



# The Local

Newsletter of the Mid-Eastern Region, NMRA  
The Local, 76, Number 1, Jan-Feb, 2021

*Official publication of the Mid-Eastern region, NMRA – A tax-exempt organization*

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## A Small Line Side Shed or How to Get Rid of Leftovers – Part 1

By Martin Brechbiel, MMR

Over the years I've accumulated a lot of scratchbuilding supplies and all sorts of detail parts. Not everything I have bought for the host of completed projects that have made their way to these pages and elsewhere have been consumed. All too frequently one ends up buying a pack of 5 "widgets" to get the 3 that you really need, and then the other 2 end up in a box, drawer, file cabinet, or hiding in the dark under the layout. I've found that a box of these leftovers can actually be sold on eBay or at a meet. Lately I've had a change of heart on the matter. Now I just set a pile of these "widgets" on the bench and ponder just what these pieces want to become.

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First pass through the leftovers box yielded some interesting stuff (**Photo 1**). I found a length of board and batten milled siding, some plastic raised seam roofing, a single small window, a door and frame set, some 55 gallon drums with assorted lids, a resin coal box, an odd white metal casting, and a zip lock bag of ladder castings. So I have parts from Grandt Line, Berkshire Valley, Wiseman Models, and places unknown. The board and batten siding could be from several sources. The roofing bit that's spliced together is of unknown origin and is some sort of vinyl ABS. Taken altogether, this is just great stuff for building something just like the title of this article states: a small line side shed! (con't p. 3)



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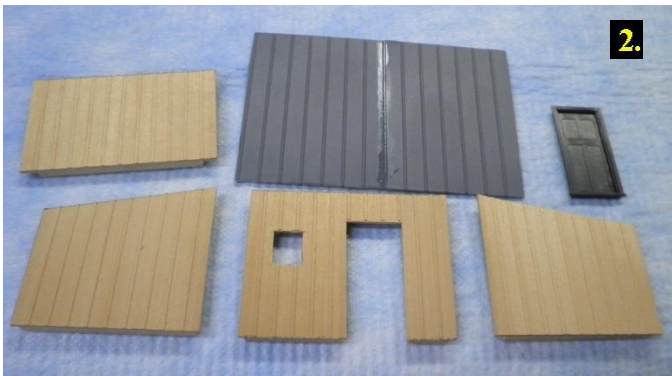
### MER Board Meeting Schedule

1. Budget Meeting, January 23, 2021 (Zoom) (Details tba)
2. MER Board of Directors Meeting – April 24, 2021 (Zoom) (Details tba)
3. MER Board of Directors Meeting – October 21, 2021 (Delta Hotels Baltimore, 245 Shawan Rd, Hunt Valley, MD 21031)

Mid-Eastern Region Division Superintendents					
	<b>New Jersey Division 1</b> Bill Grosse (609) 585-4616 <a href="mailto:wgrossejr@gmail.com">wgrossejr@gmail.com</a> Division web page: <a href="http://njdivnmra.org">njdivnmra.org</a>		<b>Potomac Division 2</b> Martin Brechbiel, MMR <a href="mailto:superintendent@potomac-nmra.org">superintendent@potomac-nmra.org</a> Division web page: <a href="http://potomac-nmra.org/">potomac-nmra.org/</a>		<b>Philadelphia Division 3</b> Rob Hinkel (610) 279-2394 <a href="mailto:robhink@gmail.com">robhink@gmail.com</a> Division web page: <a href="http://www.phillynmra.org">www.phillynmra.org</a>
	<b>Tidewater Division 4</b> Fred Humphrey 757-482-9498 <a href="mailto:tidewater.mer.nmra@gmail.com">tidewater.mer.nmra@gmail.com</a> Division web page: <a href="http://nmra-mer-tidewater.org">nmra-mer-tidewater.org</a>		<b>James River Division 5</b> Phillip R. Taylor (434) 589-6006 <a href="mailto:drphilster@gmail.com">drphilster@gmail.com</a> Division web page: <a href="http://jrdnmra.blogspot.com/">jrdnmra.blogspot.com/</a>		<b>South Mountain Division 10</b> Jerry Skeim (240) 455-8677 <a href="mailto:jerryskeim@gmail.com">jerryskeim@gmail.com</a> Division web page: <a href="http://www.smdnmra.org/">http://www.smdnmra.org/</a>
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	<b>Chesapeake Division 14</b> Mike Zitmann N/A <a href="mailto:super@chesdiv-nmra.org">super@chesdiv-nmra.org</a> Division web page: <a href="http://www.chesdiv-nmra.org">www.chesdiv-nmra.org</a>				

(con't from page 1)

The board and batten siding was cut to make a front wall, two side walls, and a back wall. One trick to working with this type of siding is to make the widths of walls such that they do not end with the battens at the ends of the walls. This takes a little planning, but it makes the corners trim out neater. The door and door frame were assembled with the transom discarded. Holes in the front wall were cut to accept the door unit and the small window castings. That plastic roof was broken apart at the visible seam. After sanding the edges, the two pieces were re-joined to make a section that would work over this little shed. Joining these two pieces required the use of MEK. I keep a bit of this solvent in my shop very carefully sealed as it has a rather pungent aroma and it's also quite flammable. It does however work very



well for joining ABS plastics (Photo 2). The back of each wall section was reinforced with some scrap wood while the seam in the roof was strengthened with some scrap 0.040" styrene (Photo 3).



The four walls were assembled with more of that scrap wood to set the corners. After trimming the roof to fit centered over the structure, it was installed using Goo and medium viscosity CA. The four walls were assembled with more of that scrap wood to set the corners. After trimming the roof to fit centered, it was installed using Goo and medium viscosity CA. The walls by themselves seemed a little too basic so a storage bin or cabinet was added to the one exterior wall. This was made from more scrap scribed siding and some O scale 4" x 4"



and 1" x 4" and just tacked in place on to the wall. The hinges on the doors were some leftover reefer door hinges (Athearn?). The board and batten front was trimmed back around the door and window opening to allow the castings to sit down flush on the wall. I very carefully used a No. 10 scalpel to do this trim work (Photo 4).



was painted Roof Brown (Polly Scale). The tarpaper roof over the storage bin was made from single ply paper napkin laid down in an overlapping pattern using dilute Carpenter's glue that shaped it into the board and batten siding. This roof was painted Lark Dark Grey (Floquil) while the topside of the shed roof was painted Platinum Mist (Floquil). The lone window was glazed with clear plastic, and both castings were installed (Photo 5).

Since there were a handful of leftover scenery parts in the mix, this build was carried forward to be a set piece with scenery added. The structure was glued down onto a small bit of 1/16" plywood (another leftover roughly 3" x 4") and the exposed surface painted with Carpenter's glue to accept an initial layer of Woodland Scenics ground cover. After this was dry, those listed detail parts now painted (Polly Scale colors) were planted around the building. An additional casting (Model Tech) that was resting at the back of my one work bench was volunteered into use in this little project. A few cycles of applying Woodland Scenics matte medium with more ground cover, and adding a bit of leftover ballast and some coal cinders rounded out the scene (Photos 6-8).

While rooting about on the floor looking for something else that I dropped there, I managed to find the lost hanger bracket for a trolley headlight that I had given up on ever finding during a project that I was working on years ago for my Traction Action column. Turning this part 90° re-purposes it to be a door handle. I painted the structure and castings Roof Red (Polly Scale). The underside of the roof



And there you have a quick project that consumed a pile of otherwise useless "valuables" that were being stored in my shop for some undefined future need....like building a small storage shed. The only downside encountered here was that I still have more

of those step ladder castings in that Ziplock bag. Maybe they will find a home in another "leftovers" project.



## President's Column

### Deep Sigh of Relief

President Kurt Thompson, MMR

OK. The year 2020 is in our rearview mirror. Please take down your masks and join me in taking a deep breath. And let it out slowly. (Then put them back on - at least until May.)

I'm not going to recap the highs and more prevalent lows of 2020. Suffice to say, it was a year that will be remembered.

But here we are standing in the doorway to a new year, 2021. I have hope that this year will be one of recovery and reparations. I'm grateful to have a hobby that can be enjoyed individually and with friends. Even though my local gang of modelers can't be together like we were in 2019, we will hopefully be back together again by the middle or end of this year to play trains and "harass" each other. (Somehow, we do that still via email.)

The good thing is that our members have been very resourceful during this pandemic with regard to the absence of physical meetings. Quite a few very successful virtual meetings have been accomplished by the various MER Divisions over the past six months, which have allowed folks to remain involved in the hobby without exposing them to any risk. It also has helped to get even more members involved, especially those who may not have been able to get to the actual in-person meetings due to distance, time, costs and/or disabilities.

Now for some prognostication on my part... Come October we'll be attending the Mt. Clare Jct. Convention in Hunt Valley, MD. The Chesapeake Division will show us a lot of different things about how to experience our hobby. I personally know most of the layouts that will be on the

layout tours and in the ops sessions lists. The clinic list is shaping up and filling in nicely.

For me, I see this year as the rebound. I won't be back to my usual fun around the hobby. But as is often my motto, it will be "progress, not perfection". So, here's to rebounding and having more fun this year to make up for 2020.



## From the Editor's Desk...

Greg Warth, Editor

Happy New Year! I'm glad to be rid of that last one. As the eternal optimist, I am hopeful that 2021 will gradually improve the state of the world in general.

This issue contains the all-important MER (Mid-Eastern Region of the NMRA) 2020 Annual Meeting Reports submitted by President Kurt Thompson, Vice President Ken Montero, Treasurer Brian Kampschroer, Director Jerry Lauchle, Director Bob Morningstar and Director Randy Foulke. Please peruse this information as it provides the most up to date "State of the Region", where we are now as an organization and where we're going as we move forward.

Among the many resolutions that I personally wish to accomplish this year is to focus on getting as many AP (Achievement Program) certificates as I can. I'm going to review again all the recent AP articles written by our own Master Model Railroaders (MMRs) published in [The Local](#) over the past year. There is a wealth of information and advice that can be gleaned from those writings. I would respectfully urge all of our non-MMR members to join me in reviewing each of those articles as well as the guidelines in the [NMRA.org](#) site as good references on how to achieve your specific AP goals. Again, the most important thing to remember is that the goals are not that difficult. You just have to break them up into smaller projects, and don't overdo, nor underdo what is required.

As we enter into 2021, the number of train shows available to us should gradually improve, especially now that we are all getting used to the idea of wearing masks and keeping our physical distance from each

other. The folks who organize the shows and clinics are more aware than ever of the restrictions and I'm sure they will work hard to be sure that safety requirements are met. Nevertheless, despite the coming of the vaccine by the middle of the year as planned, we will all need to continue with the masks and the distancing, till we really see the cases and the deaths decreasing. It remains to be seen for sure, but I think there is a good chance that by October of 2021, the Mid-Eastern Region will be able to celebrate its 75<sup>th</sup> Anniversary in person and in style!

This issue of *The Local* also heralds the beginning of a new section called "The Electronics Corner". Electronics is becoming an important part of model railroading as technology advances to the point where it is now much easier to automate train movement, lights, sounds and other devices than it has ever been before. We can now purchase circuit boards that are easy to hook up and accomplish all kinds of things that previously were not possible. If you are really into electronics, you can make your own "circuit board" much the same way that some of us enjoy scratch-building prototypical buildings, railcars or locomotives. This could even eventually become an achievable AP certificate in the NMRA Master Model Railroader program. The first of these articles relates to the use of the Hall Switch in occupancy detection by Earl Hackett. Don't let the schematics and the technical jargon scare you. It's really not that difficult. Once again, it's about just doing one step at a time, and then you're there!

As you can see in this issue and the last, our "Advertising Central Station" is up and running. This is a great way for our members to get the message out about their businesses that will go directly to the appropriate audience. We can always add more room for YOUR ad. Let us know if we can help you with this.

As Editor, I greatly appreciate all the talented authors that have contributed their articles for publication. We are ALWAYS open to new submissions and encourage all of our MMRs to continue to provide instruction to our newer members. By the same token, I would greatly encourage newer members looking for their Author AP certificate to start sending articles for publication in this ever-growing and ever-enlightening journal. If you are thinking about submitting an article, please read the do's and don'ts in the document written by our Publisher, Martin Brechbiel, MMR and appearing on the MER website as "[Preparing Your](#)

[Manuscript for Publication in The Local](#)". When you are ready to submit your work, send it by email to [local-editor@mer-nmra.com](mailto:local-editor@mer-nmra.com).

As always, let me know if I can help. Take care and best wishes in the New Year!

### Advertising:

If you have a business and find yourself wishing to place an ad on this page, please contact the Editor at [local-editor@mer-nmra.com](mailto:local-editor@mer-nmra.com). The current advertising rates (one year) as follows:

### Callboard ads (Division and Clubs Only)...Free

Business Card size .....	\$60
Quarter Page ad.....	\$125
Half Page ad .....	\$225
Half Page ad per issue (Div. only) .....	\$25

Your ad may appear as text, photo, art or any combination thereof. Art must be of high quality and camera-ready. Formats must be in txt, doc/docx, pdf, jpeg, bmp or tiff only. The content must be related to model trains or railroads or provide a benefit specifically to model railroaders. If you need help with your ad, please don't hesitate to ask the Editor.

The Local welcomes articles, photographs, and model railroad related material as contributions to members' education and enjoyment of the hobby. Materials should have a wide appeal. The Editor will exercise all due care of submissions, but contributors should not send paper/photo originals without retaining back-up copies. Editors, by definition, reserve the right and have the responsibility to make corrections, deletions, and changes to accommodate space. If your item is time-sensitive in any way, please advise the Editor. Otherwise, stories and photos that are accepted for publication are used in approximately the order they are received.

### Publication Schedule Submission Deadline

Jan/Feb	Dec 1st of previous year
Mar/Apr	Feb 1st
May/Jun	Apr 1st
Jul/Aug	Jun 1 <sup>st</sup>
Sept/Oct	Aug 1 <sup>st</sup>
Nov/Dec	Oct 1 <sup>st</sup>

Please observe the following steps to submit your contribution. **1.** Compose and submit your text in one of the following formats: TXT, DOC, or DOCX. **2.** Consider what photos, illustrations, or other graphics



can go with the text. These are essential. But, **DO NOT** include/insert them into your text. **Do** put notations in the text such as “Insert Photo #1 here.” Send the illustrations separately and numbered as you would want them in the text. JPG, GIF, TIFF, or PNG formats are best for photos. **3.** If you have captions for your photos, etc., create a separate text file for the captions, each of which will be numbered to match a numbered photo or figure. A special note on photos or other exhibits; please only send us your creative work or that for which you have written permission to use so we can give that source proper credit. We need to avoid any copyright infringement situations.

