HAVING FUN WITH TRAINS
NOVEMBER 2026 | FREE

MRH
MODEL RAILROAD HOBBYIST

ALSO:
- DCC breaker board roundup
- Four-cycle waybill scenarios
- Ken Patterson: Layout rebuild, pt. 2
- Build a Southern Pacific depot

... and more inside!



Hard-coded wide PDF version of MRH magazine

The facing pages in this PDF have been merged into a single wide page, making them landscape.

Windows - Mac - Linux: Use the keyboard arrow keys to change pages
Tablet or phone: Swipe from the page edge to change pages

ADVERTISEMENT

MAKE THE HOLIDAYS BRIGHT WITH ATLAS
MODEL RAILROAD CO., INC.

DON'T GET CAUGHT ON THE NAUGHTY LIST!
CHECK OUT OUR 2026 HOLIDAY GIFT CATALOG!

featuring
HO, N & O STRUCTURES,
GLOW IN THE DARK
TRAINKIDS SETS
& MORE!









SHOP FOR THE HOLIDAYS CLICK HERE!

FOR MORE INFORMATION OR TO LOCATE A DEALER, PLEASE VISIT SHOP.ATLASRR.COM.
ATLAS MODEL RAILROAD CO, INC. • 378 Florence Ave., Hillside, NJ 07205

STAFF

HAVING FUN WITH TRAINS
MRH
MODEL RAILROAD HOBBYIST

Model Railroad Hobbyist | November 2026 | #201

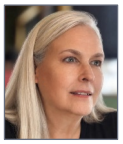
Editorial Staff



Joe D. Fugate, Publisher and Editor



James Regier, Assistant Editor



Patty Fugate, Pasteup and Layout



Richard Bale, News and events



Jeff Shultz, News and events, Tech Assistant



Mike Dodd, Copy Editing

Published for the glory of God. What's this?

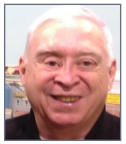
Get more issues like this
GIVE IT A LIKE

ISSN 2152-7423
1.0 November 18

Advertising



Les Halmos, Account Manager



Jean-François Delisle, Marketing Assistant

Thom Driggers, Marketing Associate

Regular contributors

Eric Hansmann, Contributing editor
Jim Six, Limited Modeler column (RE)
Ken Patterson, Reporter-at-Large

Rotating Columnists (RE)

Greg Baker, Getting Real column
Al Daumann, Getting Real column
Jeff Johnston, Getting Real column
Mike Rose, Getting Real column
Jim Providenza, Getting Real column
Tony Thompson, Getting Real column

MRH SPONSORS



Model Railroad Hobbyist | November 2026

A - M

railroadhobbyshow.com

www.atlasrr.com

bachmanntrains.com

berretthill.com/trains

blairline.com

www.digitrax.com

esu.eu/en

handlaidtrack.com

iascaled.com

store.mrhmag.com

www.modelrectifier.com

handlaidtrack.com/mt-albert-scale-lumber

MRH Sponsors | 2

N - Z

ncedcc.com

www.pwrs.ca/main.php

rapidotrains.com

ringengineering.com

rockislandhobby.com

scaletrains.com

smartmodelz.shop

sodigi.com

sbs4dcc.com

thesugarpineshop.bigcartel.com

tamvalleydepot.com

tcsdcc.com

nmra.org/trainfest-2026

trainworld.com

walthers.com

Vendors: Get your clickable logo on these pages ...

Looking for something? Check the MRH Marketplace!



Take me there!

ADVERTISEMENT

RUN SMARTER

Buy a new DC loco and upgrade a single train. Invest in a high- performance train control and enhance your entire DC railroad. Make it a Tech 7 and enjoy these smarter, exclusive MRC features.

All Tech 7s feature:

- Proportional tracking control to yield the most responsive and realistic train operation
- Accutec Technology™- smooth performance and extra power for climbing grades
- Advanced Slow Speed Circuitry to crawl and couple with precision.



Tech 7 Ampac 760
(0001276)



Tech 7 Ampac 780 Dual Action
(0001278)

Check out these advanced Tech 7 features and start running smarter with an MRC train control.

MRC Model Rectifier Corporation
360 Main Street, Suite 2, Matawan, NJ 07747 • 732-225-2100 • www.modelrectifier.com
3 Year Limited Warranty
FOUNDED BY ROY C. GELBER
Train Controls | Model Railroad Accessories | Plastic Model Kits | Scenery | Educational Kits

Table of Contents | MRH

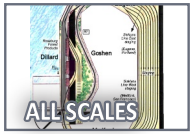
November 2026



Publisher's Musings: Tyranny of the basement empire
JOE FUGATE



MRH Website this month: Modeling eastern narrow gauge ...
Compiled by JOE FUGATE



Let's talk ops: Four cycle waybill scenarios, part 1
JOE FUGATE



What's Neat: Ken's layout rebuild continues, ...
KEN PATTERSON



Electrical Impulses: Short protection board roundup
JOE FUGATE



Kitbashing three unique On30 cars
MICHAEL TYLICK, MMR



Scratchbuilding a Southern Pacific Depot
THOMAS GASIOR



Savvy Modeler online: Make static grass tufts like crazy
Compiled by the MRH STAFF



November 2026 news and events
JEFF SHULTZ and RICHARD BALE

ADVERTISEMENT

BUILD YOUR PATRIOTIC FLEET

SCALE TRAINS | AMERICA 250

250th collection



For 250 years, railroads have shaped our nation's story. To honor America's semiquincentennial, ScaleTrains™ is proud to introduce our 250th collection – one of the most patriotic locomotive collections in model railroading history.

Spanning nearly 150 new paint schemes across both HO and N Scale, this lineup features everything from the Class Is to regional shortlines, including all-new locomotive models and officially licensed America250® decoration. Available for preorder at ScaleTrains.com, these commemorative models offer a once-in-a-generation opportunity to honor America's birthday and railroading heritage on your model railroad.

Scan the QR code below or visit ScaleTrains.com to explore the entire 250th collection.

For the ultimate collector, our Limited Edition Collectible Boxed Sets feature museum-quality packaging, every announced road number for that railroad, and a serialized certificate of authenticity. These sets are available for preorder exclusively at ScaleTrains.com. Because production runs are strictly limited, we encourage you to reserve your sets today

The ultimate destination for A250. Discover nearly 150 products crafted for total versatility.



BNSF RAILWAY · CPKC · CN · CSX · NS NORFOLK SOUTHERN · NW

PREORDER NOW / PAY ON ARRIVAL

ScaleTrains.com™

844-9TRAINS 844-987-2467 · International 423-299-3689

©2026 USSC. The America250® word mark and logo are trademarks of the USSC. ©2026 ScaleTrains, ScaleTrains.com and respective logos are trademarks of ScaleTrains.com, Inc. Pricing is subject to change without notice.

PUBLISHER'S MUSINGS



Model Railroad Hobbyist | November 2026

JOE FUGATE DISCUSSES THE TYRANNY OF THE BASEMENT EMPIRE ...

VIEW READER COMMENTS

MODEL RAILROADERS HAVE LONG MEASURED HOBBY AMBITION IN SQUARE FOOTAGE.

For decades, our hobby has treated layout size as the ultimate standard of success: the bigger the empire, the more serious the builder was presumed to be.

Classic hobby magazines championed that ideal with the massive single-deck basement empire, an undertaking that demanded twenty years of weekends and a full operating crew.

Multideck designs arrived in the late 1970s and pushed the envelope even further. Today, double-, triple-, and even four-deck empires maximize every cubic foot of available space.

One important note: I hold tremendous respect for modelers who possess the space, time, and budget to build a larger layout. Those railroads are magnificent achievements, and anyone fortunate enough to construct one should enjoy every foot of it.

Somewhere along the line, though, an unhealthy assumption took hold across the hobby. Modelers began equating sheer layout size with deep hobby satisfaction.

An unspoken hierarchy soon followed. Anything smaller than a two-car garage was labeled a "starter layout" – a temporary warm-up act until the "real" basement empire could begin.

This editorial isn't a critique of larger layouts. I'm writing to modelers who don't yet have any layout and are navigating modern life.

Most of us face rising housing costs, smaller living spaces, job relocations, and crowded schedules. Retirement often means downsizing, and that's when a lot of modelers finally have the time to do the hobby with gusto.

When we make layout square footage the measure of our hobby success, countless great model railroads stay trapped on paper while builders wait for basements they may never own.

Redefining a "real layout"

I believe we need to challenge this size assumption directly. I find the best hobby satisfaction comes from *quality*, not quantity.

Making size your primary goal introduces the tough problem of massive layout scope.

A giant empire devours thousands of dollars and years of labor before you can turn a single wheel for meaningful operation. Along the way, builder burnout can easily set in.

Large layouts also tempt builders to cut corners. Rushed trackwork and compromised wiring can sabotage reliability and torpedo layout enjoyment.

Here is a dirty little hobby secret: early construction moves fast. Benchwork, roadbed, track, and wiring going up in short order can create the illusion of rapid progress for the entire project to completion.

After that, however, time demands soar. Detailed scenery and structures take vastly more hours per square foot than basic construction.

That is why the "Plywood Pacific" is so common, while a finished-looking model empire is surprisingly rare.

Take note: square footage alone never makes a layout rewarding.

Contrast an unfinished giant with a compact layout built having bulletproof track, detailed scenery, and smooth operation. A "run like a dream" finished railroad delivers satisfaction that bare plywood simply can never match.

ADVERTISEMENT



ADVERTISEMENT



Do ALL your model railroading friends know about MRH?

WE CONTINUE TO BE SURPRISED BY HOW MANY MODELERS STILL HAVE NEVER HEARD OF US - SO SPREAD THE GOOD WORD ABOUT MRH!

This leads me to *MRH's* TOMA (The "One Module" Approach).

The quotation marks around "One Module" are deliberate. TOMA does not require rigid modular standards like Free-mo; ordinary sectional benchwork works perfectly well.

Under this approach, a single TOMA module section paired with staging forms a complete, self-sustaining layout. It looks finished and yes, you can run engaging operating sessions on it!

Alternatively, connect a dozen TOMA module sections together with staging, and you have a single larger railroad that can adapt and move with you.

We recommend TOMA module sections generally be 4–6 feet in length. I especially prefer 4-foot long for corner sections because I've found 6-foot curved pieces to be rather difficult to maneuver through household hallways.

How TOMA liberates the modern modeler

TOMA can replace project paralysis with a refreshing creative momentum by working within your current life limitations.

First, **it fits the space you have right now.**

A spare bedroom wall, a home office, or a den corner easily accommodates a TOMA module section. You get a fully scenicked, operating railroad running in weeks or months rather than years.

Second, **it moves when you move.**

Permanent benchwork anchored into drywall creates painful dilemmas for renters, relocating professionals, and downsizers. Nobody wants to take a Sawzall to years of delicate craftsmanship.

Lightweight TOMA module sections clear 30-inch doorways, navigate tight stairwells, and pack into an SUV or minivan. Your investment in time and skill stays with you.

Third, **it grows strictly on your terms.**

I know this challenge firsthand. My original Siskiyou Line 1 was an 1100-square-foot two-deck "mushroom" empire, and I worked on it for more than twenty-five years.

Whenever I stopped and looked around at the sheer volume of unfinished layout projects across my basement, it was easy to feel overwhelmed.

That is why I am genuinely excited about Siskiyou Line 2 as a TOMA layout project.

Building just one or two module sections at a time feels vastly more approachable and less intimidating. I can hang temporary staging off both ends and dive straight into realistic micro operations, having an absolute blast relatively quickly.

When I am ready for more layout, I can build another module section or two, bolt them in, connect the track and wiring, and keep right on rolling.

ADVERTISEMENT



ADVERTISEMENT

Simpler lighting?



SmartModelz Animator

See how it works >

ADVERTISEMENT

THE VINTAGE STEAM LOCOMOTIVE HANDBOOK

YOUR COMPLETE GUIDE TO FINE-TUNING AND UPGRADING YOUR OLDER MODEL STEAM LOCOMOTIVE FLEET

Detailed photos, drawings and diagrams plus DCC sound installs

106 pages

$34.00



Get those Mantua, MDC, Rivarossi and other steamers off the shelf and on the layout!

LEARN MORE ▶ | thesugarpineshop.bigcartel.com

My only concern is having so much fun operating the existing sections that I lose motivation to expand. Such a terrible problem to have!

Shaking off "small layout" guilt

Operating satisfaction does not require fifty-car switchlists or a big classification yard.

Model railroad operations fall into either macro or micro ops.

Large empires excel at macro ops, simulating the broad flow of multiple trains interacting across subdivisions under a dispatcher's authority.

Smaller layouts shine at focused micro ops. Modern sound decoders, realistic momentum, and independent braking make switching intensely engaging as you step into the dual role of locomotive engineer and conductor.

With high momentum and braking enabled, you have to plan every move well ahead. If you get rolling too fast, you cannot stop quickly. If you fail to set the brake just right, you will stop short or overshoot your industry spot.

With a little practice, managing that sense of great mass becomes an amazing, enjoyable challenge.

ADVERTISEMENT



On30 #6 Code 83 curved turnout built with Fast Tracks tools

Track is always in stock.

When you own the tools, you're the supplier.

The same tools build track tonight, or in 10 years.
Built by you. Built to last.

Find your track building solution today:

fast-tracks.net/mrh

SINCE 2003

Once you master it, you can repeatedly coast into a gentle "coupler kiss" when picking up a car – giving a sense of realism and accomplishment you simply cannot get with minimal momentum and a common knobby throttle.

A single TOMA module section can model a focused slice of a Class I mainline just as convincingly as a rural branchline, a compact yard, or an urban industrial park.

Whether you model a grain elevator siding, a team track, or a mountain passing siding, a finely detailed scene captures the authentic spirit of prototype railroading.

Having a manageable footprint lets you build every structure, track arrangement, and scenery element to your highest standard.

Start where you stand

Stop waiting for the retirement house, the empty basement, or the mythical block of endless free time.

Look around your home for a 10–18-foot stretch of wall. A shelf depth of 12–24 inches, plus a couple of feet of aisle access, is all you need.

That footprint easily accommodates a finished 4–6-foot scenic TOMA module section with staging on the ends. Pick a signature industry, a favorite depot town, or a switching district you love.

Commit to taking that single TOMA module section all the way from bare benchwork to finished scenery and painted fascia, then run trains!

When I first introduced TOMA back in 2015, my primary goal was to get armchair modelers actively doing the full scope of our hobby. Rather than getting stuck in paralysis by analysis, TOMA gets you building benchwork, laying track, wiring, creating scenery, detailing structures, and running trains in mere weeks instead of years.

You do not need to draft a ten-plus-year master plan for an entire basement before turning a single screw. Instead, pick a single "layout design element" based on whatever prototype scene or operating situation truly floats your boat.

That doesn't necessarily mean building disconnected scenes with no overall vision. Nobody wants an accidental, patchwork-quilt layout.

ADVERTISEMENT



ADVERTISEMENT



ADVERTISEMENT



Doing advanced planning around a larger layout design is actually a productive way to proceed. We like to call it: "Start small, think big." Envision the broader railroad you'd love to have someday, figure out how a key layout design element fits into that master plan, and then focus your construction entirely on one or two TOMA module sections.

Take that focused compelling element, finish it to your highest standard, hang staging on both ends, and dive straight into meaningful operation. You gain hands-on experience across every modeling discipline while keeping your creative momentum high.

This is not settling for second best. It is a practical way to experience the total hobby much sooner, with a level of craftsmanship and pride that a sprawling, unfinished empire rarely delivers.

The massive basement empire is simply no longer the only path to genuine hobby satisfaction.

If you have the resources to build and maintain a multi-deck empire, then great, enjoy every single square foot of it.

For the rest of us, remember that you do not need an empire to build a masterpiece. Build what you can finish, and start right where you stand. ☑

Get more articles like this
GIVE IT A LIKE

Did you see this article?
in the OCTOBER 2026 MRH RUNNING EXTRA!

Latest powered pin vise options
Get full eBook now ▶ ← click here
Each eBook has 70-100 pages
MRH RUNNING EXTRA

Get the latest Model Railroading News, Tips, Reviews & Opinions

CHECK IT OUT!

CREW CALL WITH MIKE ROSE

Our iTunes feed has changed search for
"Crew Call with Mike Rose" to receive the latest episodes!

www.themodelrailroadpodcast.com

Host:
Mike Rose: www.mrhobby.com

Don't Miss our Monthly Interviews
& Product Announcements

Last issue likes

Most liked articles in October 2026 issue of *MRH* are:

1st 200 issues: A gallery of memorable covers
2nd Publisher's Musings: Celebrating our 200th issue!
3rd Precision Measurements Wood Miter

Most liked articles in October 2026 issue of *Running Extra* ...

1st Limited Modeler: Putting new life into the new layout
2nd Tricks for taming the turnout frog
3rd Getting Real: Budget logging camp structure tricks

If you want more of this type article, then like the article!
Click the *Give us a like* or *comments* button on each article and press the like button on the article's forum page if you want to see more articles like these. ■

ADVERTISEMENT

Every little bit helps!

Registered MRH readers get another 10% off with the coupon code here:

Reveal my coupon code now!

click here



That's right, on top of our other sales and discounts, use this coupon code to get *YET ANOTHER* 10% off!

TMTV sale offers

click here

MRH Store sale offers

click here

ADVERTISEMENT

In MRH RUNNING EXTRA November issue ...



All meat: zero ads!

TABLE OF CONTENTS | RUNNING EXTRA

Issue 96: November 2026

Publisher's Welcome: Cordless air compressor & airbrush
JOE FUGATE

Limited Modeler: Industry / interchange on the new layout
JIM SIX

Getting Real: Operating the "real" Santa Cruz Northern
JIM PROVIDENZA

Building two Empire State Express locos
THOM DRIGGERS

Taming the layout wiring beast
the MTH STAFF

Ah-Hah Moment: Quick-connect airbrush hose adapter
JOE FUGATE

Buy November eBook - $3.99

103 pages

store.mrhmag.com

Also includes 236-page MRH in the back!

REGISTER *(free)*

INDEX

TABLE OF CONTENTS

Best of the MRH FORUM THIS MONTH

Forum MRH mrhmag.com

Model Railroad Hobbyist | November 2026

Compiled by **JOE FUGATE**



Modeling eastern narrow gauge

VIEW READER COMMENTS

Forum member **RyanAK** (Ryan S.) is researching the rolling stock roster of the White Deer & Loganton (WD&L), an early 20th-century narrow-gauge line that operated in the mountains of Central Pennsylvania.

While he is building in 1:72 scale, he notes that clean 3D digital model designs could easily be scaled and printed for O, S, or HO narrow-gauge layouts, making these obscure eastern shortlines much more accessible to other modelers.

View the full thread on the MRH website

MRH'S MONTHLY GREAT MODELER POSTS



1. Forum member **jimcubie1** discovered a new tree making method to get bulky trunks with supertree foliage, rustic wired twine, and shrink tubing.

New tree making method

MRH forum member **jimbubie1** just discovered a new tree making method from YouTuber **Model RR adventures with Bill.**

Bill shows how to build a realistic HO scale oak tree to replace an undersized pre-made one near his engine shops. He twists rustic wire around a wooden dowel core to form roots and heavy limbs, building up bark texture with wood glue and fine ground foam.

Next, he attaches Scenic Express supertree foliage with super glue and heat-shrink tubing, blends the joints with more glue and turf, and spray-paints the armature camo brown. Finally, using hairspray, he layers on ground foam for an airy canopy.

View the full thread on the MRH website

ADVERTISEMENT



Make some extra cash writing for MRH!

WE'RE LOOKING FOR ARTICLES, SO WRITE-UP WHAT YOU'VE DONE, AND SEND IT IN !

How to write for us

ADVERTISEMENT

Lasercut structures. Highway, storefront and billboard signs.

Neat ag customer for your railroad: Farmers Fertilizer Supply



WHAT'S NEW?

Established 1993...
Blair Line

ADVERTISEMENT

TRAINWORLD TRAINLAND SINCE 1968

THE CLOSEOUT KINGS!
PRE-ORDER POWERHOUSE!



TRAINWORLD.COM

orders@trainworld.com 1-800-541-7010



2. *MRH* forum member **Craig Townsend** this photo of his under construction large scale Darigold Dairy industry.

Building a Darigold Dairy Plant

MRH forum member **Craig Townsend** is recreating the Darigold dairy plant in Issaquah, Washington on his large scale layout.

Craig's model focuses on the railroad-facing portions: a precast-concrete loading warehouse, a covered dock concealing a cinder-block section, and an angled remnant of the original creamery.

Craig is scratchbuilding the structures from foamed PVC, scribing individual cinder blocks and using a miniature table saw to create textured precast panels. Follow the progress of this fascinating build on the *MRH* forum. ☑

View the full thread on the *MRH* website

Recent photo fun thread

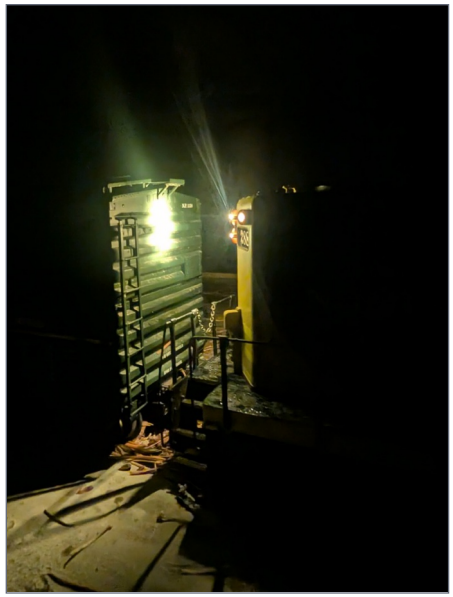
Recent *MRH* forum Photo Fun threads had these photos that caught our eye, so check out these photos and the rest of the photo fun threads!

View list of recent Photo Fun threads

3. MRH forum member **SouthlandModeler** (Chris B.) shares this scenic layout photo showing a Carolina Coastal Railway train (pulled by an ex-Canadian National loco) crossing Acre Swamp on the Belhaven branch near Pinetown, North Carolina.



4. Forum member **Craig Townsend** shared this dramatic night switching shot from his large-scale layout. In the scene, a yellow-nosed diesel locomotive (No. 288) couples onto a dark green boxcar, its bright headlight cutting through the dark to illuminate the boxcar's corrugated end. Night photography like this adds a whole new level of realism and atmosphere to a layout—well done, Craig!



Get more articles like this
GIVE IT A LIKE



Model Railroad Hobbyist | November 2026

Four-cycle waybill scenarios, part 1

When setting up four-position waybills, knowing the options you have for routing freight cars can really help with the process of deciding which cars go where and for what reason.

Standard Car Routing

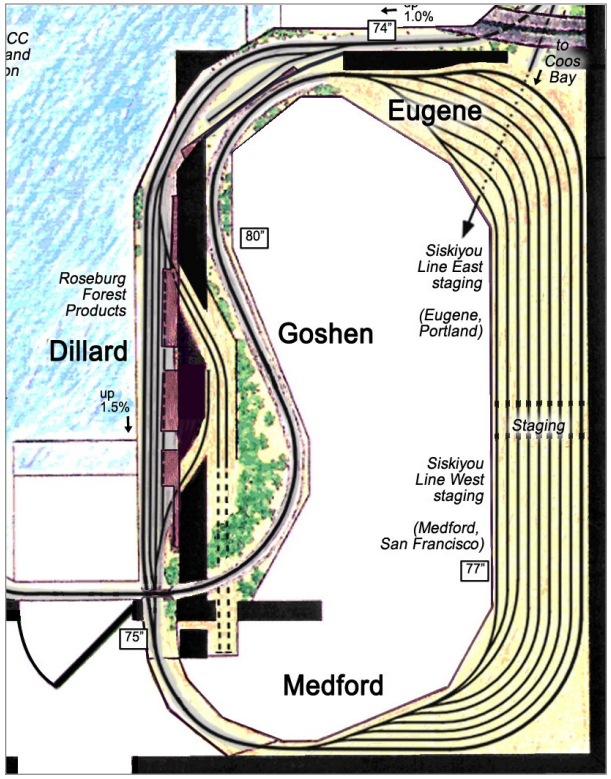
The standard cycle uses all four positions on the waybill to send a car to two separate on-layout customers over time:

- **Position 1:** Staging to on-layout industry 1.
- **Position 2:** On-layout industry 1 to staging.
- **Position 3:** Staging to on-layout industry 2.
- **Position 4:** On-layout industry 2 to staging.

On my Siskiyou Line, Eugene and Medford staging represent opposite ends of a double-ended staging yard [1]. A typical four-position cycle looks like this:

- **Position 1:** Eugene staging (empty) to Dillard mill for cut lumber.
- **Position 2:** Dillard mill (lumber) to Eugene staging (lumber destined for a wood products wholesaler in Nebraska).
- **Position 3:** Eugene staging (empty) to Murphy Plywood in Sutherlin.
- **Position 4:** Murphy Plywood (plywood) to Medford staging (Sacramento lumber yard).

This is standard car routing. Let's look at some variations.



1. This shows the double-ended staging track arrangement of Siskiyou Line 1. One end of staging represented Eugene Yard and all points north (eastbound), the other end was Medford and all points south (westbound). These railroad directions are standard Southern Pacific practice of toward San Francisco being westbound and away from San Francisco being eastbound. Cars going actual USA eastbound varied, depending on the interchanging road.

Captive Service

When equipment is dedicated to a specific customer, use a two-step captive service cycle and leave positions 3 and 4 blank:

1. Staging to on-layout industry 1
2. On-layout industry 1 to staging (positions 3 and 4 blank)

For example, a captive-service car moves from Eugene staging (empty) to Dillard specialty lumber for laminated beams in Position 1.

In Position 2, it moves loaded from Dillard mill back to Eugene staging, destined for a wholesaler in Seattle.

Next month, we will cover still more waybill routing variations. ☑

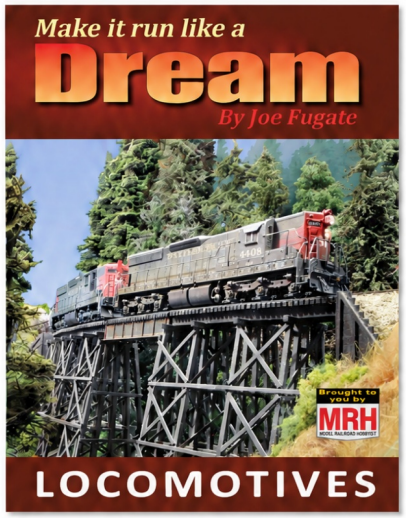
Get more articles like this
GIVE IT A LIKE

ADVERTISEMENT

Having fun with Trains
MRH MEDIA

Important Notice for Pre-order Customers

If you placed a pre-order for the paperback edition of the *Run like a Dream:* Locomotives book before 2023, we need you to confirm your current shipping address.



Please email office@mrhmag.com

Subject line: Loco book address confirmation

Thank you for your patience and support.

WHAT'S NEAT column



Model Railroad Hobbyist | November 2026

KEN PATTERSON COVERS THIS MONTH:

VIEW READER COMMENTS

- BLI'S N SCALE USRA LIGHT AND HEAVY MIKADO'S
- LAYOUT CONSTRUCTION CONTINUES
- BUILDING A DIORAMA WITH BACHMANN SCENE SCAPES MATERIALS



click to play video

PHOTOS AND VIDEO OF SUPERB MODELS

It's a beautiful dawn in Ken's backyard and he's accomplished quite a bit of rebuilding in the basement and on his layout. Broadway Limited sent Ken two of the new N scale USRA Light and Heavy Mikado models, including Southern #4501. For the final segment, Bachmann has sent an assortment of scenery supplies for Ken to have fun building a diorama using "old school" modeling techniques.

BLI N scale Light and Heavy Mikado locomotives



1. Southern #4501 is a USRA Light Mikado (2-8-2) and the N scale model includes sound.





2. The USRA Heavy Mikado is represented by the Fort Worth & Denver (Burlington Route) #451.
Info: broadway-limited.com

Layout construction continues



3. The Caterpillar dealer diorama has been moved two inches farther out from the wall for a total of 10 inches. Ken is thinking about adding a lightly used loading track at the dealership in the additional space. The levels are being used to visualize the lines of the new plywood top that will go on the steel studs, and the mainline rails. The laser is confirming the lines of the new benchwork and that the eight-foot level is straight.



4. Ken turns out the lights to show how the lasers are being used to locate where the mainline will go. The detergent bottle is holding a piece of lath in a curve where the edge of the new benchwork top will go.



5. The new benchwork top ended up being angled instead of curved. Here Ken is confirming it will fit. He has installed new cabinets, which provide several additional inches of space over the tracks.



6. After measuring twice and cutting once, the new board at the other end of the diorama fits the first time. It required careful measuring, since the end of the diorama is angled and the corner where the blue-painted surveillance camera is located isn't square.



7. The rest of the tabletop drops into place.



8. Ken is using a 48″ radius wood curve as a template for the minimum radius in his new yard.



9. Ken lays out track to see where the mainlines will go, drawing lines on the plywood for reference when he'll glue the track down directly to the plywood in the future.



10. A new sheet of 1/2″ sanded plywood is going to be the base of the switch yard. He's using a pre-cut 53″-radius template to cut out the switch yard as well as two more 2″-wide curves that he'll use to connect the switch yard to the two-level staging yards.



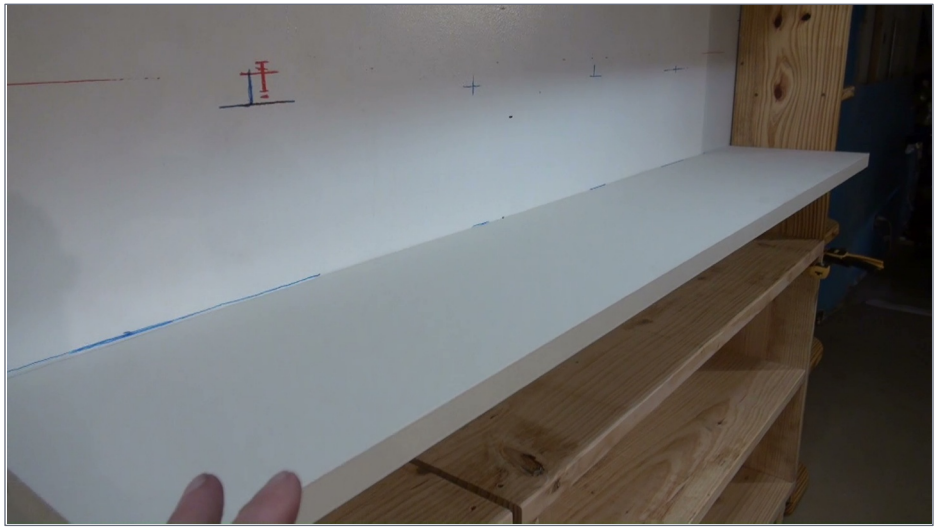
11. Laying the new switch yard base over the old to check the fit.



12. Ken is using a track saw to cut an 18″-wide section of plywood for the other leg of the switch yard.



13. The two additional plywood curves he cut with the 53″-radius template are temporarily placed where they will lead to the two-level staging yard shelves.



14. Ken bought bi-fold doors and removed the hinges to create 15″-wide hollow-core shelves for the staging yards. He is also putting in bookshelves above, below, and at the end of staging so he can bring his books inside from the garage before winter hits.



15. Ken picked up a 4′ x 50′ roll of cork at a hardware store, and will demonstrate using the track saw to cut it into roadbed strips for the December "What's Neat."

Building a diorama with Bachmann Scene Scapes materials



16. Bachmann sent some of their Scene Scapes scenery material for Ken to build a diorama. It includes tunnel portals, retaining walls, rock castings, Realistic Resin Water, Realistic Water Details, scenery glue, and plaster cloth.



17. Watch the video to see how Ken goes from simple open-frame benchwork …



18. …to this finished diorama, suitable for product photos or a train show booth.
Info: shop.bachmanntrains.com

Click the link at the beginning of this article to see the entire video, featuring more shots of the BLI N scale Mikado's, Ken's progress on rebuilding the basement and his layout, and building a scenicked diorama from start to finish. ☑

Get more articles like this
GIVE IT A LIKE

All those who ordered the RLAD Loco book between the years 2016-2022 who have not yet been contacted by us for a mailing address verification, please contact us with that info at: office@mrhmag.com. Thank you!

DCC made simple

From first train to full layout ...



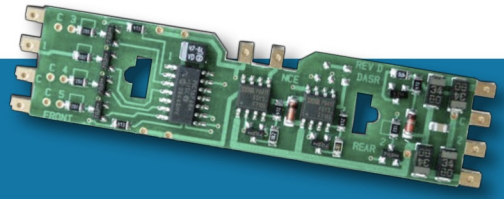
Intuitive, ergonomic control

Scaleable to any size layout

USA

Proudly made in the USA





NCE The Power of DCC

See your dealer

Visit ncedcc.com

Visit Now

ADVERTISEMENT

Southern Digital
WWW.SODIGI.COM
Celebrating 28 Years serving you

Some of the New Items from Digitrax


Zephyr Express
List $245, Your Price $196


Evolution Express DuplexRadio
List $655, Your Price $524


Evolution Express
List $470, Your Price $376


DT602D Radio Throttle
List $270
Your Price $216


UT6D Radio Utility Throttle
List $180
Your Price $144


DT602 Super Throttle
List $200
Your Price $160


UT6 Utility Throttle
List $115
Your Price $92


UR93 Duplex Receiver
List $130
Your Price $104

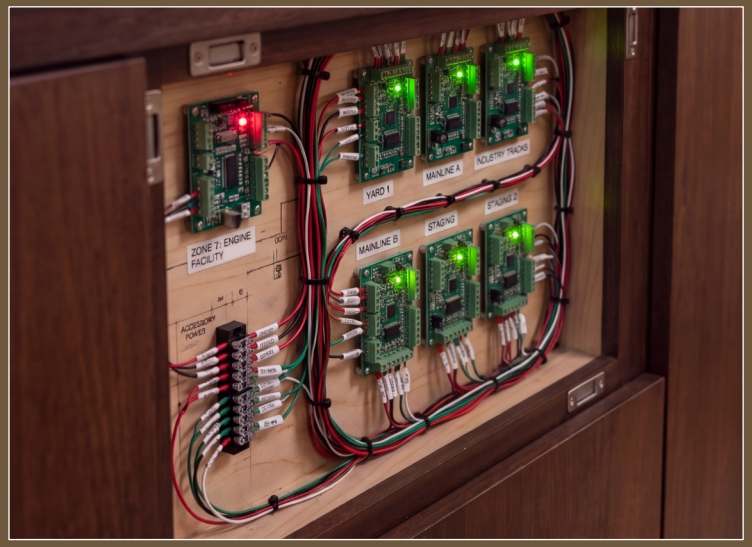

BD4N Block Detector
List $37
Your Price $29.60


BXPA1 Auto Reverser
List $49
Your Price $39


Ni-MH Battery for DT602 or UT6
List $13
Your Price $10.40

DCC Conversions,Service & Support
E-mail: sales@sodigi.com (770) 929-1888

DCC short protection board roundup



Electrical Impulses

"All right, who shorted the layout?"

VIEW READER COMMENTS

Model Railroad Hobbyist | November 2026

JOE FUGATE ON TODAY'S OPTIONS FOR DCC SHORT PROTECTION ...

BACK IN THE EARLY DAYS OF DIGITAL COMMAND CONTROL (DCC), that cry would echo across the room the second a metal wheel bridged a too-narrow points gap, or a train ran through a switch thrown the wrong way.

