

Superintendent's Corner

By Alan Hardee

Division Coming Events

(See CSD Website for further details)

**Wade's Train Town
Open House
Saturday June 8th
10:00am – 2:00pm
Brookford
Community Bldg
1700 S Center St.
Hickory, NC**

**CSD Monthly
meeting theme for
June is how to paint
railroad equipment.
It will be a hands-on
clinic to airbrush box
car shells provided
by the Division.**

**Saturday, June 15th
9:30am – 12:00pm
Hunter Acres Baptist
Church
4520 Heman Dr,
Charlotte, NC 28269**

A Big Thank You to Ed Smith, Fred Miller MMR, and Tim Rumph for teaching clinics during the Spencer Train Show in May. Ed's Hand laid turnouts, Fred's Electronics, and Tim's spline roadbed presentations were very informative. Carolina Southern Division 12 was well represented between layouts from Central Carolina N Scalers, Concord Area Model Railroaders, Metrolina Model Railroaders, Division 12 display and members volunteering at the NC Transportation Museum. Now that the hot weather is here, a lot of members slow down on their layouts and concentrate on other activities. Hopefully, you have our summer meeting on your summer calendar schedule. I have already received the car body kits that we will be using for the next 3 meetings. In June we will be painting the boxcar shells.



At CSD's June meeting, you'll get one of these 50' boxcar shells to paint during our hands-on airbrushing clinic.

We can use your airbrushes if you have one to share. The July clinic will be adding decals to your shell that you painted in June. August is weathering the shells.

We will soon have some 2020 convention news from Neal. AND speaking of conventions, don't forget to [register](#) for the 2019 MER convention [Liberty Bell Special](#) in King Of Prussia Pa. Here's to a great summer kickoff.

UPCOMING AREA TRAIN EVENTS

**2nd Annual
[Charlotte Area Rail-
Strava-Ganza](#)
June 8th and 9th
Gastonia Convention
Center
145 ML King Jr Way
Gastonia, NC**

**Dixie Southern Model
Railroad Show
Saturday Sept 21st
10:00am – 5:00pm
And Sunday Sept 22nd
10:00am – 3:00pm
Winston-Salem
Fairgrounds Annex
414 Deacon Blvd
Winston-Salem NC 27105
(a link will be added
when available)**

Editor's Notes

By Ed Gumphrey

I'll open this month by saying I'm sorry I had to miss out on the events in Spencer last month. I had been scheduled to help out by giving a clinic, and had grand plans to capture pictures of other train show activities for our newsletter. As luck would have it, I was down with strep throat and had to cancel at the last minute. So, a special vote of thanks to Superintendent Alan Hardee for getting the pictures you'll see in the Division News section.

Looking ahead, I'm also going to miss out on our June meeting. I was especially looking forward to the first part of our airbrushing clinic project. It's a relief to know that other members will be able to fill in for me, so I'm confident that next month's newsletter will also have an update on Division activity.

In this edition, I think you'll enjoy a family approach to getting new model railroaders. My thanks to Andrew and Sarah Sadler for first posting this story on Facebook and allowing me to use their photos to share it with other Division members.

Ed Smith is back in the groove with a detailed article about a bridge scratchbuilding project. I saw this work in progress during a visit, and it is indeed impressive. Ed's photos provide a good sense of how involved the project is.

Tim Rumph continues with the next installment of how to work with reverse loops. By the way, the spline roadbed that Tim built during his clinic at Spencer will be used for a section of his N scale Southern S-Line. I look forward to seeing it in place in a future article as he shows us more of his railroad under construction.

Lionel fans are asked to notice my call for help on page 14. As a follow-up from last month, I took my wife to see the NC Museum of Dolls, Toys and Miniatures in Spencer. It's a fascinating place staffed mostly by volunteers. It features an expansive Lionel layout that needs some TLC and modification.

Don't miss out on the bonus photos on the last page. Let me know what you're building so I can get it into *The Brass Pounder*. Enjoy.

SUBMISSION GUIDELINES

I target the 1st of each month for publication. Please submit articles for publication by the 27th of each month.

The preferred format is MS Word, but I can convert most other formats.

For questions and help, email me at editor@carolinasouthern.org

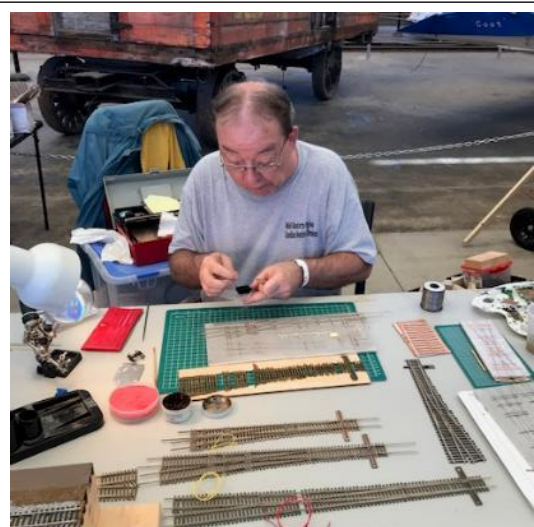
DIVISION AND REGIONAL NEWS

By Ed Gumphrey

CSD's May event wasn't a meeting, but participation in the annual train show at the NC Transportation Museum in Spencer on May 18th. As Alan Hardee mentioned above, the Division was well represented with clinics and several modular railroad displays. My thanks to Alan Hardee for providing some pictures.