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**Proofreaders:**

Alex Belida , Martin Brechbiel, MMR, Ken Montero

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## Achievement Program Update

By Dave Chance, MER AP  
Manager

December 2, 2020

Since the last report in *The Local*, the following Achievement Program certificates were earned and awarded:

### Division 1 – New Jersey

Thom Radice – Model Railroad Author  
Christopher Conaway – Master Builder Cars

### Division 2 – Potomac

Bryan Kidd – Model Railroad Author

### Division 4 – Tidewater

Roger Bir – Association Volunteer

### Division 5 - James River

George Gaige – Model Railroad Author

### Division 12 – Carolina Southern

David Myers – Golden Spike Award

### Division 13 - Carolina Piedmont

Tom Shafer – Golden Spike Award

**MER’s Newest MMR is George Gaige**, MMR #668, of the James River Division. Offer your Congratulations the next time you see George!

In a perfect world, this information will appear soon in the **NMRA** magazine. This should not deter you from giving recognition locally. Normally you will be able to recognize AP accomplishments long before the names appear in the **NMRA** magazine.

PROBLEM - The R&V form is for your personal use. Only use it with the Author Submission.

Please, NO R&V FORMS with other submissions.

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## Elections 2021 THE MER NEEDS YOU!

Yes, you! If you are a member in good standing and want to support your region with good ideas and real involvement, we need you to volunteer to serve as one of the three Directors at Large for the Region. The MER Board of Directors generally meets 3 times per year; once at the MER convention. The deadline for nomination is May 30, 2021. The term of office is two years, with a limit of two terms.

Any MER member in good standing can be nominated, either by him or herself or by another member with the candidate's permission. The process is very simple:

### Prepare:

A 200 word (max) statement outlining the nominee's interest and qualifications for the position, **and** a photo of the candidate.

Send the nominations package – by **May 30**, 2021 – to all of the following nominations process officials:

Robert Charles, MMR Nominations Committee  
Chair [rcharles@aol.com](mailto:rcharles@aol.com)  
Jack Dziadul [jackdziadul@gmail.com](mailto:jackdziadul@gmail.com)  
Kenneth Montero [va661midlo@comcast.net](mailto:va661midlo@comcast.net)

or to

Kurt Thompson, MMR, President, MER  
[president@mer-nmra.com](mailto:president@mer-nmra.com)

Option – also by May 30, candidates may supply a 500 word statement suitable for placement on the MER Web site.

You can make a difference by giving something back to the hobby you thoroughly enjoy. This is your chance. Successful completion of three years in office fulfills most of the requirement for the Achievement Program “Association Official” certificate. Please respond in one email to all three committee members plus President Thompson to insure receipt of your nomination! That is all there is to it!

### Deadlines and Schedules for 2021 Nominations and Balloting

Our Bylaws require the publication of deadlines and schedules for nominations and balloting in the first issue of *The Local* of each year. The dates and schedule for nominations, ballot and election results are in Executive Handbook, Section 5, Policies, Article VI.

The dates for 2020 are:

**May 30, 2021** -- Deadline for receipt of self-nominations sent to the Nominations Committee. Date for Nominations Committee to notify Board of Directors of slate of nominees validated by the Business Manager.

**July 5, 2021** -- You must be a member in good standing (paid up NMRA dues) based on the membership report supplied to the MER Business Manager from NMRA National as of 07/05 (the 5th of July) of every election year to be eligible to vote. If an individual is not a member or if membership has expired as indicated by the record supplied to the MER, and MER officials have not been informed by NMRA National of a valid renewal of membership by 07/05 (the 5th of July), that individual will not receive a ballot, nor be permitted to vote in that year's election.

**August 1, 2021** -- Deadline for mailing paper ballots to members and for commencing electronic voting; could be mailed earlier depending on other deadline requirements.

**September 7, 2021** -- Deadline for electronic voting, also last day as shown by postmark for mailing paper ballots.

**September 11, 2021** -- Deadline for receipt by Balloting Committee of paper ballots sent by mail.

**September 18, 2021** -- Deadline for Ballot Committee to transmit results to President, the Director overseeing this committee, and the Business Manager.

**September 25, 2021** -- Deadline for The President to communicate the election results to candidates. The Business Manager also notifies the MER Web Master and the NMRA of the election results.

**October 9, 2020** -- Deadline for publishing election results on MER's website.

## HELP WANTED: Publisher

**Newsletter Publisher:** *The Local* and *eLocal*

Appointed by:	President
Approved by:	Board of Directors
Reports to:	Editor of <i>The Local</i> and <i>eLocal</i>

### Position Summary

Responsible for assembling the official publication of the Mid-Eastern Region, *The Local*, working directly with the Editor. The newsletter Publisher is responsible for providing “typesetting”, article layout and arrangement, and pasting-up services for each issue, to produce a web-and-email-ready version of the full issue of *eLocal*, as well as a ready-to-print version of *The Local*. The Publisher shall also produce camera-ready-copy and ship the camera-ready-copy and related artwork to the printer in a timely fashion. Those efforts all rely upon the materials delivered from the Editor to the Publisher with direction as to which issue and where in that issue (sequence location) that content might be placed. The Publisher is to communicate objectives met on creation and insertion of content, sending frequent draft versions of the *eLocal* to keep the Editor fully informed of the status of issues as they are being assembled.

The content of the first twelve pages of the print version of *The Local* shall be equivalent to the



first twelve pages of the *eLocal*. The in-house official articles and business-related information must be contained within those first twelve pages. This ensures that all members will have access to this information regardless of which version they receive.

*The Local* serves as our official in-house publication and will contain all relevant articles of the organization and information of general interest to the membership. *The Local* must be presented as an image-building device for gaining membership and maintaining membership interest. The Publisher, working with the Editor, must exercise sound judgment and expertise for producing a uniform and pleasing tone to the publication.

Specific Responsibilities of the Publisher:

1. Keeps the Editor informed at all times.
2. Provides quality production.
3. Assembles the articles, photos and content obtained from the Editor into a pleasing and interesting presentation.

4. Collaborates with the Editor, when necessary, on layout design, presentation of content and space considerations.
5. Produces uniform quality and tone of the publication.
6. Acknowledges in writing (by e-mail) to the Editor confirming receipt of article(s) for insertion into draft versions of *eLocal* and communicates with the Editor routinely by providing draft versions of *eLocal*.
7. Prepares the ballot for all elections held within the Mid-Eastern Region of the NMRA.
8. Provides electronic copies of *The Local* and the *eLocal* of each issue to the Editor for final review and distribution.

## MER 75<sup>th</sup> Anniversary Goals

By Kurt Thompson, MMR



Here we are! 2021! The 75<sup>th</sup> Anniversary of the Mid-Eastern Region will be officially celebrated in October of this year. Unfortunately, we are falling short of our goals of 3,500 for membership and 105 for MMRs (Master Model Railroaders). Our total current membership as of Dec 3, 2020 is down to 1822 from the previous 1843 in October 2020. We are still adding members, but only 10 since the last report. There is one additional MMR (Congratulations to George Gaige, MMR #668!).

We need to ask all of our members to become recruiters for MER membership. Get your friends and family involved as much as you can. The more the merrier! Tell them about the great benefits you have received by joining the MER, like discounts at hobby shops, discounts for meetings, access to the Facebook group, subscriptions to *The Local* and to the *NMRA Magazine*, access to free clinics and much more. They don't have to be a model railroader. They could be a family member, or anyone even remotely interested in the hobby. Make this year a blitz to get as many members as possible before October!

## DID YOU KNOW?

By Brian Kampschroer, Treasurer

You can painlessly make donations to the MER (Mid-Eastern Region) just by shopping the way you likely do already. The good folks at Amazon have a wonderful charity donation program that Amazon funds through a foundation associated with Amazon Smile. Amazon Smile is identical to regular Amazon in what it offers and how you use it. All the products and prices are the same, as is the shipping, and it works with your Prime membership.

It is easy for you to set up your Amazon shopping so that Amazon Smile will make a donation to the MER with your every purchase. Instead of shopping at Amazon.com, log into Amazon Smile at <https://smile.amazon.com/ch/52-1193244>. The URL will take you directly to Amazon and will automatically direct Amazon's donations to the MER.

Alternatively, you can get to Amazon Smile from the menus on Amazon.com. Once in Amazon Smile, you can search for your favorite charity by the name: **The Mid-Eastern Region N M R A Inc**. Please note that the search may take a few minutes and the name must be entered accurately. Make sure you use the beginning "The", include spaces between each of the letters of NMRA and do not put a period at the end of "Inc". Once you log in and ask for the donation to MER, then every time you log in, Amazon Smile should offer to donate to MER without you having to search again or use the URL above.

If you regularly shop at Amazon, please make the effort to set up your shopping to enable donations to the MER. After your initial set-up, shopping with the donation option will be almost automatic. Amazon Smile donates 0.5% of every eligible purchase to the MER with no fees or deductions and no cost to you or the MER. It may not sound like much, but with possibly 1400 plus members buying routinely on Amazon, it has the potential to add up to a major help for the MER bottom line.

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## Modeler's Corner...

This is another new feature in *The Local* this year containing quick tips, new products, and enlightening videos to help improve your modeling. Please [send me YOUR tips and tricks](#) and I'll include them in this column.

MK35 Editions, [www.mk35.com](http://www.mk35.com), has just come out with a new line of unpainted 1:43 figures that work well with O scale layouts. [Learn more at Nick Kalis' blog](#).

Ipswich Hobbies, [www.IpswichHobbies.com](http://www.IpswichHobbies.com), by Jack Dziadul, is now offering O scale structure kits. [Learn more on this page](#).

Woodland Scenics is offering new, highly detailed contemporary vehicles in HO scale. [Here are some examples](#). Also, check out their new [Utility System](#) to add extra realism to your layout.

Digitrax now has a new wi-fi interface, [LNWI](#), for both Android and IOS phones so you can now control your layout with your smartphone throttle app. [Ed.: I just got one myself. Setup was very easy. Works like magic!]

[High Tech Scratch-building](#) – Check out this video from a modeling factory in China. Be sure to stay for the tree-making and the LED wiring at the end. [Ed.: Thanks to Chuck Davis, MMR, for sending it in.]

Consider using old political signs to help establish the era of your layout. Even better, try to find old ads for the losing candidates. Your visitors will have to think a little to try to remember when those candidates were running for office. [See blog entry from Nick Kalis](#).

[How to Build a Small 2'x3' N Scale Layout](#) - This little video from Steve's Trains reveals a ton of modeling tips.

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## MOUNT CLARE JUNCTION

### MER 2021 - BALTIMORE, MD

## Mount Clare Junction Update

By Rick Uskert

In the coming months, leading up to the 2021 Mount Clare Junction convention we will highlight clinics, layout tours, operating sessions and the ever-popular prototype tours for you.

Check out the Clinicians.

Each month at [www.mtclarejct.com](http://www.mtclarejct.com) we highlight a new set of clinicians on the website and the aspects of the hobby they will be sharing with you. Each biographical page shares railroad and non-railroad tidbits about the speaker and includes links directly to the clinics being presented. Find out what other common ground you share with fellow hobbyists.

Grow with us.

Several new clinics have been added to the convention lineup during the last quarter of 2020. Those are new opportunities to grow your knowledge base and skills. Digital railroading, prototype history, resin casting and brick building; the convention will have more than one opportunity to enhance and further your railroad interests.

Share with us.

The Mount Clare Junction team is interested in hearing from you. Through the sign up form on the website or via our convention [email](#), everyone has an opportunity to make your interests and convention desires heard. Send us a message and let us know what you want to see and learn during the event.

Share with everyone.

Information exchange is at the heart of every Mid-Eastern Region convention. We continue our search for modelers willing to share their skills and knowledge. Please [contact us](#) if you would consider presenting an informational clinic or a hands-on event in 2021.

If you live near a major interstate, it is very likely attendees will be passing your layout on the way home from the convention. Consider opening your layout doors for a couple of hours on Sunday afternoon and share what you have created. [Email](#) us if you would consider an open house.

This month we are highlighting three of the fantastic layouts which will be open to all attendees during the convention. Large or small, complete or works in progress, the convention will have layouts which appeal to all interests.

### [Bill Freeland's B&O Railroad:](#)

Bill's childhood enthusiasm for the Baltimore & Ohio has been manifested in his four-level, around the room HO-scale layout representing the line between the railroad's hometown and Chicago. The mountains of the east, covered in the fall colors of more than 5,000 trees, transitions to the wintry skies of the Windy City. Much of the scenery spills over onto the fascia, creating an immersive environment.





Transition era fans will appreciate the mix of steam and diesel motive power hauling freight and passenger trains over the 1,100 feet of signaled mainline as they climb and fall through the layout's various levels. Interspersed are the major yards at Cumberland and Brunswick and numerous industries, which make watching and conducting operations on Bill's layout a joy.



[David Hughes' Western Maryland East Division Railroad:](#)

Western Maryland GP35 #3580 is on the point of a 4-unit EMD consist at Glen Morris on the East Subdivision of Dave Hughes's Western Maryland East End Division HO scale layout. The eastbound train is grinding up the twisting 2.5% Falls Hill grade at 11MPH, and is about to pass underneath the arched concrete Maryland Route 30 bridge just north of Reisterstown, MD.

Glen Morris is the first location point west of Emory Grove, which lies just ahead at this ruling grade's summit. The engineer receives a yellow-over-green Approach Diverging aspect at distant signal #203, indicating a crossover move at the interlocking plant at

Emory Grove, where the East and Hanover Subdivisions merge. With the Reisterstown Lumber Company in the immediate distance, Baltimore's Port Covington is the ultimate destination of this lash-up's assigned tonnage, 19 miles beyond.

[Al Pugliese's Pugsburg Railroad:](#)

Based on the Appalachians in the 1950's, Al's freelance railroad pays tribute to his major influences, John Allen, Howard Zane, George Sellios and Harry Clark through thousands of Super Trees and similarly detailed large deciduous trees in summer foliage adorning floor to ceiling rock castings. The chest-high double track mainline runs around a 23' x 32' horseshoe featuring two 20-foot straights and has a 10' x 10' spur line running through vignettes of Ellicott City and Point of Rocks, MD.



Al proudly displays several terrific structures bequeathed to him for safe keeping built by the late Harry Clark; those being the Sawmill at Cass and the two large Deer Park Hotels. Hundreds of hand-crafted wood kits, scratch-built structures and advanced skyscraper kits from CMR and Lunde Studios adorn the deeply sceniced layout. The Bromo Tower (CMR) and a nearly full-size B&O Mount Royal station have recently been integrated into the layout.