Instantly, a single short circuit would shut down the entire railroad. The main booster clicked-off, every train stopped cold and silent while everyone waited for the culprit to confess.

Thankfully, modern DCC power management has come a long way. You do not have to rely on your main booster alone to cut track power any more when a short occurs. Today, you can choose from fast electronic breakers, simple thermal limiters, and multi-zone booster managers.

These tools let you divide your layout into separate, protected power districts (often called zones or blocks). If a short happens in a busy yard ladder or on an industrial spur, only that local track loses power. The rest of the layout's booster district keeps right on running!

In this roundup, we look at the main technologies, wiring styles, and representative products available today. Whether you are building a new basement empire or upgrading a small home layout, here is what you need to know to add robust short management to your DCC layout.

WHY YOU NEED DCC SHORT PROTECTION

Think of your DCC booster as specialized power supply. Its job is to pump out steady track voltage packed with digital control signals.

In the early days of DCC, breaking up the layout into separate booster districts managed shorts somewhat. It is still a good idea to make any major yard, industrial switching district, or staging yard its own booster district.

However, modern short management demands more than separate booster districts. Relying only on the booster to catch track shorts can cause headaches:

1. **Whole-booster-district shutdowns:** Without smaller sub-districts, one short circuit cuts power to every train running in that booster district.

2. **Decoder resets and glitches:** Sudden drops in track voltage or rapid power-cycling can cause decoders to reboot. Locomotives might stop, restart their sound sequences, or behave strangely.

ADVERTISEMENT

TCS

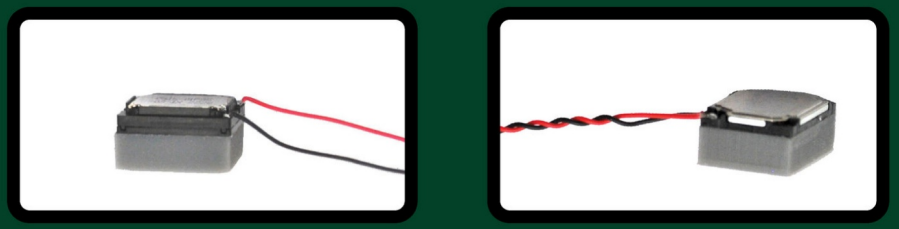
BRAND NEW!

WOWSound

Sugar Cube Speakers

Highest sound quality possible!
Great for HO and N-Scale!

15 x 11mm 17 x 12mm



$14.95 MSRP

The BEST Sugar Cube Speakers in the industry.

ADVERTISEMENT

STREAMLINED BACKSHOP

Sales ... Service ... Solutions ...

WOWSound ?

LEARN MORE ▶

WWW.SBS4DCC.COM

DIGITRAX ESU LOKSOUND EST. 1999 NCE The Power of DCC SOUNDTRAXX TCS ZIMO

ADVERTISEMENT

Great control in a tiny package

Original Touch Toggles

- Touch Toggle™ plug in controls
- Bright clear indication
- Easy setup
- Flexable system

Stall Motors, Twin-coils, Power, and Servos

Now for Tam Valley Depot and MRservo too!

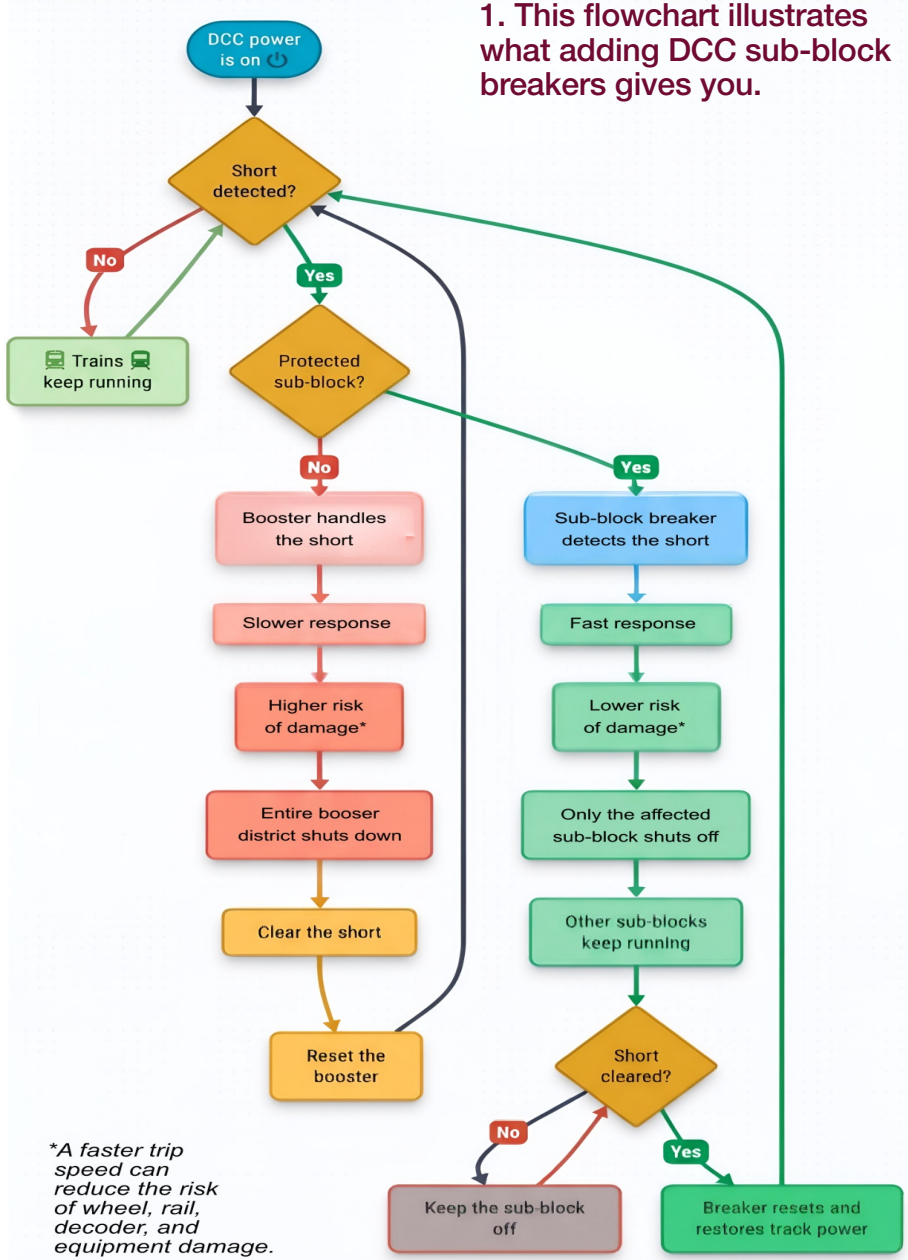
BERRETT HILL TRAINS

Made in the USA

What will they think of next?

www.berretthillshop.com

1. This flowchart illustrates what adding DCC sub-block breakers gives you.



3. **Equipment and track damage:** If a booster fails to cut power, it can lead to a prolonged short, which generates intense heat at the point of contact. If you do not clear it quickly, it can melt plastic ties, pit metal wheels, burn railheads, or ruin turnout points.

A solid short-protection setup solves these issues. It isolates faults locally, trips before the main booster has to, ignores normal startup surges from stay-alive circuits in locomotives, and attempts to restore track power as soon as you clear the short [1].

HOW ELECTRONIC DCC BREAKERS WORK

An electronic DCC circuit breaker sits in the wiring between your booster and a specific track sub-block. Instead of letting the entire booster district take the hit, the breaker acts like a fast electronic gatekeeper.

To do its job well on a modern layout, an electronic breaker needs to balance several key features:

- **Fast response time:** The breaker has to spot a dead short and cut power faster than the main booster can react (usually in just a few milliseconds). That keeps the rest of the layout's booster district powered-up.
- **Handling startup surges (inrush current):** Today's locomotives – especially models with sound systems, bright lighting, or "stay-alive" capacitors – draw a big burst of current the moment power turns on. A good breaker is smart enough to tell the difference between a normal startup surge and a true short.
- **Low voltage loss:** Quality breakers have a low internal voltage drop, so they deliver full booster voltage to your rails.
- **Adjustable trip currents:** Being able to set the trip current (such as 1.5, 2, 3, or 4 amps) lets you match the breaker to your scale, wire lengths, and the number of engines in that district.

ADVERTISEMENT



ADVERTISEMENT





DID YOU KNOW MRH REGISTERED READERS GET FREE BONUSES?

CLICK TO REGISTER NOW - IT'S FREE!

ADVERTISEMENT

RailPro™ NEW RE RING ENGINEERING™

HC-3 and HC-3-SUN

Now with Four Real Buttons (Customizable) and Soft Grip Knob for the Ultimate in Train Control! + Much More!!!



- Lanyard Eye Ring
- Significantly Smaller Size**
- Significantly Lighter Weight**
- 2x Storage Memory**
- Better Battery Retention when Powered Off**
- Compatible with all Older RailPro Products!

** When Compared to Model HC-2

US Patents 8,807,487 and 10,780,362
Copyright © 2024

GET THE DETAILS ▶

REGISTER (free) INDEX TABLE OF CONTENTS

As a rule of thumb, NCE's guidance on system capacity (ncedcc.zendesk.com/hc/en-us/articles/203537009-Which-system-do-I-need-All-Scales) suggests budgeting about 0.5 amp per running HO locomotive and 0.25 amp per running N-scale locomotive. In NCE's notes on sound power use (ncedcc.zendesk.com/hc/en-us/articles/200545099-A-list-of-common-myths-and-misconceptions-of-DCC), sound typically adds about 20 percent while running, though startup inrush current can be higher, especially with sound decoders and stay-alive capacitors.

These are conservative planning figures rather than motor-stall ratings. Actual locomotive current draw generally is less than these limits, giving you some practical wiggle room.

- **Smart automatic resets:** Once you pick up the derailed car or clear the tool shorting the track, the breaker should restore track power smoothly without clicking on and off, or causing voltage spikes.
- **District size and mounting:** Depending on your layout, you can choose single-district boards or multi-district boards. You should think about accessible space behind the fascia or in equipment hubs, wiring runs, and whether you want indicator lights on the fascia.

THE FROG JUICER EXCEPTION

There is one special piece of DCC gear that complicates short management: the automatic frog polarity switcher, commonly called a "frog juicer." For these handy boards to work properly, you need to coordinate them with your circuit breakers.

Think of effective DCC short protection as a three-level hierarchy. Each layer down needs to react faster and trip at a lower current limit than the one above it:

1. **The booster:** Your main booster sits at the top, with the highest current limit and slowest reaction time.

2. **The sub-district breaker:** Your circuit breaker board sits in the middle, with a moderate current limit and a faster reaction time.

3. **The frog juicer:** The frog juicer sits at the turnout level, with the lowest current threshold and the fastest reaction time.

Most DCC boosters deliver higher total current and tolerate brief surges before shutting down. Frog juicers, by contrast, are engineered to detect a short and flip rail polarity almost instantly at low current thresholds.

For example, according to Tam Valley Depot's frog-juicer specifications (www.tamvalleydepot.com/support/whichfrogjuicer.html), their Mono and Hex Frog Juicers have a 1.7-amp trip current. Their Dual Frog Juicer can be set to 2 amps or 4 amps using jumpers.



2. This TAM Valley frog juicer provides automatic frog power switching for six turnout frogs.

ADVERTISEMENT

ESU

"No Questions Asked"

2 Year Warranty

We have you covered!

www.loksound.com

ADVERTISEMENT



The key is making sure your frog juicer trips at a lower current than your sub-district breaker, and your breaker trips below your booster. Because ratings vary by model, just keep those three devices stepped in that order on your layout.

Tam Valley's Hex Frog Juicer documentation notes that its microprocessor checks current sensors every 15 microseconds, and its MOSFET switches toggle in just a few microseconds. That points to an extremely fast response, but you still need to test your setup on the layout to make sure everything works together in practice.

The key is tuning the trip settings on your middle tier – the sub-district breakers. When you install frog juicers on a power district, make sure to set the breaker board between the limits of the booster and the limits of the frog juicers.

This careful balance lets the frog juicer switch polarity seamlessly without tripping your district breaker. If a true derailment occurs, your breaker will still trip locally, keeping the main booster running the rest of the layout's booster district without a hitch.

PREMIUM PROTECTION: FAST MOSFET BREAKERS

At the top of the lineup are solid-state circuit breakers. These use modern electronic switches called MOSFETs (short for metal-oxide-semiconductor field-effect transistors) instead of mechanical switches.

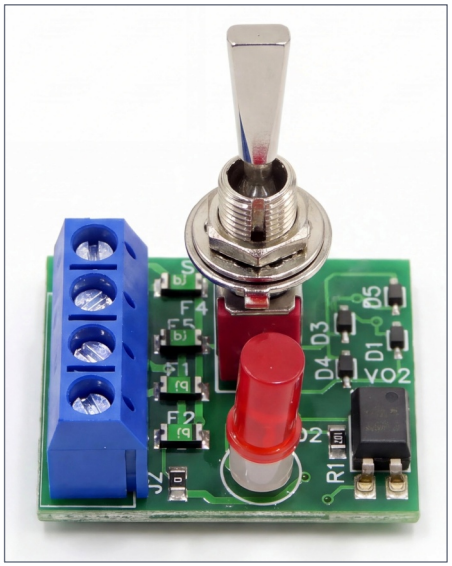
Old-school mechanical relays rely on physical metal contacts that snap open and closed. Over time, those contacts can spark, pit, and wear out.

MOSFET switches have no moving parts. They open electronically in an instant, cutting off power to the shorted track cleanly and reliably.

Key advantages of solid-state breakers:

- **Almost zero voltage drop:** Modern power MOSFETs have extremely low internal resistance when turned on. That means your trains get virtually the same track voltage they'd get with a direct wire connection.
- **Blazing-fast trip times:** Solid-state switches cut track power much faster than mechanical relays or thermal devices. Your main booster never registers the short.
- **Helpful status lights and alarms:** High-end solid-state boards usually include onboard LEDs, hookups for remote fascia lights, and optional buzzers. You and your crew know right away which track section tripped.
- **Custom trip settings and timing:** Many units let you dial-in specific trip currents and adjust delay settings using jumpers or DCC programming (CVs). That helps you fine-tune the board for heavy locomotive consists.

Tradeoffs: Solid-state breakers cost more per zone than simple light bulbs or basic boards. Their sensitive electronics also work best when you follow good layout wiring practices to protect them from stray voltage spikes.



3. The Voltscooter Engineering DCC short-protection board.

EASY-TO-SEE PROTECTION AT THE FASCIA: VOLTSCOOTER ENGINEERING

When a train stops dead, operators need to know why right away. Is it dirty track, an engine issue, or a tripped circuit breaker? The **Voltscooter Engineering DCC Short Protection Board** focuses on clear visibility and easy installation at the layout edge.

Built specifically for local layout mounting, the Voltscooter board offers an affordable way to protect track blocks, while mounting right behind or directly into your layout fascia.

It is worth noting that the Voltscooter board is a thermal, fuse-like current limiter rather than a fast solid-state electronic breaker. When an overload happens, the device heats up and increases its resistance – choking back track current rather than switching-off the shorted district instantly.

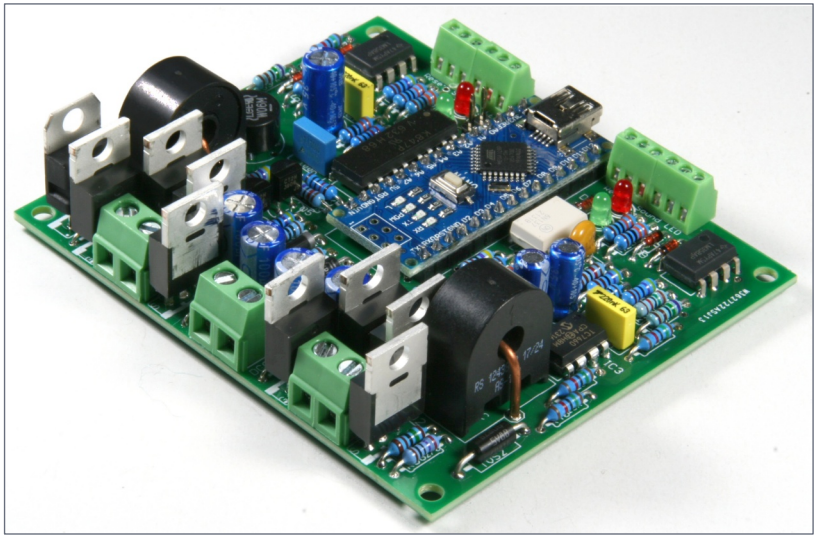
Did you know there's an MRH/RE index available?

CLICK TO FIND OUT MORE

Key benefits: The pros of the Voltscooter include:

- **Clear operator feedback:** A bright visual indicator right on the fascia lets train crews see instantly which track block has a problem.
- **Easy access and monitoring:** Keeping protection hardware right along the operating aisle makes checking status and troubleshooting much easier than digging around under benchwork.
- **Affordable block isolation:** Offers a low-cost thermal, PTC-style (Positive Temperature Coefficient) protection option for branch lines, staging tracks, or local switching areas.

Tradeoffs: Slower trip speed is a major drawback compared to fast electronic breakers – it is slower even than classic #1156 bulbs, and takes longer to cut power during a short. Fascia mounting also means planning your panel cutouts or mounting brackets ahead of time. Running track power through local fascia panels can also change how you route your bus wires.



4. DIY Dual Power Breaker.

BUILD IT YOURSELF: TERRY CHAMBERLAIN'S DUAL POWER BREAKER

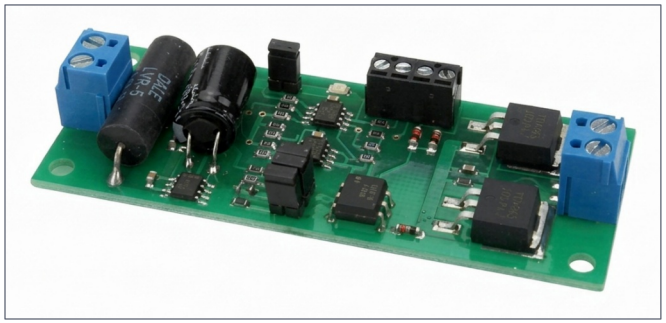
If you enjoy working with electronics and know how to solder, the hobby's do-it-yourself (DIY) community has some neat options. A standout example is **Terry Chamberlain's DIY Dual Power Breaker** featured in the June and July 2025 *MRH* magazine.

This open-source project is a two-channel electronic breaker board. It gives you independent solid-state protection for two separate track zones on one compact circuit board.

Key benefits: The pros of the Dual Power Breaker include:

- **Budget friendly:** Sourcing your own parts and soldering the board at your workbench lets you protect several districts for much less cash than buying ready-to-run commercial units.
- **Two zones on one board:** Having two breakers on a single board make under-layout mounting and wiring tidy, especially for double-track main lines or paired yard throats.
- **Maker flexibility:** Building your own gear gives you total control over components, troubleshooting, and repairs.

Tradeoffs: DIY projects take time, soldering skills, and basic electronic know-how. You do not get commercial customer support or factory warranties, so this route is best for hobbyists who enjoy building their own electronics.



5. NCE EB1 breaker board.

AFFORDABLE SINGLE-DISTRICT PROTECTION: THE NCE EB1

If you want true electronic short protection without the cost or complexity of big multi-zone boards, single-district breakers like the **NCE EB1** are a great choice.

The NCE EB1 protects an individual track district. It is designed to trip faster than your main booster and automatically attempt to restore track power once you fix the short.

Key benefits: The pros of the NCE EB1 are:

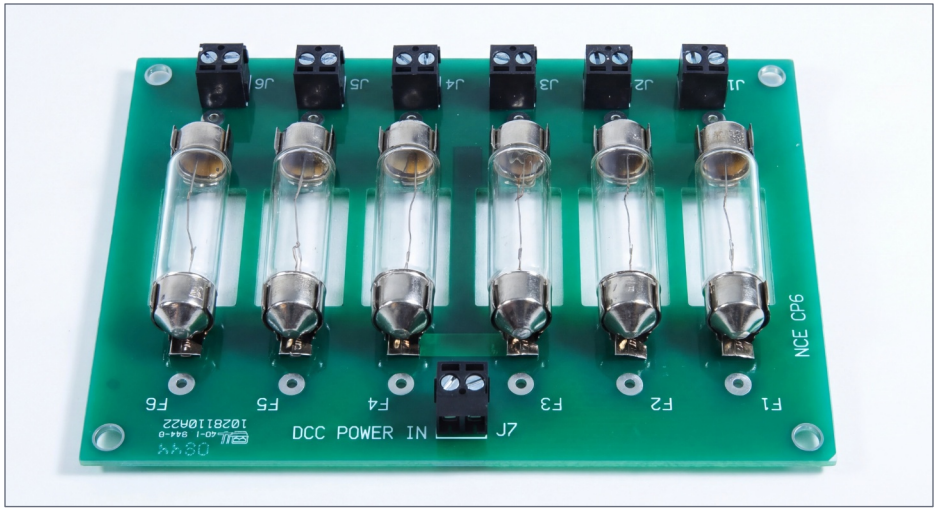
- **Single-district simplicity:** The EB1 is perfect for adding protection to a new layout extension, an isolated yard, or a specific branch line.
- **Adjustable trip levels:** You can adjust the trip current to fit your local track needs. This prevents false trips when running several locomotives together.

Matching the trip setting to your district helps avoid false trips when running several locomotives together. Keep in mind that older EB1 production runs used different switch or jumper ranges.

Automatic reset: When the short clears, the EB1 tries to restart on its own, restoring track power without you having to crawl under the layout to flip a switch.

Tradeoffs: While a single EB1 is very affordable, cost can add up when buying many separate boards for a large layout. You also end up with multiple small boards scattered under your benchwork, instead of one compact multi-zone unit. On the plus side, mounting individual boards locally near their protected track districts cuts down on long runs of bulky, heavy-gauge bus wire from a central panel.

Get more articles like this
GIVE IT A LIKE



6. NCE CP6 short current limiter board.

THE LOW-COST OPTION: NCE CP6 AND THERMAL PROTECTION

Before modern electronic breakers came along, modelers relied on passive current-limiting devices. These include automotive light bulbs (like the classic #1156 tail lamp), positive temperature coefficient (PTC) thermistors, and pre-built distribution boards like the **NCE CP6.**

The classic #1156 bulb trick: For years, wiring a standard 12-volt #1156 automotive tail lamp bulb in series with a track bus was the go-to budget fix. When your trains run normally, the cold filament has very little resistance and lets power flow right through. When track power shorts out, the bulb suddenly lights up, soaking up the excess current and keeping the main booster alive.

While this trick is dirt-cheap and can work in a pinch, it is not a great first choice for today's DCC layouts for three big reasons:

- **Slower reaction time:** A bulb takes time to heat up and limit current. That delay is only a fraction of a second, but it is still much slower than a microsecond-fast electronic breaker – long enough for track voltage to crash and decoders to reset.
- **Current robbing with sound consists:** Modern sound decoders pull a good amount of current, especially when you run multiple engines together. A heavy consist can draw enough current to make the bulb start glowing dimly. As the filament warms up, its resistance climbs, robbing track voltage from the rails right when your train needs it most.
- **Old bulbs are getting scarce:** Auto parts stores and hardware aisles are rapidly swapping out old incandescent bulbs for modern LEDs. An LED replacement cannot act as a current limiter, so finding genuine incandescent #1156 bulbs will only get harder over time.

The light bulb trick is a fun piece of model railroading history, but modern power-hungry sound fleets really benefit from dedicated electronic protection.

The NCE CP6 uses six thermal current-limiting devices to split booster power across six sub-districts. Unlike an electronic breaker that completely disconnects track power during a short, a passive thermal device uses heat to limit current.

How passive limiting operates: When a short happens in a district protected by a PTC or a light bulb:

1. The short draws a heavy rush of current through the device.

2. The internal element heats up very quickly.

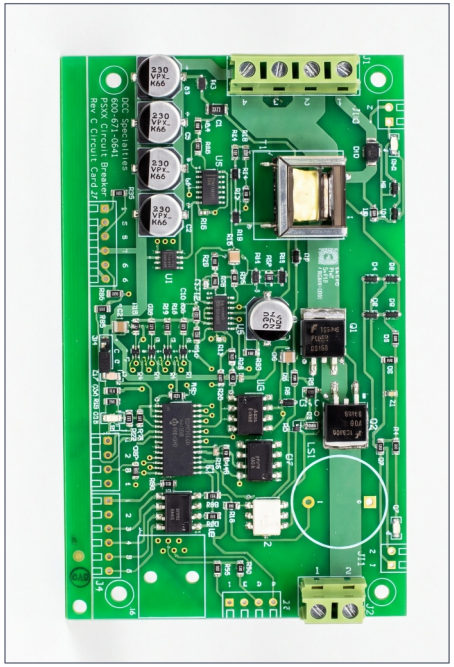
3. As it gets hot, its electrical resistance shoots up, choking the current down to a safer level.

4. Some current keeps flowing through the short until you physically remove the problem.

5. After you clear the short, the device must cool down before track voltage returns to normal.

Limitations of passive systems: Passive and thermal boards like the NCE CP6 and the Voltscooter are tough, cheap, and have no complicated chips. However, they have some real drawbacks on modern DCC layouts:

- **Voltage drop:** PTCs and light bulbs have natural internal resistance. When running heavy trains, track voltage can drop noticeably.
- **Incomplete power cut:** Because current never stops flowing through the fault, the shorted track keeps pulling power from the booster. This can pull down track voltage across your other districts too.
- **Sound decoder resets:** The voltage drop from a short can cause sound decoders on neighboring tracks to reset and restart their sound sequences.
- **Cool-down delay:** A thermal device can take several seconds to cool off after a short, delaying power recovery.



7. DCC Specialities PSXX 1 breaker board.

VIEW READER COMMENTS

THE PSXX FAMILY: SCALABLE SOLID-STATE PROTECTION

Another popular commercial choice for fast electronic protection is the **PSXX series** from DCC Specialties. These solid-state breakers have earned a strong reputation on layouts of all sizes.

The family comes in three main versions: The **PSXX1** protects one zone, the **PSXX2** handles two independent zones, and the **PSXX3** covers three independent zones on a single multi-unit board.

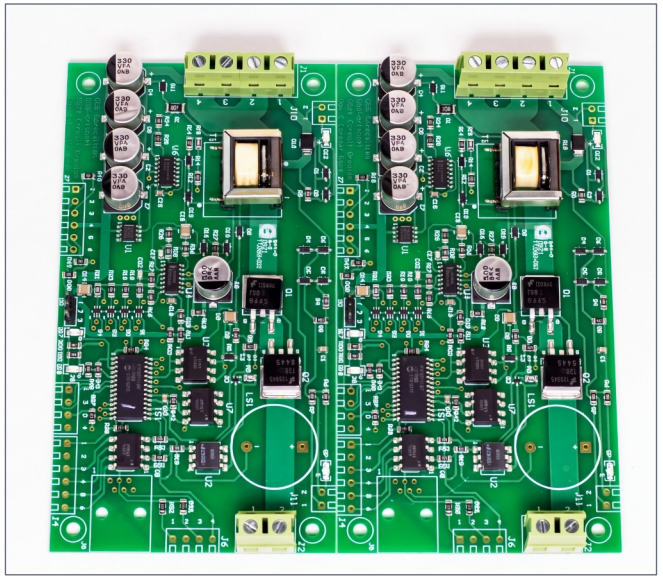
Key benefits: The benefits of the PSXX family include:

- **Fast solid-state response and high capacity:** The PSXX uses fast electronic switching, not relays, to cut power quickly during a fault. It can be configured for protection up to about 10 amps, making it suitable for large scales and heavy consists.
- **Smart adaptive load reset:** Sound decoders and stay-alive capacitors draw a big surge of current when track power is applied. The PSXX uses adaptive load-reset circuitry to tell the difference between a normal startup spike and a real short circuit, avoiding nuisance trips.
- **Multi-zone board layout:** The multi-district boards share a perforated circuit board that's divided into sections, one for each district. You can mount them as a single cluster or snap them apart, which helps lower your cost per zone, compared to buying individual breakers.

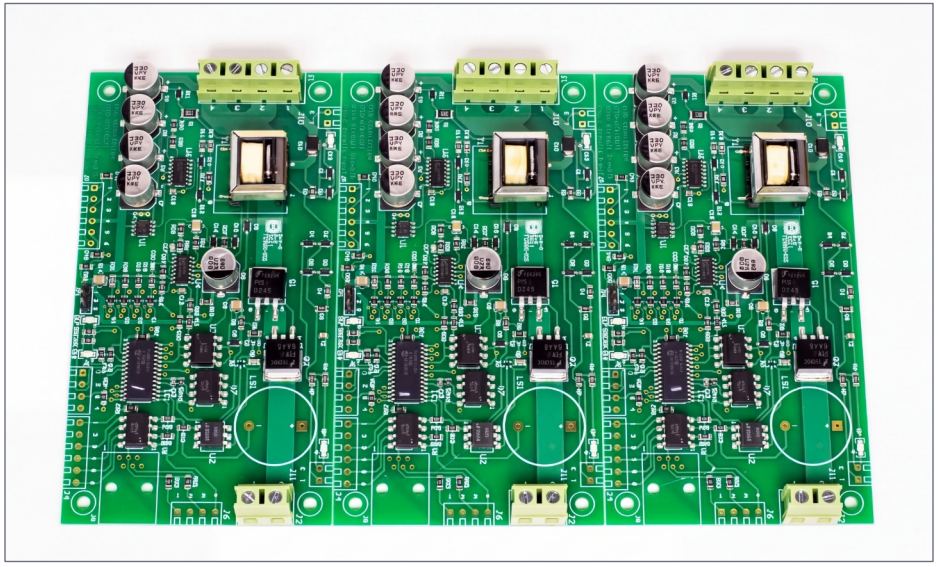
In terms of cost, the single-zone PSXX1 usually sells for about $52–$55. The two-zone PSXX2 runs about $99–$110 (about $52 per zone), and the three-zone PSXX3 is around $149–$155 (about $50 per zone).

This lineup is a great fit for reliable solid-state protection for several zones without stepping up to a large booster-level zone-management system.

Tradeoffs: PSXX boards cost significantly more per zone than passive thermal protectors or entry-level breakers. They also



8. DCC Specialities PSXX 2 breaker board.



9. DCC Specialities PSXX 3 breaker board.

focus solely on power management – they do not provide block detection, RailCom, or LCC communication like the TCS Block-8-RCS. As with any electronic gear, be sure to verify wiring instructions, trip settings, and booster compatibility before installing them.

A FEATURE-PACKED OPTION: DCCCONCEPTS IP-CB

Looking at our price table, you will notice the **DCCconcepts iP-CB Intelligent DCC Circuit Breaker** sits at the high end for a single sub-block at about $118.95 list price and $83 street price. The iP-CB is built for modelers who want a compact, adjustable sub-block breaker with built-in status lights and optional remote reporting to a PC or microcontroller, rather than just the lowest cost per zone.

Key benefits: The pros of the DCCconcepts iP-CB include:

- **Adjustable current limits:** Simple jumper settings let you pick trip thresholds between 1.25 and 5 amps. This helps you match the breaker to your scale, track bus lengths, and locomotive fleet.
- **Easy wiring and local fault light:** Screw-terminal connections make track power input and output wiring quick and

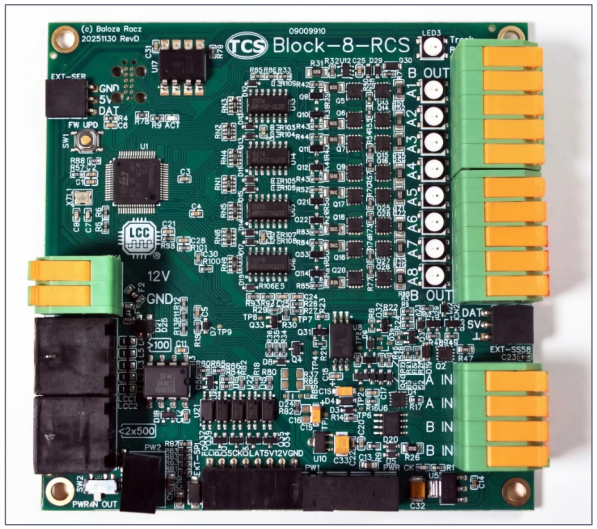


10. DCCconcepts iP-CB Intelligent DCC Circuit Breaker.

tidy. An onboard trip-warning LED lights up the moment a short occurs, so you can spot the problem right away.

- **Manual reset button:** Unlike breakers that restart on their own, the iP-CB includes a manual reset button on the board. This is useful when you want an operator to investigate and fix a derailment before turning track power back on.
- **ESP feedback output:** The board features an ESP feedback terminal that switches state during a short. You can wire this directly to a panel indicator or fascia LED to display trouble spots across the room. The ESP feedback output can also convert the ip-CB into a sensor to provide input to a microcontroller such as the ESP32.

Tradeoffs: The main drawback is price – you are paying a premium for a single protected sub-block. The manual reset can also be less convenient than automatic reset if you want unattended recovery, or mount your boards behind closed access panels. It is a capable, well-made unit, but be sure to check documentation and system compatibility before buying.



11. The Train Control Systems 2150 Block-8-RCS.

VIEW READER COMMENTS

A NEW COMBINATION BOARD: TCS BLOCK-8-RCS (IN DEVELOPMENT)

If you plan to add block detection, RailCom, and short protection all at once, Train Control Systems (TCS) lists an all-in-one board as a coming product, with no official release date announced. The **TCS 2150 Block-8-RCS** specs list it as combining eight channels of short-circuit protection with block occupancy detection and RailCom feedback over Layout Command Control (LCC).

Instead of wiring separate circuit breakers and current-sensing detectors for every block, this single board handles both jobs for eight separate track sections.

What the board offers: TCS designed the Block-8-RCS to connect directly to an LCC network, making it a natural fit for modern layout automation.

According to TCS documentation, the board includes several standout features:

- **Indvidual short protection:** Each of the eight blocks gets its own short detection to cut power only to the problem area.
- **Dual current limits:** You can set an adjustable current limit for each individual block as well as an overall global limit for the whole board.
- **No voltage drop:** The occupancy detection circuit monitors trains without causing a drop in track voltage.
- **Built-in RailCom features:** The board identifies locomotive DCC addresses and travel direction, supports reading CVs on the main, and can generate a RailCom cutout if your booster lacks one.
- **Smart power management:** A soft-start feature brings up track power smoothly, while software-configurable detection delays help filter-out false occupancy signals.

Cost and availability: The biggest headline here is value. A retailer currently lists the eight-channel TCS 2150 Block-8-RCS at $143.99 against a $180 list price. That works out to $18 per protected zone.