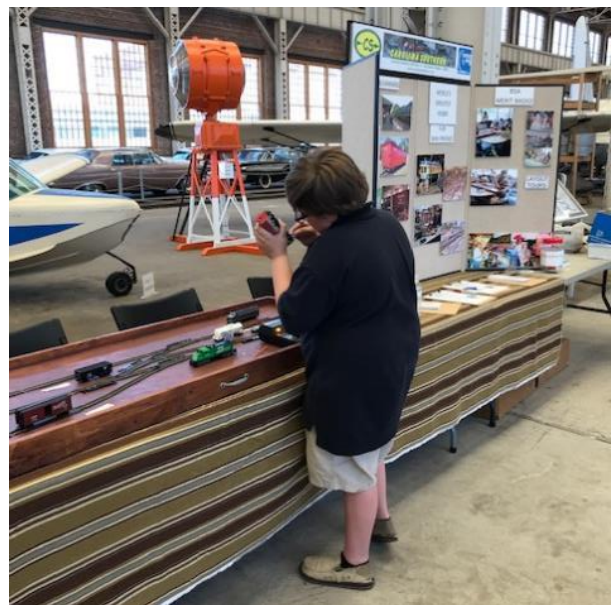


Tim Rumph gives a clinic at Spencer on how to build spline roadbed.



Ed Smith builds turnouts using Fast Tracks for his clinic.

CSD also had the Timesaver switching module on display along with the Division/NMRA information display. Alan Hardee also provided an interesting photo of model and prototype as well as a bit of whimsy from the Metrolina display.



A young model railroader focuses on throttle functions at the Timesaver module.



Model and prototype Southern boxcars along with a nice hat from Spencer



A cow and farmer are 'beamed up' by a UFO on a Metrolina module

Concord Area Model Railroad Club was on display, along with a huge T-Track display by Central Carolina N Scalers. Here's one photo of the T-Track display from Alan Hardee. There are forty-odd more photos on their Facebook page, including a diagram of their modular setup. Check them out at [CCNScalers](#) on Facebook. On Concord Area Model Railroad Club's Facebook page, you can even see a video of a Big Boy pulling freight during the event at Spencer. They can be found at [Concord Area Model Railroad Club](#) on Facebook. It's worth your time to take a look.



A small part of the large T-Track Display at Spencer on May 18th.

That's about it for Division News. You'll also note below that I don't have the normal posting of information about the AP program. There'll be more news at the June meeting. Get ready for some airbrushing....



If you are tuned in to Carolina Southern Division's Facebook page, you know that the Sipping and Switching Society of North Carolina is in the midst of their annual show at Salem United Methodist Church in Denver NC. They opened May 31st, were open on Saturday June 1st, and will be open

on Sunday as well. As usual, I made an appearance to see what was new. I made arrangements to meet fellow member Ed Smith there – I drew him in with discussion about some of the fantastic handlaid trackwork on the group's modules. We both enjoyed meeting up with Joe Balint, the group's track-laying guru. The layout boasted a roughly 6,000 sf footprint. Later this year they'll be in Raleigh in an even larger venue – Joe said they may reach close to 20,000 sf of display. You can see the Society's [Facebook Page](#) for more.



An overview of Sipping & Switching Society of NC display in Denver on June 1st.



Ed Smith (on right) discusses track-laying technique with Joe Balint, the group's track guru.

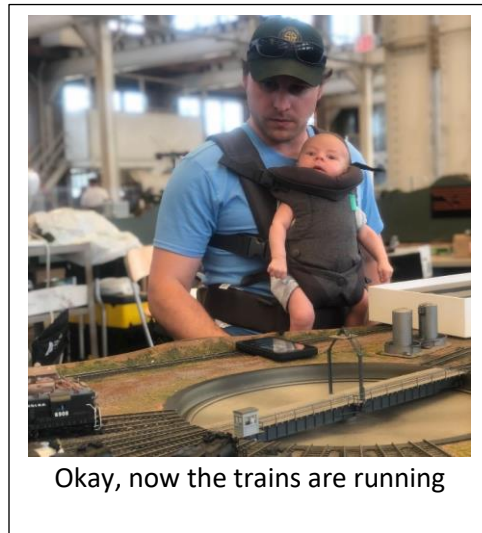


Joe Balint's handlaid trackwork speaks for itself.

