The Scale Resource

NEWS, REVIEWS, INFORMATION TO USE

August/September 2021
Volume 7 No. 6

New Tracks: Where Mentors Help Modelers Build
Lightweight Modules for Home Use
What's On Your Workbench?
Gulf Terminal Transfer
Heljan Brewery Build
L&N Coke Car
Shows, Meets and so much more

O&S Scale Midwest Show

NEW DATES FOR THE 2021 SHOW

October 8-10, 2021

WYNDHAM INDIANAPOLIS WEST 2544 EXECUTIVE DR. INDIANAPOLIS, IN

DEALER SETUP

Friday 4pm - 9pm

Saturday 7:30am - 9am

SHOW TIMES

Saturday 9am - 5pm

Sunday 9am - 2pm

Room Rate $105.00* per night (until 9/8/21) Reference O/S Scale Show when calling

***Based on availability**

317-248-2481 / 877-361-4511

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Please print clearly – Detach and return lower portion with payment

Name: _____
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MAILING ADDRESS

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CITY/STATE/ZIP

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Email: _____

Make checks payable to: Model Railroad Resource LLC

Mail registration form to: 407 East Chippewa St
Dwight, IL 60420

Or register and pay online at:

Early Registration $20.00 $_____

Registration at the door $25.00 $_____
(Both days included)

 # Of 8 ft. Tables ____ $50.00 ea/$60 after 8/1/21 $_____

○ **Scale vendor** ○ **S Scale vendor** ○ **No preference**

Number of add'l registrants ____@ $20 each $_____
$25 at the door

(Please list below/Use back if needed/Spouse/Children 15 and under free)

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TOTAL AMOUNT ENCLOSED: $_____

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(Subject to availability)

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THE S RESOURCE
NEWS, REVIEWS, INFORMATION TO USE
SCALE

Published Bi Monthly

The Model Railroad Resource LLC
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August/September 2021
Volume 7 No. 6

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Welcome to the online S Scale Resource magazine. The magazine is presented in an easy to use format. The blue bar above the magazine has commands for previewing all the pages, advancing the pages forward or back, searching to go to a specific page, enlarging pages, printing pages, enlarging the view to full screen, and downloading a copy to your computer.

Front Cover Photo

Michael Eldridge's beautiful Heljan Brewery build. The Heljan Brewery is an HO scale structure that works well as an S scale model.

BILL OF LADING

The Model Railroad Resource, LLC publishes *The O Scale Resource* and *The S Scale Resource*. Be sure to look at both of our magazines. There are many articles in our magazines that are not scale specific and will be of interest to you. Click the magazine title in this announcement to see the magazine.

From the Publisher's Desk

We are in the "dog days of summer", at least here in the Midwest. It's nice to escape into the basement and get some modeling accomplished.

Shows are coming back as Amy and I spent a week in Colorado at the National O Scale Convention. The O & S Scale Midwest show, sponsored by us, is coming this October 8th through 10th at the Wyndham Indianapolis West, 2544 Executive Dr. Indianapolis, IN. This is the only scale S show this year and tables are selling well. You may signup on-line here: https://ribbonrail.com/IndyShows/index.php or download the form here: https://oscalemidwest.com/printable-show-registration/. Registration is only $20 to if you order in advance ($25 at the door). Because of the date change from September to October, the hotel has lowered the room rate for this years show to only $105 per night. This is a great price for this hotel, and there is also a free shuttle from the airport to the hotel, so no car rental is necessary.

Check out our vendor list here: https://oscalemidwest.com/vendors/ to see who is coming in for this show. S scale displays at the show include Charles Malinowski's MR2GO!, the Southeastern Michigan S Gaugers and Warren Judge's Sn2 Elk Creek Lumber & Mining Railroad. We are looking for a good turnout from the S scale community.

And as always we need more scale content. Tips, tricks, layouts and things you want to showcase. We see some great modeling on the S scale Facebook pages, but we can also take that and expand much more than you can do there. So think about what you have that others may like to see.

Happy Reading & Happy Modeling,

Dan Dawdy

Check out our new Website. All back issues are available in HTML5 or PDF download. Submit your events and classifieds ads online, or request advertising information.

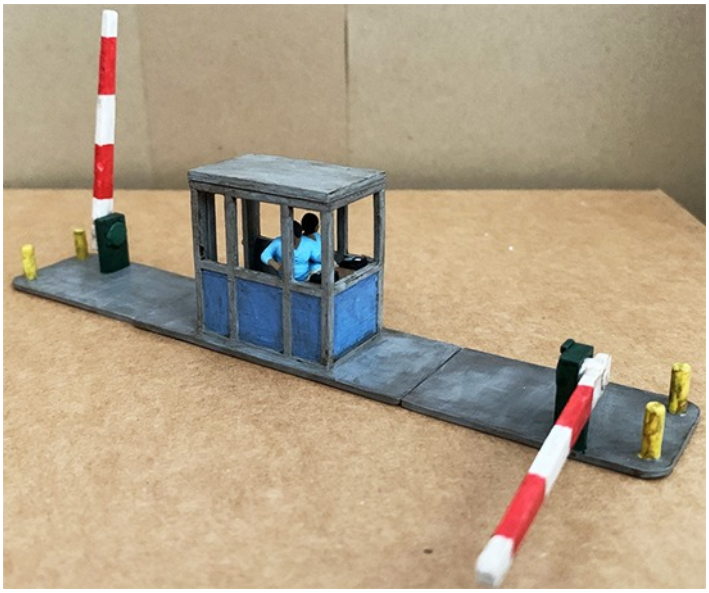
NEWS YOU CAN USE

Sherri Johnson and Yolanda Hayes from CatzPaw Innovations, LLC have a neat new product. The Toll Booth. You need traffic control, we have the solution. Use our Toll Booth to collect tolls, limit access to roadways, as a Security Checkpoint before entering sensitive areas, as a basic access gate or anything you need.

You get everything you need to put your booth to work: the booth, two (2) crossing bars with your choice of operation, three (3) different attendants and stools for them to sit on.

Two Methods of Operation Available

The Toll Booth is available in two different styles: one with manual operation of the crossing bar and the



second with an area to house a micro servo for automated operation of the crossing bar. In other words:

- Use the Standard base (shown above) to operate the crossing bar manually.
- Use the Servo base (not shown) to automate operation using a micro servo (servo not included).

You choose which base is best for you. The set comes unpainted. See their Website for full information.

Ed Loizeaux has a beautiful Website for his New York Central System as well as S scale information. Please check out his site here.

Bill Wade from B.T.S. says: "I am finally getting around to finishing up the conversion of the McCabe Fire Train Cars to S Scale. Prices have yet to be determined, but will be posted on our web site as soon as the cars are ready. The way things are going, they should be done by the end of September.

Fire is a nasty thing for a lumber company. And while he hoped it was never used, John McCabe had the shop crew build a three-car fire train. This train was kept ready in the yard just in case. He also constructed additional water cars and used these on other parts of the line, but they could be added to the train in case of an emergency.

The firefighting car carries a supply of water and has the engine-powered pump on top to feed water to

the rotating nozzle or the smaller hose. The pump can pull water from the additional water car or, by using the siphon hose on the side, from a convenient creek. The tool car provided a place to store the various firefighting tools such as shovels, buckets, additional hoses, etc. The firefighting and water cars were inspired by a car from the Pacific Lumber Co.

The tool car is based on a Rayonier Lumber Company home-built car.

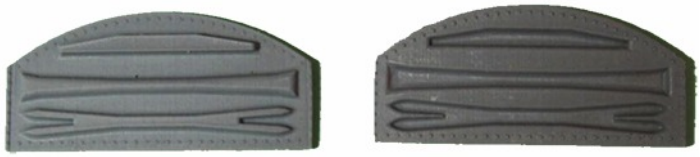
These kits consist of laser-cut basswood and plywood, and brass, plastic, & white metal detail castings. All are less trucks and couplers. The tool car roof is removable and the interior bracing is inside. “

#09275 S McCabe Firefighting Car
#09276 S McCabe Water Car
#09277 S McCabe Tool Car

See their Website for more details.

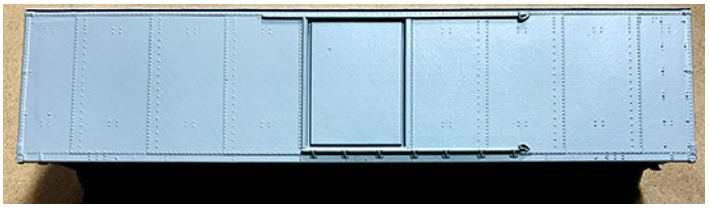
Steve Wolcott of Pre-Size Model Specialties now has some new parts for the modeler. Automobile boxcar ends, both 5-3 and 5-4, designed to fit the PRS/SSA 40' and 50' boxcars.

Also, heap shield ends for hoppers used by C&O and EJ&E on over 11,000 cars. These ends, both types, are designed to fit AM offset hoppers.



See their Website for all these new products.

Jim Kindraka let us know he’s been working on a new boxcar kit for S Scale. The resin kit will be based on 3D technology and molds by Simon Parent. The model is a USRA-design all-steel boxcar used extensively by the NYC and subsidiaries, plus the DL&W, Reading, CNJ and one private owner. The design was termed “Specification 486” and was originally built with 3-panel Camel-Gilroy bottom supported steel doors, Murphy 8/7 corrugated ends and Murphy solid steel roof sheets, sealed with riveted U-caps.



A comprehensive article including roster data and over 50 pages of photographs was published in Volume 21 of the *Railway Prototype Cyclopedia*. The model kit will be a limited run of the originally built version. Jim hopes to have kits available for sale at the O & S Scale Midwest show in Indianapolis in October. The photo, taken by Simon Parent, shows a resin test shot. The door will be added as a separate part.

Here's the new Tru-Color Paint product information for the railroad and brushables paints and aerosols for August-September, 2021.

August, 2021
Railroad
392- Frisco- Meteor Blue
393- ONE Container- Pink
3-D Printed & Cast Resin
9005- White
9010- Black
9093- Oxide Brown

Aerosols
4028- Dark Red
4029- Light Blue

September, 2021
3-D Printed & Cast Resin
9025- Union Pacific- Harbour Mist Grey
9026- Union Pacific- Armour Yellow

Aerosols
4030- Olive Drab #3: 1942-1944, All Theaters
4031- FS-36270: Modern Haze Gray

You know about our price increase. It started on August 1. The 16-ounce bottles also went up, as follows:
Thinner- $51.25
Gloss, Satin & Flat- $78.95
Any non-metallic or sprayable paint: $98.95
Any metallic or brushable paint: $104.95

As you can see, we have started a new line of paints: sprayable paints specifically designed for 3-D printed and cast resin shells and parts. The paint will adhere to the cast resin or 3-D printed object without primer (but, we will come out with a 3-D printed ad cast resin set of primers eventually.) They cost the same as our "regular" sprayable paints ($7.19 for a 1-ounce bottle & $12.98 for a 2-ounce bottle. 16-ounce is as above.) Any questions, just ask.

We are always open to new ideas for paints. If there are colors that your readers need but aren't made, have them shoot us an email at tru.colorpaint1@yahoo.com. If we can find enough information on the color, we could put it in the next year's product schedule.

Sandy Point Models has a new kit available. This new S Scale kit from Sandy Point Models is based on the speeder shed still standing at Santa Clara, CA. The shed is modeled as it stands now, with the back window boarded up, but with a shingle roof instead of the current composite roof.

The kit uses laser cut and 3D printed components, and can be built in one evening. The kit is available directly from Sandy Point Models, http://www.sandypointmodels.com.

S Scale Track Works has added Code 70 switch components to their line. They now have Code 70 #6 and #8 frogs as well as Code 70 Points and Guard Rails. These components are cast in Nickel Silver like the other components and match Micro Engineering rail. A fine addition to the Code 100 and Code 83 components they already have.

All the S Scale Track Works components can be used for standard gauge and narrow gauge track and require no special fixtures. Switches made with these components are assembled by you on your layout at

the location they go. By building your track this way, you are not constrained by the limitations of a pre-made switch. Your track will flow much nicer and switches can be made on curves. No more straight sections in your curve because the ready made switch is straight. Also, no small pieces of rail to fill in between ready made switches. Because the frogs are cast in one piece and the other rails are built up to them, there is no need to cut the insulation gaps around the frog.

This gives you nice looking track work with added detail, as well as, smooth flowing track work. Check the web site for more details.

Heljan Brewery Build

By Michael Eldridge

The Heljan Brewery is an HO scale structure that works well as an S scale model. One of the challenges in using HO structures in S is the door and window sizes. Fortunately, the doors in the Heljan brewery are just over seven feet tall in S scale, the windows are tall, and the three stories are each about sixteen feet tall. The structure itself is quite large. Putting the three buildings together as in the original kit creates a combined structure that is 132 feet wide in S scale. It is nice when rail served buildings are large enough that one can imagine them filling a boxcar or hopper with goods for shipment. I didn't particularly want a brewery, so I build the kit as a large commercial bakery. I will walk through my assembly of this kit, but there will be many "if I could do it again" comments where things didn't go particularly well.

Basic Wall Construction

The walls are built by combining modular panels. This gives you some flexibility in the window configuration. The walls have brick surfaces and concrete decorations. To begin construction, I cemented together the modular sections that formed a single segment; that is, not the whole wall with the columns, just the segments that would go between the joining columns. This makes it easier to mask the walls for painting. After washing the walls in soapy water, I sprayed the walls and separate columns with Krylon Fusion Satin Brick. This is very close to the original color, which is good because I will use some brick sheet later that is not in the kit, so I wanted to paint them all the same color.

Next I used craft paint for the concrete trim and the large area in the top of each wall. I used Ceramcoat Sand Dune for this and for the mortar. It is very convenient to use the same color for the mortar because if any mortar flows onto the concrete trim it will not show. After using the craft paint for this, though, I will not do this again. While craft paints work very well on wood models, I had a tough time getting good coverage on the plastic, even though it was primed with the Krylon paint. I masked off the brick parts of the wall with painters tape, which I burnished down at its edges. The first coat of craft paint is nearly transparent, and I put on two more coats to get a good, opaque finish. When I peeled off the first piece of tape, it pulled the edge of the paint with it – the opposite problem of bleeding. After that I always ran a new X-acto blade down the edge of the tape before lifting it. I am not shy about using an airbrush, and I think it would have taken less time and work than I spent with the craft paint and having to do a lot of fixups. Later in the project I switched to using Tamiya masking sheet, which works much better than the painters tape – cleaner separation line with almost no bleeding under.

I glued the segments and columns together to make a complete wall. I reinforced the joints with square styrene tube running the length of the wall. I will be putting a floor into this structure, so I made sure the reinforcing strips near the bottom were below the floor level. These will be the floor supports, so measure them accurately to come out the same level on each wall. After assembling the panels to form each wall, I applied the mortar. The amount you dilute the paint affects how the bricks look after this step. Brushing (flowing) on diluted paint will leave some on the bricks, which provides a more realistic appearance. In Photo 1, the right half was done with thinner paint, the left half with a little stronger paint. I started with about 1:1 paint and water, which is the stronger paint. You can experiment, and if it doesn't flow and look like you want, just wipe it off quickly. The thicker paint will leave lighter colored bricks, thinner paint will look more like new brick.

The windows provided in the kit are not bad, but I realized my FDM (3D) printer could make windows with mullions half as thick. It was an easy drawing for each window, and then I printed them – all 96 of them!

Photo 1

I sprayed painted the windows using a Moss Green paint, which ended up looking almost black. In Photo 1, the windows on the right are from the kit, the windows on the left are the ones I printed. The difference is even more apparent looking at an angle, since the kit window mullions are very thick front to back. If you use the kit windows you can use a solvent cement (such as MEK) to glue the windows in place, but with the windows I printed, I had to use gap filling ACC. The kit includes a sort of "hammered glass" plastic for the window glass. I glued these with ACC, and there was no fogging evident.

There are two basic types of doors in the kit – one has a smaller door engraved in a larger door. The smaller door is too small for S Scale people, so I used only the plain door. I wanted to build an interior, so I cut two of


Photo 2


Photo 3

the doors in pieces so I could mount them open. The top part with the windows was installed now, but the doors themselves required adding some blocks glued to the back bottom of the door, and then to the floor after it was installed.

After I assembled the walls, the top concrete area didn't look right to me. I went downtown and looked at a lot of brick buildings, and wherever they had large areas like this there was some sort of bas relief ornamentation. I ended up cutting the fleur-de-lis with my laser cutter, using laserboard and adhesive transfer sheets to mount them. Another option that looks good is to get a punch from a craft store. These look and work like hole punches but punch out interesting shapes that could be glued in place. To place them evenly I cut a small piece of styrene and marked the position of the fleur-de-lis frames, as shown in Photo 2. On the tallest building segment only one wall has a cornice molding, so I cut new ones on the laser using the same laserboard and adhesive transfer and applied them to the other walls at the top. I painted the fleur-de-lis and the new cornices with the concrete color.

Assembling the structure

The site for this industry on my layout module was triangular. This necessitated my first major modification of the kit. I needed a wall narrower than any in the kit. Because the windows are not centered in the narrow wall sections, I decided to splice together some pieces. There was no wall with a doorway that would work, so I cut a new doorway in a blank wall segment and installed .010x.080 styrene strip for the arch bricks along the top (Photo 3). The joint between the wall pieces didn't come out as nicely as I would like, but later I'll put a fire escape ladder over the joint.

The foundation piece needs to be modified. I cut apart the foundation for the large building and spliced it with styrene strips as shown in Photo 4. I put styrene strips on the bottom between the splices so the whole foundation would be the same thickness. The diagonal wall needs to be longer than the orthogonal long wall. I determined that the difference was roughly the width of the exterior brick columns, so the diagonal wall has two columns side by side at one of the section joints. One other thing to note about the foundations: the mounting ridges that should fit just inside the walls are not very precise. On one of the smaller buildings I decided to assemble the walls onto the foundation before assembling them to each other. That is a mistake – the beveled corners will never line up correctly. I had to break that assembly apart, reassemble and cement the walls to each other using a squaring fixture, then glue the wall assembly to the foundation.

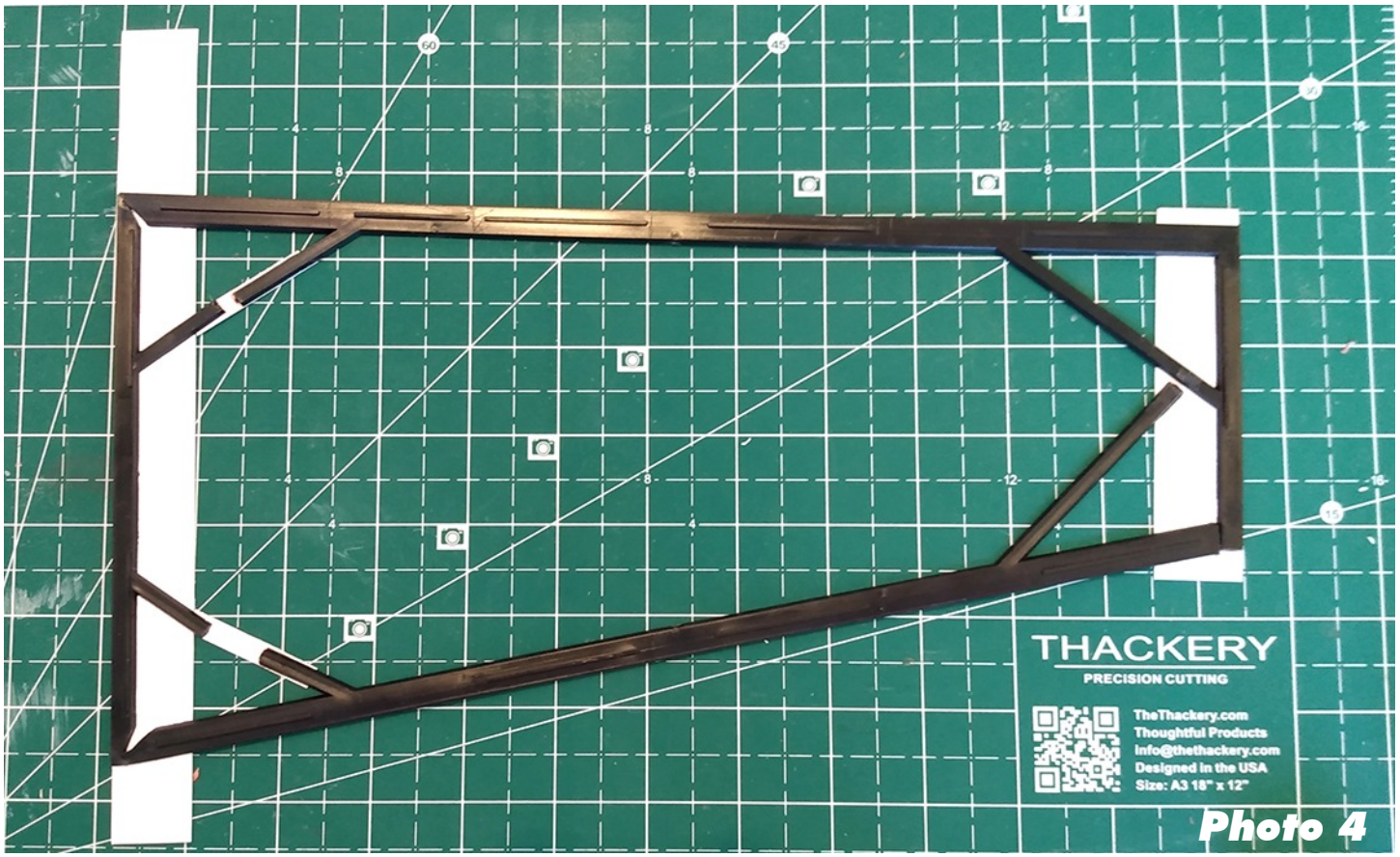


Photo 4

I will pretend here that I was not so foolish as to install the floor and partially completed interior at this time, but that I wisely attached the two large brick structures at this time. I assembled the tallest part of the structure without modification. The roof pieces did not fit quite correctly, which I discovered after I had painted everything. It would have been smarter to test fit the roofs, add any styrene bits required to fill any gaps, then paint and install the roof pieces. I painted the roofs Krylon Anvil Gray Chalky Finish, but they will be textured later.

At this point I built a lighting bar with two LED's. I use white LED's from a set of Christmas tree lights, but I coat them with amber "stained glass" that I got at a craft store. You can see the top of the light bar, along with the reinforcement of corners and the interior details, in Photo 5. There is probably a more elegant way to put reinforcements in, but there are lots of protruding parts on the backs of the walls that make it a bit of a puzzle. All of the interior bracing will be painted the same brick color as the walls so that it is not so apparent when you look through the windows.

The smaller structure with the drying bin on top is assembled without modification to the kit. I painted the drying bin an ivory color for a base, followed by a wash of thinned brown paint. I did not like the see-through appearance of the drying bin, so I added some view blocks inside with black styrene (black construction paper

Photo 5

would work just as well). To prevent the roof pieces from sagging I cut some triangular supports from .060 styrene and cemented them to the walls. I cemented the roof pieces in place, and then added a ridge cap made of paper. The roof on the bin and the small structure supporting it are painted with Krylon Anvil Gray Chalky Finish, then weathered by dipping a flat brush in alcohol and ink, just touching the tip of the brush into grey or raw sienna acrylic paint, then streaking it on in a random pattern. The structures need to travel with our club's modular layout, so I did not attach this to the larger structure.

Interior

I created a minimal interior to add some interest. The windows in the kit are translucent, so you can't really see the interior through them. I opened two of the large doors that will end up opening onto a loading dock on the track side of the structure. I cut a floor from .060 styrene to fit. I intended to paint the floor a tan color to represent a wood floor. I brushed on a coat of tan craft paint, and as I said above, this coat is nearly transparent. In this case, though, it looked like a concrete floor and the sparse and uneven coverage of the paint looked quite good as it was, so I left it that way. I drew and then 3D printed a conveyor table and a worktable. These could have been made with styrene parts, but once you have a 3D printer you look for excuses to use it. I put some small blocks on the conveyor to look like boxes and made some loaves of bread from light tan Sculpey, which I didn't bake. I added a few people working at the tables. We will pretend that now I cemented the floor in place, because it would have been really foolish to cement the floor in earlier and then try to put the interior pieces into the floor.

I made a back wall out of Gator board both to provide a view block and to provide a more interesting view through the open doors. For a backdrop viewable through the doors I went online and found pictures of industrial ovens and racks of baked bread. I Photoshopped the oven to make a bank of ovens, and the bread rack to make a wall of bread racks. I cut these out and glued them to the wall. I glued a wood block to the back side of the wall, then ran a screw up through the floor into the block to hold the wall in place. Photo 6 shows the interior and lighting.

Photo 6

Roof

Most of the roofs are the pieces that came with the kit. For the triangular building I wanted something a little different. The columns used to join the wall segments break up the inside tops of the walls and look pretty bad. I chose to add a new brick lining to the inside, covering the column joints and also allowing a more realistic cap on the walls. I wanted the roof to be removable in case later I need to repair something from inside the building.

