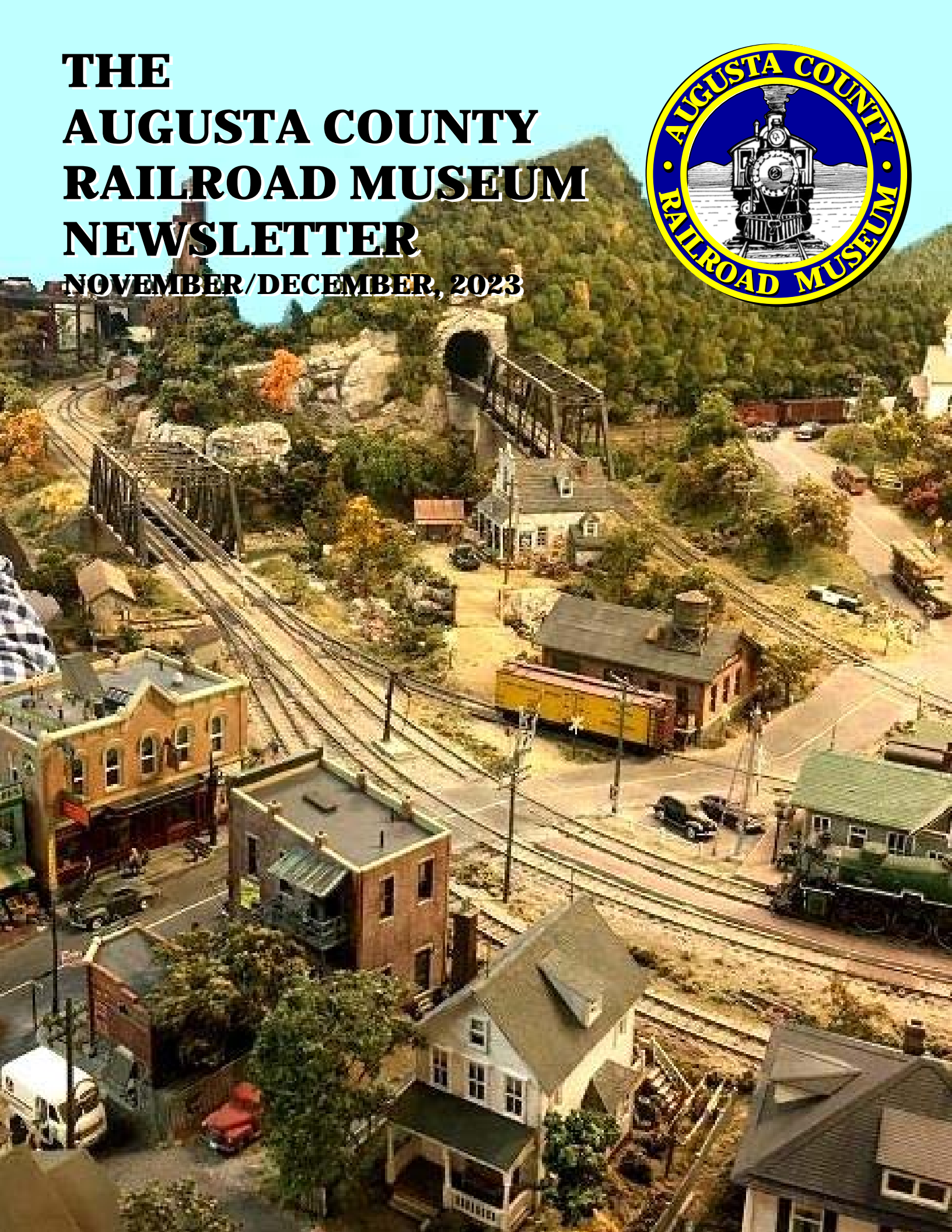


THE AUGUSTA COUNTY RAILROAD MUSEUM NEWSLETTER

NOVEMBER/DECEMBER, 2023



**THE AUGUSTA COUNTY RAILROAD MUSEUM
NEWSLETTER
NOVEMBER/DECEMBER 2023 SECOND EDITION**

Official Publication of the
Augusta County Railroad
Museum

Our mailing address is:

**AUGUSTA COUNTY
RAILROAD MUSEUM
PO BOX 806
WAYNESBORO VA 22980-0593**

The Augusta County Railroad Museum is a 501(3)c non-profit organization chartered under the laws of the State of Virginia in 2001. It's purpose is to promote the interest in railroading and model railroading. Persons participate with the Museum as members, volunteering their time and talents to promote the hobby of model railroading and the public's awareness of railroad safety. Participation is open to the public. Annual membership dues are assessed at the rate of \$60 per year, pro-rated.

Regular monthly business meetings are held at the Augusta County Library in Fishersville Virginia on the third Thursday of the month beginning at 6:00 p.m.

The Augusta County Railroad Museum continues it's quest to find a new permanent location to serve as space for exhibits, displays and layouts. So far our attempts to find a modern retail rental space have been futile. The Museum still engages the public by participating in community events.

We will continue to continue to offer the community our support and resources to promote the railroading culture. Should you wish to support this organization, you can contact our Editor at editor@acrrm.org or write to our PO Box.

PUBLICATION STAFF

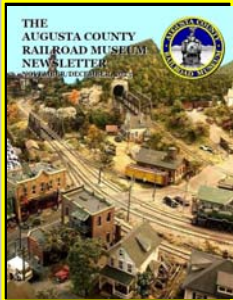
Newsletter Editor
Brian Day
editor@acrrm.org

Museum Secretary and Historian
Artem P. Braginetz
secy@acrrm.org

Contributing Membership
Lundy Pentz

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Editor's Note

Dear Reader,

Welcome to the inaugural issue of the Augusta County Railroad Museum Newsletter. As our second issue goes to press, I'm delighted to announce that over 400 individuals have elected to receive updates about the Augusta County Railroad Museum via Constant Contact.