Getting New Model Railroaders

By Ed Gumphrey

A heartwarming mini-story also surfaced during CSD's May event at Spencer. There have been plenty of editorials in NMRA and commercial publications about getting young people interested in model railroading. Some Facebook posts from fellow CSD member Andrew Sadler provided a great solution – start them out when they're young. Andrew happily posted that his son Talmage (born in late March) went to his first train show at Spencer on May 18th. Talmage rode comfortably in his carrier with dad. Just six days later, young Talmage was treated to a ride on a train pulled by a steam locomotive on the [Great Smoky Mountain Railroad](#) during a family trip to Bryson City. As if that wasn't enough, they were in Denver to see the Sipping & Switching Society's display, so Talmage got to see his third train event as he turned the wise age of two months! I thank Andrew and his wife Sarah for sharing this story and letting me use these photos. I'll let their pictures tell the story.





Ready for a ride in a real train pulled by a steam locomotive.



Andrew, Sarah and Talmage in a passenger car on the GSMRR



The Sadler family pose in front of GSMRR #1702 in Bryson City.



The Sadler family enjoys a third railroad event for Talmage as he turns two months old.

**And that's how you get new model railroaders.
Start them out when they're young!**



ENJOYMENT IS NUMBER 1

By Ed Smith

As I build my railroad, I find there are many facets to the hobby. All can be entertaining, some more than others, but some may be stressful. You have to remember this is a hobby, so enjoy. Although I am interested in prototype railroading, I find my calling and enjoyment is on the artistic side. Scratch building, creative land forms, and prototype, identifiable places, all come together to form scenes that give me great satisfaction. With this being said, this desire has set back my schedule and goals for our upcoming hosting of the 2020 MER Regional Convention. I get sidetracked easily in the scenery end of the hobby, and the mainline construction has suffered. This leads me into this month's article on the building of the bridge at Mill Rift, NY, near Pt. Jarvis, NY (fig 1). I wanted to scratch build this bridge for 2 reasons. First, it is a signature scene on my Erie railroad and second, in my pursuit of the AP program's Achievement Certificate for Structures, a scratch built bridge is required.



Fig 1 – The Bridge at Mill Rift NY. The left hand photo shows the bridge from Erie days. The Norfolk Southern photo on the right shows that the bridge still stands today. A signature scene for sure.

My infrastructure, spline sub-roadbed, and [Homabed](#) are installed. I've cut out the spline where the bridge will be installed and added primary land forms (fig 2). I wasn't ever able to see the bridge in person. It wasn't easily accessible. But my extensive library on the Erie R.R. gave me more than enough material to build a bridge that closely resembles the prototype (fig 3). I decided to build a warren deck truss bridge, with 4 decks of equal distance, each being 11 ½", for a total

of 46". The total dimensions are 4" wide, 46" long, and 1 1/2" high. This closely equals 28' wide, 353' long, and 10' high in HO dimensions. By using trains on the bridge, in pictures I had, I was able to roughly extrapolate the dimensions to my satisfaction. In two areas I did use builder's prerogative. First, the Erie had a wider double track mainline than standard. My tracks are 2 1/2" on center making the bridge a little wider than the prototype. Second, I compressed the lower girder supports to fit my scene. I won't get into dimensions on the rest of the build.

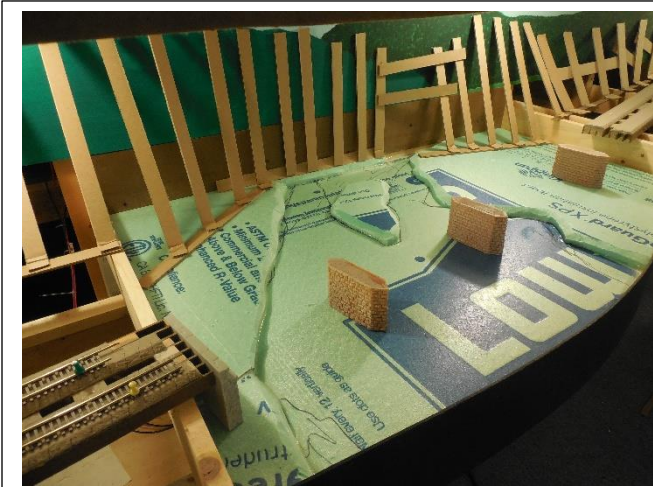


Fig 2 – Spline roadbed was removed where the bridge will be located, and landforms roughed in.