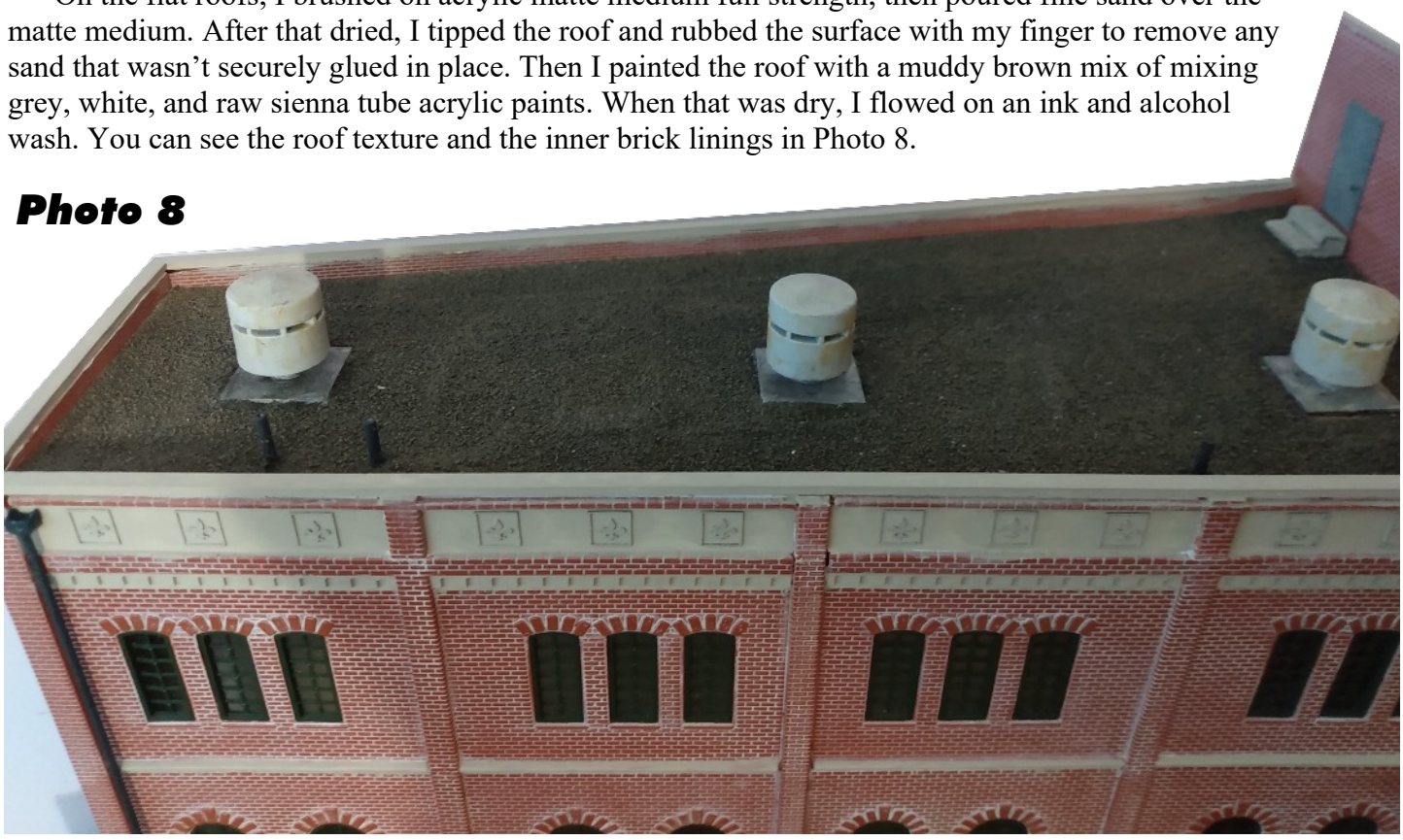
Photo 7

I used 1/4 inch styrene angle, with .030 styrene added to one side of the angle to match the depth of the column pieces. Photo 7 shows the .030 filler piece on the left wall segment, and then the angle added on the right wall segment. Another piece is added to extend the top edge of the angle to the very top of the wall. I lined the inside with Holgate Reynolds brick sheet, which matched the kit's brick size well, and painted and mortared the brick. I installed a cap on the walls using .080 x .156 styrene, filled in any gaps at joints, and painted with the same concrete color. The tallest building got the same treatment for the two side walls and the builders date panel where they project above the roof.

For the triangular roof, I cut a piece of mat board to fit and reinforced it on the inside with strips of wood. I added three vent assemblies from the Rix Products roof vent set, along with some 1/16th inch tubing for plumbing vent pipes. I needed to provide roof access, so I made a door from laserboard, painted it grey, and attached it to the outside of the tall building, then attached a small pin for the doorknob. I built some steps from scrap wood that would go from the triangular roof up to this doorway. I added one more Rix vent to the tall building. I sprayed the vents with light grey paint, then dry-brushed with dark grey and raw sienna acrylics.

On the flat roofs, I brushed on acrylic matte medium full strength, then poured fine sand over the matte medium. After that dried, I tipped the roof and rubbed the surface with my finger to remove any sand that wasn't securely glued in place. Then I painted the roof with a muddy brown mix of mixing grey, white, and raw sienna tube acrylic paints. When that was dry, I flowed on an ink and alcohol wash. You can see the roof texture and the inner brick linings in Photo 8.

Photo 8



Final Details

The flat roofs need some way to get rainwater off them, so I added some funnels and downspouts. I printed the funnels, but these could easily be made from styrene, and the downspouts are 1/16 inch styrene rod. These were painted flat black and attached with ACC.

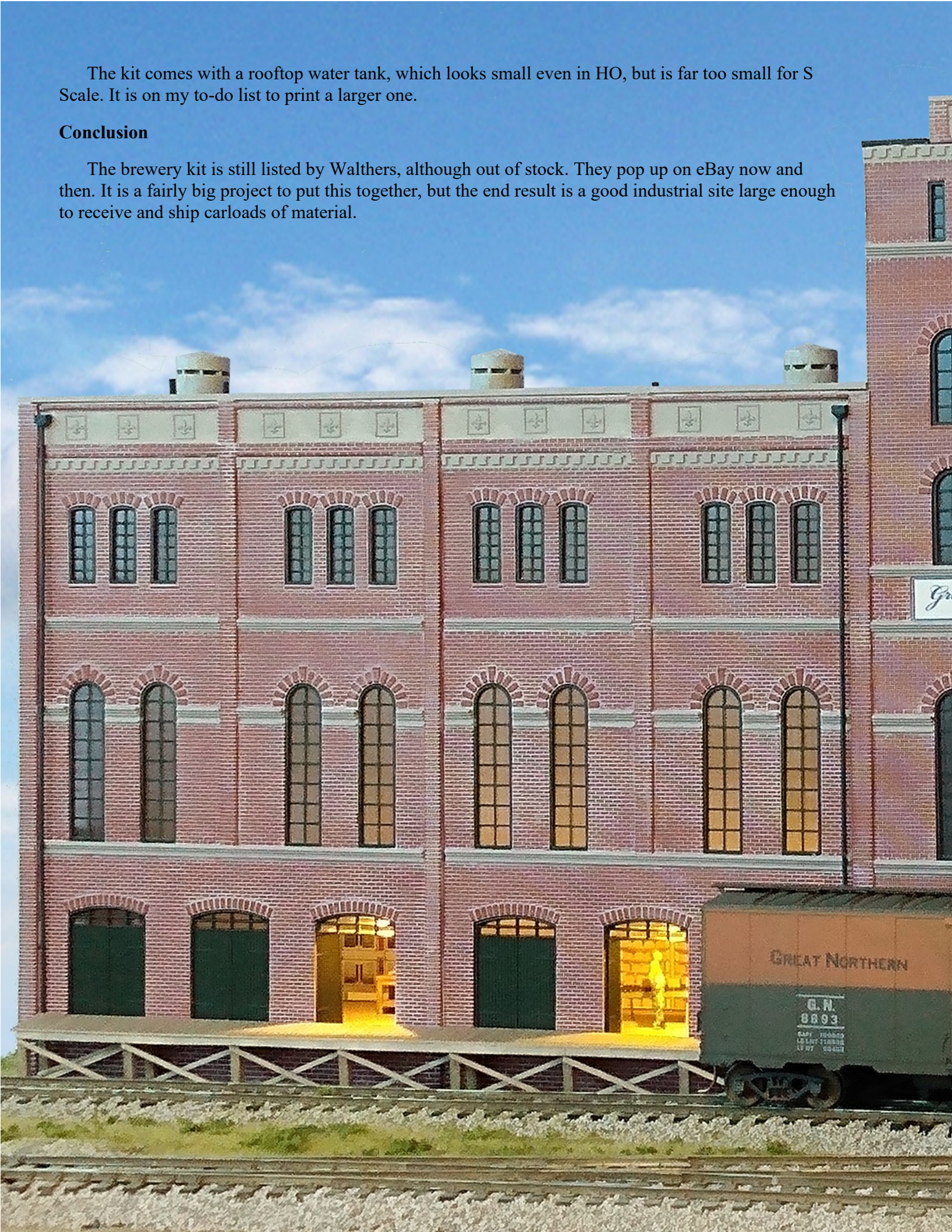
The sight looked a little bare, so I built a loading dock from bits of wood and scribed siding. These are stained with india ink in alcohol. There was very little room for the dock. It is four feet deep, which looks good enough. If there was room, about six feet deep would be better. I matched the height to the bakery floor so workers could wheel things straight across for a boxcar into the bakery.

If this was for a home layout, I would definitely add a lightning rod to the tallest building and a fire escape on the end wall.

The kit comes with a rooftop water tank, which looks small even in HO, but is far too small for S Scale. It is on my to-do list to print a larger one.

Conclusion

The brewery kit is still listed by Walthers, although out of stock. They pop up on eBay now and then. It is a fairly big project to put this together, but the end result is a good industrial site large enough to receive and ship carloads of material.




1907
Fine Baked Goods
1275

L&N COKE CAR…

Something a little different - using a few new modeling techniques too!

By Jim Kindraka
(Photos by the author unless otherwise noted)

I've done quite a bit of research on freight cars, sometimes to gather background for projects, sometimes because it's a unique car that catches my eye and even sometimes to build it! While I have looked in depth at some incredibly unique cars, most of the time I don't build them, figuring that if I'm modeling a prototype railroad, the chances of actually seeing that unique car in a train would be very low. Every now and then though one catches my fancy – the following project describes such an occasion.

A few years ago, on an Internet group focused on contemporary freight cars, someone posted a photo of an L&N Coke Car. The boxcar was "repurposed" by the railroad from the 1932 ARA design. I thought it looked interesting and contacted S Scale L&N modeler Earl Henry, who soon put me in contact with what turned out to be an expert on the L&N freight cars. He filled in a lot of details and provided more prototype photos.

Photo 1: L&N 30555 in Grand Prairie, Texas, 1960. The boxcar was originally a 1932 ARA design, built by Pullman-Standard in 1937 for the NC&St.L as their XM30 class, series 18000-18499. In 1958-59, 300 of the cars were rebuilt in L&N's South Louisville shops for dedicated coke hauling service. Photo courtesy Steven D. Johnson

The L&N's coke boxcars had the roof removed, replaced by four lateral stiffeners. The cars were filled from the top with coke in the Birmingham, Alabama area for delivery to foundries and small casting operations throughout the southeast and middle of the U.S. These cars had three compartments and were unloaded by opening one, two or all three of the side doors to allow the coke to fall into carts, below track bins or simply in piles on the ground to be shoveled up for later use. Thus far, I have not been able to locate a photo of a car being unloaded.

What made this interesting and worth modeling, aside from the fact I'd never seen one before, was the fact the 1932 ARA boxcar design is essentially the design of the Pennsy X29 boxcar. Building the model would mean a lot of scratch building work, but being able to use the S Scale America X29 boxcar kit as a starting point, made the whole project much more palatable! The project would also allow me to work with a Nibbling Tool that I'd had in a tool drawer for 30 years, plus develop a new technique for how I showed the coke in the car's open areas.


Photo 2


Photo 3

I thought I would detail the work through photos with explanations in the captions, so here goes…

Photo 2: (Photo by Glenn Guerra) Before I start, I highly recommend you build yourself one of these little worktables. I learned about building and using them from Glenn Guerra, a stellar O Scale modeler. You can clamp them in a machinist vise on your workbench and they are super handy for attaching clips to hold parts secure and square for future work. The top is Masonite covered with a piece of scrap linoleum. The combination is relatively impervious to soldering with irons, resistance units, even small butane torches – I have not set mine on fire yet! Their use is explained and shown in an article I wrote on building the SSA brass RS-1 kit in the 3rd Quarter 2018 issue of the on-line *New York Central Modeler's Magazine*. Here's a link, the article starts on Page 25: https://nycshs.files.wordpress.com/2018/06/nycentralmodeler3rdqtr2018.pdf

Photo 3, 4 & 5: This is a photo of my Nibbling Tool. It is a tool designed to make straight, square cornered cuts in thinner (~0.020") sheet metal but I wanted to try it on softer, thicker (~0.045") plastic boxcar sides. In the next two photos, you see I have marked the areas to cut out, drilled a pilot hole to inset the tool's cutting head and begun squaring out holes with the Nibbling Tool. The final work is done with a small, square jewelers file to smooth and square corners, but if you work carefully, the Nibbling Tool can make sharp, straight cuts

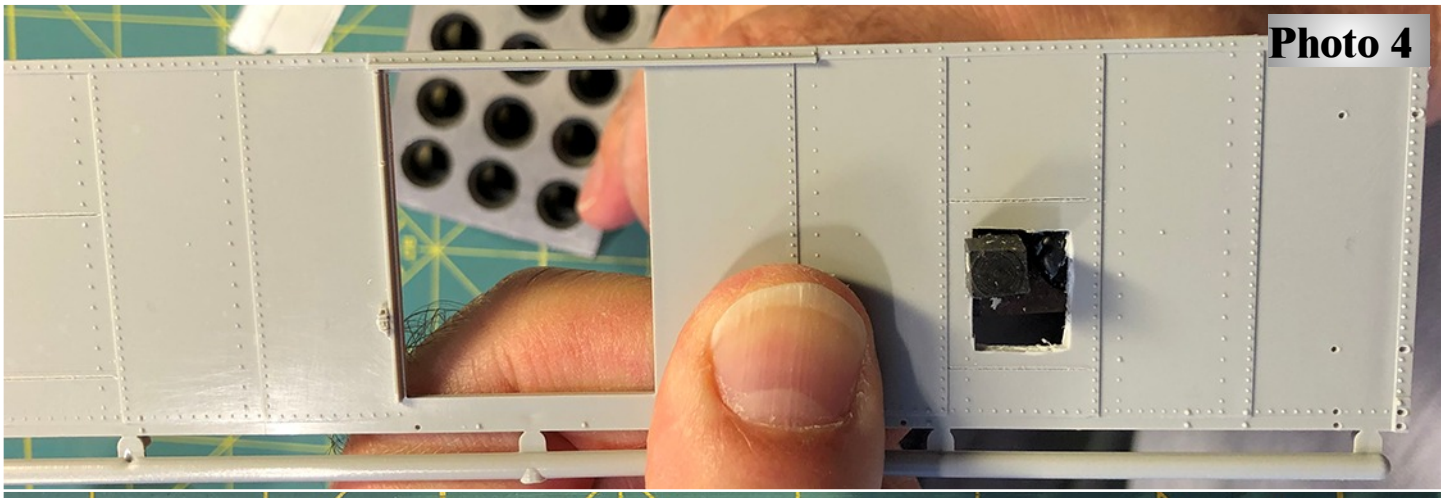


Photo 4

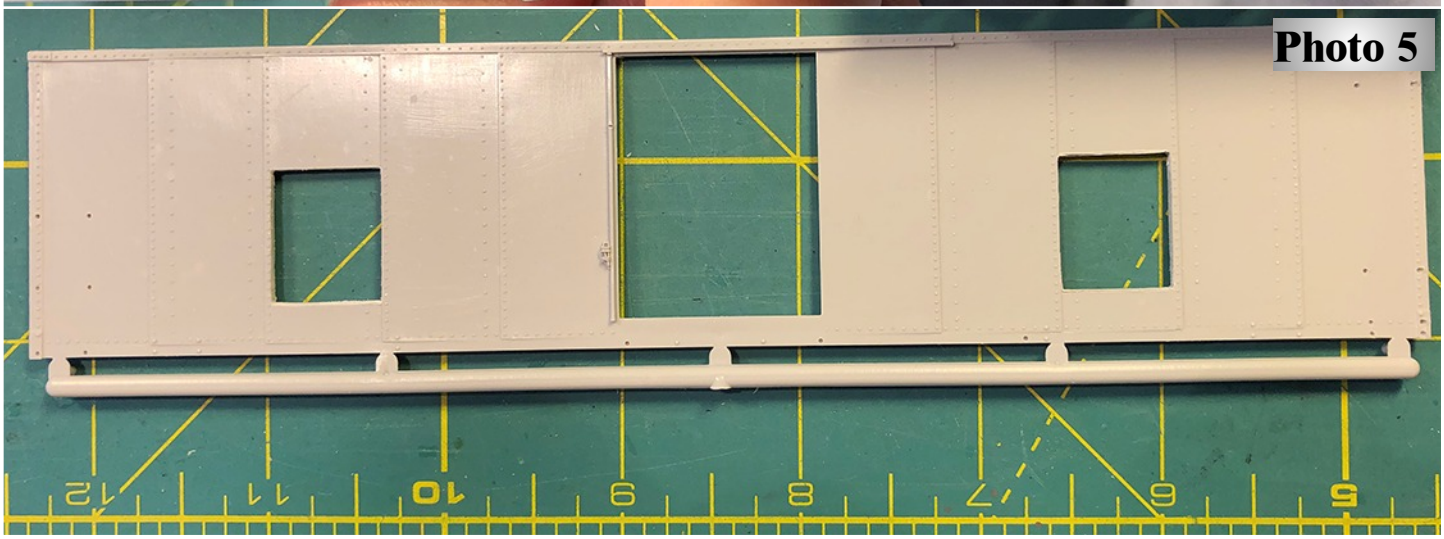


Photo 5


Photo 6

right up to the edge of your cutting marks; about the only filing left is to clean any flash and square corners.

Photo 6: Next up was to construct the door frames for the openings. Originally my thought was to make them from Evergreen styrene angles, but the more I looked at the styrene, the less I liked it. The material always looked a bit too thick, and I felt it would make the frames seem too large and out of scale. That is a personal POV, one that easily falls under "modelers license"! I chose instead to make the frames from 1.0 x 1.0 mm brass angle stock supplied by Albion Alloys,

their item ‘A-1’. I measured the frame openings and used a cut off disc to get pieces just a bit longer for filing to the final lengths.

It was relatively easy to spend a few hours cutting and filing to create a stock of material. By now I had decided to build a second coke boxcar at the same time, so the amount of brass angle needed suddenly doubled!

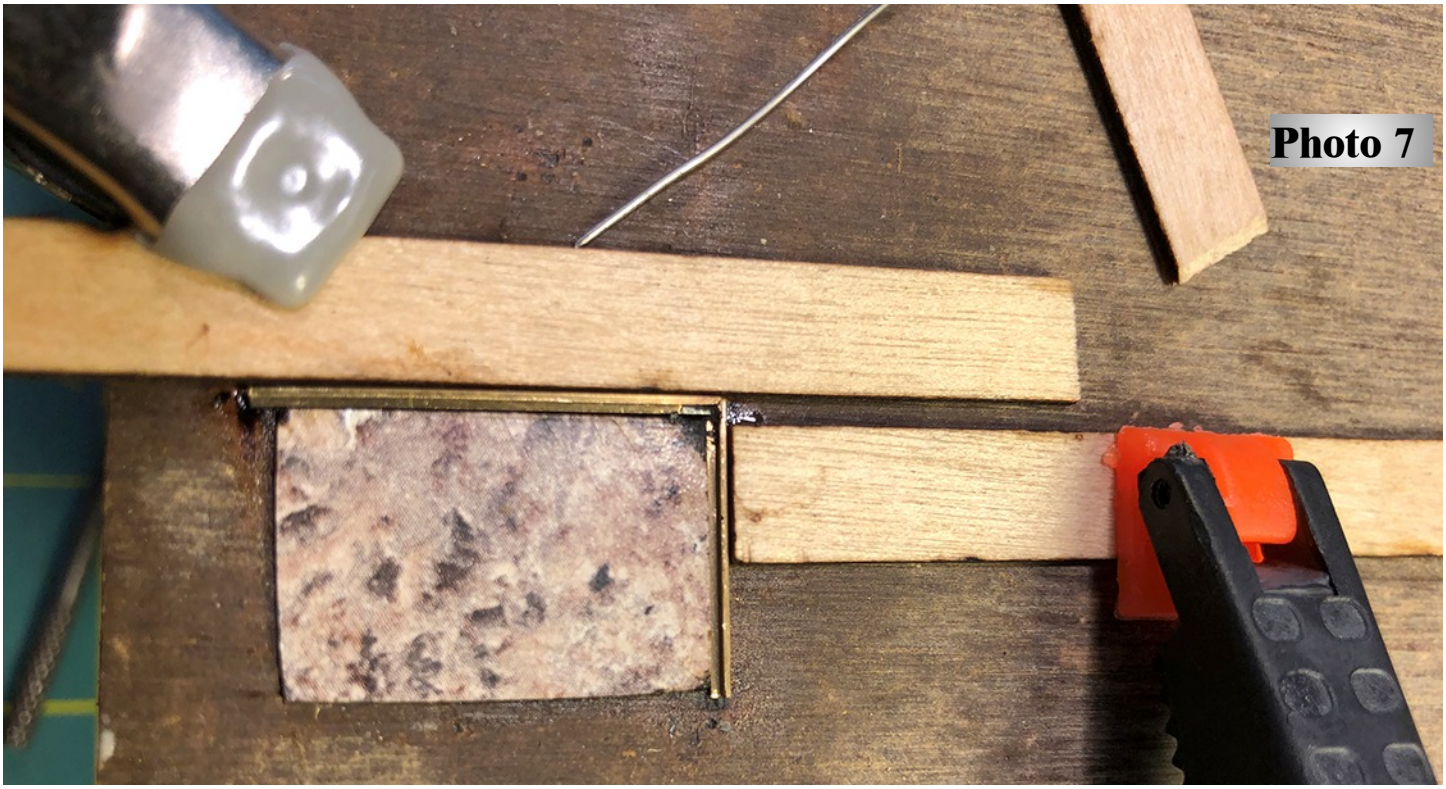


Photo 7: Here is where that little worktable starts to earn its keep! I glued a piece of perfectly squared linoleum to one corner of the table with flooring contact cement and used it for a form to hold pieces of brass angle square and in place. I could hold them square with clips and pieces of scrap plywood (Laser cutting stock) while I soldered them together.

