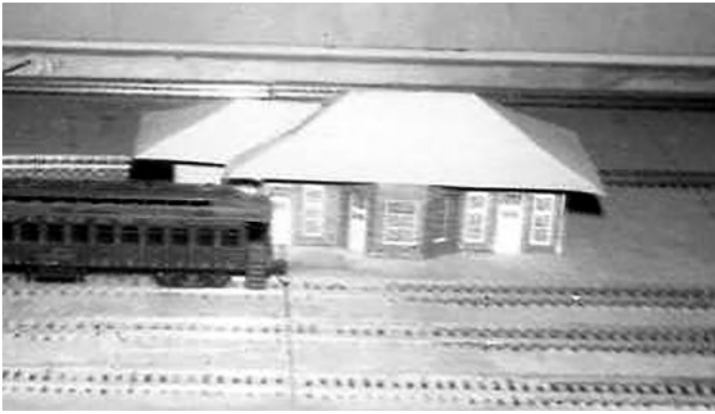
I joined NMRA in 1973, and their Bulletin had a special once-a-year, sometimes twice, feature – a centerfold printed on cardstock with sides for some special freight car in multiple scales. They had instructions to scratchbuild a wooden body inside for the car sides, and I built a Heinz 57 Baked Bean reefer in N scale.

In 1976, a club in Corpus Christi, Texas began to plan and build an HO sectional display layout representing the Texas Mexican Railway Union Station area in that city as it was in 1926, the year the deep-water port opened. The layout was designed with condensed, but schematically close-to-prototype track arrangements, based on old city planning maps. Sanborn Insurance Maps, not online, but in big 2-foot-square in a library archive provided 1" = 50' plans of building outlines. The books were too big and clumsy to photocopy. Copies of relevant building plans were made by measuring them in the original book and making a

drawing by hand. From that, visualized perspective views and scale elevations were drawn. In some cases, the buildings to be modeled or their duplicates still existed, some as the 2-stall enginehouse which still stands in 2018, or the still-standing Alice depot 40 miles away built to the same plan as the Corpus Christi one. Here's where cardstock modeling comes in. We built cardstock models of the layout's structures before tackling them in basswood or styrene, to see how they would work on the layout. In one case, we took one of the mockups



to Mayor-Pro-Tem Gabe Lozano, with whom we had done an oral history interview. “Yes,” he told us, “that was the freight station office where he had worked 50 years earlier.”

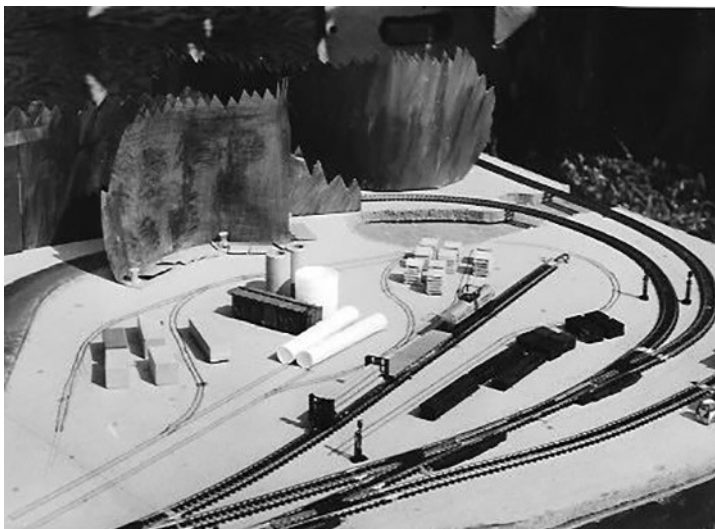


**CARDSTOCK MODELING HINT.** Back in the 1970s, Walthers sold printed paper sheets in HO and O, maybe other scales too, with brick, stone, clapboard, board-and-batten patterns, roof shingles, and with doors, windows and generic signs. These could be cut and glued into structure wall and roof sections as they were laid out on cardstock, to save lots of drawing time. These have not been available from Walthers for years, but modern cardstock modelers can download printable structure textures, doors, windows, storefront etc. from a number of resources. Cut-and-paste in a computer graphics program – or cut-and-paste the old-fashioned way with paper, scissors or modeling knife, and glue.



About 1980, I started an N scale East Texas Santa Fe layout. The early development included a use of a number of mockups and stand-ins, including cardstock models, to work out the townscape of a county seat in the piney woods. One early version included a cardboard mockup of a Santa Fe small town depot, a scale 24 foot deep not counting the bay window and platform.

A freight house track on the back side of the depot seemed desirable. Extended a bit, a couple of car lengths of the track could be a team track, for extra operation. But the mockup showed that the depth of the depot would make the freight track go too far back, take up too much room needed for the business block. Also in the photo: a cardboard mockup experimenting with a concept for a courthouse in the right-center of the picture, a mockup of an idea for a scratchbuilt bank in the middle of the block across from the courthouse. Further back, kit fronts attached to boxes to mockup building ideas.



Cardboard cutouts of jagged evergreen tree lines were used to mock up scenery to divide a two-sided table layout into two scenes, and to back up a creosote treating plant.





To solve the depot size problem, another prototype Santa Fe depot was found that was shallower in depth. Two windows wide on the ends, rather than four windows as the first try. Only 8 scale feet difference, but a new mockup showed that the change would work, and allow a freight house track on the back side. The original depot seemed too small, probably because of its length. The replacement followed a longer prototype that gave an impression of larger size in less depth.



Eventually (hope this doesn't disappoint cardboard modeling fans too much), a detailed depot scratch built in styrene replaced the mockup.

A bank building scratch built from styrene, beads, wood, metal rod, window screen splines and leftover kit doors & windows replaced the cardboard mockup, but the cardboard structure had proved the design and held the place of the finished building at least a year. And this was the finished creosote treating plant scene, with a road past the plant disappearing into the trees, as planned through cardboard mockup scenery.



Another cardboard mockup that did its job well – I just didn't do my job of replacing it with wood or styrene. I wanted an "old-family" mansion near the town square, and I had a prototype half a block from TV studio where I worked. Also half a block from Tex-Mex tracks the local club was modeling for its display layout in the 70s, and I had drawn plans and had an HO model halfway built. (LOTS of things I have done "halfway.") I built an N scale cardboard mockup for my layout, using Walthers N scale printed doors and windows. Never got around to building my intended finished model, and the cardboard mockup filled the spot just fine. It stayed on the layout until it was dismantled, never replaced by a "real" model.



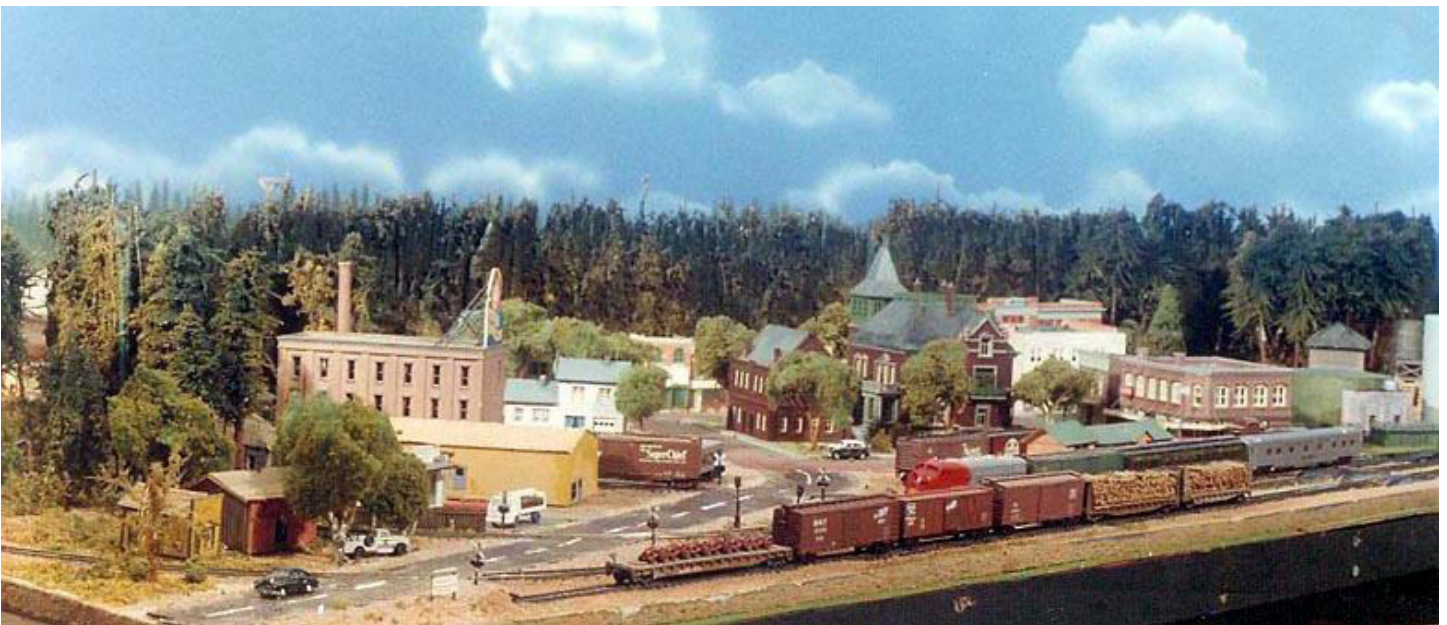
The most successful and satisfying cardboard model I ever built came on my East Texas layout. I felt public infrastructure was under-represented in model towns. Modelers generally seemed to build railroad structures, industries, stores, and a few houses. I wanted to model as much of the public facilities that might be in a real city for my courthouse-square town: the courthouse, of course, jail, fire station, post office, city water tower... and a school. Not a one-room little red schoolhouse from 1870, but a school that might appear in a moderate size town in my layout's 1950s transition period. A grade school might have at least one classroom for each grade, a high school maybe 8 or 10. But as always, I was limited on space. *Railroad Model Craftsman* came to my rescue with a construction article and scale drawings based on a Chicago grade school built in the 1920s. It bore some resemblance to the grade school I attended in 50s. But could be a high school for a medium town. Best of all, the modeler who constructed the school for the article in HO had built it as a wedge, with the front wall and part of a side wall. By doing the same thing, I could position the school back against my tree-line scene divider as if it were nestled back in the woods, with more to the school than actually modeled.



I did not relish the job of finding 24 little windows for the classrooms, slicing off extraneous window frames so they could fit closely together, and keeping them all in alignment. But wait! I didn't have to do that. They were all laid out on the scale drawing. I could copy that to my needed size and use a paper print for the windows. This was in the days before we had scanners, computers with graphics programs, and printers. I went to my local copy shop and copied the magazine plan to get it the needed scale. Then I used water color markers to color the window frames and muntins, so they would not be stark white. The orange seemed the closest to the institutional buff-yellow I remembered.

### How I make Masonry in Cardboard.

I made multiples of the copy so I could glue one to heavy artist's board for the bottom layer of the building front, and additional copies to put on smaller pieces of artist board to give the facade some depth. I cut and glued Walthers brick paper around the windows, using the photocopy as a guide. Then I cut more pieces of

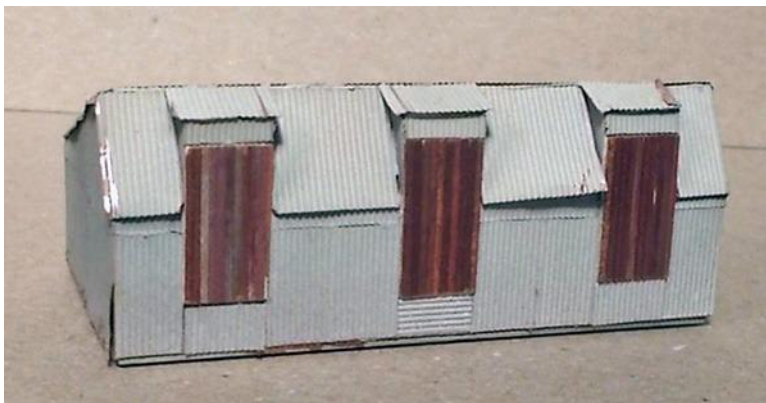




heavy artist's board for the corners and the central entry so they could stand out in relief, and glued the center portion of a photocopy for the entry area door and upper windows – and added brick paper around them. More pieces of artist board were cut and painted light gray for the lintels over the first floor windows, and for the cornice. Thin pieces of brick paper, only as high as 2 or 3 courses of bricks (I don't remember exactly) were pasted on the quoins (corner columns) and on each side of the central entry. Visible on the left end of the photo and around the entry, not so much on right end. Now for the protruding concentric masonry arches over the entry... I didn't think I could make round cuts in heavy artist's board as neatly and evenly as I wanted. I took one of the photocopies to a hardware store and looked through their little drawers of screws, nuts, etc. until I found some fiber washers that would fit. I cut them in half and painted same as the lintels. The eagle sculpture over the entry was not cardboard. I found it in the sailing ship fitting department of my hobby shop. Several years after building the school, I added the Lumberjack mascot sign. By then, I had Photoshop to draw it on and a printer to print it out.

The yellow-walled building a little left of center in the photo of Johnston, Texas on the previous page was intended to be the warehouse portion of the three-story peanut butter plant behind it. The warehouse was RAILHEAD kit #21 "SUPERIOR TRANSFER" which consisted of scored and cut-to-shape, but unpainted and unprinted cardstock parts for the walls and roof. The kit also included wood to brace the cardstock walls, shingles for the roof, metal door and window, and if I remember, metal castings for turbine roof vents.

One last "cardstock" model on the East Texas layout. *Model Railroader* had scale drawings for a prototype ag loading shed. I used the plans to build the shell of the building in cardstock and then covered it with Campbell's corrugated aluminum.



