

Model Railroad Hobbyist magazine™

HAVING FUN WITH TRAINS

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STANDARD
Edition

April 2012

- Simple, realistic sagebrush trees
- Wired decoder installs
- Using photos to develop plans
- Google maps to study track routing
- Converters for model railroaders
and lots *more, inside ...*

**Mike Confalone's Allagash Railway
Modeling a Paper Mill**





Front Cover: Our April cover shows Mike Confalone's newly completed St. Regis Paper Mill scene on his Allagash Railway. In this issue, learn about Mike's simple but amazingly realistic techniques for modeling a modern paper mill. Cover photo by Mike Confalone.

ISSN 2152-7423

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Charlie Comstock, Editor

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Richard Bale, News and events
John Drye, N scale
Les Halmos, Modular railroading
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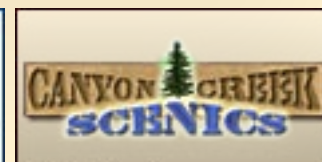
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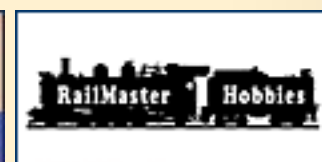
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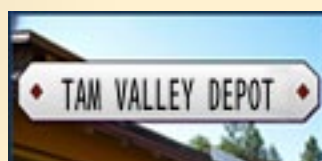
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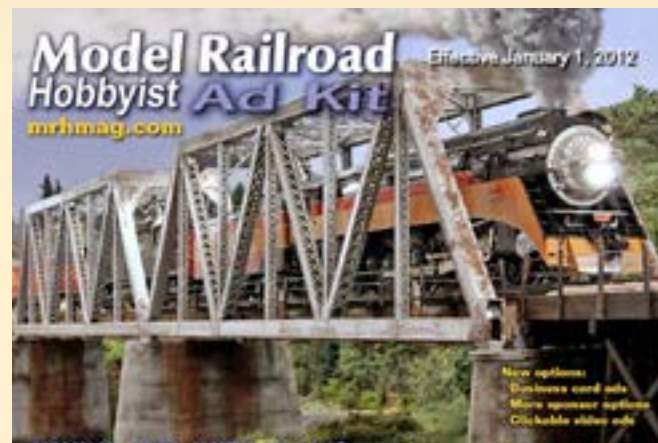
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For more model railroading products, including hard-to-find items, see our [Hobby Marketplace](#) on page 47.

..... When we said

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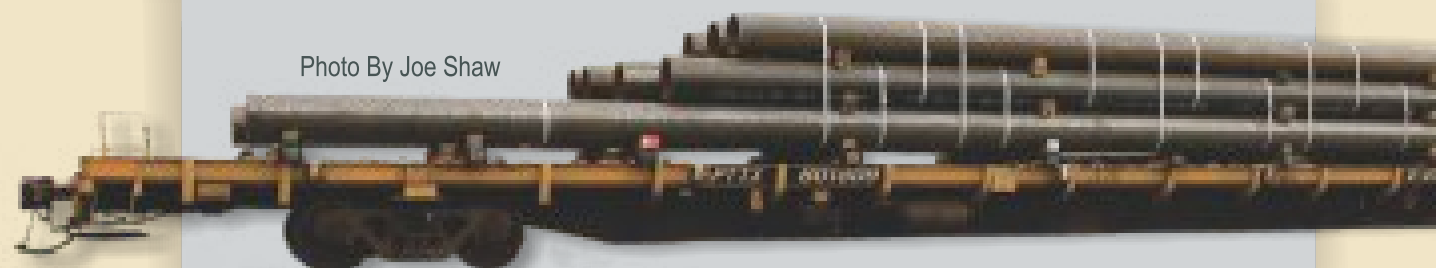
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.....

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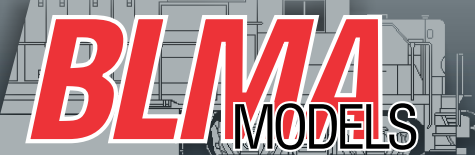
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Main Features

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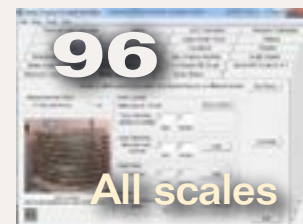
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Simple but effective model trees
by Dirk Reynolds



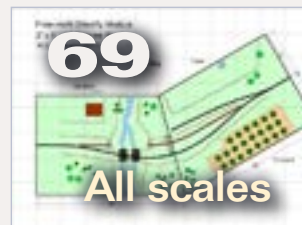
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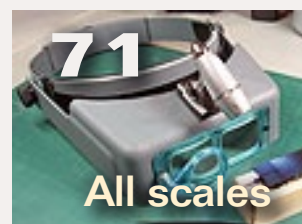
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About the Publisher



Joe Fugate is the featured expert in many [Model-Trains-Video.com](#) videos, and he's also the founder and publisher of **Model Railroad Hobbyist Magazine**.

To learn more about Joe, [click here](#).

PUBLISHER'S EDITORIAL: Wanted - Layout visit authors

Musings from MRH's founder



Charlie Comstock turned his editorial space over to me this month so I can make a plea for more article submissions.

Every week we get emails that go something like this:

"MRH needs more _____ articles" ... (just fill in the blank).

Of late, readers frequently place "layout visit" articles in that blank.

We agree! But we need to remind you: the MRH staff can't possibly write all the articles that are in MRH.

We depend heavily on you, the model railroading community, for most of our content.

This means if you want to see who is key to MRH publishing more articles on topics you like, go look in the mirror!

Even if you can't author those articles yourself, you maybe can help us find those who can.

Keep your eye out on the web for great model railroading YouTube videos, for helpful train-related forum posts, or for inspiring model railroad blogs or websites.

Or you may know someone in your local area who is doing cool stuff in the hobby.

Don't keep this to yourself!

Use our [contact us page](#) to give us a heads up. Best of all, you can encourage the modeler to contact us himself. Just give him or her this link:

mrhmag.com/contact_us

LAYOUT VISITS

While we can use articles on just about any model railroading topic, as mentioned, we need layout visit articles most of all.

Flying MRH staff all around to do layout visit articles just isn't practical for a lot of reasons, including time and cost. Most of the staff have their own columns and modeling work they need to do for the monthly issues.

Enter you, our readers. Many of you know of one or more nice layouts local to you that haven't been published, or at least haven't had an update lately even if they have been in the hobby press.

Why not do a layout article for us? If you can write well enough to send a coherent email, then you qualify for the text part. If you can take reasonably decent model photo, then you

can probably handle the layout photos piece. If you can run a digital video camera, then you can create video for a layout article.

Even if you're not sure you can do all this well, you probably know someone who can.

See this issue's *Staff Notes* for a more in-depth discussion of what's in a good MRH layout visit article.

Don't just expect we have plenty of this kind of content without your help. Truth is, we don't.

So remember, the next time you want more of something covered in MRH, go look in the mirror and ask yourself what YOU are doing to help see that hole gets filled in our content mix.

This is YOUR magazine as much as it is anyone's. It will only be as good as the articles that get submitted. We can't publish it if we don't get it!

Click the comment button on this editorial and tell us your thoughts about how we can work together to make MRH better with more great article submissions!

MODEL RAILROAD HOBBYIST MAGAZINE

STATEMENT OF OWNERSHIP, MANAGEMENT, AND AUDIENCE¹

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Editor: Charlie Comstock

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Extent and Nature of Audience² as of Feb 1, 2012

Total unique monthly audience: 64,662

Total monthly website visits: 133,094

Average duration of website visit: 5:37

Percentage of OS/devices used to visit:

- Windows: 78.7%
- Macintosh: 12.1%
- iPad: 4.4%
- Android: 1.8%
- Linux: 1.4%
- iPhone: 1.2%
- All others: 0.4%

Percentage of browsers used to visit:

- Internet Explorer: 43.4%
- Firefox: 26.7%
- Safari: 14.5%
- Chrome: 11.8%
- All others: 3.6%

Total mailing list subscribers: 19,780

I certify that the statements made above are correct and complete.

Joe D Fugate Sr., CEO and Publisher
Model Railroad Hobbyist Magazine

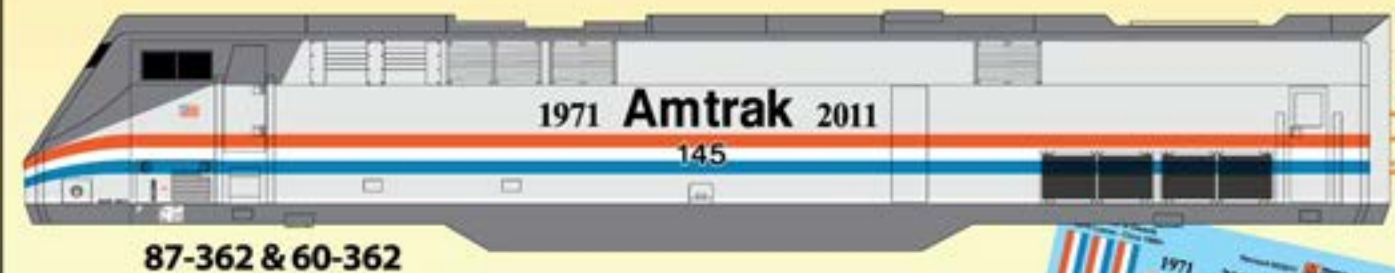
¹ Per the Audit Bureau of Circulation, Interactive (ABCI) and the Interactive Advertising Bureau (IAB), a totally digital publication such as Model Railroad Hobbyist must measure "circulation" by tracking Audience per publishing cycle (monthly in the case of MRH) since there is no direct physical publication to count. The Audience statistics reported here follow the strict guidelines set forth in this document published by the IAB and endorsed by the ABCI: http://www.iab.net/media/file/audience_reach_Q22009.pdf

² Computed and provided by Google Analytics (and can be independently verified by Google as correct and complete).

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Notes from the

MRH STAFF

What's a good layout tour article, how we roll out issues, MRH wanted ...



What's a good layout tour?

Model Railroad Hobbyist takes a very deliberate and different approach to layout tour articles, in case you hadn't noticed.

We want the *hobbyist* to be a key part of any layout article ("Hobbyist" is in our name, after all), so we prefer an interview format for layout tours.

This issue's editorial includes a plea for more of you readers out there to start thinking about doing a layout tour (or two) of some notable layouts close to you. Since we pay for article submissions, here's a way to underwrite some of your hobby!

First, a general comment about writing an article for us, and then on to some layout tour article specifics.

If you want to increase the chances your article submission will get accepted by us, you need to do your homework. Since we're the one doing

the buying, that means we're the customer – so you need to give us a product we *want to buy*.

Look at past articles of the type you want to write and pay close attention to how we approach the subject. You would be surprised how many submissions we get that *do not* follow our approach!

If you try to follow our approach to a topic, that immediately makes your submission stand out from the pack – and standing out is a good thing when you're trying to sell something to a publisher.

Specifically for layout tour articles, it's important you ask questions that

Your rating: 
Your rating: 5 (votes)

March's ratings

The five top-rated articles in the [March 2012](#) issue of MRH are:

- 4.6 DCC Impulses - Lights - LED style
 - 4.5 Getting Real - Mocking up a junction
 - 4.5 Weathering a Scrap Metal Gondola
 - 4.4 Operating on the Willoughby Line
 - 4.3 Semaphore signal using a servo
- Issue overall: 4.5

Please rate the articles!

Click the reader feedback button on each article and select the star rating you think each article deserves. *Thank you!*

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probe what the layout owner was thinking when they designed their layout. Our readers like layout articles that get inside the head of the owner.

If our readers can see more of the thinking behind a layout, our readers can learn from these insights and better apply them to their own layout projects.

Go beyond the “you made the benchwork with wood and the scenery with plaster” sort of questions. Here’s a few sample questions:

- Why did you choose the scale you chose?
- Why did you choose to model this prototype and era?
- What challenges did you face in designing the track plan?
- Why did you pick the benchwork height and width you’re using?
- What’s your favorite part of this layout? What’s your least favorite?
- If you were to do this all over again, what would you do differently?

It’s questions like these that benefit our readers most, so probe, probe, probe!

In a good layout tour article, not only do we expect to see entertaining text and still photos, we need at least a rough sketch of the track plan and some overall room photos so we can see how the layout fits in the room. Finally, shoot some video footage of

the layout interview and some video of trains in action on the layout.

For a layout article, we video record the entire interview. Then we take the audio track and run it through some transcription software to turn it into text we can then spell check and edit.

Modern transcription software’s getting pretty good, so if you’d like some advice, just use the [contact us](#) link to ask us for advice and we’re happy to give it if it means we might get an article!

How we roll out an issue

Invariably when we do an early release of an issue to the website, we get someone telling us we forgot to update the “current issue” links on the site.

That’s deliberate, actually.

If we can, we like to do an early bird release to the MRH web site on the weekend before an issue release, to allow the issue to “bake in” before we release it to the masses.

If we find a bad link or some such, it’s much easier to just fix it and do another quiet release to the website first. The last thing we want to have happen is to release an issue with a glitch in it to 60,000 modelers.

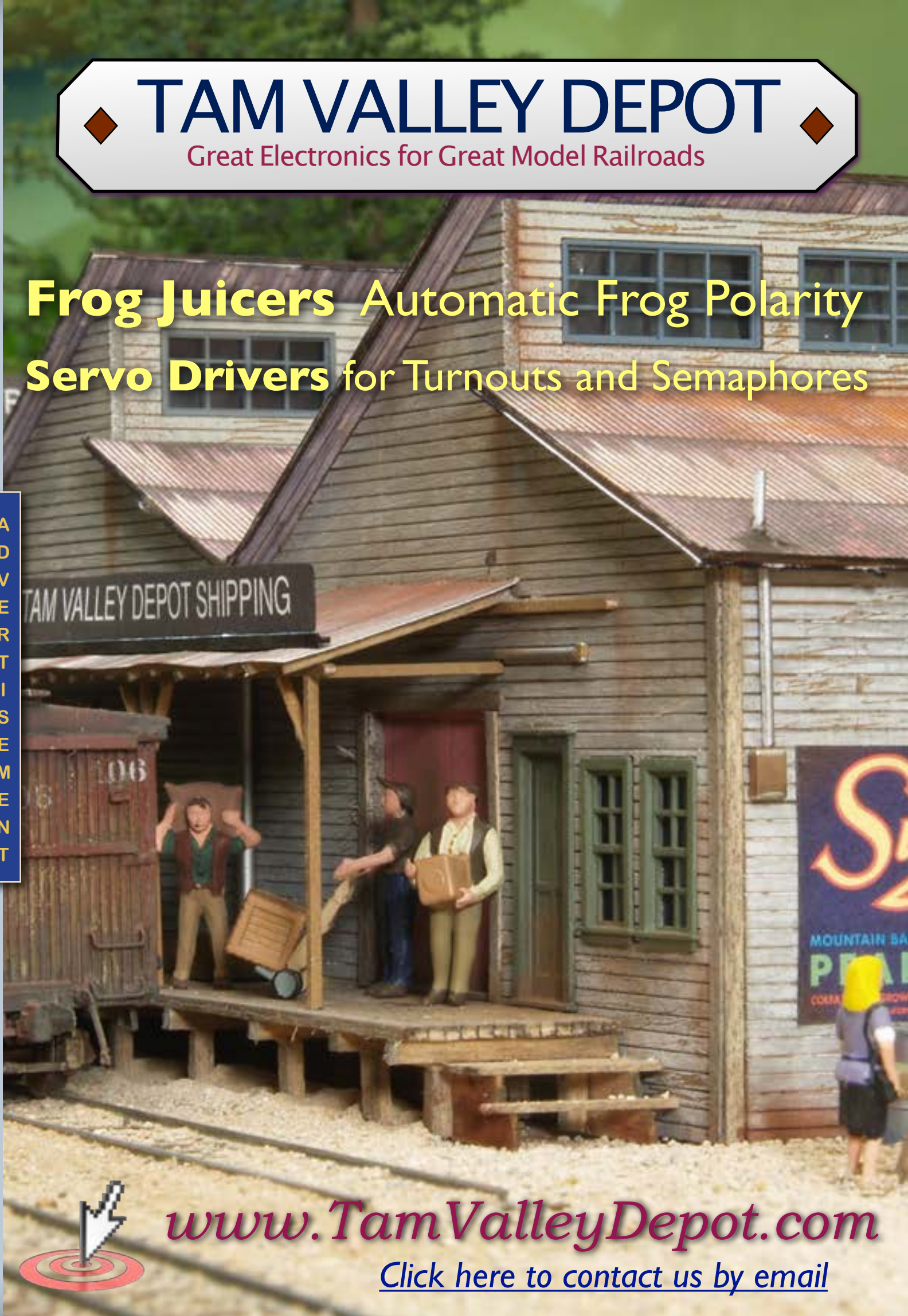
So that’s why we do a quiet early release to the website the weekend before. We don’t change the current

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issue link until the first Monday of the month, which is our official release date for each monthly issue.

Wanted: Grand Rapids modeler

Any modelers out there who live in the Grand Rapids area?

Would you like a free registration to the NMRA national in Grand Rapids this year?

MRH is looking for a local Grand Rapids modeler who can help us out at the National Train Show this August. In exchange for your assistance, we'll pay for your registration to the convention.

We like to engage a local modeler because they know the area and can help us with quick errands to the local office supply store or help ferry us back and forth to the airport.

Not only do you get a free registration to the convention out of the deal, but we also give you an official MRH golf shirt that's yours to keep.

If you might be a candidate, please use the [Help at a show link](#) to let us know you might be interested.

Downloads not working?

Every month, we get one or two of you who tell us their download isn't working. Most often, they're telling us



Figure 1: If you're having download problems with an issue, try the green button: Other copy options. That usually solves it.

the download gets to 99% and then just hangs.

This sort of thing can happen because the internet is not a static network. Most connections involve lots of hops through many different places

between our servers and your computer or device, and if anything in that network is different this month, the download might behave differently.

That's why we include things like the mirror site as well as the primary site.

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(Photo from our N-Scale layout)

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If changing to the mirror doesn't help, then try the green "Other copy options" button (see figure 1, previous page).

If the green button doesn't solve the problem, then send us a message.

Commenting on articles

We've seen several new threads popping up on the MRH web site commenting on articles.

We prefer that you not start a new thread, but instead you use the *Black and Orange Reader Feedback button* to post your comments on the comment thread designed to tie to the actual article. That way everyone can enjoy your comments and won't have to hunt to find them.

Wanted: Track plan artists

Another thing we could use is some skilled track plan artists. If you're out there, we'd like to send you an occasional track plan assignment that goes with an article.

If you've got some skill in this area and might like to get an occasional assignment from us for pay, please let us know using [Contact us](#).

Boo-boos last issue

We missed a couple of things last issue. First, Marty McGuirk included a

very nice video with his Getting Real column, and that never made it in. You can watch it here:

<http://www.youtube.com/watch?v=Wzvn6nQzpA0>

Next, a mistake crept into Bruce Petrarca's DCC Impulses column. If you want the correction details, please see this link:

http://mrhmag.com/magazine/mrh-2012-03-mar/dcc_impulses#comment-59351

In this issue

The cover story in April is Mike Confalone's amazing St. Regis paper mill scene. Mike uses some novel tricks in modeling this scene, and in this issue we give you the first of 3 parts on the process. Mike also sent us almost 3 hours of video! It was too much video for the magazine, so we're releasing it as a full-length video instead that you can purchase.

Mike's video is available either as an actual DVD (limited run of 1000) or as downloadable video in three formats: mobile (great for smartphones), DVD or HD.

We also have the next installment of Bruce Petrarca's popular DCC column. In this issue, we have doing N scale wired installs. We think you'll find Bruce's pointers help make those wired decoder installs a lot less painful.

Jack Burgess does the Getting Real column this month, describing in some detail how to develop model making plans from photos. We're delighted to give you many pages of details on how Jack does this, and we're pleased we can give this topic all the pages it really deserves.

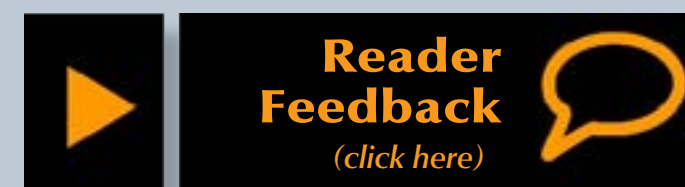
John Drye, our N-scale columnist, shows you how to take an out-of-the-box Walthers mine and turn it into something special.

We have a couple of Modeler's Workbench pieces this issue - they're essentially a short one evening project that we feel can use some extra detail, so we give them 3 or 4 pages instead of the one page usually devoted to the one evening projects.

Jeff Shultz's First Look this issue provides a good look at some model railroader converter programs we think you'll find quite helpful.

And finally, we devote a number of pages to part 2 of the popular NCO "prototype you can model" feature started in March. The NCO feature this issue includes a lengthy demo video on how to use Google Maps to do awesome prototype railfanning research right from your computer.

Enjoy!



April 2012 Premium Extras!

Available to subscribers!

DVD and HD quality versions of:

- St. Regis Paper mill, pt 1 video
- Google Maps demo

Getting Real column spreadsheet:

- Plans from Photos

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Layout tours – Trackwork – Structures – News – Track Planning – Benchwork – Electronics – Narrow Gauge – Humor – Contrarian Opinions – New techniques – DCC – Modular modeling – Modeling water – First looks – Rolling stock – Signals – Curvature guidelines – Clickable ad links – Video – Operation – Prototype modeling – Lighting – MRH forum – Interactive reader feedback – Building signs – Modeling the Modern Era – Critters – The Scenery Scene – Painting equipment – Rolling stock tuning – The Tool Shed – Layout coverage – Interviews – Show floor coverage – Static grass guns – Kitbashing – LED lighting – Scratch building – Highway stripes

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Questions, Answers and Tips



QUESTIONS AND ANSWERS

Q. I'm having difficulty understanding the difference between a Canadian cab, Canadian safety cab, wide-nose cab, and whisper cab? Please explain.

A. The short answer is that although they look pretty much the same, there are significant differences inside. Here are the details:

In the early 1970s the Montreal Locomotive Works (MLW) developed a unique cab that incorporated collision protection and several comfort accommodations for crew members. Improvements included electrically heated windows, significantly improved weather stripping on the cab doors, and widening the nose to create additional space for crew

members to move about. For the safety of the crew, the widened nose was heavily reinforced.

Rather than the regular sheet metal used on locomotive bodies, the wide nose was fabricated from 3/8" steel plate with additional bracing behind the plating. Windows in the cab were fitted with glass capable of withstanding the impact of a cinder block or a .22 caliber bullet. Canadian National specified safety cabs on 51 GP38-2 locomotives it ordered from MLW in 1973.

Although EMD built the FP45 and DDA40X locomotives of the 1960s with full-width noses, they were not designed with the advanced collision protection and crew

accommodations of the MLW safety cab. More recent developments include EMD's Whisper Cab in which the cab is acoustically isolated from the rest of the engine. On occasion, locomotives with wide noses had a W added to the model number (GP40-2W) but this was not an official designation of the manufacturer

and was generally used only in advertising and by railfans.

You will occasionally read references to "wide-cab" locomotives. All of the cabs are pretty much the same width – it's the noses that change.

Canadian modelers seem to favor the terms Comfort Cab or Safety Cab,



Figure 1: The difference between a standard and a wide nose GP38-2s is clearly illustrated in Athearn's HO scale model. The standard-nose SP version replicates a locomotive built by EMD in 1980, while the CN model is of a wide-nose locomotive built by MLW in the early 1970s.

while modelers from the States prefer calling them a Canadian Cab. The choice is yours.

– Richard Bale

Q: What's a good base color for concrete roads?

A: MRH editor Charlie Comstock and professional layout builder Lance Mindheim build their roads from styrene – generally .060" thickness is strong enough to hold up, yet thin enough to cut easily, and flexible enough to handle a little rise and fall. Styrene is much longer-lived around water-based scenery and ballasting techniques. Plaster is slower, generates dust, and requires building forms to get precise edges.

Lance recommends spraying Rustoleum Light Gray Primer as a base asphalt color, and sets off repair patches by masking and spraying them with on a lighter gray such as Testors Flat Light Aircraft Gray (pn1233). They could also simply be masked until the weathering process is complete, and the masks then peeled off to reveal "fresh concrete." Lance recommends using an even lighter gray, Model Master Light Gray (FS 36495), for sidewalks that don't get the rubber marks and oil drips of a highway.

Before buying new paint, check your supplies. You're looking for a light or medium gray with subtle hints of brown, blue and yellow. Stay away from grays with green tones. Or, check streets and sidewalks around

you for the prevalent color. Charlie is more succinct: "cheap gray primer" is his recommendation, with Polly Scale Concrete as a light top coat before weathering.

Both expert modelers advise adding center stripes and fog lines on the edges of the road (depending on your era) by masking with blue painters tape and spraying lightly with flat Reefer White or flat Reefer Yellow. Striping tape is too shiny, too regular, and doesn't take weathering well.

Lance likes to complete his roads with a thin airbrushed wash of India ink and alcohol (2 teaspoons India ink in 1 pint of alcohol); Charlie favors an light overspray of thinned light gray to blend in all the colors.

For more information about road widths and striping, adding cracks and other signs of wear, and more details, look at <http://www.lancemindheim.com/roads.htm> and at Charlie's "Up the Creek" column in the May-June 2010 MRH at <http://model-railroad-hobbyist.com/magazine/mrh-2010-MayJun>

– MRH

Q: In various books and magazine articles about steam-era freight cars, I see references to "Builders Photos." I'm curious about such obviously posed photos and what their specific purpose was? I've also noticed that in some builders photos the trucks appear to be whitewashed.

A. Noted railroad historian Richard Hendrickson says: Every railroad's



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mechanical department maintained files of the photos the builders were required to provide as part of the contract when new freight cars were ordered, and those photo files were preserved at least until the last of the cars were retired and off the roster. Presumably those photos were used if a car was to be repaired or modified to show how it appeared when delivered new.

On larger railroads like the Santa Fe, the photo files were located at mechanical department headquarters in Topeka, as well as at other major car shops (e.g., West Wichita, Argentine, Cleburne, Albuquerque, San Bernardino). Purchase contracts

typically called for the car builders to deliver 10 or 12 copies of each photo, so there would have been enough to go around, and in some cases the lienholder would want concrete evidence showing what was being financed.

There were numerous photos showing, at a minimum, both sides broadside, both sides in 3/4 or 7/8 views from each end, both ends, and roofs. The railroads themselves made those photos if cars were built new or extensively rebuilt in company shops rather than by a commercial car builder.

In the steam/early diesel era, several builders were in the habit of whitewashing underbodies, air

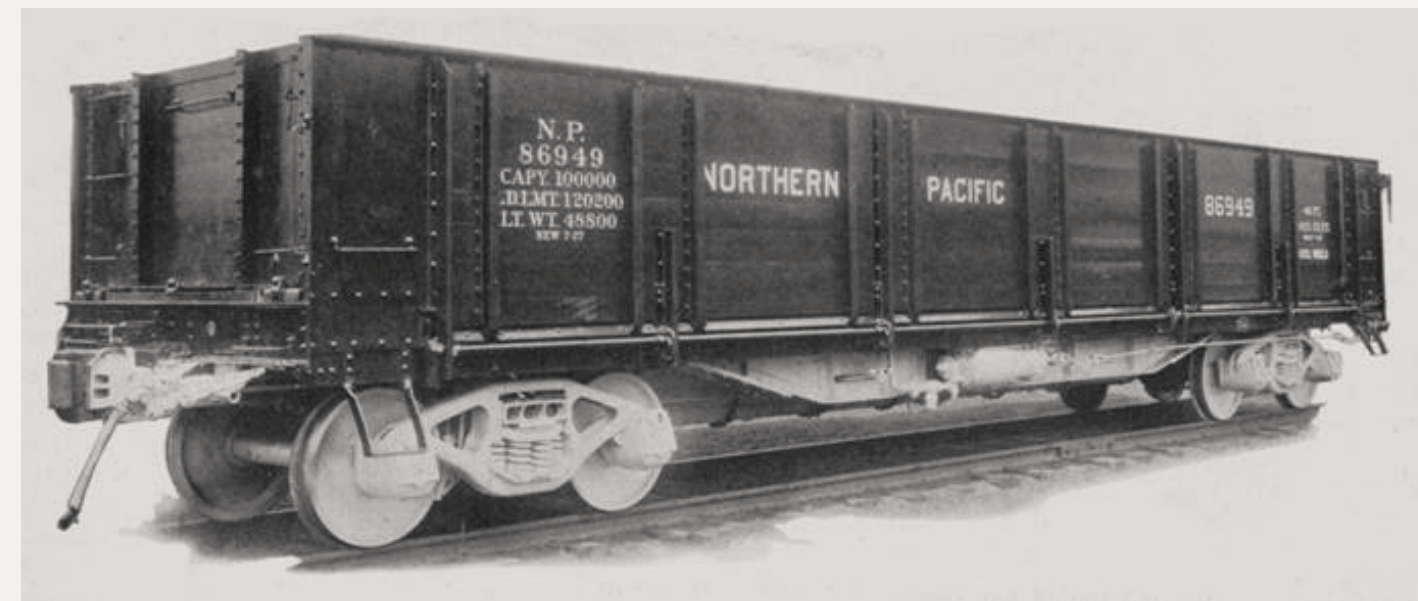


Figure 2: Builders photo of a Hart convertible car built for the Northern Pacific by the Roger Ballast Car Company in 1927. – Richard Bale collection.

brake equipment, and wheels and/or trucks so that details in those shadowy locations would be clearly

visible in the photos. Water-soluble paint was apparently used for this purpose, as the car was then cleaned

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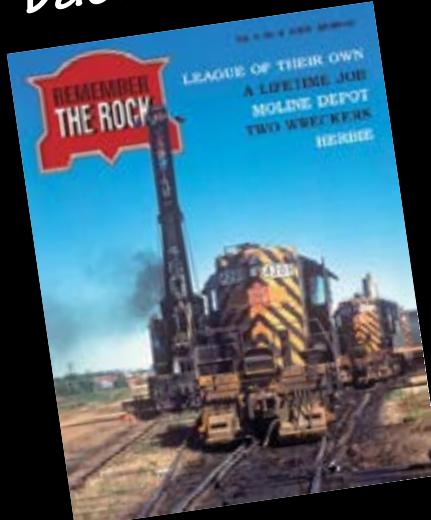
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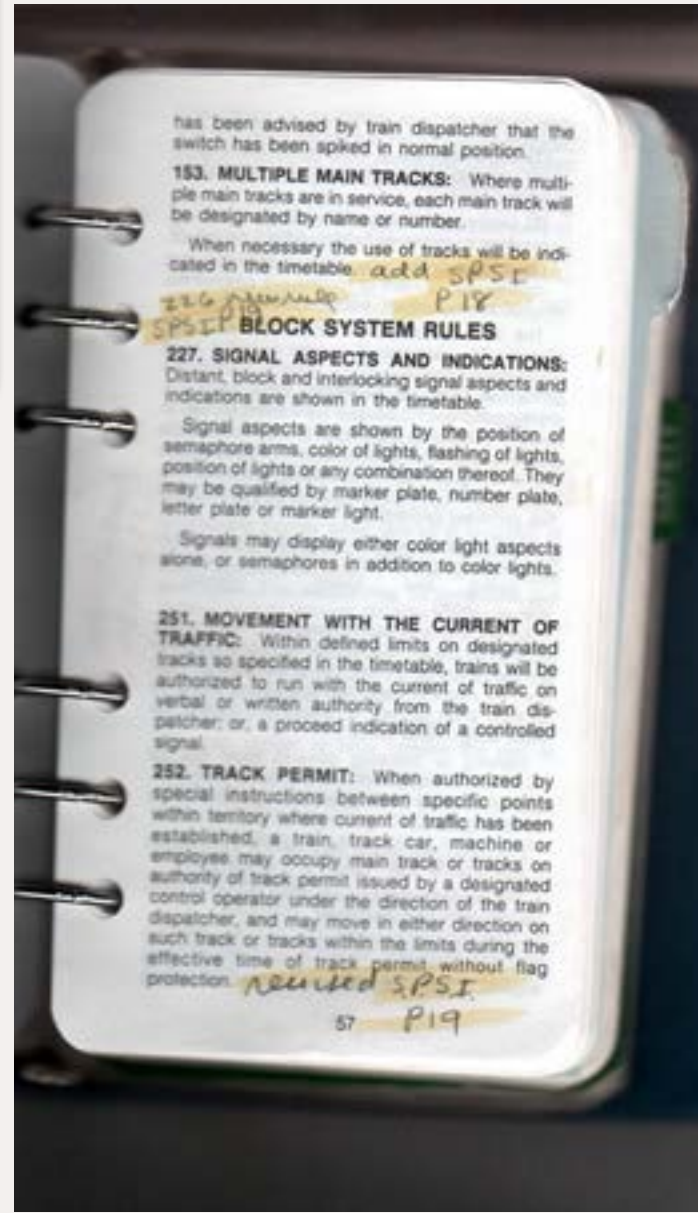
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and delivered to the owner in whatever paint color was specified in the contract.

— Richard Hendrickson

Q: In an article about 1960s railroading, I ran across the phrase “251 territory.” I gather it had to do with signals and operations. Can you explain?

A. Rule 251, in both the General Code of Operating Rules, and in many railroads’ individual rule books, governs the movement of trains in the same direction by block signals.



The Union Pacific’s 1972 rule book says “On portions of the railroad and on designated tracks so specified in the timetable, trains will run with reference to other trains in the same direction by block signals whose indications will supersede the superiority of trains.”

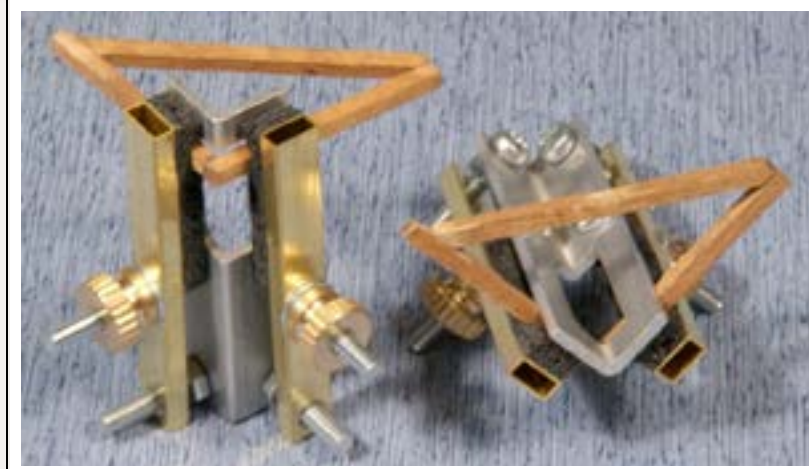
The GCOR Rule 251 is worded differently: “Movement with the Current of Traffic: Within defined limits on designated tracks so specified in the timetable, trains will be authorized to run with the current of traffic on verbal or written authority from the train dispatcher; or a proceed indication of a controlled signal.”

Unlike a Centralized Traffic Control (CTC) system, in which the dispatcher controls the signal indication, an Automatic Block System (ABS) detects track occupancy by passing a low-voltage current through the track between signal positions to see if the circuit is closed, open, or shorted. Metal wheels and axles will pass current from one rail to the other and short the circuit. If ABS “sees” that the circuit is shorted between two signals, it understands that a train or obstruction is in its block and will display a restricting or stop indication in the blocks on either side.

ABS, which is less expensive to install than CTC, was often used on double track rail lines that carried more traffic than time table and train order or

Figure 2: Rule books are interesting collectibles and help to explain some of the fine points of railroading.

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other manual signaling could handle safely. Trains running in the same direction could maintain a safe distance by following occupancy indications. A green 'clear' signal meant the block ahead was not occupied; a yellow 'restricting' showed track occupancy ahead and required a speed reduction. ABS would be set to cover train movements only in a single direction for each track. Trains operating against the established flow ("current") of traffic would still require train orders or other special manual protections to prevent a collision.

A distinction has to be made between "double track" and "2 main tracks"

(often marked in time tables as 2MT). Double track is signaled for operation in only one direction. Most North American railroads (the Chicago North Western was the main exception) signaled double track for right-hand running. 2MT or multiple main tracks can have bi-directional signalling, or none at all, depending on how the segment is dispatched.

Some low-traffic single track main lines used bi-directional ABS systems but because it was single track, there was no dominant current of traffic. In this case, railroads used additional traffic control in the form of train order and timetable, or a modern equivalent such as track warrant control. Opposing trains would still need to clear the main track based on their superiority or instructions, but trains moving in the same direction could follow one another based on signal indication. This eliminated the need for some of the previously required flagging procedures to protect the rear of trains.

UP dispatcher Richard Pennisi wrote an excellent article on Rule 251 running on the Rawlins, Wyoming subdivision in Volume 3, Number 1 of "The Streamliner" published by the Union Pacific Historical Society. Back issue numbers are limited but available at <http://www.uphs.org/store/>.

– Joe Brugger

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Bruce Petrarca is a well-known expert on all things DCC.

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DCC Impulses: N-scale Decoder Installations

An Extravaganza for a Smaller Scale



From theory to the real world!

I have developed a lot of theory over the first half-dozen columns. Now is time to show you all how I applied it. This month we will jump into the world of non-sound N-scale installations. I've assembled photos and notes from the decade that I owned Litchfield Station. After each example, I'll explain how I would tackle that loco today.

Whenever I read anything about DCC, I pick up ideas. Personally, I model in HO and Fn3 (1:20.3 scale, narrow gauge). However, I've used concepts from many other scales. There is something for every DCC operator somewhere in this month's column.

Also this month, I'm introducing a new section, "SMP from Mr. DCC." SMP comes from the Amtrak world for Standard Maintenance Procedure. Here I plan to offer a quick tip each month for you all. It may be something that many folks know. However, if just one person benefits from it, I will have succeeded! Check the sidebar in this and future columns for this

new feature. This month deals with an issue that torments many Digitrax system users.

Let's get going!

I find that recently-designed N-scale locos are some of the easiest to put a decoder into. Why? Because, in many cases, the engineering has been done for you. But, there are some engineering blunders, too.

These will not be step-by-step installation guides, but rather, an example of how things have successfully been done. Once you know your final target, you can frequently find step-by-step guides on the web.

I list these examples alphabetically. You will find references to materials, supplies and techniques that were mentioned in prior columns. If something doesn't make sense, look at prior columns. You do have all the issues of MRH saved on at least one of your computers, don't you? You can build a complete library of all the MRH issues for free right now. Just go to the web site (model-railroad-hobbyist.com/magazine/back-issues) and download the back issues.

In several of these installations, I mention LED lights. I covered preparing them and even had a video (www.youtube.com/watch?v=SI5YVGzGWUs) in last



Figure 1: N scale Athearn F59PH with Lenz Silver Mini decoder.

month's column (mrhmag.com/magazine/mrh-2012-03-mar/dcc_impulses).

N scale Athearn F59PH

The Coaster loco shown in figure 1 (previous page) used a Lenz Silver Mini decoder for light and motor control. The trick was to find the correct places on the Athearn board to connect the decoder and cut the necessary traces.

I traced the LED, resistor, rail and motor connections visually on the board. I then used a hobby cut-off wheel or hobby knife to slice the copper traces without cutting through the board.

Next I wired a Lenz Silver Mini decoder as if it were a conventional

installation, just using the circuit board for support and for connecting points. The decoder was held to the top of the board with Kapton tape.

If I were to do this installation today, I would use the Lenz Silver Mini or TCS M1 decoder. Their precise motor control makes this model a smooth runner.

N scale early Atlas GP-7

Figure 2 shows a classic example from the pre-DCC era. Most of the Atlas diesels from the 1990s were built this way. There was no place in this design for a traditional decoder. I had to completely disassemble the loco and rebuild it from the ground up.

I installed a Lenz LE077XF decoder into a frame modified by Aztec (www.aztectrains.com/dccframes.html).

Aztec exchanges your frame for one that it has in stock already machined such that it will isolate the motor and provide clearance for decoder mounting.

I completely disassembled the loco and sent the frame halves to Aztec. While I was waiting for the machined frame parts to be sent back, I cleaned and lubed the motor, gear train and trucks.

When the new frames arrived, I rebuilt the loco and wired the decoder. Aztec's detailed instructions led me to modify the Atlas light board and to cut the decoder leads to the proper length. I stuck the decoder down with carpet tape as shown in figure 2. I prepared an LED and attached it for the rear light.

Many Atlas and Kato diesel locos were similarly designed and can be converted this way.

If I were to do this installation today, I would use a TCS CN series decoder as shown in the Atlas RS-3 installation later in this column.

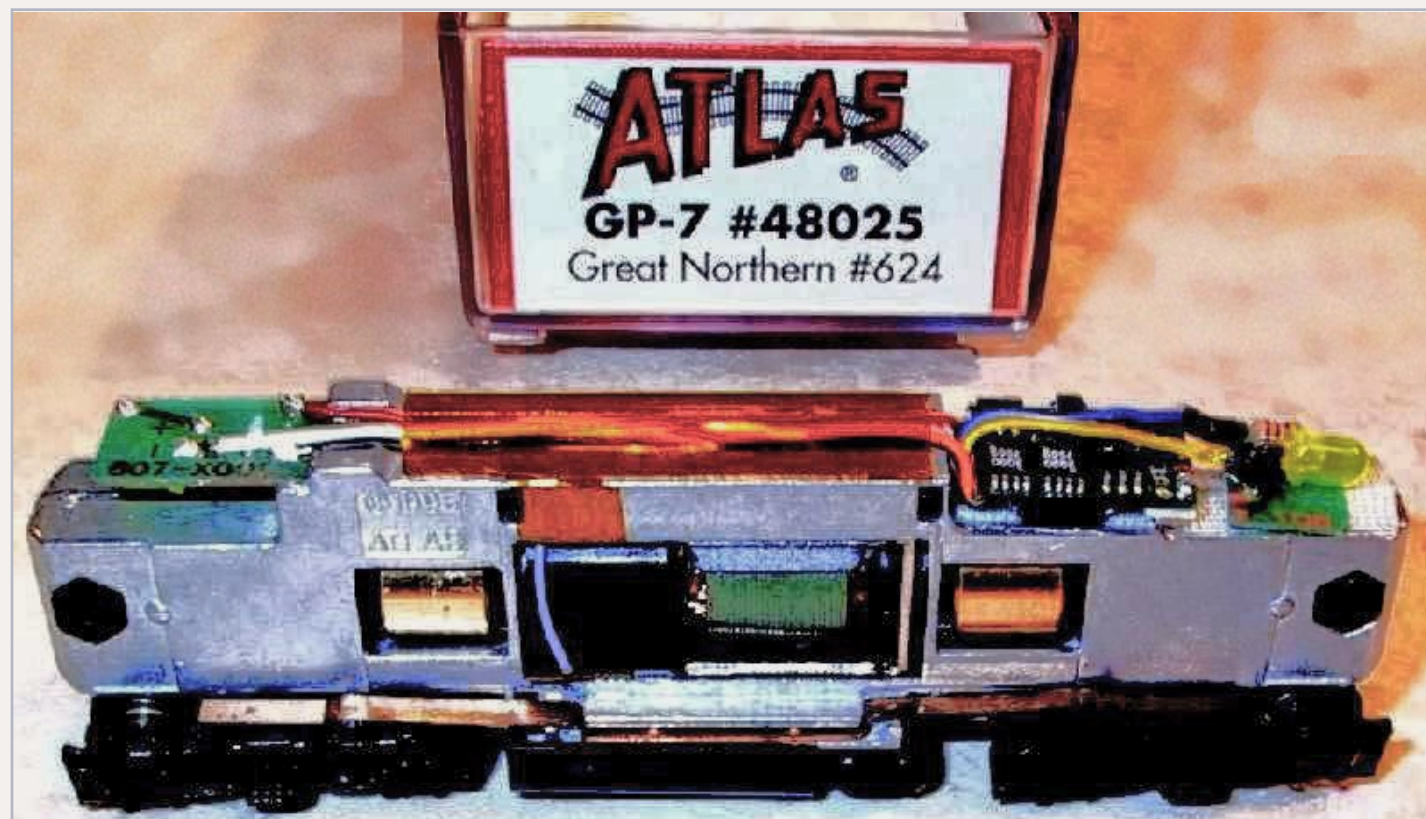


Figure 2: N scale early Atlas GP-7.