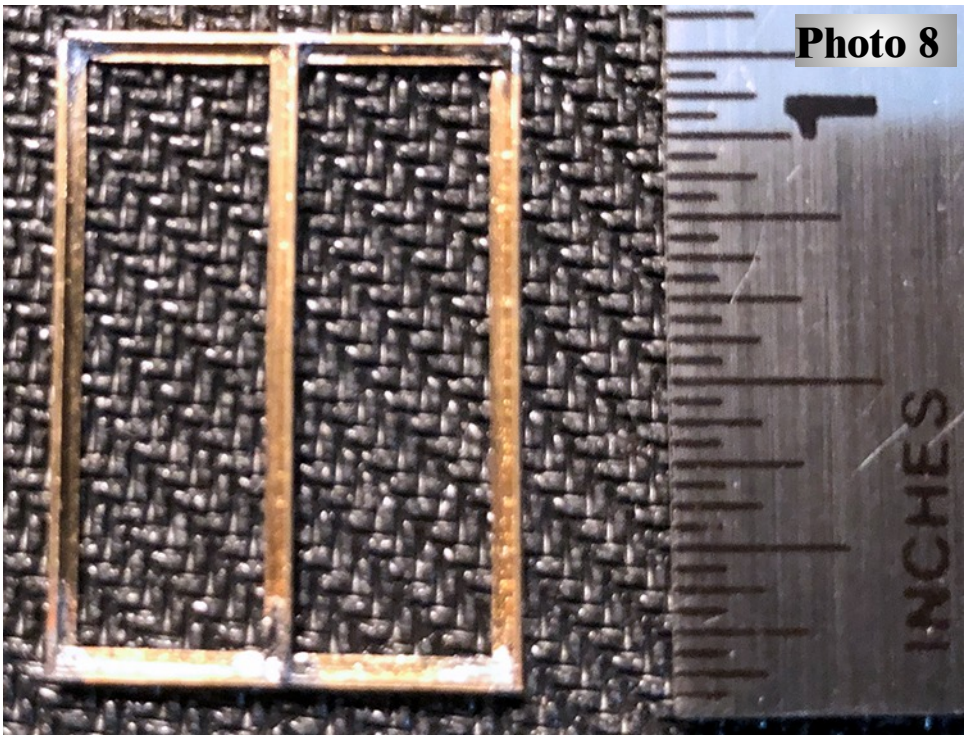
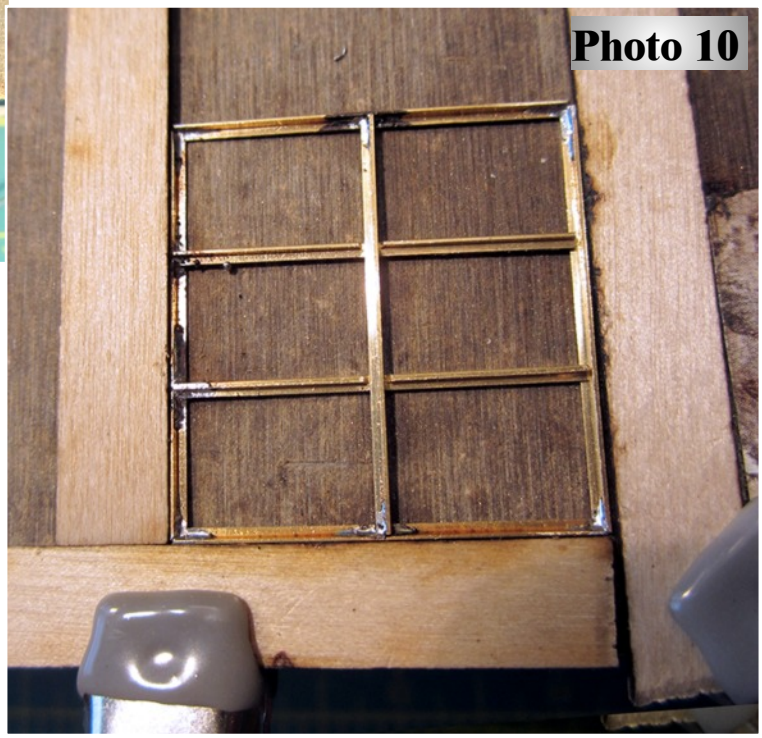


Photo 8: I used a 35-watt Pencil Tip iron to solder the frame corners. Solder one corner on several pieces and then solder into the final frame with a center piece. If one piece was a bit long, I would file it before soldering. The human eye is a wonderful tool for squaring boxes! I did measure the box outside dimension to get each one as close as possible to the same size. Each car would have two small and one large frame on a side, and I did not want them to be visually different. This is a photo of one of the completed small frames; eight small frames had to be constructed.

Photo 9, 10, & 11: Here are some various views of the larger frames being soldered together. I tried to file miter joints on one frame, but decided that was a lot of extra effort for something that did not really show. I did however file a notch in the transverse interior pieces so the vertical center angle would sit flat on them.



That made the resulting frame stronger and looked much better on the finished model. When soldering, I would take round solder and squeeze it in a pair of pliers to flatten it. I used a knife to cut tiny squares of flattened solder and place them in between brass angles for soldering.

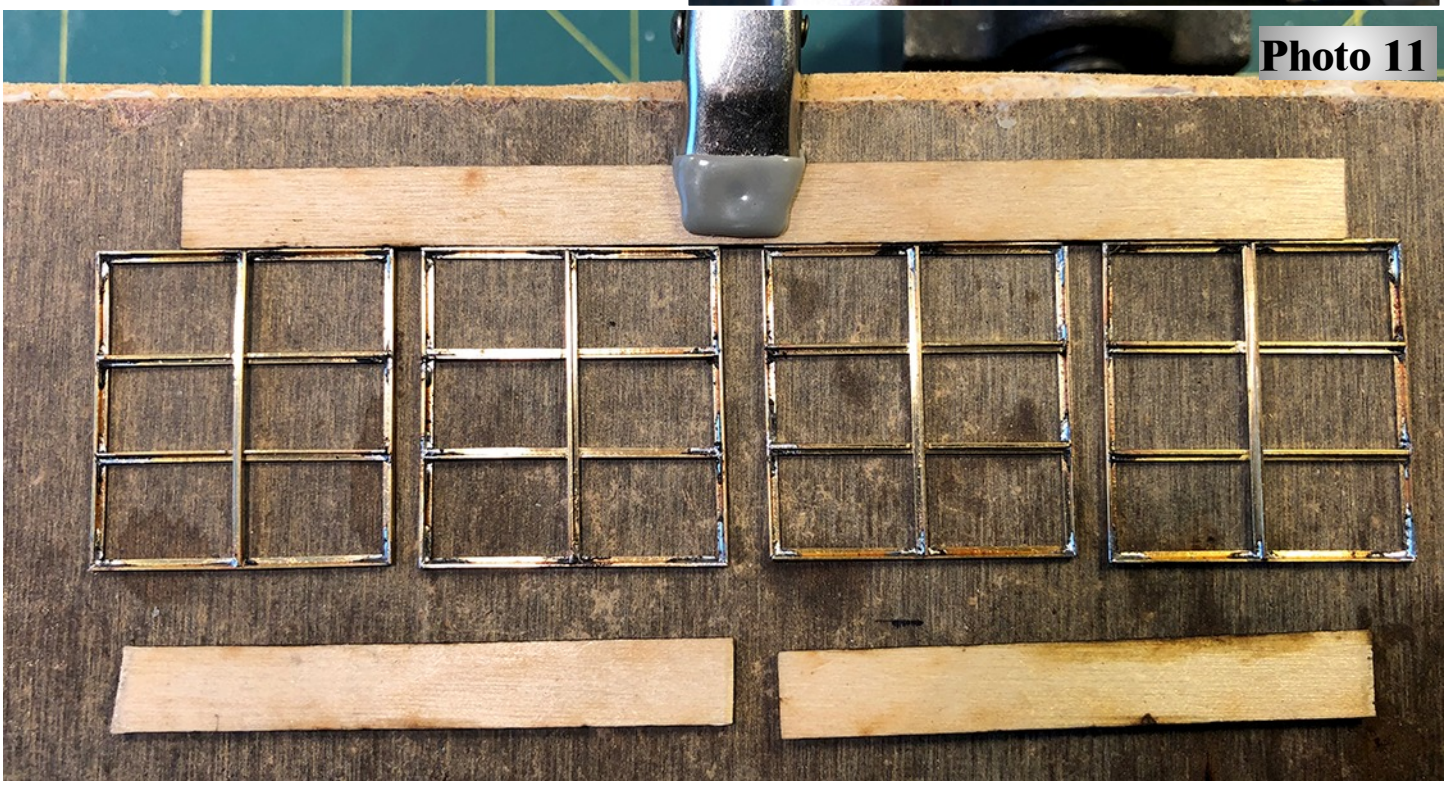


Photo 12: Photo 12 shows all 12 frames in various states of assembly. It looks like a lot of work, but goes quickly once you get started. After the frames were all completed, I washed them in Mineral Spirits and then very soapy water, using a small brush to scrub any remaining flux or dirt from the solder joints. It was a way to double check if my solder job was adequate. Only one joint came apart and it was easily resoldered – better now than after installation on a plastic model! The final step was a quick soak in vinegar to give them a bit of "etch" to hold paint.

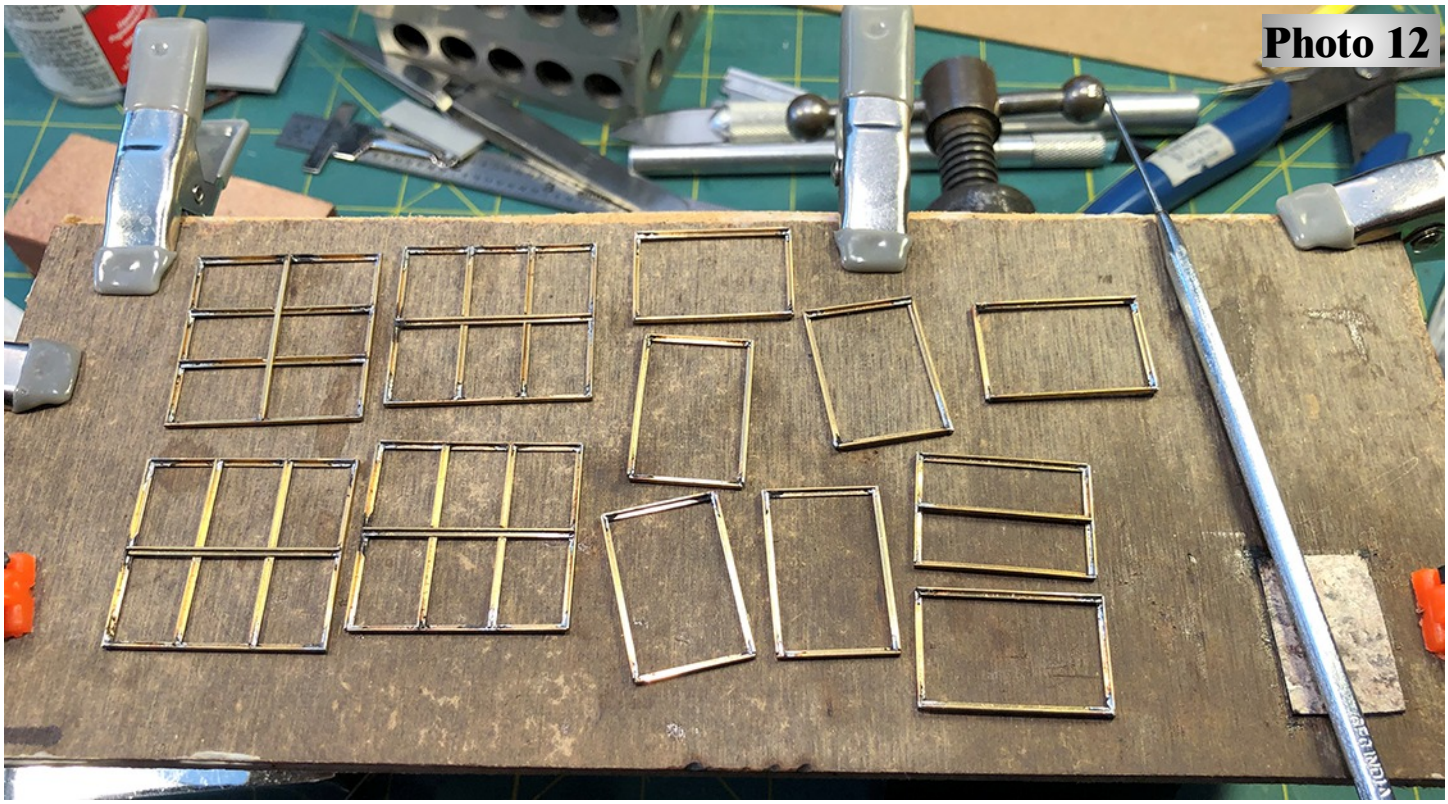
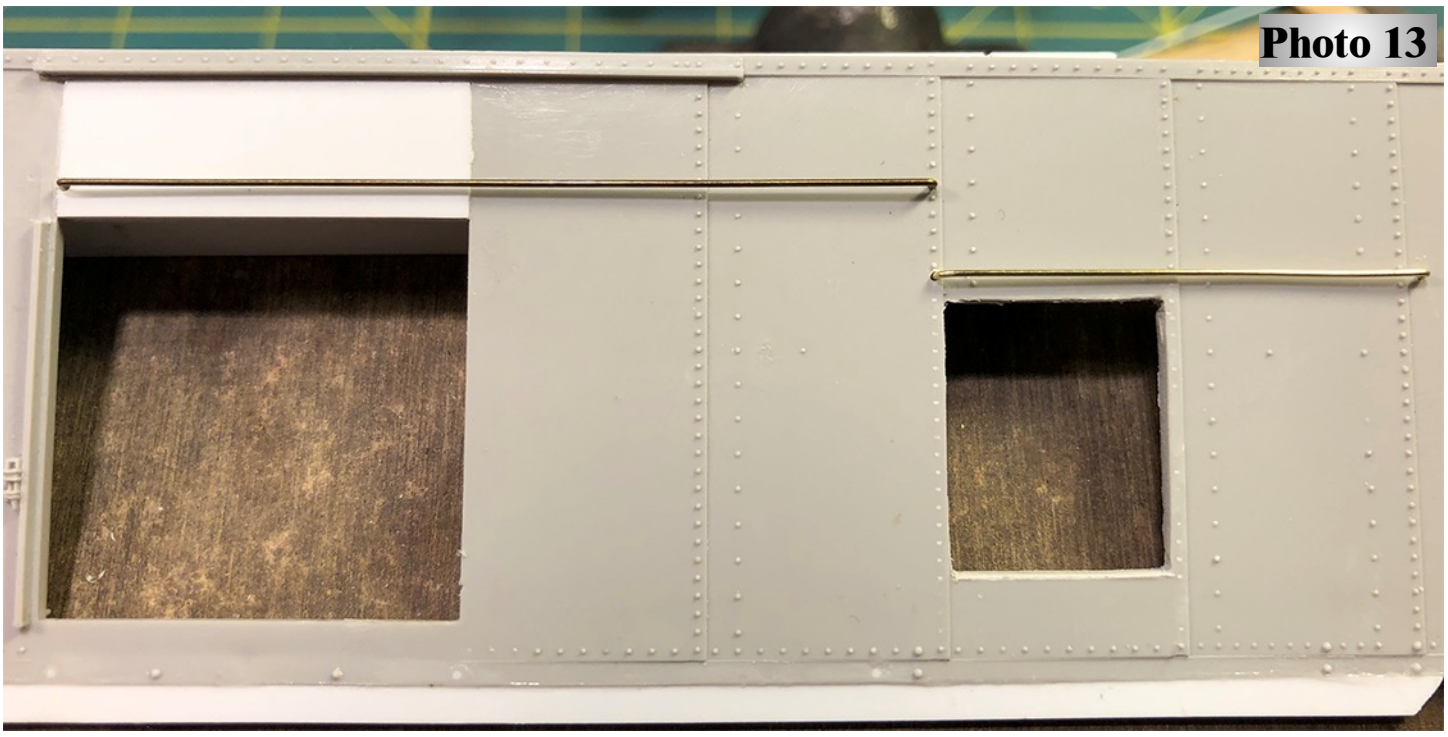


Photo 13 & 14: It was now time to add some detail parts to prepare for attaching the brass door frames. I added the door guides, sills, ladders and hand grabs, and then began adding the door frames themselves. I used a process of carefully spreading a thin coat of 5 Minute Epoxy on the frame and putting dots of Medium CA in



two opposite frame corners. The CA adhered almost on contact and held the frame so it could not move around while the epoxy hardened. An alternate would have been to use a product called 'Pliobond'. It is an excellent adhesive for attaching parts of dissimilar material – brass to plastic, wood to brass, etc. This all really depends on a modeler's preference and comfort level with different adhesives.

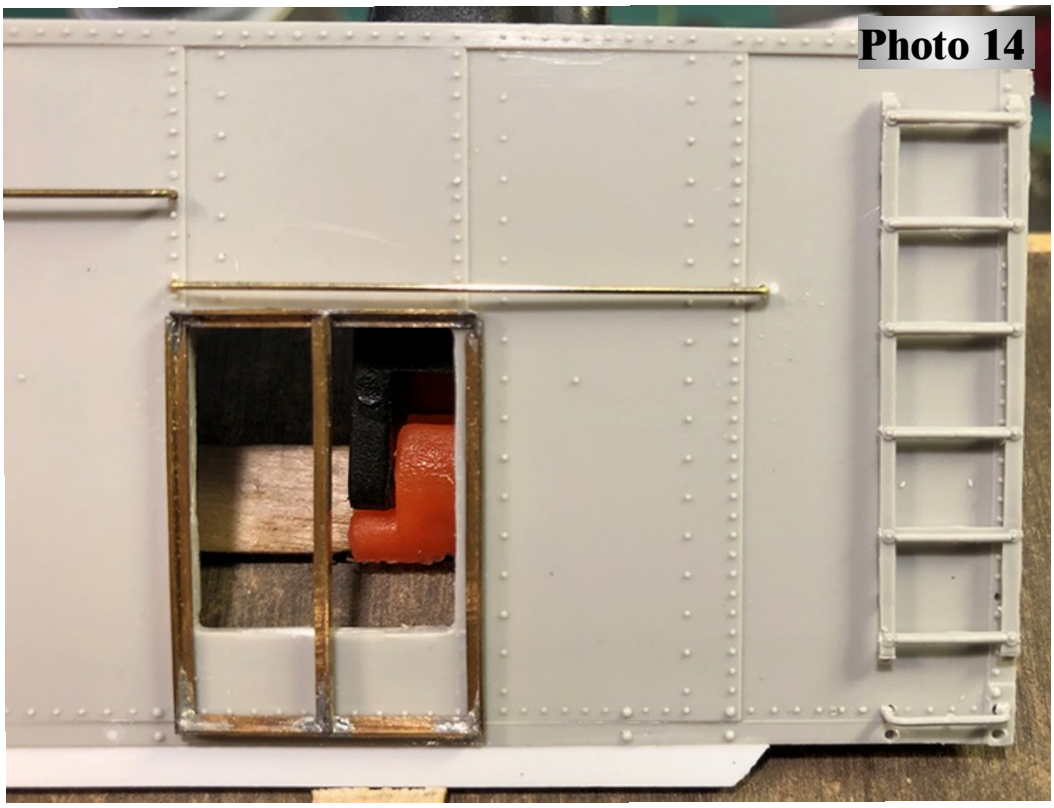
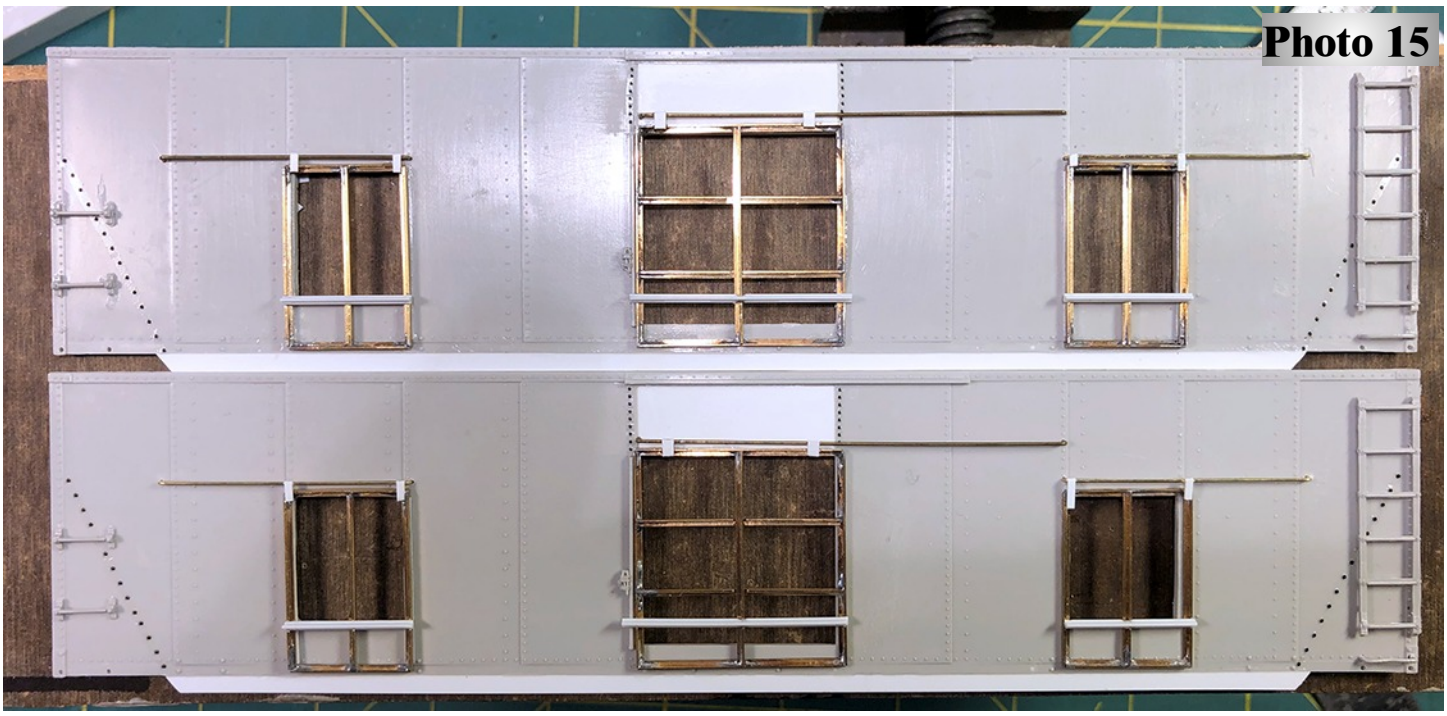


Photo 15: For me, a lot of time was spent thinking about "next steps"! Because this is a partially scratch building, there are no assembly instructions or road maps on what to attach and when. I was concerned that adding a necessary part now might interfere with something that needed to be done later! It became a bit of a chess game, thinking through the impact of attaching each individual piece – and true to my concerns, I attached the end ladders and grab irons on the sides, only to realize later that rivet strips needed to go there first! These coke cars have angled slope sheets inside to help the coke 'flow' to the doors. That was apparent from a row of large rivets on prototype photos. The simplest method would have been to put the rivets on before the ladders and grab irons. I used Archer tank car rivets to indicate the slope sheets presence and now had to carefully slide those decals under the existing ladder – not easy, but not a total disaster. A valuable lesson learned for future projects!



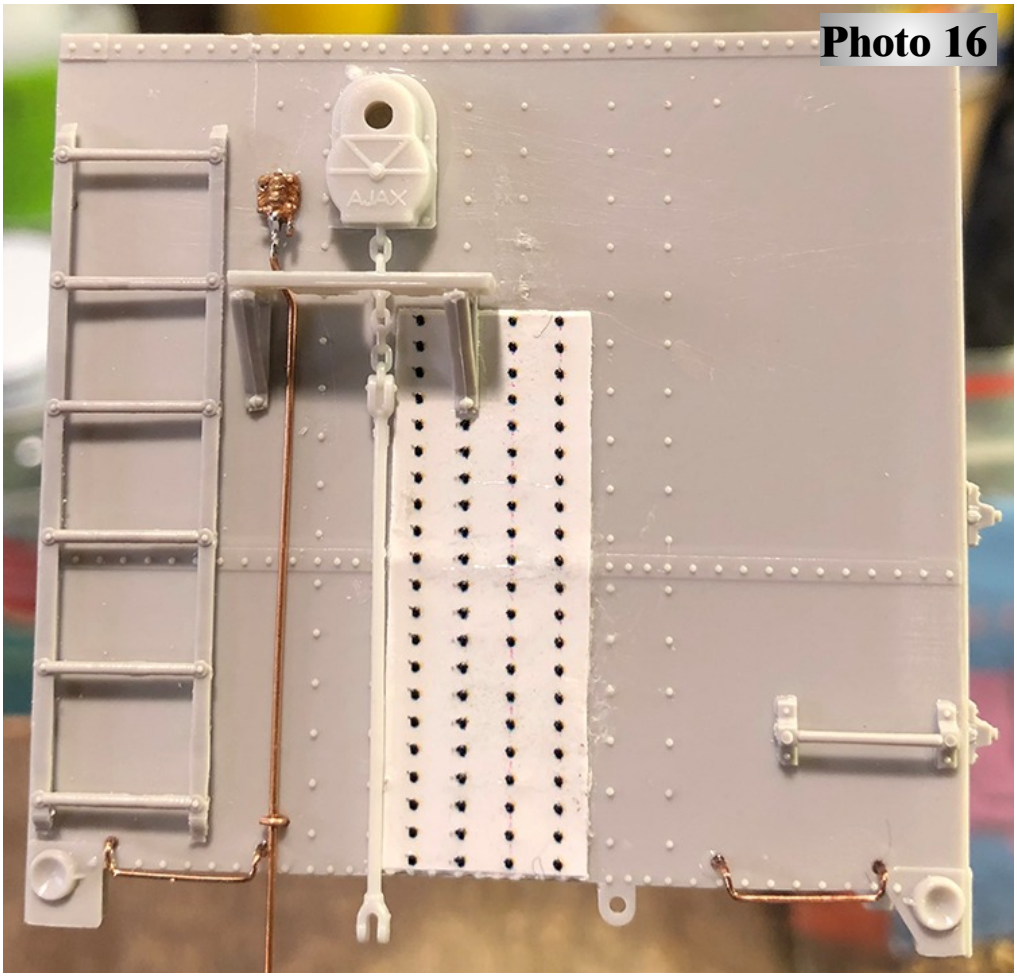
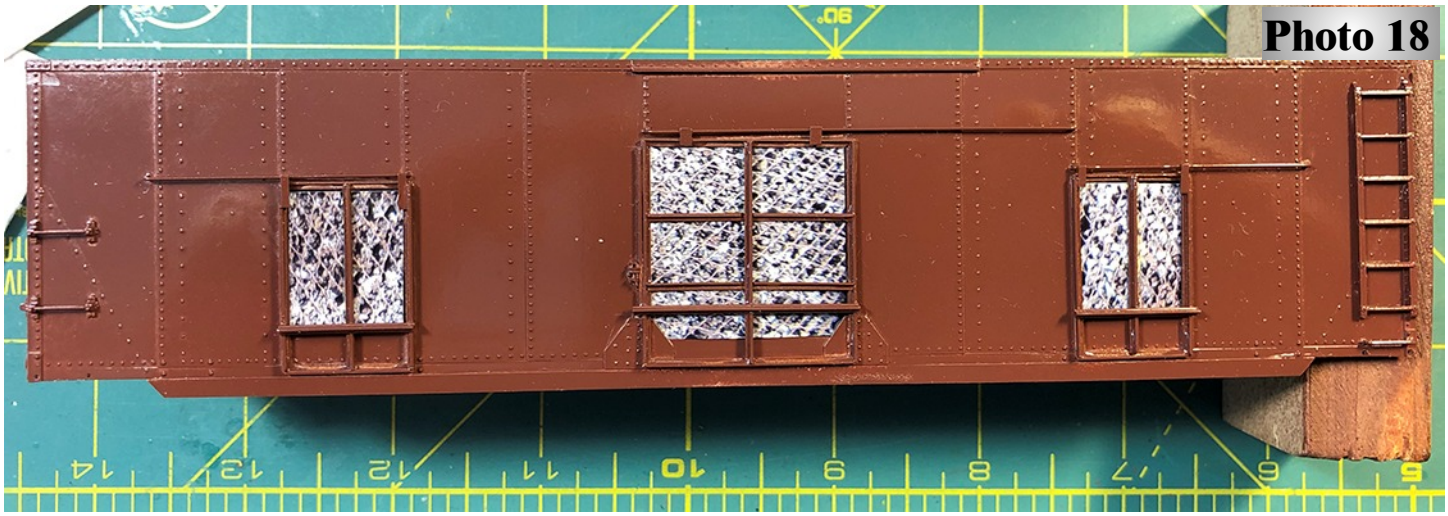


Photo 16: The ends of the coke car also required some detail additions. Obviously brake detail was added, but the cars also had a piece of steel plate on the ends as reinforcement. That was accomplished with a piece of 0.010" styrene and Archer Rivets to finish. Dimensions for the plate came from prototype photos.

