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A 57-year-old club
layout continues to
delight visitors. p.38

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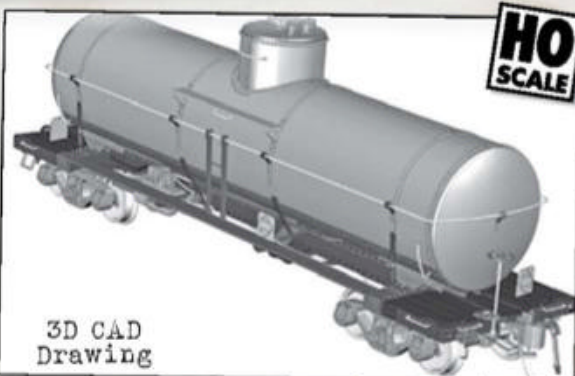
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Driving the gold spike – or not



On the cover: Diesels race across a steel trestle with a freight in tow on the Severna Park Model Railroad Club layout. Paul Dolkos photo



Next issue

In March, visit David Arrell's traction layout, built to model memories of Philadelphia. Plus, build a depot, track and wiring for the State Line Route, and more!

Model Railroader (USPS 529-810, ISSN 0026-7341) is published monthly by Kalmbach Media Co., 21027 Crossroads Circle, P.O. Box 1612, Waukesha, WI 53187-1612. Periodicals postage paid at Waukesha, Wis., and additional offices. POSTMASTER: Please send address changes to *Model Railroader*, P.O. Box 8520, Big Sandy, TX 75755. Printed in USA. Canada Publication Mail Agreement # 40010760.

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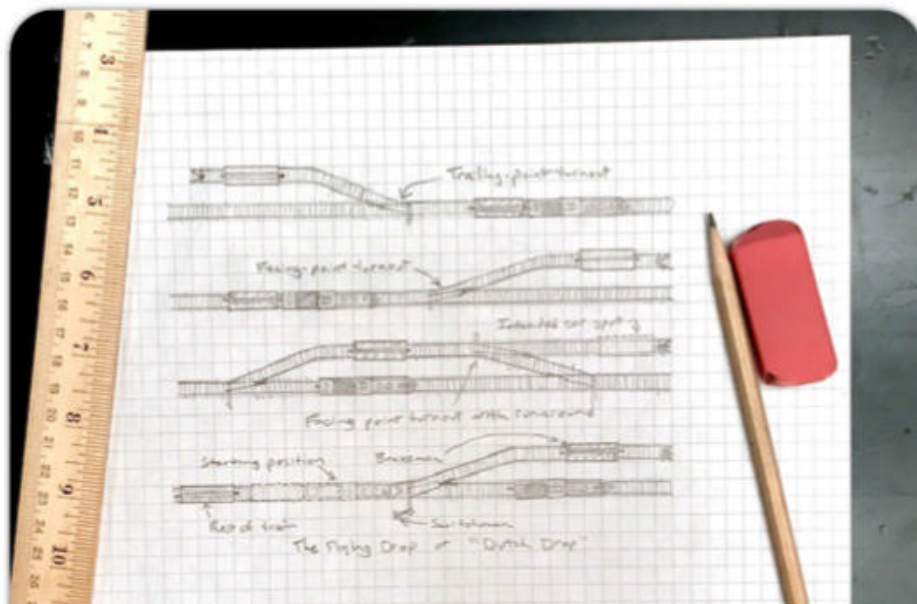


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Meet the Modeler

Model Railroader's very own **Contributing Editor Lou Sassi** is up next for questioning in the *Meet the Modeler* article series, conducted by Rene Schweitzer. Read along as this talented hobbyist explains everything from his biggest modeling successes and mistakes, to describing his very first childhood train set! Videos of Lou's incredible On30 Sandy River & Rangeley Lakes layout are also available for viewing within the article. Trains.com visitors get access to eight free articles each month.



Sketching with Steve

Turnout configurations on your layout matter. They can affect how easy or difficult it is to switch that spur. If you're interested in finding out more, or curious how to troubleshoot problems with your with your own turnouts, check out the latest *Sketching with Steve* by Senior Associate Editor Steven Otte. This month on the drawing board, Steve teaches you all about the processes and practices involved with working facing-point and trailing-point turnouts.



Expert tips

There comes a point in every modeler's journey when, while building a layout, you need to cut some track. But fear not. While it may seem like a tricky subject for a beginner to tackle, Trains.com Executive Producer David Popp is here with a video to help! Follow alongside David as he walks you through the quickest (and easiest) way to go about the cutting processes, explaining what tools, techniques, and methods are critical to making sure your layout is a success.



Product reviews

Senior Editor Eric White is at *Model Railroader's* HO scale Milwaukee, Racine & Troy layout to take a close look at the latest product from Wm. K. Walther's! The EMD FP7 & F7B set is loaded with roadname-specific details, but how will this dual-service locomotive fare on our house layout? Become a Trains.com member to get unlimited access to all of MR's exclusive product review videos and stay up to date on all the latest and greatest products available in the hobby.



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The secret of Severna Park's success



Based in a historic depot in Severna Park, Md., this club has delighted visitors for more than 50 years. Photo by Paul Dolkos

The Severna Park, Md., Model Railroad Club is an example of building for the long haul.

Founded in a local hobby store in 1964, the fledgling club quickly outgrew its space and moved into a historic railroad depot in 1966, and there it has remained for 55 years.

That's an impressive run by any measure. How do they do it? By keeping the best of the past, including the stub-end station at Chesapeake (a fictional city based on Baltimore) that dates all the way back to the original hobby store layout, and the highly detailed structures crafted by longtime member Logan Holtgrewe.

Club members also avoided the trap of leaving their layout unchanged until it gradually became more of a museum piece and less of an operating model railroad.

Major updates include a mine added in 1981 and a



rotary coal dump in 1982. (A full description of this operation appeared in the July 1991 *Model Railroader*).

Keeping the best and making it even better is a simple formula, and it's the key to this club's impressive longevity. Learn more of the secrets of Severna Park's success in Paul Dolkos' article starting on page 38.

Model Railroader

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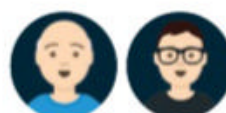
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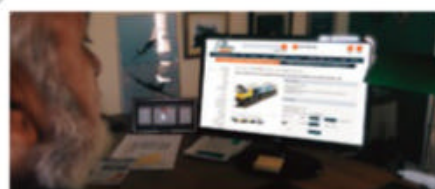
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HO scale



Fairbanks-Morse H-16-44 diesel locomotive. Paint schemes on the latest run of this Atlas Master Line locomotive include Milwaukee Road; Central of New Jersey; Long Island Rail Road; New York Central; New York, New Haven & Hartford; Pennsylvania RR; and Southern Ry. The HO scale model is offered in two road numbers per scheme and features

bi-directional dual-mode red and green light-emitting-diode marker lamps, a die-cast metal underframe, and Accumate couplers. Direct-current models with factory-installed speaker are priced at **\$169.95**. Versions with a dual-mode ESU LokSound sound decoder sell for **\$279.95**. Atlas Model Railroad Co., 908-687-0880, shop.atlasrr.com

Eastern Seaboard Models enters HO market

Eastern Seaboard Models, known for its N and Z scale products, announced that it will be entering the HO market. The firm's initial offerings will be Magor and Pacific Car & Foundry 40-foot XIH heated, insulated plug-door boxcars.

The first cars will be a circa 1950 Bangor & Aroostook Magor boxcar and a circa 1953 New York, New Haven & Hartford PC&F car. Both cars will be decorated in the red, white, and blue "State of Maine" scheme in four numbers per road name.

Features on the ready-to-run cars will include an injection-molded plastic

body, etched-brass see-through running boards and brake platform, body-mounted Kadee Quality Products Co. no. 148 whisker couplers, InterMountain Railway Co. American Steel Foundries A-3 50-ton solid-bearing trucks with low-profile metal wheelsets, and Hi-Tech Details air hoses.

The Eastern Seaboard Models HO scale insulated boxcars are scheduled for release in the summer of 2022. The cars will have a projected manufacturer's suggested retail price of \$84.50. For the latest updates on these cars, visit the manufacturer's website at esmc.com.



These hand-painted pilot models show the details on Eastern Seaboard Models' HO scale Magor and Pacific Car & Foundry 40-foot XIH heated, insulated plug-door boxcars.

HO scale locomotives



- **North County Transit District Sprinter articulated two-unit diesel**

railcar. Directional red-and-white lights; illuminated, detailed interior; tinted window glazing; European deep wheel flanges; and rooftop air conditioners. Non-sound (one road number), \$299.99; with PIKO SmartSound 5.1 Digital Command Control sound decoder (two numbers), \$399.99. PIKO America, 619-280-2800, piko-america.com

HO scale freight cars

- **30-foot flatcar.** Denver & Rio Grande Western (black with "Flying Grande" lettering); maintenance of way (gray); New York, New Haven & Hartford (black); New York Central (brown); Pacific Electric (oxide red); and Southern Pacific (brown with Texas & New

Athearn announces HO scale SD59M-2

Athearn announced that it will be adding a Union Pacific Electro-Motive Division (EMD) SD59M-2 diesel locomotive to its Genesis 2.0 line. The HO scale six-axle road locomotive is based on prototypes rebuilt from EMD SD60M phase II diesels.

The newly tooled Athearn Genesis 2.0 model will include separate, factory-applied uncoupling levers, m.u. hoses, eye bolts, and sander lines; a detailed cab interior; and Celcon handrails. Other features will be etched-metal see-through walkway steps; illuminated number boxes and ground lights above the front trucks; rotating bearing caps; a flared radiator section; a detailed 4,500-gallon safety fuel tank with fuel fillers, fuel gauges, and breather pipes; all-wheel drive and electrical pickup; RP-25 contour wheels; a die-cast metal



Athearn is offering its HO scale Electro-Motive Division SD59M-2 diesel locomotive in two different Union Pacific paint schemes. Numbers 9903 and 9908 will wear the railroad's lightning stripe scheme, as shown here. The other two road numbers will be decorated in the railroad's "Building America" scheme with a United States flag on the long hood.

frame; and light-emitting-diode headlights and ditch lights.

Athearn will be offering the HO scale model in four road numbers. Numbers 9903 and 9908 will be decorated in the lightning stripe scheme with a shield and wings on the nose. Numbers 9916 and 9922 will feature the "Building America"

scheme with a United States flag on the long hood.

Direct-current models with a 21-pin NEM connector will sell for \$249.99. Models with a dual-mode SoundTraxx Tsunami 2 sound decoder will be priced at \$349.99. For more information, visit athearn.com.

Orleans reporting marks). Two road numbers per scheme. Separate, factory-applied brake wheel, machined metal RP-25 contour wheelsets, and body-mounted McHenry scale couplers. \$32.99. December 2022. Roundhouse line. Athearn Trains, 800-338-4639, athearn.com



- **Greenville Steel Car Co. 86-foot high-cube double-plug-door boxcar.** Atchison, Topeka, and Santa Fe (class BX-106 1965 as-delivered scheme), Conrail (1976 Pennsylvania RR class X60C patchout, two road numbers), Illinois Central (1977 as-delivered scheme), Norfolk Southern (1989+ repaint), Pennsylvania RR (1964 class X60B as-delivered scheme), Southern Pacific (original 1969 scheme, four numbers), and Union Pacific (1969 class BF-90-5 as-delivered scheme). Six numbers per scheme unless noted; also available undecorated (seven versions). Railroad-specific details, see-through etched-metal crossover platforms, and Kadée scale couplers. \$54.95. Tangent Scale Models, 828-279-6106, tangentscalemodels.com

HO scale passenger equipment



- **Pullman-Standard 74-foot baggage car.** BNSF Ry. and Atchison, Topeka & Santa Fe. One road number per scheme. Both cars painted in silver business train scheme. Separate, factory-applied grab irons; RP-25 contour metal wheels; modeler-installed extended drawbars for

22" radius curves; and Proto-Max metal couplers. \$84.89. Wm. K. Walther's Inc., 414-527-0770, walthers.com

HO scale details and accessories

- **Stan the Record Man building interior.** Laser cut cardstock kit. Fits Woodland Scenics kit no. 11500. Includes three rooms, interior details, exterior sign, and three warm white LEDs with plugs. \$19.95. The Electric Wallpaper Co., roometteslighting.com

HO scale

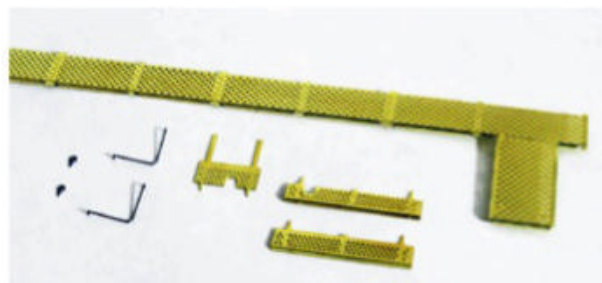


Assorted code 83 turnouts. Recent additions to the Walther'sTrack line include a no. 4 right-hand turnout, a no. 5 right-hand turnout, and a no. 6 left-hand turnout, all priced at **\$29.98** each. The manufacturer is also offering a no. 10 left-hand turnout for **\$37.98**. The HO scale turnouts have thin-profile plastic ties, spike-mounting holes positioned next to the rail, solid rail points, snap-action points, a built-in jumper for powering the frog, current jumpers entering and leaving the frog, an insulated tie bar, and nickel silver rail. Wm. K. Walther's Inc., 414-527-0770, walthers.com

N scale



St. Louis-San Francisco (Frisco) Pullman-Standard lightweight passenger cars. RailSmith Models offers these two N scale cars as part of its Build-a-Train series for *The Meteor*. 10-roomette, 6-double-bedroom sleeper *Cimarron River* sells for \$47, and 64-seat coach *Ferguson* is priced at \$44. The lightweight passenger cars have injection-molded plastic bodies, plastic interiors, metal wheels, and clear window glazing. RailSmith Models, lowellsmith.net/railsmith



- **Assorted details and parts.** Morton 50-foot running board and crossover kit (includes running board, two crossover platforms, high brake wheel platform, and pair of corner grab irons and eye-bolts), \$6.99. Shelf-style uncoupling lever eight-pack (etched-brass levers with multiple ABS attachments), \$5.99. M2 screws for plastic (includes two each 3mm flathead, 6mm flathead, 4.5mm panhead, 4mm panhead, and washers); 20 sets, \$6.99. Moloco, molocotrains.com

N scale locomotives



- **Alco S-2 diesel locomotive.** New paint schemes: Chicago Great Western, Canadian National (black and red with “wet noodle” herald), Erie (black and yellow), Maine Central (black, red, and white), and Southern Pacific (scarlet and gray). New road numbers: Lehigh & New England (black, two numbers). Re-issue: Lehigh & New England no. 611. Also available undecorated. Die-cast metal

hood and chassis, directional light-emitting-diode headlights, and Accumate couplers. Direct-current model with factory-installed speaker, \$129.95; with dual-mode ESU LokSound sound decoder, \$239.95. Master Line. Atlas Model Railroad Co., 908-687-0880, shop.atlasrr.com

N scale freight cars



- **Richmond Tank Car 20,900-gallon general service tank car.** Atchison, Topeka & Santa Fe (black with gray band and “For Diesel Fuel Only” stencil), BNSF Ry. (black with post-2005 herald), Celtran Inc. (blue and yellow), GE Rail Services (black with TLDX reporting marks), and Pemex (white and green). Three road numbers per scheme. Screw-mounted trucks and body-mounted magnetic couplers. \$33.99. December 2022. Athearn N. Athearn Trains, 800-338-4639, athearn.com



- **Trinity 64-foot mechanical refrigerator car.** Union Pacific (white with “Building America” slogan and high ARMN reporting marks in 12 numbers, with ARNM marks in one number), CIT

Group/Capital Finance (white and black, six numbers), Naked Juice (white and blue, one road number), and Tropicana (white, orange, and black in 12 numbers). Carrier reefer unit as appropriate, BLMA 100-ton trucks with 36" metal wheels, and brown couplers. \$39.95. Master Line. Atlas Model Railroad Co., 908-687-0880, shop.atlasrr.com

- **Pennsylvania RR class GLa two-bay hopper.** Baltimore & Ohio (black and white, ex-Buffalo, Rochester & Pittsburgh); Canadian National (oxide red); Central RR of New Jersey (Anthracite Blue Coal scheme); Interstate RR (black); Lehigh Valley (black, ex-Pennsylvania Coal & Coke); New York, Ontario & Western (Anthracite Blue Coal scheme); Pennsylvania RR (Freight Car Color with circle and shadow keystone, black, and yellow maintenance-of-way scheme); and Virginian Ry. (black). Plastic trucks, metal wheelsets, and body mounted couplers. \$28.95. Fall 2022. Bowser Trains, 800-327-5126, bowser-trains.com

O scale details and accessories

- **Window bars.** Laserboard parts. Can be cut to fit. Measures 1.1" x 1.4". Four-pack, \$4.40. Narrow Gauge Modeling, narrowgaugemodeling.com

S scale freight cars



- **Southern Pacific class A-50-6 single-sheathed 50-foot boxcar.** Cast-resin kit with one-piece body, separate floor/underframe with parts for brake details, wood running board, wire grab irons, 3-D printed details, and decals, but no couplers or trucks. \$95. Pre-Size Model Specialties, pre-size.com

Z scale locomotives

- **Electro-Motive Division F7A and F7B diesel locomotives.** Canadian National (green-and-yellow scheme). A-B set and single A unit. Directional light-emitting-diode headlights and blackened metal wheels. American Z Line, 614-764-1703, americanzline.com

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HO scale



Pennsylvania RR class X31A single- and double-door boxcars. These Pennsy 40-foot cars are now available from Rapido Trains. Single-door boxcars are available in the circle keystone (1934-1954), shadow keystone (early [1954-1957] and late [1957-1960]), plain keystone (1961-1968), and stores department paint schemes. Double-door cars are offered in the circle keystone (with and without "Automobiles" lettering) and shadow keystone (early and late versions) schemes. The HO scale cars have underbody detail with all piping; blackened, insulated turned-metal wheelsets; Barber PRR 2D-F12 trucks; and factory-applied grab irons and ladders. Single cars retail for **\$49.95**. Six-packs sell for **\$299.70**. Rapido Trains, 905-474-3314, rapidotrains.com

Club offerings



• **Chicago & North Western American Car & Foundry two-bay Center Flow covered hopper.** Accurail HO scale kit produced for the Chicago & North Western Historical Society. Three road numbers. Single car, \$34; three-pack, \$85. Prices are postpaid to addresses in the United States. Illinois residents include 9½ percent sales tax. CNWHS, P.O. Box 1068, North Riverside, IL 60546. Online orders available at cnwhs.org.

Z scale freight cars



• **1917 8,000-gallon tank car.** The Texas Co. (black and white). Seven road numbers (single car, two-pack, and four-pack). Blackened metal wheels and

AutoLatch couplers. American Z Line, 614-764-1703, americanzline.com

• **Pacific Fruit Express R-70-20 mechanical refrigerator car.** Santa Fe Refrigerated Despatch (orange with circle-cross herald and "Ship and Travel Santa Fe – All the Way" slogan). Seven road numbers (single car, two-pack, and four-pack). Blackened metal wheels and AutoLatch couplers. American Z Line, 614-764-1703, americanzline.com

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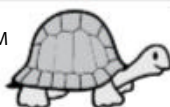
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It's important to secure the boom when moving a wreck crane, like Marcus Rail Transport crane no. 029, seen here in Union Pacific's 36th Street Yard in Denver, Colo., in February 2018. Though the hooks might be loosely tethered to a tender, as is the big hook here, they aren't always. Chip Sherman photo

How are a crane's hooks secured for travel?

Q I have a couple of 25-ton cranes on my layout. While running them in a work train, the hooks swing, giving them an unrealistic look. Are the hooks normally tethered to the boom when the cranes are being transported? I couldn't find any photos of actual cranes during transport.

Steve Favale, Buffalo, N.Y.

A When a crane is moved, it's important to tie down the boom so the crane doesn't turn and swing out over adjacent track or other track-side obstructions. For transit, the boom is lowered all the way and tie-downs attached to the sides of the boom. Those tie-downs are then hooked to the front corners of the crane's deck and the boom is raised slightly to tighten them. The hook end of the boom generally rides above a flatcar or dedicated crane tender car. While the hook can be tethered loosely to the tender or flatcar, as in the photo above, it isn't always, especially not if the work train is expected to transit tight curves. Usually, winching the hook all the way up to the boom is sufficient to prevent excessive swing.

Q I would love to have a railroad outdoors. My question is, how do you power it with the outdoor weather?

Peter Meszaros

A While it's possible to power a garden railway via track voltage, like an indoor layout, dirt and corrosion caused by exposure to weather makes this method problematic. Many large-scale locomotives designed for outdoor use are, instead, powered by batteries and controlled via radio or wi-fi throttles. This is not only more reliable and realistic than track-powered locomotives, but it also makes the railroad easier to construct and maintain.

Q How wide (in inches) should a road through a small town in the Midwest be? I'm modeling parallel parking and curbs along with the two-lane road.

Howard Janssen, New Berlin, Wis.

A According to the National Association of City Transportation Officials (nacto.org), 12 feet is the standard lane width for highways and urban streets. In HO scale, that's roughly 1⁵/₈"; in N scale, it's just over ⁷/₈". The group recommends narrower lanes, though, down to 11 or even 10 feet, because wider lanes encourage speeding. So a rural road with a high speed limit could have 12-foot lanes, while a residential street in

a city could be 10 feet. Parking lanes of 7-9 feet are recommended; wider lanes are used on streets with faster traffic.

Though you said you're modeling streets with curbs and possibly sidewalks, on those rural roads, don't forget to include breakdown lanes and/or shoulders. And to make your road markings and signs as accurate as possible, look up the U.S. Department of Transportation's Manual of Uniform Traffic Control Devices, or MUTCD, online at mutcd.fhwa.dot.gov.

Q When is the earliest that it would be reasonable for a gas dealer such as Walther's Central Gas to appear? What kind of cars would service it prior to contemporary LPG tank cars? I'm assuming it wouldn't be general-service tank cars. Are there any such models available in N scale?

Richard Morey

A Though methods to refine liquefied petroleum gas (LPG, commonly a mixture of propane and butane) from petroleum were developed commercially in the 1910s, and use of it in households began in the 1920s, it was in those early days shipped and distributed in individual bottles. The petrochemical industry began working on ways to ship LPG by rail in the 1930s, though the practice wasn't widespread until the development of the American Car & Foundry 11,000-gallon tank car in 1947.

According to Atlas, which makes an N scale version of this car, many thousands of these cars were built through the 1950s. An LPG distributor that received its product by rail would be appropriate after this time. In earlier times, the ends of both tank cars and the tanks used to store LPG at the dealer were much flatter, more elliptical, than the hemispherical tank ends seen today.