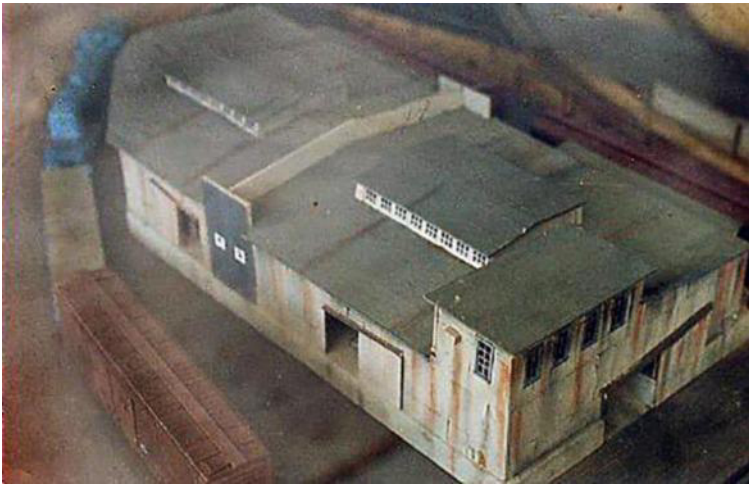
Most of my cardboard modeling has been structures, and most in HO and N scale. But I once had occasion to model a diesel locomotive shell in O scale. Back in the 1980s, a model railroad photography contest had given prizes to pictures that not only showed good modeling, but also created effects: smoke, snow, background motion



blur, etc. I thought I could manufacture a dramatic fire effect with cotton, colored light and time exposure. A fire scene could tell a story: railroaders pushing a hazardous tank car away from a refinery tank fire before it could go off and flatten the community. Model photography generally works better in larger scales, like O. I had scale drawings for a switcher in a model magazine, and had never considered building a loco shell in styrene or brass, nor in HO or N. I used the drawings to build a shell in cardboard in O scale. I got a junker Lionel FA 027 diesel for the trucks and chassis, and bought a couple Williams O tank cars and a length of Atlas O track. And there was my scene. I didn't win any prizes, but had fun and did something I'd never done before.

A project for a hobby shop window about 1990 called for a structure that was not cardboard on the outside, not cardboard on the inside, but cardboard in between. A club was building a display layout with limited space, and wanted to suggest some of the kinds of railroading seen in our hometown of Corpus Christi. Some of the transfer sheds at

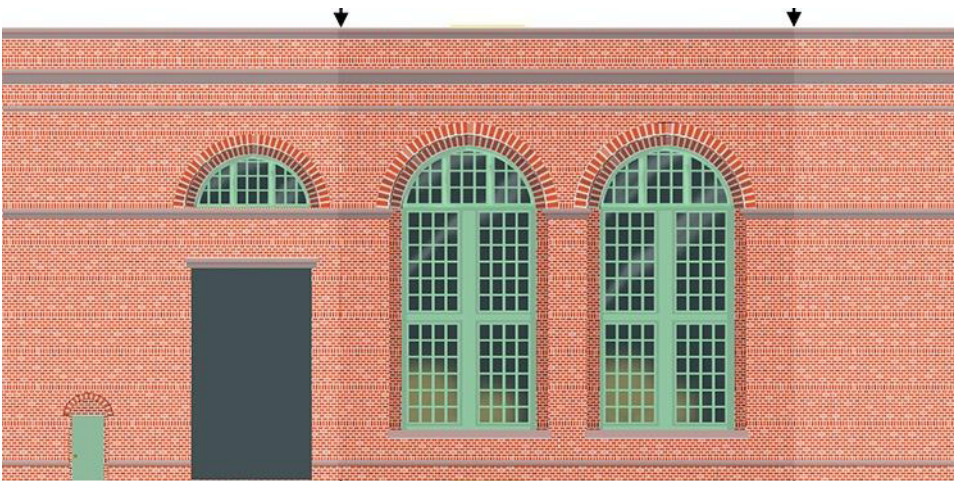




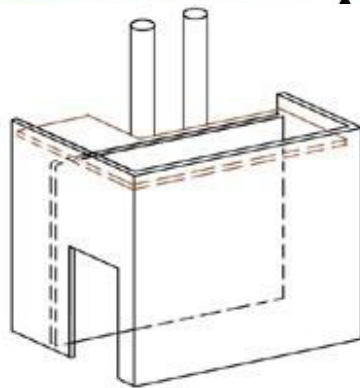
the port had been built with a curved chunk cut off a corner- actually simply built with a curved chunk left off to allow a prototype sharp curve for a switching spur. Just the thing to make an interesting model, and to allow a bigger structure than would fit on the layout if the building were rectangular. A piece of 1x10" shelving plank was cut to length, with a curve cut from one corner for the track. This formed the raised concrete slab for the shed. Interior support columns and roof trusses were laid out in stripwood and glued to the base. Then came the cardboard – walls and roof glued to the trusswork inner skeleton. Finally, Campbell's scale corrugated aluminum was GOOed over the walls, and

sandpaper roofing added to the roof. Cardboard "in-between" the inside and out.

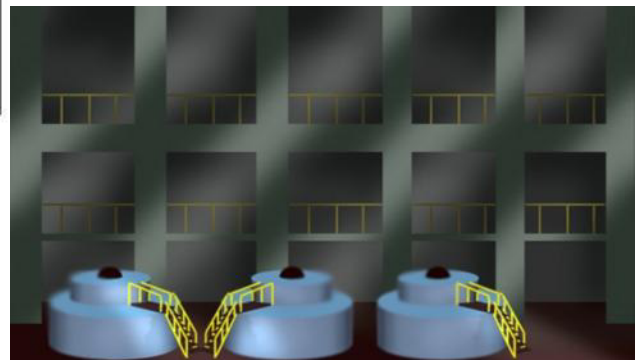
In 2002, I left a 37-year TV job, but I bought myself some computer equipment and photo editing and video editing programs to produce my own TV series. I couldn't sell the show, but the computer opened me up to creating model railroad buildings with Photoshop and printer. It was my first computer powerful enough to go on the Internet where I could share model railroad stuff like I am sharing now. But not only could I send pictures of my trains, I could create entire cardboard buildings and "SEND THEM THROUGH THE INTERNET" by emailing computer .jpg files that my recipient could print out and assemble.



For a teenager halfway across Texas who asked my help designing a layout based on his hometown in the 50s, I drew up the sides for a power plant building to be placed against the background, and a drawing with an inside view to be glued where it would be visible through an access door. I also sent a metric drawing of how to put the building together and a photo of an assembled N scale building posed with a transformer being delivered on a heavy duty flatcar.



When a cardboard building has been created and saved as a computer graphic file, it can sometimes come back in another life, or even more than one. Not reincarnation, but



rein-CARDBOARD-ation. About 2001, I was designing a layout based on Galveston, featuring a huge export grain elevator I had photographed 10 years earlier.





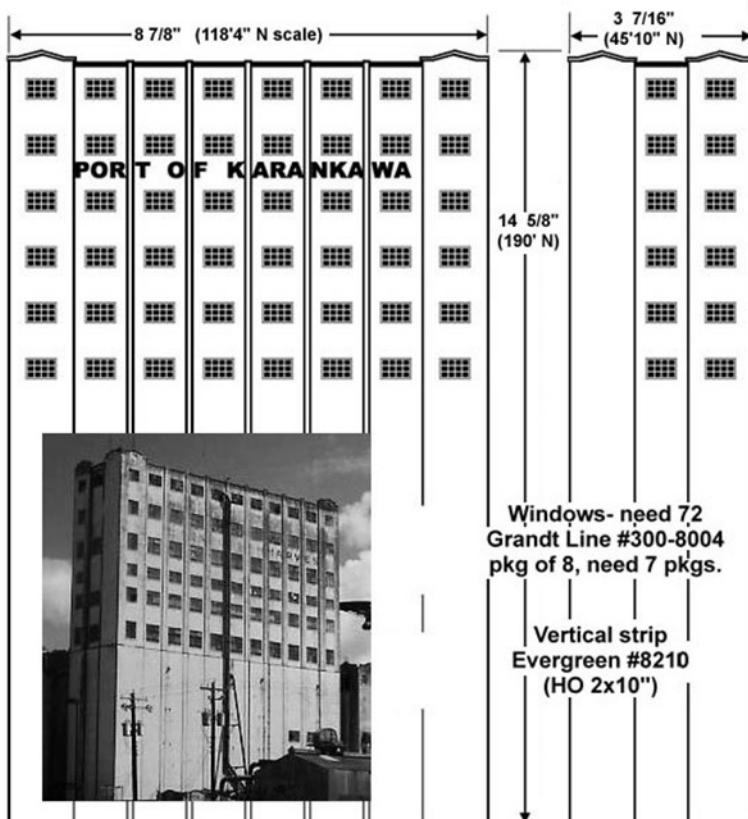
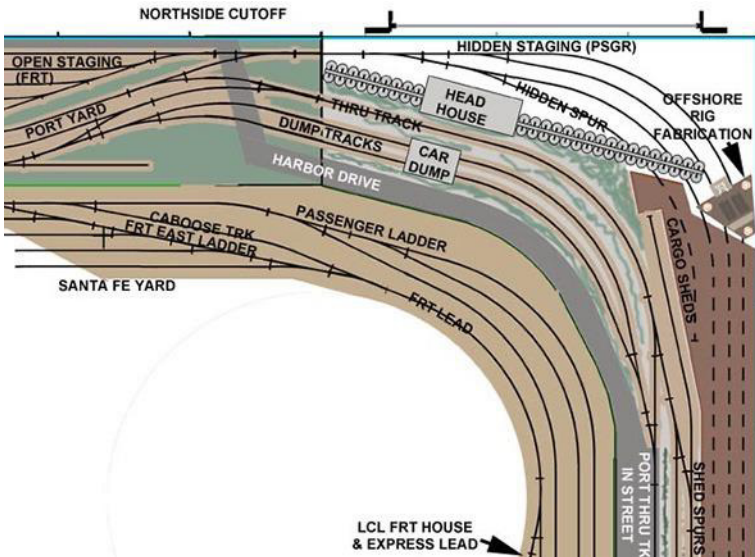
Glad I have the photo, since it was brought down with controlled explosives shortly after I started the project.

The prototype elevator had rows and rows of silos, and some tracks ran back in between rows of silos. This gave me something I could use for two layout goals: I wanted to have a way for tracks to sneak behind a background or buildings for hidden staging, and I wanted to create the impression of a huge array of silos. I came up with the scheme of making physical models of the head house and one or two rows of silos, with another row of silos as a flat printout on the background.

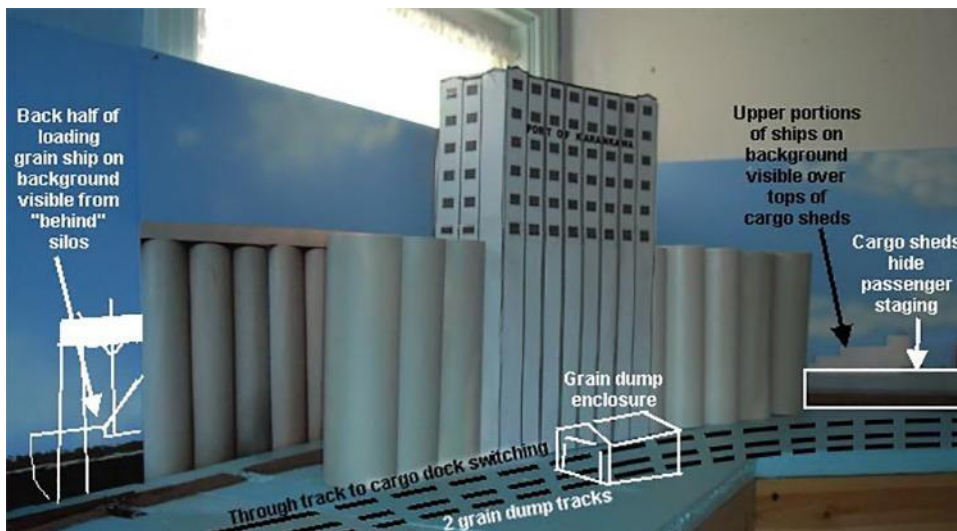
To this purpose, I worked out a scale drawing of the front of the headhouse, and drew it by hand on posterboard to make a cardboard mockup of the headhouse, with the intention of eventually building a styrene model.

I bought an 8 foot length of PVC plumbing pipe and cut it into lengths for the silos. Now here is the CARDBOARD part. I photographed 3 of the pieces cut for silos, then set them up to print at full size, and printed multiple copies to make nearly 3 feet of background silos.

The cardboard headhouse, unfinished PVC silos and silo background printed out on thin







filing-card-weight stock went up on the layout benchwork before any track. Actually the track never got laid in this corner, but it always looked like “something” with the mockup in place. A couple of tricks about the background. I needed to cover up a room window, but I needed to make the cover removable. I laid the silo background so it came out to the end of a removable piece of styrene, so the end of the removable piece looked like the end of the row of silos, not a sky background that needed to be blended in.



I wanted to give the appearance of a ship being loaded with grain on the channel side of the elevator. I had a good photo of the back half of a ship. I positioned it so the missing portion of the ship would be covered by the silos.

Part of the purpose for a mockup is to see if something works or looks right. After a while, it started to seem as if my silos were too fat. I found some smaller diameter PVC pipe for the modeled silos. The background silos were easier. I simply reduced the X-axis size of the graphic file in Photoshop, printed out new copies and glued them over the old ones. Rein-CARDBOARD-ation!

The grain elevator mockup worked fine, but the round-the-walls layout on which it was placed never came together. It needed a duckunder and was placed at 60” height which required working standing up, and when I got old, it wasn’t right for me. Or maybe it was me not right for it.

I came up with a new smaller lower-level layout with features specifically designed for advancing age. I called it the ELDERPIKE concept. The smaller layout lacked the room to model my big grain elevator, but I had a place that required no space – the background. I converted my scale drawing of the headhouse into a textured rendering in Photoshop and printed it out, along with new prints of the silo background elements. Third lifetime around for the silo prints. Rein-CARDBOARD-ation!



Back in 2014, some friends asked me to put together a tutorial in a Facebook group about how I paint clouds on sky backgrounds. I started to say cloud painting doesn’t have much to do with building cardboard structures, but it does involve cardboard. I saw a live clinic about finding color slides of slides, projecting them on a piece of cardboard and carefully cutting out the shape of the clouds. Me, I simply get a large sheet of inexpensive lightweight posterboard, 50 cents to a buck at the school supplies department of my corner store.





Actually if I have old used posterboard from old track plans, or cue cards for videos, I can use them. Instead of careful cutting, I just tear the posterboard irregularly into a shape that looks like – no, not a cloud, but the EDGE of a cloud. Not straight, but irregular.

I hold the stencil about 2 inches away from my sky background and spray with light passes. I do NOT want a hard edge shape, but a soft edge vague shape. I move the cardboard stencil around to hit different area of the cloud.

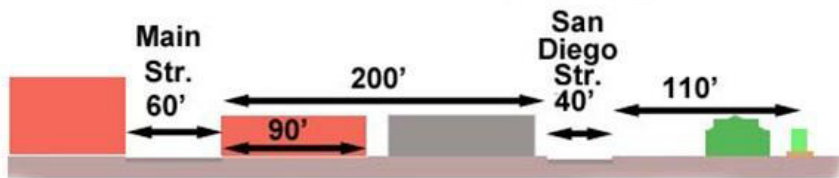
Then I turn it upside down to paint the bottom of the cloud. Sometimes a little light spray without stencil. Freehand. I don't want to fill in the middle of the cloud too much. The sky blue showing through a little just suggests shadow.