Photo 17: At this point, the kit was still flat, I had not assembled the ends and sides into a box yet. I decided to paint all the pieces Boxcar Red before assembly because I wanted to add coke in the open unloading doors. Filling the cars with scale coke was never an option, the models would be far too heavy. The photo of L&N 30676 shows the coke, which was held back by some type of heavy, yet see-thru screen. The screen is probably a little more visible in the earlier photo of L&N 30555. So, the next step became trying to mimic and model this feature. I needed to paint everything first but left the sides as flat pieces, so they would be easier to work with. L&N 30676 is shown at Fayetteville, NC on February 22, 1959, photo courtesy Steven D. Johnson.



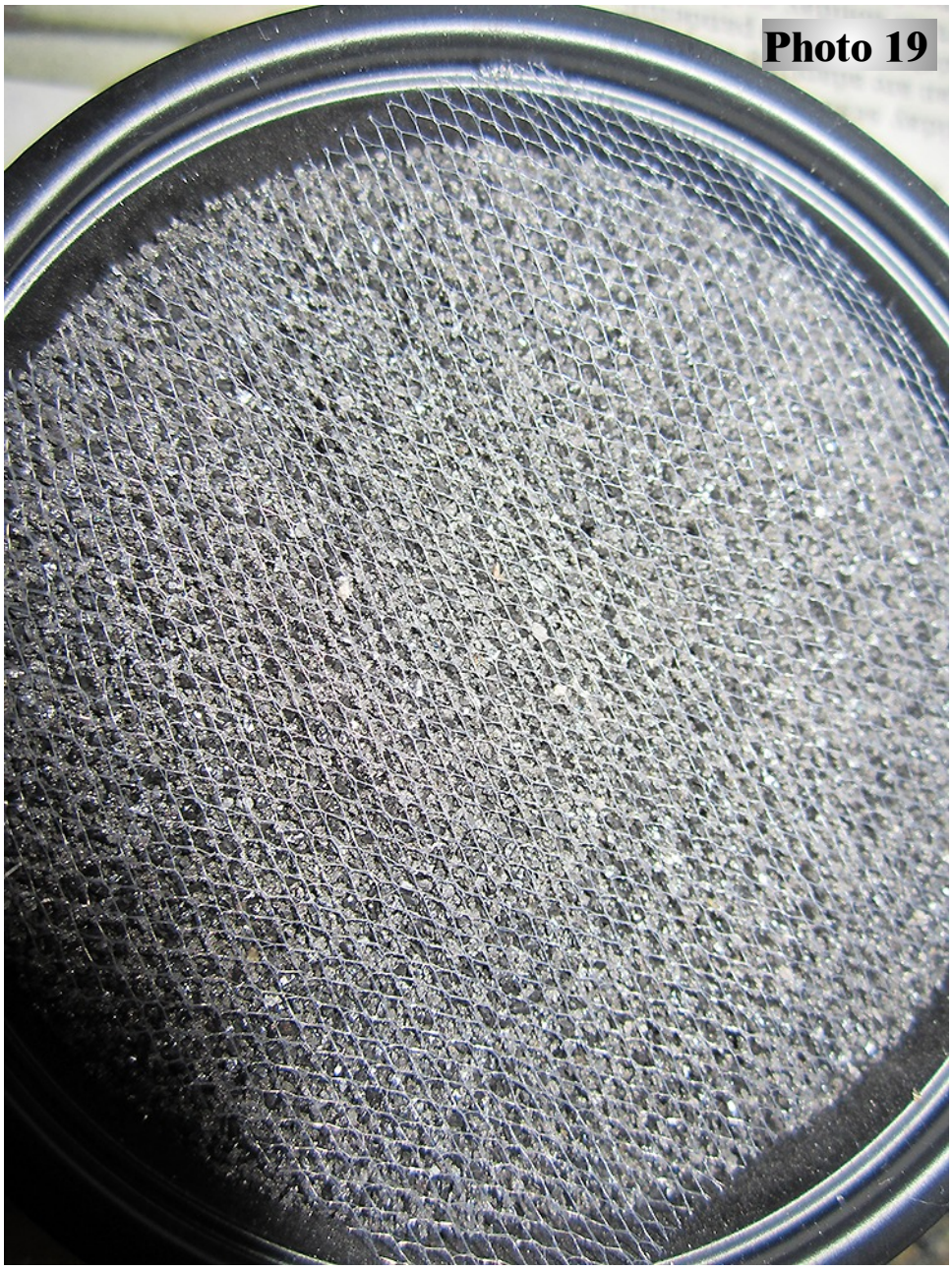


Photo 18 & 19: The idea was to have the illusion the open areas were filled with coke, which is a grayish color, much lighter than regular coal. I tried coarse sandpaper and a cut up carbide disk but was not satisfied, not to mention there still needed to be some sort of screening in front of it. After some discussion, I hit on the idea of spreading Arizona Rock & Mineral Company 'Coarse Coke', item # 1123, in a bowl, dusting it with light gray paint and taking a photo. My wife contributed a piece of tulle, fabric used for bridal veils, to cover the material as a screen. The result is shown in the photo. I took several photos at varying brightness and distance and printed the pictures at a local pharmacy. Then I cut up the photos, backed with thicker cardboard and glued them into the openings. It achieved the effect I wanted, there are probably other ways to do this, that's part of the creative side of model building I enjoy! I do need to recognize, Jamie Bothwell, Jim Martin, Don Thompson, Sam McCoy and Dick Karnes. I reached out to all of them for ideas and to discuss how to add coke to the model and make it look realistic. What resulted is a combination of all their input.

Photo 20 & 21: After getting the coke photos installed, the heavy lifting on the project was done. I constructed the cars as boxes using liquid styrene cement. The SSA kits are made with 45° angled ends and sides, so the box squares up easily. The underbody was detailed with standard AB brake rigging before painting flat black and installing into the complete car box. This shell was then filled with foam and a layer of the Arizona Rock & Mineral Coke was glued on top using the same white glue/ alcohol/ water formula used for gluing down ballast. Additionally, I used a piece of cardboard to mask the top of the car and gave the coke a mist of light gray to lighten the material even more, as shown in this photo. Tichy Train Group makes an S Scale L&N decal set, #10237S, that can be used for all the car's major elements, as shown in the photo. I also added a few "Close Door Before Moving" and safety stencils from an HO boxcar data set.

Photo 22: The model is almost complete now, on went couplers and a pair of ASF 50-ton, double truss trucks, "Bettendorf" being a widely misused model railroader term. Finally, I added the four transverse braces across the top. If a modeler wanted to add extra interest, pieces of code 55 or 70 rail could be used for these braces, but I chose 0.060" styrene rod. Finally, the stiffeners were hand painted Boxcar Red and any other spots around joints were also cleaned up and, if necessary, re-painted. The result is a unique car that can start a conversation as it rolls by, not only about the prototype, but also about the various modeling techniques used during construction. Enjoy your time at the modeling bench!

I made a gift to Earl Henry of one of the L&N coke cars I built for all his help on the project. Photo 23: Photo of Earl Henry's L&N Coke Boxcar #30598, shown on Jim Schall's L&NE themed layout in Tennessee. Photo by Earl Henry, Jr.

Gulf Terminal Transfer

By Jay Mellon

To briefly introduce my former model railroad, the Gulf Terminal Transfer, its main function is to service a small refinery facility. This activity includes moving empty tank cars into loading racks for product loading, as well as moving loaded cars to team tracks for transfer to outside destinations. This S scale layout also has an industrial section that includes a car parts distributor, an agricultural feed/product distributor and a general goods distribution dealer. The layout is in a U-shaped configuration (Figures 1A, 1B;10' x 11' x 14'), with the longest section consisting of a 6-track yard with an adjoining small depot. Backdrop structures on the far side of the yard include a citrus packing house that brings in reefers, as well as general goods importers and a Railway Express Agency facility. Train control is by means of a NCE digital command control system (5 amp).

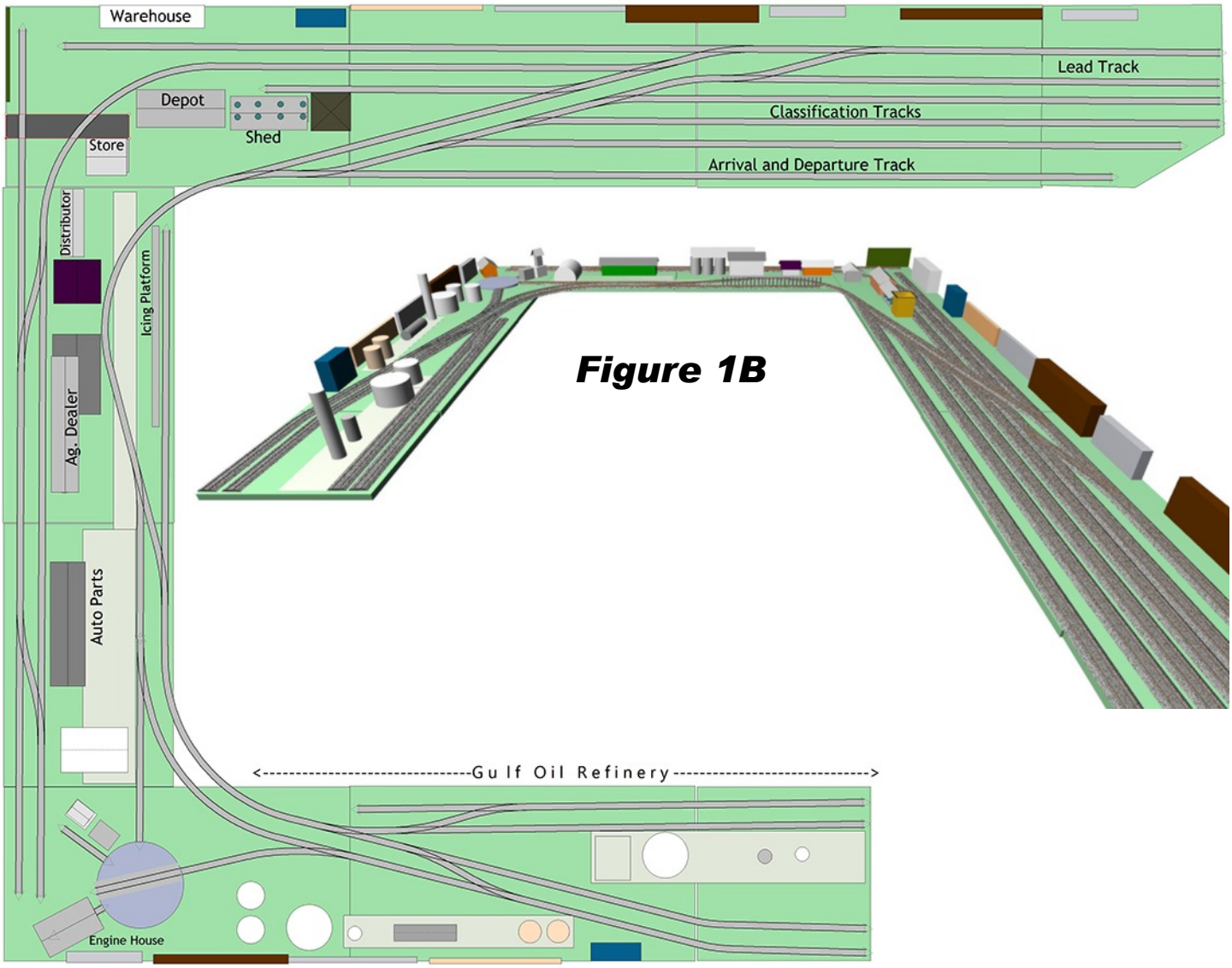


Figure 1B

Figure 1A ***Track plan figures by Larry Janeski***

For the most part, the railway leases diesel switch engines from major roads; they are kept very clean and in excellent operating condition. Trackage on the layout is a combination of code .148 flex track (American Models) and code .137 flex track (S Helper Service). The roadbed is cork (½ O scale; ½ HO scale) that is sealed with standard interior latex paint. Minimum track radius on curves is 24". Turnouts are no. 4s made with code .148 rail (Tom Stoltz products). Turnouts are thrown with HO ground throws (Caboose Hobbies). The turntable was marketed as an On30 product. The rail on the bridge was re-gauged to S scale specifications (per Bob Hogan's instructions). Finished track sections are ballasted with Woodland Scenics ballast material (medium size, gray blend). Scenery, as such, uses Woodland Scenics foam products and small trees. S scale signals (NJ International) are controlled by means of infrared block detection (Azatrax).

Scenery work was about 40% complete at the final stage of the layout's life. Backdrop scenes are art work supplied by SceniKing; they are adhered to bristol board for support purposes. Locomotive power (S Helper Service; Railmaster Exports; Smoky Mountain Model Works) is equipped with scale or hirail wheels and scale couplers (Kadee 802s; SHS S scale). Rolling stock is a combination of equipment derived from S Helper Service, S Scale America, American Models, Mikes Train House, and scale-converted American Flyer. They

Figure 2

Figure 3

are equipped with scale or hirail wheel sets and scale couplers (Kadee 802; Walthers ProtoMax).

Let's take a quick tour of the layout. We will start in the depot/yard area (Figure 2) and proceed into the industrial business area (Figures 3-7). In the foreground is the reefer icing platform facility (Figure 4). As we move toward the refinery area, we pass by the engine maintenance area (engine house, turntable, sanding house) (Figure 8).

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

On the third leg of the layout is the principal industry (Figures 9-11). After finishing construction of an HO refinery model (Walthers), another member of our club, who is a retired petroleum engineer, informed me that the model does not represent a cracking tower structure. Instead, it is a model of a reactor structure that converts aromatic compounds (e.g. benzene) into aliphatic straight carbon chain compounds (e.g. octane).

So much the better for the railway's bottom line. Tank cars bring in reactant material (aromatic starting compounds) and tank cars move product out of the facility.

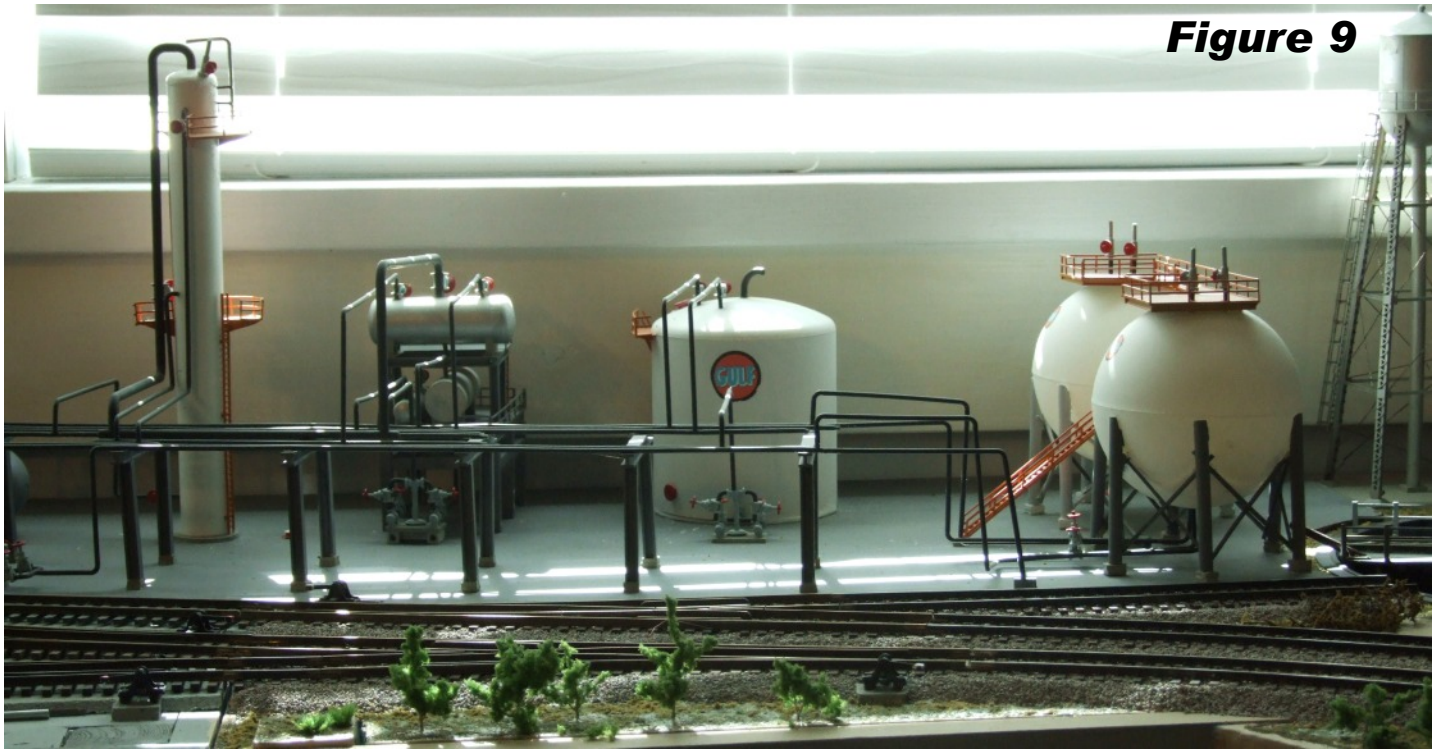


Figure 9

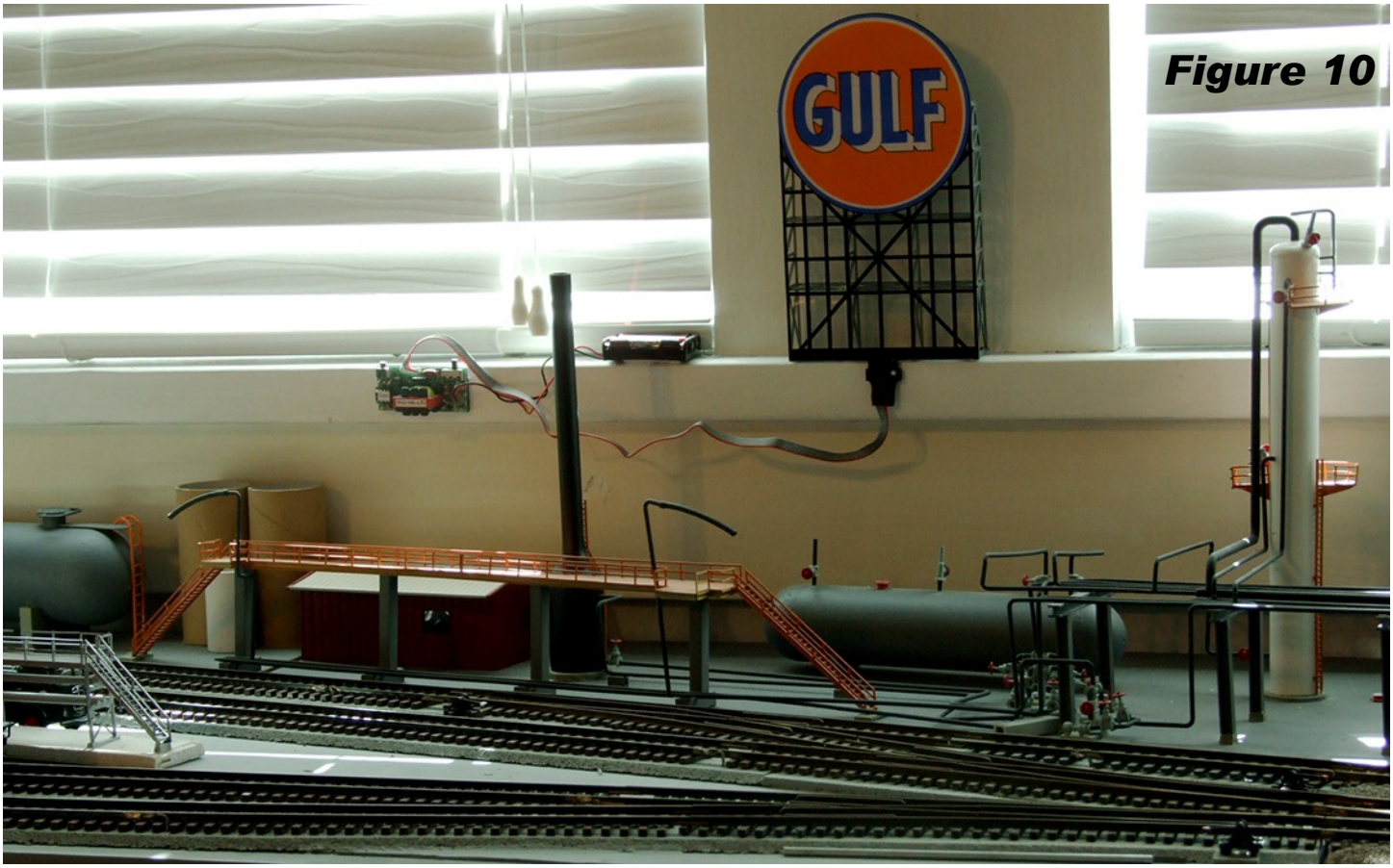


Figure 10

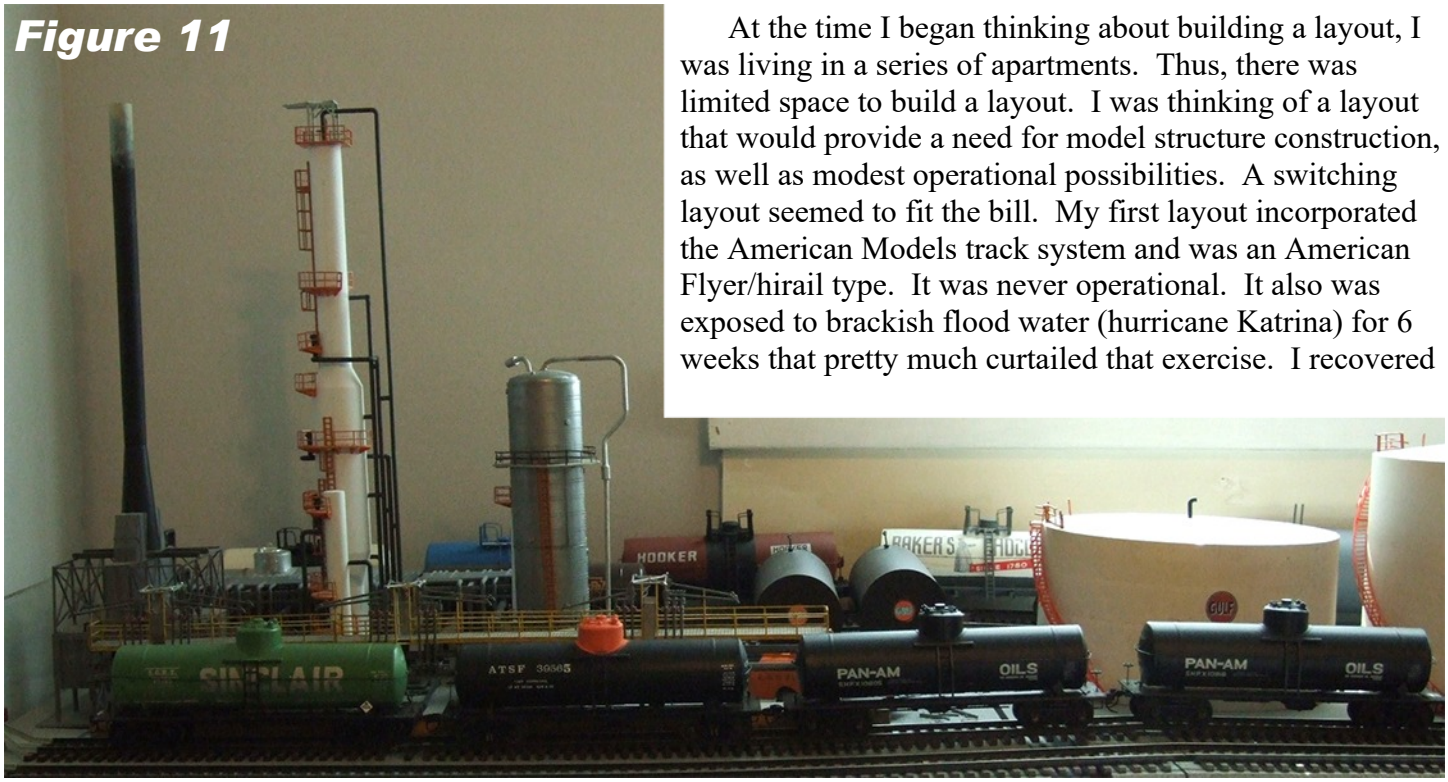


Figure 11

At the time I began thinking about building a layout, I was living in a series of apartments. Thus, there was limited space to build a layout. I was thinking of a layout that would provide a need for model structure construction, as well as modest operational possibilities. A switching layout seemed to fit the bill. My first layout incorporated the American Models track system and was an American Flyer/hirail type. It was never operational. It also was exposed to brackish flood water (hurricane Katrina) for 6 weeks that pretty much curtailed that exercise. I recovered as much of the trackage as seemed feasible. I wasn't convinced that this track was still usable, but I thought I would give it a try. My recovery procedure consisted of applying a heavy coat of WD-40 to the damaged track and letting it 'sit' for several hours before applying action with a rotating non-metal wire brush wheel (3 M) by means of a drill to remove as much 'crud' as possible, followed by wiping off any remaining WD-40 residue. This step was followed by a final treatment of rail heads with a track 'cleaning block'. Much to my surprise, the track subjected to this procedure proved to be usable. In addition, this procedure left some noticeable corrosion residue on the rail web that I term 'natural weathering'.