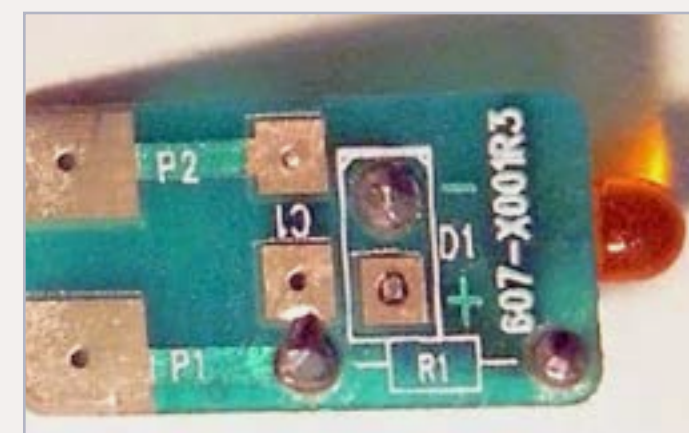


Figure 3: Unmodified Atlas N scale light board.

N scale Atlas GP-38

Towards the end of the millennium, loco manufacturers became more "DCC aware." Figure 4 shows an Atlas offering from that era. It was designed with a one-piece light board running the length of the loco with motor power distribution on that board. Decoder manufacturers began building decoders in the same format as direct replacements for these one-piece light boards.

I removed the factory light board and installed a Digitrax DN163A0 decoder, following the instructions.

However, the motor contact strips frequently make intermittent contact with the decoder. The symptoms range from an inability to program the loco to spotty motor performance.

I fixed the contact issue by hard-wiring the motor. Figure 5 highlights where I cut off the motor contact strips and soldered 2951 wires to them (see DCC Impulses, January 2012). I covered the joints with shrink tubing and soldered the wires



Figure 4: N scale Atlas GP-38.

to the motor contact pads. Not wanting to pinch these new wires between the decoder and the frame, I kept them short. I made sure that the wires didn't chafe on the (electrically hot) frame halves. The resulting short would have been a disaster for the decoder!

Newer Atlas and Kato diesel locos are designed pretty much this way and have lots of decoders designed for them.

This loco ran so well that I purchased a similar GP-38 in Santa Fe livery, installed a TCS decoder in it and used it as a N-scale demonstrator at Litchfield Station.

If I were to do this installation today, I would use one of the many loco-specific decoders available from different vendors.

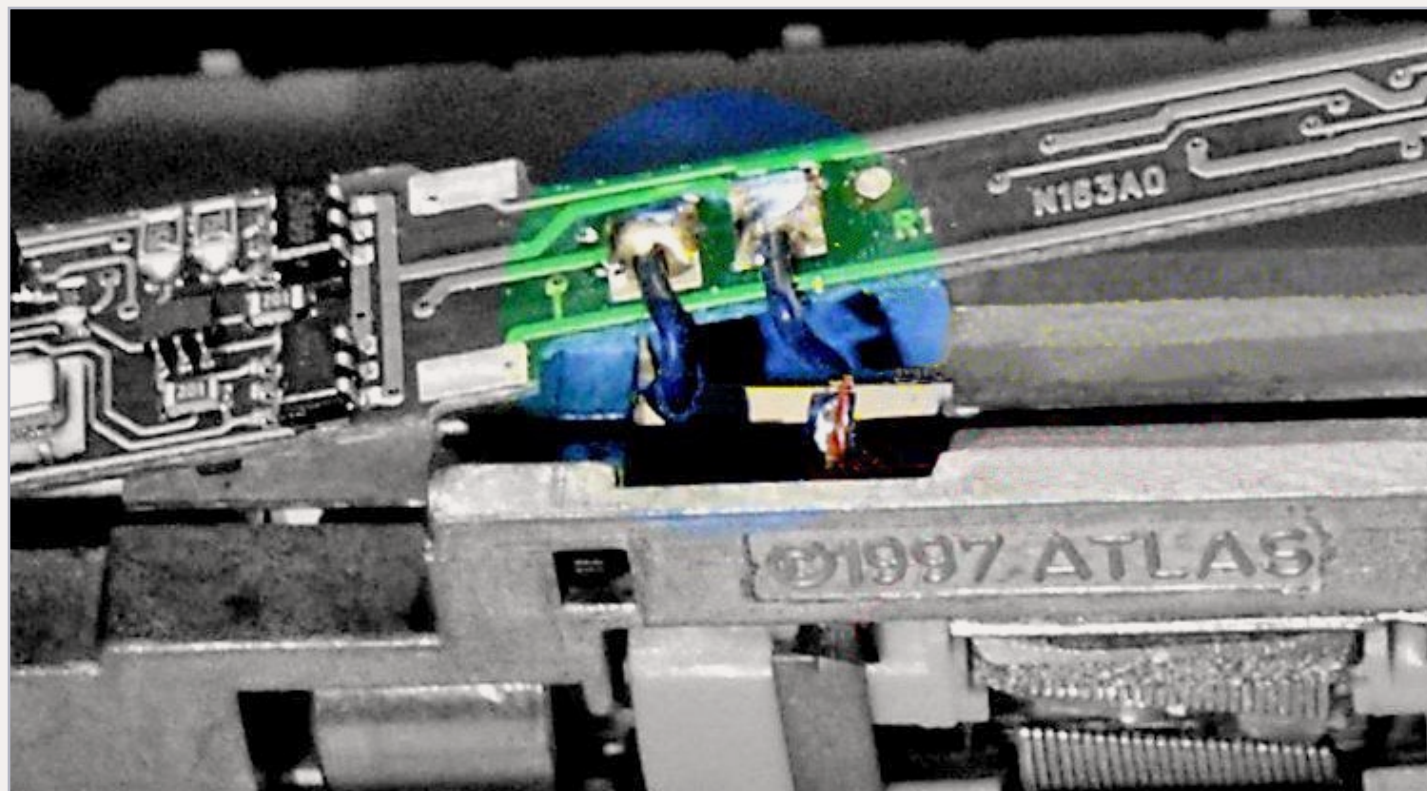


Figure 5: Added motor wires for increased reliability in Atlas N scale locos.

N scale Atlas RS-3

As electronic components got smaller, TCS designed decoders in two pieces to replace the light boards in the 1990s vintage locos.

Figure 6 is a photo of a TCS CN decoder installed in an Atlas RS-3. The wires between the two boards are NOT DCC connections. They are the (usually internal) connections that are part of the decoder. Having this wiring between the two boards allows the decoder circuitry to be split between the boards, allowing for locos of various lengths and providing ease of installation. Each half board has its own LED for the head or rear light.

Following the directions packed with the decoder, I removed the stock light boards, isolated the motor, and mounted the decoder boards in the

loco. I then cut the wires to length and soldered them where directed by TCS.

If I were to do this installation today, I would do it exactly the same way.

N scale Bachman 2-8-0

Bachmann built its N-scale 2-8-0 Consolidation with DCC in mind. It is a split-frame design with the motor connected to the frame halves on top, rather than using an internal contact-tab design.

The frame has a space specifically designed for the decoder. It is filled with a small piece of weight as it comes from Bachmann.

I removed the small weight from the loco and used the plastic tray that is left to hold (and insulate) the decoder. I then removed the wires from the frame tabs to isolate the motor. The decoder orange and gray wires were connected to the motor and insulated with shrink tubing.

The black and red decoder wires need to be connected to the frame halves. I found that the push-on clip supplied with the loco didn't hold the decoder wires as solidly to the frame halves as I'd like. The metal of the frame won't take solder. I tried many things to secure the wires to the contact posts: the supplied clips, added screws, etc., before I settled on wrapping the wires

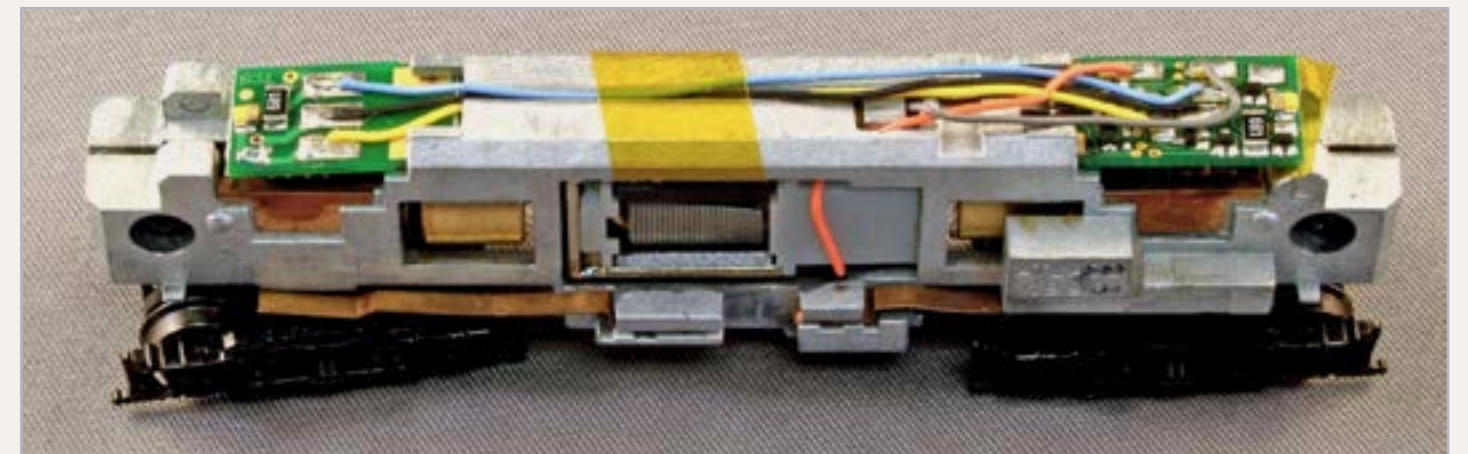


Figure 6: N scale Atlas RS-3.

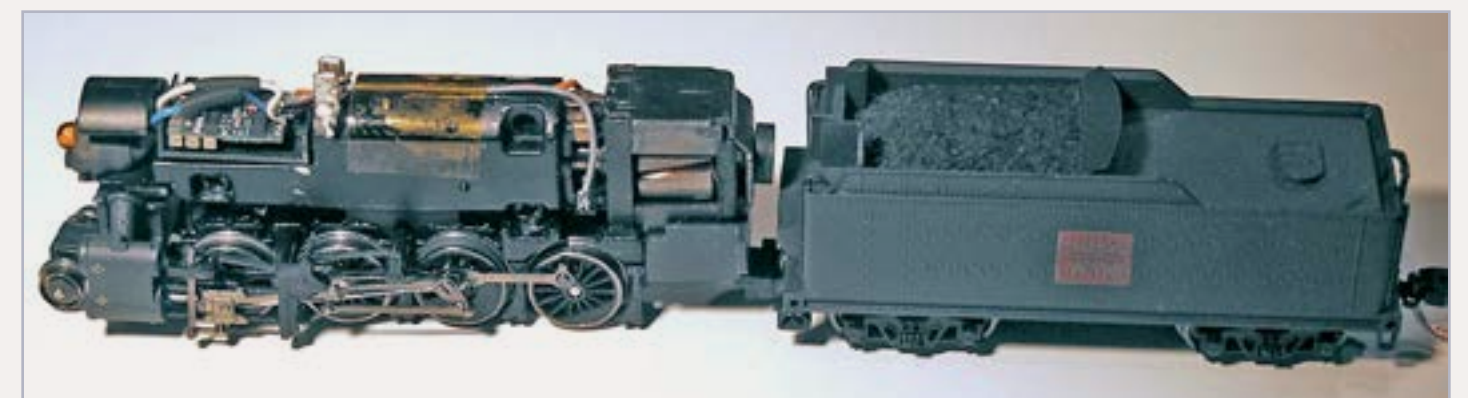


Figure 7: N scale Bachmann 2-8-0.

around the tabs and securing them with silver epoxy.

The loco shown in figure 7 had a Lenz Mini Gold decoder installed with a golden-white LED wired to the decoder for the headlight.

If I were to do this installation today, I would do it exactly the same way. The Lenz Mini Gold fits perfectly.

N scale Bachman F7A

In prior columns, I've discussed split-frame locos. The Bachmann F7A shown in figure 8 is a prime example.

I disassembled the loco and machined relief to isolate the motor from the frame halves – see figure 9. When I did the loco pictured, I did not yet own a milling machine, so all the

“machining” was done with a Dremel motor tool or by sanding.

A shelf was machined into the rear of the loco to provide clearance for the LE0521W Lenz decoder, predecessor of the Lenz Mini Gold.

The incandescent headlight was wired to the blue and white decoder leads.

If I were to do this installation today, I would do it basically the same way. Many small N or Z decoders will fit into the available space. I'd use a decoder with good BEMF motor control like the Lenz or the TCS M1. The smaller the decoder, the less machining would be needed.

N scale Con Cor GS-4

Here is a good example of a great idea gone awry. Con-Cor saw the coming

need for DCC compatible locos and had Digitrax design a decoder and loco board combination.

The Digitrax DZ125PS was born to fit in the tender with the loco board that Digitrax designed. Alas, Con-Cor didn't wire the head and rear lights to the board.

This leaves the installer with the choice of ripping out the Digitrax

designed board and installing almost any N or Z scale decoder, or wiring the lights to the board and plugging in a decoder.

Choosing the latter, I wired the headlight to the board in the tender, using 2951 wire between units and white wire inside the loco (to conform to DCC color code). The rear light was wired to the board inside the tender. A

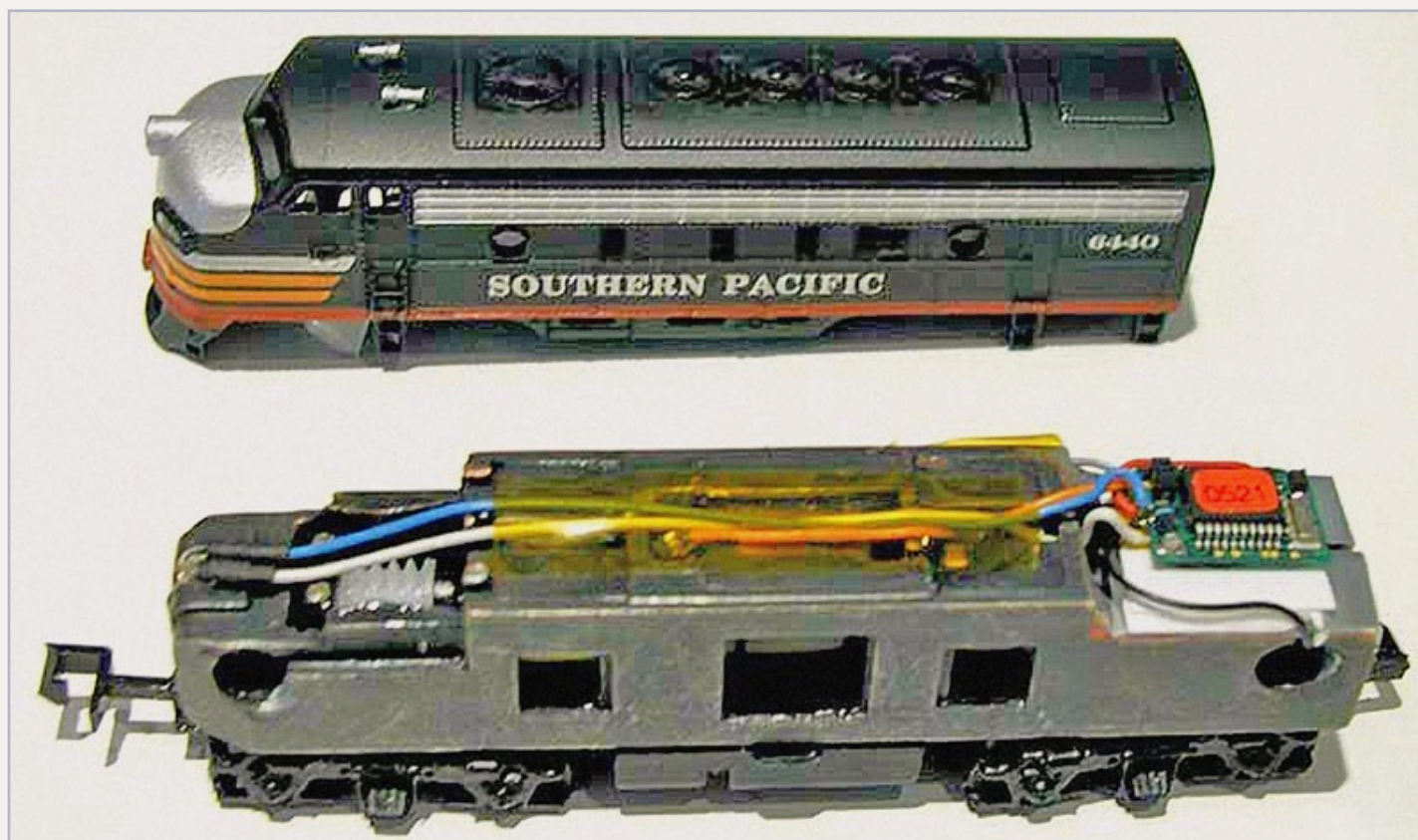


Figure 8: N scale Bachman F7A.

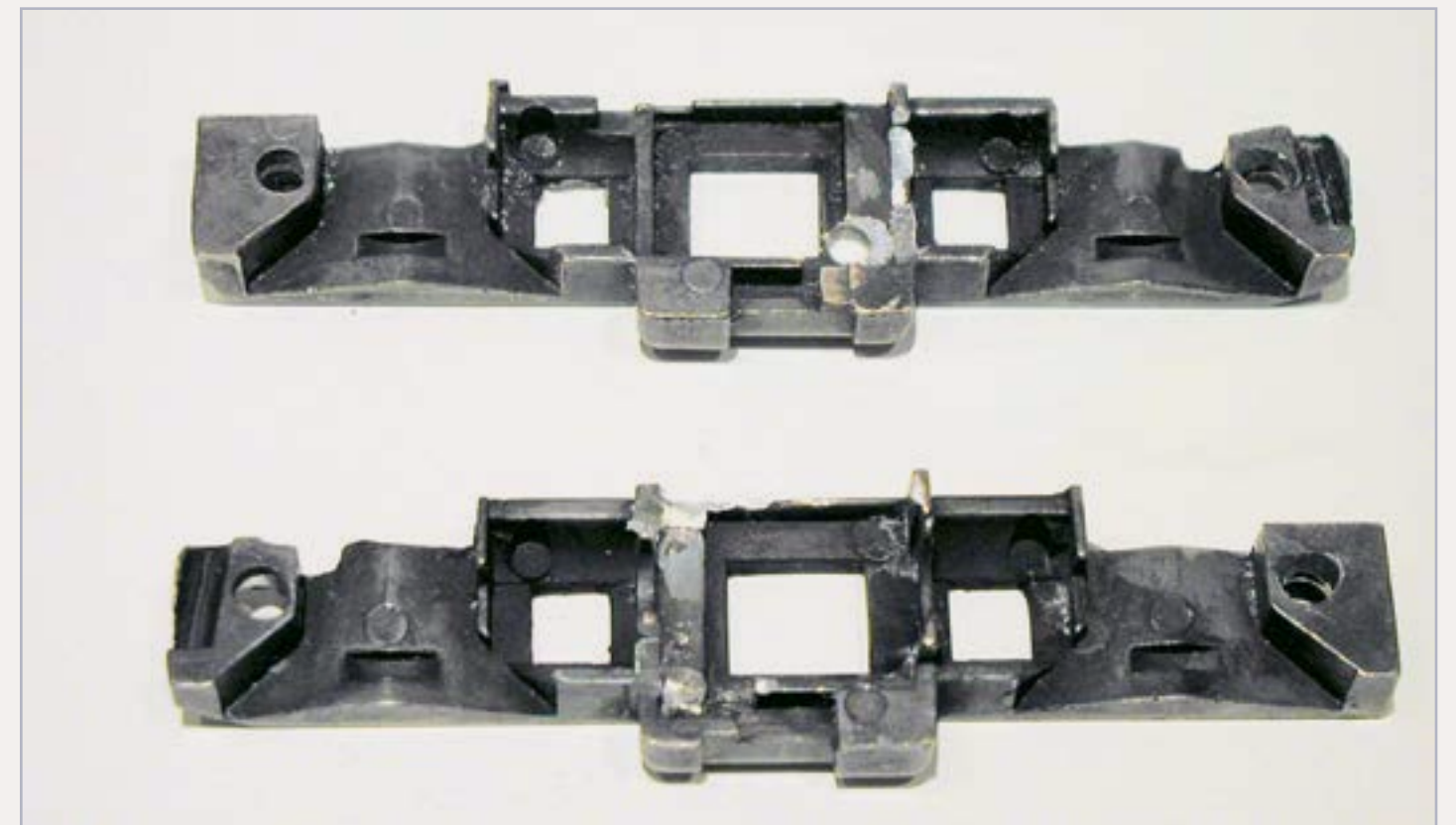


Figure 9: N Scale Bachmann F7A frame machining for DCC installation.

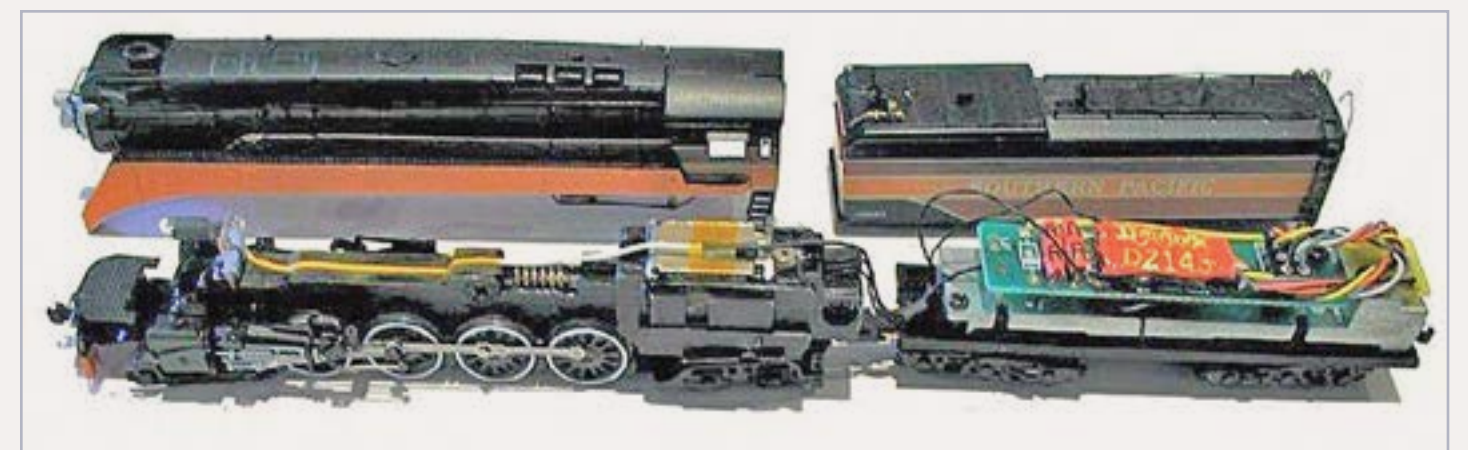


Figure 10: N Scale Con Cor GS-4.

Digitrax DZ143PS decoder was plugged in. Why that decoder? My customer wanted the BEMF motor control of the DZ143PS instead of the basic control provided by the DZ125PS.

If I were to do this installation today, I would do it basically the same way. Many small N or Z decoders with the NEM652 (8-pin) NMRA plug would fit into the available space. I'd use a decoder with good BEMF motor control like the DZ143PS or the TCS M1.

N scale Kato Mikado

Most Kato steam locos of the 1990s were DCC nightmares! Sorry, but I call 'em as I see 'em. The gorgeously

detailed Mikado, shown in figure 11, is one of the most popular.

There are two places for a decoder in this loco.

Some folks remove a bit of weight inside the boiler and put the decoder there. Advantage – no wires between the loco and tender. Disadvantage – removed weight reduces pulling power and most folks feel that this fella is a bit light to start with.

My choice was to put the decoder in the tender.

As usual, I spent about three hours disassembling the loco, isolating the motor, bringing 2951 wires to the

tender, installing a JST style connector in the tender and reassembling the loco.

I had to remove the weight in the tender to have room for the decoder. I also removed the copper pickup strips

and wired the decoder pickup to the tabs on the front truck. This way the power from the loco transfers to the front tender truck through the contacts in the drawbar. Separate wires connect to the rear tender truck.



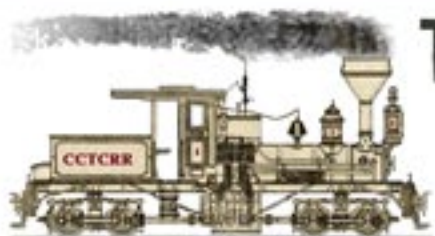
Figure 11: N scale Kato Mikado.

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At this point I plugged a JST jumper board into the socket and completely tested the loco on DC. I took special care to make sure that the tender tracked around curves and through turnouts and was not being pulled off the track by the wires.

After test running, I removed the JST jumper board. Then I tested one more time to assure that I had isolated the motor from the rails. I then plugged in a JST HO decoder. In this case it was the Lenz Gold shown in figure 11.

If I were to do this installation today, I would do it basically the same way. Any JST decoder (usually HO scale) will probably fit in the tender. I'd use a decoder with good BEMF motor control like the Lenz Gold or the TCS T1.

N scale Life-Like 2-8-8-2

I was amazed by the Life-Like 2-8-8-2 loco when a customer asked me to install DCC in one; very well done and responsive. It was on par, in my opinion, with the Kato Mikado, but a whole lot easier to DCC.

In figure 12, you see the interior of the loco. The DCC installation does not require that you get into the tender. I actually did some of these with the (now extinct) SoundTraxx DSX sound-only decoder and a speaker in the tender.

Lighting – there was an incandescent bulb above the pilot, operating through a board in the smoke box. I removed the board and wired the

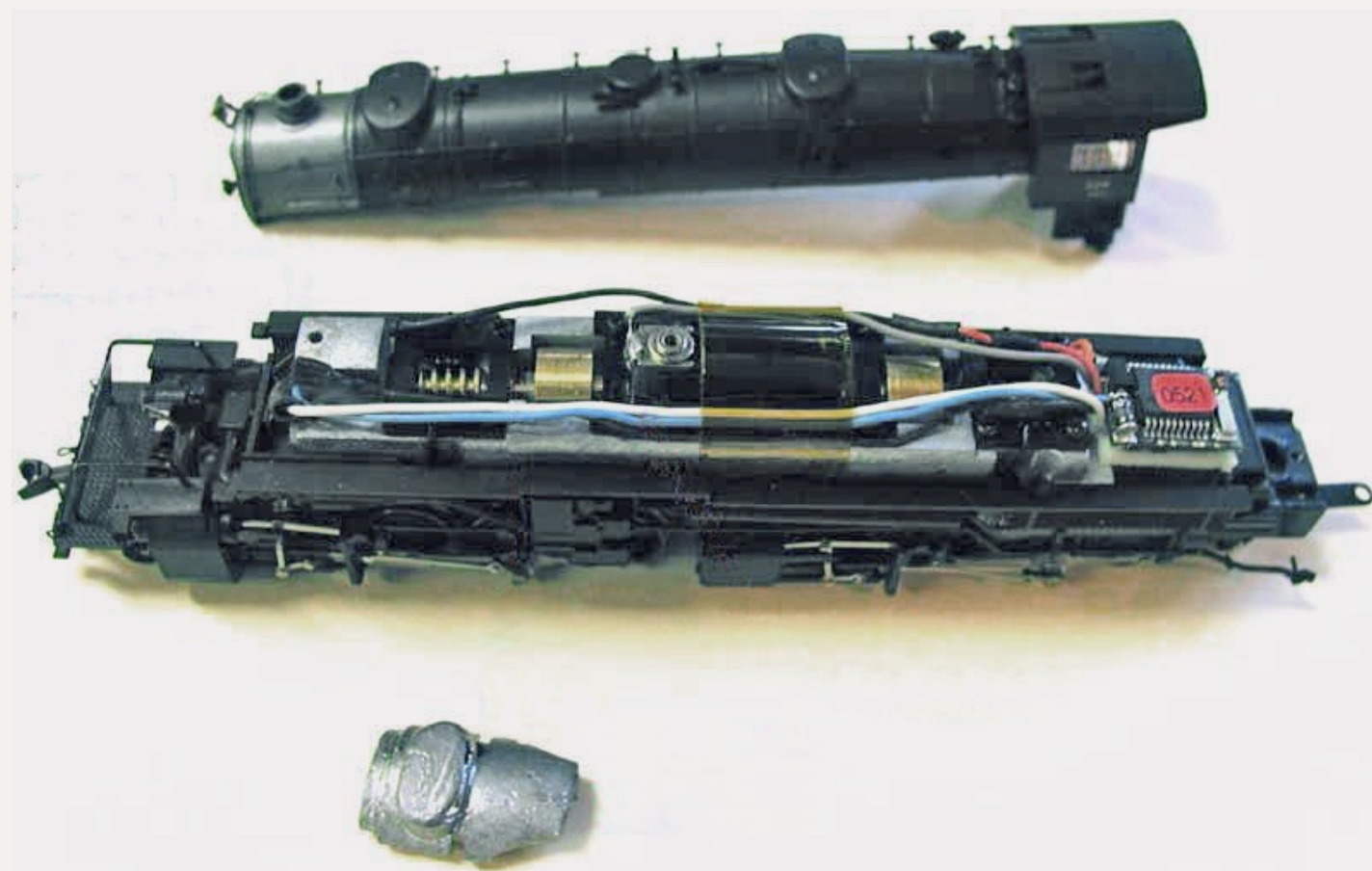


Figure 12: N scale Life-Like 2-8-8-2.

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Figure 13: N scale Life-Like GP-38.

bulb to the blue and white decoder wires with a 510-ohm ¼ watt resistor in one lead. I put the resistor where the board was.

Motor – The wires between the rails and the motor leads were disconnected and a Lenz LE0521W decoder, the predecessor of the Lenz Gold Mini, was wired to the appropriate places.

I applied Kapton tape to secure the wires and test fit the boiler shell. Once I got it to fit, I repositioned the small weight shown in figure 12 and screwed the boiler to the loco.

If I were to do this installation today, I would do it basically the same way. Many small N or Z decoders will fit into the available space. I'd use a decoder with good BEMF motor control like the Lenz or the TCS M1. The smaller the decoder, the easier the fit!

N scale Life-Like GP-38

Life-Like had a line of N-scale locos in the 1990s that were difficult to install DCC into. They required a bunch of work to isolate the motor and get ready for the decoder installation. They had plastic frames that almost warped when you looked at them.

Then Life-Like saw the light and started producing split-metal-frame diesels. However, they were not as popular as the Kato and Atlas offerings and the DCC manufacturers have been slow to offer loco-specific decoders for the Life-Like locos. There are some decoders designed for more popular diesels that will fit a few Life-Like offerings. See the decoder manufacturers' web sites for fitting suggestions.

The installation shown in figure 13 is another example similar to the

Athearn that started this month's column. I found the correct places on the factory light board and attached decoder wires and cut traces. I used a Lenz Silver Mini W decoder at the time.

If I were to do this installation today, I would do it basically the same way. Many small N or Z decoders will fit into the available space. I'd use a decoder with good BEMF motor control like the Lenz or the TCS M1. The smaller the decoder, the easier the fit.

N scale Model Power 4-6-2

Model Power built a bunch of different steam locos that were "DCC aware." They have wires pulled into the tender that comply with NMRA DCC color codes. Figure 14 shows their 4-6-2 loco.

I removed the tender shell and cut the connection between the red and the orange wires and the connection between the black and the gray wires. Then I connected the wires, matching color to the (older) Lenz LE1024 HO scale decoder.

Notice that I don't mention any light wires. Model Power didn't choose

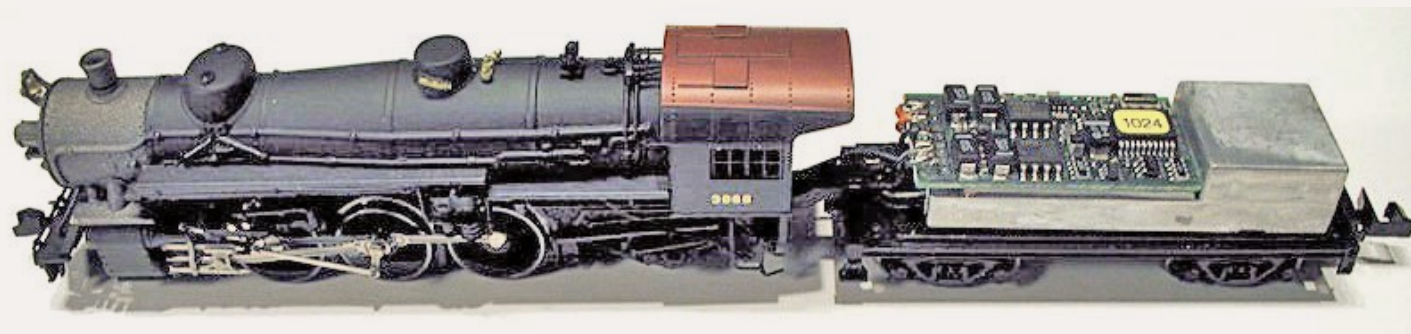


Figure 14: N-scale Model Power 4-6-2.

to bring the headlight wire into the tender. There are two choices. Leave the headlight wired to the track and always on. Or spend a lot of time disassembling the loco and bring the wire back to the tender. All my customers choose the "constantly on" version, so once I finished the wiring above, I was done.

Model Power made a nice-running, relatively inexpensive Mikado. While it is not as finely-detailed as the Kato Mikado discussed previously in this column, it is a much better DCC candidate. Guess you can't have it all in one loco.

If I were to do this installation today, I would do it basically the same way. Many HO decoders will fit into the available space. I'd use a decoder with good BEMF motor control like the Lenz Silver or the TCS T1.

Until next month . . . Have fun with your railroad and blow a whistle or blink a light for me!

If you like this column, be sure to click the link and rate it AWESOME! Thanks.

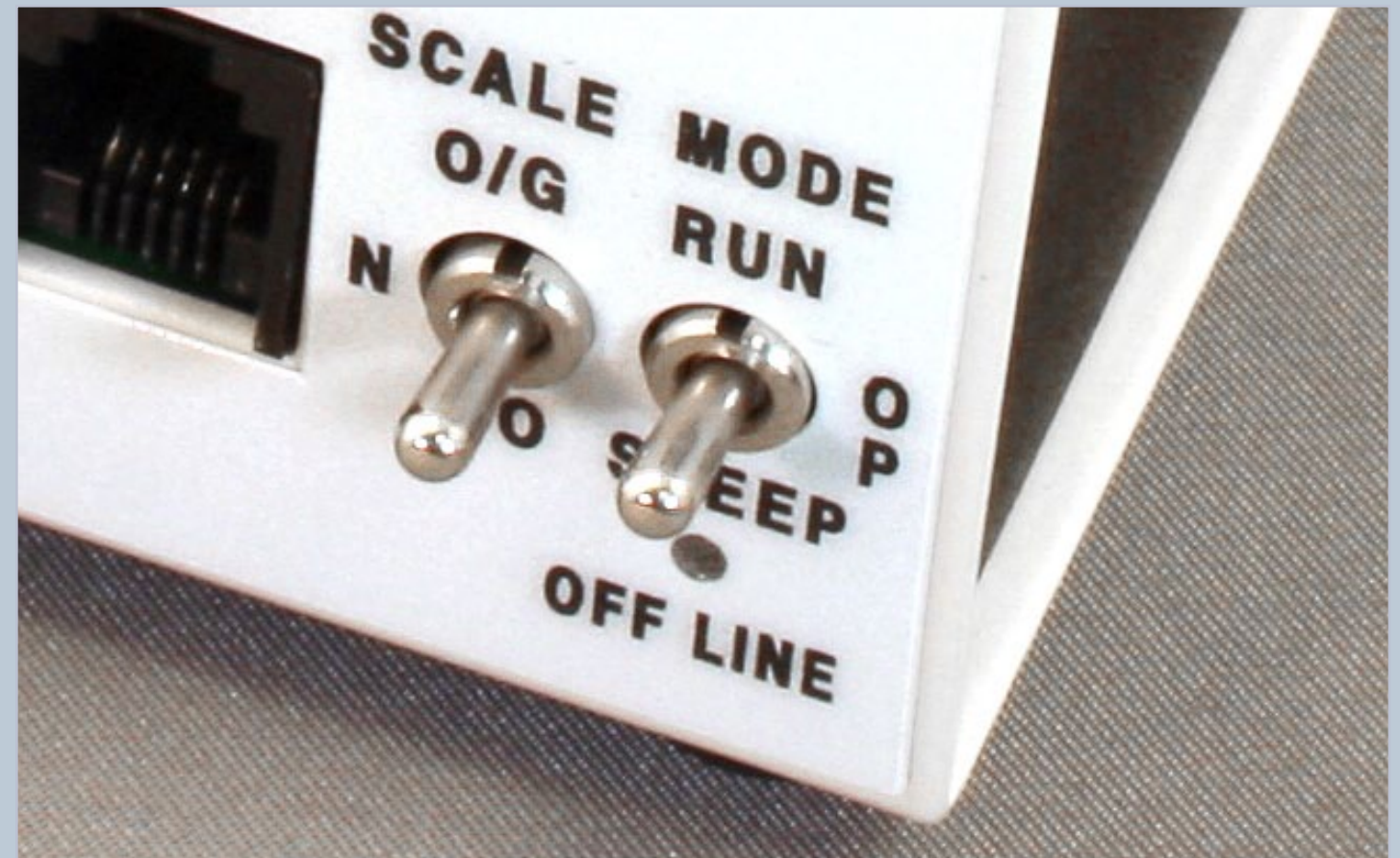


Figure 15: Digitrax DB150 MODE switch used to change OpSw settings – typical of all Digitrax system boxes.

SMP from Mr. DCC

Digitrax users, take notice! If you have a Super Chief or Super Empire Builder, you may find that your system wakes up grumpy. It needs buttons pressed to get track power on, or sometimes isn't recognized – you know! Not fun!

the track energized without human intervention. ■

Look in your manual (download one from the Digitrax.com site, if need be) for a section near the end on how to set option switches, usually section 26 or 28. Once you see how to set these option switches, use your DT series throttle to "throw" OpSw 33 and OpSw 34. When you apply power, your system will come up with



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GETTING REAL: Plans from Photos

Adventures in Prototype Modeling – The art of photo extrapolation

About this issue's
prototype modeling
columnist



Jack Burgess has pursued his passion, the Yosemite Valley Railroad, for more than 40 years. His model of this railroad is known around the world for its dedication to following its prototype as exactly as possible.

Jack has also written a book about Yosemite Valley titled "Trains to Yosemite."

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Even if you model a historical era, you can learn much from photos

Modeling a prototype railroad invariably leads to the need to scratchbuild at least some structures. With the huge variety of laser-cut wood, plaster, and injected-plastic structure kits available on the market, you might find buildings which are "close enough" or suitable for kitbashing to match some of the unique buildings on your prototype. For some of the railroad structures, you might get lucky and find scale building plans from a historical society or other source.

If you model present-day, it is simple enough to measure a building, take a few photos, and start building it. But, even if the building is gone, it is still possible to develop simple plans for the structure so that a reasonable replica can be scratchbuilt if you at least have some photos to work with. We'll start with a very simple example and work toward more challenging projects.

Working from Photos With a Known Dimension

One of the buildings I needed to build for my layout was the Borden's



Figure 1: This view of the main street frontage of the building is nice to have but isn't of much help in figuring out window sizes and other dimensions.

Ice Cream distributor in Merced, the western terminus of the Yosemite Valley Railroad. The building still existed when I first visited the area in the 1970s (although it was an automotive tire dealer by then) and I took a few photos of it. However, I didn't think to measure it since I assumed that it would always be there and I could come back when I was ready to build it. So I was surprised to discover it gone years later, before I took the time to measure it.



Figure 2: The building is shown in the bottom left corner of this portion of the 1922 Sanborn map of Merced. (See Marty McGuirk's article on Sanborn maps in the October 2009 issue of MRH.) Using a set of dividers, I compared the width and length of the building to the map graphic scale and found that it was 40' wide and 50' long. (Also note the symbols for this building. The "1" in the front left corner of the building means that it is one story high while the height of the building from the ground level to the eave line is 14'. The vertical line with the three crossbars means that the building had a 24" high parapet above the roof (meaning the sides of the building extended 24" above the roof).