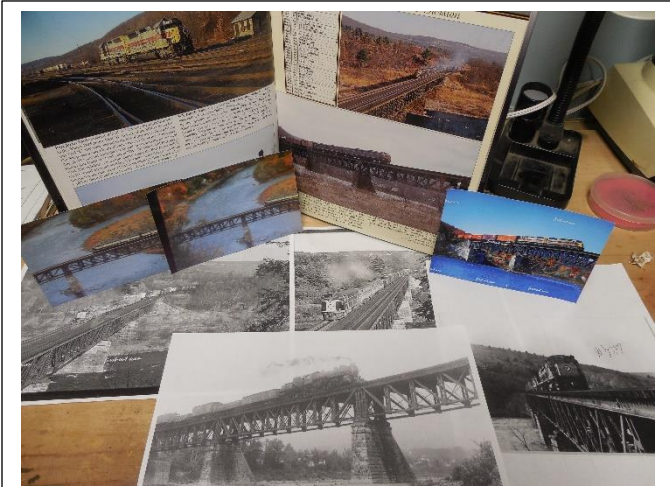


Fig 3 – A robust collection of prototype photos will provide reference material for bridge construction.

First, using [Central Valley](#) box girders, [Plastruct](#) H beams, and [Evergreen](#) Styrene, the 4 deck sections were built (figs 4 & 5). All pieces were cut to fit the needed dimensions. The sections were painted flat black and when dry, internal steel supports were added using strip styrene and styrene rod from Plastruct and Evergreen, using AC glue (figs 6 & 7). Then everything was painted flat black again. Next, assorted gusset plates were cut from sheet styrene, sanded to form, painted black, and applied in the proper locations (figs 8 & 9).



Fig 4 – The basic bridge sections were built using styrene girders and shapes.

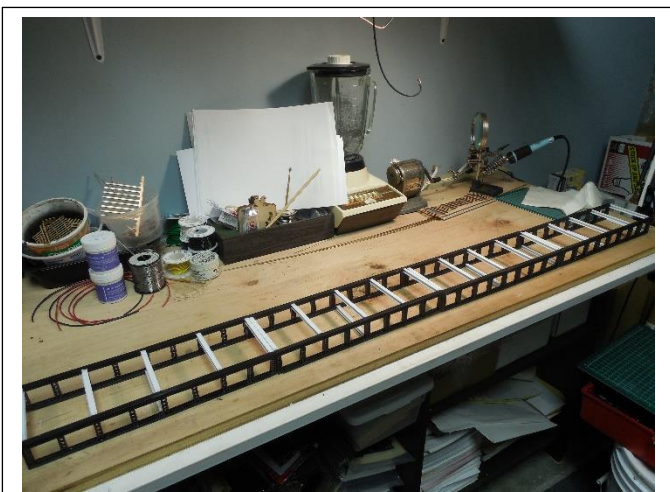


Fig 5 – The four bridge sections lined up together gives a sense of the size of the finished bridge.

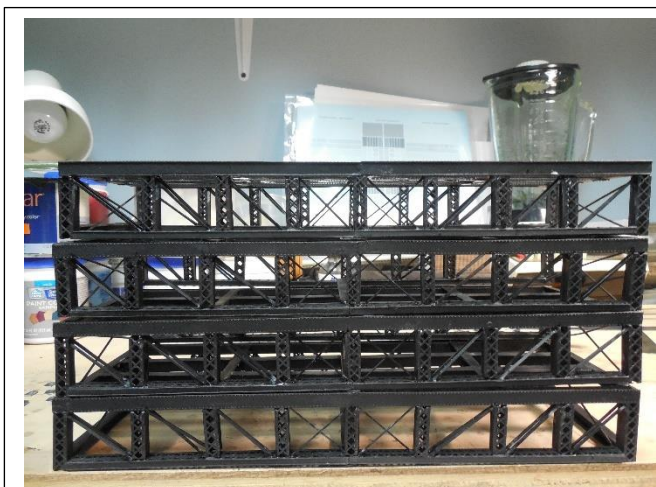


Fig 6 – Bridge sections were painted flat black and more detail was added.



Fig 7 – An end view of the bridge sections show some of the internal bracing installed.



Fig 8 – Gusset plates were cut from sheet styrene and painted flat black.



Fig 9 – Gusset plates were installed at junctions of major structural components as per prototype practice.

Now I cut sheet styrene to fit the tops of the 4 decks. This is not an open grid bridge. It is ballasted, so I needed the effect of a steel or wood deck. I cut switch ties to make the bridge ties, stained them, and using AC glue I secured them to each deck (fig 10). I painted 3 of the 4 sheets flat black, but left one unpainted until I was sure the glue would adhere to the painted pieces (fig 11). No problem, so I painted the last piece. After everything dried, I glued the decks to the supports, turned them over and weathered the decks rust color (fig 12). Finally all 4 segments were secured together.

I purchased laser cut HO wood tie plates (4 sheets, 1600 total), laid them out on the ties and used wood glue to secure them (fig 13). I hand laid code 83 rail, tested it, and using AC glued it into place (figs 14, 15, 16, & 17). This set all night. Next, I flipped the entire bridge over and added gusset plates, detail, and weathering (fig 18 & 19).