Also about this time, I became interested in David Barrow's concept of 'domino' layout construction, where the layout consists of a series of essentially identical table sections. I constructed my 2' by 4' tables by building a framework of 1” by 4” dimensional wood with 2” thick insulation foam board for a table top. I used Gorilla glue to adhere the foam board to the framework. I used 2” by 2” dimensional lumber for the legs. Use of insulation foam board necessitates using water soluble glues and paints to prevent destruction of the foam board.

Now, let's look at some work activity on the railroad. SW-1 No. 503 (WP) moves in to pick up a cut of tank cars on a team track (Figure 12). The loco with the tank cars slowly moves through the rail crossing (Figures 13-14) and into the yard. Then, the locomotive reverses direction and shoves the cars past the depot (Figure 15) and into the commercial section (Figure 16), past the engine maintenance area and into the refinery spur track with the loading rack (Figure 17). Next, SW-9 No. 1862 (UP) gets the call to work and moves onto the turntable (Figures 18-19). It moves into the yard and onto another team track to pick up a cut of wood reefers for delivery to the icing platform structure (Figures 20-21). As with the previous job, loco and reefers move through the crossing (Figure 22) and into the yard. The loco reverses direction and shoves the reefers into the industrial section (Figure 23). No. 1862 makes a 'run-around' move (Figure 24) to get behind the cut of cars (Figure 25) and pushes them into the spur track with the icing platform (Figure 26). Last, we see GTT 70-tonner No. 1 moving an empty box car through the yard (Figure 27).

Figure 12

Figure 13

Figure 14

Figure 15

Figure 16

Figure 17

Figure 18

Figure 19

Figure 20

Figure 21

Figure 22

Figure 23

Figure 24

Figure 25

Figure 26

Figure 27

Model structures are mostly built from kits (see Table 1 on next page), although the fuel storage tank next to the engine house is scratch-built. Alas, although I enjoyed building and operating this layout, I began to feel a yearning for more 'rail-fanning' activities. With the sharp radius curves, this layout could not accommodate passenger trains and other longer wheel-based equipment. Thus, when a larger modeling space became available, I decided to dismantle this layout and move forward to the next layout construction adventure.

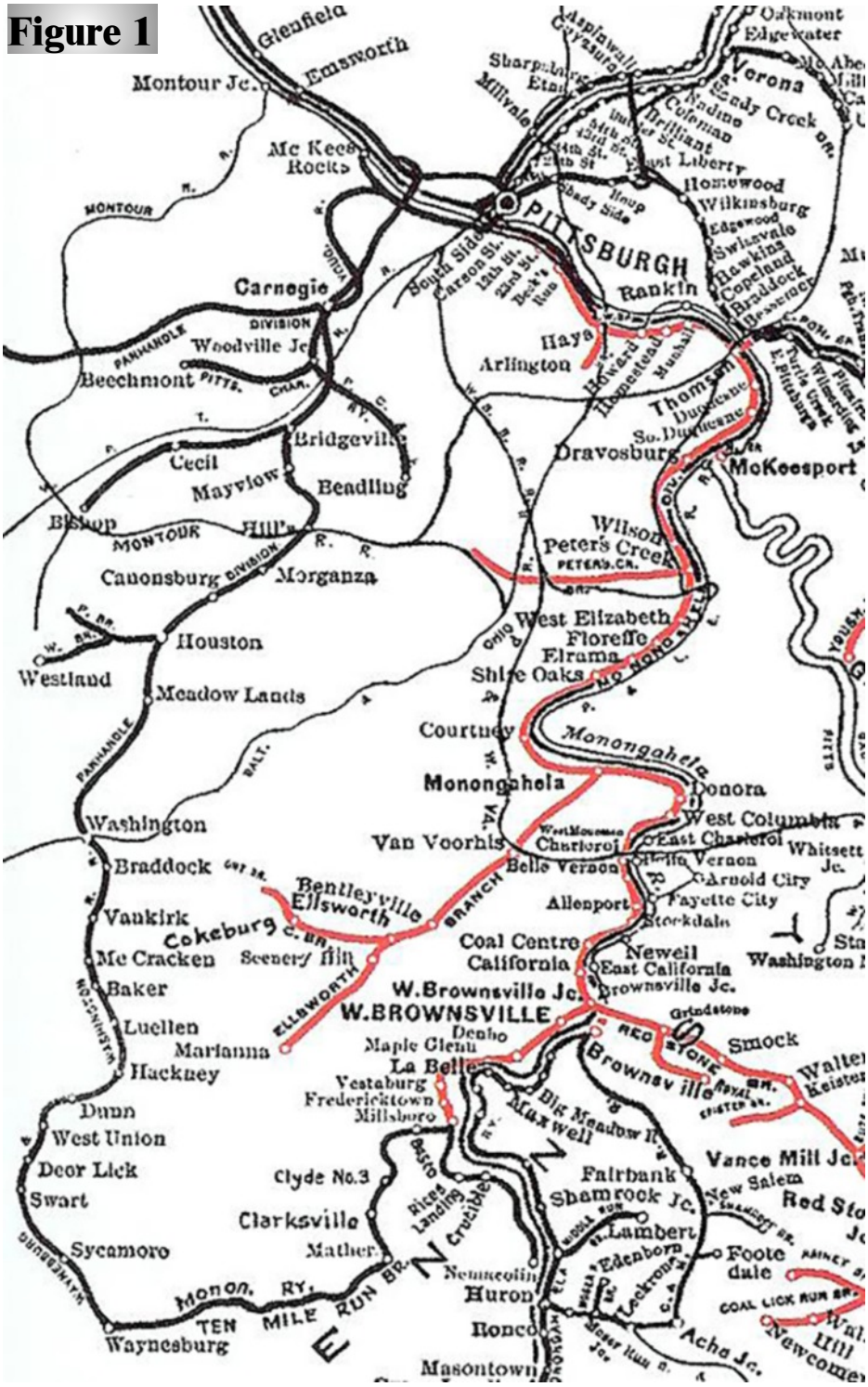
Acknowledgment. The assistance of Larry Janeski in the production of track plan figures and layout track design is greatly appreciated.

Table 1. Structure Kits

Manufacturer	Model
Altoona Model Works	Engine house; depot.
American Model Builders	Yard tower; company houses.
B.T.S.	Willet's Supply Co.; Junior's Shiner (trailer); Greeley's Place (cabin).
Clever Brothers Models	Quonset hut.
Lehigh Valley Models	Icing platform; Hawk Milling; Sand tower; pillar crane.
Monster Model Works	Freight house; Railway Express Agency facility.
Motrak Models	Warehouse (car parts distributor).
Peco	Turntable.
Pine Canyon Models	Back Alley kits.
Plastruct Models	Refinery model (S scale).
Twin Whistle Kit Co.	General store.
Walthers	Refinery model (HO scale); storage tanks.

Lightweight Modules for Home Use

By Peter A. Vanvliet



On the left side, the north-south line shows the PRR's Chartiers branch from Carnegie to Washington, PA.

I model the Pennsylvania Railroad's Chartiers branch. This is a 23-mile branch that is still being operated today southwest of Pittsburgh, PA. The branch line connected to the PRR's main line at Carnegie, PA (formerly named Mansfield, PA) and was built to connect the main line to Washington, PA. If you are familiar with narrow-gauge railroading, you may recognize the name "Waynesburg & Washington Railroad". At the passenger station in Washington, PA, the Chartiers branch line allowed passengers to embark/disembark the standard-gauge line and disembark/embark the 3-foot narrow-gauge line. In 1944, the PRR-wholly-owned Waynesburg & Washington Railroad was upgraded to standard-gauge and renamed the "Waynesburg Secondary". (Figure 1)

Why So Many Layouts?

As I "mature" in my model railroading efforts, I have become more and more interested in modeling actual scenes, without compromise and without selective compression. The only serious problem with that approach is, How does one build a 23-mile branch line in S-scale in a 10' x 10' spare bedroom?

In the two homes I have owned since marriage, that is just about the only space I have had available. Being an eternal optimist, I look forward to some day living somewhere where I'd have the space to stretch my legs, so to say. But what to do until I reach that point? (Or, conversely, what if I never do?)

I have built a number of layouts, but they were always of the freelance variety. Nothing wrong with that, but it just wasn't scratching the itch for me. So, for years I tried to come up with a solution to my particular dilemma.

When I re-entered the hobby of model railroading in 1999 and started buying all the latest books and many magazines, I remember reading about those authors, whose basement-filling empires were being covered in the article, whom had built structures while they lived in an apartment before they were able to build their empire in their home's basement, finally utilizing those structures.

The Bright Idea

In 2015, it finally dawned on me that I could do a similar thing, but take it up a notch. Instead of just building structures (which would have to be stored somewhere and protected from damage), I'd build whole scenes, fully detailed with track and everything. This would allow me to build a diorama-style layout, which would still allow for some limited operations, and that would protect the structures, track, and scenery. I am much more interested in the building part of the hobby of model railroading than the operations part, so I wasn't too concerned about not having a lot of track done; this is another one of those things I have learned about myself as I matured in the hobby.

Since about 2000, I have been involved in modular model railroading with two local clubs, setting up at local train shows. Modules were in my blood. First with an N-scale club, and later, when I joined the Houston S Gaugers in 2008 after switching scales from N to S. I built three new modules for the HSG club, and completed three more that were started by club founder Jack Troxell.

So, combining all of this, the idea I came up with in 2015 was to build a modular layout at home that captured complete scenes that I want to model along the PRR's Chartiers branch. Technically, one would call what I am building “sectionals” rather than “modules”, but I like the term modules better. Just remember, I am not building to a specific, accepted standard.

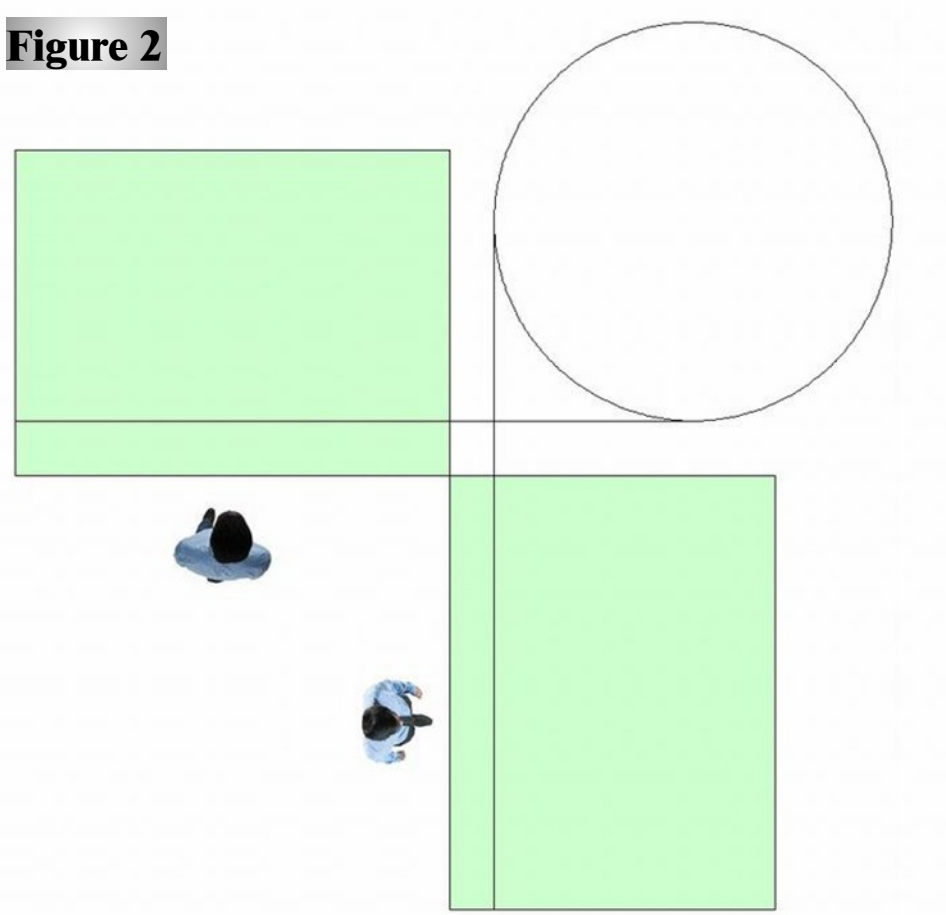
Shortly after that, I read that Joe Fugate, editor of *Model Railroad Hobbyist* magazine came up with the term “TOMA”, or “The One Module Approach”. His idea is fairly similar to mine (although I don't find that his term rolls off of the tongue easily). The idea is to take a portion of the (future) layout that you want to build, finish it completely, and then move on to the next one. The NMRA has a somewhat similar concept that they call “Layout Design Elements” (LDE). The LDE is just a concept, whereas TOMA and my idea are actual implementations.

So, my idea is to build one or more small modules that, when put together, form a cohesive scene covering some specific area. When that is finished, I move on to another set. As I mentioned before, I am more of a builder than an operator. What I learned in the past was that I was actually somewhat disappointed when the track-laying stage or the scenery stage of a layout was completed, because I knew that I'd never do those steps again unless I demolished the layout. Maybe that was part of why I have built so many layouts over the past 20+ years. What my modular approach allows me to do is basically build many small layouts, that somehow connect with one another.

The Design Concept

This diagram shows the basic concept. So, the answer to my question about how do I model (part of) the PRR's Chartiers branch in a small space, is by building modules with interesting scenes, and connecting them together with visible or hidden track, in a shadow-box style of display, perhaps. The green rectangles represents scenes, each of which can consist of one or more modules, and the track connecting the scenes can be out in the open or hidden. The layout can expand, contract, or be re-arranged as living situations change. (Figure 2)

Figure 2



Conceptual diagram of one possible scenario of how I intend to use groups of modules to form a more conventional model railroad.

At this point in time, this whole idea is still in the proof-of-concept stage. Back in 2015 when I had this idea, I needed to wait a while before I could take down my previous S-scale layout because there were people who wanted to see my layout in person during that year (the National Narrow Gauge Convention was in town, and my parents were coming down to visit).

Implementation Attempts Numbers 1 through 4

I knew I wanted my modules to be lightweight; therefore, in the meantime, I experimented with various types of foam goods (1/2" insulation board, 1/4" foamcore, 1/2" MDF, and one consisting of two layers of 3/4" MDF glued together covered by four layers of 3/4" blue insulation foam board). All of my experiments failed! The foam due to warping, and the MDF due to weight.

Finally The Serious Effort

So, I went back to the old stand-by, and built three modules' framework out of ¾" plywood, but used foam to build the "interior" of the module, so that I could lay track on it, and yet be able to carve out the Chartiers creek along which the PRR branch line ran. For me, modeling the Chartiers creek is an important part of telling the story of the Chartiers branch.

Everything was going great with the first two of three modules. I had the hand-laid track down and quite a bit of basic scenery in place by the time the 2016/17 winter season arrived. (Figure 3) Early in 2017, I started noticing that a couple of pieces of rail between two modules weren't lining up (I was not using rail joiners). "Odd", I thought, since I had been meticulous about my hand-laying of track. So, I removed a portion of the end of the affected rails, sanded down the ties, and replaced the rails and the ballast. "Great! Problem solved!", or so I thought. About a month later, I started noticing more rails no longer lining up.

Now I knew I had a serious problem. Since my objective is to have these modules last "forever", having this happen over one winter is bad (the layout is in a temperature-controlled spare bedroom). I decided that there must be something really bad happening, so I decided to start over and rebuild those modules. I took them to the garage and cut them up to investigate what happened. What I noticed was that the layers of blue insulation foam board I had used (we can only get 3/4" sheets here in Texas), were warping really badly.

Here We Go Again!

So, in mid-2017 I started over again, and in a fit of frustration I decided to build the entire modular framework out of 3/4" plywood. No more foam!

Modules, two layouts back, that used plywood frame and insulation board internals that started to warp.

The first scene that I am trying to build is the Hazel Mine tipple operation that was in southwestern Canonsburg, PA. Canonsburg is a decent-sized town about halfway between Carnegie and Washington. My plan was to build three modules to form that one scene of the mine tipple. These modules would take up a total area of 4'x8' when put together. The mine tipple is quite long (29” for the S-scale model), and I wanted to model the Chartiers creek, because the tipple was on one side of the creek and the mine entrance was on the other side. So, the modules had to be 4 feet deep. That is way too deep for a regular, fixed layout, but for a modular one, it is doable. (Figure 4)

When I was all done with building the three modules (built in such a manner that no planned buildings needed to be cut in half because they fell on the module's border), two modules wound up being 3' wide and one was 2' wide, with them all being 4' deep. I made the modules be 7” tall to accommodate the Tortoise switch machines I was planning on using, and to allow for depth to model the creek. The two large modules weighed in at over 40lbs. Heavy, but doable. Since this was for a home layout, I didn't foresee moving them too often.

Due to work, I made progress on this 4'x8' collection of modules, but slowly. The track was all hand-laid with scratchbuilt styrene tieplates. It took me more than a year to get the 40 feet of tipple yard track down (5 tracks at 8 feet long with 7 turnouts, all on a continuous curve). But the track work was eventually completed, the ballasting was done, and I had one structure in place, with the main tipple building under construction; everything exactly 1:64th of the real thing. (Figure 5)

Figure 4

Page 281 of this Google-scanned 1901 journal has a photo of the Hazel Mine coal tipple, as built, in Canonsburg, PA

Having a 4'x8' display set up in a 10'x10' room makes it feel crowded, especially since that room is also my office. I had come up with an idea of how to improve the ergonomics of my office in late-2020. So, in March 2021, I decided to act on that idea, and so the three modules had to be disconnected from each other, and put aside for a few days. While putting three 40+lb modules up on the cabinets where they resided in the room was doable when they were just plain plywood “boxes”, now that they had delicate, hand-laid track, trees, and a structure on them, they required a lot more finesse to man-handle them. It turned out to be such a pain to do (literally), that right there and then I decided that this concept wasn't going to work, either.

My Final Attempt. Really! I Promise!

I liked everything about what I was trying to do, EXCEPT for the individual modules' weight. So, once again, I carried (actually, wheeled) the modules to the garage and started to re-think what I could do. Then, I remembered visiting a local N-scale layout many years ago. During the month of November in the Houston, Texas area, people open up their homes for viewing their layouts. This gentleman had a large building adjacent to their home, wherein he had a positively-huge N-scale layout. When we visited his layout and asked about how he built it, he said that he had built it out of individual modules that were constructed out of this stuff called “Gatorfoam” board. I had never heard of it. Having no need for that, I just made a mental note of it, and forgot about it. He said he built and finished them on his workbench, and then placed them on the benchwork to create the final layout. That was the one type of foam board I had read about but I had not tried during my foam experiments back in 2015/2016. The reason being, Gatorfoam is very expensive. 3/4” plywood was much cheaper.

The three all-plywood modules that made up my previous layout.

However, now that we are in the post-2020 years, the cost of plywood has shot up tremendously. While it is still cheaper than Gatorfoam, the price difference isn't that great anymore, and the weight-savings made it a viable alternative.

If you are not familiar with Gatorfoam, it is very similar to the common foamcore boards you find at art supply stores and hobby centers. People use those foamcore boards for making temporary signs, and the boards are easily cut with a utility knife. Back in 2015, I tried building a module out of that foam, and it warped horribly. Gatorfoam has a similar inner foam core, but the outer sheets are not paper, but rather a resin-impregnated wood veneer, similar to wood veneer you find on furniture-grade plywood.

Because it is impregnated with resin, these boards do not warp and are intended to be used out-of-doors, if necessary (e.g. as signs). Because of their rigidity, some people also use them to permanently mount paintings on them, for example. The wood veneer, however, makes it nearly impossible to cut with a utility knife, so you have to use woodworking tools, such as a tablesaw, to cut the sheets to desired sizes.

I decided it was time to investigate this material and to see if it was usable for building lightweight modules. I spent some time online looking for others whom have used this for their layout. I found one article about an HO-scale layout where the builder had used Gatorfoam, but that site is now gone. Another one I found showed how the builder has used Gatorfoam board as the sub-roadbed for his N-scale layout, and one more where the builder has used Gatorfoam for backdrop panels. That was it! Red flag! Was no one using this material because it doesn't really work, or because it is so expensive?...

I searched online for several days. There is one store in Houston that supposedly carried Gatorfoam, but they are quite far away from where I live, and they only showed one sheet of 3/4” 4'x8' in stock on their

website, which was quite expensive (over $200). Gatorfoam is available in several smaller sizes, but also in 4'x8' sheets, at various thicknesses. However, shipping a 4'x8' sheet of Gatorfoam usually costs a premium (think $150 just for shipping!). I finally decided to take the gamble and found a company online which sold 3/16”-thick sheets for about $150. The package included ten sheets of 2'x3' material. While 3/4” thickness would have been ideal, what I needed more was quantity of sheets rather than thickness, based on the design I had developed for the module's framework. I had decided to start building modules that were only 2' wide and 4' deep (similar to NASG modules in footprint, but “rotated 90 degrees”, so to say). So, one design issue I had to deal with was the fact that I wanted 4-foot modules, but they only sold 3-foot sheets.

The ten sheets arrived in a double-packed box in perfect condition about a week later. So, in March 2021, I officially scrapped my heavy plywood-based set of three modules, and set about making new ones from Gatorfoam board. Instead of building all the modules in one go, I decided to just build one for now, and super-detail it, before going on to the next one. I envision needing four such modules to create the scene that covers a part of the Hazel Mine tipple complex (it had many support buildings). That way, my room only has to accommodate the one 2'x4' module that I am actively working on, leaving the room much more open.

It took me a little over a week of relaxed hobby time to build the module. Since it requires woodworking tools, and since my other hobby is woodworking, I had all the tools necessary, and built the whole thing in the garage, mostly using my tablesaw, my drillpress, and my jigsaw.

A 3/16” sheet of Gatorfoam cuts and handles much like a 1/4” sheet of plywood, except that it doesn't warp like 1/4” plywood does. I saw no warping of the individual parts as I cut them and left them in the garage overnight.

(Figure 6))
Ten sheets of 2'x3' 3/16"-thick Gatorboard foam.