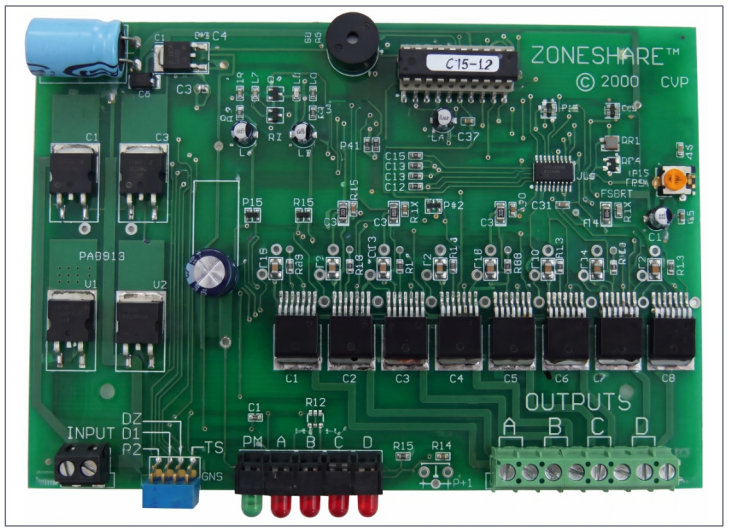
That is an eye-opening price per channel, especially since it includes full block detection and RailCom reporting. However, low cost alone does not make it an automatic performance winner for every layout.

TCS's own documentation still labels the product "Coming Soon," so retailer listings and pre-orders do not mean the board is generally available. It is well-worth watching for all the features it promises for the price, but be sure to verify availability and specifications before planning your layout wiring around it.

Fitting it into your layout: The Block-8-RCS is especially attractive if your layout already runs LCC, uses RailCom, or operates with TCS DCC equipment. Modelers using other DCC systems can still use it, but you should verify wiring requirements and network compatibility first.

Tradeoffs: Packing detection, RailCom, LCC, and short-protection onto one board gives you a lot of technology in one spot. If you only need basic short protection without signaling or block detection, those extra features might be more than your layout needs. You should also test how its trip speed and settings coordinate with your booster and frog juicers, as it may not replace dedicated heavy-duty breakers or booster managers for every situation.





12. CVP ZoneShare short breaker board.

ONE BIG BOOSTER, SEVERAL PROTECTED ZONES: ZONEMASTER AND ZONESHARE

On medium-to-large layouts powered by beefy 5-amp to 10-amp boosters, buying a separate booster for every small section of track gets expensive fast. CVP Products tackles this problem with its **ZoneMaster and ZoneShare system.**

Instead of treating each power district like an isolated island, the CVP system acts as a central power manager for your big booster.

How it works: The ZoneMaster and ZoneShare setup takes the full output of a high-power booster and distributes it across several protected sub-districts (or zones).

- **Smart power-sharing:** If one district is empty, its unused power is available to nearby districts running heavy multi-unit diesel lashups or power-hungry sound engines.

- **Coordinated short protection:** If a short happens in one zone, the ZoneMaster cuts power only to that specific zone. The master booster stays on, keeping all other zones running smoothly.
- **Great for big layouts:** This setup works wonderfully on club railroads, multi-track main lines, and large staging yards where several trains share a big pool of booster power.

Tradeoffs: Centralized zone management groups all your gear in one central power panel. That means you must run long pairs of heavy feeder wires ("home runs") from the central board out to each layout zone, which uses more wire across a large room.



J. Fugate

THERMAL CHOKES VS. MOSFET BREAKERS

Looking at the electrical differences between passive thermal devices and active solid-state switches makes it easy to see why electronic breakers are the top pick for modern sound-equipped layouts.

The inrush problem: Modern sound decoders and energy-storage modules ("stay-alive" capacitors) pull a huge burst of current the millisecond track power comes on.

- **Passive thermal devices** can struggle with this startup burst. They may heat up right away or cause voltage dips that slow down locomotive startups.
- **Active MOSFET breakers** use smart timing circuits that let brief startup bursts pass through without tripping, while still shutting down fast if there is a real, sustained short.

Continued ...



J. Fugate

THERMAL CHOKES VS. MOSFET BREAKERS *CONTINUED ...*

Feature / behavior	Passive thermal limiting (e.g., CP6)	Active MOSFET breaker (solid-state)
Disconnection method	Current choking via thermal resistance	Open-circuit electronic switch
Response time	Moderate (thermal heating lag)	Fast (electronic threshold detection)
Operating voltage drop	Variable; increases under heavy load	Minimal; low internal switch loss
Current during fault	Continual residual current	Disconnected until automatic reset
Reset mechanism	Cool-down period required	Rapid automatic electronic reset/retry
Neighboring districts	Subject to booster voltage sag	Isolated from fault current
Sound decoder impact	Elevated risk of resets nearby	Helps maintain steady adjacent voltage

13. Passive vs active breaker features. ■

WHERE SHOULD YOU PUT YOUR BREAKERS?

When planning your short protection, you must decide where to install the hardware. To keep things simple, consider a single booster district divided into several protected sub-districts.

Within that booster district, you have two basic choices for placing your circuit breakers.

Option 1. Centralized breakers: All breaker boards for that booster sit together in one main equipment spot.

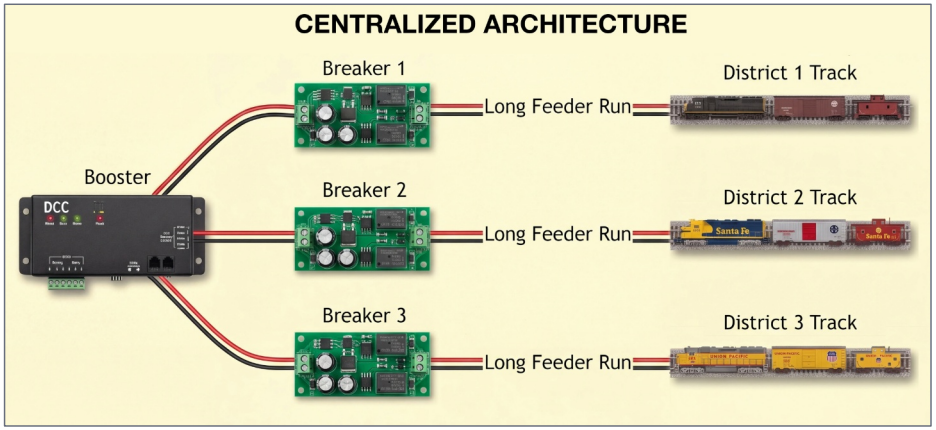
Instead of mounting boards awkwardly deep underneath benchwork, build a central hub on a pull-out drawer with drawer slides. Leaving plenty of slack wire lets the entire drawer slide out smoothly for easy wiring, testing, and servicing from the aisle. See "Layout wiring strategies for easy maintenance" in this month's *MRH Running Extra.*

Option 2. Distributed breakers: Individual breaker boards are mounted along the layout front near the track districts they protect.

The right choice comes down to wire lengths, voltage drop, and how easy it is to reach the boards for maintenance.

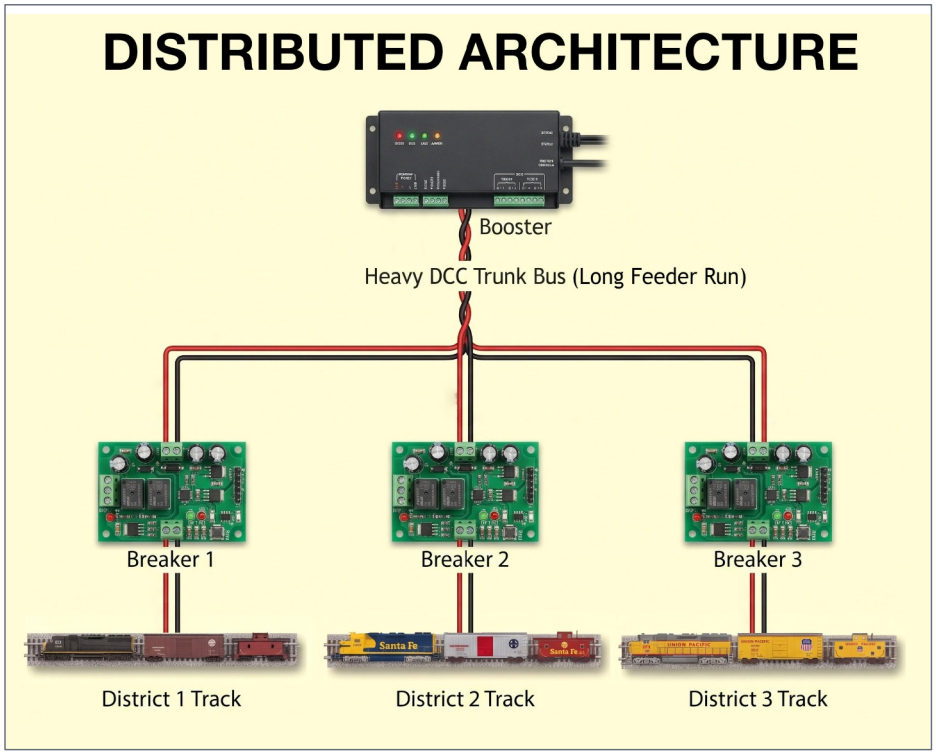
Hiding hardware deep under benchwork is old-school. A much smarter design is to mount distributed breakers right behind the fascia. Magnetic-latched access panels work great for single boards or small groups, while small pull-out drawers are best for larger equipment collections where an access panel would be too cramped.

Centralized breaker placement: In a centralized setup, all the circuit breakers for that booster district live together in one main location right by the booster.



14. Centralized breaker architecture for a single booster district.

Get more articles like this
GIVE IT A LIKE



15. Distributed breaker architecture for a single booster district.

- **Advantages:**
  - Easy maintenance, adjustments, and inspections in one clean, central spot.
  - A pull-out drawer makes servicing effortless without crawling under benchwork.
  - All status LEDs and indicator lights are grouped together for quick troubleshooting.
  - Boards stay cleaner and better-protected from dust and shop debris.
- **Disadvantages:**
  - Requires long pairs of heavy-gauge wire runs ("home runs") from the central panel out to each track district.

  - Long wire runs increase the risk of track-voltage drop if the wire gauge is too light.
  - Large wire bundles entering and leaving the main equipment drawer need careful routing and ample slack.

Distributed breaker placement: In a distributed setup, you run a heavy DCC bus along the layout front behind the fascia. You then tap off that main bus to feed individual breaker boards mounted close to each track district.

- **Advantages:**
  - Short feeder runs from each breaker to the track that minimize voltage drop.
  - Magnetic fascia access panels make inspecting and adjusting boards fast and comfortable.
  - Fascia-mounted status lights let operators see fault alerts right where they stand along the aisle.
  - Easy to expand – just tap into the trunk bus and add a new breaker behind the nearest fascia panel.
- **Disadvantages:**
  - Hardware is spread across multiple locations, requiring clear labeling and good records so you know where each board lives.
  - Requires planning fascia access cutouts and wire pathways along the layout front.

Command-station-to-booster architecture: Keep in mind that the connection between your command station and booster can also follow either a centralized or distributed architecture. On larger layouts with multiple boosters, boosters can sit right next to the command station or be distributed around the room via a control bus. That design choice is separate from where you place your track breakers within a booster district.

WHAT DOES DCC PROTECTION COST?

When designing your power districts, balancing features against your hobby budget is a big factor. The prices below show approximate street prices and manufacturers' suggested retail prices (MSRP) at the time of writing.

Actual store prices can change over time, and vary among hobby shops. For DIY projects, total parts cost depends on where you buy components, shipping costs, and what tools or soldering supplies you already have on hand [16].

The 2026 CVP ZoneShare board provides four independently protected sub-block outputs and costs $159.00 without a case, or $39.75 per protected zone. Keep in mind that the ZoneShare is not a booster – it must be fed by a ZoneMaster booster, so the ZoneMaster and its required power supply are additional costs. ZoneShare configurations and case options may vary, so check CVP's current price list for exact numbers.

While cost-per-zone is a handy number for budgeting, picking a breaker on price alone can be misleading. The boards in this roundup differ a lot in trip-current settings, how well they handle startup surges, reset speeds, status lights, and how they mount.

Most importantly, passive thermal devices work on completely different electrical principles than fast solid-state breakers. Use this table as a helpful budgeting guide, rather than a strict ranking of performance.

WHICH PROTECTION STRATEGY FITS YOUR LAYOUT?

Picking the right short protection depends on your layout's size, your operating style, your locomotive fleet, and your budget:

1. For large layouts with sound-heavy fleets:

- **Recommendation:** Go with active solid-state MOSFET breakers or a booster-level system like the CVP ZoneMaster

Product / configuration	Typical street price	MSRP	Approx. cost per zone
Voltscooter Engineering fascia mount (single board)	~$7.95	$8.95	~$7.95
Voltscooter Engineering fascia mount (five-pack)	~$34.95	$39.95	~$6.99
Terry Chamberlain DIY Dual Power Breaker	~$35.00–$50.00 (parts and PCB estimate)	N/A	~$17.50–$25.00
NCE EB1 (single zone)	$30.00–$35.00	$39.95	~$32.00
NCE CP6 (six zones)	$32.00–$36.00	$44.95	~$5.50
DCC Specialties PSXX1 (single zone)	$52.00–$55.00	$64.95	~$54.00
DCC Specialties PSXX2 (dual zone)	$99.00–$110.00	$129.90	~$52.00
DCC Specialties PSXX3 (triple zone)	$149.00–$155.00	$194.95	~$50.00
DCCconcepts iP-CB (single zone)	~$83.00	$118.95	~$83.00
TCS Block-8-RCS (eight zones)	~$144.00 (projected discounted price)	$180.00	~$18.00
CVP ZoneShare (four zones, board without case)	$159.00	Not stated	$39.75

16. Breaker board cost comparison table.




J. Fugate

THE REAL COST OF AN INSTALLED DISTRICT

Here is the dirty little secret of DCC breaker pricing: the price on the box is not your final installed cost. To get a district up and running, your layout still needs heavy bus and feeder wire, terminal blocks or connectors, mounting hardware, and possibly fascia status lights or access panels.

For advanced units like the TCS Block-8-RCS, you may also need to budget for an LCC network infrastructure. That board is not yet fully available or documented, so be sure to verify its exact requirements before planning your installation.

As a realistic planning allowance, expect to spend another $20–$30 per protected sub-block for extra wiring, terminal blocks, mounting, and access hardware. This is a variable estimate rather than a fixed rule, and multi-zone boards can share wiring runs and related hardware to reduce that add-on cost. Think of the figures in our price table as a board-only baseline before factoring in your layout wiring needed to install it and get it operational. ■

and ZoneShare. Fast trip speeds and low voltage-drop help reduce the risk of sound engines resetting, and prevent layout-wide shutdowns.

2. For small-to-medium home layouts or staging yards:

- **Recommendation:** Standalone single-district electronic breakers like the NCE EB1 or fascia-mounted boards like the Voltscooter Engineering unit offer solid, simple protection without extra complexity.

3. For hands-on DIY builders:

- **Recommendation:** Open-source projects like Terry Chamberlain's Dual Power Breaker offer solid-state performance at a lower parts cost.

4. For basic layouts or secondary yard tracks:

- **Recommendation:** Passive thermal boards like the NCE CP6 offer an easy, low-cost way to limit current. Just keep in mind that voltage drop during a short can sometimes cause sound decoders on nearby tracks to reset.

FINAL THOUGHTS

Splitting your model railroad into well-protected power districts is one of the best things you can do for smooth, trouble-free operation.

When you match your breaker technology and wiring plan to your layout's needs, an accidental short becomes just a quick, minor bump instead of a show-stopping disaster. ☑

Get more articles like this
GIVE IT A LIKE

Please be sure to rate the articles so we can continue to give you great articles!

Digitrax

Introducing the UT6 & UT6D Utility Throttles for Digitrax Complete Train Control!



- Compact size for easy one-handed operation
- Color 1.5" LCD Screen
- Full numeric keys for easy Locomotive selection
- Fine speed control with a large encoder knob
- Removeable LocoNet® cord
- Forward/Reverse toggle switch with Braking
- Off/On switch, uses AA or BP600MH batteries

UT6
Utility Throttle
$105.00 MSRP

UT6D
Duplex Utility Throttle
$170.00 MSRP

View all features and *more* on our website!

Find out more @ www.digitrax.com/throttles/

Burlington Route Historical Society $17.85



The BRHS is taking pre-orders for the 2027 All-Color Burlington Route calendar available after October 1st. This calendar features 13 large (12" x 8") eye-catching views of the CB&Q in Illinois and Wisconsin; one scene a month from January 2027 through January 2028. The scenes are from the lens of the late C. Richard "Dick" Neumiller in the collection of Bon French.The retail price is $17.85. Add $5.00 for Shipping & Handling to US addresses. International orders will be billed actual cost prior to shipping. Illinois Residents add 10% State Sales Tax.

Mail Check or Money Order to:
Burlington Route Historical Society
P.O. Box 93, Dept MRH
Zumbrota, MN 55992

Or order online from our Company Store at www.BurlingtonRoute.org.

INTRODUCING... Op-sessed Products™
3D-printed throttle holders and car card holders
LOGIC RAIL™ TECHNOLOGIES
info@logicrailtech.com
(281) 251-5813
www.logicrailtech.com

PRE-SIZE MODEL SPECIALTIES
P.O. Box 6 Paonia, CO 81428
Ph. 970 527 4586
Made in The USA
Cast resin items for All Scales.
Tunnel portals,bridge piers, abutments, culverts, and retaining walls.
Trackside details and sage brush tree armatures.
"FREE SHIPPING see website for details"

Have a great thanksgiving time!

Model Railroad Control Systems
Geoff Bunza Project Boards
DCC Occupancy Detectors
CMRInet Compatible Nodes
Layout Telephone Systems
RFID Switchlist Generator
Switch Machines and Drivers
Click Here

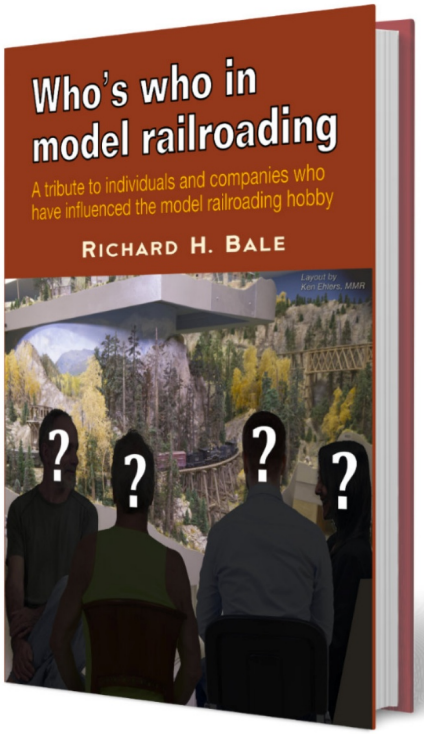
MONASHEE LASER ENGINEERING
COME VISIT US CLICK HERE
MANUFACTURERS OF FINE RAILROAD STRUCTURES AND ROLLING STOCK MODEL KITS

PRECISION DESIGN CO.
CUSTOM DECALS FROM YOUR OWN ART IN JUST ONE DAY
PDC.CA
FULL COLOR & SOLID WHITE

East Coast Circuits
Innovating Your Model Railroad Layout
P.O. Box 25412
Providence, RI 02905
Layout Lighting Circuits
Custom Lighted HO Scale Emergency Vehicles
3D Printed HO Scale Layout Accessories
HO Scale Action Animated Accessories
eastcoastcircuits.com
eastcoastcircuits@gmail.com

Great Decals!™
FEC, Interstate, Virginian Railway, & L&N Titles
After Hours Graphics Line
Coupler Gages and More
In O, S, HO, and N Scales

NEW from the Model Railroad Hobbyist Store





Michael Gross, popular actor and model railroad industry spokesperson ...

"All in all, *Who's Who in Model Railroading* is a wonderful piece of history. I have had many questions over the years about 'Whatever happened to ... (fill in the blank)?' And this book answers them. It is encyclopedic, and very well done."

172 pages

Available NOW — eBook — ~~$19.99~~ $10.77
Available NOW — Paperback — ~~$49.99~~ $34.77
Free shipping in the USA
50% off foreign shipping
Available NOW — Hardbound — ~~$59.99~~ $49.77

LEARN MORE ▶

A three-part mini-series on custom rolling stock







Mike Tylick, MMR kitbashes three unique On30 cars ...

Model Railroad Hobbyist | November 2026

Get more articles like this
GIVE IT A LIKE

IN THIS THREE-PART SERIES, I'll show you how to build unique, operational On30 rolling stock by adapting whatever parts and materials you have on hand. Instead of building display models, I focus on practical modeling—creating believable cars that add interest to operating sessions by blending historical inspiration with fictional railroad settings.

In Part 1, I build an On30 fish car. Drawing inspiration from real fish-stocking cars that once hauled live fish from hatcheries to remote rivers and lakes, I bring that practice to my Marshfield & Old Colony. This kitbashed car gives our branch-line trains an authentic operational purpose, creating reasons to run special movements out to distant sidings.

For Part 2, I head north to the fictional Matanuska River & White Pass Railroad, set in Alaska during World War II and the ALCAN Highway construction. Using 3D-printed passenger-car donor parts, I build a custom photography car for the fictional Macauley-Dixon Photo Studios. Featuring a distinctive glass greenhouse studio structure, this car documents the wartime construction effort. I detail its planned operations through Skagway and Fraser, along with its appearances at the Green Harbor depot.

In Part 3, I put the leftover scraps from those earlier builds to work. With an assortment of cut-up, 3D-printed passenger-car pieces cluttering my workbench, I kitbash a small combine caboose to serve at the end of wartime mixed trains. After testing the finished car on the Marshfield & Old Colony layout, I use artificial intelligence to generate realistic scenes of the car at work in its Alaska setting.

Across all three articles, my approach is simple: make the most of available parts to build rolling stock with a clear purpose.

MICHAEL TYLICK MMR



Michael is a retired inner-city art teacher. He has been a long time contributor to many publications including Model Railroader, Classic Toy Trains, Railroad Model Craftsman, the National Model Railroad Association national, regional and division publications, and most recently Model Railroad Hobbyist and Garden Trains Annual. He also has delivered numerous clinics and presentations on various railroad and historical subjects on all levels in different parts of the country.

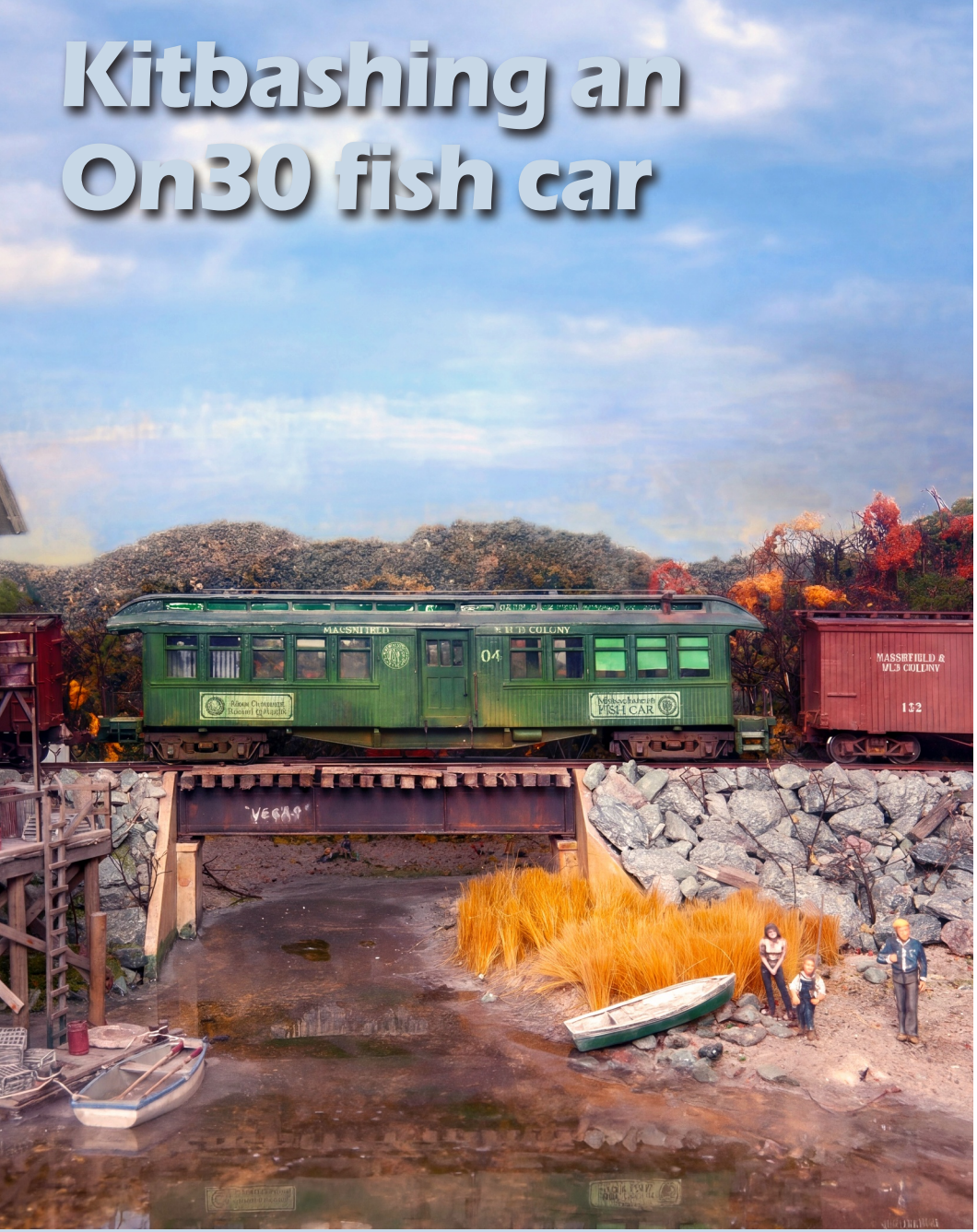
Mike's railroad interests leaning toward prototype rail and architectural photography, and he is becoming keenly aware of what can be observed outside the basement. Much of his hobby time is now spent employed as a custom builder specializing in railroad structures and rolling stock, and has worked with several businesses who build custom model railroads. He formed RailDesign Services, focusing on the design and visual aspects of model railroading.

Mike now lives in eastern Massachusetts and is working on an On30 layout loosely based on the New Haven Railroad's Old Colony Lines. He is honored to be named NMRA Master Model Railroader #523. ■

Whether you're modeling prototype history or expanding a freelanced short line, you can adapt these techniques to build distinctive cars that bring your layout operations to life. ☑

VIEW READER COMMENTS

Kitbashing an On30 fish car



Michael Tylick makes a (battered) fish fry car ...

Model Railroad Hobbyist | November 2026

View reader comments

When railroads reached coastal Massachusetts towns like Marshfield in the late 19th century, an influx of summer sports fishermen quickly strained local fish stocks. Across the country, similar overfishing prompted the U.S. Commission of Fish and Fisheries to build specialized railroad cars to restock rivers and lakes with hatchery-raised "fry" (baby fish).

State agencies and railroads often converted older passenger cars for this service. Keeping fry alive required round-the-clock care from a dedicated crew – typically a biologist "captain," several messengers to aerate the water and manage ice, and a cook. Cars were attached to scheduled passenger trains for fast, smooth rides over long distances, then switched into local freights near their destinations.

Way freights stopped on bridges and trestles so messengers could dump ten-gallon milk cans of fry directly into the water below. Prototype fish cars remained in service into the 1940s, when improved highways and tank trucks replaced them.

For model railroaders, a fish car creates great operating variety. It gives way freights distinct stopping spots on bridges and trestles, provides a reason to transfer equipment between passenger and freight runs, and pairs naturally with seasonal fishermen's excursions.

The Marshfield & Old Colony prototype

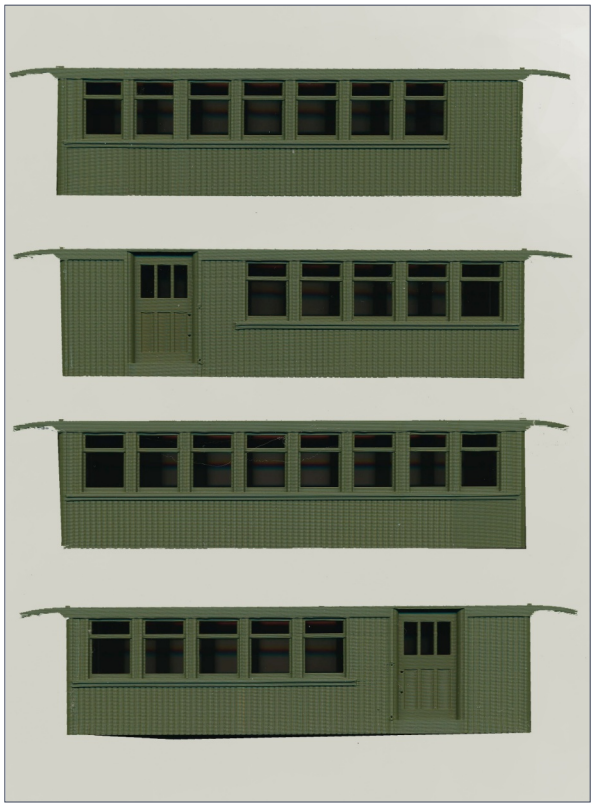
After attending an excellent clinic by Malcolm Houck on railroad fishery cars, I knew my freelance On30 layout, the Marshfield & Old Colony (M&OC), needed one.

In my layout's fictional history, the M&OC shops rebuilt two retired passenger cars into a single, lengthened center-door car equipped for fish restocking. Given our coastal route's many river crossings and tidal inlets, the car stayed in service until 1948, when Route 3's completion allowed tanker trucks to take over.

Freelancing gave me the freedom to blend prototype practices with features tailored to my specific trackside scenes.

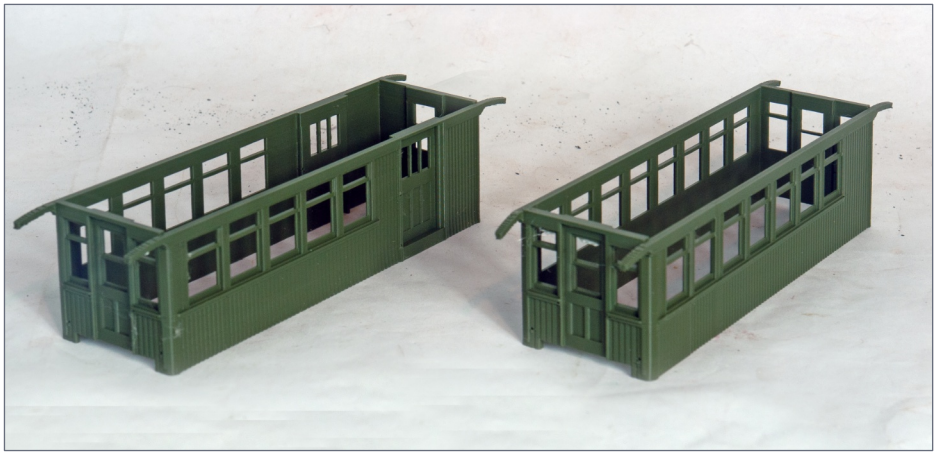
PLANNING, MATERIALS, AND SOURCING

I designed the car with a lengthened body, a center baggage-style door for loading milk cans, and a modified end platform for dumping fry directly into waterways.

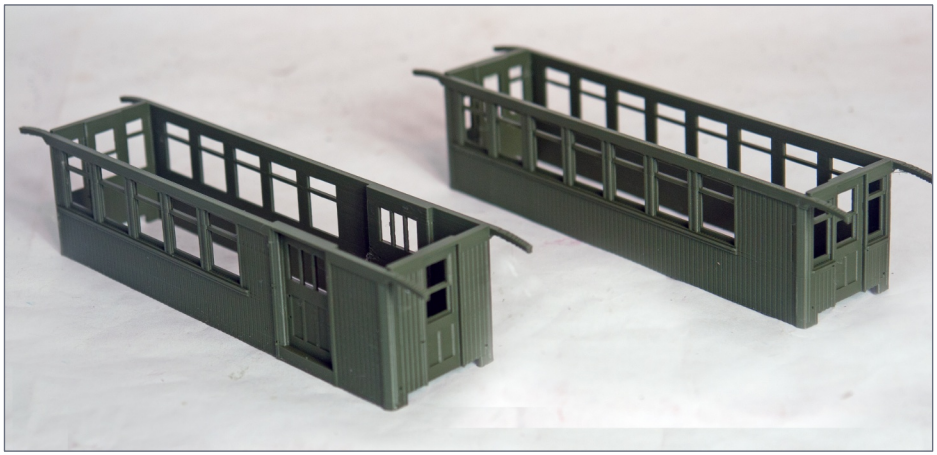


I sourced the core 3D-printed PLA components – sides, roofs, and underframe parts – from Dean Kershner at Geared Steam Shops in Forney, Texas.

1. 3D-printed On30 passenger car sides from Geared Steam Shops.



2. The 3D-printed car sides as supplied.



3. The reverse side of the supplied car sides.

VIEW READER COMMENTS

MATERIALS AND TOOLS

Car body & core parts:

- 3D-printed On30 passenger car sides, roofs, and under-frame sections (Geared Steam Shops)
- Scratchbuilding styrene:
  - 0.040″ sheet (fishbelly sills, partitions)
  - 0.020″ strip (spacers, roof reinforcement)
  - 0.025″ tubing (smokestacks)

Adhesives:

- Navonna B-7000 crystal cement (or Navonna E-6000)
- Lineco Neutral pH bookbinding adhesive

Roof & detailing:

- Heavy tissue paper
- 0.025″ soft wire
- Gallery Glass stain (Plaid Online)
- 2-56 wood screws
- Freight car stirrup steps

Interior:

- 1/4″ wood dowels
- Paper window shades

Trucks & weighting:

- Bachmann On30 passenger trucks and couplers
- Self-stick automotive wheel weights

Tools:

- Motor tool with Dremel cutoff wheel
- Hobby knife
- Pin vise
- Drills

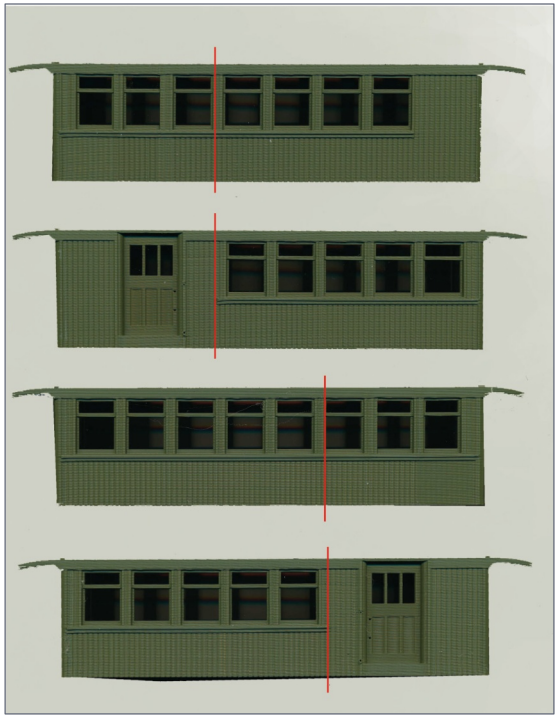
- Clamps
- Paintbrushes

Standard liquid styrene cement won't bond PLA 3D-printed parts. Dean Kershner recommended Navonna E-6000 cement. An Amazon shipping mix-up sent me Navonna B-7000 crystal cement instead, but it proved ideal: it tacks quickly, cures strong with slight flexibility, and features a fine needle nozzle with a clog-clearing wire cap. This eliminated the need for cyanoacrylate (CA) adhesives throughout the build.