As you may know, the newsletter is authored in two editions, one bears a historical tone and the other a modeling tone; and depending on your selection of preference you are receiving one, or the other, or both.

In keeping with the theme of a beginning, I selected articles describing the works of modelers, train show exhibitors and retailers who participate in the Model railroad hobby. We intend to author a series of articles on this theme in later editions.

I'll note that Augusta County has a variety of modelers ranging in scales from Z 1:160 through 2 1:22.5, modeling

both domestic and foreign railroads.

I'll note that not everyone has started a layout, or finished one. So I plan to include a mixture of articles illustrating stages of construction and completion.

So recognizing that we'll cover a broad subject, at a reasonable level of detail and depth, let's begin... with a story of the bridges for a layout.

Kindly,

Brian A. Day
Editor



What's Happening Now ?

O Scale Display at the Shenandoah Heritage Market beginning November 24th and ending December 22nd.

The Augusta County Railroad Museum will setup an O Scale display at the Shenandoah Heritage Market. The 5ft x 8.5ft layout will feature two tracks in Christmas themed scenery. Plans are to have trains running beginning Friday November 24th. Trains will normally run 11:00 a.m. - 4:00 p.m. Thursday through Saturday. The Shenandoah Heritage Market features an indoor country marketplace with twenty (20) vendors and a food court.

The Market is open 10:00 a.m. - 6:00 p.m. Monday through Saturday.
Shenandoah Heritage Market

121 Carpenter Lane
Harrisonburg VA 22801

You can visit <https://www.shenandoahmarket.net> to learn more.



O Scale Display at the Shenandoah Heritage Market Harrisonburg Va. beginning November 24th and ending December 22nd.



It's a special moment aboard Santa's Scenic Railway as young rail fans enjoy the 50 minute ride.

Santa' Scenic Railway aboard the Virginia Scenic Railway

Santa is taking over the Virginia Scenic Railway. The Virginia Scenic Railway is offering festival Holiday rides beginning on Saturday November 25th, and going through Wednesday December 20th; Tuesday through Sunday. The run time is expected to last about 50 minutes. Departures are scheduled for 3:00, 4:15, 5:30, and 6:45 p.m. The ticket price is \$65 per person. Children under two years old (24 months) may ride free as long as the infant is in the lap of a ticketed adult. Tickets tend to sell out well in advance; book now if interested.

During the ride passengers will be treated to cozy hot beverages, a sweet treat, and best of all – a special appearance from the big man himself. Children and parents will have an opportunity to sit and visit with St. Nick during the ride.

Rides will depart from the Amtrak station in historic downtown Staunton. Please allow plenty of time to find parking. Check ticket availability at <https://www.virginiascenicrailway.com>.

Staunton's Celebration of Holiday Lights in Gypsy Hill Park beginning November 20th and ending January 1st.

Staunton is hosting it's Celebration of Lights in Gypsy Hill Park from November 20th through January 1st 2024. The lights are lit from 5:00 p.m. until 11:00 p.m. every night and it is free to the public. The Gypsy Express holiday display returns this year from 5:00 p.m. through 7:00 p.m. every Friday, Saturday, and Sunday.

Two G scale trains operate on separate loops of track surrounding a miniature village lit at night. Visitors are encouraged to park nearby, walk-up, and get a close up view. The display is located next to the Gypsy Express train shed. The display operates weather permitting and may close due to inclement weather because of the effects it has on the operation of the electric trains.



Thomas the Tank engine passes a miniature village adjacent to the Gypsy Express train shed.



Interior dining area of the newly refurbished AUGUSTA dining car.

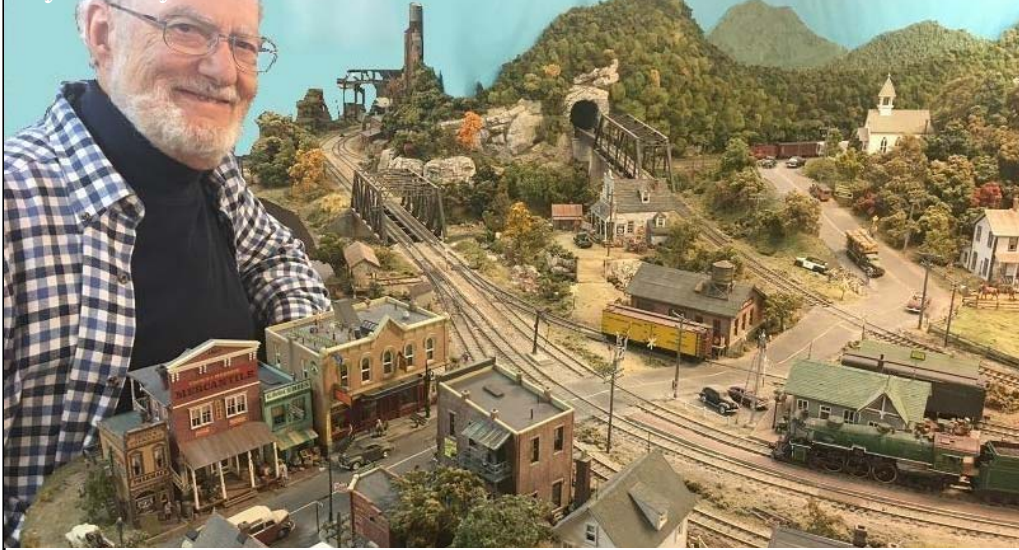
Virginia Scenic Railway announces 2024 schedule for it's Allegheny Special and Blue Ridge Flyer dining excursions

The Virginia Scenic Railway has opened ticket reservations for it's Allegheny Special and Blue Ridge Flyer dining excursions commencing January 20, 2024 - March 31, 2024. This season, the AUGUSTA dining car (44 seats) joins the ARVONIA (34 seats) on each trip. Two journeys depart Staunton's downtown station on Thursday, Friday, Saturday, and Sunday. The Allegheny Special departs at 10:30 a.m. heading to Goshen and return; while the Blue Ridge Special departs at 3:30 p.m. heading to Ivy and return. The ticket price is \$120 per person. Tables are sold as two seats or four seats, meal choices are selected at time of reservation. Rides will depart from the Amtrak station in historic downtown Staunton. Please allow plenty of time to find parking. Check ticket availability at <https://www.virginiascenicrailway.com>.