Howard Zane has always said art is meaningless unless it can be shared with others. Al's goal is to show model railroading is not only the greatest hobby, but it is also ART.

Take some time to visit these and the other layouts open during the Mount Clare Junction convention.

## Achievement Program Article Series

By Greg Warth, Editor

Our series continues this month with a great article by Joe Walters, MMR, on how he achieved his AP (Achievement Program) certificate on Motive Power (page 19). Joe is a Philadelphia native, served four years in the Marine Corps and is a real, prototypical railroader! He worked at the Reading Railroad, then Conrail for 10 years, then went to Amtrak. After 22 years in the back shops, he retired as Assistant Supervisor of Amfleet overhaul. He currently serves as the assistant superintendent of the Philadelphia Division. So, if you need to know anything about Amtrak prototype models and operation, he's your guy!

Thanks again to ALL of our MMR authors who have contributed to this series. Here is a summary of the AP articles that have been written so far and links for where to find them:

Model Railroad Equipment	<b>Category</b>	<b>Author</b>
	<a href="#">Master Builder - Motive Power</a>	Joe Walters, MMR
	<a href="#">Master Builder - Cars</a>	Ron Baile, MMR
	<a href="#">Master Builder - Cars</a>	Ernie Little, MMR
Settings	<b>Category</b>	<b>Author</b>
	<a href="#">Master Builder - Structures</a>	Glyn Thomas, MMR
	<a href="#">Master Builder - Scenery</a>	Mary Miller, MMR
	<a href="#">Master Builder - Prototype Part 1, Part 2, Part 3</a>	Andrew Dodge, MMR
Engineering and Operation	<b>Category</b>	<b>Author</b>
	<a href="#">Model Railroad Engineer - Civil</a>	Ernie Little, MMR
	<a href="#">Model Railroad Engineer - Electrical</a>	Rod Vance, MMR
	<a href="#">Chief Dispatcher</a>	Kurt Kramke, MMR
Service to the Hobby	<b>Category</b>	<b>Author</b>
	<a href="#">Association Official</a>	Kurt Thompson, MMR
	<a href="#">Association Volunteer</a>	Brian Sheron, MMR
	<a href="#">Model Railroad Author</a>	Martin Brechbiel, MMR

However, the series does not have to stop with this list. There are many more topics to be considered that would be helpful for members aspiring for AP Certificates. If you are an MMR and would like to volunteer to continue the series with your own article(s) about any of these categories in the Achievement Program, please contact the [Editor](#). All submissions are welcome!



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## Product Review:

### A Happy Place to Work



A Review of the *Harbor Freight Windsor Design Workbench*  
By Nicholas Kalis

(SKUs 63395 93454 69054 62603)

List Price \$149.99

Product Height 33.25"

Weight 105 pounds

[www.harborfreight.com](http://www.harborfreight.com)

As of June 2020, Harbor Freight's web site notes it is "Purchase In-Store Only".

Want the ultimate? Order the *Sjoberg Elite Workbench 2000* with *Cabinet SM04* from Rockler for \$3,030 with a \$200 shipping and handling charge. If you are like the rest of us, a Harbor Freight workbench might do just as well with considerably less cost. A check of the Internet will also reveal

many wooden workbenches sell for about \$400 to \$ 1,000 - I suspect they are of a better quality than this Harbor Freight workbench under review here. These three photos show this to be an attractive workbench at any price (**Photos 1-3**). Yes, appearance is not the first thing one seeks in a workbench,



but one need not sacrifice appearance in search of a low ticket-price.

I own three (3) *Windsor Design 60"* (five-foot-long) four-drawer work benches from Harbor Freight. The list price is \$149.99 but 20% off coupons can often be found to bring your price lower to about \$120. Don't forget you will be also be paying shipping and handling on top of this. You can also see this workbench at their stores. I simply ordered the first of my three online sight un-seen. Each time I used a discount coupon. Don't let it put you off that Harbor Freight has assigned four different SKUs to the same product. That's their "problem", not yours.

Their felt-lined drawers leave a bit to be desired. But, for this price, you probably can discard the drawers and still feel you got a great deal. This workbench is also nicely finished. I can't say whether it is varnish or some other coating, but it is a nice touch at this price point. If you plan to put two or more of these work benches together, you can simply leave off some of the vises that come with each workbench to save room.

### Positives

- Wooden Vise included
- Compact - this can also be a negative for those wanting a larger workbench
- Sturdy overall
- Bottom shelf can be filled with organizers to store supplies
- Ninety-day guarantee (see negatives)

### Negatives

- Arrives disassembled
- Wood is finger jointed
- Top counter is not as thick as it appears in photos



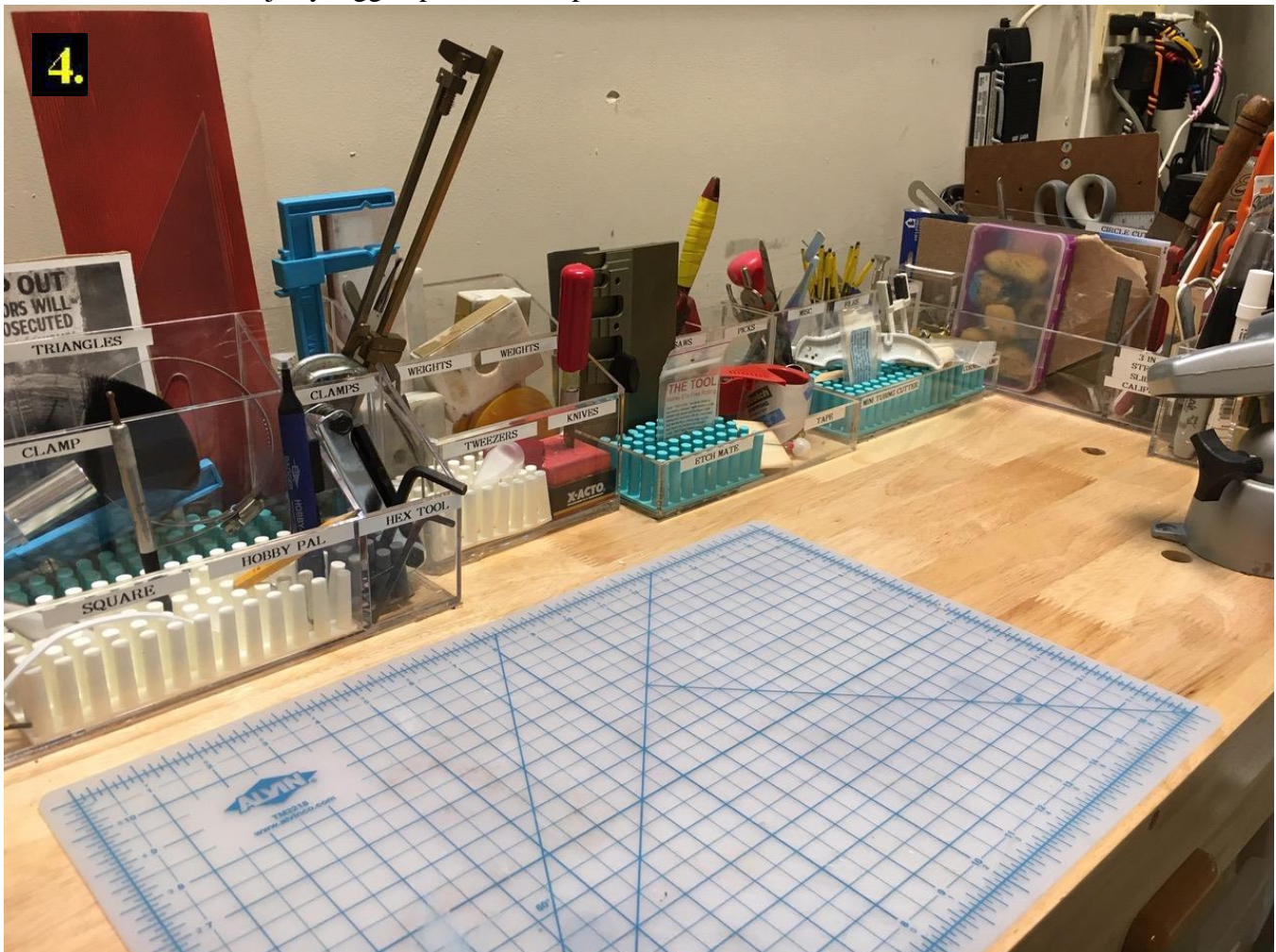
- Drawers do not install easily
- Drawers do not glide smoothly
- Drawers only pull out about 1/2 way
- Bottom shelf is a bit fiddly - don't try storing very heavy items there
- Only a 90 day guarantee

### Harbor Freight Tools

A little bit about this seller. Eric Smidt started Harbor Freight Tools in 1977. Headquartered in Calabasas, California, they have over 1,000 stores nationwide. Most of you are familiar with their seemingly weekly ads in the back cover of *Parade* Magazine (that skinny tabloid size color magazine that comes with your Sunday newspaper). Others of you have received their discount coupons in your mail. Oh, and I have no financial or employment stake in Harbor Freight.

### Conclusions

I suspect many modelers really don't have a decent workbench to build their models on or if they have a workbench it is some jerry-rigged piece of scrap wood on sawhorses or some other make-do solution.





Here is your solution. This workbench can also serve as an inexpensive sturdy stand for your shop equipment (**Photo 1**).

Have a handyman you use? Give him the chore of assembling yours and you still will come out ahead. In any case, most other workbenches will arrive at your home disassembled so then you will still face the choice of doing it yourself or hiring someone. I put together one of my three workbenches and then had Carl Newberry assemble the other two. Boy, it was sweet having someone else put it together - and giving him the nasty job of making the drawers operate properly. Thank you, Carl!

Cheerfulness was enhanced by locating one of my workbenches under a garage window. I added a nice padded mat for comfort in standing. Finally, I paid an electrician to add some nice LED light fixtures above the place where I do my work.

My conclusion: if you don't have a decent stand-up workbench now and you are a penny pincher, or even not, treat yourself to one or even three of these Harbor Freight workbenches. Just be gentle with the drawers.

#### References and Resources:

##### **14 Super-Simple Workbenches You Can Build:**

<https://www.familyhandyman.com/list/super-simple-workbenches-you-can-build/>

**How to Build a Simple Workbench:** <https://www.lowes.com/n/how-to/how-to-build-a-workbench>

**Watch This Before Building Your Workbench:** <https://youtu.be/UIEISbqD3jc>

**How to Build a DIY Wood Workbench for \$50:**

<https://www.familyhandyman.com/project/how-to-build-a-workbench-super-simple-50-bench/>

Other: [Work Bench Images on Google](#)

## **UPCOMING MER CONVENTIONS**

2021 Convention – Chesapeake Division – Oct. 21 - 24, 2021 - Delta by Marriott Hunt Valley Inn, 245 Shawan Road, Hunt Valley, MD

2022 Convention – Carolina Southern Division -- “Carolina Special Look South”, Charlotte, NC

2023 Convention –Susquehanna Division – Dates and location tbd

2024 Convention –Division, Dates and location tbd

2025 Convention –New Jersey Division, Dates and location tbd

## Motive Power

By Joseph Walters, MMR

Early in 2020, when the only problem in the world were the Australian fires, our President, Kurt Thompson, MMR reached out to the master modelers. He asked us to write articles on the Achievement Program. I drew the short straw and was assigned to write about Motive Power. I will say that this achievement award is probably the most frightening of all categories, or, as some say, it is the most challenging.

The category states motive power, not locomotive nor diesel power. Motive power refers to any rail vehicle, maintenance vehicle, streetcar, speeder or locomotive. This category includes the three types of locomotives, which are steam, diesel and electric. That said, there are many choices you can study, research, and then choose which model you want to construct. The requirement states that only one of the three models needs to be scratchbuilt. They all must be super-detailed to achieve an 87.5 judging score. Everything you need to know about this category is spelled out in the Achievement Program, "[Motive Power](#)" section. It would be redundant to list all of the requirements here. Required specifications should be read over several times. Your local AP coordinator is a useful resource, as well. The list of materials to be used is unlimited to build your model. These materials may include wood, card stock, metal, styrene as well as any other.

As mentioned, one of the three models has to be scratchbuilt. The term "scratchbuilt" implies that the modeler has done all the necessary layout and fabrication that produces the final dimensions, appearance, and operating qualities of the model. The other two models used were commercial locomotives. The hardest thing for me was trying to achieve 87.5 points on a store-bought locomotive. One judge quoted, "How many points do you receive for taking the model out of the box?" I found this to be a very good point. My suggestion would be to start with any model void of detail, such as a blue box locomotive. Then, the more detail you apply, the better you will score. One item to remember is to scratch build some components on these models, as that will boost your score. Listen to someone who knows! I failed to scratch build components on the commercial models. It was because of this error that I did not receive the needed points on my first try. After conversing with the judges, I realized that I needed to add the scratch building element to my locomotives. For my second try, I scratchbuilt handrails, stanchions, grab irons, cabs, sunshades, and drop steps, along with other detailed parts. That work paid off! I achieved a score of 87.5.

I would hope that many of you will try to achieve this category. It is challenging, but also rewarding. In three years, I have learned to enjoy scratchbuilding. It is also very therapeutic. While scratchbuilding your mind stays challenged on your next move. I am up to thirteen models of rolling stock now. Each model I build leads me to better techniques. A lot of what I do is trial and error. Not everything goes as planned. I have realized that if I keep plugging away, each success makes me a better modeler. After all, that is the goal! Who knows? Maybe someday you will scratchbuild that Union Pacific Big Boy!

In closing, I would like to share some photos (**Photos 1-10**) of my Sperry rail car that was scratch built and used for my motive power certificate. I scored 111 points on this one. Each photo and its caption explain the steps I used to build this model. If you have any questions about this category, please feel free to reach out.



