

SCALE RAILROADING V E L C O M E !

over. A Soo Line train crosses over a Chicago & North Western train in northern Wisconsin on Bill Edgar's Wisconsin, Minnesota & Northern System. Minimal scenery has been modeled so the bridge could be installed.

elcome to *N Scale* Railroading #122 for July,

Page 04. Last issue we featured **Jim Reising**'s Oakville Sub. Jim uses prototype inspired train symbols to identify each train and here Jim explains the code.

Page 08. Sandy Smith wanted to model a siding in a location where he just didn't have room to model it the way he wanted. So he came up with his "Hiding a Siding" concept.

Page 17. **New Products**.

Page 18: There are a lot of ways to build concrete roads. Erik Marlow Buck needed a lot of them and here he shares the clever way he built his roads.

Page 30: **Bill Edgar** is back and explains how he wired his Wisconsin, Minnesota & Northern System.

Page 38. **Observations**: The original title was going to be "New Hybrid N Economy" but decided that "Will Our Future See More Retro-Modeling?" is more relatable.

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Seen above, the Canadian National "Transcontinental" train includes two of the most striking cars that the railway used in its long distance trains - the ex-Milwaukee Super Dome and Skytop lounge. The Lounge car comes equipped out of the box with interior lighting for the rear seating area!

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Ex-Milwaukee Road Pullman 10-6 Sleeper #2144 "Vermillion River"
Ex-Milwaukee Road Lounge Observation #1903 "Trinity"

Transcontinental Train

In the 1960's, in direct competition with the Canadian Pacific, the Canadian National introduced a number of "Continental" trains, designed to service the Montreal to Vancouver route, a more than 2900 mile trip that ran without changing locomotives thanks to the all-diesel power servicing these trains. Built up using equipment from other railroads, including the striking Skytop Lounge and Super Dome cars acquired from the Milwaukee road, these trains allowed riders to traverse the full length of north america in style - a true "Transcontinental" route. This set from Kato USA includes an assortment of prototypical cars that were used on many of these trains, set to operate as-is or in conjunction with your existing CN cars. Order yours from your local hobby store today!

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Train Symbols On The Oakville Sub

by Jim Reising/ Photos by author



So how did I come up with those train names in last month's photo essay on trains of The Oakville sub?

As with most things on the layout, I emulate prototype practice where possible: if the prototype does it a certain way, I feel I should also do it that way. There's no point reinventing the wheel.

I will offer one caveat: things change. What a railroad does one year may and often does change the next. Currently UP is implementing their version of Precision Scheduled Railroading which changes lots of standards – train length and composition among them. And the two railroads that operate trains on the Sub don't do things exactly the same, so let's begin with the owner of the road, Union Pacific. (For those who don't know, my prototype is based on the UP's [ex SP] Mojave Subdivision line running from Mojave CA to Bakersfield CA – which includes the famous Tehachapi Loop.) An excellent source for the codes below is UPHS.org which has a wealth of information on the railroad.

UP symbols consist of eight to ten characters.

The first character is optional and indicates the section of a

given train.

The second character represents the category of the train ranging from A for automotive through Z for premium intermodal. (Grain trains add a character following this to indicate the type of train, i.e. L for load, E for empty and so on.)

Next is the two character origin code. BA would be Barstow, BK would be Bakersfield and so on.

Following is the two character destination code using the same abbreviations as the origin.

There can be a suffix following the destination code which can mean which day of the week the train runs or represents the type of car in service on that train.

Finally there is a dash and two digits which is the train's departure date.

That, very basically, is the Union Pacific symbol code.

How about BNSF, the tenant on the Sub? (In real life, although the tenant, BNSF runs nearly double the number of trains on the prototype as does UP.) It's kind of the same but different.

N SCALE RAILROADING #122 JULY 2020

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BNSF uses ten characters.

The first is the category of the train - Z, for instance (like UP) is highest priority intermodal. And also like UP, M stands for Manifest. There are lots of others and they are readily available on the Internet.

Origin is next, but here BNSF uses three characters instead of two, and another three characters for the destination.

After the destination code, BNSF uses a number for priority, with 1 the lowest and 9 the highest.

Finally, with no dash, the two digit day of the month (departure).

So MSBDFRS510 would be manifest, San Bernadino (CA) to Fresno (CA), medium priority departing on the tenth of the month.

And there you have it. Remember, the Internet is the best research tool you have. If you work at it a bit, you CAN find what you need.

So what are we going to call our train?

Let's assume it just a plain 'ol train – It's a UP train with a little of everything (a Manifest), originating in West Colton yard (L.A.) and destined for Roseville CA, and it departs on the 5th of the month. The symbol would therefore be: MWCRV-05. And you can go from there.

Trains of The Oakville Sub – 2019/2020 Date codes are not used.

#1 Lead Engine 3786 5 Units Intermodal 26 Wells, 30 Trailers Eastbound QRICCHI6 Richmond CA – Chicago IL Westbound QCHIRIC6 Chicago IL – Richmond CA

#2 Lead Engine 3804 5 Units Intermodal 23 Wells, 28 Trailers Eastbound QRICMEM6 Richmond CA – Memphis TN Westbound QMEMRIC6 Memphis TN – Richmond CA

#3 Lead Engine 8771 4 Units Articulated Auto Racks 24 Articulated Cars

Eastbound VRICLPC3 Richmond CA - Logistic Park Chicago IL

Westbound VKCKRIC3 Kansas City KS – Richmond CA This train uses Micro-Trains True Scale Couplers #4 Lead Engine 5341 3 Units Merchandise 29 Cars Eastbound MPTWC Portland OR – West Colton CA Westbound MWCPT West Colton CA - Portland OR

#5 Lead Engine 5405 3 Units Centerbeam Lumber 46 Cars Eastbound MPTWC Portland OR – West Colton CA (Loads run EB only)

#6 Lead Engine 2610 3 Units Reefer 30 Cars Eastbound MFRWC Fresno CA – West Colton CA Westbound MWCFR West Colton CA – Fresno CA

#7 Lead Engine 2587 3 Units Oil 60 Cars Eastbound OKBCR Bakersfield CA – Carr CO Westbound OCRKB Carr CO – Bakersfield CA

#8 Lead Engine 8532 3 Units Merchandise 53 Cars Eastbound HPASKCK9 Pasco WA – Kansas City KS Westbound HBARPAS1 Barstow CA – Pasco WA

#9 Lead Engine 7505 3 units front, 1 DP rear. Grain 112 Cars Eastbound XFRSLUB3 Fresno CA – Lubbock TX Westbound GCBLFRS5 Council Bluffs IA – Fresno CA This train uses Micro-Trains True Scale Couplers

#10 Lead Engine 8781 3 Units Priority 28 wells, 6 Reefers Eastbound ZBRWC Brooklyn yard (Portland OR) – West Colton CA Westbound ZWCBR West Colton CA – Brooklyn yard (Portland OR)

#11 Lead Engine 6641 2 Units Coil Cars 43 Cars Eastbound UPITSTL Pitsburg CA – St. Louis MO Westbound USTLPIT St. Louis MO – Pitsburg CA

#12 Lead Engine 944 3 Units UP OCS 23 Cars Eastbound PBRLC Brooklyn yard (Portland OR) - L.A. Transportation Center

Westbound PLCBR L.A. Transportation Center - Brooklyn yard (Portland OR)

It's not a bad idea to know a bit about your territory. For instance, I would never run a ZLBG3 on my Sub because that's an intermodal train between Long Beach (CA) and Global 3 (Rochelle, IL), and that would not be found on my prototype. You need to have plausible origin and destinations or there will seem to be something not quite right.

