

Newsletter of the Carolina Southern Division 12, Mid-Eastern Region, National Model Railroad Association

Volume 20 Number 4

April 2020

Division Coming Events (See CSD Website for further details) **IN KEEPING** WITH **GOVERNOR COOPER'S STAY AT** HOME ORDER. **ALL DIVISION ACTIVITIES** FOR THE **MONTH OF APRIL HAVE** BEEN CANCELLED.

Superintendent's Corner

By Alan Hardee

Well, we have made it to April. Normally I would make some Aprils Fools joke here but not this time. Most of us have been self-isolating for a few weeks now because of COVID-19. With all of the Executive Orders limiting groups sizes, all of the train shows, meetings, and model railroad tours have been cancelled or postponed for next few months at least. Hopefully you can find some things to keep you busy during your alone time. Almost everyone has a model railroad that needs some more work, freight cars and / or buildings to complete. Hint Hint, document your process and send an article to Ed for our newsletter. I think we will have a meeting later that everyone can bring something that they worked on during isolation. For those that know Scott Perry, he is building kits and posting on his Facebook page as he goes it alone. Feel free to follow along with him.

I hope everyone stays safe and healthy during these stressful times.







MID-EASTERN REGION 2020 CONVENTION CAROLINA SPECIAL

OCTOBER 15TH – 18TH 2020 Crowne Plaza Charlotte, Executive Park CHARLOTTE, NORTH CAROLINA

Carolina Southern Division is proud to be hosting the MER 2020 Convention

REGISTRATION IS OPEN AT THIS LINK

Convention activities will include:

- A wide selection of model railroading clinics, including by some nationally recognized names in the hobby
- Tour of the North Carolina Transportation Museum Back Shop and other non-public areas
- Tour of the Southeastern Narrow Gauge and Shortline Museum
- Tour of Wade's Train World in Brookford, a layout maintained by the CSD
- HO, S and N scale operating layouts in the Convention Hotel
- Home layout tours in the area, to include The Piedmont & Western and NYC Piney Fork Branch, which were both cover stories in *Model Railroader*
- Operating Sessions
- Shane Wilson, President of <u>Scale Trains</u> to be keynote speaker at banquet

MORE INFORMATION IS ON OUR WEBSITE

http://carolinasouthern.org

UPCOMING AREA TRAIN EVENTS

RESCHEDULED 18th Annual NC Railroad

Expo Saturday June 13th 9:00am – 4:00pm Hickory Metro Convention Center 1960 13th Ave Dr SE Hickory, NC 28602

SCHEDULES FOR OTHER AREA TRAIN EVENTS ARE NOT CLEARLY DEFINED.

MEMBERS WILL BE NOTIFIED OF SCHEDULED EVENTS OF INTEREST WHEN NEW INFORMATION IS RECEIVED.

IN THE MEANTIME, STAY SAFE AND HEALTHY.

Editor's Notes

By Ed Gumphrey

Each month when I start working on another edition of this newsletter, I pull up the previous month's issue for a template. When I started this edition, I re-read my comments from March. Then I remarked about a high point – that train show season was upon us. It's quite a contrast from those comments with where our focus is now. A glimmer of light is that the previously cancelled show in Hickory has been rescheduled for June 13th. I hope we can continue with our social distancing and other precautions for that schedule to hold.

Having said that, it is encouraging to see many of the positive comments about being able to pursue our model railroading interests during this challenging time. It's equally encouraging to see many keep a sense of humor.

Hopefully you will be able to accomplish some of the projects you have been planning. As Alan Hardee mentioned in Superintendent's Corner, I hope you'll take some pictures and submit them for publication. If you need any help, let me know and I'll remotely guide you through the process.

In closing, I'll admit I couldn't resist my love of the B&O when I selected a photo for this month's Closing Page Bonus. In the early 1970s when I lived in a suburb of Baltimore, I used to take my sons to the Thomas Viaduct to enjoy train watching. It's a signature structure from the early B&O that still carries double track mainline traffic on CSX to this day.

Stay safe and healthy and enjoy your model railroading.

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 <u>editor@carolinasouthern.org</u>

DIVISION AND REGIONAL NEWS

By Ed Gumphrey

The Division cancelled its March meeting. In keeping with Governor Cooper's executive order, all Division activities for the month of April have been cancelled.

There has been a good bit of activity posted on social media. I captured a few pictures from Facebook posts that highlight some of the activity...