**Photo 1: Basic tools used to construct the Sperry rail car. I do not have metal working machinery, so I had to think outside the box. I used wood for the frame.**



**Photo 2: This is the basic roof, frame and two sides.**



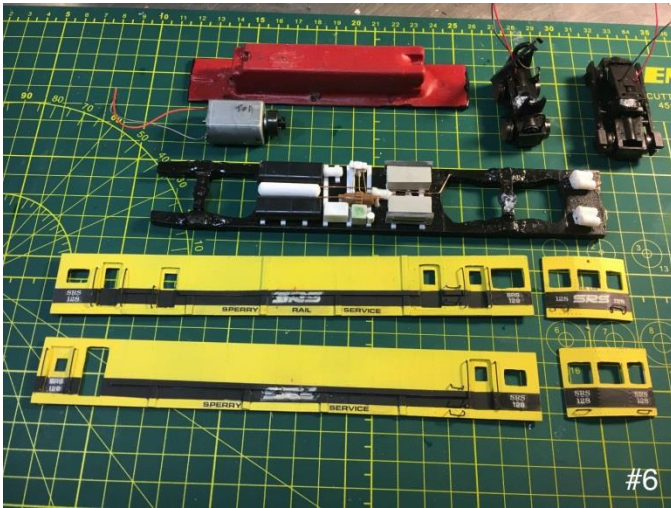
**Photo 3: This photo shows the major components. Note, the frame has been cut out and body bolsters have been applied.**

**Photo 4: This is the model out of the paint shop before it received the black stripe. Notice the weight. As the frame is soft pine, I needed extra weight for traction effort.**



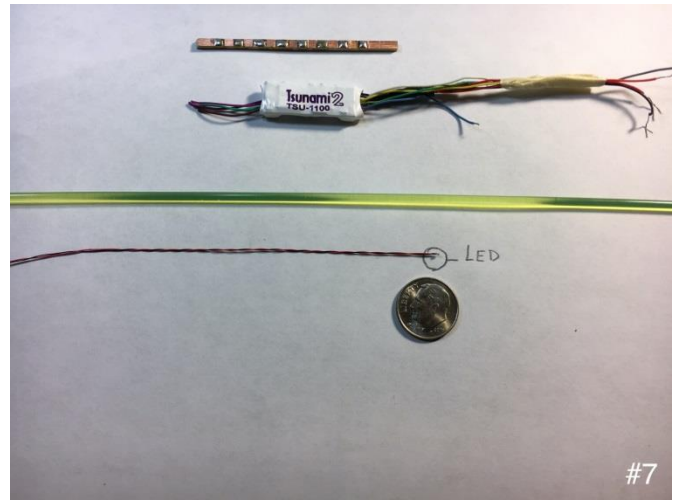
**Photo 5: The black stripe has been applied. The weight has been dipped in plastic in an effort to keep the decoder and wiring from shorting.**





**Photo 6:** This photo shows the underside of the frame. Scratch built AC units, air brakes, piping, and air tanks were made from resin castings.

**Photo 7:** This picture shows the decoder and micro-LED for scratchbuilt flood lights. There is also a homemade terminal block for all decoder wiring.

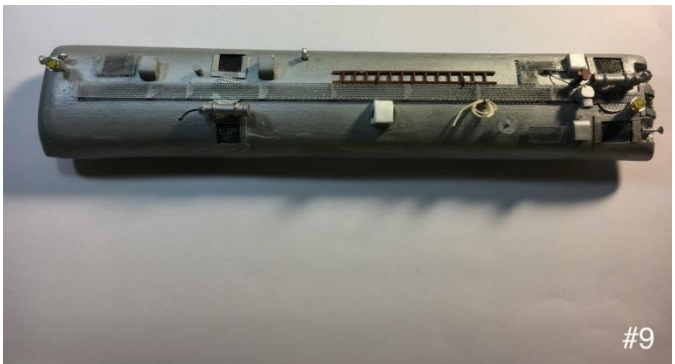


#7



**Photo 8:** This is the assembly of interior components completed, including the decoder, the weight and the home-made terminal board attached to the weight. The scratchbuilt flood lights were attached to the right end of the vehicle.

#8



#9

**Photo 9:** This shows the completed roof with all the detailed parts applied. The roof includes ladders, flashing beacons, air tanks and air vents.



**Photo 10:** Sperry rail riding its home rails on the Northeast lines.

#10



# Adding Headlights to HO Scale Vehicles

By George Gaige, MMR

## INTRODUCTION

I am a big fan of lights and animations on my layout. They add a whole new world of interest to a model railroad and to the sense of realism conveyed. Adding lights to structures is very common, and certainly worth doing, if not overdone (e.g., buildings with walls that glow from lights that are too bright, buildings with every room lit, light bulbs visible through the windows, etc.). However, there are other lighting options available in addition to structure lights. These include street lighting, spotlights and vehicle headlamps and taillights. Vehicle lights will be the subject of this piece.



**Photo 1: Car show at the diner**

Until recently, if you wanted to put lights in your vehicles, you were on your own. At least one company now offers vehicles with built in headlamps and/or taillights. But these are about \$30 each in HO Scale and the vehicles are generally too modern

for my railroad, which is set in the 1920-1940 era. Anyway, they weren't available 20 years ago when I started doing my own vehicle lighting. And even if they were, I would not have wanted to spend approximately \$2000 to have the 60-80 lighted vehicles I wanted. So, it

**Photo 2: Busy night in Bethany**

was fortunate that I was taught a technique to install vehicle lights by my friend Kenny Michaels at the West Island Model Railroad Club in New York about 25 years ago. I have expanded on Kenny's teaching and now have about 90 lighted vehicles and flagmen on the Gilpin Gulch Railroad. These techniques have allowed me to add headlights and taillights to many of the vehicles I already had on the layout, at very little cost.



## HEADLIGHT BULBS

I will explain the most complicated part of this project first, to get it out of the way: I use Circuitron “Mitey Lights” miniature 1.5-volt bulbs. They are about 1.4 mm in diameter and can be purchased for about \$1 each if you buy 25 at a time from their website. They are very realistically sized for HO scale vehicles. **Notice I say I use 1.5-volt lamps!** The more popular 12-volt lamps would be



**Photo 3: Circuitron 1.5 volt bulbs)**

so much simpler to use because most structure lighting circuits, like mine, are 12 volts. However, the 12-volt bulbs are just too big to fit most HO vehicles and too bright in my opinion

anyway. Now, you can always solder a resistor in line with each 1.5-volt bulb and connect the vehicle to your 12-volt structure lighting bus. However, if you opt to create a separate 1.5-volt vehicle lighting circuit, which I recommend, you don't need any resistors. Why don't you use LEDs you ask? Good question! I have not yet found any LEDs that are truly headlight shaped to fit into my vehicles. The smallest white LEDs that I have found still have a square base and would not suit my purpose. So, for this article, I am sticking with what I know works. You can actually start installing bulbs in your vehicles without making the power decision yet. Just leave all the wires separated and hanging from the bottom of your vehicles for now. So, for now, let's get some vehicles wired up with headlights! The options for creation of your power bus will be described at the end of this article.

## EASY INSTALLS

These types of vehicle are the easiest to light. You can pry or unscrew the base off the body, drill holes for your bulbs where the fake lights are,



glue in your bulbs from inside, route the wires through the base, snap or screw it back together, and you are done! **You should mark one wire from each bulb with red paint before you install the bulbs, however.** This makes identifying the positive leads and negative leads from each bulb much easier for



powering them up later. The reason for painting one wire from each bulb red is not a polarity issue (since polarity doesn't matter when using incandescent bulbs). If you put in headlights and taillights on a vehicle and close it up, you have eight wires coming from the bottom in one place and you can't tell them apart. The paint helps "gang" the wires together into just 2 wires.

There are many HO scale vehicles available with simple body shapes like this; you can often find them for less than \$5 apiece from online retailers. But don't do all your shopping online! Support your local Hobby Shop if you still have one and can shop safely. It's worth paying a few dollars more to keep these guys afloat.

So those are easy jobs. but what if the vehicles you need are a little more complex, as is often the case with older model vehicles?

### LET'S GET SERIOUS

Let's try to add headlights to these three vehicles from my layout. I generally try to add lights to vehicles that I already have to keep the costs

#### **Photo 6: 3 vehicles to light up!**



down, but I will buy new vehicles when I have had a successful experience with a particular car or truck, and if they are on sale somewhere! Jordan Highway Miniatures are my favorite, but they are the most difficult to light, so leave them until you have experience with some of the sturdier pre-built vehicles. After 50 years as a model railroader, I have about 200 vehicles. My practice is to place vehicles on the layout, live with them awhile and confirm I like the way they look where they are. Once I'm satisfied with their placement, I make a decision whether or not to light them. Once lit, they aren't going anywhere because you have to drill a hole in the layout for the wires. Vehicles in the road get lit and populated if possible. Vehicles parked or off the road usually stay dark and empty, with some exceptions, just to keep things interesting.

#### **TAXI:**

#### **Photo 7: Classic Metalworks Taxi**

The taxi is a very popular vehicle. I think this one is from Classic Metalworks. I already had about 6 of these on the layout. The taxi is held together with two Philips head screws on the bottom. The only part you need to work on

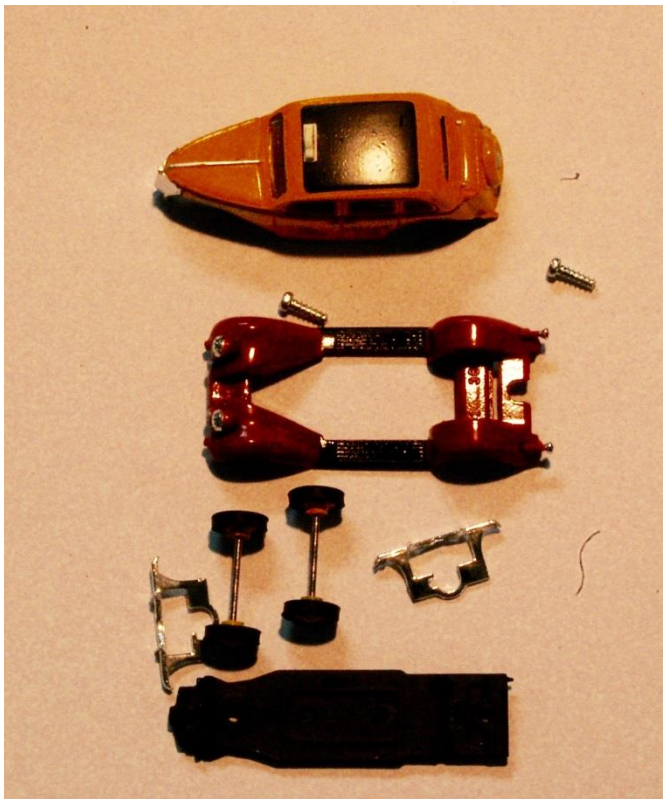


is the red frame part with the fenders. The fenders have nice big plastic headlights already attached. The headlamp is a big, bulbous thing that comes to a point at the back. Fortunately, it's plastic. Use a small file to flatten the point a little to allow you to drill it out from the back. Using a very small sharp drill bit



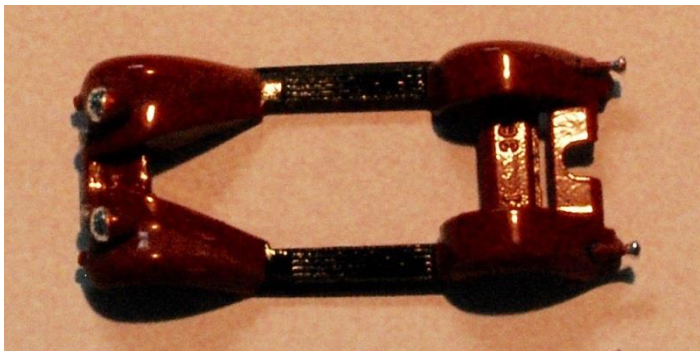
**Photo 8: Underside of Taxi**

(#60) in a pin vise, carefully drill out the headlamp from the back. Hold the frame in one hand, clamping the headlamp tightly against the frame to keep the headlamp from twisting itself off the frame. If you do this carefully and slowly, you can drill all the way through the headlamp, through the plastic lens, and out the front of the headlamp.

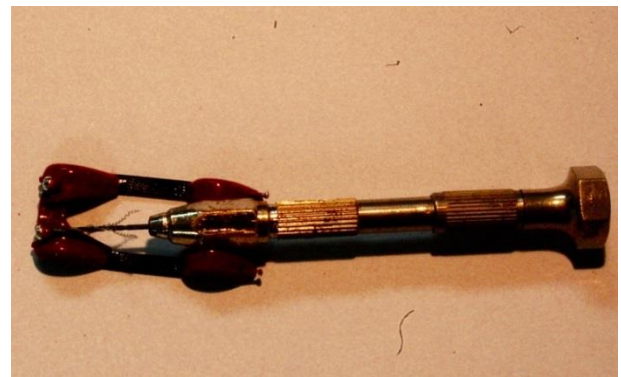


**Photo 9: Taxi in pieces**

Make sure your bit is sharp! If you start to get too much resistance, you will feel the headlamp start to twist and risk tearing it off the frame. You can always glue it back on later, but it's easier to work with it on the frame. This hole will not be wide enough for your bulb yet. You will have to drill it out several more times with larger and larger drills, (#58, #56, #54, etc.) until the hole is wide enough to accommodate your bulb. This is about a #52 hole (.063"). Using this stepped procedure of larger and larger drill bits will create the least possible torque on the