Q Would a subroadbed made of foam board be quieter than plywood? My previous HO scale layout used 1/2" plywood, and the noise coming from the wheels was so loud it interfered with my enjoyment of the sound decoders. Would foam board make that wheel noise less intrusive or is there something else I should use?

Mike McBride

Send questions and tips to senior associate editor Steven Otte at AskTrains@Trains.com.



Model Railroader contributing editor Pelle Søeborg used a 4mm thick, self-adhesive, asphalt-based sound-deadening mat used in automotive construction to reduce track noise on his HO scale Daneville & Donner River layout. Pelle Søeborg photo

A While there are modelers who swear that foam subroadbed is quieter than plywood, there are others who insist that foam board acts like a drumhead and amplifies track noise. Personally, I think the roadbed material and how the track

is attached to it is more important. The more rigidly your track is attached to the subroadbed, the more easily vibration will be transmitted to it. Cork roadbed will dampen sound more than Homasote. A flexible roadbed material

like Woodland Scenics Track-Bed will be even quieter. And MR contributing editor Pelle Søeborg uses an asphalt-based sound-deadening layer, shown in the photo at left, between his roadbed and the subroadbed.

No matter what roadbed you use, track nails can transmit vibration through it and directly to the subroadbed. Using foam-safe adhesive caulk, like Liquid Nails for Projects or Loctite PL 300, to glue your roadbed to your subroadbed and your track to your roadbed will transmit less sound than track nails. Self-adhesive foam tape, sold as “camper tape” or “topper tape,” is another roadbed material noise-conscious modelers have tried. Good luck in your hunt for a quieter roadbed.

Q I'd like to know if it's wise to change directions on a locomotive from forward to reverse without stopping, whether doing yard switching or mainline running. Will this affect the internal parts?

Gary Pagels

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When Steven Otte found this already constructed brick building under the Milwaukee, Racine & Troy, it reminded him of a newspaper he worked at in Ohio. So when the MR staff built the Bay Junction project layout, Steve kitbashed it to turn it into a newspaper. Steven Otte photo

A While a model locomotive with a new and well-made mechanism isn't likely to have enough momentum to cause damage, such practices can't be good for it. What's more, it wouldn't be very realistic operation, either.

Q As an old newspaperman, I've been looking for a newspaper structure kit to add to my layout. They used to sell newspaper buildings in HO, but there don't seem to be any now. Any ideas?

Marc Silvestrini

A I worked at a succession of small, local newspapers for more than 20 years before coming to *Model Railroader*, and one thing I can tell you about the buildings they were housed in is no two were the same. Some were more than 100 years old, others were modern; some included the printing press onsite, others were just offices; some were big enough for hundreds of employees, while others were small storefronts. In other words, all it takes to turn any commercial structure model that fits your layout into a newspaper office is signage.

I built a newspaper building for MR's HO scale Bay Junction project railroad (see our May 2011 issue) by joining an antique-looking brick office structure with a Pikestuff corrugated steel annex to represent the press room and mail-room. Depending on the space you have for the model on your layout and the size of the town you want your newspaper to serve, anything from a Design Preservation Models Walker Building to a Walthers Central Beverage Distributors kit would work. **MR**

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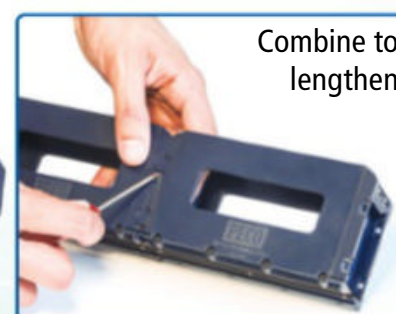


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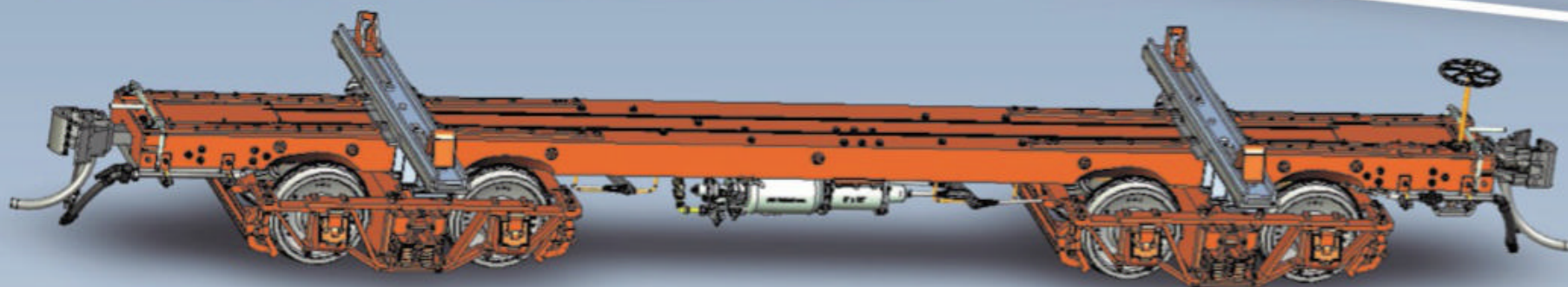
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Conducted by Steven Otte

Make that fusee flicker

I enjoyed John Brown's article very much ("Using LEDs to model fusees," November 2021). It illustrates how we are just discovering the wide range of applications small LEDs will find in our hobby.

For those who would like to simulate the flickering nature of a prototype fusee, I suggest powering the LED using an Arduino. (You can buy an Arduino Nano clone for less than \$5.) Since the Arduino only provides 5V DC, you can order the red LED without the rectifier/resistor (saving \$1) and provide your own resistor. I would suggest 360Ω, but check with the LED's manufacturer.

Then, it's a simple matter to program the Arduino to pulse the power to the LED at a rate that simulates the sputter of a real fusee. If you have a 12V DC power supply, you can power the Arduino from that. All that's left is to wire your switch into the Arduino; you can either use it to



John Brown explained in our November 2021 issue how he embeds nano LEDs (light-emitting diodes) into his track to simulate lit fusees.

John Brown photo

power the Arduino or to control a "soft switch" that turns the fusee on and off using software. (I favor the latter approach.)

Dick Wissbaum, Newburg, Mo.

Back to TTTO for the C&TS

Jerry Dziedzic's "On Operation" column in the September 2021 issue ended with a comment that the Cumbres & Toltec Scenic RR went to track warrants in 2020. That statement is true. However, as the 2021 season approached, the C&TS returned to timetable and train order (TTTO) dispatching. Experience proved the radio coverage necessary for a track warrant system was simply not available. So for the "19th Century Victorian Steam Locomotive Roundup" event, the railroad was dispatched with TTTO. It was fitting that the Victorian-vintage steam specials were dispatched using *The Rights Of Trains* by Peter Josserand, first printed in 1904.

Charles Proudfoot
Relief dispatcher, C&TS RR

Jerry Dziedzic responds: "This proves my long-standing belief that putting

something in print is the best way to out-date it.

"I rode with Jeremy and Carlos on the Big Horn trip the first Saturday of the Roundup. Did a little firing for them, too. I cringed at seeing them studying their train orders, after I had approved the column proof just two months earlier.

"If you're a regular reader, you might remember my October 2017 column, which described C&TS' TTTO operation. In that column I observed, '21st-century radio has yet to conquer C&TS territory – challenging, remote terrain.' The terrain still reigns, as it has for the ages. Thanks for your note!"

Correction

The prototype photo published on page 46 of our December 2021 issue ("Model half-empty coal hoppers") should have been credited to Bob's Photos. We regret the error.

Comments, suggestions, and additional information on Model Railroader articles and departments are welcome in this column. Every comment will be read, but not all can be printed or answered. Make your statement in 300 words or less, and send it to **Railway Post Office, Model Railroader magazine, P.O. Box 1612, Waukesha, WI 53187**, or e-mail rpo@mrsmag.com. Please include your name, city, and state.

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Build a cement silo

One of the tallest structures on Jones Island is the Lafarge cement silo – yes cement, not concrete. The silo gets shipments from lake boats. The material is then stored in one of the compartments in the silo. It can then be distributed by truck or rail to local and regional customers.

Like most model railroad projects, I had to compress the size of the actual structure to fit in the layout space. The silo is a section of 6" PVC pipe I found at a local home improvement store. If you have the room, you'll want to start with something about the size of a 5-gallon bucket.

As model railroaders, the most important thing to us is the rail-loading part of the building, and that's the other large structure for this industry. I scratchbuilt that from styrene sheet and strip from Evergreen, as well as roof and wall panels from Pikestuff.

The biggest obstacle was painting the structure. The silo itself is poured concrete. It appears to have been built using slip forms, which allows the builders to pour a layer of concrete, then move (or slip) the form up to pour another layer above it, continuing until the top is reached.

Attached to the concrete silo are various steel parts – small silos and distribution chutes on the top, an elevator and caged ladder up the side, and various piping going up and down the silo. All of these parts are painted, whereas the concrete is unpainted. Masking all of the piping and steel structures seemed much too tedious.

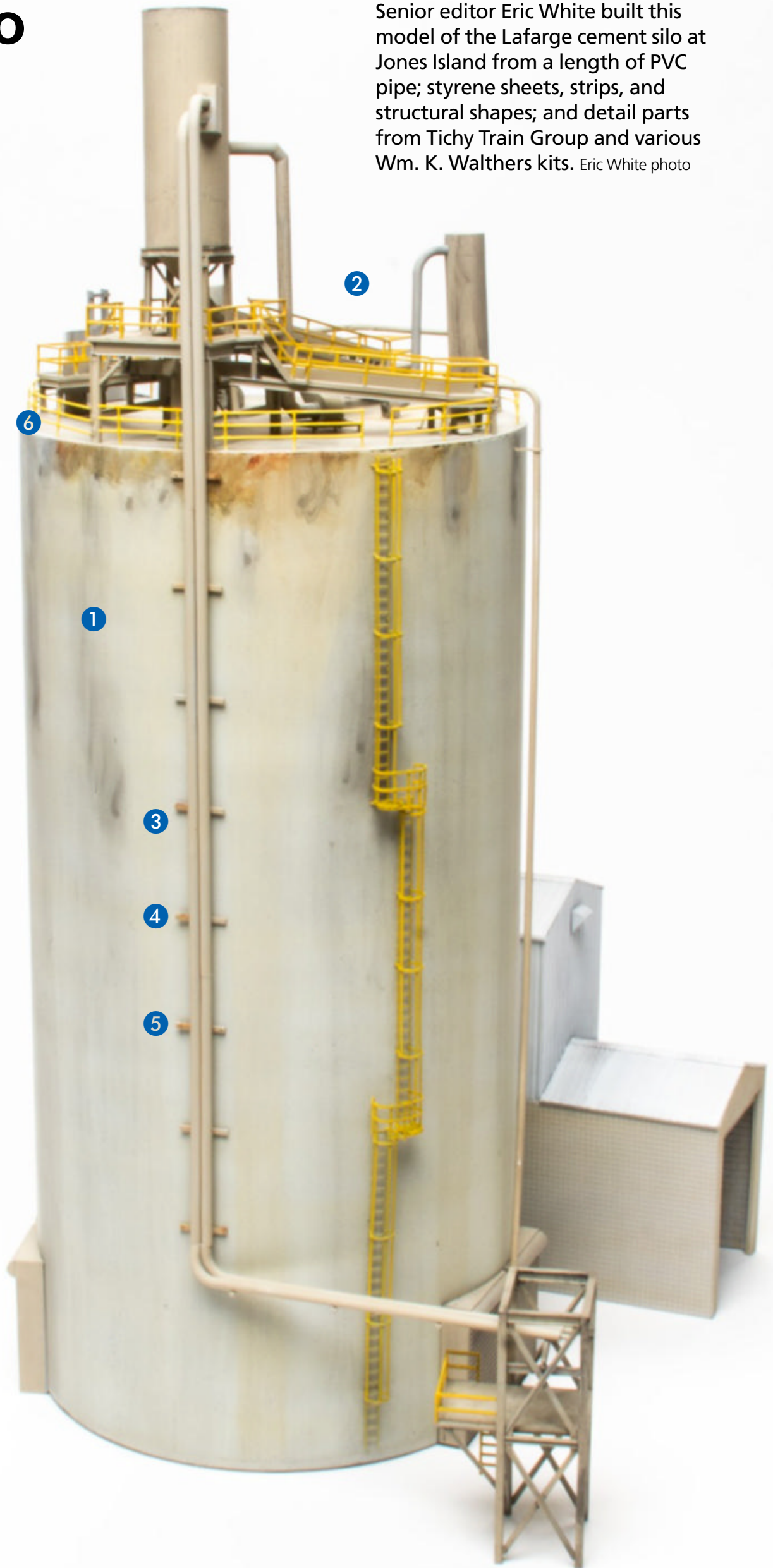
To avoid the tedium, I built everything in subassemblies I could paint separately, then put together when the painting was done. Since many parts were attached to the PVC pipe, I used pins made from brass wire inserted into holes drilled in the styrene parts and PVC pipe, then glued with cyanoacrylate adhesive (CA).

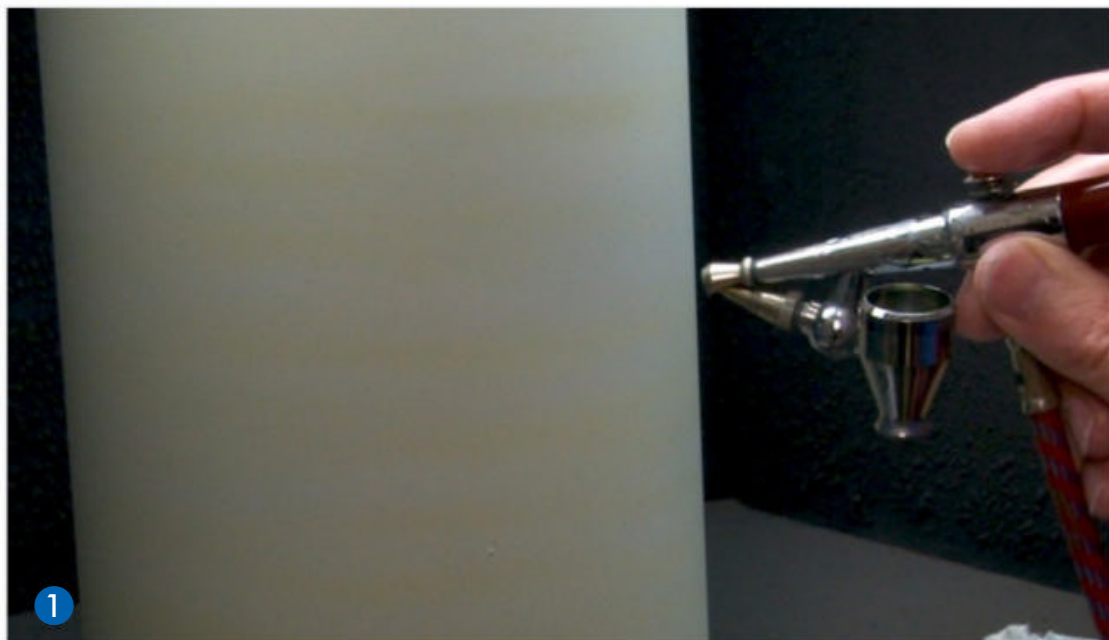
Follow the photos around the finished project to see how I handled some of the painting and weathering. Then you can get started building your own – have fun!



The laker *Alpena* is tied up at the Lafarge silo on the banks of the Kinnickinnic River. Cement is offloaded from lake boats for distribution on land by trucks and trains. Carl Swanson photo

Senior editor Eric White built this model of the Lafarge cement silo at Jones Island from a length of PVC pipe; styrene sheets, strips, and structural shapes; and detail parts from Tichy Train Group and various Wm. K. Walther kits. Eric White photo





Paint list

Concrete grays

Acrylicos Vallejo Model Air

710119 White Gray

71.288 Portland Stone

Acrylicos Vallejo Model Color

70.883 Silver Gray

Revell acrylic

371 Light Gray

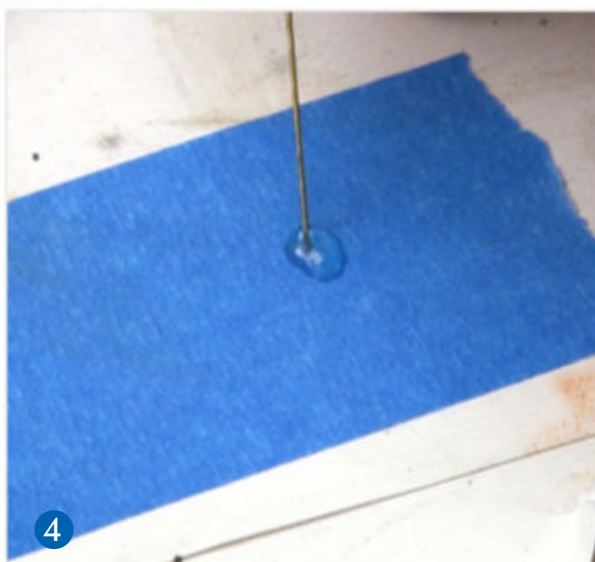
Eric used several acrylic grays to create a mottled base color for the poured concrete silo. He painted horizontally to mimic the layers of concrete in the slip forms.



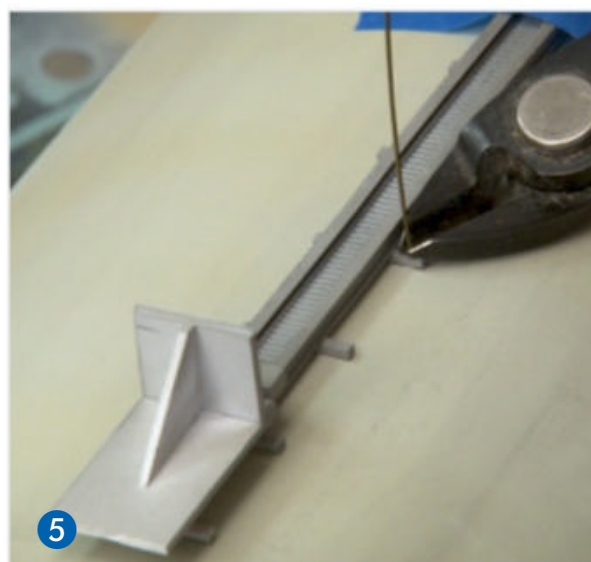
Almost everything else on the model is painted with Acrylicos Vallejo Model Air 71.244 Sand Beige. The only parts not painted beige are the elevator assembly, painted a medium gray, and the ladder cage, painted a pale yellow, and the roof of the loading structure, painted with discontinued Model Master Reefer White.



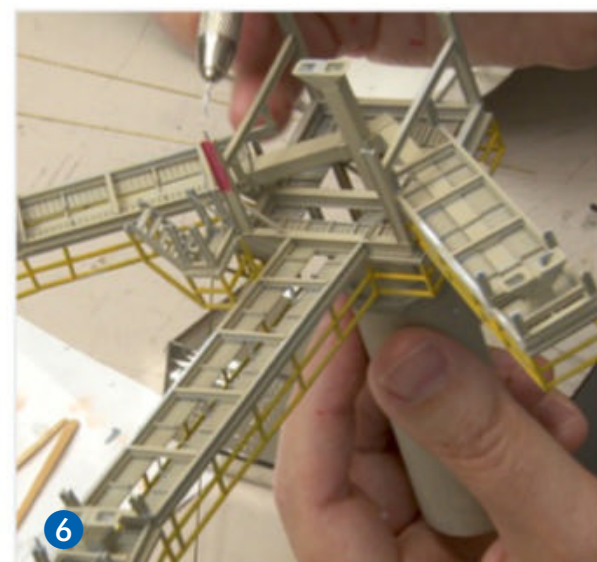
As Eric was building the model, he drilled attachment holes and placed pins made of brass wire on some of the parts. During the painting and weathering process, some of the holes got filled in, so he drilled them again, using a pin vise and a no. 70 bit. Shown is the elevator on the back of the silo.



Eric dipped the end of .025" brass rod into a puddle of cyanoacrylate adhesive (CA). He used long sections of wire to make it easier to hold onto.



After Eric placed the rod into the hole, he snipped it off with rail nippers. The soft brass won't harm the nippers. The nubs of wire resemble rivets or bolts.



Eric used CA to glue pins to four of the legs of the distribution equipment on the roof. These fit into holes in the top of the silo.

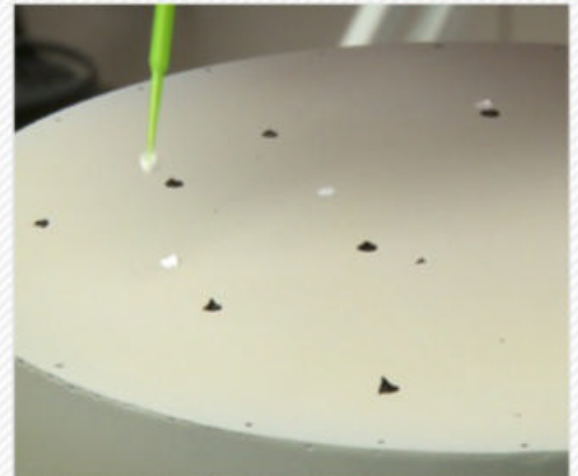
Applying a dot filter with oil paints



To weather the silo, Eric used a dot filter. This is a method adapted from military modelers. Eric used, from left, cadmium yellow, yellow ochre, titanium white, lamp black, crimson alizarin, and burnt sienna.



Eric squeezed a nub of paint out onto a piece of cardboard. The cardboard helps soak up some of the oil from the paint. He took a dab of paint with a microbrush.



Then he placed dots on the model. Eric started with the top. There's probably a bit more paint on here than he needed, but the next couple steps will take care of that.



Eric dipped his brush into odorless paint thinner, then started to spread the colors. He wanted the black and white to mix into gray, so he started with those. He also applied some burnt sienna to simulate rust stains.



He continued to spread the color around, mixing the grays, but trying to work around the burnt sienna so the "rust stains" would stay more or less where he put them. At this point, the concrete color was mostly hidden.



This step will take care of that. He wiped the thinner and paint wash out of his brush on a paper towel. A nice thing about oil paint is that it dries very slowly, so you have lots of working time.



With a dry-ish brush, Eric wicked up some of the color, using the paper towel to periodically clean the brush. In addition to removing extra paint, Eric wanted to remove sharp edges to the colors.



Some of the color had washed over the side of the silo, which Eric wanted. On the full-size silo, rain had washed streaks of dirt, grime, and rust down the side. Eric added some more color to continue with the sides.



Substituting paint thinner to do in moments what the rain did over a period of years, Eric chased the color down the side of the silo, then cleaned it up with a dry brush. Now the model's ready for the layout. 

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Keep your scenery looking its best

Dust and time take the sparkle out of even the best scenery

By Kathy Millatt • Photos by the author

There are two main issues with aging scenery: dust build-up and fading. Battling dust is an inevitability and an uphill battle if scenery work is continuing elsewhere in the room. Both dust and fading occur gradually over the years and can be hard to spot. Water and rolling stock will often be the first to show the dust, but eventually even vegetation will start to look dull and unappealing. While this article will look at how to clean up old and tired layouts, it's worth considering first how to prevent the problems before they arise.