But - always remember Rule1, it's YOUR railroad.





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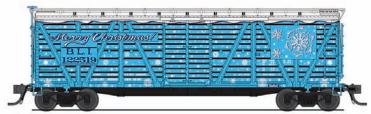
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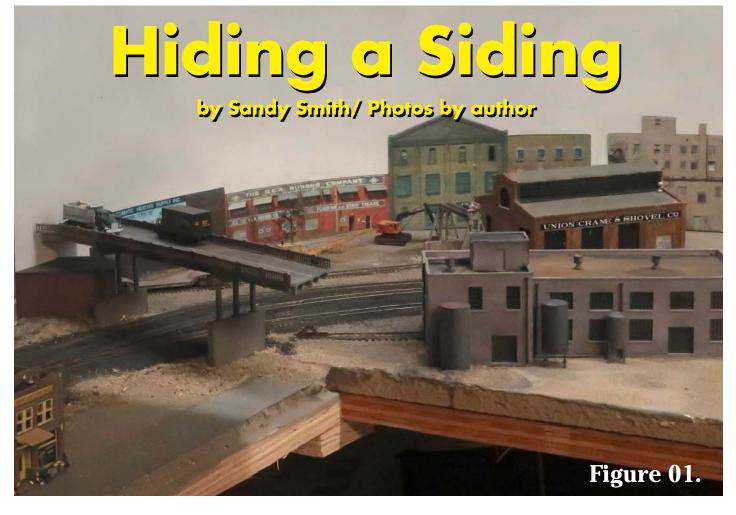


Photo 01 Aisle view, yes I know, no fascia yet...it's on my to do list. Is the siding obvious?

here was an old shop in the Cleveland riverbed area and the Walther's kit, Union Crane and Shovel, 933-3826, represented it very faithfully. I just had to find a home for it after I put it together. True confessions, I am probably the worst kit-basher or scratch builder in the history of model railroading and my kits, if it weren't for paint and weathering would be marginal at best. After I severely weathered the shop, and it had that well used, older industrial look to it.

At the time I built this kit, my layout was set in California and the building did not really fit the look of southern California. Starting a new layout afforded me the opportunity to include a completely different location and scenery than SoCal with some gritty, winter, mid-western scenes.

Along with scrap yards, bulk petroleum dealers, warehouses and the like there are usually heavy equipment dealers near the tracks. I am not referring to the shinny new Caterpillar, John Deere or Komatsu, (et.al.) dealer out by the interstate but an older crane repair yard with pieces of cranes from years gone by. Many of these repair yards had to be on the railroad as the heavy haul trucks of the present day didn't exist when these places were built.

As always, the where becomes the big problem for model railroad track planners. By admission, I am in the lower tier of track planning ability. There are always alternatives but none of them good. I didn't want this to be off the passenger station

trackage as a spur but it needed to be downtown, as the city would have grown around the company that supplied the lifting power to build the town. The tracks by my scrap yard were about right for this business but then it would have made that area one big area of rusty metal.

Years of reading, digesting, re-reading and further mental investment of all model railroading magazines yielded the idea of the weekend.

"Hey dummy, how about a dummy siding?" (probably should have been the title of the article)

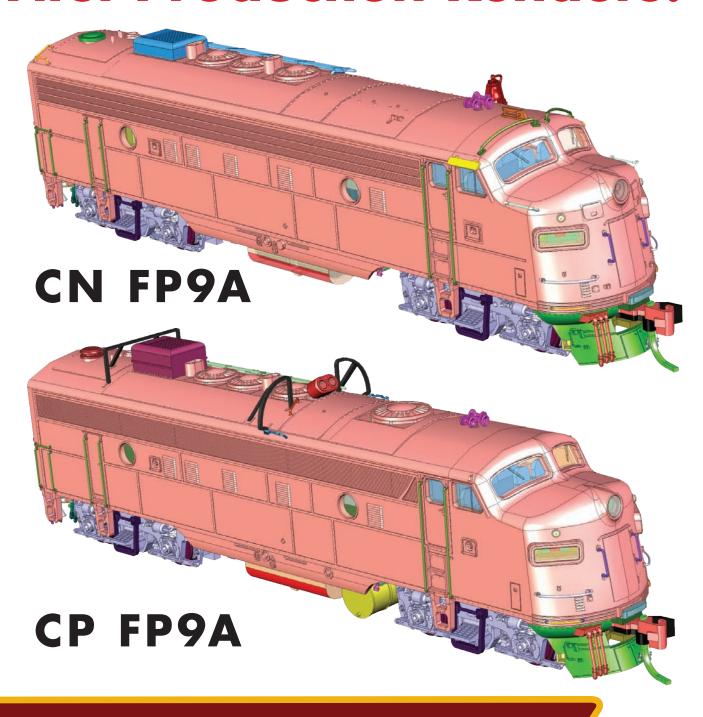
Lots of advantages here, one less turnout, no funky geometry to get the track to the front door of the shop from where it would have come off of the main siding lead. I can leave the rails very weathered as this shop probably doesn't get more than one or two cars a month...only the venerable 0-5-0 switcher (human hands) to be used to change the cars in/out of the dummy track. I can still showcase detailed carloads of crane parts, buckets, booms, crawler assemblies and undercarriages, etc.

Tricky part is hiding the other end of the siding, where does it go? Can't terminate the track just against the backdrop or between the building flats but that is exactly where in will end up. Not modeling summer prohibits the landscape modelers' best friend, the large leafy tree to cover or blend in things.

GMD FP9A



First Production Renders!



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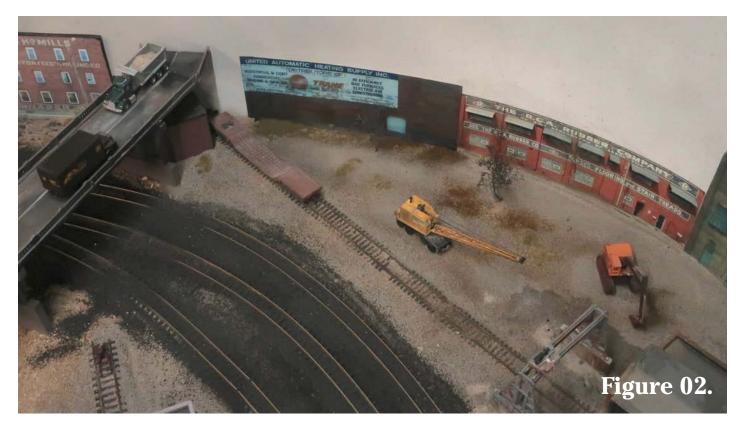


Photo 02. The siding is fairly close to the front of the layout so the top down view would need to be covered as well as the side view in this instance. Note asphalt patch near dump truck. The white areas are road salt stains from the previous storm.



