

SOUND OFF! GUIDE TO MINI SPEAKERS p.46



**Atlas N scale
Dash 8-40C** p.48

July 2022 • Trains.com

MODEL RAILROADING IS FUN!

Model Railroader®

Build a realistic pond

Step by step guide
for making this
signature scene

p.34

**H0 scale
Freelanced
scenic layout** p.28

PLUS

Scratchbuild an abandoned house p.22

Adding a dam to improve a river scene p.42

Two track plans for a one-room layout p.39

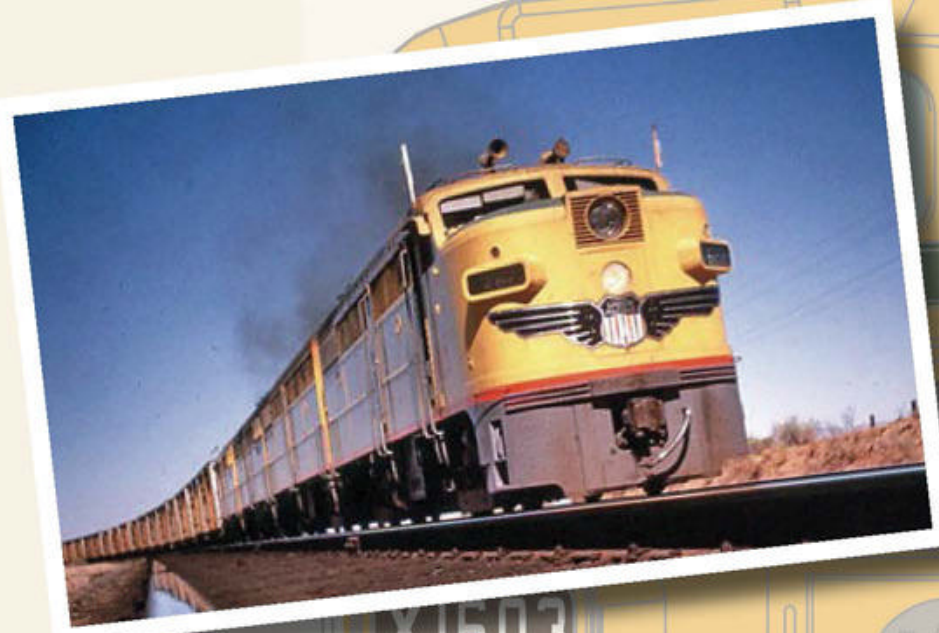
Lou and Cheryl Sassi
detail the construction
of a mill pond. p. 34

Alco **FA-1**
DIESEL-ELECTRIC

HO
SCALE



Moving freight for America!



**CORRECT NOSE AND
WINDSHIELD CONTOURS!**

*Erie, CN, INR, NH,
Reading, PRR, UP*

ROAD-SPECIFIC DETAILS!

*Canadian National,
CP Block and Script*



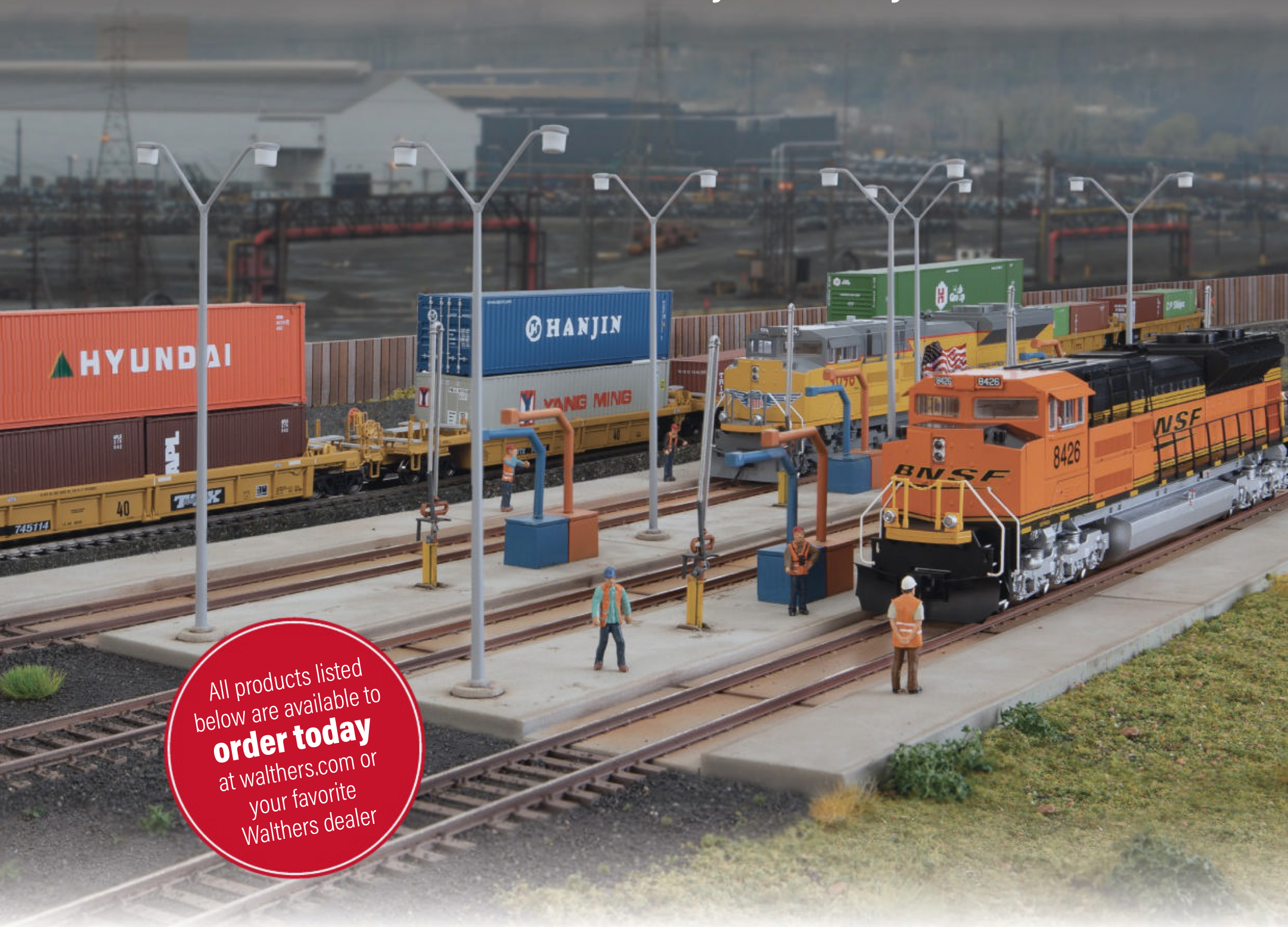
Quality. Style. Spirit.™

rapidotrains.com • [youtube.com/RapidoTrains](https://www.youtube.com/RapidoTrains) • [facebook.com/RapidoTrains](https://www.facebook.com/RapidoTrains)

RAPIDO

Like what you see?

Walthers has everything you need
to make this scene your reality!



All products listed
below are available to
order today
at walthers.com or
your favorite
Walthers dealer



**Modern Diesel
Fueling Facility**
933-4161

WALTHERS MAINLINE

**EMD SD70Ace
Locomotives**
910-19865 to 19876
(ESU SOUND & DCC)
910-9865 to 9876
(Standard DC)

**Thrall 5-unit Rebuilt
40' Well Cars**
910-55640 to 55659
Thrall 40' Well Cars
910-8400 to 8419

WALTHERSTRACK

Code 83 Nickel Silver Flextrack
948-83001

SCENEMASTER

20' Containers 949-8002 to 8076	48' Containers 949-8455 to 8472
40' Containers 949-8150 to 8365	53' Containers 949-8501 to 8540

WALTHERS

Find these and other exciting new products at your local hobby shop • walthers.com • 1-800-4-TRAINS

Delivery dates, availability and prices shown were accurate at press time, for updates visit walthers.com. Preproduction models shown assembled and painted, some details and colors may vary. Figures and scenery materials shown sold separately.
†Union Pacific licensed product. ©2022 Wm. K. Walthers, Inc.

Features



28 Better late than never

A new house and hobby led to this 25 x 38-foot HO scale layout
by Lloyd Henchey



34 A mill pond for the Sandy River & Rangeley Lakes

Part 1: Preparing the bridge abutments, pond bottom, and banks
by Lou & Cheryl Sassi

39 One room, two track plans

A look at the pluses and minuses of two design approaches for a small spare bedroom
by Steven Otte



42 Blend a river into a backdrop

A Tainter gate dam hides the seam between the layout and the backdrop
by Bob Wundrock

In every issue

6 On Trains.com

The latest features on our website

8 From the Editor

A subject too big for one issue

12 News & Products

Hobby industry news

18 Ask MR

How do I remove printing from a model?



22 Step by Step

Scratchbuild an abandoned house

46 DCC Currents

Using mini and cell phone speakers



48 Product Reviews

Bowser HO scale Alco RS-3 and N scale General Electric Dash 8-40C from Atlas

54 On Operation

"I'm Dan Thorne, and what I say goes!"

56 Trackside Photos

65 Index of Advertisers and Cartoon

66 Trains of Thought

You had to be there



On the cover: Lou and Cheryl Sassi built a pond scene for their Sandy River & Rangeley Lakes. Read how they did it on page 34. Lou Sassi photo



Next issue

In August, get an update on Eric Brooman's Utah Belt, the layout where it's always the present day. Plus, pour a pond, visit an N scale layout on a door, wrap a diesel, 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.

Now Available from



Reisner Scrap Metals (CMHX)

ATLAS MASTER® HO COALVEYOR BATHTUB GONDOLAS



Cobra Trading (COBX)



Frontier Scrap Metals (FICX)



David Joseph (Blue)



David Joseph (Teal)



Chicago & Illinois Midland



Kansas City Power & Light - SJLP (KCLX)

Also offered:
David Joseph 3-Pack which includes
Blue, Green and Yellow Coalveyors.



Utility Fuels (UFIX)



For more information on these and other high quality Atlas products,
visit your local hobby shop or www.atlasrr.com!



ATLAS MODEL RAILROAD CO, INC. • 378 Florence Ave., Hillside, NJ 07205 • www.atlasrr.com



How-to

Interested in organizing an operating weekend?

When is the right time to get like-minded hobbyists together to run trains? Well, Senior Editor Eric White says there's more to it than simply inviting people over. If you're interested, go to Trains.com and search, *What is an operating weekend on a model railroad layout?* Here you'll discover what it takes to plan such an event.



Back on Track

Time to shine some light on your layout. Gerry Leone's Trains.com video series *Back on Track* gives hobbyists a reference for adding features to their model railroads. Do you want to work smarter and not harder? Episode 17 teaches you how to turn a low light situation into a brighter, more functional one. You can easily track down his series by typing *Back on Track* in the Search bar.



Layout Visits

Step into a miniature model railroad world with any one of our Layout Visit videos. You can sit up close with Hans Schlegel as he explains his HO scale Gogebic Iron Range layout, which features the Chicago & North Western and Soo Line railroad during the mid-1950s and early-1960s. Or jump on over to Appalachian railroading on Todd Smalley's HO scale Chesapeake & Ohio Monroe Division model railroad. Did you know? You can get unlimited access to the *Model Railroader* video library by becoming a Trains.com member.



Ask Trains

The prototypes renumber their engines, every now and then, and you can do the same. So how do you remove the numbers or lettering from your locomotive? *Model Railroader's* Steven Otte and Cody Grivno can answer this question. If you want to know how to simply transform your rolling stock one number at a time, just check out Otte's answer in this issue's "Ask MR." Then, if you're a Trains.com subscriber, go watch Cody's "Ask Trains.com" video on this topic. Find it under the Beginners tab.



trains.com

NICHOLAS SMITH TRAINS

Model Railroading For All Seasons®

VISIT OUR WEBSITE, OR GIVE US A CALL

Orders/Info (610) 353-8585 • Fax (610) 359-9846

MINIMUM ORDER : \$30.00 • 15% Restocking Fee on Returns
PA Residents Add 6% Sales Tax

MTH HO

MTH8020920 PRR Alco FA/B DCC Ready.....	\$269.99
MTH8020961 Reading FA w. PS3	\$209.99
MTH8020981 Lehigh Valley FA/B w. PS3	\$419.99
MTH8020991 Lehigh Valley FA w. PS3	\$219.99
MTH8021541 Penn Central GG1 #4863 w. PS3	\$250.00
MTH8022921 CN Dash 9 w. PS3	\$229.99
MTH8023031 SF Dash 9 w. PS3	\$229.99
MTH8023040 SF Dash 9 DCC Ready	\$149.99
MTH8023501 GE Demo ES44 Ac w. PS3	\$249.99
MTH8023800 Spirit of Up SD70Ace #1943 DC	\$174.99
MTH8023801 Spirit of Up SD70Ace #1943 DCC	\$239.99
MTH8023960 UP SD70Ace #4141 DCC Rdy	\$174.99
MTH8023961 UP SD70Ace #4141 DCC/SND	\$244.99
MTH8023970 UP SD70H #9096 DCC Ready	\$174.99
MTH8023971 UP SD70H #9096 DCC/SND	\$244.99
MTH8023990 UP SD70 Ace #1111 DCC Ready	\$174.99
MTH8023991 UP SD70Ace #1111 DCC/Sound	\$244.99
MTH8060074 N&W Streamlined Baggage	\$89.99
MTH8520180 BNSF GP38-2 DCC Ready	\$89.99
MTH8520370 UP GP38-2 DCC Ready	\$89.99
MTH8520380 UP GP38-2 DCC Ready	\$89.99

TAKE 15% off any MTH Loco Above when you mention this ad!!