Controlling dust and UV

The benefits of a temperature-controlled room, properly finished with sealed floors, are immeasurable. Not all of us can afford this, but even a coat of paint on a concrete floor can help control dust from that source, while a finished ceiling will prevent dust from above.

I've seen all sorts of systems in the railroad press, from positive air pressure pushing dusty air out to filter systems, but they're beyond most of us. Finishing a room is more achievable.

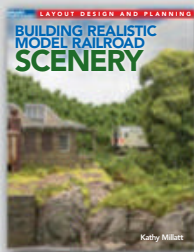
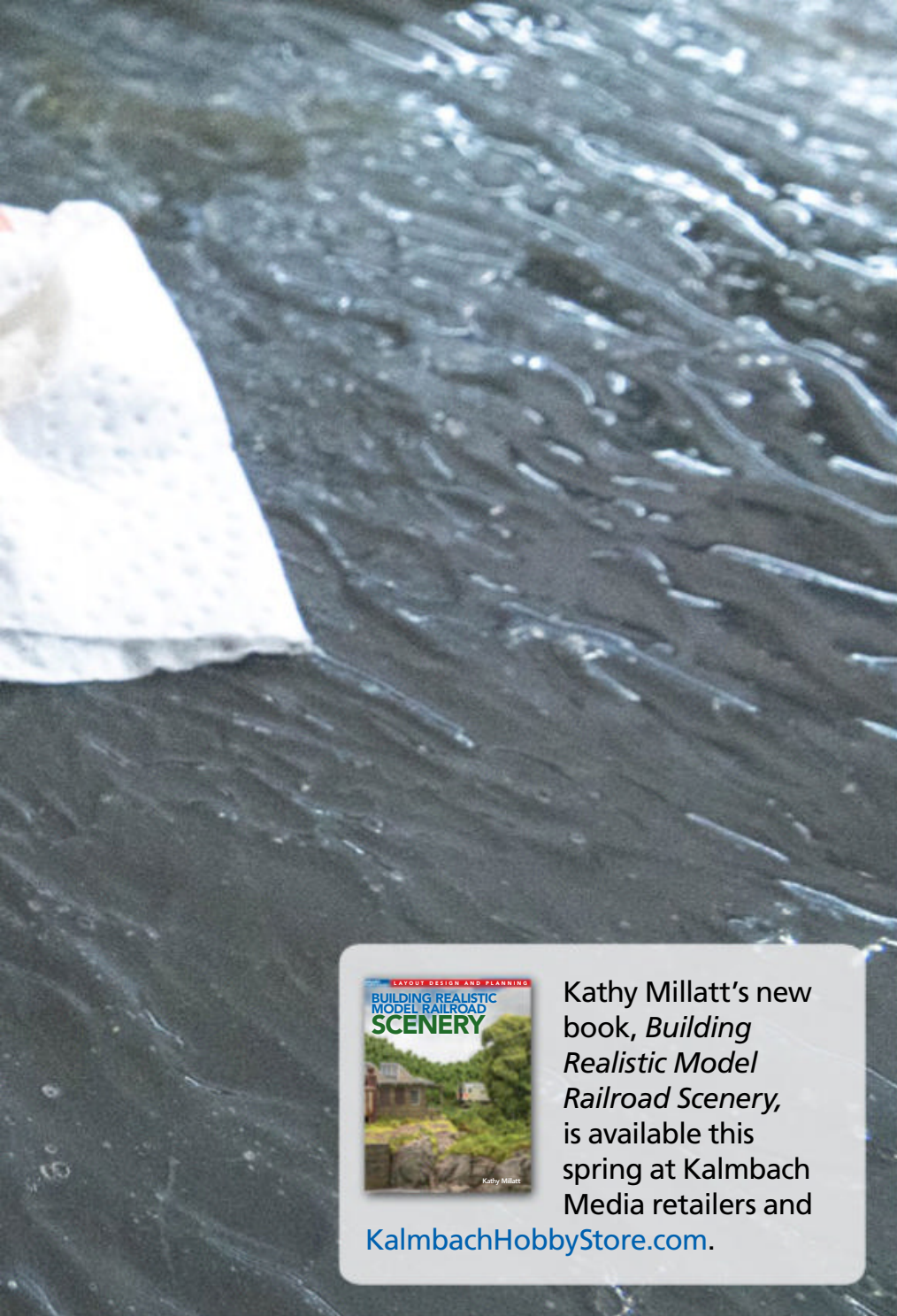
As an alternative, enclosing the layout can cut down the dust reaching it. Consider adding a top enclosure if no room ceiling is possible. Plastic sheeting or permanent curtains are options to seal the front. Dioramas are easily stored with either plastic sheeting over the top or in a box.

I build all my messy scenery in a different room if I possibly can to cut down on dust. Aerosol cans put out a lot of particulates, so I always try to use these outside. This may not be practical for everyone, but using a vacuum to catch dust as it's created will help.

While considering ceilings, it's also a good time to sort out the layout lighting. The second key issue is fading, which is caused by ultraviolet (UV) light, either from sunlight or some types of bulb, such as fluorescents. Installing curtains or blinds on windows, choosing low-UV-emitting layout lighting, and adding UV shields to fluorescents will go a long way. The same protective curtains used to keep dust off can also keep light out.

Cleaning and touch ups

No matter how diligent you are, dust will settle over time. The best way to address this is regular cleaning, but it can be scary taking a vacuum to your precious scenery. I've lost a lot of leaves on my older trees doing this. Nonetheless, a vacuum cleaner and a soft brush are key tools for removing dust. I always use a pair of tights or pantyhose over the end of the vacuum to catch any important parts of scenery that may have come unstuck.



Kathy Millatt's new book, *Building Realistic Model Railroad Scenery*, is available this spring at Kalmbach Media retailers and KalmbachHobbyStore.com.

Even the best-protected model water will get dull and dusty over time. A regular cleaning will help bring the shine back.

Regular or irregular cleaning can leave bare patches, as will knocks and spills. Touching up with paint or additional scenery may be necessary, and a note of what scenery products have been used or sticking to standard colors will help immensely at this point.

Adding another layer of ground foam is always an option for bare patches or badly faded areas. Faded colors can sometimes be resuscitated with a spray of water or matte varnish, which helps knock down the dust, or with paint the color of the original vegetation. Many of the scenery techniques I describe in my new book, *Building Realistic Model Railroad Scenery*, finish with airbrushing a paint color over scenery like grass or trees. Such a painted finish is less prone to fading and also easy to touch up if needed.

Finally, if all else fails, consider it an opportunity to use all the new techniques you've learned since you did the original scenery and replace it. I'm constantly ripping out and upgrading scenery as I learn new techniques. Though it can be painful, it can be beneficial in the long run.

Kathy Millatt is a regular contributor to Trains.com with her Let's Make a Scene video series. She has also appeared on the British television series Great Model Railway Challenge, written articles for various model railroad magazines, and has a new scenery book, Building Realistic Model Railroad Scenery, coming this spring. Kathy lives in England.

STEP 1 Vacuuming



The first step is to check for any loose details before vacuuming the worst of the dust off. For flat smooth areas, such as my dock water, I use the brush attachment on my vacuum, but for most areas I use a soft paint brush to remove the dust in such a way that the vacuum catches it. To stop any important details being lost, I put a pair of tights over the end of the vacuum nozzle.



Vacuuming vegetation can be problematic and may defoliate areas as well as removing the dust. I do vacuum static grass, as I will have done this in the original modeling.



Quite a lot of detritus will be caught up in the vacuum nozzle. It was surprising how much fluff there was in this.

STEP 2 Water mist



Dust can be settled into the vegetation by a light mist of water. Here I have also wet the surface of poured resin water prior to cleaning it.



This water has a layer of gloss medium, so a paper towel is suitable to clean off any dust. However, unprotected resin may scratch. If the water surface is resin, I would use a softer rag.



Finally, I use cotton swabs to reach around the smaller details or rougher surfaces.



Gloss medium may turn white when it gets wet, depending on the brand, but it will turn clear again as the water dries.

STEP 3 Renewing materials



For areas that have lost their shine, you can add another layer of gloss medium or gloss Mod Podge once it's clean. Be careful not to seal any dirt in, as it will be impossible to get out afterward. Froth that has lost its whiteness can be touched up with more white paint.



Finally, have a check and reapply any bare patches or missing foliage or use an airbrush to add back any faded colors. Your layout should look brand new again. **MR**



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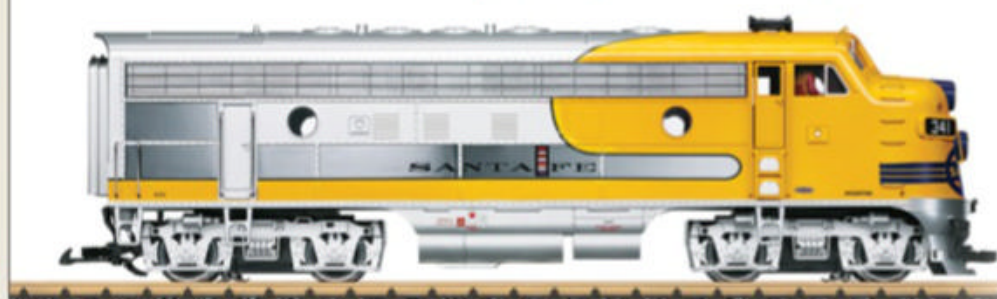
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Building L-GIRDER benchwork

This progress photo of our State Line Route N scale project layout shows all phases of model railroad construction, from bare plywood to scenery. Cody Grivno photo

A flexible layout support system for railroads large and small

By David Popp

For as long as there have been model trains, people have been looking for ways to build something to keep those trains off the floor or kitchen table. That “something” is usually called benchwork. There have been a lot of methods for building benchwork over the years, and after constructing more than 30 layouts, I feel as if I’ve used a good portion of them myself.

The one technique I keep coming back to again and again, however, is called L-girder benchwork. This system for building layouts was invented by former *Model Railroader* Editor Linn Westcott in the 1960s, and it’s a simple, sturdy, and flexible way to make a model railroad.

The system uses basic leg assemblies to support pairs of girders separated by

spacers. The girders are made from two pieces of dimensional lumber (usually a 1 x 4 and a 1 x 2) to form a beam with a flange on top. Even though it is inverted, the finished girder looks like a capital letter L, giving the system its name.

With the legs and girders assembled, you can add joists and risers just about anywhere you want across the tops of the L-girders to support your roadbed, track, and scenery.

You can easily build the legs, girders, joists, and risers yourself from common building materials. As shown here, I used L-girder benchwork on our State Line Route N scale layout, but you can use the same techniques to make just about any model railroad large or small. It’s even under the large, room-filling

HO scale MR&T. In fact, that’s exactly why I chose it: Our smaller State Line Route layout is made to be expandable. Just split the layout into its two halves, make a few more L-girders and legs, and you can quickly add new sections to your railroad empire. This system works so well, I even used it for my large slot car track at home!

The State Line series

January: Meet the State Line Route

February: Benchwork

March: Track and wiring

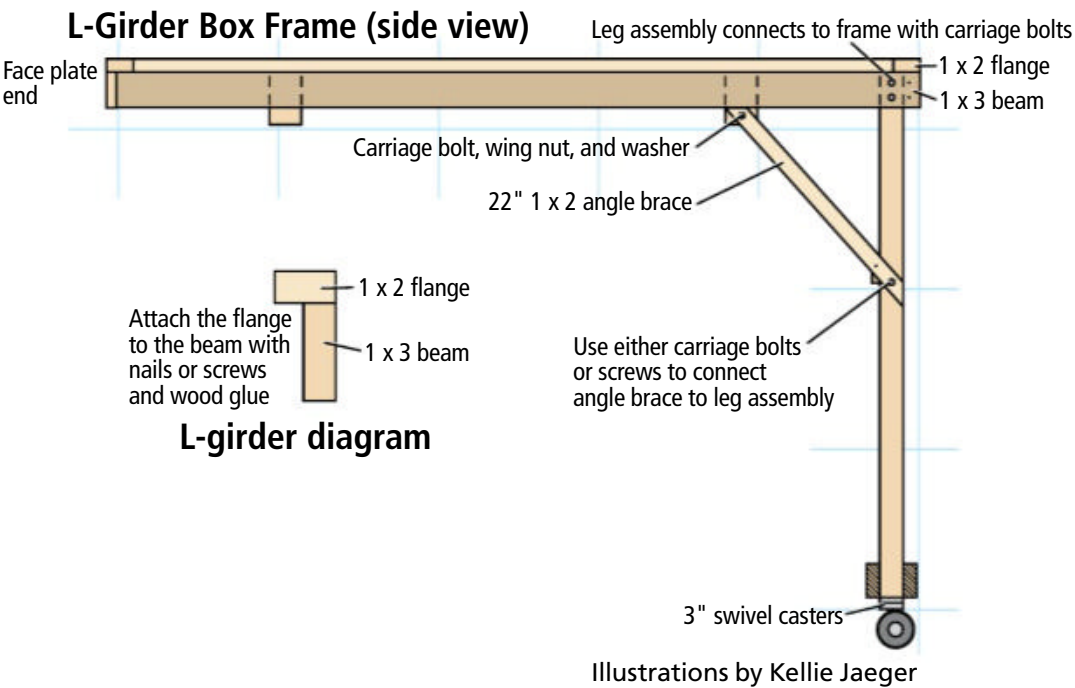
April: Scenery tips



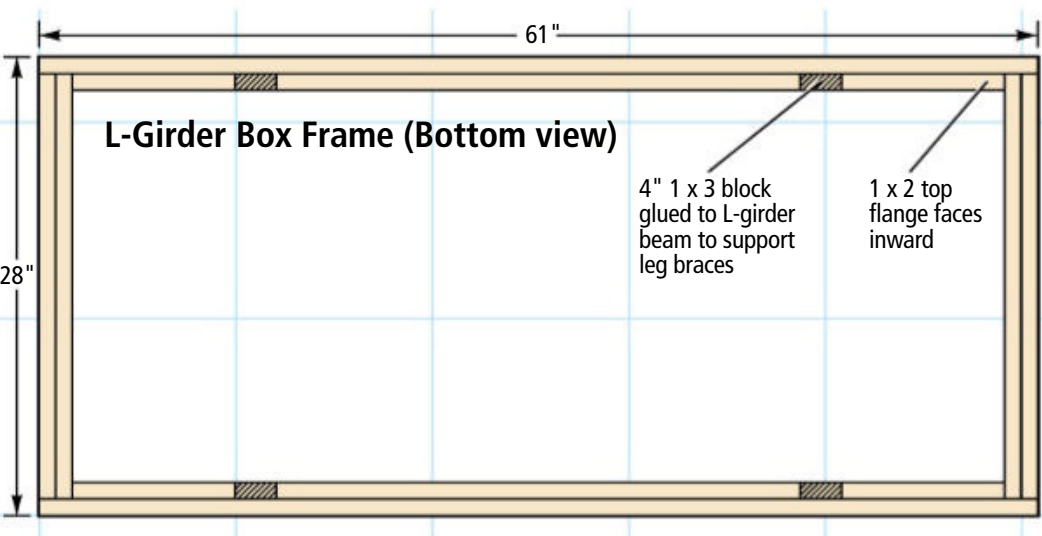
Building L-girders

As shown in the illustration here, L-girders are very easy to make. The size of boards you use for the girders depends upon the length you want the girder to span between leg assemblies. Because the L-girders are glued and nailed together, they are much stronger than each piece used individually. They also are not prone to warping or sagging over time.

I've built L-girders up to 16 feet long using a 1 x 4 beam and a 1 x 2 for the flange. For our project railroad, though, I didn't need it to be that big, so I used 1 x 3s for the beams with 1 x 2 flanges.



Illustrations by Kellie Jaeger



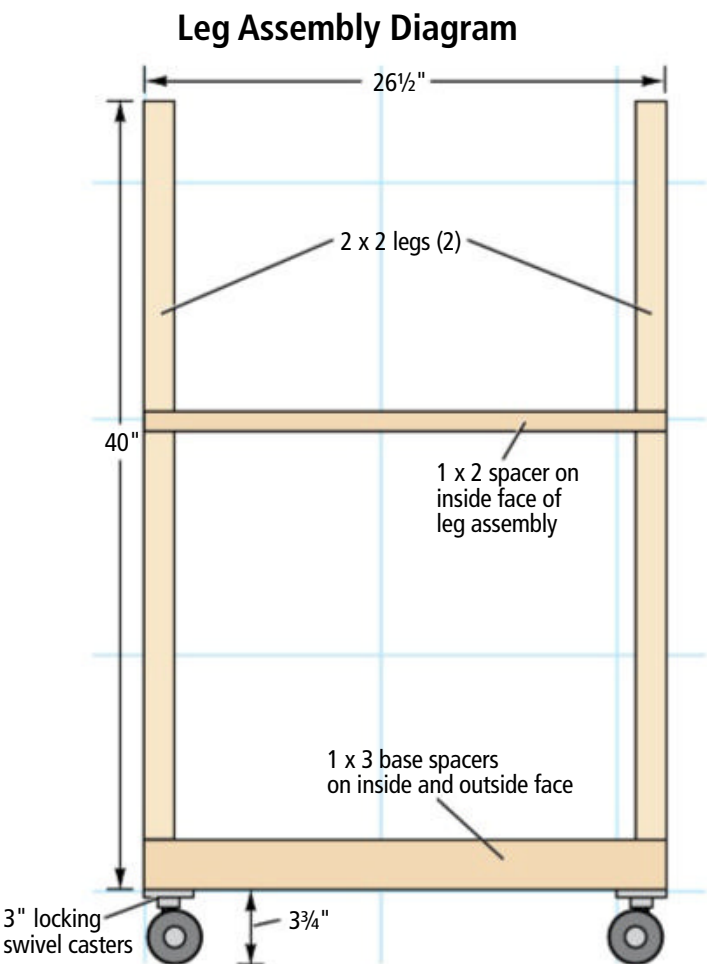
L-girder box frame

Because the layout needs to both roll and come apart into two sections, I built a pair of L-girder boxes, one for each half of the layout. The boxes are 61" long by 28" wide. The flanges face into the boxes. I used L-girders for the ends of the box as well, which provides an attachment point for the joists that fan out to form the curved ends of the model railroad.

The legs attach to the L-girder frames with 1/4" carriage bolts, wingnuts, and washers. To give each set of the legs stability, I installed a pair of 22" long 1 x 2 angle braces. The braces attach to the box frame at four 4" 1 x 3 blocks glued to the beam 12" from each end, as shown in the diagram.

Basic leg assembly

Our basic leg assembly requires two legs, made from 40" long 2 x 2s, a 1 x 2 mid-section spacer, and two 1 x 3 bottom spacers. To fit our layout, the finished leg assemblies are 16 1/2" wide. Because our layout needs to move around a lot, I installed 3" locking casters on the bottom of the legs. If you are building a permanent layout, you can forgo the casters and install furniture leveling feet, found in the hardware section of most home centers. For this layout, I built three leg assemblies.



Benchwork lumber list

- 1 x 2 x 8 (9)
- 1 x 3 x 8 (14)
- 2 x 2 x 8 (3)
- 1/2" plywood 4 x 8 sheet (2)
- 3/16" tempered hardboard 4 x 8 sheet (1)
- 1/4" MDF 2 x 4 sheet (2)
- 3" casters (6)

MORE ON THE WEB

Trains.com members can watch video of the construction of our N scale layout, including the benchwork at [Trains.com](https://www.trains.com).

1 x 3 joist
1 x 2 flange
1 x 3 beam

L-girder frame



Countersink
screw heads

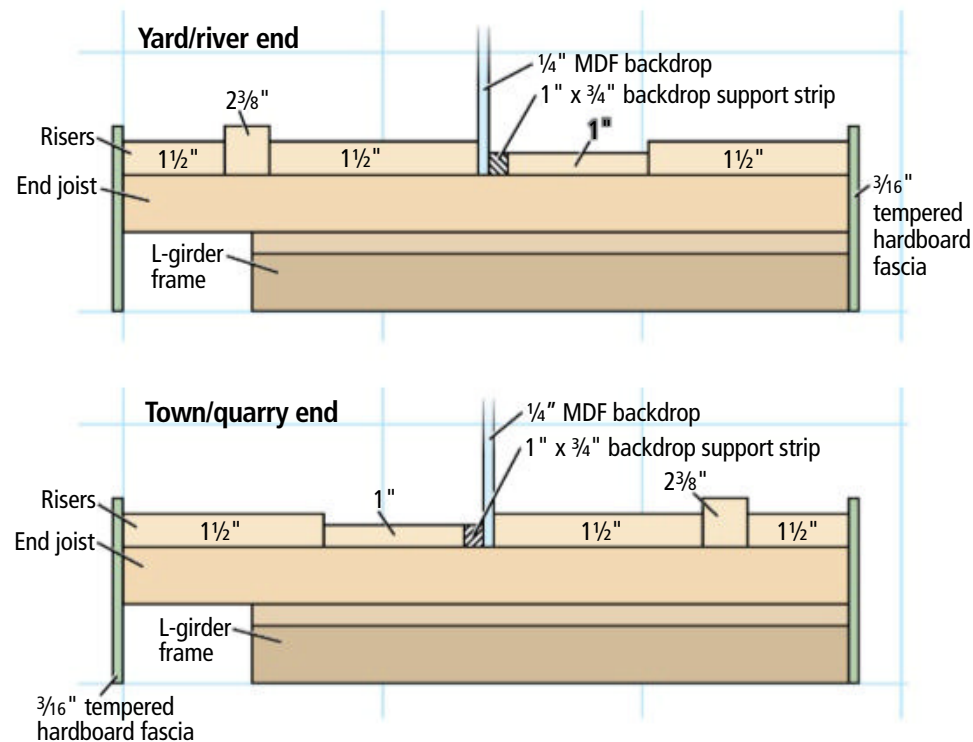
Screws hold fan joists to 46" joist at center

Plywood top

I used **1/2" plywood** for the subroadbed on the layout, as well as to support all non-track areas. The diagram shown provides a basic idea of the cuts necessary to get the top to the layout. Again, don't forget the 1/4" slit that needs to be cut for the backdrop.

You'll notice that the two sheets of plywood shown have and extra 46" half-circle cut from each. This circle fits underneath the fan joists to support the fascia (3/16" tempered hardboard), as it is bent to conform to the tight 23" radius curve at each end of the layout. The plywood is notched to fit around the L-girder frame and is screwed to the bottom side of the fan joists.