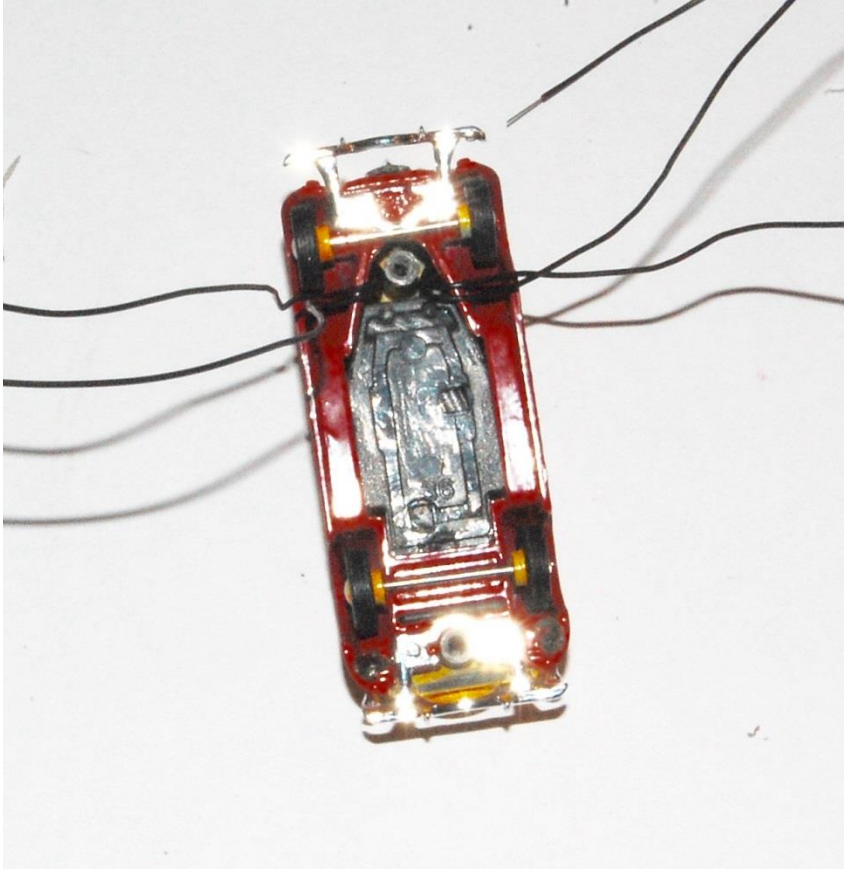
**Photo 10: Taxi frame with headlamps**



**Photo 11: Drilling out the headlamps**

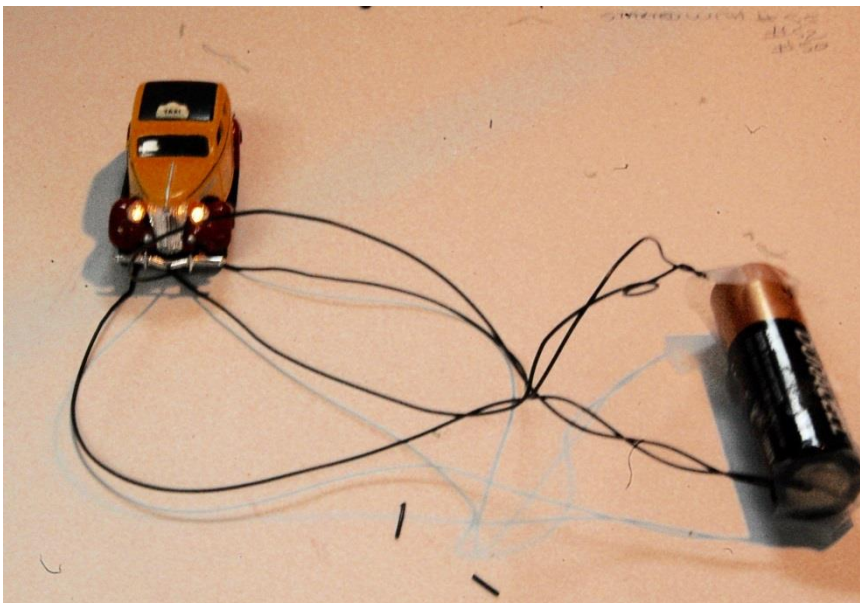


headlamp. Most times that I have done this, the headlamp lens has survived and preserves the original headlamp appearance nicely. If you happen to twist the headlamp off the frame, you can still drill it out holding it in your fingers, again using the stepped procedure of larger and larger drill bits to create the least possible torque on the headlamp.



**Photo 12: Lamp wire routing**

Once your headlamps have been successfully drilled out, clean up the holes very gently with a tiny round point file. Slide your bulbs in from the back of the headlamps so that the bulb protrudes just slightly from the front. Secure the bulb from the back with a drop of medium CA glue. Make sure to test each bulb with an AA battery frequently, including before installation. Rough handling can damage the connections on these tiny bulbs. Once they are all glued in place, they are less fragile. When the bulbs are secure in the headlamps and you have tested them again with your AA battery, route the wires through the frame and put the cab body back on. There is just enough clearance between the cab body and the frame near the front screw mounting post to accommodate the wires. The chrome



**Photo 13: Taxi ready for service!**

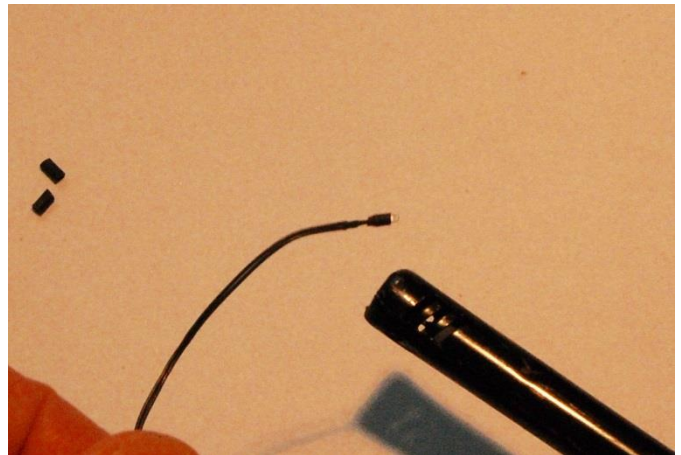
bumpers get wedged between the frame and the bottom plate when the plate is screwed back on. Mine kept falling out of place, so I glued them to the frame. At this point, you can re-install the axles and wheels, attach the bottom plate, re-test the lamps, touch up the headlamp with a little red paint and you are done!



**PICK UP TRUCK:****Photo 14: Pick-up truck****Photo 15: Pick-up truck headlamp wire routing**

Lighting the next vehicle requires no disassembly at all. This is a ready-to-roll pick-up truck, very similar to Jordan Highway Miniatures models, but a little sturdier. The following technique is also applicable to the Jordan vehicles and I have illuminated many of these. In this vehicle, a hole is drilled between the fender and hood on each side to accommodate your headlight bulb wires. The wires need about a #50 hole (.070"). (Again, use the stepped procedure of larger and larger drill bits to create the least possible torque on the body.)

These vehicles have beautifully detailed little headlamps, but you have to cut them off! I have tried to drill these out many times, but they are just too delicate. It's impossible to drill them out without breaking them. For these vehicles, we make new headlamps for our bulbs by using small sections of 2mm shrink-wrap tubing. This tubing is used to secure wire to wire connections. You slide the tubing over one end of one wire, twist your wires together and solder the connection, then slide the tubing over the soldered joint and heat it with a match, shrinking the tubing tight over your connection. To make the headlamps, you cut a piece of 2mm shrink wrap about 1/8-inch-long and slide it over the bulb, leaving the front half of the bulb exposed and covering the wires at the base of the bulb. Then, holding your bulb

**Photo 16: 2 mm shrink wrap tubing****Photo 17: Shrinking the shrink wrap**

horizontally to keep the shrink wrap from falling off, you GENTLY heat the shrink wrap with a small heat source until it shrinks around the bulb.

After testing each bulb again to make sure you haven't melted it into oblivion, you can route the wires through the holes between the hood and fender and out the bottom of the truck. Hold the headlamp in place where you want it on the side of the radiator and engine hood and secure it with a drop of CA glue. CA accelerator really helps in a situation like this. If you can gently hold the headlamp in place with tweezers during this operation, do that. This minimizes the risk of gluing your fingers to your project. Ask me how I know this! Test your bulbs again, touch up your headlamps and wires with paint to match your vehicle and you are ready for installation on your layout.

### **ANTIQUÉ AUTO:**



underneath, you just glue the radiator/headlamp assembly back to the front of the engine, and you are done with assembly. Touching up the wire and bulb with a little paint finishes the job.

**Photo 19: Bulbs glued to radiator/headlamp assembly.**

This was probably the least expensive HO scale vehicle on my layout. I think it was one of four kits in a package that sold for about \$4 total. In this case, the headlamps were attached to the radiator quite strongly, and the radiator just snapped off the front of the car with the headlamps in one piece. This made drilling out the

**Photo 18: Our next victim!**

holes for the bulbs easy. I used the shrink wrap tubing again to make the headlamp/bulb assemblies a little sturdier and glued them into the drilled-out headlamp frames from the back. This old beauty had quite a bit of space between the fenders and the engine hood, so no drilling was necessary to route the wires beneath the car. With the wires routed







**Photo 20: Ready to rumble!**

## POWER SOURCES

There are at least three options for powering your vehicles:

1. A battery circuit
2. Hook up to a 12-volt circuit
3. Create a 1.5-volt circuit.

### Option 1: Battery Circuit

Let's say you decide you want to have the simplest wiring for your vehicle lights and you only want to light three vehicles in one area. All you need is an AA battery, a battery holder and an on/off switch. One AA battery can sufficiently light about 6 of these bulbs. Your circuit is done! If, however, after reading this article and trying a few vehicle light installations yourself, you decide that you want to have more than two or three lighted vehicles and/or flagmen or other 1.5 volt powered animations, you need a more substantial power supply.

### Option 2: Hook up to a 12-volt supply.

If you want to use a 12-volt supply, you are going to have to solder in a resistor for each bulb. Circuitron has the resistors you need also, for about \$.30 each, if you want to go that

### Photo 21: Resistors if you decide to go the 12-volt route)

route. Installing a resistor for each bulb is the simplest way to get your vehicles lit if you only plan on lighting a few, with headlights only.

That way, they can be easily connected directly to your 12-volt structure lighting bus. **One caution: I**

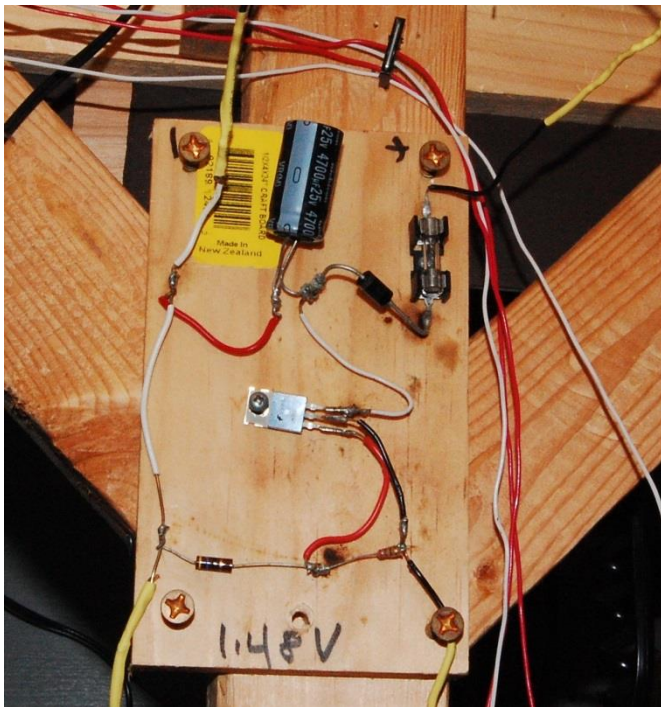




have made some measurements with my voltmeter and find that the actual voltage these bulbs receive with the Circuitron resistors in line can be more than 1.5 volts, and up to 2.0 volts. Anything over 1.5 volts to these tiny bulbs will shorten their lives. So be sure of the voltage you are supplying to these bulbs to insure their longest possible life.

### Option 3: Create New 1.5-volt circuit.

When I started building this layout, I wanted to have a dedicated AC circuit all around the layout just for track power and a separate AC circuit just for scenic effects. That way, I can turn on all the scenic effects separately for visitors and operating sessions and leave the lighting and animation power off when I just want to run trains alone. Or I can just turn on the scenery power when I am working on lighting and don't need the track power on. I also have a separate AC circuit for layout room lighting, distinct from the minimal room lighting circuit needed for just passing through the room. So, utilizing the "scenery" power circuit I started out plugging in 1.5-volt AC "adapters" (WALL WARTS) in several areas and creating distinct 1.5 volt, 10-15-foot-long power buses for vehicle lighting. These were readily available from Radio Shack, were reliable in their voltage output, and each bus could power 10-15 vehicles with up to 4 lamps each. The voltage at the end of the bus would be 1.2 -1.4 volts with 10-15



vehicles connected. 1.2 volts provides my minimum acceptable level of headlight effect and is well below the 1.5 rated lamp voltage, making for long lasting bulbs. Some of my vehicles have been lit for 20 years, so this scheme is working out. I use a distinct wire code for lighting to prevent my connecting 1.5 volt rated vehicles to my 12-volt structure lighting circuits. Red and white 16-gauge wires are for 12-volt structures and green and blue 22-gauge wires are for 1.5-volt vehicle lighting.

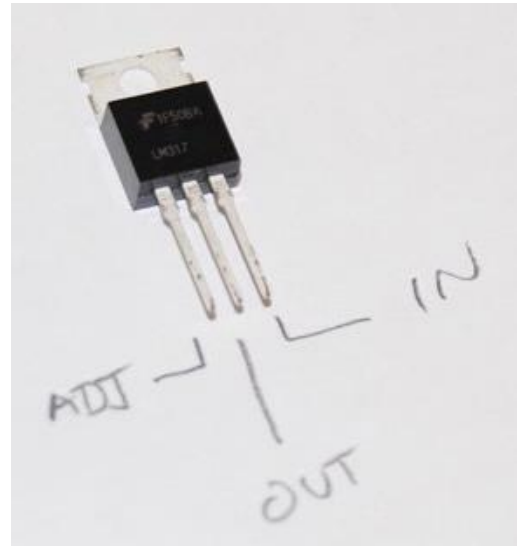
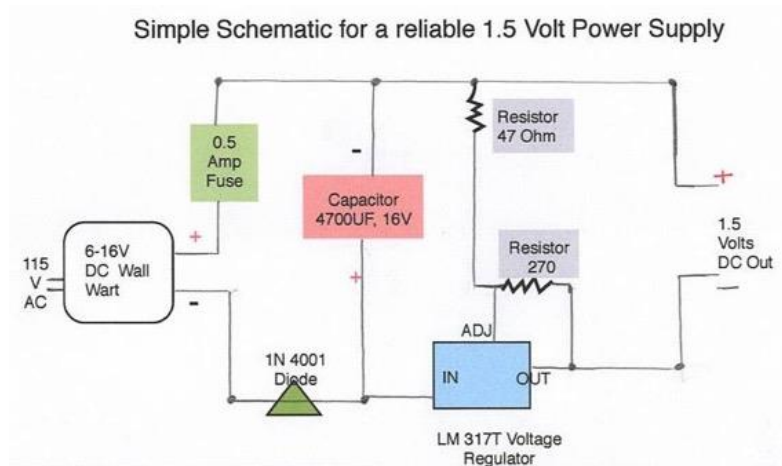
**Photo 22: Homemade 1.5-volt power supply)**

This system worked fine for a while. Then Radio Shack scaled way back on their business and stopped selling the 1.5-volt adapters. I started researching alternatives and could not find a reasonably priced reliable source for 1.5-volt power, which could be switched from my AC circuit. The power supplies available online were only available as "variable" units, were poorly rated by users and were not accurate, supplying anywhere from 3-12 volts at the 1.5-volt setting. My fleet of vehicles kept growing, requiring more vehicle power buses. In desperation I turned to the Internet and found a plan for building my own 1.5-volt power supplies. This was about six years ago. I sent away for the parts, modified the circuit a little for my needs, and after a few failed attempts, I was able to construct several of these. I mounted the components on 4" x 6" pieces of 1/4" plywood. They look ridiculous, but they work. They can be powered by almost any "wall wart" that puts out DC power, from 5-16 volts. The strange part is they all provide exactly 1.48 volts, no matter what voltage the wall wart supplies. This is

accomplished by a small electronic component (LM317T) called a “Voltage Regulator” which actually does exactly that. The other components are a capacitor, a diode, two resistors and a fuse.