Bridges as a Scenery Detail

By Lundy Pentz



Bridges can make any flat layout look less like a tabletop and more realistic, as well as giving you a great place to take pictures of your trains.

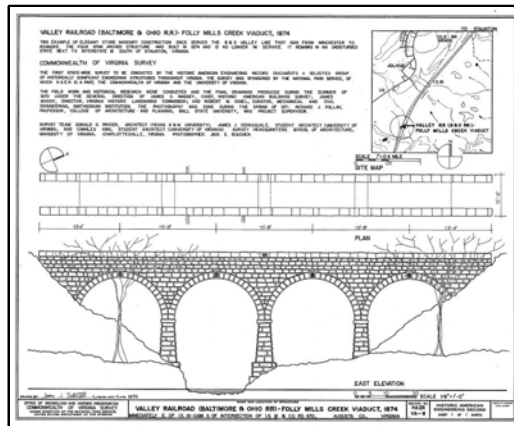
I have been running trains since grade school but became hooked on model railroading when I saw the Southern Railway Ps4 brought into the building site for what is now the Smithsonian Museum of American History under its own steam. My present HO layout is my third and largest, and is about 16 by 20 feet; it is based on Southern Railway practices and equipment in 1951 but in a freelanced location connecting the Northern Neck with the Shenandoah Valley.

This is the first in a series of articles about things you can do on an existing layout to improve its appearance and set off your trains better; I'll begin with bridges (but not the ones some layout plans use to get the main line up and over itself, which I find can create operating problems). These are what you could call cosmetic bridges. Bridges and similar elevated tracks show off your trains and save your layout from the flat look (even the flattest parts of the country have little hills, bluffs, and streams). But this doesn't have to involve redoing your whole track plan; look at places where your track is near the edge of the layout and just stick a bridge in there - the examples below will show several scenery "excuses" to use a bridge. The first one is the easiest kind:

This stone arch bridge resembles one built for the old B&O line which you can see next to I-81 just south of



Example of an early stone viaduct south of Staunton at Folly Mills Creek.



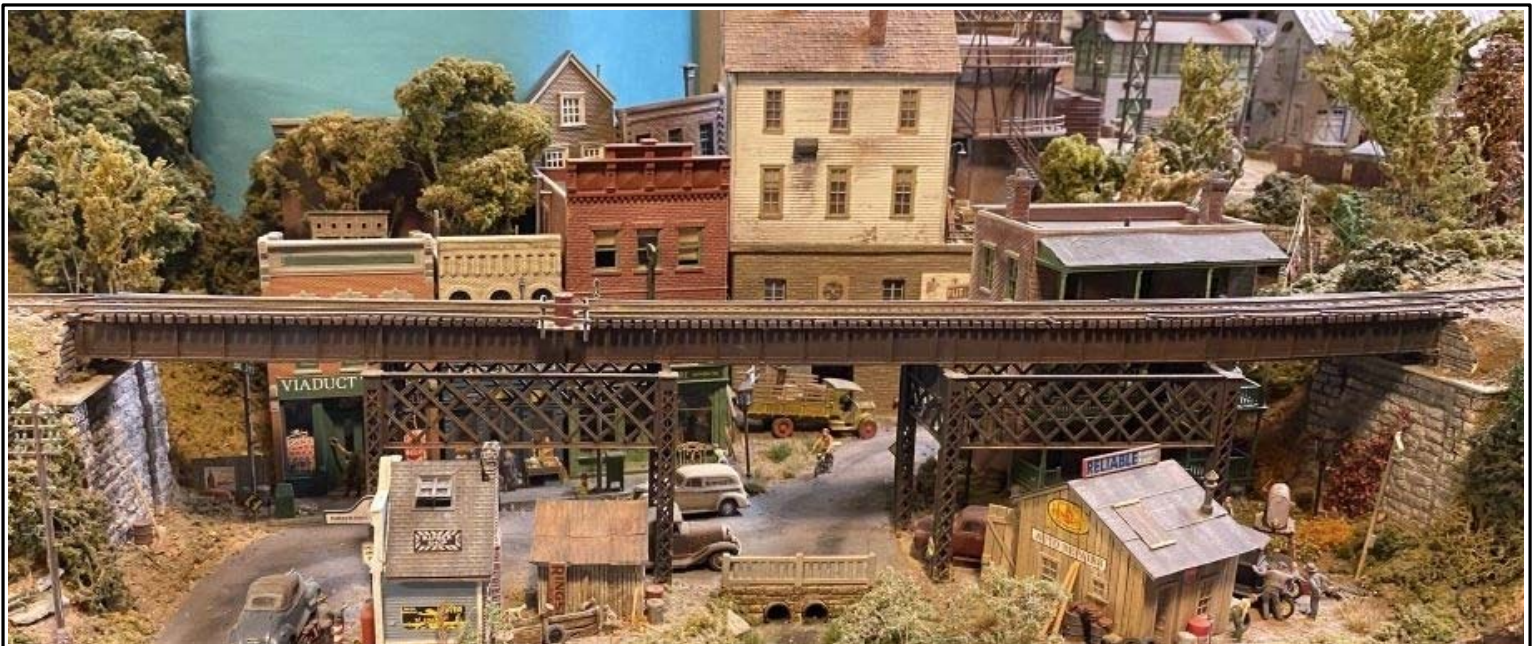
The Folly Mills Viaduct still exists today as a registered landmark. The scale plans are available for download at the U.S. Library of Congress.

Staunton .