As Alan Hardee mentioned in Superintendent's Corner, fellow CSD member Scott Perry posted a series of pictures as he scratchbuilt this O scale structure over the course of a weekend. During the build, Scott posted step-by-step photos. The above photos from the Division's Facebook page show the completed structure, along with a photo of the prototype on the Lancaster & Chester Railroad. Photos by Scott Perry.



Not all of our members worked only on trains. Neal Anderson, MMR, used his new chain saw to buck up some fallen trees behind his house. Photos by Neal Anderson.



Just before the "stay at home" orders, Seth Gartner posted some pictures from wrapping up an operating session on his NYC Piney Fork Branch railroad. Like Neal, he also ventured outdoors, and posted photos of his progress on a walkway he is building in his back yard. Photos by Seth Gartner.





Gil Brauch, MMR, also shared in some humor. He summed it up when he posted this meme. Be glad that you can enjoy your hobby during these trying times. Stay safe and healthy.

Stains for Color and Weathering

Prepare Your Own Stains

Text and Photos by Scott G. Perry

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I use a lot of stains since I scratchbuild in wood. There are many different ways to make stains, and varieties of those techniques. What I get tired of is having to stop and make a stain when I run out. One Saturday I ran out of two different colors at once and decided that I really should make everything I need at once. My thought was that it might be easier, cheaper and that I'd only get dirty once instead of a bunch of times. Yes, stain making is a dirty job, but somebody has to do it.

Amazon Prime is one of the handiest things to hit model railroading in many years, and I use it all the time. The first thing I ordered was an entire case of isopropyl alcohol at 99% (Pic 1). I prefer the alcohol to have less water, so I stay away from 90% and 94% which makes the grain swell too much. I need the scale lumber to stay true to size. My choice is the smaller 16-ounce bottles (Pic 2) which I think are easier to handle. They showed up at my door in two days for \$1.50 a bottle which is a bit higher maybe than Walmart, but I didn't need to wait on a cashier.





distort the wood like water will.

Safety alert! Alcohol is very flammable. It ignites easily and burns with a very hot blue flame. Be careful of your environment. Be sure not to open or store bottles near heat sources or something that can generate sparks. Smoking is hazardous to your health near a case of alcohol.

If you have a fire extinguisher (which all workshops should have) please have it handy and already know how to use it.

On Stain Making Day we want to make sure we choose an area to work in that can get a little messy. I use my portable craft table and cover the top with a layer of butcher paper (Pic 3). The paper will absorb drops and spills. I grab an old towel from the garage and put down a drop cloth. The more prepared you are the less likely you will have a big mess to clean up. I also put on safety glasses with side shields because alcohol burns like heck when it splashes in your eyes. Wear old clothes, too. You will get stain on you; the question is how much.



There are several ways to make stains. I use alcohol bases as they evaporate quickly, but you can use water, mineral spirits or other solvents. Alcohol is cheap and plentiful. Black waterproof India ink is one of my favorite weathering stains (not coloring stains) as it is easy to control the strength. Be sure to use waterproof ink or it will not work. I bought a bottle of Speedball India Ink (Pic 4), but it has particulates in it and made a terrible stain. Higgins brand has been my go-to ink for years, so I picked up another bottle at the craft store.

Leather dye is wonderful coloring agent and stain. It is much stronger and bolder than ink, so you need less per bottle. Fiebing's Black Leather (or shoe) dye (Pic 5) gives a bluish tint to the black and represents wood aged in the Southern United States very well. Medium Brown Leather Dye (Pic 6) is my other favorite because it gives the wood a darker more orange color like that of aging pine wood. Gray dye (Pic 7) does not work as it fades out in the alcohol. I tried it because I received it by accident and wanted to see how it held up to the black, then promptly threw it in the trash. Leather dye is hazardous in that it is flammable, so be sure to read the directions carefully (Pic 8).



You can make stains from pigments as well. I use Dr. Ben's Weathering Powders (Pic 9) for most all my projects and today I'm using a dark green powder to make a stain for a model I'm building. You can also buy these stains already made, but I was in a hurry and needed some green today. There are other colorants such as Rit Dye (for fabric) and coffee or tea for more natural stains.