Fig 10 – Bridge ties were cut, stained and secured to the bridge deck pieces.



Fig 11 – Bridge ties weighted down during a glue test that showed good adhesion to a painted surface.

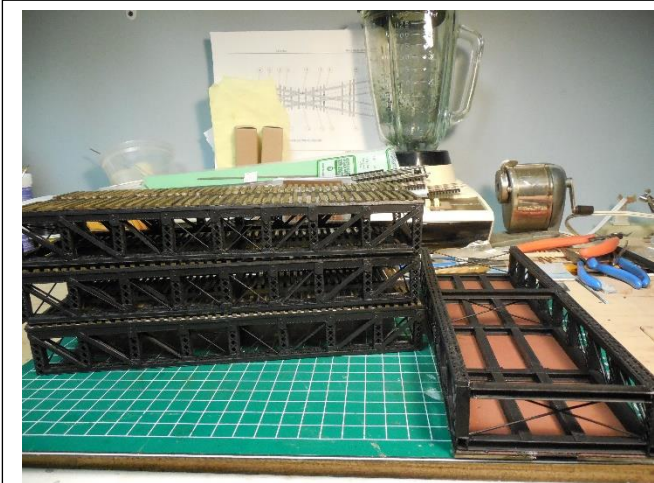


Fig 12 – The underside of a bridge deck (on the right) shows the rust color applied.

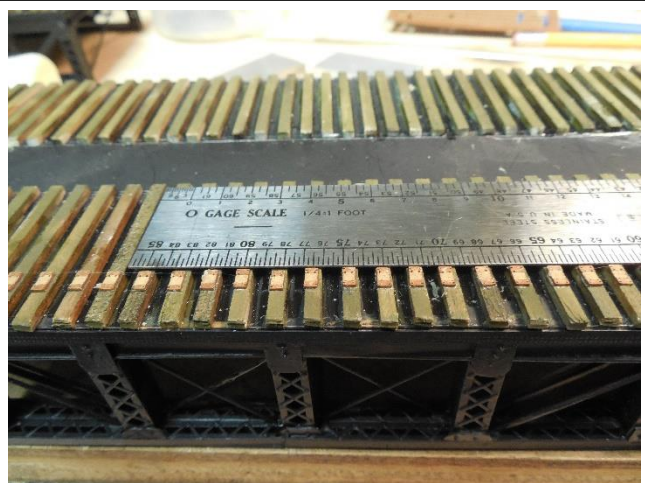


Fig 13 – Laser cut tie plates were applied to the previously placed bridge ties.



Fig 14 – Hand laying code 83 rail into place onto the tie plates.

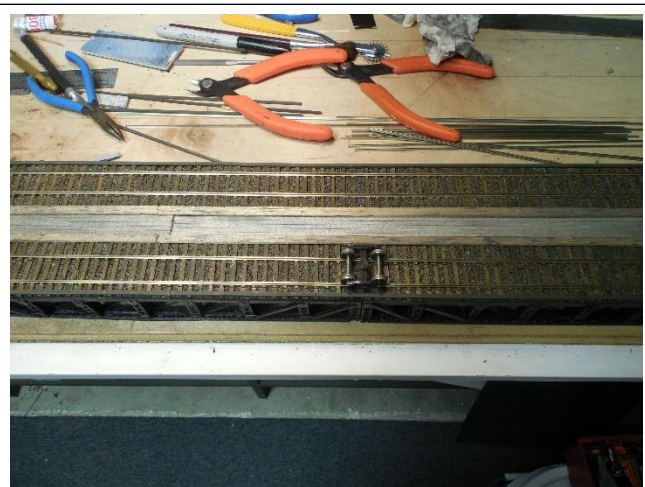


Fig 15 – A test truck takes a maiden trip across the installed rail.



Fig 16 – More ‘weights’ during gluing while everything sets up.



Fig 17 – The hand laid rail looks good against the laser cut tie plates.

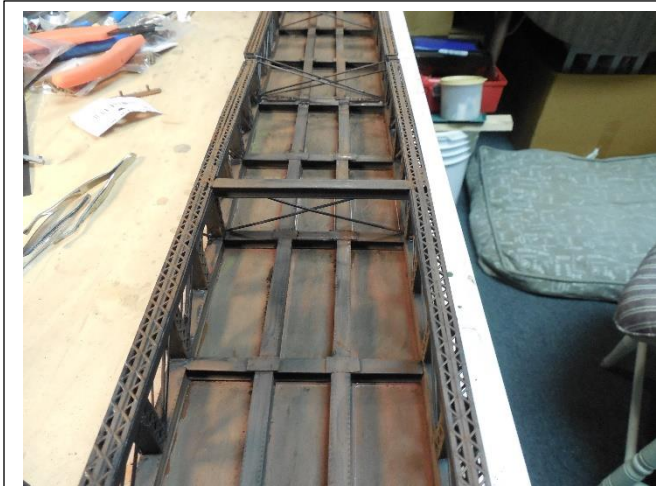


Fig 18 – Additional details were added to the underside of the bridge decks.