My original main line, in the background with heavyweight coaches on it, is laid on flat Homasote and plywood; I then added track on a rising grade to connect with a hidden staging yard below the main track, and this is the track in the foreground. It is supported on L-girder

benchwork on risers, and runs on the same plywood and Homasote support in strips. Once trains were operating well on this grade, I sawed out enough of the supporting strip to make room for the bridge, leaving the track suspended with no support. I also cut away the scenery and supports on both sides, and filled the hole with a shallow box with three sides, open to the front, and a level bottom. This is made of 1/2" plywood. The bridge I used was a plastic kit made by the English firm Wills, now marketed by Peco. Similar stone arch bridges can be found as plastic kits and plaster or resin castings from several companies. As my track was on a grade (yours doesn't need to be) I built up a ramp from 0.060" sheet styrene coated with Holgate & Reynolds cinder block where it shows. It's all topped off with a shallow trough (part of the kit but you could fabricate it easily) just wide enough to hold the track. Paint the bridge (usually they were made of local stone so the color will be similar to your rocks) and weather it with a black wash.

Now you are ready to attach the bridge to the tracks, which you do using epoxy and holding it on the track with twist ties going through the arches and at the ends. **(Key trick: start with the track and attach the bridge to the track first, hanging in space, then build up the supports.)** When the glue has dried 24 hours, remove the ties and fit wood or foam scraps under the bridge pillars, trying for a press-fit that doesn't raise the track (check with a steel ruler laid on the rails). Plan out your scenery; this can be a dry gully, a stream arising farther up as in my example where it comes out under the main line from a Woodland culvert, or just a wide flat place with vegetation or even structures. Build up the scenery with whatever you prefer - I use cardboard strips, plaster cloth and Sculptamold - use your usual earth paint and ground foam, and shrubs and trees. My stream bed used Woodland talus, cat litter, and Woodland Realistic Water and Water Effects. Also, use your usual ballast on the track crossing the bridge - this track pan was used on many prototypes (including the B&O bridge near I-81) and hides the fact that our track has thinner ties than the prototype.



The thin outline of the girders and airy lattice work of the supports allows viewers to see the fine details of the structures behind the track while providing the perfect display podium for the locomotive and rolling stock as it passes overhead.

The viaduct, like the one above, is a long bridge, often over a lower part of town (or supporting an elevated rail line in major cities). It is the next easiest kind of bridge to put in (after the first example) because the method is similar. The kit is a Micro Engineering product (still available) – deck plate girders (“spans”) supporting the track and (instead of stone piers) girder boxes with lattice sides (“towers”), which gave strength and stability without blocking valuable real estate.

Here it is going over the seedier part of my town of Mattahannock, allowing more scenery below main line level. The biggest difference in installation is that because the track sits on the girders you need “bridge track” with thicker and closer-spaced ties. Micro Engineering sells this as does Walthers and other track suppliers and the usual form is flex-track so you can install gentle curves (as you can see at the right end of mine) as long as the ties stay on the girders. A second difference is that you need bridge abutments at each end. I used Woodland Retaining Wall segments for these, cut down to the needed height.

When you use this kind of bridge for city scenery you should plan the depth of the scenery box a little more carefully as your tower girders should reach the ground at least in paved areas. Assemble

the deck plate girders first, painting them as appropriate (in many urban areas these were painted some distinctive color, often green, but more often they were just grimy black with a lot of rust). Cut the bridge track carefully to fit the space you have (it should overlap the abutments slightly) and fit it in place making sure it can lie level. Then find a rigid straight support a little longer than the bridge (cheap plastic levels in various lengths can work well here) and lay one on your track, then put a bead of epoxy along the tops of all the plate girders and use clamps or zip ties

to bind the girders, track, and support into a sandwich until the epoxy cures (24 hours usually). Be sure the ends of the ties don’t fall inside the girder anywhere. Again, you have a bridge hanging in space. Now cut and fit the towers and the abutments (after painting and weathering them) and install them. If you need to use shims to hold them at the right level, do so, gluing them in place, and then install your paving and scenery and structures.

A complete bridge can be built on a lift-out segment, allowing access to an aisle



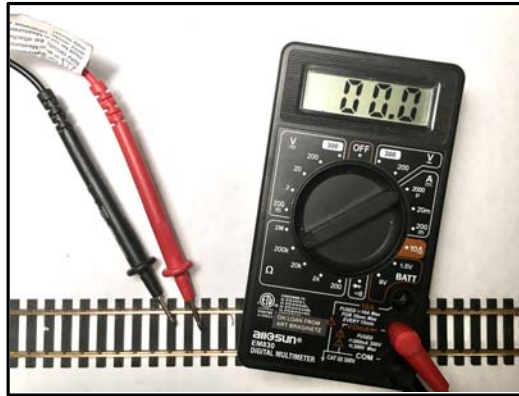
A completed bridge spans the aisle way to the center of the layout. The bridge section lifts out if needed. Note the alignment pins and electrical switch at bottom left which cuts power to the track approaches.



(behind me) and, on my layout, continuing the illusion that the aisle is part of a river (modeled in part on the next section). The bridge is a Faller kit which assembles very easily and takes regular flextrack, and the abutments and piers are from Chooch (available from Scenic Express). I painted and weathered the bridge and abutments and piers, and glued the flextrack to the bridge deck with epoxy. I then cut a support for scenery from 1/2" plywood and ensured it would stay level and rigid by attaching a 1 x 4" board edgewise in the middle of its bottom, using 3/4" perforated angle stock. I attached the abutments and piers to the top with epoxy but before attaching the bridge itself I built small ledges of 1 x 2" wood to hold the board at the correct level for the rails to be at the same height as the mainline, test-fitting with the bridge sitting on the abutments.