There are some other supplies you will need for the project. Paper towels and a small funnel (Pic 10) come in handy for preventing messes. I used plastic (or glass) graduated cylinders (Pic 11) for measuring the colorants. This is much more accurate and less messy than using teaspoon measuring devices. A teaspoon is 4.9 ml, so I round to 5 ml. You can pick up these measuring cylinders at hobby shops (chemistry labs) or school supply stores. I have a bigger cylinder (Pic 12) for pouring off some of the alcohol in a bottle that is overfilled. You need a little head space to get the colorant into the bottle and room to shake it. You will need some labels for the bottle and some clear packing tape to cover them. Last but most important are latex or Viton gloves. You will go to work Monday with your hands splotched and stained if you don't wear them! Ask me how I know.





Pic 10: Paper towels and a funnel help keep the area clean.



To make the first stain carefully measure out one teaspoon/5 ml of India Ink. Open the first bottle of alcohol and pour the ink in using a funnel or dropper (Pic 13), then close the lid and shake. In order to keep the project accident free, any time you open a bottle, close it as soon as you can. Keeping lids closed and tight will prevent spills.

Close the bottle and shake it vigorously. I take some basswood scrap and dip the board into the stain and hold it there for 30 seconds (Pic 14). Take it out of the stain, cut off about one inch and let it dry. You will glue this to the label later.





Pic 14: By coloring a one inch piece of board and gluing it to the label you can see what the wood will look like when you use this formula.



Pic 15: A completed bottle with label.

Immediately make a label for your new concoction (Pic 15). You will want to put "stain" on the label, then what you made it with, the color intensity (light, medium, dark) and the mix ratio so that you can make it again. Put the label around the bottle then glue the piece of wood to the front. Wrap the label in clear packing tape and you have a bottle of stain that should last for some time. The wood sample lets you know how it will look without having to stain a test piece every time. Now you can see how biting the bullet and doing them all at once is much faster and easier than just doing one bottle every time you run out.

Using the grid below continue make ink stains darker and darker, thus giving you a range of weathering color. Leather dye mixes (Pic 16) just like the ink does, but it makes a much stronger colorant. You may want to use a dropper to measure it. Once you have completed the list you will have 11 stains (Pic 17) and one bottle of clear alcohol for wash up or to make a stain you need later.



Pic 16: Mixing leather dye is just like ink, but it is more concentrated. You may want to use a dropper and just count the

What are you going to do with all this stain (Pi	c 18)?	Build man,	build!
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Stain Mixing Recipes						
			Colorant Amount			
No.	Stain	Color Material	Added			
1	Black Ink Wash Light	India ink non-waterproof	5ml/1 teaspoon			
2	Black Ink Wash Medium	India ink non-waterproof	10ml/2 teaspoons			
3	Black Ink Wash Dark	India ink non-waterproof	15ml/3 teaspoons			
4	Black Leather Dye Stain Light	Fiebing's Black Leather Dye	5ml/1 teaspoon			
5	Black Leather Dye Stain Medium	Fiebing's Black Leather Dye	10ml/2 teaspoons			
6	Black Leather Dye Stain Dark	Fiebing's Black Leather Dye	15ml/3 teaspoons			
7	Brown Leather Dye Stain Light	Fiebing's Med Brown Leather Dye	5ml/1 teaspoon			
8	Brown Leather Dye Stain Medium	Fiebing's Med Brown Leather Dye	10ml/2 teaspoons			
9	Brown Leather Dye Stain Dark	Fiebing's Med Brown Leather Dye	15ml/3 teaspoons			
10	Dirty Black Weathering Stain	Various Dark Acrylic Craft Paints; Brown, Black, Gray	1 ounce total			
11	Hunter Green Stain	Dr. Ben's Weather Pigments Dark Green	15ml/3 teaspoons			
	* Base is 99% Isopropyl Alcohol 16 o	z bottle for all stains				





Pic 18: The whole set of bottles, enough to last a year. Always remember to shake before you use.



BLUE POINT SWITCH MACHINES

By Ed Smith

In my last article, I discussed planned preparations for our Regional Convention. Well, 2 months have flown by and, miraculously, I'm still on schedule. The lower deck, double track mainline, most yards and spurs, and the 4 revolution helix are installed. The next two months are dedicated to the upper deck. I'm sticking to the plan, even though our lives have changed dramatically in the last months. I feel the NMRA National Convention in July will be canceled, and our Regional Convention is tenuous at best. But there's still hope, so my building plans are still a full go. One bright spot of the self-quarantine situation is that it creates a lot of model railroad time.