ATLAS HO

ATL10002677 CSX Genset DCC Ready	\$132.99
ATL10002741 MBTA Genset DCC Ready	\$139.98
ATL1000274X 3/4 MBTA Genset DCC/Sound	\$229.98
ATL1000292X 4-6 Amtrak GP7 DCC/Sound	\$184.99
ATL1000307X 4/5 Santa Fe Dash 8 DCC Ready	\$137.98
ATL1000308X 4/5 CSX Dash 8 DCC/Sound	\$222.98
ATL1000309X 9/8 Santa Fe Dash 8 DCC/Sound	\$205.98
ATL1000310X 0/1 BNSF Dash 8 DCC/Sound	\$222.98
ATL1000321X 3/4 NS GP38 DCC Ready	\$139.98
ATL1000321X 4/6 RJ Corman GP38 DCC Ready	\$139.98
ATL1000323X 1/2 NJ Transit GP40 DCC Ready	\$139.98
ATL1000324X 2/3 NS GP38 DCC Sound	\$219.98
ATL1000327X 5/6 Morristown & Erie C424 DCC Rdy	\$120.97
ATL1000329X 5/6 Morristown & Erie C424 DCC Sound	\$201.97
ATL10003450 RBM&N U23B DCC/Sound	\$214.98
ATL1000346X 6/7 NS GP40-2 OLS DCC Ready	\$144.98
ATL1000349X 0/1 NS GP40-2 DCC/Sound	\$229.98
ATL1000353X 7/8 Long Island FM H16-44 DCC/SND	\$215.97
ATL1000354X 5/6 PRR FM H16-44 DCC/Sound	\$215.97
ATL1000361X 1/2 KCS GP38-2 DCC Sound	\$185.98
ATL20006193 NS Gunderson Auto Carrier	\$64.98
ATL20006197 UP Gunderson Auto Carrier	\$64.98
ATL2000635X 2/3 Louisiana Hot Sauce Tank Car	\$35.48
ATL20006431 CP Auto Carrier	\$63.98
ATL2000643X 4/5 BNSF Auto Carrier	\$63.98
ATK2000643X 6/7 TTX White Auto Carrier	\$63.98
ATK20006441 KCS Auto Carrier	\$63.98
ATK2000644X 2/3 TTX Yellow Auto Carrier	\$63.98

Athearn HO

ATHG01111 UP SD70Ace #1111 DCC/Sound	\$274.99
ATHG11110 UP SD70Ace #1111 DCC Ready	\$212.49
ATHG12420 Milwaukee Road F7 A	\$229.98
ATHG65260 NS SD60E DCC/Sound	\$239.99
ATHG70553 PRLX SD75M DCC Ready	\$184.98
ATHG70559 UP SD70M DCC Ready	\$184.98
ATHG7064X 5-7 NS SD75M DCC/Sound	\$254.98
ATHG7065X 1-3 Progress Rail SD75M DCC/Snd	\$254.98
ATHG70659 UP SD70M DCC/Sound	\$254.98
ATHG7560X 6/7 BNSF SD60M DCC/Sound	\$277.98
ATHG7580X 6-9 NS SD70ACU DCC/Sound	\$289.97
ATHG78110 PRR GP7 DCC Ready	\$156.99
ATHG83037 CSX ES44DC DCC Ready	\$179.98
ATHG8308X 4-8 UP ES44AC DCC Ready	\$204.98

Hours: M,- TH 12-5 • Friday 12-7 • Sat 12-5 •
Sun 11-5 (Nov. 1st-Dec. 24th)

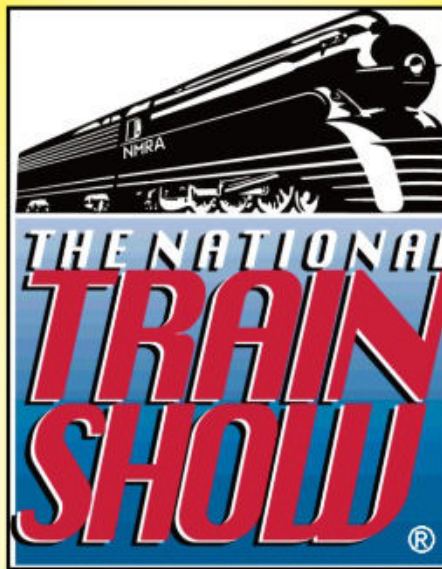
2343 West Chester Pike • Broomall, PA 19008
(610) 353-8585 • ESTABLISHED 1909

Prices Subject to Change Without Notice; Not Responsible For Typographical Errors

www.nicholassmithtrains.com

Model Railroader July 2022

You're the kid.



**Welcome to the
candy store.**

Aug. 12-14, 2022

**Collinsville, IL
Convention Center**

NationalTrainShow.org

Sponsored by



The National
Model
Railroad
Association

© 2022 NMRA

Micro-Mark®
THE SMALL TOOL SPECIALISTS

STARTING JUNE 11...

**Don't Miss Our Best Deals of the
Year on Tools, Supplies & More!**

SAVE up to 83%!

**SUMMER
SALE**

OVER 1,600 ITEMS ON SALE!

To get a **FREE Catalog**, go to
the Catalog Request page
at www.micromark.com
and enter Promo Code 4595

CUSTOM MODEL RAILROADS

Construction of Fine Scale Model Railroads
Private Layouts - Museum Exhibits - Custom Structures
Let us build the Model Railroad of your Dreams

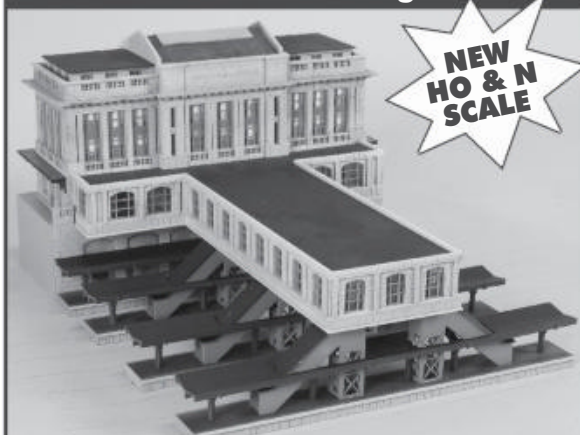


Quality built layouts since 1991

www.custommodelrailroads.com

City Station

Laser-cut Building Kit



**NEW
HO & N
SCALE**

410-889-0010

Visit our website to see these and more kits from CMR
www.custommodelrailroads.com

Go Digital!

Read *Model Railroader* on your
tablet or laptop!

- Live links.
- Zoom in & magnify.
- Bookmark pages.
- Search & print pages.
- Save storage space.



Visit

www.Trains.com/MRR/subscription-plans/

CALIFORNIA SPECIAL

TRAIN, TOY, & MODEL KIT SHOW

International Agri-Center,
Tulare, CA 93274

½ way between Sacramento and L.A.

2022 Show Dates:

Nov 12-13 (10-4)

\$10/person; \$15/family

FREE PARKING!

Vendors - send email to:
TulareTTMShow@gmail.com

A subject too big for one issue

With the exception of our staff-built project railroad series, such as the recently completed N scale State Line layout, we generally steer clear of articles that are too long for one issue.

It's just not fair, we've reasoned, to tell part of the story and make folks wait a month to see how it all turns out.

However, we're willing to make an exception when, well, something exceptional comes along.

Starting on page 34 and concluding in next month's *Model Railroader*, the husband and wife team of Lou and Cheryl Sassi guide us through the creation of a realistic mill pond scene.



Starting this month, Lou and Cheryl Sassi describe the process of adding a realistic pond scene to their layout. Lou Sassi photo

Enjoy part one of Lou and Cheryl's article and keep an eye out for the concluding installment in the August *Model Railroader*.

We're sorry to make you wait. But you know what they say; rules are made to be broken.

Hobbies are certainly a much-needed escape from the real world – but the real world is still out there.

Many companies in the model railroad industry have teamed up with The Hub Division of the National Model Railroad Association to contribute to the Wolsztyn Experience relief fund for Ukrainian refugees.

In happier times, the Wolsztyn group supports the steam railway preservation movement in Poland. More recently, however, they've been instrumental in finding housing for families displaced



by the fighting in Ukraine.

Kalmbach Media has donated \$1,000 to support this project. If you would like to learn more, visit hubdiv.org/ukraine.html.

Checks (payable to The Hub Division, Inc.), can be sent to: The Hub Division, Ukraine Support Fund, PO Box 672, Hollis, NH 03049-0672.

Model Railroader

Model railroading is fun!

Founder A.C. Kalmbach 1910-1981
Editor Carl Swanson
Senior Editor Eric White
Group Technical Editor Cody Grivno
Senior Associate Editor Steven Otte
Production Editor Rene Schweitzer
Assistant Digital Editor Nastassia Putz
Contributing Editors Tony Koester, Pelle Søborg, Larry Puckett, Lou Sassi

Phone 262-796-8776
E-mail cswanson@kalmbach.com
Fax 262-796-1142

Model Railroader Art Team

Design Director Thomas G. Danneman
Assistant Design Director Scott Krall
Illustrators Kellie Jaeger, Roen Kelly
Production Specialist Jodi Jeranek

Trains.com

Executive Producer A. David Popp
Producer Kent Johnson
Associate Producers Ben Lake, Diane Martin
Senior Associate Editor Brian Schmidt
Assistant Editor Jenny Freeland

Contributing to Model Railroader

We welcome contributions from readers, including articles, photographs, and drawings. For more information on submitting material, e-mail Editor Carl Swanson at cswanson@kalmbach.com. Model Railroader assumes no responsibility for the safe return of unsolicited material. We assume unsolicited material is intended for publication by Kalmbach Media unless otherwise noted. We assume letters, questions, news releases, and club news items are contributed gratis.

Advertising Department

Ad Sales Representative Martha Stanczak
To purchase an advertisement:
Phone 888-558-1544, ex. 643
E-mail mstanczak@kalmbach.com

To sell Model Railroader in your store:

Phone 800-558-1544
Outside U.S. and Canada 262-796-8776, ex. 818
E-mail tss@kalmbach.com
Website Retailers.Kalmbach.com
Fax 262-798-6592

Customer Sales and Service

Phone 877-246-4879
Outside U.S. and Canada 903-636-1125
Customer Service
customerservice@ModelRailroader.info

Kalmbach Media

Chief Executive Officer Dan Hickey
Chief Financial Officer Christine Metcalf
Senior Vice President, Consumer Marketing Nicole McGuire
Vice President, Content/Editorial Director Stephen C. George
Vice President, Operations Brian J. Schmidt
Vice President, Human Resources Sarah A. Horner
Circulation Director Liz Runyon
Director of Digital Strategy Angela Cotey
Director of Design & Production Michael Soliday
Retention Manager Kathy Steele
Single Copy Specialist Kim Redmond

SUBSCRIPTION RATE: Single copy: \$7.99 (U.S.). Print + digital subscription rate: U.S.: 1 year \$58.95. Canadian: Add \$13.00 postage. Canadian price includes GST, payable in U.S. funds. All other international: Add \$24.00 postage, payable in U.S. funds, drawn on a U.S. bank. ©2022, Kalmbach Media Co. Title registered as trademark. All rights reserved.



PRESS RELEASE



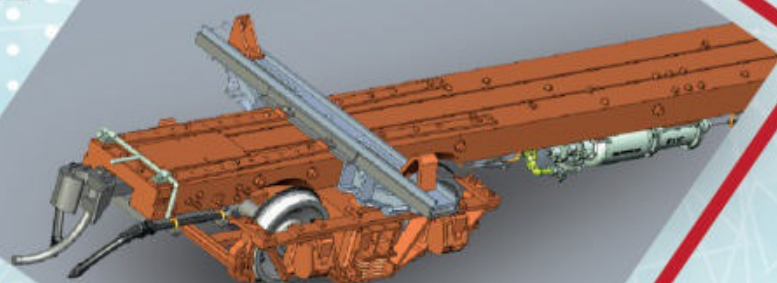
KR Models proudly announce that we will be producing a logging car to complement our model of **The Shay**.

**The Order
book is Now
Open**

Logging railways used three basic types of log cars, the disconnect, skeleton and the flatcar. Skeleton cars were the most common, basically consisting of a wooden reach between two freight car trucks. This arrangement allowed for the use of air brakes (unlike the disconnect), while maintaining its light weight and easy maintenance.

Delivery is expected end of 2022

Available in Single truck..\$60.00,
Single truck + 3 logs.....\$75.00,
Single truck + 6 Logs.....\$75.00



**To register your interest in
this model please go to;**
<https://www.krmodels.ca/products>

**We will announce further details as the
project progresses.**



SELL YOUR PRE-OWNED MODEL RAILROAD COLLECTION FOR CASH

• MODEL MONEY •

Our teams handle hobby collections of all sizes.

Payment is usually made within 1 or 2 working days of your goods arriving with us



We purchase a wide variety of brands, including...



Get cash for your items in just four easy steps...

1



List

Prepare & submit a list of your items online or send spreadsheets, documents or photographs to us via our website.

2



Offer

Our expert staff will review your list and build an offer based on the descriptions you provide.

3



Send

Once you accept our offer, package your items up carefully and send them to our US collection center.

4



Pay

Items are checked, the offer confirmed and payment made via **Bank Transfer, Check or PayPal.**

Get in touch with our friendly team...



Call us on: (833) 621-1260

Toll Free - Monday to Friday - 09:30 to 17:30 ET



WhatsApp us on: +44 7723 329 679



Email us at: preowned@hattons.co.uk



Take our 60 second quiz and immediately learn if we can make an offer on your collection!

www.HattonsModelMoney.com/quiz

Find out more at: www.hattonsmodelmoney.com



EXPLORE OUR HUGE RANGE OF USA OUTLINE PRODUCTS FOR SALE

We stock a wide selection of pre-owned USA and Canadian models.
We might have just the item you've been searching for!



Sign up for our daily email alerts and we'll let you know when pre-owned stock is added:
www.hattons.co.uk/preownednotification



Diesel Engines



Steam Engines



Freight Cars



Passenger Cars



Diecast Autos

We are one of the UK's best known model rail retailers



Established 1946
One of the UK's longest running model stores



Check each weekday
We update our pre-owned stock daily!



Hattons Trunk Service
Hold items with us for later despatch & combine orders



Quick despatch!
We offer competitive shipping options for the USA



Winners of over 40 customer-voted awards including Hornby Magazine Retailer of the Year 2021!



Shop now at: www.hattons.co.uk

WHAT IS AVAXHOME?

AVAXHOME-

the biggest Internet portal,
providing you various content:
brand new books, trending movies,
fresh magazines, hot games,
recent software, latest music releases.

Unlimited satisfaction one low price

Cheap constant access to piping hot media

Protect your downloadings from Big brother

Safer, than torrent-trackers

18 years of seamless operation and our users' satisfaction

All languages

Brand new content

One site



AVXLIVE ICU

AvaxHome - Your End Place

We have everything for all of your needs. Just open <https://avxlive.icu>

HO scale



Electro-Motive Division E1A and E1B diesel locomotives.

Broadway Limited Imports offers these streamlined units decorated for Atchison, Topeka & Santa Fe (1940 orange-red warbonnet [A-B set and single A and B units], pre-1946 Signal Red warbonnet [A-B set, two single A units, and single B unit], and postwar Signal Red warbonnet [two A-B sets, two single A units, and single B unit]); Baltimore & Ohio (late blue, black, and gray scheme [A-B set and single A and B units]);

and Gulf, Mobile & Ohio (late maroon-and-red scheme, single A unit). The HO scale A-B sets consist of a powered A unit and unpowered B unit. The E1s have an ABS body, die-cast metal chassis, a dual-mode Paragon4 sound decoder with Rolling Thunder, and Kadee-compatible metal couplers. The pricing structure is **\$299.99** (A units), **\$289.99** (B units), and **\$419.99** (A-B sets). Broadway Limited Imports, 386-673-8900, broadway-limited.com

Rapido announces new HO covered hopper



A Procor 3,000-cubic-foot capacity sodium chlorate covered hopper was recently announced by Rapido Trains. The HO scale model will be offered with and without top handrails.

Rapido Trains announced that it will be offering a Procor 3,000-cubic-foot capacity sodium chlorate covered hopper in HO scale.

The first release of the sodium chlorate covered hopper will be decorated for Procor (1998+ with UNPX reporting marks, Procor wordmark, and top handrails; 2000+ with UNPX reporting marks, no wordmark, and without top handrails) in six road numbers per scheme. Unlettered models painted aluminum with and without top handrails will also be offered.

Additional features on the Procor covered hopper will include Sparger outlet gates; etched-metal running boards and placards; separate, factory-installed grab irons; full end cage details; and newly tooled 100-ton ride control trucks with HydraShox hydraulic snubbers.

Single cars will be priced at \$59.95, and six-packs will sell for \$359.70. The release date has yet to be announced. For updates on Rapido's HO scale Procor 3,000-cubic-foot capacity sodium chlorate covered hopper, visit the manufacturer's website at rapidotrains.com.