STEP-BY-STEP KITBASHING AND CONSTRUCTION

1. Cutting the car sides

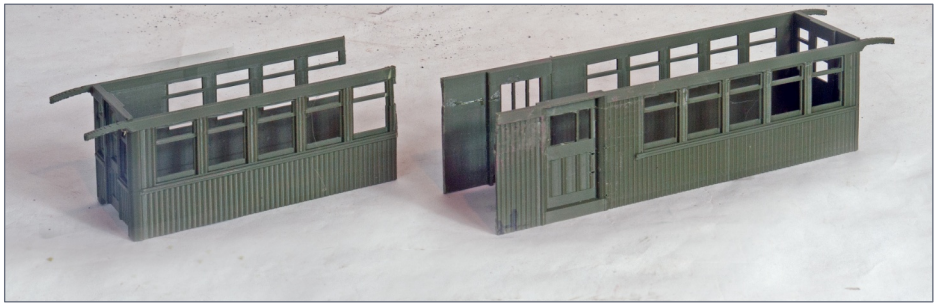
To create the lengthened body with a center loading door, I combined sections from two sets of sides.



3D-printed PLA is tough and resists scoring with a hobby knife, but a Dremel cutoff

4. Red lines show where to cut the PLA sides with a Dremel cutoff wheel.

VIEW READER COMMENTS

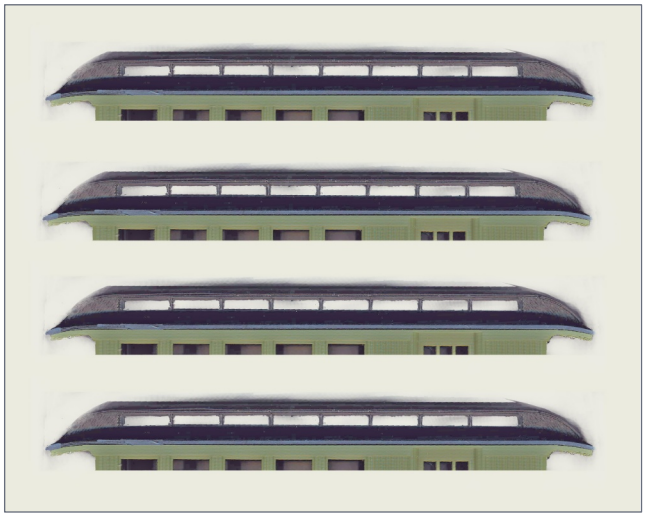


5. The cut car sides ready for assembly.

wheel at moderate speed produced clean, square cuts. I only needed two cuts per side. (Geared Steam Shops can supply pre-cut sides upon request.) [4, 5]

2. Modifying and joining the roof

I cut the two supplied clerestory roofs to match the lengthened body, joined them end-to-end, and reinforced the joint from below with 0.020″ styrene strips and Navonna B-7000 cement [6, 7].



6. Clerestory roofs as supplied.

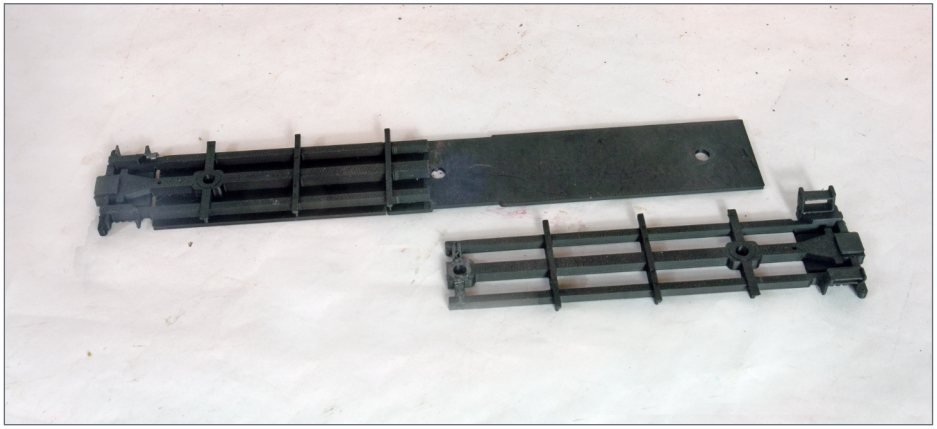


7. The joined roof assembly reinforced underneath with styrene strips and Navonna B-7000 cement.

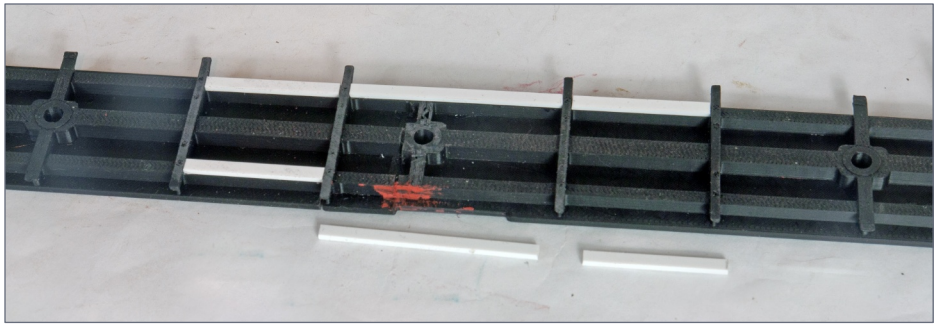
3. Assembling the floor and underframe

I glued the two supplied underframe sections to an enlarged styrene floor base.

Along the mounting joints, I added 0.020″ styrene strip spacers so the side beams sat flush with the cross braces [8, 9].



8. Underframe sections mounted to the enlarged floor base.

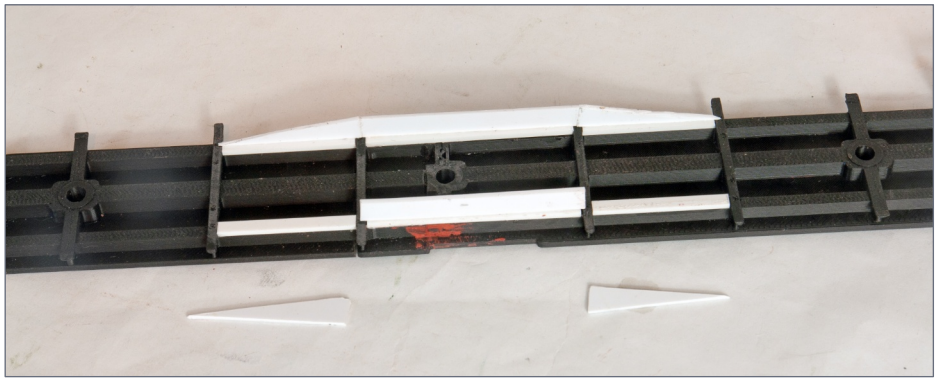


9. Adding outer fishbelly sills, with 0.020″ spacers aligning the side beams and cross braces.

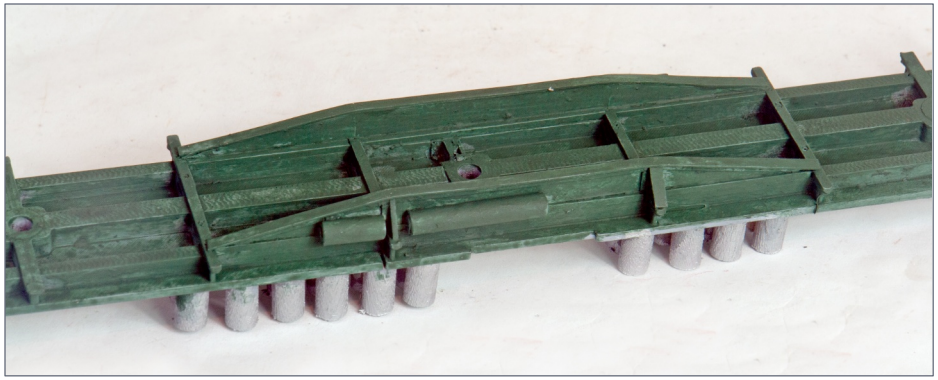
4. Constructing the fishbelly side sills

Full-size cars typically carried fishbelly girders along the center sill.

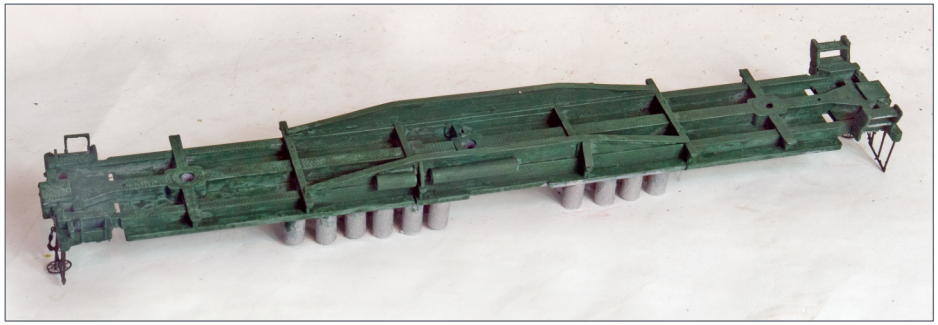
Since this model is viewed primarily from track level, I fabricated fishbelly profiles from 0.040″ styrene sheet and mounted them on the outside sills instead. This highlighted the distinctive structural profile while concealing the simplified underbody, eliminating the need for delicate brake rigging [10-14].



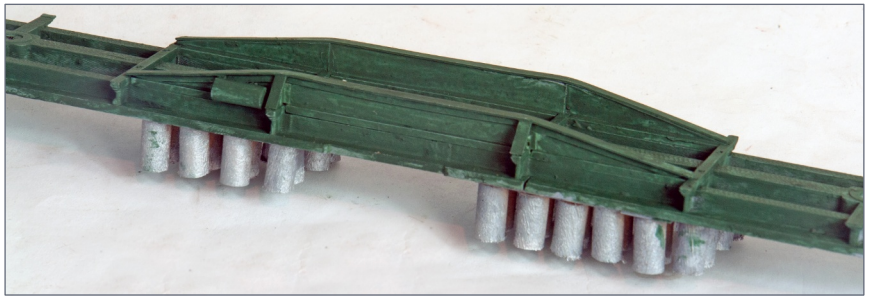
10. Fabricating fishbelly side sills from 0.040″ styrene.



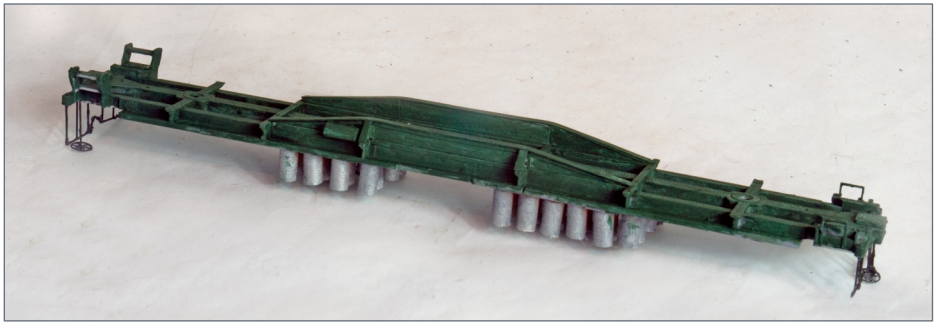
11. The completed fishbelly underframe ready for mounting.



12. Overall view of the completed underframe.



13. Side profile of the fishbelly sills.

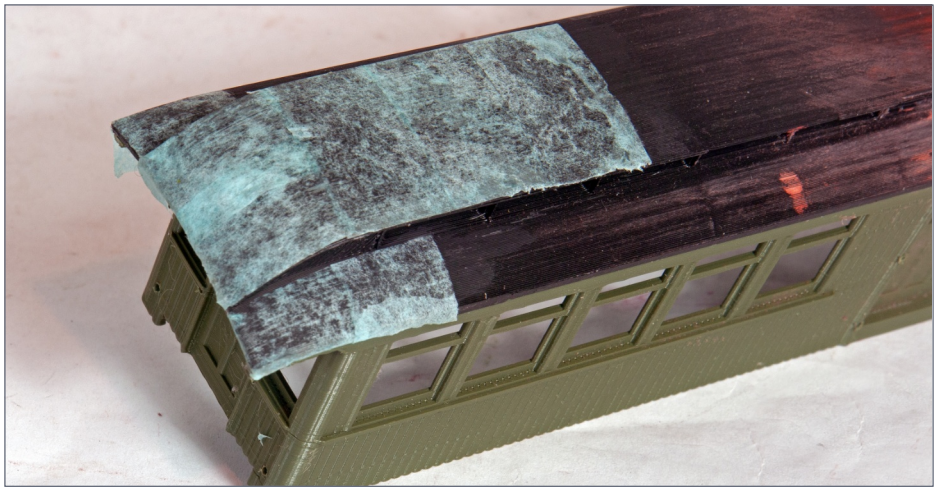


14. View of the completed fishbelly frame.

5. Simulating the canvas roof

Prototype utility cars often used painted canvas roofs made from 30-inch strips.

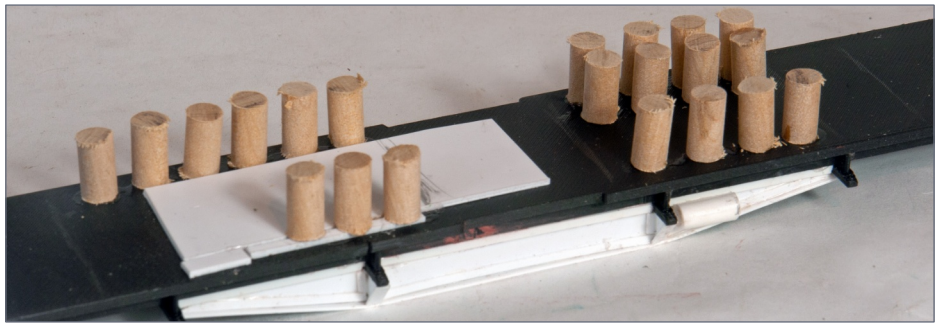
To model this in On30, I cut tissue paper into 5/8″-wide strips and decoupaged them to the roof using Lineco Neutral pH bookbinding adhesive. The paper subtly textures the roof, and creates realistic overlapping seams [15].



15. Canvas roof simulated with scaled tissue-paper strips applied using Lineco Neutral pH adhesive.

6. Interior details and crew quarters

Because the interior is only visible through small side and clerestory windows, simple visual cues sufficed. Short 1/4″ wood dowels stand in for milk cans, while styrene partitions create the crew quarters, restroom, and air compressor compartment. Paper window shades and blanked panes hide unfinished areas [16, 17].



16. Dowel sections represent 10-gallon milk cans inside the car.

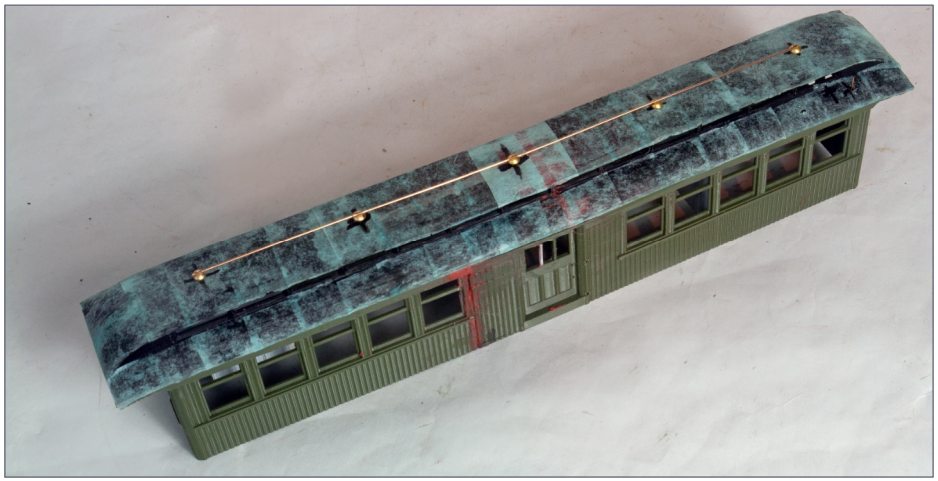


17. Styrene partitions define crew quarters, a restroom, and the compressor compartment.

7. Roof details and electrical system

To simulate a retrofitted electrical system, I installed 2-56 wood screws along the clerestory roof line as standoff insulators. I laid 0.025″ soft wire into the screw slots to represent conduit and sealed them with Gallery Glass.

I cut the smokestacks for the crew stove and heating boiler from 0.025″ styrene tubing [18, 19].



18. 2-56 wood screws and 0.025″ wire conduit form the standoff insulators and electrical run.

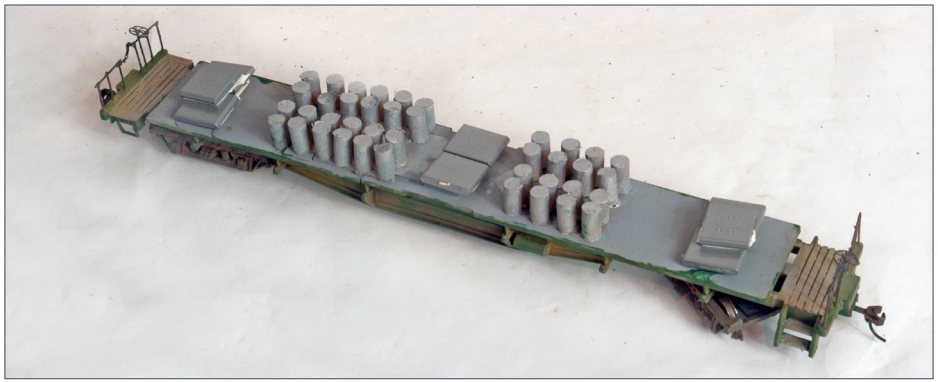


19. Smokestacks fabricated from 0.025″ styrene tubing.

8. Trucks, couplers, and weighting

The floor accepted Bachmann On30 passenger trucks and couplers without modification. I drove mounting screws downward from inside the car floor into the truck bolsters for a clean, secure fit.

Self-stick automotive wheel weights added to the interior brought the car to the NMRA-recommended weight of 8-3/4 ounces [20].



20. Underframe with Bachmann trucks and couplers installed. Also note the automotive wheel weights installed inside to bring the car to 8-3/4 ounces.

All those who ordered the RLAD Loco book between the years 2016-2022 who have not yet been contacted by us for a mailing address verification, please contact us with that info at: office@mrhmag.com. Thank you!

9. Modifying the end platform for stocking

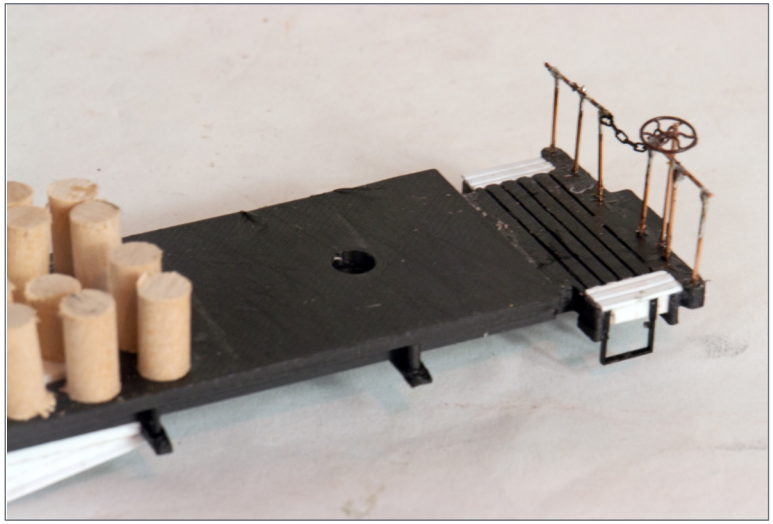
Most prototype fish cars unloaded through side doors or vestibules, but the M&OC also needed to dump fry from piers and transfer bridges.

At the compressor end, I removed the passenger steps, installed an enlarged styrene deck plate, and added freight car stirrup steps based on Malcolm Houck's prototype photos. The opposite end retained its original passenger steps and railing [21].

10. Painting, lettering, and final assembly

Because of the custom roof length, the car was assembled from the bottom up: floor first, followed by interior partitions, sides, and roof.

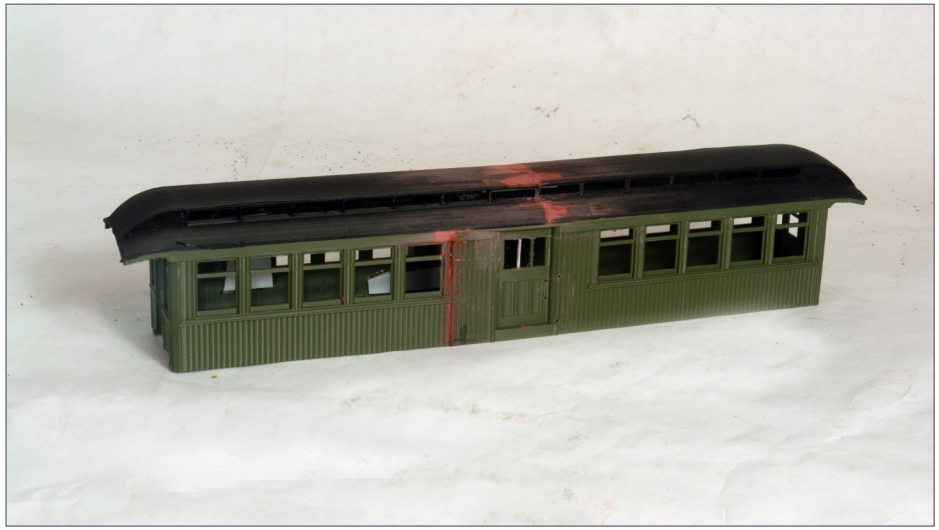
I painted the model in the M&OC passenger scheme, applied decals for lettering, and added light weathering to represent coastal service [22-27].



21. Modified compressor end with enlarged deck plate and freight car stirrup steps.



22. Completed car body assembled and ready for paint.



23. Opposite side of the assembled car body.

Get more articles like this
GIVE IT A LIKE



24. Freshly painted and lettered car body.



25. Reverse side in fresh paint and lettering.



26. Final assembly of the shell and underframe from the bottom up.



27. The finished, weathered fish car ready for service.

PUTTING THE FISH CAR TO WORK

With construction complete, the fish car entered revenue service restocking waterways across the South Shore [28-31].



28. Unloading fry into the Green River from the rear platform on the ferry transfer bridge.



29. Fish car at Green Harbor Depot awaiting the afternoon passenger train to Palmer.

Please be sure to rate these articles so we can bring you more great content!



30. The car positioned on the North River bridge in a local freight consist.



31. Unloading along the South River retaining wall near Marshfield Center.

IMAGINING OPERATIONS

Depicting crew members splashing fry from a moving train is challenging in On30 scale, so I used generative AI (ChatGPT and image tools) with photos of the finished model to visualize prototype stocking runs.

Early renderings mistakenly showed crewmen dumping buckets through narrow passenger windows – nothing like AI for bizarre images!

Once I prompted the AI to use the center baggage door and modified rear platform, it generated convincing scenes of the fishery service in action [32-36].



32. An early AI error showing fry dumped through passenger windows.



33. Corrected AI rendering showing fry discharged from the rear platform.



34. Messengers stocking the North River between Marshfield and Scituate through the center door.



35. AI rendering of stocking operations along the South River retaining wall.



36. The Berkshire Hills consist typical of New England operations from the late 19th century into the 1930s. I added an AI-generated autumn scene showing the fish car crossing the Westfield River in the Berkshire Hills, with the train and scenery created by ChatGPT.

FISH CAR FINAL THOUGHTS

Whether trailing behind a passenger train, paused on a wooden trestle in a way freight, or backing onto a dock, a kit-bashed fish car makes an unusual, historically grounded addition to any steam-era layout.

Combining 3D-printed components with basic styrene techniques made this an approachable and satisfying project, giving the M&OC a distinct piece of rolling stock with plenty of operating potential. ☑



M. Tylick

THE FISH CAR ERA (1881–1947)

In the late nineteenth century, declining native fish populations prompted the U.S. Commission of Fish and Fisheries (later the Bureau of Fisheries) to establish a nationwide stocking program.

To move live fry, fingerlings, and brood stock from hatcheries to depleted waterways, the agency deployed specialized railroad cars from 1881 until 1947.

Design, equipment, and crew

Initially converted from wooden Pullman sleeping and baggage cars, fish cars evolved into purpose-built steel units that functioned as mobile aquatic laboratories.

- Interiors housed transport tanks, milk cans, mechanical aeration pumps, and ice bunkers to regulate water temperature and oxygen.
- A five-person crew – **a captain** (biologist), **messengers,** and a **cook** – lived on board, monitoring conditions around the clock and manually aerating water during multi-day journeys.

Continued...


M. Tylick

THE FISH CAR ERA (1881–1947) *CONTINUED...*

Operating practices

Fish cars operated under two distinct profiles: high-speed mainline transit and local branch-line distribution.

Mainline trunk-line transit

On long-distance runs between hatcheries and regional distribution points, fish cars moved in scheduled passenger trains rather than freight consists. This ensured speed, smooth handling, and constant supervision.

Cars ran in the head-end block:

1. Locomotive and tender
2. Baggage car
3. Railway Post Office (RPO)
4. Express car
5. **Fish car**
6. Passenger coaches and sleeping cars

This location offered priority transit and direct access to station water, steam, and express facilities.

Branch-line distribution and stream stocking

At regional junctions, fish cars transferred to local passenger, mixed, or freight trains to reach rural waterways.

Operations followed a standard routine:

1. The train stopped briefly at designated bridges, depots, or sidings.
2. Fish culturists transferred live stock from interior tanks into transport cans and lowered them to streams, or discharged fish through hoses directly into the water.

3. Attendants handed additional cans to local wardens and sportsmen waiting with wagons for delivery to remote locations.

Crews often completed 10 to 20 stops daily.

Transition to highway transport

During the 1930s and 1940s, expanding highways and tanker trucks equipped with liquid oxygen systems replaced rail transport. These trucks delivered fish directly to waterways without rail constraints or wagon transfers.

The federal government retired its last fish car in 1947.

Today, a full-scale replica of federal Fish Car #3 is preserved at the D.C. Booth Historic National Fish Hatchery in Spearfish, South Dakota.

Boston & Maine Railroad (1920)

In 1920, the Boston & Maine Railroad (B&M) coordinated with federal and state agencies to distribute trout and salmon throughout northern New England, serving as both trunk-line carrier and local distributor.

Routes and Waters: Mainline trains hauled federal cars from coastal hatcheries along corridors connecting Boston with Concord, Portland, and White River Junction. Branch lines provided direct access to the Pemigewasset, Saco, Merrimack, and Androscoggin rivers, as well as White Mountain lakes.

Seasonal Timing: Stocking peaked during early spring distribution (March through May) and autumn brood-stock transfers (September through October).

Prototype-inspired operating scenario: train no. 97

Fish-car operations were routine across the B&M, and the following represents a prototype-inspired hypothetical example.

Continued...


M. Tylick

THE FISH CAR ERA (1881–1947) *CONTINUED...*

In spring 1920, Local Mixed Train No. 97 departs Concord for Plymouth, New Hampshire, continuing toward White Mountain branch flag stops behind a B&M 2-6-0 Mogul.

The consist includes:

1. Baggage and express combine
2. Federal fish car with onboard crew and trout fingerlings
3. Boxcar with hatchery feed, equipment, and general merchandise
4. Two local freight cars
5. B&M wooden caboose

Operating under train orders requiring brief stops at rural bridges, the train holds the main track while fish culturists lower cans of fingerlings into streams below – a clever combination of local mixed freight operations and federal conservation service. ■



37. Prototype fish car photo (enhanced from a Jim Neubauer photo: https://www.midcontinent.org/wp-content/uploads/wfc2c.jpg).

ADVERTISEMENT

Make it run like a
Dream
LOCOMOTIVES
By Joe Fugate
106 pages
AUTUMN SPECIAL



IT'S HERE!

Click me to
Get eBOOK NOW >>
~~$19.99~~ $14.99
Format: Landscape and Portrait PDF

Click me to
ORDER PAPERBACK >>
~~$39.99~~ $34.77
FREE shipping in US!
Foreign shipping 50%

Other books in this series: TRACKWORK and ROLLING STOCK

A photography car for the Matanuska



Michael Tylick models a photo car ...

Model Railroad Hobbyist | November 2026

View reader comments

I was captivated by the greenhouse photo studio and ornate lettering of an unusual prototype I discovered in an old drawing of a traveling photo car on Bing Images. We needed one for our new project layout, the fictitious Matanuska River and White Pass RR.

As late as the 1920s, commercial photo studios sent these cars to photograph residents of towns too small to support a full-time studio.

The MR&WP loosely depicts Alaska during World War II construction of the ALCAN Highway. Given the small populations combined with the influx of US Army engineers, Macauley-Dixon Photo Studios decided to resurrect one of their old photo studio cars and send it to Alaska.

As they'd hoped, business was brisk. The Kodak Brownie had been around for a while, but nothing beat a studio portrait. The far-from-home soldiers and local residents made their late venture quite profitable.

Operating possibilities on the layout

Delivering the photographic car to a siding near a small town's downtown and leaving it there for an extended period opens up interesting possibilities for your operating sessions.

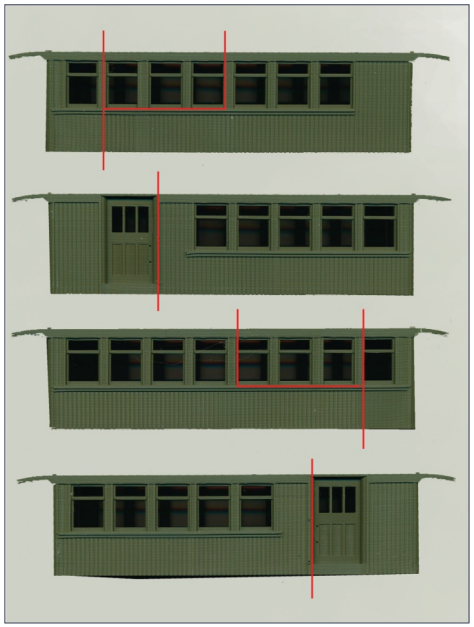
With its distinctive greenhouse studio, this car is sure to catch your visitors' attention.

Construction process

Here is the process I used to construct the photo car from its first donor parts through assembly, finishing, and layout operation [1, 2].

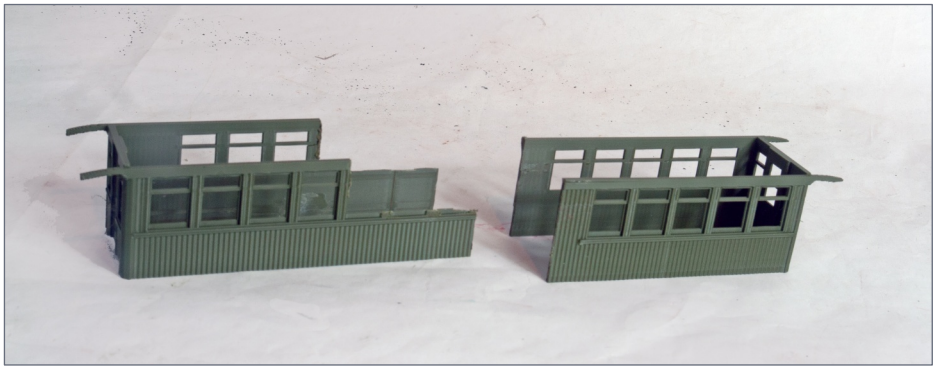


1. Four 3D-printed On30 passenger car sides—featuring two full-window coach walls and two baggage-door combination walls—serve as the donor parts for our photo car. Purchased on eBay from Geared Steam Shops of Forney, Texas, these castings offer sharp scribe-siding detail at a reasonable cost.

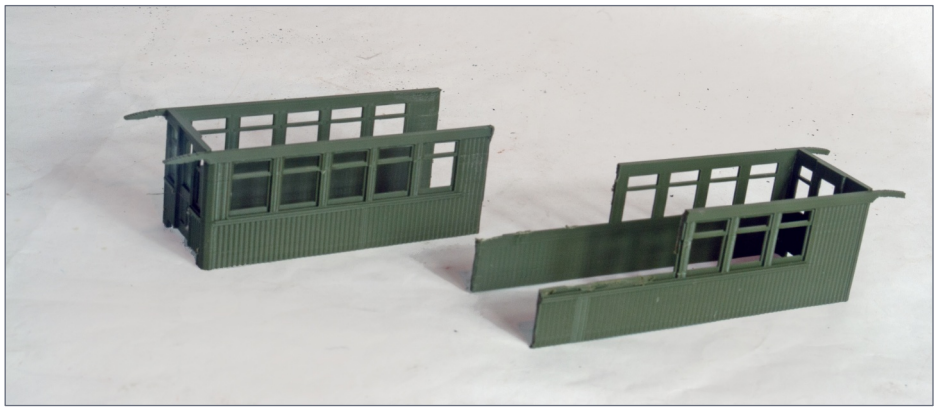


2. Follow the red lines to trim the donor sides for the open viewing area and vestibule ends. The horizontal cuts follow the window sills; you'll remove all the window mullions and material between them to create the open camera bay.

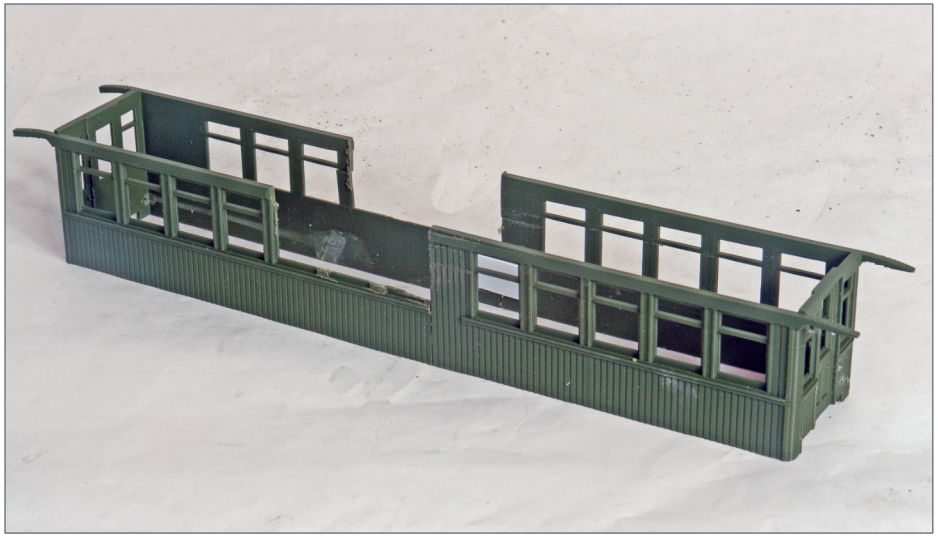
Unlike styrene, 3D-printed PLA is hard and resists standard hobby blades, so use a rotary cutoff wheel for clean, controlled cuts. Better yet, ask the vendor for a custom-sized print to skip the cutting step [3-14].