There are more than 60 hand built Fast Tracks #6 and #8 turnouts on the lower level (pic 1). My choice of switch machines is the <u>New Rail Blue Point</u> manual turnout controller (pic 2). I picked this type because I model the 1940's and wanted the operators to physically throw each turnout. In areas where plywood and Homasote were used; yards, engine facilities, etc., for the track surface, installing these machines under the layout is straight forward, except for almost standing on your head to see the work area.



But the spline roadbed double track mainline creates a whole different problem when attaching the machine to the spline. This month's article will give you an overview of how I

accomplish this. After some experimentation, I came up with a process that I like. I made a mockup of the track and spline to test my theory (pic 3, 4).



Like I stated, I use New Rail Blue Point machines. I also use their hardware kits (40023-5), and 36" tubing (40024-5) (pic 5, 6). Using $\frac{1}{4}$ " Lauan plywood for my machine base, I cut pieces 2 $\frac{1}{2}$ " x 3" and drilled a 3/8" hole for the actuator wire (pic 7). The machine was fitted on the board (pic 8). Here's where I realized the board had to be thicker to accept the screws, so I ended up laminating 2 pieces together. The machine has 2 sets of 2 pole electrical contacts. I use one set for the turnout frog polarity (pic 9) and the other set will be used for LEDS that indicate switch position. I soldered #22 AWG wire to the connecting pins on the top of the machines (pic 10, 11). This soldering is tenuous at best and I'm looking for connecting terminals that will slip over the pins.





Pic 6 – A collection of materials used in my method for attaching machines.



Pic 7 – 2 $\frac{1}{2}$ " x 3" lauan plywood piece drilled with a 3/8" hole for the actuator wire.



Pic 9 – Feeder wires soldered to the turnout frogs will enable polarity control by the machine.



Pic 8 – Using 2 lauan boards laminated together, the machine is attached with small screws.



Pic 10 – Various colors of hookup wire are used to help keep track of feeder purposes.



Following the instructions that accompany the hardware kits, the hardware was added (pic 12) and tubing holes drilled in the facia. I made a mock-up of what a finished installation would look like (pic 13).



To the layout. I took the board, with the apparatus mounted on it, to the turnout to be finished. The turnout throw bar has a #56 hole centered to accept the throw bar wire. I upgraded the wire to .039. This gives more rigidity and a positive throw. I placed the wire through the hole and secured it with a hemostat (pic 14). Hemostats are a second set of hands and I highly recommend you purchase a set. The next step is to connect the wire to the machine. Here's where the hemostat earns its keep. Once you bend the wire to accept the machine, you don't want it to slip out of the throw bar. It is almost impossible to re-thread it in and you have to start over.

To secure the hardware plate to the spline pieces, I use wood glue and caulk. The glue is thinly spread over the entire wood surface, staying away from the actuator wire. Caulk is spread around the edges. The caulk gives a sticky surface, that allows positioning for the final adjustment. Once everything is lined up, usually the wire is perpendicular to the throw bar, and you have tested it by throwing the actuator, clamp one corner (pic 15). Here's where it got tricky, and I had to improvise. I couldn't clamp the center of the hardware board, and I needed a way to apply pressure equally to the board. Using 1" PVC pipe, 1 threaded connector, and a threaded connector plate, I built an adjust-a-post. By screwing and unscrewing the connector and plate, I can achieve the proper pressure (pic 16, 17).



Pic 14 – A hemostat is used to hold the actuating wire in place ready for connection to the machine below the spline roadbed.



Pic 15 – Viewed from above, a clamp holds one corner of the machine's mounting board below the roadbed.



pressure across the entire surface of the



Pic 17 – Viewed from below the layout, you can see the quick clamp used to first hold the assembly in place, as well as the adjust-a-post to apply clamping surface over the whole assembly.

I let the adhesives cure for about 6 hours. While this was going on, I made the guard for the actuator knob. Once again, I used PVC pipe. This time 2 3/8" outside diameter pipe was purchased in 10' lengths. I cut it into 2" pieces and beveled the edges. The piece was painted flat black. Once the glue was cured, the assembly tubing and knob were installed (pic 18). Last, the guard is secured, using caulk, to the facia (pic 19, 20).

This installation has a learning curve, but it is relatively easy, once you've done a few. Next month, I'll try to describe my method of track orientation on 2 levels using a helix.



attached to the activation cable. It is glued into place and painted to match the facia.