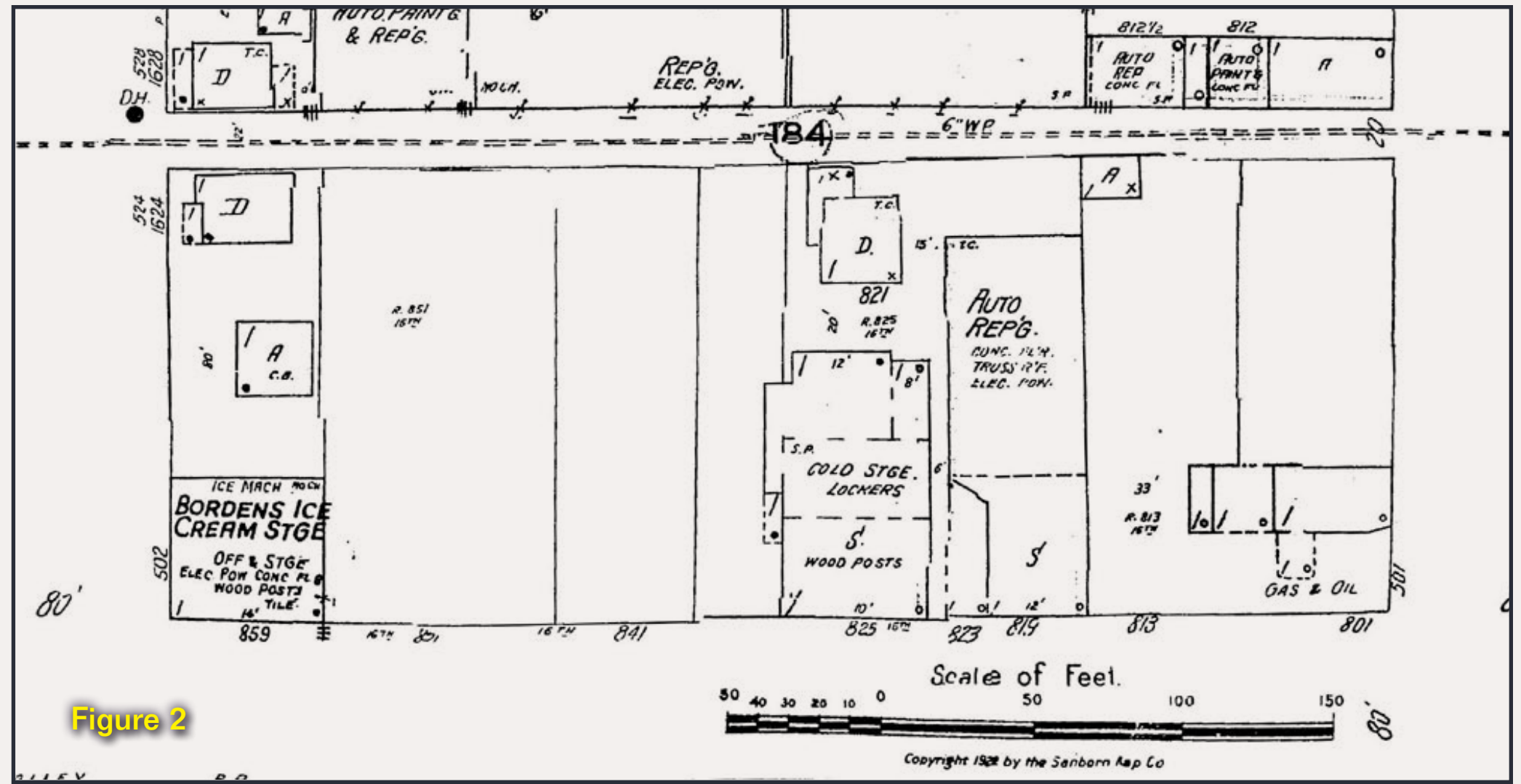


Figure 2

Figure 3: Fortunately, I did take this full side view elevation of the side of the building. We can use it to determine other dimensions on the building once we resize the photo.



Figure 3

Figure 4: I scanned the print photo of the side of the building, printed it, and measured the width of the building with an HO scale ruler. (If you model in another scale, just substitute a ruler for your modeling scale.) The building on my print measured 28' wide. Since this is smaller than the actual building, we need to enlarge the photo in order to produce an HO scale photo. But how much? To do that, divide the actual width (50') by the measured width (28') and then multiply by 100 to get a percentage. That equals 178% ($50/28 \times 100$). If you can't remember which number to divide into the other, keep this in mind: If you need to enlarge the photo, divide the larger measurement by the smaller one and multiply by 100. If you need to reduce the photo, divide the smaller measurement by the larger one and divide by 100.

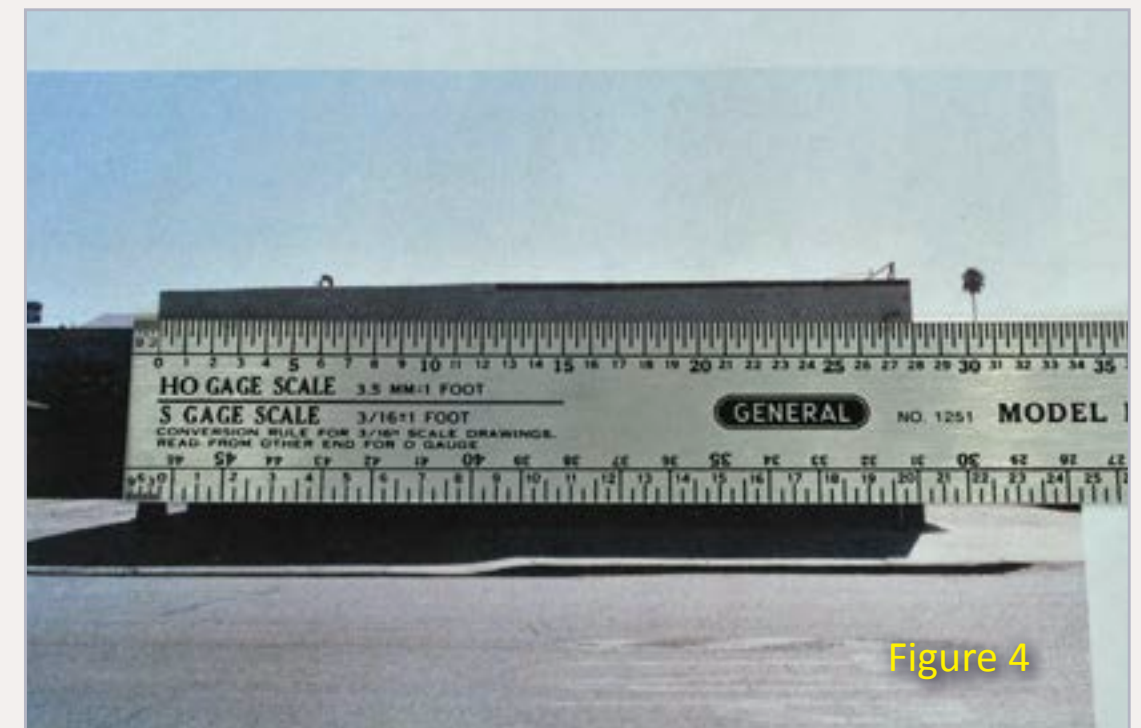


Figure 4

Since this is smaller than the actual building, we need to enlarge the photo in order to produce an HO scale photo. But how much? To do that, divide the actual width (50') by the measured width (28') and then multiply by 100 to get a percentage. That equals 178% ($50/28 \times 100$). If you can't remember which number to divide into the other, keep this in mind: If you need to enlarge the photo, divide the larger measurement by the smaller one and multiply by 100. If you need to reduce the photo, divide the smaller measurement by the larger one and divide by 100.

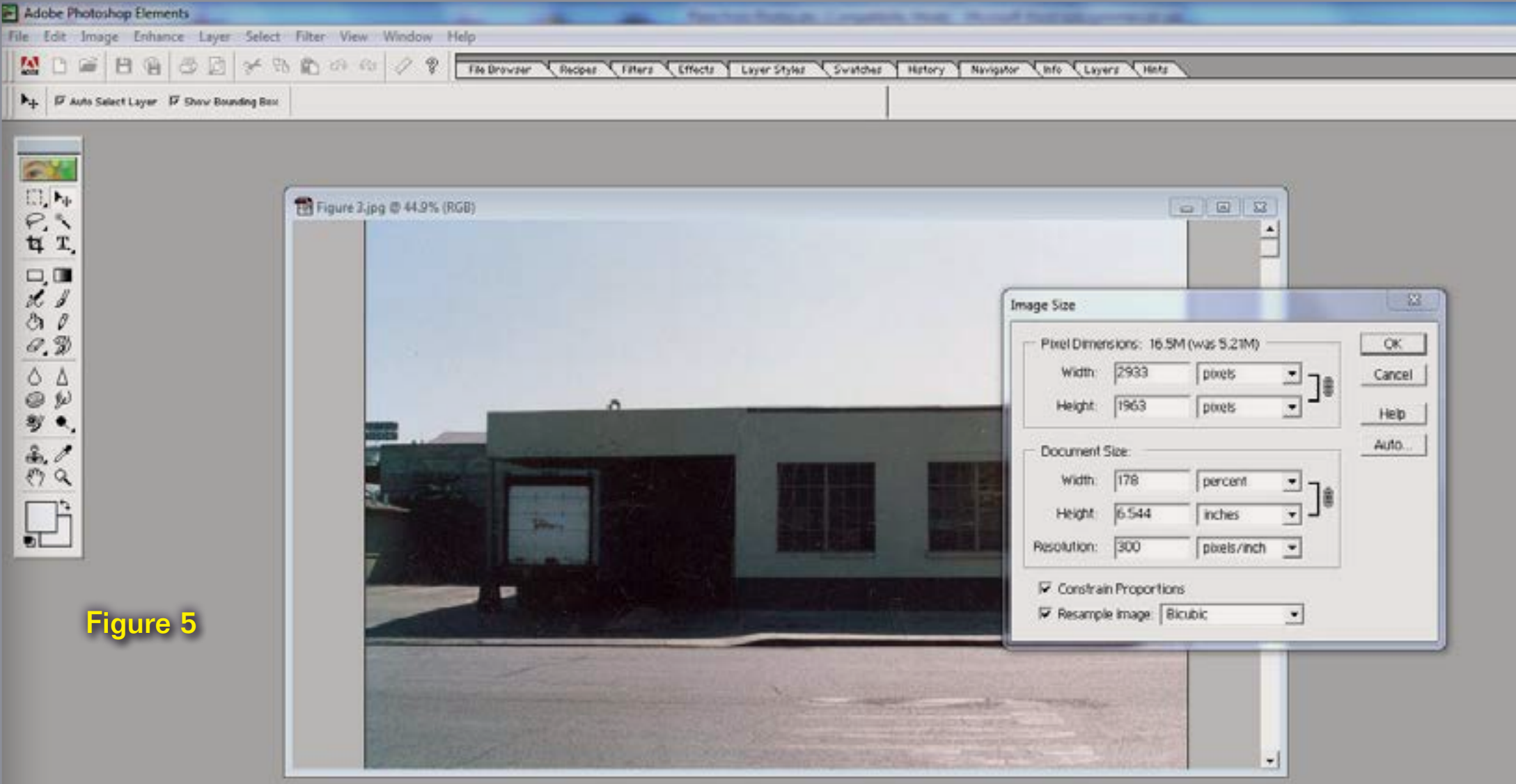


Figure 5



Figure 6

Figure 5: The photo can be resized in a photo-editing program such as Photoshop Elements. This is a reasonably priced but still very powerful program which can be used for a number of modeling purposes. After opening the file, click on Image/Resize/Image Size and then change the width dropdown box to "Percent".

Make sure that Constrain Proportions is checked so that the width and height of the photo will change in proportion. Type the enlargement percentage in the box and click OK. Print the enlarged photo and you can then measure directly on the print to determine the width of the windows, height of those windows above the bottom of the structure, etc.

Windows on the main street frontage of the building are going to be the same size as the side street frontage and it was easy to estimate the distance between windows, etc. from the other photo.

(If you don't have Photoshop Elements, the print can be enlarged on a copy machine that has an enlargement feature. But, as you'll see, Photoshop Elements can make another project easier.)

Figure 6: Here is a view of the finished Borden's Ice Cream building on my layout.

Working from Photos Without a Known Dimension

Many times we don't have any prototype dimensions although we may have a fairly straight-on photo. In that case, we need to make an educated estimate of at least one dimension that we can work with as we did for the Borden's Ice Cream building.



Figure 7



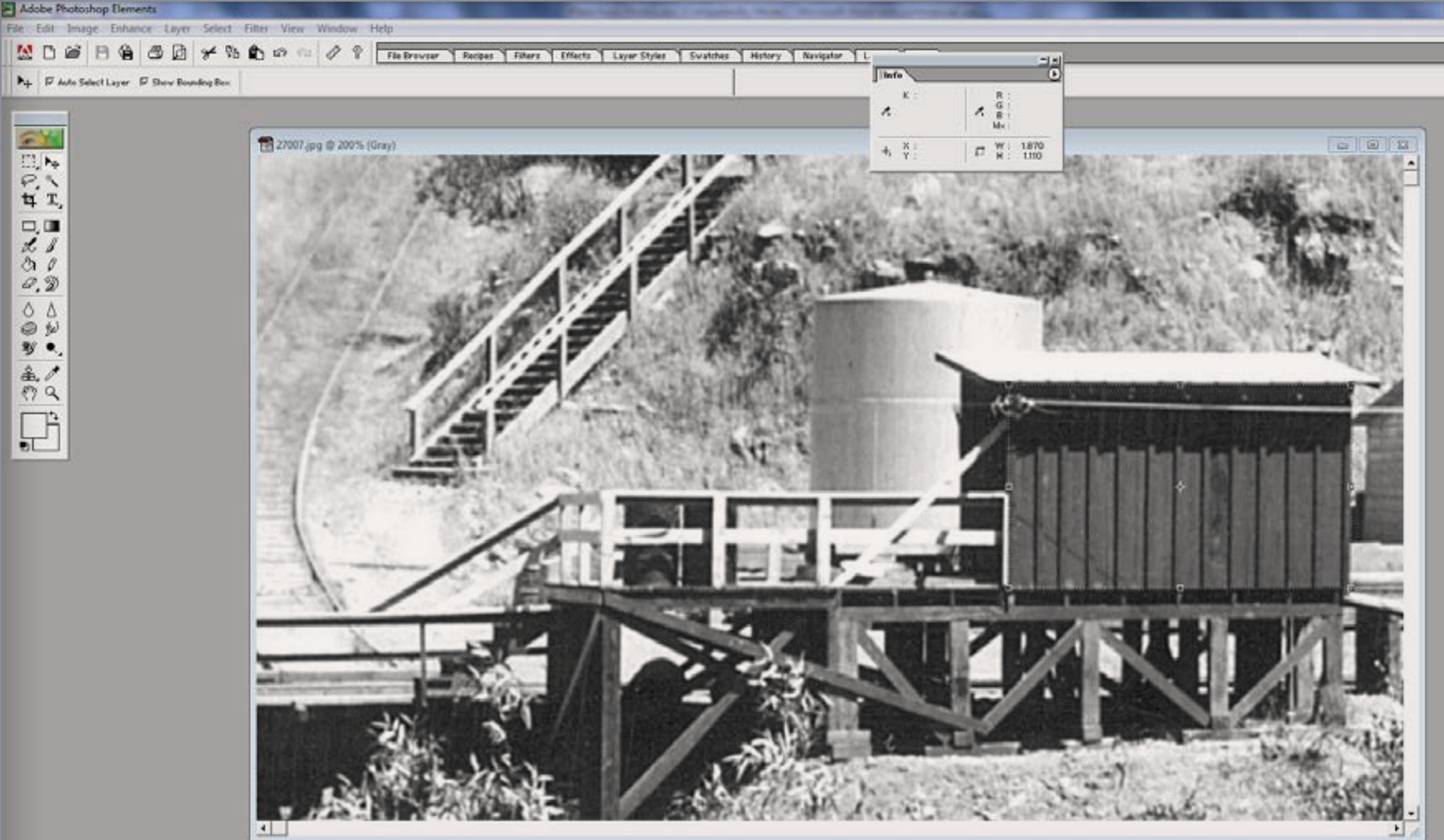
Figure 8

Figure 7: There was a small freight house just to the right of the bridge at Emory on the YV. It was used to receive LCL (less-than-carload) shipments for the limestone quarry operation there. (Fred Stoes photo, Author's collection) We'll start with a closeup photo of that building.

Figure 8: Here is a cropped photo of that freight house. If we can figure out the width of the building, we can determine the height. The exterior of the building is board-and-batten construction (where plain boards are butted to each other and the joints covered with narrow strips of wood called battens).

The building was constructed around 1927, when the limestone quarry operation was being developed. The boards appear to be 12" wide, a very reasonable assumption given the date of construction. Looking carefully at the photo, we see that the building is 12 boards wide which would provide a width of 12'. That is also a very reasonable figure since, I think, the outside dimensions of many period buildings were often (but not always) built to even measurements such as 8', 10', 12', 15', 20', etc.

Assuming a 12-foot width, we can then figure out the height of the building. One way to do that would be to print the photo and scale it, as we did with the Borden's Ice Cream building. While that would work, the building is very small in this photo and it would need to be enlarged by about 250%. But, there is easier and faster way using Photoshop Elements.



how high the building was, you would (hopefully) answer “10”.

Even without doing any “real” math, you realized that the height of the building was one-half the width of the building.

If you had actually done the math, you would have divided the height as you measured it (5”) by the width as you measured it (10”) and multiplied it by the actual width (20’) or $5"/10" \times 20'$ which equals 10’.

We can do this using the size of the box of the backside of building in our photo.

Here is what we know:

Actual width of the building – 12’

Figure 9: After opening the photo in Photoshop Elements, click on the Marquee Tool (upper left corner of the Tool Box) to select it and then mouse click on the lower right corner of the back wall of the freight house. Hold the mouse button and drag a box equal to the width of the building and the height of the building. The actual height of the building will be hidden in the shadows under the eaves but make your best guess.

When you release the mouse button, the size of the “box” created by the Marquee Tool will be on the Info tab. (I had to drag this Info box away from the rest of the tabs to get it to show as part of a screen grab.) The “box” outlined by the Marquee Tool is 1.870” wide by 1.110” high.

Now we need to do some simple math. To make this easier to understand, let’s start with a simple example. Let’s assume that a building is 20’ wide. We measure the width of the building on a photo of the building and find that it measures 10” wide. We then measure the height of the building on the photo and it measures 5” high. If I then asked you

Measured width of the building on the photo – 1.870”.

Measured height of the building on the photo – 1.110”.

Divide 1.110 by 1.870 and multiply by 12’ which equals 7.12’ or 7’ 1”. Keep in mind that, although the computer program lists measurements to 3 places, the process is not that accurate. If we had drawn the box with the Marquee Tool just slightly shorter, the result might have been 6’ 11”. So apply some common sense to the answers you get, and round when it seems correct to do so.

Seven feet is a very reasonable dimension (much more reasonable than 7’ 1”) for the rear height of the building. It also allows for a front height of 8’ (a common height) and a reasonable roof slope. From another photo, I was able to count the number of boards on one end of the building (nine boards) which resulted in a building 12’ long by 9’ wide.

	A	B	C	D	E	F	G	H	I
1	PHOTO MEASUREMENT CONVERSIONS								
2									
3	Known:	<i>These are the actual length of an item and how long it measures on a photo</i>							
4									
5									
6		Feet	Inches						
7	Actual Length:	12							
8	Measured:		1.870						
9									
10									
11	Unknown:	<i>This is the length of what you want to know as measured on the photo</i>							
12									
13									
14		Feet	Inches						
15	Measured:		1.110						
16	Actual Length:	7.123							
17	Actual Length:	7	1						
18									
19									

Figure 10: I make measurements on photos so often that I made a simple Excel spreadsheet to do the math. This Excel file can be downloaded from the MRH website in [this month's bonus downloads](#).

To use the spreadsheet, type in the length of the item you know in cells B7 (feet) and C7 (inches); leave B7 blank if the measurement is just in inches. Cells C8 and C15 must be in inches. Cells B18, B19, C18, and C19 contain formulas (just hidden from view) which eliminate a display problem with measurements that round to an even foot; do not delete them or write over them.

Going Further

While the last example might have initially been seen as insolvable, the idea of making estimates based on educated guesses is actually a very powerful approach. Here are some unconfirmed dimensions I typically use to estimate other dimensions for some buildings when I have nothing else to work with:

Building height (single story) - 10 feet

Building height (single story, commercial building) - 12 feet or 14 feet



Figure 11: I used the height of a boxcar floor above the rail to set the height of the loading platform around this freight house. After estimating dimensions for the railings, etc., I built the structure from styrene. This is the resulting structure at Emory.

Door height - 80"

Door width - 27" for cabooses, 30" and 36" for other doors

Height from bottom of building to bottom of windows - 30"

Window sizes - Even measurements in 6" increments

A roof slope (or pitch) is normally identified by the "rise and run" such as 7:12, a very typical slope which rises 7 units for a run of 12 units. A website (www.pole-barn.info/roof-pitch.html) provides lists and examples of common roof slopes. After you figure out the height of the building, you can estimate the slope of the roof by comparing your building roof pitch against these examples. Snow conditions require steeper pitches so that the snow will slide off. If snow is not a factor, flatter roofs are more economical to build since they use less material.

Here is another example of using a photo to determine the size of a prototype building without any known dimensions:



Figure 12: The El Portal Inn was built around 1917 (Jim Law collection). It might seem impossible to determine anything about this building from the photo but there are actually a couple of hints.

First, the stairs to the porch consist of 5 steps. The vertical dimension between steps is called the riser height and the height of the porch above the ground is equal to 5 times the riser height. Typical riser heights today are around 7" with a maximum height in some parts of the country of 7³/₄".

The steps in the photo look slightly less than that, so I estimated the stair riser height to be 6" which makes the porch 30" above the ground (5 times 6"). The height to the top of the railing seems to be about equal to the height of the porch above the ground which would make it 30" high. That would make the distance from the ground to the top of the railing 60" or 5'. At first glance, that dimension makes the fellow in the photo

less than 5' tall. But note that the ground is sloping away from right to left, which would account for the difference.

The building features clapboard siding. I guessed that this siding was constructed of 6" wide boards nailed with 5" exposed to the weather. The trim under the windows is 5 boards above the porch which results it being 30" above the porch (the same as the top of the railing) which seemed about right.

With an assumed siding width, it was easy to figure out the height of the windows by counting boards. I also assumed that the posts supporting the roof over the porch were 8' on center, a common span. While posts supporting a residential front porch overhang might be 4x4s, these posts appear to be 6x6s. To be sure, one could compare the width of the posts to the height of the railing; the railing should be approximately five times the width of the posts and, even though we are looking at a 3/4 view, that assumption proved correct.

Because of the complexity of this building, I drew it in CAD before starting to build it. This gave me the opportunity to check the overall appearance

and evaluate the above assumptions. I actually originally estimated the stair riser height to be 7" which resulted in the top of the railing being 6' above the ground. That initially seemed to fit the people in the photo, but I had missed the sloping ground. That single assumption and the related ones ended up making the windows too high above the porch and caused other problems.

Fortunately, it is much easier to change things in CAD than start all over scratchbuilding a structure when you finally admit that it doesn't look right compared to the photo. If you don't have a CAD program, I'd suggest drawing the elevations on typing paper and gluing them to some cardstock. Cut out the sides, tape them together, and then compare your mockup with other buildings in the area, figures, etc., before you start scratchbuilding it.



Figure 13: Here is the completed El Portal Inn on my layout.

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Something More

Sometimes you need to be a little innovative when working with photos without any obvious dimensions. That is what I needed to do when working up drawings for the YV's nine-stall roundhouse in Merced before building it. If I could determine the spacing between the posts, I could then use the techniques previously discussed to determine all of the other dimensions of the building.

While Figure 15 might seem less valuable for this project than Figure 14 which gives a lot of details of the structure, Figure 15 has one very important factor which can let us determine the post spacing. What dimension do we know on this photo? The track gauge! If we measure the track gauge right at the face of the building and then measure the post spacing along the same line, we will be able to calculate the latter.

Any of the methods of measuring on a photo that have been discussed can be used in this situation. Instead, we will use a different approach just so that you can see that, although the math is the same, there are a number of ways to get the answer.

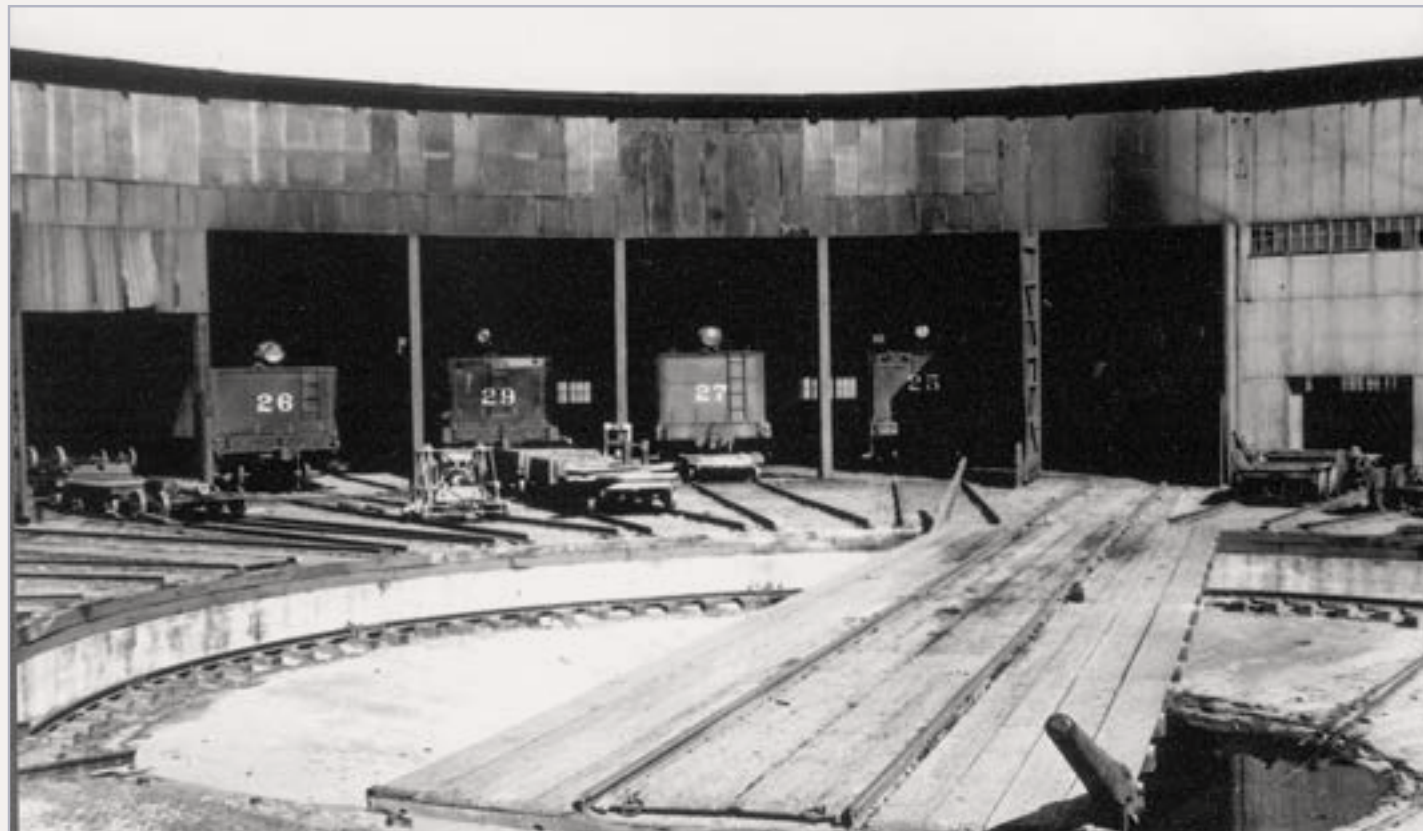


Figure 14: This is nice view of the front of the roundhouse but what we need to start the drawings for the building is the distance between the posts supporting the front of the building. (Ted Wurm photo, Author's collection.)

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Figure 15: This view looks directly into the roundhouse although the bright sunlight outside and dark interior made for a difficult shot. (Louis Stein photo, Author's collection.)

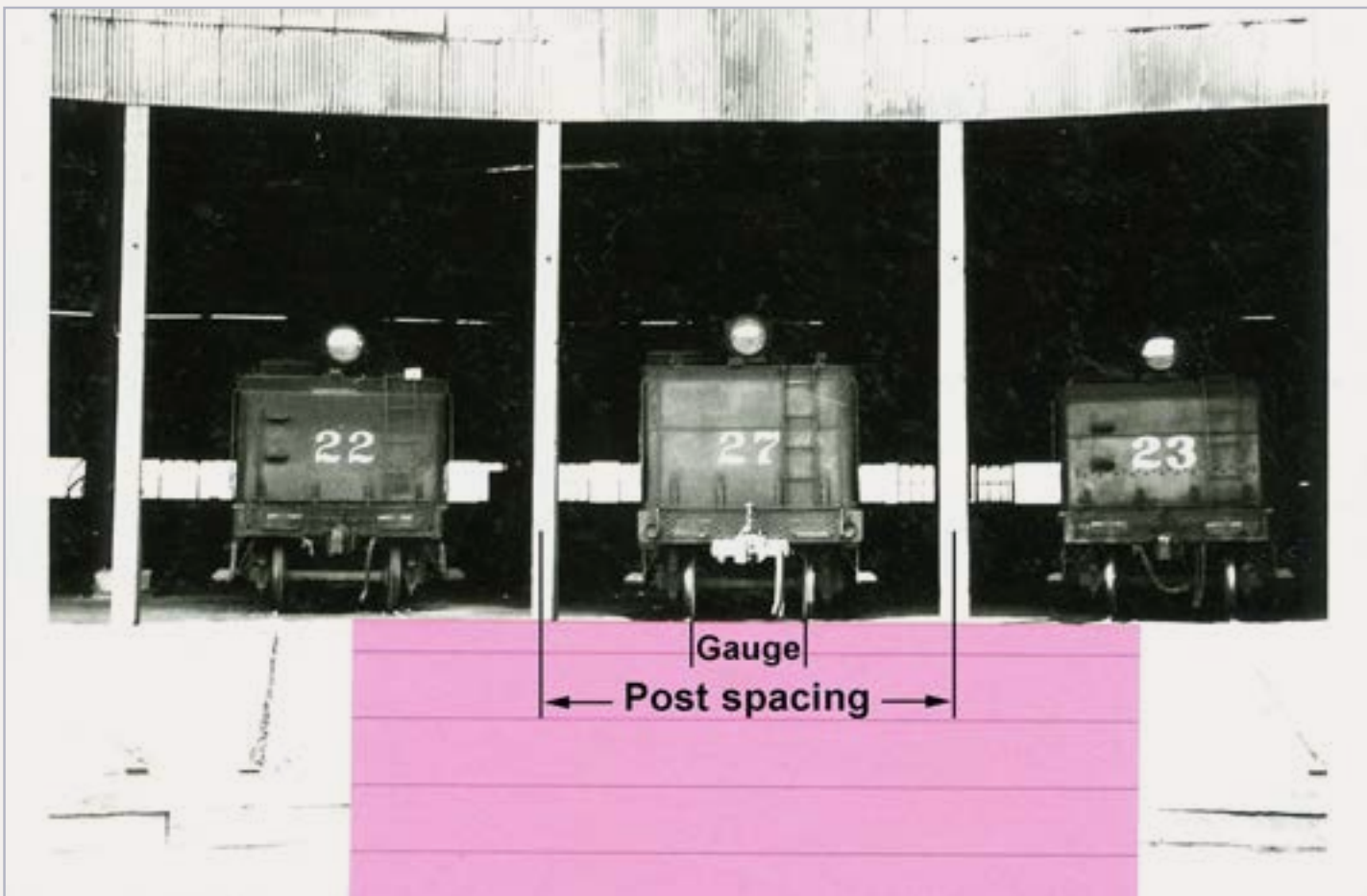


Figure 16: This graphic shows where to take those measurements.



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First, place a piece of paper over the photo so that the top edge of the paper lines up with the bottom of the left post; that results in the paper being “flush” with the front of the building. (If you can’t see exactly where the bottom of a post should be, just estimate where the bottom would be).

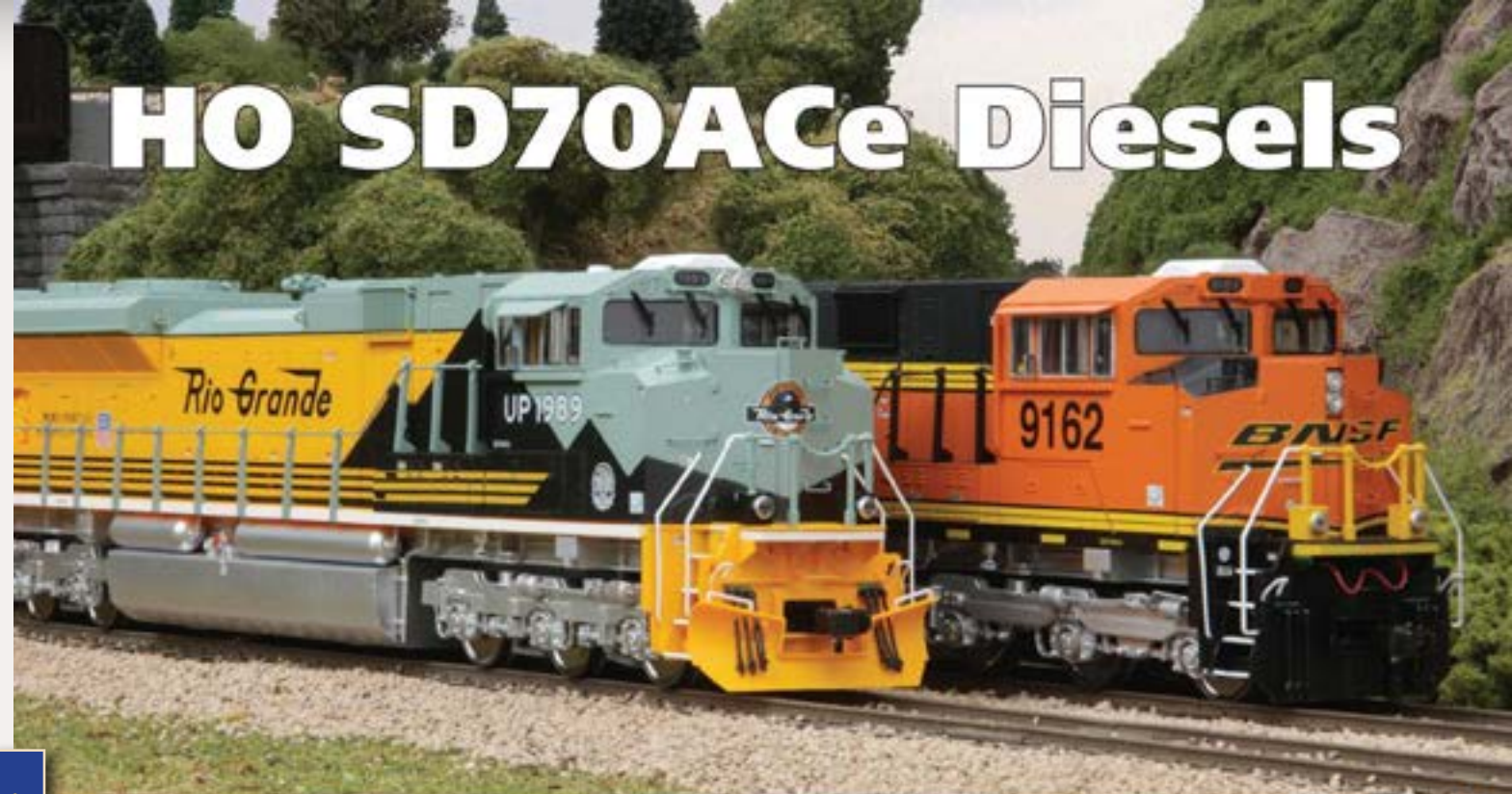
I used a large Post-it™ note which made it easy to take measurements without the paper sliding around. The paper is critical because we need to measure both the track gauge and the post spacing along the same line. (Yes, you could use the width of the tender for this purpose but the tender appears to be slightly inside the roundhouse, which throws off the measurements. You would also need to know the width of the tender.)

These methods may seem complex, but they can be very powerful tools that can result in quite accurate results. If the math appears daunting, use the spreadsheet. You may be surprised what you can achieve. ✓

Figure 17: Measure the width of the inside edges of the rails (the track gauge) right where they cross the edge of the paper, using a dial caliper. Also measure the distance



from the center on the post on the left to the center of the post to the right. (The calipers aren't quite lined up in this photo.) I measured the track gauge (which we know is 4" - 8½" or 56½") and the post spacing and input those numbers in the spreadsheet. The result was a prototype post spacing of 15', which sounded about right. Knowing this dimension, we can compare the post spacing to the height of the door opening and calculate that dimension. Knowing the door opening height, and by switching to a photo showing the height of the front wall of the roundhouse in relationship to the door opening, we can calculate the height of the building. So, from just the track gauge, we can determine almost everything needed to draw up the front of this building.



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About our N-scale columnist



John Drye is our N scale editor and columnist.

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COMME-N-TARY: Detailing Walther's New River Mine

Modeling in the hobby's most eNgaging scale

 **Reader Feedback**
(click here) 

How to turn an out-of-the-box structure into a realistic prototype facility, or changing a "mine" into a "colliery" ...

Although there wasn't room on my Horseshoe Curve layout for a coal mine, such facilities are a central element of many model railroad designs. After all, coal and railroads are practically synonymous, even in the 21st century. I recently detailed a coal facility for fellow N-scaler Edd Braithwood's modular B&O layout. "Schaefer Coal Company" is named in remembrance of long-time NTRAK-er Matt Schaefer who inspired the design of my own layout and many others. This article will describe how Schaefer Coal was built and detailed.

As with railroads, coal mines come in all shapes and sizes. Walther's New River Coal mine is a great starting point for a small to medium size facility. Although based on a prototype located in the Rockies, the corrugated metal construction is a great example of mines constructed in the middle

third of the 20th century all across the country. Although some are well over 50 years old, many are still in operation today.

The kit itself consists of a large structure covering three tracks, plus truck-loading bins and some covered conveyors to connect the structures. Although labeled a 'mine' the Walthers structure is more properly called a tipple or colliery. A coal mine

is (usually) underground. According to Webster's, a tipple is "a structure used for loading coal into railroad cars," and a colliery is "a coal mine and its associated buildings." A "colliery" is what we are looking to build.

Walther's Model

The Walthers structure can easily be modified to create a smaller facility, including reducing the tipple from

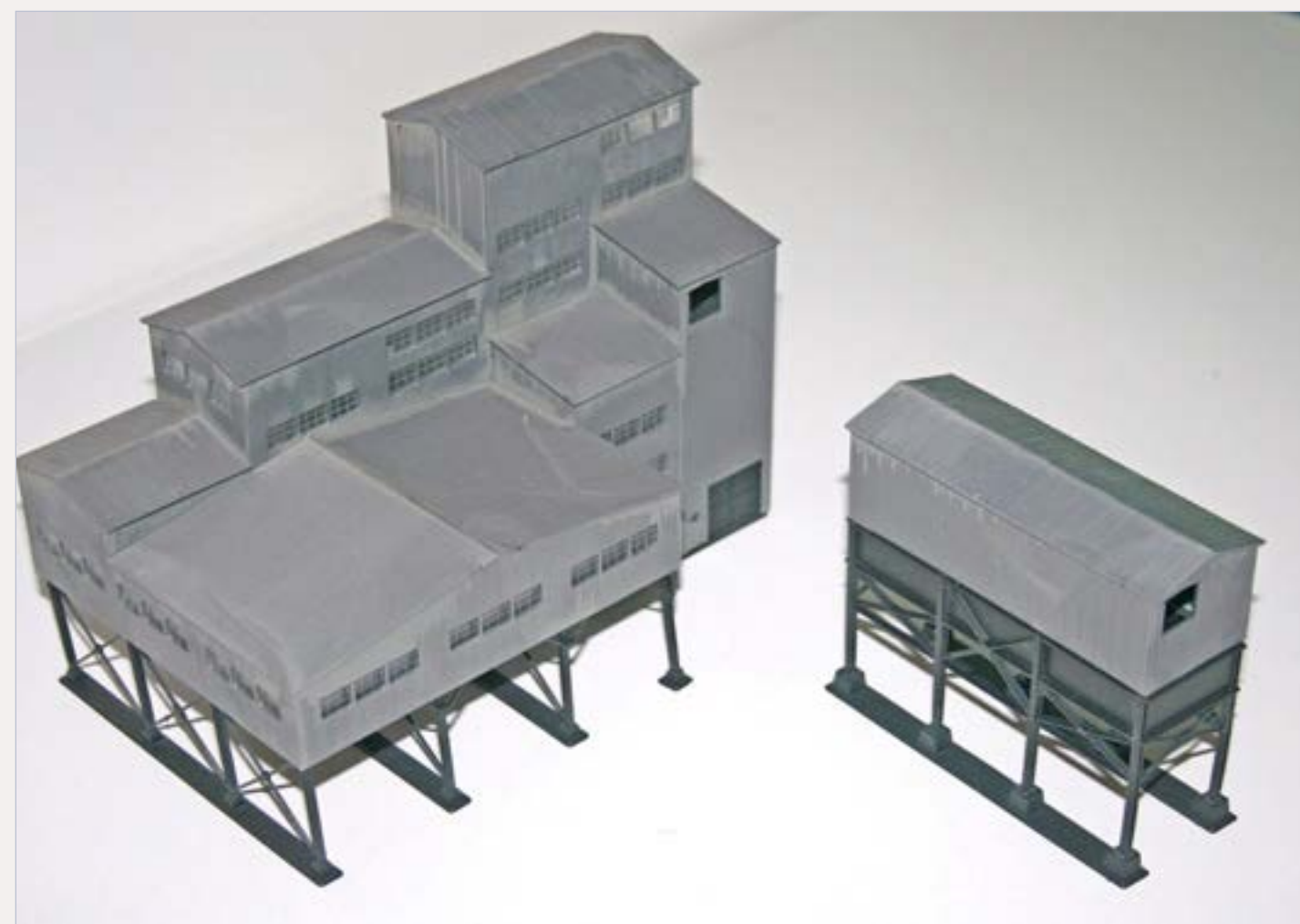


Figure 1: The Walthers' New River Mine is a great representation of a mid-20th century facility. Although it is rather plain out of the box, the addition of pipes, vents signs and weathering can create a hard-working industry.

three tracks to one or two. A number of articles in the model railroading press have been published describing how to do this. The same techniques work in both N and HO scales. The initial step is to build or kitbash the kit to your railroad's specifications. The steps described in this article involve adding on to the finished structure, although some of them can be also used during construction (figure 1, previous page).

Mine Versus Colliery

Whether your railroad needs one, two, or three loading tracks, the kit itself can be enhanced to turn the "mine"

into a working "colliery". Prototype photos of similar facilities reinforce the idea of a coal-loading facility as a set of connected buildings. Additional structures can include power plants which were usually, but not always, coal-powered themselves, coal silos (similar to the storage bins in the kit), explosives storage buildings, plus sheds and shacks for a variety of purposes. In addition, details can be added to the structure itself, including vents, pipes, wires and ducting (figure 2).

While the kit represents a complete sorting and loading facility, the structure itself is rather plain. Prototypes often have a wealth of vents, pipes



Figure 2: There are many sources for pipes, vents and ducts for N scale industries. Don't restrict your search to only N scale items. These HO scale smoke jacks worked perfectly on the N scale kit.



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Figure 4: Webster's Dictionary defines a "colliery" as a mine and associated structures. Additional structures can consist of storage silos created from PVC pipe, small sheds and storage buildings, and propane or other storage tanks.

and ducts that power and ventilate the facility. These are not difficult to add with simple materials.

Vents and Pipes

The roof lines on many prototype structures include large air vents to remove coal dust from the interior. These are often located along the ridge of the roof. There are a variety of sources for such vents. The prototypes are often pretty large, so don't restrict your search solely to N scale offerings.