Layout Face Plates With All Risers Installed



Risers

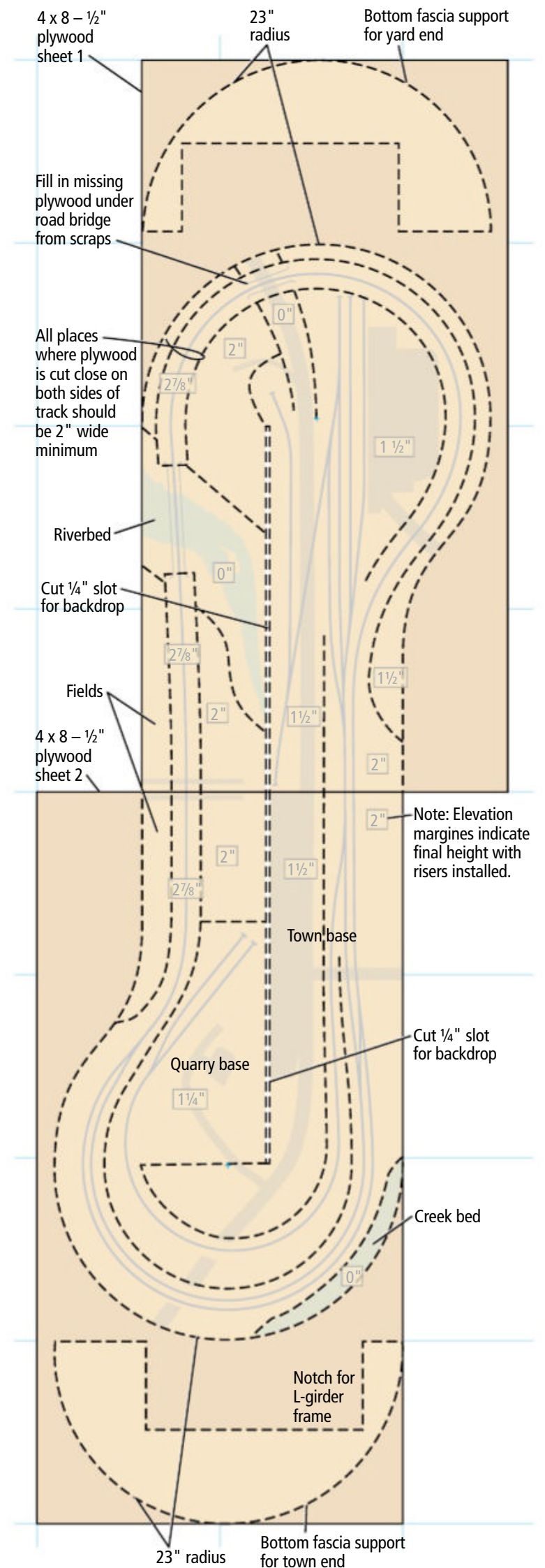
Thanks to the joist system, L-girder benchwork makes elevating sections of the layout easy. You can elevate the track by attaching risers to the joists, sliding them up and down until the track is at the correct height, then attaching the riser with screws to lock it in place.

Another option, and the one I used for our layout, was to cut support blocks of various thicknesses, then glue those to the tops of the risers to elevate the track. Once the glue set up, I installed the plywood top, using screws to lock it to the risers.

You can use the elevation markings on the plywood cutting diagram as a guide. Anything attached directly to the top of the joists, such as the river and the creek, has an elevation of 0". I've included a diagram showing the elevation blocks I installed at the face plates where the two sections of the layout join up, as this area covers nearly all of the main elevations I used on the railroad.

With the plywood installed, we're ready for next month's installment in the series – laying track and installing the Digital Command Control system. **MR**

Plywood Cutting Diagram





Locomotive no. 15 rolls into Kingfield with a passenger consist. Note the sparking tube on the pilot and the cleanout plug on the left front side of the boiler.

Adding that extra spark

This simple detail is an easy way to boost a steam locomotive's realism

By Lou Sassi • Photos by the author unless noted

Over the years, when looking over photos of prototype Sandy River & Rangeley Lakes RR steam engines in various books, I would sometimes notice a large tube laying on a locomotive's pilot. In time I discovered that these tubes were used by the crews for "sparking" the engines.

According to Peter Barney, author of numerous volumes on the Maine Two Footers, sparking involves mounting a

tube over an outlet below the smokebox of an engine and blowing out ash that has accumulated in the boiler.

Peter also mentioned that, despite having cleanout plugs on each side of the front of the boiler, SR&RL Forney no. 10 didn't require sparking because the locomotive had a "Hall-Slater self-clearing arrangement."

With that in mind I suggest a bit of research regarding the particular



This image inspired Lou's project. It shows a crewman "sparking" a narrow gauge locomotive. Photo courtesy Peter Barney

locomotive you're modeling before assuming it qualified for sparking. Although a sparking tube wasn't needed for no. 10, photos of other SR&RL Forneys and Prairies do show cleanout tubes on their decks.

Needless to say, it wasn't long before the management (me) of our On30 SR&RL decided that such a detail was needed on some of our engines. Besides, adding these tubes to the pilots of a few of the locomotives on the roster would be an excellent evening project.

The first thing I did was go to eBay and purchase a package of Evergreen styrene 1/8" diameter plastic tubing (no. 224). See the photos at right to learn how I turned the tubing into details that add to my steam locomotives' realism.



① The first step was to trim several lengths of the tubing to an O scale 4'-9" long with a single-edged razor blade.



② After trimming the tubing, I used a no. 11 hobby knife blade to ream out some of the inner thickness of the tubing.



③ I painted the tubes with Testor's Model Master Roof Brown. I let the half-painted tubes dry on four foam nails I pressed into a piece of scrap styrene. Once the paint was dry, I removed the tubes and painted the other halves.



④ I weathered them by brushing on black and rust dry pigments. I used the four colors seen on the right of the palette. Once I glued the tubes to the pilot decks using Aleene's Tacky Glue, the engines were ready to return to service. **MR**

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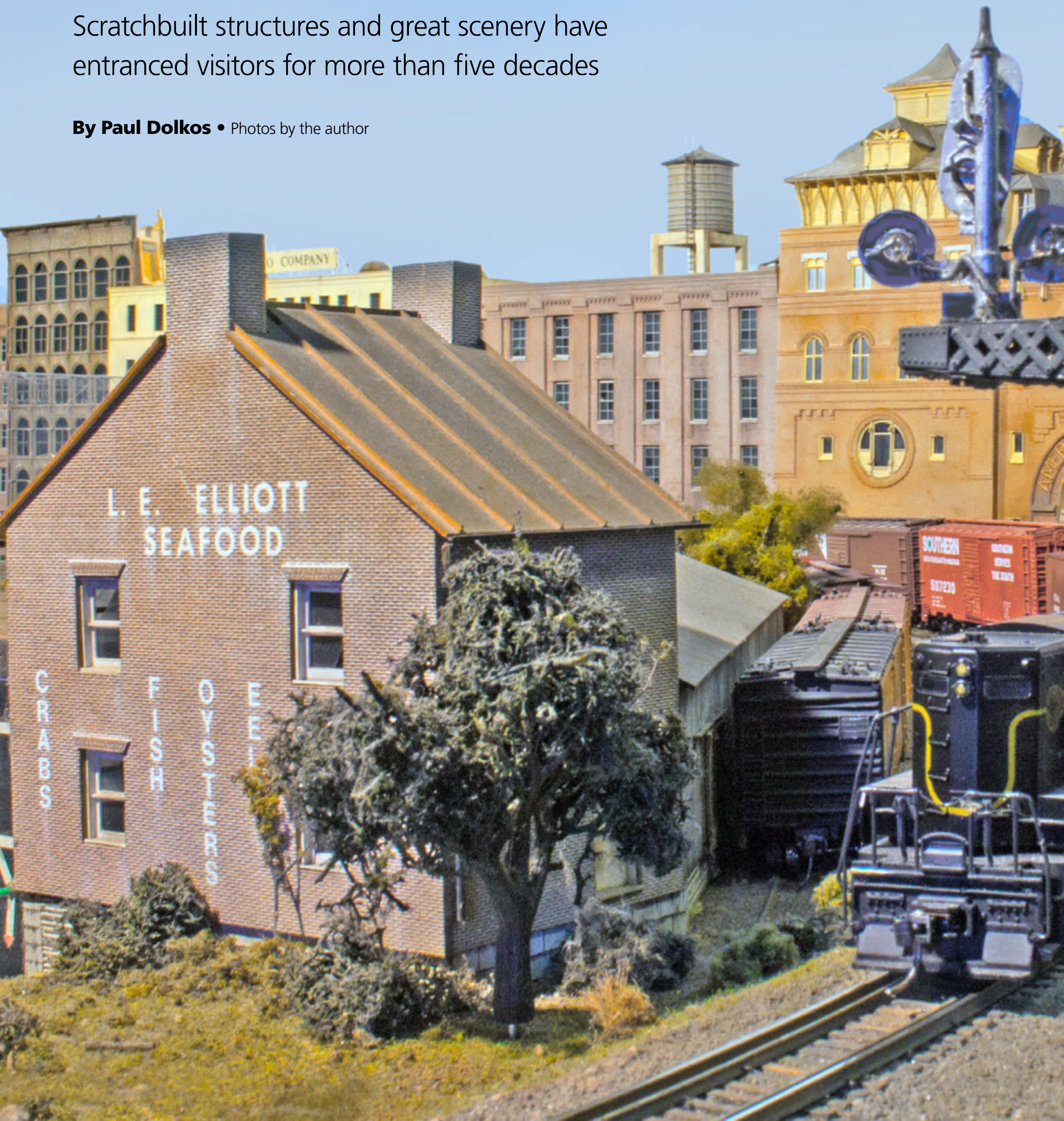
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By Paul Dolkos • Photos by the author



Park

① A freight train led by a Western Maryland GP9 rounds the curve as it passes through Potomac Junction on the Severna Park (Md.) Model Railroad Club's HO scale layout. At more than 56 years old, the club is still going strong in its former depot headquarters.





2 When the club's layout appeared in the November 1984 MR, the editors proclaimed the 13-foot-long Pittsburgh Steel Brunswick Works mill as the longest HO scale structure ever built. Logan Holtgrewe, the club member responsible for constructing most of the structures on the layout for more than 50 years, visited a Pittsburgh steel mill as research before constructing the model.

Maryland prototypes. Coal loads move from a mine to a ship loading pier in the busy port city. There's also a large steel mill operation and other industries to round out the picture.

The club was founded in November 1964 at the Depot Hobby Shop in Severna Park. By February 1966, it had become evident that both the club and the hobby shop needed more space. The club soon found the space it needed in the form of a former passenger depot on the Baltimore & Annapolis RR. This electric interurban ran between its namesake cities providing passenger service until 1950 and limited freight service until the late 1960s.

When the club first occupied the station, there were still tracks out front, not the current recreational trail. By April of 1967, the benchwork and much of the



3 An overall view of the club layout room. Logan Holtgrewe, the club's structure builder, is on the left, and club member Mike Zitzmann is at right.

Visiting the Severna Park Model Railroad Club HO scale layout is always a pleasure. The structures are outstanding and have passed the test of time. The complex and often overlooked

details on their roofs alone make them noteworthy models.

The club is located in its namesake town in Maryland, not far from Baltimore and Washington, D.C. The freelanced model railroad is inspired by the Baltimore & Ohio and Western

The layout at a glance

Name: Chesapeake & Allegheny RR

Scale: HO (1:87.1)

Size: 13 x 36 feet

Prototype: freelanced

Locale: mid-Atlantic

Era: 1950-60s

Style: around the walls

Mainline run: 201 feet

Maximum grade: 3 percent

Minimum curve radius: 36"

Minimum turnout: no. 4

Benchwork: open grid and L-girder

Height: 55"-70"

Roadbed: Homasote

Track: handlaid code 70 and 100 with handbuilt turnouts

Scenery: plaster hardshell on wire screen

Backdrop: painted on walls

Control: direct-current cab control

main line for the HO scale Chesapeake & Allegheny RR had been completed. The model railroad occupies a 36 x 13-foot space, relatively small for a club layout. The club layout first appeared in *Model Railroader* in the June 1973 issue.

Stunning structures

Visitors to a model railroad generally don't pay much attention to the basic benchwork or electronics, instead focusing on the more visible scenery and structures. Visitors to the Severna Park club since the late 1960s have been amazed at the range of model buildings and the detailing. The creator and builder of the structures is longtime member Logan Holtgrewe. In fact, he is far more interested in building structures, the more complex the better, than building a railroad car model.

Most of Logan's structures are built with styrene sheet and strip. Where appropriate, he models not just the central structure, but all the supporting sheds and other elements. To model a prototype, he would always try to find a friend or contact to enable a visit. Logan was able to do this before he built the large steel mill model. Today, the internet provides a good overview of industry operations, but Logan still prefers to visit the industry and observe its operations firsthand when possible.

Many of the layout's buildings and terrain date back to the club's early years. But the layout hasn't been static. Former club president Sam Shepherd wanted to

Chesapeake & Allegheny RR

HO scale (1:1)

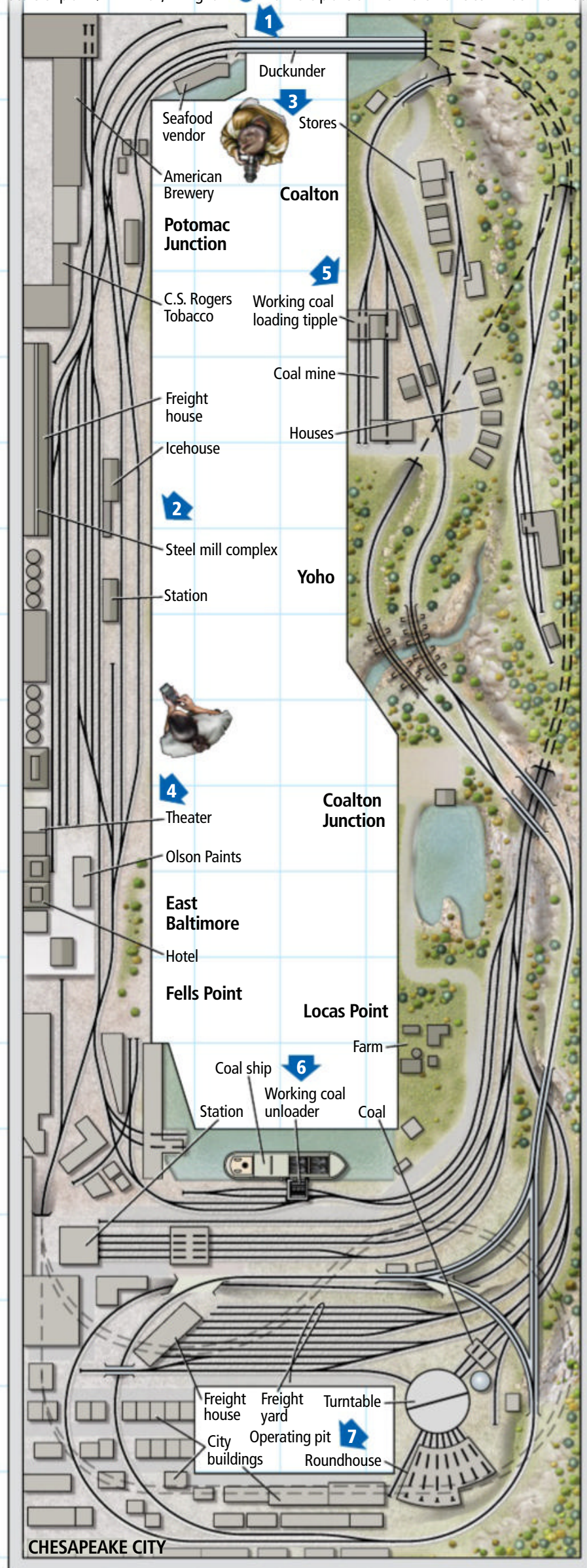
Room size: 13'-0" x 36'-0"

Scale of plan: 1/4" = 1'-0", 24" grid

Numbered arrows indicate photo locations

Illustration by Kellie Jaeger

Find more plans online in the Trains.com Track Plan Database.





add a city scene with street running, so a pier area was turned into a factory district and a commercial district with a movie theater and hotel. The new structures were scratchbuilt by Holtgrewe.

On several structures there are complex details that capture a visitor's eye. Some of the layout's intriguing details include a rooftop cooling system with complex piping or a scene of workers putting a fresh layer of asphalt on a roof. Something as simple as an exhaust fan can be an eye-catching detail.

Creating a scene with depth

Many model railroads don't have a lot of depth, perhaps 24" from the fascia to

the backdrop. For these layouts, a row of narrow structures and a city photo on the backdrop must suffice to establish an urban setting.

But at Chesapeake City on the Severna Park layout, there's more than 10 feet of depth. Here are a big city passenger station, a freight yard, and a roundhouse with turntable. To the rear and underneath are a couple of reverse loops. Club members have taken advantage of this space to establish their big city scene with several rows of urban buildings.

There's an access opening behind the long B&O freight house that permits a person to move locomotives in and out of the roundhouse and switch the yard.

4 Not all of the layout is devoted to industrial scenes. To give viewers (and the HO scale inhabitants of the layout) a break, this commercial street scene was built with a theater, retail stores, and hotel.

In front of the photo backdrop are rows of narrow building models that create a complex and convincing skyline. These fill the scene toward the rear while also providing clearance underneath for a couple of running tracks.

Moving live coal loads

So many of the features on the layout were created to support the railroad's story and operation. One example is a



coal mine at the end of a branch line that was built in a spot that wasn't reachable from the aisle. Empty hoppers could be spotted there, but there was no way to reach cars to add coal loads. Between sessions, the cars had to be brought back down the hill, have coal loads inserted, and be moved back to the mine. Later, a train would bring the loaded hoppers back down the hill and take them on to the Chesapeake City yard.

Members began to wonder why the tipple chutes couldn't be used to load the cars with live loads of scale coal. Then the idea occurred to build a loading pier for a coal ship in the port city. This is what happens when a club has members with engineering degrees and expe-



5 The large mine tipple at Coalton loads hopper cars with scale coal. The wooden tipple structure holds enough coal to load up to 40 hopper cars. The loading process is controlled remotely.

rience. Sam Shepherd visualized much of the design.

The plan that emerged was to build a new mine at the benchwork edge with the capability to load hoppers individually. Loading is controlled by an operator in the adjacent aisle, but during an open house when spectators are occupying the aisle, it can be controlled from a hidden location under the benchwork, thanks to a video camera. This seemingly hands-off operation makes visitors wonder how engines spot cars under the tipple, chutes raise and lower, and coal is loaded without apparent human intervention.

After the hoppers are loaded, a train is dispatched to move the cars to the layout's Chesapeake City Yard and finally to the coal dumper, where a coal ship is waiting. One by one the cars roll on to the rotary dumper. The car is clamped on a rotor and turned over to release the coal into the ship's hold. The empty car is then turned right side up and released, after which it coasts down on to an empties track. A detailed description of this operation was published in the July 1991 *Model Railroader*.

Of course, the club now needed a fleet of hopper cars to support this operation.



6 After a trip over the layout, loaded hoppers arrive at the Chesapeake City Yard, where they're emptied into a coal ship by a working rotary coal dumper. After unloading, the cars are released down the ramp and through a spring switch that routes them through a switchback to a collection track.



So the club purchased a run of custom lettered hopper cars. Some lettering includes the C&A herald, some not. Also the dimensional data includes tiny lettering with the Severna Park city initials and ZIP code. Car numbers were omitted so each member could apply any number in a personally assigned series unique to them with supplied decals. During operations, members would take pleasure in checking whether any of their cars were being loaded.

Still going strong

The club's layout is controlled by a standard direct-current block control network. Over the years it has served the club well and permitted the desired operations. Every so often, the idea of upgrading the layout to Digital



Command Control (DCC) is discussed. But few of the members have DCC decoders installed in their locomotives. So far, the cost and effort required to convert the layout and the members' locomotives to DCC hasn't garnered much support. However, if the club layout is ever replaced with a new railroad, it would likely be DCC-equipped.

After more than 55 years, the Severna Park Model Railroad Club's members are keeping this wonderful show going. Should you want to see it firsthand, check the web at severnapark.railfan.net. You'll enjoy the visit. **MR**

Paul Dolkos has been a regular contributor to Model Railroader and its special issues since 1973. His HO scale Baltimore Harbor District appeared in Great Model Railroads 2021.



Meet the club

The club is relatively small, with about 20 members currently. Meetings are on most Thursday evenings during the year with an annual open house. The group welcomes new members and can be contacted through its website at severnapark.railfan.net or through its Facebook page.

7 A high-angle view of the Chesapeake City area shows the layers of narrow urban structures that give the scene its crowded, big-city appearance.



M.R. Snell shares how he modified an HO scale flatcar and heavyweight passenger coach to make this interesting open load.

Modeling a RAILCAR LOAD

Develop new skills with this HO scale open-load project

By **M.R. Snell** • Photos by the author

Several years ago I photographed a rather unusual load on a Norfolk Southern manifest freight. No longer suitable for travel on their own were several obsolete Jersey Central and Reading Co. passenger cars, sans trucks, riding atop specially equipped flatcars. After some research I learned the flatcars are part of a fleet designed to carry railcars and are often used in derailment cleanup.

Replicating this car and load is a great learning experience for those new to kit-bashing, scratchbuilding, and detailing.

M.R. Snell is a frequent contributor to Model Railroader magazine.



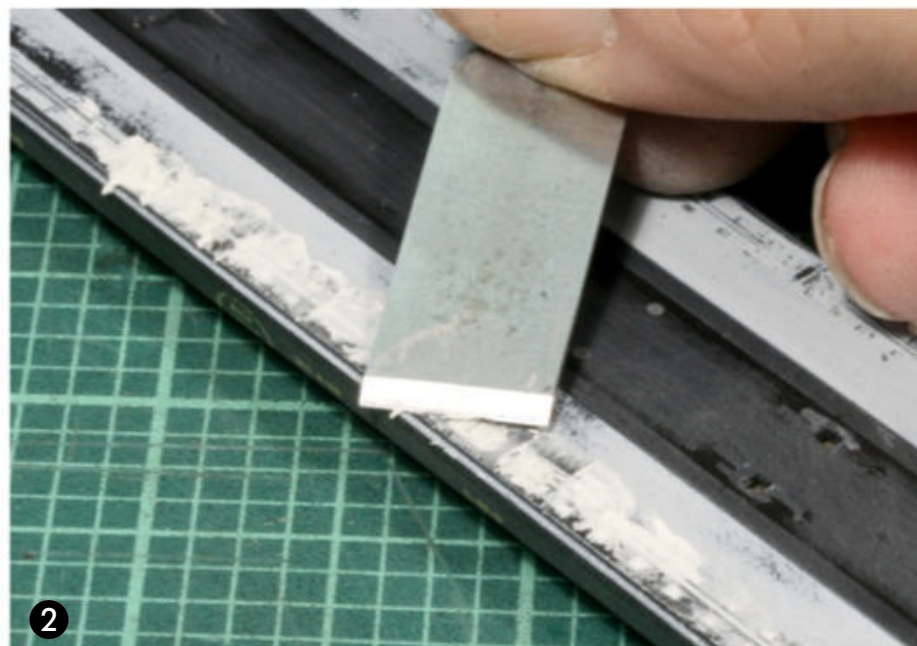
This Redstreak flatcar with QUAX reporting marks carrying a former Jersey Central passenger car inspired M.R. Snell's project.