Parts List:

- 1N4001 Diode
- 4600 UF, 25 V Capacitor
- LM317T GOS-ND Voltage Regulator
- 270 OHM Resistor
- 47 OHM Resistor
- 2298-BLC-20C-ND Fuse Holder
- 2298-TSD-500MA-ND Fuse



**Photo 23: Homemade 1.5-volt power supply schematic**

**Photo 24: LM317T Voltage Regulator**

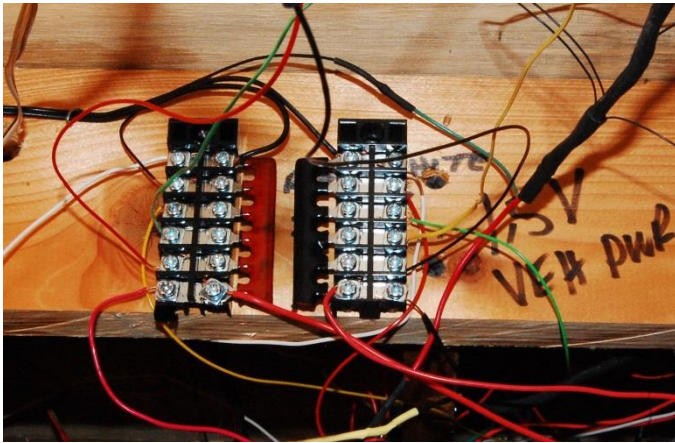


I suppose you could use an old “Power Pack” to supply 1.5 volts DC, but you have to be very careful that your voltage does not exceed 1.5 volts for your bus. I tried setting one up and at the “12 mph” setting it put out about 1.5 volts, but the voltage varied from 1.2 to 1.6 volts without even breathing on it. Accidentally cranking it up will blow all your little bulbs with a cute little “pop” and destroy hours of work if you are not careful.

**Photo 25: Power pack as 1.5-volt supply)**

I like to connect my layout wiring through these power terminal blocks. They provide good solid electrical connections and make it easy to disconnect individual vehicles or structures for maintenance or updating. They come in gangs of 12 but are easy to cut into blocks of 3, 4, or 6 connections as shown.





**Photo 26: Power terminal blocks))**

Well, that's all for now folks! I hope you are encouraged to try adding some lighted vehicles to your layout and find these projects as rewarding as I have!



**Photo 27: Factory scene at night)**





## Electronics Corner...



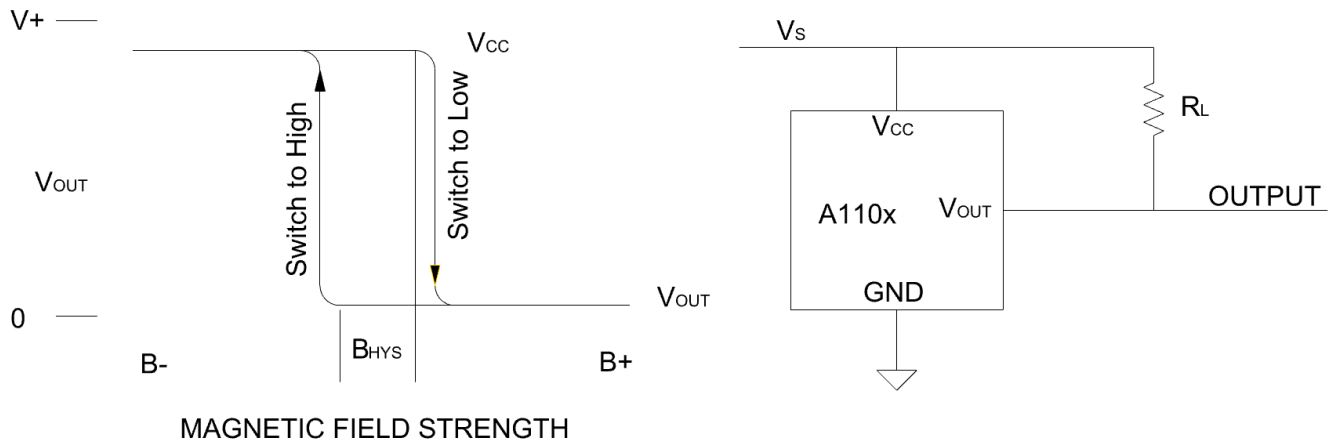
### Hall Effect Switch for Occupancy Detection

By Earl T. Hackett

As many in the Philadelphia Division know, I'm a bit nuts about railroad signaling and its implementation on my layout. Switch and signal control are done with simulated lever frames in individual signal 'towers'. I experimented with block occupancy using tuned transformers but returned to diode drop detection when false occupancy signals, probably due to current leakage, caused lever locks to engage, shutting down operations. I went back to my old diode drop detectors. They have always worked reliably but are no longer available. To avoid paying for some custom circuit boards, I began to explore alternative inexpensive occupancy detection techniques.

#### Hall Effect Switch

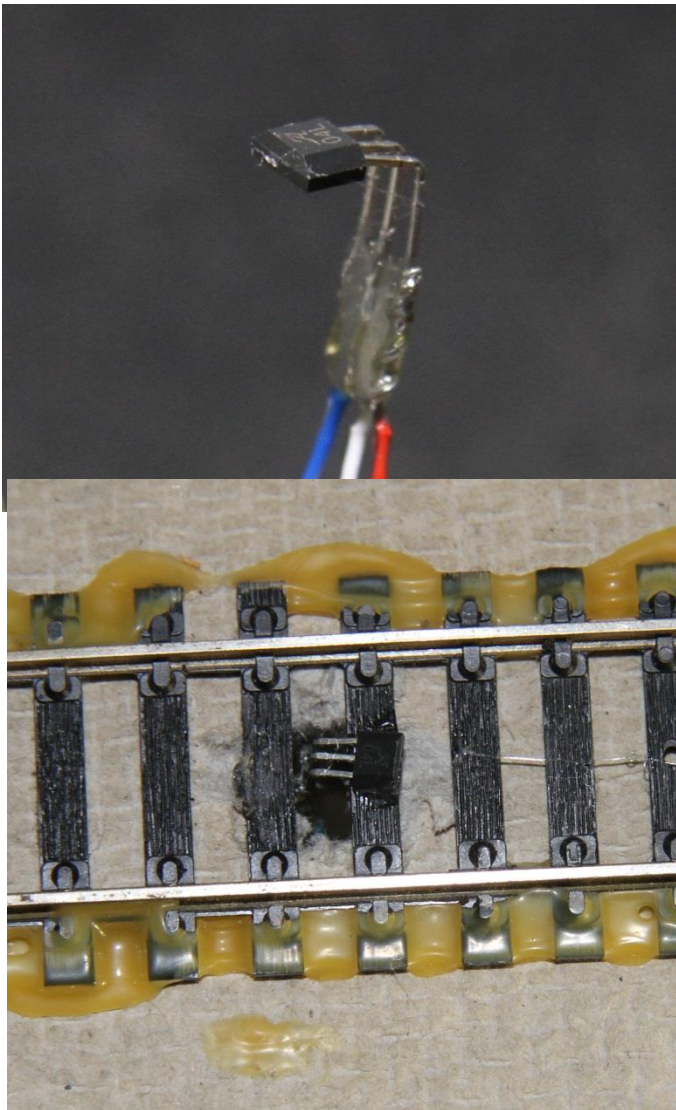
A unipolar Hall effect switch is one that conducts when the presence of the south pole of a magnet is detected. To generate a useful signal, it is wired in parallel with a load resistor.



**Figure 1**

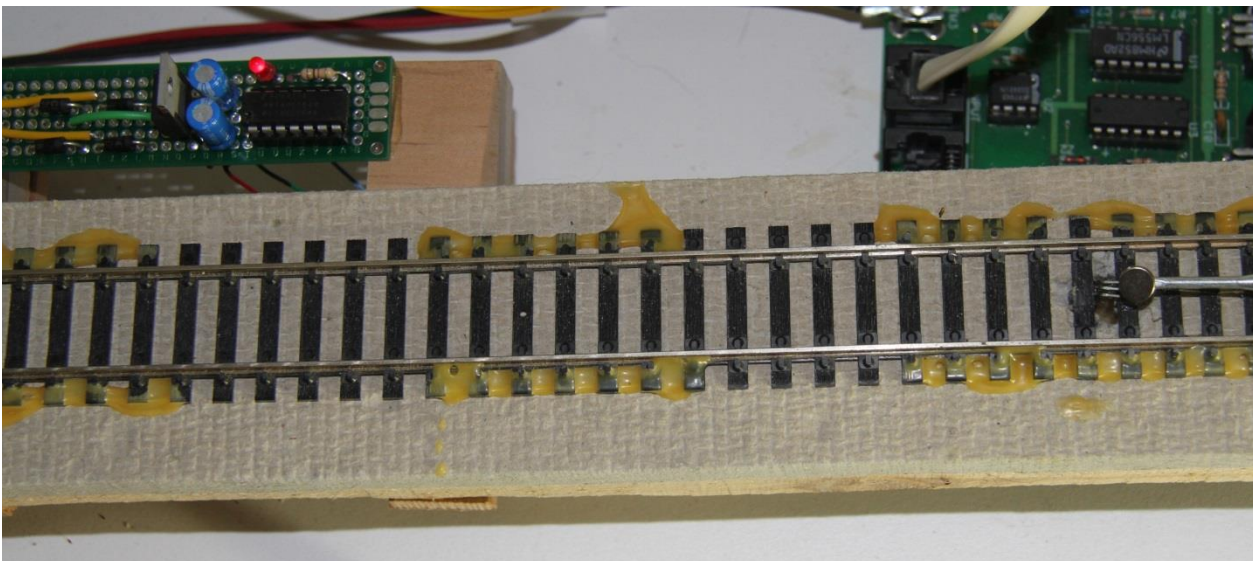
This circuit (**Figure 1**) is taken from the Allegro datasheet (with permission) for their A110x series of Hall switches. I'm using Allegro Microsystems A1104LUA-T switches, available from Jameco as part # 1718701. These digital switches have in addition to the Hall sensor, an amplifier and a Schmitt trigger to make them compatible with modern digital circuitry. When no magnetic field is present the Hall switch does not conduct current and the output is raised to  $V_S$  by the load resistor  $R_L$ , which acts as a "pull up" resistor. When a south magnetic field is present the Hall switch conducts any current through  $R_L$  (max 25 mA) to ground and the output voltage drops to zero. The function of the Schmitt trigger is twofold. It converts the slow analog signal to a high-speed transition compatible with digital electronics and provides a hysteresis that removes any small fluctuations in the analog signal which could cause unwanted results.

**Photos 1-3** demonstrate the application and installation of the Hall sensor on my layout.



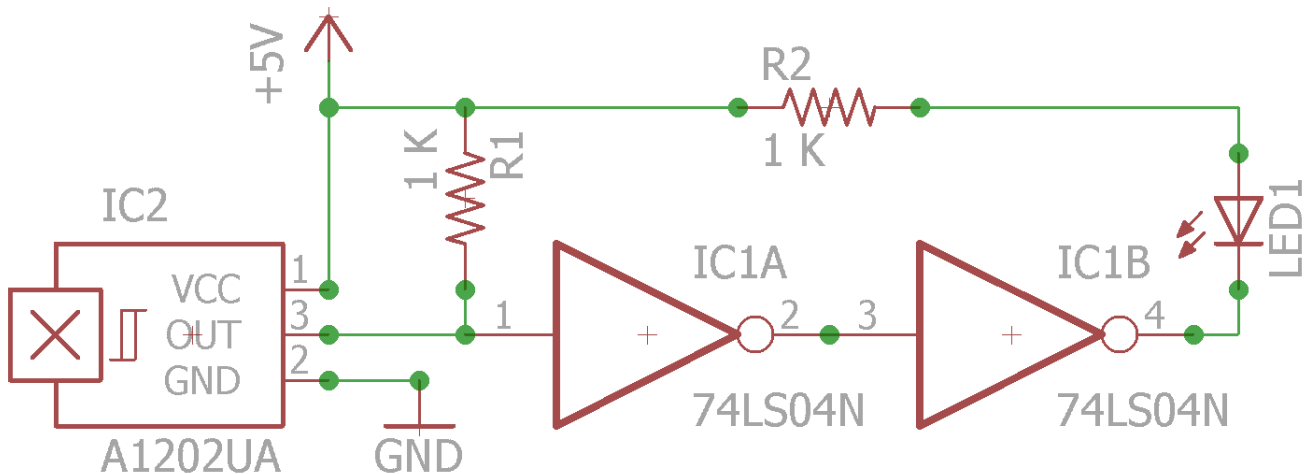
**Photo 1:** A Hall switch prepared for installation in the track. The side with the bevels is the side that senses the magnetic field. The solder joints are covered with a flexible adhesive that serves as both insulation and strain relief.

**Photo 2:** The Hall switch glued to a tie on my test track. It could be easily configured to fit between the ties and covered with ballast, but you should add some mark, so you don't forget where you put it.



**Photo 3:** A simple test circuit was built to identify the south pole of a magnet. The magnet is just placed on the tip of a small screwdriver. When the south pole approaches the Hall switch the LED turns on. To the eye it is obvious, but it is difficult to show in a photo.

I needed a way to test the device when the magnet crosses over the Hall sensor. The circuit in **Figure 2** accomplished that task and turns on the LED when the magnet crosses over the sensor.



**Figure 2:** This is the test circuit I use to determine polarity. I use two NOT gates so the LED turns on when the magnet is present. The circuit board in the photo has an on board 5 VDC supply that takes a bit of current from the DCC signal.