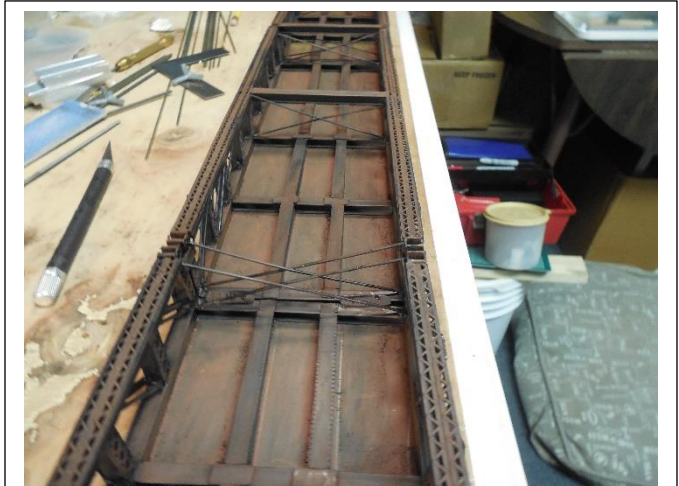


Fig 19 – Another view of details and coloring of the underside of bridge decks.

Next, on the top side, I added the walkway using Northeastern scale lumber. I weathered the track, walkway, and the steel sides (figs 20, 21, 22, & 23).



Fig 20 – Northeastern scale lumber was used for the walkway on the bridge deck.



Fig 21 – Another view of scale lumber on the bridge deck walkway.

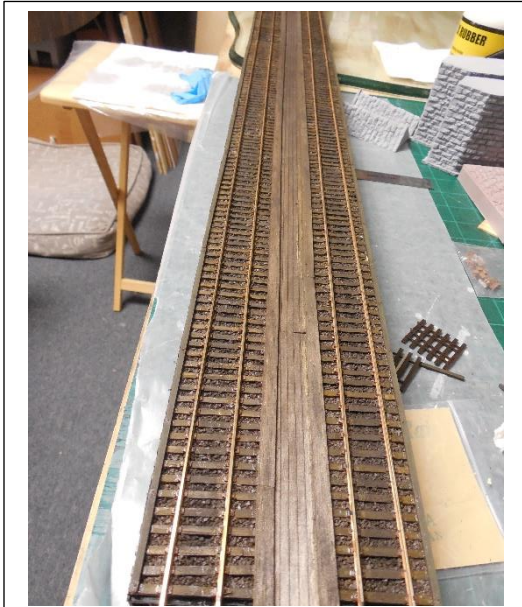


Fig 22 – Deck walkway and ties weathered.



Fig 23 – Track, walkway and bridge sides are weathered and all four bridge sections are joined together.

The last step was adding the guard rail track. I didn't have any smaller rail, so I used the guard rail from some extra Walthers bridge track. I stripped it off the Walther's track and glued it to the bridge using ties to space the rail. This was painted rust (figs 24 & 25).



Fig 24 – Some spare Walthers bridge flex track provided guard rails. Ties were used to space the guard rails during gluing.

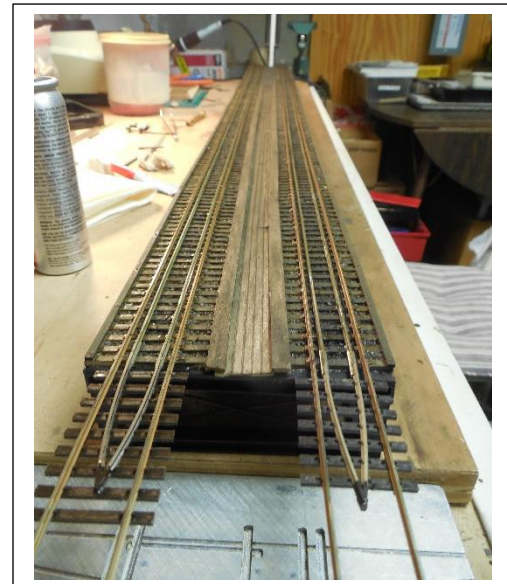


Fig 25 – An overview of the guard rails in place.

The decking is done, so next I have to make the piers, abutments, landscape the area, and pour the river. Then I will install the bridge and add bridge shoes to the girders. This process has taken about 1 ½ months, so I'm really behind schedule, but I like what I'm doing. Once again, this is a hobby, so enjoy.

Next month, hopefully, I will show you the finished product. My ever-present track laying assistant is telling me it's **time to get to work** (fig 26).