With the bridge support clamped in place at each end on the ledges, I drilled a 12" hole up through the ledge and support and into the abutment deep enough to fit the female half of a 1/4" audio jack, and drilled a 1/8" hole down from the top of the abutment to meet the other hole. I fed the wires from the jack through and epoxied it in place; I then soldered the wires to each rail, repeating at the other end. When the epoxy on the jacks had a day to cure, I plugged the male connectors into the female ones,

placed epoxy in the holes on the supporting ledges, and fed the male connectors into those holes, wiping off any epoxy on the surface before setting the support down in place. After the epoxy had another day to cure, I attached the leads from the male connectors to the track on each side of the bridge, using a continuity tester or Voltage Ohm Meter (VOM) resistance tester to make sure that the bridge rails were connected to the same rail on each side.



By selecting a resistance limit from the Omega portion of the meter, the resistance can be measured. When resistance is 0, it signifies that a continuous circuit exists. This meter also has a diode setting [-|>|-] which will sound an audible beep when continuity is established. That can be helpful as you can focus on where the probes are touching, rather than looking at the digital numerics.

I wired my track power from a spot about 18" beyond the bridge on one rail at each end of the bridge and put in an insulating rail joiner just on the bridge

side of it, and wired a micro switch (from Miniatics or Micro-Mark) on that side at each end of the bridge so that power feeds to the bridge approaches only when the bridge is in place, automatically stopping your train when the bridge is removed. Be sure to wire the same rail this way at each end.)

I cut 3/4" thick pieces of wood to match the width and height of the abutments and inserted them under the mainline track on each side, so that the abutments would slide into place between them, and then covered their exposed sides with some stone sheeting from Faller that gave the effect of part of the abutment. Finally, to ensure that the rails would align perfectly at each end, I soldered 1/8" brass channel to the underside of the mainline rails.



1/8" brass U channel solder to the base of the rails, helps guide the adjacent bridge track into alignment.



A completed bridge spans the aisle way to the center of the layout. The bridge section lifts out if needed. Note the alignment pins and electrical switch at bottom left which cuts power to the track approaches.

Mark your calendar for the **Augusta County Railroad Museum Annual Shenandoah Valley Model Train and Railroading Show** at the Expo Center in Fishersville Virginia, May 5th 2024, 10:00 a.m. – 4:00 p.m.

- Featuring:
- Model Train Vendors
 - Door Prizes
 - White Elephant Sales
 - Operating Train Layouts
 - And much more
- Admission: Adults \$8.00
 Children under 12 with an Adult free
 Table Rentals \$26.00
 Three or more Tables \$24.00 each.
 Contact trainshow@acrrm.org



Again a scenic bridge in the foreground allows greater visibility into the background of the layout and visibility to the higher track crossing a second bridge.

Finally we come to the classic bridge, designed to get one track over another (this takes a lot of track to make a gentle climb up the grade and down again) which I needed for a reversing loop.

At the same time I installed the loop I put the two parallel tracks on my main onto a bridge also so I have a section of wide river crossed by bridges at two levels.

In the first picture the nearer bridge is the double-track main line, and is a simple Walthers bridge kit. The farther and higher bridge, on the loop track, is a 150 foot Pratt Truss Bridge kit from Central Valley Model Works (both still available). The Central Valley kit has more parts than the Walthers kit but has a great feature – the superstructure is made to easily come off the track and track support for easy cleaning of track. The Walthers bridge can be ordered with plastic abutments, which I used, and for the Pratt Truss I used a

homemade cast plaster pier (a simple mold on plywood with scratched up styrene wide scribed siding) and for the over-track section, a Central Valley through girder bridge. The river and banks are built as usual on the dropped box pattern, but here the flat plywood surface, sealed with wood sealer and painted, became the surface of the slow-moving stream

with layers of acrylic gloss medium and coated with acrylic gloss varnish to reduce scratching.

Seen from the other side, the picture below shows why bridges can be such a satisfying scenic detail that it makes sense to stick them in wherever you can.



Southern Consolidation 762 negotiates the elevated reverse loop through the Central Valley Pratt Truss bridge while further back, two trains approach each other on the double track Walthers bridge.