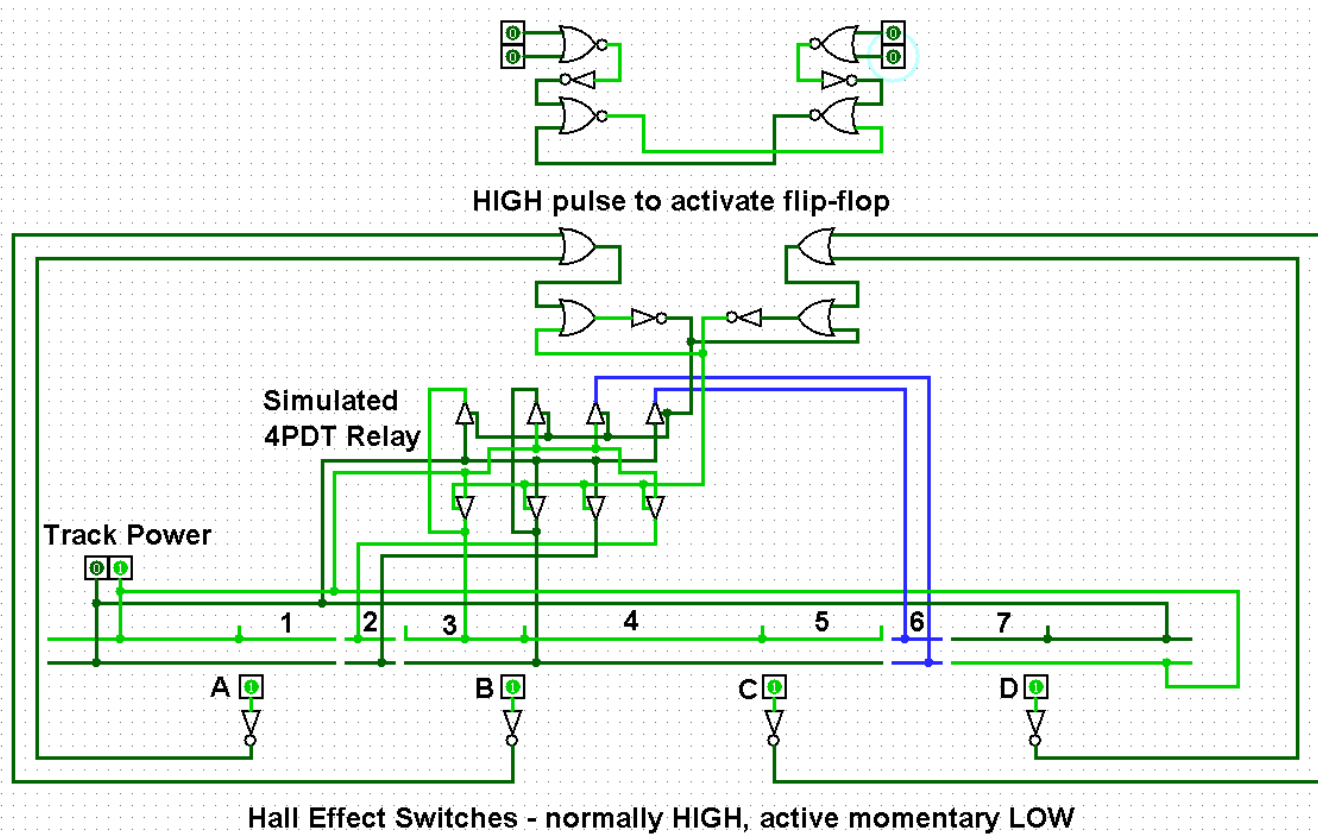
**Photo 4** shows one of my locomotives with the magnet attached.



**Photo 4:** This is an Atlas GP-9 with a magnet attached to one of the motor mounting screws. This was an easy install; others can get creative.

Why I would go looking for other means of detecting a train. I run some pretty long trains and don't have a track section long enough to fit the longer trains for a conventional reversing loop or track section. I came up with a system that would handle any length train - or so I thought.



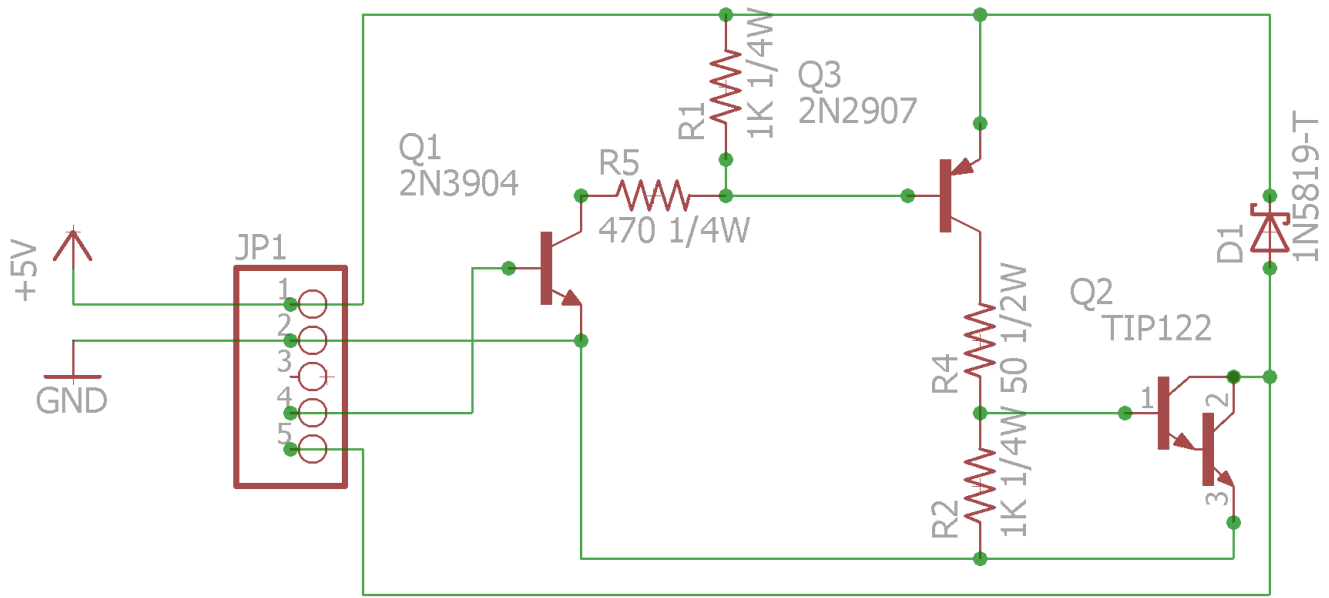


**Figure 3: A Logisim simulation of my current reverse track section. Logisim is a free download that I find useful in developing digital circuits.**

Originally the reverse section consisted of seven track sections (**Figure 3**). Sections 1, 3, 5, and 7 had current sensing block occupancy detectors connected to a 555 timer that generated a single pulse. It worked fine until I put resistors on my rolling stock and the cars were triggering blocks 1 and 3 while the locos were triggering blocks 5 and 7, creating complete chaos.

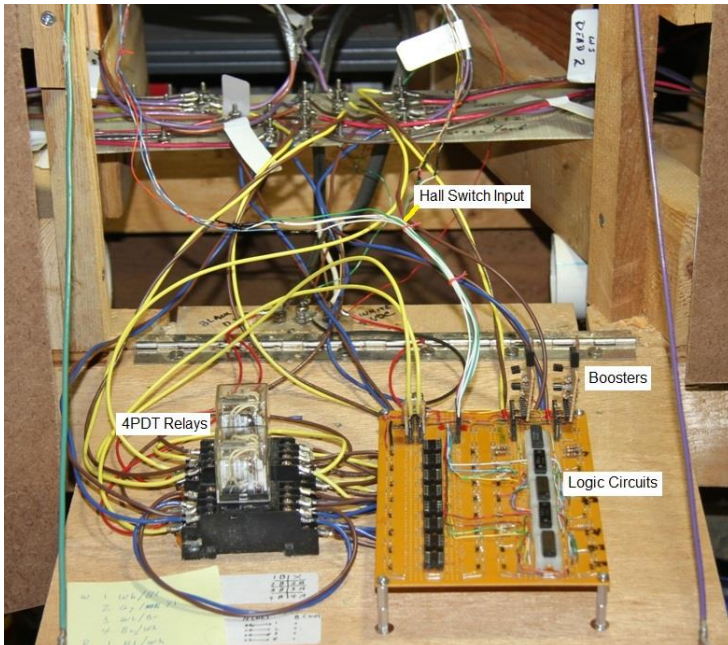
To fix the problem I placed Hall switches at locations A, B, C, and D. Blocks 1 and 7 were connected to their adjacent tracks and 3, 4, and 5 were all connected into a single block and now represent distances along the block. Light and dark green represent the two phases of the DCC signal. Blue indicates no connection. When a locomotive from the left triggers switch A the relay will flip, energizing block 2 and disconnecting block 6. As it continues it will trigger switch C and the relay will energize block 6 and disconnect block 2 and reverse the phase in the center section. Blocks 2 and 6 must be longer than the longest electrically active piece of rolling stock so it will not create a short circuit between adjacent sections. Sections 3 and 5 must be longer than the longest locomotive and the length of sections 3 or 5 plus 4 must be longer than the longest combined power. For a train moving left to right, neither switch A nor B can be triggered after switch C. The action will be similar for a train moving from right to left.

In order to accomplish this, the logic signal has to be amplified to drive the relay. I use a circuit taken from Bruce Chubb's book (**Figure 4**) to do this.



**Figure 4:** Q1 was on the CMRI output board. I used two 100-ohm 1/4 W resistors in place of the 50-ohm 1/2 W resistor in Bruce's book. Two holes near the plug were provided for D1 when an inductive load is present. Input is on pin 4, output on pin 5 (From Build Your Own Universal Computer Interface, 1989, by Bruce Chubb, with permission.)

So, now I have a foolproof occupancy detection system that I can use to trigger relays to operate track power (energizing blocks ahead and disconnecting other blocks), signals and other devices. Here is my homemade “circuit board” where all the magic happens (Photo 5).



**Photo 5:** This is the current installation on my layout. The empty sockets on the left side of the board held the 555 timers. The boosters are two of my old hand wired devices.

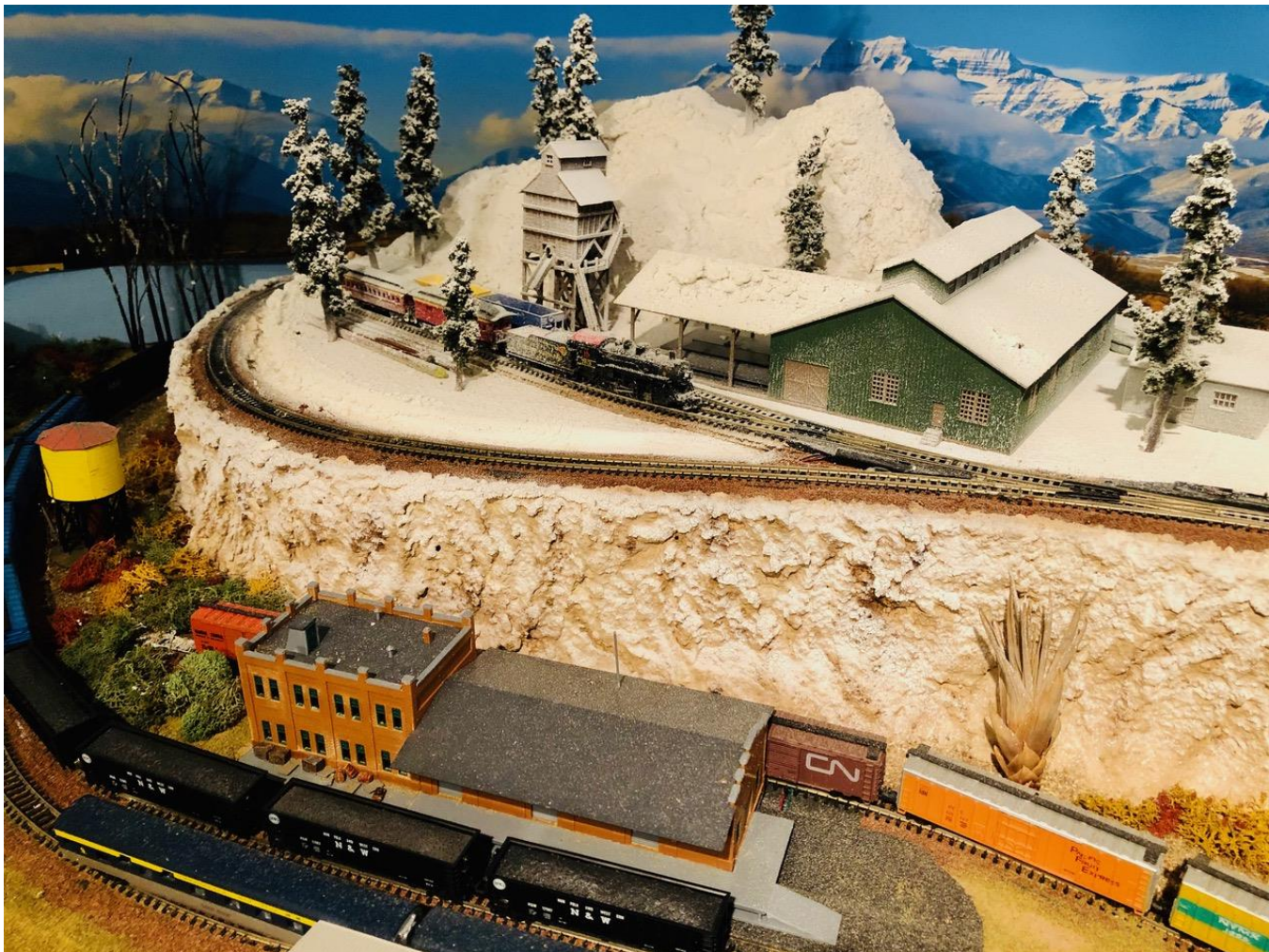
This is my first use of Hall switches, but I have some other applications that I will be exploring in the future.

**References:**

[Video from Model Railroad Academy on how to use a commercial device for DCC block occupancy detection.](#)

[Azatrax Circuits and Signals](#)

[Video on Arduino Block Signaling and other uses.](#)



**Winter Scene on Greg Warth's Blue Ridge and Southern RR**



## 2020 MER Annual Meeting (October 10, 2020) Report

### MER President Report (Thompson)

Since the beginning of the year, we have had a slow ramp up of the Coronavirus pandemic. By the end of February, all meetings and functions of the Divisions have been curtailed.

At this time, I have made two appointments: Sam Rogers as our new Executive Convention Committee chairman and Greg Warth as our incoming editor. I am happy that they have stepped up and offered their services to the Region. I also will to express my thanks to Eric Dervinis for his many years of service as the outgoing ECC and to Jack Dziadul for his willingness to take over the editorship of The Local on the “temporary” basis and to handle the smooth transition of the editorship.

At this time, I have been in contact with Neal Anderson, LCC for 2020 Charlotte. They are in a position to postpone their convention until 2022 if we decide not to go through with the Convention this year. We have until June 15 (120 days prior) to make the decision to cancel this year. If we postpone, I’ll have the ECC push the hotel to waive or mitigate the cancellation fee (\$3500.00). The hotel would not waive the fee so we will be looking at other facilities for the 2022 convention.