Athearn consolidates product brands

Athearn Trains will be consolidating its product brands from five down to three. The company will now be using the Athearn, Athearn Genesis, and Athearn Roundhouse names for its HO and N scale locomotives, freight cars, passenger cars, vehicles, and train sets.

The Athearn Genesis brand will be used for the manufacturer's premium line of models. The brand will cover steam and diesel locomotives, passenger cars, and freight cars in N and HO.

Locomotives in the Athearn Genesis line will have road-name and road-number specific details, dual-mode SoundTraxx Tsunami2 sound decoders, and various light and sound features.

The Athearn Roundhouse line will cover entry-level HO scale models and train sets. Locomotives in the line will have 21-pin NEM connectors and light-emitting-diode lighting.

The Athearn line will cover all other products. HO scale models in the range

will include locomotives (with Digital Command Control sound decoder and DCC-ready versions), rolling stock (separate, factory-applied grab irons; etched-metal crossover platforms where applicable; basic underbody details; and multiple body styles per prototype), and vehicles (fire trucks, semi trailers, and intermodal containers).

In N scale, products in the Athearn line will include locomotives (DCC and DCC ready), rolling stock, and vehicles.

HO scale



Pullman-Standard three-bay hopper. Tangent Scale Models has released a new run of three-bay hoppers. The HO scale Pullman-Standard PS4000 hopper is decorated for Chicago & North Western (Phase II, 8-1985 green Clinton repaint) and Burlington Northern (Phase III, 1976+ black as-delivered scheme with double rotary ends in two new road numbers and 1976+ black as-delivered scheme with single rotary end). The model (\$46.95) is offered in 24 numbers per scheme unless noted; it's also available undecorated in five body styles. Features include prototype-specific details, wire grab irons, and 100-ton Barber S-2 trucks with roadname-specific rotating bearing caps. Tangent Scale Models, 828-412-3886, tangentscalemodels.com

HO scale locomotives



• **Fairbanks-Morse H24-66 Trainmaster diesel locomotive.** New paint schemes: Erie Lackawanna (Phase Ia, two different gray-and-maroon schemes, one road number each) and Chihuahua Pacific (Phase Ia, red and black in two road numbers). New numbers: Canadian Pacific (Phase II, gray, maroon, and yellow late scheme); Jersey Central (Phase Ib, green and gold without stripes); Lackawanna (Phase Ia, gray and maroon in two numbers); Pennsylvania (Phase II, Brunswick Green and gold); Reading Co. (Phase Ib, green and gold); and Southern Pacific (Phase Ib, gray and scarlet). Three numbers per scheme unless noted. Prototype-specific details; etched metal grills; and Accumate couplers. Direct-current model with factory-installed speaker, \$184.95 (undecorated, \$174.95); with dual-mode ESU sound decoder, \$294.95 (undecorated, \$284.95). Fourth quarter 2022. Master Line. Atlas Model Railroad Co., 908-687-0880, shop.atlasrr.com

HO scale freight cars

• **Assorted freight car kits.** Canadian National 40-foot single-sheathed boxcar

(Boxcar Red), \$19.98. Chicago, Burlington & Quincy American Car & Foundry 2,970-cubic-foot capacity two-bay Center Flow covered hopper (gray), \$20.98. Toledo, Peoria & Western American Car & Foundry 4,600-cubic-foot capacity three-bay Center Flow covered hopper (red), \$20.98. Injection-molded plastic kits with plastic wheelsets, trucks, and Accumate couplers. Accurail, 630-365-1173, accurail.com



• **Great Northern 40-foot 12-panel boxcar.** With early improved Dreadnaught ends: Vermillion Red, Glacier Green, Mineral Red, and Omaha Orange and Pullman Green. With late improved Dreadnaught ends: Big Sky Blue, Omaha Orange and Pullman Green, Mineral Red, and Vermillion Red (angled and *Empire Builder* lettering). Both body styles also offered undecorated. Diagonal-panel roof, 12-panel sides with straight side sills, welded underframes, and American Steel Foundries Ride-Control trucks. Single car, \$54.95; six-pack, \$329.70. Release date to be announced. Rapido Trains, 905-474-3314, rapidotrains.com

In Memoriam

Bob Phelps, 1937-2022

Bob Phelps, former principal product design engineer at Pritchard Patent Product Co. Ltd. (Peco), passed away at his home in France on March 23. He was 84 years old.

Phelps joined Peco in 1964 as a product designer. Steve Haynes, sales manager at Peco, said, "Bob was a huge American model railroading fan and a very influential person within Peco. The introduction of the Streamline HO code 83 track line being very much a personal project of Bob's."

Phelps retired from Peco in 2016. He received the National Model Railroad Association's Distinguished Service Award in 2019. The award was presented during the National Train Show in Sandy, Utah.

James (Jim) A. Sacco, 1956-2022

James (Jim) A. Sacco, founder of City Classics, died on March 6 after a multi-year battle with cancer. He was 66.

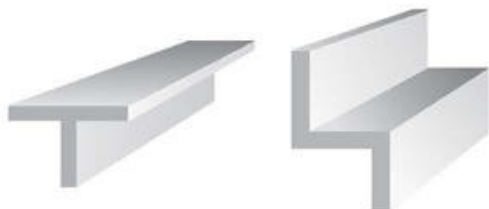
Jim started City Classics in 1989. The company was well known for its structure offerings in HO and N scales. Over the years Jim added other products to the company's lineup, including window treatments, building interiors, signs, and structure details.

The City Classics booth was popular at train shows for its 3'-7" x 10'-10" HO scale display model railroad. Between shows, it served as Jim's home layout. Jim's City Classics display layout was featured in *Model Railroad Planning* 2019.

HO scale passenger equipment

• **Amtrak 85-foot Horizon fleet passenger cars.** Coach and food-service car. Both cars offered in Phase 3, 4, and 6 (Travelmark) schemes; also available painted silver but unlettered. New factory-installed diaphragms, drawbars for 22" or larger radius curves, and

T SHAPES & Z CHANNELS



- Available in a variety of popular sizes
- Packaged in Small Packs, Economy Packs and Bulk
- White Polystyrene

evergreen scale models

visit us at www.evergreenscalemodels.com
Toll Free (877) 376-9099
f/EvergreenScaleModels

Call **TODAY** to order! 1-800-466-3131

Storage Boxes

Foam Lined
Self Closing
Fully Assembled



HO Scale
Holds 20 Cars - \$29.95
N Scale
Holds 36 Cars - \$29.95
Tote Bags
\$35.95
Plus S&H

AXIAN TECHNOLOGY

623-580-0800

fax: 623-580-8008

18000 N. Black Canyon Hwy. • Phoenix, AZ 85053

www.axiantech.com

TRAINSHOW.COM
The best place to find Great Train Shows in America

OUR SHOWS:

Greenberg's Train & Toy Show
America's Train & Toy Show since 1976

Great American Train Shows
Quality Train Shows from coast to coast

Great Midwest Train Show
The best place to buy & sell trains since 1971

SUMMER SCHEDULE:

Jun 5 Wheaton, IL - DuPage County Fair
Jul 16-17 Oaks, PA - Philadelphia Expo Center
Jul 23-24 Monroeville, PA - Convention Center
Aug 6-7 Edison, NJ - New Jersey Expo Center
Aug 7 Wheaton, IL - DuPage County Fair
Aug 20-21 Chantilly, VA - Dulles Expo Center
Sep 4 Wheaton, IL - DuPage County Fair
Oct 2 Wheaton, IL - DuPage County Fair

WINTER SHOW
SCHEDULE COMING SOON
CHECK TRAINSHOW.COM

SAVE 10% use code MR10 at Trainshow.com

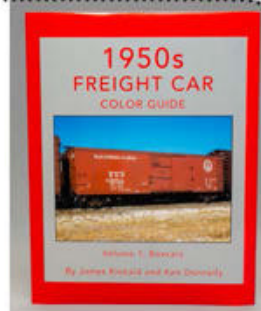
More Info: **TRAINSHOW.COM**

Great American Train Shows Inc - Info@TrainShow.email
PO Box 1192 - Lombard, IL 60148

News & Products

1950s Freight Car Color Guide, Vol. 1: Boxcars

James Kinkaid and Ken Donnelly teamed up to write this book on mid-century boxcars. The 128-page hardcover book (\$69.95) features photos and prototype information on boxcars operated by the Atchison, Topeka & Santa Fe; Baltimore & Ohio; Maine Central; Milwaukee Road; and New York, New Haven & Hartford, among others. Morning Sun Books, 908-806-6216, morningsunbooks.com



improved underbody details. Other features include GSI roller-bearing trucks with 36" turned-metal wheelsets, tinted window glazing, and Proto-Max metal couplers. \$44.98 each. WalthersMainline. Wm. K. Walthers Inc., 414-527-0770, walthers.com



• **United Aircraft TurboTrain.** VIA Rail (with and without CN "wet noodle" herald on nose), Amtrak (early and late), Canadian National, Penn Central/U.S. DOT, and United Aircraft/U.S. DOT. Three- and five-car sets, four-car Canadian coach sets, and single U.S. coaches. New drive system with improved slow-speed performance; redesigned single-axle trucks with needle-point axles and roof-mounted SMD interior lighting system; golden-white light-emitting-diode headlights; all-wheel electrical pickup; and dual-mode ESU LokSound V5 decoder. New version is not compatible with the 2008 release. \$89.95 (single coach, U.S. roads only), \$319.95 (CN/VIA four-car coach set), \$749.95 (three-piece set, United Aircraft/U.S. DOT and Penn Central/U.S. DOT), and \$899.95 (five-piece sets). Rapido Trains, 905-474-3314, rapidotrains.com

N scale locomotives

• **2-8-2 Mikado steam locomotive.** Heavy Mikado: Atchison, Topeka, & Santa Fe; Chicago, Burlington & Quincy; Great Northern; New York, New Haven

SHOP ON-LINE 24/7

TRAINWORLD.COM

WE SUPPLY THE WORLD



AMERICA'S LARGEST
INTERNATIONAL MAIL ORDER
DISCOUNT TRAIN STORE

N, HO, ON30 SUPER SAVINGS SALE

10% OFF

@ **TRAINWORLD.COM**
On-line Orders Only

Use CODE Word **MRJJ22** In Discount Code Box
SALE ENDS JULY 15, 2022
MODEL RAILROADER

\$100.00
and OVER
BEFORE TAXES &
SHIPPING CHARGES

THIS MONTH'S SPECIAL Limited Quantities
HO BACHMANN 46215 STANDARD
MAINTENANCE BUS with HIGH DCC
RAILERS
SUPER SALE \$39.99
MORE SALE ITEMS @ trainworld.com

- CODE WORD MUST BE APPLIED AT TIME OF ORDER
- IN STOCK ITEMS ONLY
- NO NEW ARRIVALS
- NO BACK ORDERS
- NO PRE-ORDERS

- NOT REDEEMABLE FOR CASH OR GIFT CARDS
- DISCOUNT DOES NOT APPLY TO SALES TAX OR SHIPPING & HANDLING
- NO REFUNDS, NO RETURNS, NO STORE CREDIT ON PREVIOUSLY SOLD ITEMS

- NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS
- LIMITED QUANTITIES ON CERTAIN ITEMS
- CANNOT BE COMBINED WITH OTHER OFFERS OR DISCOUNTS
- IF DISCOUNT APPLICABLE, TRAINWORLD WILL APPLY IT WHEN ORDER IS PROCESSED

The Products We Sell Are Not Toys and Are Not Intended for Use By Children Under The Age Of 14.

SIGN-UP FOR OUR E-MAIL SALES 1-800-541-7010 e-mail: ORDERS@TRAINWORLD.COM
HUGE INVENTORY • GREAT SELECTION • FAST SHIPPING
725 McDONALD AVE., BROOKLYN, NY 11218

**SPRING CREEK
MODEL TRAINS**

DESHLER ★ NEBRASKA

One of the largest
HO & N-Scale
Inventories
Around!

Scenery, Details, Books, Tools & More

SpringCreekModelTrains.com

402-365-7628





COMING SOON LANDMARK STRUCTURES®

TOY & HOBBY JUNCTION

Built-&-Ready® to place on your layout

- View the colorful interior from windows on every side of the building
- Pre-installed lighting made for use with Just Plug® Lighting System
- Expertly weathered with a variety of signage
- Will be available for N, HO and O scale



**WOODLAND
SCENICS®**
woodlandscenics.com



The interior features an elaborate staircase and lots of wall detail

Purchase at your favorite hobby store.

N scale

40-foot refrigerated intermodal containers.

ZIMonitor, Crowley, CSAV, Evergreen, and Ocean Network Express are the paint schemes on these modern containers from Atlas Model Railroad Co. The N scale models, offered in two three-packs per scheme, have a picture window refrigeration unit with separate parts, composite materials sandwich-side design, and five hinge/four bar doors with out-style handles. The Master Line models are sold in a three-pack for **\$44.95**. Atlas Model Railroad Co., 908-687-0880, shop.atlasrr.com



Z scale locomotives



• **Alco PA-1 and PB-1 diesel locomotives.** Denver & Rio Grande Western (PA-1 and PA-1/PB-1 set for the *California Zephyr*). Single units and sets in two road numbers each. Prototype-specific details, 7mm can motor with dual flywheels, AutoLatch couplers, and directional light-emitting-diode lighting. American Z Line, 614-764-1703, americanzline.com

Decals

• **Illinois Central "New Image" Gray 100-ton covered hoppers (1988+).** HO scale waterslide decals. Also covers Canadian National Oxide Red repaints with "wet noodle" herald and website. Set contains enough lettering for three cars. Produced by Cartograf. \$18. ICG Decals, icgdecals.com 

& Hartford; Northern Pacific; and Southern Pacific. Light Mikado: Baltimore & Ohio, Chesapeake & Ohio, Denver & Rio Grande Western, Pennsylvania RR, Southern Ry. (one road number), Texas & Pacific, and Union

Pacific. Two numbers each unless noted; also available painted black but unlabeled. Die-cast metal body and chassis and dual-mode Paragon4 sound decoder. \$369.99. Broadway Limited Imports, 386-673-8900, broadway-limited.com

Union Pacific Railroad (UP) class 4000

The Union Pacific Railroad rolled out the biggest restoration of 2019, the complete overhaul of the largest steam locomotive in the world – the **Big Boy**, road number 4014.

TRIX



To commemorate this event, Trix has reissued an accurately redesigned model in HO scale (Item No. 22163). This model was made specifically for the HO US market.

This metal model has a total of 14 design changes to accurately represent the prototype, including changing to an oil firing tender, "Big Boy" written on the smoke box door, applying the UP 4014 logo onto cab floor and more!

Also available in a Märklin H0 version (37997) and standard Trix HO version (22014).

Trix products are available from authorized Trix and Märklin dealers. See our complete line of products at marklin.com and trix.de/en. Contact customerservice@marklin.com for more information or to request a free New Items catalog.

©2020 Märklin, Inc.