Since I use battery-powered locomotives, I have no need for wiring track. Also, I fully plan on having hand-thrown turnouts, so I have no need for electronically-controlled turnout mechanisms. As a matter of fact, as an additional challenge (as if building a layout isn't hard enough), one of my minor goals is to be able to run my layout when the power is knocked off as sometimes happens during those Texas thunderstorms; I'd have something to do while my computer is off! (Figures 7 and 8)

So, I basically built what is commonly referred to in the woodworking community as a “torsion box”, as shown in the diagram. Most of the interior doors in our homes in North America are built using the torsion box concept. There is a honeycomb frame that is covered by two thin layers of facing material, held together by glue. The inner sheets that make up the honeycomb each have half-height slots cut into them, so that they all slide into one another. I exclusively used regular yellow carpenter's glue for all of the joints in the Gatorfoam

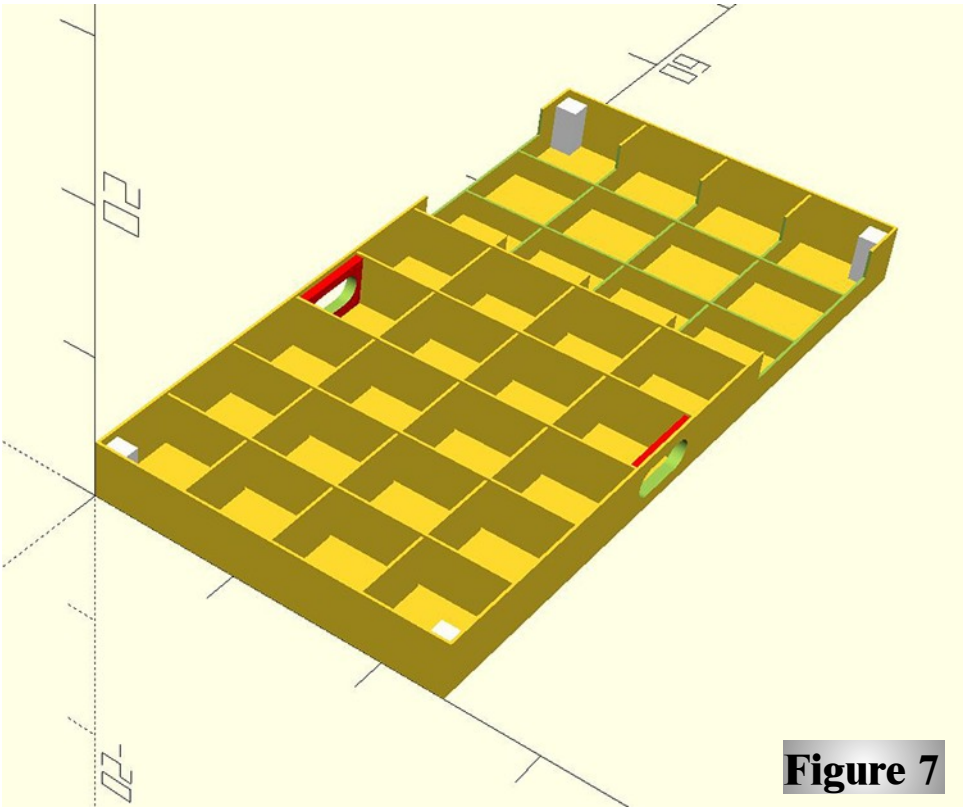


Figure 7

Above: My design of the 2'x4' module that I built.

Below: Design of what the module will look like when the tops have been installed.

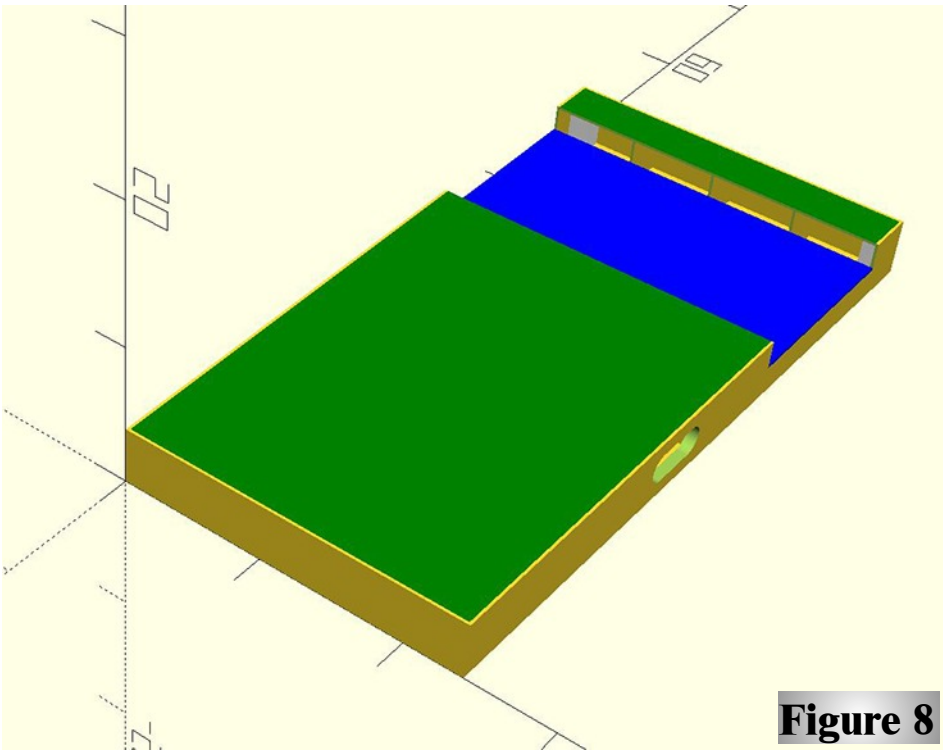


Figure 8

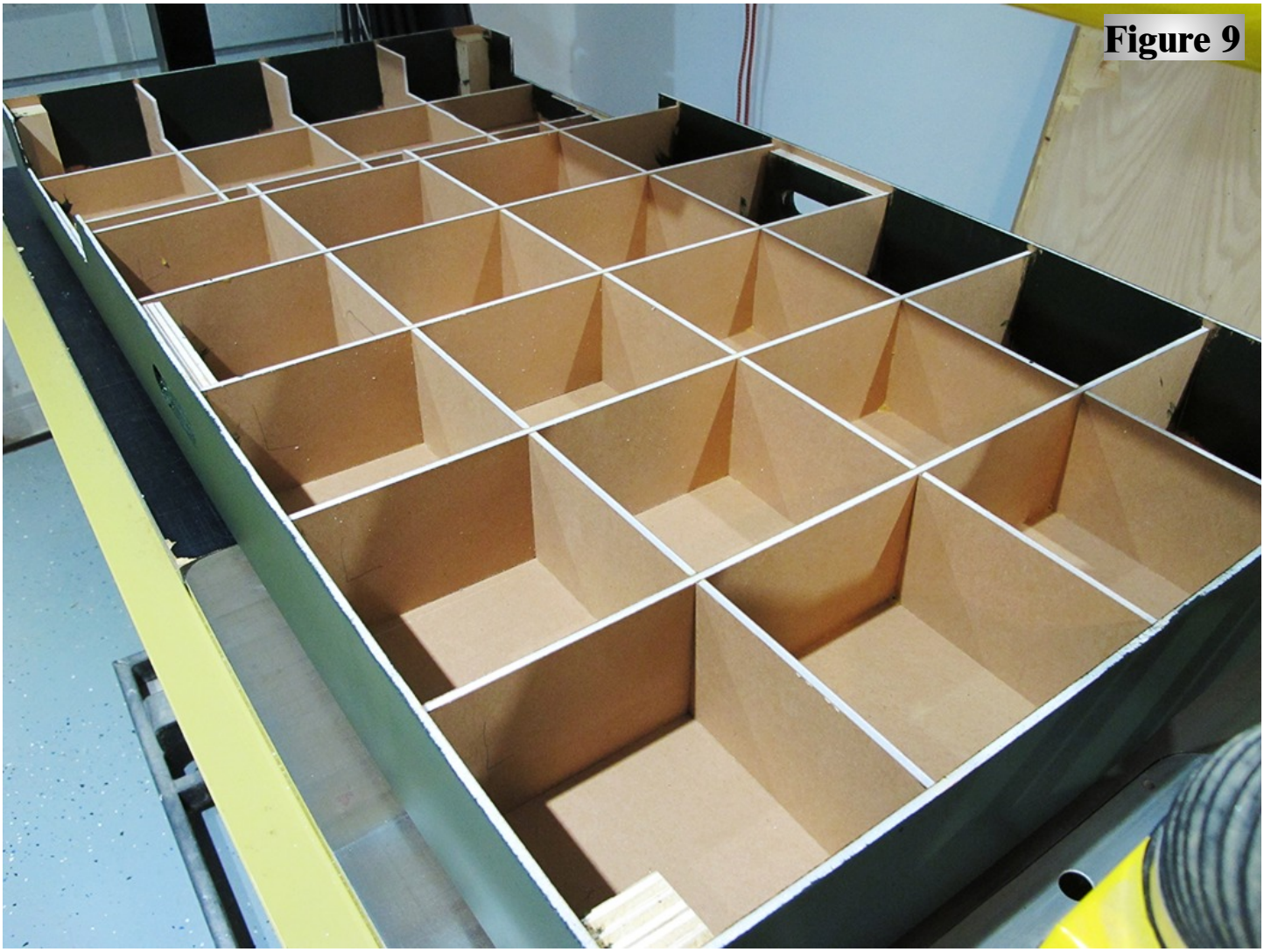
module; works great! Torsion boxes yield a lightweight, flat surface, great for doors, cabinets, workbenches, and... modules!

While my experience is rather limited, as of this writing two months have passed since completing the construction of the first module, and it has shown no signs of warping. I used a total of 6 of the ten sheets, with two large sections left over.

So, my estimate is that two orders of ten sheets each would allow me to build three 2'x4' modules, or, with today's prices, about $100 per module. On the surface, this may seem expensive, but given the current price of plywood (if you can even get it!) and then the fact that a full 4-1/2" x 2' x 4' module now weighs a mere 9lbs (I can literally lift it with one hand), it is worth it to me, especially considering that I'd like these modules to last me the rest of my life, and they are easy to transport. (Figure 9)

Now, the reason why I titled the article "for home use", is the fact that I don't think these modules would withstand the rigors of public train shows, where modules are typically clamped together, thrown about moving them in and out of the facilities, and bouncing around in vehicles. My plan is to use embedded magnets to hold the modules together making sure the tracks remain aligned, maybe with additional wooden dowel pegs. Light, clothespin-style, plastic clamps could also be used. If a modular club were to develop a standard that had modules consisting of only Gatorfoam board, then the concept might work, providing that they have some means of ensuring the whole layout doesn't move when a member of the audience hits the layout (heavy plywood-based modules clamped together are hard to move and can take a direct hit like that). Maybe use the T-Trak standard of using folding-leg tables.

There was one more concern I had with using any kind of foam, and that was the wheel noise of equipment running on a layout made out of foam. Many people have built their permanent layout with layers of insulation foam board, and I have been told that they have little noise. I built one such N-scale layout in about 2001 and my experience (using layers of 3/4” blue insulation foam board) was that the trains made a very noticeable racket when they entered the foam section (built on a plywood subframe). So, before I placed the top layer on my new Gatorfoam board-based module, I loosely placed a sheet on it and ran one of my battery-powered engines on it. (Figure 10)

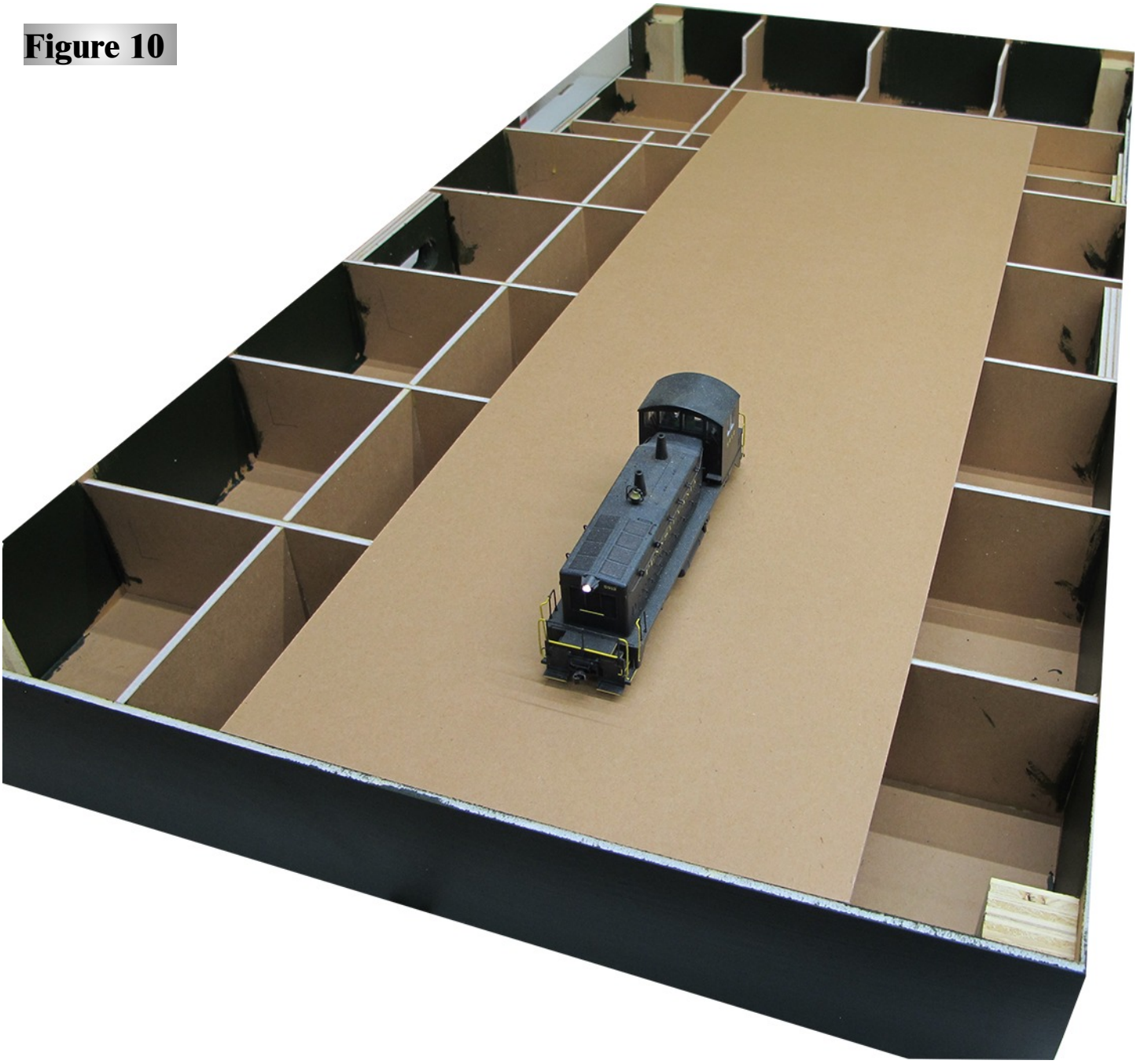


The actual construction of the module, matching the design.

Much to my surprise, the noise level wasn't much more than the engine's natural motor and gearing system. I had left the top open, so that if there was a bunch of noise, I'd experiment with filling the honeycomb cavities with some sort of insulation material (similar to what they do with quality loudspeakers).

Since I didn't need to do that, I proceeded to glue the top on the module's frame. However, I decided to add a layer of ceiling tiles to the top, though. This is 1/2” material that I have been using since 2008. It is very similar to Homasote, but it is more readily available at your local hardware store, and helps to reduce noise. I also use that so that it is easier to make undulations in the scenery for things such as ditches (1/2” in S-scale represents a scale 32”). (Figure 11)

Figure 10



Testing for sounds when running a battery-powered engine on the newly-constructed module.

After painting the whole module to protect it from any possible moisture (just to be safe), I salvaged the concrete “pilings” for the foundation of the coal tipple from my previous layout, cleaned them up and applied them to this new module. Next, I ordered some flextrack from Tomalco Track and installed that and several thin layers of ballast to complete the simple track work that was part of the outfeed yard of the Hazel Mine tipple. (Figure 12) Figure 12 shows the view from the “front” of the layout, with the Chartiers creek in the back. The mine's entrance will be just on the other bank of creek. The five-track yard, in the real world, could hold 75 loaded hoppers. I designed this module such that the tipple sits right up against the right-hand edge of the module, because the next module to the right will hold the power house, which they built next to the tipple. The power house provided electricity for the entire mine. I am also looking forward to scratch building that one. But, first, the tipple.

The module with 1/2" ceiling tile installed, for any additional sound-absorption, and possible vertical undulations.

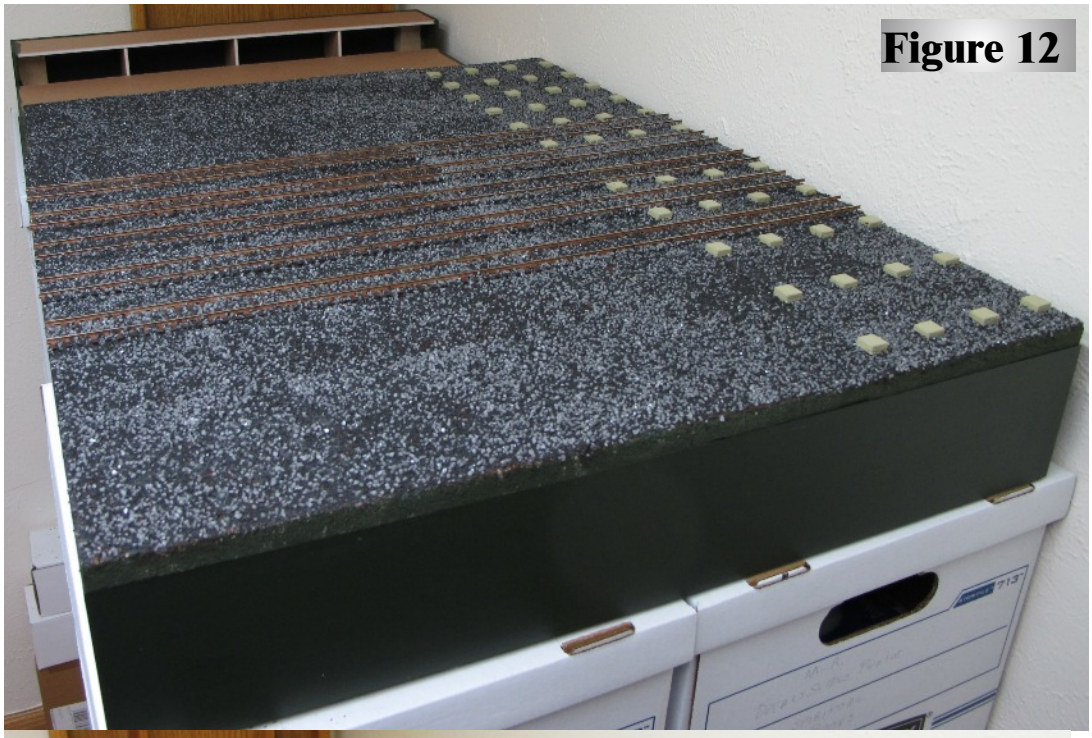
I had already started the construction of the tipple building itself when I made the decision to scrap my previous plywood-based modules, so this new Gatorfoam-based module will hold that same mine tipple. This is my active project as of this writing. (Figure 13) As a preview, Figure 13 shows the main tipple building finished. I am currently building the support structure that holds it up in the air. The main building was made out of 1/4” and 1/2” plywood for rigidity and general shape. I then cut heavy-duty aluminum foil, and, using a small die, hand-formed 485 (yes, I actually counted them!) individual scale 4'x8' sheets of simulated corrugated sheet, which were glued to the plywood building using Aleene's Tacky Glue. In calendar time, this took me three months to do, but I guesstimate that it probably required 30 hours of work.

Stay Tuned!

It is my plan to write future articles about how my experiment is going and show progress on my little diorama/layout. The point is that one can build a nice diorama or miniature layout in a very small amount of space, and still enjoy every facet of the construction process of a model railroad. If my future does not hold a large space for a full layout, then I will have been enjoying the process of building a layout all along. If my future holds having to move into a smaller location, then I will be able to take the completed modules with me and just rotate the ones that are displayed from time to time. Either way, I have possibilities and options, while at the same time, right now, being able to enjoy the hobby to its fullest, the way it is meant to be enjoyed.

About Peter

You can see my latest progress on my personal web site at, https://pmrr.org/, which I update every Friday evening. I own my own software company called Fourth Ray Software (https://fourthray.com/), and I am the webmaster for several web sites, including the National Association of S Gaugers (NASG) web site (https://nasg.org/).



Mine tipple foundation blocks and five tracks installed, and some initial ballasting applied.

Several more layers of fine ballast added, and a preview of the Hazel Mine tipple's main building (its support structure is under construction).

New Tracks

Mentor Definition: A Trusted Counselor or Guide

By Contributing Editor Jim Kellow MMR

Manufacturers and Modelers who may be able to help improve your modeling.

Where Mentors Help Modelers Build

"New Tracks" Announcements

First: I want to ask you to please visit our new website newtracksmodeling.com to get the latest information about what we are planning. Also make sure to register, and confirm your registration by replying to the email you will receive. This will make sure you get notices of all our future Zoom "New Tracks" events and Zoom log in links. Our thanks to Dan Dawdy's company Ribbon Rail Productions for designing and developing our new website.

Also, I am always interested in getting feedback from modelers about our Zoom shows or articles. We have a form on our website you can use to give your comments. I will reply to each comment I get.

Please also send the Zoom log in link to your friends so they can also join in the fun and be a part of our shows. Thanks in advance for your help and support.

Second: Please volunteer! I ask you to consider offering your help in making and producing our Zoom shows. Any amount of time and help you are interested in providing will be greatly appreciated. We have a lot of plans, but need people to help us get them implemented. We would definitely welcome any help you can provide. Contact me at NewTracks@newtracksmodeling.com and let's discuss.

Third: I want you to be aware of a new Scholarship Walthers has started. I am sorry that by the time you read this the deadline for the Walthers 2021 Scholarship Program will have passed. I just found out about it a few days after this article had to be submitted for publication. However, I am really impressed with what Walthers is doing for young model railroaders and want you to be aware of their effort.

I became the Ambassador to the Model Railroading community for the Association of Professional Model Makers (APMM) because I believe the knowledge, skills, confidence, and model building capabilities of model railroaders make them highly qualified to become Professional Model Makers. Earlier this year I presented a

program to the APMM showcasing several young modelers to demonstrate this belief. https://youtu.be/p21rf-0vycc

I believe mentoring, internships, and financial aid programs for model railroaders, by private companies, can be a win win for both model railroaders looking for career opportunities and companies looking for qualified employees.

I congratulate Walthers for developing their scholarship program. I will certainly try to get the information to you sooner for their 2022 Program, if they have one.

In the meantime, I think we should all thank Walthers for recognizing the value that being a model railroader can have in the education and future professional achievements of our youth. Thank you Walthers.

Now, how about other model railroad manufacturers and suppliers also considering developing similar educational and professional development programs for model railroaders. If any other companies are offering programs for model railroaders, please let me know as I would also like to write about them and include them on my website: newtracksmodeling.com. How about real railroads also offering such programs? How about educational institutions giving recognition to the value of a model railroader's experience and knowledge?

I hear all the time the hobby needs to appeal to young people. Well, I believe Walthers is taking a step in the right direction to make that happen. Read the following Walthers announcement and see if you agree with me. Let me know what you think. NewTracks@newtracksmodeling.com. Thanks.

Announcing the Walthers 2021 Model Railroad Scholarship Program
Designed for class of 2021 high school seniors or grads active in model railroading and pursuing a degree in one of the STEAM programs (science, technology, engineering, arts or math)
Application Deadline: July 15, 2021

Qualified applicants MUST meet the following criteria:

2021 high school senior or 2021 high school graduate residing in the United States.

Have a 3.0 GPA or higher

Plans to attend a two-year or four-year technical college or university during the 2021-22 school season with an intent to pursue a degree in one of the STEAM programs.

Demonstrated participation in a model railroad youth activity program such as Youth in Model Railroading®, Scouts MRR program, 4H model railroading, MRR Youth clinics, active participant in building a home layout, or belong to an organized model railroad club.

Write an essay describing their involvement in model railroading and how they feel it has benefited their education within one or more of the STEAM areas of interest.

Include one reference that can attest to their involvement in model railroading activities. Walthers will be contacting the reference of selected finalists.

Read this entire application before proceeding to ensure that you are prepared and have all the required information to complete this form. You will not be able to save your application and edit it later. Walthers will be contacting reference of selected finalists only.

Please contact Karen Formico - karenf@walthers.com if you have any questions.

Our "Build Along" Programs.

Join these learning experiences.

Rick and Maureen Hunter finished up their building and weathering of their Hunterline kit of a 30' King post Bridge in July. If you have missed a segment, you can see a video of it on our "New Tracks Modeling" YouTube channel.

Bill Davis finished building LaBelle's Closed Platform Baggage car kit, If you missed any of the episodes, you can see them on our New Tracks Modeling YouTube channel.

On the same shows, Jamie Bothwell provided a segment on modeling Passenger Car Underbody Details. I feel fortunate to have found Jamie. His presentation should really be of interest to all of us who build passenger cars.

Our "My Build" July 24 show had the "Build Along" participant's models of the Rick and Maureen Hunter "Build Along" and the Bill Davis "Build Along". Videos of these models can be seen on our YouTube channel.