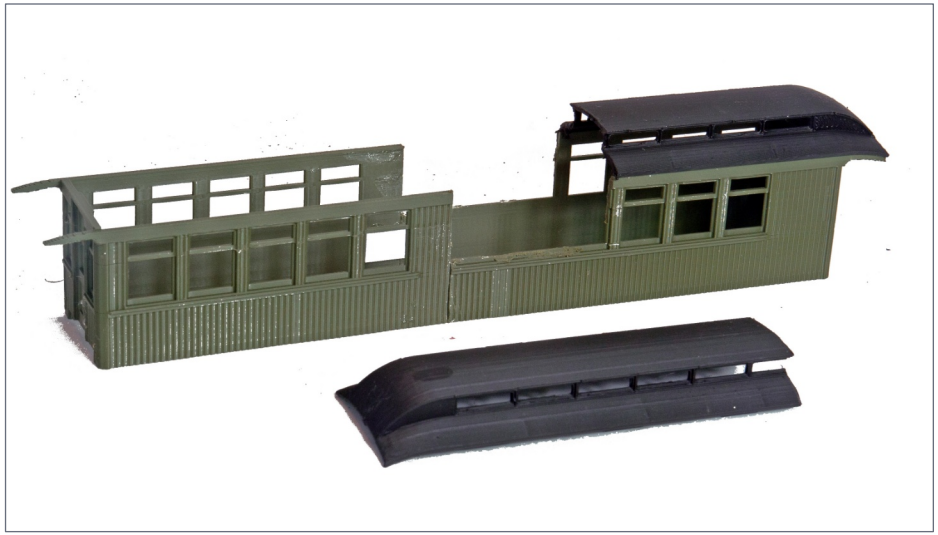
3. With the cuts complete, the two main subassemblies of the photo car begin to take shape. On the left, the lower wall cutout creates the open observation bay for the camera. On the right, the windowed end section forms the enclosed portion of the car.



4. Viewed from the opposite angle, the two subassemblies show how they'll align. The enclosed passenger end is on the left, while the notched walls on the right show the full-width opening for the camera bay.



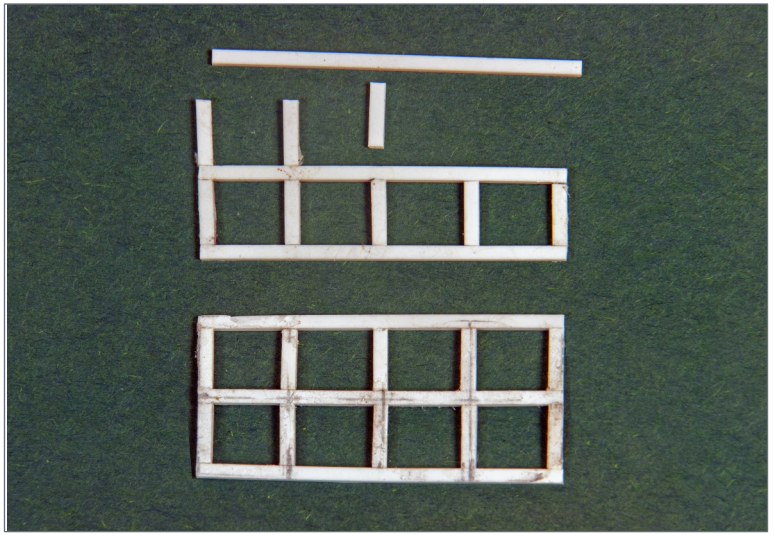
5. The two car halves are joined. Reinforcing styrene splice plates are visible through the window.



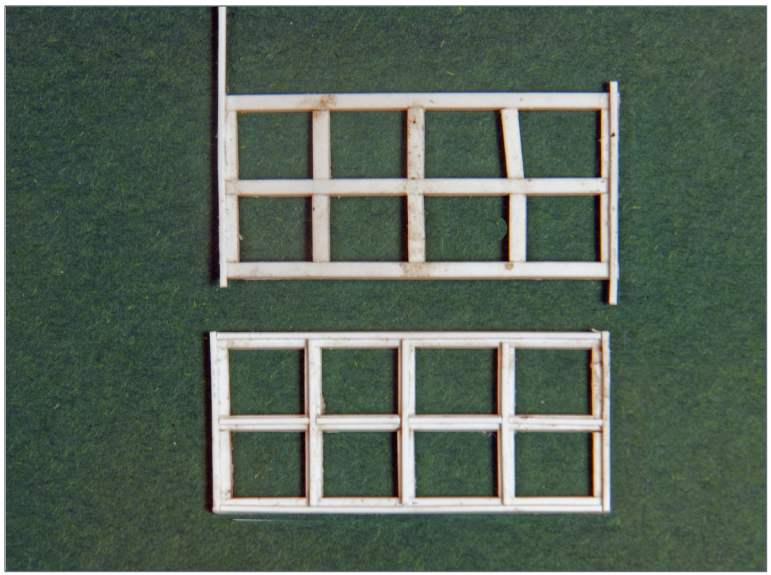
6. From the other side with one clerestory roof added. The studio will fit between the roofs, so no need to splice and fit them.



7. From the other side. The car body splice plate is visible in this view.



8. The studio window frames are assembled from individual pieces of 0.040″ × 0.080″ styrene strip. A thinner section might be more accurate, but I used 0.040″ stock for strength.



9. The frames are finished with 0.020″ × 0.030″ center strips.



10. The studio sides and ends are installed.



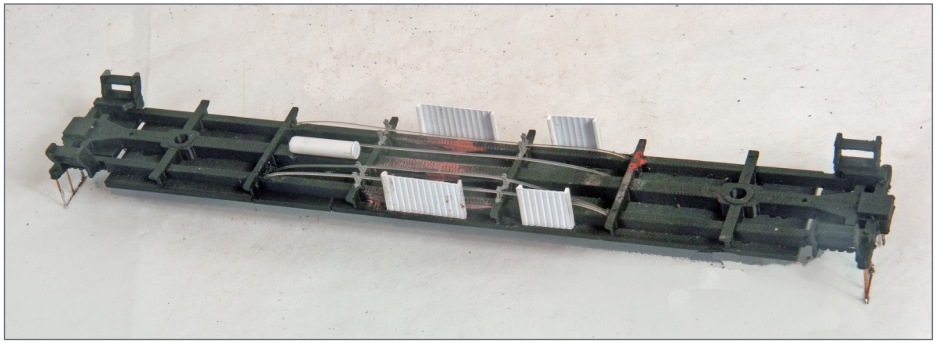
11. The second level of frame is installed.



12. The third roof level and center supports are installed. A 0.060″ styrene rod was added between each row, acting as a filler for inaccuracies and as a hinge. The upper levels of glass usually opened to allow the heat to dissipate.

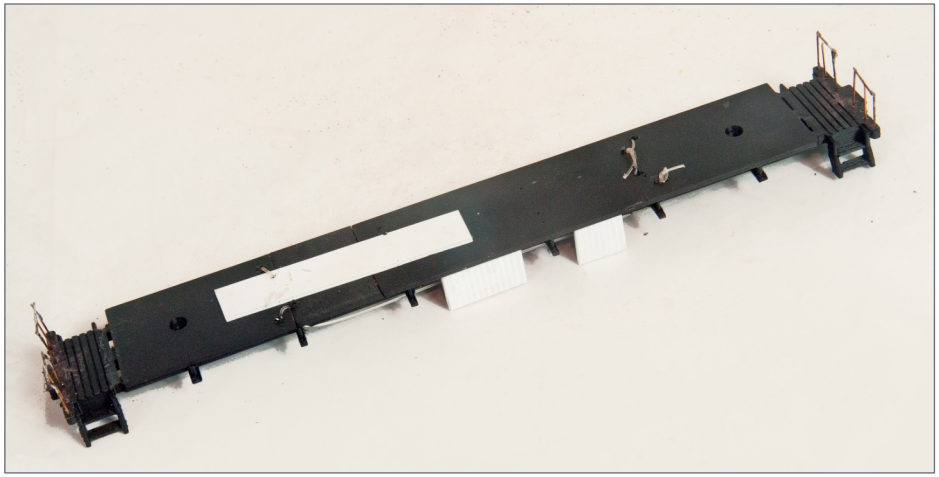


13. From the other side.

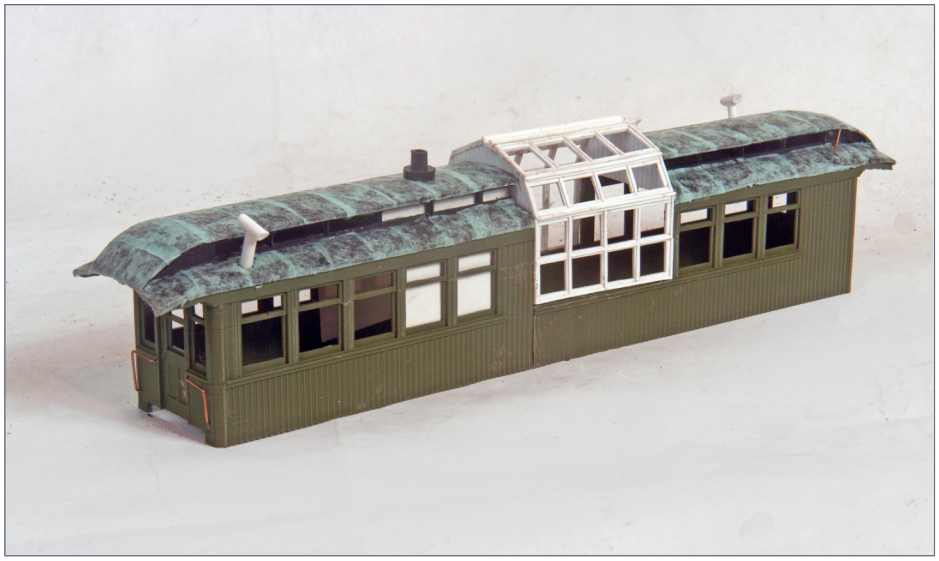


14. Simple toolbox false fronts were installed to hide the lack of underbody detail (which consisted of only one styrene tube air tank). Three-inch Grandt Line queen posts were added. Truss rods were simulated with a single length of fishing line laced between the posts.

The line was pulled as tight as possible and cemented in place from the top, installed flush to the floor and pulled tight by pulling it over the posts as a final assembly step. The red stains are from Bondo spot and glazing putty, which was used as filler between the floor beam halve.



15. Showing the floor section splice plates. The truss rod fishing line is visible in this view.



16. The completed car body is ready for the paint shop. Tissue paper canvas has been applied to the roof.



17. I was taken by the flamboyant lettering on the prototype. This would have been nearly impossible to duplicate with illustration software, but ChatGPT quickly transformed the lettering into a usable decal sheet. It also retained the lettering style while changing the business name.

Rather than the all-too-common coach green and white color schemes, a white car with red and blue lettering seemed like a good choice for a business hoping to attract the military. The light-colored car made it possible to print darker lettering on blank decal paper with my home laser printer, saving the expense of a custom decal sheet with white lettering [18-27]. ■



18. The other side of the completed car body.



19. Trucks and couplers are added, and the car is complete. The underframe of the 3D-printed cars was a perfect height for the Bachmann trucks and couplers. Their long-wheelbase archbar tender trucks seemed right for this car. They suggest the car was carried from town to town on the end of local freight trains.



20. The other side of the completed car.



21. The photo car has been spotted at the Green Harbor depot on my On30 Marshfield & Old Colony Railroad in preparation for receiving clients tomorrow.



22. The other side of the car.



23. Photos 23–27 take the photo car portrait in [20] and place it into Alaska scenes using ChatGPT AI software. The photo car is on its way to a new town, being pulled by a mixed train across the White Pass & Yukon Railroad's Dead Horse Gulch high bridge. We hope to model a version of this scene on our Matanuska River and White Pass layout.



24. Local residents in their Sunday best and Army engineers in dress uniforms line up to have their portrait taken at the Fraser, Alaska depot. Another scene we hope to model.





25. (Top) The photo car is closed for the day at the Fraser depot. Time is needed for the crew to develop and print the photos before they leave town.

26. (bottom) The photo car is closed for the day in Skagway. The photographer needs time to develop and print photos before leaving town. We hope to model this scene as well.

VIEW READER COMMENTS


M. Tylick

RAILROAD PHOTOGRAPHIC CAR HISTORY

Operating practices

From the 1880s through the 1910s, taking a photograph required heavy, specialized equipment and a complex chemical process. Most frontier settlements and rural towns lacked permanent photography studios, so railroad photographic cars filled this gap.

These converted train cars traveled along rail lines, bringing professional portrait services, darkrooms, and galleries directly to remote communities.

How the cars were used

Most photo cars were repurposed passenger or baggage cars divided into three main areas:

• Portrait studio: Located in the main section, this space featured a large skylight that provided natural lighting for indoor portraits.

• Darkroom: A light-proof workspace for processing glass plates, developing negatives, and making prints.

• Living quarters: A compact area where the photographer and assistants lived while traveling from town-to-town.

Business and marketing tactics

The arrival of a photo car was often an exciting community event. Operators used several strategies to attract customers.

"Baby days:" Operators offered parents a free portrait of their child to draw families in, hoping they'd purchase larger photo packages and expensive frames.

Lower prices: Traveling photo cars often charged less than permanent studios in major cities, making professional pictures affordable for working families.

Notable operations

Several well-known companies ran successful photo car operations across North America.

The Boston Railroad Photo Car (BRPC): One of the largest operations, the BRPC ran a fleet of up to thirteen cars between roughly 1888 and 1900. Operating across the American West—from Montana to California—and into Canada—the company frequently hired local photographers to manage individual cars.

The Detroit Photographic Company: This major publisher used specialized railcars as mobile galleries. Its photographers traveled the rails to capture scenic views and sell colorized "Photochrom" postcards and prints directly to the public.

Why photo cars declined

By the early 1900s, mobile photo cars had largely disappeared due to two major changes.

New camera technology: Inexpensive, portable cameras (like the Kodak Brownie) allowed everyday people to take their own pictures at home.

Town growth: As rural communities grew into established towns, they could support their own permanent photography studios.

Historical significance

Railroad photographic cars left a lasting legacy on American history.

Access for rural communities: Photo cars democratized photography by giving families in isolated areas their first opportunity to own professional portraits.

Visual documentation: Beyond studio portraits, traveling photographers captured small towns, landscapes, and railroad lines, creating an invaluable visual record of late 19th-century life.

Portrait cars vs. other railcar types

Portrait-focused photo cars were distinct from other specialized photography and research cars the railroads used:

Continued...


M. Tylick

RAILROAD PHOTOGRAPHIC CAR HISTORY *CONTINUED...*

• Documentary photography cars: Railroad companies used these to photograph construction progress, engineering projects, and equipment for public relations, record-keeping, and investor reports.

• Technical testing cars: In later years, railroads deployed specialized research cars (like FreightMaster testing cars) fitted with cameras, sensors, and instruments to collect technical engineering data rather than take portraits. ■

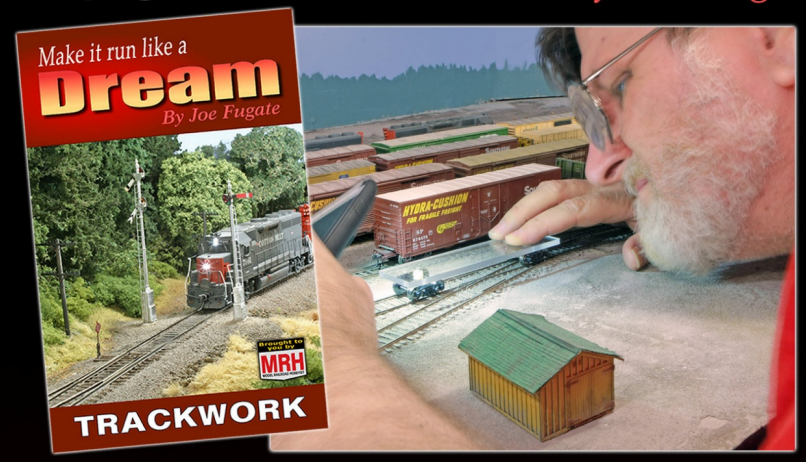
Get more articles like this
GIVE IT A LIKE

All those who ordered the RLAD Loco book between the years 2016-2022 who have not yet been contacted by us for a mailing address verification, please contact us with that info at: office@mrhmag.com. Thank you!

ADVERTISEMENT

FALL SPECIAL

Make it run like a
Dream TRACKWORK BOOK
104 pages
By Joe Fugate



Available from the MRH Store: store.mrhmag.com

"The new bible of track laying." - L.T.

"Chapter 3 alone is worth the cover price." - B.M.

"A lot of info ... copiously illustrated.." - J.A.

Click me to
Get eBOOK NOW >>
~~$19.99~~ $14.49
Format: Landscape and Portrait PDF

Click me to
ORDER PAPERBACK >>
~~$39.99~~ $34.77
FREE shipping in US!
Foreign shipping 50%

Other books in this series: ROLLING STOCK and LOCOMOTIVES

A spare parts combine

MICHAEL TYLICK MODELS A SHORTIE COMBINE ...

Model Railroad Hobbyist | November 2026

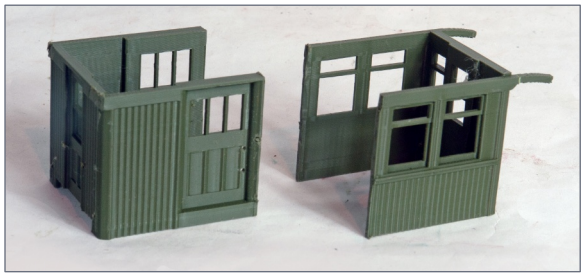
VIEW READER COMMENTS

WHILE BUILDING PASSENGER CARS FOR OUR LAYOUTS, we ended up with an odd assortment of cut-up, 3D-printed parts. Like most model railroaders, I hate throwing away anything I might need someday. But I also knew these extra pieces would clutter my workbench. It made sense to put them to use while they were right in front of me.

The Matanuska River & White Pass is an On30 short line set in Alaska during World War II and the building of the ALCAN Highway. On a wartime frontier railroad where money's tight and the population's sparse, a small combine or caboose is perfect for the end of a daily mixed train. I didn't build this car from a formal plan. Instead, I designed it on the fly using whatever parts were on hand. It's truly rolling stock cobbled together by the railroad's shops out of necessity.

WORKING WITH 3D-PRINTED PLA

The leftover parts were useful for the project, but the printed plastic required a different approach than styrene [1].



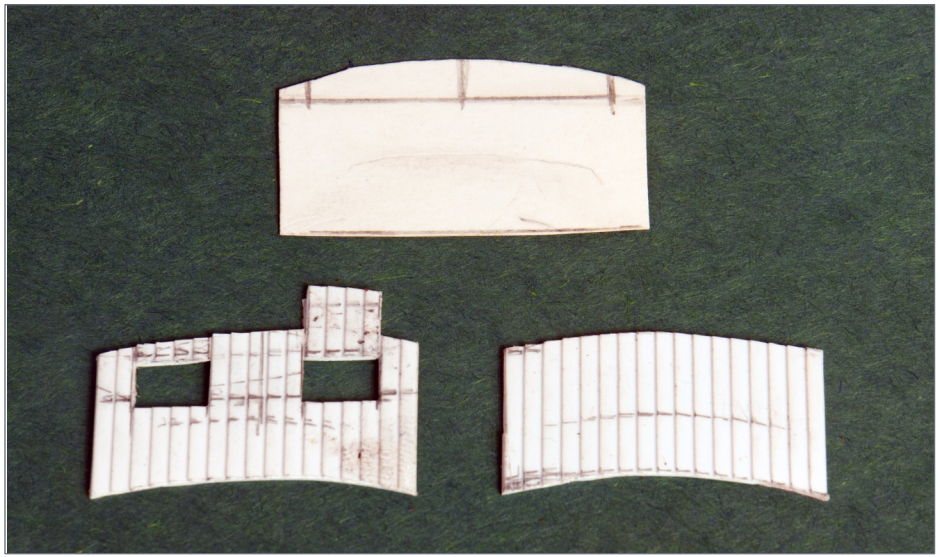
1. We bought the leftover 3D-printed On30 passenger car sides on eBay from Geared Steam Shops in Forney, Texas. They're nicely made and very affordable. However, the PLA plastic was difficult to cut with standard hobby knives. I got the best results using a Dremel cutoff wheel—this material is much more stubborn than styrene.

Looking back, it would have been easier to have the sides printed to the right finished length from the start. Shown here after cutting and basic corner assembly, these leftover sections give us the baggage end (left) and windowed passenger compartment (right) for a short combine [1].

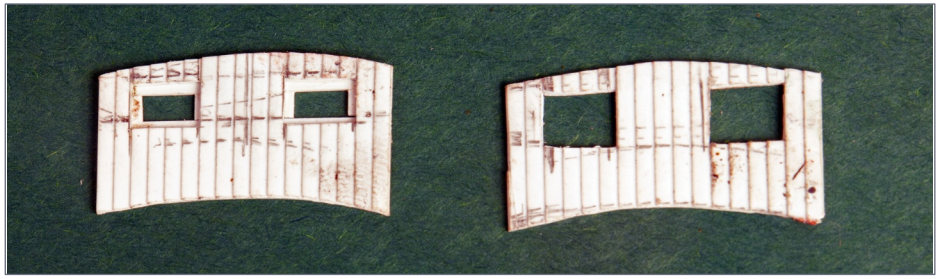
SCRATCHBUILDING THE CUPOLA

Since I didn't have enough clerestory roof sections, I decided to build a caboose cupola instead [2].

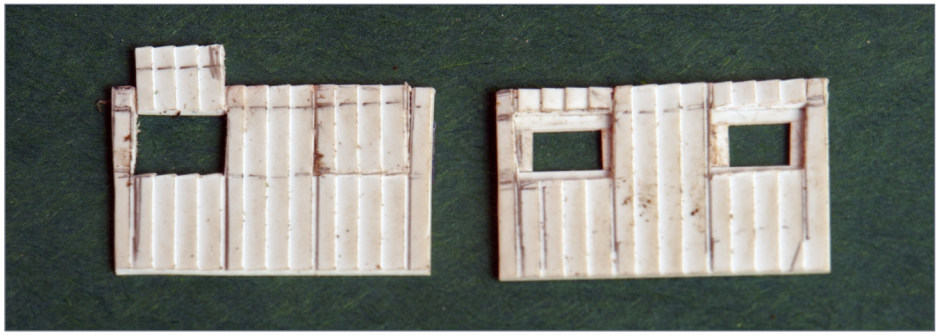
First, I scribed and cut the sides and bottom of each opening. Next, I raised the cut section to form the window. Once the solvent cement dried, I trimmed and sanded the excess plastic flush.



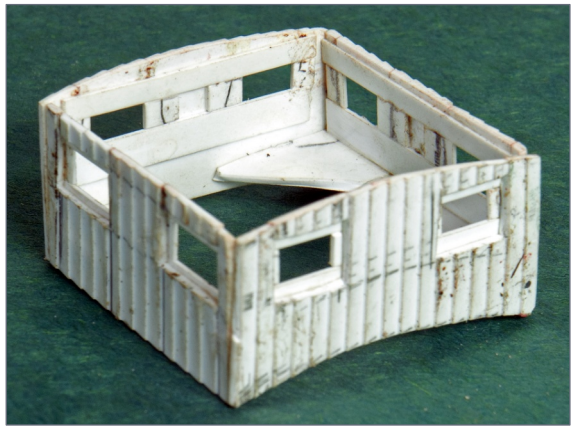
2. Evergreen 0.080″ scribed siding was a very close visual match to the 3D-printed car sides. I traced the middle section of the original clerestory roof onto cardstock to make the template shown at the top. I cut the window openings using the snap-and-glue method.



3. On the piece at the left, 0.020″ × 0.100″ styrene strips are glued to the back of the opening to create the window sash. The completed piece is shown on the left.



4. I built the cupola sides the same way, using scribed siding and the snap-and-glue method for the window openings.



5. The fully assembled cupola, squared up and ready to mount on the car roof.

CAR BODY AND UNDERFRAME ASSEMBLY

With the cupola done, I moved on to assembling the car body and underframe.



6. The assembled car body. I spliced a section of 0.100″ scribed styrene into the side to give the body more realistic proportions.



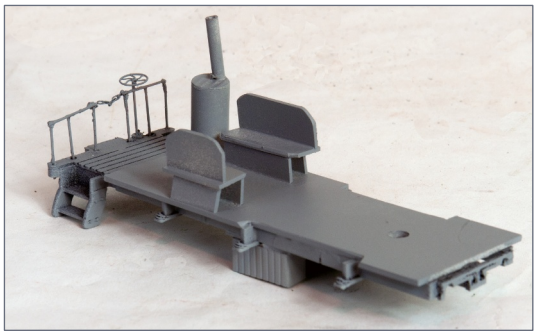
7. I didn't have enough leftover material to build an open platform on both ends. Instead, I squared off the roof and covered the extra end door opening with cardstock. A little Bondo Spot Putty smoothed out the rough cuts and my mistakes.



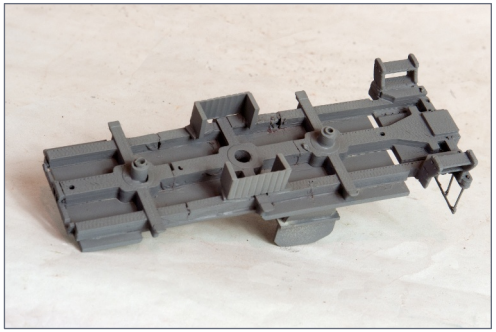
8. The car body needed to be red, and applying decals requires a glossy surface. The easiest solution was to prime the model directly with a spray can of bright gloss red paint I had on hand.



9. The primed car body seen from the opposite side.



10. I built the car floor from leftover scrap parts. This view shows the top side with a simple, quickly built passenger interior. Keep in mind, this model was made for an operating layout, not a contest display!



11. The underframe assembly. Real cabooses often had toolboxes mounted under the floor. Adding them to the model let me skip building complex brake details. I used plastic tubing to mount the San Juan Model Works arch-bar trucks.

Get more articles like this
GIVE IT A LIKE

These trucks were designed for On3 models but came with On30 wheelsets. I may swap them for Bachmann trucks later for smoother operation.

THE FINISHED COMBINE

With major construction complete, I finished the model and put it to work on the layout.



12. The completed combine.



13. The completed combine from the opposite side.

VIEW READER COMMENTS



14. The combine at the Green Harbor depot on my On30 Marshfield & Old Colony layout.



15. Running at the rear of a local freight at Green Harbor.

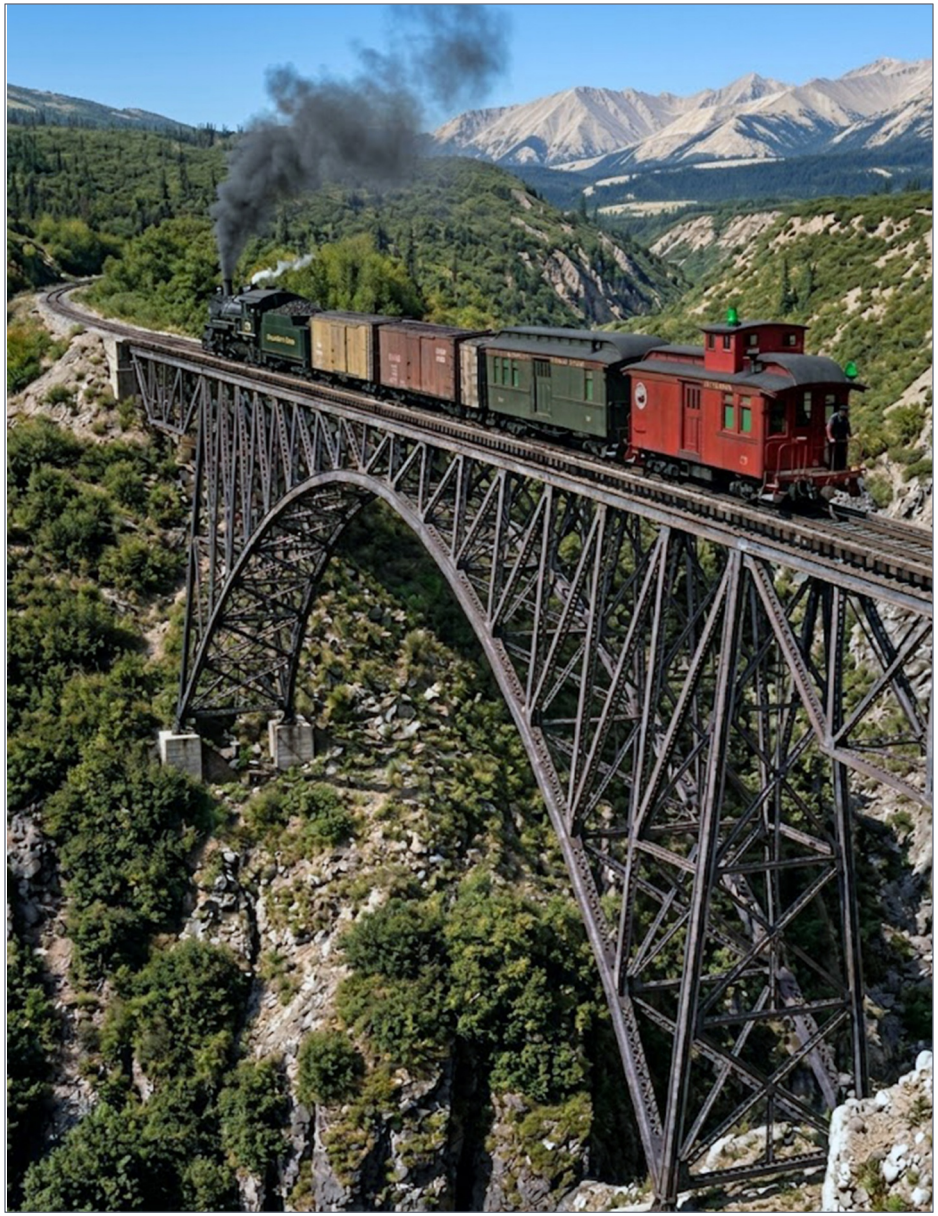
VISUALIZING THE RAILROAD WITH ARTIFICIAL INTELLIGENCE

Once the combine was complete, I used AI to imagine how it might look in its Alaska setting. ■



16. Photos 18 through 22 were created with AI using a picture of the finished model. This first scene shows the combine at the end of a mixed train crossing an imaginary steel bridge. *MRH note: AI has apparently hallucinated and made the car longer and given it what looks like a platform on the other end rather than keeping it flat as on the model. Not the most accurate rendering of the model. Oh well ...*

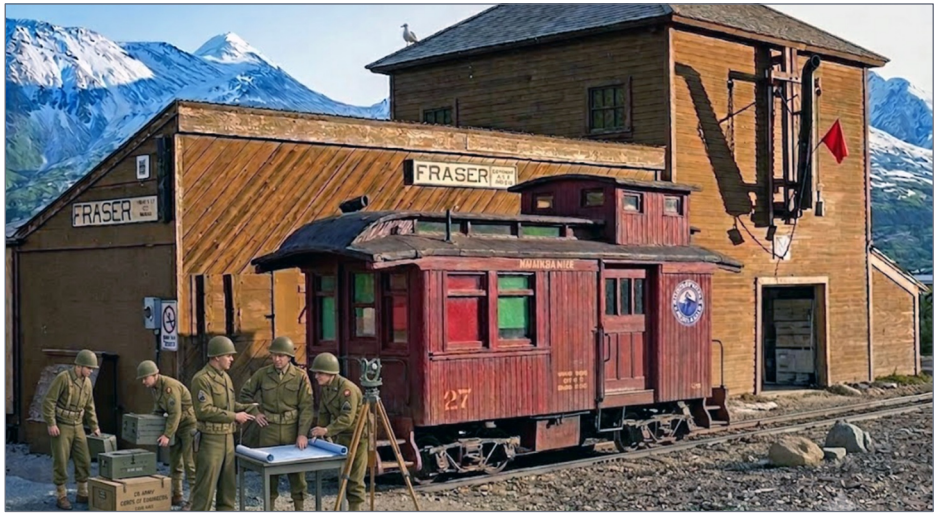
VIEW READER COMMENTS



17. A second AI attempt created an even more dramatic steel bridge scene. Gemini AI generated the mountain backgrounds in Photos 18 and 19 from scratch.



18. Here, the AI gave me the exact historical scene I wanted: the mixed train crossing the White Pass & Yukon Route's famous Dead Horse Gulch high bridge. We hope to build a model of this dramatic scene on our Matanuska River & White Pass layout.



19. The combine rests at the depot in Fraser, Alaska. Gemini filled the scene with World War II U.S. Army engineers—troops assigned to build the ALCAN Highway, which provided vital overland supply lines against an anticipated Japanese attack.



20. Narrow-gauge tracks in Skagway, Alaska, ran straight from the deepwater docks, down Main Street, and into the rugged mountains.

Skagway kept the rough look of an 1898 Gold Rush boomtown, and the wartime arrival of soldiers and construction crews only added to its frontier character. ☑

VIEW READER COMMENTS

ADVERTISEMENT

Latest and greatest on TMTV!





Pan Pastels decoded, part 2



Sammy Carlile's Santa Fe



The wonders of black styrene



Modeling with light: 3

Become a member »

Brought to you by MRH MODEL RAILROAD HOBBYIST

www.trainmasters.tv

Registered MRH reader? Get your 10% off coupon code here:

Get Subscriber 10% off code

Scratchbuilding an SP Depot



Model Railroad Hobbyist | November 2026

Get more articles like this
GIVE IT A LIKE

Thomas Gasior models Southern Pacific's Oakdale, California depot ...

Editor's Note

This article is an MRH staff interpretation and technical expansion of Thomas Gasior's photo-rich forum thread documenting his HO-scale Southern Pacific depot build.

Although Thomas's original build notes were brief, his step-by-step photos captured a wealth of modeling detail. The MRH staff has organized the material into a comprehensive construction article with detailed photo captions, technical dimensions, and modeling recommendations.

Statements and build experiences in Thomas's first-person voice reflect what he documented; all inferred techniques, dimensional callouts, sidebars, and material suggestions represent MRH staff interpretation and recommendations.

OAKDALE IS IN CALIFORNIA'S CENTRAL VALLEY GOLD COUNTRY, and three railroads served it historically: The Sierra Railway, the Atchison, Topeka & Santa Fe, and the Southern Pacific.

The SP depot at Oakdale is a classic Class-23 one-story standard design, featuring a long freight house, a central waiting room and office, and a projecting trackside operator's bay. A hip roof covers the passenger waiting room end, while a standard eaves roof covers the baggage end.

The prototype structure still stands today, preserved as a local museum [1].

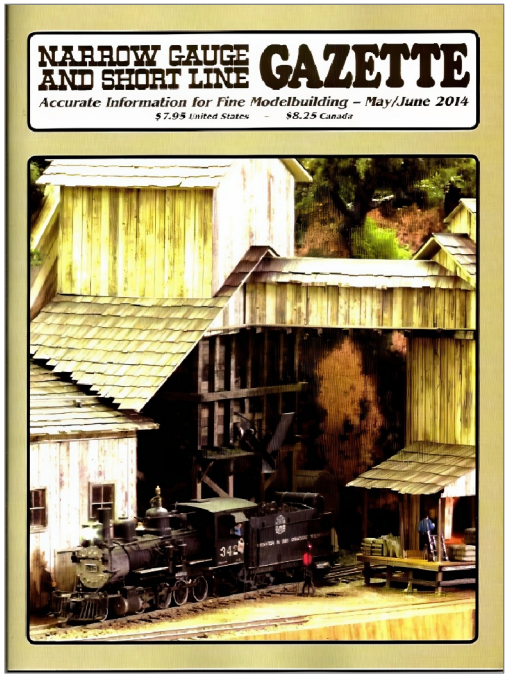
The opportunity to model the depot arose during a Tuesday-evening operating session on Ed Petry's HO-scale layout, which models the Sierra Railroad and its SP connections. Ed needed an authentic depot to replace a generic Rico depot model that had served as a stand-in at Oakdale.