Products bearing "Union Pacific" are made under trademark license from the Union Pacific Railroad® Company

BENCHWORK in a HURRY



Use Our Simple Modular System
You Design Any Size Layout
For Any Gauge Track
Easy to Assemble

Sievers BENCHWORK

Washington Island, WI 54246
920-847-2264

www.sieversbenchwork.com

SHOWCASE-EXPRESS

Wall to Wall Expandable Display Case

Case Size Available: Z, N, HO, S, O, G, #1 & Standard Gauge



Lighting Kits and Backgrounds Available

Join Top to Bottom
or End to End 714-842-0672

WWW.SHOWCASE-EXPRESS.COM

Model Railroaders in all scales from points
all over the world know **READY TO ROLL**
is their #1 destination because of our
extensive in store inventory.



All roads, cruise
ship ports, and
airports lead to

RTR

READY TO ROLL

831 NW 143rd STREET
MIAMI, FL 33168 - 3017
(305) 688-8868
rtrtrains@aol.com

Building High Quality Systems Since 1995



Suspended
Railway
Systems
for
Businesses
and
Residences

Please see web site
for details.

Loco-Boose Hobbies

Sales and Mfg. • 6637 76th Lane SW, Olympia, WA 98512 • (360) 754-5596
Sales • 2049 Uplands Circle, Estes Park, CO 80517 • (970) 577-0583
website: www.Locoboose.com • e-mail: duane@locoboose.com

HALFPRICEHOBBY.COM

100's of HO and N Scale specials
at 50% off of M.S.R.P. at
www.halfpricehobby.com

Regular Stock items always discounted
from 20 to 50% off with low flat rate
shipping of \$8.99

Featuring products from Athearn and other
quality brands

Special orders and pre-orders accepted at
regular discounted prices.
Please email service@halfpricehobby.com
for pricing and availability.

4 ALL-NEW PARAGON 4 ROLLINGTHUNDER ANNOUNCEMENTS

NEW
TOOLING



EMD GP20, HO - Various New Roads
Arrives September 2022



BRASS-HYBRID T&P 2-10-4, HO - Various Schemes
Arrives October 2022



N SCALE N&W Y6b 2-8-2
Arrives October 2022



N SCALE Reading T1 4-8-4 - Various Schemes
Arrives December 2022



PREORDERS FOR \$0 DOWN, CANCEL ANY TIME.
FACTORYDIRECTHOBBIES.COM



Cody Grivno showed one way to remove printing from a boxcar in Kalmbach's book *25 Freight Car Projects* (available in the Kalmbach Hobby Store). The same techniques can be used to remove locomotive lettering. Cody Grivno photo

How do I remove printing from a model?

Q Do you have any suggestions on how to remove locomotive lettering? I have an HO scale Proto 2000 Heritage 2-8-8-2 steam locomotive from which I would like to remove the decals. I was wondering if the decals are on paint, or if they are put straight on the plastic? Can you tell me how to remove locomotive lettering without damaging the paint?

Darryl Haderlein

A If those locomotives were factory-decorated, they likely aren't decaled, but decorated with a printing process similar to silk-screening. The ink would be printed not directly onto the locomotive's plastic shell, but onto a base coat of paint. You'll have to be careful when removing the lettering not to damage the paint underneath it.

Group Technical Editor Cody Grivno has tried about every method to remove printing from a locomotive shell over the years; here are some of his favorite techniques. The first to try is to dab on some Micro-Sol decal setting solution (the stuff with the red label) or a similar product like Walther's Solvaset. Let it sit for a while, then rub gently with a pink rubber pencil eraser to remove the softened printing. Don't rub too hard, or you might remove the underlying paint.

Another technique, pictured above, that Cody demonstrates in the book *25 Freight Car Projects* (available in the Kalmbach Hobby Store) also involves decal setting solution. Although he demonstrates the technique on a boxcar, the same methods are used to print the lettering on locomotives. Apply a small amount of the setting solution to the lettering you want to remove, then let it sit until the liquid is almost fully evaporated. Apply a piece of Scotch Magic Tape over the softened printing and burnish it down firmly with a toothpick, then pull off the tape. With luck, the printing will come with it. Repeat as needed.

Finally, there's wet sanding. Using ultra-fine wet/dry sandpaper or a sanding stick (1500 grit or finer), put a drop of water on the printing and sand gently. Monitor your progress carefully to make sure you aren't removing too much paint.

Cody talks about these techniques in a recent episode of his video series, "Ask Trains.com." If you're a subscriber to our website, you can watch the episode on our website. Good luck with your locomotive relettering project.

Q I'm planning to model Farmington, N.M., on my HO_{N3} model railroad. I've studied the article "Railroading in the Oil Fields" in the January 1960 *Model Railroader* to learn as much as possible about creating a realistic model of an oil field. The article has some very detailed information. An internet search for Farmington gave me a photo of the Denver & Rio Grande Western depot and a minimal photo of the tank car loading platform, but little else. But what I'm still missing is how the oil gets from the oil pumps to the storage tanks and the railroad tanker car loading facility. There's nothing like a pipe connection at the pump itself. Do you have more information?

Art Schmidt

A Oil travels from the wellhead to the storage tanks in pipes. Though the wellhead assembly is above ground, the pipes leading to the storage tanks can either be above ground or buried to protect them from weather, truck traffic, and other hazards. So you can simplify your oil-field modeling by saying your piping is underground.

So what does an oil field scene need? The first thing is an oil pump. Walther's makes models of a modern walking-beam (or "horse head") oil pump in HO (no. 933-3170) and N scales (no. 933-3248). Alexander Scale Models makes HO scale (no. A-7430) and O scale (no. A-430) models. Atlas O has an operating pump that's available in many colors; no. 66904 is the black version.

Place a storage tank or a backdrop photo of one near the pumps, add a tank car loading platform on a spur track, and you've got a realistic scene. A scene like this is a great way to model a busy industry in a small space, especially if you depict most of the oil field with prototype photos glued to the backdrop.

Q Before my father-in-law passed away some years ago, we'd talk about the trains of long ago. As a boy, he loved to watch rail traffic pass by his childhood home in Pana, Ill. He mentioned the "Big Four" rail lines but couldn't remember what rail lines made up the Big Four. Could you let me know which railroads they were?

Timothy Craver, Lumber Bridge, N.C.

Send questions and tips to associate editor Steven Otte at AskMR@MRmag.com.

A The Big Four did not refer to four separate railroads; rather, it was the nickname of one railroad, the Cleveland, Cincinnati, Chicago & St. Louis Ry. The “Big Four” nickname referred to the four cities in its name. The CCC&StL was formed in 1889 by the consolidation of the Cincinnati, Indianapolis, St. Louis & Chicago (which some regard as the original Big Four) with the similarly named Cleveland, Columbus, Cincinnati & Indianapolis (also known as the Bee Line). Both of those railroads were themselves formed by a series of mergers and acquisitions between a number of smaller midwestern roads, including the Mad River & Lake Erie; Cleveland, Columbus & Cincinnati; Indianapolis & Bellefontaine; Terre Haute & Alton; and others. A few years later it took over the Peoria & Eastern Ry. and with it the former Ohio, Indiana & Western.

In 1906, the Big Four was bought by the New York Central, which operated it as an independent line and continued to add more acquisitions to the railroad, including the Evansville, Indianapolis &



The very first railroad dynamometer car – a car equipped with sensitive hydraulic instrumentation to measure locomotive drawbar pull – was built in 1898 by the University of Illinois and the Peoria & Eastern Ry., then a subsidiary of the Cleveland, Cincinnati, Chicago & St. Louis. Note the “Big Four” emblazoned on the dynamometer car and the tender of the 4-4-0. David P. Morgan Library collection

Terre Haute. It was fully consolidated into the New York Central System in 1930. It became part of Penn Central when the NYC merged with the Pennsylvania RR in 1968, and many of its lines were incorporated into Conrail when that railroad was formed to sweep up the ashes of the PC in 1976. Its track-
age was split up between CSX and

Norfolk Southern when they divided Conrail’s assets in 1998.

Railroad history notes another Big Four, unrelated to the CCC&StL. That sobriquet was often used to refer to Charles Crocker, Mark Hopkins, Collis P. Huntington, and Leland Stanford, the four California businessmen who gained control of the newly chartered Central



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



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

UT6
Utility Throttle
\$105.00 MSRP

UT6D
Duplex Utility Throttle
\$170.00 MSRP

**View all features and more
on our website!**

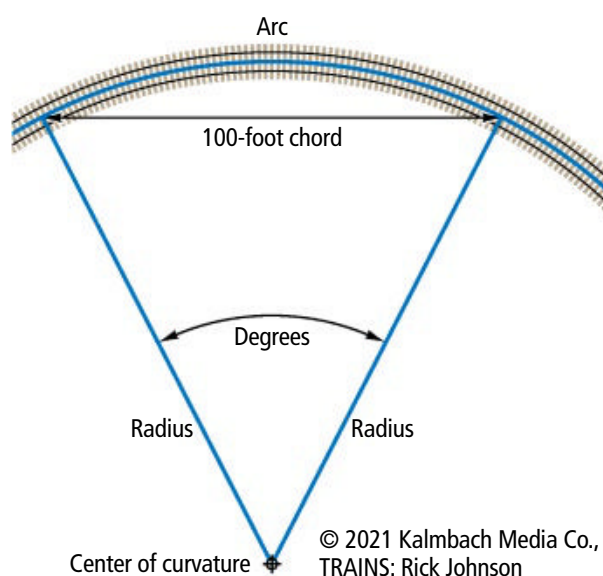
Find out more @ www.digitrax.com/throttles/

Pacific RR in 1861 and, through it, opened the West by constructing the western leg of the nation's first transcontinental railroad. The Central Pacific was leased by Crocker's Southern Pacific RR in 1885. Safe to say your father-in-law didn't see any of this Big Four's trains rolling through Illinois.

Q Model railroaders measure curves in inches, which is easily understood. However, prototype railroads measure their curves in degrees. I'm accustomed to degrees as a measure of angles. How do degrees measure radii?

Alan Crouse

A We modelers measure track curvature by radius because it's convenient. It's usually easy to locate the center of the curve, and the concept of a radius is easy to grasp. However, that's not as convenient a measurement on the prototype, where the extra-broad curves (by model standards) mean the curve's center could be hundreds of yards away, on the other side of trees, hills, and buildings from



the track. So instead, prototype railroads measure curvature along a chord. In geometry, a chord is a straight line connecting the endpoints of a curve. A tangent is a straight line that extends at

right angles from the curve's radius that contacts the curve only at one point; a tangent point is where a radius meets the curve. The degree of curvature is determined by drawing a 100-foot chord between two tangent points on the curve and measuring how much the track curves between those points.

Prototype railroads consider 1 degree of curvature (which works out to a curve radius of 5,730 feet, or more than a mile – almost 66 feet in HO scale) to be the maximum safe curvature for a high-speed freight main line. Industrial tracks are generally restricted to less than 12.5 degrees of curvature (for a radius of almost 460 feet, or 5'-3" in HO), though that measurement can vary depending on the railroad's standards at the time of construction.

If curiosity compels you to convert the curvature of your own track to degrees, you can find out how by reading my longer answer to this question on our website, at [Trains.com/mrr/beginners/ask-trains/](https://trains.com/mrr/beginners/ask-trains/). Bring your trigonometric calculator. **MR**

From first train set to railroad empire...

Our complete line of DCC products grows with you!

NCE
The Power of DCC

NCE PRO CAB #5240010

Our deluxe Pro Cab™ provides the most user-friendly access to all DCC system features. You'll spend less time pushing buttons and more time running trains! Simple menus on the easy-to-read backlit LCD display will guide you through the most advanced operations with no fuss. Carefully placed controls make controlling speed and functions feel like second nature. Rediscover the fun with a Pro Cab from NCE!

See your dealer or visit ncedcc.com

NCE CORPORATION • 82 EAST MAIN ST. • WEBSTER, NY 14580 • 585.265.0230

HANDCRAFTED HO Scale STRUCTURES

✓ PREBUILT ✓ PRELIT ✓ LIMITED EDITION ✓ ORIGINAL DESIGNS

NEW!



Cripple Creek Crossing

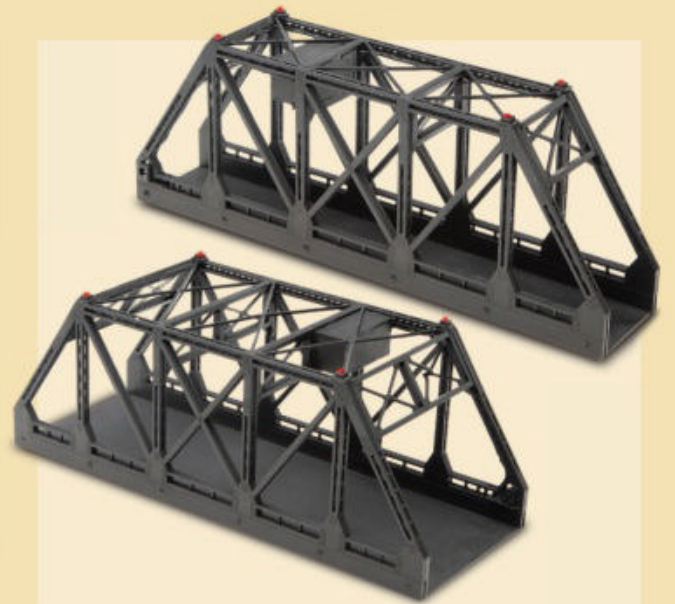
HO Scale (279-8332) | O Scale (279-8305)

Realistically weathered,
including broken and
boarded up windows

Prelit including red LED
warning light on the roof

Includes four figures, garbage
can, oil drums, doghouse, and
Jack the German Shepherd

HO Scale Dimensions:
5"W x 2-3/4"D x 4-1/2"H



HO Lighted Train bridges

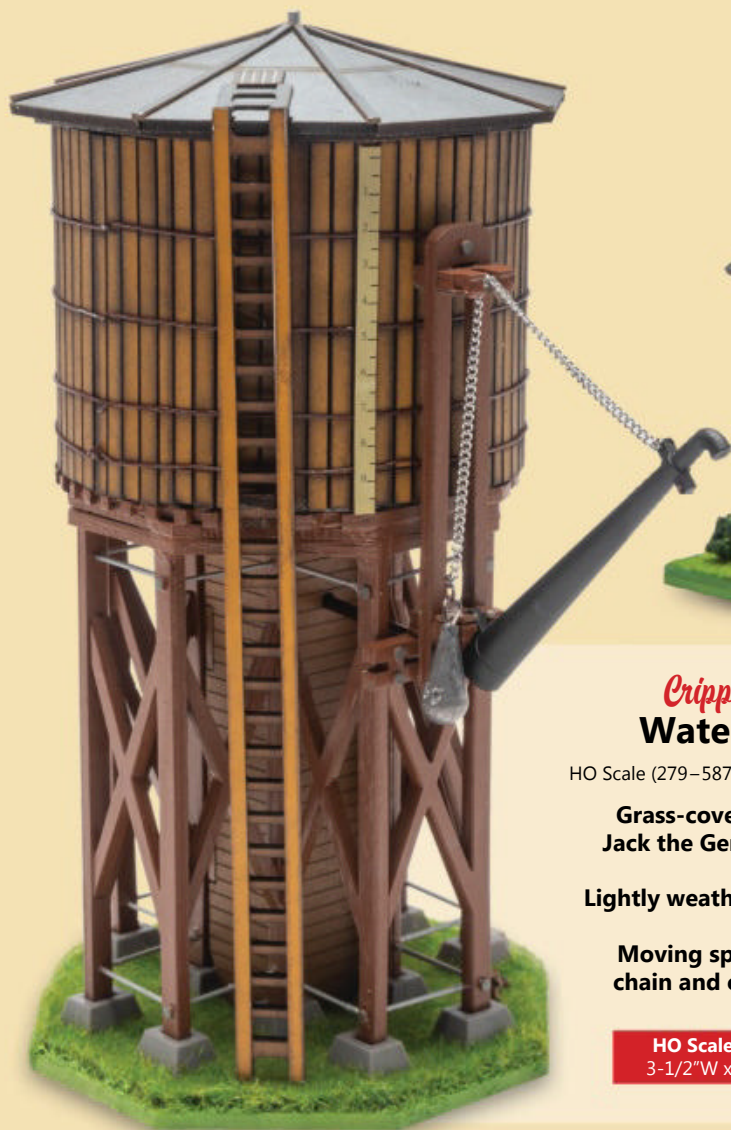
Single Track (279-6917) | Dual Track (279-6918)