Look at prototype photos for reference. There is a wealth of information available by searching for 'coal mining': www.coalcampusa.com is a good source for Appalachian mines. Similar sites exist for other locations. The photos do not need to be followed exactly, but can provide a useful guide to vent type and placement. This kit received a pair of N cyclone vents on the roof of the loading bins and an HO scale smokestack near the top of the building.



Figure 5: Vents can be easily installed along the peak of an industrial roof by first using a pin vise to drill a small hole and then an X-Acto knife to enlarge the hole to fit.

Vents are easy to add after construction. First, determine the location for each vent, mark carefully, and drill a small hole with a pin vise. Next, use a sharp X-acto™ knife to enlarge the pinhole to match the outside diameter of the vent. Twist the point of the knife slowly inside the pinhole to ream it out until the hole is just smaller than the vent. Continue to work slowly and carefully and stop when you achieve a tight fit. Glue the vent in place using your favorite adhesive, based on the material.

These structures also often include pipes of various sizes to carry liquid, steam or coal from one part of the structure to another. Large-diameter pipes can be built from plastic tubing. These can flow from the structure straight into the ground or from one part of the structure to another.

If flowing into the ground, the pipe can often be attached under an eave of the structure and simply glued in place. If flowing across or between the buildings, the same trick can be used to create and expand pin vise holes. Schaefer Coal needed several pipes on the main structure.

Smaller pipes can be created with brass wire or plastic shapes. The smallest of these can also be used to represent electrical conduit. On the Walthers kit, these pipes were used to run some conduit vertically along the walls.

Additional Structures

As noted in Webster's, a colliery includes associated structures, and these are key to turning a plain structure into a realistic industry. There are a number of kits that can be used



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to achieve this effect. These include small storage sheds from many different manufacturers, offered in both plastic and wood. Other possibilities include a small brick power plant or a stone structure used to store explosives.

In the early days of coal mining, these were built with a deliberately-weak wall facing away from the facility, in order to direct an explosion in a harmless direction (figures 4 and 5 previous page).

Schaefer Coal includes several sheds from different sources, a stone explosives shed and a small power plant structure and chimney, plus some concrete storage bins built from plastic piping and one of the kit conveyors. Review of prototype photos will help identify candidate structures in your own kit pile or spare parts bin.

My structures were claimed from a previous mine scene and some spare kits on hand. They were placed

along the tracks near the mine structure based on the space available, in this case a pair of NTRAK modules. Spacing will be determined by the room available to your layout's civil engineers.

Signs

The Walthers kit includes a few decals that can be used to identify the owner of the facility. Schaefer Coal includes a custom sign based on the typeface and design of signs from period photos.

Both the tipple and power plant identify the owner of the facility. Additionally, warning signs available from Blair Line and others can be added to ensure compliance with government safety regulations.

A bit of bright red or orange on one of these signs can add a splash of color to an otherwise drab scene (figure 6, next page).

Weathering and Junk

The next step in creating a realistic scene is to add the rust, grime and coal dust accumulated over 50 years of pulling rock and minerals out of the ground.

The same techniques described for weathering rolling stock also work on industrial structures. The mine and all associated buildings received several washes of coal-dust black, rust and grime paint plus some weathering chalks in spots. It is hard to overdo this on a coal mine.

What little space remains between the structures in a coal facility is often utilized to "store" the remnants of previous activity.

These can consist of used timbers, leftover equipment, empty boxes and barrels and various sorts of trash. For Schaefer Coal, I cut up several extra girders, weathered some stripwood

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and ties, and dumped it all into several piles. The trick to making this refuse look like it has been there for a while is to sprinkle it with dirt, so that it is all partially buried in the ground.

If there is still a little open space, scatter some scale coal about, leaving just enough room for an access road (figure 7, next page).

Now that your loading facility has water, power and ventilation, it is ready to receive empty hoppers and look just like it has been loading these hoppers for the past 50 years.



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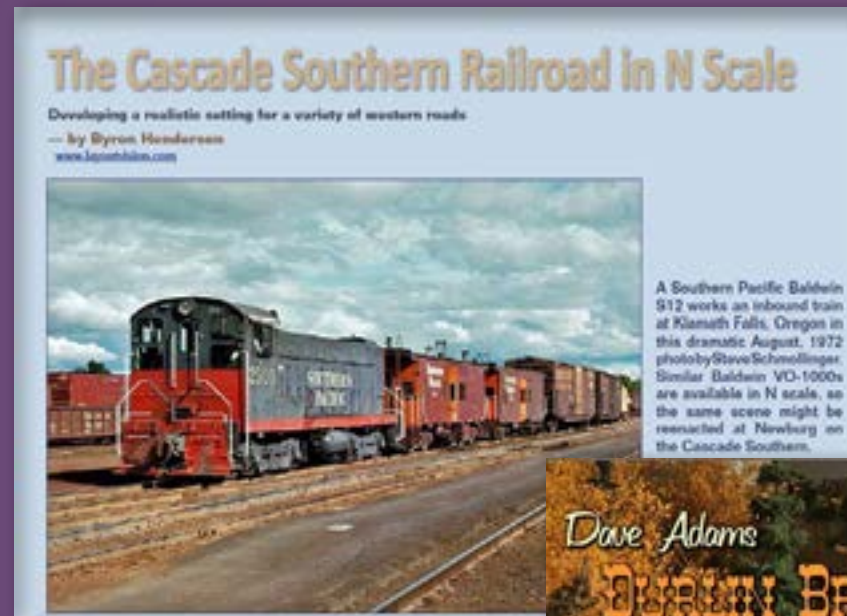
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Figure 6: The Schaefer Coal Co sign was created using the font and style of period mine photographs. Modern facilities often use colorful text and logos.

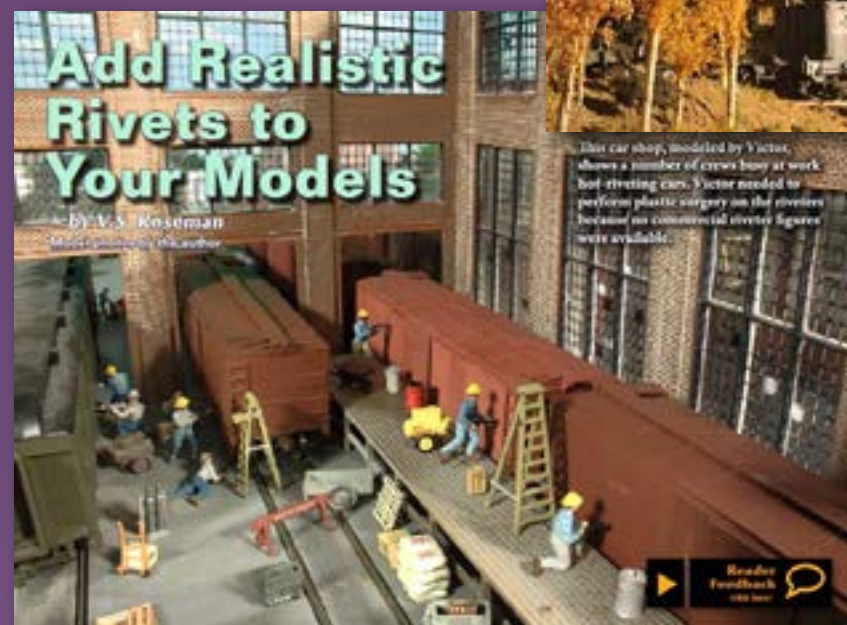
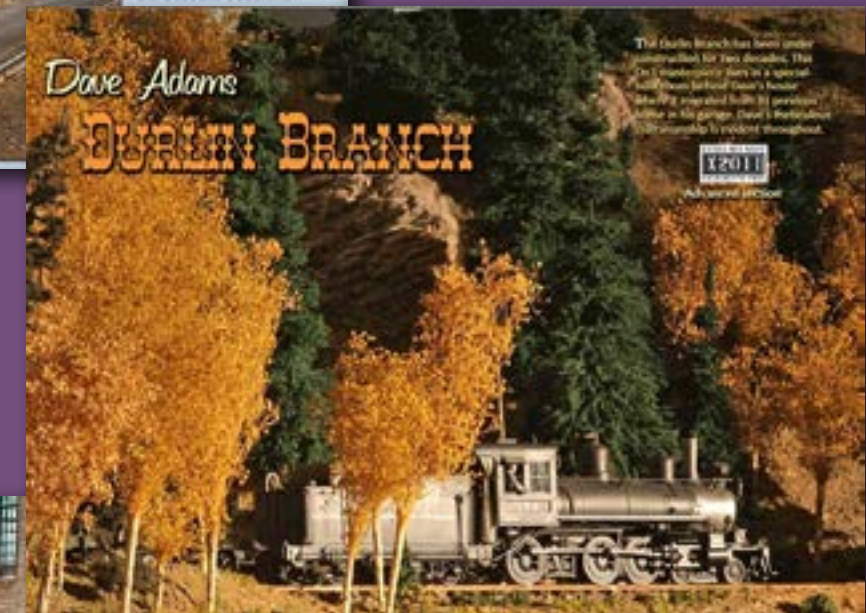


Figure 7: The Schaefer Coal Co has been enhanced by addition of vents, piles, signs and weathering – it's now ready to receive empty hoppers!



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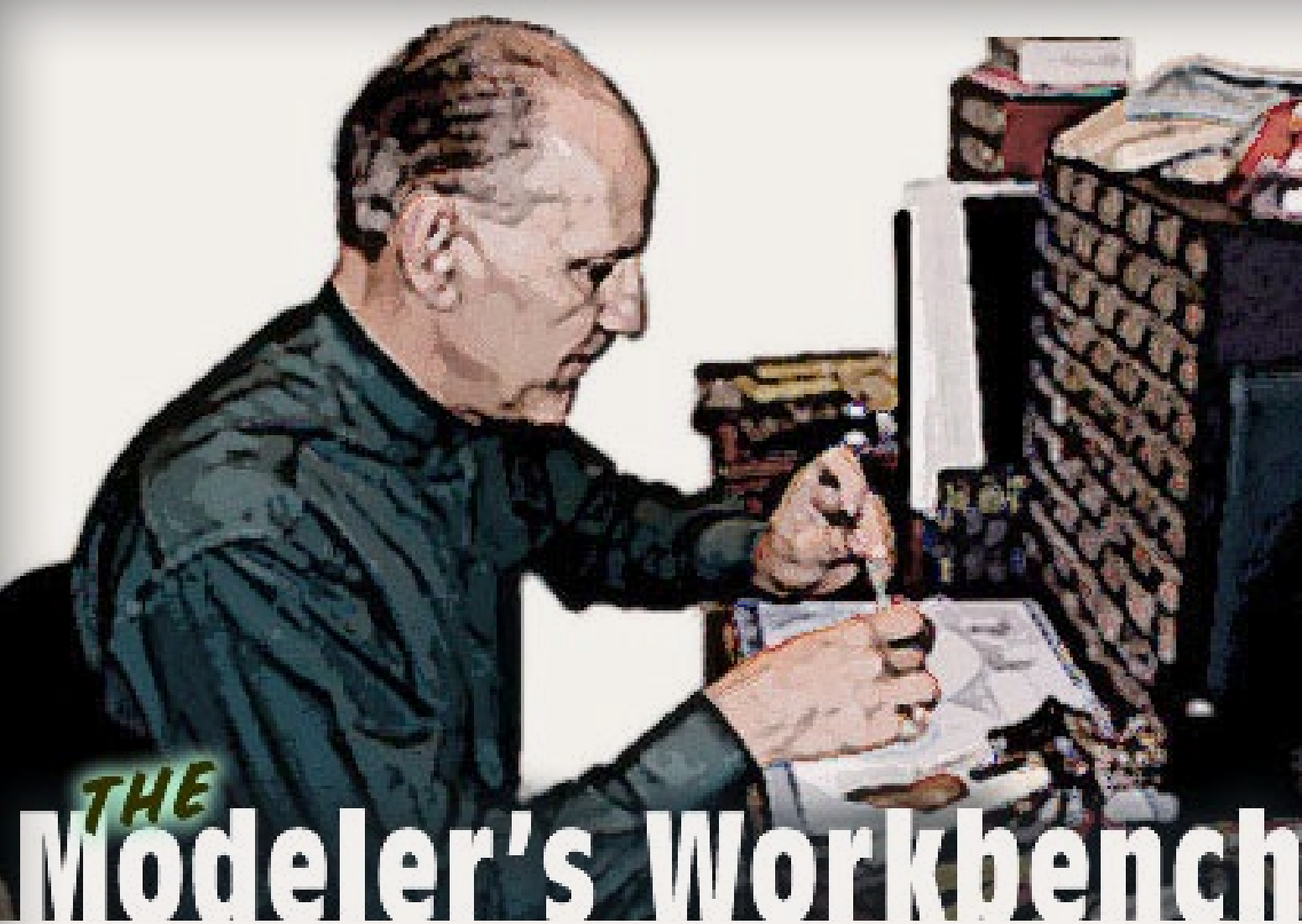
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Making Sagebrush Trees

Homemade superb trees with superb trunks!

– by Dirk P. Reynolds



Figure 1

I have been attending a lot of train shows and I overheard talk about something called “sagebrush” trees. I had no idea what that was, so I did some research. I found out that sagebrush is a desert plant with an intricate limb structure, that when cut up, makes convincing model tree armatures.

A high school friend in Utah sent me a box full of sagebrush in full bloom. I have since planted the seeds and hopefully I will have my own plants to harvest. I greatly appreciate her contribution!

I can make as many as 30 sagebrush trees in one sitting. After that, my eyes start to cross and I know it is time to stop. I don't know if it is the hair spray or not!

Figure 1: The finished product.

Figure 2: Box of sagebrush ready for processing.

Figure 3: Step one is to vacuum the seeds off of the plant.

Figure 4: Step two, sorting out the clean branches which are now the armatures. I also cut them to size.



Figure 2



Figure 3



Figure 4





Figure 5



Figure 7

Figure 5: I left some upper branches white for birch trees while others I sprayed gray to simulate bark

Figure 6: Even though the branches are fresh, they are still quite brittle. In this step I carefully apply the green fiber to each branch.

Figure 7: Tree is ready for a coat of cheap hair spray used to make the foam adhere to the tree.

Figure 8: I put a good coat of hair spray on the green fiber (you may want to use plastic gloves at this point).

Figure 9: Next I apply the foam – how heavily I apply it is based on the tree density I want to create.



Figure 6



Figure 8



Figure 9



Figure 10

I use a hand pump bottle because it releases fewer fumes into the air than the aerosol spray can version.

The full sagebrush plant has three sizes of trunks from which to make trees. The plant stems get bigger as you go down toward the bottom. From one sagebrush branch you can get trees for all scales.

Figures 13-16 show how I manufacture different sizes of trees.

Once I learned how to do this, I found a sagebrush bush can keep me in trees for my layout for quite a while.

I have also seen a brand of sagebrush trees at train shows called Sweet

Figure 10: Later, I apply a second coat of hair spray and mount the tree in pink foam to dry.

Figure 11: Here is a birch tree mounted on the layout. Notice the white branches with the fiber and foam added to it.



Figure 11



Figure 12



Figure 13

Figure 13: Here is a before...



Figure 15

Figure 15: Here's a larger before...



Figure 14

Figure 14: And here's is the after...



Figure 16

Figure 16: And the larger after...



Figure 17: A farm scene on the layout has sagebrush trees planted. The layout is HO scale and features the Missouri Pacific Railroad and early Santa Fe. It can operate with either DCC or DC.



Figure 18: Here is a shot of another scene that's under construction.

Water Trees. I have wondered how I could get more sagebrush bushes so I'd have enough to sell to other modelers.

Well, we will have to see about that. I wouldn't want to work my friend to death scouring the desert!

I hope you find this write-up useful – keep on model railroading!

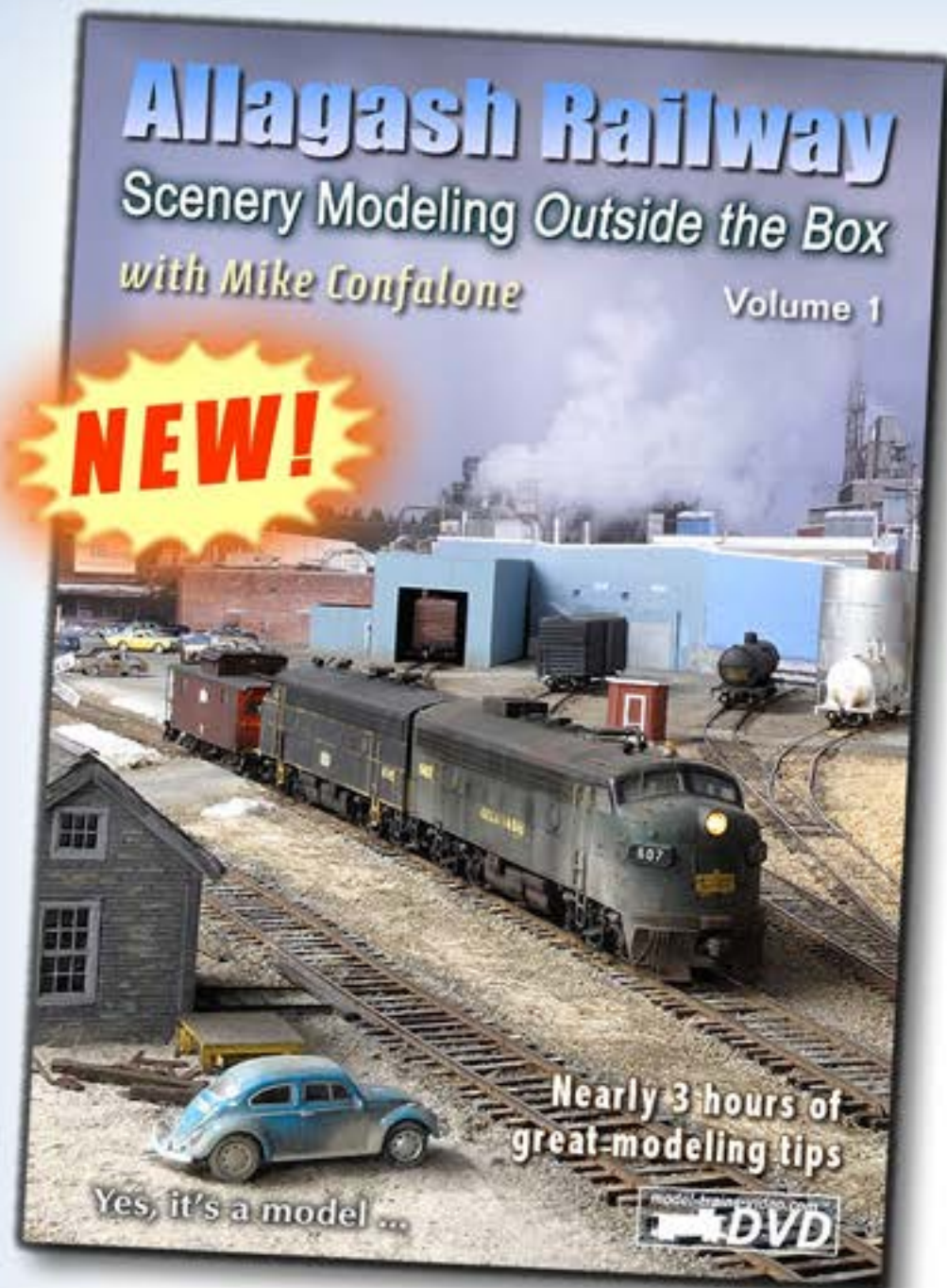


Dirk Reynolds has been model railroading, according to him, "since the dinosaurs roamed the earth." His great grandfather engineered the doodlebug that ran from St. Louis, MO to Marion, IL.

Dirk ran his own hobby shop for 9 years in Dupu, IL under the name of Reynolds Railways. It closed in early 2010, but he's now operating out of his house in Columbia, IL under the name of Dirk's Trains.

Dirk's a regular at local train shows in the St. Louis, MO area, and runs the successful Warrior Express show that began in February 11, 2012 in Arnold, MO. Contact Dirk at comptrain2002@yahoo.com.





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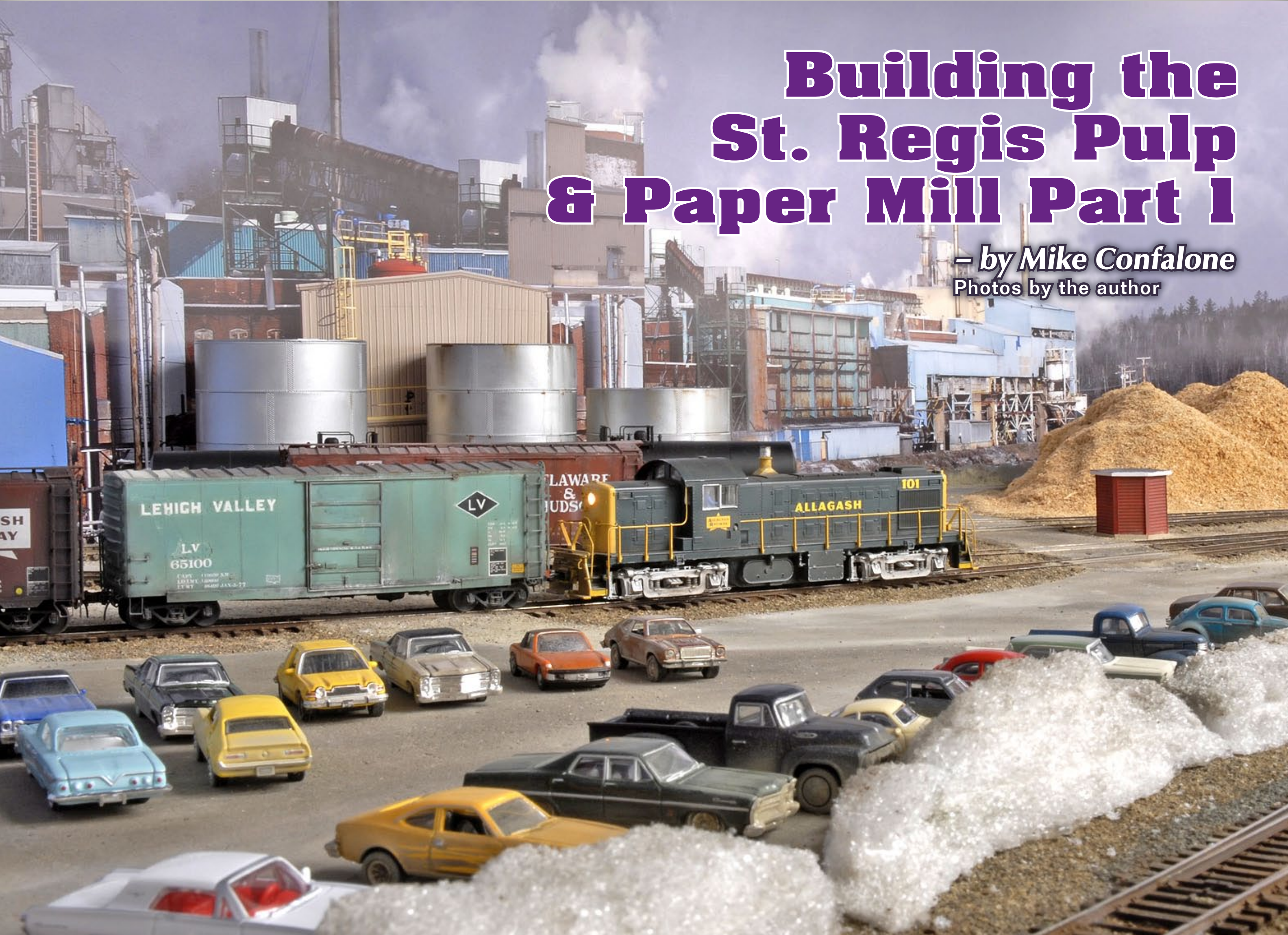
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Building the St. Regis Pulp & Paper Mill Part 1

- by Mike Confalone
Photos by the author



Expert model railroader Mike Confalone shows you how to model outside the box in novel new ways with his proto-freelanced St. Regis paper mill scene ...



My proto-freelanced HO scale Allagash Railway (AGR) operates in west-central Maine in the early spring of 1980. Similar to prototype neighbors Bangor & Aroostook and Maine Central, one of the principal traffic sources for the Allagash is the paper industry.

In the late 1970s, and early 1980s, the state of Maine was the number one producer of paper in the entire country. As would be expected with any sizable railroad in Maine at that time, paper mills and their associated traffic would play a big part in making up the fabric of the railroad.

The great thing about paper mills is that they are major traffic generators. Wood pulp, pulpwood, chemicals, and other raw materials all go into the process of making paper. These commodities, coupled with outbound finished paper, and oil and coal to fuel the mill power plant, all contribute to the traffic base for my Allagash Railway.

The Allagash currently has four paper mills on the railroad. One of these is the St. Regis Pulp and Paper mill at New Portland, Maine. This mill is reached by way of a branch off the mainline at West Mills Jct. The branch is short, but hosts two major customers – the St. Regis mill and an Agway feed mill.

In this series of articles (part 1 this month, parts 2 and 3 in subsequent months), I'll show you how I "built" the St. Regis mill.

Planning the Scene

Since beginning construction on my model railroad, I've embraced the photo backdrop concept. Nothing gives greater depth to a scene than a high-resolution digital photo backdrop. In the past, before the advent of digital photography, modelers relied primarily on hand-painted backdrops.

Today, some modelers still achieve good results with painted backdrops, but they simply can't compare to a well-done photo backdrop. If executed properly, nothing looks more realistic. Most photo backdrops are of scenery. Distant hills, mountains and/or urban landscapes are generally what we think of when we consider using photo backdrops.

But let's step outside the box for a minute and consider another use for the photo backdrop.

One of the challenges in modeling a paper mill is successfully representing

what I like to refer to as the "industrial menace." Paper mills are an absolute maze of industrial components. Myriad mill buildings, pipes, conveyors, stacks, tanks, pulpwood piles, woodchip piles, vehicles and other assorted machinery make modeling a paper mill a very challenging endeavor.

The thought of scratchbuilding, or even kitbashing such a mill was daunting. Not only would it be difficult, but the degree of compression would be too great. The massive nature and "atmosphere" of the mill would be severely compromised because of space limitations.

The space allocated for the mill was relatively small – about 6' long by 3' wide (figure 1). Realizing this, I chose a different path for my St. Regis mill.

I decided that a high-resolution digital photograph of a typical New England paper mill could eliminate the need to actually "build" a mill. Was it possible? It seemed to make sense. There was only one way to find out!

So, on a blustery winter day several years ago, I drove north from my home in Goffstown, New Hampshire into the White Mountains to the mill town of Groveton. The Groveton mill had been there forever. Like many mills, it had changed ownership several times over the years.

In its heyday in the 1970s, the mill was operated by Diamond International, and later Wausau

Papers. It was served by two railroads, the Boston & Maine and the Grand Trunk (CN). B&M based a switcher there, and both roads interchanged at the mill. It was a busy place.

By the mid-2000s, this mill, like many mills in North America, was in financial trouble and due to close. By the time I made the decision to go and photograph it, the mill was slated for shutdown within two weeks!

When I arrived in Groveton, the mill looked as it always had, but with a few modern additions here and there. The weather was gray and cold.

Miraculously, the sun popped out for about 20 minutes, and I proceeded to photograph the mill in a panoramic sequence, capturing all of the critical elements of the structure from an average viewing distance using my Nikon digital SLR D200 camera, on the RAW setting, using a 50mm lens.

Steam escaped from the mill and added a dramatic element against the steel-gray sky. It was sad to think that in just a couple of weeks this industrial beast would fall silent. But I knew I had captured some killer images that would go a long way toward creating a signature scene on my railroad.

Preparing the Photo Backdrop

When I got home from photographing my selected stand-in prototype for my St. Regis papermill scene, I proceeded to stitch together the various component photos in Adobe Photoshop, creating an 8'-long high-resolution photo montage of the mill.

Certain parts of the mill were resized and shifted to fit the space. I erased any signage that suggested the current owner of the mill (Wausau Paper) and added new signs to reflect St. Regis – New Portland.

After the photo was complete, I saved it as a .tiff file and had it printed by a commercial printer. In my case, I used Cummings Printing, a local printer that produces my prototype-based magazine Railroad Explorer (www.railroadexplorer.com).



Figure 2: Mike's use of a high resolution photograph backdrop literally saved him hundreds of hours of intricate construction time.

For me, this was a color-critical job, and I wasn't willing to run the risk of the color not being spot-on. Any graphics house or print shop that has the capability to print on a long roll can do this. Just be specific about your requirements.

Be sure that the color profile you created your backdrop in (Adobe 1998, or SRGB for example) matches the profile that the graphics house uses. If not, the color you see on your monitor may not match the end product. Depending on the capabilities of the graphics house, many material choices will be available. If you are concerned about color, specify the fact that this is a color-critical job, and you want to use a material that renders color accurately. A high quality photo paper, or Oris proofing paper works

best. I've had experience with other materials, such as vinyl, and the results have been poor. Specify the finish (gloss or matte) that you want. A matte, or slightly glossy material will render saturated colors. A high-gloss finish may create glare. Be sure to ask questions. ■

STEP 1: Preparing the Space for the Backdrop

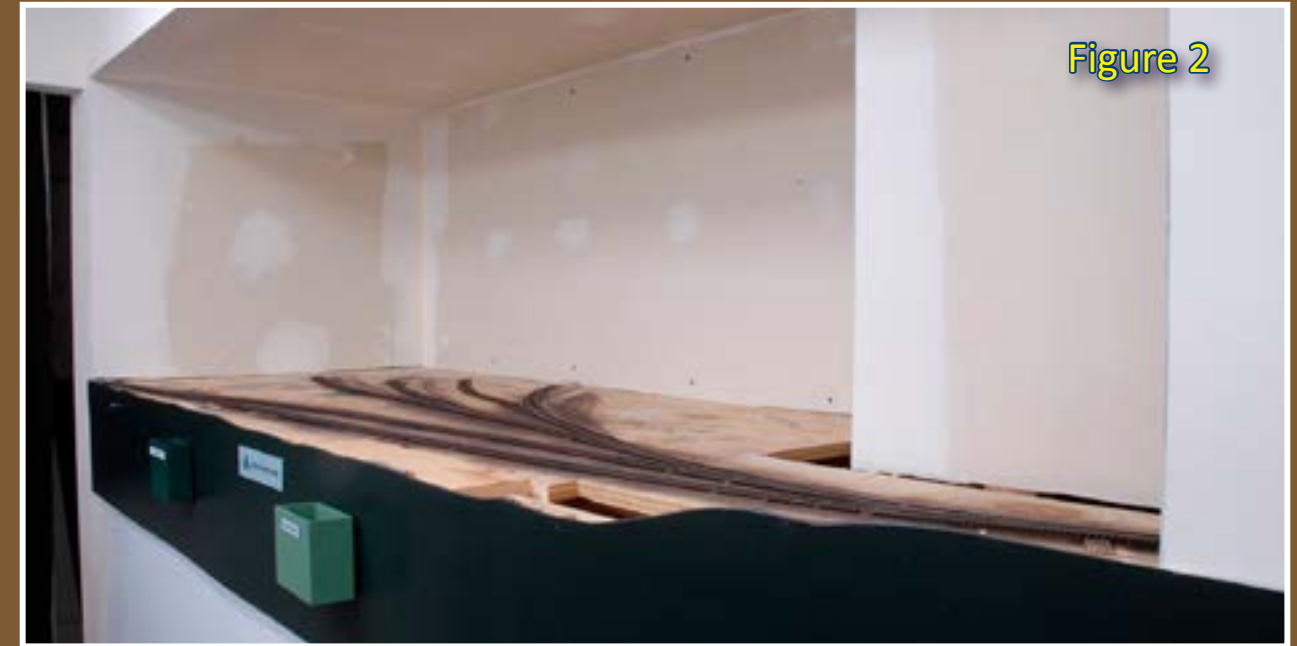


Figure 2



Figure 3

Figures 1 and 2: The track has been laid in. There was no need to finish most of the drywall here because it would quickly be covered by the styrene backdrop and the high-resolution digital photo

Here is the St. Regis mill space before construction commenced. As mentioned earlier, the space for the mill is compact, occupying just a 6'-long by 3'-wide "picture window". Behind the mill area is our home's utility room (boiler, water softener) and a small dispatcher's office for Allagash operating sessions.

STEP 1: Preparing the Space for the Backdrop *Continued ...*



Figure 3: I painted the darkened corner where the boxcar unloading shed would eventually be placed flat black, using Krylon's Camouflage paint. This gives depth to the interior of the "loading shed." Boxcars spotted inside will literally disappear into the blackness.

STEP 2: Installing the Styrene Backdrop



Figure 4: To secure the polystyrene backdrop, I used strips of Velcro. This is much neater and cleaner than using adhesive, and it gives me the flexibility of removing it at a later date if changes need to be made.

I purchased a 4'x8' sheet of .060 (1/16" thick) polystyrene from a local plastic supply house. I had the guys rip the plastic to 8'-long by 26"-high to tightly fit the target space.

STEP 2: Installing the Styrene Backdrop *Continued ...*



Figures 5-6: I secured the Velcro strips to the drywall and to the polystyrene backdrop.

Figures 7-8: The polystyrene backdrop covers nicely around the contours of the walls and is now connected to the Velcro strips. This gives me a solid surface for mounting the photo backdrop.

STEP 3: Cutting the Hole for the Boxcar Loading Shed

One of the things that make this project so interesting is that boxcars will actually penetrate the photo backdrop, and the polystyrene behind it, and disappear. To accurately cut the hole for this track, I put the mill photo temporarily on the styrene and marked off the boxcar loading shed door.



Figure 9: I folded over a couple of pieces of painters' tape and attached them in the upper and lower corners of the polystyrene. This tape will temporarily secure the photo backdrop while I draw the outline of the boxcar unloading shed.

Figure 10: I partially unrolled the photo backdrop onto the polystyrene. Care needs to be taken to ensure that the photo does not pinch or bind in any way.

Figure 11: Exercising extreme care, I used a very sharp knife and a straightedge to cut the existing roll-up door out of the photograph. There was no need to cut through the polystyrene at this stage, just the photo.



STEP 3: Cutting the Hole for the Boxcar Loading Shed *Continued ...*

Figure 12



Figure 13



Figures 12 and 13: Next, I traced the frame for the door opening onto the surface of the polystyrene with a pen, and then removed the photo backdrop, carefully rolling it back up. I re-drew the door outline with a black Sharpie marker.

Figure 14



Figure 15



Figure 14: Placing the polystyrene on the floor, I carefully cut out the door opening with a sharp knife to reveal a nice, clean opening. Eventually, boxcars would run through this opening for loading inside the shed.

Figure 15: The polystyrene was once again secured to the Velcro strips, and the photo backdrop again partially unrolled onto the surface of the polystyrene. The opening in the photo backdrop matches up perfectly with the opening in the polystyrene.

STEP 4: Mounting the Photo Backdrop in Place

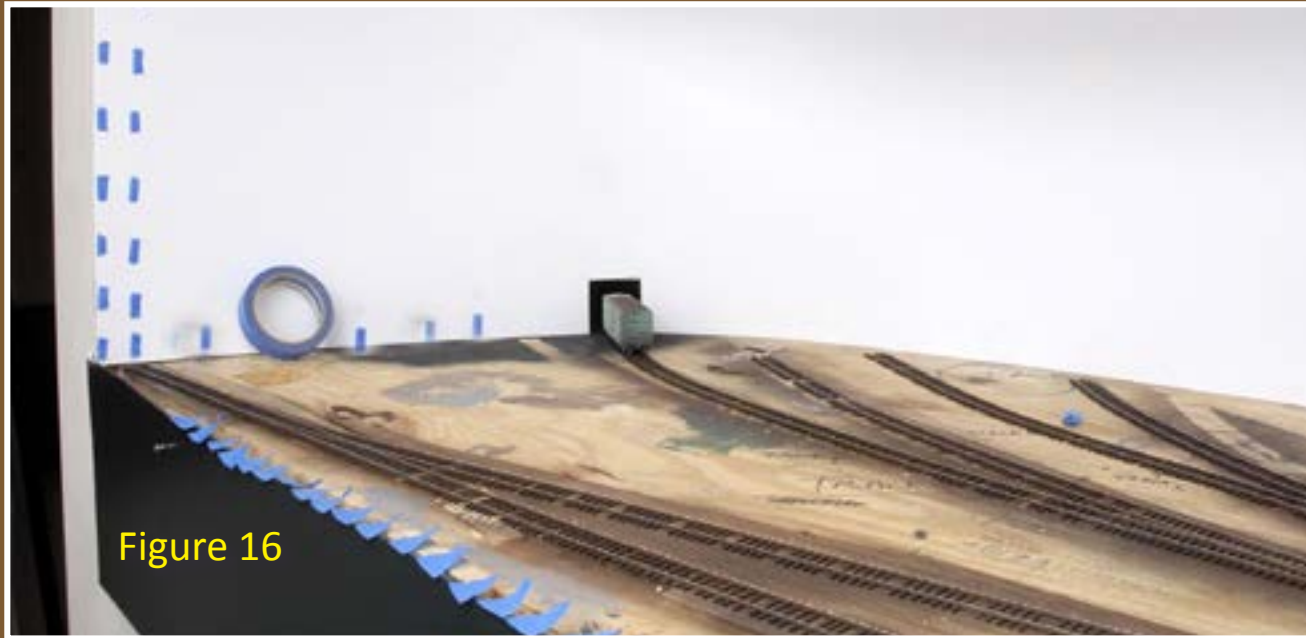


Figure 16



Figure 17

Figures 16 and 17: To secure the photo backdrop to the polystyrene I used pieces of blue painters' tape lined up along the top and bottom edges. I then carefully unrolled the complete photo backdrop onto the polystyrene for the final time. Because of the size of the photo, I took care to ensure that the photo didn't bunch up or pinch in any way and flowed smoothly along the curve of the styrene. The photo backdrop was now in place.

STEP 5: Painting the Gap Between the Photo Backdrop and the Ceiling



Figure 18

Figure 18: Due to my printer's size limits, the height of the photo backdrop fell short by about 3", leaving a gap between the top of the photo and the ceiling.

At this point I had to make a decision as to the color of the ceiling in the alcove. Due to size constraints at my printer, the photo backdrop was actually 3" too short and didn't quite reach the ceiling. This left a white gap between the top of the photo backdrop and the ceiling.

I knew going in that this gap would exist, and figured I'd deal with it at the time. Now, the time had come.

Typically, all painting and finishing of the space should be done before the photo backdrop is mounted, but I needed to see the full picture in place before making a final decision as to what color the gap and ceiling should be.

STEP 5: Painting the Gap Between the Photo Backdrop and the Ceiling *Continued ...*



Figures 19: I decided to paint this gap and the ceiling a gray color that matched the general color of the sky in the backdrop.

After careful consideration, I decided to paint the gap a gray that would match the steel blue-gray sky depicted in the photo. Matching a solid-color flat paint to the colors of a complex photograph like this is never easy, and in the end, never a perfect match. I picked a gray that was as close as possible and went with it. My wife, Susan, suggested extending the gray onto the ceiling, to create a clean and sharp separation between the mill and the surrounding white walls. In retrospect, this was a very good idea.



Mike Confalone grew up in Smithtown, New York, and got into model railroading at about age 10 or 11. Like many young teens, he joined the local model railroad club and got his first glimpse of model railroading on a large scale.

College in the mid 1980s took him away from the hobby for a while, but he still found

time to visit the local hobby shop in Scranton, Pennsylvania, and do some modeling on the side. Railfanning also became a favorite pastime. After graduation in May 1989, he and his wife, Susan, moved to New Hampshire.

He publishes a Northeastern prototype railroading magazine called *Railroad Explorer* (www.railroadexplorer.com), and has published six books on prototype railroading.

He has built several layouts over the years, but it wasn't until the early 2000s, after a visit to Dick Elwell's Hoosac Valley layout in western, Massachusetts that he really got a kick in the rear. Seeing Dick's fully-scenicked and operational layout prompted him to get serious.

Today, his proto-freelanced, under-construction Allagash Railway occupies a 58' x 24' space – his entire basement and the former two-car garage. This is a long term project that will take much of the current decade to complete. For him, the challenge of bringing his own piece of New England railroading to life in HO scale is the driving force behind his passion. He loves all aspects of model railroading, from benchwork on up, but his specialty is scenery and weathering. He also enjoys the challenge of prototypical operations.

Besides the trains, he and Susan love to garden and landscape their wooded two-acre property in southern New Hampshire. He also plays a mean guitar, but his Fender and Marshall-fueled rock-band gigging days are over, at least for now!

STEP 6: Planning the Employee Parking Lot and Road System

With the photo backdrop in place, and all of the painting complete, I can start thinking about the scene itself. The first order of business is to make final adjustments to the track position and then plan the mill access roads and an employee parking lot.

However, a quick word about painting track. I use the dark brown version of the aforementioned Krylon Camouflage line of paint to provide a base coat for all of my track. It gives an excellent, dead-flat, dark railroad tie brown coloration to the track, which serves as a base color for individual tie and rail detail painting (more on that later).

The prototype mill at Groveton, New Hampshire, features several weathered asphalt roads that probe into every corner of the mill, and a large employee parking lot. Based on previous experience, I figured on roads about 2.5" wide for HO. This enables vehicles to theoretically come from off layout and mingle into the scene.



Figure 21



Figure 20



Figure 22

Figures 20 and 21: Next up is the employee parking lot and mill road system. I used a piece of cardstock, cut to the proper width for tracing the outline of the roads with a black Sharpie marker. This gave me a basic visual on how the roads would flow through the mill complex.

Figure 22: Next I applied a coat of flat, earth-brown latex paint on all raw plywood, with the exception of the roads and parking lot areas. The brown paint serves as a base for scenery materials like dirt, gravel, ballast, melting snow, dead grass and any other ground cover.

STEP 6: Planning the Employee Parking Lot and Road System *Continued ...*



Figure 23



Figure 24

Figures 23 and 24: After the brown paint had dried, I went back with a light gray and painted the roads and parking lot. This provides a clean guide for building the paved areas of the scene, giving a clearly defined template upon which I could apply “asphalt.” The surrounding brown surfaces will eventually get various grades of dirt, gravel and railroad ballast.

Next I did the crossings. There are five road crossings within the mill complex. Three are inside the complex itself, while two are on the main road that enters the mill parking lot from off the layout.

For the “internal” crossings I decided to go with wood planking, based on prototype photos of the Groveton mill. For the crossings of the main line and passing track, I decided to go with asphalt crossings.



Figure 25

Figure 25: To make the wood plank crossings which appear inside the mill complex, I used some scale 2x8 lumber and cut individual pieces to the proper length with a sharp X-acto knife.

STEP 6: Planning the Employee Parking Lot and Road System *Continued ...*



Figure 26

Figure 26: I secured the wood planks to the tops of the Micro Engineering plastic ties using CyPOX Bonder.