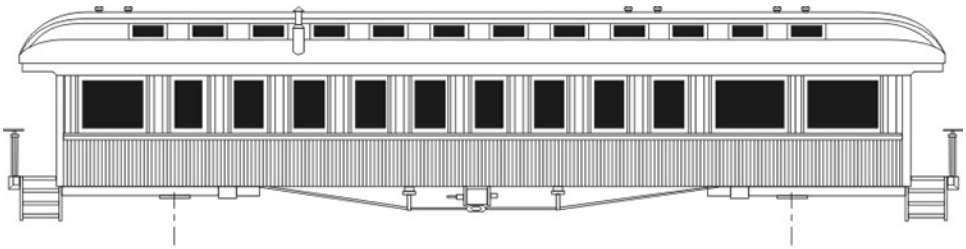
Upcoming Special Segments

Paul Egri has designed a Card Model of an Engine House that can be downloaded for free so you can "Build Along" with a very talented card modeler, Dave Rarig, starting on our July 17 show and ending on our August 7 show. Doesn't get much cheaper than this to build a model. The model is posted on our website NewTracksModeling.com

Paul is profiled later in this article and has offered to help you design your own card models.

Nick Santo did a special segment on soldering feeder wires to track on July 17. This segment was requested by a viewer and Nick volunteered to answer his questions about what tools and techniques should be used for this procedure.

Clark Kooning, MMR will be doing a segment on best methods for spray painting your models on our September 4 show. This segment was also requested by a viewer.



Jim Murphy will be building a LaBelle Models HO "Business Car" kit starting September 11. Order either the HO or O Scale Business Car saying it is for "New Tracks" & get a 25% discount.

Martin Brechbiel, MMR starts building a Leadville Designs, Maintenance of Way, kit on our September 22nd show. There is a great discount offered by Leadville Designs on the kit if you mention "New Tracks" when you order. Leadville Designs was a company that as soon as I read their website, I knew I wanted to see their models.

Starting October 16, Bill Davis is building a Rail Scale Models Tobacco Barn Kit. On our show. Stephen Milley, owner of Rail Scale Models, has given a 20% discount for the kit for modelers who want to "Build Along" with Bill Davis. The discount code is now set up for the Tobacco Barn in all four scales (N, HO, S, O) for 20% off MSRP. The buyer must use the coupon code NewTracks, (one word), at the check-out screen. This code will be in effect from June 1 thru Oct 30, 2021.

I am interested in getting more Modelers and Manufacturers involved in future "Build Alongs". Remember a model builder can select the dates, manufacturer and specific kit you want to build. If a manufacturer wants to participate, he can provide the model builder or I will find someone to build the kit. If you are interested, please let me know at NewTracks@newtracksmodeling.com.

This program is working on getting modelers, who have not built anything for years, building again under the guidance of the modeler on our show. So if you have been sitting on the sidelines for awhile give it a try. You will regain your modeling confidence and have some fun. It is really great to hear the enthusiasm that you enjoyed participating, from first time, or previous armchair builders. Thank you for your input and participation.

We have started several New Modeling Segments:

First is "Watch Me Build" which started 4/28 with the first modeler, John Frankforther, building a S Scale scratchbuilt bridge. Actually he scratchbuilt two bridges, one is curved. These were his first bridge building projects.

Earl Hackett showed us how to make 3D parts on our June 9th show and will finish on one on our July show. If you have ever wanted to design, make, and print a 3D part, these shows will help you. They are available on our YouTube channel. Earl is also going to show how to make molds from 3D parts

Alex Binkley showed us how he built one of his models on our July 3 show.

Kris Blackmarr is doing two different projects. One started on July 14, and the second starts October 6. Join us and see how he builds his models.

"Watch Me Build" is meant to enable you to share your scratchbuilt, kitbashed, or kit model building efforts. The purpose of this segment is for you to show your modeling skills and techniques so others can benefit, and for you to get constructive comments to help your future modeling.

You may never have shown your modeling before in public for a variety of reasons. I assure you I think you will enjoy and benefit from participating in these segments. This is a new segment, and it will evolve over time, so please contact me with your interest and help me develop the segment. My email is NewTracks@newtracksmodeling.com. If you would like to discuss your idea by telephone, let me know by email and I will provide you my number or you can get it off our website. We also started an "I've Got A Question" segment where viewers can ask modeling questions and get answers from other viewers on the show. This segment is designed to be a forum where viewers can help each other solve specific modeling problems or offer advice on modeling techniques. We have a form on our website you can use to ask your questions. This allows us to schedule the appropriate time for this segment on each show.

So far, we have had various modelers offer to do segments to answer viewers questions and/or contact the viewer and provide the specific information needed. Don't hesitate to ask questions, after all that is how we learn new things.

Second is a segment called "Remembering Old Kits". Modelers will be building kits from our distant past that are either no longer manufactured or hardly available. Kits whose names we may have forgotten, but when we hear their name again, brings back great memories from our youth and remind all of us what modeling used to be like. The first two segments are being scheduled for Martin Breckbiel, MMR to build a Van's Car Shop Kit, and Bill Lubert building a Quality Craft kit starting September 4, and a Lobaugh 0-6-0 starting on November 8. As with our "Build Along" segments, these will also be recorded and available on our "New Tracks Modeling" YouTube channel. I hope you tune in to our Zoom shows and check them out.

Third is a Segment on meeting hobby shop owners. I must admit it has been a very long time since I have been to a train or hobby shop. So after floating the idea of asking hobby shops to appear on our show and getting positive comments from viewers, I decided to start a new series called "Going to the Hobby Shop".

Anita Walter from California was our first hobby show owner on our June 9 show. I hope you were able to meet this lady who brought back so many great memories of past hobby shop visits for me. If you missed the show, you can see a video on our New Tracks Modeling YouTube Channel.

Next I want you to meet Mainline Hobbies on July 28, Nick's Trains on August 7 and JB Trains on September 4. All of these hobby shops were recommended by viewers, and after talking with the owners, I certainly understand why. I wish I lived closer to one of them so I could visit.

If you have a hobby shop you recommend to be on our show, please let me know. There are not many hobby shops left around the country, and the ones that are trying to serve modelers, I believe need to be recognized and supported. So please tell me about your hobby shop at NewTracks@newtracksmodeling.com and I will ask them to be on our show.

Show us Your Modeling

We have a monthly special "My Build" segment on our show where modelers are encouraged to show models they are building. The next ones are scheduled for July 24, August 21 and September 25. The July 24 "My Build" will have a special segment for those modelers who build the Hunterline kit and the LaBelle Closed Vestibule Baggage car by Bill Davis.

Hunterline is offering a raffle for modelers who show their bridge model with the person drawn winning a $50 discount on their next Hunterline purchase. The modelers who show their model of the LaBelle Woodworking kit will be entered in a LaBelle raffle with the person drawn getting a free LaBelle Woodworking kit of their choice

For more information contact Jeremy.Wyant@newtracksmodeling.com

More "Build Alongs" Coming Soon.

Starting on our Oct 20 "New Tracks " show, a Motrak Models kit will be built in 4 different scales by 4 different talented modelers. The build will continue once a week on our show until it is completed. Thanks go to Jeff Adam who owns Motrak Models for making this event possible. More details on the kit, and the great discount Jeff is going to give, will be available on our Website NewTracksModeling.com. If you want to see how a model is built in your scale compared to how it is built in other scales, these shows will be for you, plus you will see the various modeling techniques used in the various scales. Thanks go to Phil Edholm for suggesting this unique concept. I think this is a great idea and hope you will want to participate.

All Nation is back. The newly revived company will be sponsoring a "Build Along" of a waffle side Boxcar with Dave Schultz starting on 11/6. Please welcome back All Nation, a great name from the past in model railroading.

Nick Massey owner of ITLA and Bryan Schilling, the model builder will do a Build Along of a ITLA Kit on November 13. More details will be provided in the next few months on our website, NewTracksModeling.com.

Bill Banta of Banta Models is teaming up with Clark Kooning, MMR beginning a "Build Along" on our December 1st show. More details can be found on our New Tracks Modeling website.

I hope you want to participate in all the "Build Alongs"and other segments of our shows. The modelers and manufacturers, and hobby shops who are making these events possible, are doing them to try to help you improve your skills and and have more enjoyment from your modeling. Please show your support for these events by your active participation, suggestions and, ideas. Thank you.

Lastly, I had an opportunity to build an O Scale Background Kit made by Built-Rite Models. This is the first kit I have built in a long time as I mostly scratchbuild. But with some expert help from Stan Cederleaf in designing signage for me to use, here is my Built-Rite Background model. I appreciate the opportunity to build this model. It was a fun project.

I tried something different for my interior because I had so little depth to work with and did not use interior lighting. I angled the interior photos backward from just below the front windows on the first floor to the maximum depth I had at the top of the windows. I think it came out very nicely and showed better in my

background model than my old method of gluing the photos flat against the far back depth of the windows. With different signage it could be a lot of different buildings. Now I have to find other structures to fill out my street view. Any ideas?

My own "Crazy Modeling"

(Laughter and snickering are allowed)

I truly love to scratchbuild. It allows me to build anything I see that I like. It is also a cheaper way for me to build the number of models I build. My materials of choice are #1 Brass, #2 Basswood, and #3 Card. I model traction and scenes from the 1920s in O scale, and yes, S scale. Sometimes I build models just because I like the way they look and use them in a static scene.

Some people may look at some of my scratch built models and say: “Is he off his meds?” or “Does he have too much time on his hands?” or “Is that all he has to do?”. I just call it my “Crazy Modeling”. But it is also inspirational to me and I love the challenge of building something different. What would you call it?

My current layout was started about 15 years ago and could have been considered completed probably 12 years ago. I have very fond memories of operation on my various model railroads over the years. Some using hand made controllers, a hand made fast clock and operating time schedule. All of my railroads have been freelance.

As I aged, I discovered I enjoyed model building more than operation. Now my model railroad is seldom run and then only to see something new I have scratchbuilt actually operate. At 82 years old, my real enjoyment comes from creating a model and encouraging other modelers in their building efforts through my "New Tracks" articles and Zoom shows.

I guess you can say I have gone through several phases of model Railroading.

1. As a kid with my Lionel empire. (Loved those Lionel catalogs and Department Store Christmas layouts)

2. Wanted more scale appearance and to run longer trains. Build both HO and N layouts. Put Lionel away.

3. #2 combined with collecting all the old Lionel I wanted as a kid, but did not have back then.

4. All of #3, plus built an extensive operating Lionel layout and joined the NMRA and started work on my AP Certificates.

5. All of #4 plus now had an extensive Lionel collection as well as a O Scale Traction operation which was mostly scratchbuilt. Got rid of all N and HO. Also was very much into operation.

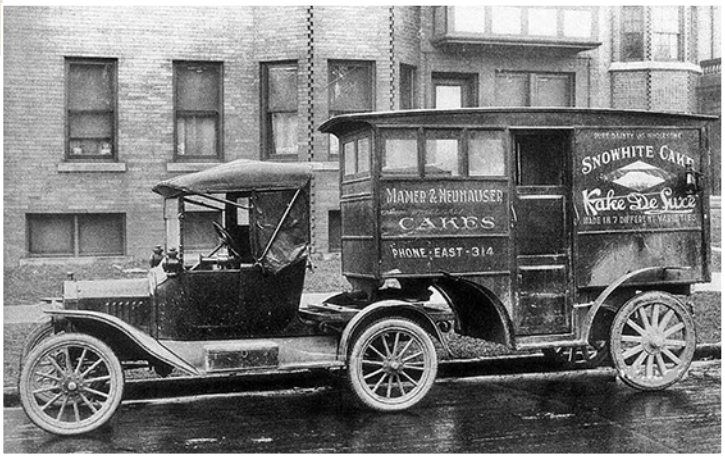
6. Retirement and downsizing. Sold everything except for a few scratchbuilt traction models that had won contests.

7. Started over in our new location in a my own building separate from my home where I could have a reasonable sized traction layout and a shop area.

8. Today. Get up, get my coffee, and go to work! Model building is my love and priority. So I now have to have shelves everywhere around my layout so I can store the models I make that will not fit on my layout. I currently build in both S Scale and O Scale. All of my scratchbuilding is in brass, basswood or recently, card. Some may think I’m crazy, but I have lots of fun and enjoyment ,and I am fortunate to have model railroading in my life and to be able to continue my model building. Maintenance and operation on my layout are now way down on my list.

Crazy project #1:

CJ Riley, MMR sent me plans he drew years ago and some photos which started this project. I was off and running. CJ told me: "It was the WM crew shuttle from Bowest to the P&LE interchange in Connellsville." I may power it sometime with a NWSL magic carpet motor I have, but for now it sits on a siding waiting for the crew.

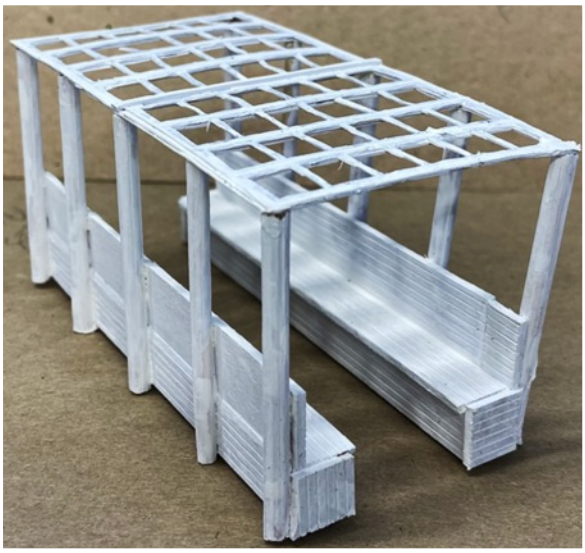


Crazy Project #2:

A model T and medicine style wagon. I was writing one of my "New Tracks" articles on card modeling and found a company called "Tin Soldier". They had a download of a 1929 Packard they called a Ghost car. I have used their basic dimensions and scratchbuilt a number of different 1920s automobiles in brass. That was the start for this Model T. The car and wagon came from another photo a modeler sent me. He is a manufacturer and had plans to market the model as a kit. I build mine in brass. Wheels are card. Here is my Model T & wagon.

Crazy Model #3

Next I found a photo of a lattice structure I liked. Starting with a card design by my friend Paul Egri, I built it. The lattice is card, and the rest is basswood and dowel. I added a little scenic material from Scenic Express, and here it is ready for some visitors.



Crazy Model #4

I scratch-built this Garden Trellis soldering florist wire together and some blooms from Michaels. Something unique. Anyone else out there building Crazy Models? Let me know and send me a photo too. NewTracks@newtracksmodeling.com

Now I want you to meet some manufacturers and modelers who may help you build better models and maybe become one of your mentors.

Nick Santo, owner of Decoder Buddy

Nick was a environmental analytical chemist and flight instructor who co-owned a flight school with his better half. Later in life, he had the opportunity of becoming a student conductor and student engineer for a summer. He worked on GP38s and GP40s. He is now "retired."

He works-out most days by walking, riding a bicycle or doing cardio in a gym. Electronics and photography are the other two major hobbies that he loves. In the winter, Nick and his wife of 43 years enjoy traveling to the warmer parts of the United States in their motor home.

Meeting people on the road is his favorite winter pastime, especially when it involves trains. Real trains and model trains have been a lifelong passion.

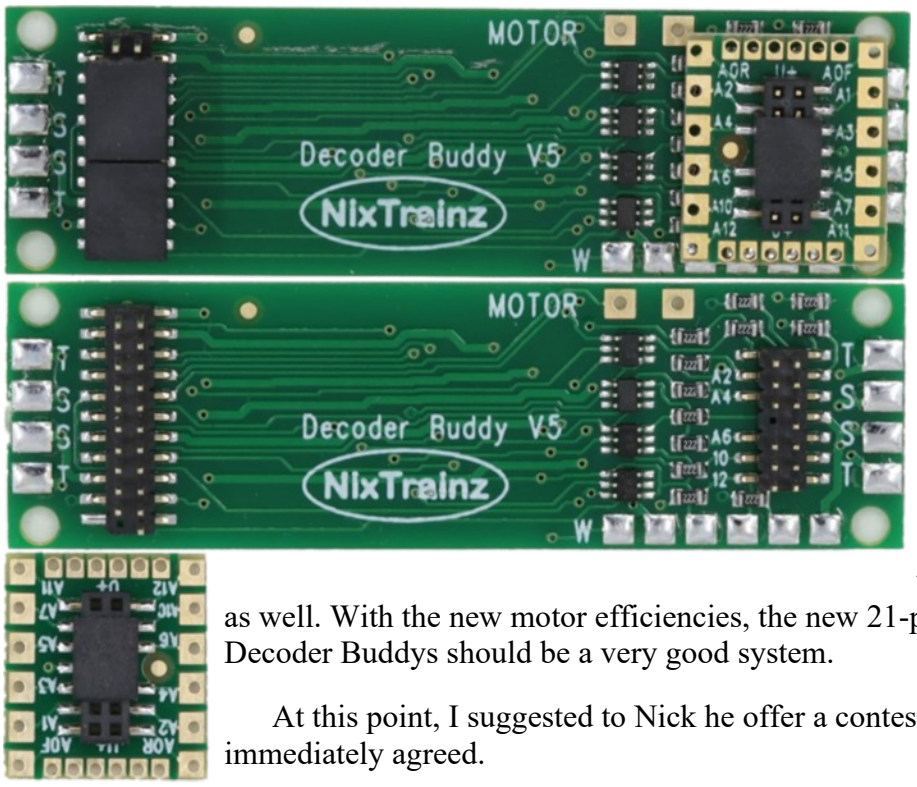
A Marx figure-eight layout on plywood at the age 4 and living on Depot Street listening to steam locomotive whistles were undoubtedly the seeds of Nick's interest.

I started my model journey when my father's father built a model railroad for me and gave it to me as a Christmas present. Every year grew and was grander. It had both Marx and Lionel on plywood with structures and a mountain and two levels. It was great and served me well for many years. I wasn't far enough along to realize that the brushes in electric motors didn't last forever and had them replaced by a local guy who knew how a number of times!!! Toward the end of high school I discovered HO and detail. College, job and building a house took time and finally I started back into the hobby. In 2001, we moved into a layout space with a house surrounding it that we call home now. This is where my current effort to rebuild parts of the Vermont Railway resides. I don't have a personal mentor, but do in terms of the model railroad publications. I have been a lone wolf forever, and when I started traveling in the winters, I came out and am a changed modeler. First hand

looking at others creations is both an inspiration and a chance for insight. It amazes me how other people have worked their railroads into such realistic levels and are so willing to share their methods! It is definitely a "learn by being quiet, observing and turning on the idea vacuum cleaner."

My father worked for a company that made capacitors that went to the moon and back. He built the machines that made the capacitors. He knew, and was friends with, the electrical engineers who did the designs. Gib Green was one of the engineers and the person who showed me how to solder in early high school. He did me well! I have always been interested in electronics and aside for totally wiring (and building) my first house I've wired a couple different layouts and installed 12 volt LED lighting in the cellar where my layout is. I installed a complete solar system in the motor home so that never needs to be plugged into the grid.

Most recently, I bought Atlas GP40s with QSI decoders. I liked the sound and the movement but was not able to activate the ditch lights I wanted to install. I worked with QSI solutions to no avail. I put the project on hold for a few years. I had a chance to think about model railroading again and was coming up on retirement. ESU had Select Direct decoders with places to solder more lighting functions. I got a couple and found they didn't fit into the space allotted for decoder. I cut the tabs off the ends of the decoders to make them fit and worked along from there for a while. One day one of the decoders didn't work so I asked if I could send the small "decoder" part back to ESU and have them take a look at that part. (Whew) They said OK so I didn't have to show them the modified motherboard. Within a few days I started to work on the Decoder Buddy, and after a couple iterations, it worked for me. It looked like a saleable item so I tried. So far it has been very well received in the HO community and should be considered in the S Gauge and O Gauge communities as well. With the new motor efficiencies, the new 21-pin decoders, speakers, stay alives and Decoder Buddys should be a very good system.



At this point, I suggested to Nick he offer a contest drawing for a Decoder Buddy. He immediately agreed.

How To Enter the Nick Santo NixTrainz contest drawing.

To enter the NixTrainz drawing, each modeler must complete the form here. The winner agrees to use the prize of a Decoder Buddy and tell us about his experience using the product.

My readers and I are looking forward to hearing about the operation of Nick's Decoder Buddy in the winner's S Scale locomotive.

For new products, I have decided to solder 0201 smd LEDs to 38 gauge and 40 gauge magnet wire for lighting. At the moment they fit

very nicely into HO standard locomotive and caboose lighting fixtures generally used for step lights, ground lights and high walkway lights. They also work well in N Scale headlights and ditch lights. (They connect directly to the Decoder Buddy which has resistors for LEDs onboard.)

I have also made a controller with an Arduino for a wye that controls the far switch for continuous operation on my layout. It includes a crossing with lights and a bell sound and a grain store with elevator sounds and lights.

If I had a little extra time, I would work on a 36 hour day. 24 hours is always too short……

My Website is www.nixtrainz.com, my Facebook page is at NixTrainz and I have a couple YouTube videos at NixTrainz also. Thanks Nick for all your help and support for my efforts. You can contact Nick at: Nick.Santo@sscaleresource.com.

Card Designers and Modelers

I have learned a lot while working with card modelers, met some great people, and gained a definite interest in how card modeling can save me money and provide some interesting and motivational new model building opportunities. I plan to stay in touch with the manufacturers and card designers I have profiled and watch for new designers who come onto the market. Two of my main sources of this information will continue to be various Facebook pages on card modeling, and more importantly, referrals from you, my readers. I find a lot of people, designers and manufacturers from your referrals. The two Facebook Pages I am currently following are: Model Rail Buildings - Mostly Card & Paper and Papermodelers.com.

I hope you learn a little about card modeling from some really talented mentors, designers, and manufacturers, who can help you improve your skills. I would greatly appreciate seeing some of your card models and will certainly share your work in a future "New Tracks" article. Just send me a photo with a caption to NewTracks@newtracksmodeling.com.

Now please meet some manufacturers, who I suggest you check out, and some very talented card Modelers, who could become one of your mentors.

Paul Egri

First let me introduce myself. My name is Paul Egri I live in Pittsburgh, PA. I have been a model railroader from the age of 5, first with American Flyer and then at age 12 to HO because AF turnouts were to expensive. I remember when models of HO was affordable. I could afford turnouts and have a yard to store my equipment.

I had my own layout for years that was patterned after the Buffalo Creek and Gauley. A broken water pipe destroyed the layout. My family was growing with 6 children so I knew I couldn't rebuild. A fellow model railroader asked me to plan a railroad for him which included most of the features in my old layout, but was much bigger. This union developed into a life long friendship from 1981 to 4 years ago when he passed away. This left me without a railroad to run on or even the tools to build one.

I needed to look for another way to stay involved with model railroading that would not require me to invest in a complete workshop so I would have the tools I used to use that my friend had. I discovered card modeling. This really fit into my background and interest in architecture and structures, and did not require a huge investment.

At the time I was using Model Builder to make building flats for my friend's layout. The old version of MB had a tendency to crash quite often, sometimes having to be reloaded from the CD. This happened to me and when I tried to reload the program, I found I had damaged the CD and could no longer use the program.

I had already also been using MS Paint for windows 7 to make signage and billboards so I knew how to do screen shots and use the cut and paste features. Therefore, I decided to try and use it for designing buildings.

One of my early attempts which was built from one of the free buildings on this site: https://www2.illinois.gov/dnrhistoric/preserve/pages/construct_mainstreet.aspx?fbclid=IwAR1LYyDUAcGaSSQoJL7WM0rujJc1t_iz0SIdeVgpR2AF0_S-RjSyesSQKZM#byom

I prepared a cutting diagram to show other modelers how to do this MS paint is so easy to use a child can do it with very little training.

How do you get a photo made into a card model?

I consider myself more of an advanced kitbasher than a scratch builder. Art Curren was one of my favorite authors, and I did many kitbash projects using plastic buildings. That experience carries over to my paper models.

Note: Paul was kind enough to provide a downloadable structure of an Engine House for one of my "Build Alongs" on my "New Tracks" Zoom shows. Enlarge each photo by 136% for S scale.

This is what I call kitbashing with paper models, and it can be done with any graphics program that has a cut and paste feature. I use Paint for Windows 10. This is one of the most basic graphic programs available and is already installed on all windows computers. I started with a Jensen Drug Store from this site: https://www2.illinois.gov/dnrhistoric/preserve/pages/construct_mainstreet.aspx?fbclid=IwAR1LYyDUAcGaSSQoJL7WM0rujJc1t_iz0SIdeVgpR2AF0_S-RjSyesSQKZM#byom as it is a nice building but too large for most model railroads. So I set out to kitbash them into smaller structures. Both of these buildings were done with the same drug store in the building titled Jensen remake.

I imported windows from Halls for more contrast. If you follow the cutting diagram, you will see how I turned a 2 story building into a 3 story building. You can add as many floors as you like. Mulligans stays with the 2 story and is bashed much the same way. I fabricated the back wall from a ghost sign I found on the Internet. There was enough clean green brick in the sign, about 1 inch x ½ inch, that I could combine copies to complete a rear wall. Next I rearranged the lettering where it looked best. If you know how to replace siding such as brick to wood, even more variations can be done from a few buildings, or an entire layout of buildings can be made. I hope this urges more people to try kitbashing with card. I really believe you will enjoy your experience and have some beautiful unique structures, at a very cheap price, for your model railroad.