Until next time...
ED



Fig 26 – Come on, Ed. It's time to get back to laying track on the mainline.



HELP WANTED TO FIX SOME PROBLEMS

By Ed Gumphrey



As a follow-up from last month's Brass Pounder, the NC Museum of Dolls, Toys and Miniatures in Spencer needs some help fixing a Lionel layout they have on display. I visited them in late May to discuss what their needs were. Basically, they would like some help troubleshooting the layout so trains can again run. They would also like to reconfigure the layout on two sides of a lift-up gate to provide return curves on either side of the aisle so the gate can be eliminated. I told them I would try to find some Lionel experts within our Division to provide their time to solve these problems. If you can help, please contact me at editor@carolinasouthern.org and I will coordinate contact and scheduling. The pictures below provide an overview of the lift-up and ares to be reconfigured. Thank you in advance.



Peninsula end to left of aisle lift-up to be reconfigured.



Aisle into layout where lift-up is to be eliminated.



Peninsula end to right of aisle lift-up to be reconfigured.

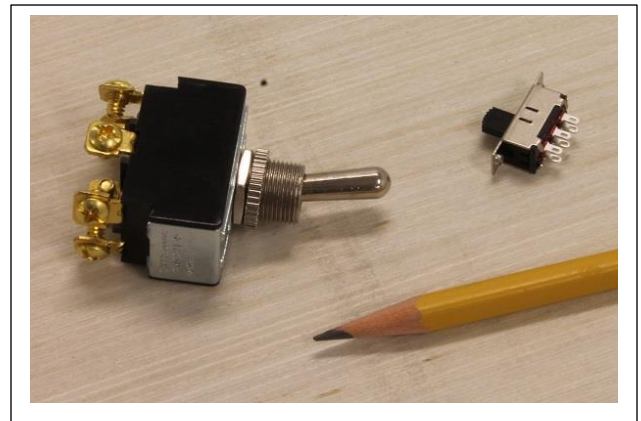


My Southern S-Line Reverse Loops 3: Simple Reverse Loop Control

By Tim Rumph

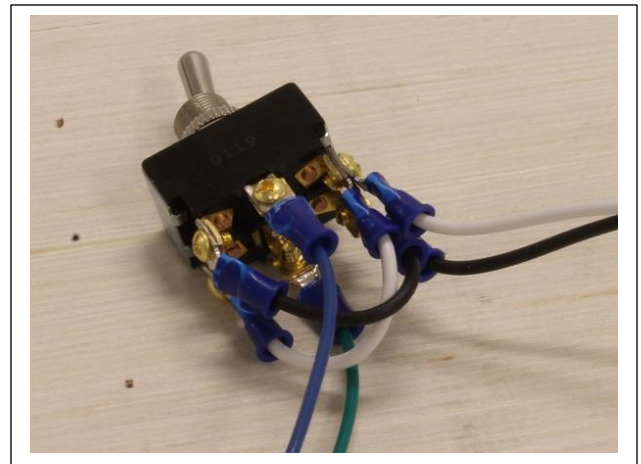
At their hart, all reverse loop controllers are double pole double throw (DPDT) switches. These are wired to that when the switch in closed, the polarity of the output switches. If we stick to simple, hand thrown switches, there are several options in both size and configuration of DPDT switches, and here are a couple.

The one on the left is a toggle switch, and fairly large. This is probably the most common type on model railroad layouts. I got this from the local Home Depot. The other one is a miniature DPDT slide switch that I got from an on-line electronics dealer. They are also available as rocker switches and, more rarely, push button switches.



To make a DPDT switch into a reversing switch, the contacts on opposite corners of the switch are connected. The input, connected to the track feeder, is connected to one end, and the reverse loop to the middle contacts on each side. See the picture to the right.

The black and white wires going off to the right are connected to the track bus. The green and blue wires at the bottom are connected to the reversing loop. Many will recognize the typical X shaped wires that are common to reversing switches. This is exactly the same as is used in DC throttles for reversing. This also leads to the common symbol for these switches in model railroad wiring diagrams.



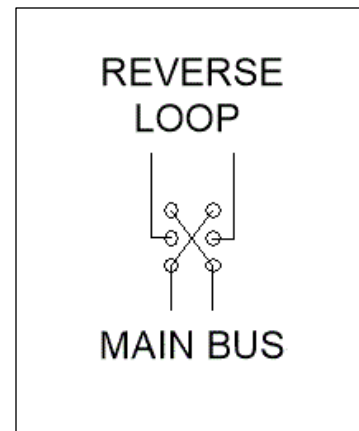
This is very simple and has both advantages and disadvantages.