Photo 03. Fhis is probably the most convincing angle of the scene. Shop bridge crane and wagon crane are by George Wolfrum. Watch for an upcoming article when I photo document his superior techniques for building metal vehicle kits and structures. When affixing the building flats and backdrop cutouts, I left a gap in to allow for the siding to go somewhere.











Photo 04. A close up showing the DPM kit next to the foam core flat.

I previously picked out a building backdrop that was mounted on some black foam core. The brick pattern on the foam core mounted building, was a brick that I could add to using the right kit pieces from a DPM/Woodland Scenics 60101 blank wall sections. The slight depth of the foam core would allow me to hide the edge of the screening building where it would touch the raw backdrop.

Back into the kit library, as I like to call it (or the unused/unloved box of parts and structures I have moved too many times, admit it, we all have them) and discovery of the partially completed Rix Products Early 150' highway overpass with piers (SKU 628-0153). Perfect. A little bit of a vintage flair going back to pre WWII era structure but many of these bridges were still in use for the era I am modeling 70's-80's and some still stand today. The bridge was partially completed and was easy to modify with the help of the razor saw to give it some angle over the tracks. This necessitated some patching of the deck with plastic filler but after looking at it again it provides the location of a large asphalt pavement patch. Exactly what Mr. Bob Ross. Joy of Painting, would call, "A Happy Accident."

So quick assembly of the brick building, a little paint, three lay-

ers of weathering chalk (I use Doc O'Brian's) and the cornered building view block was done. I didn't want this little brick section to stand out visually and draw the eye to the siding to nowhere, so no windows, doors or signage on it. I painted the bridge with a combination of spray paint (Rembrandt with a rattle can) and brush painted the brick after I mixed some paint, to get the color just right to match that backdrop building.

The scene is set in late February or an early March, overcast day, just before it snows, again today. I have been using Scenic Express Super Trees spray painted with dark and light grey and trimmed to fit an unloved industrial area. The overall look is sparse, intercity look and when I took the photos I hadn't begun adding the puddles of icy water, old snow piles or precipitation. The results of the coming and past weather are coming but editors can be bristly about getting an article in on time.

Similar to most of my model railroading exploits this didn't happen over a weekend. I had to let the execution plan evolve in my head even though I knew how I wanted to have it end up looking. I hope this doesn't look too diorama-ee since I wanted it to look like it was an operating part of the track plan, hope you enjoyed the idea.





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Photo 05 this image is from my eye level standing close to the layout edge. My railhead height 45", is a bit lower than the fashion these days as I enjoy sitting in an elevating drafting chair to work and operate the railroad. The flatcar and crane chassis load are from Charlie Hopkins Railroad models, superb stuff. Yeah, no way I can make a car look that good...nope.



Above. I experimented this type of lift-out in the corner of the layout to create the illusion that the curvature of the track is biRiaditer Chartabeviewwial chappowerings thin three rolls. The westbound main, track 2.



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Photo 07 Overcast day taken from standing height, 20" above layout surface. Under layout storage warts and all.



Photo 08 chair height elevation.



Photo 09 early on planning.



Photo 10 ended up reversing the bridge. \blacktriangleright

N SCALE RAILROADING NEW PRODUCTS



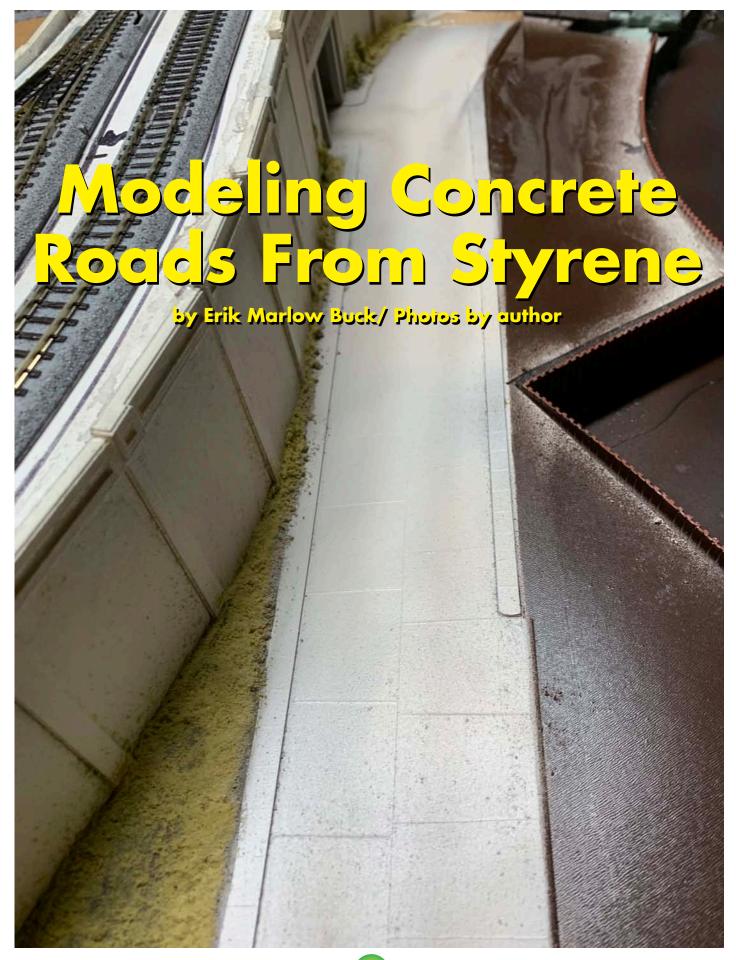




Union Pacific GP-35 742 is Atlas 40 004 299. As the "Gold Series" version of this locomotive, as all Atlas "Gold Series" locomotives feature ESU decoders and sound.









Northern Pacific coach 626 is from Lowell Smith. Micro-Tralns manufactured the cars in three numbers. This is the "Pine Tree" (sometimes called the "Streamliner" scheme ran from 1947 until replaced by the two-tone Leowy scheme in 1952... but this scheme lasted into the 1960s on the Northern Pacific's secondary passenger trains. Click on the image above to go to the website.









Minneapolis & St. Louis 23861 is Atlas 50 005 163. The 53' 6" flat car is cast metal to help it track correctly yet has a nice "wood" deck.

Union Pacific 24574 is Atlas 50 004 563. The bay window has 4 windows on one side and 5 windows on the other.