Why the Museum is a member of the NMRA

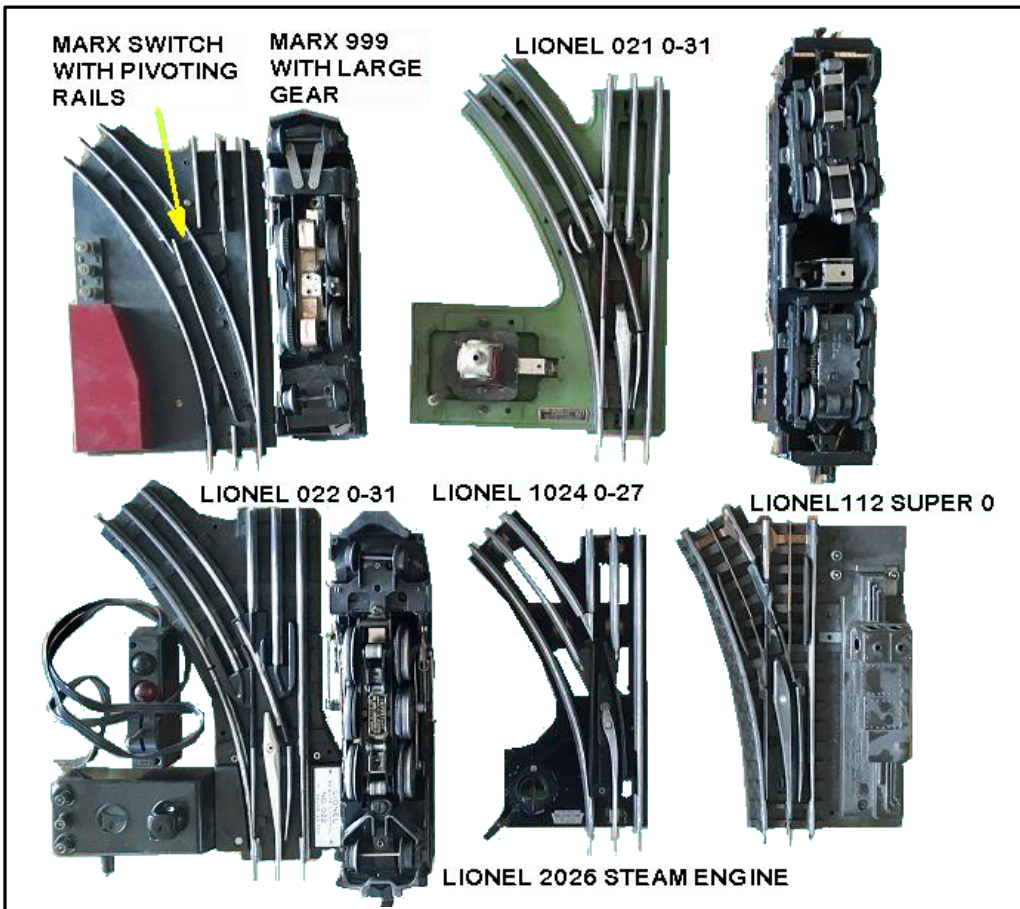


Membership in any organization comes with unique incentives. The Augusta County Railroad Museum is pleased to be a member of the National Model Railroad Association.

Many individuals have heard of the National Model Railroad Association (NMRA) and considered joining it. This article delves into a bit of its history and the particular reasons why membership can be an enhancing experience.

The NMRA was founded in 1935 at the beginning of a conscience movement

that toy train were more than toys, but a miniaturization of railroads. O scale clubs were emerging as a trend and attempts to jointly operate third rail equipped two rail equipment resulted in jamming derailments and other problems. A standards committee was initiated to address the issue and resolve interoperability issues.

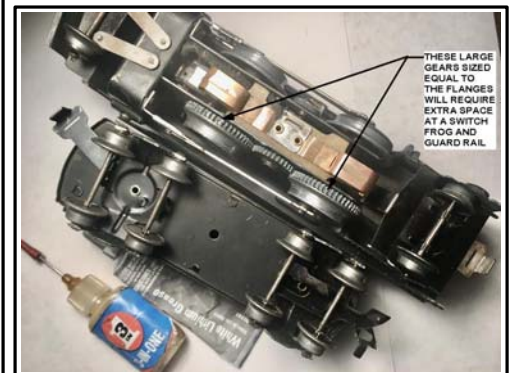


By 1936, O scale standards were formalized with a tentative set of HO scale standards available of review. Looming was a great debate over couplers and what they should be.

As you know simply from seeing Lionel's O scale offerings of the period. Lionel started with tab and slot couplers. Then latch hook, box hook, and later knuckle coupler were semi-interoperable but not entirely. Matters would only get worse with others joining in like Louis Marx with a claw coupler.

Equally at odds were a dozen third part manufacturers, who patterned knuckle two rail couplers in various dimensions. Unless one bought equipment from only one manufacturer, there was little to no chance that rolling stock would couple up.

Other issues were just as frightening. The profile of wheels and wheel flanges varied greatly. This provoked problems at switches. Most egregious was the use of a large locomotive gear sized the same size as the perimeter of the locomotive flange. These 'large gear locomotives' required switches that pivoted turntable fashion to open a flange clearance to accommodate the passage of the gear.



Lionel's earliest locomotives (1903-1926) and most Marx locomotives featured a large gear behind the wheel flange. These caused havoc on switches designed in later years.

In HO Scale the issues were similar. Nearly every manufacturer had invented their own coupler, and each sought to obstruct their competitor by not allow others to design a matching coupler.

It was in this period that the NMRA

developed the X2F 'horn-hook' coupler that is so common on older HO equipment.



The NMRA XF2 'horn hook' coupler brought commonality and functionality to a standard less hobby. Couplers could mate and release hands-free regardless of manufacturer.

In creating such a coupler, the NMRA authorized each manufacturer use of the coupler so that different brands of HO trains could operate together.

At first there was reluctance to the new design, as older rolling stock needed to be retrofitted. One can still see the residual of this process as Mantua hook and loop couplers, and horn hook, rolling stock regularly appears in secondary markets such as at train shows and on eBay.

Of course, the door was always open for someone to create a better coupler.



Kadee continues to improve the design of its classic MT and MKD-5 coupler. The series has nearly two dozen dimensional variations and an equal number of drop-in-place conversion kits.

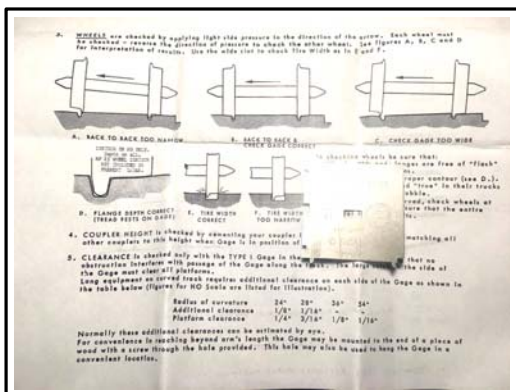
Although not a NMRA standard, Kadee couplers took hold of a strong allegiance in the N, HO, and O scale communities. This is due partly to Kadee who defined its own mounting standards and alignment tools to assure that a variety of manufacturers product could be quickly adapted to the Kadee product. Others took Kadees lead in making a

scale knuckle coupler, and similar designs are offered by McHenry in HO and Kato, Roundhouse, and others in N scale.

But by far, the biggest contribution to model railroading that the NMRA has made is to produce a track gauge tool in both HO scale and O scale.

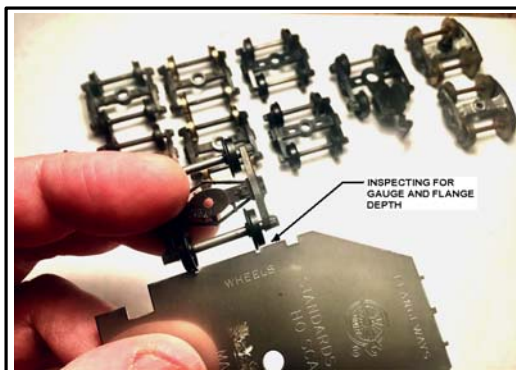


The NMRA HO track gauge is a multi-faceted tool which provides verification of wheel set dimensions, switch dimensions, platform/side clearances, and flangeways. Instructions illustrate how the gage is used.