Four blinking red LED warning lights

Metal base is strong enough to span a
13" gap, yet thin enough to sit flat on
any layout

3-3/8" clearance through bridge.
Interior width 2-1/8" (single track),
4-1/4" (dual track)

HO Scale Dimensions:
13"L x 4-5/8"H x 2-3/4"W (single), 4-13/16"W (dual)



Cripple Creek Water Tower

HO Scale (279-5878) | O Scale (279-5924)

Grass-covered base with
Jack the German Shepherd

Lightly weathered appearance

Moving spigot arm with
chain and counterweight

HO Scale Dimensions:
3-1/2"W x 3-1/2"D x 7"H



Fully lit with an astounding
40+ LED lights

Three train openings measuring
3-1/4"H x 2"W

Includes two figures, eight bushes,
barrels, trash can, pallets, handcart and
Jack the German Shepherd

Cripple Creek Engine Works

HO Scale (279-6292) | O Scale (279-5926)

HO Scale Dimensions:
10-1/2"W x 6-1/2"D x 6"H

FOR MORE INFORMATION OR TO ORDER, VISIT **MENARDS.COM/TRAINS**



John Mueller built this abandoned house for his HO layout. The structure that inspired the project is at right. Dave Rickaby photo, prototype and process photos by John Mueller

Scratchbuild an abandoned farmhouse in HO scale

When John Mueller's HO scale

Chicago & North Western Northern Memories was featured in the October 2020 issue of *Model Railroader*, he said, "The layout is a source of relaxation as well as a challenge. I hope to refine and detail even more." John has been fulfilling that goal, adding new scenes to his 32 x 39-foot model railroad. A recent addition is the abandoned Endicott House and adjacent shed. He named the structure after an employer he once worked for.

The inspiration for this project was a farmhouse near

East Bristol, Wis., in the central part of the Badger State. John passed the structure for 10 years on his commute to work. After a decade of watching the house slowly decay, John thought it would make an interesting modeling subject. One day, John and his wife, Carla, stopped by the site to take photos and get basic measurements.

Having never tackled a structure like this, John was excited to get started. He built the project over two months, working carefully to get the details right. Although this project is finished, John's days



of scratchbuilding won't be coming to a close anytime soon. He plans to expand his layout into the crew lounge, which means more structures are in John's future.

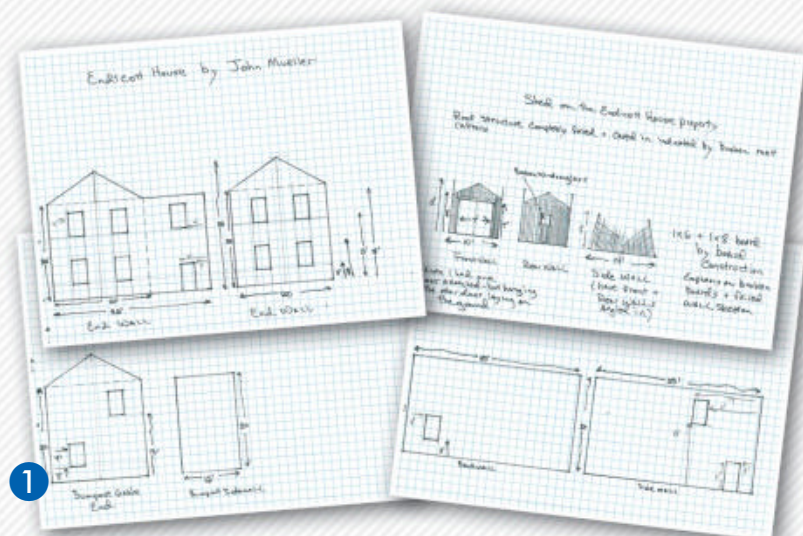
Dave Rickaby is a frequent contributor to Model Railroader magazine. He lives in northern Wisconsin.

John Mueller has been a sales professional for more than 40 years. He lives with his wife, Carla, in DeForest, Wis. His non-hobby activities include working in their hosta garden.

MORE ON THE WEB

Model Railroader magazine subscribers can see video of John Mueller's HO scale C&NW layout at [Trains.com](https://www.trains.com)

STEP 1 GETTING STARTED



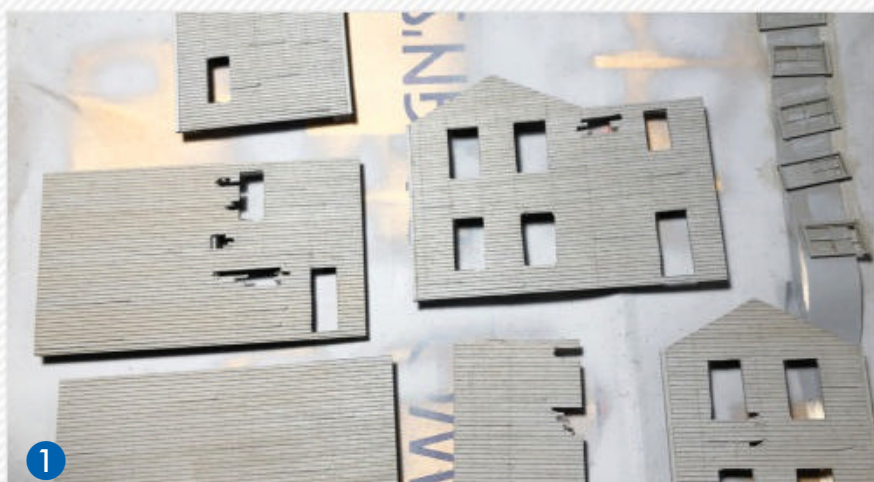
John started by drawing plans for the house and shed on graph paper ①. He then made a mock-up of the house from cardstock. The 3-D rendering allowed John to see how the structure would look in the scene and make any adjustments ②.

Once satisfied with the mock-up, John drew more detailed plans. He transferred those to Mt. Albert Scale Lumber Co. (Fast Tracks Hobbyworks Inc.) clapboard siding and cut out the wall pieces ③.

John then added $\frac{1}{8}$ " square stripwood to the inside the walls for bracing (he used $\frac{1}{16}$ " square stripwood for the corner trim). He also cut the door and window openings, added nail holes with a pounce wheel, and cut away parts of the siding to suggest rot.

He placed pieces of scale 2 x 4 stripwood behind the missing siding to simulate studs in the wall. The Tichy Train Group door and window castings are also visible in the photo ④.

STEP 2 PAINTING AND WEATHERING



John used construction and weathering techniques he learned from the Jason Jensen Trains YouTube channel for this project. First, he put loops of tape on a piece of cardboard and attached the walls, doors, and windows. Then



John spray-painted the exterior wall pieces with medium gray primer ①.

Once the primer had dried, John brushed the parts with Vallejo white acrylic paint, resulting in an uneven finish.

STEP 2 PAINTING AND WEATHERING (CONT'D)

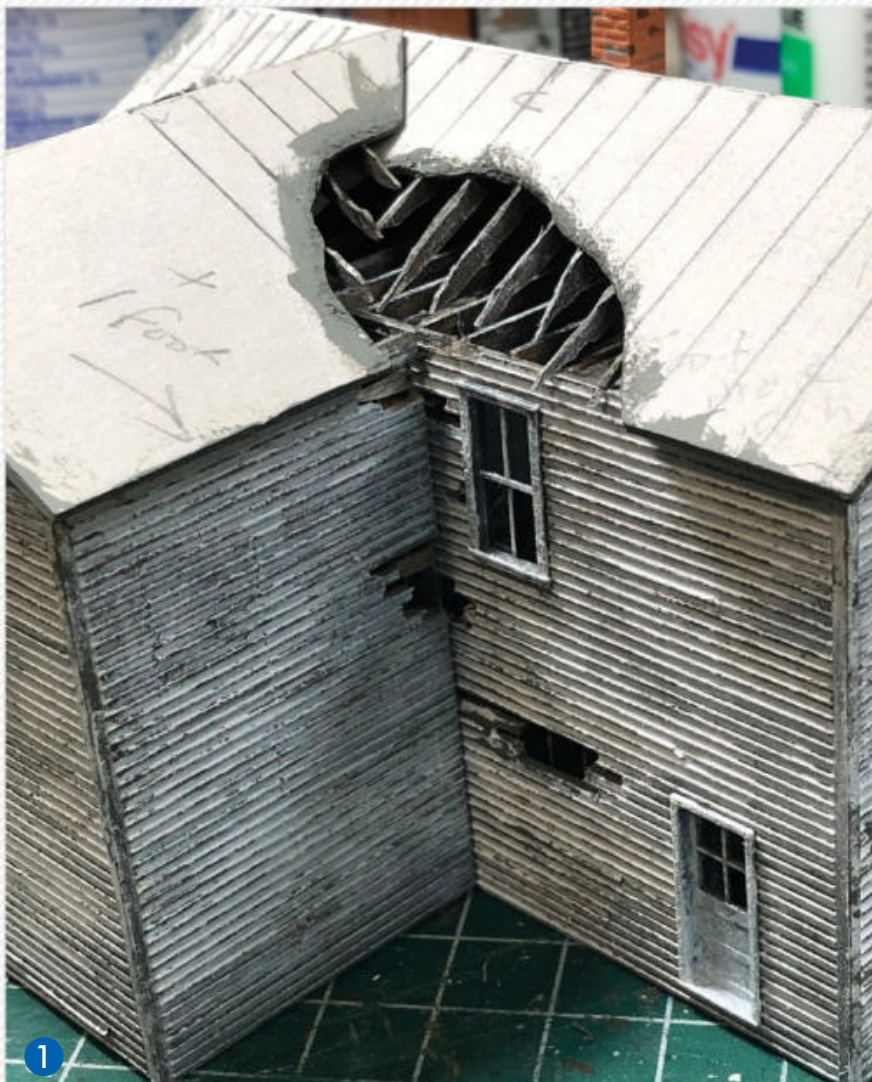


He then ran a steel brush over the walls, doors, and windows to give the paint a further worn look. John did additional weathering with PanPastel products before adding Rail Scale Models RSM-D5010 gray shingles to the gables to simulate asphalt siding, as seen in 2 on the previous page.

Not to be overlooked is the shed to the right of the house 3. John built the dilapidated building using scale 1 x 6, 1 x 8, and 2 x 12 stripwood. The roof is caved in, and broken boards are laying inside the building.

In addition to boards, the shed is full of corrugated metal roof panels from Doctor Ben's Scale Consortium and weathered detail castings from Bollinger Edgerly Scale Trains and Rusty Rail. John weathered the shed with an India ink and alcohol wash.

STEP 3 UP ON THE ROOF



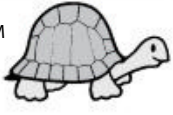
Since the roof is the most visible part on structures, John paid special attention to it on the house. He used cardstock as the base for the roof, marking the areas that he wanted to show as rotted away with a pencil. He then cut away the cardstock with a no. 11 blade in a hobby knife.

With the cardstock removed, John added lengths of scale 2 x 12 scale lumber to simulate rafters 1. He stained the stripwood ahead of time, carving notches and distressing the edges to add to the decayed look. The rafters are spaced a scale 24" apart.



Next, John added green self-adhesive three-tab shingles from Rail Scale Models (RSM-D5001). He cut the shingle strips, which are laser-cut from a paper with heavy wood fiber content, slightly oversized and trimmed them to fit with scissors 2.

The valleys are pieces of Reynolds Wrap heavy duty aluminum foil painted a rusty brown color. Notice how John also bent, removed, and repositioned random shingles to further reinforce the run-down look of the house 3.

Tortoise TM 

For 25 Years, Simply...
The BEST!
Slow Motion Switch Machine

MADE IN THE USA

800-6000 \$ 24.95
6006 6-PACK \$146.00
6012 12-PACK \$285.00

- Enclosed Gear Drive Mechanism (NOT a Screw-Drive Machine!)
- Simple Mounting - All Linkage Included!
- 2 Sets SPDT Auxiliary Contacts

AT YOUR LOCAL HOBBY SHOP OR DIRECT
INCLUDE \$10.00 FOR SHIPPING & HANDLING

Send SSAE for more info or \$10.00 for complete 60 page Catalog & Application Book to:

CIRCUITRON
211 RocBaar Dr., Romeoville, IL 60446-1163

TRAINS & TRAVEL
TRAIN TOURS WORLDWIDE

Visit our website for details
www.traintrips.biz

- New England Fall Colors Sept 29
- Cumbres & Toltec Charter Oct 13



- Private Rail Car Charter Oct 11
Chicago - Emeryville - Chicago
- Old Patagonian Express Nov 4
- Several European Train Tours

P.O. Box 312 • PORTOLA, CA 96122
(800) 359-4870 • (530) 836-1944

2022 RAILROAD TOURS

YankeeDabbler.com

Thank you for making YankeeDabbler your favorite hobby store!
Check out our complete train store!

Repairs and decoders installed.
N, HO, S, O, G

Authorized Dealer:
Digitrax, ESU-LokSound, NCE, Soundtraxx, TCS



OPEN
Tue-Sat
Web(24x7)

(856) 312-8084 101 W. Kings Hwy.,
Bellmawr, NJ 08031

www.yankeedabbler.com

ADVERTISE HERE!

Call to advertise in the
next Model Railroader!

Martha Stanczak 888-558-1544 ext. 643

DOWNTOWN DECO

Building kits that have gritty character and
realism that you can't find anywhere else!
Kits available in HO, N & O Scales.
Free shipping (US orders) + surprise bonus with each order this month!

www.downtowndeco.com

Mianne Benchwork

miannebenchwork.com

Fast Track to Layout Construction.

2B In Trains

Model Trains for Beginners to Experts
Buy, Sell, Trade, Repair
HO, N, O/027, S, G
Explore the Excitement of Christmas Every Day!
6168 Road 29 • (519) 787-3280
www.2bintrains.com

EngineHouse Services, LLC

www.enginehouseservices.com

Not the biggest...
Just striving to be the best!

Pre-Size Model Specialties

We manufacture urethane cast tunnel portals,
retaining walls, abutments, culverts, bridge piers,
and much more! All scales! Free shipping on US
consumer orders over \$25! Check us out!
www.pre-size.com

Azatrax

Action!