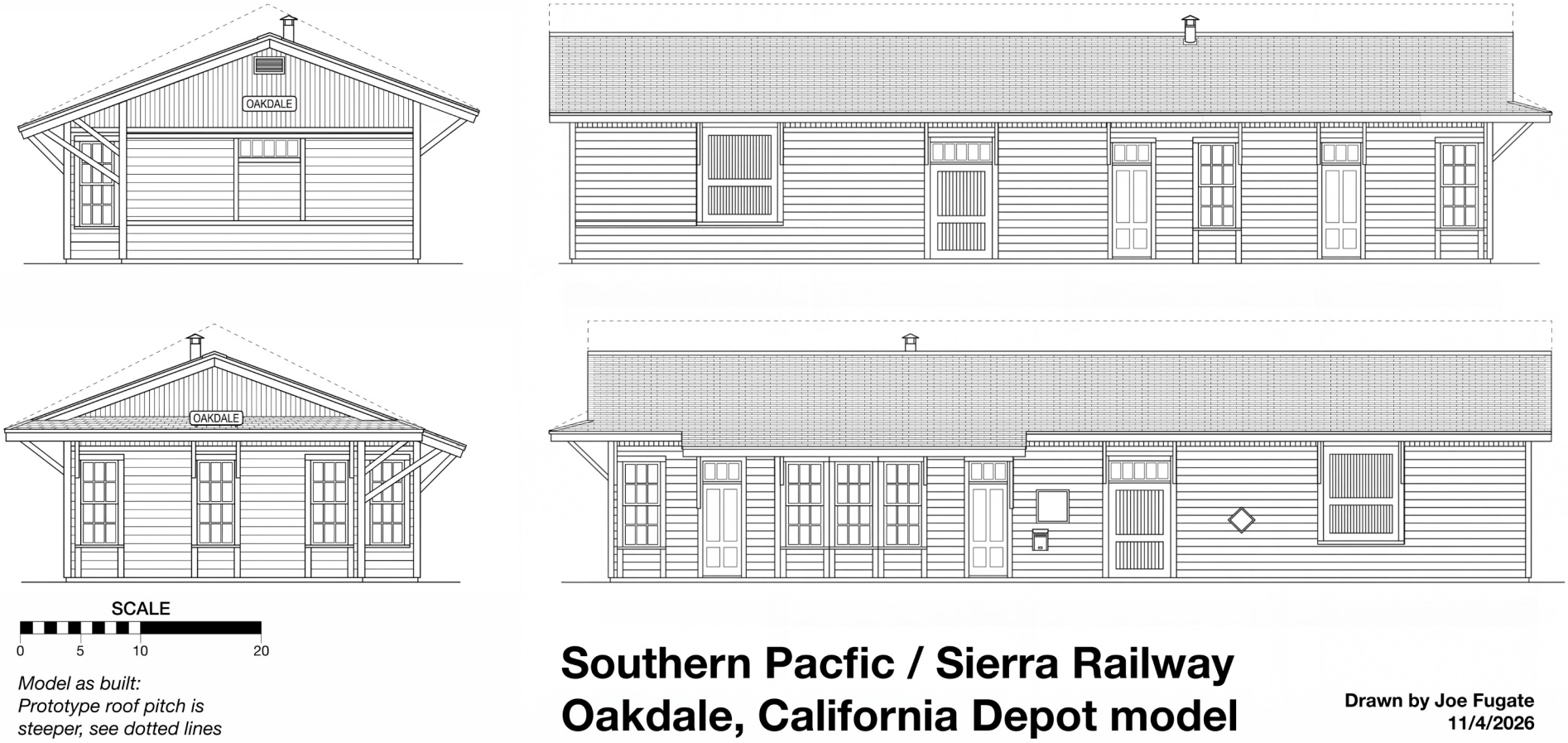
1. Recent photo of the Oakdale, CA SP station, now serving as a cowboy museum.



2. Historical photo of the Oakdale, CA station in the early years of the 20th century. *Photo clarity enhanced from original.*



3. The May/June 2014 issue of *Narrow Gauge and Short Line Gazette* with scale plans for the SP Oakdale Depot.



4. Redrawn scale plans of the SP Oakdale depot using Thomas' model as a guide. The solid roof lines show the model as built, while the dashed lines illustrate the steeper prototype roof pitch. Plans also are available in this month's bonus downloads as a PDF.

VIEW READER COMMENTS

A fellow operator mentioned that the May/June 2014 issue of *Narrow Gauge and Short Line Gazette* contained detailed scale plans for the SP Oakdale depot. Armed with photocopies of those drawings and additional prototype photos I'd gathered online, I set to work.

This project also served as the first of six scratchbuilt structures I needed for my NMRA Achievement Program (AP) Master Builder – Structures certificate.

PLANS, SIDING, AND ROOF PITCH CONSIDERATIONS

After building the model I realized its roof had a slightly gentler slope than the prototype. The redrawn scale plans [4] document the model dimensions as built, while dashed lines show the steeper prototype roof pitch if you prefer a more accurate model.

As-built with the gentler pitch, the upper vertical siding extensions on the end walls measure 3′ high at the outer eaves, and 7′-9″ high at the center peak (prototype dimensions). Cut the upper vertical siding panels on the front and back walls to a matching 3-foot height to get the roof line as I built it.

To match the prototype's slightly steeper roof pitch, cut the upper end-wall vertical siding panels to 4′-6″ high at the outer edges and 10′-6″ high at the center peak. Then cut the front and back wall upper vertical panels to 4′-6″ high to match.

WALL CONSTRUCTION

I built the four exterior walls from Evergreen sheet styrene. The prototype walls feature horizontal V-groove siding across the lower section, and narrower vertical siding above a horizontal belt line.

The lower walls were made from 0.040″ sheet styrene with 0.100″ V-groove spacing (Evergreen no. 4100), oriented

horizontally. The lower, vertical portion of the wall had the same height of 10′-9″, regardless of roof pitch. For the rear wall of the depot (away from the tracks) I cut the sides to a length of 76′-6″.

The upper vertical section of each wall was made from 0.040″ sheet with 0.040″ V-groove spacing (Evergreen no. 4040), oriented vertically. The height of this upper portion of the wall establishes the roof pitch. The back-wall height of 3′ of my model set the shallower roof pitch. To match the pitch of the prototype, the vertical wall height would need to be 4′-6″.

CREATING WINDOW AND DOOR OPENINGS

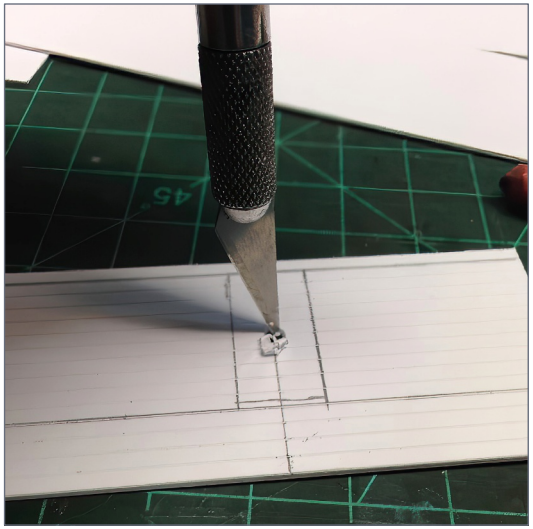
Once the walls are cut, the next step is adding openings for windows and doors. Door openings are easy since you can cut in from the edge of the wall. Window openings are trickier because you must cut into the middle of the styrene. Using a nibbler cutter makes both tasks much easier.

The first step is to measure and mark the windows and doors. Use an HO scale ruler to measure and place the openings, then mark the outlines with a sharp pencil. I positioned the window sills 32″ above the bottom of the wall, and drew openings 3′-1″ wide by 6′-2″ high.

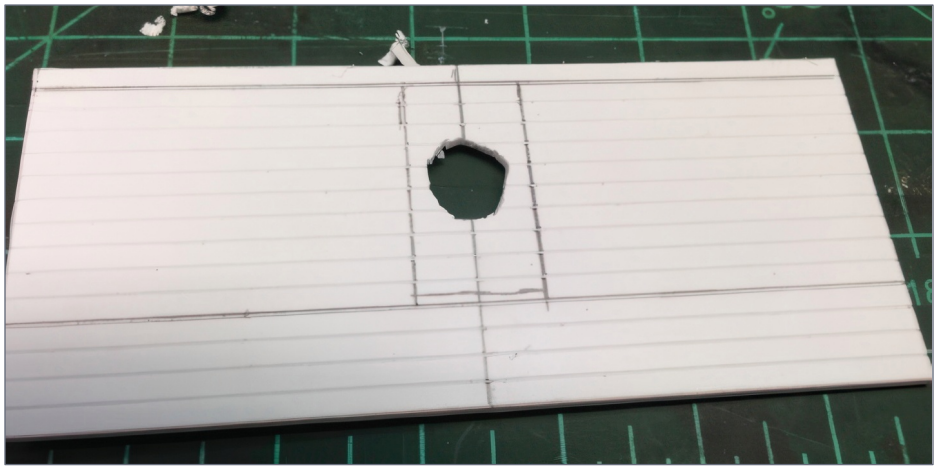
The depot had three different door sizes for personnel, baggage, and freight. I drew the personnel doors to be 3′-6″ wide x 7′-7″ high, starting from the bottom edge of the wall, the baggage doors were 7′ wide by 8′-6″ tall, and the freight doors were 7′ wide, extending from a dock level at 32″ to the top of the horizontal wall portions.

From there, the process for creating the door and window openings follows in photos [5-8].

Get more articles like this
GIVE IT A LIKE

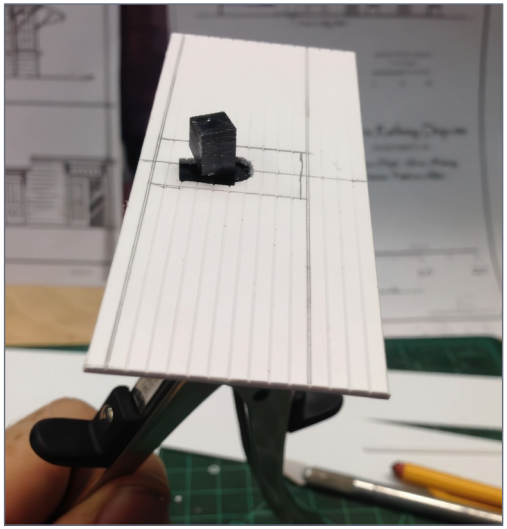


5. Start the window opening with a fresh, sharp no. 11 hobby knife blade. Press and twist it into the center of the marked window box to create a starter hole.



6. Continue the cut until you have a hole large enough to fit the nibbler.

VIEW READER COMMENTS



7. Insert the jaws of the nibbler tool into the hole, and progressively nibble out to the marked outlines.



8. When the window hole is properly sized using the nibbler, as shown here, then use your hobby knife and a flat needle file to clean up and square the edges and corners of the hole.

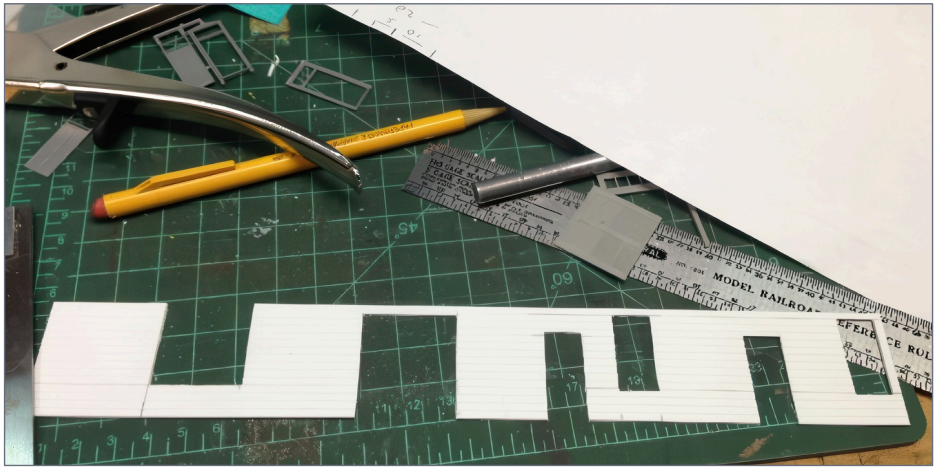
Get more articles like this
GIVE IT A LIKE

Door openings are cut similarly to window openings, but since the door openings extend to the bottom edge of the styrene, you can start the nibbler at the bottom edge and work upward.

UPPER SIDING AND TRIM

After cutting the lower wall openings, cement the 0.040″ vertical siding panels to the upper wall sections. Before assembling the walls, add the exterior trim strips while the parts are flat.

For the window sills and trim, use scale 1x6 strip styrene (Evergreen no. 8106). For the belt-line trim between the lower, horizontal and upper, vertical siding sections, I used 2x6 strip styrene (Evergreen no. 8206).



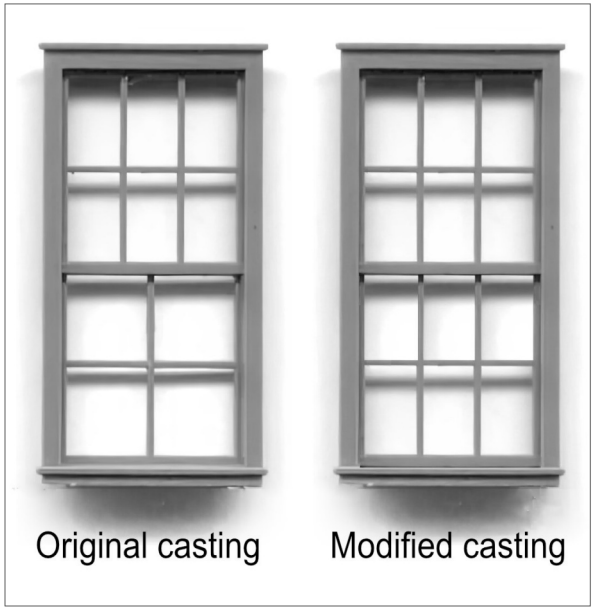
9. The lower rear wall of the Oakdale depot with all window and door openings cut out. Measuring approximately 10′-9″ high by 76′-6″ long, this view shows the depot's long, low proportions and clean layout of rough openings before adding commercial castings and trim.

MODIFYING COMMERCIAL DOORS AND WINDOWS

To capture the distinct look of Southern Pacific architectural millwork, I adapted standard commercial castings from Grandt Line. The Southern Pacific used 6/6 double-hung window sashes (six panes in the upper stash, six in the lower). The closest Grandt Line offered was a 6/4 window (no. 5233).

To correct this, I used two castings per window, with one serving as the master frame, and the other as parts donor. Using a fresh no. 11 blade, I sliced out the six-pane upper grid from the donor casting, and removed the four-pane lower grid from the master casting.

I then lightly pressed the harvested six-pane grid into the lower opening of the master frame. With the grid properly in place, I touched the joints with solvent cement. The prototypical 6/6 double-hung window was complete [10].



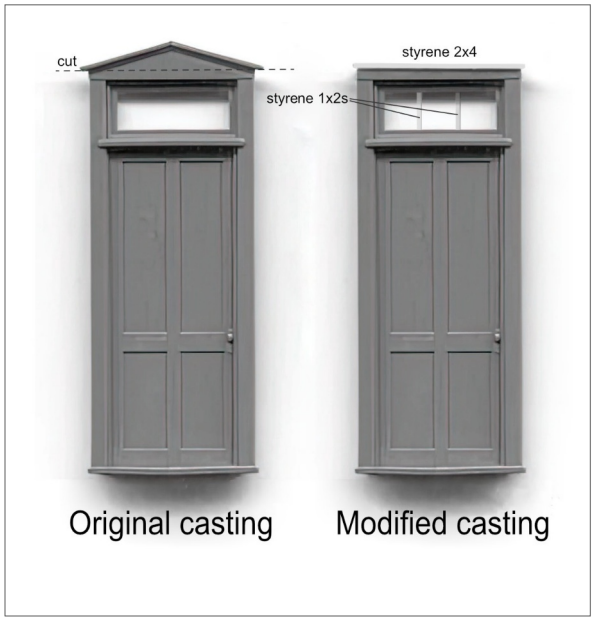
10. An original Grandt Line 6/4 window casting is at left, and the completed 6/6 modified casting is at right. As with the original, the lower six-pane window is slightly recessed relative to the upper.

The closest-matching Grandt Line door – no. 5259 – followed D&RGW design with a single-pane transom window top casing. To make them match the SP-style, I sliced off the peak to square the top frame, then cemented a scale 1×4 styrene strip (Evergreen no. 8104) across the top as a drip cap. I then used 1x2 strips (Evergreen no. 8102) to create muntins to divide the transom window into three panes [11].

BAGGAGE DOORS

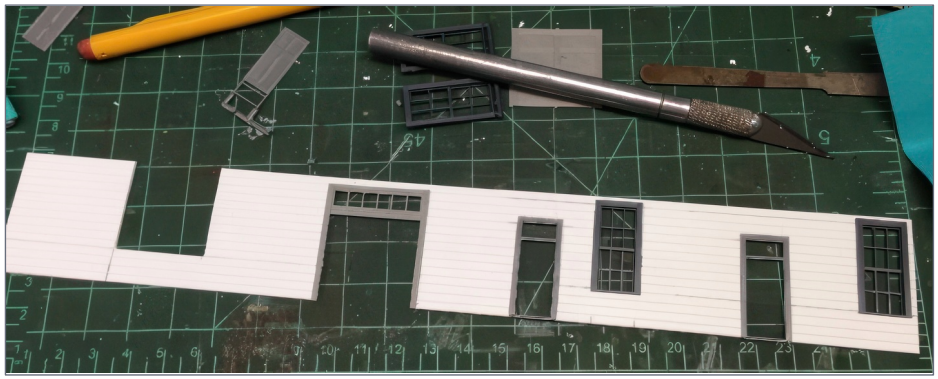
Scratchbuild the large baggage doors from scribed car siding with 3-1/4″ grove spacing (Evergreen no. 4037) and 1x6 strip styrene (Evergreen no. 8106) framing per the scale plans. Add window framing and muntins above the door with styrene 1x2 strips.

Builder's tip – Paint before installing. I cemented the window and door castings into the raw styrene walls before assembling



11. Grandt Line #5259 door with original D&RGW design at left and SP design at right.

and painting the building. If I were building this depot again, I'd paint the walls and castings separately before installation. Hand-painting white window sashes and brown frames after they were glued into yellow walls was extremely tedious!



12. Rear station wall with window and door trim test-fitted into their openings.

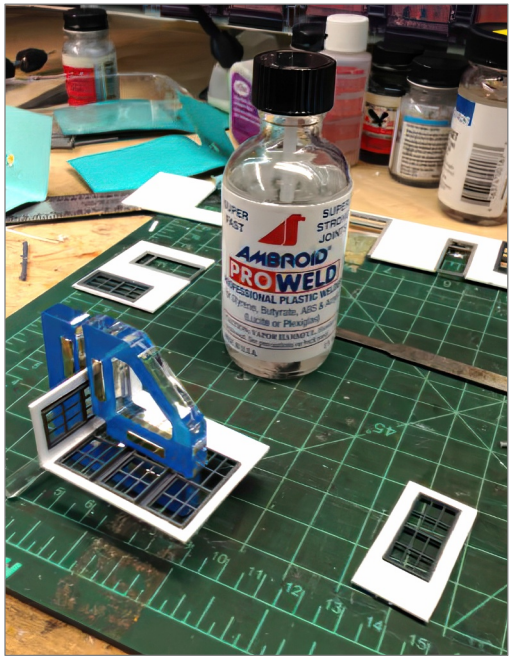


13. The individual wall sections – including the rear wall, end walls, and operator's bay panels are laid-out flat on the bench. Several door and window castings have been test-fitted into their openings.

ASSEMBLING THE WALLS

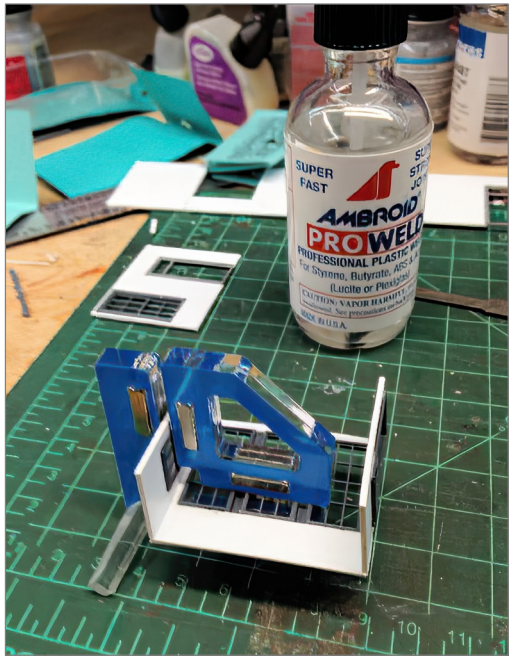
With all the openings cut and trimmed and the doors and windows installed, the four walls and the trackside operator's bay could be joined into a rigid structure. The front wall and operator's bay were the first assembly. The process follows in photos [14-18].

The operator's bay was the first assembly. Right-angle magnetic clamps were handy to join the walls [14, 15]. Other right-angle gluing jigs also would have worked.



14. I used magnetic clamps to hold the operating bay walls at a right-angle while gluing.

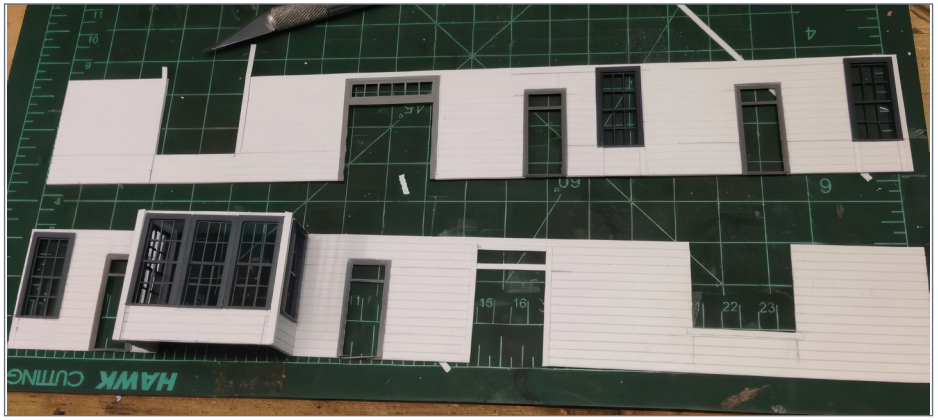
Get more articles like this
GIVE IT A LIKE



15. Once the glue had set for one side of the operator's bay, I continued with the other side, again using right-angle magnetic clamps.



16. With the bay assembled and the glue set, I attached it to the front wall, beginning with the short end.



17. Next, I attached the long section of the front wall to the other side of the operator's bay. The rear wall (top) also was ready.



18. The assembled trackside wall stands upright on the bench with the upper vertical boards and belly trim added. The projecting operator's bay window and proportions of the long depot wall are clearly visible before final four-wall assembly.

With the front wall was complete, I brought the front, rear, and end walls together on a flat board. I used the magnetic right-angle corner clamps to hold the assembly square while applying solvent cement along the inside corners.

I reinforced the insides corners of each joint with 1/16″ square styrene strip (Evergreen no. 153). The strips added substantial gluing surface, and prevented the corner seams from popping open during handling, roof fitting, and painting.

ROOF CONSTRUCTION AND HIP-END FRAMING

The depot roof features a long gable roof over the freight and baggage sections that transitions into a hip roof over the office and passenger end, with an integrated forward overhang sheltering the trackside operator's bay.

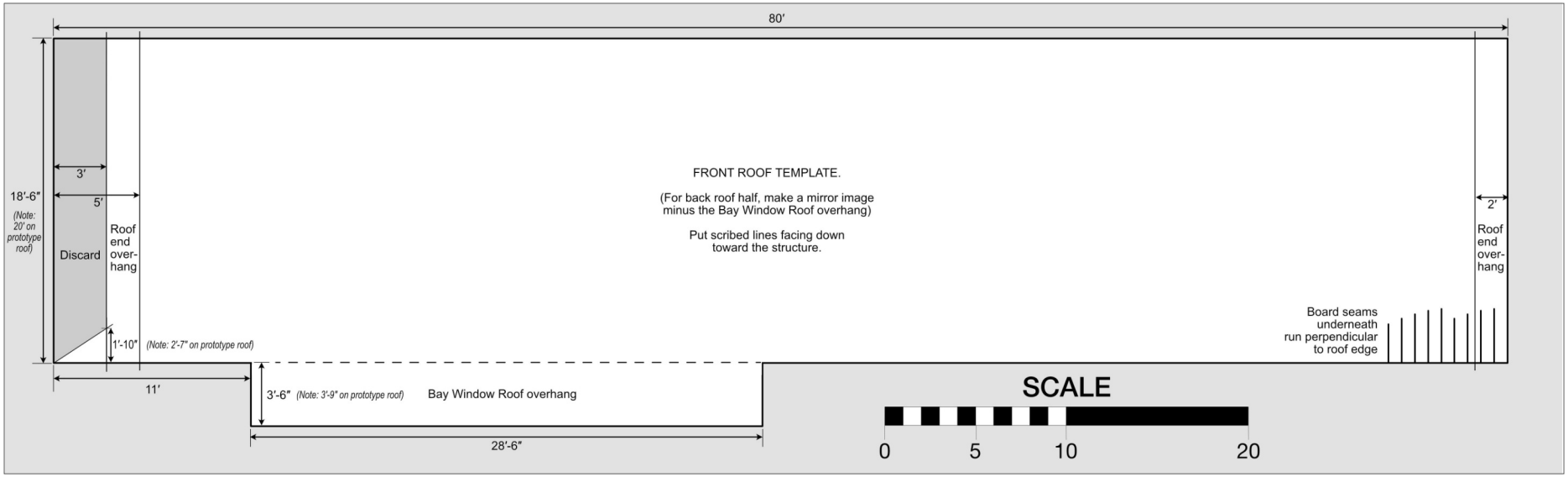
To simplify cutting the compound angles of the SP depot roof, the MRH staff drafted a dimensioned cutting template [19] based on the redrawn plans.

Main roof panels: Cut the roof base from 0.020″ plain styrene sheet (or 0.020″ V-groove styrene with 0.040″ spacing, grooves facing down. Run the underside board seams perpendicular to the long roof edge.) Notch the trackside roof panel to go out over the projecting operator's bay. See [19] for a cutting template.

Front roof panel: Use the template dimensions to cut the front roof piece, including perimeter eave overhangs, the angled hip-roof end cut, and the extension over the operator's bay.

Rear roof panel: Cut the rear roof piece as a mirror image of the front panel, but omit the bay-window projection to create a continuous, straight eave line.

Planking orientation: If using scribed V-groove styrene for the roof base, place the grooved side facing down and perpendicular to the long roof edge. This creates realistic tongue-and-groove planking visible under the eaves without separate under-eave laminations.



19. Dimensioned guide for the front roof half, showing eave overhangs, the operator's bay projection, and hip-end bevel cut. The rear roof panel is a direct mirror image without the bay projection. Also available in this month's bonus downloads as a PDF.

Internal bracing: To prevent the long styrene roof from sagging, add 4×12 styrene bracing inside the upper wall structure and beneath the roof ridge line. Also add more bracing strips inside until the entire roof is stiff and does not deflect.

Fitting the hip roof: The angled hip roof on the passenger end requires careful file-and-sand fitting.

1. Install scale 4×6 styrene trim along the front and rear eaves, extending past the end wall to create a supporting shelf.
2. Cut and fit a cardstock pattern for the hip roof piece until it seats cleanly against the end wall and adjoining roof slopes.
3. Use the cardstock pattern to cut the final styrene roof piece from 0.020" styrene used for the rest of the roof. Run any underside board seams perpendicular to the roof long edge.
4. Trim the extending edge fascia flush.

Please take time to rate the articles so we can bring you more great content!

All those who ordered the RLAD Loco book between the years 2016-2022 who have not yet been contacted by us for a mailing address verification, please contact us with that info at: office@mrhmag.com. Thank you!


J. Fugate

ON-SCREEN SCALING

If working from digital PDF plans on a monitor:

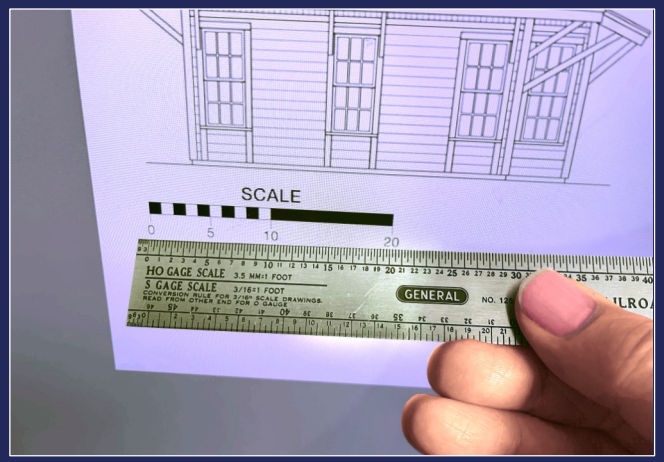
1. Open the plan file and locate the printed graphic 20-foot scale bar.

2. Hold your physical HO scale ruler against the screen over the scale bar.

3. Adjust your PDF viewer zoom percentage until the 0-to-20-foot span on your physical scale rule matches the on-screen graphic scale bar.

4. Once you've calibrated your scale rule, you can measure dimensions directly off your monitor screen.

Always recheck calibration after zooming or scrolling.



19a. Zoom the drawing on the screen until it matches your scale rule as shown. Then make any measurement from the drawing you need with your scale rule once you have set the proper zoom level. ■



20. Gluing the roof onto the station walls.



21. Adding the roof eave 4x6 trim to help support the end hip roof that's been cut to fit.

VIEW READER COMMENTS



22. Adding 4x6 underside roof rafters on the hip roof.

SHINGLES, SOFFITS, RAFTERS, AND BAGGAGE VENT

Trim Plastruct 1:100 asphalt shingle sheet material to fit the roof panels and cement in place. This embossed material gives an authentic shingle pattern without the tedious work of applying individual strips.

Ridge caps (*MRH* Staff recommendation): Cut narrow strips from the Plastruct asphalt shingle material, gently score them down the center, and fold them over the main ridge peak and angled hip seams to form realistic ridge caps.

Rafters and edge trim: Use scale 4×6 (0.046″ × 0.069″) strip styrene for the underside rafters and fascia trim. The heavy 4×6 profile keeps wide overhangs rigid and casts the deep shadow lines you see on the prototype.

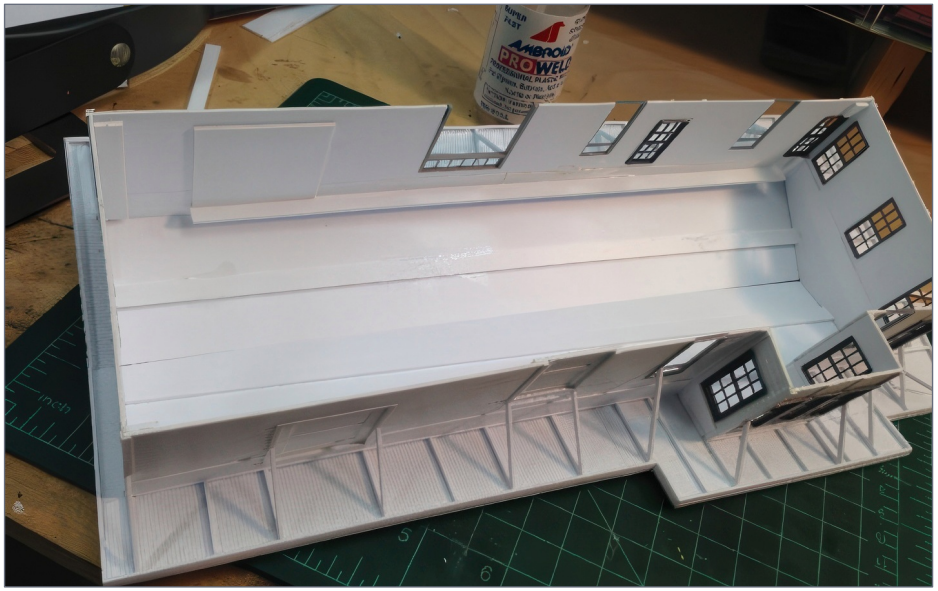
Knee braces: Step down to scale 2×6 (0.022″ × 0.066″; Evergreen #8206 or #123) strip styrene for the decorative knee-

brace brackets beneath the rafters. On full-size SP depots, these braces tie directly into the window and door casing trim below.

Interior Bracing: Add 4×12 styrene braces across the inside of the upper structure to keep the walls vertical and the roof rigid.



23. Adding the main roof rafters and the knee braces. Rather than 4x6 knee braces as shown, we recommend 2x6s to more closely match the prototype.



24. Roof finished with all the internal bracing, rafters, and knee braces added.



25. Plastruct asphalt shingle material added to the roof.

Get more articles like this
GIVE IT A LIKE

BAGGAGE-END GABLE VENT

Prototype photos of the Oakdale depot show various baggage-end vent configurations over the decades. Following the scale plans, I installed a single centered gable vent:

1. Mark the vertical center-line on the baggage end wall, drill a pilot hole, and file a neat square opening.
2. Fabricate an outer vent frame from 0.010″ styrene strip.
3. Cement a scrap piece of clapboard siding behind the opening with the louvers angled downward to represent the vent slats, then secure the assembly with liquid cement.

(Be careful when filing near door frames – I slipped during this step and damaged an adjacent door casting, forcing me to replace its window framing!)



26. Building the roof end vent.

PAINTING: BUILDER EXPERIENCE

I selected Tru-Color paints to match standard Southern Pacific depot colors: **SP Colonial Yellow** for the siding, **SP Brown** for exterior trim, and **SP Moss Green** for the roof.

The Colonial Yellow airbrushed smoothly over the styrene body, and looked fantastic.

The trouble started when I tried to brush-paint the SP Brown trim. Unlike water-based acrylics, Tru-Color paint is solvent-based. When I applied it with a brush over the dried yellow base, the solvent in the brown paint instantly reactivated the yellow undercoat, lifting and smearing it into a mess.

To recover, I switched to **Floquil DRGW Depot Brown,** an enamel that brushed smoothly over the yellow base without reactivating it. While technically a Rio Grande color, it matched the SP trim on my layout perfectly.

With the brown trim done, I followed prototype reference photos and painted the window sashes white. Using white paint, high-quality micro-detail brushes, and an OptiVISOR, I carefully hand-painted each muntin and frame of every 6/6 window sash.

Finally, I masked the depot walls and airbrushed the roof with **SP Moss Green,** which went on smoothly and needed only minor touch-ups around the hip-roof seams.

MRH STAFF RECOMMENDATION: VALLEJO ACRYLIC FINISHING WORKFLOW

To eliminate solvent-reactivation risks and to streamline painting multi-textured styrene structures, MRH staff recommend an all-acrylic workflow using Vallejo Model Air and Game Air colors.