Advantages:

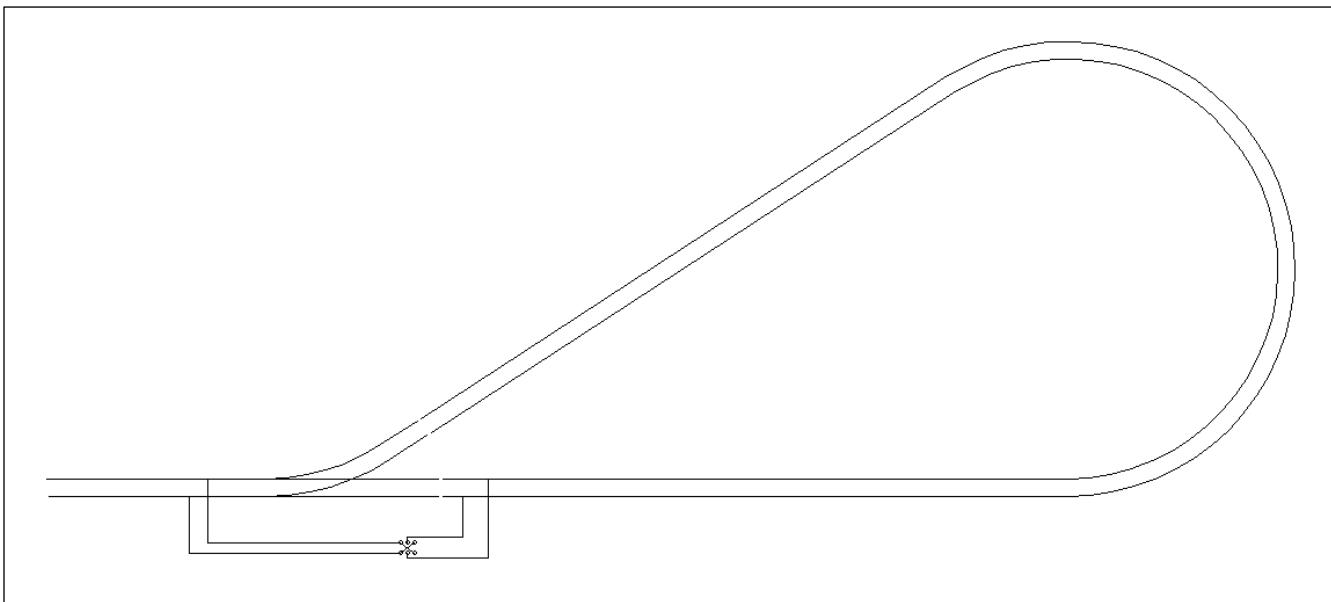
- 1- Inexpensive
- 2- Simple to wire
- 3- Works with DC layouts (automatic reversing loop switches don't work on DC)

Disadvantages:

- 1- Someone has to throw the switch
- 2- You have to remember to throw it.
- 3- Position of the switch may not be intuitive for which end of the reversing loop is aligned.



Below is a basic reversing loop with a DPDT switch. If you are careful with the wiring, you can install the DPDT switch so it's flipped down for a train to run through the bottom track and switched up for the upper, angled track. Notice the location of insulating gaps in the rails.



We are getting closer to our regional convention, so I'm going to start getting firm commitments from layout owners for the layout tours and op sessions. If I've talked to you about doing, I'll be collecting specifics and some pictures of your layouts. If not, you'll be hearing from me.

Tim Rumph
910-318-2676
tarumph@gmail.com
718 Canterbury Dr.
Lancaster, SC 29720



Norfolk Southern's First Responder tribute unit 9-1-1 (top photo) was unveiled four years ago this month. CSX joined in last month with their version (bottom). Both are striking schemes and a nice tribute to first responders.

Division Brass

<u>Superintendent</u>	Alan Hardee	superintendent@carolinasouthern.org
<u>Asst. Superintendent</u>	Jack Monette, MMR	assistsuper@carolinasouthern.org
<u>Clerk</u>	Ed Gumphrey	clerk@carolinasouthern.org
<u>Paymaster</u>	John Stevens	Paymaster@carolinasouthern.org
<u>Director 2022</u>	Ed Smith	director1@carolinasouthern.org
<u>Director 2020</u>	Roy Becker	director2@carolinasouthern.org
<u>Director 2021</u>	Larry Paffrath	director3@carolinasouthern.org
<u>AP Chairman</u>	Neal Anderson	Apchair@carolinasouthern.org
<u>Webmaster</u>	Gil Brauch, MMR	Webmaster@carolinasouthern.org
<u>Newsletter Editor</u>	Ed Gumphrey	editor@carolinasouthern.org
<u>Program Chair</u>	Scott Perry	program@carolinasouthern.org
<u>RMU Chair</u>	Doug Algire	RMUchair@carolinasouthern.org
<u>Publicity Chair</u>	Marcus Neubacher	publicity@carolinasouthern.org
<u>Membership</u>	Nancy Campbell	membership@carolinasouthern.org