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Jeff Wilson's T-TRAK module took first place in Kansas City

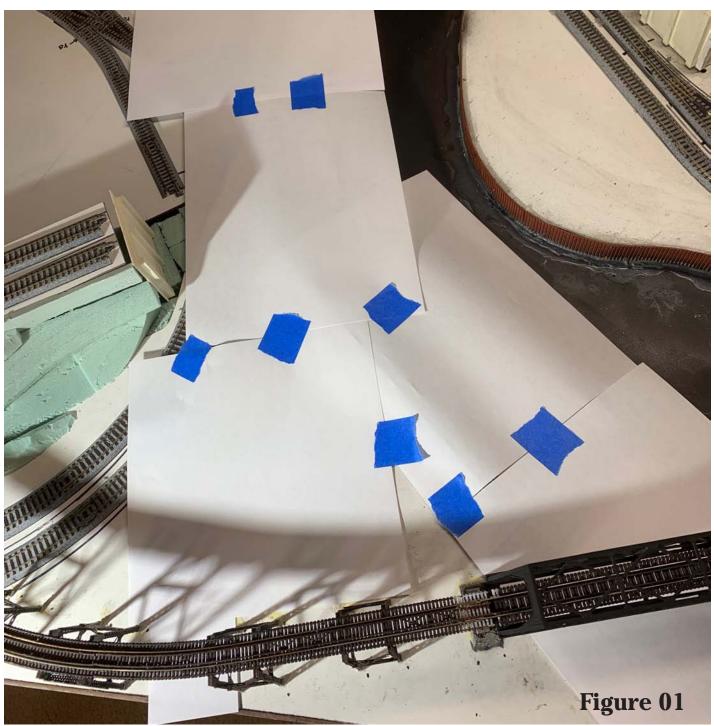
NTRAK.ORG

here are almost as many ways to model roads as there are layouts. Many of the most popular approaches use some form of plaster, sanding, and painting. I've used plaster when modeling asphalt roads, but the prototype for my new layout contains poured concrete roads, curbs, and sidewalks. I've seen impressive results when plaster is scribed with sharp blades to represent expansion joints in concrete, but my experiments with that technique in N Scale haven't produced results that satisfy me.

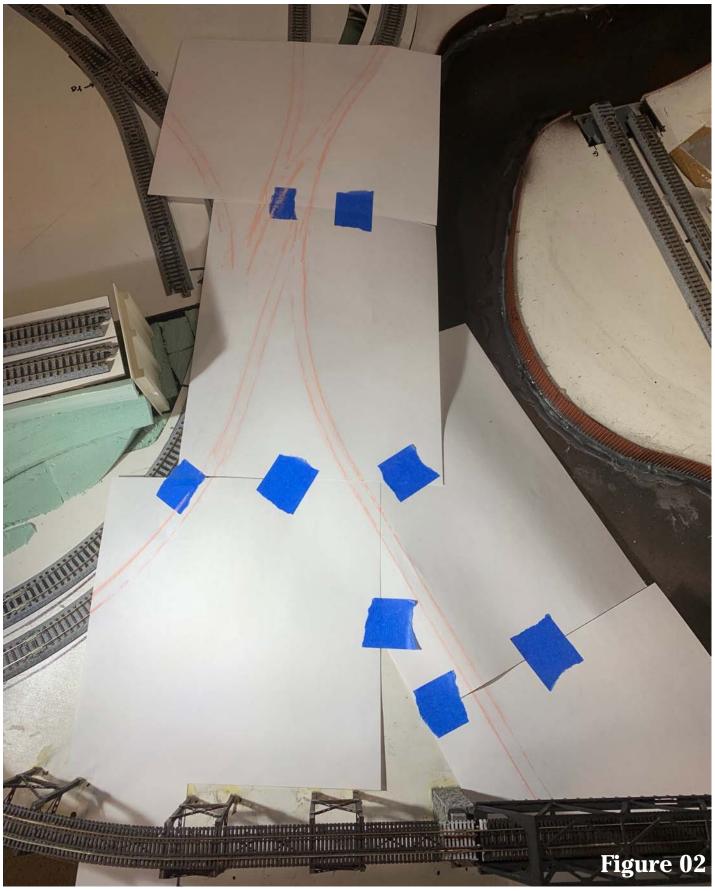
Instead of plaster, I use styrene plastic for roads and sidewalks. Styrene is a versatile material that's non-toxic, dimensionally

stable, used in building kits, and a first choice for scratch building projects. Sheets of styrene are available at hobby stores in small sizes and shapes. You can buy sheets with patterns like bricks, stone, or shingles.

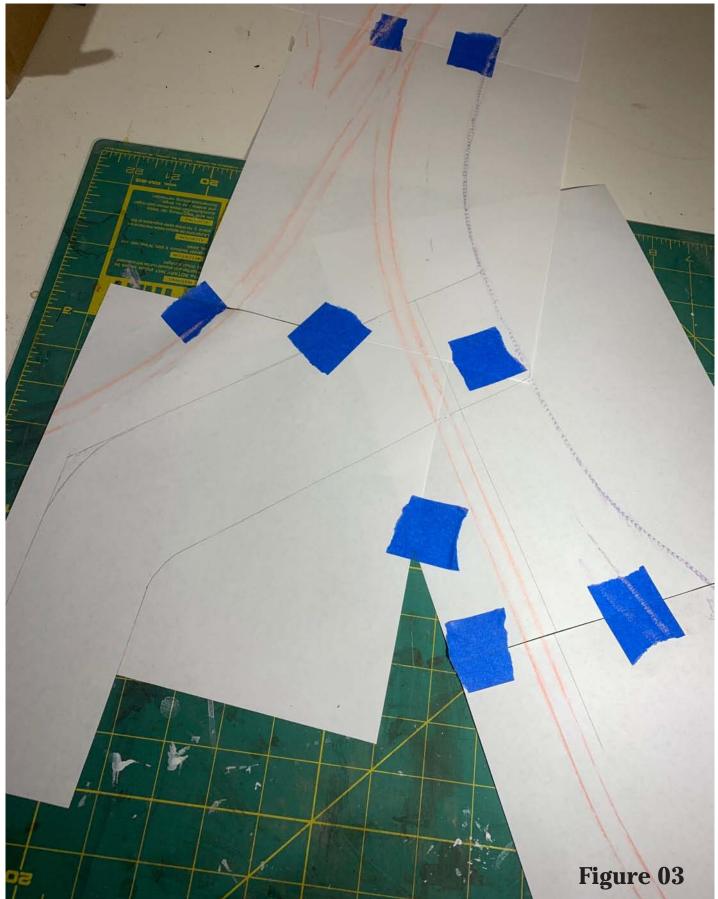
Special purpose styrene sheets can be expensive. Even in N Scale, roads may cover many square inches. To keep the cost down, I buy inexpensive styrene signs from big box stores like Walmart or Home Depot. The signs are made from the same material as craft sheets and seldom cost more than a few dollars. Signs are available in a wide range of thicknesses and sizes



I start by taping ordinary copier paper together to roughly cover the area where the road will be as shown in Figure 01. The paper becomes a template for cutting the styrene. Try to place the tape along edges of the paper in the approximate centers of the roads so that when the paper is cut, the pieces of paper remain connected.



Rub chalk where the paper covers the rails to transfer the rails' positions to the paper. Figure 02 illustrates the process. Then, move the paper to a work table and draw the outlines of roads in pencil using a straight edge. Each lane of the planned road should be approximately one inch (2.54 cm.) wide which corresponds to roughly 13 scale feet. That's wider than lanes on most city streets but leaves room for a shoulder or sidewalks.