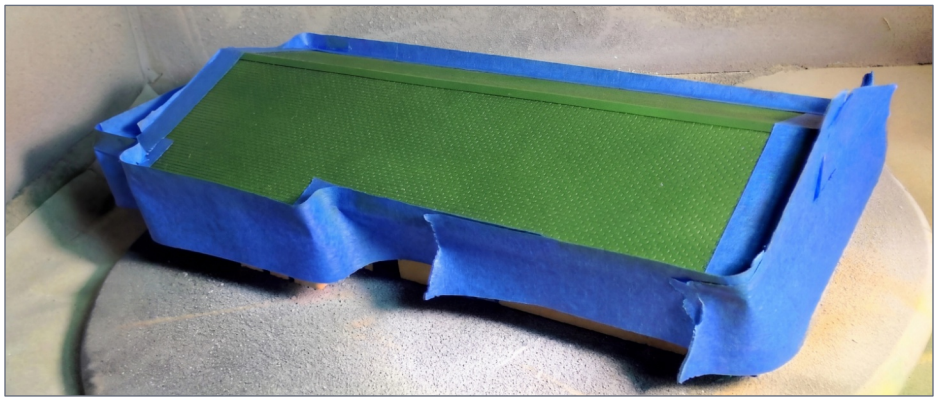
Undercoat pink base: Vallejo Surface Primer #70.600 White Primer mixed with 1 to 2 drops of Vallejo Model Air #71.102 Red RLM23.



27. Painting the station SP Colonial Yellow, ¾ front view.



28. Painting the station SP Colonial Yellow, ¾ rear view.



29. Masking and painting the station roof Moss Green.

This soft pink/salmon primer covers raw white styrene and liquid cement joints while providing the warm base needed for an opaque, rich yellow topcoat without a translucent greenish cast.

Main body siding (SP Colonial Yellow custom scale mix): 2 parts Vallejo Model Air #71.078 Yellow RLM04 mixed with 1 part Vallejo Model Air #71.029 Dark Earth.

This blend produces a muted, warm, ochre-tinted cream that works well under low indoor layout lighting.

Architectural Trim (SP Depot Trim Brown match): Vallejo Model Air #71.026 US Brown (or Vallejo Game Air #72.745 Charred Brown for deeper shadow contrast).

This provides a close match for classic chocolate SP No. 202 trim brown.

Shingle roof (Weathered Asphalt match): Vallejo Model Air #71.043 US Olive Drab, capturing the weathered olive-gray-green tone of aged SP asphalt shingles.

ALTERNATE CONSTRUCTION AND FINISHING PROCESS (MRH STAFF SEQUENCE)

To achieve crisp color separation and avoid tedious masking or risky hand-painted touch-ups on multi-textured siding, MRH staff recommends adjusting the construction sequence as follows.

Assemble the main structure walls and roof core, but hold-back the door and window castings and all exterior brown trim until after you've painted the primary yellow wall siding.

Complete the siding painting (Double-masking workflow):

- **Initial masking:** Before applying paint to the assembled walls, place your first strip of 1/16″ masking tape (such as Aizu micron tape) precisely along the trim locations on the bare styrene.

- **Pink primer application:** Airbrush the custom pink primer mix (Vallejo White Surface Primer #70.600 tinted with obe to two drops of Model Air Red RLM23 #71.102 and blended with 10% high-performance thinner).
- **First tape pull & primer cure:** Wait about five minutes until the wet sheen drops to a matte finish, then pull the tape immediately at a sharp 45-degree angle to clear the attachment track. Let the primer cure completely.
- **Re-masking the track:** Once the primer hardens, re-mask the exposed bare track with a fresh strip of 1/16″ tape.
- **First yellow coat:** Airbrush the scale-adjusted SP Colonial Yellow mix (two parts Model Air #71.078 Yellow RLM04 to one part #71.029 Dark Earth, leveled with the 10% high-performance thinner blend) in a light, even first pass. Let it flash for about five minutes.
- **Second yellow coat:** Apply a second opaque coat of the yellow mix.
- **Final tape pull & ready channels:** Wait about five minutes for the second coat to lose its wet gloss, then peel the tape away immediately at a sharp 45-degree angle while the paint remains soft. The paint releases effortlessly, leaving clean, bare white styrene channels running down your walls – slightly narrower than your 1×6 trim, and ready for a flawless solvent chemical weld.

Prepare the pre-painted trim:

- **Workbench preparation:** While the yellow walls cure, paint the trim components flat on your workbench.

Get more articles like this
GIVE IT A LIKE

- **Mounting small components:** Attach small trim components – the modified Grandt Line #5233 window castings, #5259 door casings, and strip details – to scrap cardstock using double-sided tape. Arrange them so their visible faces are exposed.
- **Airbrushing castings:** Airbrush the mounted castings and strip details with thin coats of Vallejo Model Air US Brown (#71.026).
- **Brush-painting detail pieces:** For larger or awkward pieces – like 1×6 aprons/casings, 2×6 knee braces, and 4×6 roof fascia boards – use a fine artist's brush.
- **Clean color separation:** Pre-painting these sub-assemblies on the bench guarantees sharp color separation without complex masking over the textured horizontal and vertical siding.

EXECUTE THE SOLVENT CHEMICAL WELD

- **Bare-styrene channels:** Once the yellow wall panels dry, the exposed white-styrene channels provide ready-to-weld tracks.
- **Positioning trim:** Place your pre-painted trim elements into the masked tracks.
- **Applying solvent cement:** Touch a fine brush containing liquid styrene cement to the joint edge. Capillary action will draw the solvent between the bare plastic faces, welding them together.
- **Protecting Finished Siding:** The width difference between the trim and channel protects the surrounding yellow siding from accidental solvent runs.

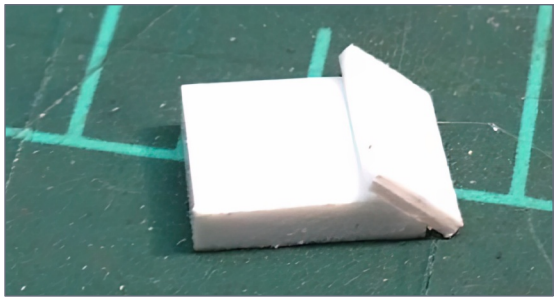
INSTALL THE PAINTED CASTINGS AND FINISH THE ROOF

- **Installing Castings:** With the brown trim and knee braces secured, cement the pre-painted Grandt Line window and door castings into their rough openings.

- **Airbrushing Shingle Sheets:** Before attaching the roof shingles, airbrush the raw shingle sheets flat on the bench with Vallejo Model Air US Olive Drab (#71.043).
- **Applying Shingles and Hip Caps:** Glue the pre-painted shingle strips and mitered hip-cap rows to the roof core.
- **Highlighting Texture:** Lightly dry-brush the raised shingle



30. Prototype Southern Pacific weathered waybill box.



31. Building a model of the waybill box from styrene.



32. The red-painted waybill box.

edges with a slightly lightened mix of US Olive Drab and a touch of light gray to bring out the gritty asphalt texture.

OPERATIONAL DETAILS: SIGNS, BILL BOX, AND SMOKESTACK

Authentic depot details breathe life into a station model:

Waybill box: Drawing from Tony Thompson's research on SP depot bill boxes, I scratchbuilt a miniature waybill box from styrene scraps, painted it bright red, and mounted it near the office door on the trackside wall for local freight crews.

Train bulletin board & REA sign: Prototype photos show black wooden bulletin boards with painted white grid lines and chalked train times, alongside Railway Express Agency (REA) diamond signs. I sized prototype images in photo-editing software, printed them on high-resolution paper, and mounted them to 0.010″ styrene backing cut cleanly with fresh X-Acto Z-blades.

Roof smokestack: For a modest central California depot, reference photos suggested a small metal stovepipe rather than a heavy brick chimney. I scratchbuilt a conical flashing collar from a small disc of .010″ styrene with a pie-wedge notch cut out, rolled it into a shallow cone, and cemented it around a styrene rod stack. I mounted the assembly through a hole drilled in the roof, painted it, and weathered it with dark powders for a realistic appearance.

Station name boards: Classic SP depot name boards feature chamfered corners. I drafted the Oakdale station name boards on the computer, printed them on heavy white paper, and cemented them to 0.010″ styrene backings with notched



33. I printed the station wall signs on an inkjet printer.



34. Printed Railway Express sign for the station. Get this image in this month's bonus downloads.



35. Train bulletin chalkboard photo. Get this image in this month's bonus downloads.



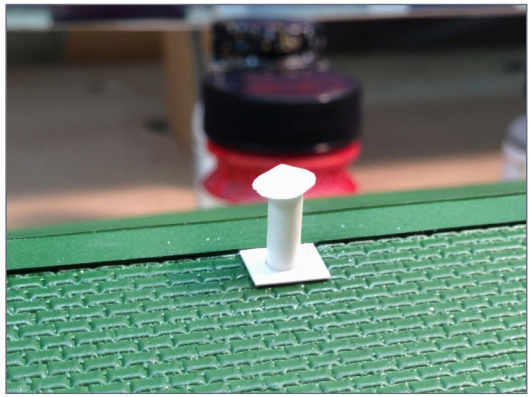
36. Closeup of waybill box, train bulletin chalkboard, and Railway Express sign on station front wall.



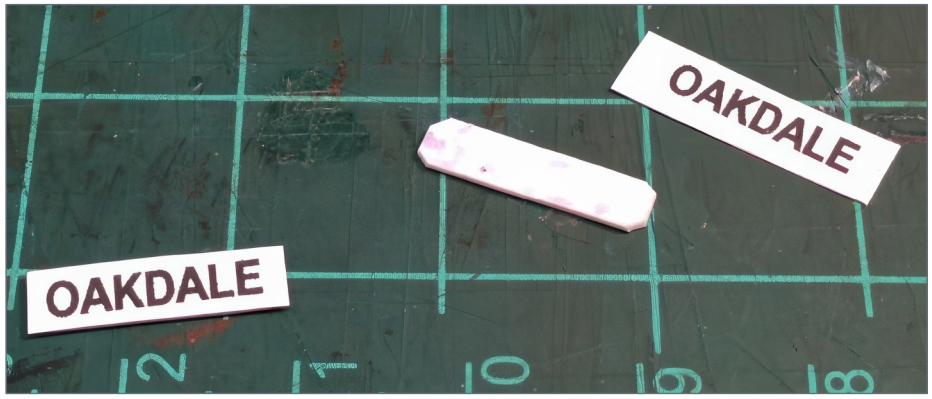
37. Front station wall with details added and trim painted brown, along with the white window muntins.



38. Cutting a styrene stove pipe stack.



39. Gluing the stack onto the station roof.



40. Oakdale sign from an inkjet printer, plus a styrene backing piece.



41. Gluing a strip of styrene on the hip roof in preparation for the station sign mounting.



42. Oakdale station sign mounted on the hip roof.

corners. A small styrene support bracket built on the hip roof holds the end-wall station sign.

DELIVERY AND LAYOUT OPERATION

I delivered the finished depot to Ed Petry's Sierra Railroad layout, where it became the centerpiece of the Oakdale scene, replacing the temporary Rico depot stand-in.

Today, Southern Pacific local freights switch packing houses, freight sidings, and interchange tracks right past the depot's bay window.

Scratchbuilding the SP Oakdale depot was a rewarding project that taught me about Southern Pacific Class 23 standard architecture and styrene fabrication. The project also marks



43. Thomas (left) delivering the finished station to Ed Petry.



44. Finished station in place on Ed Petry's Sierra Railroad layout.



45. Finished station, front passenger and office-end view.



46. Finished station, rear view.



47. Finished station, baggage-end view.

my first completed structure toward the six required for the NMRA AP Master Builder – Structures certificate. ☑

THOMAS GASIOR



Thomas Gasior lives in the western suburbs of Minneapolis, MN, with his wife Diana. He has worked as a locomotive engineer for Union Pacific for the past 23 years. His current layout, The Splitrock Mining Company, is an HO scale freelance prototype based on the many iron ore hauling railroads in northern Minnesota. He is a NMRA Master Model Railroader and has just completed a three-year term as president of the Twin Cities Division. ■

Get more articles like this
GIVE IT A LIKE

All those who ordered the RLAD Loco book between the years 2016-2022 who have not yet been contacted by us for a mailing address verification, please contact us with that info at: office@mrhmag.com. Thank you!

ADVERTISEMENT



Savvy Modeler Online

web

Get more articles like this
GIVE IT A LIKE



Turn out static grass tufts like crazy

If you've ever spent hours squeezing out glue dots for static grass tufts, this video is a forehead-slapping shortcut. Using a drilled plastic garage sale sign, the creator turns an all-evening chore into one swipe of glue.

VIEW READER COMMENTS

Even better, skip building the custom flock box by YouTuber **The Tabletop Spot**. Lay foil-backed parchment paper on a metal cookie sheet, secure it with magnets, and clip a standard static grass applicator's ground wire to the foil to make hundreds of peel-and-stick tufts in seconds. ☑

GREAT MODELER VIDEOS ON THE WORLD WIDE WEB

ADVERTISEMENT

Amherst Railway Society
presents

America's premier railroad-themed trade show

RAILROAD HOBBY SHOW

January 30 & 31, 2027
Eastern States Exposition
West Springfield, Massachusetts 01089
railroadhobbyshow.com



- operating model railroads
- railroad art & photography
- model railroad clinics
- tourist railroads
- manufacturers & dealers
- railroad books & videos
- family entertainment
- collectibles

amherstrail.org
Eastern States Exposition is the home of the BIG E Agricultural Fair

NOVEMBER NEWS column



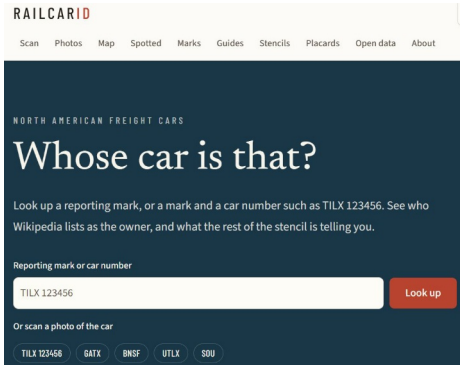
Model Railroad Hobbyist | November 2026

JEFF SHULTZ AND RICHARD BALE

REPORT THE LATEST HOBBY INDUSTRY NEWS ...

VIEW READER COMMENTS

NEW PRODUCTS FOR ALL SCALES

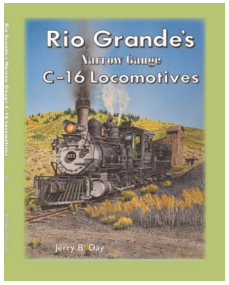


RailcarID is a free, no-ads site for freight-car identification. Type a reporting mark or car number to see the listed owner (from Wikipedia's mark list), plain-English notes on common stencils (CAPY, LD LMT, LT WT, built dates, consolidated stencil, AEI, tank-car specs), and credited links to public Wikimedia Commons photos of that exact car. Modelers can also log sightings (shown 24 hours later, place rounded to about 10 km) and leave notes on car and mark pages. No live locations and no equipment-register data. Feedback and corrections welcome at hello@railcarid.com. Info: railcarid.com

---

Available for preorder from **White River Productions** is Rio Grande's Narrow Gauge C-16 Locomotive by Jerry B. Day. The

THE LATEST MODEL RAILROAD PRODUCTS, NEWS & EVENTS



complete history of the D&RGW's C-16-class 2-8-0 locomotives, it tells the story of 85 locomotives built by Baldwin and Grant between 1881 and 1882. The largest class of locomotives on the Rio Grande, several still exist in preservation. The book contains historical photographs and over 200 pages of information and foldout drawings of three surviving locomotives. 8.5 x 11 hardcover, TBD pages. $80.00 with free U.S. shipping if ordered by December 31, 2026.
Info: shop.whiteriverproductions.com

CLUB CARS



Cincinnati Division 7, NMRA Mid-Central Region has announced "Railroads of Cincinnati Division 7" featuring limited edition freight cars showcasing members freelance railroads. The first is a 50′ insulated, riveted steel boxcar with plug door (Accurail 5100 series) decorated for John Miller's Kanawha & Lake Erie RR. Two road numbers, 5224 and 5359, are available and the cars have a build date of July 1958. Price: $28.00.
Info: division7mid-centralregionnmra.godaddysites.com/car-projects

---

O SCALE PRODUCT NEWS



Atlas has released its Fall 2026 Locomotive and Rolling Stock catalog Vol. 1. **The preorder deadline for products in the catalog is**

November 18, 2026 with an estimated arrival of 4th Quarter 2027. The catalog can be viewed or downloaded in PDF format from download.atlasrr.com/1026MCPDF/Fall2026CZMSRPOnly1.pdf



Announced in the catalog is the Master O EMD F7 locomotive with both A & B units. Roadnames in this run are D&RGW (A&B), Lehigh Valley (A&B), Norfolk & Western (A), Northern Pacific (A&B), and Rock Island (A&B). MSRP: 3-Rail Analog $379.95, 3-Rail unpowered $259.95, 3-Rail DCS w/Proto-Sound 3.0: $579.95, 2-Rail Analog: $379.95, 2-Rail unpowered: $259.95, 2-Rail DCS w/ Proto-Sound 3.0: $579.95.



Available only in 3-Rail is the Premier O EMD E8 locomotive with both powered A & unpowered B units. Roadnames offered are Amtrak Phase II (A&B), Burlington (A), and Wabash (A). MSRP: 3-Rail DCS w/Proto-Sound 3.0 A-unit: $629.95, 3-Rail unpowered B-unit: $329.95.

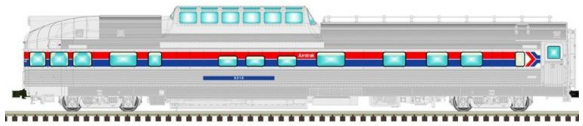


Returning after 10 years, the O scale California Zephyr (CZ) passenger cars are part of the Fall 2026 announcement. Available for preorder is the 10-6 Sleeper in Unlettered, CZ PRR "Silver Rapids," Pennsylvania "Silver Rapids;" and CZ WP "Silver Palisade." MSRP is (3-Rail) $169.95, (2-Rail) $174.95.

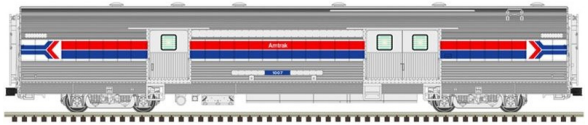


The Dome Chair Car will be available in Unlettered, CZ CB&Q "Silver Lariat," CZ WP "Silver Schooner," Cape Cod Central "Cape View," Conway Scenic "Rhonda Lee," Rail Dome Corp "Silver Garden," Southern Pacific

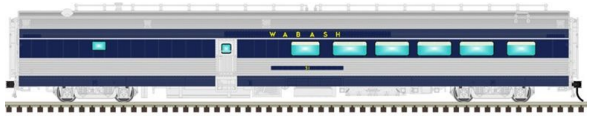
"Silver Lariat," Cuyahoga Valley Scenic "Silver Bronco," Pan Am "Bluebird," Wabash "Bluebird 201," and Wabash "Bluebird 202" with an MSRP of (3-Rail) $169.95, (2-Rail) $174.95.



The Dome Observation Car will be available as Unlettered, Amtrak "1977 Transcontinental Steam Excursion," CZ "Silver Solarium," Delaware Otsego System "Great Sacandaga," and BNSF "Prairie View" with an MSRP of (3-Rail) $189.95, (2-Rail) 194.95.



Four car sets have been introduced with three Amtrak California Zephyr sets. Set A includes a Baggage Car and three Dome Chair Coaches. Set B includes a Dome-Buffet-Lounge, Diner, and two 16 Section Sleepers. Set C includes two 10-6 Sleepers, a 6-5 Sleeper, and a Dome-Buffet-Lounge-Observation. Three 1950s era California Zephyr four car sets include the same combination of cars.



The Rio Grande 4-Car Base Set includes a Dome Chair Coach, a Dome Chair Coach with Conductor's Window, a 16 Section Sleeper (coach conversion), and a Dome-Buffet-Lounge-Observation. The Rio Grande 4-Car Add-On Set includes a Diner, Dome Chair Coach with Conductor's Window, Dome-Buffet-Lounge, and a 16 Section Sleeper (coach conversion). The Wabash Blue Bird 4-Car Set includes a Baggage car, Diner, Dome Chair Coach, and Dome-Buffet-Lounge-Observation car. MSRP for the 4-car sets is 3-Rail $674.95 2-Rail $694.95 except California Zephyr Set C, Rio Grande Zephyr Base Set, and Wabash Blue Bird Set: $714.95.
Info: shop.atlasrr.com

Lionel has published its October 2026 Digital Catalog. It can be viewed at catalogs.lionel.com/2026/OD



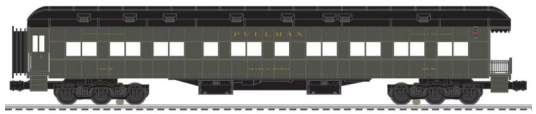
In O scale, Lionel has announced Legacy SD70M locomotives in both powered and non-powered versions. Locomotives available for preorder include several in the 40xx number series, UP #1776, UP #1616 (Abraham Lincoln), UP #1979 (ONE), and Susquehanna #4050 and 4052. MSRP: Powered $849.99 Non-Powered $499.99.



Also available for preorder is Norfolk Southern Legacy SD70ACe #1776 "Liberty Bell." MSRP: Powered $849.99 Non-Powered $499.99.



As part of the celebration of the 2026 UP #4014 Big Boy tour, Lionel is releasing two Union Pacific Big Boy '26 Excursion 21" 4-pack passenger car sets. Set A includes the Baggage Car #6334 "Art Lockman," Baggage Car UPP #5714 "Lynn Norstrom," Coach "Willie James," and Dome Coach #7015 "Challenger." MSRP for Set A is $999.99. Set B includes UPP #5752 "Promontory," Vista Diner Car UPP #5011 "City of Denver," and Dome/Lounge #9005 "Walter Dean." MSRP for Set B is $1,199.99. The full 8-car set plus UP#1776 is available for $2899.99.



The Norfolk Southern Big Boy '26 Excursion 4-pack includes a coach, a superdome car, and two heavyweight 18" cars, including the Marco Polo Observation car, which will be available separately. MSRP for the 4-pack is $949.99 and $249.99 for the single Marco Polo.

Info: www.lionel.com

S SCALE PRODUCT NEWS

Lionel has published its October 2026 Digital Catalog. It can be viewed at catalogs.lionel.com/2026/OD



In S/American Flyer gauge, Lionel is taking preorders for Legacy GE ES44 locomotives in both powered and non-powered versions. Not all models appear to be available in both versions. Models available for preorder are America250 Canadian National #1776 and #2026, BNSF #1776, #2026, and #250 (non-pwd only), Norfolk Southern #8096, #8118, #8143, and Union Pacific #4547 (Donald Trump Legacy). Also announced were Norfolk Southern Landmark Series #8183 (Chicago) and #8184 (Altoona). MSRP: Powered $799.99 Non-Powered $449.99.



Also in S/American Flyer Gauge are Legacy SD70ACe locomotives in powered and non-powered versions. Models available for preorder are Norfolk Southern America250 locomotives #1776, #2026, #250, NS Landmark Series #1230 (Birmingham) and #1231(Atlanta), and Delaware & Hudson #1080. MSRP: Powered $749.99 Non-Powered $449.99.
Info: www.lionelstore.com



ScaleTrains S-Helper Service has announced the first run of the S scale Pullman-Standard 2003 cu. ft. covered hopper as a ScaleTrains product. The model was last produced by MTH in 2015. The plastic model includes etched metal roofwalks and factory-applied metal grab irons. Road names for the release are Central of Georgia, Chicago & NorthWestern (3 schemes), Clinchfield (2 schemes), Monon (2 schemes), Northern Pacific, and Seaboard Coast Line.

Preorder guarantee date is December 7, 2026 with an estimated arrival date of June 2027. Preorder price: $59.99.
Info: scaletrains.com

HO SCALE PRODUCT NEWS



Accurail has announced a 3-car set of 41′ steel gondolas decorated for Monon, Milwaukee Road, and Illinois Central. The models feature BLT or NEW dates between 1948 and 1957, with the Illinois Central gondola marked “CEN 5-68” – apparently a date of lubrication for the center plate. MSRP: Set $67.98, Single $22.98.



A 3-car set of Great Northern Canton Coal Hoppers was also announced. 2-bay hoppers with a capacity of 1622 cu. ft., the 29′10″ cars feature built dates from 1929 and 1930 and three different Great Northern logos. MSRP: Set $64.98 Single $21.98.



The final announcement is for a Potash Corporation 3-Bay ACF Covered Hopper. The car is marked as being 5161 cu. ft. in size, and the illustration appears to show a built date in the 1990s. MSRP: $23.98.

All cars in this announcement are scheduled for production in January/February 2027. They feature Accumate couplers and Accurail trucks with Delrin wheelsets.
Info: accurailinc.com

From **Micro-Trains** by Atlas in the HO scale Grit N’ Grime line are two Accurail 3-Bay Covered Hopper Kits. One is decorated for



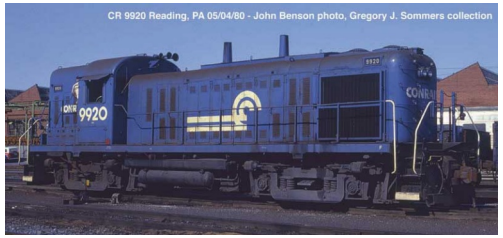
Conrail, but the weathering is letting its Pennsylvania RR history show through. The second is a former Family Lines car that has been patched for CSX. MSRP: $49.95.
Info: shop.atlasrr.com



Now available from **Bachmann** in HO scale is an Ore Car featuring blackened RP25 metal wheels with non-magnetic brass axles with needlepoint bearings. Road names include CP Rail, Pennsylvania (two schemes), Union Pacific (two schemes), and Western Pacific. MSRP: $43.00.
Info: shop.bachmanntrains.com



Bowser hcontinues to expand its "Real Loads" line, with the Athearn 5-bay hopper, Rapido Autoflood 3 hopper, and Rapido Pressed Steel drop-bottom gondola added to the Real Coal line, the Bowser Stewart 55-ton hopper and Walthers Difco dump car added to the Real Ballast line, and the Walthers Ore Car, Athearn Roundhouse 24′ Ore Car, and Bachmann Ore Car added to the Real Ore line. All Real Loads are 2-packs, and cars are not included. MSRP: $19.95.



The DeWitt RS3M, Junita RS3M, and Juniata Hammerhead RS3M locomotives have received a Second Chance Order Announcement from Bowser. Production of these

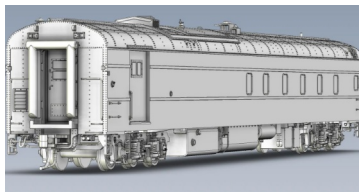
models is contingent on their receiving enough preorders for them. These were Alco RS3s that were rebuilt with EMD 567B prime movers and other components from surplus EMD E-units. MSRP: DC: $239.95, ESU LokSound/DCC: $339.95.
Info: bowser-trains.com



Broadway Limited is expanding its collection of Union Pacific business cars with the addition of the UPP #103 "Cheyenne." BLI is offering eight versions of the Cheyene, with the UP shield, New Mexico and Arizona Centennial appearances, the 2010, 2011, 2014, and 2016 Cheyenne Frontier Days appearances, and primer gray with black trucks. The model includes BLI's touch control lighting. **The order deadline for the Cheyenne is December 17, 2026** for a Spring 2027 delivery. MSRP: $129.99.



A new run of UPP #101 "Lincoln" has been scheduled. Two versions of the car will be produced in this run, the East Coast Tour of the #4014's cross-country journey with the UP shield on the rear and the West Coast Tour version with a lighted drumhead. Each car includes the correct America250 logo. Like the Cheyenne, **the order deadline is December 17, 2026** with a Spring 2027 delivery. MSRP: $129.99.



Also announced is the "Howard Fogg" Boiler Car, UPP #209. This model will be produced in six schemes – 1997-2004 with one 2-axle truck, 2010-2019, 2021-2026, Modern Big Boy Tour/America250, a fantasy two-tone gray, and primer gray. Each scheme will be available with or without sound. **Order deadline is April 8, 2027** with an

estimated delivery of Fall 2027. MSRP: No-Sound: $119.99, Sound: $149.99.



A new stock car based on a C&O prototype is part of the Spring 2027 schedule, complete with sound. Each road name is available with **either** cattle or hog sounds – not both in the same car. Road names are ATSF, C&O, Great Northern, Missouri Pacific, Norfolk & Western, Northern Pacific, Southern Pacific, and Union Pacific. An undecorated car painted oxide red is also available in each sound scheme. BLI also has novelty sound schemes available, with horse sounds in a car decorated for the Acme Glue Factory, an Independence Day themed car with patriotic music, spooky sounds in a Halloween themed car, Holiday sounds in a Merry Christmas car, and Reindeer sounds in a Happy Holidays car. A 4-pack of no-sound cars is available for each road name including Acme Glue, and the four holiday cars make up their own no-sound 4-pack. **The order deadline for the stock cars is January 14, 2027.** MSRP: Single Sound: $79.99, No-Sound 4-Pack: $149.99.
Info: broadway-limited.com



ClassOneModelWorks has announced the second run of its GP40 line of HO scale locomotives. This run features the modeler's choice of SoundTraxx Tsunami2 or ESU LokSound 5 decoders, both of which will drive the Tru-Fans on the model. Road names in the new run are BNSF, Chessie System (B&O), Chicago Burlington & Quincy, CSX, Denver & Rio Grande Western (2 schemes), Louisville & Nashville, Missouri-Kansas-Texas (2 schemes), Rock Island, Santa Fe, Seaboard Coast Line, Southern Pacific, Union Pacific, and ClassOneModelWorks 1776 Semiquincentennial house unit. Some road names are available in 2, 3 or 6-packs. Preorder price: $424.99, 6-pack bundle:

$2,549.94, 3-pack bundle: $1,274.97, 2-pack bundle: $849.98.
Info: classonemodelworks.com



Common Standard Scale Models has released an HO scale Southern Pacific GP38-2 Snow Fighter Detail Kit. An unpainted kit, it is designed to detail an Athearn Genesis GP38-2. Parts included in the kit are windshield screen, 2x frost breakers, 2x snow shields, icicle breakers (up and down position), icicle breaker bracket, 2x spare knuckle coupler boxes, horn heater, icicle breaker drilling template.
Price: $20.00
Info: www.commonstandardscalemodels.com



Kadee's October 2026 car is a 40′ Chesapeake & Ohio PS-1 boxcar in a factory new scheme with a BLT date of December 1950. The car features an 8′ Youngstown sliding door and roofwalk with high-mounted brake wheel. Reporting marks are C&O 16249. MSRP: $45.99.



Also recently announced is the 2026 Kadee Christmas Car. The PS-1 boxcar, equipped with 9′6″ Superior 6-panel doors, is decorated on one side with Dogs Rule (Cats Drool) and the opposite side with Cats Rule (Dogs Drool). The car is equipped with a high mounted brake wheel but no roofwalk – there is a red ribbon painted down the roof with a bow in the middle. Listed as out of stock, check with a dealer. MSRP: $49.99.
Info: www.kadee.com



Moloco has released models of 50′ combo and double slider door boxcars built by the Great Northern Shops in St. Cloud, MN. With road number specific details the cars also include Kadee scale whisker couplers and 50-ton trucks with metal wheels. Multiple Great Northern and Burlington Northern paint schemes are offered as well as two undecorated kits. Price: RTR $74.99 Undecorated Kit: $57.99.
Info: www.molocotrains.com



North American Railcar Corporation/ PWRS has announced the second run of their HO scale 5431 cu. ft. 3-bay covered hopper. Built by National Steel Car, the car is built to modern weight standards, with continuous trough hatches for loading and 30″ x 30″ gravity outlets for unloading. The road names in this release are BNSF, First Union Rail (FURX), G3 (GACX), Ontario Northland (ONT), Enkay Leasing Canada (NKLX), Canadian Pacific (CP), Union Pacific (CMO), and Utah Central Railway (UCRY). The models will include Kadee #58 semi-scale couplers, Barber S-2-E 100-ton trucks, and semi-scale 36″ wheels. Multiple road numbers are available for each road name. Models are expected to arrive in April 2027. MSRP: $57.98.
Info: www.pwrs.ca



Rapido Trains his taking preorders for HO scale B23-7, B30-7, B30-7A, cabless B30-7A, and B36-7 locomotives. Based on the Phase III version of the 4-axle Dash-7 locomotives, the models have truck centers

of 36′-8″ and an overall length of 61′2″ and FB-2 or AAR Type B trucks as appropriate. Road names for the low hood B23-7 are ATSF, Ferrosur, and Ferromex. High hood B23-7 road names are Norfolk Southern and Lhoist North America. The B30-7 will be available for C&O/Chessie, CSX, and Minnesota Commercial. B30-7A locomotives with a cab will be available for Missouri Pacific. The cabless B30-7A will be available in three body styles for Burlington Northern. Finally, the Minnesota Commercial "America 250" B36-7 is also part of this announcement. **Order deadline for the B-boats is January 15, 2027.** MSRP: DC/ Silent - US$259.95, DC/DCC/Sound - $369.95.



Also announced is the SW10 switch engine. A Union Pacific kitbash project, 75 SW10s were created out of SW7, SW9, and TR5A switch engines, incorporating new 645 power assemblies, new cabling and wiring, and two 36″ cooling fans from retired GP9s. Along with a new sandbox on the nose, the cab was updated to then-current FRA standards, including a refrigerator and an AAR control stand. Retired SW10s were sold to Canadian Pacific, Ferromex, and others. One unit, UP #96, is the shop switcher at the Oregon Rail Heritage Center, home of the SP Daylight #4449 and SP&S #700. The SW10 will be available decorated for UP, Canadian Pacific, Ferromex, and NREX (blue and ex-CP red), and several industrial color schemes – red, yellow, blue, and an orange, yellow, and black scheme that looks suspiciously appropriate for a Genesse & Wyoming-owned shortline. An order deadline has not been announced yet. MSRP: DC/Silent -US$249.95, DC/DCC/Sound - US$359.95.

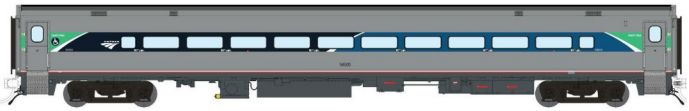


A conditional announcement has been made for the SW1200RSm "Sweep" locomotive. In their own kitbash project, Canadian National combined SW1200RS frames and cabs with the hoods from retired GP9s. The 567C prime movers were likewise upgraded with 645C

power assemblies and GP9 radiators, increasing the locomotive's power from 1200HP to 1300HP. Numerous safety and crew comfort improvements were made to the cab. Road names offered are Canadian National, CANAC, and Savage Rail Services, which operates them in leasing service. Like the SW10, four industrial color schemes are being offered: red, yellow/black, blue, and orange/yellow. **The conditional order deadline is December 15, 2026.** MSRP: DC/Silent - US$249.95, DC/DCC/Sound - US$359.95.



HO scale EMC FT A & B locomotives has also been announced. Featuring road name specific detail variations, road names announced for the FTs are ATSF (A&B, B), Atlantic Coast Line (A&B), Baltimore & Ohio (A&B), Rock Island (A&B, two schemes), D&RGW, EMC Demo (A&B), Erie Railroad (A&B), Lehigh Valley (A&B), New York Central (A&B), Seaboard Air Line (A&B), Southern Railway (A&B), and Western Pacific (A&B). MSRP: DC Silent: A & B Set US$459.95, B only US$219.95; DC/DCC/Sound: A & B Set US$679.95, B only US$329.95. **Order deadline is January 15, 2027.**



Also with an order **deadline of January 15, 2027** is a new run of HO scale Horizon passenger coaches and ADA coaches in Amtrak's Phase VII paint scheme, which are currently in use on Amtrak's Downeaster service in Maine. MSRP US$ 129.95.