It starts with smart
infrared train detection.
www.azatrax.com

Evan Designs

Prewired LEDs and Special Lighting Effects
Lamps and Lightning, Mars Light and Headlights
Get your premium guaranteed LEDs today!
www.EvanDesigns.com

STREAMLINED BACKSHOP

SBS4DCC is a full-line, stocking retailer for
ESU LokSound, Digitrax, NCE, SoundTraxx, TCS and ZIMO.
Featuring real-time inventory and competitive pricing
of all of the best DCC products. Open 24-7-365.
www.SBS4DCC.com

Blair Line

HO/N/O Laser-cut Structures and Billboards
HO/N Graffiti Decals
HO/N/O Storefront & Highway Signs
Visit our website
www.blairline.com

GoodDealsDCC

The Programmer

We have Programming Test Tracks in all scales
We make Clear Acrylic Inspection cars in HO and N
224-703-0111 • www.GoodDealsDCC.com

TICHY TRAIN GROUP

OVER 1000 ITEMS, ALL IN STOCK
Signs, windows, doors, freight car
parts, decals & kits. All scales.
Catalog call 336-329-9038
www.tichytraingroup.com

BPL Brassworks / Railmodel.com

Providing Fine Scale Brass Train models for over
25 years. Call us at 262-375-1107 or email at info@
railmodel.com to inquire about your next brass model.
We also purchase collections, so let us know
about the models you no longer need.
www.railmodel.com

JB Wheelsets

HO Scale Made in USA Wheelsets
Our wheels are all brass precision turned
We offer Resistor, Standard and NEM
Nothing fancy, just darn good wheels!
www.jbwheelsets.com

Train Sets Only

Rolling Stock - Track - Scenery - DCC - Accessories
Athearn, Atlas, Bachmann, MRC, NCE, Soundtraxx,
Walthers, Woodland Scenics, and More!
1000's of products in stock
www.trainsetonly.com
815-462-4720

Central & Western Homaroad Supply

**Your Go To Source For
Homasote Roadbed!**
www.cwhomaroad.com
210-519-0186 • cwhomaroad@gmail.com

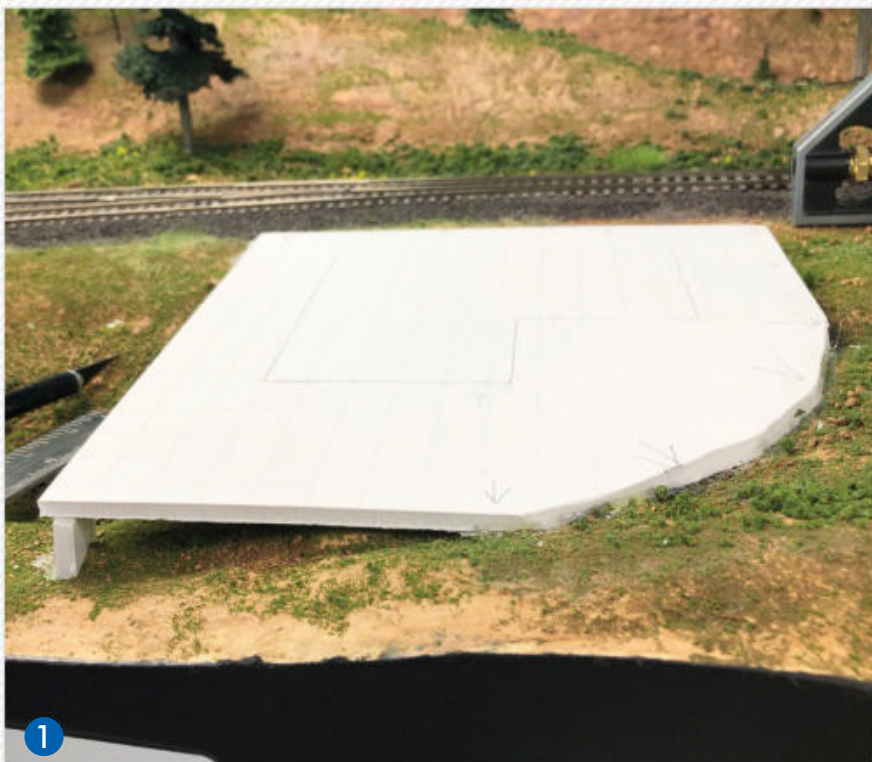
Mainline Hobby Supply

Your Model Railroading Headquarters
supplying all scales from the
beginner to expert!
717-794-2860
www.mainlinehobby.com

Your #1 Modeling Resource

Subscribe to
Model Railroader
TODAY!
Visit our website
www.Trains.com/MRR

STEP 4 A FIRM FOUNDATION



1



2



3



4

Before John could install the house and shed on the layout, he needed to modify the scenery. After cutting into the existing slope, he installed a layer of $\frac{3}{16}$ " foam core **1**.

Next, John used Sculptamold to blend the edges of the foam into the existing terrain. Then he traced the outer perimeter of the house on the foam and cut it out. The pieces of $\frac{1}{8}$ " stripwood under the foam hold the house at the correct height **2**.

John painted the foam and Sculptamold with a flat, light earth-tone latex paint and applied natural dirt and gravel. He followed that up with static grass, tufts, and

other bushes from Scenic Express and Woodland Scenics **3**. He then added fallen branches, a rusty pickup, a well pump, and other details to the yard.

John used $\frac{1}{4}$ " foam core to add a foundation to the house. He laminated Plastruct fieldstone sheet (PLA91563) to the material with a foam-safe adhesive. John brush-painted the raised stones different shades of gray, brown, and tan.

He finished the house by adding lightning rods from Doctor Ben's to the roof and cracked and broken glazing to the windows **4**. **MR**

LGB® Garden Railroading

Get on board and join the fun!



AVAILABLE NOW



20283 Durango & Silverton Mogul Steam Locomotive

Mfx/DCC decoder for many light and sound functions

Digital smoke generator with steam exhaust synchronized to wheels and cylinder smoke

Headlight and running sounds work in analog

Cars Available to Accompany This Iconic Locomotive

Cars have complete interior details and metal wheelsets



**36821 D&S RR
Passenger Car**



**36820 D&S RR
Passenger Car "Prospector"**



**36808 D&S RR
Passenger Car "Yankee Girl"**



**30261 D&S RR
"Rio Grande" Open-Air Observation Car**

Purchase from your favorite LGB dealer today!
For a FREE LGB New Items catalog, please email customerservice@marklin.com.
Visit LGB.com to see our complete line of products and find a dealer near you.

©2022 Märklin, Inc.



BETTER LATE

A new house and hobby led to this 25 x 38-foot HO scale layout

By Lloyd Henchey

Photos by the author

My journey to model railroading isn't the typical one you read about in *Model Railroader* magazine. I've never been around trains, didn't have model trains as a kid, and really didn't know much about prototype or model railroading. But in my seven years in the hobby, I've learned a great deal while building my 25 x 38-foot HO scale MHO Junction. The MHO stands for Montreal, Quebec, and Hawkesbury and Ottawa, Ontario.

It was a move to a new house that led me to model railroading. My wife, Rejeanne, and I were looking for a smaller house but fell in love with a larger house. With no furniture to fill the basement, I told my wife, "The basement will be my retirement project, model trains."

I had a lot to learn about the hobby. For the first six months, I searched the internet for pictures and videos of layouts. I also joined various model railroad forums to read up on the hobby and ask questions.



THAN NEVER

First try and friendly help

After gaining knowledge about the hobby, I designed an 8 x 12-foot layout that I thought was great for operations. Then I was approached by Bill “The Track Planner” Beranek. He asked if I’d like help designing a model railroad.

Being new to the hobby, I gladly accepted Bill’s offer. Though I was told to start small, I tore down my compact model railroad after six months and started preparing the basement for a big

layout. Being a financial planner by trade, I planned long term for my model railroad. It was go big or go home.

Early in our discussions, Bill asked me what I wanted on my model railroad. I told him I wanted a point-to-point design with an option for continuous running. I find watching trains pass through the scenery very relaxing.

Other must-have items included a double main line, a passenger train running non-stop to complicate operations, and as many industries as possible. My

① A pair of Ontario Northland General Motors Diesel Division SD40-2 diesel locomotives (both Bowser models) head toward to Molson Brewery to do switching on Lloyd Henchey’s HO scale MHO Junction. The 25 x 38-foot model railroad is set between Ottawa and Montreal in the 1970s.



② Lloyd's layout depicts the four seasons. You can almost feel the cold as Canadian Pacific Alco S-2 no. 7013 rumbles through the snow-covered landscape at St. Eugene, Ontario. A couple of hobos have taken shelter in an abandoned feed mill, huddled around a fire in a barrel to stay warm.



③ Lloyd set his layout in the 1970s because CP locomotives in the maroon-and-gray and Action Red schemes were operating side by side. As Baldwin DRS 4-4-1000 no. 8004 spots at flatcar at JAG Outdoor Wooden Furniture, sister unit no. 8003 leads a short train on the main. The Baldwin units are from Bowser Trains.

goal was to have every part of the layout tell a story.

In the end, we designed a 25 x 38-foot layout. It's about 80 percent freelanced and 20 percent prototypical based on the Canadian Pacific (CP) and Ontario Northland. The model railroad is set in the 1970s because CP diesels could be found in the maroon-and-gray and Action Red with Multimark paint schemes. I also have two brothers-in-law who are retired CP employees, making the railroad a logical choice.

From plan to reality

Work commenced on the layout in November 2015. One of my goals for the benchwork was to avoid having legs be

in the way of operators. To ensure that, the majority of the model railroad (except for the two peninsulas) is braced to the walls. Plywood was attached to the top of the braces where track was going to be installed. The other areas were filled in with extruded-foam insulation board. Lighting valances were also installed at this time.

I used Atlas code 100 flextrack, Peco large-radius turnouts, and cork roadbed throughout the model railroad. There are four bridges on the layout, three of which I scratchbuilt. The low trestle, high trestle, and covered bridge are prototypical. The girder bridge is a kit.

The staging area represents Ottawa and Montreal. When trains exit the helix heading west, they're coming from

Montreal. When trains depart the helix going east, they're coming from Ottawa. There's a bypass at the helix if I want to have continuous running.

Scenery showcase

When it came time to add scenery, I started by planning how each area would look. Then I filled in each location with extruded-foam insulation board and covered it with plaster cloth and Sculptamold.

I used a flat tan latex paint for the base scenery color. I covered that with a mix of dirt; static grass; and Martin Welberg Scenic Studios foliage, grass, bushes, and weeds to scenic the layout.

Water features on the layout include a lake, small falls, and a large gorge with falls splitting in two. I used two-part epoxy resin for the water. I applied Woodland Scenics Water Effects to scenes where I wanted to simulate rushing water. I used Mod Podge to suggest moving water.

I modeled all four seasons on the layout. There's a transition between each season to make the changes less jarring. For example, the beginning of the autumn scene features trees with leaves in various shades of green, red, orange, and yellow. As you continue through the scene, the trees become increasingly more bare.

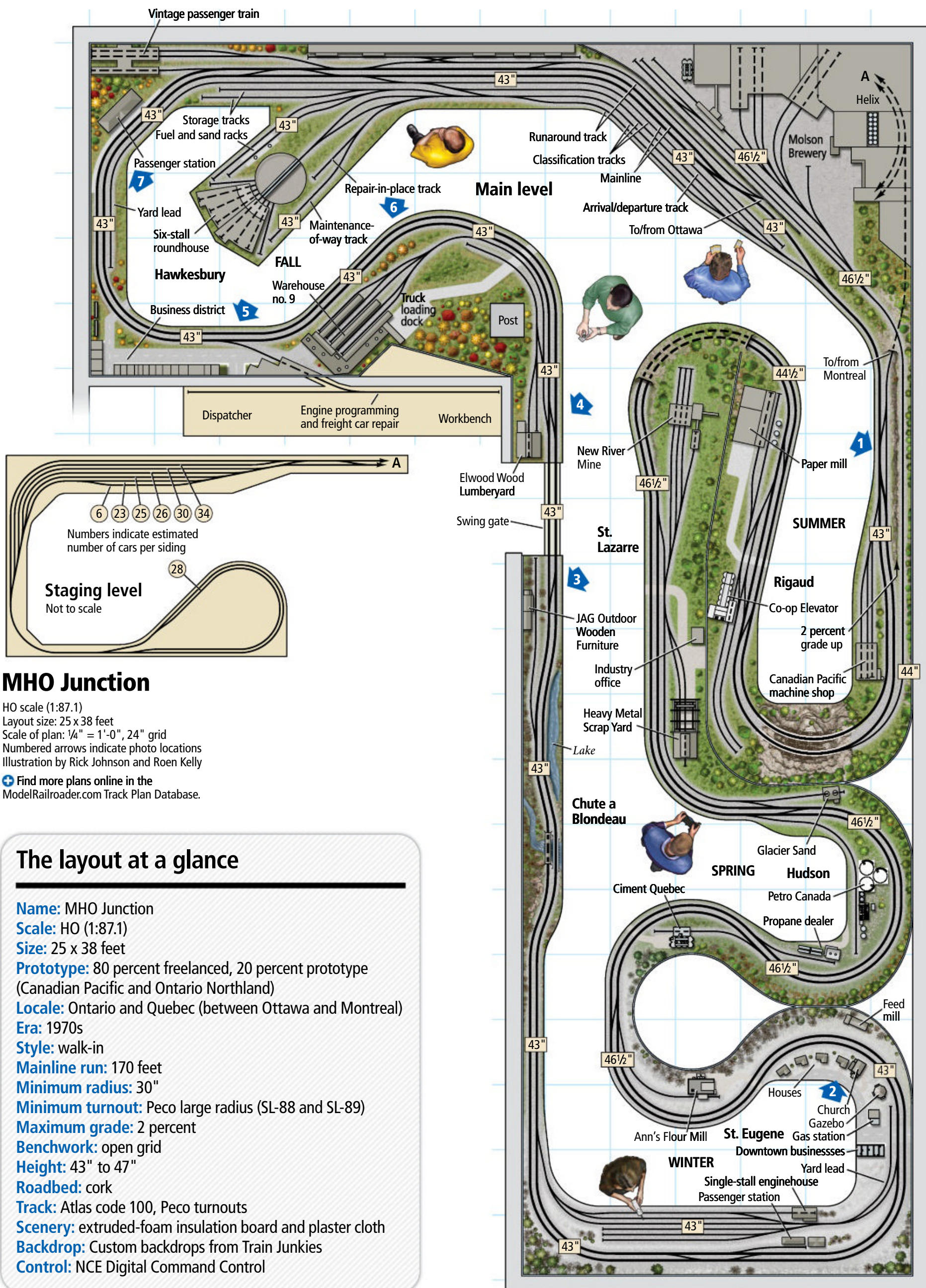
All of the backdrops are custom made. I searched the internet for high-resolution panoramic photos. I then adjusted the images to fit my layout using Adobe Photoshop.

After I finished the base work, I sent the digital files to Train Junkies. The company added roads, rivers, and, if needed, duplicated the images to make the backdrop longer. I supplied the company with specific information, such as how wide I needed a river to be or how tall to make the trees.

Once approved, Train Junkies printed the backdrop and sent it to me. I would suggest getting the backdrop first and then working on the scenery, not the other way around. It's a lot of work trying to blend the backdrop with scenery that's already installed.