The closeup in Figure 03 shows several configurations I tried before deciding on the path shown with the darkest lines. The grade crossing covers parts of three turnouts, and it's necessary to avoid the turnouts' points so they are assured free movement even after the roads are in place.



Use scissors to cut along the edges of the roads and produce a stencil like the one in Figure 04. Test-fit the stencil on the layout to confirm the size, position, and fit. If you spot a problem at this stage, just scrap the stencil and make another one.



The Kato Unitrack I'm using has an attached roadbed appropriate for a well maintained main line that elevates the ties and rails on a thick bed of ballast for good drainage. Roads must rise up and over to cross. However, I'm modeling an industrial spur, and I want the final road surface to be at the same level as the rails. To achieve the desired effect, I position the stencil on a sheet of 1/4 in. (0.635 cm.) foam-core hobby board as shown in Figure 05. The foam core plus the thickness of the styrene provides just the right elevation. If you want the road slightly below the rail elevation but not flush with the bottom of the ballast, use sheet cork or scrap pieces of styrene as shims under the styrene road.



Figure 06 shows a styrene "For Sale" sign positioned over the stencil. If one sign isn't large enough, multiple signs may be used. Any joints between the signs will look like expansion groves in the road when you're done. Holes along the edges of the sign don't present a problem either. They are roughly the size of manholes. If you don't want to model manholes, make square cuts around the holes to join another piece of styrene where the hole used to be.

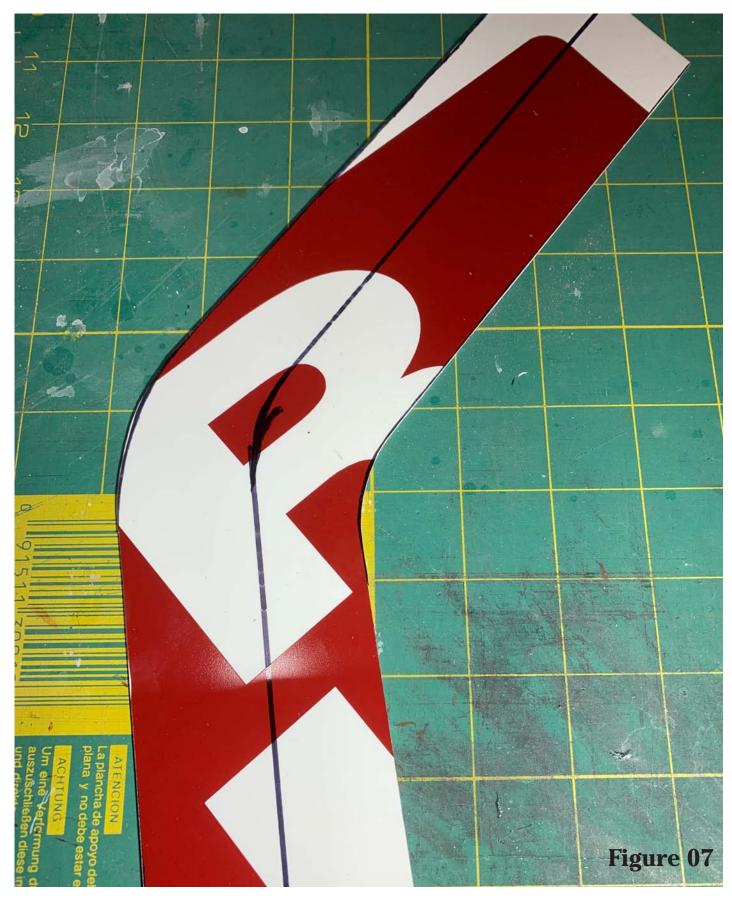


Figure 07 I cut the foam board along the edges of the stencil with a sharp hobby knife. I try to get all the way through the foam core in one pass to avoid jagged edges. I position the same stencil over the plastic sign and scribe along the edges of the stencil with the sharp hobby knife. For the plastic, the knife doesn't cut all the way through. It's enough just to make a shallow groove. If you bend the plastic, it will snap cleanly along the groove.



Figure 08 To make expansion joints in the "concrete", use a straight edge and knife to first score the center of the road along its length. When there are curves, I freehand draw the center in ink and the score along the line with the knife. It doesn't need to be perfect. Use a light pressure on the knife. You only want to scratch the surface.

Next, make grooves to represent the edges of each poured slab. The key here is to make lines perpendicular to the edge of the road. My straight edge is also a "square", so I place one edge along the edge of the road and use the other edge as a guide for the knife. Try not to scribe past the center line. The slabs in prototype roads seldom align, so stagger the lines as you see fit. If there are any mistakes, they can become cracks, patches, or potholes in later finishing steps.

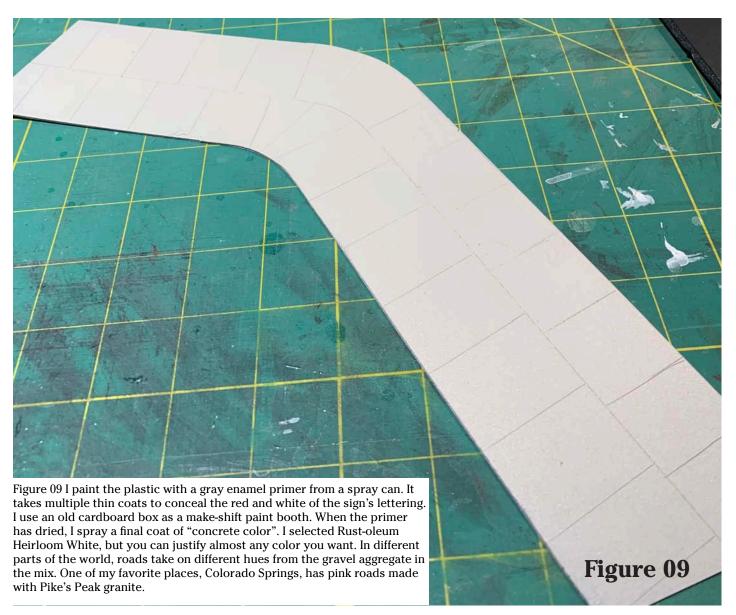




Figure 10 With several coats of primer and a top coat of paint, the grooves for expansion joints become subtle but remain visible as seen in Figure 08. I weather most of my models including roads with a dilute mix of water and black India ink. A little ink goes a long way. One or two drops in a small cup of water will cover the entire road. Also put a drop of liquid dish soap in the mix so the water doesn't bead on the enamel paint surface. You want the watery ink to settle into grooves.



Photo 11. When everything is dry again, I apply a faint spray of brown down the centers of the lanes to simulate accumulated dirt and grime. I use a water based paint for the grime layer so that I can wipe it off and reapply until I like the effect. I think residue from the wiping looks like scuff marks from tires. Figure 9 shows the final result. I make sidewalks the same way as roads. They are just narrower and have smaller slabs.