The biggest item has been the cancellation/postponement of the 2020 Charlotte convention. With that, we have moved to a Virtual BOD meeting format. In May we held an Executive Session to deal with a personnel matter. The Region has also prepared for our first Zoom BOD meeting and General Membership meeting.

NMRA National has put into place a new policy about how we as an organization deal with children and persons with diminished mental capacities. This policy restricts us, as an organization, from hosting any meeting directly aimed at persons under the age of majority. This does not restrict individual members from volunteering; it only restricts the organization from being the host or involved in any way.

National is also preparing a Region President’s Handbook. The virtual meetings for this are forthcoming. Along with myself, Scott Unger, incoming Vice President; Martin Brechbiel, MMR, Secretary; and Brian Kampshroer, Treasurer, will have attended.

I want to welcome to the BOD Scott Unger, who will take office, succeeding Ken Montero, as Mid-Eastern Region’s Vice President. I also want to thank Brian and Martin for running and serving another term in their respective offices.

### MER Vice President Report (Montero)

Activity since 2020 Mid-Year Meeting:

Activities involving each Division:

- No attendance at Division meets since November 2019 due to Covid-19 restrictions.
- Distributed and timely collected Division Certification Forms needed to renew NMRA insurance coverage for MER and its divisions.
- Distributed forms for Yearly Division Report, collected completed forms (Appendix A). This item has been submitted to The Local for inclusion in an upcoming issue.

- Reviewed for compliance with NMRA provisions – review has been completed (including obtaining guidance from NMRA Counsel as to various provisions and whether they complied with NMRA requirements). Results of that review have been transmitted to each Division.
- Reviewing proposed bylaws change to comply with NMRA and MER requirements for Divisions upon request.

Entities reporting to Vice President:

Executive Convention Chair:

Eric Dervinis retired, Sam Rogers is the new Executive Convention Chair.

2020 MER Convention in Charlotte, North Carolina, postponed until 2022. No 2020 convention due to Covid-19 conditions.

Dates for upcoming MER Conventions:

2021 – Mount Clair Junction - October 21-24, Hunt Valley (Baltimore area), Maryland.

2022 – Carolina Special - October 2023, Charlotte, North Carolina (this is the 2020 convention's new date).

Assistant Treasurer – Conventions:

No separate report. Processed all refunds for 2020 convention that have been presented to Assistant Treasurer.

Clinic coordinator:

2020 - No activity. No requests made. Position and program in transition.

Other Activity:

Sale of computer printer:

Concluded sale of computer printer for \$150.00.

Document retention:

Working to resolve disposition of existing records, also create a retention/disposition schedule.

Serving as Publisher of print version of The Local:

- Mailed the May-June, July-August and September-October issues.
- It appears that there will be 45 Life Members (one died on September 6) who will continue to receive the print version. Only 3 non-Life Member subscribers left – one ends in 2020 and the other two end in 2021.
- Exploring shift of this duty to Business Manager upon end of my term of office. Can continue to do so for now.

Fundraising:

Researched potential car kit fundraiser. See Director Foulke's report.

Travel expense policy:

Reviewed draft, provided input to Director Foulke.

**MER Treasurer Report (Kampschorer)**

Because of covid-19 causing the cancellation of the MER's major annual fund generator, the convention, our assets have declined. We have undertaken to minimize expenses where possible, but the cancellation itself caused us to incur unbudgeted expenses, mostly from hotel cancellation penalties.

The MER treasury does appear to have enough cash to weather a few years with no income other than the pitiful dues share provided by the NMRA. That share has actually dwindled over the past year and a half due to declining NMRA membership. We always get a boost in our membership in conjunction with the conventions. If we have to cancel another convention, the Treasurer strongly suggests the board consider some creative alternatives such as those I suggested in April in lieu of cancelling the hotel for 2020. Not only would that save on cancellation fees, but it could help increase our membership while providing alternative ways for our members to get the benefits of a convention without actually congregating.

**MER Director Report (Lauchle)**

General Contest Chairman, Alan Mende reports that he did not order award plaques for the 2020 MER Convention model contest because of the Convention cancellation.

MER Webmaster, Jeff Burch, continues to improve the mer-nmra.com website pages to eliminate the large amount of duplicated code. This has allowed updates to links and content to occur in only one place. Jeff improved the management and presentation of the 2018 and 2019 MER Convention contest winner pages as well as management of the MER officer and staff information. He has enabled the bi-monthly publication of the *eLocal* on the website. Jeff created a Facebook Group and pages for the MER membership to provide additional social media interaction, especially in the "new-normal" of 2020. Jeff has provided full support and instruction for web-conferencing (Zoom) which has been used for the 2020 Board and Annual meetings.

**MER Director Report (Morningstar)**Nominations/Balloting

Bob Minnis MMR, John Hoyt, and Martin Brechbiel, MMR have this year's election well under control. Ballots went out on time and the results are in and need to be reviewed and certified prior to announcing the winners. Vote participation was in line with previous years: 2020 29.8% voted, 2019 30% voted, 2018 27% and 2017 26%.

Local/eLocal

Greg Warth and Martin Brechbiel are doing an exemplary job of getting the newsletter out. We did review and prepare separate position descriptions for publisher and editor of the Local. This was accomplished in early July 2020.

Articles have been of relatively high quality and the MER should be proud of our all-volunteer editorial and publishing staff. All members are encouraged to consider writing something for the Local. We have plenty of "how to" information on how to structure and package your article for submission and publication.

Current circulation numbers (as of Sept 2020), thanks to John Hoyt for providing these:

eLocal vs. Printed Local Numbers:

Total Currently Subscribed to eLocal: 1,436



## Total Number of Paper Local Subscribers 49

Remember, that the eLocal provides not only many additional pages of content but the eLocal is in color versus the black and white printed copy. For those 49 remaining subscribers please reconsider the eLocal.

### Advertising

An extensive analysis of the competitive environment and the rates charged by other publications was conducted in Aug/Sep 2020. The initial analysis indicates the rates charged for the MER publication are significantly higher than rates charged by Model Railroader, RMC, NMRA National, and Model Railroad Hobbyist. This is counter-intuitive to the potential advertiser that would pay top dollar for the most limited circulation. Suggest we either revised the rate card or discontinue the effort to pursue advertising.

### **MER Director Report (Foulke)**

#### Archives

MER Archivist, Kevin O'Connor, has completed the compilation, digitizing, and filing of 2019 and 2020 to date MER reports newsletters, and other miscellaneous items. The Archivist has also compiled, digitized, and filed 2019 and 2020 Division newsletters and other information. The Archivist along with myself have been collaborating with the Vice-President on a document retention and storage policy for MER.

#### MER Merchandising and Fundraising

A Fundraising Committee has been formed to be comprised of myself and Director Bob Morningstar as Co-Chairs along with at-large members Michele Chance, Bob Charles, MMR, and Ken Montero. The fundraising committee will be investigating long-term projects of increasing major/legacy donations and special edition car kits. A short-term project will be a special edition golf shirt commemorating the 75<sup>th</sup> anniversary of the MER. It is hoped this special edition shirt will be available for order by second quarter of 2021.

#### Photography

With cancellation of the Annual Convention, there is nothing to report concerning photography.

#### Scouting

Long-term Scouting Coordinator Don Jennings has retired from the position of Scouting Coordinator. We want to thank Don for his many years of service to the MER. The MER President has appointed, and the Board has confirmed, Alan Hardee to be the new Scouting Coordinator. The new *At-Risk Persons Policy* of NMRA will limit the ability to directly support the Railroading Merit Badge. MER members should make themselves aware of the new policy. A new job description for the Scouting Coordinator has been developed, and is awaiting legal review from NMRA.

#### Travel and Expense Reimbursement Policy

In collaboration with the Vice-President, a written Travel and Expense Reimbursement Policy was developed and approved by the Board. This written policy codifies historical practices of the MER and conforms to "prevailing practices" for non-profit organizations.

#### Keeping MER Members Informed

In collaboration of Directors Lauchle and Morningstar, non-financial reporting to the general membership was investigated with regards to legal requirements, "best practices for non-profits", and security of information for both MER and its members. Based on this investigation, the Board has adopted guidelines to provide an Annual Report to be published in *The Local* after the Annual Members Meeting, and provide meeting minutes, reports and financial information to any MER member in good standing upon written request.

## Featured Layout...

# Building My HO Scale Layout

By Fred Humphrey (Superintendent of the Tidewater Division of the MER, NMRA)

I retired in 2010 from the Department of the Navy after 50 years of service. During my Navy days, I moved around a lot and was never able to build a permanent layout. This resulted in the purchase of many HO scale engines, rolling stock, track, switches, and much more over the course of 40 years, but without a place to put them. Finally, after retirement, a separate structure, 14' x 24', was built in the back yard, to house my future HO scale layout. The design is based on the Decatur, Illinois area, covering the period 1960 -1980. There were five Class I railroads serving Decatur during that time, which included Norfolk & Western (N&W), which merged with Wabash (WAB) in 1964, Illinois Central (IC), which became Illinois Central Gulf (ICG) in 1972, Baltimore & Ohio (B&O), which became part of Chesapeake-Seaboard (CSX) in 1980, Pennsylvania Railroad (PRR), which was incorporated into CONRAIL in 1976, and the Illinois Terminal Company (ITC), which became integrated with N&W in 1982. Using a wide time frame and having the flexibility of five Class I railroads in my design, provided many opportunities in building my layout and allowed for a variety of railroads that could be used during operational sessions.

The layout uses Digitrax DCC equipment in conjunction with five power bus lines for main line track power, yard track power, switch control power, block and crossing signal power, and structure lighting power. Power is supplied by one Digitrax power supply (PS2012) and two power boosters (DS150 and DS200+) with UR5 devices throughout the layout and one UR92 for throttle connections. The power boosters are split to support the power load equally between the layout's two levels.

Construction was moving along very nicely, but before I went any further, I decided it was time to ask fellow modelers to provide suggestions on how I could improve my design to support operational sessions. They provided several great ideas, which I adopted. The first was adding staging yards for each level, which were built in an adjoining area on the other side of the wall from the layout (**Photo 1**).



**Photo 1: Upper & Lower Staging Yards**

The staging yards' capacity then increased up to four more trains available for the dispatcher's release onto the layout from each level. Each staging yard has four tracks, and you can see that control panel frames have been installed with the control panel covers to be installed soon. Control panel LED lights will indicate the switch position (green) and which track has power (red). I have installed tortoise switch motors to provide slow motion effects. Landscaping and background will be added in the near future.

Train movement from the lower staging yard would travel through or by one of three yards on the lower level. The train would arrive at Decatur Yard first (**Photos 2, 3**). In **Photo 2**, you're looking west from Wabash Decatur Yard. Note the Baltimore & Ohio yard, which is in the back corner. **Photo 3** shows the Decatur Yard looking east with two main line tracks on the right, six classification yard tracks, the Baltimore & Ohio lead track second from the left, and finally, along the wall, you can see industry serviced by the Wabash, Baltimore & Ohio and/or Illinois Terminal Company railroads.



**Photo 2: Decatur Yard looking West**



**Photo 3: Decatur Yard looking East**

The layout will have many industries throughout. View **Photos 3-6** for some examples.



**Photo 4: Center Island looking East**



**Photo 5: Center Island looking West**

Another suggestion was to move the power plant atop the helix on the upper level to create a location for the unit coal train arrivals and departures (**Photo 6**). Staging the unit coal train on the lower staging yard provides for a long-distance travel to reach the power plant and then return to the lower staging yard with empty hoppers. Unit coal trains would have to travel the entire layout to accomplish its assignment. The outer loop is the arrival track while the middle loop is for empty hoppers ready for departure. The inner loop is the unloading loop.



**Photo 6: Power Plant for Unit Coal Trains**

Much work remains to be done to finish laying track, to make power connections and to create block assignment for improved signaling and detection.

**Photo 7** shows the work in progress to add a yard lead, realign classification switches, lay more track, improve locomotive service facility access and to



ensure that the Baltimore & Ohio yard and industry leads are accessible.



**Photo 7: Decatur Yard East End under Realignment**

Finally, **Photo 8** shows the last lower-level yard, which belongs to Illinois Central after crossing through the WABIC interlock. **Photo 1** shows the lower-level staging yard where trains would pass

through the wall and enter WABIC interlock prior to proceeding to Decatur Yard.

**Photo 8: Illinois Central Yard**

I'll provide updates in the future on lower-level improvements and highlight the upper level. I'll discuss several operational session challenges placed on the layout and why I used three types of switch controls on the layout. [Ed.: Every good series has a cliffhanger!]



## References:

Koester, Tony, *Realistic Model Railroad Design: Your Step-by-step Guide to Creating a Unique Operating Layout*, April 2004.

Armstrong, John, *Track Planning for Realistic Operation: Prototype Railroad Concepts for Your Model Railroad* (3<sup>rd</sup> Edition), January 2018

## The Last Stop...



The art of trains, railroads and the people who run them has not escaped the wonder of photographers and artists over the years. There are many who have spent their entire lives artistically displaying and romanticizing the great beasts that roam our countryside. O. Winston Link, Lucius Beebe, Charles Clegg, Jim Shaughnessy, and so many other photographers, and even artists like Claude Monet and Vincent Van Gogh were gripped at one time or another with the fascination of the iron horse. No less so are we model railroaders who go to great lengths to make our own three and even four (if you consider time and era) dimensional dioramas and layouts into works of art. Most model railroaders don't often think of themselves as artists, but when the scenery is completed and the railroad is operating well, it is a treasure to behold and to share.

Photographing your layout is an art in and of itself and another facet of model railroading that needs to be learned as a skill, just like all the other skills that make this such a fascinating hobby. Paul Dolkos comes to mind of course as one of the great model railroad photographers. Look no further than most of the layouts featured in the pages of *Model Railroader* to see his expertise in photography. His [Baltimore Harbor layout](#) is truly a work of art as well. His primary mantra about model railroad photography is to USE A TRIPOD, if you do nothing else.

To learn more about photographing your model railroad, check out this excellent video series by a professional layout photographer at [Atlas](#).

Railfanning photography also depends on proper techniques, many of which can be used for the model railroad as well. There are some stunning photographs in this article by Todd Vorenkamp, entitled [“15 Tips for Better Train and Railroad Photographs”](#), which appears on the B&H Photo website.

So, get out your camera and start shooting! Send some photos to *The Local*. We'd love to see them!

**Oh, and best wishes for a picture-perfect New Year!**