And that's about all there is to it. I did this on a 3-foot-wide sheet of styrene for a tutorial, but I have done several layouts, with 16-inch-high 8-foot-long pieces of styrene (cut from a 4x8 foot sheet) on the walls.

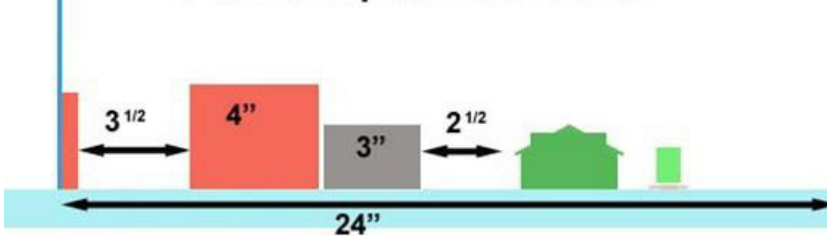
Now on to the main "cardboard" portion of this tutorial. I wanted to show the cloud background with several kinds of scenes. A couple of the South Texas group members live in Alice, where the KCS former Texas Mexican line paralleled the town's main street a block and a half away, with the railroad generally facing on the back of Main Street buildings. I thought that would be an interesting scene to model. It would involve using flat building fronts on a background for the buildings on the far side of Main Street, and whatever buildings I could find in my put-on-the-layout-someday box, for the backs of the buildings on the near side of Main Street.

I remember the kind of Main Street storefront scene I wanted to suggest but I didn't have a photo. I don't have one now to show you, but here is a postcard of a similar South Texas small town Main Street scene.

## ALICE downtown scene- prototype



## ALICE downtown- compressed for 2 foot deep N-scale scene



How do we get that kind of photograph? Obviously, I wouldn't want to shoot it all from one end, with a perspective effect where one end is much bigger than the other (unless I'm trying for some kind of special effect.)

I would shoot with the camera pointed at a right angle to the front of the wall I am shooting. If I can't get the entirety of the building I want to reproduce, I would walk up and down at the same distance from the building or wall, and shoot a series of pictures that could be spliced together, either in a computer editing program or by cutting and pasting cardstock pieces. That's for the horizontal.

The vertical is not quite so obvious. Most buildings, even one-story houses, are usually well over twice the height of most photographers. If a photographer points a camera (except one with a tilting lens and back) up toward the vertical half-way point of the building, the photo will have perspective distortion – the top part of the structure will be in a smaller proportion than the bottom, and corners that should be vertical will be slanted towards some imaginary vanishing point way over the top of the picture. There are complicated ways to avoid this – using a view camera with bellows, and movable lens and back, or using a perspective correction tool in Photoshop or similar computer photo editing programs. But (trigger warning – just my opinion) those fancy view cameras are for people more interested in cameras than in modeling. And not all modelers have even the “cheap” non-professional version of Photoshop that I use. Even with the perspective correction, I find it tricky to get just right. Better have it straight to begin with.

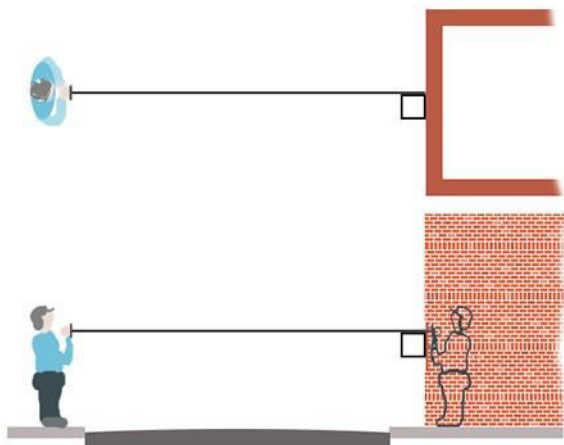
Notice that this view gives you a good idea of the kinds of storefronts, could be used as a research reference to design a model. But the oblique view would not be useful for printing out a photo to use as a paper or cardstock model. I needed photos made deliberately “flat-on” to the fronts of the buildings. Adjusting the size and scale of pictures in Photoshop, Windows Paint, or in the printer was not much of a problem.

I was in a hurry to post my tutorial and the town I wanted to “suggest” was 40 miles away and I didn't have half a day to go shoot some photos. So I cheated and found a “stand-in,” local business street in Corpus Christi I could get to and photograph in an hour. Not actually a small town main street, but one of the first suburban shopping districts outside the growing downtown area in the 1920s.

## CARDSTOCK MODELING HINT: PHOTOGRAPHY FOR FLAT WALLS

Okay, we want photographs with non-distorted views that can be mounted on cardstock as building flats for a background, or full model buildings.





The way I do that is simply to hold the camera level, so that it is at right angles up-and-down to the building or wall I am photographing, even if that does not center the height of the building centered in my photo. If I have “wasted” picture area at the bottom, don’t worry about it. I can always cut it out. Just so I am far enough back to get the desired top of the building or wall WHEN I hold the camera level. And HOW do I know I am holding the camera level, when my habit might be to tilt it to center the subject? Well I imagine there is “another me” standing over in front of the building I am photographing, with a camera pointed straight back at me. I just point my camera straight into HIS camera and I’m on the level. It is even easier if I am pointing my camera at a storefront with a plate glass window that is in the

plane of the storefront. In that case, I am the camera at my own reflection. If the reflection of my face and figure in the glass makes the picture too ugly, I can retouch it out easier than correcting perspective distortion.

Notice I didn’t say anything much about the scale of the photo. It might be possible to experiment and find out how far back you need to stand to have all your pictures always come out just the needed size. But even if I figured it out, I might not always be able to stand at that distance. When I shot my storefront, I had to stand across the street on the sidewalk. I couldn’t get closer to get a bigger picture area without standing in the street in front of traffic. And I couldn’t get farther back than the fronts of the businesses on the side where I was standing. I figured in advance I would have to adjust the size after the fact.

I usually adjust my photos in “Photoshop Elements” for backgrounds and printed buildings, but not everyone has Photoshop, so I did my demonstration in ordinary “Paint” (not “3D paint”) which has been an included mini-program in the last 2 or 3 versions of Windows I have used.



To get my photo to print out at a desired scale size, I first just print it out “as is” and measure the part of the image I want to scale.

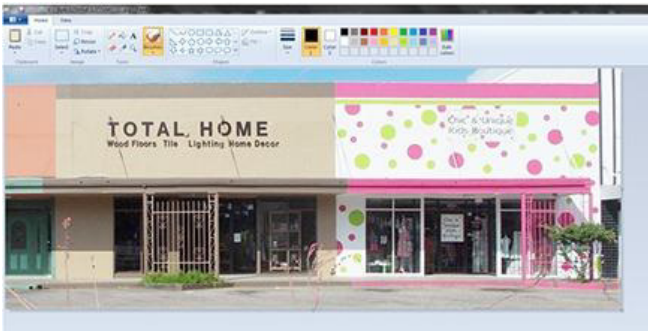
Then I figure how big I want it to be in scale. For building a building, I take the prototype dimension and divide by the scale proportion. Sorry, I did this several years ago and didn’t keep track of my numbers. Just plain arithmetic. If a storefront was 30 feet wide, I would want it 2.5 inches wide for N scale, or for O scale,

7.5 inches, For a background flat, I might want it slightly smaller to farther away in the distance. Like 95% of regular scale size. 2-3/8 inches for N scale or 7-1/8 inches for O scale.

Now how big do I want the digital image to be? I know 300 pixels/inch is recommended for good high resolution photo quality. But I don’t know you really need the highest possible resolution for a background. The focus ought to be on the foreground trains and scenery. So I compromise at 200 ppi. Your preference may differ. My 2-3/8 inches for N would be 475 pixels wide. Somebody else’s 7-1/8 inches for O would be 1425 pixels. For now, just keep the figure you want to use written down somewhere.

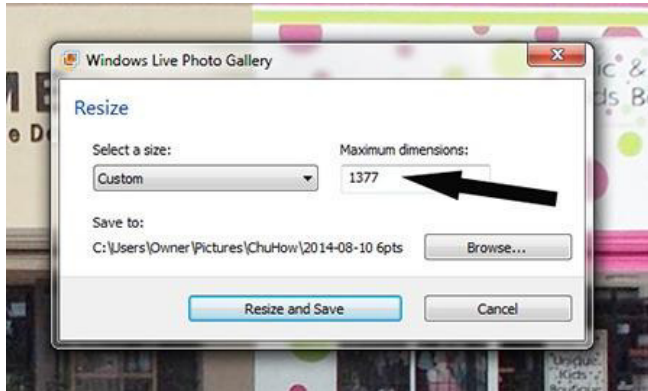
I imported my image into the Paint program, used “select” to pick out the part of the image I want to use, and then “crop”.





I go in the menu to “resize” and it shows me the pixel size of the (now cropped) digital image.

I insert my desired pixel size and print it out. Here I laid a plastic kit part next to the cardstock printout to see if the proportion was right.



I did the same for all the parts of my street scene, glued them up on a heavier piece of cardstock and set them in place against my sky background. If you are following this procedure, just to use it to print out sides for buildings, this is it. But there’s a little more if you are making a background. My street scene row has the buildings, and if you were viewing a model scene with your eyeball right at the layout ground level, this would look right. But layouts are usually viewed from at least a little over the tops of a train. Say, at least 3rd floor level. At that height, one should see something over the tops of 2 story main street buildings. Not the horizon, but something. The tops of trees, utility poles, larger buildings a ways off.



To prepare for adding those farther-back elements, I lightly pencil the top of the storefront strip for reference and positioning.







Alice, the town I am trying to suggest, has a county courthouse on the other side of Main Street from the tracks. I found a photo of the courthouse on the Internet, printed it out, cut it out and glued the dome to be slightly visible above rooftops. Then I add the tops of trees – either more computer photo printouts, or foliage patterns dabbled on with a stipple brush or even a little ground foam glued to the backdrop.



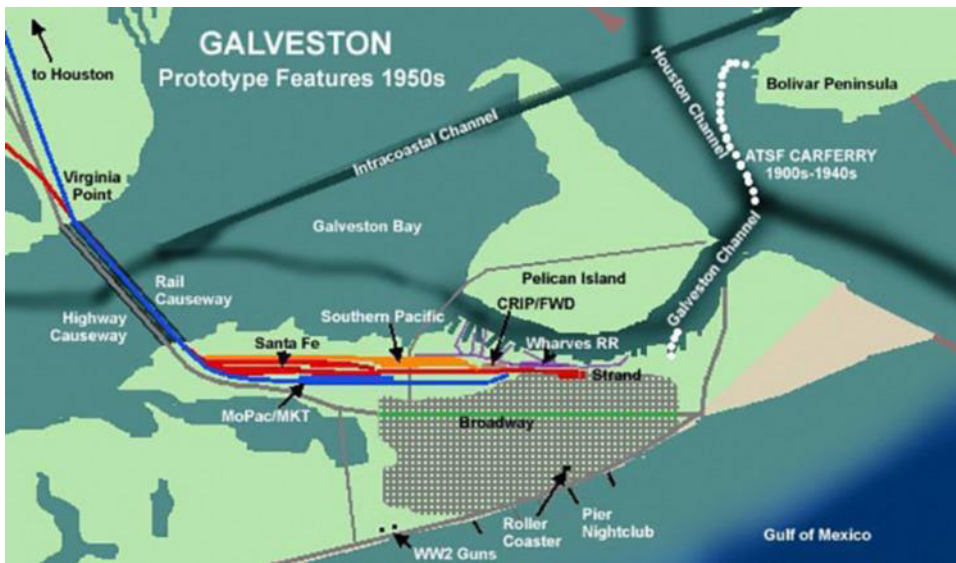
Utility poles were drawn with Sharpie marker pen. I wanted telephone and power lines hanging from the poles, and they needed to be sagging in an arc, but a more uniform curve than I could draw freehand. A French curve is good for drawing curves but the one I have does not have a long enough shallow curve. I found a paintbrush whose handle had a shallow curve and used that to draw utility lines with a drawing pencil.





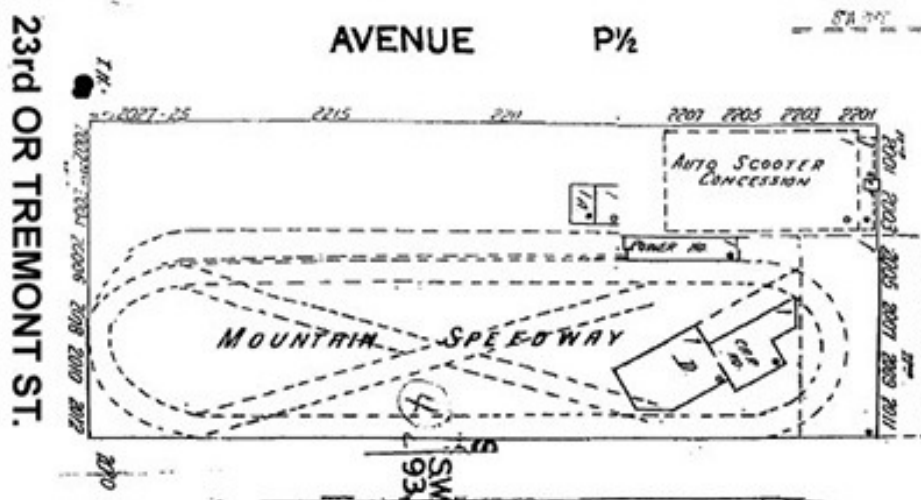


And that gave me my background. I added a few old kits and pieces and a board with a ballasted posing track. This doesn't really show Alice as is looked in 1980 because of the "stand-Ins", but it demonstrates HOW the scene could be built.



For a layout based on Galveston, I wanted to include a model of an old, rattly wooden roller coaster. The prototype existed from the 1920s, at least through the 50s, a block off the beach, but a mile from the nearest railroad. But similarly off trackside were the beach and the seawall and a notorious nightclub pier, all memorable icons of Galveston. When I was 10 years old, Dad drove by the coaster and let my brother and I look for a minute, but Mother said, oh no, too dangerous to ride. So this is a case of nostalgia for the old times I did not actually get to experience.