The NMRA O track gauge is intended for 2-rail scale O use. Similar to the HO gauge, it provides for rapid visual inspection of critical dimensions

Use of the gauge is straight forward. The items needing to be verified are brought up to the gage along the surface to be inspected. In this example, we are inspecting the gauge and depth of wheel flanges across a variety of wheel sets.



The NMRA HO track gauge confirms dimensions.

The gauge also has a surface for checking flange ways, the spacing of guard rails, wing rails, and frogs at switches. These dimensions work in tandem with the wheel set dimensions to ensure smooth wheel passage through a switch.

The one issue that confuses many and plagues the industry, is that the NMRA is a U.S. organization and not a global organization. Europe has its own organization Normen Europäischer Modelbahn (NEM), which establishes European hobby standards. While this appears to be an innocent issue at first, a quick review of the U.S. model manufacturers will reveal that roughly half import their products from overseas. Said a different way, will my AHM Roco Santa Fe caboose (Austrian) go through my Kato switch (Japan)? The answer is maybe. What about my new RP-25 Atlas boxcar (China)? The answer is maybe. What are you really saying... you must choose either the NMRA or NEM dimensions and stick with one set. That expresses the philosophy of standards in a nutshell.

As you may observe and overhear at clubs, "the only way we solved derailments was to remove all the switches. What we found is that all the switch brands are unreliable. It doesn't matter which brand we use, everything seems to derail at the switch." Well now we understand why...smooth operation requires mandatory adherence to tight tolerances. We all are operating different brands and standards of rolling stock. And so it becomes important to promote the adoption of standards within the hobby industry and amongst hobbyists who are acquiring rolling stock and desiring to operate it reliably.

NMRA gauges are available for sale to members and non-members at: <https://nmra.org/store/gauges> priced at \$16.00 to \$20.00 depending on the gauge desired. You can obtain the official gauges from other online sources as well, so shop around. Please note that these gauges are for scale operation, rather than tinplate or toy train.

Another aspect of the hobby that the



NMRA handles is the specification of Standards (S) and Recommended Practices (RP). In quick NMRA parlance, a Standard is a non-waiverable adherence to a critical aspect of detail which if ignored will cause serious impacts to reliable operation. A Recommended Practice, is a less restrictive set of details which tend to promote reliable operation.

They are listed at:

<https://www.nmra.org/index-nmra-standards-and-recommended-practices>

Selecting any particular Standard or Recommended Practice on the website will result in display of a multi-page Portable Document File (PDF) which you can read, download and/or print from your smart phone, tablet, or computer.

Both old and new model railroaders should at least look this list and note that the listing is very extensive and includes guidance on track radius, railhead composition, selection of rolling stock, recommended car weights, American Wire Gauge (AWG) sizing of electrical wiring, specifications for Digital Command Control (DCC) decoder Constant Values (CVs) and other aspects of the model railroading ecosystem. Whenever you have questions about what something is suppose to do, or how it is done, or what the best approach is; you should remember that the NMRA likely developed guidance on the subject and wrote about it.

So what should I do if I already built my model railroad and now I see that some of it is not in compliance? Well don't panic, but you should concentrate on remediating and adjusting the most egregious issues. It doesn't have to be done all at one time, and some of the changes will produce immediate benefits while others will be less prominently displayed. Simply know that the closer your layout comes into compliance with the guidance, the more likely that you'll be able to operate your own equipment and those of visiting guests without issues.

Hopefully you see some merit in why the Augusta County Railroad Museum

embraced membership in the NMRA. Let's continue with some more reasons.

The NMRA Magazine is the official monthly newsletter of the organization. It features the typical administrative announcement, but it also features articles on model railroad projects done by it's more advanced model railroad members. A large percentage of these projects are undertaken by members in pursuit of a Master Model Railroader certification.

The Master Model Railroader certification is a structured program of accreditation similar to a professional certification. Candidates select from a series of categories related to each facet of the hobby and can pursue a single achievement accreditation or pursue the broader Master Model Railroader certification. Those who receive the MMR certification are relatively few, as the most recent graduate was number 744.

As with other magazines, how-to articles, DCC clinics, layout tours, product reviews, event announcements, and recommended retailers are regularly featured. The November 2023 totaled 62 pages.

In addition to receiving a monthly magazine, membership includes access log on access to the NMRA archives. While the article you need, may not always be in the next issue in your mailbox, the archive is likely your next step.

As I continue, each of the NMRA Regions conducts meeting, shows and meets. Many of these feature model contests, judged by the NMRA elite, who bestow awards in each category. Judging is very serious business and the rules of the contests are rather strict. In one example, an exquisite model found itself ousted because the submitting individual used the scratch built parts of another. But, that obviously was a technicality. The model was fantastic.

As other magazines such as Model Railroader, Railroad Model Craftsman, and Model Railroad Hobbyist cover train shows and NMRA conventions, look for pictures of the award winning entries for each show.

Finally the NMRA provides access to affordable Insurance for and Clubs. Details are available via the NMRA and their referred insurance companies.

With all this said, joining the NMRA is as a member is \$68 per year, and \$92 per year if you desire the printed magazine. Family members can be added at \$10 a piece, and Student memberships are \$40. You'll receive confirmation via the mail. Log on credentials will allow you to receive a discount on items at the NMRA store, as well as at retailers who partner with the NMRA.

I hope you review your options and take the opportunity to join. Your enjoyment of your hobby will be greatly enriched.

It pays to Advertise on a Lionel 310 Billboard



As we get older, we forget that people once drove across America by car. The Lionel 310 Billboard made sure that everyone knew they hadn't seen the the Battleship North Carolina, visited South of the Border, or plunged into the magic of Luray Caverns ! Don't forget to advertise our upcoming show !