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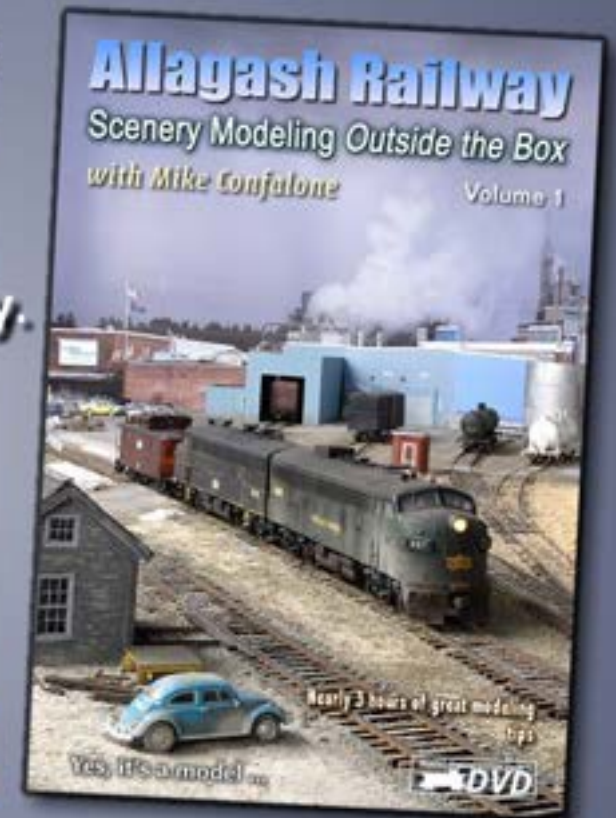
In this exclusive video, Mike Confalone reveals ultra-realistic scenery techniques used on his world-class Allagash Railway. Truly a must-have video for any serious model railroader's library.

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STEP 6: Planning the Employee Parking Lot and Road System *Continued ...*

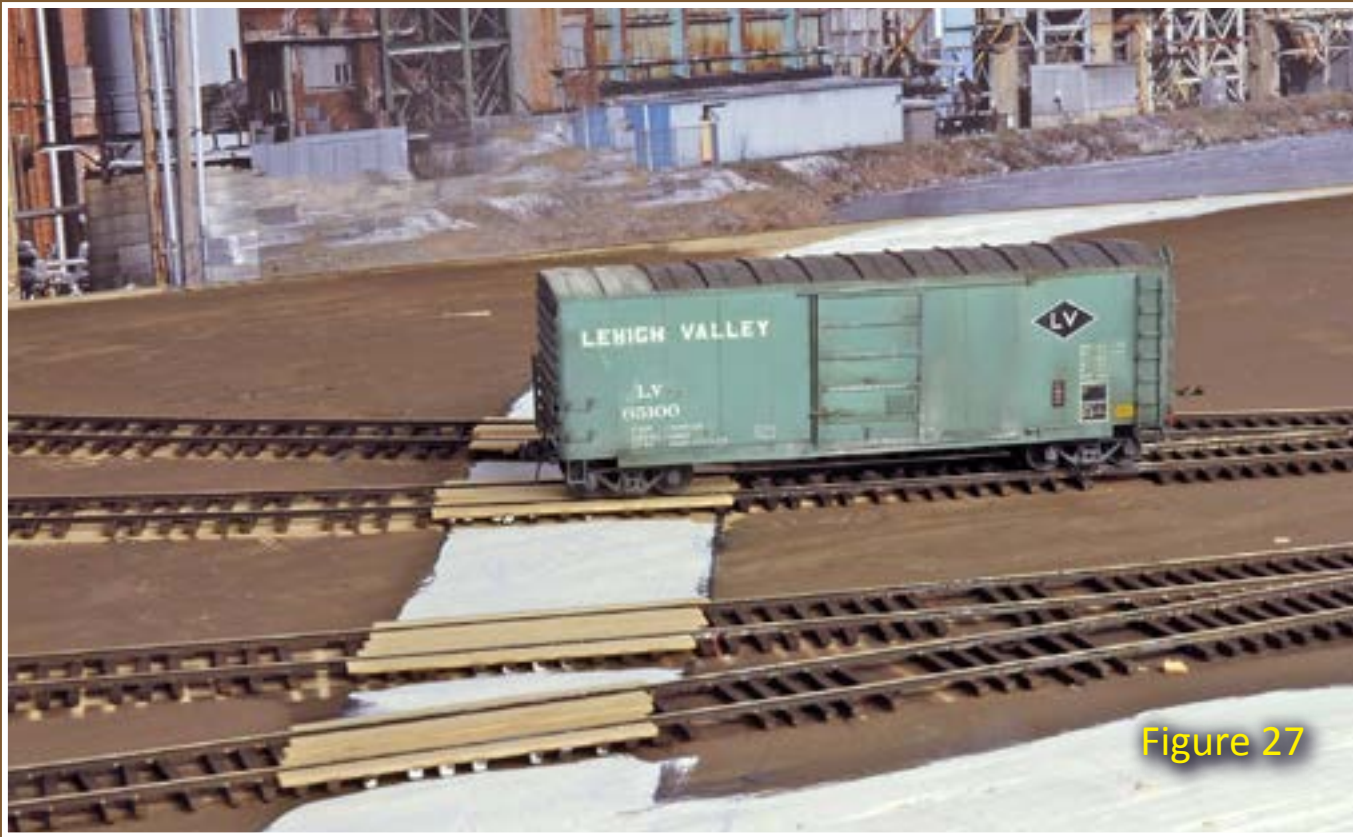


Figure 27

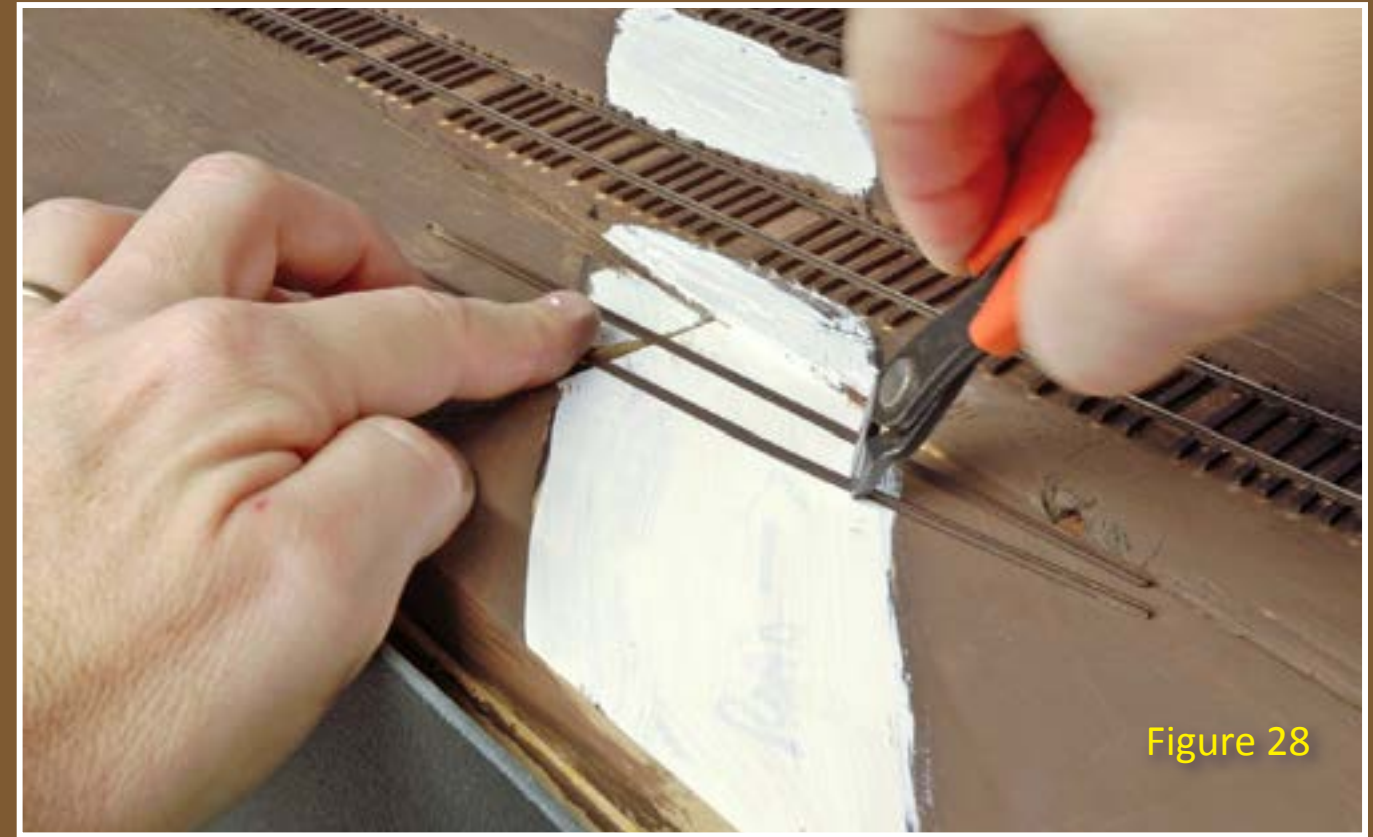


Figure 28

Figure 27: I ran a 40' boxcar across the planks to check for a smooth flow. If any of the wood planks needed to be moved or adjusted in any way, this was the time to do it, before I applied any ground cover.

Figures 28 and 29: For the crossings on the main line and passing track, I decided to go with asphalt instead of wood planking. I used spare pieces of Micro Engineering code 70 rail to act as flange guides. I painted them with a rust-colored paint and secured them to the plastic ties with Cypox.

I will continue the construction of my St. Regis Paper Mill scene in the next issue of Model Railroad Hobbyist – see you then!



Figure 29





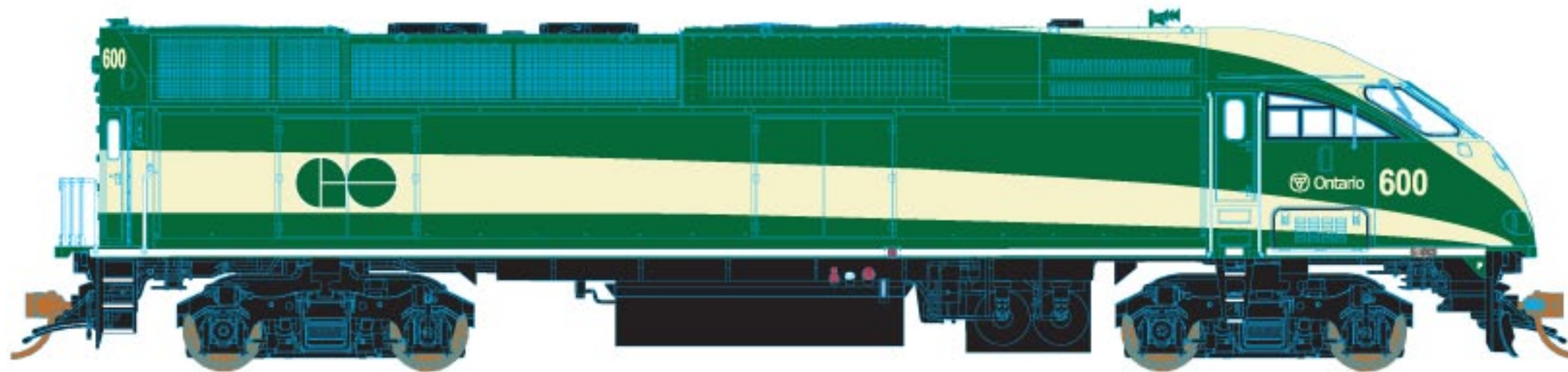
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LAYOUT PLANNING, MRH style

Mining the MRH website “Layout Design” category for nuggets

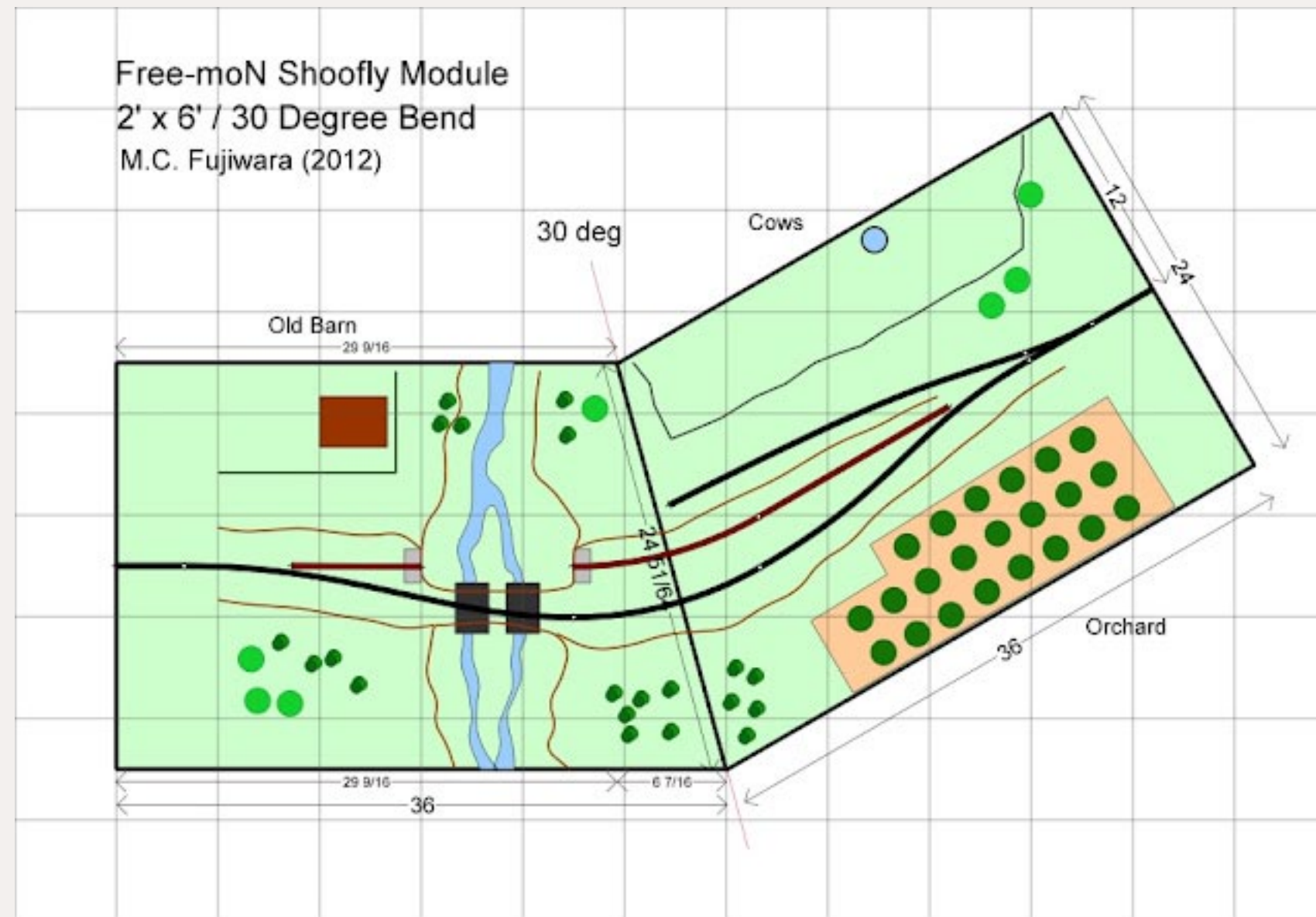


Figure 1: MRH subscriber M.C. Fujiwara has posted this Free-moN module based on a bridge out prototype scene with a temporary “Shoofly” built around it. M.C. illustrates the entire construction process of this module, making for a rich thread full of modeling tips.

You’ll learn a lot by following this thread (see figure 2).

To find this thread on the MRH website, open up your web browser and point it at:

mrhmag.com/node/7120

Figure 2: M.C.’s Shoofly module benchwork under construction.

Figure 3: Adding the pink foam on top, along with the cork roadbed.

Figure 4: Module progress after carving terrain contours into the foam.

Figure 5: In the most recent posts, M.C.’s scenery on this module is coming right along!

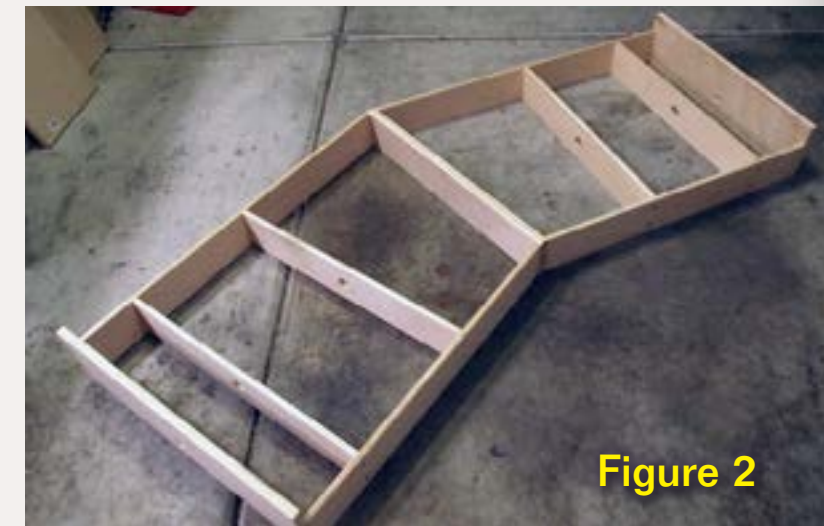


Figure 2



Figure 3



Figure 4



Figure 5

— compiled by Joe Fugate

The MRH website contains a gold mine of great reader-posted content on many subjects. If you’re into layout planning, try searching on the *Layout Design* category. When you do, you’ll find many examples you can draw on for your own layout design efforts. To get you started, here’s an MRH category link for you: [Layout design](#).

Free-moN Shoofly Module

MRH subscriber M.C. Fujiwara posted a thread on his Free-moN Shoofly module (figure 1). Free-mo is a specific set of modular standards that encourage the more typical single-track scene for modules. Free-moN adapts the standards to N scale.

M.C. gives you a step-by-step discussion of his construction techniques, complete with photos.

Western Maryland - 1943

Another quite interesting layout design project on the MRH website has been Rob Proctor's *Western Maryland - Chesapeake Division - 1943*.

You can find Rob's blog chronicling his layout design process here:

mrhmag.com/blog/rwproctor


For those who don't have a lot of experience doing layout design, the comment posts on Rob's blog should prove educational.

For example, Rob asked about where to best put the helix for his dual-deck design and he got lots of great recommendations which changed his design for the better.

Rob also asked about how to best locate a switching lead for his yard and again the recommendations led to a superior design.

Making changes on paper (or on computer these days) is a lot easier than tearing up benchwork and ripping out track.

Do check out Rob's blog and his thought-provoking posts. They're not only enlightening if you're also deep into layout design as well, but it's also fun to see a layout design being refined into what promises to be a fabulous layout.

We can't wait to see what's coming next in Rob's blog! 

Figures 6 and 7: These two figures show Rob's lower deck (fig. 6) and upper deck (fig. 7) plans after some refinements made after getting comments from other MRH subscribers. Rob moved the helix from the middle of the room to the upper right corner closet at the insistence of many others. We believe Rob will like this new location for the helix much better. You can see the entire evolution by visiting Rob's blog on the MRH website.

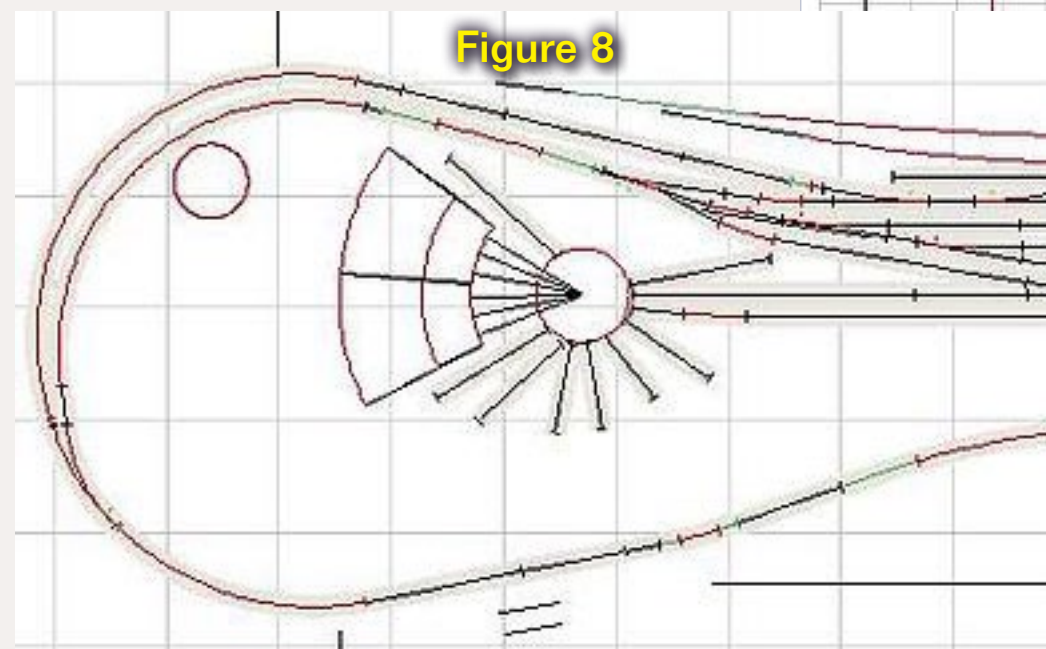
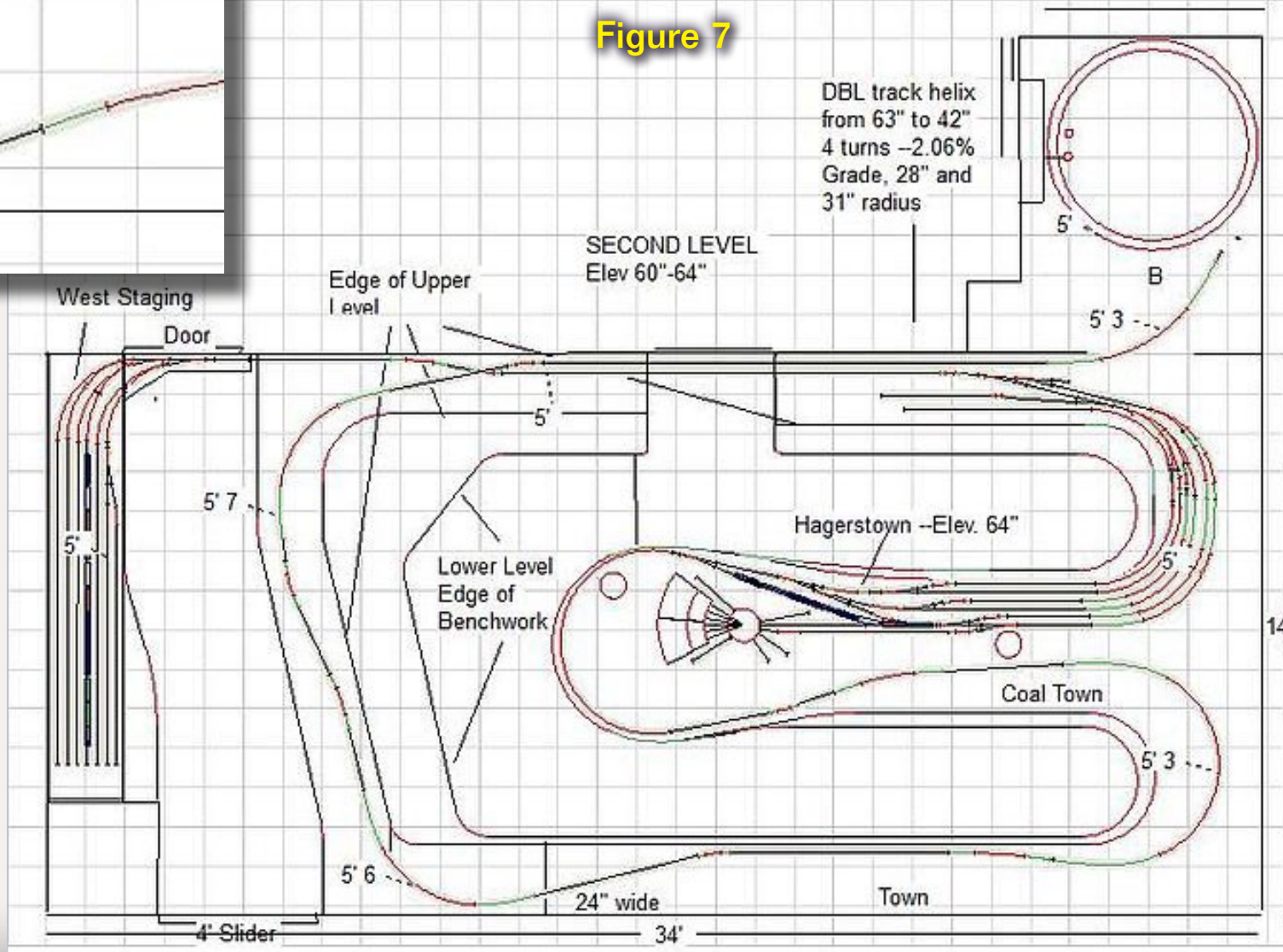
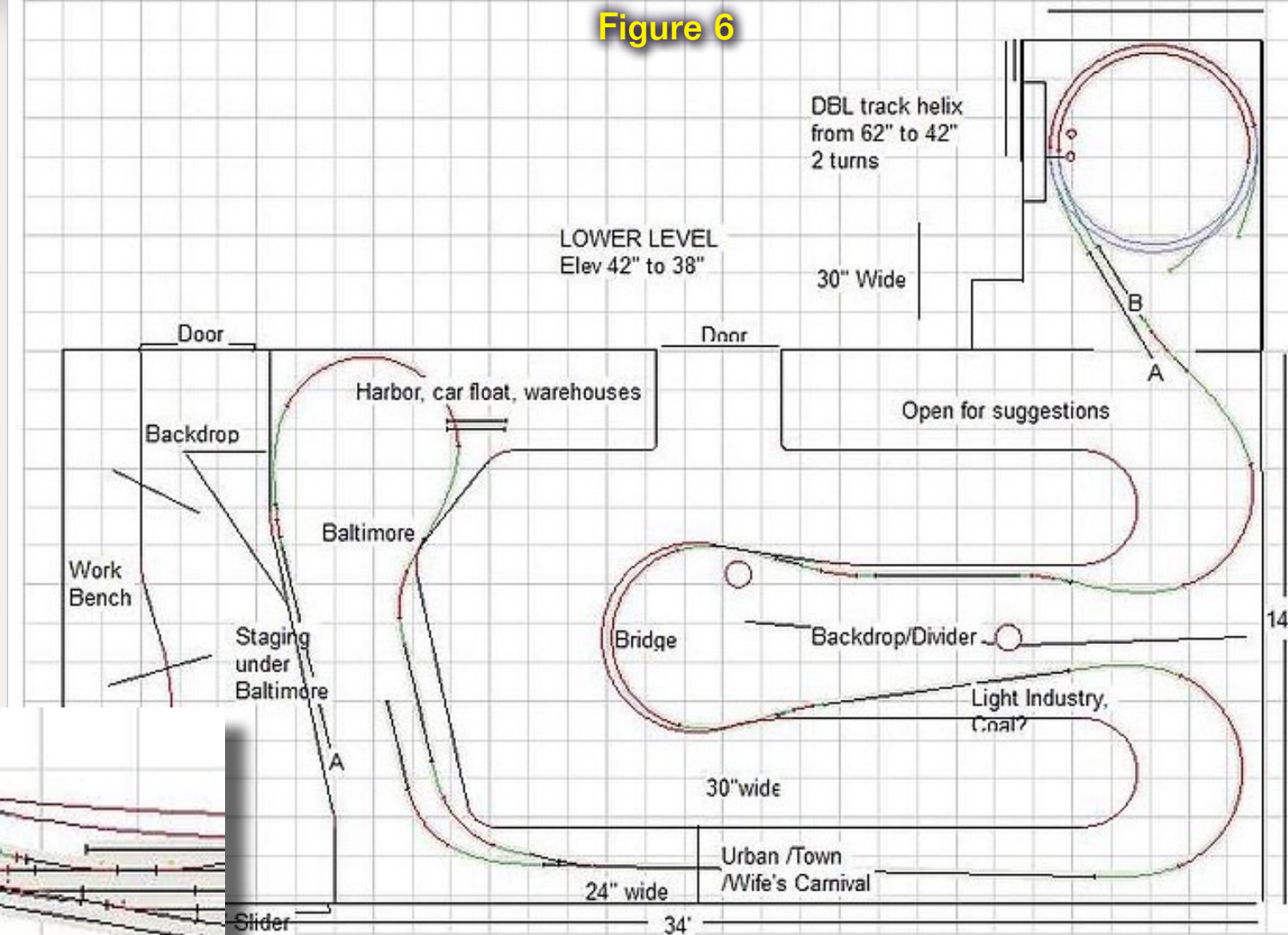
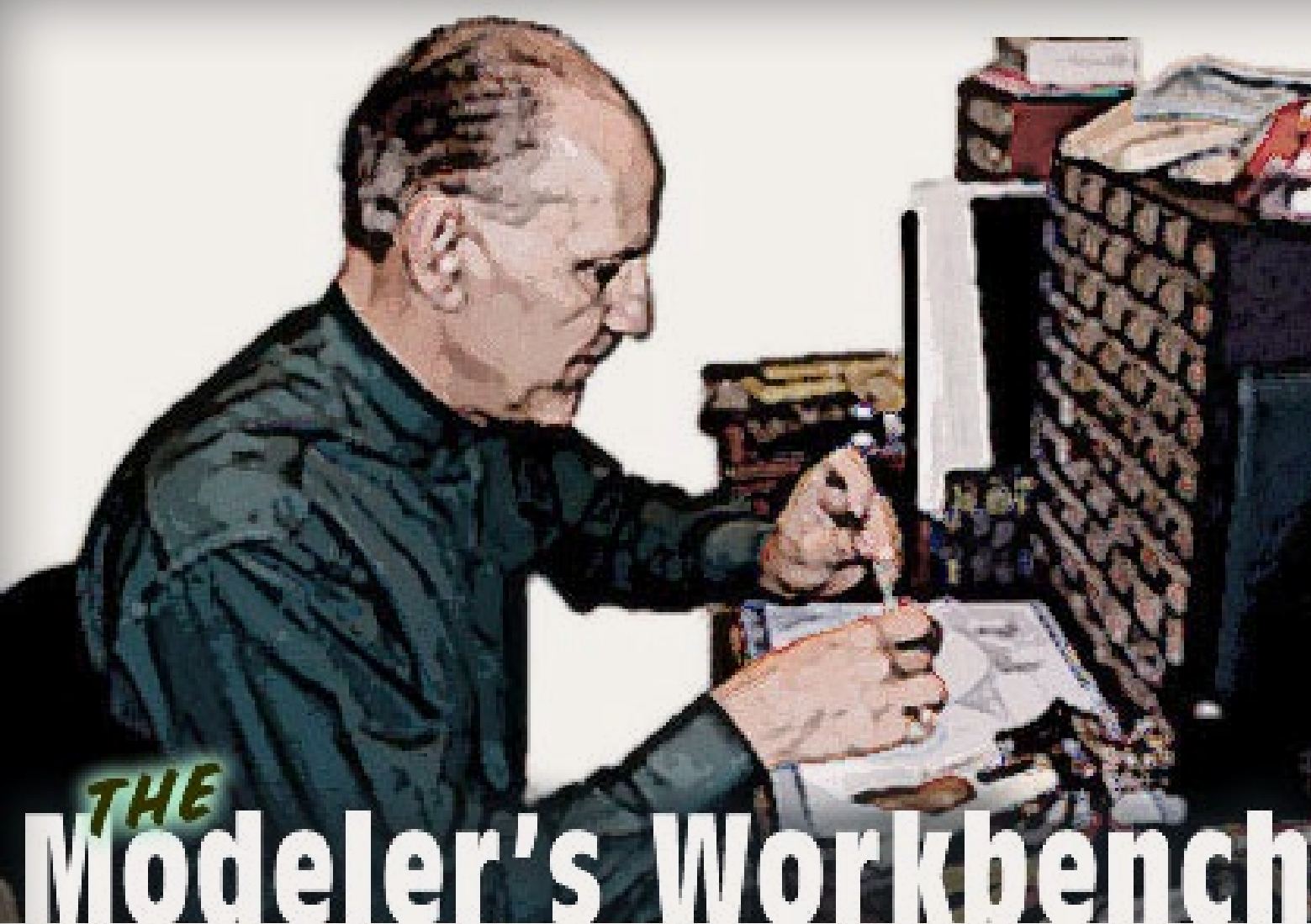


Figure 8: Rob wanted help locating a switching lead on his Hagerstown yard. Suggestions from other seasoned modelers on the MRH website lead Rob to this altered configuration for the Hagerstown yard entrance. Much better!





THE Modeler's Workbench

A ClipLight for Your Optivisor

– by Vince Pugliese



Modelers often resort, at one time or another, to using a headband magnifier like the ubiquitous Optivisor to help them see better when working on a project. No surprise really, as some of the items can be quite small, minuscule really, and when you couple that with the fact that many of us are sporting more gray hairs these days, tools like the Optivisor or anything similar become an essential part of the toolkit.

The versatility of the Optivisor can be improved as there are a variety of interchangeable lenses and accessories for the unit. These include an additional loupe to increase the magnification as well as a lighting unit to provide more illumination. While I added the loupe to my Optivisor, a year or so after I purchased the original, I figured I would get around to upgrading to the light unit if and when I needed it.

In reality things turned out differently as I came across one of these inexpensive mini LED clip lights (figure 1) at the dollar store. While these are intended as reading aids, with a few simple modifications they can be used to light up hobby-sized drill presses, milling machines (figure 2) and, as we shall see, an Optivisor-type magnifier. The illumination they provide is quite good

and given their size and weight, not to mention their low cost, they are ideally suited for this application.

To start, I removed the film (light blue in this case) protecting the batteries to ensure that the light was working. Once this was done it was time to

disassemble the unit. I first popped the body of the light from the upper clip, and put it aside. I then pulled the pin to release the spring (figure 3).

At this point, you can discard everything except for the light (figure 4 – right) and the part of the clip that can



Figure 1



Figure 2



Figure 3

Figure 1: Inexpensive lights like these can be found in discount stores.

Figure 2: Once modified, the lights can be attached to shop tools like a small drill press.

Figure 3: Pull the hinge pin with a pair of pliers.



Figure 4

Figure 4: The clip light disassembled. We will use the upper clip (shown at the extreme left) and the light unit (in silver gray on the right).

accept the ball joint (figure 4 – left). I marked out the bits that needed to be eliminated using thin tape (figure 5). I simply used the old Mark I eyeball to determine how long to make the base, but would suggest using dividers, calipers or a ruler if you are so inclined. Fortunately this is one of those projects where close enough is, well, good enough.

Before cutting off the offending bits with the cutoff wheel – one of those newfangled Dremel EZ Lock types – I removed the molded part which holds the spring using a razor saw (figure 6).

This makes things easier to hold in the vise, which I find a bit safer when using a spinning rotary tool (figure 7).



Figure 5



Figure 6

Figure 5: Use a thin masking tape to define the length of the base for the light. Size it to fit on the brow of the Optimisor.

Figure 6: A razor saw is used to cut the hinge so that the base fits flat to the Optimisor.

Figure 7: Use a cutoff wheel to trim the clip reasonably close to size as defined by the tape. The job goes better if you mount the piece in a vise.



Figure 7

I made my cut a little bit away from the line and cleaned up the remainder with a disk sander (Figure 08). While I was there, I opted to give the bottom of the clip a pass on the sander as well to even things out.

The only job remaining is to attach the upper clip to the headband using 2 pieces of adhesive-backed Velcro (figure 9) which I picked up at the dollar store.

Apply with firm pressure, pop the light back in and you are set to go (figure 10).

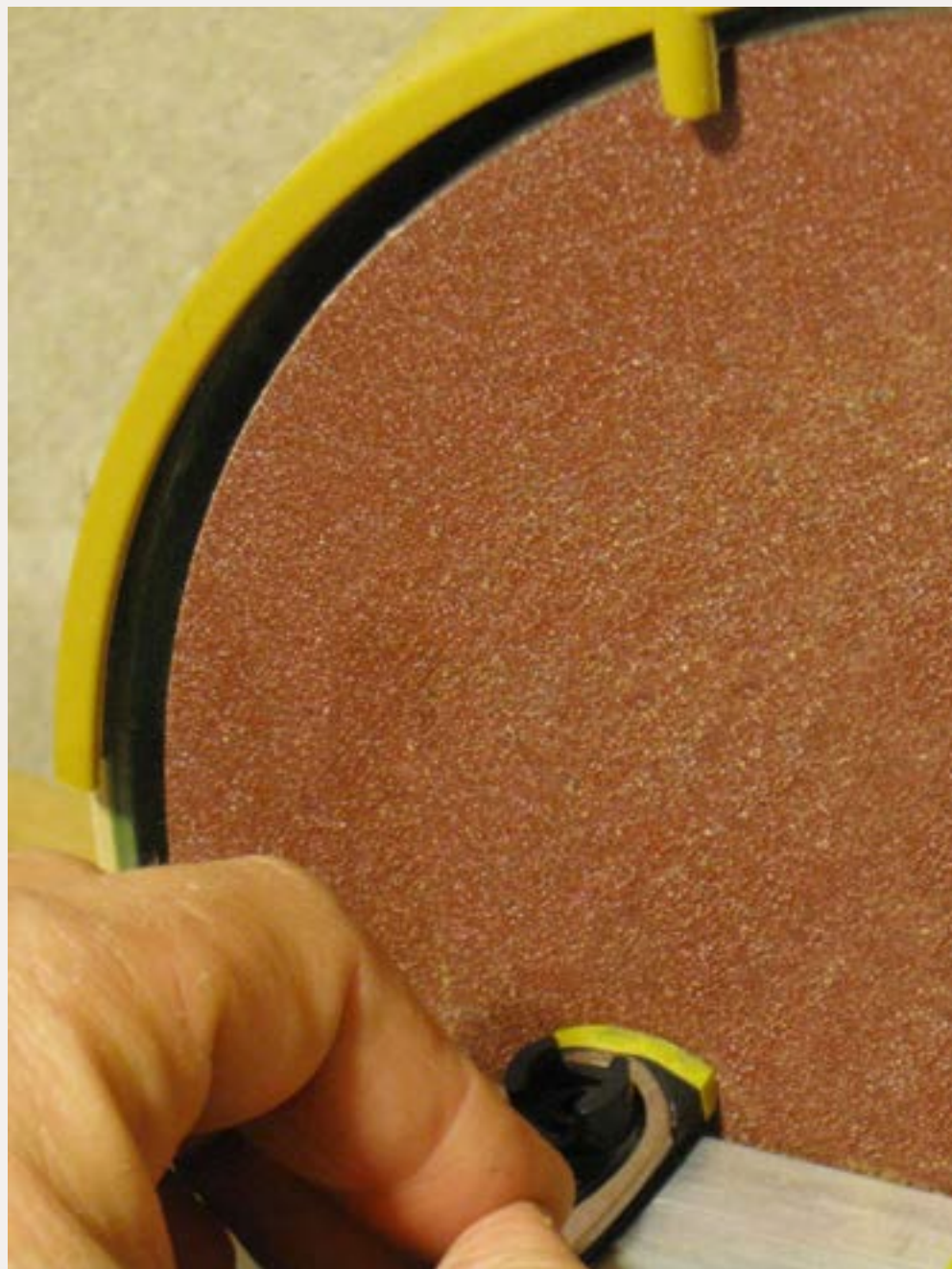


Figure 8: Final finishing is carried out on the disk sander. A quick pass on the bottom of the base ensure that it will be flat.



Figure 9: Cut two pieces of Velcro and add to the Optivisor and the other to the bottom of the modified clip.