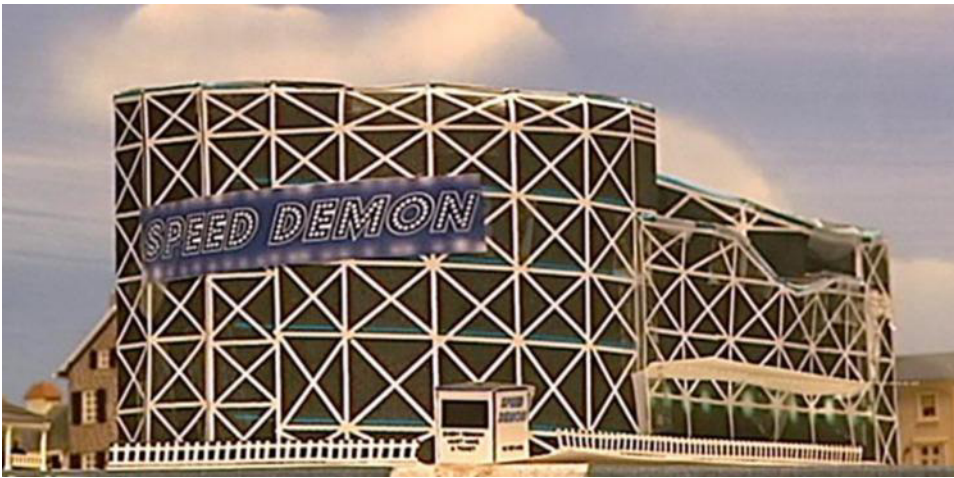
I found a corner where a condensed coaster might be squeezed in, and I found historic photos in Galveston's Rosenberg Library archives. They let me have photocopies for research, but NOT for publication or Internet posting. Sorry. I also got a small plan view from a Sanborn map.



Fitting the coaster would require shortening the length, but I could keep the general outline – oval shape with least a 180° turnback curve at each end, diagonals across between the highest end curves with drops, one over the other, spirals farther down on each end at lower level, tangents between the lower end spirals with lower ups and downs. I drew a plan view, but it was clear that the plan wasn't clear, due to 4 or 5 levels of curves right on top of each other. It would take something 3-dimensional to visualize the structure: a 3-D cardboard mockup as a step toward working out details of a stick-built model.

More 2-D planning preceded even the mockup. I drew out a straight line for the twister coaster track, like the straight-line schematic diagram of a multiple lap layout. On top of that, I drew elevations – a lot like the elevation of a railroad line, except that the horizontal down the line was a lot shorter, and the vertical ups and downs relatively higher and sharper and closer together. I started from the bottom and noted places where a track needed vertical clearance to go over or under another track. From this, I was able to draw the way the track would lie along the sides and ends of the coaster. From that, I figured how the framing would need to appear from the sides and ends, and also from the insides of the sides and ends. I used this to draw a "kit" for the cardboard cutout mockup.

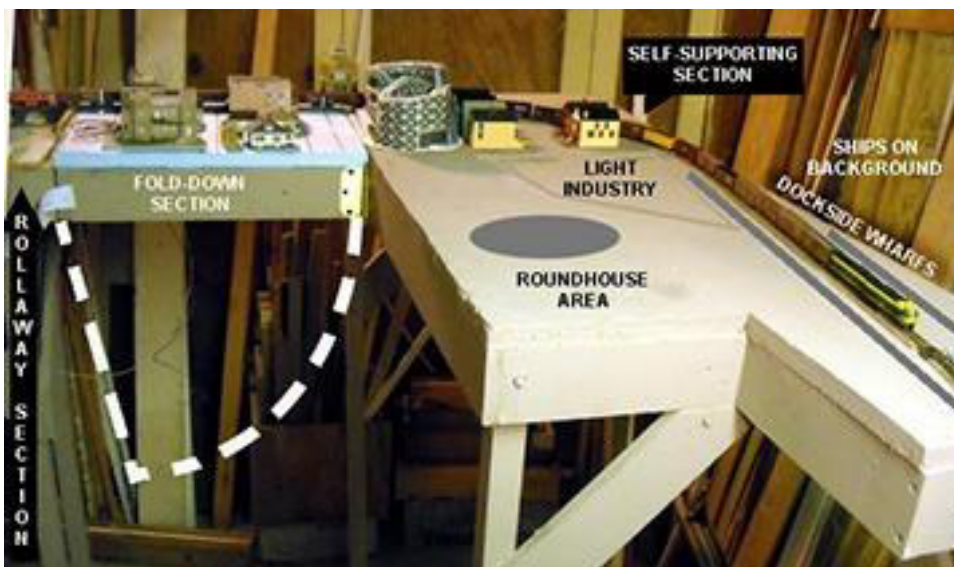




I included a sign with the name “Speed Demon”. I wanted something more exciting and daring than the actual name on the Sanborn map, “Mountain Speedway”. Wooden coasters in other parts of the country are named “Cyclone” and “Hurricane”, but no amusement device in Galveston could carry such a name hardly two decades after the city’s 1900 hurricane killed more people than any natural disaster in U S history to this date.



The mockup gave me something to look at, and to hold a place on the layout. I didn’t intend to build the finished model immediately. Backgrounds and track would come first. After I could knock together the basics of the layout, I intended to make a second cardboard mockup with individual cutouts for each “bent” (like the bents of a trestle), but with openings at appropriate places in each bent for a lower track to go through the bent, whose sides would support a higher track. I would test it in cardboard before making so 30 bents – each one different – out of little sticks.



The mockup worked just fine for years and years – as a mockup and place holder. Layout problems



came from the rickety tablework at 60” height above floor, excessive reach across parts of the layout, poor trackwork etc. After ten years without getting the layout to run, I dismantled it for a downsized, sitting-level design with Kato N Unitrack. The new layout didn’t have room for the roller coaster, but it was fun while it lasted.





I was cardboard modeling in 2009 when I was teaching history at Mathis International High School in Mathis, Texas, and teachers were asked to come up with some skill or activity for a non-credit enrichment period. I chose to share structure modeling, which would combine models with a practical use of math to compute scale dimensions.

We took a very short field trip – out of the classroom building to the vocational agriculture building, or “barn”.

I took photos and had students help measure the horizontal dimensions of the building. Guess what? It’s easier measuring a building with a tape when two or more people are doing it! A shallow gable roof covered the rectangular steel building, and a couple of metal sheds against one corner broke up the monotony. I printed my pictures on 8½ x 11 plain paper so we could easily write on it.

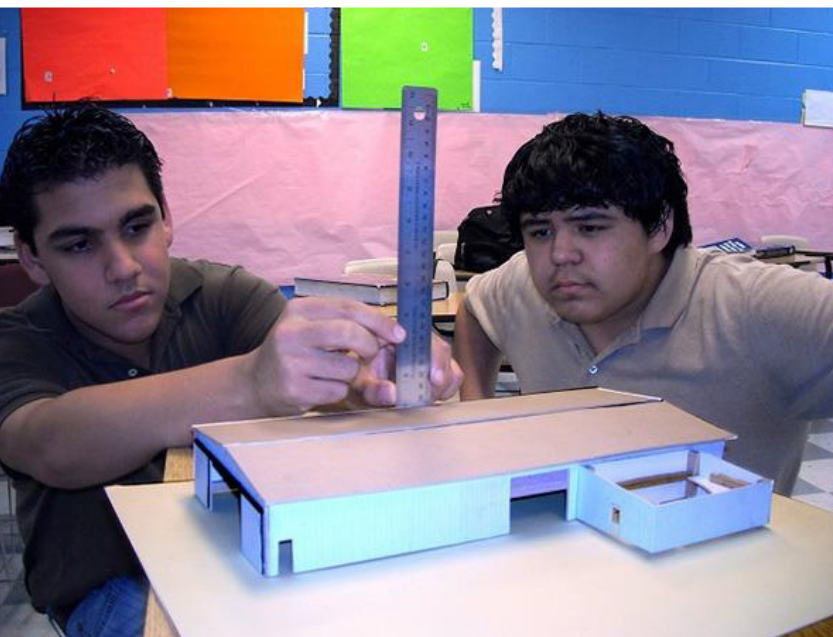


I had students transfer the horizontal dimensions to the paper, measure the lengths of the sides on the image of the barn, and figure how many inches on the photo equals how many feet in full size. Then we could figure the height of verticals without climbing on them. These dimensions went on the paper photo too.

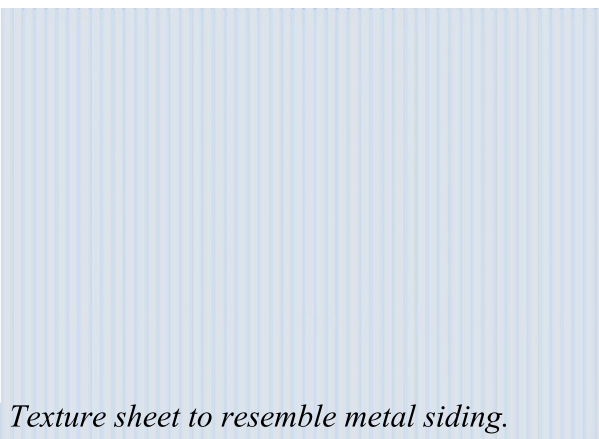


Then students made scale drawings of the sides of the buildings on poster board. None of the students had model trains. I wanted them to be able

to use materials they commonly had, so I had them work in 1 foot actual = ¼” in scale.



To cover the poster board walls, I drew up a texture sheet to resemble metal siding in Photoshop on my home computer (the school did not have Photoshop), printed it out on



*Texture sheet to resemble metal siding.*





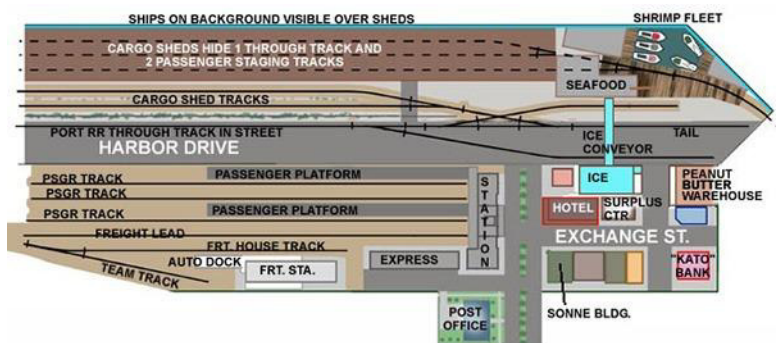
filing-card-weight stock, and brought it in for students.

A simple introduction to basic scratchbuilding in cardboard.

## USING AND RE-USING A BACKGROUND

A little digression from cardboard models, to more paper-printed elements for layout backgrounds. I wanted to create a port shipping scene, but even in my previous around-the-walls layout, I didn't have room for a ship model. The prototype however gave me a solution. Ships were visible over the tops of cargo sheds that paralleled the waterfront. Loading tracks paralleled the front of the cargo sheds on the land side. And a road paralleled the tracks, with track in the roadway in places.

This provided a way to compress space in the front-to-back depth of the layout. Ships could be represented with cutout images on the background, visible over the roofs of the sheds. Two tracks could suffice for spotting cars for loading and unloading at the sheds, and an additional track for access to the loading tracks could run in the road. At the same time, the road could provide some visual separation between the port facilities and other railroad, industrial or urban scenes.



I needed a place for a mainline from the port city yard to pass along the waterfront part of the layout without been seen, and I also needed hidden staging for passenger trains that have "left town". Those could be hidden inside the cargo sheds.

An early stage of construction on the scene included "the other side of the channel" on the background (hadn't found ships yet), 3 tracks laid for staging and hidden mainline, part of a roof to span the hidden tracks, made from the backing of a sponge mop refill, and a posterboard mockup outline for the cargo shed front, to be made from walls of a Walther's Brach's Candy Factory kit.





I still needed a ship outline to dock on the far side of cargo sheds, and to represent a vessel large enough to be a credible ocean carrier, I wanted it to look at least 400 feet long. My aim was based on at least a World War II C-1 type, considered small for the 1950s.

My image could be a little smaller for forced perspective, since is supposed to be at a little distance. I would want it to print at 2-3 feet wide. If I found an image online to use, I would want 240-300 pixels wide, if I printed at 100 pixels/inch. (300 ppi is recommended for photo quality...) And I wanted a view broadside, as if the background ship was parallel to the cargo sheds and tracks. Most of the ship images I found were angled.

(This was not a photo I considered, just one I have rights to display online since it is my own photo. Wrong era ship for a 1950s scene. Soviet ship “Red October” during 1970s Russian grain sale. But it’s an example of angle commonly available that didn’t work for my purpose.)

There were low resolution pictures of C-1 ships, and broadside drawings of C-1s but texturing it to look like a photograph – I haven’t been able to get that to work.

I was interested in banana cargo and I found a 100-year-old public domain high-resolution photo of a banana ship in Library of Congress online. Black and white, pointing the wrong direction, unwanted boat in foreground (tug?). But that would be fixed in Photoshop.



To be continued next issue... It gets even better.

Before I close I want to share an email and photos I got from a reader. It brought back so many memories for me I want to share it with you. Please meet Robbie Tonneberger.

“I saw your article and email address in the *S Scale Resource* magazine.

I am planning on computerizing my 8’ x 16’ American Flyer layout. The layout isn’t typical in that rather than having realistic scenery, I have AF operating accessories that interface with the trains and the users. For instance, I have the saw mill, log loader and unloading car, talking stations, RR crossings, water tank with spout, etc. Each of these accessories were originally designed to either have a push button module or interfaced electrically with the track.

Now let's return to Kenneth Anthony and his life in card modeling, where he was starting to eliminate a boat from his image.

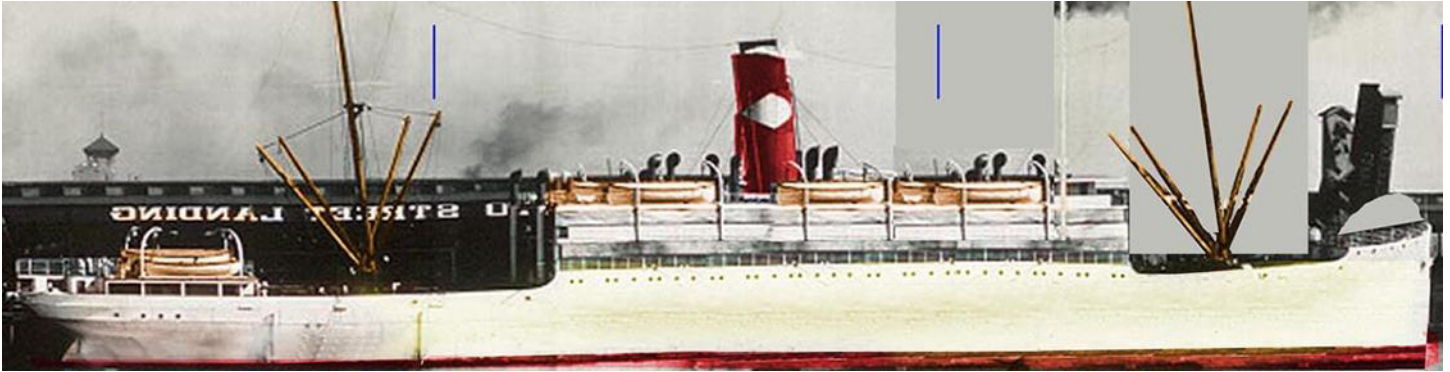


Image flipped, unobstructed portions of image copied and pasted to cover unwanted boats, different parts of vessel colorized to give them a hue but leave some of original photo texture.