Pic 19 – This view shows the cable behind the mounted knob connecting to the installed machine assembly.



Pic 20 – This view from below shows a completed installation, with the actuating cable connected to the Blue Point machine.



Pic 21 – Elway, my trusted assistant is staying safe. Please make sure you do the same.

Until then, stay safe (pic 21). ED



My Southern S-Line First Project – Short Circuit Light

By Tim Rumph



The preliminaries are out of the way and it's time to do something useful with LCC. This will be a straightforward project that turns on a flashing LED when there's a short circuit in a section of track.

You'll remember from last month's column that there are input/output (I/O) ports on both the Tower LCC and the Signal LCC. The Tower LCC has two and the Signal LCC has one. Each of these ports has eight I/O lines and a + and (-) connection for a total of ten pins that fit a 10 conductor ribbon cable connector.

In this example I'm using a Signal LCC. The I/O port on this node is connected to a BOD-4 card which has four block occupancy detectors. That accounts for four of the I/O lines on the Signal LCC node. The BOD-4 makes the other four lines available on a terminal strip on the card. These are shown on the picture of the BOD-4 shown below. The terminals, from bottom to top, are I/O 5, I/O 6, I/O 7, I/O 8, and (-), the board ground connection.



For the input, we need a switch that connects the input pin to the ground (-). I use the PSX circuit breakers from DCC Specialties. These have a switch just for this. When there is a short circuit J4-

5 (+) is connected to J4-6 (-). (Technically, it's an "optically isolated open collector transistor." Don't hook it up backwards!) This is located as shown below.

Here is the whole installation on the Newton section. On the left is the PSX breaker for the main line between Claremont and Conover on my layout. Next to it is the PSX breaker for the Newton yard, which includes the Gastonia staging yard. The upper right is the Signal LCC and below it is the BOD-4.





I've routed the wires connecting the PSX breakers to the BOD-4 behind the boards to keep them neat and out of the way. Both of the J4-6 terminals on the PSXes are connected together and connected to the (-) terminal on the BOD-4. The J4-5 terminal on the Newton Yard PSX is connected to the I/O 5 terminal. The CLAR-CONV PSX is connected to I/O 6 on the BOD-4.

It's time to connect your computer to the LCC bus using the LCC Buffer USB like I showed last month. When you open JMRI Decoder Pro there will be a tab labeled "LCC" or "Open LCB" depending on the version of JMRI that you are using. Click on that and select "Configure Nodes." You'll see a list of LCC nodes on your network. For this project I'm using the node labeled "Newton." Click the "+" to the left of that node and select "Open Configuration Dialog."

📕 DecoderPro: All Entries		-		<
<u>File Edit Settings Actions LCC Window</u>	Help			_
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Getting Started	OpenLCB Network Tree OpenLCB Network Tree OpenLCB Network OpenLCB Net	Programm Edit Only Labels & M	In the next screen enter in the basic information of the loco to cre your first roste entry. ning Track	n fisate er 3
Service Mode Programmer Openicus is Unline	< > Refresh Sort by	Connection		两一家
	Open Decoder Pro and select node to configure			

When you add a new node to your network, the first things you should do is update the firmware if needed and save a back-up of the node. I'm not getting into that here, but there are instructions on the <u>RR-CirKits</u> web page on how to do this.

V Identification		
Manufacturer: RR-CirKits Model: Signal-LCC		
Software Version: rev-C2b		
😻 Segment: Node ID		
📎 Your name and description for this node		
Node Name		
Newton	Refresh	Write
Node Description		
Node for controlling signals and track detection in Newton	Refresh	Write
Segment: Node Power Monitor		

Next you should give the node a name and a description. I called this node "Newton" because that's where it is located on my layout. "Node for controlling signals and track detection in Newton" is what this node does. (See arrows — in the picture above) Note that in the node list, there is also a string of numbers, which also shows up in the dialog box header. In this case it is "02.01.57.10.00.55". That is the node ID. It is assigned by the manufacturer and you cannot change it. It is unique to this particular Signal LCC node and there will never be another node made with this ID.