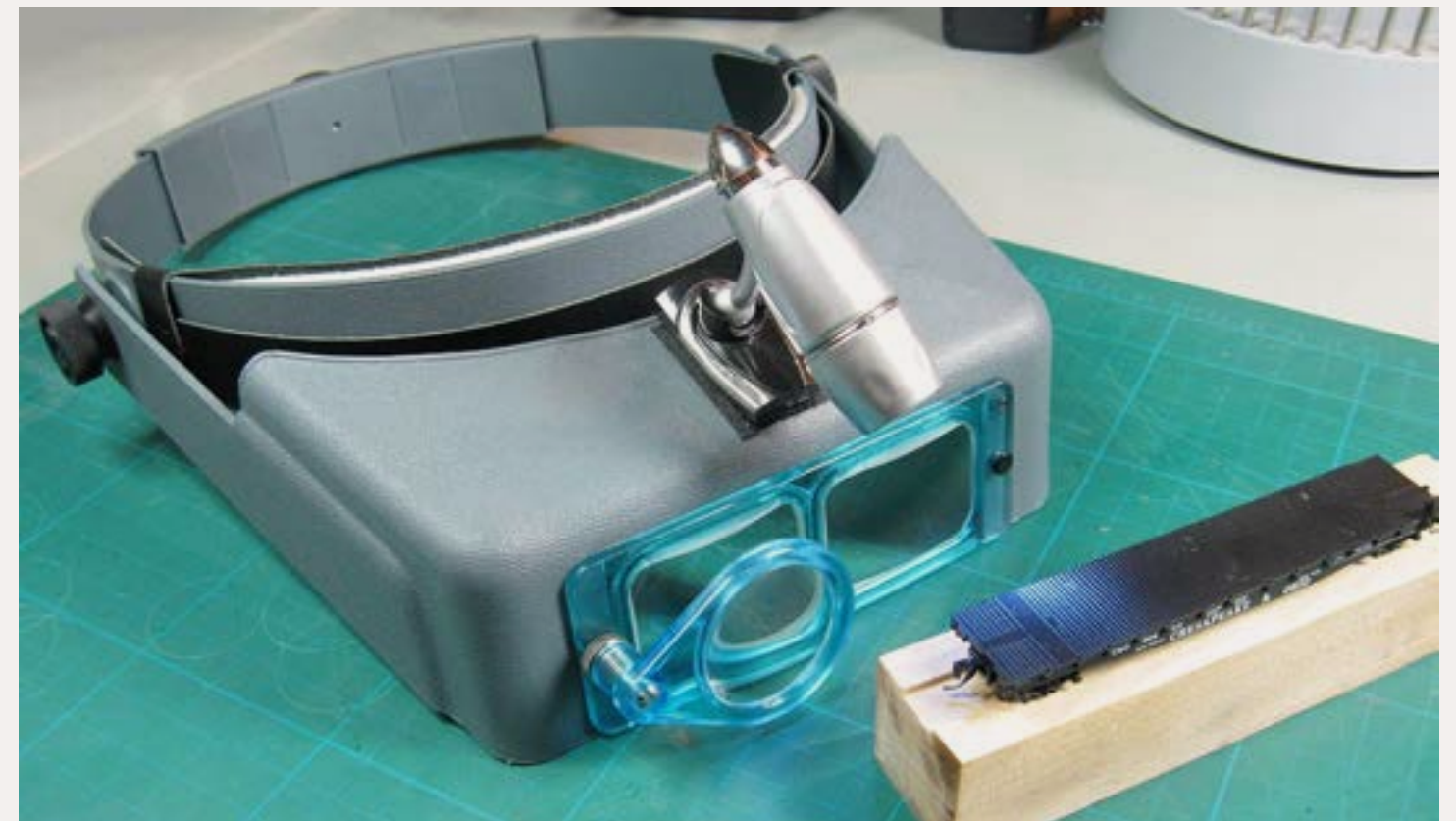


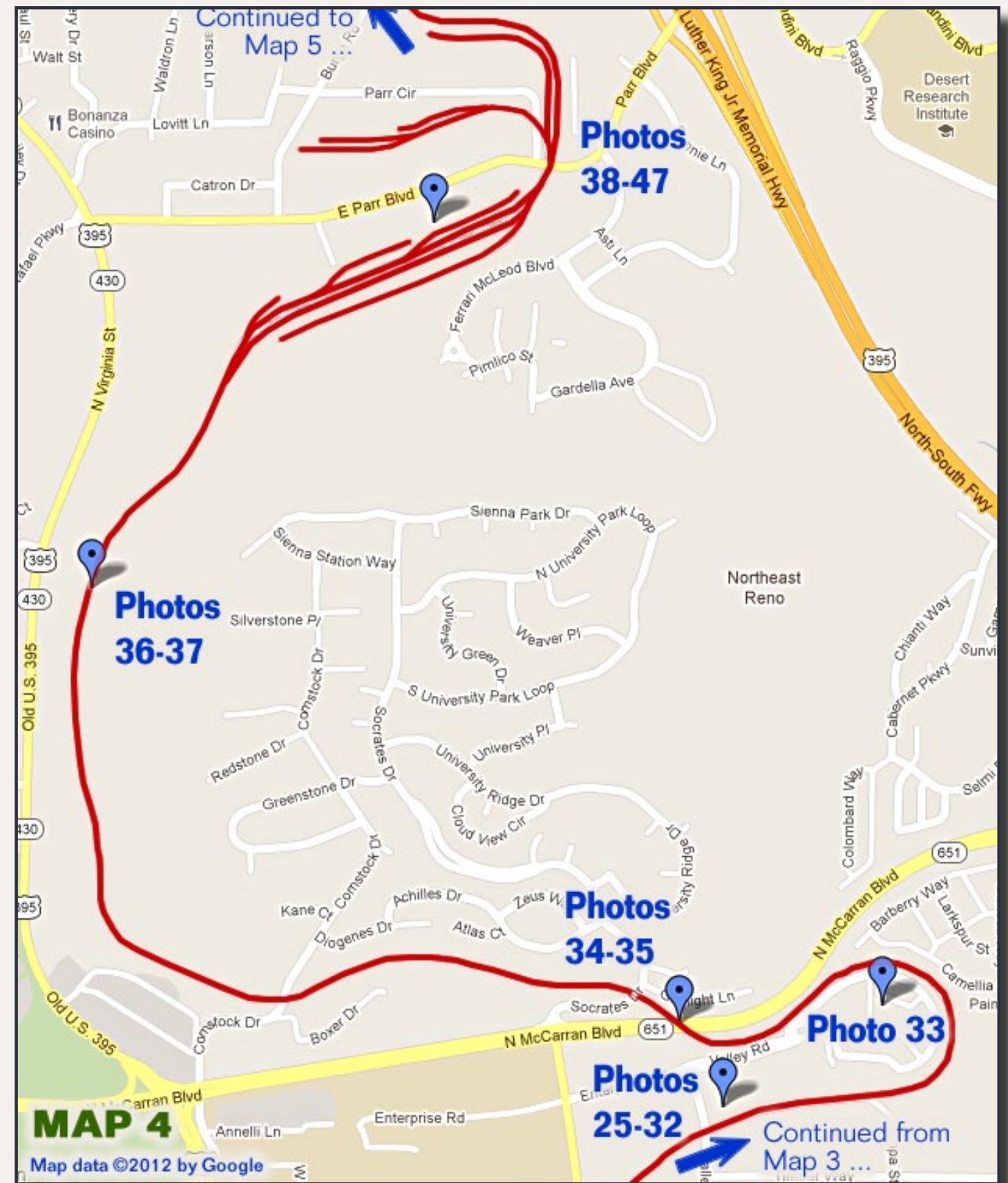
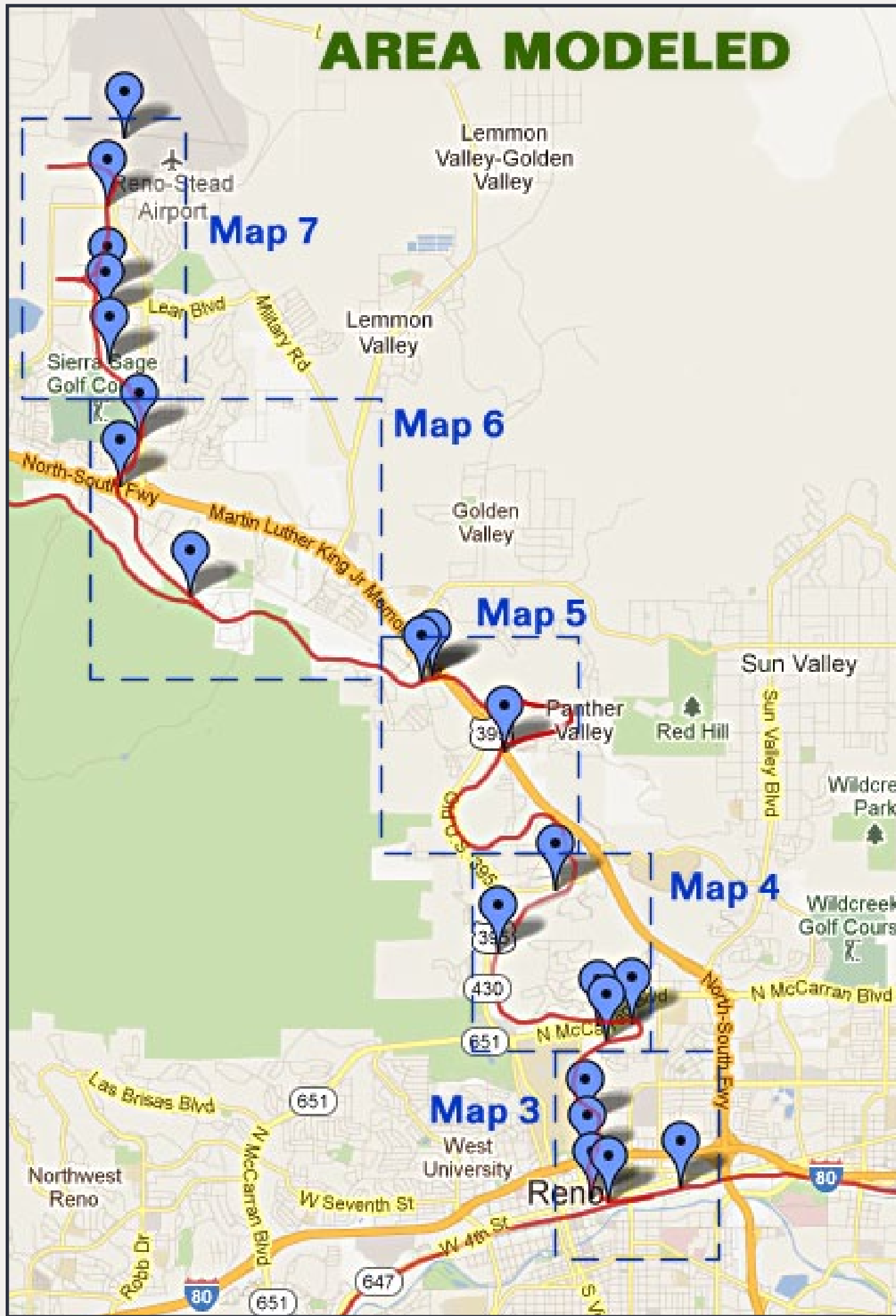
Figure 10: The LED light in action.

Modeling the present day Nevada-California-Oregon Railway Part 2

– by *Don Hanley*
Photos by the author



VIDEO: Using Google
Maps for layout research



▶ **Reader Feedback**
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Figure 25



Figure 26

The next series of photos are of old industrial buildings just east of the University. While these buildings no longer have rail service, Google Maps show remnants of old spur lines. I have included this area on the layout design. They are drawn as abandoned lines but modelers license is allowed and switching can be added. These three photos are of old industrial structures at Valley Road.

Figure 25: This building is now the home of R&S roofing. I don't have any idea the name of the company or the service that was provided that required rail service.

Figure 26: Vaughn Materials. This business was established in 1947. It appears that at one time there was rail service to this facility.

Figure 27: Rear view of Vaughn Materials. Grading and spaced doors indicate that this facility had rail service at one time.



Figure 27



Figure 28



Figure 29

Figure 28: Looking east over Valley Road. At one time a spur line crossed at approximately this location and served several industries.

Figure 29: Looking north on Valley Road you can see the line's bridge over North McCarran Ave. in the distance. This is one of several areas where the line essentially loops back on itself.

Figure 30: Backside of an industrial building that at one time required rail service.



Figure 30



Figure 31



Figure 32

Figure 31: This view is of the opposite side of the old industrial building from figure 30.

Figure 32: Another one of the industrial buildings along Valley Drive. The line climbs at a rather steep grade along here. A study of this area on Google Maps' satellite view shows traces of rail service at one time.

Figure 33: The line loops around an apartment complex that serves primarily as student housing. The tracks can be seen just in front of the fence in the lower right corner of the photo. McCarran Avenue is in the foreground.



Figure 33



Figure 34: This is the railroad bridge over McCarran Avenue that can be seen in the distance in photo 29. The Sierra Nevada mountains in the background are partly hidden by clouds.



Figure 35: A good view of the serpentine nature of the line from a service road just north of McCarran Avenue. The vehicle is on Socrates Drive. This view is from the same vantage point as that in photo 34.



Figure 36



Figure 37

Figure 36: For a short distance along North Virginia Avenue, the line has some desert running. Details like the retaining wall should be included.

Figure 37: The local with 6 cars returning after a day's work in late December. Virginia Avenue is in the foreground.

Figure 38: Prior to the Union Pacific acquiring control of the SP, it had an intermodal yard on the north side of Reno in the Parr Blvd. industrial area.



Figure 38



Figure 39



Figure 40

Figure 39: A view of the east end of the intermodal yard at Parr Blvd.

Figure 40: UP's entrance to the intermodal yard at Parr Blvd. The intermodal yard is now in Sparks just off of I-80.

Figure 41: The line on the right climbs and continues on to Stead. The line on the left drops down into warehouses in this industrial park.



Figure 41



Figure 42



Figure 43

Figure 42: Railroads have materials stored along the right-of-way for maintenance. These details add to the realism of a model railroad.

Figure 43: This is the spur line at the left in photo 41 as it drops down to the warehouses.

Figure 44: Another view of the Parr Blvd. industrial area.



Figure 44



Figure 45

Figure 45 and 46: What do you do with an obsolete boxcar? Here WP 21377 is used as a combination storage shed and retaining wall. Figure 46 is the other side of the storage box car.

Figure 47 and 48: are two views of the right-of-way along Virginia Avenue after leaving the Parr Blvd. industrial area. After rounding the hill in photo 48 the line heads into Panther Valley. While it passes several industrial buildings, none have rail service.



Figure 47

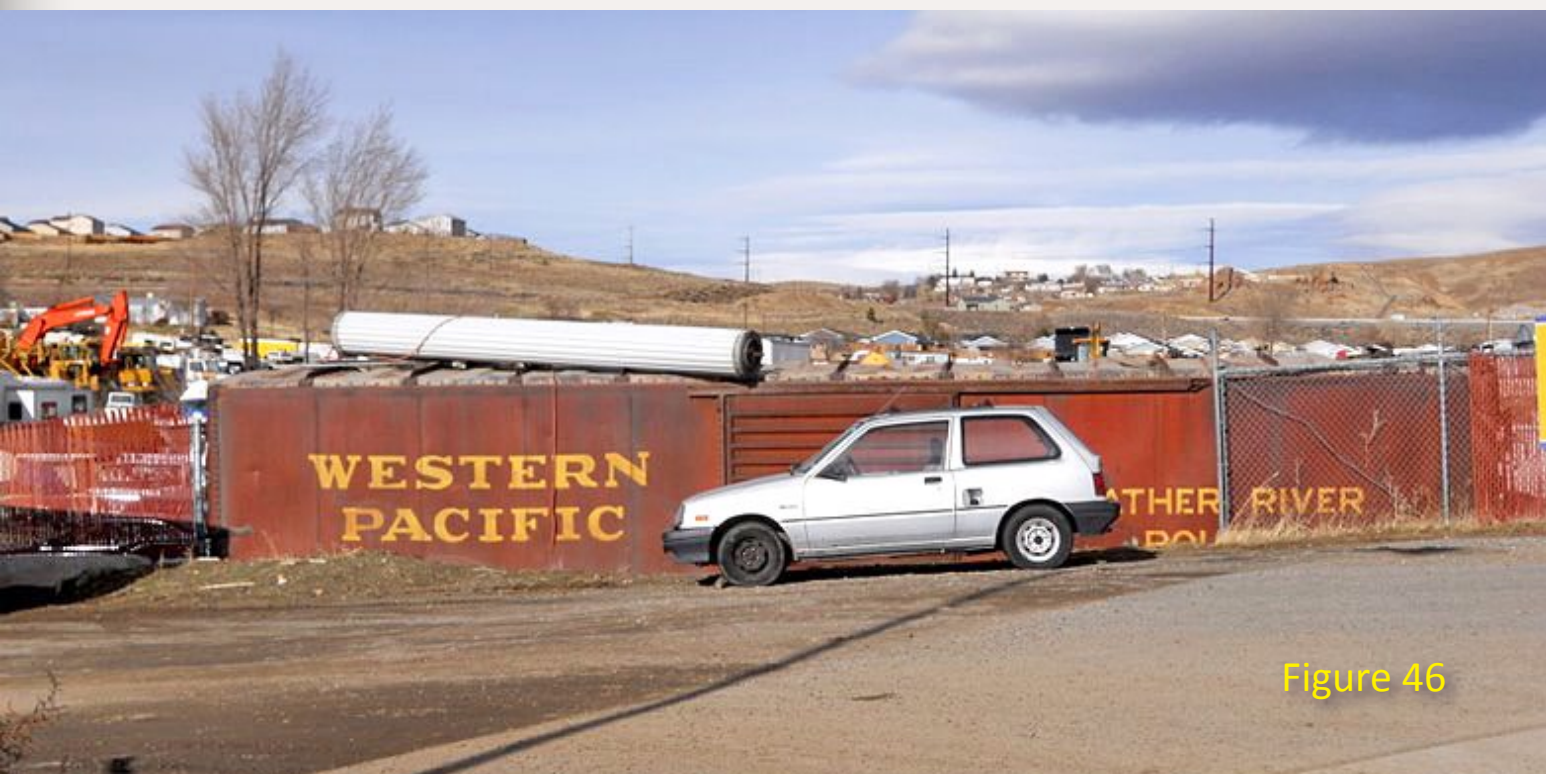
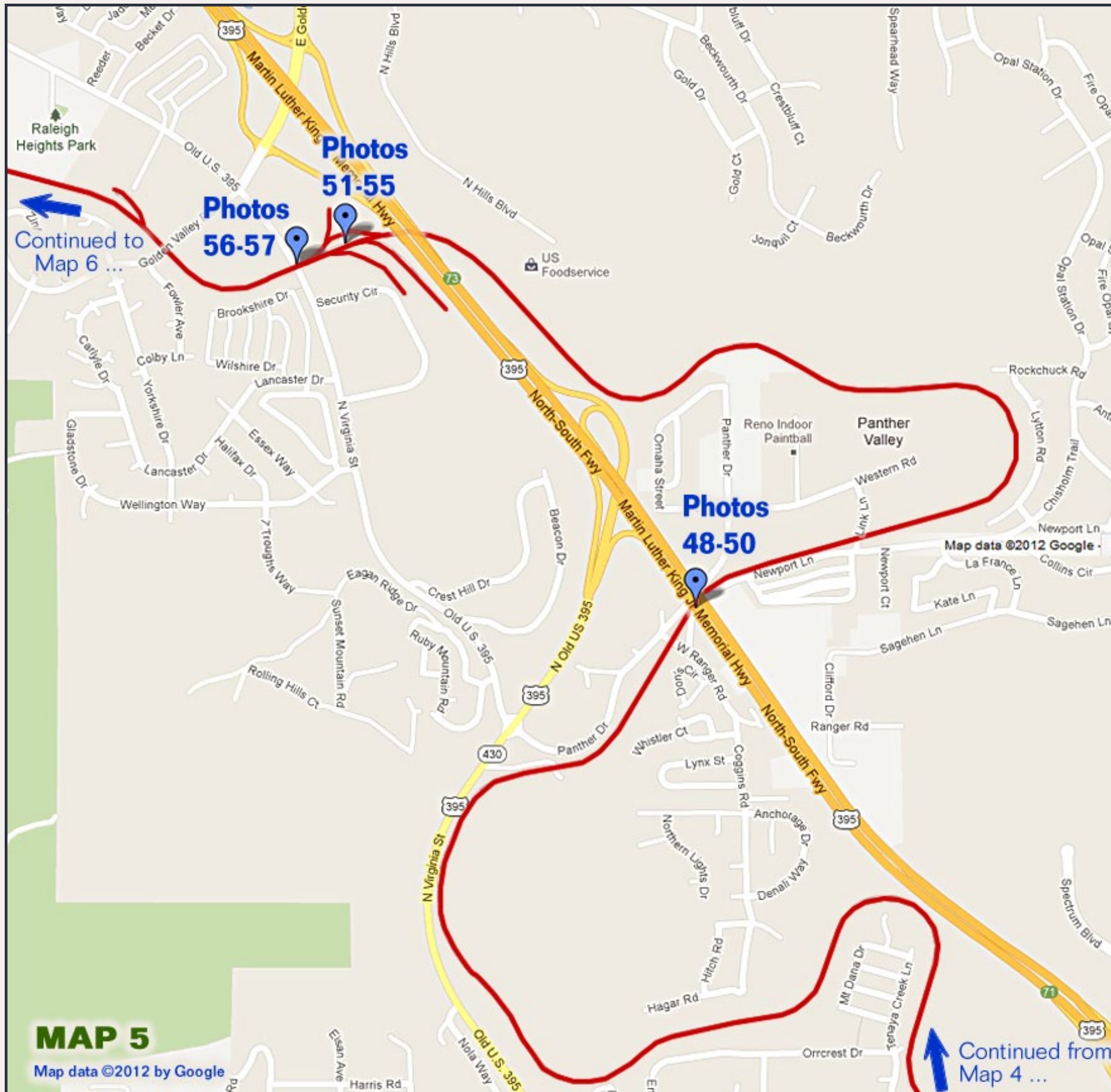


Figure 46



Figure 48



Don Hanley is interested in the Erie Railroad, specifically the Huntington, Indiana area during the 1950's.

In 1974, Don's new-found passion for photography merged with his first love, anything railroad-related. He also enjoys researching historical information and making photos of things to model.

A recent move from Indiana to Reno, Nevada has opened Don up to new areas to explore and photograph. He keeps an active hand in the hobby by expanding and detailing a fleet of rolling stock for his future layout. Don has had numerous articles published in Mainline Modeler magazine describing various structures and rolling stock detailing projects.

Don and his wife, Kathleen, are building a growing telecommunications business that allows him enough free time to pursue his passions: trains, photography, writing and most importantly, playing with the grandkids!



Figure 49

Figure 49: Here in Panther Valley the line ducks under US 395, the major north-south route out of Reno to the north valleys.

Figure 50: Approximately one mile north (highway mileage) the line ducks back under 395 as it leaves Panther Valley and heads into Golden Valley.



Figure 50



Figure 51: Here is a view of a short runaround track. In the background are tank cars for America Gas, one of two propane services in the area. The line to the right services America Gas. The closest line to the left runs to Kappes Cassady & Associates (kcareno.com). The farthest line to the left runs to Sun Chemical Corp. Around the curve is the Ferrell Gas propane company spur line. There are four industries in a very compact area, great for modeling!



Figure 52



Figure 53

Figure 52-54: The America Gas Propane Service facility can handle four tank cars at a time. The facility has a few small structures and is mainly a large paved lot with a few storage tanks. Notice that each of the cars must be spotted at specific unloading sites. One of the details for this facility is the chain link fence. Trespassers are not welcome.



Figure 54



Figure 55: Cars spotted at the Sun Chemical Co. The steel supports over the car are for fall protection. A wire is strung between the supports, and workers must wear a harness that is tied off to the wire.



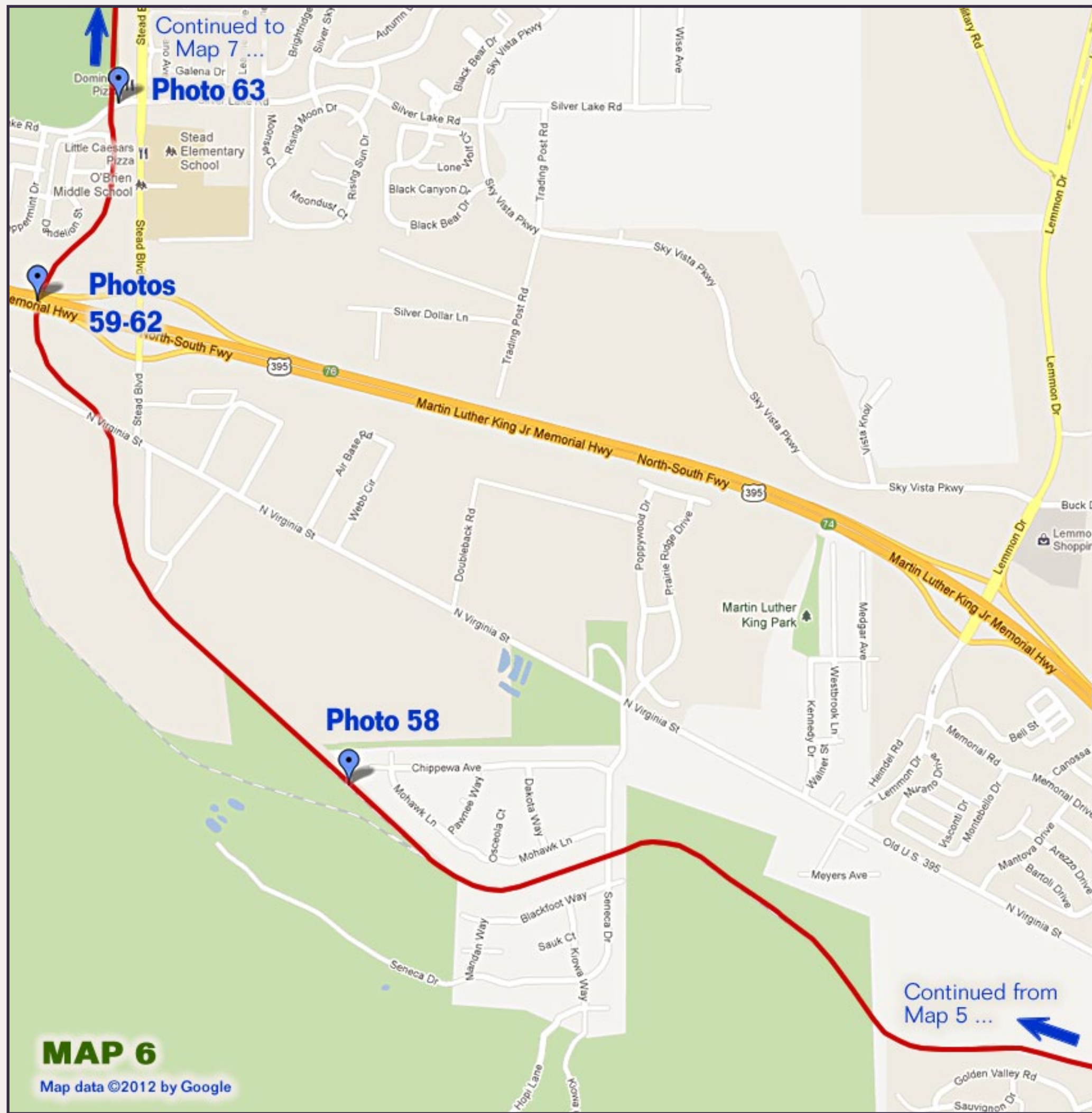
Figure 56: Remnants of the old crossing at North Virginia Street.



Figure 57: Looking back at the 395 overpass from Virginia.



Figure 58: The line continues north to the Stead branch. At the junction there are sidings for both the line to Portola and the branch line down into Lemon Valley.



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Figure 59: The Stead branch has just crossed North Virginia and continues to drop down into the valley.



Figure 60

Figure 60: Details of the control cabinet at North Virginia.

Figure 61: Looking toward the underpass at 395, the line drops down into Lemon Valley. The first scene is a small commercial area, with housing on the left.



Figure 61



Figure 62

Figure 62: After crossing under 395 again there is a small commercial area in Stead that the branch line runs behind.

Figure 63: The line crosses Silver Lake Road with a ubiquitous McDonalds in the background.



Figure 63

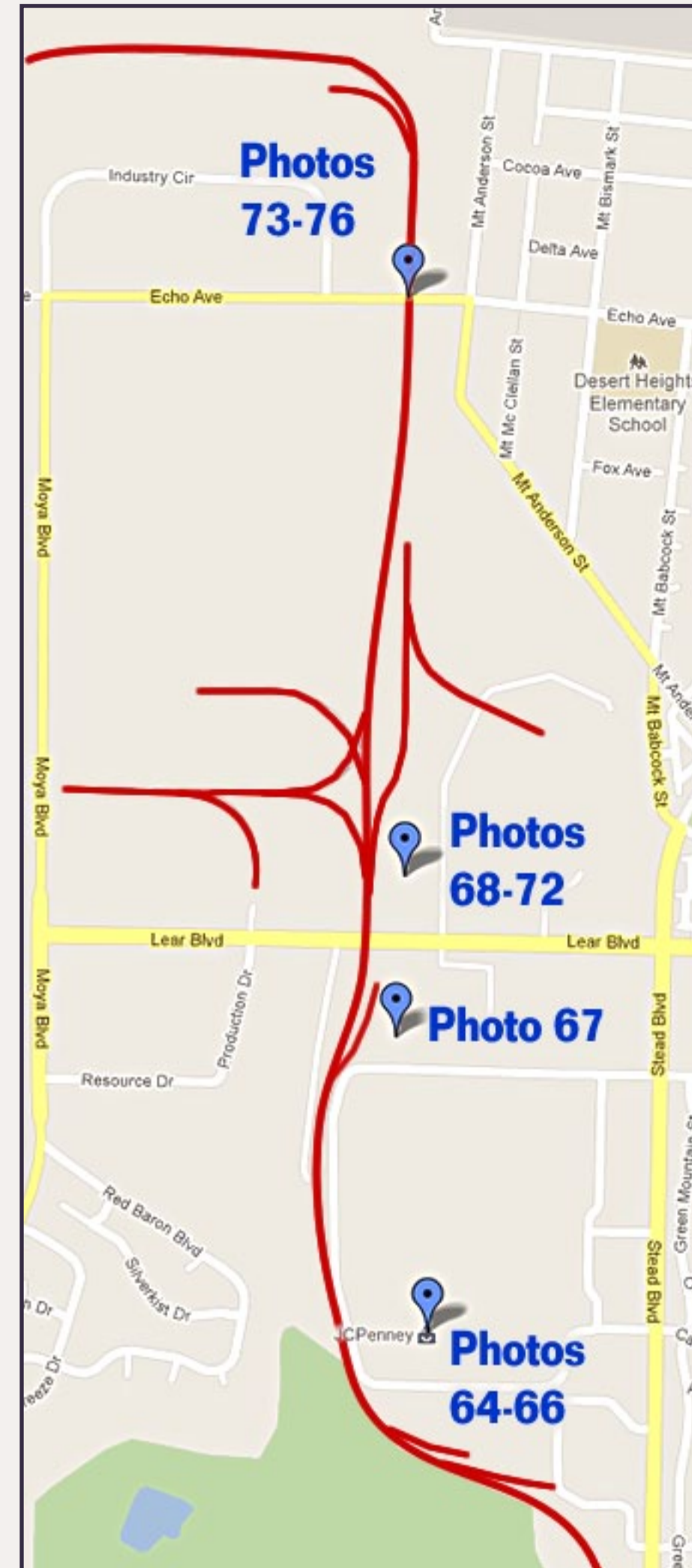




Figure 64



Figure 65

Figure 64: Here the line swings around the J.C. Penney warehouse.

Figure 65: The J.C. Penney warehouse at one time had two spur tracks servicing it. The line is now severed and the switches have been spiked shut. Notice how the rail has been cut.

Figure 66: Looking back west along the runaround just west of Lear Blvd. The two lines leaving the branch were to service the J.C. Penney warehouse. The hopper cars are being held for service to the VEKA Company.



Figure 66



Figure 67



Figure 68

Figure 67: Covered hoppers in the siding at VEKA Co.

Figure 68: There are still spur lines branching off to the left and right

Figure 69: Some interesting track work located just east of Lear Blvd. The track in the left foreground leads to HV Manufacturing, crossing the far track, which is one leg of a “Y” that services Performance Pipe. HV Manufacturing receives tank cars. Performance Pipe receives tank cars and covered hopper cars for the manufacture of plastic pipe. The line continues on to service two large warehouses. The first is the blue and white structure seen in the background.



Figure 69



Figure 70

Figure 70: Tank cars on the HV Manufacturing spur, with one leg of the “Y” in the foreground..

Figure 71: A view from the tail track of the wye. There are two spur lines off this leg of the wye.

Figure 72: After crossing Echo Avenue the line services two large warehouses before the end of the line,



Figure 71



Figure 72



Figure 73

Figure 73: This is the first structure, Warehouse Services, The second in the background, is K2 Distribution Services. A separate line that is to the right of the trailers reaches K2 Distribution Services.

Figure 74: Part of the Stead airfield, The line in the foreground services K2 Distribution.

Figure 75: Some additional background structures at Stead.

In Conclusion

The photo essay follows the line from Reno north. As can be seen from the photos, the structures at the beginning of the line are of older industrial construction. As one moves north, the construction becomes more modern.

One last thought: if you choose to model this area, you will need a lot of semi-trailers. There are thousands of these trailers scattered among the various industries.



Figure 74



Figure 75



Stan's Handy Converter for Model Railroaders, Version 16



– by Jeff Shultz



The website for Stan's Handy Converter program describes it as "Swiss Army Knife Software for Railroaders Modeling in Any Scale" - and that might be the most concise review of this program possible. With 23 separate pages of conversions and calculations as well as a separate calculator that handles decimal feet and inches and fractions, it would be difficult to find a model railroader who couldn't use at least some of the features of this program. For those calculations involving scales, common scales from Z to Large (1:20.3, 1:22.5, 1:24, 1:29, 1:32) are selectable, with a user defined scale on many tools. As can be seen in the figures, each of the tools is on its own easily viewable and selectable tab.

Conversions, Calculations, Tools and Aids included are:

1. Temperature and Weight – convert Celsius to Fahrenheit and vice versa, as well as Pounds/Ounces to Kilograms/Grams and back;
2. US to Metric Units/Metric Units to US – convert meters, centimeters and millimeters to feet & inches and back;
3. Scale Figures (figure 1) – given a height in inches, the program will output the various lengths that assorted body parts should be. Includes an Assumptions button for changing the ratios for body variations;
4. Helix Calculator (figure 2) – given the size of the circle, loop spacing, total rise, and maximum grade, the program calculates (figure 3 next page) the number of loops needed, total track length, and the grade inside the helix of the desired size and spacing. It is also capable of working with oval helices and circular ones where the entry and exit points are not above each other;
5. Thermal Rail Expansion (figure 4 next page) – primarily for outdoor layouts, this tool is also useful for indoor modelers whose layouts are less than perfectly climate controlled. Calculations can be set for different lengths of Aluminum, Brass, Nickel Silver and Stainless Steel track between modeler set high and low temperatures;
6. Ohm's Law – the classic electrical law for determining how changes in Voltage, Current, Resistance, and Power affect each other;

Text continues on page 90.

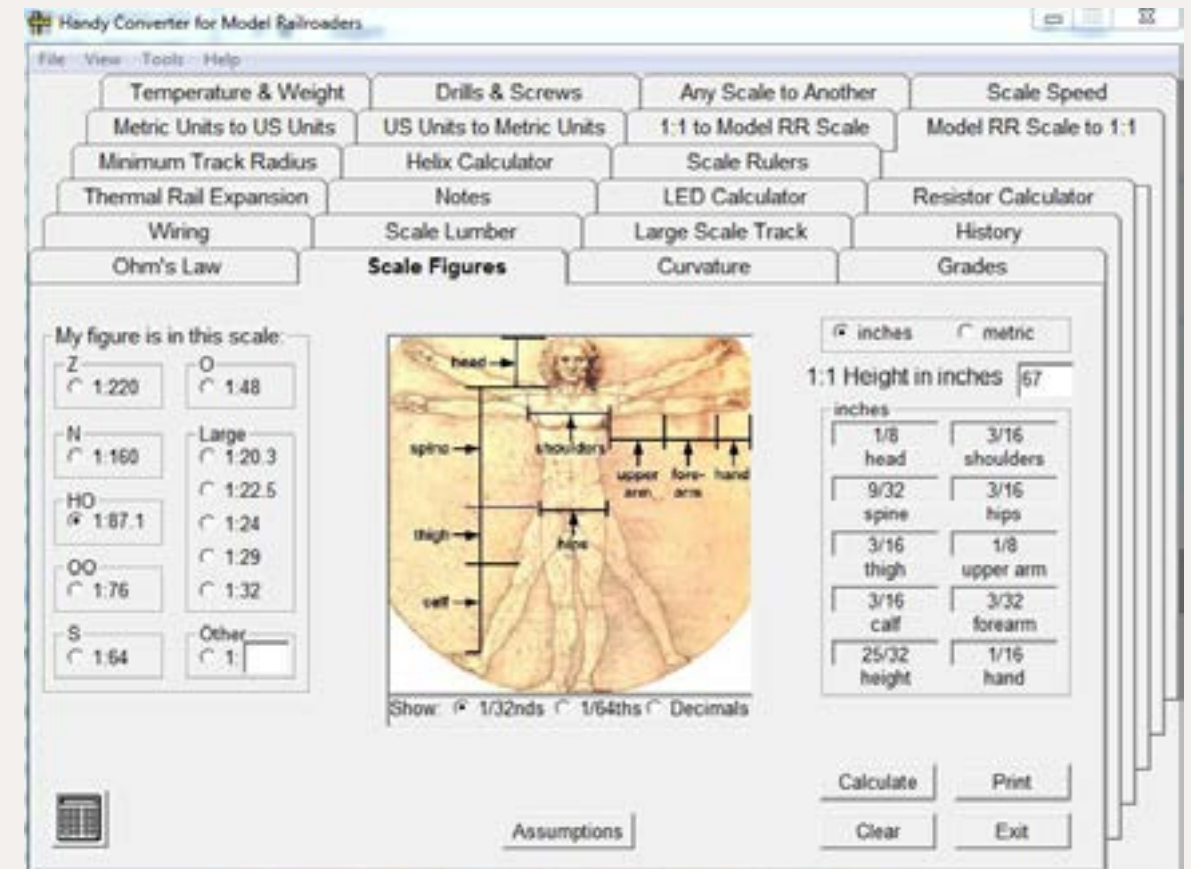


Figure 1: Scale Figures.

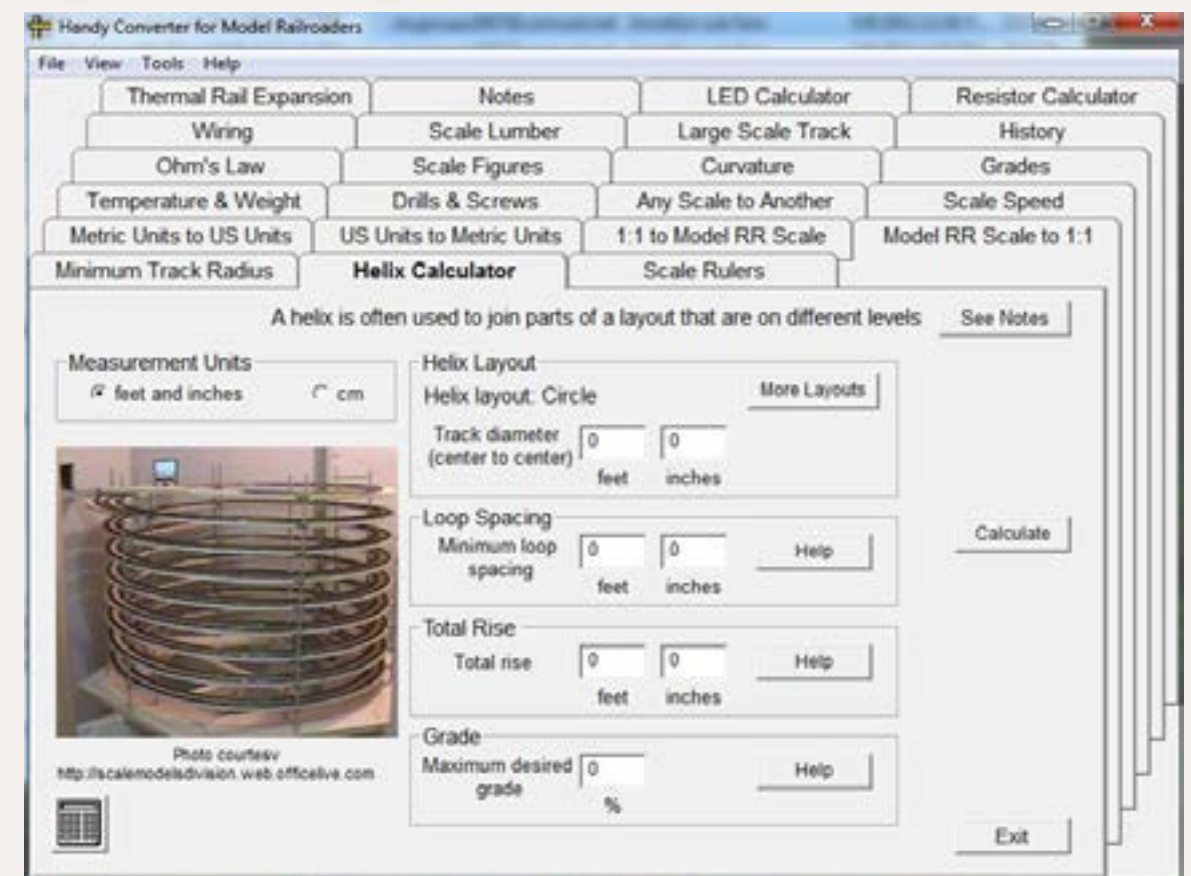


Figure 2: Helix Calculator.

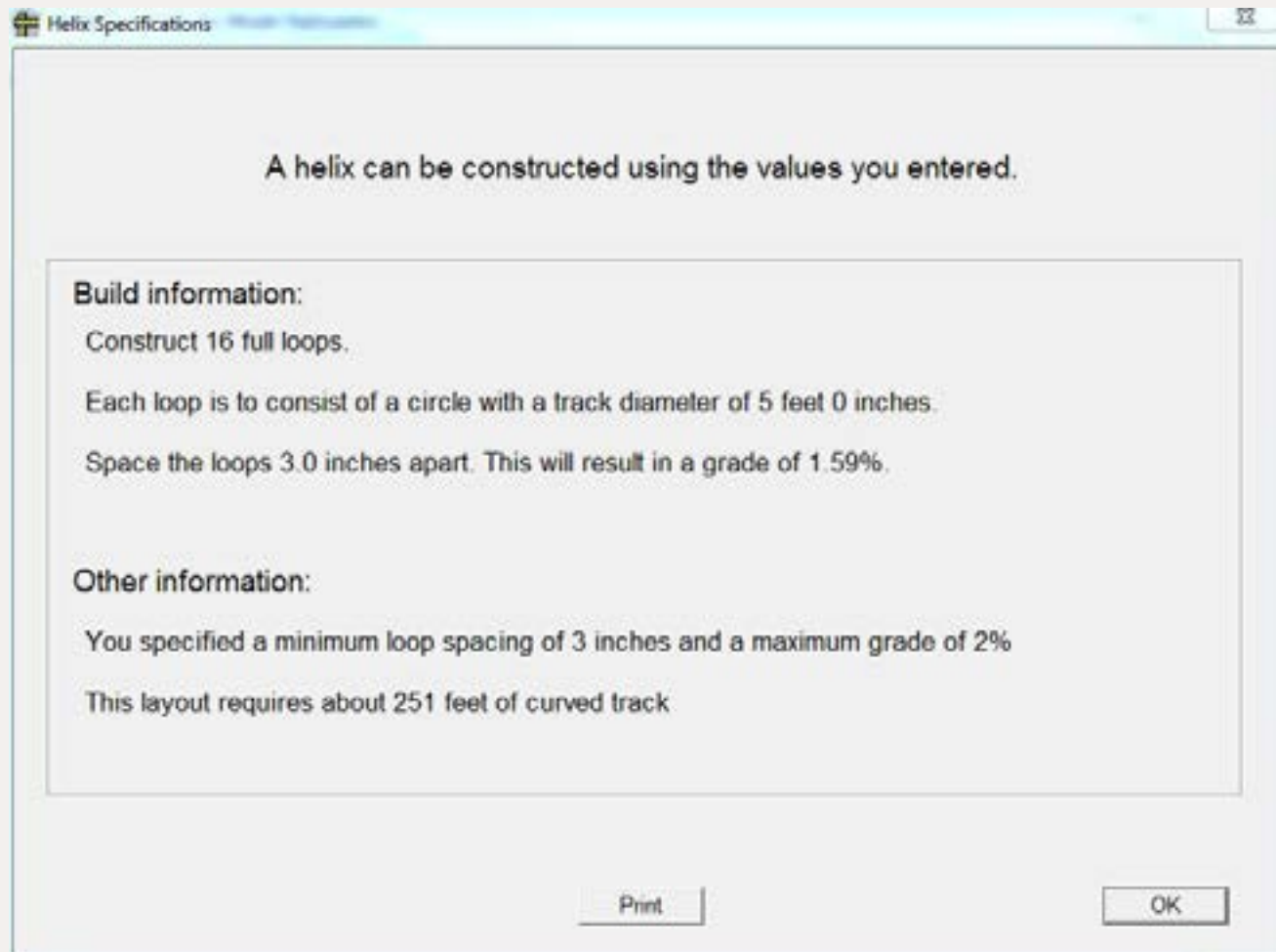


Figure 3: Helix Results.