Lots of structures

The most enjoyable part of building the layout was assembling structures. I guess that's where my architectural and engineering studies came in handy. I have about 50 structures on the layout, a mix of kit built, kitbashed, and



MHO Junction

HO scale (1:87.1)
 Layout size: 25 x 38 feet
 Scale of plan: 1/4" = 1'-0", 24" grid
 Numbered arrows indicate photo locations
 Illustration by Rick Johnson and Roen Kelly
 Find more plans online in the
 ModelRailroader.com Track Plan Database.

The layout at a glance

- Name:** MHO Junction
- Scale:** HO (1:87.1)
- Size:** 25 x 38 feet
- Prototype:** 80 percent freelanced, 20 percent prototype (Canadian Pacific and Ontario Northland)
- Locale:** Ontario and Quebec (between Ottawa and Montreal)
- Era:** 1970s
- Style:** walk-in
- Mainline run:** 170 feet
- Minimum radius:** 30"
- Minimum turnout:** Peco large radius (SL-88 and SL-89)
- Maximum grade:** 2 percent
- Benchwork:** open grid
- Height:** 43" to 47"
- Roadbed:** cork
- Track:** Atlas code 100, Peco turnouts
- Scenery:** extruded-foam insulation board and plaster cloth
- Backdrop:** Custom backdrops from Train Junkies
- Control:** NCE Digital Command Control



4 Canadian Pacific Alco S-2 no. 7013, still wearing the maroon-and-gray scheme with script lettering, pulls an empty center-beam bulkhead flatcar at the Elwood Wood Lumberyard. The photo backdrops Lloyd created with help from Train Junkies are visible in the background.

Locomotives and rolling stock

When I decided to model CP, I thought I only had to buy rolling stock decorated for Canadian Pacific. Now I'm in the process of exchanging half of them for other road names to give my rolling stock fleet a prototypical appearance.

My locomotive fleet consists of CP units in the maroon-and-gray and Action Red paint schemes, which operated side by side in the 1970s. Since I live in Ontario, I have a few Ontario Northland diesels in the fleet.

I selected *The Canadian* from Rapido Trains as the passenger train for my



5 It's a busy day in downtown Hawkesbury, Ontario. As Canadian Pacific Montreal Locomotive Works C-630M no. 4506 rumbles down the main line on the point of a Montreal-bound train, an OC Transpo New Look Bus stops to pick up some riders. The locomotive is from Bowser, and the bus is a Rapido Trains product.

scratchbuilt. Most have one thing in common – they don't look like what's on the box cover.

When it comes to scratchbuilding, I use any type of material I can, mixing and matching as necessary. My first scratchbuilding project was a fictional building that I call a distribution center. Basically it's a boxcar exchange where loads and empties are swapped.

About four years ago I built a Walther's train station kit. I set it aside until I was ready to install it on the layout. When the time came to set the station into the scene, I dropped it and it broke into many pieces. I didn't want to build another kit, so I rebuilt it from wood. I took the necessary measurements and scratchbuilt it, salvaging doors and windows from the Walther's

kit. [You can see the depot Lloyd rebuilt in 7 on the next page. – Ed.]

I've yet to finish the largest building on the layout, the Molson Brewery. The structure will measure 7 x 7 feet diagonally and will cover the helix with a trap door. The mainly freelanced building will have six tracks going inside, a track for grain, a pickup track, and a delivery track. Because of the industry's size, it will have a dedicated switcher. All six rail-served doors will be positionable and controlled by operators.

All of the buildings will have lights, interiors, and animation as appropriate. Of course, when operating the layout, crew members won't have time to see all of this. But for those who come to visit the layout, it will give them something to talk about.

Meet Lloyd Henchey

Lloyd Henchey is a financial planner. He lives in St. Eugene, Ontario, Canada with his wife, Rejeanne. They enjoy traveling and spending time with their nine grandchildren. He would like to thank Miles Hale, Bill Beranek, Gert "Speed" Muller, and Remy Gagnon for their help with the layout.



layout. It took about five years to find the train, but it was worth the wait.

With my locomotive and rolling stock fleet largely complete, the next step is to weather everything. I have locomotives and freight cars that were weathered by others, and I've tried my hand at a few pieces. About 95 percent of the fleet has yet to be weathered, but I intend to finish all of them.

Controls and operations

I run trains using an NCE Digital Command Control system. I have two boosters for the tracks; a bus line for the Tortoise by Circuitron switch motors; and another bus for other electrical needs, such as animation and lights.

All of the turnouts have Tortoise by Circuitron switch motors that are controlled with push buttons. I have two sets of 150-foot light-emitting diode (LED) strings. One is RGB (red, green, and blue), the other is white. The LED strings let me replicate dawn, daylight, dusk, and night.

Electrical work isn't my strong suit, so I needed all the help I could get. Gert "Speed" Muller helped me set up the Arduinos to control the animations on the layout. After two months of work, I plugged everything in. However, I made the mistake of using 12V instead of 5V and burned out all the boards.

As we were designing the layout, I had a few criteria that I insisted on for operation. First, I wanted to run a freight and passenger train between staging yards (Montreal to Ottawa). In addition, I wanted a Budd Rail Diesel Car to run between St. Eugene and Hawkesbury. These trains, combined with the other freight traffic, will keep operators on their toes.

Currently, I'm testing different operating schemes on the layout. I intend to use JMRI to prepare the lineup for each operating session. Since my knowledge of trains is limited, I'll be calling on more experienced modelers for help as I refine the operating scheme.

I've been told that because of the layout's size, the number of industries, and the mix of freight and passenger trains, it will take six to seven people plus a dispatcher (which will come later on) to run a four-hour operating session. I would like to use a fast clock because I want my LED strips to simulate a 24-hour day. However, I'll go with what the majority of operators decide. The only problem I see with operating sessions is getting enough people to show up, as the closest



6 The Distribution Center in Hawkesbury is a busy transloading terminal that serves trucks and trains. Alco S-2 no. 7013, an Atlas model, gets set to spot a boxcar. In the background, a dock worker uses a jib crane to unload crates from a flatcar.



7 As the golden glow of the sun reflects off the clouds, Canadian Pacific Budd Rail Diesel Car-1 no. 9066 eases up to the platform at Hawkesbury, Ontario, to pick up a few passengers. The Budd car is a Rapido Trains model.

model railroaders to my home in St. Eugene live an hour away.

Reaching goals

The 25 x 38-foot MHO Junction layout is more than I'd anticipated. When I first told Bill Beranek the size of the layout I wanted, he suggested that I start small because I didn't know what I was getting into. The amount of work, the cost, and being new to the hobby could be very demanding, especially with nobody to help. I gave myself 10 years to complete the HO scale layout. I'm now in the sixth year and would say that I'm on track to achieve my goal.

When I first became a model railroader, I didn't know anybody in the

hobby. Through online forums, Facebook groups, and the National Model Railroad Association (NMRA), I've made many friends and found people who are just as enthusiastic as me. I've also started giving clinics at NMRA division meets and virtual NMRA-X gatherings. I share updates on the MHO Junction through my Facebook and YouTube pages.

If you're starting out in model railroading, don't be afraid to ask questions, join different modeling groups, and understand that mistakes are part of the learning process. There's always something we regret. For me, if I was to start over I would set the layout height at 50" instead of 43". As for the rest of the model railroad, I'm very satisfied. **MR**

Sandy River & Rangeley Lakes Forney no. 10 heads out of Kingfield across the Winter Mill pond with a freight in tow bound for Strong. Follow along as contributing editor Lou Sassi describes how he created this scene.



A mill pond for the Sandy River & Rangeley Lakes

Part 1: Preparing the bridge abutments, pond bottom, and banks

By Lou & Cheryl Sassi • Photos by the authors

One of the key scenes on our On30 Sandy River & Rangeley Lakes layout (see *Great Model Railroads 2020*) is on the north end of the layout, where a 22" long trestle spans a large mill pond. For quite a few years, the trains spanned the pond by crossing over it on a couple lengths of scrap Styrofoam **1**. I finally got around to building the trestle in early 2018, and the pond followed.

Our layout is built on a laminate of two layers of 2" thick foam. The bottom layer is blue extruded-foam insulation board, while the top is a less dense expanded-bead Styrofoam board. I got this from my friend Bob Lawson, who

purchased it from a supplier in Cincinnati. You can buy Styrofoam in smaller panels from Woodland Scenics, but it should be possible to find it in large sheets from a dealer in your area.

After cutting out the upper sheet of Styrofoam for the pond in 2010, we decided to reinforce its base by cutting a piece of 1/8" tempered hardboard to fit on the top of the lower piece of foam. It would sit inside the contours of the pond. After test-fitting it, then coating its underside with full-strength Elmer's glue, I set it in place to dry **2**. Once the glue completely dried, I squeezed clear silicone caulk around its perimeter to prevent any leaks when the water was poured, as seen in **3** on the next page.

Spanning the pond

I began building the trestle by placing a piece of tracing paper on top of the existing track and transferring the curvature of the rails to the paper by rubbing it with the edge of a no. 2 pencil **4**. After removing the Styrofoam supports, I placed the paper on the Masonite under the suspended flextrack and transferred the location of the stringers and piers to it **5**.

I used Bob Hamm's painting and weathering techniques on the wood for the trestle, then built the deck on a sheet of glass placed over the paper drawing.

I cut the two bridge abutments from a 1/2" thick sheet of foam stone wall I found



1 The trestle started out as a piece of flextrack supported above the base on Styrofoam blocks.



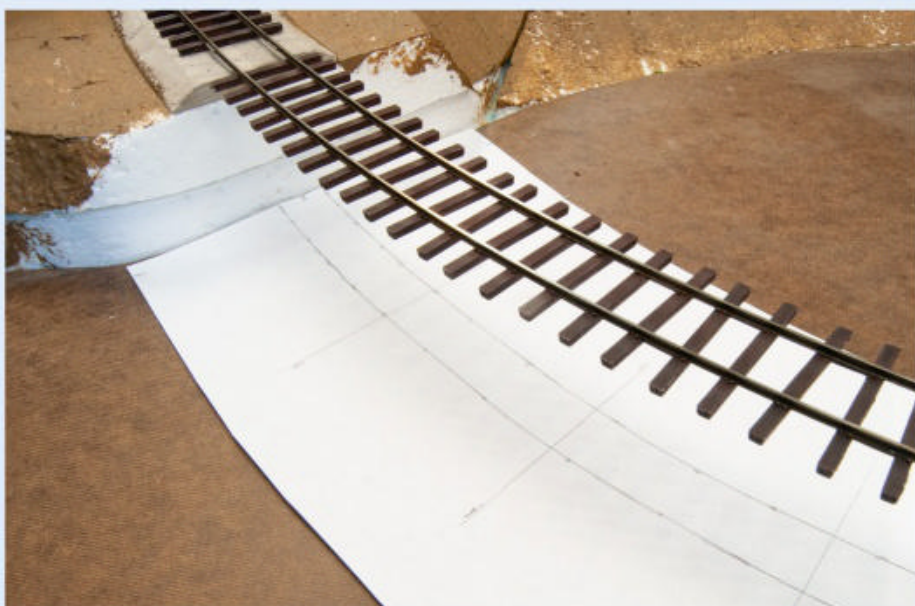
2 After cutting the tempered hardboard pond bottom to fit, Lou glued it to the terrain base.



③ Lou applied clear silicone caulk along the edges of the tempered hardboard base to seal it.



④ Lou rubbed a pencil on a sheet of paper on top of the rails to trace the curvature of the trestle.



⑤ Placing the paper tracing under the trestle location, Lou marked the location of bents and piers on the base.



⑥ Lou used a scrap of foam stone wall to cut abutments for the trestle as well as a retaining wall.



⑦ Lou used a hobby knife to cut away terrain near the mill to make space for the retaining wall.



⑧ Lou brought out detail in the stone walls by painting them with gray, brown, and white paints.

in my scrap box ⑥. I cut a retaining wall for behind the mill out of the same material, fitting them to their locations ⑦ after cutting away some of the Styrofoam with a Woodland Scenics foam knife.

Once the foam rubber bridge abutments and retaining wall were cut, I brush painted them with an assortment of grey, brown, and white Model Master

paints ⑧, then placed the abutments against the foam at either end of the trestle and backfilled them with lightweight spackle ⑨, opposite.

I used the same spackle to fill the voids between the foam and the retaining wall for the mill. Once the spackle had dried, I brushed earth color paint over all the exposed spackle ⑩.

Transplanting a tree

Cheryl, the Company Arborist, decided that it would add visual interest to the scene to move the large maple tree behind the mill closer to the edge of an eroded hillside. This would let her add exposed roots on top of the ground and hanging over the water's edge.



9 After putting the bridge abutments in place, Lou backfilled them with lightweight spackle.



10 Lou painted the spackle with his selected Earth Brown latex paint to make it match the terrain.



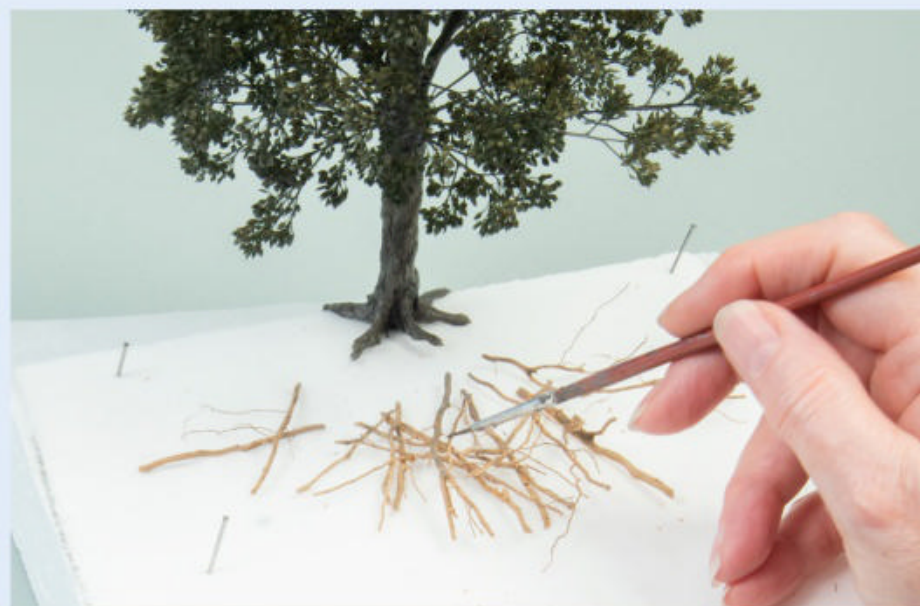
11 Lou and Cheryl added a layer of foam to build up an embankment on which to plant a tree.



12 To start blending the new section into the existing terrain, Cheryl scraped off a layer of Ground Goop.



13 After adding the extra foam and painting it, Cheryl carved some erosion rivulets in the bank.



14 Cheryl glued together and painted a network of roots for the tree from a dried tomato plant.

We started by gluing on an additional layer of foam with which we could create a steep, eroded slope. After filling in any voids with Woodland Scenics Subterrain Foam Putty **11** and carving the hillside with a foam knife, we removed the tree and painted the newly applied slope Earth Brown. We wet the previously applied Ground Goop in the area where

we planned to relocate the tree and scraped it away with a putty knife **12**. Then we carved in some additional eroded rivulets **13** and painted them Earth Brown.