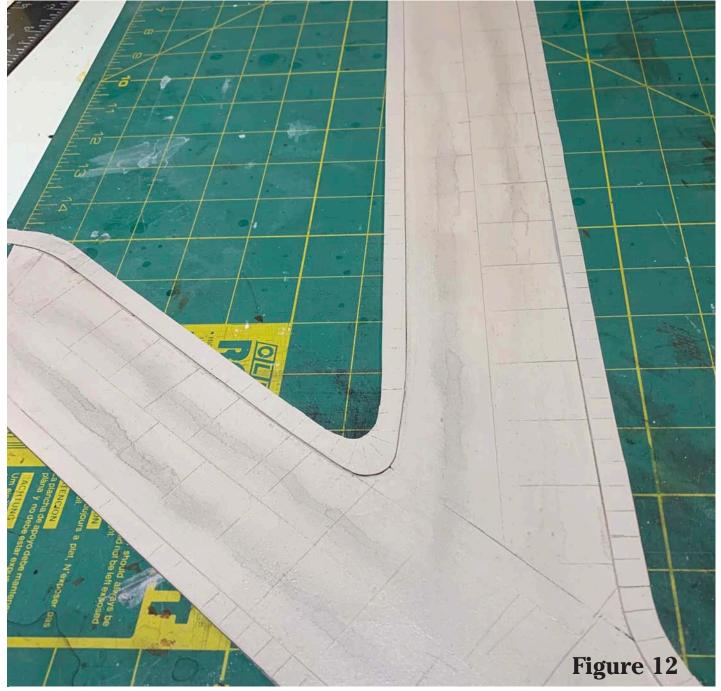
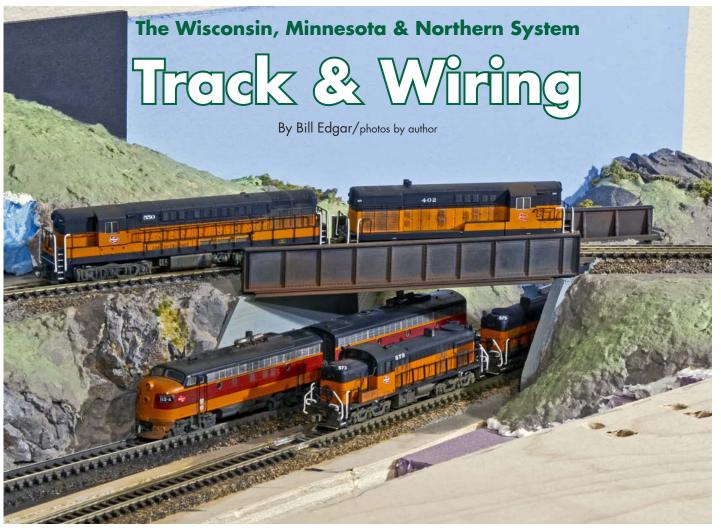


Figure 12 A more complicted concrete road with sidewalks. \blacktriangleright





Milwaukee Road power gathers at and above the entrance to the two staging yards that will represent the "East" and "West" ends of the layout. The FM H-16-66 no. 550 was one of only six purchased by MILW. The model is in reality an Atlas H-24-66 Trainmaster which is about four scale feet longer than the "Baby Trainmaster" it represents. I acquired this unit to mix with MILW power as well as with C&NW H-16-66s on joint ore trains. MILW 402 is an FM H-16-44 which is one of those must have oddities, just because. These units could be found around Wisconsin, Illinois and Iowa into the mid-1970s. The 402 is an early carbody version designed by Raymond Loewy, famed industrial designer, who also developed Pennsy's GG1, the Greyhound logo and Northern Pacific's mid-1950s passenger color scheme that lasted until the 1970 BN merger. The MILW F7s are Intermountain models, and Alco RSDs 573 and 575 came from Atlas, locomotives that also frequented Milwaukee's Wisconsin branch lines. The trackage is a combination of recycled and new Peco Code 55 flex-track which is used throughout the layout except for staging where Kato Unitrack prevails.

elcome back to the Wisconsin, Minnesota & Northern System. As this is written in mid-June 2020 the layout is approaching its first anniversary, while America and the world have been through unprecedented turmoil. The COVID-19 situation provided an opportunity to complete laying track and begin layout wiring. The loose goal is to have trains fully operating by Labor Day 2020 with facia added to the front of the layout and any "holes" in the surface filled with dense foam (rough scenery) to protect trains.

This is a Recycling Project

As sad as it was to tear down the North Shore International layout which I was building in Wenatchee, Washington, that process netted a variety of materials for re-use on the new layout. I salvaged a decent quantity of Peco Code 55 flex-track and more than enough Peco turnouts to meet new track plan needs. I only needed to acquire two new boxes of flex-track as well as cork.

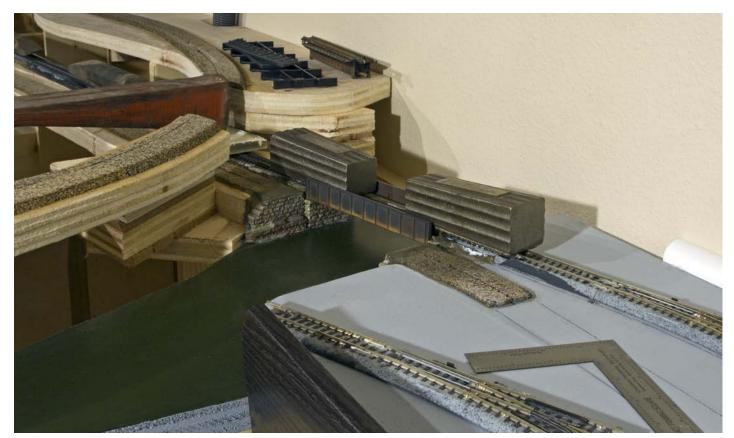
A large amount of electrical wire, terminals, busses, rotary and toggle switches were also salvaged along with all of my control panels and frames. This has worked out well for starting the wiring project, and should require only minimal additional expenses for connectors and feeder wire.

Installing the Track

NSR's January-February 2020 issue featured my article on benchwork and roadbed. Most of the layout was built with 3/4 inch plywood, using conventional N and/or HO scale cork for roadbed. Cork was glued down with wood glue (Elmers or Titebond). I completed all the roadbed following my track plan in the January/February issue. I only had one small area where the roadbed later got removed to adjust the track design.

The first track installed was the staging yard which is really two single ended yards with locomotive escape tracks. They represent both ends of the railroad, allowing point-to-point operation on what is otherwise a basic figure 8 design. There is also an optional reverse loop in James River to allow turning locomotives and passenger trains as needed. Kato Unitrack was my choice for the staging yard as it is very reliable track, easy to install, and using Kato feed wires, required no soldering. The staging yard will not be scenicked, although it could be.

My method for attaching Peco track is to glue it to the cork



One of the most important track installations was between staging and the main layout. Here track converts from Kato Unitrack to Peco Code 55 flex-track. I chose to bridge a creek here to provide the beginning of the scenicked area of the layout. Originally this was to be an Atlas double tracked span, but the two main leads into staging could not be parallel at the bridge site, so two different single track spans were used instead. The double track span got installed at the James River paper mill trackage on the other end of the layout. The mainline overpass (below) was one of four new bridges built for this layout. Additionally most of the NSI layout bridges were re-used. The F units below are at the West Yard facing east. The Alcos are at the throat of the East Yard. The two leads extend up grades connecting with the railroad at Warner Jct. (West) and Thompson Jct. (East). The FMs below are on part of the figure 8 mainline that heads through the town of Roberts to the left of the photo.