The largest I can print is an 8½ x 14 inch legal sheet, so I broke image into 3 parts to print. I created this image for my old round-the-walls layout, and started out by printing in one plain paper as a test. I stuck the pieces together and put them up against the painted part of my background just with double-stick tape. I wasn't sure of the scene, and that would affect where the ship went. I planned to print it on cardstock and glue it permanently when the time came. It stayed as a taped paper for years until I dismantled the layout. However,



when I started on the new layout, I still had the computer files of the ship and printed them out on cardstock. I cut around main outline of the ship, but NOT small details like masts, lines and funnels that would have been thin slivers of card. Instead, I taped the ship lightly in place, marked where the cutout would cutoff and DREW the funnels and masts directly on the background with marking pen. I drew the lines with pencil and ruler.

The new layout had no space to model the cargo sheds and port trackage in front of the ships (which were a flat picture because, again, no room). This is a CGI rendering from a 3D mathematical model made 20 years ago of the scene I dreamed of.



But there was no room on the downsized layout. My passenger terminal tracks ran right up against the ship picture. The scene needed at least some visual separation.

If I could create the ships with a flat image, how about the cargo sheds? I had taken a few photos of the cargo sheds years ago, but they weren't right to print as background. I didn't know when I would ever get a change to go back to Galveston to photograph more. So I went to Galveston on my computer via Google Earth and chose Street View. That allows one to go up and down a street where Google Earth car drove, and pick angles from 360 degree views every 100 feet or so. This is the monumental.



I picked out other shots, up and down the row of sheds, all at right angles to the front of the facade. Now that the terminal serves cruise ships, the recent shots show nicey-nice awnings on the second floor which don't fit the work-a-day appearance of



historic 1950s photos that fit my layout era. I was able to remove the awnings by cutting and pasting in Photoshop, coming up with a 3-foot-long cargo shed background image.



One problem: the bottom of the shed images had a number of modern automobiles and trucks etc. that were close to the camera and oversize. To cover that up, I spotted railcars in front of the sheds to be loaded and unloaded. Not actual modeled railcars, but flat images again. I shot a bunch of N scale railcars flat-on and “stripped” them together to print out at about 95% N scale. They are supposed to be farther away than the passenger cars that will be right up against them!

I created the background before even building my layout table. When I laid the plywood and got my first shipment of Kato Unitrack to try out on a bare tabletop, I had something that already looked a little bit like a scene, thanks to the background.



### Cardstock Printed Background Elements

I paint my sky backdrops with “sky blue” and a lightened sky blue oil paint in a gradient so sky is light near horizon, applied to 8 foot x 16 inch pieces cut from a 4 x 8 foot sheet of styrene. I spray-paint clouds with white rattle cans, and paint horizon lines, distant water etc. by hand brush with acrylics. But I create the building portion of the backdrops images with images printed out from computer on filing-card weight cardstock. Background structures help me represent

industries and structures when I don't have room for them. Printing my own on cardstock makes them inexpensive. (Except when my printer cartridges run out of ink!)



Case in point: Back in 1980, I did a television news feature about a ship and rail movement through the Port of Corpus Christi. Iron ore destined for a smelter in northern Mexico came into Corpus Christi by ship. It was offloaded from ship by a huge bulk unloader into hoppers that had been accumulated and held on port tracks in advance of the ship's arrival.

From there, the ore was carried by rail across the tip of Texas into Mexico. I went onto an overpass to film the hoppers going by. It looks like they didn't bother to fill the hoppers. I explained in my story that iron ore is a lot heavier than coal, so the cars are carrying a full load by weight, even though they are less than half full by volume.



I thought of two applications to modeling. A model operation with open coal or ore loads is sometimes a problem, if we want to send empty cars to the loading point and loaded cars out. We can juggle removable/replaceable loads. Or we can have some cars with loads and some empties, and juggle sets of cars back and forth by some scheme, such as staging, loads in/empties out, pairs of industries etc. The case of the cars with little volume of load makes it less obvious to notice if cars are empty or loaded. We could run cars with a little ore to cover weights in a car and call it either loaded or empty, as we do boxcars. Second, a shipload of

ore makes a different, irregular and interesting operation to run. Many layouts have industries with sidings where a car or two or three is spotted for loading or unloading every other session. Common. Or there are modeled coal mines that ship a good-sized string of loaded cars every session and receive a string of empties. Or coal-fired power plants that receive strings of cars. Or layouts which model the "in-between" with loaded trains moving in one direction around a loop, and trains of empties running the opposite direction. Different from all of these, a shipload ore operation would involve routing empty cars to a port city, perhaps in dedicated solid trains, or perhaps a few cars at a time to fill in tonnage on regular scheduled manifest freights. Cars would be accumulated on whatever sidings were available at the port in advance of a scheduled ship arrival. On the ship's arrival, a switcher would move empties to ship side for transloading, and as cars were filled, transfer them to a trunkline railroad's yard. When enough loaded cars were accumulated, a solid train of loads would be made up to run outbound. In the real operation, it took three trainloads to carry the ship's cargo. It sounded like a fun operation to run on a layout two or three times a year. Someday, on the right layout.

The someday approached in the new millennium, as I started a port-theme layout in 2000. I would try to work in at least a minimal spur for ship side bulk-material loading and some kind of model of a loader. (Details to be worked out as the layout went along...) In the meantime, I was doing the layout background first, and I could put a picture of a loader on the background to set the scene, even if I was going to build a similar model later.

Walthers was making an HO model of a Hulett loader about this time, and I got a Walther's Flyer advertisement in the mail with a full-page picture of it. I thought of cutting out the ad image to glue on my background, but it was on thin slick paper. The glue and/or the image on back side of the paper might show through, or edge of the thin paper might peel up. Something printed on cardstock would work better.

**CARDBOARD/PAPER MODELING HINT:** An advertising picture of a model, even in the wrong scale, may provide an image of a type of structure, etc. not available elsewhere to use on a background, or to suggest an interior visible through a window.





I discovered that Walther's photo of its model was almost identical to a ca-1940 photo of the real Hulett from the Office of War Information collection available online from Library of Congress.

I downloaded and printed out the historic Hulett photo onto light cardstock, cut off about two inches from the bottom and added it to an EXISTING background, to make it appear the Hulett was visible in the distance over the top of warehouses. Incidentally, the warehouse images were drawn directly in Photoshop. The two boxcars at right are models. The boxcars visible end-on between the two warehouses are PHOTOS of models, digitally stripped onto one of the warehouse images.



Meanwhile, I built a fleet of hoppers to use in the shipload ore operation, concentrating on Santa Fe (my prototype road). Santa Fe had some 2-bay hoppers like the MTL composite side and offset side models (but not the rib-side ones) I thought of them as "honorary ore cars" because of their short length. The only ore cars Santa Fe had in my mid-1950s era were a design unlike anything ever mass-produced as a model in N. I also had one rib-side MTL 2-bay car and painted it like a Burlington/Colorado & Southern prototype.



I keep my cars in flat cardboard boxes that 1" wide professional broadcast videotape came in years ago. I made cardboard inserts so cars can lay flat on their sides and I can identify and grab them to set up an operation. I store cars in boxes by type: box, flat, gondola, hopper, covered hopper, etc.

I discovered a Missouri Pacific quad-bay hopper that matched a number of random-roadname old Model Power, Trix and Bachmann models I had, so I started painting a few of those to be available for an ore ship arrival.



I illustrated that project with a photo staged on a diorama, using an Internet image of a ship printed on a plain 8 ½ x 11” piece of copy paper as a background. CARDBOARD/PAPER MODELING HINT: A photo printed just on an ordinary sheet of paper can make a background for an individual car or building project to create drama, setting, and sense of place.

Well, the Island Seaport layout I started in 2000 never quite got off the ground (or actually, it was too far off the ground at 5 foot elevation above the floor). I dismantled it two years ago to build a sitting level layout. The background on two walls of the room came first, before I even built my table or snapped together my first test loop of track. Since I kept the jpg picture file of the Hulett on my computer, I could just print it out with no effort, to add to the new layout.



With just a bare test loop and a background, I already had an instant scene for my ore operation.



The Mosquito Fleet at Pier 20. Showing Fishing, Shrimp and Oyster Boats Docked at Galveston, Texas



Another paper-printed background from my failed dismantled round-the-walls layout is finding new life on the new Elderspike layout. A shrimp boat harbor has been part of my prototype city for over a century, and it provides a commodity for the railroad to ship- seafood in refrigerator cars. The part of the harbor set aside for the small fishing boats is called the Mosquito Fleet.



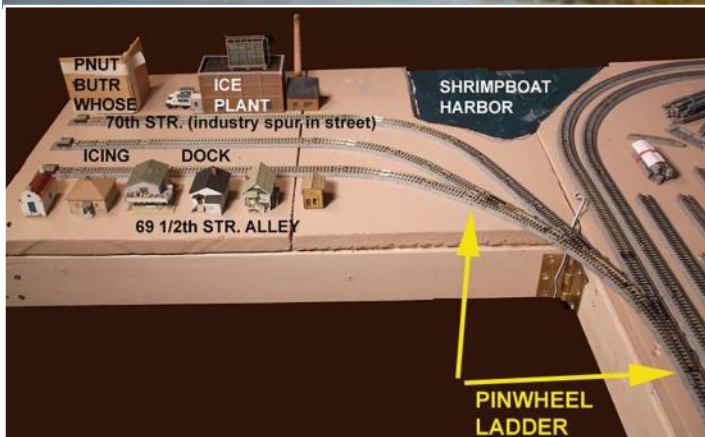


The layout had room for only a handful of small boat models, but a photo of additional boats on the background could multiply the number; IF I could find a photo with the correct perspective. I drove to shrimp boat harbors in South Texas at Aransas Pass, Rockport and Fulton.

Finally found a grouping at Fulton that looked like I could match the perspective with foreground models.

I cut out the outline of the shrimp boats to mount on an 8 foot long x 16 inch tall piece of sheet styrene mounted on one wall of my layout room. The sky is painted with oil paints, the clouds sprayed with

white spray cans, the distant shore across the channel with acrylic craft paint. The three tank across the channel are from a stock-image computer disk, printed three times at slightly different sizes. The blue building with the white roof, at right, is also from the stock disk, but the pier under it is a printout of a photo of model pier pilings. The building at left with the GHOTI sign is a printout of an image created by cutting and pasting pieces from an Internet advertisement for a seafood restaurant. The GHOTI name is a joke. It is GH as pronounced in the word "tough", O as in the word "women", and TI as in the word "motion". The metal shed at far left started as a cardboard mockup of a railroad station. When the finished station model was built, the mockup became surplus, and was covered with scale corrugated aluminum to make the shed. Unbuilt boat models sit in the "water" to mockup the scene.



When the round-the-walls layout was dismantled, the styrene backgrounds came down off the wall. The new layout is up against the wall on only two insides, and I did not have a place for the shrimp boat harbor on that side. However, I can use a 2-foot section of the background on a side of the new layout mostly open for access.

So much for backgrounds. Next time, we get back to building cardboard buildings.





For over 20 years, I have wanted to model a station like the Santa Fe station and GCSF headquarters at Galveston (shown here while it was being converted to railroad museum).

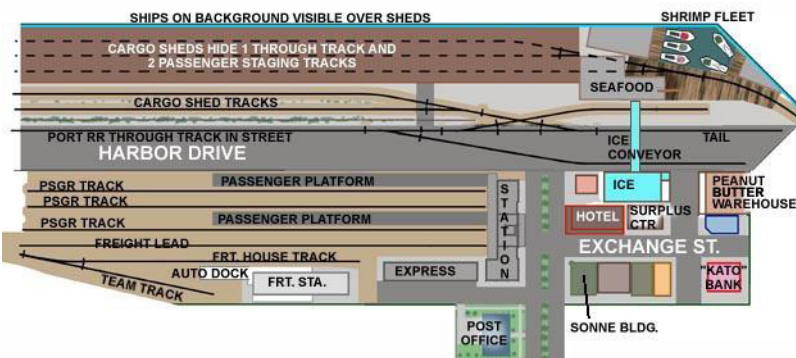
While planning a layout, I built a 3D computer model to visualize the scene.



I planned a round-the-walls layout that would have had 3 layers of depth... station tracks, baggage and freight station in front, a street to divide the station from port cargo buildings, with track in the street, and then hidden staging inside the port buildings. It would have been three feet or more deep in N, and hard to reach back into.

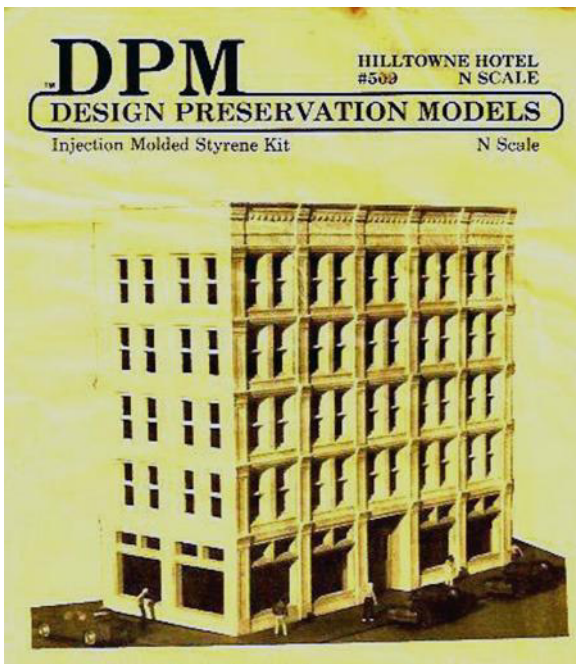
I was planning to build a station building from three DPM Hilltown Hotel kits. I bought one unbuilt, and bought a kitbash someone had done with 2 kits.