STEP 1: FIXING THE DECK



I used an Athearn heavyweight coach and an 85-foot TOFC (trailer on flatcar) car as the base models. The first step was converting the model into a general-service flatcar with a plain deck. I started by snapping off the bridge plates on the A and B ends of the car. I then removed the bridge plate hinges with a no. 18 chisel blade in a hobby knife, holding the blade flush with the deck.

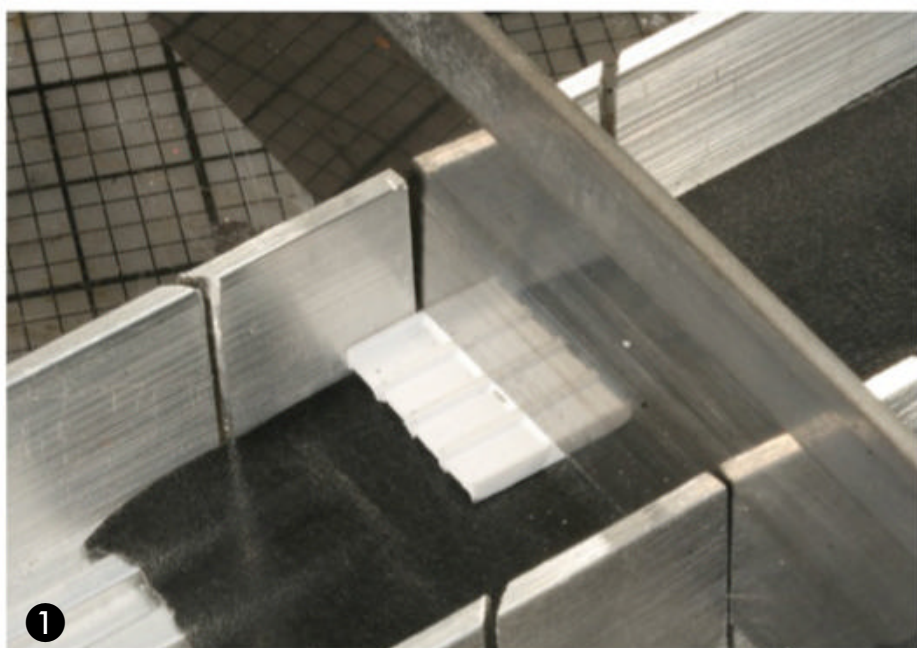
Removing the raised center sill, which serves as the rub rail for trailer wheels, and the hitch mounts was next. I held the chisel blade at a 45-degree angle with the beveled edge



down and cut into the center sill. I allowed the knife to glide down the deck, keeping it in line with the lower edge of the sill so I wouldn't gouge the plastic ①. After the raised center sill had been removed, I used the same blade to get rid of the molded hitch mounts.

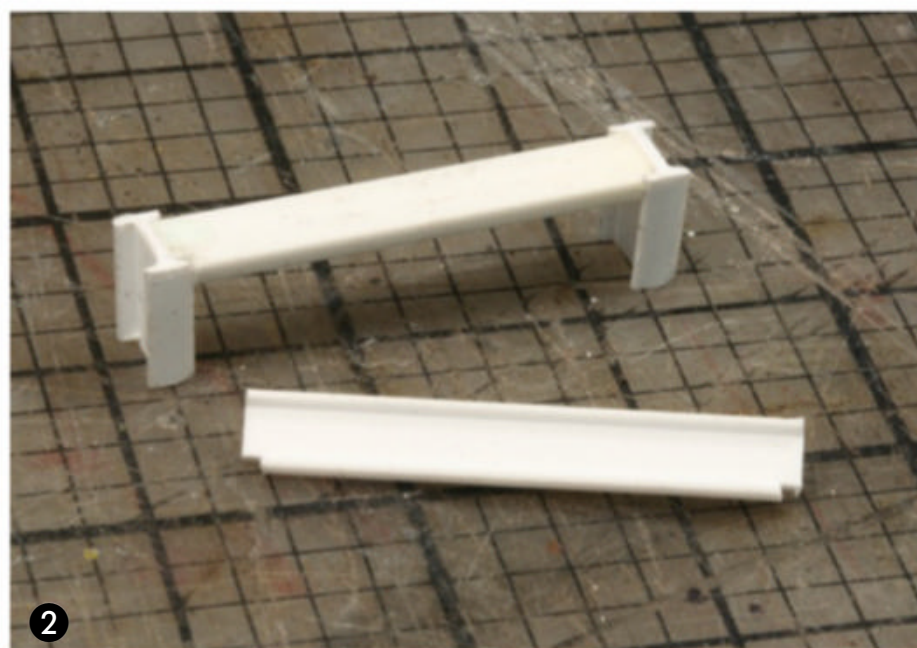
Though the car now had a flat deck, there were holes from removing the deck-mounted apparatuses. I spread Testor's Contour Putty over these areas and the recessed container pedestal slots and notches ②. I sanded the deck with 800- and 1,000-grit sandpaper after the putty hardened.

STEP 2: ADDING SUPPORTS



Next, I focused on transforming the flatcar into a railcar carrier. To do this I needed to add bolster supports to the deck similar to those on the prototype. I modeled the upright outer sections of the supports using Evergreen $\frac{3}{16}$ " styrene I-beam. To ensure all four pieces were the same 24" length, I taped the styrene together at one end and made the cut using a razor saw and miter box ①. I cleaned up the edges of the cuts using a sharp no. 11 blade to remove the styrene fuzz left by the razor saw.

Then I cut $\frac{5}{32}$ " styrene channel to scale 7'-6" lengths and notched one side of each end so it would fit into the I-beams. I glued the channel to the I-beam uprights as shown in ②.



With the support structures assembled, I began work on the angle braces. On the prototype, four pieces of square steel tube extend from the deck to the bolster supports. I used .060" x .060" styrene strip to represent the tube. To ensure the braces were at the same angle each time, I made a styrene jig.

First, I calculated the angle the braces needed to extend from the bottom of the channel to the deck. I marked that angle on a scrap piece of styrene and placed small pieces of .060" square strip on these marks. Then I cemented scrap strip on both sides of the square strips, forming a channel.

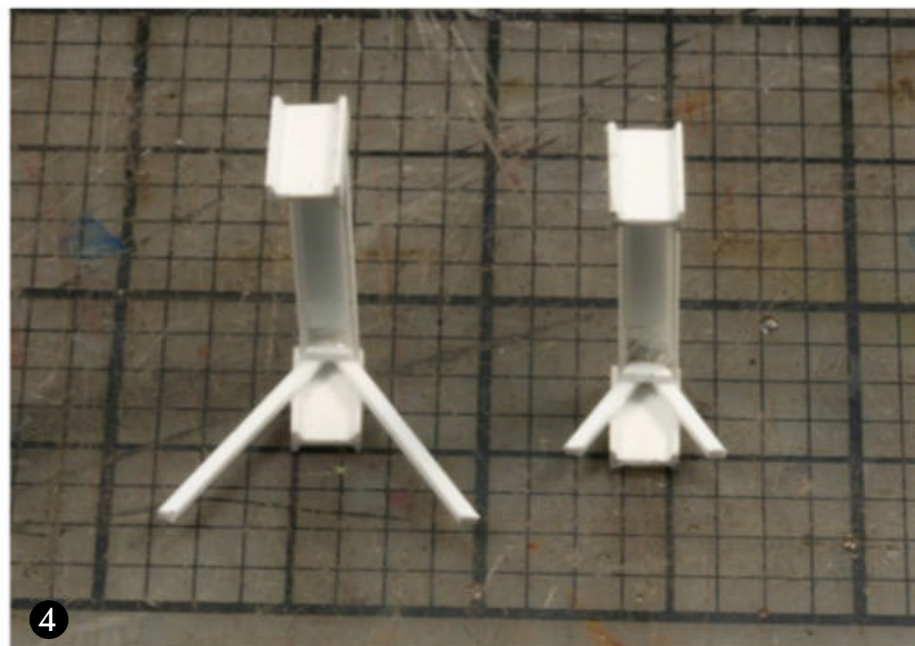
With the jig constructed, I laid a length of .060" square strip in each channel. I then cemented a slightly

STEP 2: ADDING SUPPORTS (CONT'D)



oversized length of the same size strip horizontally across the top of the two pieces ③. When removed from the jig, the braces were at the correct angle.

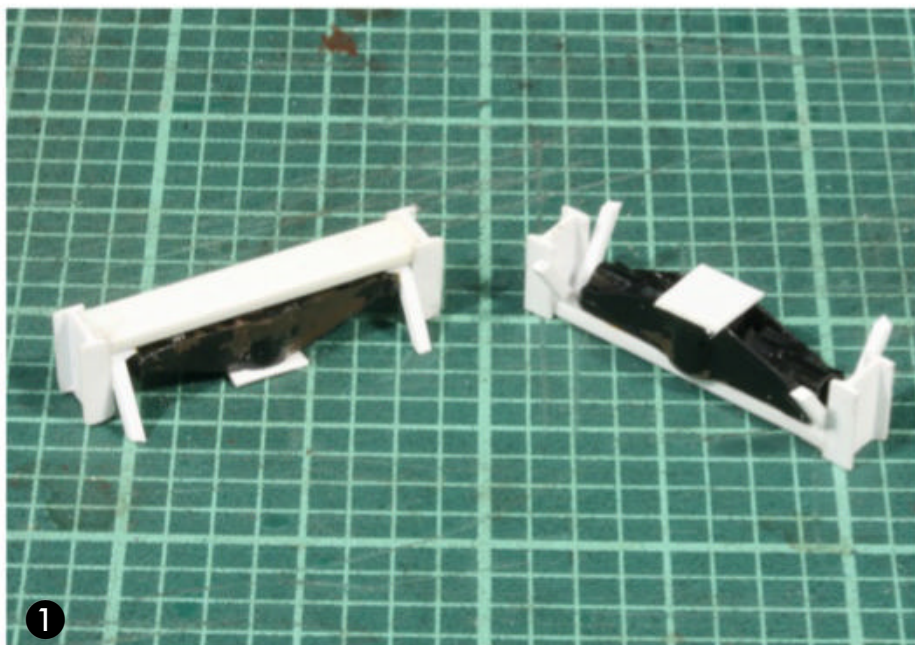
Before I could attach the angle braces to the bolster supports, I had to trim the horizontal strip. This forms a flat top A frame that fits inside the channel. Then I used plastic



solvent cement to attach the angle braces to the bottom of the channel, inboard of the I-beam ④ (left).

Once the solvent cement dried, I turned each support on its side. I used the grid on a cutting mat to align the cuts, which I made with a no. 18 blade. The assemblies were now at the proper angle and length for installation ④ (right).

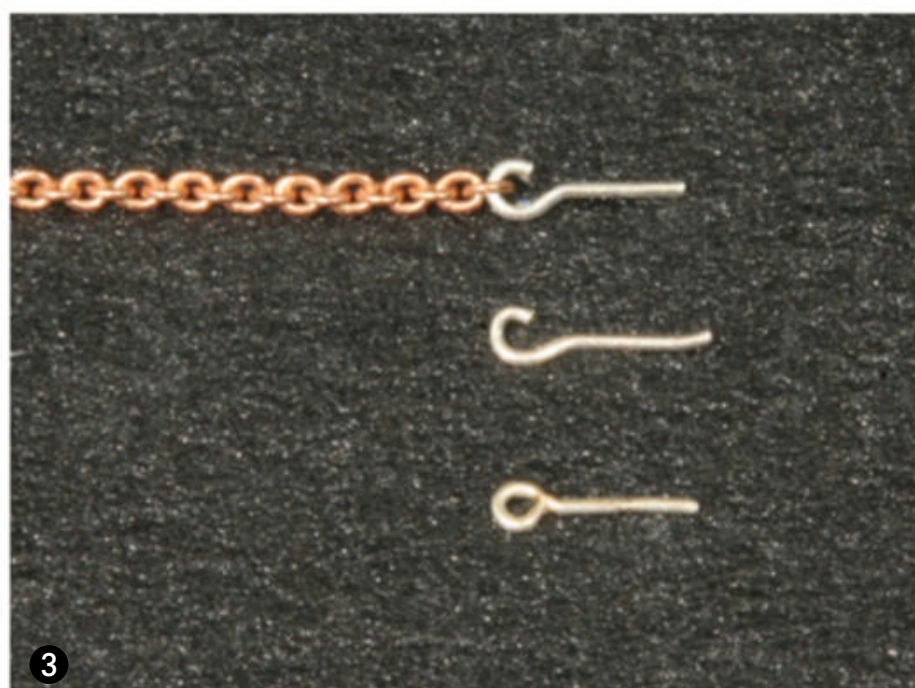
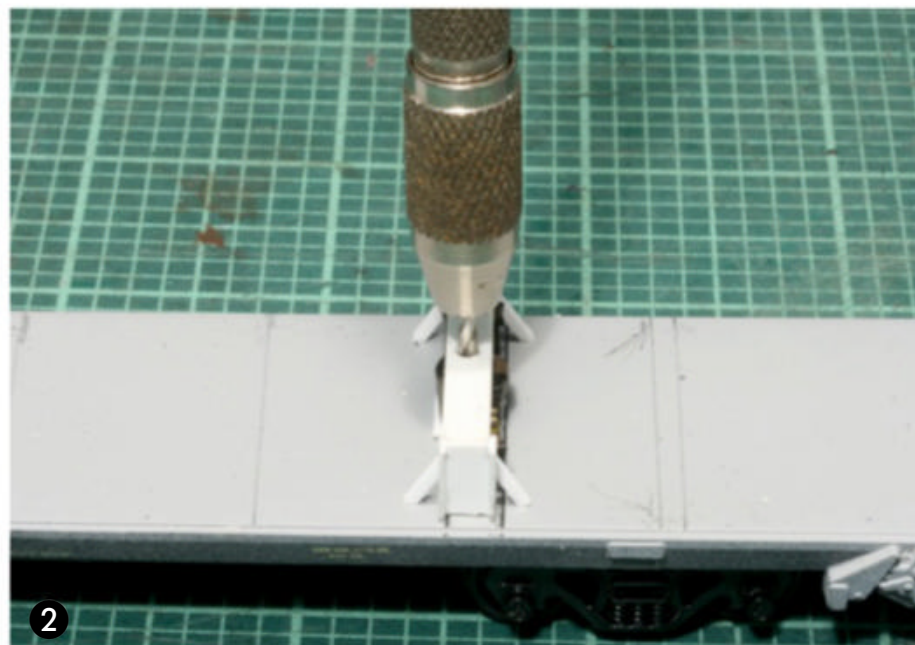
STEP 3: BOLSTERS AND TIE DOWNS



On the full-size car there's a truck bolster between the uprights with nothing above it. I wanted to capture that detail, but I knew the plastic most model freight car trucks are made from is difficult to glue. My modified assembly allowed me to wedge the bolster in place between the uprights. Then I placed the assembly on the flatcar deck and checked to see if the bolster rested flush on the deck. It didn't, so I cut a small square styrene shim to fill the gap ①.

I secured the bolster supports to the flatcar deck with cyanoacrylate adhesive (CA). Once it had cured, I drilled a hole through the top center of each support ②. This allows screws, inserted from the top of the underframe, to be threaded into the bolster supports.

Though screwing the passenger car underframe to the bolster supports is enough to secure the car, chain tie downs add to the realism. I began by grasping the leg of a Detail Associates eye bolt (no. 2206) with pair of pliers. Then



STEP 3: BOLSTERS AND TIE DOWNS (CONT'D)

I inserted a no. 11 blade into the eye and twisted it slightly, making the eye bolt look more like a question mark, as shown in ③ on the opposite page. I inserted the opened eye into the last link of a length of A-Line no. 29216 brass chain and closed up the eye with pliers.

Next, I drilled no. 80 holes along the edge of the flatcar deck and inserted the eye bolts. I then drilled holes through the underframe of the passenger car and ran the chains through the openings. I temporarily secured the chains with tape and cut them into 1½" or longer lengths ④.

Since the coach had truck-mounted couplers, I added Kadee draft-gear boxes to the underframe. Then I set the same firm's couplers into the boxes. I constructed chain tie-downs in the same manner as those for the side of the load, except cut to 2½" lengths, for the car ends. Read how I secured the tie downs to the underbody in step 4.



STEP 4: FINAL TOUCHES



I painted the flatcar Tru-Color Oxide Brown and decaled it with white Railroad Gothic letters and numbers and data from Trailer Train decals produced by Microscale.

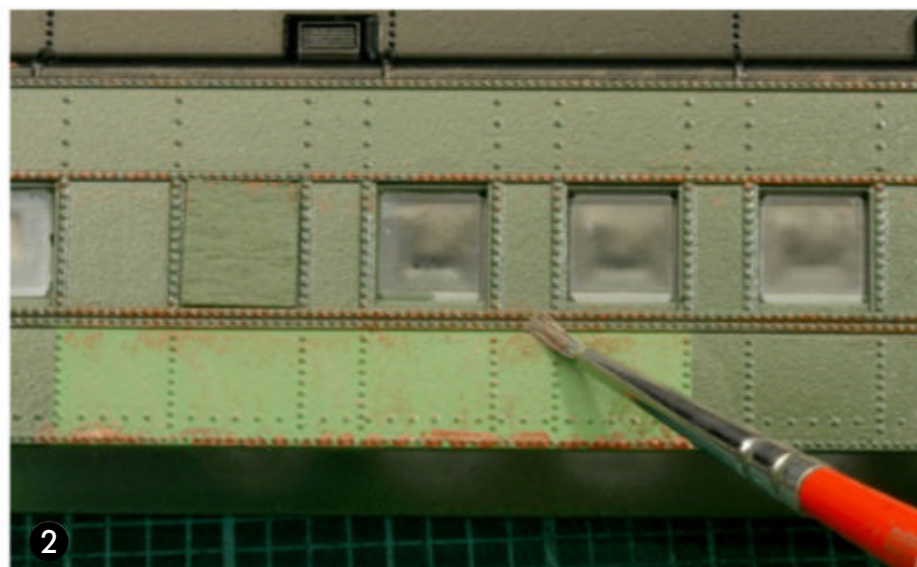
Then I turned my attention to the coach. Older cars often have scratched, broken, or fogged windows. I sanded the glazing with 1,500-grit sandpaper, which left them hazy without visible scratches. I then set the glazing aside.

I noticed the prototype had several windows covered in plywood, presumably covering missing or broken panes. I found 1/32"-thick plywood strip in my scrapbox, which I cut into "plugs" to cover several windows as well as the open vestibules. I cemented all but one of the plywood plugs in place with CA. I left one plug unpainted and installed it after the coach had been painted, representing a covering installed more recently ①.

Before painting I noticed one other detail I wanted to replicate. The full-size car lacked a set of steps, presumably due to damage. I removed one set of steps on the Athearn model, dramatically changing the appearance of the load.

I airbrushed the coach Pullman Green and the underframe weathered black. Once it was dry, I masked panels that would remain the Pullman color and applied Green Zinc Chromate to simulate metalwork that had been replaced.

Next, I stippled Testor's Rust along the lower edges of the car with a paintbrush ②. I followed that up with a liberal dusting of black weathering powder.



Attaching the load to the flatcar is the last big step of the project. I carefully screwed the underframe to the bolster supports. Then I turned the flatcar upside down and threaded each chain through its respective hole in the passenger car underframe. With the car once again upright, I pulled each chain until it was taut and taped it to the top of the floor. I secured each chain with a generous application of CA. Finally, I set the coach shell onto the underframe ③.

With that, the flatcar is ready to ride the rails. The passenger car load will certainly stand out at the head end of a freight train on my HO scale Conrail layout. 



UNDOING PERSPECTIVE in reference images

Geometry yields more accurate dimensions for making structure plans from photos

By Wim Harthoorn

BOB FOLZ, IN HIS ARTICLE “Scratch-building without plans” (*Model Railroader*, November 2012), suggested that while estimating vertical dimensions from photographs was relatively easy, estimating horizontal dimensions wasn’t unless you have photo-editing software with which to manipulate digital images. Although I have that

software, I wouldn’t use it for that purpose, as there’s a neat pencil-and-paper technique that delivers better results.

At the outset, I’d say that there’s no substitute for taking a tape measure to the building being modeled and supplementing that with dozens of detail photographs, or for sourcing the original plans from an archive. But that isn’t

always possible. In my case, the prototype I wanted to model is some 6,000 miles from my home. In other cases, the gap is one of time, as steam- and transition-era modelers may find that the structure in question has been demolished and the only surviving record is a photograph. It is then that the technique I will describe proves its worth.

If your only reference for a structure is a photo shot at an angle, getting usable dimensions for scratchbuilding from it can be tricky. Wim Harthoorn explains how to do it with a simple diagram. Wim Harthoorn photo

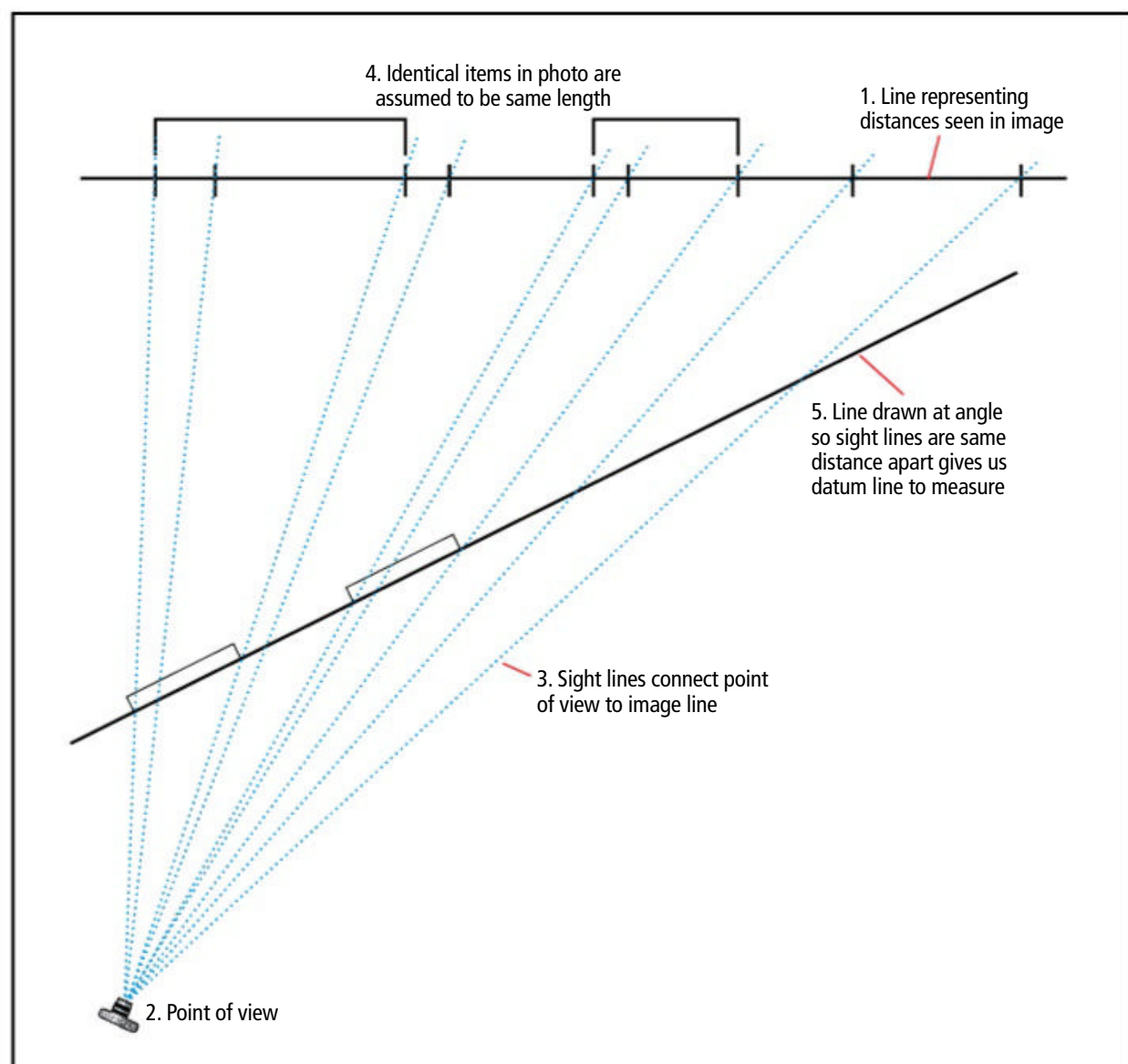


Illustration by Kellie Jaeger

The other problem is that the relative position of objects at different distances from the camera changes with the angle they are viewed. It would be possible to adjust for that by placing different planes on separate layers in the digital photograph and moving the layers in relation to each other, but that's a lot of work just to make a drawing.