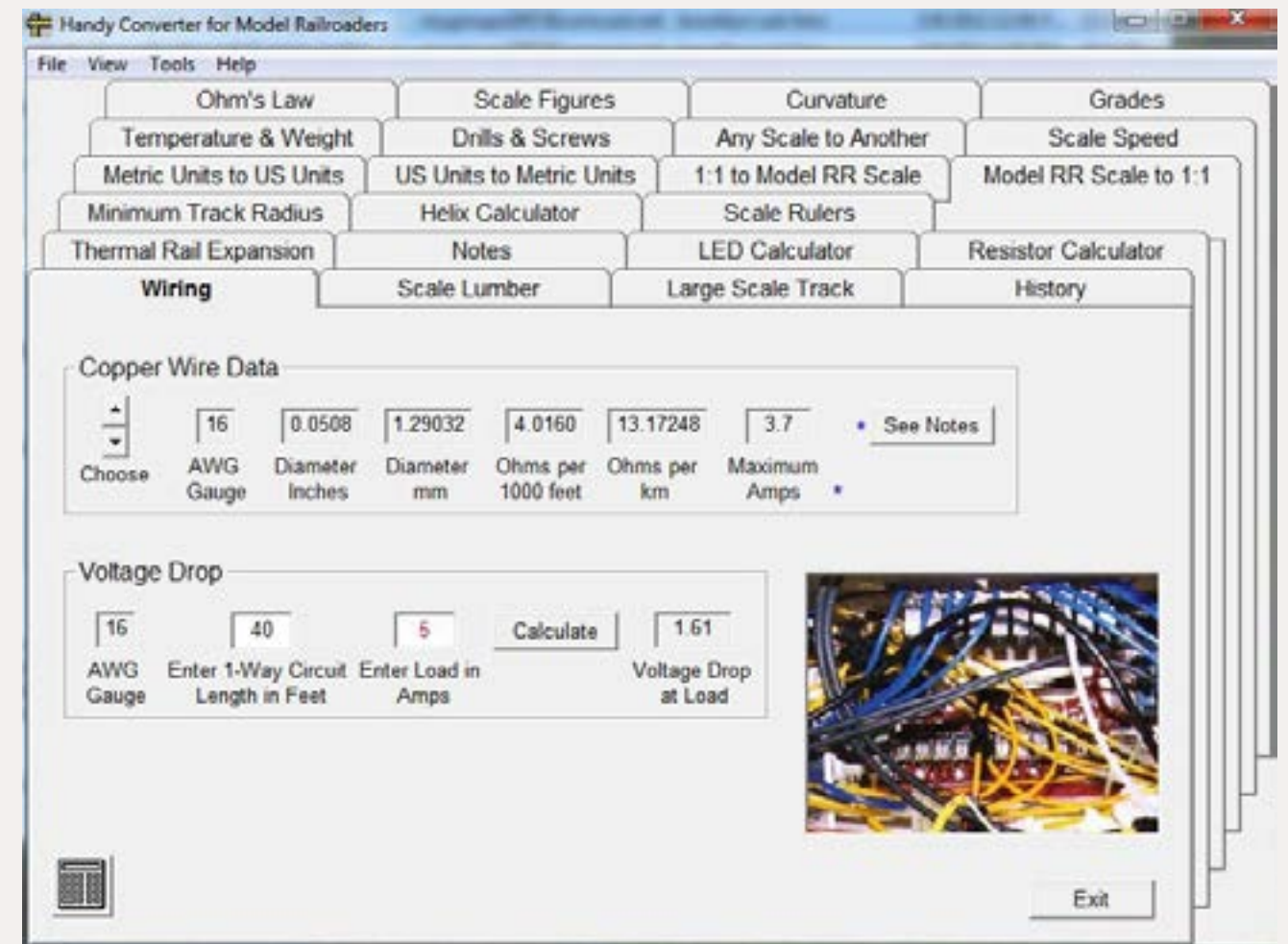


Figure 5: Wiring.

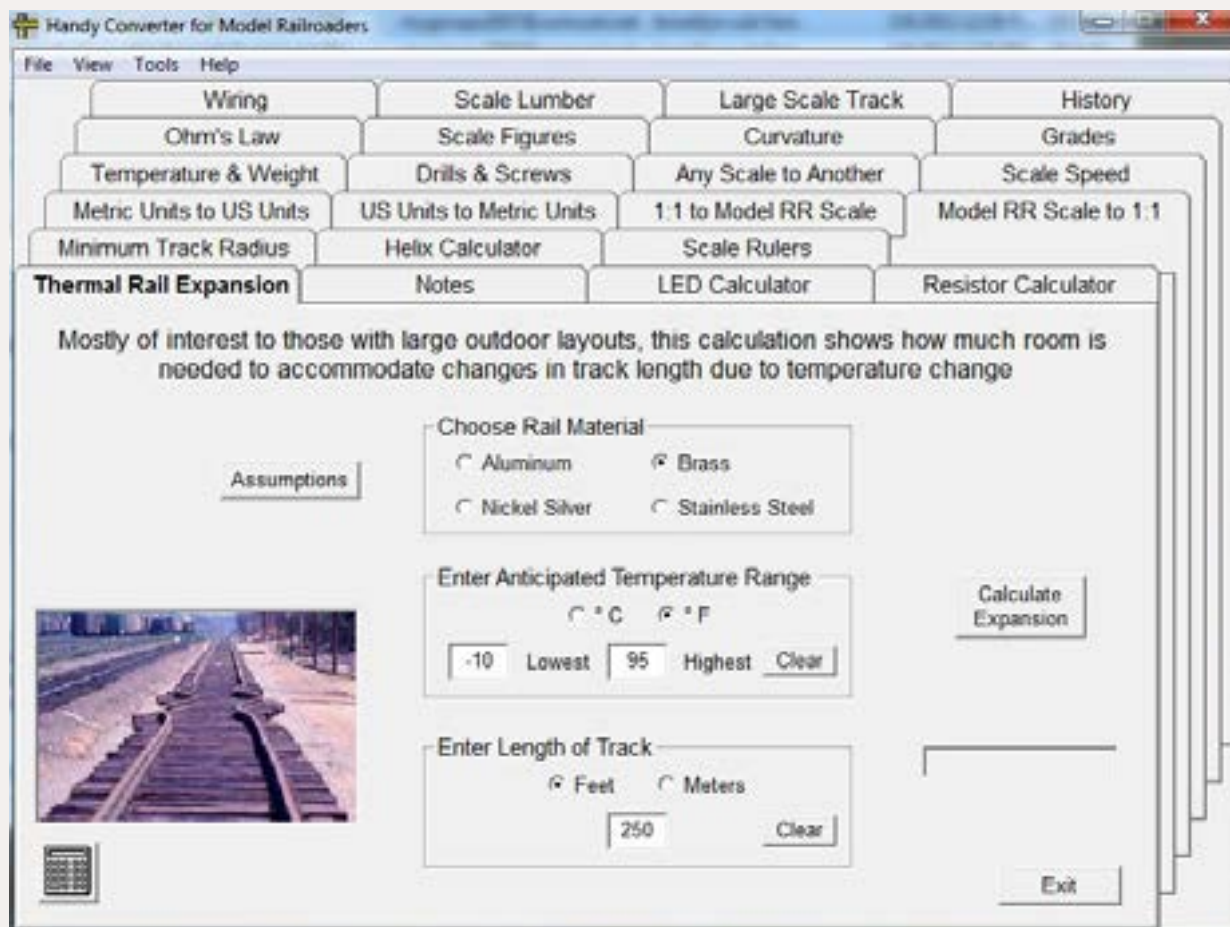


Figure 4: Thermal Rail Expansion.

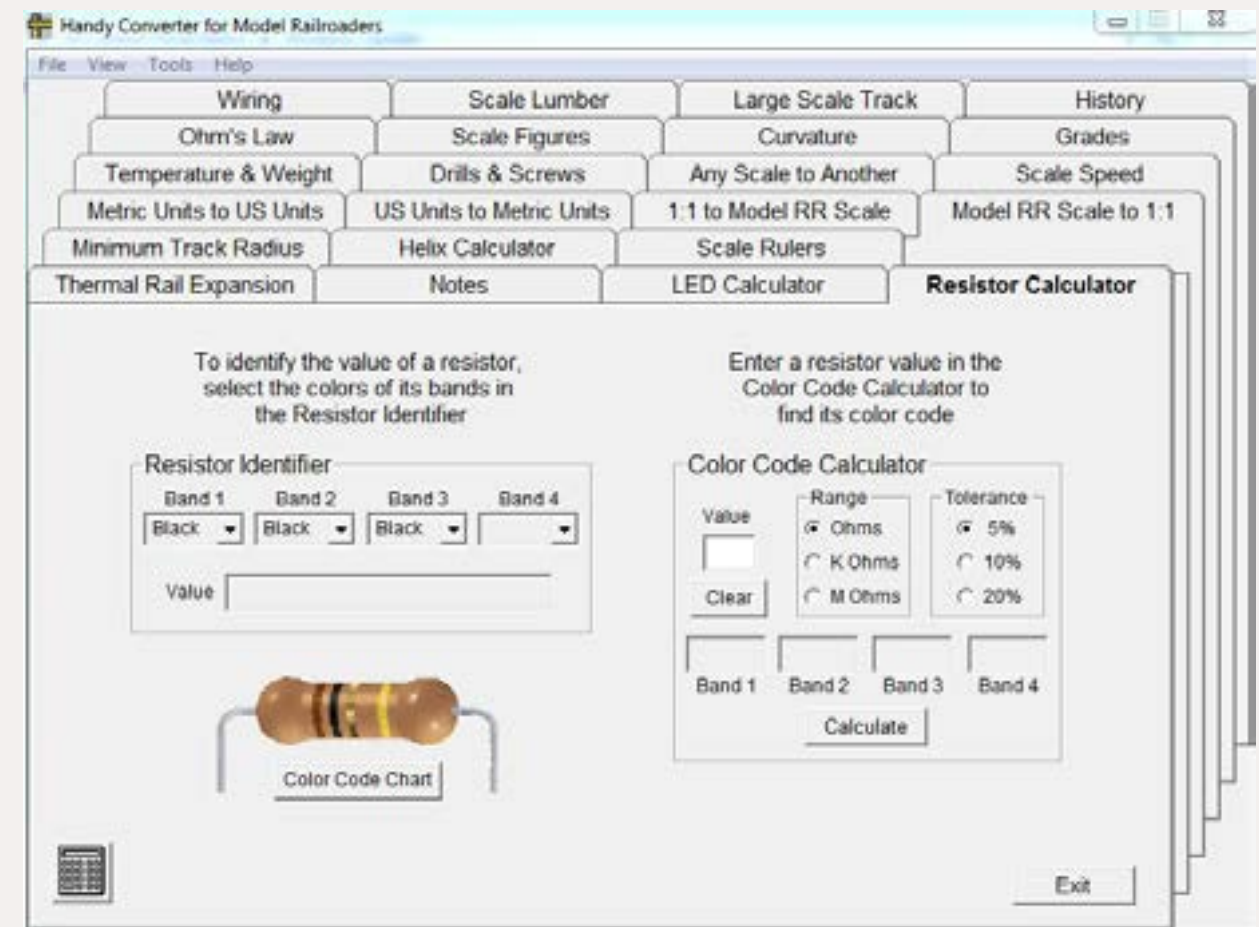


Figure 6: Resistor Calculator.

Text continued from page 88.

7. Wiring (figure 5 previous page) – need to determine what gauge your feeder lines need to be to handle five amps? This tool can work that out as well as determine the voltage loss across a specific wire gauge of set length and current – as well as telling you if your planned wiring is inadequate. Copper wire only;

8. LED Calculator – given the source voltage, diode forward voltage, diode forward current (mA) and the number of LEDs in the circuit, this tool creates a printable wiring diagram or schematic that includes the number of LEDs in the string as well as the total current and power;

9. Resistor Calculator (figure 6 previous page) – this tool can either identify a resistor by its color bands, or tell you the bands of the one you want given a value, range and tolerance;

10. Drills & Screws (figure 7) – for determining the correct drill size to use for both machine and wood screws, as well as a chart of diameter in inches of common drill sizes;

11. Any Scale to Another – converts lengths in one scale to another – handy for converting plans;

12. Scale Speed – uses distance and time to determine speed for the specified scale;

13. Grades – lets you input two of the three numbers for Length, Rise or Gradient to determine the third;

14. Curvature – allows you to calculate your scale radius from the prototypical percentages (up to 90) of curve;

15. Large Scale Track – contains charts of different manufacturers of Euro-style brass track lengths and curves;

16. Scale Lumber – calculates what size of material you need to replicate the entered prototype lumber sizes in inches – including the actual sizes, where a nominal “2x4” is actually somewhat smaller due to planing, drying and sanding;

17. Minimum Track Radius (figure 8) – by using the distance between the pivot points on a truck and the maximum truck angle, this tool calculates the minimum track radius that a car can handle. It will also calculate the pivot point or angle if you have the radius and other dimension;

18. Scale Rulers (figure 9 next page) – need disposable scale rulers? Print them up from this program. It includes an adjustment slider for printers that may shrink or stretch print jobs slightly. Riding scales of 1:16, 1:13.7 (7/8) and 1:12 are included;

19. Model RR Scale to 1:1 – calculates prototypical sizes from your scale lengths;

20. 1:1 to Model RR Scale – calculates scale sizes from prototypical lengths;

21. History – automatically saves the calculations made on several of the tools;

22. Notes – a space to take notes as you use the program. Notes are saved on exit

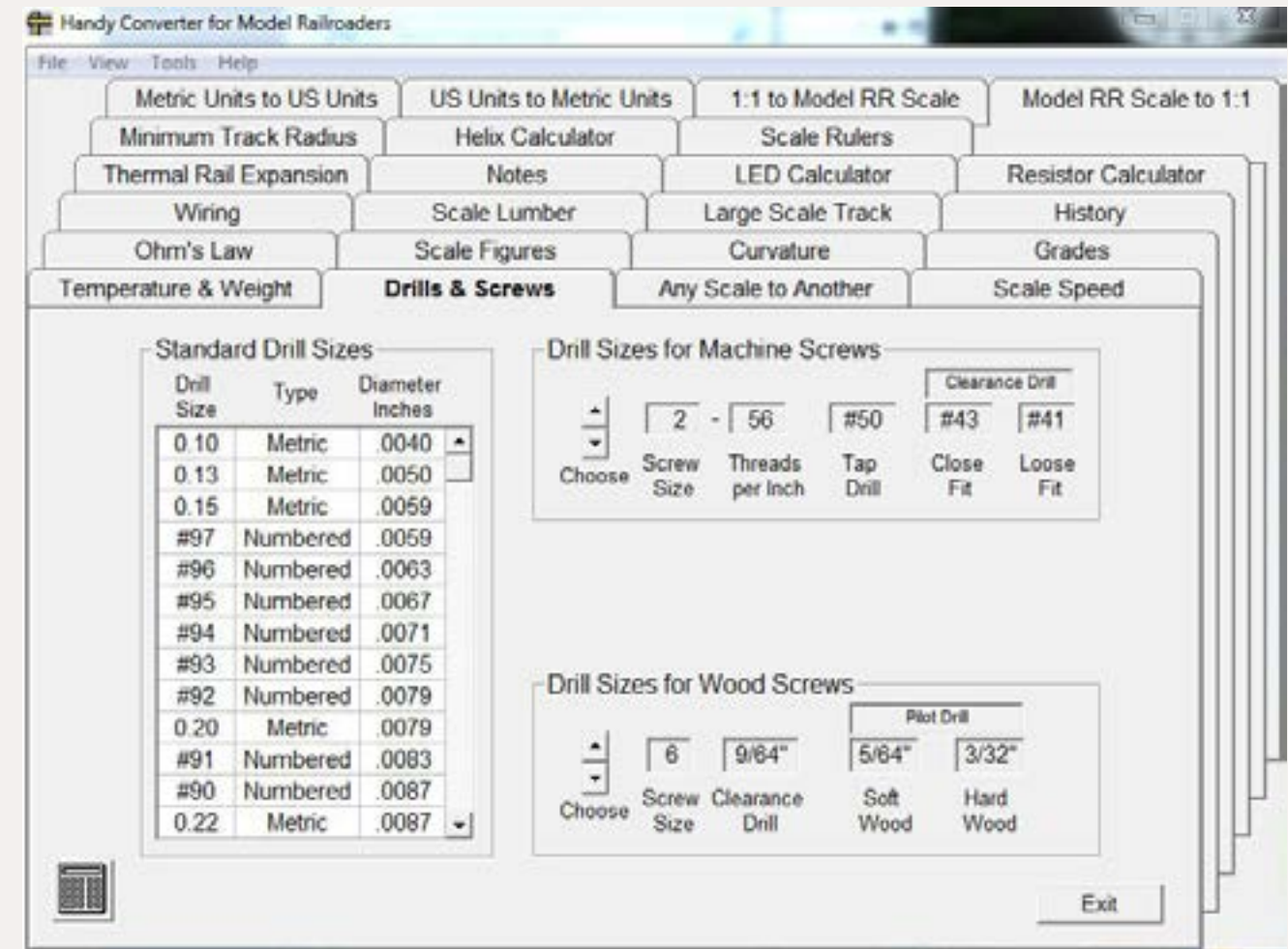


Figure 7: Drills & Screws.

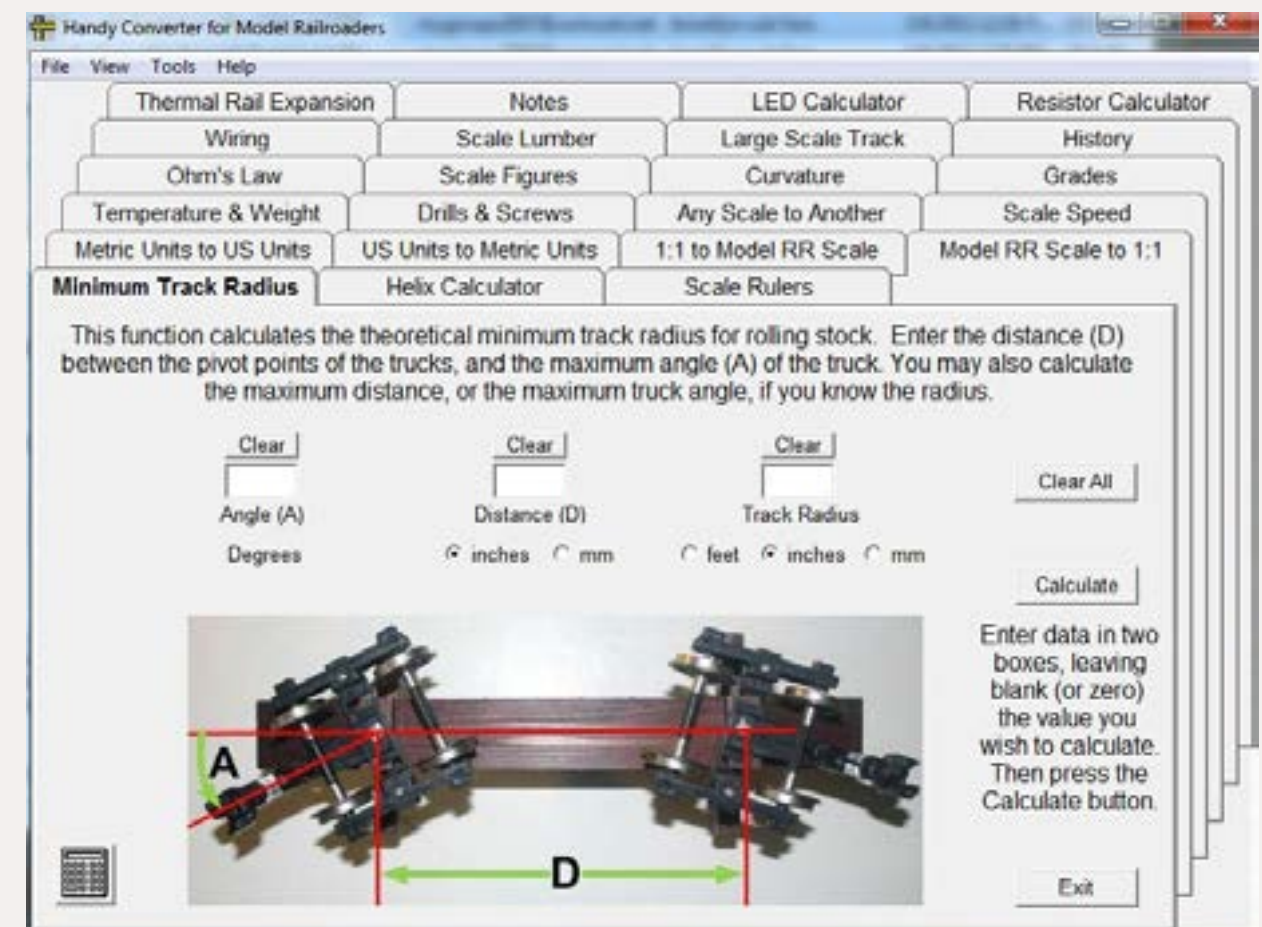



Figure 8: Minimum Track Radius.

and automatically loaded when the program is next started;

23. Calculator (figure 10, right) – included on most of the tools is a link to a calculator that has the standard four functions as well as % and includes a Fraction to Decimal equivalent tool, and tools for converting Feet and Inches to Decimal Feet as well as the reverse.

Each tool in the program is described and demonstrated in videos on the program's web-site at <http://stanstrains.com/SoftwareHandyConverter.htm>.

Stan's Handy Converter for Model Railroaders Version 16, runs on Windows XP, Vista and 7 and can be purchased from the Stan's Trains web-site for either \$12.95 (download) or \$19.95 (CD). 

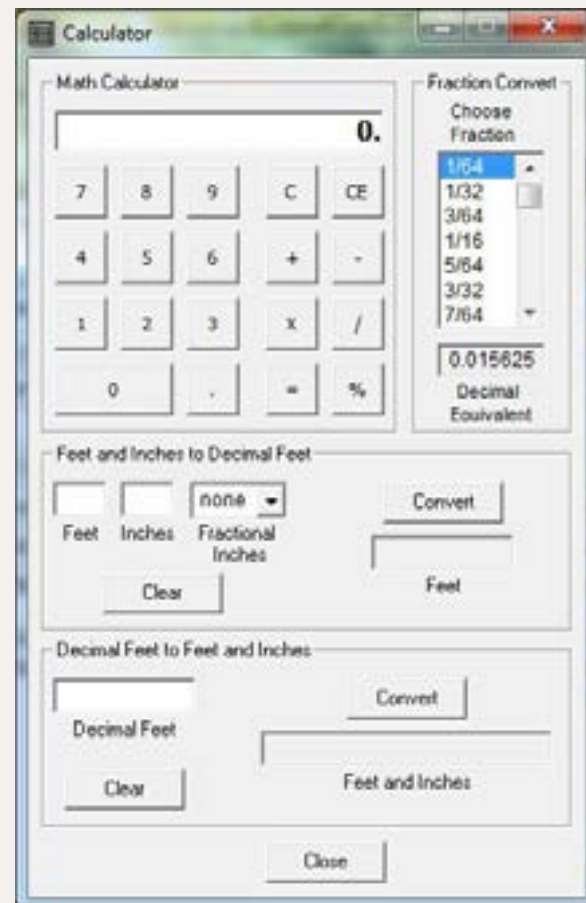


Figure 10: Calculator.

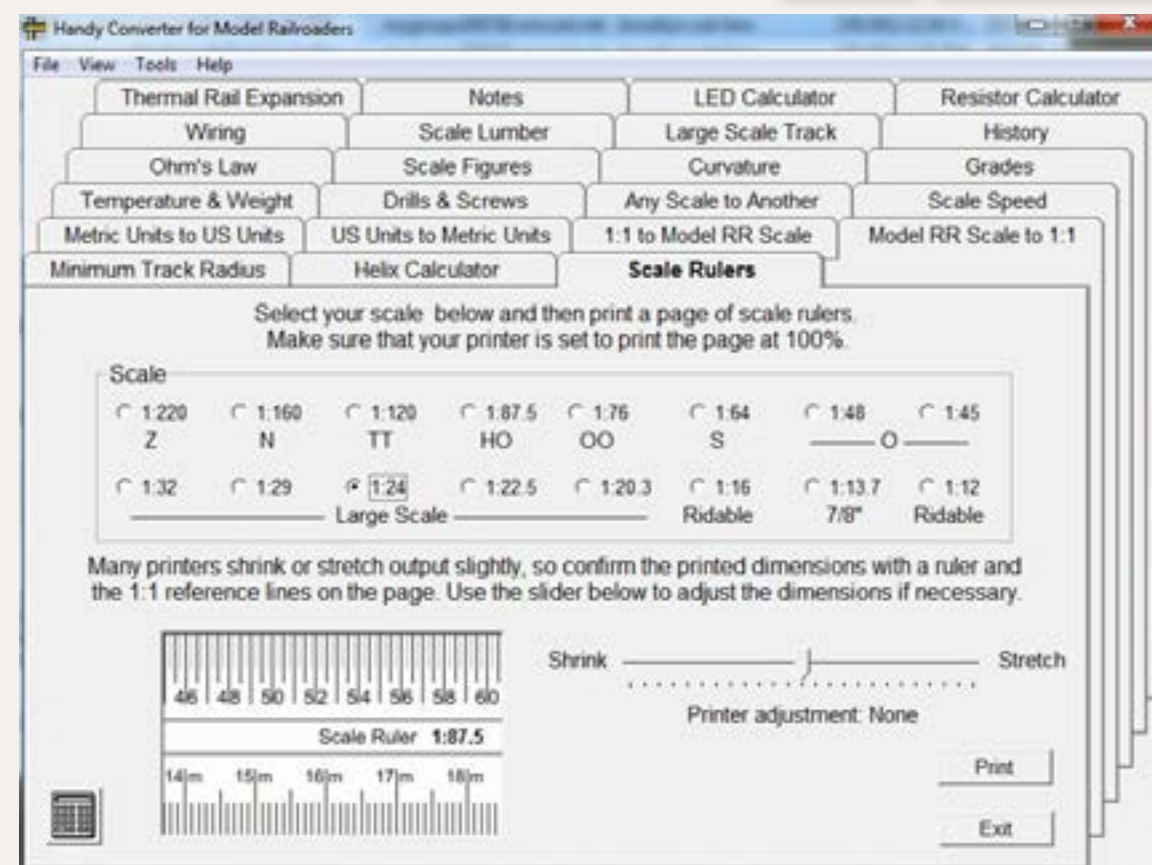


Figure 9: Scale Rulers.

Remember when?

March 2010

All back issues are available **FREE** all the time!



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PRODUCT SHOWCASE

Mullet River: SP C-30-1 Caboose

→ [Visit mulletrivermodelworks.com](http://mulletrivermodelworks.com)

As a subsidiary of the Southern Pacific, most of Texas & New Orleans' rolling stock was the same class as the parent company, including this wood-sheathed class C-30-1 caboose. Cupolas did not hold up well, and when the T&NO shopped #345, the original cupola was replaced with a shorter, wider version from a class C-30-2.

This T&NO caboose #345 is a prime example of a variety of challenging **O scale** kits available from Mullet River Model Works. The kit consists of laser-cut

components for all body parts including interior walls and fixtures. Windows are positionable and the doors can be set in an open position to add life to the model. Weight is provided by a durable etched-brass underframe modeled from SP drawings. The body kit (item 403030) is priced at \$120.00 All details and hardware are supplied, but trucks, couplers, and brake rigging are not included in the kit. Detailing kits for AB-type brakes (\$25), or K-type brakes (\$21) are sold separately. (Model built by Jim Zwememann.)



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PRODUCT SHOWCASE

Walthers: SP E9A Daylight diesel

→ [Visit walthers.com](http://walthers.com)

In late 1954, Electro Motive Division delivered the prototype 6051 E9A diesel locomotive to Southern Pacific decorated in the road's Daylight scheme. For the next 15 years 6051, and eight sister E9As, operated in pool passenger service out of Los Angeles. Number 6051 was retired in 1969, but escaped the cutter's torch when she was donated initially to the Railway & Locomotive Historical Society and later to the California State Railroad Museum (CSRM) where the colorful locomotive became a favorite of railfans as well as the general public. In 1985, after several years of both cosmetic and

mechanical restoration, 6051 emerged triumphantly as the only fully-preserved SP passenger diesel.

Later this month, WalthersProto™ will deliver a limited run of HO scale models that replicate the real SP 6051 on display at CSRM. In cooperation with CSRM, Walthers will donate \$10.00 from the sale of each model to the museum. In addition to its striking color scheme, the model incorporates a number of prototype-specific details including a 48" dynamic brake fan, see-thru Farr grilles, freight-style pilot, nose-mounted headlight and Gyra-Light, MU hatches and ladder stand-offs on the nose, vertically mounted wind deflectors on the cab, a whip antenna, and a 5-chime air horn. Walthers 6051 will be available for standard DC operation at \$199.98, and with a DCC decoder and Soundtraxx Tsunami™ Sound for full DCC operation at \$299.98. (Item 920-48752)



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PRODUCT SHOWCASE

Micro-Trains: SP Z Scale Hopper Car

→ [Visit micro-trains.com](http://micro-trains.com)

Micro-Trains created this Southern Pacific 33' twin-bay rib-side hopper car in **Z scale** – the smallest commercially available railroad models. The diminutive car comes with Bettendorf-style trucks and a removable coal load. The ready-to-run model has an MSRP of \$18.60.

The product designers at Micro-Trains based this Z scale model on a series of 275 class HK ballast cars American Car & Foundry built for Southern Pacific and its Texas & New Orleans subsidiary in 1956. (Item 534 00 021)



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PRODUCT SHOWCASE

BLMA: Trinity 64' Reefer/Boxcar

→ [Visit BLMAmodels.com](http://BLMAmodels.com)



Introduced by Trinity Rail in late 2003, the 64' modern reefer/boxcar was designed for increased capacity, better protection during shipping, and greater loading and unloading efficiency. The Plate F, excess-height car provides a spacious interior that can handle the contents of four 53' truck trailers. The unique cars have successfully brought new life to the movement of refrigerated produce and other perishable goods.

BLMA completed the initial release of its **HO scale** version of the out-sized Trinity car decorated for ARMN in 2011. Another production run,

decorated for CEFX, is scheduled to arrive later this year. Priced at \$32.95, the BLMA model rides on 100-ton trucks with 36" metal wheels and comes with body-mounted Kadee® couplers.



About our News & Events Editor



Richard Bale writes our news column under the byline of *The Old Yardmaster*. He has been writing about the model railroad trade for various hobby publications since the 1960s.

He enjoys building models, particularly structures, some of which appeared in the June 2006 issue of *Model Railroader* magazine.

MRH News Desk: The Latest Model Railroad News, Products, and Events

April 2012

Lew Matt 1945-2012



We were deeply saddened by the passing of our friend Lew Matt, who died at his White Brook Farm, in Holbrook, Pennsylvania, March 12, 2012. He had been battling liver failure since November of last year. In addition to producing award-winning jams and jellies, Lew's certified organic farm was also the home of a 3-foot gauge diesel switch engine he was restoring. Lew had a special fondness for narrow gauge modeling which he shared with fellow hobbyists as a writer, photographer and illustrator. Until his illness, Lew authored the narrow gauge column that appeared regularly in this magazine.

Lew was a life-long rail fan with eclectic taste in modeling that ranged from mainline PRR heavy electric equipment operating under complex catenary to the diminutive and sometimes whimsical industrial equipment on his freelance Lancaster, Oxford & Southern On30 layout. He served on the executive board of the Mon Valley Railroad Historical Society which he helped establish in 1987.

Lewis J. Matt III, was born November 19, 1945, in Lancaster, Penn. During the Vietnam War he served his country in the U.S. Air Force and was later active in the American Legion. He retired from the Department of Corrections after serving as assistant warden at the State Penitentiary in Camp Hill, Pennsylvania. Lew is survived by two sons, Shawn M. Jones and Chris Cohan.

Call for Volunteers

Volunteers of all types are needed to help stage the 33rd National Narrow Gauge Convention scheduled for late August 2013, in Pasadena, California. Interested parties are

asked to contact Jeff Smith at jeff@railmasterhobbies.com or phone (562) 867-5627...

New Truck Being Developed

Tahoe Model Works is developing an HO scale USRA 50-ton Andrews truck. An announcement of availability from owner/tool maker Brian Leppert is expected soon...

Happy Anniversary

Congratulations to Doug Foscale as the company he started in 1992, Fos Scale Models, celebrates its 10th anniversary. Despite the challenge of surviving during a recession, Fos Scale has managed to develop and introduce 75 craftsman-style kits during the past decade...

Brand New Conrail ES44AC

This new locomotive in Conrail blue is the first Norfolk Southern



Photo courtesy of Norfolk Southern

unit to emerge in the road's Heritage paint program. As noted here last month, Norfolk Southern is celebrating the 30th anniversary of the merger of Norfolk & Western, and Southern Railway by painting 19 modern locomotives in the decorating schemes of its predecessor railroads. The traditional liveries of



**Reader
Feedback**
(click here)

Central of Georgia; Conrail; Erie; Erie Lackawanna; Lehigh Valley; New Haven; New York Central; Nickel Plate Road; Norfolk & Western; Penn Central; Pennsylvania Railroad; Pittsburgh & West Virginia; Reading; Savannah & Atlanta; Southern Railway; Wabash; Virginian; and Tennessee, Alabama & Georgia will soon appear on modern General Electric ES44AC and EMD SD70ACe locomotives. NS said the uniquely decorated units will be used in system-wide freight service. One of the first model manufacturers to capitalize on the NS program is Fox Valley Models, who announced it would soon release N scale GEVO locomotives decorated for Conrail...

Atlas Price Increase

Effective April 9, 2012, Atlas Model Railroad Company will raise prices appreciably on all in-stock N, HO, and O scale parts sold through its online store. This is the first price increase on parts by Atlas in more than ten years...

New Digs for Downtown Deco

Downtown Deco has moved into a new, larger shop at 4998 Sawmill Lane, Conner, MT 59827. The mailing address is P.O. Box 335, Conner, MT 59827, and the new telephone/FAX number is 406-821-0181. Owner Randy Pepprock said the company's email address (downtowndeco@montana.com) and web site (downtowndeco.com) remains unchanged...

Now let's take a look at some of the latest products for model railroad hobbyists.

NEW PRODUCTS FOR ALL SCALES

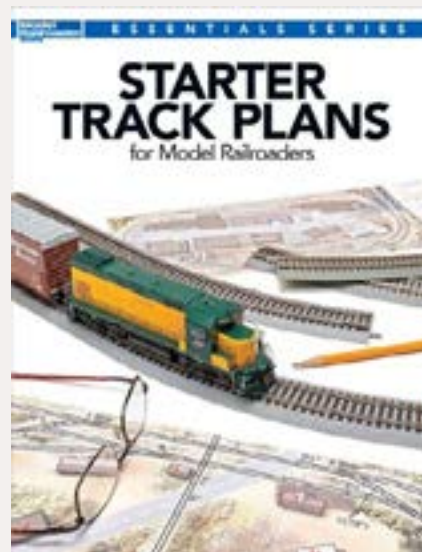
Bachmann Trains (bachmanntrains.com) has released downloadable versions of its 2012 catalogs for Bachmann, and Williams by Bachmann. To download the Bachmann catalog (25 MB) go to williamstrains.com/2012/2012_bachmann.pdf. For the Williams catalog go to williamstrains.com/2012/2012_williams.pdf.



Accu-Lites Inc (acculites.com) has released SNAPS, a new accessory to simplify wiring Tortoise switch motors. The device is composed of an edge connector that "snaps" onto the Tortoise and provides an 8-position screw-terminal wiring block that eliminates the need for soldering. SNAPS sell for \$6.99 each.



Monster Model Works (monstermodel-works.com) has developed a laser cutting technique that produces some of the most interesting surface textures we've seen. The brick work in the illustration is laser-cut basswood, while the sidewalk has been cut from sheet styrene. Basswood seems to be an ideal material for brickwork since it is lightweight, easy to cut, glue, and paint. The brick walls come in 12" x 4" sheets with bricks accurately sized for N, HO, S, O, 1:35, and G scale at \$19.99 per sheet. Both new and old brick surfaces are available. Additional materials include 2 and 3 tier lintels, old brick columns, chimneys, and the window grating shown in the illustration. Monster Model Works also does custom laser-cutting.



Kalmbach Publishing's (kalmbachbooks.com), **Starter Track Plans for Model Railroaders**, more than lives up to its name. The 64-page soft-cover book presents 26 simple, eminently buildable track plans – nine N scale, 15 HO, and one each for On30 and O scale layouts. The beginning chapter covers fundamentals including constructing a suitable support for a 4x8 sheet of plywood, options for establishing modest grades, simple wiring, selecting commercial sectional track components (with a brief reference to flex track), ballasting, establishing scenic contours, and selecting suitable structures. Most of the layout designs are reprinted from the pages of Model Railroader magazine. Thirteen are for table top layouts with the balance intended for modest sized rooms. Of the 15 HO designs, eight are essentially 4x8 table top layouts, four are for small rooms, and the balance are linear, shelf-style designs. This is a good starting point for the beginner. The book has an MSRP of \$16.95.

Micro-Mark (micromark.com) is selling a MicroLux cordless driver set with a built-in LED light. The lightweight reversible driver operates on a built-in Lithium-Ion rechargeable battery. The compact driver comes with a wall-mounted charger and an assortment of drills and screwdriver bits. Catalog item 84909 is priced at \$49.95.



RPCYC Publishing (rpcycpub.com) has released Volume 24 of the Railway Prototype Encyclopedia. Subjects covered in depth in this volume include Pennsylvania Railroad X29 boxcars and X28 automobile cars, plus a study of rebuilt U.S.R.A. double-sheathed boxcars. Volume 24 is priced at \$29.95.

LARGE SCALE PRODUCT NEWS



Bachmann (bachmanntrains.com) has released an upgraded version of its popular 4-6-0 Baldwin steam locomotive with new metal parts and a redesigned pilot truck. Additional features include an operating headlight, smoke, metal siderods, separate piping detail, metal handrails, and speed-synchronized sound. Road names include East Broad Top #10, Denver & Rio Grande Western #178, Rio Grande Southern #25, South Pacific Coast #22 (above), Denver & Rio Grande #10, East Tennessee & Western North Carolina #11, and painted but unlettered. The ready-to-run large scale model has an MSRP of \$425.00.

O SCALE PRODUCT NEWS

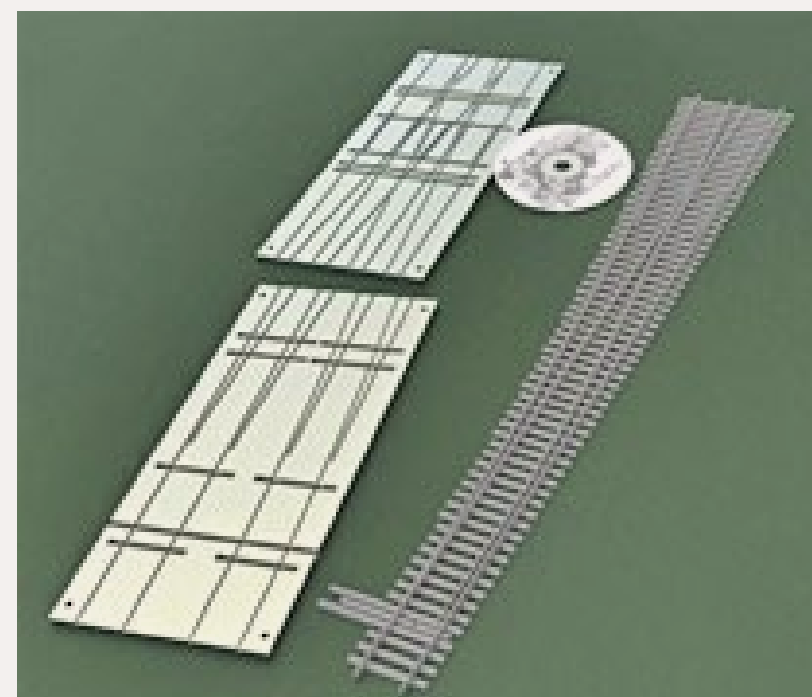
Atlas Railroad Company (atlasrr.com), which now includes Atlas O, will be responsible for marketing the O scale line of Cararama construction vehicles in North America. The cast metal models replicate modern Volvo construction equipment including a model L180C timber tractor, an L150C bulldozer, an EC210 excavator, and two tipper trucks; models A25C and A40D.

All items mentioned will have an MSRP of \$19.95 and are expected to be available in the third quarter of 2012.

Morgan Hill Models (morganhillmodels.com) has introduced a new line of On30 kits for small industrial rolling stock. Available now is a kit for a 16' industrial tank car. The underframe, tank, and oil drum are cast resin. Additional components include bass stripwood,



nut and bolt details, and a length of chain. The kit is priced at \$29.95. Trucks and couplers are not included.



Fast Tracks (handlaidtrack.com) has a new fixture for building #8 O scale turnouts using Micro Engineering code 125 rail. Aided by the Fast Track fixture, accurate, good looking, hand-laid turnouts can be assembled in less than an hour. The assembly jig can be used to make both right and left-hand turnouts. Due to the length of the finished turnout, the machined aluminum assembly fixture comes in two sections that can be aligned and permanently screwed to a heavy plywood base. The O scale #8 assembly fixture is priced at \$255.75 each.



Great Decals (greatdecals.com) is selling a gauge to verify the correct height of Kadee-type O scale couplers. Called TruGage, the simple device checks both coupler height and gladhand (uncoupling arm) positioning. The one-piece gauge is non-conductive and is suitable for both 2 and 3-rail track. TruGage sells for \$14.99 each.

Sidetrack Laser (sidetracklaser.com) has introduced a laser-cut kit for an O scale flag stop passenger shelter. Components include interior framing, a bench seat, and metal standing seam roofing material. The finished structure has a footprint of 3.5" x 3.25". The O scale kit sells for \$24.95.

HO SCALE PRODUCT NEWS

Accurail (accurail.com) has released kits for a swing-door version of its new HO scale 40' steel refrigerator car decorated for Pacific Fruit Express (mineral red/orange body with both SP and UP heralds in black and white), and Illinois Central (mineral red/orange body with black, green and white graphics). A plug-door version of the new reefer is available for National Car Company (mineral red, yellow, and red body with black and white graphics), and Burlington Northern (mineral red, yellow, and silver body with black and white graphics). All of the above reefer kits are priced at \$15.98.

Also new this month from Accurail is a kit for a 50' insulated plug-door steel boxcar decorated for Soo Line (white body with red door) at \$14.98, and a special 2-car set of Canadian Pacific 70-ton triple-bay open hopper cars (black body with road name in white script) at \$28.98. A limited run of uniquely numbered Union Pacific ACF triple-bay covered hoppers is available now in a special 3-pack at \$46.98, and a 3-car set of Chicago & North Western 40' wood boxcars at \$42.98. All prices mentioned are MSRP.