When I first met Paul, I knew immediately he had skills I did not have, but wanted to get. So I asked him if he would consider becoming a mentor for readers of my “New Tracks” series of articles by helping them to create the special, one of a kind, structure they wanted for their model railroad. He jumped at the opportunity. I am therefore pleased to announce his mentoring program.

Paul Egri Special, One of a Kind, Structure Design Mentoring

If you want to have a specific structure on your model railroad, all you need is a photo or a link to an Internet site where the structure can be found, and know the modeling scale for the final structure you want to build. If you have this information, Paul can help you produce the card structure you want for your model railroad. He will also be your mentor to help you through any problems or issues you encounter along the way. It doesn’t get any better than this.

Paul wants to make sure everyone knows the type of photo he needs, and his method for what he considers kitbashing the photo. He asked me to include the following information to clarify his offer of assistance.

“Again I consider myself more of a kitbasher than a scratch builder. A statement was made about making buildings from photographs that has to be cleared up, Although I do make buildings from photos, the photos have to be very selective – they must be straight on views without any distortion in order to be of use with MS Paint. Other programs have the ability to remove this distortion, but not Paint. I insist on using Paint because it is a very simple program with very few steps to learn so I am using the KISS principle here. There are many other programs that are much better than Paint, and if you already know them, use them instead. What I will be

showing will still be useful and much can be applied to the other programs. I don't recreate prototype buildings finding enough photos for a project like that is almost impossible. However I do kitbash with photos I will try to take you through the design process for my REA building using a single photo found on Textures.com."

I can personally vouch for Paul's kit-bashing expertise as he has designed all of the special card structures I have used in my articles. Thank you so much Paul for your offer of mentoring help. To contact Paul please email him at Paul.Egri@sscaleresource.com.

Once you have the structure designed, if you need help in its construction, please look at the various mentors I am profiling here, along with those I have profiled in my other card articles over the past year. I am sure you can find the construction help you need. Good luck to all of you going down these "New Tracks" with Paul.

Kingsway Models

This site is a referral from a modeler. The owner, John Howe, told me: "With the free downloadable kits which are 1/76 scale if printed to 118% then they would be suitable for 1/64; or printed at 177% would be suitable for 1/43. By the way, they can also be scaled to 1/48 by printing 158.33% I am told.

In both cases, the prints would go beyond the page probably resulting in four sheets being (partially) used for each full A4 sheet. These could then be glued to a backing card (lining up the joins) and be assembled, although it is likely that the difference in the proportionate thickness of the material, would require some adjustments."

Please note John's specific comments about scaling his models:

All the kits are designed for printing to an A4 format, using the area of each sheet as efficiently as possible. Rescaling a 1/76 (the scale most of my kits are designed in) to 1/64 increases the print area by approximately 20%. Essentially then the kit would require a complete redesign distributing the (larger by 20%) parts on the sheet(s), and increasing the number of sheets required. For some large parts, it may mean that the part has to to be subdivided (and suitable joining pieces added).

You can see the effect of such a rescaling by printing some of the free downloadable kits at 119% yourself (The exact figure is actually 118.75%) You will inevitably find that some of the printed area runs outside the page and is printed on a separate sheet. For the downloadable kits, it would be possible for you to glue the parts together on a card backing and work from there.

I suspect that you may be from America(?) where I understand that the commonly used page size is different (do you call it "letter size" or similar). This will add a further complication...

A further problem in rescaling kits is caused by the thickness of the card used when building. Mine are designed for use with a 1.4mm thick mounting board. Rescaling a print will change this dimension and affect the accuracy of the fit when assembling.

The various difficulties in upscaling the models that I mentioned should not be underestimated. It may be that it makes the task effectively impossible!

The original artwork was designed for 1/76. Depending upon the required new scale, it is possible that the image will begin to pixellate.

Note that apart from the free downloadable kits, I do not sell downloads, just hard copy card kits." John Howe.

Take a look at his web site: https://www.kingswaymodels.co.uk/ The address of his downloadable kits is https://www.kingswaymodels.co.uk/free-downloads and don't hesitate to ask John questions at John.Howe@sscaleresource.com. He was most responsive and helpful to me.

Freestone Model Accessories

Again a referral from another modeler. Their reply to my email about S and O Scale models is shown below:

"Thank you for your enquiry.

In principal any of our own brands of card kits - Prototype Models, Howard Scenics, Bilteezi, Mainstreet - are suitable for reproduction in other scales. However, we do not maintain digital images of most of them (this is gradually changing as we undertake re-design and re-print operations) and therefore it would be a matter of using available kits and photocopying to the desired size.

There would not be a problem in most cases for producing 'S' Scale versions, and as there are no commercial card kit products available for that scale, this would not infringe any of our copyrights - as long as it was not being done on a commercial/resale basis (i.e. normally each person wanting such a kit would purchase a 'OO' version and produced copies, at their own expense, and for their own use only)

Similarly there would not be an issue with enlargements to 'O' scale, except for our Prototype range, where we do have some 'O' kits, and others are (hopefully, if I don't die first!!!) expected based on existing designs. Because these are not actually available now, I do not have a problem with customers producing their own scaled-up versions from 'OO' kits they have purchased in the same way as above.

The greatest difficulty in producing enlarged versions would be associated with the Bilteezi range: The sheet size of the 'OO' range is already larger than most commercial photocopiers can handle (sheets are approx 12" x 20" so bigger than A3), and of course, enlargements would be correspondingly even bigger, but that can be overcome by cutting up the original sheets into manageable pieces - more of a fiddle, but arguably well worth the effort!

The various difficulties in upscaling the models that I mentioned should not be underestimated. It may be that it makes the task effectively impossible!

The original artwork was designed for 1/76. Depending upon the required new scale , it is possible that the image will begin to pixellate.

I hope this is of some use to you, and I wish you well with your articles. Regards, Jerry Freestone"

Take a look at Jerry's Website at: the Website address is now https://www.kingswaymodels.co.uk/ although I do for the present, retain a simple one page director at https://www.kingswaymodels.com/

Consequently the address of the downloadable kits has changed to https://www.kingswaymodels.co.uk/free-downloads

Jerry was most responsive and helpful to me. I suggest you consult him if you are interested in enlarging his models to S scale.

Smart Design U Need (Smart Models)

Brian Taylor, the owner of Smart Design was most helpful. In reply to my email he replied:

"Here is some information on me and Smart Models. I hope this is ok for you. If you need anything else, let me know.

I was a freelance graphic designer and I hadn't been near a model railway for thirty odd years until my young nephew got interested in them. So after about a year of taking him to exhibitions, I rekindled my own interest and joined a railway club. I started helping with some of the club's work making buildings, since one of the things I did as graphic designer was 3D digital architectural models. And I thought it wasn't a great step from 3D models to flattening, printing and putting them on card to turn them into actual physical models. So, I started doing some of these for the layouts and people liked them. I started marketing them and it snowballed, taking over all the work I used to do as a freelance graphic designer and turning into what I now do full time.

When I got back into the hobby, I looked at what was available and I thought it was all either very nice and very expensive or very cheap and not so nice. So, I figured there was room for a cheap but good looking alternative. I try to produce something that's really good quality, that stands up as a representation of a real building, but that is also very cost effective, because the model railway is a very expensive hobby and people need to save their money where they can these days. The models are designed to be printed on regular domestic inkjet printers and then you just stick that paper on to the various thickness of cardboard that are required. They all come with a very detailed set of instructions and you just need to follow them step by step to assemble the kit. And the beauty of this as that you buy the kit once and you can print it out as many times as you want, whether you want lots of the same kit or if you made a mistake and need to print it out again. I also put lots of options into the kit, so you can build it in lots of different ways. The kits are all designed in OO scale (1/76) at high resolution and because they are digital they can then be scaled to any size I want.

I also try to encourage the younger modelers, because there's a thought that modeling is an old man's hobby, due to the quantity of retired and older folks that are trying to do it, but if you don't encourage the younger into the hobby then eventually the hobby is going to disappear.

In conclusion I'd like to say that Smart Models aim is provide exhibition quality model buildings that that can built by people little or no modeling experience at a price that fill fit any pocket. Brian Taylor"

I encourage you to visit his website at http://www.smartmodels.co.uk/ and contact Brian at Brian.Taylor@sscaleresource.com. I built their free model of a signal tower in 1/43 and really enjoyed building it very much. Guess what name I put on it? Thanks Brian for your help and a great model. By the way, I still have to detail the interior. Just found some photos I plan to use as a guide for this detailing.

Now, let's look at some individuals who may help your modeling and maybe be one of your mentors

Roger Pattenden

I emailed Roger after being told about his card models by another modeler. Yes, I talk to a lot of various modelers all

over the world who tell me about what they are building and who they suggest I need to meet. Thanks to you all. I am really glad I met Roger. He replied to my inquiry:

" My models are printed and bound in booklets. All at different scales, such that St Paul's for instance and a much smaller building such as Rosslyn Chapel both fit on an A4 baseboards and end up roughly the same size, with the component parts fitting on six pages of card.

I'm an old man now and winding down. I don't have a company, it's always been just me. Building card models all my life. Even as a youngster, my mother wasn't allowed to throw out any cereal packets or card packaging, as I would turn them into ships, buildings, vehicles, all sorts. I later benefited from an Art School training in Graphic Design. That was in the 1960's when everything was done by hand, before computers that could handle graphics were introduced. When I started designing architectural models for publication, they were simple line drawings to be coloured in, as colour printing would have made them too expensive. The only other published card models that I had come across were Micromodels, published in London. It wasn't until the coming of the Internet that I discovered a whole world of modeling. Many publishers and many enthusiasts. As a result, I met up with several modelers in the UK. We used to exhibit at various IPMS model shows with a table full of card models, which were much admired.

After a professional career doing something completely different, I've worked in a large High School in West London for the last 20 years, now part time, as a Technician in the woodwork rooms. I've run several after school model making clubs, successfully introducing many youngsters to modeling. Incidentally, a great resource for that sort of thing is the Canon Papercraft site, with dozens of free downloadable models of all sorts.

Most of my published models are of places of interest where there's a ready market, a shop and lots of visitors. All just as a sideline. You can see all about my models at www.heritage-models.co.uk "

I liked what I saw and learned some fascinating history. Take a look. Thanks, Roger for your interest I know I can learn a lot from you.

Roger is easy to talk with so if you have a question about his work I am sure he will be helpful. Contact him at Roger.Pattenden@sscaleresource.com

David Watson (Dean Park Station)

All images remain my property and should not be passed onto a third party without my permission.

Welcome to Dean Park Station.

This fictional OO Gauge layout is set in Scotland in the mid 1980's during the transitional period between the BR Blue and the sectorisation liveries of British Rail. The Digitally Command Controlled (DCC) continuous run layout is situated in the attic and measures 25ft by 11ft. The station side of the layout measures 15ft by 2ft 8" and is one quarter of the actual layout. I also have a large off scene storage yard. The layout is controlled by the ESU ECO Command Station.

Class 47/7 "Sir Walter Scot" arrives out of tunnel into Dean Park Station.

A Scotrail Class 47 rounds the curve at the Signal and Telecommunications Training Facility.

How it all started

My fascination with model railways started long before the first train ran at Dean Park in late 2012. In fact, I can trace my interest back to the early 1980's, when I got a Hornby HST set for Christmas. I had 'toy train' layouts in my parental home, before losing interest in my mid teens. My passion for models railways started to return in my early 30's and was sparked alight again in 2010, when instead of spending the day shopping with my fiancé, I nipped off to the Model Rail Scotland exhibition at the SECC in Glasgow. I was struck by how far the hobby had progressed since the 1990's and I came out of the exhibition hall thinking "I can do that". The rest, as they say is history!

Layout Setting

The layout you see is based in the central belt of Scotland, with a number of loose references to Edinburgh Waverly station, which I traveled to as a child on family day trips, then used daily as a student while studying in Edinburgh in the 1990's. Edinburgh Waverley station, the Waverley tunnels and gardens hold a special affinity with me. When looking for inspiration for the layout, I immediately focused on these areas. I chose to model the 1980's into the 90's as this is what I remember as a young lad. I also couldn't resist the opportunity to model Scotrail Class 47'/7s on push/pull Expresses. Once I'd set my mind on the era, I spent another six months

A class 40 awaits to depart Platform 3 of Dean Park while an Intercity HST arrives in the background.

A Class 26 on a freight working trundles through Dean Park, passing a Class 47 awaiting its next duty.

planning it in my head before sketching out track plans to see what would give me the most enjoyment while retaining a Waverley feel.

Construction

Being an attic layout, fluctuations in temperatures have to be considered when selecting the materials that make up the fabric of the layout. After doing some research I decided to go for 12mm Birch Ply for the main baseboards, which are supported every 600mm by softwood batons. These batons are in turn screwed into the trusses of the attic. The upper baseboard sections are formed by 9mm Ply, which sit on 45x45mm square Pine columns. I would advise everyone starting a layout to try and get the baseboards done correctly first time. I get lots of comments on my YouTube videos of how smoothly the trains run. This is in part due to the baseboards being level and true from the start.

Track and Signaling

The station has six platforms, with No's 1, 4 and 5 terminating platforms and No's 2, 3 and 6 through platforms. The station is fed from the west by four tracks, which appear though Waverley styled tunnels and from the east by three lines which appear from under a road bridge. All platforms can be accessed from the west of the station and all lines have access to the

A new Scotrail Liveried Class 68, 68006 "Daring" passes Waverley Signal box as it approaches the station.

A disused and over grown siding adjacent to the main lines is slowly being reclaimed by nature.

upper mainlines and Traction Maintenance Depot (under construction) via inclines at both ends of the layout. I have attempted to make the track work as realistic as possible within the space available, whilst at the same time allowing for enjoyable operation of the layout.

Track is Peco Streamline Code 100. Turnouts are Peco Streamline Electrofrog, with live frogs. All points, (which number over 40 on the layout) are fitted with Peco PL10E point motors with PL-13 Accessory switches or PL-15 Twin Micro-switches. I have also fitted some Capacitor Discharge Units (CDU) to aid reliable point work operation. All points are controlled via a dedicated 15V AC supply linked back to two master control panels, one for each side of the layout.

The track at the station is laid on 1/16” cork, while the upper mainline is set on 1/8” cork to allow a more prototypical ballast shoulder to be modeled. The track is ballasted with Woodland Scenics Medium Grey Blend ballast. I ballast in the traditional way, using a PVA/water mix with a drop of washing up liquid to allow better flow of the mixture into dampened ballast. Once set, the ballast is weathered through an airbrush with Railmatch enamels in Sleeper Grime, Roof Dirt, black for Oil

spills and some rust shades too. Sleeper Grime is a real favourite of mine, giving me just to correct shade for the rail sides and tops of the sleepers. I use photographs of real track from my local station and nearby mainline as a reference when weathering my track.

One lower line and both upper high speed mainlines are electrified with Dapol MK3 OHLE masts. These sit on 4mm blocks of plastic card to give more realistic clearance for locomotive Pantographs. I may at some point in the future add over head wires, but I am concerned that this will hinder track cleaning and maintenance and also be extremely expensive to do.

The whole layout is fully signaled using the excellent CR signals range. The 2, 3 and 4 aspect colour signals work very well with the Heathcote IRDASC4 and Mas Sequencer boards which I mount under the base board. The Heathcote boards are connected in sequence and are also linked to turnout operation using route indicator feathers, giving automated signalling, just like the real thing! The signals and boards are powered by a 12v DC supply.

Scenery

Scalescenes products feature heavily at the station. The tunnels, retaining walls, platforms, station roof, station building and the blocks of flats all make use of Scalescenes kits, or textured papers. I find this medium is a great way to get into kit bashing or scratch building because if you make a mistake it's quick to print off another sheet and try again! I mount my textured paper on to 1 or 2mm grey board, fixed in place with an even covering of 3M Spray Mount adhesive. Prior to fixing papers on to card I give each sheet of brickwork a good coat of Ghiant Inkjet Matte Fix. This makes it more resistant to moisture and protects against UV light.

The real focal point of the station is the large curved roof. This is made up from six Scalescenes R005a kits built together, spanning a width of 425mm and covering a length of 1.5 metres. When I was planning the station layout, it was the span width that determined everything that followed, even down to the widths of the platforms!

I have adapted some of the Scalescenes kits to suit my space, including the heavily modified Station building with a fully detailed and furnished interior. However my real pride and joy is the scratch built Waverley signal box at the west end of the station. Using plans given to me by a fellow modeler I set about making a 1/76 scale of this now defunct Scottish railway landmark

The road bridge at the east end features a level crossing with flashing barrier lights, complete with an annoying siren! This is made up of an Express models kit. The road is painted with Woodland Scenic tarmac paint, finished off with road markings from Modelrailwayscenery.com, along with some etched drain covers, road signage, LED street lighting and other accessories to complete the scene. I'm very proud of how this scene came together. It took weeks of planning to ensure everything could be built, painted, wired up and installed in the correct order.

All trees, bushes, undergrowth, static grass and scatters in and around the station are a mixture of Woodland Scenics, Mininatur and Noch products. Station figures are from Bachmann Scenecraft and platform furniture is a mix of ready to plant, kit and scratch built items.

I enjoy adding the small details to a scene. Whether it is speed restriction signs, rusty lengths of rail, abandoned pallets by the side of the track or advertising billboards at the station, I find that these details just add to the atmosphere of a scene. Cable trunking, by Ten Commandments is present throughout the layout, as are Relay boxes, dummy point motors, point heaters, as well as orange tubing which run under the tracks to link up cables to feed the signals etc. A more unusual addition is the water stand pipes with hoses on Platform 6 to refill the HST hauled MK3 tanks before they head south to London Kings Cross or north to Aberdeen.

Rolling Stock

The traction and rolling stock is all ready to run products from Hornby, Bachmann and Heljan which has been detailed, with a handful being sound fitted. I run a wide selection of diesel/electric and some AC electric traction, with a focus on locos that would have been operating in and around Scotland in the mid 1980's - early 90's. I also have some steam locomotives which make an appearance on special rail tours from time to time.

Traction includes a number of Hornby's excellent HST sets. I have a large number of Bachmann Class 47's, which along with the Intercity 125 is my favourite locomotive.

Scottish based Type 2's also feature with Heljan Class 26 and Class 27 locos. I also have a soft spot for BR's Large logo livery, which is seen on a Class 37 and Class 47.

DMU's range from a Class 101, a Class 107 in Orange and Black Strathclyde livery to a Lima Class 156 Super Sprinter unit.

YouTube

When starting out on my model rail adventure, I needed to learn some new skills. I found YouTube invaluable from the start and it remains my first port of call when trying to find out new modeling techniques.

I decided to set up my own channel to share my ideas, catalogue my own progress and hopefully inspire others to 'have a go'. Making and uploading videos is great fun and although my channel is relatively new, I have gained thousands of followers and got to know many fellow enthusiasts.

I am always thinking of the next part of the layout, so at the moment I am focusing on the Traction Maintenance Depot side of the layout. Follow all my progress so far on my Dean Park Station YouTube Channel.

Thanks, David, for sharing some very special modeling. Please contact David at David.Watson@sscaleresource.com.

Well that's it for this "New Tracks" article. I hope you enjoyed it and learned a little about Card modeling. Please look at and like my new Facebook page "Jim Kellow MMR" so we can stay in touch between articles, and don't forget to subscribe to our Website NewTracksModeling.com to get the log in links for our Zoom shows. Also please call or email me your comments, suggestions, and modeling ideas.

Time for me to return to my workbench. Thanks for reading this far. I really appreciate your support. Until next time, Happy Model Building!

WHAT'S ON YOUR WORKBENCH?

This series shows our readers what other modelers are working on, and we need your help to make it successful. All that's needed is a simple snapshot of what your workbench looks like and the project on it. Send us a picture or two along with a short description of what you are working on so we can share it here. If it's a project under construction, send it in. Repair job, send it in. Completed project, send it in. Send your pictures and descriptions to daniel@modelrailroadresource.com

From Norm Hinkle:

Measured a Monroe Models "Hickson Depot" HO kit, multiplied it x 1.36 and created this S scale model… scribed siding from Micro Mark, Tichy windows and door narrowed, shingles from Rail-Scale Models. Window shades are old yellowed newsprint.

The town's name "Lena" ? Grandma on my mother's side's first name.

S Scale Shows & Meets

2021 NASG Convention
August 3rd through 7th, 2021
2021 NASG Convention is announced for Buffalo, NY.
The 2021 NASG CanAm Convention will be held in Buffalo NY, August [illegible] at the Buffalo Marriott Niagara in nearby Amherst. The city of Buffalo has undergone a stunning revival in recent years with its downtown Art Deco architecture, its lakeside setting, and its extensive rail facilities. Mark it on your calendar as a "must-attend".
Check their Website here!

POSTPONED

Grand River Valley RR Club
October 9, 2021
10 am - 3 pm. Enjoy 203 vendor tables of trains and model railroad supplies in all scales, RR books, photos and collectibles. Operating Layouts**:** G, O - Lionel, On30, S - American Flyer, HO, N and Z Scale plus huge LEGO Layout and play area for children. Hands on "Thomas the Train" layout and play area for children. Drawing for "Thomas the Train" Lionel electric train set - Food - Door Prizes - Free Parking. Admission: Adults $5, Children 12 and under free**.** Vendor tables $18. Contact Ken Skopp: 616-667-9680, kwskopp@gmail.com or visit our website http://grvrrc.org

O & S Scale Midwest Show
Indianapolis, Indiana

New dates announced for this year:

October 8th through 10th, 2021

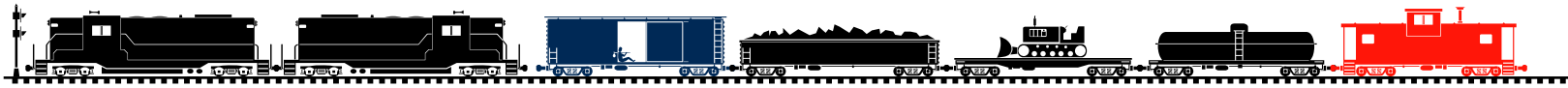
New lower admission for this year $20.00

New lower hotel rate for this year $105.00

This is a dedicated 2 rail O Scale and S Scale show; however, we encourage and welcome the many modelers and collectors from the 3 rail and high rail side of the hobby to attend. There are many aspects of the hobby, including building, scenery and more that applies to any scale. Moreover, this show is a great place to get inspired while meeting old friends and making new ones!
Website: sscalemidwest.com/
Email: info@oscalemidwest.com

S-FEST 2021
An Annual Midwest S-gauge & S-scale Event
November 5th through November 7th, 2021
Four Points by Sheraton
5311 S. Howell
Milwaukee WI
Hosted by Badgerland-S-Gaugers
Website: trainweb.org/bsg/events/sfest.htm

O Scale, S Scale, Narrow Gauge West
May 27-29, 2022
Hyatt Regency, Santa Clara
5101 Great America Parkway
Santa Clara, California
O Scale – S Scale – Narrow Gauge West is the largest 2-rail O scale convention west of the Mississippi, the largest S scale convention west of the Mississippi.
Email: info@oscalewest.com
Website: https://www.oscalewest.com/



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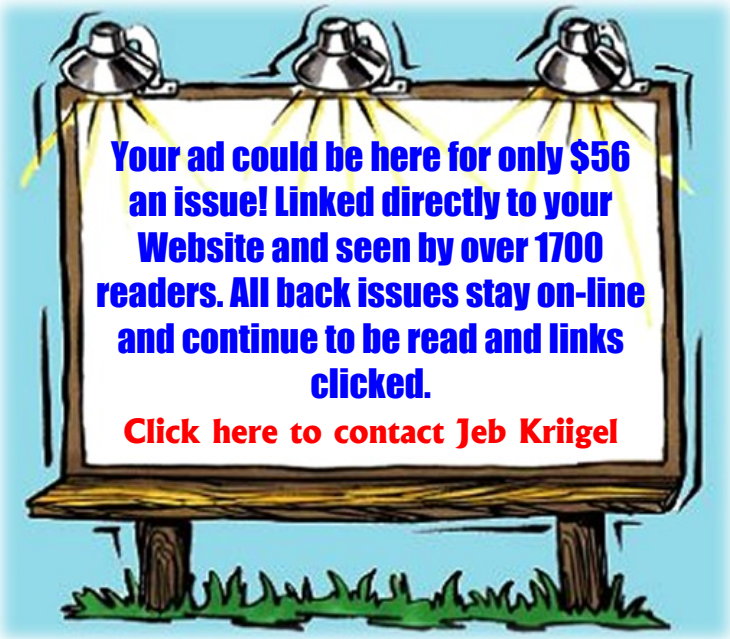

Yes, we now have a Facebook page to help keep you up to date on new products and ideas. And, even in an on-line magazine, we sometimes have more pictures than we can use, so we'll post them on Facebook.