It was not the same windows or stonework as the prototype station, but Hilltown would give the impression of a mid-rise office building of 1930-1950 era. (April 2018 photo)

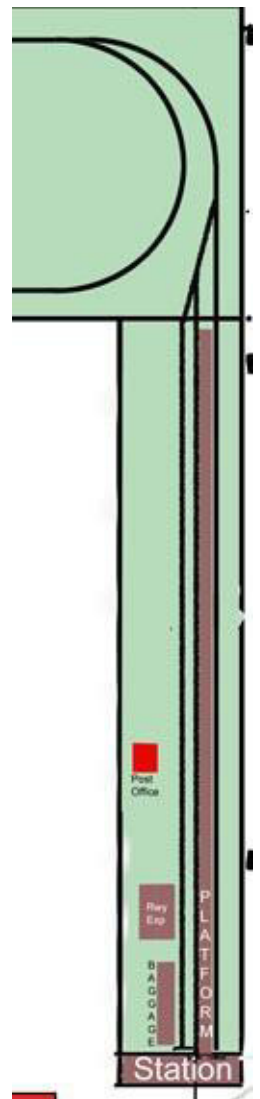


I never got the planned round-the walls-layout going, but I included much of the original planned station area in a new downsized hopefully-more-practical layout. However, it would be on an arm off the main table, only 14 inches

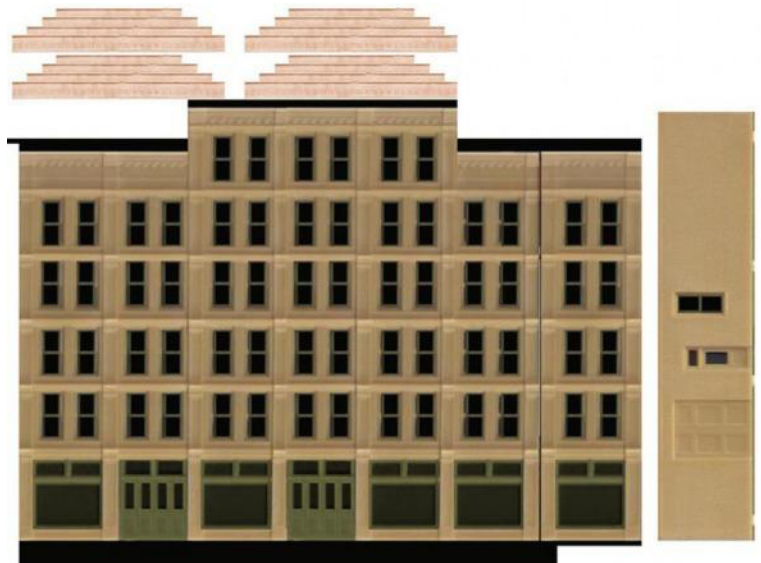
deep. The station building would be a shallow almost flat facade at the end of passenger train tracks. Here's where the cardboard model came in. I wanted to check the fit of a building, its appearance and how it could be bashed from Hilltown parts. To that end, I scanned parts from a Hilltown kit.



In Photoshop, I colorized, cut and pasted images from the kit into printable sides of the building. This sheet held the track side, and a side way, all to appear in a portico.







This sheet would fold to make a 1-bay deep right ends extension to track-end facade, with open portico and 2-bay wide end. I also made a scan of a Bar Mills rooftop Santa Fe sign.

I built a simple cardboard on which to glue the Photoshop printouts. The station building is 11 inches wide, 2 inches deep on end, 6 inches high to the top of the sign. I used 4 pieces cut from used insulin syringe plungers to support the rooftop sign. The cardboard mockup proved that the concept fit the track plan. I snapped track into place and wired it. I haven't glued it down yet, and I plan a finished model to replace the mockup someday. But for the time being, I can operate passenger trains and have a nice looking, though temporary, scene.

The station mockup provides a focal point down the track.

Some years ago, I made up a jpg file with photos of the station's baggage/express building, and a plan for how it could be kitbashed from DPM modular walls. Now with the layout underway, I built a cardboard shell for the baggage building, printed out my wall images and created an instant mockup.

I wanted a "downtown main post office" for my Island Seaport layout to place near the passenger

station to connect with Railway Post Office cars in passenger trains. It didn't need to be directly on a rail spur. The main post office in my prototype city was 2 blocks away, and my layout didn't have room for a dedicated mail car track, but I had a spot close enough for mail cart access. I chose a prototype, not in my prototype city but in Corpus Christi, where I have lived over 50 years. The building was a post office in the 1930s where a notorious double murder took place. The Postmaster and Assistant Postmaster killed each other. It became a federal courthouse where I was grilled on the witness stand in the 1970s, so it had meaning for me. In addition, there is a commercial model in N and HO that resembles it.



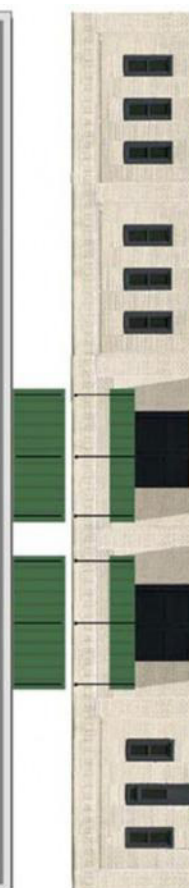


### Karankawa Passenger Terminal Baggage /Express Annex

Using DPM modular dock-level  
wall sections with bottom (dock)  
removed



prototype photo 1997  
Center for Transportation  
& Commerce  
(Railroad Museum)  
Galveston, Texas



The Model Power “St. Mary’s Hospital” kit has three stories like the prototype. It’s 5-bay width resembles the central 5 bays of the prototype. Circular arch doors and window openings on the ground floor and rectangular windows on the top two floors. The kit has decorative moldings for the top 2 floors which are applied as separate pieces, so they can easily be applied only on the second floor as per the real building. It has a molded Spanish tile hip roof. The kit makes this one easy.



I built a cardboard mockup to test the place and act as a placeholder while I concentrate on other parts of the layout. To make the mockup, I scanned the kit parts on their separate sprues, colorized different parts in Photoshop and cut out and pasted down windows images, doors and molding as I intend to kitbash. The cardboard mockup works so well, I’m in no hurry to redo it.





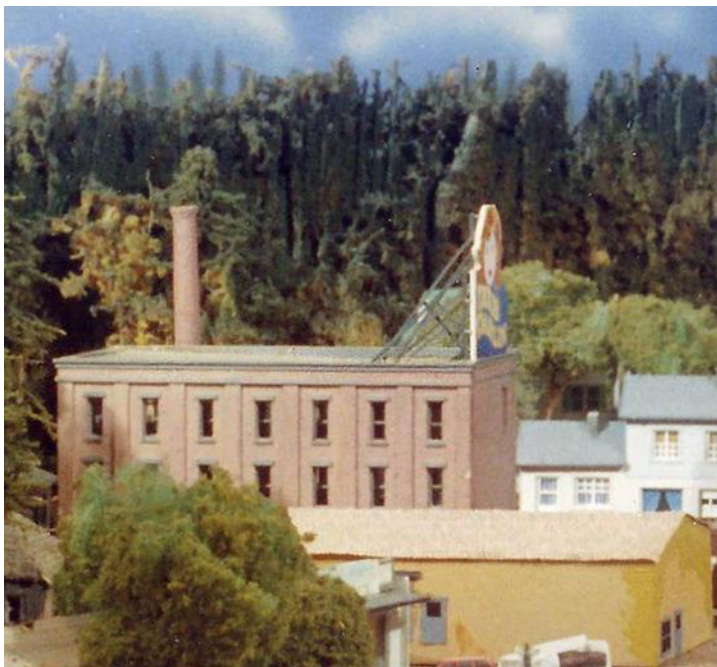
## Peanut Butter And Cardboard Sandwich



Early this millennium, I discovered an interesting doubly-historical building in Galveston and wanted to model it someday. It was an antique store in a building called the Old Peanut Butter Warehouse. The first time I visited, I just enjoyed shopping. I took pictures on another visit.



Moreover, the Peanut Butter Warehouse has rail loading doors where there used to be a spur reached by street running. Great modeling and operation opportunity. Note that this 2007 photo shows a fourth story, added in recent years to provide residential condominium units with views of historic district and waterfront.

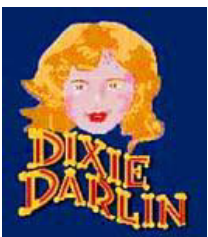


I was especially interested in the peanut butter connection. I modeled a peanut butter plant on my old East Texas layout. It shipped peanut butter to various distribution points around Texas, including Karankawa, my version of Galveston. If I modeled the Old Peanut Butter Warehouse, it would give me a nostalgic traffic connection to the old layout.



Modeling allows me to take the building back to a time in the past when it was a working warehouse with rail service. I found an historic photo with a boxcar spotted at a door, no fourth floor condos, and a truck that suggests 1920s.

If I want to build it from a kit, I could use DPM's Goodnight Mattress Company to provide a three-story trackside wall with two rail loading doors. The doors aren't spaced the same, but they could give the impression of the prototype, if not a match.



**PAPER MODELING HINT:** I made a "huge" sign for the roof of the peanut butter plant with the face of the Dixie Darlin' girl (based on a photo of a friend's child). Since I saved the computer file of that graphic, I can easily print in out for an advertising billboard on my new layout or for sides of delivery trucks which could be parked at the warehouse.

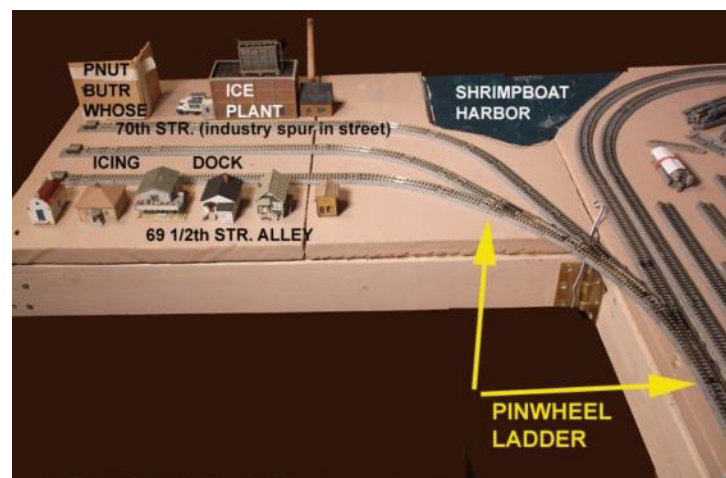




I also want two large loading doors that face a raised platform on the front street side of the building. For that, I bought a second DPM Goodnight kit.



I scanned the loading-door side of the kit into computer. Photoshop allowed a “virtual kitbash” by repeating an extra copy of the loading-door side, cutting out a strip just above the loading doors and moving them to the height of the street-side platform, colorizing and adding signs, including one for Dixie Darlin’ Peanut Butter.



When I started putting together my new layout, I printed out the “virtual kitbash” and taped the two sides to a surplus box to mock up the scene.



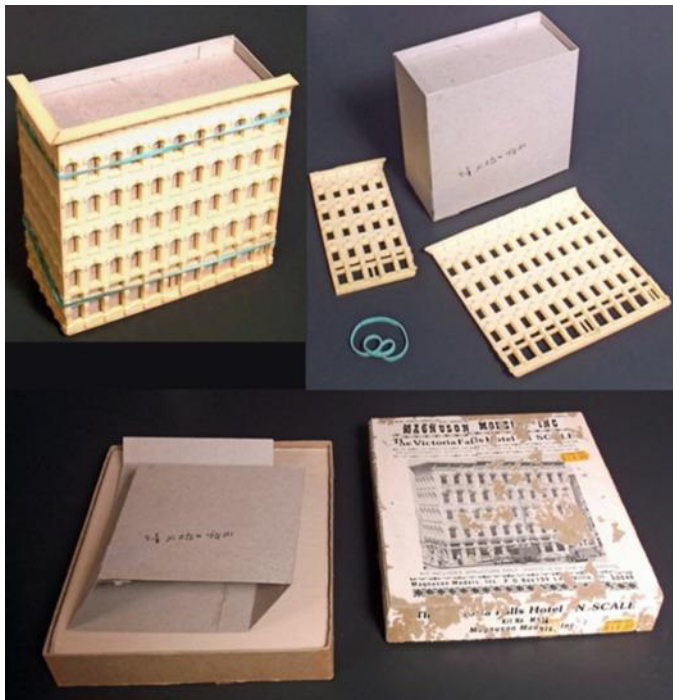
I liked it enough to build a custom cardboard box with a depressed roof for a slightly more finished mockup, with canopy and loading dock added on the front street side.

### George Washington Slept In A Cardboard Hotel

This is out of the chronological order of structures I have planned, mocked up and built, but it relates to the Old Peanut Butter Warehouse, so I’ll tell this story here.



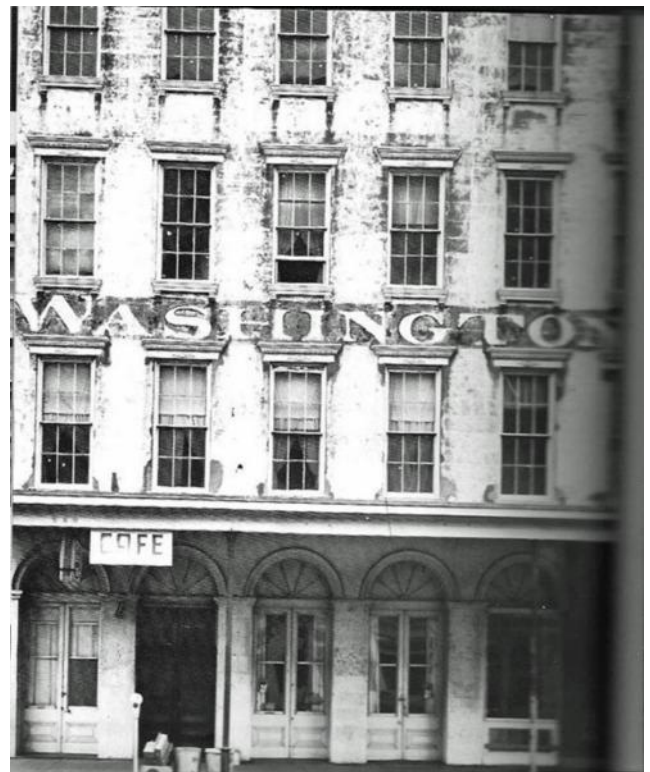
I bought two of the DPM Goodnight Mattress Factory kits to have two loading-door walls for Peanut Butter Warehouse. That leaves a lot of spare parts, which go to another project. But first a digression.



I wanted a hotel for my old declining downtown district near the railroad station, and I have had an old Magnuson N scale Victoria Falls Hotel kit unbuilt since the 1970s. I made a cardboard box where I could tape the unassembled sides of the kit as a mockup.