Removing perspective

We start with our photograph. What we want are two or more features that are likely the same width. In the photo of a line of shops, we can assume that each shop unit is the same width. So we draw a horizontal line at the level of the upper floor and measure the distances along that line between the dividing pillars. We transfer those measurements to a horizontal line on a drawing.

The next step is to mark a point to represent where the photographer was standing. The position of this point doesn't have to be all that accurate, as long as the orientation of the viewpoint to the subject is correct. If the photographer stood to the left of the subject, then our point should be to the left. From that point, we draw sighting lines to the marker points on the horizontal line.

How this works is that our point represents the camera lens and our

horizontal line represents not the subject, but its image on the backplane of the camera – the film or digital sensor. Now we want to draw a line that represents the angle our subject makes with the line of the camera backplane. On this line, the measurements for the width of each shop unit will be the same. Once we have that positioned, we have a datum line for our drawing.

From datum to data

What we don't have, though, are any dimensions, unless we can get them from another source. No matter; we can repeat the exercise using the shop front of the fish and chip shop, where we can assume the three windows are the same size. If we estimate a 3-foot-wide shop doorway, we can calculate a likely width for each shop unit. And once we have a dimensioned framework for our drawing, we can fill in more details, using photos taken from different angles as well, if we have them.

Our aim here is to produce an outline drawing from which we can build a model in plastic or wood. Micrometer accuracy is not necessary, but this technique will be accurate to a millimeter or so – representing 3½" in HO scale – and that's plenty good enough for the purpose in mind. 

The limits of flat images

Our starting point is the best photograph we can find of our subject. The problem with a photograph is that it is a two dimensional representation of a three dimensional object. Nothing new in that; humanity has been representing 3D objects on a two-dimensional plane since the time of the Great Masters. But in doing so, we lose information. And no matter how clever our photo-manipulating software is, it can't put back lost information. The camera that can look around corners or see behind foreground objects has yet to be invented. The same is true for the camera that produces images that are pinpoint-sharp over the entire field of view. These limitations mean that the results of using software to stretch an image to undo perspective distortion are generally disappointing.

Implementing stay-alive circuits



1 Digitrax Power Xtenders. Digitrax offers two different size Power Xtenders with connectors for use with its decoders. If you want to cut off the connector and solder it to a third-party decoder, do NOT connect the stay-alive’s black wire to the decoder’s black pick up lead. It will not end well.

Stay-alive circuits can keep your locomotive powered over dirty track, poor power pickup from your locomotive’s wheels, unpowered frogs, or other power interruptions like those that occur with some turntables. Stay-alive circuits are most desirable for sound decoders, where an interruption in the sound is hard to overlook. They go by various trade-marked names, but they all perform the same function. These circuits generally employ “super capacitors” that can store a large amount of energy for their size and can hold it for longer than an ordinary capacitor.

Decoders with a socket for stay-alive circuits are a breeze to hook up. Just insert the plug. If fine soldering is in your skill set, then decoders with solder pads for stay-alives aren’t much harder. Super caps were developed for computers that operate on just a few volts. If you hooked up a super cap to excessive voltages, like DCC track voltages, they will explode. To avoid this, the manufacturer hooks up several of them in series, raising the effective operating voltage. Even so, you need to heed the stay-alive’s voltage rating. Super caps normally have an inrush of current when

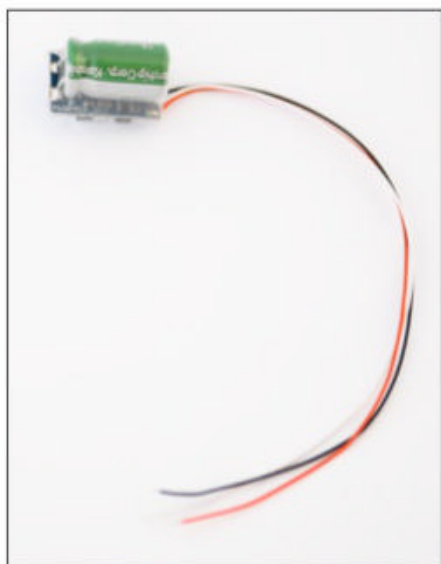
first hooked up to a source of power. This could cause your electronic circuit breaker or booster to think the track is shorted and shut down. So stay-alives often include circuitry to charge them slowly. Because of this, if you have a lot of dirty track or a lot of unpowered frogs, like in a yard, you may drain the power from the stay-alive circuit faster than it can replenish itself. Your locomotive may therefore stop running or making sound when it encounters the next bad spot. Even with stay-alives, you will eventually need to clean your track and the wheels on your locomotive.

The bigger your stay-alive circuit, the longer your locomotive can endure a track power interruption. The operative word is bigger. Some DCC equipment manufacturers offer two different sizes of stay-alive circuit, the smaller of which is intended for locomotives with a tight fit. They can’t store as much energy. Some manufacturers offer a couple of different configurations of stay-alive circuit that have the same power storage capability, just in different shapes. See **2**. Also, besides the general units that I’ve covered in this column, several manufacturers offer a variety of configurations for their specific decoders that may make your life easier. Go to their website or follow my link at WiringForDCC.com/dcc_currents.htm.

Can you hook up a stay-alive to any decoder? Yes, but with older decoders, it’s hard to know where to hook up the stay-alive circuit. Doing so will require a fine tip, low-power soldering iron. Connect the stay-alive circuit between the blue wire and the negative side of the decoder’s bridge rectifier. You won’t be able to tell this easily when you open the decoder. If you make a mistake, it will likely be the end of your decoder and/or your stay-alive. As such, most modelers shouldn’t consider this option unless you’re looking for an excuse to buy a new decoder. Do not connect a stay-alive circuit to the motor leads or the power pick-up leads. The stay-alive will likely explode. I recommend wearing safety glasses when soldering wires to install a stay-alive. Those installed by plugging in a connector are less of a risk. Also, avoid static before any decoder install. Touch bare, grounded metal. All the outlets in my layout room have bare metal cover plates held

Company	Name	Sizes (inches)	Operating Track Voltage if specified	Usable with other manufacturers decoders?
Digitrax	Power Xtender	PX108-2: 1.007 x 0.492 x 0.299 PX112-2: 1.575 x 0.547 x 0.315	10 – 18V 12 – 15V	Not supported
ESU	PowerPack	Mini: 0.886 x 0.394 x 0.551	Not known	No
NCE	No Halt Insurance	Small: 1.25 x 0.64 x 0.29 Medium: 2.14 x 0.64 x 0.40	Up to 15V	Yes
SoundTraxx	CurrentKeeper	CurrentKeeper: 1.575 x 0.236 x 0.433 CurrentKeeperII: 0.791 x 0.520 x 0.433	N/A – has internal voltage regulator	Yes
TCS	Keep-Alive	KA1: 1.063 x 0.35 x 0.244 KA2: 0.35 x 0.35 x 0.61	12 – 16V	Yes

2 Stay-alive circuit comparison guide. For stay-alive circuits that can be used with third party decoders, you can try to find one that fits your installation. This chart provides the general use stay-alive circuit. Check your favorite manufacturer’s website for specific configurations that may better suit your installation.



③ ESU PowerPack Mini.

This ESU stay-alive has a third wire that must be used with ESU decoders. The third wire tells the stay-alive when the locomotive is on a programming track. (The ESU PowerPack Maxi was not available for this column.)

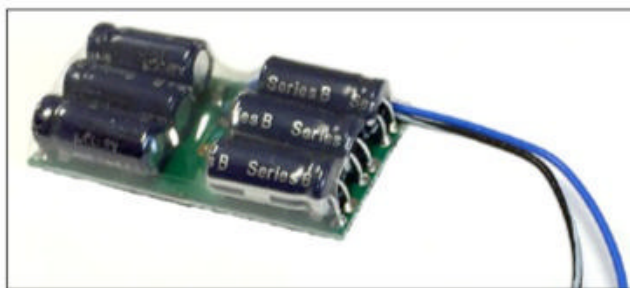
on by metal screws just for this purpose.

Stay-alive circuit don't work on direct-current layouts. How would the circuit know the difference between dirty track and a throttle that was decreased to zero?

SoundTraxx recommends firmly holding the socket against the circuit board inserting its CurrentKeeper plug to prevent the socket from being torn off the board. This is great advice for any miniature connector.

Digitrax: Digitrax Power Xtenders are usable with its series 6, 1A decoders ①. The PX108-2 has twice as much power storage capability than the PX112-2 (.33 Farads vs. .16).

ESU: ESU PowerPacks use three wires ③. The third wire is to control the slow-charge circuit. It can't be used with non-ESU decoders. The Mini is for LokPilot and LokSound fourth generation. You



④ **NCE No Halt Insurance.** The NCE stay-alives contain a circuit for rapid charging without tripping electronic circuit breakers. Small is on the left, medium on the right. NCE photos

will need to solder wires from the PowerPack to your decoder. The PowerPack is good for about 3 seconds. Buffering time is set in CV 113; a value of 255 will last about 2.45 seconds.

NCE: No Halt Insurance (NHI) has a constant current source that can charge much quicker (100mA) than the typical stay-alive circuit, which takes 1 to 2 minutes.

④. A useful charge occurs in about 8 seconds, full charge in 10. Limiting charging current keeps your system from seeing an apparent short. Multiple locomotives with No Halt Insurance can be on the track at one time.

The NHI can be used with virtually any DCC decoder that has provisions for connecting a stay-alive.

The blue wire attaches to a decoder's blue wire. The black wire with white stripe connects to the decoder's dedicated stay-alive wire or solder pad. The instructions provide examples of how to hook it up to some decoders that don't

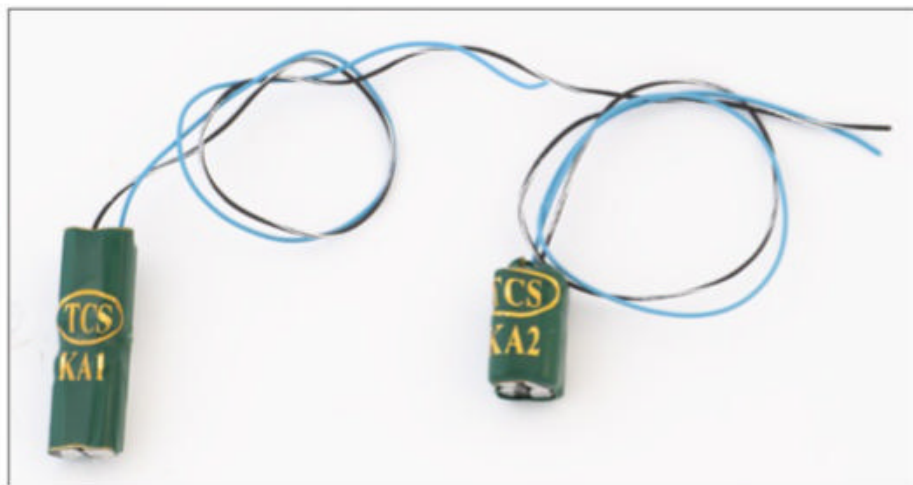
have such a wire or pad.

SoundTraxx: The CurrentKeeper I and II both can provide power for up to 10 seconds. They're shaped differently and may fit better in difficult applications ⑤. They take up to 2 minutes to charge.

Instructions are provided for installation with current



⑤ **SoundTraxx CurrentKeepers.** The CurrentKeeper I (left) is long and thin; the II (right) is shorter and wider. Both provide the same amount of energy storage.



⑥ **TCS Keep-Alive 1 and 2.** Both TCS stay-alives provide the same energy, but are shaped differently to help with your particular installation challenge.

production decoders with CurrentKeeper connections as well as some of their discontinued products. Check with SoundTraxx if you have an older decoder you want to add a CurrentKeeper to. The CurrentKeeper has a black wire that's connected to their decoders as described in the instructions. It does NOT connect to the black power pickup lead.

Train Control Systems (TCS): All TCS decoders since February 2012 are Keep-Alive ready. Decoders ending in "-KA" provide for wires;

"-KAC" decoders have a connector. The Keep-Alive will provide power for 2 to 5 seconds. The ground wire is black with a white stripe ⑥.

When wiring up a new decoder, I always recommend an incremental install – first the power pick-up and motor, then lights or sound, finish it up and get everything remaining working, and only then hook up your stay-alive. By hooking up the stay-alive last, you won't have to wait for it to charge or discharge as you do your installation. **MR**



SOME MANUFACTURERS OFFER STAY-ALIVES IN DIFFERENT SHAPES. ONE MAY BETTER SUIT YOUR INSTALLATION.
— ALLAN



Rapido N scale GMD FP9 diesel locomotive

Like a miniature Royal Canadian Mounted Police, Rapido is riding to the rescue of Canadian railroad modelers again, this time with its new N scale GMD FP9. The model is available as either a direct-current locomotive or equipped with an Electronic Solutions Ulm (ESU) LokSound V dual-mode decoder featuring the sounds of an FP9 recorded by Rapido.

The FP9 is a variant of Electro-Motive Division's long-running F series locomotives. However, most FP9s were built by General Motors Diesel (GMD), the Canadian version of EMD. Only four FP9s were built by EMD for use in the United States, for the Chicago & North Western Ry. The remaining 28 EMD locomotives were exported to Mexico

(25) and Saudi Arabia (3). Most FP9s were built by GMD in Canada for Canadian railroads Canadian National (43) and Canadian Pacific (11).

What made the FP9 (built from 1954 to 1959) and the earlier, similar FP7 unique was their ability to carry extra water for the steam generator. The FP9 was 4 feet longer than comparable F7s and F9s. This extra length could accommodate a tank with 820 gallons more water than an F7 or F9. This meant railroads didn't have to add a second locomotive just for water capacity to operate steam heating equipment. The FP9 was equipped with a 1,750hp, 16-cylinder 567C diesel engine.

The locomotives rode on EMD's successful "Blomberg" two axle trucks. Rapido has a detailed history of these

locomotives in its website's Master Class section. Details specific to GMD production include fabricated grills on the side air intakes for CP locomotives and CN-specific steam generators on those locomotives. When VIA Rail took over passenger operations in Canada, it inherited FP9s from CN and CP. From 1983 to 1985, 15 of the units were rebuilt with 645 diesel engine assemblies. Some of these locomotives served until 2001.

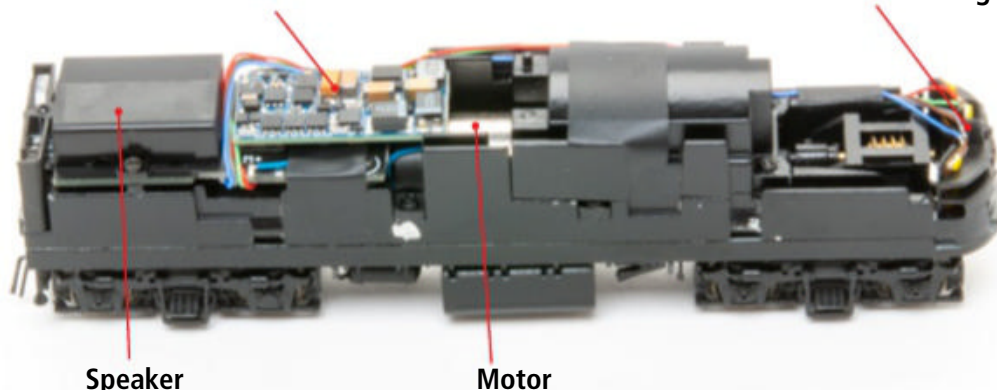
While the FP9s were among the last F units built, they're all long gone from Class 1 mainline service. They did go on to later careers on smaller railroads, and examples exist in collections, such as CN 6520 at the West Coast Railway Heritage Park in Squamish, B.C.

Our sample model was decorated as Canadian National no. 6533 in the post-1961 red with black and gray stripes scheme. Painting is first rate, with sharp separations between the red, black, and light gray (not white) sections.

Detail painting includes the fuel (red) and water (blue) fill hatches, as well as the step kick-plates and a silver oval denoting the GMD builders plate. Class designation GPA-17e indicates it was from the final order from CN, built in 1958. Details such as the horn, with its one rear-facing chime, and the "eyebrow" handrails over the windshields indicate this model is detailed for

ESU LokSound V dual-mode decoder

Number box and classification light LEDs



Speaker

Motor

Rapido's new N scale FP9 has a die-cast chassis with framing details visible on the bottom. The can motor is nestled between screw-on weights and electronics.

sometime after the early 1970s. Referencing the CN Diesel Unit Date Book page on Rapidos FP9 Master Class page, I saw the model's dimensions matched to within scale inches of the diagrams.

In addition to era-specific horn and handrail details, the CN units have rerailing frogs attached under the frame in front of the fuel tank as well as air tanks behind the fuel tank. On the roof is a medium-sized winterization hatch and a 48" cooling fan. Cooling coils were applied to the roofs of some of these units, and Rapido has identified four types, which are applied to the models as appropriate. Ours has the most-common CN type.

The trucks are well detailed too, with separate spring hangers and brake cylinders. The rear truck has one axle with traction tires.

A supplied packet of extra detail parts includes a diaphragm for the rear door, spare grab irons and traction tires, and an extra axle with plain turned-metal wheels without traction tires if you prefer better electrical pickup over improved traction on your models.

Knuckle couplers are frame-mounted at the correct height in the rear, but slightly high in the front. It's still easily able to couple to cars, though.

To remove the shell, slip your fingernails between the frame and the sides of the shell. Spread the shell apart and the frame should drop free. A flat die-cast metal frame holds the can motor over the locomotive's fuel tank, with the ESU LokSound V dual-mode DCC decoder mounted aft of it. A downward facing speaker is mounted at the rear of the locomotive. The frame is black-painted, die-cast metal. It appears the bottom of the trucks can be released from catches with a small screwdriver if the modeler wishes to replace the traction tire wheelset with the included plain option.

With a dual-mode ESU LokSound V DCC decoder, I started testing using my NCE PowerCab on a loop of Kato Unitrack. The Rapido FP9 started moving at 1 scale mph at speed step 1 and reached a top speed of 102 scale mph at speed step 28.

With its traction tires, the 3.4 ounce FP9 produced .8 ounces of drawbar pull, equivalent to eight N scale passenger cars on straight and level track. I ran the

PERFORMANCE CHARTS	
DRAWBAR PULL	.8 ounces equivalent to eight N scale passenger cars
SCALE SPEED (DC)	
VOLTS	SCALE MPH
5 (start)	5
7	36
8	48
9	76
10	100
11	104
12	104
13.5 (max.)	104
SCALE SPEED (DCC)	
SPEED STEP	SCALE MPH
1	1
7	12
14	38
21	80
28	102

model on our new N scale version of the Milwaukee, Racine & Troy, the State Line Route. With nine Rapido *Canadian* passenger cars in tow, the locomotive had a little wheel slip at the top of the curving 1.5 percent grade at the quarry end of the layout.

The model has the full suite of ESU sound and lighting features. The growl of the 567C diesel engine is well rendered, with decent sound from the small speaker required to fit inside an N scale locomotive. I like that the bell doesn't cut off dead, but has a bit of resonance. I also appreciated the working classification lights, so approaching engineers would know by the white lights that I was running an extra (not on the schedule) train. Being able to switch the number box lights on and off independently was a nice touch, as well. There's also an independently switched backup light on the rear of the locomotive.

In DC, I heard the sound of the FP9's engine starting at 4V, with movement at 5V. The locomotive would crawl very slowly at a little over 4V, but there was static in the sound, probably a result of my older Model Rectifier Corp. Tech II power pack. At 11V, the FP9 was galloping around its test track at 104 scale mph, a little above the maximum speed listed on the CN datasheet on Rapido's Master Class page for the FP9, but perhaps the locomotive was capable of a bit more than management was ready to allow. Above 11V, the locomotive maintained the same top speed, likely a result of decoder programming.

With its road number-specific details, smooth motor performance, and

Facts & features

Price: \$169.95 (DC, no sound), \$279.95 (DCC, sound)

Manufacturer

Rapido Trains Inc.
500 Alden Road, Unit 21
Markham, ON L3R5H5
Canada
rapidotrains.com

Era: 1961-1979, as decorated

Road names: Canadian National (light gray stripes), Algoma Central, Canadian National (1954 scheme), Canadian Pacific (maroon and gray, script lettering), Canadian Pacific (maroon and gray, block lettering), Canadian Pacific (Action Red with either 5" or 8" stripes), VIA/Canadian National, VIA/Canadian Pacific, and VIA Rail Canada, all with multiple road numbers. Also available undecorated.