A long-awaited run of Canadian National Railway Class H-6-d and H-6-g 4-6-0 steam locomotives is available for preorder. Featuring many road number specific features, the ten-wheelers represent a general-purpose locomotive suitable for light freight or passenger service.

Variations being offered include coal tenders with two bunker heights, oil tenders, steel or wood cabs, manual or power reversers, different bell locations, two different headlights, and vertical or horizontal slat pilots. 20 different models are being offered in Canadian National, Ohio Central, New Hope & Ivyland, and painted but unlettered versions. The tender is also offered separately and can be made into both coal versions and the oil tender. **Order deadline is February 16, 2027.** MSRP: DC Silent US$499.95, DC/DCC/Sound US$599.95, Tender US$109.95.



Rapido has added optional working fans on its upcoming SD70MAC/SD70MACe/SD70MACH model in HO scale. The fans start up and shut down in sequence, based on the simulated cooling needs of the locomotive prime mover. They will activate with engine start (F8), and there are options to disable automatic operation and control the fan speeds manually. The DC/DCC/Sound/Fans models are a separate item number from the DC/DCC/Sound and DC versions of the locomotive. Modelers who have already pre-ordered the SD70MAC from Rapido can upgrade their order to the fan-equipped version by submitting the form at form.jotform.com/RTJotform/SD70MAC. Roadnames available for preorder are Alaska Railroad, Burlington Northern, BNSF (multiple schemes), Colorado Pacific Railroad, CSX (multiple schemes), KCS, and Metra (multiple schemes).



Rapido is also joining with **HomeShops** to produce freelance road versions of the SD70MAC/SD70MACe/SD70MACH locomotive, which will also be available in DC, DC/DCC/Sound, and DC/DCC/Sound/Fans versions. Road names include Virginian & Ohio, Texas & Great Northern (multiple schemes), and Georgia Road (multiple schemes).



HobbyTyme Distributors is offering the SD70MAC in an exclusive Red River Valley & Western paint scheme through its dealers. Find a dealer at www.hobbytyme.com/dealer-locator.cfm

MSRP: DC/Silent - US$249.95, DC/DCC/Sound - US$359.95, and DC/DCC/Sound/Fans - US$419.95.

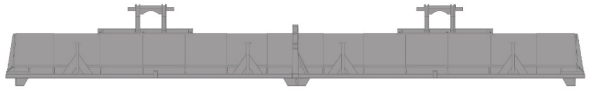


Spring Creek Model Trains will be offering an exclusive version of the Rio Grande Ski Train cars, decorated in a late scheme with a later logo with the car name under it and "The Ski Train" on the plaque under the windows. 3-packs with a Coach, Snack Coach, and Club car will be available in two different road number sets and all three car types will be available as single cars as well. See www.springcreekmodeltrains.com/product-category/spring-creek-exclusives/in-stock-exclusives-spring-creek-exclusives for prices and more information.
Info: www.rapidotrains.com
All artwork and graphics are courtesy of Rapido Trains



ScaleTrains has announced several new releases for Trainfest 2026. In the Fox Valley Models line is a former ExactRail Evolution model, the Thrall 52′6″ 2743 gondola. Some of the models include gondola covers. Roadnames in this release are CIT Group/CEFX (ex-Co-Steel), CIT Group/CEFX (ex-DJJX), Coe Rail (Gondola Connection), CSX, Gateway Western, US Ecology Idaho/CHUX, Wheeling & Lake Erie (as delivered), and Wheeling & Lake Erie (ex-CEFX). **Preorders are due December 7, 2026**

for an estimated March 2027 delivery. Without cover preorder price: $39.99, with cover preorder price: $44.99.



Undecorated covers for the gondolas are available separately. Cover types are CSI Fiberglass, 2-Piece Steel Low Peak – 6 Post Lift Basket, 2-Piece Steel Low Peak – 8 Post Lift Basket, and 2-Piece Steel Barrel. Preorder price: $10.99



The next announcement is the first run of the Fox Valley Models Pullman-Standard Southern Pacific Daylight cars, including the articulated chair cars, articulated diner, chair car, chair-baggage, tavern, parlor, and parlor observation. **Preorders are due by December 7, 2026,** for an estimated arrival of August 2027. Preorder price for the Chair-Baggage, P-S 79′ Chair, P-S 79′ Tavern, P-S 79′ Parlor, and P-S 79′ Parlor Observation cars is $99.00. Preorder price for the P-S 2-car Articulated Chair Car, 2-car Articulated Chair Car w/antenna, and P-S 3-car Articulated Diner is $189.99.



To go with the Daylight Passenger cars is the first run of the Fox Valley Models HO scale GS-4 and GS-6 4-8-4 Northern steam locomotives. The locomotives feature a die-cast boiler, LED lighting, a synchronized puffing smoke unit and steaming whistle (DCC only), and prototype specific and class specific details, such as thinner main driving rods on the GS-6 locomotives. Paint schemes for the GS-4 include American Freedom Train, BNSF/Employee Special, Daylight – as delivered, Daylight – large lettering, and Southern Pacific – Excursion. GS-6 paint schemes are Non-skirted/As-preserved and Large Herald/Experimental Scheme. **Preorders are due December 7, 2026,** for an estimated August 2027 delivery. Preorder price: Non-Sound/DC: $484.99, Sound/DCC: $599.99.



A new run of the Rivet Counter HO scale GE ES44 GEVO locomotive includes six road names and 13 paint schemes. Roadnames are BNSF, Canadian Pacific (2 schemes), Iowa Interstate (3 schemes), Kansas City Southern de Mexico (2 schemes), Norfolk Southern, and Union Pacific (3 schemes). **Preorders are due December 7, 2026,** with an estimated arrival of July 2027. Preorder prices: Non-Sound/DC: $224.99, Sound/DCC: $339.99.



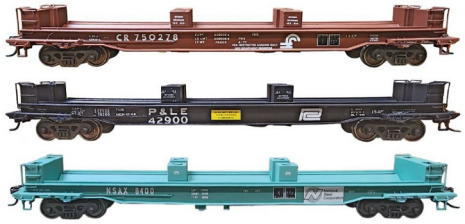
The final HO scale locomotive announcement is a run of the Rivet Counter EMD SD45T-2 locomotives. Roadnames in this release are Bessemer & Lake Erie (3 schemes), CIT Group/CEFX (2 schemes), Duluth Missabe & Iron Range (2 schemes), Kansas City Southern (two schemes), National Railway Equipment (2 schemes), and Southern Pacific (three schemes). **Preorders are due December 7, 2026,** with delivery in summer 2027. Preorder prices: Non-Sound/DC: $224.99 Sound/DCC: $339.99.



A new run of Rivet Counter HO scale Thrall 86′ high-cube quad-door boxcars has been scheduled for next summer. Road names in this release are Burlington Northern (2 schemes), Canadian National (3 schemes), Chicago & Northwestern, Illinois Central Gulf (2 schemes), Norfolk & Western, Penn Central (2 schemes), and Southern (2 schemes). **Preorder guarantee date is December 7, 2026.** Preorder price: $54.99.Info: scaletrains.com

---

State Tool & Die has released an undecorated kit of a 122F Hot Coil Car in HO scale. Including trucks, metal wheels, and Kadee #158 couplers, the car comes in two body styles: Conrail/PL&E and National Steel. The kit also includes the decals for the



requested road name. Price for the kit is $65.00.
Info: www.statetoolanddie.com



Tangent Scale Models has released its third run of the Thrall 5880 cu. ft. 60′ double plug door boxcar in HO scale. Originally produced in 1969, the cars remained in service into the 2000s. ATSF “Delivery 6-1969” features 8 numbers and ATSF “Delivery 1969 in the 1981+ era” shows how the markings on the original cars were updated with a run of two road numbers. Norfolk and Western “Claytor Repaint 1986/1987” shows these cars in the middle of their lives, with six different numbers available. Norfolk Southern “NW Claytor Paintout 1998+” replicates a specific NS patchout paint scheme on a single car. Southern Pacific “Delivery 6-1969” closes out the decorated cars in this run with eight numbers available, all from the Ford Parts Distribution pool. Two undecorated kits, one with Freightmaster End-Of-Car Cushioning and the other with Keystone End-Of-Car cushioning, are also available. Price: RTR $59.95, Undecorated Kits: $54.95.
Info: www.tangentscalemodels.com



Tichy Train Group has combined kits 4010, 4022, 4023, and 4040 into a single offering as kit 6100, the Wreck Train Set. Kit 4010 is the wrecking crane, 4020 is the boom car, 4023 is the wheel car, and 4040 is a low side gondola. All kits are injection molded styrene. Trucks and wheelsets are included; the modeler provides their own couplers. The barrels in the low side

gondola are not included. Price: $75.00.
Info: tichytraingroup.com



Walthers has announced a second round of America250 locomotive announcements. With **a preorder deadline of December 15, 2026** and an estimated arrival of Summer 2027, the WalthersMainline HO scale GE ES44AC GEVO Tier 3 locomotive can be preordered decorated as BNSF #250, #1776, #2026, Florida East Coast #250, and Iowa Interstate #510. MSRP: Standard DC: $189.98 ESU LokSound DCC: $259.98.



WalthersMainline SD70ACe and SD70M locomotives are scheduled to arrive Winter 2028, with **a preorder deadline of April 15, 2027.** Locomotives in this release are Norfolk Southern "The Bell" #1776, "Lady Liberty" #2026, "The Freedom" #250, and Union Pacific #1776. MSRP: Standard DC: $194.98 ESU LokSound DCC: $264.98.



Finally, another run of WalthersMainline HO GE ES44AC GEVO Tier 3 locomotive models is scheduled to arrive Summer of 2028 with **a preorder deadline of September 15, 2027.** This run includes Norfolk Southern's "The Soaring" #8096, "The Stars & Stripes" #8118, and "The Patriot" #8143. MSRP: Standard DC: $189.98 ESU LokSound DCC: $259.98.
Info: www.walthers.com

N SCALE PRODUCT NEWS



Micro-Trains by Atlas has released several new N scale weathered Grit N' Grime series products. The first is an OTTX 60' flatcar with a wood deck. The prototype Thrall-built TSH60A-class cars were built in April 1974. It is available in two road numbers. MSRP: $35.95.



A 2-pack of ex-SOO Line boxcars patched for I&M Rail Link are also in the Grit N' Grime series. 2-pack MSRP: $59.95.



A Grit N' Grime N scale 50' Railbox Class XCF11A boxcar was built in 1978 by Pacific Car & Foundry. It is patched for Missouri Pacific. MSRP: $30.95.



A 50' plug door rib side boxcar decorated for Norfolk Southern is also in the Grit N' Grime Series. It features cushioned draft gear. MSRP: $29.95.



Two N scale Evans 3-bay covered hoppers are available separately in the Grit N Grime Series. One is a former Comet Rice car patched to East Erie Commercial, a General Electric company, and the other is a former UELX ADM car now patched for AOKX, a Greenbrier Management leasing reporting mark. MSRP: $35.95 each.



Two JTTX 89' flatcars are available separately, each with a wind turbine tower segment load. MSRP: $47.95 each.

Preorders end November 15, 2026 for the following announcements. These models are not in the Grit N' Grime series.



A 2-pack of N-scale 65′ 70-ton mill gondolas are decorated for Lone Star Steel and come with pipe loads. MSRP: $69.95.



A 4-pack of N scale 40′ steel ice reefers with Santa Fe SFRD reporting marks and the "Ship and Travel Santa Fe – *all the way*" paint scheme are equipped with Preco fans. MSRP: $129.95.

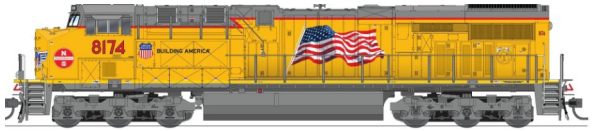


Finally, a 3-pack of Chessie "Safety Program" bay window cabooses in brown, blue and green. MSRP: $129.95.
Info: shop.atlasrr.com



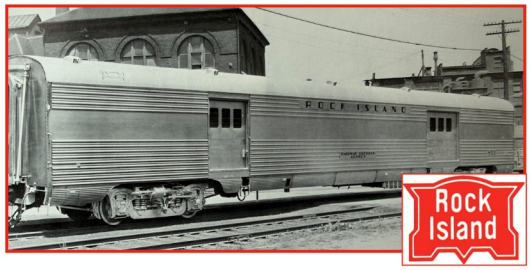
Bowser continues to expand its "Real Loads" line, with the N scale Bachmann Ore Hopper, Broadway Limited H2a Hopper, and Rapido Auto Flood III added to the Real Coal line. Available in 2-packs, MSRP for the Real Coal loads is $12.95. Cars are not included.

Info: bowser-trains.com



Broadway Limited is taking preorders for a new run of N scale GE ES44AC locomotives. Road names and paint schemes for this run are Norfolk Southern Landmark's #8184 "Altoona" and #8183 "Chicago," NS America250 #8118 "The Stars & Stripes," BNSF #250, #1776, and #2026; Canadian National #1776 "Screaming Eagle," #2026 "Air Force One," and two Union Pacific schemes, "Building

America" and #8174 "Big Red Express" (Spring Creek Exclusive). Each locomotive is available in Stealth or Paragon4 Sound/DC/DCC. Preorder deadline is January 28, 2027 for delivery in Summer 2027. MSRP: Stealth: $199.99, Paragon4: $279.99.
Info: broadway-limited.com



Railsmith has announced three new fluted baggage cars lettered for Missouri Pacific (ACF), Rock Island (P-S), and Wabash-City of Kansas City (ACF). Assigned to name trains on their home rails, these cars are expected to arrive 3rd Quarter of 2027. Rock Island: $58.00, Missouri Pacific: $62.00, Wabash: $62.00.
Info: lowellsmith.net



Announced by **ScaleTrains** in N scale is the Operator series ACF Vert-A-Pac Autorack, originally an ExactRail release. First designed to maximize the number of Chevrolet Vega automobiles that could be transported on a single car, the Vega was the only car type they ever transported. Vert-A-Pac rack road names in the run are Chessie System/B&O, Louisville & Nashville, Denver & Rio Grande Western, Rock Island, Southern, and Southern Pacific. All of the ACF and P-S flatcars wore the TTVX reporting mark. **Preorder guarantee date is December 7, 2026** for an estimated arrival in July 2027. Preorder price: $34.99.



An all-new Rivet Counter N scale Trinity RD-6 coal hopper is estimated to

arrive in May 2027. With a preorder guarantee date of December 7, 2026, the road names in this run are BNSF (2 schemes), Georgia Power, Norfolk Southern, Schere Electric, South Carolina Public Service Authority, and Trinity Leasing. **The preorder guarantee date is December 7, 2026.**
Preorder price: $36.99.
Info: scaletrains.com



Wallace Locomotive Works has introduced N scale RV-style Air Conditioning units in grey and white. Used by many railroads to retrofit air conditioning to older locomotives, the RV-style units are generally found on the top of the cab. Price: $3.00/pair.
Info: store.wallacelocoworks.com

STRUCTURES & SCENIC SUPPLIES



Announced by **Atlas** in O scale are single and double-track pedestrian crosswalks. The bridges assemble in minutes and will be available in red, green, and silver. MSRP: Single $84.95, Double $99.95.

Several passenger sets have been announced in the Fall 2026 O scale catalog including a 12 piece set of Station Platform Passengers, Premier Heavyweight 12 piece Passenger Set #1, Premier Heavyweight 12 piece Passenger Set #2, Premier Heavyweight 12 piece Passenger Set #3, and Premier Heavyweight 10 piece Army/Navy Passenger Set #4. MSRP is $37.95



for the Station Platform Passengers and $34.95 for the Premier Heavyweight sets. Preorders for both bridges and passenger sets close November 18, 2026 with an estimated arrival of 4th Quarter 2027.
Info: shop.atlasrr.com



A new addition to **Bowser's** Real Loads line is the Real Gravel Vehicle Loads. HO scale loads are available for the Walthers Boley Big Dump, Long Dump Bed, Med Dump Bed, and Short Dump Bed trucks. Loads are available as 2-packs with an MSRP of $9.95. The vehicles are not included.

info: bowser-trains.com



Fos Scale Models has released new figures in the Humanity to Scale line, including "Rail Walkers" a set of two HO scale boys balancing on the rails – or any similar width object. MSRP: $4.99 - $24.99.
Info: fosscalemodels.com



Frenchman River Model Works has released *"El Gato Negro Bar"* (The Black Cat Bar). The 1:48 scale kit is designed by Thomas Yorke and is the third structure in the Frijole Flats series. An adobe brick building with a corner entry, the structure has a weather-worn and neglected appearance. The resin kit includes four walls, an upper wall, swinging doors, a back door, swamp cooler, sidewalk, steps, and other details and

sign decals. Building-only dimensions are 2.625″ wide x 5.25″ long x 4.125″ tall. Price: $124.95.
Info: frenchmanriver.com



New from **miniprints** is a Hay Bale Elevator miniscene, which includes two working farmhands, two rectangular hay bales, and the hay bale elevator with wheels and support frame. Price unpainted: HO $25.00, S $29.99, O $39.97.



Also new is a detail part representing a common item, a metal stove pipe available in sets of five. Price unpainted: HO $5.00, S $7.50, O $10.00.
Info: miniprints.com



New in N scale from **Monashee Laser Engineering** is the CPR Std. Portable Station, kit 111-N. Built as CPR plan H-14-38 in the hundreds and used system wide, the kit features a 3D-Printed body, floor, roof, door, windows and stove smoke pipe. Laser-cut parts include simulated cedar wood shingles and trim, and the building includes interior walls, door, and ticket counter. It measures 2 1/2″ x 7/8″. It is priced at US$35.87.
Info: monasheelaserengineering.ca

Mudd Creek Models has released their Christmas kit for 2026, "Reed, Ind." in N scale. An unpainted laser-cut wood kit, it includes three building sections and a boiler house. The



footprint for the kit alone is 4.75″ x 4.25″. Price: $160.00. An optional dock (pictured) is available for $20.00.
Info: muddcreekmodels.com



Yelton Models has released several sets of 3D-printed hollow automobiles suitable for use as autorack loads. The unpainted cars come in sets of five. There are two sets of 1960s vehicles and eight sets of 1970s vehicles. Price: $17.85 per set.
Info: www.yeltonmodels.com

NEW DECALS, SIGNS, AND FINISHING PRODUCTS





Circus City Decals has released two new sets of Railroad Graffiti decals. One set leans heavily into fast food, with popular fast food outlet logos, trademarks, slogans.

All those who ordered the RLAD Loco book between the years 2016-2022 who have not yet been contacted by us for a mailing address verification, please contact us with that info at: office@mrhmag.com. Thank you!

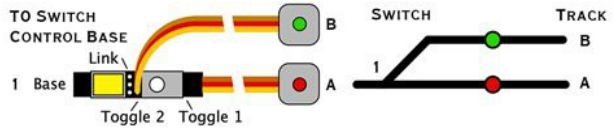
The second set appears to concentrate more on pop culture, particularly the 1990s, and chalk marks. Price: $10.99 each.
Info: circuscitydecals.com



Fusion Scale Graphics has released several new sets of decals. In HO scale is a set of Waste Management Dumpster Logos for $8.00, and in N scale is a set to decorate an F7 or F9 for Aberdeen Carolina & Western for $9.00. Decal sets for Norfolk Southern #4947, the 1,000th AC44C6M rebuild locomotive, are available in both HO and N scale for $9.00ea.

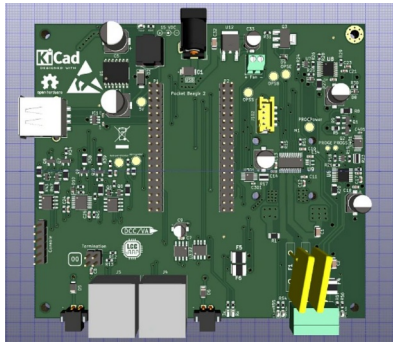
Info: fsdecals.com

ELECTRONICS



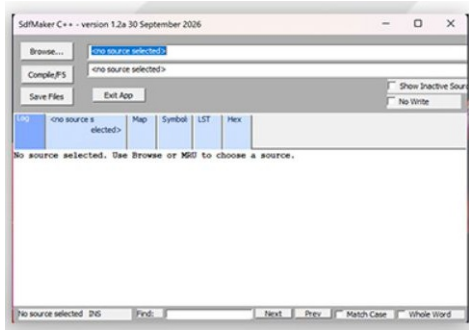
Berrett Hill Shop has introduced the Matrix Element. A small plug-in device, it connects to the toggle-input on a Berrett Hill turnout control base, converting the Touch Toggle from directly controlling a switch to clearing a route through the trackwork to reach the selected tracks. Matrix Elements can be linked together to create a route control system through multiple turnouts. They can also be added to Berrett Hill Matrix Controllers to add extra branching routes. Price: Single $15.80, 4-pack $58.80.
Info: www.berretthillshop.com

Robert Heller of **Deepsoft.com** is crowdfunding a new DCC Command Station based on the PocketBeagle 2 single-board computer running Debian Linux. The command station will



include Layout Command Control (LCC), a web interface for management, a 5 Amp booster for the mainline and a 350ma booster for the programming track. Grid Connect over TCP/IP and WiThrottle will both be implemented, allowing for smartphone and other WiThrottle compatible throttles as well as LCC-based throttles. The design for the command station is open source and available on Github.
Info: www.indiegogo.com/projects/robert-heller/pocket-beagle-command-station

---



Digitrax has released a new application titled "SdfMaker," a free Windows application. Released under the Creative Commons license, the program is used to edit SDF control/sequencing files used in sound project files for Digitrax SFX sound decoders.
Info: www.digitrax.com/news/2026/11/03/evaluate-new-sdfmaker-app

---

ESU-LokSound has released version 5.3.0 of the LokProgrammer Software. A new feature of the software is the multichannel sound simulator, capable of selecting and simulating up to 10 sound slots together.
Info: www.esu.eu/en/start

Model Railroad Control Systems has introduced the WiFi Consist Master, a standalone console for building and



maintaining locomotive consists over Wi-Fi. Connecting automatically to a JMRI server, the panel can be placed anywhere on the layout that has Wi-Fi coverage. The panel works with Digitrax, NCE, EasyDCC, Lenz/XPressNet and LCC systems through JMRI version 5.15.3 and up. The command station determines the number of consist addresses. Each consist address can recall up to six saved consists and six engine groups; a whole group of engines can be brought back without dialing in each number again. Multiple panels will sync together on a layout. Price: $250.00.
Info: modelrailroadcontrolsystems.com



Tam Valley Depot has introduced a 2 Amp BlueRail motor decoder equipped with a 9-pin JST interface. The motor decoder drives the motor and two function outputs and is equipped with a standard 9-pin harness using the wire colors defined in the NMRA DCC standard. It can draw power from the track or an on-board battery. Equipped with a built-in 1.5k resistor for lighting, it also has a 2-pin connector that fits SoundTraxx Current Keeper and TCS Keep-Alive capacitor units. Price: $63.00.
Info: tamvalleydepot.com

Get more articles like this
GIVE IT A LIKE

ADVERTISEMENT

VIDEO from the Model Railroad Hobbyist Store

Running time: 5 hrs 40 min

TRAINMASTERS.TV Layout tours volume 5

Download ~~$29.99~~ $19.99

DVD ~~$49.00~~ $38.77
FREE SHIPPING USA
50% off Foreign

12 layout videos + 1 bonus layout!

Available NOW
Get Video Download
Download in full 1080 HD

4-disk DVD set
Order 4 DVD Set
DVDs: FREE SHIPPING US
50% OFF SHIPPING FOREIGN

Briefly noted at press time ...

Athearn's November/December announcements include the SD59M-2, SD60M Tri-Clops, SD38/SD39, and SW1500 locomotives in HO scale. Also in HO scale are a 36′ inside braced gondola, a 36′ high side gondola, a 36' tank on flatcar, a "Carknocker" series 2494 Railgon Gondola, and an FMC 5077 single door boxcar. In N scale is a 50' high cube smooth side boxcar. **Preorders for these products are due December 31, 2026.** Info: athearn.com.

Matt Gaudynski, Chuck Ciaccio, and Brian Fons have launched **Heritage Rail Models LLC.** They have acquired the assets and intellectual property of Roka Prototype Models and are honoring the preorders for the Evans Side-Slider boxcars previously announced by that company. Other brands to be reintroduced include Scale America, Des Plaines Hobbies, and Centralia Car Shops. S and TT scale products are also listed on the website. Info: heritagerailmodels.com.

Prairie Shadows has announced the PD5000 series of pressure differential covered hoppers. Designs by North American Car Company, Trinity, and Thrall are being modeled, with 20 different models and paint schemes available. Info: prairieshadows.com. ■

Get more articles like this
GIVE IT A LIKE

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.

SELECTED EVENTS



Model Railroad Hobbyist | November 2026

November

Please submit your event information, including website, to model-railroad-hobbyist.com/contact/News_event_-_product_announcement

Ongoing Online and In-Person

ONLINE, Zoom & YouTube, Wednesdays at 7pm Eastern. New Tracks Modeling Live Weekly
Info: newtracksmodeling.com
YouTube: www.youtube.com/channel/UCMA_VhPb5pjdkAYTdXLceJA

ONLINE, Zoom, Second Tuesdays, 8pm Eastern. "Off the Beaten Track" featuring Narrow Gauge layouts, clinics, and manufacturers.
Info: groups.io/g/NNG

November - December 2026

COLORADO, LONGMONT, December 11-13, 2026. Boulder Model Railroad Club 49th Annual Model Train EXPO 2026. Boulder County Fairgrounds, 9595 Nelson Rd.
Info: www.bmrconline.org

FLORIDA, THE VILLAGES, December 10-13, 2026. The Villages Holiday Train Show. Colony Cottage Recreation Center.
Info: www.thevillagesmodeltrainclub.com/Events.html

INDIANA, DANVILLE, November 21, 2026. 19th Annual Danville Train Show, sponsored by the Central Indiana Division of the NMRA. Hendricks County Fair Grounds, 1900 E Main St.
Info: www.cidnmra.org

INDIANA, FORT WAYNE, November 21, 2026. Three Rivers Division of the NMRA Train Show and Swap Meet. Allen County War Memorial Coliseum, 4000 Parnell Ave.
Info: 3riverstrainshow@gmail.com

MAINE, BREWER, November 21, 2026. Eastern Maine Model Railroad Club 50th anniversary show. Jeff's Catering, 15 Littlefield Way.
Info: tomcote4270@gmail.com

MASSACHUSETTS, ORLEANS, Saturdays, November 28 – December 26, 2026. Nauset Model Railroad Club Open House. Rear of Hilltop Plaza, Rt 180 6A.
Info: nausetmodelrrclub.com

MICHIGAN, BELLEVILLE, November 22, 2026. Southeast Michigan Model Railroad Show and Sale presented by Belleville Rails on Wheels and Division 6 NCR, NMRA. Wayne County Community College's Ted Scott Campus, 9555 Haggerty Rd.
Info: www.railsonwheels.com/index.shtml#trainshow

MICHIGAN, SHELBY TWP, November 28, 2026. Model Train Show at the Packard Proving Grounds. Packard Proving Grounds Historic Site, 49965 Van Dyke Ave.
Info: packardprovinggrounds.org/event/model-train-show

OHIO, MASSILON, December 13, 2026. Massillon Train & Toy Show. Massillon Knights of Columbus Hall, 988 Cherry Road NW.
Info: cjtrains.com/shows

OKLAHOMA, OKLAHOMA CITY, November 14-16, 2026. 49th Annual OKC Train Show. Bennett Event Center, Oklahoma State Fairgrounds, 3101 Gordon Cooper Blvd.
Info: okctrainshow.com

OREGON, PORTLAND, November 14-15, 21-22, 28-29, December 5-6, 2026. Columbia Gorge Model Railroad Historical Society Annual Open House. 2505 North Vancouver Ave.
Info: www.cgmrhs.org

OREGON, RICKREALL, December 5, 2026. Railroad Show and Swap Meet, sponsored by the Willamette Valley Model Railroad Museum. Polk County Fairgrounds, 520 S Pacific Hwy W
Info: www.wvmrm.org/new-page

PENNSYLVANIA, ALTOONA, November 15, 2026. Model Train Show sponsored by the Alto Model Train Museum Association, Inc. Blair County Convention Center, One Convention Center Drive.
Info: www.facebook.com/photo/?fbid=10731516984443 43&set=g.3415453285366609

TENNESSEE, LEBANON, December 12, 2026. 32nd Annual Christmas Toy Train Show. Wilson County Fairgrounds, "Made in Tennessee" Building, 945 East Baddour Parkway.
Info: www.dixiedivisiontca.com/dixie-div

Future 2027 by location

ALABAMA, MOBILE, March 6, 2027. SWARM Model Train Show. Mobile Via Health, Fitness, and Enrichment Center, Arlene F. Mitchell Campus, 1717 Dauphin Street.
Info: www.facebook.com/p/SWARM-South-West-Alabama-Railroad-Modelers-100070094629309

CALIFORNIA, MOUNTAIN VIEW, February 26-27, 2027. 36th O Scale West 2027. Portuguese IFES Society Hall, 432 Stierlin Road.
Info: www.oscalewest.com

FLORIDA, THE VILLAGES, February 6-7, 2027. The Villages Model Train Club Winter EXPO. Savannah Recreation Center.
Info: www.thevillagesmodeltrainclub.com/Events.html

ILLINOIS, ROBINSON, February 20-21, 2027. Crawford County Model Railroaders Train Show. Robinson Civic Center, 300 S. Lincoln St.
Info: www.facebook.com/groups/3415453285366609/posts/4513558255556101

KENTUCKY, LOUISVILLE, March 20, 2027. Division 8 Train Show and Sale, sponsored by Division 8, Mid Central Region, NMRA. Holy Family Parish Saffin Center, 3938 Poplar Level Rd.
Info: div8-mcr-nmra.org/train-show

MICHIGAN, MASON, February 20, 2027. 1st Ever Mason Michigan Train Show and Sale. 700 East Ash St.
Info: www.facebook.com/groups/MTSS1/posts/4610422492536466

OREGON, GARIBALDI, May 1, 2027. 2027 Pacific Model Loggers Congress, sponsored by the Oregon Coast Scenic Railroad. Roam Tillamook "Old Mill" event space, 204 American Ave.
Info: www.facebook.com/share/p/1FfS1VtxMb

OREGON, PORTLAND, February 20, 2027. Willamette Model Railroad Club Annual Swap Meet. Kliever Armory, 10000 NE 33rd Dr.
Info: wmrrc.com

WISCONSIN, STEVENS POINT, January 11-12, 2027. Central Wisconsin Model Railroaders 27th Annual Arctic Run Model Railroad Show. Holiday Inn Convention Center Hotel, 1001 Amber Avenue.
Info: www.facebook.com/share/1KJz12gYEN ■

VIEW READER COMMENTS

ADVERTISEMENT

24TRAINS.TV It's all about trains

All things train related, whenever, wherever.



WWW.24TRAINS.TV

On 24TRAINS.TV you can find:
videos | travel reports | magazines | vlogs
model railways | workshops | documentaires | holidays

ADVERTISEMENT



Clickable advertiser index

Amherst Railway Society
Atlas Model Railroad Co.
Bachmann
Berrett Hill Trains
Blair Line
Burlington Route Historical Soc.
Crew Call with Mike Rose
Digitrax (2 page spread)
East Coast Circuits
ESU LokSound
Fast Tracks
Great Decals
Iowa Scaled Engineering
Logic Rail Technologies
Model Railroad Control System
Model Rectifier Corporation
Monashee Laser Engineering
MRH Store (1)
MRH Store (2)
MRH Store (3)
MRH Store (4)
MRH Store (5)
MRH Store (6)
Mt. Albert Scale Lumber
NCE (2 page spread)
North American Railcars (PWRS)
Pre-Size Model Specialities
Precision Design Co.
Rapido (1)
Rapido (2)
Ring Engineering
Rock Island Hobby
Scale Trains
SmartModelz Animator
Southern Digital
Streamlined Backshop
The Sugar Pine Shop
TAM Valley Depot
24Trains.tv
Train Control Systems (TCS)
TrainMasters TV
Trainworld.com
Walthers

Did you see this article?
in the October 2026 MRH RUNNING EXTRA!

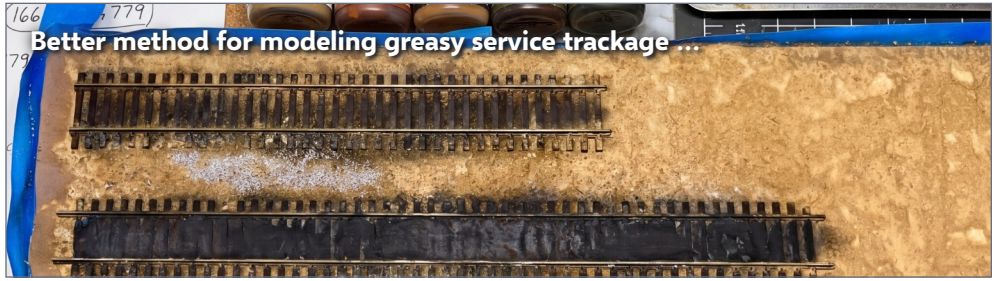
Sable brushes for fine detail painting
Get full eBook now ▶
click here
MRH RUNNING EXTRA
Each eBook has 70-100 pages

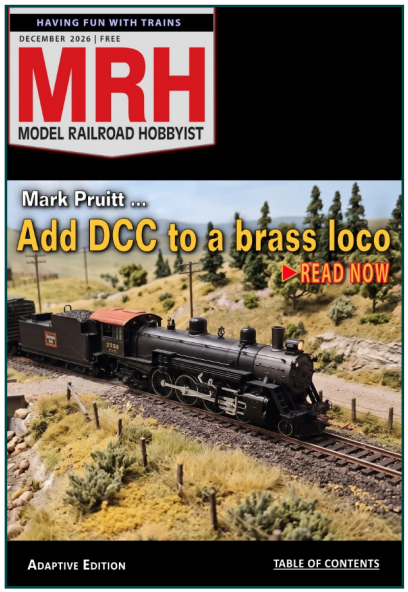
Clickable "other" index

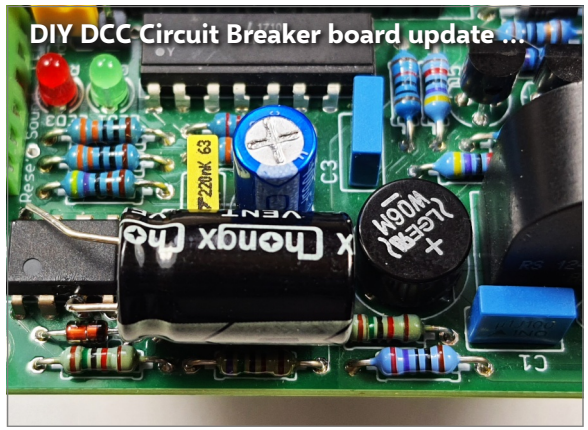
Other – Contents
Other – Cover
Other – MRH Marketplace
Other – MRH Sponsors

Coming next month in MRH ...









... coming December 15th in the December 2026 MRH

Coming next month in Running Extra ...

... all the MRH articles and ads, PLUS:









... all this and much more!

SUBSCRIBE AND SAVE UP TO 80%