The above view shows the two staging yard built on a ten inch shelf in a hallway perpendicular to the layout room. I changed my past practice of having siding and storage tracks at least ten feet long, cutting the minimum length to about 8.5 feet. It seemed reasonable to do this as the new layout is about half the size of the NSI layout with a two scale mile mainline with three passing locations for overtakes and meets. The West Yard is the three track yard closest to the wall. It can handle a 40 car ore train with three diesel locomotives, or a normal freight train of 20-25 cars. Passenger trains will look best running one to two units and up to eight passenger cars. (My Empire Builder can reach 14 cars with 3 units, nearly the size of a freight train.) The East Yard has four tracks and can be used to originate or terminate ore trains. The ideal capacity is five trains total, leaving a run around track available. The photo below shows the escape tracks for locomotives, allowing them to run around their train and set up for the opposite direction for the following operating session. The two yards and their leads are on separate blocks and each storage track will have an on/off toggle.



roadbed with Woodland Scenics Foam Tack glue which brushes on white, then dries clear, leaving a slight tackiness to allow a little flexibility to the adhesion. I've been very pleased with the results of this method on my previous layouts, and so far it is working out well here.

Preparing for Wiring

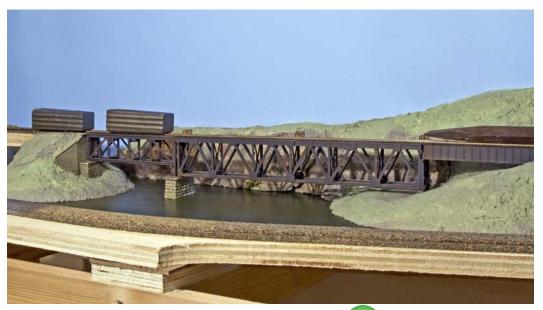
During the track laying portion I decided the best approach for later wiring would be to install all the track, soldering all joints to ensure smooth connections and curves, then come back in with a Dremel tool and stone cutting attachment to cut in blocks. Like my previous layouts, this layout is designed with

standard DC block wiring in mind, and uses track that accommodates Micro-Trains pizza cutter (deep flange) wheels.

These are personal choices based on my experience running both H0 and N scale trains since 1961. The most reliable operations I have enjoyed were on my NSI layout and Mike Danneman's Moffat Road layout. Both were more reliable in terms of track, equipment reliability and electrical problems than anything I have experienced elsewhere. Again, it's a personal choice and I will stay with what works for me.

Other considerations for planning, building and operating this layout were based on the majority of the prototype railroads during the period I am modeling. In order to have a more





Bridges are always a challenge to build and put in place, so I decided to tackle them up front in the track laying process. That required roughing in some basic scenery in three locations. The above photo shows the future Flambeau River which is crossed by both mains, along with the over/under crossing that creates the figure 8. Left, a large deck girder bridge from the NSI is glued in place. The figure 8 crossing would require a new bridge.



The figure 8 over/under crossing was inspired by Milwaukee Road's Warren truss style bridge over the NP near Terry, Montana. I was fortunate to have a spare Vollmer bridge which is longer than the Atlas model, necessary since the angle is fairly oblique. The Jump River span on the right is recycled from the NSI layout. Below, my favorite bridge, a shortened version of Great Northern's crossing of the Wenatchee River in Wenatchee, Washington, got re-purposed for the new mainline, crossing over the Flambeau River. I had the opportunity to re-assemble this bridge after moving it 1800 miles in good shape. Moments before I was going to install it I dropped it on the concrete floor near my work bench. A few choice words and about 20 minutes of reassembly got it back in shape for its third usage on a layout.



realistic operating experience I eliminated all hidden track. At this point there is only one tunnel planned, and it is fake, actually the end of a locomotive escape track on my ore branch.

In the 1960s most of the railroads operating in northern Wisconsin and Minnesota were not using CTC with power switches. (The DM&IR was an exception.) Neither am I. Granted, some mainlines were using ABS signals, even spring switches, but

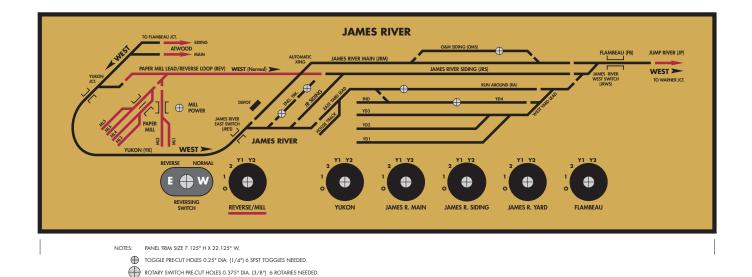
even on the CB&Q *Zephyr* route, a freight in front of a passenger train had to plan ahead to stop the train, throw the switch, get out of the way, then manually line the switch back. Running a "dark" (unsignalled) railroad allows the opportunity to perform activities more like what train crews did and slow down operations closer to real time.

I designed the main to be point to point for operations, but

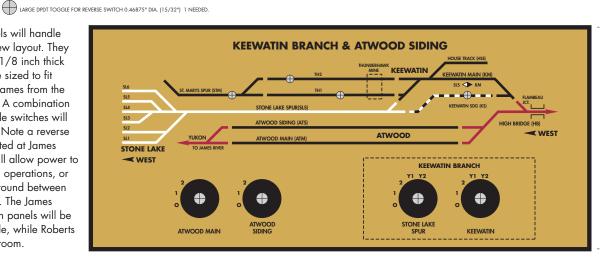


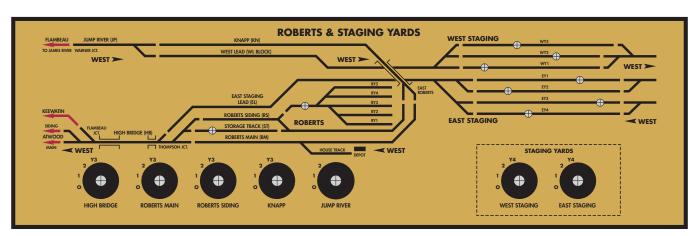
The overall scene at the Flambeau River with the bridges in place allowed the completion of track laying extending to the right through Roberts, and to the left through James River as well as the ore branch. This area serves as a scenic divider to separate the two urban areas of the layout. Below, a Milwaukee Road freight crosses a new home made ballast deck bridge over the Jump River near Warner Jct. where the mainline allows access to West staging. The foreground track is the East staging lead which approaches Thompson Jct. prior to crossing over the figure eight bridge. Although MILW power dominates this article, it is one of a number of railroads that will operate on the layout from time to time. Others include: Burlington Northern, Burlington, Canadian National, Canadian Pacific, Chicago & North Western, Duluth, Missabe & Iron Range, Duluth, Winnipeg & Pacific, North Shore International, Northern Pacific and Soo Line. What the North Woods lacked in mountains it made up in a variety of rail carriers.