Features

- 567C diesel engine sounds recorded by Rapido from a real FP9A under load (sound-equipped models)
- CN versions include both C/D class (36" radiator fans) and E class (48" radiator fans) versions.
- CN versions include frame-mounted rerailers, rooftop bell, Farr grilles, and CN style steam generator
- CP models include dynamic brakes, vertical slit grilles, frame-mounted water tank, and etched metal icicle breakers
- Details include roof-mounted cooling coils, separate air hoses, and separate grab irons and handrails
- Knuckle couplers at correct height (rear), .020" high (front)
- Illuminated headlight, rear light, and number boxes
- Lighted rooftop Gyalite and ditch lights (where appropriate)
- Turned metal wheelsets with traction tires on one axle, in gauge
- Unique CN and CP variations
- Weight: 3.4 ounces

excellent sounds and lighting, the Rapido FP9 is another jewel from the folks in Ontario. Whether you're a modeler of Canadian prototypes, or if you want to paint one of the undecorated models for your favorite short line, this new model from Rapido is ready to come to the rescue. – *Eric White, senior editor*



PIKO HO scale Whitcomb 65-ton diesel

Like thousands of World War II veterans, the Whitcomb 65-tonner returned from Europe after the war to find productive work on American railroads. PIKO America is now offering a version of this war veteran, decked out both in uniform and in civvies, ready for service on your HO scale model railroad.

War veteran comes home. The role American railroads played in moving massive amounts of troops and war materiel in World War II is well known. But the U.S. Army realized it would have to provide its own motive power to do the same work on the other side of the Atlantic. The U.S. Army Transportation Corps (USATC) selected the Whitcomb 65-DE-14 diesel, which was redesigned to fit European clearances, equipped with buffers and European-style couplers, and designated model 62-DE-19A. After the conclusion of the war in Europe in the spring of 1945, the locomotives were shipped back to the United States. The intention was to send them

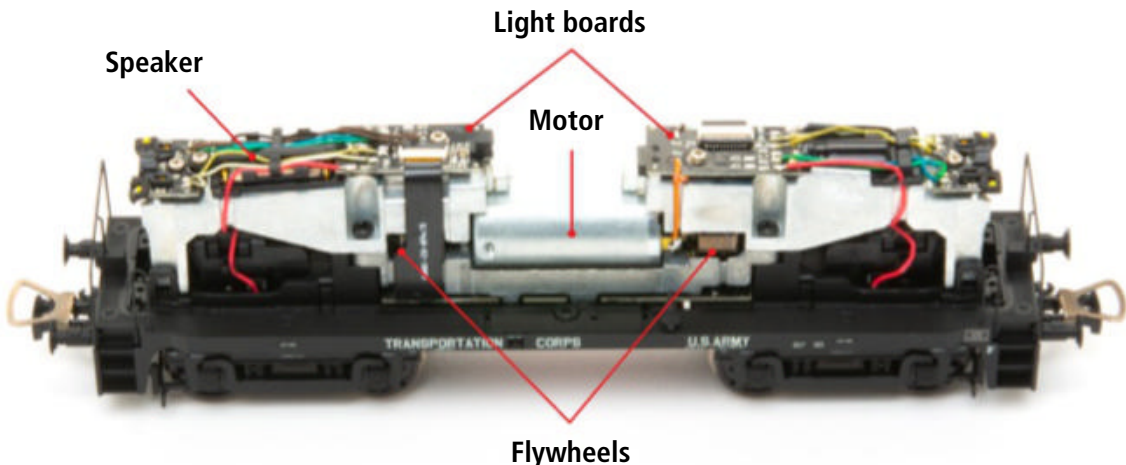
west and ship them overseas for service in the Pacific Theater, but the swift conclusion of the war there made that plan moot. Instead, the majority were sold off piecemeal to American, Canadian, Mexican, and Cuban railroads, where they served in branchline and shifter duties for decades.

Inspection. The model matches prototype photos from our library as well as those published in *United States Army Transportation Corps Locomotives* and *War Department Locomotives*, both by R. Tourett (Tourett Publishing, 1976). The first book includes dimensioned builder's drawings, which matched the model's dimensions within scale inches. The model comes outfitted as the prototype locomotives were for European service, with buffers and towing hooks on the pilots. However, these details are friction-fit and easily removed. Likewise, the model comes equipped with European-style hook-and-loop couplers. A set of knuckle couplers is

PERFORMANCE CHARTS	
DRAWBAR PULL	6.08 ounces Equivalent to 85 freight cars
SCALE SPEED (DC)	
VOLTS	SCALE MPH
9	<1
10	3.5
11	7.0
12	13
13	20
14	25
SCALE SPEED (DCC)	
SPEED STEP	SCALE MPH
1	<0.1
7	2.7
14	8.2
21	20
28	42

included in the package, though. It was easy to use a pair of needlenose tweezers to squeeze the end of the mounting prongs on the couplers and remove them, then slide in the replacement knuckle couplers. Thus installed, the couplers measured up to the correct height, according to our Kadee gauge.

Roll out. I tested the locomotive first under direct current. Sound decoder-equipped locomotives start at a higher voltage compared to native DC locomotives, resulting in a small operating voltage range. On this model, the startup sound sequence played when my power pack reached 8V, and it started rolling at 9V. I found the model's low-speed operation quite good, rolling smoothly at less than 1 scale mph. However, with the throttle cranked to maximum (14V), it only pattered along at 25 scale mph. The prototype's speed was a much less poky 45 mph. The only sound available in DC was the diesel engine.



The speaker is located above the rear truck. The motherboard for the PIKO SmartSound 5.1 decoder is on the bottom of the chassis, below the motor.

Facts & features

Price: Direct-current model, \$279.99; with PIKO SmartSound 5.1 decoder, \$379.99

Manufacturer

PIKO America
4610 Alvarado Canyon Rd., no. 5
San Diego, CA 92120
piko-america.com

Era: December 1943 to 1980s

Road names: U.S. Army Transportation Corps and Maryland Midland (one road number each)

Features

- Five-pole skew-wound motor with dual flywheels
- Minimum radius: 14" recommended
- PIKO SmartSound 5.1 sound decoder (DCC version)
- Weight: 12.2 ounces

Under DCC control, I found that the decoder functions weren't mapped to the usual arrangement of function keys. Function key 1 (F1), which on most sound decoders triggers the bell, instead triggered the prime mover startup/shut-down sequence. Key F8, which usually has this function, instead turns the cab light on and off. The bell was controlled by F6. Keys F3 and F4 played short and long horn blasts, F5 played a grade-crossing horn sequence, and F9 controlled the number board lights.

The locomotive's speed range was closer to the prototype's under DCC than DC. It crept along at less than .1 scale mph in speed step 1, great for gently shifting loaded troop cars. At speed step 28, it topped out at 42 scale mph, almost the same as the prototype.

The model's hefty die-cast metal body and frame and two traction tires gave it an amazing 6 ounces of pulling power, enough to pull 85 40-foot freight cars.

The Greatest Generation. Though you may not model European railroading during WWII, the Whitcomb 65-ton diesels had long civilian careers after returning home. The HO scale model's responsive low-speed performance and phenomenal pulling power suits it for a variety of roles. If you've got a job opening on your HO scale railroad, consider hiring this veteran. – *Steven Otte, senior associate editor*



ScaleTrains.com HO scale Conrail G52X coal gondola

ScaleTrains.com recently introduced

the HO scale Conrail class G52X coal gondola to its Rivet Counter line. The car has an injection-molded plastic body, wire grab irons, and body-mounted metal semi-scale Type E couplers.

Conrail partnered with Johnstown America, Cromwell Steel Inc., and two other firms to develop a car that was better able to resist corrosion caused by Eastern coal, which has a high sulfur content. Two prototype cars, painted gray, were built at Conrail's Hollidaysburg (Pa.) Car Shops in 1994.

The design proved successful, and the crew at Hollidaysburg built 600 more cars (507401-508001) from kits supplied by Johnstown America between July and December 1997. Conrail G52X coal gondolas can still be found in service on Norfolk Southern today.

We received review samples in Conrail's gray and oxide red schemes. It's hard to not be immediately impressed by the quality of the gondolas.

The body is made up of the main hopper, separate end sheets, side bearing supports, and two internal braces. It rides on American Steel Foundries Motion Control 100-ton trucks with rotating bearing caps and 36" machined metal wheelsets.

The paint is smooth and opaque, and the printing is clean and legible. The consolidated panel and end data are unique to each road number. However, it's the separate, factory-applied details that are by far the most impressive. The gondola features an intricate brakewheel, brakewheel housing, air reservoir, control valve, and brake cylinder and arm.

Facts & features

Price: \$32.99

Manufacturer

ScaleTrains.com
7598 Highway 411
Benton, TN 37307
scaletrains.com

Era: 1990s to present

Road name: Conrail

Features

- 36" metal wheelsets, in gauge
- Coal loads sold separately
- Minimum radius, 18"; recommended radius, 22"
- Semi-scale couplers, at correct height
- Wire grab irons
- Weight: 3.4 ounces (.9 ounce too light per National Model Railroad Association Recommended Practice 20.1)

The center sill and end frame floors (with integral coupler boxes) are die-cast metal. See-through photo-etched metal crossover platforms further enhance the car ends.

Oxide Red gondolas are available in 24 road numbers. The gray car is offered in one number. Injection-molded plastic coal loads (offset and symmetrical) are available in two-packs as separate-sale items.

Though the G52X gondolas are sold out at ScaleTrains.com, you can still find them in hobby shops. If you model contemporary eastern railroading, a unit train of these Conrail coal haulers would look at home on your layout. – *Sammi DiVito, assistant digital editor*

ScaleTrains HO scale Kit Classics 52'-6" gondola

A 52'-6" gondola based on a Chicago, Burlington & Quincy prototype is the second car in the ScaleTrains.com Kit Classics line. The gondola is based on a class GM-6A car built by the CB&Q at its Havelock Shops near Lincoln, Neb., in 1967 and 1968.

The 2,566-cubic-foot-capacity gon, part of the railroad's 83400-83599 series, was used in coil service. Cars 83400-83405 were assigned to aluminum coil loading. Gondolas numbered 83406-83599 were in steel coil service, except for cars 83442, 83445, 83473, and 83487, which were assigned to tin plate coil service. The full-size gondolas were fitted with removable roof sections.

Contents and assembly. It took me 10 minutes to assemble the gondola. The kit consists of a one-piece plastic body with a separate underbody. The body has molded grab irons, ladders, stirrup steps, and crossover platforms. The brake wheel is a freestanding part. The interior has floor board and rivet detail.

The underbody has molded center sills, crossmembers, stringers, bolsters, and draft-gear boxes. The air reservoir, brake cylinder assembly, control valve, and draft-gear box covers are separate. A pair of steel weights is concealed between the body and underbody.

Measuring up. The gondola closely follows drawings in a Burlington Northern car diagram book. The defect card holder on the right side of the car is a whisker oversized, interrupting the rivet pattern along the sill. There's also an unnecessary break in the rivet pattern at the same location on the left side of the car.



Facts & features

Price: \$17.99

Manufacturer

ScaleTrains.com

7598 Highway 411

Benton, TN 37307

Era: late 1960s to early 1980s (as painted)

Features

- Correctly gauged 36" metal wheels
- Plastic couplers, at correct height
- Weight: 4.5 ounces, .2 ounce too light

Keep on building. Other road names on this car include Burlington Northern, Chicago & North Western, Conrail, Soo Line, and Norfolk & Western. Each scheme is offered in three numbers.

If you want to experience the fun of building a freight car kit, check out this HO scale gondola from ScaleTrains.com. – *Cody Grivno, group technical editor*



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Let's run 'em all!



Contemporary Class I railroading in the relatively flat American Midwest often sees two, three, or perhaps four locomotives powering even the longest trains. However, this westbound

BNSF Ry. double-stack train, which I photographed near Prairie du Chien, Wis. on Aug. 7th, 2021, sports nine locomotives headed by a 4,400-horsepower General Electric ES44C4. The railroad

was likely moving surplus power to address a shortage elsewhere on its system, but it certainly makes an impressive sight. So, if you can't decide which diesels to assign for your next operating session,

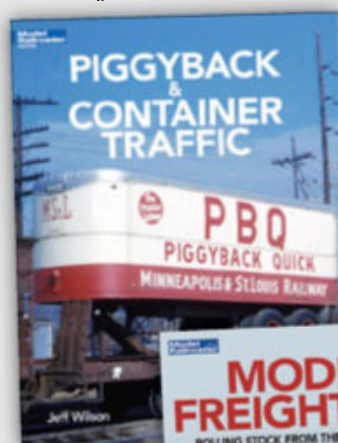
go ahead and run 'em all. It's prototypical! **MR**

Do you have an unusual or offbeat railroad photo to share? E-mail Carl Swanson at cswanson@kalmbach.com.

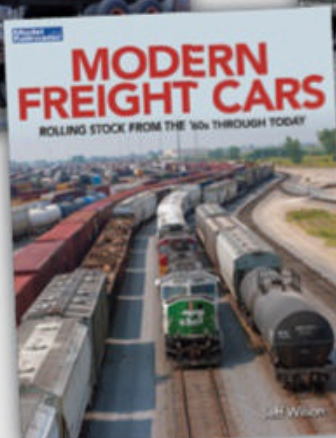
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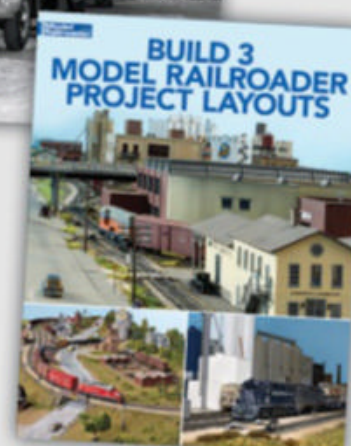
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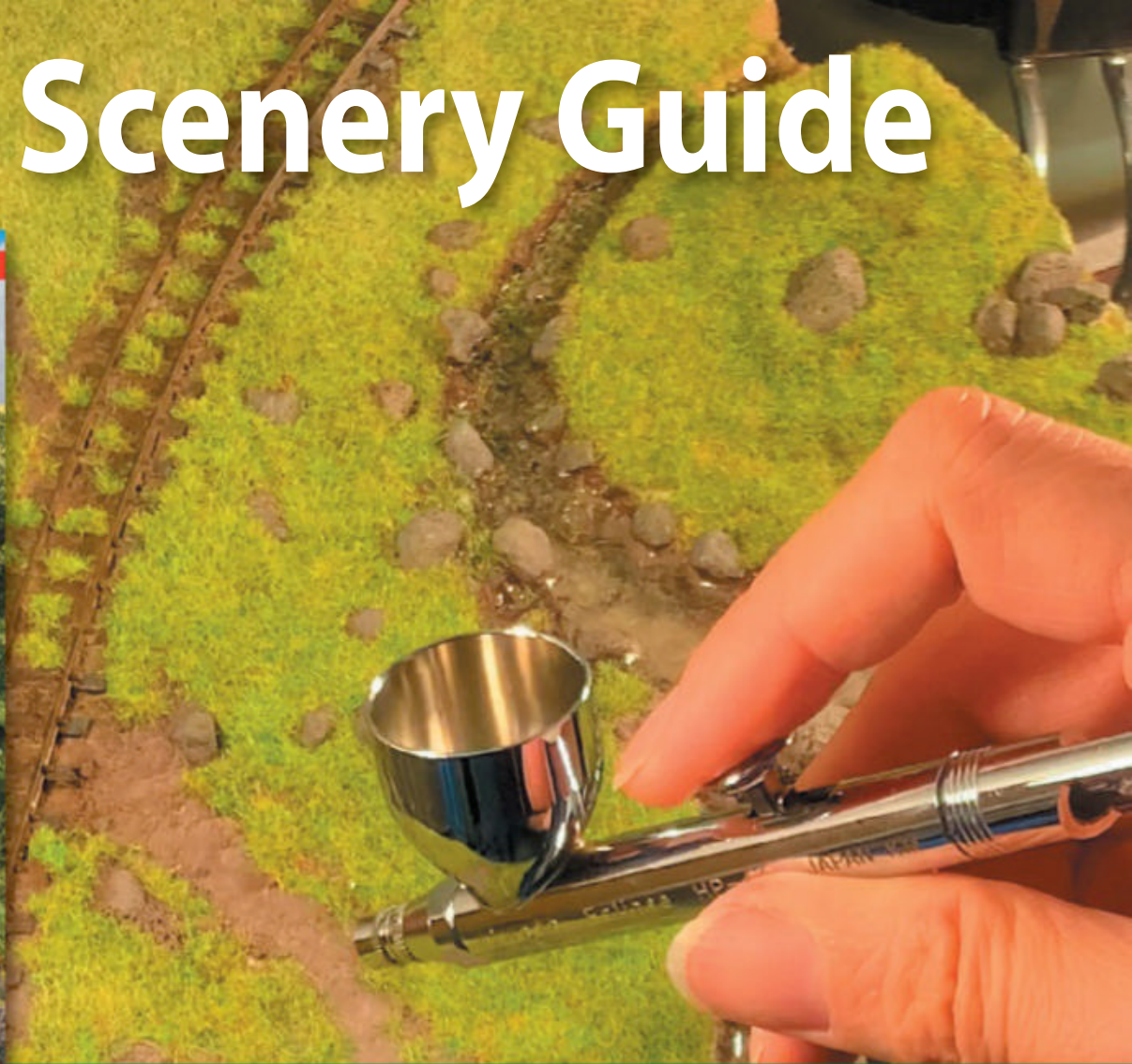
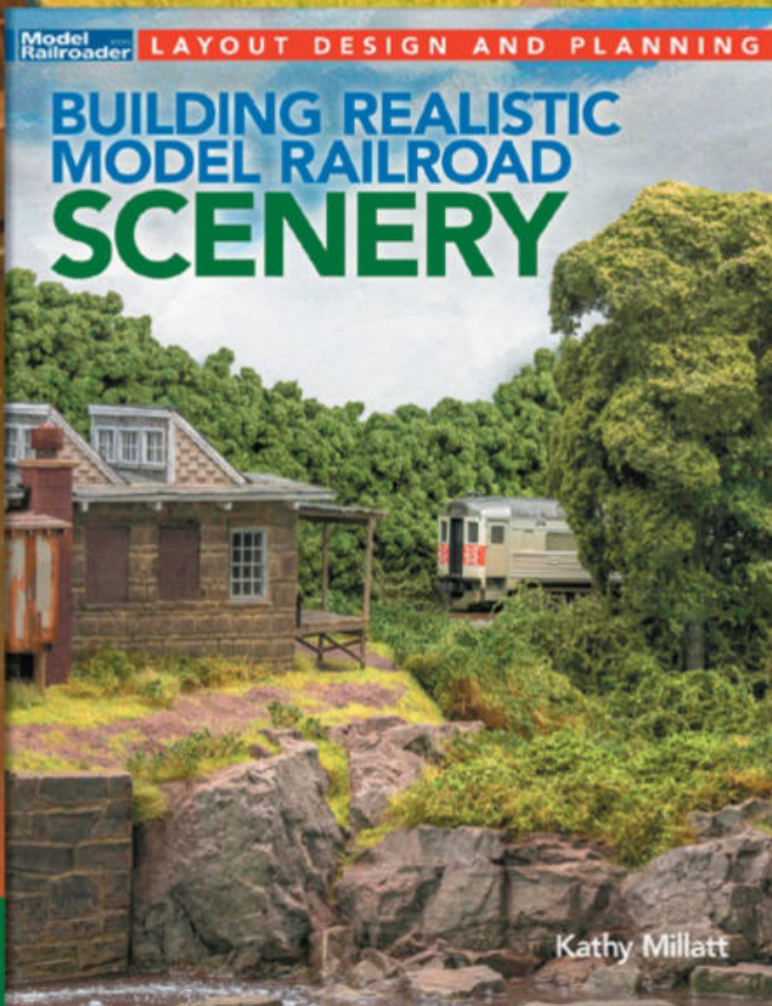


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Beef up operation with stock shipments

Livestock shipments have always fascinated me. It may be the enduring image of American heritage in Western films, the romance of spirited horses and riders rounding up strays or heading off a stampede. Also, stockcars have strong visual appeal. I remember marveling at scratchbuild projects in *Model Railroader* in my earliest days in the hobby. Digging into stock movements helps find ways to put this equipment in regular use.

Raising livestock usually takes place far from population centers. Therein lies the problem: getting the meat to the people who consume it.

Long, dusty cattle drives to distant railheads ended as the nation's rail network expanded. Western railroads developed significant livestock movement from ranchland to union stockyards serving major meatpackers in places like Chicago, Kansas City, and Fort Worth. Animals must be fed, watered, and rested enroute; federal legislation enacted in 1906 made it necessary to do so in transit in intervals of no more than 36 hours. Loading and unloading to and from pens while keeping each shipper's stock separated from others makes for extensive operation and acreage.

Inbound stock shipments reached large population centers by rail, with strings of stockcars a regular sight on fast freights. Handling stock on the head end minimized slack action and the injury it could cause animals. This also expedited switching at



Atchison, Topeka & Santa Fe GP35 no. 1313 and GP30 no. 1235 switch a long cut at the railroad's stock pens in Vaughn, N.M., in October 1969, late in the stock shipment era. Ernie Robart photo, John Moore collection, courtesy of Steve Sandifer

intermediate terminals and mandatory rest stops. Running a cut of stock cars on a through freight is an easy addition to operations.

A concealed spur, hidden behind a backdrop, offers another opportunity. The turnout might be the only part of the scene that requires detail. A few trees or a foreground structure can disguise what little of the track is exposed. A spur only six cars long allows for load or empty moves with a nice string of cars in a variety of designs.

Examples of small-scale movements with which I'm familiar also adapt to layouts.

One delivered hogs to a slaughterhouse served by New York, Susquehanna & Western. This required expedited handling because the 36-hour clock ran down by the time Erie left the cars on its interchange. Soon after, a Susquehanna

extra hustled the cars to their destination, following one of the railroad's commuter expresses. Picture an RS-1 streaking along with half a dozen cars of hogs, squealing like brake shoes and trailing a plume of hay straw.

Dairy farmers also shipped stock. Cattle are prone to tuberculosis, and concern over transmission via human consumption of food products, especially milk, produced federal regulations that first appeared in 1917. They required testing of animals for infection. "Reactor" cows, those testing positive, were culled from the herd and sent to slaughter. Widespread infection in a herd could produce enough so-called TB cows for a rail shipment, sending a stockcar or two into a nearby town for loading. I've seen records of such shipments in the late 1940s. In turn, rebuilding a herd could require carload deliveries.

Stock waybills carried more information than typical freight shipments,

recording details of the loading of the livestock and the location and time they were rested, fed, and watered. Tony Thompson explains his adaptation and other aspects of handling livestock in his blog. Use the search term "stock shipments" in www.modelingthesp.blogspot.com. Bob Chaparro's RailwayBullShippersGroup@groups.io is also worth a visit.

Two books deserve mention. Jeff Wilson's *Livestock & Meatpacking* (Kalmbach Books, KalmbachHobbyStore.com) lives up to its title by covering all facets of the industry. The Santa Fe Railroad Historical and Modeling Society published Steve Sandifer's *Live Stock Operations*, a comprehensive study which includes a treasure of original company documents, from pamphlets to statistics to internal manuals and forms. It also has a liberal sprinkling of prototype employees' first-person recollections and extensive modeling information.

Plenty of interesting reading in this. Yippee ki-yay! 