Next month, **Athearn** (athearn.com) plans to release Genesis series SD70ACe HO scale locomotives decorated for CSX (above), Ferromex, and Montana Rail Link in four road numbers each, plus UP locomotive No.1988 in the MKT "The Katy" heritage scheme. The ready-to-run model features a full-height nose door, rectangular windshields, dynamic brake equipment mounted at the rear of the long hood, and the familiar flared radiators with twin fans. Additional features include dual flywheels, all-wheel drive and electrical pick-up, cab interior including a video camera (non-working), correctly sized operating ditch lights, MU hoses, uncoupling bars, train line air hoses, safety tread walkways,

etched see-through grilles, and wire grab irons. Sound versions have an MSRP of \$289.98 and come with DCC and a Soundtraxx® Tsunami® decoder. Standard DC non-sound units list at \$189.98. New schemes for the Genesis SD70ACe scheduled to arrive in November include a Union Pacific version in blue and white, and a colorful KCS unit. Price increases are expected.

EMD F3A and F3A-F3B diesels decorated for Rio Grande are also scheduled for arrival in November. Prototype specific details include eyebrow grabs, ladder grabs on the nose, ladder-rest grabs, and sunshades for the cab windows.



The latest road names and decorating schemes for Athearn's Genesis GP9 locomotive include Illinois Central, Penn Central, and Soo Line. Also in the mix is a rebuilt Southern Pacific GP9R with prototype-specific details including a hinged panel for the battery box below the fireman's front door, a hood-top paper air filter box, and a square bolted panel behind the cab. Delivery is planned for November.

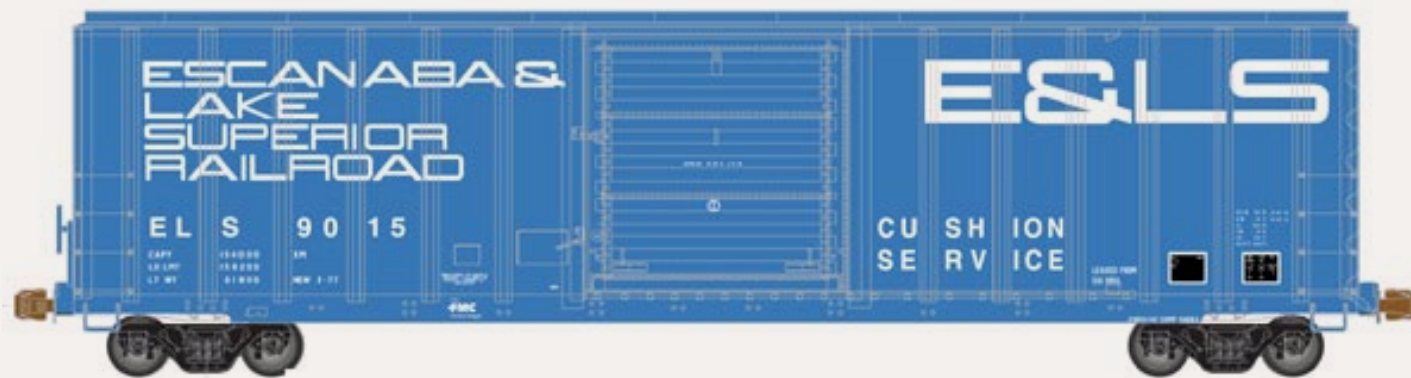
Athearn has also announced plans to deliver a Western Pacific class 481 steel bay-window caboose in November. Unlighted versions will have trucks with electrical pick-ups to power LEDs installed in the marker lights. Powered wire leads feed into the caboose but there are no interior lights. Lighted cabooses have LED interior lights, directional roof-mount "Frogeye" marker lights controlled by an on-board lighting system by Soundtraxx that operates in standard DC and DCC with lighting functions controllable in DCC. A built-in capacitor eliminates light flicker. Lighted cabooses have an MSRP of \$99.98. Unlighted units are \$69.98.

Atlas Railroad Company (atlasrr.com) is selling a 3-car set of Thrall-built articulated well-cars for 53' containers. Introduced in early 2000, Thrall's design gained a reputation among rail fans as the best looking of the articulated wells. Atlas has done a good job of replicating the prototype including the 125-ton truck. Other details of note are the etched metal walkways, stirrup steps, and lettering. Decorating schemes include TTX, and Pacer Stack Train at an MSRP



Photo courtesy of Robert Forsstrom

of \$109.95 for a set of three cars. An undecorated set is available at \$89.95. Although the cars will operate on 18" radius track, 22" radius is recommended for more reliable as well as more realistic operation.



Atlas has a new HO scale FMC 5077 cu ft single door plate-B boxcar coming in the 3rd quarter of this year. The new Master Line series model will have individual grab irons, etched-metal parts, and an X-panel roof. The early version of the prototype will be available for Atlantic & St. Andrews Bay – ASAB (orange body), Atlantic & Western – ATW (orange body with SSi logo), Burlington Northern - BN (green body), and Railbox - RBOX (orange body, black door). The early cars will have Youngstown sliding doors without a roller lift lever. Later versions of the FMC cars, with a roller lift lever on the door, will be decorated for Cadiz Railroad – CAD (yellow body); Escanaba & Lake Superior – ELS (above); Lake Erie, Franklin & Clarion Railroad Co. – LEF (yellow body); and Port Huron & Detroit – PHD (blue body with white stripe and St. Clair the Water Route slogan). The ready-to-run models have an MSRP of \$34.95. Undecorated models will be available for both early and later doors at \$29.95 each. Dealer reservations are due by April 6, 2012.

In other product news, Atlas is now responsible for marketing the HO scale line of Cararama construction vehicles in North America. The cast metal models replicate modern Volvo construction equipment including a model L180C timber tractor, an L150C bulldozer, an EC210 excavator, and an L180C tipper truck. All items mentioned will have an MSRP of \$14.95 and are expected to be available in the third quarter of 2012.

Atlas is selling excess inventory of HO scale decorated shells for various road names and diesel types. Some of the shells currently available include Dash 8-32BHW, Dash 8-40B, Dash 8-40BW, and Dash 8-40C. Also decorated shells for RS11, B23-7, B30-7 U30C, SD35, GP38, GP40, C424, and C425 locomotives. Prices range from \$30.00 to \$35.00 and are available through Atlas Parts Department at secure.atlasrr.com/mod1/items.asp?Cc=HODECBODY.

Bachmann's (bachmanntrains.com) new moderately priced FA2 and FB2 diesels come with DCC Sound Value™ SoundTraxx® diesel package that provides prototypical sound of the prime mover, bell, three air horn blasts plus one short blast. Additional features of the HO scale models include operating headlight, dual flywheels, metal handrails, and Bachman's E-Z Mate® Mark II couplers.



The ready-to-run model is available for Canadian National, Erie Lackawanna, Louisville & Nashville, New York Central, Pennsylvania Railroad (single-stripe Keystone scheme), and Baltimore & Ohio as illustrated here. Locomotives with a DCC Sound Value package have a suggested list price of \$185.00. Models without the sound package are \$109.00

Bowser (bowser-trains.com) is offering a group of kits for HO scale hopper cars at \$14.95 each. Available now are kits for a Durham & Southern 14-panel triple-bay hopper, an offset side 70-ton triple-bay hopper decorated for B&O with a round herald, and a PRR class GLa twin-bay hopper with a circle keystone herald. Also new is a 70-ton twin-bay covered hopper decorated for either Santa Fe or Erie.



Bowser's Cal-Scale division has several new and reissued HO scale plastic and lost-wax brass detail parts including this snow plow for second generation diesels. Other items include a CP snow plow, BC snow plow, Alco sand filler hatch, 3-hose MU set, Leslie 3-chime air horn, three versions of Nathan 3-chime air horns, Nathan 5-chime air horn, and cab ground lights. Visit bowser-trains.com for more information including pricing.

InterMountain Railway Company (intermountain-railway.com) is taking advance reservations for a second run of its HO scale ES44DC GEVO locomotives with delivery expected in October or November. New decorating schemes for the contemporary General Electric Evolutionary locomotive will be Norfolk Southern in gray primer delivery paint, and a new image BNSF with black logo. In addition, the run will repeat all of the original road names including BNSF Heritage II, BNSF (new image with yellow logo), General Electric Demonstrator, CSX, Canadian National, and Norfolk Southern in traditional black. The ready-to-run locomotives will be available for DC or DCC with optional SoundTraxx® Tsunami® sound.

InterMountain is also taking reservations for fall delivery of eight 10,000 gallon tank cars. Unless noted otherwise, all of the tank cars are black with white lettering. Road names are Frontenac – FPLX; GATX; Pan-Am – SHPX; Canadian General Transit Co. Ltd – CGTX; Southern Pacific; Phillips Petroleum Co. Bartlesville, OKLA – SHPX; Union Tank Car Co. – UTLX (yellow lettering); and Canton Tank Car Co. – CTTX (gray tank with black lettering). Each scheme will be available in six road numbers at a list price of \$34.95 each.

NJ International, Inc. (njinternational.com) has sections of an HO scale crane boom that can be used as a load for gondolas, flat cars, flat bed trucks, or as a scenic item at a construction site. The crane sections measure 1" x .75" x 6.5" long. They are sold in packages of three at \$9.99.



Overland Models Inc (overlandmodels.com) has imported HO scale handcrafted brass models of General Electric state-of-the-art locomotives, including this Union Pacific C6044AC unit. The models feature DCC Plug

N Play system, directional lighting, ditch lights, a Cannon EN22 motor with dual flywheels, and Kadee™ #58 couplers.

Also new from OMI is this General Electric red and gray demo AC6000CW with BHP-type steerable trucks. The models have an MSRP of \$1,025.00.



Sidetrack Laser (sidetracklaser.com) has introduced a laser-cut kit for an HO scale flag stop passenger shelter. Components include interior framing, a bench seat, and laser-cut wood shingle roofing material. The finished structure has a footprint of 3" x 1.75". The HO scale kit sells for \$22.95.



Walthers (walthers.com) has introduced a new line of contemporary HO scale vehicles to be marketed under the SceneMaster brand. The assembled and painted vehicles are composed of die cast metal and plastic components with some positionable parts. Some of the vehicles are in a choice of colors. The models replicate International equipment including the 4300 series ambulance (red),

crew-cab dump truck (yellow), tow truck (red), single-axle tractor (red, orange), and two utility trucks (red, yellow). International's 4900 series equipment includes a roll-on-roll-off flat bed (red), crew-cab fire engine (red), heavy dump truck with snow plow and salt spreader (orange), single and dual-axle tractors (white, red, orange), single-axle box vans (white, red), and dual-axle reefer vans (red, white, orange). A heavy duty dual-axle coal dump truck (silver and black), and a 3-axle cement mixer (white) are offered in International's 7600 series. An International CE series yellow school bus completes the introductory listing. MSRP prices range from \$9.98 to \$16.98.

Walthers has a limited run of HO scale EMD SW8 locomotives with new road numbers for Canadian National. The WalthersProto™ model comes with LED constant and directional headlights, and is fitted with several CN-specific details. The ready-to-run switch engine is specially geared for low-speed operation.



Standard DC models have an MSRP of \$169.98. Models with factory-installed QSI Sound and DCC list at \$259.98.

Walthers has announced scheduled delivery dates on its WalthersProto™

Hi-Level Amtrak cars. The HO scale ready-to-run models replicate the ex-El Capitan cars used in Amtrak service on former ATSF routes between 1971



and 1978. In addition to Walthers unique finish that simulates stainless steel, the ready-to-run cars feature operating diaphragms, factory installed grab irons, tinted windows, and trucks with 36" metal wheelsets. Delivery begins in November with a Pullman-Standard 85' baggage-dormitory transition car without skirts. The Budd-built 85' Hi-Level cars include a 68-seat step-down coach (November), a 72-seat coach (December, shown above), a Diner (December), and a Sky Lounge car (January). The Hi-Level cars will be available with or without factory installed DC/DCC LED lighting. All of the cars will be available in both Phase I and Phase II (shown above) decorating schemes. MSRP for the transition car is \$74.98. The Hi-Level cars are \$79.98 or \$89.98 for the lighted version. To insure delivery dealers must order by the April 30, 2012.

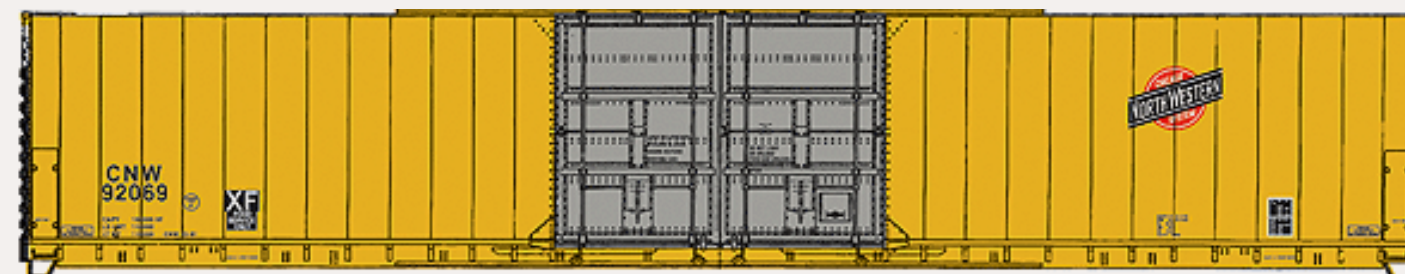
Walthers is quoting a December delivery date for new run of 60' class B60b baggage cars. Cars in this release have been upgraded with factory installed grab irons. Decorating schemes will include Norfolk & Western, and three PRR versions - prewar, Oct '52 to Feb '54, and Feb '54 to Sept '62. The ready-to-run baggage cars will have an MSRP of \$64.98 each.



New items scheduled for release in November include WalthersProto™ 65' Thrall mill gondola decorated for Canadian National, Chicago North Western, Denver Rio Grande Western, and Southern Pacific. The HO scale ready-to-run models will have an MSRP of \$31.98.



Also due in November is a new release of WalthersProto™ HO scale 86' Pullman Standard 4-door Hi-Cube boxcars. The run will include new decorating schemes with two road numbers each for Chicago North Western, Grand Trunk Western, Norfolk Southern, and SSW. Features include factory-installed grab irons and



ladders, etched-metal platforms, separately applied door hardware, and trucks with metal wheelsets. The MSRP will be \$34.98 each. Many of the prototypes, which were introduced in the early 1980s, are still seen in service today.

WalthersProto™ American Railroad Crane is also due to arrive in November. The crane will be available non-powered at \$39.98 or powered at \$79.98. On the powered unit helical gears drive one axle on each truck. Space is available for a DCC decoder (sold separately). A hand crank is used to elevate the boom and hook. Decorating schemes include MOW, PRR, UP, and Data only (picture next page).

Additional items scheduled for arrival in November include Walthers Mainline series 50' insulated boxcars with new road numbers for Erie Lackawanna, Norfolk & Western, SCL (FGE Solid Gold), and Southern. The HO scale models are based on prototype cars that went into service in the early 1970s. The



ready-to-run cars have an MSRP of \$24.98 each and will have Walthers Proto MAX™ metal knuckle couplers, and 33" metal wheelsets.

N SCALE PRODUCT NEWS



Atlas (atlasrr.com) is quoting a third quarter delivery date for its new AtlasMasters® series N scale 40' PS-1 boxcar with 7' doors. The

model replicates a prototype first built in 1947. The model will feature body-mounted Accumate couplers, and Barber S-2A 50-ton trucks with metal wheels. Two road numbers each will be available for Boston & Maine, Buffalo Creek, SSW-Cotton Belt, Lehigh Valley, Maine Central, Milwaukee Road, Rutland, and Western Pacific. The ready-to-run models will have an MSRP of \$26.95 each. An undecorated version will be available at \$21.95.



Bachmann (bachmanntrains.com) has DCC-equipped N scale Doodlebugs with a Trailer Coach decorated for several new road names including Baltimore & Ohio, Boston & Maine, Maryland & Pennsylvania, Seaboard, and New York Central. An unlettered set painted Pullman green is also available. The lead unit features DCC operation for speed, direction, and lighting; die-cast gear tower with bronze bearings, directional headlight; constant interior lighting;

Brill trucks with metal wheels; and E-Z Mate® Mark II couplers. The 72' trailer coach features LED constant lighting in either DC or DCC operation. The MSRP for the set is \$250.00 each.



BLMA (BLMA.com) is preparing tooling for an N scale model of a General American 3500 cu ft Dry-Flo covered hopper. GATC developed and patented the sealed Dry-Flo car for handling commodities that were too coarse to be readily off-loaded in an Airslide car. The ready-to-run model will feature separate brake detail, chemically etched brake platform, separate placards, 70-Ton ASF Ride-Control trucks with 33" metal wheels, and body-mounted Micro-Trains® couplers. The initial release with four road numbers each for Pennsylvania Railroad, Union Pacific, GACX-Shell Plastics, and CACX-Diamond Sugar as shown here. The MSRP will be \$26.95 with delivery expected late this year.

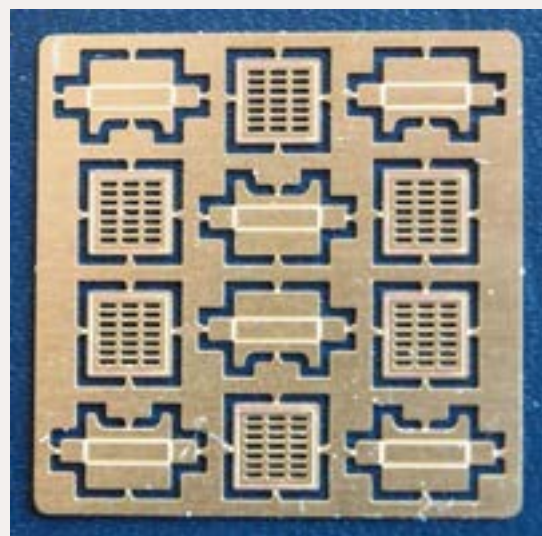
ExactRail (exactrail.com) will begin shipping the latest version of its N scale PS-2CD 4427 cu ft covered hopper later this month. Six road numbers will be available for Chessie/WM, CNW (Clinton repaint), Soo Line, Burlington Northern, Lehigh Valley, and Santa Fe paint schemes. The ready-to-operate models have an MSRP of \$26.95.





Also due from ExactRail this month is another release of Trinity 50' Hy-Cube boxcars decorated for TTX/FBOX. The ready-to-operate N scale model will be available in 18 new road numbers at \$24.95 each.

Both the PS-2CD C-hop and the Trinity Hy-Cube have been re-tooled with ExactRail's narrow body-mounted draft box. The cars come equipped with Micro-Trains® #1015 couplers, and ExactRail's own ASF 100-ton Ride Control trucks with 36" machined metal wheels.



Great Lakes Models (greatlakesmodels.com) is selling N scale street details including storm sewer grates and inlets. The etched sheet is pre-scored for easy assembly. The N scale sheet is priced at \$3.55 and includes six grates and inlets. Great Lakes owner, Kevin Domrois, says the etched-metal models are based on real grates in use in Milwaukee at the intersection of West Duluth Avenue and South Massachusetts.

InterMountain Railway (intermountain-railway.com) is preparing new tooling for an N scale single-sheathed WWII war emergency boxcar. Six road numbers will be available for Gulf, Mobile & Ohio; ATSF; Canadian Pacific; Chicago & North Western (Route of the 400 slogan); Wabash; and Nickel Plate Road. The transition-era cars have wire grab irons, etched metal running boards, and MicroTrains® trucks and couplers. The MSRP will be \$21.95 each. The ready-to-run models are scheduled to arrive in October/November. Dealer reservations are due by April 30, 2012.



Roundhouse division of Athearn (athearn.com) is taking reservations for two articulated steam locomotives scheduled to arrive in November. The N scale ready-to-run models include a 4-6-6-4 Challenger decorated for Clinchfield (preliminary art work shown above), Union Pacific, and Rio Grande at a list price of \$479.98 each. Also due in November is a 4-8-8-4 Union Pacific Big Boy at an MSRP of \$499.98 each. It will be available both with and without smoke lifters. Both the Big Boy and Challenger come with sound systems.



Sidetrack Laser (sidetracklaser.com) has introduced a laser-cut kit for an N scale flag stop passenger shelter. Components include interior framing, a bench seat, and laser-cut wood shingle roofing material. The finished structure has a footprint of 1.75" x 1.25". The N scale kit sells for \$15.95

Trainworx (train-worx.com) is taking reservations through April 30 for third quarter delivery of an N scale 85' flat car decorated for ATSF. The car is priced at \$29.95 each. Seven companion trailers are available at \$15.95 each. They include corrugated reefers decorated for Bud of California (red, green on white), Sunkist Citrus (orange, yellow on white), Santa Fe (flags on white), and Santa Fe (red on silver). Also a Santa Fe drop-frame van (flags on silver body). Two Santa Fe Flexi-Vans will be available (red on silver) with one having dual mail doors. An illustrated flyer on this release can be viewed at <http://train-worx.com/12-3PS85.pdf>.

NEW DECALS, SIGNS AND FINISHING PRODUCTS

Archer Fine Transfers (archertransfers.com) has released several new surface decals for S scale modelers including textured treadplate for GP7 and GP9 locomotives (item AR88069), and GM/EMD, ALCO and Baldwin locomotives (AR88070). Also new are textured decals for railcar rivets in both 7/8" diameter rivets (AR88071), and 5/8" diameter rivets (AR88072). The railcar group includes rivets in three different pitches (spacing), as well as a staggered

pattern. All sets mentioned are priced at \$17.95 each. Although designated for S scale, the patterns would be useful for many On30 applications.

To view a free video tutorial on using Archer textured surface decals go to http://r20.rs6.net/tn.jsp?et=1109368093798&s=5007&e=001nE6gHNCsTy4DbZ1Wzbb_bLI17V6nVOsVJwPM3Z5uv2CUhq6mNQYwBHnSOMbkV_B268eBFodm7NLHrFYQlvRIHVg-Szo-nspxlcz0c1dE92zQXOPV-nXQ-JQvIIXrK9IHoknY1s8VV6XgKyLLe2KWiA==



Jerry Glow (home.comcast.net/~jerryglow/decals/) has introduced decals to letter an HO scale 37' wood reefer for North American Dispatch. Material is included to letter the car for regular service or leased (George Hormel) service.



Great Decals (greatdecals.com) has new HO scale decals for Louisville & Nashville passenger equipment in dulux gold at \$5.99 per sheet. Each sheet includes L&N road names in two fonts, plus baggage, dormitory, RPO, and REA labels, and road numbers. Existing lettering sets are available for L&N diners, lightweight passenger coaches, streamlined Pacifics, passenger cab diesels, and cabooses from the late 1960s.

Mask Island (maskislanddecals.com) is selling HO scale decals for a 40' MKT ammunition car, and two cars for The Rock – a 70-ton covered hopper and a single-bay Airslide. Each of The Rock decal sets will decorate two cars. The MKT set will decorate one car. All sets are \$6.00 each.

New decals just released by **Microscale** (microscale.com) include New York Central 40' and 50' boxcars (1958-1968), Boston & Maine Bluebird scheme for diesels (1957-1978), Conrail open hopper cars (Conrail Quality scheme), Maine Central caboose, Union Pacific E unit striping (for use with sets 87622 and 624), and Union Pacific SD90MAC diesel locomotive. Decal sets under development

for release later this spring include Oregon, California & Eastern Railroad boxcars; Columbia & Cowlitz late boxcars; C&NW insulated boxcars; Burlington Northern gondolas and woodchip cars, and data sets for Southern Pacific 40' and 50' boxcars.

San Juan Decals (sanjuandecals.com) has expanded its selection of decals for D&RGW stock cars with the addition of lettering sets for large scale 15mm equipment. Priced at \$10.95, item SJD-306a includes material to letter a 15mm D&RGW 30' stock car as rebuilt in either 1926 or 1945. Previous releases for the same car are currently available for HOn3 (item SJD-305 at \$6.95), Sn3 (item SJD-303 at \$7.95), On3 (item SJD-304 at \$7.95), and 1/2"n3 (SJD-306 at \$9.95). Due next are 15mm sets for D&RGW 40' reefers.

DISCLAIMER

The opinions expressed in this column are those of the writer and do not necessarily reflect the opinion of *Model Railroad Hobbyist* or its sponsors. Every effort is made to provide our readers with accurate and responsible news and information, however, neither *Model Railroad Hobbyist* or the writer of this column can be held responsible for any inaccuracies or typographical errors that may inadvertently appear in this column.

Briefly noted at press time...

... Atlas Model Railroad Company is currently negotiating with new Chinese sources for its track and accessory items. Paul Graf, chief operating officer of the New Jersey-based firm, said disruption of the supply line of track items had been anticipated and the move is expected to reduce shortages to a matter of months rather than years.

In a move to minimize price increases and improve long-term availability on other products, Graf said tooling for most rolling stock and locomotives

has already been moved to new sources with availability of these items beginning to return to normal levels. ■



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Selected Events

April 2012

CANADA, ALBERTA, CALGARY, April 21-22, Annual Supertrain Show, with over 60,000 sq ft of operating layouts, exhibits, railroad art, dealer tables, manufacturers displays, and clinics. Special Lego and Thomas play area. Subway Soccer Centre, 7000 48th Street SE. Info at supertrain.ca.

CANADA, BRITISH COLUMBIA, QUESNEL, April 6-8, NMRA PNR Division Spring Meet with operating layouts, vendor tables, contests, AP judging, clinics, and layout tours. Quesnel Curling Club, 550 Quesnel Avenue. Info at goldpanexpress.info.

CANADA, ONTARIO, SCHOMBERG, April 21, 7th Annual Ontario Narrow Gauge Show hosted by the Narrow Gauge Madness Gang. Clinics, narrow gauge manufacturers, displays, modular and micro layouts, photo, and modeling contests. Schomberg Community Hall, 325 Main Street. Info at narrowgagemadness.com.

CANADA, ONTARIO, SUDBURY, April 27-29, NMRA Niagara Frontier Region Annual Convention with clinics, contests, and layout tours. Howard Johnson Hotel, 50 Bradey Street. Info at sudburymodelrailroading.com.

ARIZONA, WINSLOW, April 17-27, Winslow Railroad Days and Arizona State Centennial. Prototype displays and operating layouts. Hubble Trading Post, 523 W. 2nd Street. Info at tucsontrak.com/ASWMRR/ASWMRR_Winslow_Page.html.

CALIFORNIA, SAN BERNARDINO, April 14, Western Prototype Modelers Meet. Model displays, clinics, manufacturer displays and vendor tables, raffle prizes, plus BNSF mainline railfanning. San Bernardino Amtrak/Santa Fe Station (and museum), 1170 West Third Street. Info at railroadprototypemodelers.org. Vendors contact Joe D'Elia at ppw-aline@att.net or phone 760-721-3393.

CALIFORNIA, SAN DIEGO, April 2-6, Model Railroad Spring Camp, a week of constructing a model railroad exhibit, creating scenery, buildings, and freight cars for grades 3 through 8. Includes weathering, electric wiring, trackwork, and a behind the scenes tour of the famous San Diego Model Railroad Museum. Also field trips to the SD Trolley Yard and Santa Fe Depot. Details at sdmrm.org or call Olga Cortes at 619-696-0199.

INDIANA, ELKHART, April 13-14, Michiana Model Railroad Symposium, sponsored by NMRA Michiana Division, featuring Friday night banquet, clinics, layout tours, and railfanning, at National New York Central Railroad Museum. Info at michiana-nmra.org.

INDIANA, MARTINSVILLE, April 14, Train Show & Swap Meet, hosted by NMRA Central Indiana Division. Dealer tables, operating layouts, clinics, model judging including popular vote contest. Martinsville National Guard Armory, 1900 Hospital Drive. Details at cid.railfan.net.

ILLINOIS, WATSEKA, April 21, 30th Anniversary Meet of Chicago & Eastern Illinois Historical Society. Includes memorabilia, visit to the Rossville Depot, and special model railroad presentation based on the C&EI. Watseka Union Station. Details from David Forbes at altamontc_ei@yahoo.com.

MINNESOTA, SAINT CLOUD, April 21, Granite City Train Show. Model train displays (all scales), vendor tables, accessories, books, videos, antique toys, railroad memorabilia, and operating displays. National Guard Armory, 1710 Veterans Drive. Info at granitecitytrainshow.com.

NEW YORK, GARDINER, April 20-21, Mid Hudson On30 Meet, Bishop Moore Hall, St Charles Borromeo RC Church, 2212 Route 44/55. Info at groups.yahoo.com/group/midhudsonOn30meet/?yguid=120653266.

OHIO, MARION, April 13-14, Central Ohio RPM, with model displays, clinics, and discussions with like-minded modelers, hosted by Denis Blake. Marion Union Station. Info at wrighttrak.com/page6.php. Proceeds donated to the Marion Union Station Association and used for upkeep of Marion Union Station.

OREGON, EUGENE, April 21-22, 24th Annual Swap Meet & Train Show, sponsored by Willamette Cascade Model Railroad Club. Events Center at Lane County Fairgrounds, 796 West 13th Avenue, Eugene. Info from Lee Temple ttandt@ram-mail.com or phone 541-954-4917.

PENNSYLVANIA, MONACA, April 1, Beaver County Spring Model Train Show. At Center Stage, 1495 Old Brodhead Road. Info at bcmrr.railfan.net.

WASHINGTON, OLYMPIA, April 14, Ninth Annual Olympia Layout Tour. Details from Scott Buckley at sbuckley54@comcast.net.

WEST VIRGINIA, RANSON, April 7, On30 Reunion at Bunker Hill Train Show, with 200 dealer tables, multiple On30 layouts, displays, clinics, and door prizes. Ranson Civic Center, 431 W. 2nd Ave. Info at bunkerhilltrainclub.org.

May 2012

AUSTRALIA, NEW SOUTH WALES, ALBURY, May 26-27, Murray Railway Modellers Annual Show, with N, HO, O scale layouts, model displays, vendor tables, and Thomas the Tank. Mirambeena Community Centre, Lavington. Info at murrayrailwaymodellers.com, or contact John Harvey at mrmshow@gmail.com.

CANADA, ONTARIO, OTTAWA, May 5-6, Ottawa Train Expo, featuring layouts, models, displays, clinics, demonstrations, and tours. Billed as the largest train show in Eastern Canada. Carleton University Fieldhouse. Info at ottawatrain-expo.wordpress.com.

COLORADO, DENVER, May 4-5, National Z Scale Convention, with clinics, contests, and tours of Colorado Railroad Museum and Caboose Hobbies. Red Lion Hotel Denver Southeast, 3200 S. Parker Road. Info at nzsc.org.

OREGON, MEDFORD, May 2-5, Joint Medford Oregon-Siskiyou Summit PCR/PNR Convention, with clinics, contests, LdSig and OpSig meetings, layout and prototype tours, plus special Train Mountain outing. Red Lion Hotel. Details at pcrnmra.org/conv2012.

OHIO, HILLIARD, May 18-20, 4th Annual Ohio N-scale Weekend, hosted by Central Ohio N-Trak. Franklin County Fairgrounds. Info at centralohiontrak.org.

Future 2012

CANADA, BRITISH COLUMBIA, SQUAMISH, July 13-15, Pacific Great Eastern Railway 100th Anniversary Convention, sponsored by PGE-BCR Modellers Group. Clinics, operating layouts, displays, model contest, prototype displays, and rides on 7.5" gauge Mini Rail. CN Roundhouse & Conference Centre, West Coast Railway Heritage Park, 39645 Government Road. Info including registration fees and options available from Brian Clogg at bcclogg@shaw.ca or phone 604-588-2194.

CANADA, SASKATCHEWAN, REGINA, June 28 - July 1, Living Skies Express, a joint CARM National/PNR 6th Division Convention, at University of Regina Campus. Info from Tyler Smith at smithtyler@sasktel.net.

CALIFORNIA, RICHMOND, June 23, Bay Area Prototype Meet, St. David's School Hall, 871 Sonoma Street.

CONNECTICUT, COLLINSVILLE, June 1-2, New England/Northeast RPM, Canton Community Center, 40 Dyer Avenue. Info at neprototypemeet.com.

ILLINOIS, COLLINSVILLE (St Louis area), July 27-28, 6th Annual St Louis RPM Meet, hosted by Lonnie Bathurst, John Golden, and Daniel Kohlberg, with clinics, local and national vendor displays and sales tables, representatives from railroad historical societies, Freemo display, and more. Gateway Convention Center, One Gateway Drive. Info available from John Golden at Golden1014@yahoo.com or Dan Kohlberg at paducah@mindspring.com.

KANSAS, MERRIAM (Shawnee area), June 25, 9th Annual Narrow Gauge Meet, sponsored by Kansas City Area Narrow Gaugers. Includes clinics by Dennis Brandt and Miles Hale MMR, plus tours to the HOn3 layouts of John Vandenberg (D&RGW) and Doug Taylor (East Broad Top). Johnson County Library, Antioch Branch, 8700 Shawnee Mission Parkway. Advance registration required by June 20, 2011. Inquiries to Larry Alfred at captlalfred@gmail.com.

MICHIGAN, GRAND RAPIDS, July 29-August 4, NMRA National Convention and National Train Show. Info at gr2012.org.

MICHIGAN, GRAND RAPIDS, July 29 - August 3, Operations Road Show, a hands-on clinic learning time table and train order operating techniques while operating on the Wabash 2nd Division modular railroad. Extended clinic sessions Monday through Thursday in conjunction with the NMRA Grand Rails 2012 National Convention. No fee but clinic reservation and convention preregistration is required. For details contact John Young at cdjhyoug@yahoo.com.

NORTH CAROLINA, BREVARD, October 12-13, Narrow Trak 12. Details pending.

OHIO, CLEVELAND, October 11-14, iHobby Expo, annual hobby industry trade show, IX Center.

OREGON, MEDFORD, June 27-July 1, 20th Annual National N Scale Convention, with auctions, more than 100 tables of N scale items, clinics, model contests, operating layouts, and home layout tours. Also tours of Micro-Trains plant, Medford Railroad Park, and live steam at Train Mountain. Red Lion Hotel. Info from Dick Ollendorf at 610-923-7535 (evenings, Eastern time) or visit nationalnscaleconvention.com.

PENNSYLVANIA, LANCASTER, October 11-13, Fine Scale Model Railroader Expo, includes activities at the Strasburg Railroad and The Pennsylvania Railroad Museum. Lancaster Host Hotel & Conference Center, Strasburg. Info at modelrailroadexpo.com.

PENNSYLVANIA, LEESPORT, August 10-12, Greater Reading Narrow Gauge Meet. With operating displays, dealers, clinics, and demonstrations. Leesport Farmers Market Banquet Hall, Arlington Drive. Info at nateslightironhobbies.com/narrowgaugemeet.htm.

SOUTH CAROLINA, MYRTLE BEACH, October 13-14, Grand Strand Model Railroaders 3rd Annual Model Train Show, at Lakewood Conference Center, 5837 S. Kings Hwy. Info at isfans.com/gsmrrc.

WASHINGTON, BELLEVUE, September 12-15, 32nd National Narrow Gauge Convention. Meydenbauer Convention Center. For info visit seattle2012.com.

Future 2013

AUSTRALIA, MELBOURNE, April 12-14, 2013, 13th National Australian N Scale Convention, Rydges Bell City Event Centre, Preston, Melbourne. Info at convention2013.nscale.org.au or send email to nscale2013@bigpond.com.

CALIFORNIA, PASADENA, August 28-31, 2013, 33rd National Narrow Gauge Convention. Hilton Hotel, 199 S. Los Robles St. Info at 33rdnngc.com. Send inquiries to Jeff Smith at jeff@railmasterhobbies.com.

MINNESOTA, BLOOMINGTON, April 25-28, 2013, 28th Annual Sn3 Symposium. Ramada Mall of America Hotel. Info at Sn3-2013.com.

NEW MEXICO, ALBUQUERQUE, June 6-9, 2013, Rails Along the Rio Grande, NMRA Rocky Mountain Region, Rio Grande Division 6, convention with clinics, layout tours, train show, OpSig sessions, UPRR and BNSF modelers showcase night, and banquet. Marriott Pyramid North. Info from Al Hovey at alhovey@comcast.net. ■

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REVERSE RUNNING: 10 ways beginners can get a real charge out of the hobby

Stepping outside the box with a contrary view



especially avoid sound. Sound's just annoying and not realistic anyhow. Besides, adding sound to a loco makes it cost more, and that's not the idea. We want the cheapest stuff we can find, because we can buy more!

5. Don't use flex track. Use code 100 sectional track (if HO). It's cheaper and easier to work with. Plus it fits on that 4x8 better, and these days it comes with a built-in plastic ballast as well standard radius choices. Flex track will require you learn how to make a consistent radius, and makes it harder to figure out what track routings to use because nothing's pre-defined.

straight jacket and feels more like a job than a hobby. Who wants to run prototypically correct trains, anyhow? And for heavens sake, who cares what those tracks on the track plan are for – just make the track plan look cool and you'll get a design that's loads of fun to run.

9. Don't bother replacing couplers or wheel sets. It's a lot of work to change out couplers and wheel sets, so you'll save a ton of time and money if you don't worry about it. Things will work fine and you will have more time to hang out online!

10. If you don't have space for a layout, wait until you do. Don't waste your time detailing locos, building rolling stock, or making structures. And don't mess around building a small module or joining a club. Just hang out online and have fun discussing the hobby. When you finally do get space, then you'll have learned so much by hanging out online that you'll know most of what you need to finally build that layout in your new-found space.

Of course, if you follow these guidelines, some other hobby like model airplanes or radio-controlled cars will look a lot more attractive than model railroading before long ...

6. Cram as much track as you can into your space. Keep your aisles at 18" if possible. Keep the radius below 24" (in HO) if possible, 18" radius is even better, especially if you're running modern equipment. The more track you can get into your space, the more satisfying operating variety your track will have.

7. Don't bother with how-to articles or trying out anything first. Just hang out online a lot. You'll learn all you need from others on the internet – and you don't need to waste time trying out anything for your self first nor spend money on how to publications.

8. Don't waste time trying to run trains with those operations nuts. They take the fun of running trains and turn it into something that's a

3. Make your track plan fit your lumber. Best of all is a 4x8 sheet of plywood because the layout table construction goes fast. You want to avoid shelf layouts like the plague, since they require more sophisticated benchwork, and many along-the-walls designs devote wasted space to "staging". Better is a loop design with continuous running like on a 4x8, and there's lots of these 4x8 plans available to pick from.

4. Whatever you do, avoid using DCC. DC is simpler and cheaper. If you go DCC, you'll spend a fortune on a new system, on decoders, and you may get hooked on sound, which will make the cost of the hobby go up significantly. Besides, block toggles are far easier to understand and wire than Digital Command Control.



— by Joe Fugate

If you're a beginner in the hobby of model railroading, here's some ways you can do the hobby and save yourself time and money:

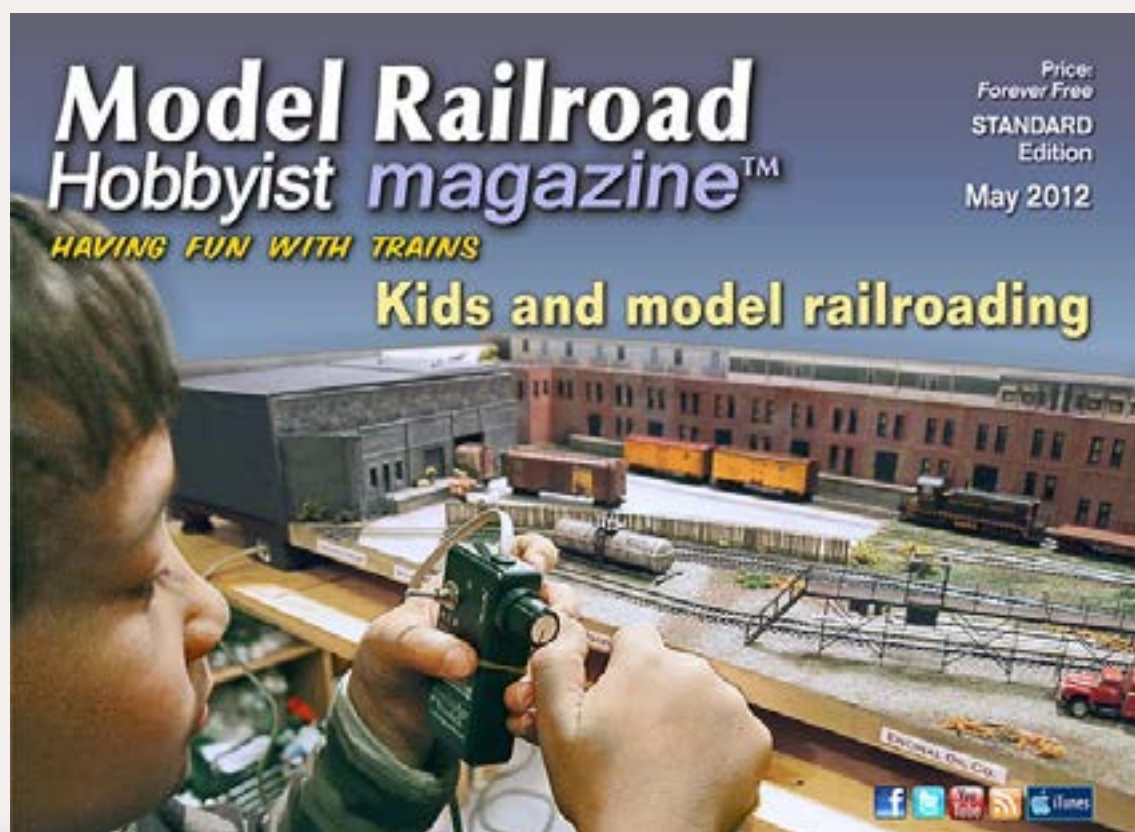
1. Don't bother figuring out what you'd like to model first. Just start buying whatever tickles your fancy, without regard to road or era. After all, it's a hobby! Just have fun collecting model train stuff, and who cares about whether it's prototypical.

2. Buy cheap. You want to save money and not worry about labels that make stuff cost more. Avoid the more expensive brands, and

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For the love of model trains

Coming in the May 2012 issue

- M.C. Fujiwara on the joys of kids and model railroading
- Mike Confalone's Modeling a realistic paper mill scene continues with part 2
- Tom Patterson builds a diesel storage tank
- Backwoods crossing signal for a logging shortline

... and lots more!

**Derailments, humor,
and Dashboard on
next page ►**

D e r a i l m e n t s

humor (allegedly)



After a party two totally drunk fellows got lost on a railroad track downgrade while trying to find their way back home. After a while one of them said, "I hate these endless stairs..."

To which the other added, "Yeh, but what I don't understand is why they made the railings so low ..."

Why modeling the Penn Central is fun

- Can use more dummy engines to model all the out of service locos
- Frequent derailments are now prototypical
- Locomotives with missing parts now look right
- All that black paint enhances the color of the rolling stock

If you're the first to [submit a bit of good humor](#) and we use it, it's worth \$10!



**Reader
Feedback**
(click here)



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Q: How many modelers does it take to screw-in a light bulb?

A: None! Real modelers solder their bulbs in place!

Q: How many modelers does it take to install a turnout?

A: Only one – if they get the "point".

Q: How many modelers does it take to read a FREE model train magazine?

A: All of them!

Model Railroad Hobbyist magazine™

Helping to conserve your hobby \$\$\$ for what really matters – track, locos, strip wood, structures, turnouts, plaster, pink-foam, trees, plywood, decoders, freight cars, static grass, details, conventions, wire, ...

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to hobby
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