Line 1 Line	2 Line 3 (S473T) Line 4 (S472T) Line 5 (Newton Yard Short) Line 6 (Clare-Conv.Short) Line 7 Line 8
Line Descri	
Newton Yar	d Short Refresh Write
Output Fun	ction
No Function	n v Refresh Write
Input Funct	ion
Active Lo	V Refresh Write
Delay Delay time Interval 1	values for blinks, pulses, debounce. Interval 2
Delay Tim	e (1-60000) Refresh Write
Units Millisecon	ds ∽ Refresh Write
Retrigger	
No 🗠	Refresh Write

Scroll down in the configuration box to the section called, "Segment: Port I/O-1." Select Line 5 (which has the Newton Yard PSX connected to it) and the description box says, "Newton Yard Short". Be sure that you use good names in all of these descriptions so it's easy to find things later. Now go down to the Event section. Make sure that the Output Function is set to "No Function" since we are using Line 5 as an input. The Input Function is set to "Active Low" because we want to have the input turned on when I/O pin 5 is connected to (-).

Event 1 Event 2 Ev	vent 3 Event 4 Event 5 Event 6
Command	
(C) When this event	
02.01.57.10.00.55.0	00.30 Refresh Write Copy Paste Search
Other uses of this Ev Newton.Port I/O-1.L	ent ID: ine(5,Newton Yard Short).Event(1).Command
Action	
the line state will be	echanged to
None	V Refresh Write
Upon this action Input On Indicator (P) this event will be	Refresh Write e sent
02.01.57.10.00.55.0	00.36 Refresh Write Copy Paste Search
Other uses of this EV Newton.Port I/O-1.L Newton.Rule to Aspe Newton.Rule to Aspe	/ent ID: ine(5,Newton Yard Short).Event(1).Indicator ect.Mast(5,Newton Yard Short).Rule(1).set aspect ect.Mast(5,Newton Yard Short).Rule(1).set aspect

The part labeled "Command" is for output ports. This part is for inputs, so leave that Action as "None". We'll get to that later. The part labeled "Event" is for input ports, and that's what we want. The Event 1 tab is selected. "Upon this action" is set to "Input On." The entry for "this event will be sent" is set to "02.01.57.10.00.55.00.30". The (P) at the beginning means "Producer". This is the default EventID for this event, and it's better to leave producer events at their default value. You will also notice the first part of this EventID is 02.01.57.10.00.55, the same as the node ID. This EventID is unique, and that is one of the advantages of LCC. When you start doing this, do not change the producer numbers to match what I've shown here. They should match the node ID for your board.

Unon	this action	Litenco	Erent i Ere	into Eventee			
opon	unis action						
Input	Off		✓ Refres	h Write			
Indica	tor						
(P) th	s event wil	l be sent					
02.01	.57.10.00.5	5.00.37	Refresh	Write	Сору	Paste	Search
Other Newto Newto Newto	uses of this n.Port I/O-: n.Rule to A n.Rule to A	s Event ID: 1.Line(5,Ne spect.Mast spect.Mast	ewton Yard S (5,Newton Ya (5,Newton Ya	hort).Event(2 ard Short).Ru ard Short).Ru	2).Indicator ıle(2).set a ıle(2).set a	spect	
				Event 2			

Click of the Event 2 tab under "Events" and set it to "Input Off". You'll see that the EventID is mostly the same as it was on Event 1 but ends with "00.37".

Now we have the Newton node standing in his tower with his megaphone. When there's a short circuit in the Newton Yard section, he shouts, "Newton Yard Short Circuit." When the short circuit is gone, he shouts, "Newton Yard Short Gone." Next month we'll make something happen when there's a short in the Newton Yard.

We are all stuck at home for now, but I still need information about layouts for the tours this October. Please contact me if you would like to host a tour for our convention this fall.

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

CLOSING PAGE BONUS



Baltimore & Ohio F-3 #87 hauls the Capitol Limited across Thomas Viaduct. Built in 1837, the viaduct still carries double track mainline traffic to this day.

Photo from internet search

Superintendent
Asst. Superintendent
<u>Clerk</u>
Paymaster
Director 2022
Director 2023
Director 2021
AP Chairman
<u>Webmaster</u>
Newsletter Editor
Program Chair
RMU Chair
Publicity Chair
Membership

Division Brass

Alan Hardee <u>su</u> Andrew Stitt Ed Gumphrey David Thrams Ed Smith Scott Perry Larry Paffrath Neal Anderson, MMR Gil Brauch, MMR Ed Gumphrey Scott Perry Doug Algire Marcus Neubacher Nancy Campbell

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