Later I scanned the kit parts, and colorized the brickwork, stonework, doors and windows as seemed appropriate, printed out and glued the cardstock sides to my cardboard core box. Many of the buildings in my prototype street scene had awnings over the sidewalk, so I added cardboard awnings and sidewalks to the mockup. It didn't look like any specific real hotel building on the scene, but it represented a nice generic addition to what had become "Cardboard City". It stood for quite some time on my layout, filling out the space nicely.



Then I made the "mistake" of delving more closely into the prototype scene in books, web research and an on-the-ground trip to my prototype area in Galveston. A 1965 photo by Ezra Stroller for the book *The Galveston that Was* (p.44) fascinated me as it captured the fading Washington Hotel. An interior view suggested it had become more of a cheap rooming house than an accommodation for travelers.



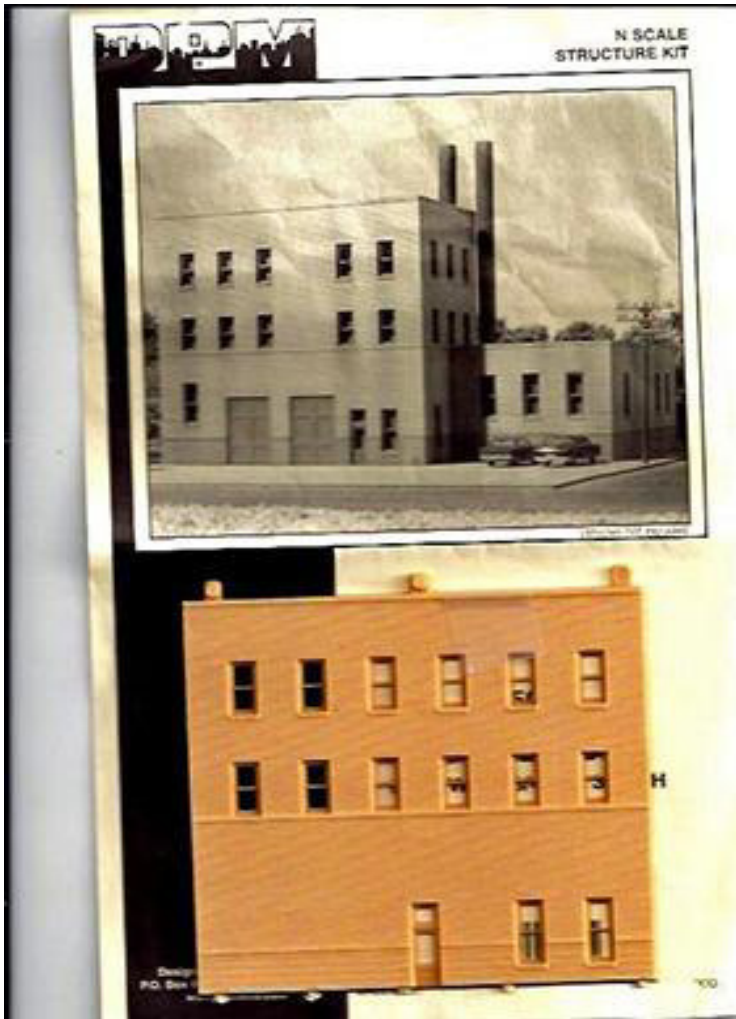
The Galveston Architectural Guidebook gives 1871 as the construction date. A photo taken about 1970 for the Historic American Building Record in Library of Congress Online provides an overall view, probably much as it appears in the 1950s period of my layout.





I could not find the hotel on an April 2018 research trip, but I found it had been rebuilt around the shell of the original building in 1987 as condominium apartments and renamed “The Washington.” My camera caught in on a May follow-up trip.

The model is only three stories tall to the prototype’s four stories. And the model’s front walls are only 6 building bays wide instead of the prototype’s 8 bays. However, the model has regularly-spaced rectangular windows, that make the top two floors a reasonable condensed version of the real building, ca. 1950s-70s. The kit parts even have casting sprues on the top that (accidentally?) resemble vertical protrusions, possibly chimneys, that rise above the roof line in period photos. I haven’t found kit parts for the ground floor arch doors and windows, that should be uniformly spaced and line up with the windows above. For a mockup, I scanned the kit walls and “decorated” them with signage for the upper 2 floors and drew a ground floor in Photoshop to print out.



What this has to do with the Old Peanut Warehouse and the DPM Goodnight Mattress Factory: I have leftover parts from 2 kits with the non-loading-door walls of Goodnight Mattress.

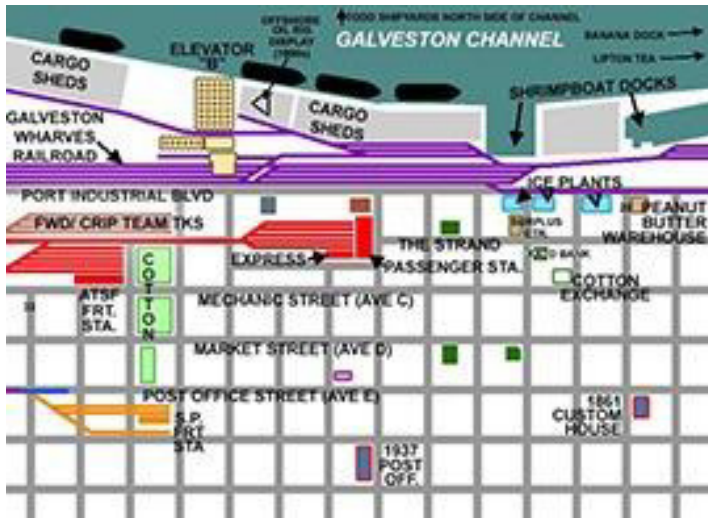


Maybe when the finished model is made, it might be a hybrid of kit parts and cardboard parts, either printed flat or built up in layers. Here’s part of the ground floor in 2018.



## Cardboard City

I used cardboard mockup buildings as an important tool in designing a city scene for my layout. I want to model a scene like The Strand, an unusual district in Galveston, Texas. I say “like” the Strand. I call the street “Exchange Street” and the city “Karankawa” after the native group that once inhabited the area. That gives me some excuse for structures that are not necessarily scale models of specific buildings, nor located exactly like the prototype. I do try to “base” everything on something real.

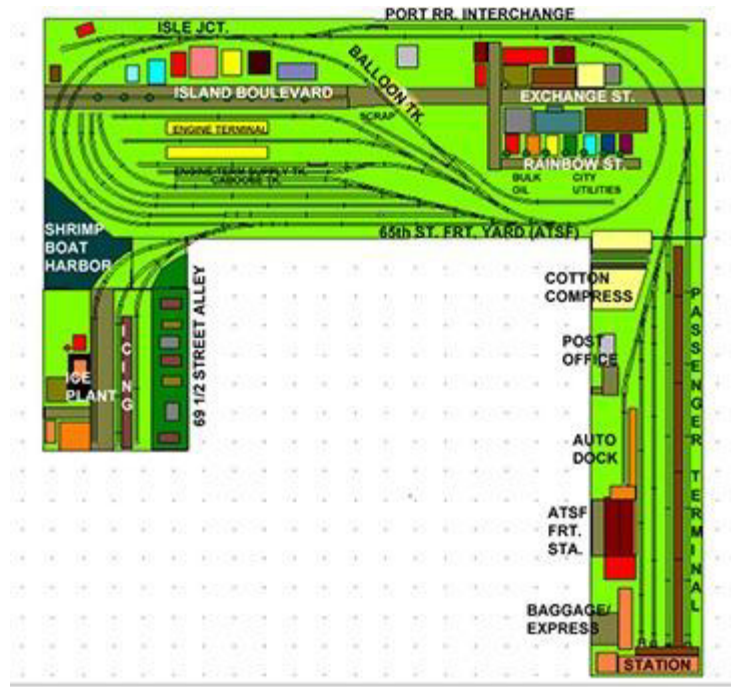


The Strand begins where the rail passenger terminal ends, and both the street and the tracks into the station are backed up by views of the harbor.

Trying to squeeze a long list of “wants” on a downsized 2 ½ foot x 7 table in N scale, I had to put my elements where they would fit, with track location as a top priority. The passenger terminal is on a lead that comes off the oval loop at the top right of the plan, near the back of the layout. If I had spliced the switch for the passenger lead in the middle of my right-end turnback curve, it would have made the curve too wide to fit the 2 ½ foot deep table without using sharper curves which would have restricted long cars. Visual access to that switch plays a role in arranging the Exchange Street structures.

The Exchange Street scenes sits at the right end of the layout to make it visually close to the passenger terminal, and sits toward the back half of the layout to leave the front right end available for some minor industry switching.

I consider The Strand district especially interesting for modeling. It was the financial center of Texas in the



1870s, 80s and 90s, with major banks, exchanges, and high-rent retailers. But the nation’s deadliest natural disaster, the 1900 hurricane, devastated the city and its economy. Galvestonians rebuilt much, but it never came back as it had been, and Houston overtook it. Most buildings were not replaced with newer structures in the 1920s, 30s, 40s, and the result was an entire Victorian big-city business district frozen in time. The street is now spiffed up since the historical preservation and heritage tourist promotion of the latter 20th century.



However, in the 1950s railroad transition period of my layout, the area was in a state of decline. Once-grand edifices stand, but occupied by warehouse storage, industrial services, port-related suppliers – or not occupied at all but vacant. (And this is the scene I want to model.)





*Ca 1960s, Historic American Building Record, Library of Congress)*

I mocked up the street with a combination of cardboard mockups, some with window, door and wall textures glued on one or two sides, some plain boxes, and an old structure or two from a dismantled layout thrown in. I included some 4 and 5 story structures to give the feel of the one time big Victorian business district. However, I needed to work in a building or two no higher than two stories to allow me to see the clearance point for the passenger lead entry turnout (white arrow below). I need to be able to see that trains backing into the terminal have cleared the turnout switch before throwing it.

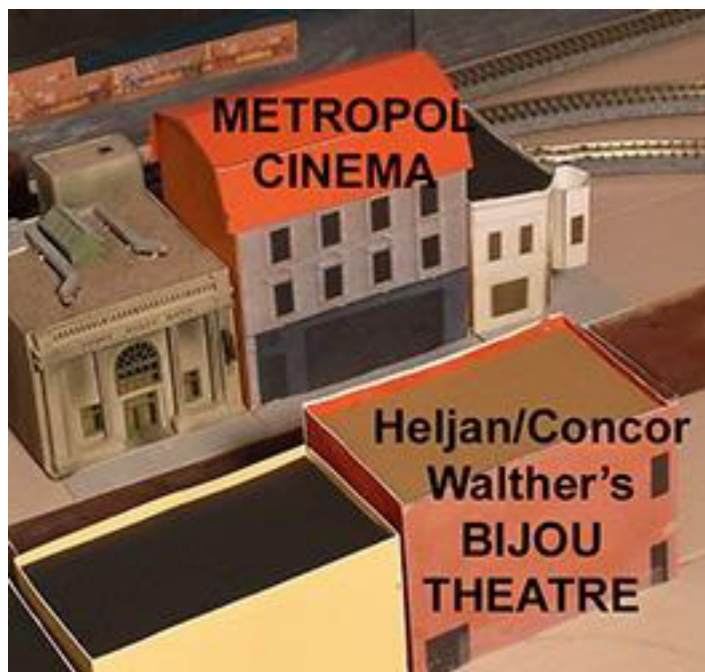


The mockup shows me that rolling stock will barely be visible at the clearance point WHEN I stand

up from the operating position. Standing up is not always easy for me. I may want to try a one-story structure for better visibility before making a final structure arrangement.

A couple other notes on city planning. Many modelers feature downtown scenes with only one side of the street, the far side, to allow a better view of storefronts facing the observer. That can be justified scenically by having the front street on top of a bluff or embankment, or by having the front business street face a railroad line. I wanted a downtown with buildings on BOTH sides of the street, just because it feels right.

The buildings on near side of the street, with backs toward the viewer, seem somewhat shallow. I deliberately made them shallow to attempt to squeeze in a one-sided residential street scene on the near side of the business street, and then some light industry on a spur in front of that. The mockup suggests this is too shallow and crowded. It might be worthwhile to re-do the this-side-of-the-street businesses to give them more depth. And with cardboard mockups, it would not be much work.



My Cardboard City wound up with cardboard mockup modifications of two kits marketed as movie theaters, both to be adapted into something else, and changed in size. I bought a Pola European "Metropol" Old-town cinema kit (#N-341) because its shallow-sloping dormer-windowed ROOF and the kit's elaborately-framed windows somewhat resemble a real



1870 building on The Strand. I didn't bother adding cardboard dormer windows to the mockup, just made a quick representation of the size and shape and omitting the movie-house marquee. The real building is four stories, the Pola kit would be five as to-be-built, and it was easy to change the cardboard version to four stories. (I have since built the plastic kit with the modifications.)

I had an old leftover salvaged Bijou Theatre plastic kit which has been marketed at various times from Heljan, Concor and Walthers. I built it once before for my East Texas Piney Woods layout, and was wondering what to do with it. I didn't think a small town or neighborhood style movie house would fit with my scene. The only movie house operating in the real Strand district in the 1950s was the 1894 Grand Opera House. That would overpower everything else. Since I had the Heljan/Concor/Walthers kit, what could I do with it? I could make it into some kind of a storefront building by leaving off the marquee and converting the theater entrance into a storefront. And I built a cardboard mockup, cutting the depth of the building in half to fit with other "half-depth" buildings on that side of the street. Since I haven't done anything with the actual plastic, it will be easy to try other cardboard variations of the build,

Also in the same picture, on the right end of the far side of the street is a cardboard mockup of the Heljan/Concor Two Brothers corner restaurant.

A street corner in the Cardboard City. Four and five story buildings at the corner give a bit of big city feel. I wanted to locate the cross-street far enough from the right end of the block to look like a decent block's length of businesses. I'm hoping I can build a convincing grade crossing over the tracks. This gives a good view of the track, but it is not where I needed visual access for the yard lead switch clearance. I would not want a cross street there, where I would need to suggest some street crossing over a turnout. Not impossible, but a hassle.

The mockup buildings prove the concept, even though I plan to use different designs in their places. The mockup at right is based on an 1970s Magnuson Victoria Falls Hotel kit, built as a generic hotel with a sunbelt-style awning over the sidewalk. Since making this mockup, I have found a specific real building I can approximate with this kit. Similarly, I have found a real HOTEL I can model for the left corner, in the same footprint.



Meanwhile, I found a one-story building to use where I need the view of the back-track clearance point. One story businesses are almost non-existent on The Strand. What is now the Roof Garden event venue was a three story store and office building before the Great 1900 Hurricane took off the top two floors. For 50 years, through my 1950 layout period, it was a neon sign shop, which made the oldest existing neon Coca-Cola sign in Texas.