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Great Northern train X3391 East, an extra hauling grain from North Dakota to Minneapolis in September 1956, has just left St. Cloud, Minn., and is 60 miles from its destination. Richard Remiarz of Vadnais Heights, Minn., photographed the scene on his HO scale GN Willmar Division layout. Locomotive 3391, a class O-8 Mikado, is by Sunset Models.



Send us your photos

Trackside Photos is a showcase for the work of *Model Railroader* readers. Send your photos (digital images 5 megapixels or larger) to: Model Railroader, Trackside Photos, P.O. Box 1612, Waukesha, WI 53187-1612; or upload to <http://fileupload.kalmbach.com/contribute>. For our photo submission guidelines, contact senior associate editor Steven Otte at sotte@kalmbach.com.

A CSX coal train led by General Electric AC6000 no. 634 heads west through Prince, W.Va., on a hot and humid summer day. The N scale T-Trak module was built and photographed by Craig Lang of Athens, Tenn. Craig scratchbuilt the Prince Bros. General Store to match the prototype, which is on the National Register of Historic Places. The locomotive is a Broadway Limited Imports model.



The driver of the British Rys. 1400 class 0-4-2 tank engine probably wishes he were also relaxing with a pint outside the Red Lion Pub on this warm spring day in 1956. Tony Bruno of Kitty Hawk, N.C., built this 2 x 2-foot diorama to reproduce the scene in his favorite painting, "The Riverside Local" by the late Don Breckon. The OO gauge (1:76 proportion on HO scale track) locomotive and cars are by Hornby. Tony scratchbuilt the pub from cardstock covered with patching plaster stucco.



Sandy River & Rangeley Lakes Climax no. 10 leads a lumber extra over Salmon Hole Bridge on its way to Strong, Maine. Dan Welch of Georgetown, Texas, grew up in Rumford, Maine, and drew on his childhood memories to build his HOn30 SR&RL layout. The locomotive is a vintage brass model imported by Flying Zoo. The bridge is a modified Central Valley lace girder kit.

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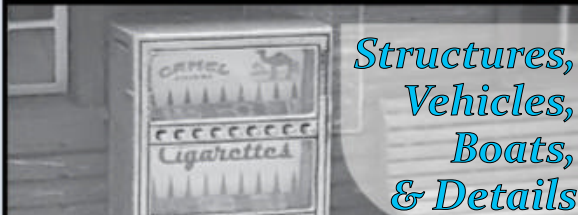
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Schedule of Events Rate: \$45 per issue (55 word maximum). Ads will contain the following information about the event: state, city, sponsoring organization and name of event, meet, auction or show, dates, location, times, admission fee, name and/or telephone number and/or email of person to contact for information. Name, daytime telephone number and street address of the person providing the information is also required but need not be included in the ad. Unless otherwise requested, ads will be published in the issue month that the event occurs in. Please specify issue date(s). **Word Ad Rates;** per issue: 1 insertion — \$2.03 per word, 6 insertions — \$1.89 per word, 12 insertions — \$1.77 per word. \$40.00 MINIMUM per ad. To receive the discount you must order and prepay for all ads at one time. Count all initials, single numbers, groups of numbers (i.e. 4-6-0 or K-27), names, address number, street number, street name, city, state, zip, phone numbers each as one word. Example: John A. Jones, 2102 South Post St., Waukesha, WI 53187 would count as 10 words. For MR's private records, please furnish: a telephone number and, when using a P.O. Box in your ad, a street address. *Model Railroader* reserves the right to refuse listing. **All Copy:** Set in standard 6 point type. First several words only set in bold face. If possible, ads should be sent typewritten and categorized to ensure accuracy.

Send your submissions to: *Model Railroader* — Classifieds, P.O. Box 1612 Waukesha, WI 53187-1612. Toll-free (888) 558-1544 Ext. 551 Fax: 1-262-796-0126. E-mail: classads@kalmbach.com

All ads must be prepaid and pertain to the subject of model railroading.

Schedule of Events

AL, MOBILE: Model Train Show sponsored by South West Alabama Railroad Modelers (SWARM). Via Health, Fitness and Enrichment Center, 1717 Dauphin Street. March 5-6, 2022, Saturday 9:00am-5:00pm; Sunday 11:00am-4:00pm. Admission \$5.00, family \$10.00, under 10 free. Operating layouts, demonstrations, and dealers. Contact Charlie Boyer, 251-454-0572, email: charlieboyer66@att.net, or Glenn Samuel, 205-914-0693, email: gasamuel@aol.com (after 5pm)

CO, COLORADO SPRINGS: Train Expo Colorado (TECO) hosts its next model train show January 29-30, 2022. Saturday 10am-5pm and Sunday 10am-4pm. Location: TBD. Visit our website for more information at www.tecoshow.org or contact Elizabeth 915-491-4819.

CO, DENVER: Rocky Mountain Train Show April 2-3, 2022. National Western Complex, 4655 Humboldt St., Denver, 80216. Saturday, 10:00am-5:00pm, Sunday 10:00am-4:00pm. 2-1/2 acres of model trains, all scales, 30 layouts, 600 sales tables, clinics and more. Admission \$13.00, under 12/scouts in uniform FREE. Discounted tickets available for military/first responders. Free Parking. 303-364-0274, www.RockyMountainTrainShow.com information@RockyMountainTrainShow.com

FL, SARASOTA/BRADENTON: 43rd RealRail Train Show. February 19-20, 2022. Saturday 10am-4pm, and Sunday 10am-3pm. Bradenton Area Convention Center, 1 Haben Blvd., Palmetto, FL. Door prizes, interactive Lionel layout, kids' HO layout, Hobby Mart with 100 vendors. Adult admission \$8, 13 and under free w/paid adult. CDC guidelines apply. Contact David Fontaine for more information 941-685-2221 or david_f_34205@yahoo.com

IA, MONTICELLO: Monticello Train Show and Swap Meet. Sunday, January 30, 2022, 9:00am-3:30pm. Berndes Center, Jones County Fairgrounds, 766 N. Maple St., Monticello, IA 52310. All gauges, concessions. Seller set up after 2:00 on Saturday, the 29th. \$5.00 admission, children under 12 free with paid adult. Contact Denny Beasley at circlebarb607@aol.com or ph. 319-270-1171.

IN, INDIANAPOLIS: Indy Junction 2022 Train Show. 3 Days - May 20th, 21st & 22nd, Indianapolis Marriott East. Hosted by MWR, NCR, and MCR NMRA Regions & RPM Conference. Friday 5pm-9pm, Saturday 10am-6pm, Sunday 10am-3pm. \$8 Admission. 13 and under free. FREE Parking. Train sales & displays. Info@IndyJunction2022.org or IndyJunction2022.org

IN, LEBANON: Central Indiana Division/NMRA Train Show. Boone County 4H Fairgrounds, 1300 E 100 S, Lebanon, IN 46052. Sunday, January 30, 2022, 10:00am-3:00pm. Admission \$3.00 or \$5.00 family. Dealers, Portable Train Layouts, Clinics, Door prizes. Dealer tables \$12.00. Contact, Jim Shellhaas at 317-750-4834 or jshellha@butler.edu

IN, MICHIGAN CITY: Duneland Model RR Club Train Show and Swap Meet. IBEW Building, 301 East 8th St., Michigan City, IN 46360. Sunday, February 20, 2022, 9:30am-2:00pm (Chicago time). Adults \$4.00, youths 6-13 \$1.00, 5 and under free. Contact: Dave Novak at trains86@frontier.com or 219-778-1186. (Masks are optional.)

IN, MIDDLEBURY: Essenhaus Train Show. Saturday, February 19, 2022, 9:00am-2:30pm. On the Das Dutchman Essenhaus campus, 240 US 20. All gauge, operating layouts, repairs, parts dealers, selling and trading. Display tables \$25.00 each. Admission cost \$3.00/person or \$12.00/family. (Children under 3 FREE w/adult). Essenhaus.com or call 800-455-9471 (x470).

KS, LAWRENCE: Lawrence Model Railroad Club 20th Annual Train Show and Swap Meet. Crown Toyota, 3400 S. Iowa St., Lawrence, KS 66046. February 19-20, 2022, Saturday 9am-4pm; Sunday 9am-3pm. Admission: Adults \$6.00 donation, children 12 & under free with paid adult. Contact: Jim Turner, 785-393-6207 or more information at: www.lawrencemodelrailroadclub.org

MA, AUBURN: Worcester Model Railroaders Annual Show at Auburn Elks Club. 754 Southbridge St., Auburn, MA 01501. Sunday, February 27, 2022, 10:00am-3:30pm. Admission: \$5.00, children under 12 free. Handicapped accessible. Two floors of dealers, exhibits, modular layouts. Contact: Ralph Kimball, 508-868-5189, ralphkimball@charter.net or www.wmrr.org

MN, WOODBURY: Newport Model RR Club Flea Market & Train Show. Woodbury High School, 2665 Woodlane Drive, Woodbury, MN 55125. Saturday, January 15, 2022, 9:00am-2:00pm. Admission \$5.00. Club Address: Newport Train Club, PO Box 0061, St. Paul Park, MN 55071. Contact: Don, 763-257-5443

NC, ASHEVILLE: Asheville Train Show. Western North Carolina Agricultural Center. February 25-26, 2022. Friday noon-7:00pm and Saturday 9:00am-5:00pm. Admission \$6.00, under 10 free. All scales, all gauges, collectibles, artifacts, operating layouts, hundreds of vendor tables. More: www.Asheville-Trainshow.com

NC, NEW BERN: 26th Annual Train Show. New Bern Riverfront Convention Center, 203 S. Front St., New Bern, NC 28560. February 19-20, 2022, Saturday 9:00am-5:00pm; Sunday 10:00am-4:00pm. Admission \$8.00, under 12 free w/adult. Operating layouts, over 90 vendor tables, food concession. George Creathorne, 201-213-6907

NY, BUFFALO/HAMBURG: WNYRHS Train & Toy Show. DATE CHANGE: February 26-27, 2022. Fair Grounds Event Center. 5820 South Park Ave., Hamburg, NY 14075. Saturday 10:00am-5:00pm, Sunday 10:00am-4:00pm. 350 tables. Adults: \$8.00, Children 12 and under FREE. Bring the family! Stroller friendly! Layouts, demo's, children's area. Contact: Art Toale 716-837-1791, Email: feebeelovr@yahoo.com

OH, MT. HOPE: CJ Trains Spring Train and Toy Show. Mt. Hope Event Center, 8076 St. Rt. 241, Zip 44660. Saturday, March 19, 2022, 10:00am-4:00pm. Admission: \$5.00, under 12/FREE. \$25/dealer table, 600+ 8' dealer tables. Contact: Jon Ulbright, PO Box 446, Wooster, OH 44691. 330-262-7488, cathijon@sssnet.com www.cjtrains.com (GPS info: 8076 St. Rt. 241, Millersburg, OH 44654)

OH, TOLEDO: Greater Toledo Train & Toy Show. Owens Community College (SHAC), 30335 Oregon Rd., Perrysburg, OH 43551. Sunday, March 13, 2022, 11:00am-3:00pm. "Early Birds" 9:00am-3:00pm. Adults \$7, Early Bird Adults \$10, 12 and under FREE w/ paid adult. Contact: Randy Ramsey, 1566 South Ave., Toledo, OH 43609, 419-215-4181, email: toledotoymasters@gmail.com, website: www.toymasters.org

OK, STILLWATER: Winter Train Show. Saturday, February 19, 2022, 9am-3pm. Payne County Fairgrounds Expo Hall. 3 miles east of Stillwater on Hwy 51. 4518 Expo Cir E, Stillwater, OK 74075. Operating layouts and door prizes. Concessions available. Admission: \$5.00, kids under 18 free. For information: www.ttos-soonerdiv.org. Protective facemasks required.

PA, ALLENTOWN: ATMA Spring Thaw Train Meet. Allentown Fairgrounds Agri-Plex, 1925 W. Chew Street, Allentown, PA 18104. February 26 & 27, 2022. Saturday 9am-4pm, Sunday 9am-3pm. Advance tickets, admitted at 8am. \$10 adults, 12 and under FREE with adult ticket purchase. For more information visit www.allentowntrainmeet.com or call 610-442-2859

SC, EASLEY: CRMHA MODEL TRAIN EXPO 2022. February 18 & 19, 2022. Friday, 12pm-6pm. Saturday, 9am-3pm. Impact Center at Rock Springs Church, 207 Rock Springs Road, Easley, SC 29642. Admission \$8.00 Adults, good for both days. Children under 10 are FREE. Trains of all sizes, operating layouts, dealers, a Kid Zone, and more! Visit: www.CRMHA.org

TX, HOUSTON: Greater Houston Train Show presented by the San Jacinto Model Railroad Club. Saturday, February 12, 2022, 10:00am-4:30pm. Pasadena Convention Center, 7902 Fairmont Parkway, Pasadena, TX 77504. Operating Layouts, Classes on Railroads and Modeling Subjects, NMRA Contests, and Vendors from across the Southwest. Admission: \$5 adults, under 12 FREE, \$10 family. Concessions, free parking. Info: <http://sanjacmodeltrains.org/>

WA, CHEHALIS: Lewis County Model Railroad Club, Annual Spring Train Show and Swap Meet. Southwest Washington Fairgrounds, Blue Pavilion Building, 2555 N. National Ave., Chehalis, WA 98532. April 2-3, 2022. Saturday 10:00am-4:00pm and Sunday 10:00am-2:00pm. Admission \$5.00. Free parking. Contact information: Ted, 360-985-7788 or TedsTrains@LewisCounty.com

WI, LA CROSSE: The 30th Annual Great Tri-State Rail Sale. La Crosse Center, 2nd & Pearl Streets. Saturday, January 29, 2022. 9:00am-3:00pm. Admission \$5.00, under 12 free. 300 vendor tables. All Scales; Model, Toy & Antique Trains & Memorabilia. Information: 4000 Foundation, PO Box 3411, La Crosse, WI 54602, 608-781-9383. Visit: 4000foundation.com

WI, MADISON: Mad City Model Railroad Show. February 19-20, 2022, Alliant Energy Center. 90,000 square feet of layouts, clinics, exhibits and vendors. Adults \$12, Seniors \$11, Children (5-15) \$6, under 5 Free. Two-day pass \$16. Saturday 9am-5pm, Sunday 9am-4pm. Ticket deals: nmra-scwd.org

All listed events were confirmed as active at the time of press. Please contact event sponsor for updated status of the event.

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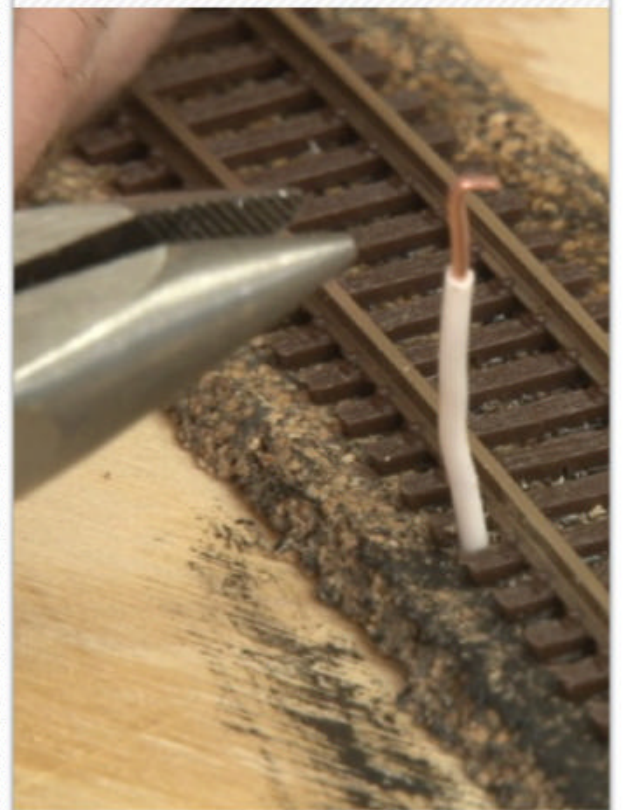
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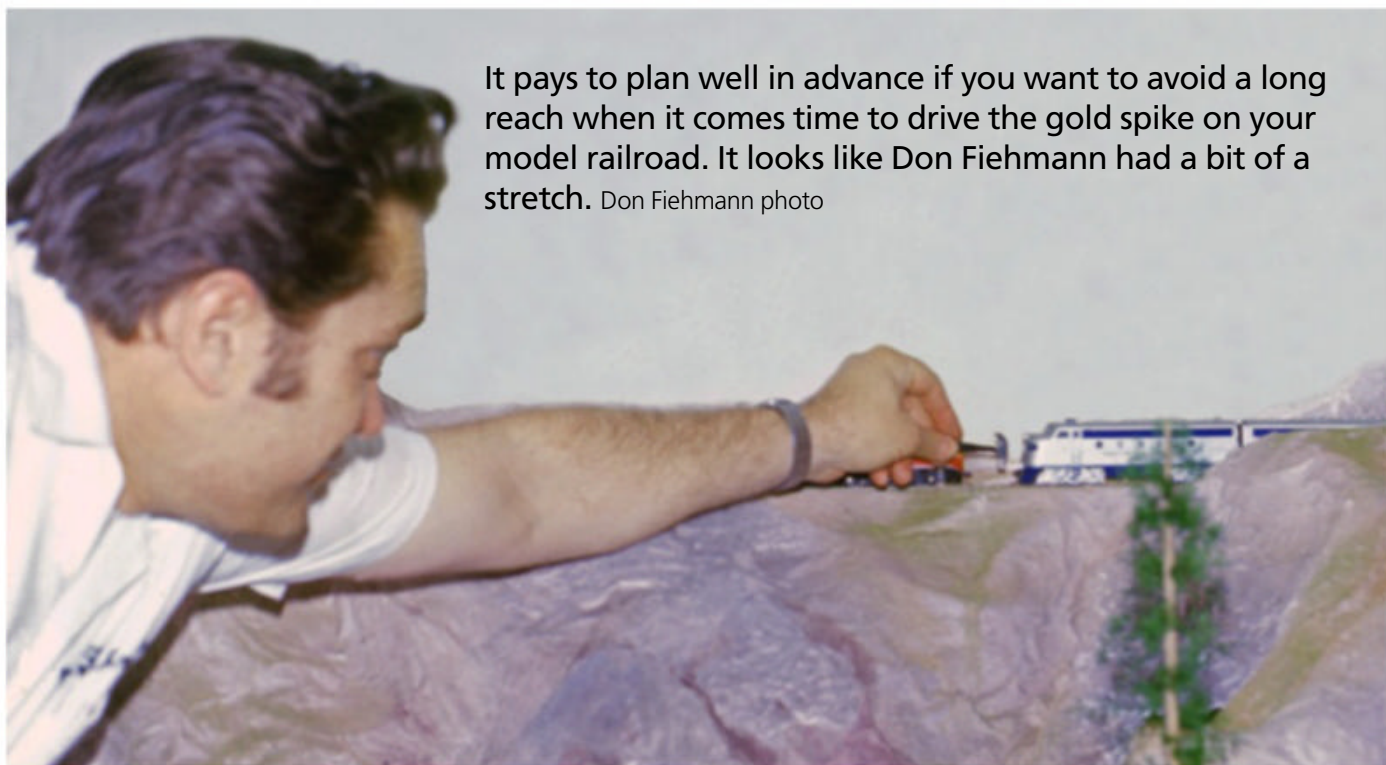
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Driving the gold spike – or not



It pays to plan well in advance if you want to avoid a long reach when it comes time to drive the gold spike on your model railroad. It looks like Don Fiehmann had a bit of a stretch. Don Fiehmann photo

For many model railroaders, driving the gold spike that signifies the completion of at least the main lines of their model railroads is a very big event. Many of us dream of having our own model railroads, and being able to symbolically proclaim it “Done!” is an important milestone in our hobby endeavors and indeed in our lives.

The “or not” part of the headline for this month’s commentary is to suggest that we probably need to do a bit more planning about having a gold spike ceremony or the actual location thereof. The infamous “Plan ahead” sign rings true with so many of us for a reason. Perhaps we should hang a sign over the location of the railroad-to-be that asks, “Where will the gold spike be driven?” as a reminder that we should not only plan to drive one but also that it should be at a location where it can be admired by those of us who aren’t as good as we should be at planning ahead.

In that vein, Brent Fiehmann and I were recently sharing some pleasant memories about his late father, Don, my

good friend for more than 50 years. Among the photos he sent to me was the one you see above. It shows Don stretching way back to drive the gold spike on his HO railroad. It must have been a pretty sturdy spike, as he’s using a tiny hammer!

The photo gave me a laugh, as it reminded me of my own hassles with the gold-spike-driving ceremony on the Allegheny Midland. Frankly, I’d forgotten all about it until I was just about to spike down the last bit of main line near the depot at Sunrise, Va. Unfortunately, that depot was set back several feet from the aisle. Fortunately, there was a large hatch built into the verdant Appalachian ridge next to the depot so I could hand-lay and later tend to a cross-over there.

I headed downtown to a jeweler and had him use gold wire to make not one, but two, gold spikes. They reminded me of the pins from the backs of tie tacks or lapel pins, as they were already nicely pointed. I cut them to length and bent and flattened the heads.

My pessimism was warranted, as despite driving a

hole for the soft gold spike using a regular steel spike, the first one nonetheless disappeared into model railroad Neverland. The second one graced the Allegheny Midland until the layout was dismantled, but for some reason it was not retrieved on demolition day. I did save the monument that marked the location, though.

Many years later, I took a Holland America cruise with three other model railroaders and their wives to Alaska prior to the NMRA National Convention in Seattle. We panned for gold nuggets and flakes and did pretty well. I planned to have that gold melted down and drawn into wire from which I would have a new set of gold spikes fashioned for my next model railroad.

But the prototype I model, the Nickel Plate Road’s St. Louis Division, was an assemblage of what had originally been narrow

gauge railroads that were merged end-to-end, so there never was a gold spike ceremony. I followed suit, and the gold nuggets will have to find another purpose someday.

While we’re remembering Don Fiehmann, let me share a story with you. Back in the 1970s when I edited *Railroad Model Craftsman*, Don, who worked for IBM, was my go-to guy for electronics articles. One of them involved making a walkaround throttle out of a small Coors beer can (September and October 1975). It could have been a soft-drink can, I suppose, but the beer can just seemed more in tune with the avant-garde attitude we had at RMC at the time. And Coors was a bit of a novelty back then.

Step 1, as I recall, was to drill a small hole in the bottom of the can and drain the beer into a glass. Step 2 was to drink the beer. He then led you through the other steps to add push buttons and a coiled cable to the can.

If you damaged the can during the various drilling operations and had to start over with another can by repeating Step 1, Don cautioned, “Do not repeat Step 2, or you’ll keep screwing up the subsequent steps!”

But we were discussing gold spikes. Like Don’s sage advice about not repeating Step 2, it does pay to plan ahead as you lay the track for your model railroad. Driving the gold spike should be cause for celebration at a place where everyone can see the fruits of your labors. **MR**



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