Three control panels will handle the needs of the new layout. They will be printed on 1/8 inch thick black PVC and are sized to fit on three existing frames from the former NSI layout. A combination of rotary and toggle switches will control the blocks. Note a reverse switch will be located at James River. Reversing will allow power to turn around during operations, or full trains to turn around between operating sessions. The James River and Keewatin panels will be located side by side, while Roberts will be across the room.





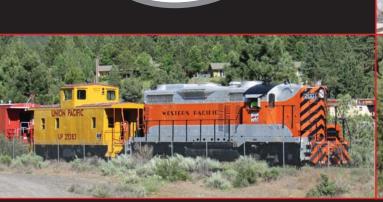
use the figure 8 design to allow running of actual scale miles at scale speeds based on the distances between stations. This is optional, but on my previous layouts, I had too short a point-to-point run with too much time in hidden track.

Back to wiring. I am using two recycled Aristocraft handheld throttles for mainline operations. These have worked pretty well in the past and are wireless, so one can walk around with the trains. I also am using four recycled MRC packs, two Tech IIs and a pair of Tech 4s. These are located in areas requiring switching and are more responsive for operators than the Aristocrafts. The above control panels re-use three of my previous panels with newly designed surfaces printed on black 1/8 inch

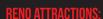
PVC. The track plan printed in January/February 2020 **NSR** indicated where blocks were to be cut, and the final track and wiring is about 99% accurate to the plan.

I look forward to once again operating trains, and this layout hopefully will provide many hours of enjoyment. I detest unpainted plywood and pink/blue foam, so once trains are running I will apply basic earth-tone color coverings. I am in no rush complete scenery on the layout, but I look forward to that phase of construction, in between running trains. Model railroading is a lot of fun, and I have found working on a layout is the best way for me to enjoy the hobby. I encourage anyone who has not built a layout to give it a try! •

28th Annual







- THE DISCOVERY TERRY LEE WELLS NEVADA **DISCOVERY MUSEUM**
- NATIONAL AUTOMOBILE MUSEUM
- TRUCKEE RIVER WALK
- **RENO RIVER WALK**
- RENO AIR ASSOCIATION STATIC AIRPLANE **DISPLAYS**
- **NEVADA HISTORICAL SOCIETY**
- W.M. KECK EARTH SCIENCE AND MINERAL **ENGINEERING MUSEUM**
- **NEVADA MUSEUM OF ART**
- FLEISCHMANN PLANETARIUM
- **RENO ARCH**
- RENO ACES (AAA AFFILIATE OF MLB ARIZONA **DIAMONDBACKS)**

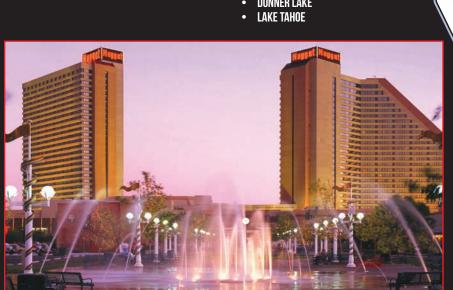
- **NEVADA STATE MUSEUM**
- NEVADA STATE RAILROAD MUSEUM
- **NEVADA STATE CAPITOL BUILDING**
- **CARSON CITY MINT MUSEUM**
- **VIRGINIA AND TRUCKEE RAILWAY**

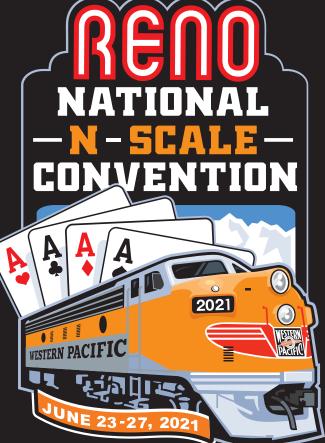
NEVADA MINING CITIES:

- **VIRGINIA CITY**
- SILVER CITY
- **GOLD HILL**

NEAR BY HISTORIC PLACES:

- EMIGRANT GAP, CA SCENIC VISTA
- TRUCKEE, CA HISTORIC DOWNTOWN AREA
- **DONNER PASS HISTORIC PASS**
- DONNER LAKE





CHECK OUR WEB SITE FOR MORE DETAIL
National-N-Scale-Convention.com
Contact: Dick Ollendorf, Convention Chairman
(610) 923-7535 • Dick@NScaleEnthusiast.com

TRAVEL GUIDE N EVENTS

2021 JUN 22/23-27 NV Sparks/ Reno area.
28th Annual National N Scale Convention hosted by the N Scale Enthusiast. The main venue is the Nugget Hotel that has free parking. An early bird visit to the Western Pacific Railroad Museum in Portola is planned for June 22. The plan for the convention includes layout tours, Convention Banquet, Welcome Reception, Manufacturer's Breakfast, Live Auction, Swap Meet, and more!
See Page 37

Expected:

2022 JUN ??-?? TN Nashville. 29th Annual National N Scale Convention hosted by the N Scale Enthusiast. The 2020 convention at Nashville had to be cancelled

N SCALE RAILROADING

OBSERVATIONS

Will Our Future See More Retro-Modeling?

Thoughts by Kirk Reddie

odel Railroading before the 1930s existed but was mostly tinplate. By the 1930s there was more affordable toy-ish tinplate models that could be purchased, set up relatively quickly, and could be operated somewhat like how we operate model trains today.

This was also a time when there were a lot of skilled craftsmen who could make more prototype looking models. Model railroad clubs and commercial magazines allowed folks interested in miniature trains to be inspired and help make it easier for them to join the hobby. Into the 1950s there were a lot of small cottage industries producing everything from cardboard sides for 40' boxcars to ready to run locomotives.

Lionel and American Flyer grew beyond their cottage origins and started making prototype looking die cast metal rolling stock. As plastic injection models became practical, the economies of scale allowed better looking models for less cost per unit. Many more firms have

jumped in and invested in ever increasing expenses (digital milling machines replaced hand tooled dies, etc.) to create better models. Keeping track of migrating tooling is a hobby.

Imports of hand made brass models allowed smaller runs with less fixed costs and higher variable costs so more specific models could be offered. But costs skyrocketed and new N brass dropped out years ago.

Labor costs continue to increase and currency exchange rates and trade policies are uncertain. The years I bought at least one roadname of every new locomotive were over long ago.

Few can buy everything they want. Those who do subsidize the rest of us. Few of us are 1930s craftsman but most of us can make stand-ins. Many of us enjoy our second hand rolling stock. 3D printers will improve, become less expensive, and programming will become easier. We still need to support the firms that bring out products we like. Budgeting is part of the hobby. Take advantage of what is commercially available and model the rest.

SEE YOU NEXT ISSUE!



- Over the next several issues the plan is to feature articles on an all-new layout, another articles on Kato F Unit chassis, scratchbuilding structures for an industrial park, modeling a riverbank, ...
- ...And More!