I could be designing and redesigning my layout over and over again "on paper", but doing it in cardboard helps me see it better, and gives me a scene to look at while I build.

### **The Cliff of Doom and Independence Haul**

I knew I shouldn't have done it. I knew I shouldn't have. But I did it anyway. I put one of my passenger station tracks right up against the back of the layout, one inch from the edge. This is my longest station track, stub-ended, and my longest passenger train has to BACK into this track. My entire layout is on rollers for access and the table is not attached to the background, which is mounted on the room walls.

I push the table close to the background and wall but often a small gap remains, hardly visible, but

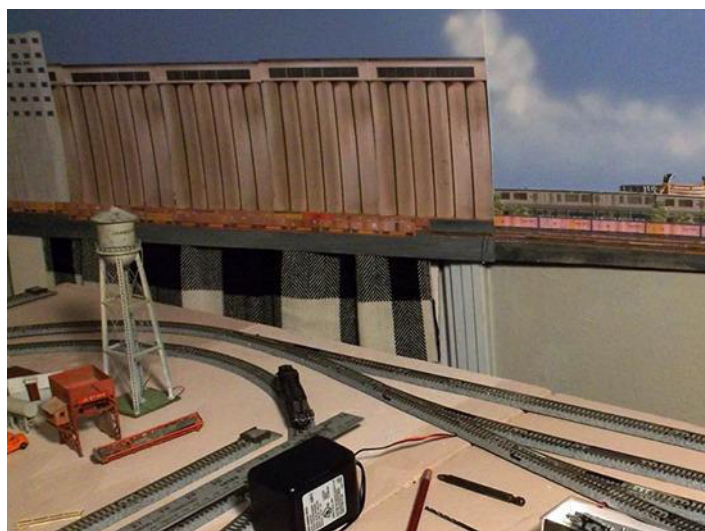


susceptible to allowing a car or loco to fall off the back of the layout. Sure enough, in early test operations, a car derailed and fell off the CLIFF OF DOOM and broke a coupler.

This photo shows how the table can roll away from the background and wall.



I didn't want to move the track. My space was critical. I decided to build a "TRAIN CATCHING FENCE". Disguised to look like a long linear building, a flat just a couple inches tall, fastened to the back of the table.



Part of my solution was a commercial cardboard cutout model I have had sitting around some 40 years, a commemorative kit sold during the 1976 Bicentennial to make a replica of Philadelphia's Independence Hall. I bought it, NOT to build Independence Hall, but as possible kitbashing stock to modify into less identifiable structures.

The box described the scale as 1":12 feet which would be 1/144 proportion, slightly large for N scale, but small for HO. However, the doors and windows of



central, most-recognizable portion of the building made it look large for N scale, while the annex buildings on the end looked small. (However, this is correct according to scale drawings I looked up from the National Park Service. Monumental buildings are often built with very large doors and windows.) I used parts of the walls for the large-proportioned central hall some 30 years ago as part of the background for an O scale San Francisco cable car steep-street diorama for a streetcar-fan friend. I kept the rest of the kit, and the side annex walls measured 2 inches tall, about right for a 2-story brick commercial building at 26 N-scale feet.

Those annex buildings looked more like an old office or commercial building than what one would usually find in a mid-20th century port or industrial area. However, I found a justification. Back in 2012, I took a ride at a train show on a caboose pushed and pulled by a switcher from the Galveston station/museum through the port area. On that ride, I snapped a photo of an interesting structure hardly a boxcar's length from the track, an old brick building that looked more like a small office building than a warehouse. It didn't exactly resemble the structure I could build from the Bicentennial kit, but it had the same feeling of a not-so-industrial building. AND it





was actually located between the passenger lead and the port transfer sheds, the same place I needed to place my train-catching fence.

NOTE: I looked on Google Earth street view and discovered this interesting old building is now a vacant lot. So glad I got to at least a grab shot while it was still there!

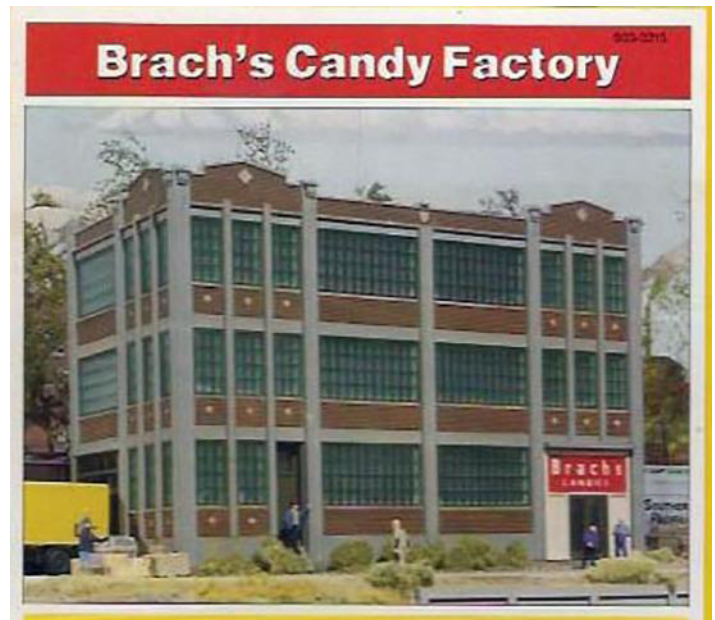
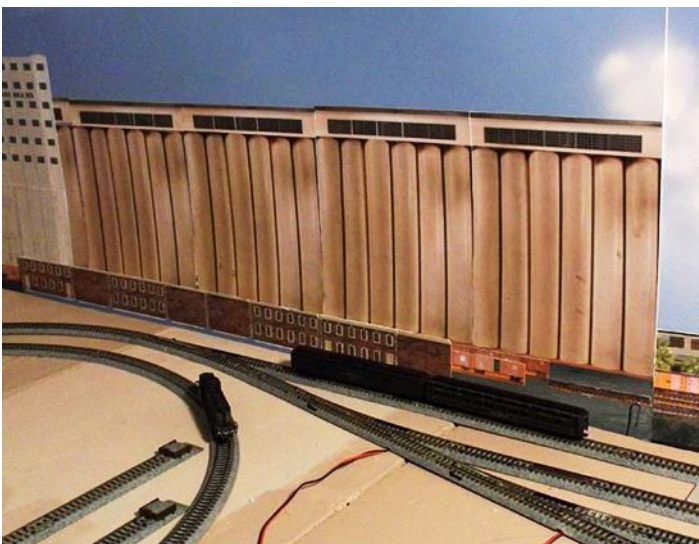
I cut out the side and end walls of the annex action to assemble together side-by-side. This is the basic old kitbash technique of “unfolding” the walls that a manufacturer intended to make a four-sided structure, in order to make one long “flat”. In this case, there was no need to unfold because the walls had never been folded up in the first place. They made a 24 inch long flat which I affixed with Walther's GOO™ to a five-inch tall strip of styrene left over from making backgrounds. Since the building image was 2 inches tall, this left 3 inches “underground” to attach to the back side of the table.

With the layout table rolled back into place, the train-catching-fence didn't attract much visual attention to itself, but it was ready to catch misguided trains.

### Candy and Cardboard

I used Walther's Brach's Candy Factory plastic kit to help build my train-catching wall, and I used cardboard to help with the plastic kit. I bought the kit some 35 years ago, to accumulate structures for a giant dream (nightmare?) layout I might build in a train palace house if I ever win the lottery

I bought the candy factory to suggest the older part of the Maxwell House coffee plant that overlooks the ex-Houston Belt Milby Street enginehouse. The older section of the plant had been an automobile assembly plant. I envisioned shipping raw coffee beans by rail from a port city to the coffee plant, and shipping processed coffee to grocery wholesalers in several directions.





As the lottery win and the giant model train palace ideas became less likely, I considered “sacrificing” the candy factory kit to a lesser project – a row of harbor side transshipping sheds that would hide staging tracks. Before going into my saved kit with razor saw and glue tube, I measured the kit walls and laid out their dimensions on poster board to build a temporary mockup. I converted an unused replaceable mop head my wife didn’t want, to become a roof over three backstage tracks. It looked like the idea would work in general, but my study of the kit walls while laying them out in cardboard showed me some problems. The kit had some loading doors, but on a transshipment shed that needs to handle a large number of railcars, the loading doors should probably be located pretty uniformly, one car length apart. I couldn’t see any way to do that with the kit.

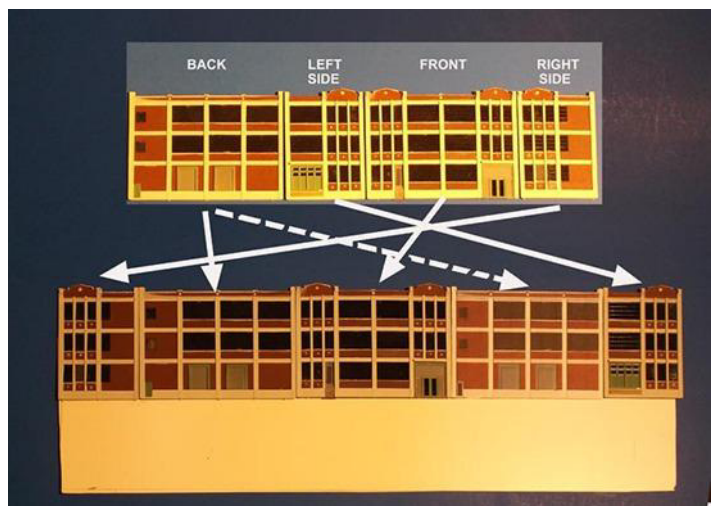
That layout never quite took off, so the candy factory kit was available when I needed to build a train-catching wall along the back edge of the new layout. Using the plastic kit was mostly a matter of



painting and assembling walls separately without attaching them at each corner at right angles, and omitting the base and roof, then putting them together side by side, a four-sided building “unfolded.” Mostly. One window panel disappeared during assembly and I had no spare. I scanned a copy of a window, printed it on medium weight cereal-box cardstock and glued it in place. I shot a picture when I did that six months ago, but I have lost the picture and now I can’t tell which window is the flat printed replacement!

At the top of the composite, I show the walls as they would look if simply “unfolded.” However they didn’t seem quite balanced. The repeat of the peaked

cornices between the front section and two sides, which looks fine for corners, looks a bit odd when side-by-side in-line. To separate the peaked cornices, I put the right side wall on the left end of the assembly, and the left side onto the right end. This improved the symmetry to some extent, but the even number of wall sections left the front not quite centered. To center it, I scanned and printed out a cardstock copy of the back wall, as shown by the dotted line. When I mounted the wall sections to a piece of styrene for mounting onto the back of the layout, I put a piece of heavy-duty cardstock behind the repeated back wall to make it the same thickness as the plastic walls. Signage was deliberately omitted to avoid drawing too much attention to the train-saving wall.



### Photographing real structures for a train-saving wall

I protected rolling stock from falling off the side edge of my passenger terminal with a mixture of cardboard building flats and commercial plastic kits built as flats.

That left an unprotected “Cliff of Doom” at the back of the layout. I had laid out my oval loop so it filled nearly all the depth of my 7 x 2 ½ foot table. I foolhardily added a spur at the very back because I lacked a spot to deliver cars consigned to port industries when they came into my trunkline railroad yard on merchandise and unit grain and cotton trains.





Here a GP is pulling boxcars from that spur. It does not have spots for specific port locations, but serves as a general-purpose transfer point for port traffic – like an extremely minimal port terminal yard. (The orangish cars behind the cut being pulled are not real models but flat printouts of models glued on the background.)

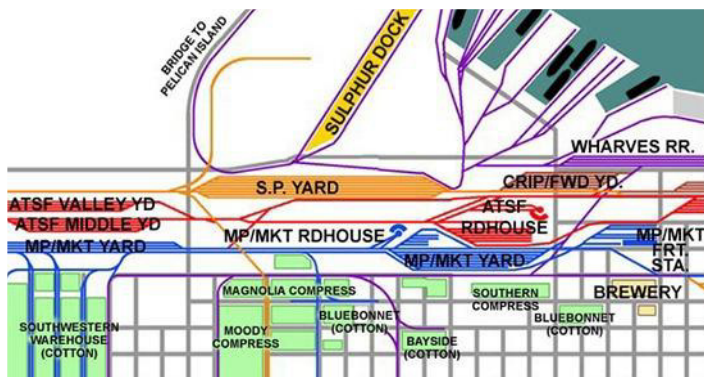
A complex of cotton compresses was part of my prototype scene, but I had not had space to model it. A compress seemed a likely candidate to be a train-catching flat.

I lacked good flat-on color photos of the compresses in my prototype town, and they were several inconvenient hundred miles away to photograph when I needed them. However, my home in Corpus Christi was less than five miles from a similar compress.

I photographed it with my el cheapo digital camera set on high-resolution. My afternoon sun came from the southwest, and I could get flat-on brightly lit photos at right angles to the south Quonset-construction and west cast-concrete walls. The direct sun on the photographed walls would be consistent with the direct light on the modeled buildings toward the back of the layout, and near the wall of flats.

Rather than "panorama-ing" to get a series of photos from a fixed position, I took photos from a fixed distance from the walls, walking from one camera position to another, keeping my axis perpendicular to the wall.

I cut, matched and pasted pieces of pictures in Photoshop. Resolution of 300 dpi is recommended for sharp printing, but I let resolution drop to 200 since I don't want the background overly sharp. Since the maximum height of my train-catching buildings would be two inches, I could lay out two strips of buildings on one file to print on one 8 ½ x 11 inch sheet of filing-card weight printer cardstock. It took three such printouts to have pieces to splice together for a 3½ foot background flat.





The finished background row was GOOed to a styrene strip 3 inches taller than the buildings, and screwed onto the back of the layout table.



Here is a staged demonstration of the train-catching building row in use, as viewed from an angle not usually seen by an operator or visitor.



Kenneth, what can I say but thanks. It has been a great experience reading about your card modeling. It has been exceptional and yes, as you said, FUN. Thanks for sharing your memories with us.

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Please subscribe to my website [NewTracksModeling.com](http://NewTracksModeling.com) to get log in links to my Zoom events and see what “New Tracks” you can travel. Please give me your comments, suggestions, and modeling ideas. I so enjoy hearing from you. My email is: [jimkellow@newtracksmodeling.com](mailto:jimkellow@newtracksmodeling.com)

It’s now time for me to return to my workbench and continue working on the scratchbuilt brass Business Car (pictured below) for my new Grandson, William Clifton Kellow.



Thanks you for reading this far. I really appreciate it. As always, best of modeling to you. It really is fun.

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