As many of you realize, November and December are classic times to ask your parents or siblings, what ever happened to those old trains . The Augusta County Railroad Museum encourages and supports your interest in reviving those old memories. No matter when you read this, if you had trains, go find them again.

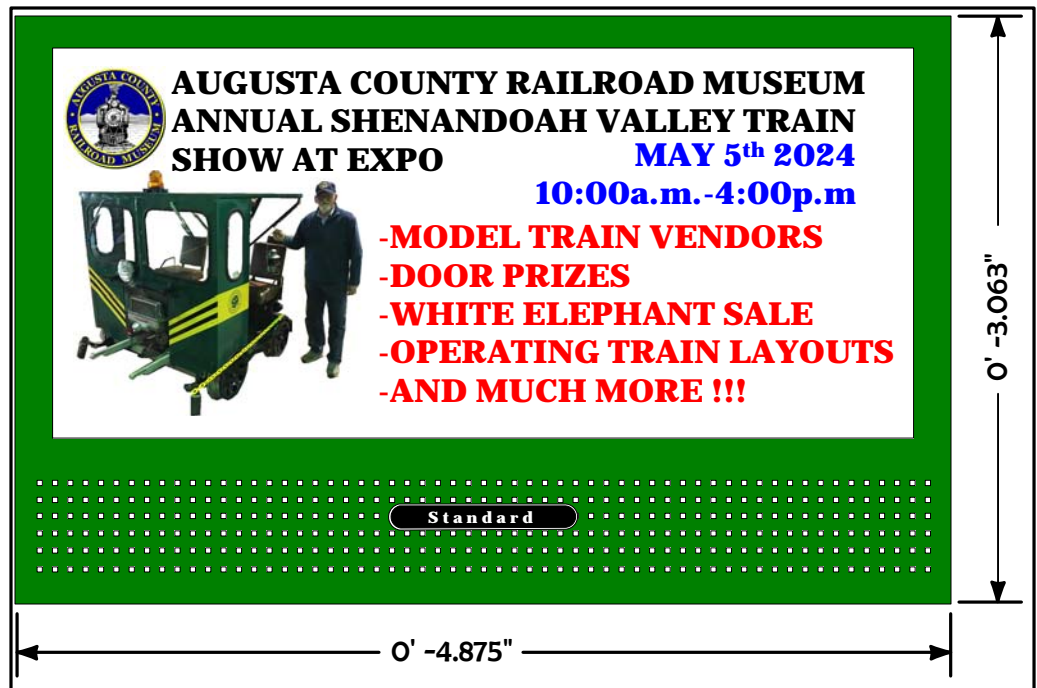
In pursuit of this family hobby, one of the regular features will be how-to articles to create items cheaply from scratch. We will try, as best we can, to make the task simple and as kid friendly as possible. Please realize that simple tools like scissors and glues can pose significant hazards to children and adult supervision and guidance is a requirement. Under no circumstances should you leave children unsupervised and unattended.

So the Lionel 310 Billboard was an icon of early American advertising. The original set consisted of five frames and a series of cardboard inserts. In stating they were cardboard, they actually were Strathmore, a single ply cardboard similar to the material used in food packaging, like an ole fashion cereal box.

You have the option of finding real Strathmore, or looking through your mixed paper/cardboard recycling to find a selection of different thicknesses of ply.

Please don't to become a monster Strathmore hoarder, a few select sheets of varying thickness will suffice.

In making this billboard, you will need to print page 11 of the Portable Document File (PDF) to a color printer. Please print it actual size without margins. We've included the real sizing along each edge to allow verification of the result. You may seek to set the printer to it's highest



The Augusta County Railroad Museum adopts an ole fashion way to advertise it's upcoming show ! Join us by printing this handout and creating an iconic Lionel 310 Billboard for your home layout. We hope to see you at the show !

print quality if this is something you wish to keep permanently. Rest assured, next year...anticipate an update.

We also intend to create other activities, where understanding how to adjust print setting on your printer will be important, particularly as we multiply offerings in smaller scales.

Once printed, use scissors to cut along the black line and green edge of the billboard. Cutting the black line on dead center should yield the best fix. Likewise, you should look into your Strathmore recycling collection to pick a best thickness.

It's your choice to place the colored side toward or away from the paper graphic. I found the printing has wax based inks which block adherence and often are seen through the printed paper I selected. More robust adhesives include wood carpentry glue and clear silicone bathroom caulk (DAP). Adding a another ply of white paper beneath the board can also reduce the transparency of your paper.

Just remember that everything takes a little care and adjustment. You'll soon master creating paper and cardstock overlays. Please enjoy.



Cutout Rulers for Z, N, HO, OO, S, O and G



In the past, model railroad magazines would include detailed articles on how to make your own structures from scratch. In this issue, we start you off with the most valuable tool in your toolbox, your own homemade ruler. Anticipate future issues to include plans and articles on how to build local structures.

Ever wonder how big is it? Let's fix this dilemma by furnishing you with scaled ruler(s) for each of the predominant scales which you can print on your home printer, cutout, fold over, and use to measure dimensions of windows, sashes, doors, walls, and whatever else you wish to measure.

In making these scaled rulers, you will need to print page 12 of the Portable Document File (PDF) to a color printer. Please print it actual size without margins. We've included a life size ruler to allow verification of the result. You may seek to set the printer to it's highest print quality if this is something you wish to keep permanently.

Once printed, you have the option of simply folding the edge at the fold line of the checkering 180 degrees, or you can fold it 90 degrees and affix it to a straight edge of strathmore, a coffee stir, or a straight strip of metal. Use scissors to cut along the black line and buff colored edge of the ruler. Cutting the black line on dead center should yield the best accuracy.

Glue the paper to the substrate. More robust adhesives include wood carpentry glue and clear silicone bathroom caulk (DAP).

Now you can accurately measure everything on your layout. Enjoy.