Cheryl pushed the tree into a piece of blue foam protected with a sheet of wax paper. She intertwined assorted lengths of root from a dried tomato plant,

abutting (but not gluing) them to the trunk, and glued them together on the surface of the wax paper. Once all the roots were glued together, she painted them with an assortment of brown and grey Model Master paints **14**.

Next she applied a 1/8" layer of Ground Goop to the area, enhancing the overhang above the eroded slope. After



15 Cheryl blew finely sifted real dirt onto the sloped bank using a sheet of paper to guide the dirt.



16 Coarser dirt and rocks were applied at the base of the slope where they would collect naturally.



17 Aleene's Tacky Glue was applied to the tree's mounting pin to secure it in the foam terrain.



18 Cheryl next glued her network of roots to the ground next to the tree, away from the pond.



19 She next poked holes under the overhanging bank and added more roots, exposed by erosion.



20 More dirt to blend the hanging roots into the surrounding scenery finished the scene.

spraying it with wet water, she added various textures of sifted real dirt on the flat ground surfaces. She blew the finest texture onto the slope using a sheet of typing paper **15**, then added more medium-to-coarse dirt along the edge of the pond **16**.

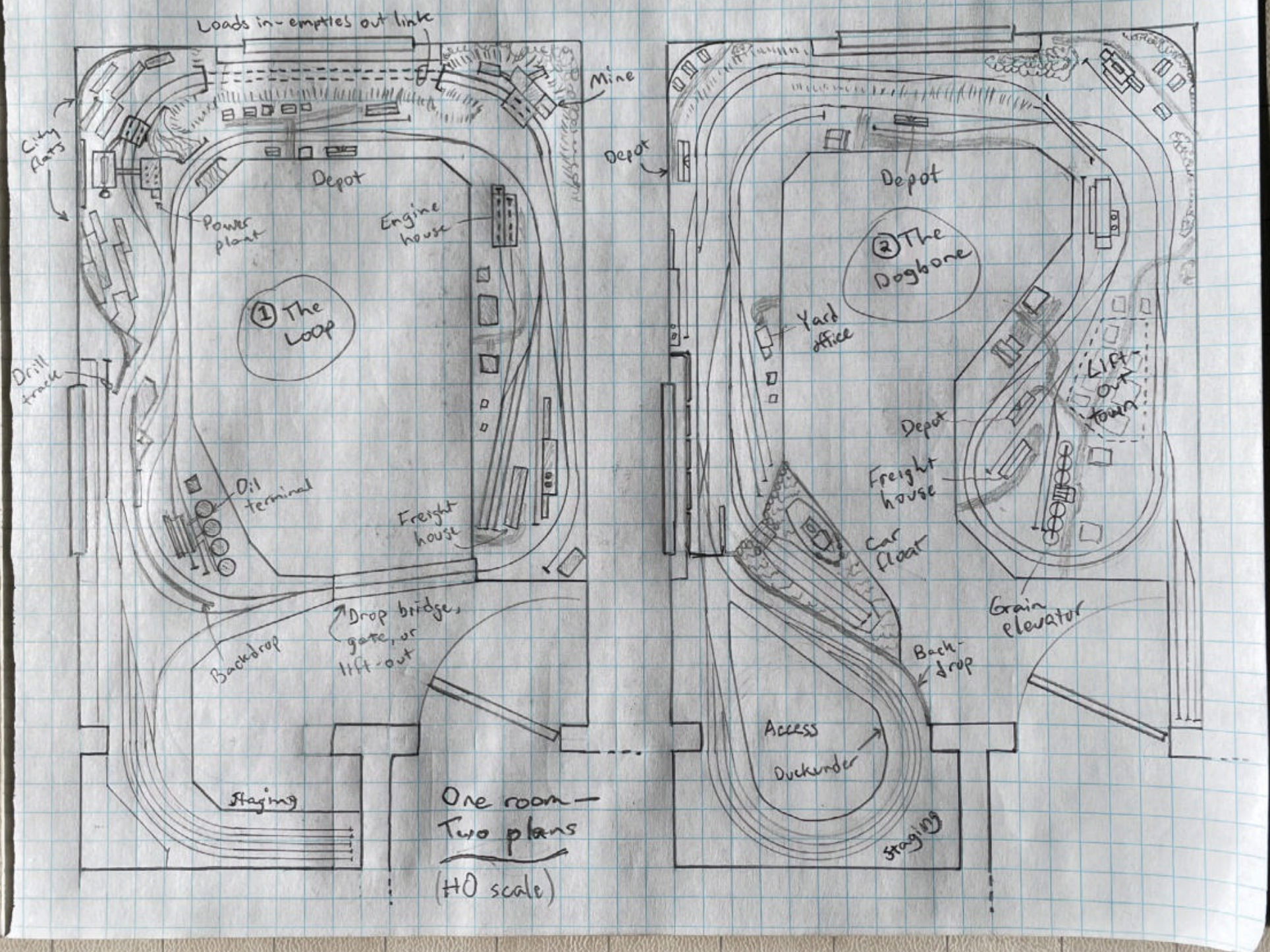
Cheryl then applied Aleene's Tacky Glue to the pin in the trunk of the tree

and pushed it into place close to the edge of the hill **17**. She peeled the roots off the wax paper and glued them around the perimeter of the trunk on the flat ground facing away from the pond **18**.

Cheryl also punched holes into the surface under the overhang with a foam nail and pushed some smaller roots into place protruding out of the embankment

on the pond side of the tree **19**. After adding and gluing down more assorted textures of dirt **20**, this part of the scene was done.

That's all for now. Next month, we'll add rip rap, lily pads, and a drain pipe protruding from the retaining wall behind the Winter Mill. Finally, we'll pour the water. **MR**



Even in a small space such as a 9-by-12-foot spare bedroom, a model railroad builder has choices to make. Follow along as senior associate editor Steven Otte explores the pluses and minuses of two different design approaches. Steven Otte photo

ONE ROOM, TWO TRACK PLANS

A look at the pluses and minuses of two design approaches for a small spare bedroom

By Steven Otte

Illustrations by Kellie Jaeger

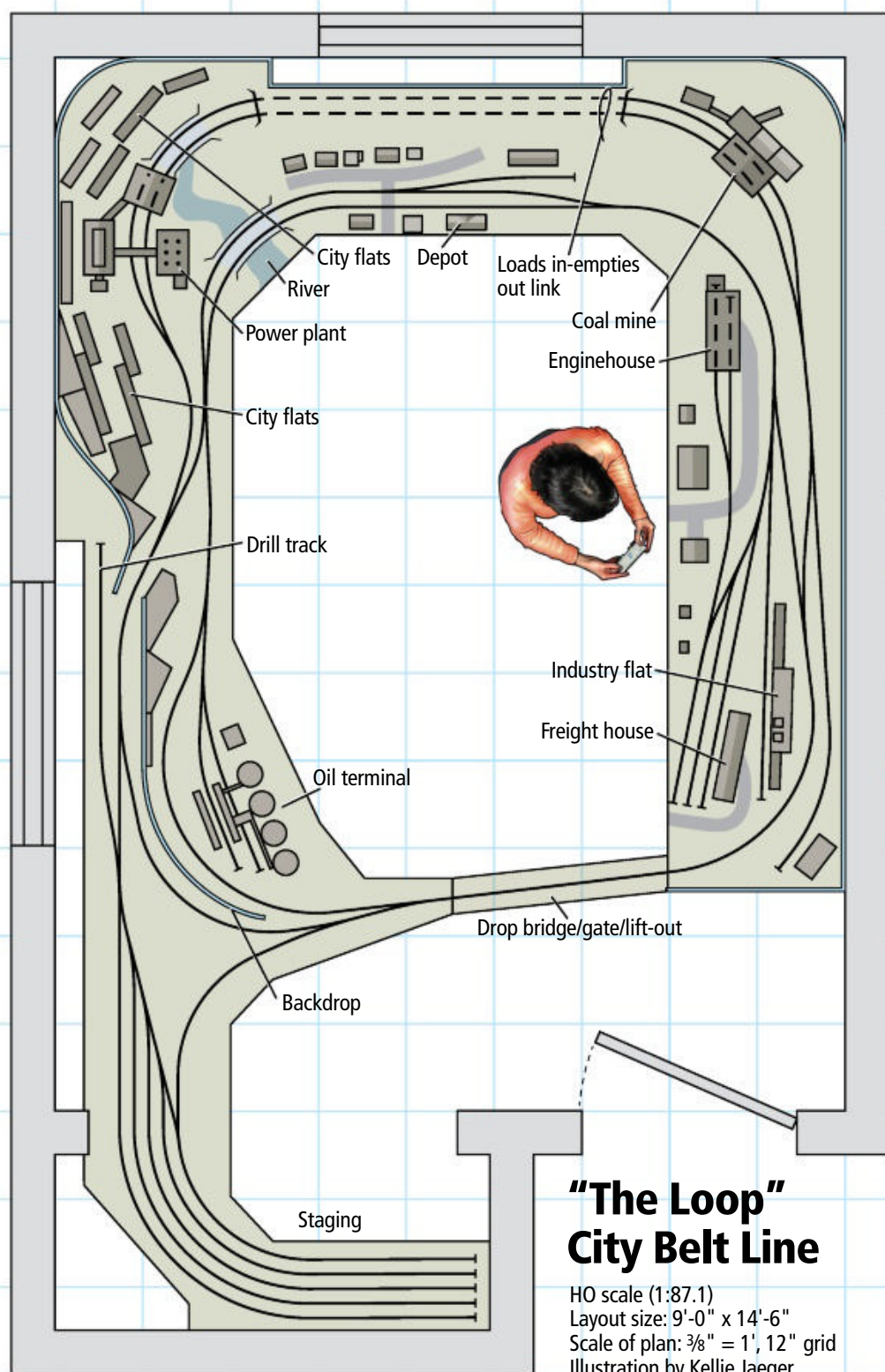
Finding the best approach for a track plan isn't always easy. Even if you're building your layout in a small room, you still have an almost infinite number of choices, decisions, and trade-offs to make. What scale? Around-the-room or island shape? Duck-under, gate, or walk-in?

John Armstrong, the dean of track planning, had a process he called

"givens and druthers." Givens are factors influencing your design that can't be changed, like the size and shape of your room, the placement of doors and windows, and the presence of obstructions like water heaters and furnaces. For some modelers, choices like scale, era, and prototype are so set they also become givens.

Druthers, on the other hand, are mutable

— things you "druther" have on your model railroad, but can be flexible on if necessary. For most modelers, things like minimum radius and turnout, maximum grade, and modeled industries are druthers. For every decision you make on one of these questions, your options on the others get narrower. So the first decision you have to make is which decision gets decided on first.



Approach no. 1

Name: City Belt Line
Scale: HO (1:87.1)
Size: 9 x 14½ feet
Theme: industrial switching
Locale: Midwest
Era: 1950s-1960s
Style: around-the-walls
Mainline run: 30 feet
Minimum radius: 18"
Minimum turnout: no. 4
Maximum grade: none

I wanted to look at how choices made early in the design process can influence or even predetermine later choices. My goal was not to model the same line in both plans, or even to include the same features in both. Rather,

it was to explore what kind of operating interest I could wedge into a small room using two different track configurations: an around-the-walls loop with an entry gate, and a dogbone with no barrier to entry. Would my sketch show one or the other approach to be obviously superior for small rooms?

Common factors

To make the comparison fair, there were some factors that would have to be the same, most obviously the room itself. A larger room would put fewer constraints on my design, making the inherent advantages and

drawbacks of my other choices less obvious. So I started with a generic 9 x 12-foot spare bedroom with a 2 x 5-foot nook representing a closet with the doors removed. I chose this size as being typical of a room in a modest American home, but if I have to be honest, mostly because I can fit two of them side-by-side on a single sheet of graph paper.

I chose HO scale for both, not only because it's the most popular modeling scale, but also because I wanted to test which configuration works better in my small space. A 9 x 12 room puts far fewer constraints on N scale than it does HO.

Next, I wanted continuous operation; when operating a small layout, it's good to be able to put some laps on the odometer to make the layout feel bigger. I also wanted to include staging from which trains could enter the layout in either direction. That way, I would need to fit in only one staging yard to represent both "ends" of the railroad when operating point-to-point.

Finally, I adopted an 18" minimum curve radius. I originally chose a 21" minimum, and you'll see some of those on the track plans, but soon found that to be one of the "druthers" that would have to give way to other, earlier choices.

No. 1: The Loop

My first effort was the layout I labeled "The Loop." This plan would rely on a duck-under, lift-out, drop-down, or swing gate to allow access to the center of the room while providing a continuous operating connection. Its placement would be determined by the sweep of the door into the

room, but it also had to connect to staging. So the first feature I placed was a curved, stub-ended staging yard in the closet.

In order to have the yard serve both ends of the layout, I needed to place a wye at the yard throat. I quickly realized I couldn't do that without

severely abbreviating the yard, so I incorporated the wye into the shortest yard track instead. Adding a drill track will let trains in any yard track back into the wye.

I used 18" curves to make the wye as small as I could, but was still disheartened about how much

space it took up in the room. I adapted the best I could by placing the oil terminal on the inside of the main, making the main longer.

The other exit from the wye emerges between some city buildings to join the main line farther up. This unfortunately limited the number of turnouts I could place for spurs or passing tracks. In order to access the top-left corner of the room, I branched the track to the power plant off the line from staging rather than off the main – not ideal. If I were to actually build this plan, I would try to join the mine branch to the main instead by crossing the staging lead on a diamond, if I could do so without interfering with the lead to the other industry on the backdrop.

Placing the power plant immediately gave me the idea of making it a loads in-empties out arrangement with a coal mine in the opposite corner of the room. In a layout this small, most freight would originate from or terminate in staging, so a loads in-empties out arrangement adds some nice operating

THOUGH I'M NOT REALLY HAPPY WITH THE LACK OF A LARGE CLASSIFICATION YARD ON THE DOGBONE, I THINK IT HAS FEWER COMPROMISES AND MORE INTEREST THAN THE LOOP.
— STEVE

variety. Layers of low-profile buildings behind the power plant provide the feeling of a large city in a small space.

The next town along the line is uncomfortably close to the city scene. In order to keep it from feeling too close, I put a river traversed with a stone arch bridge between them for a visual break. I also placed a depot in the town, but no industries, and no depot in the industrial city. That way, neither a freight nor a passenger train should stop in both locations.

Leaving room for the door to open means the shelf on the room's only long, unbroken wall is only 9½ feet long, which is unfortunate for my plans of putting a working yard there. If I include a narrow industry between the main line at the back of the shelf and the yard, that leaves room for only a short yard.

That leaves empty space at the front of the layout, inside the curve, where it could only be reached by a switchback. Since an industry spur wouldn't branch off a yard's classification track, I put an enginehouse there.

No. 2: The Dogbone

Now let's look at the second plan, which I labeled "The Dogbone." To avoid a duckunder or gate, this layout would need two turnback loops to provide the continuous operation option. The only way I could see to accomplish this was to put one of the loops into the closet. The placement of the other loop, as in the previous plan, would be determined by the swing of the door.

I tucked three long staging tracks inside the closet loop – as many as I could while maintaining my 18" minimum curve radius – and put a double crossover at its throat so it could serve both "ends" of the main line.

Even if I placed the other loop as close to the door as I could, that didn't leave a lot

of room between the loops for industries. To keep the stations from falling too close together, I decided to separate the tracks into two distinct lines and stagger the stations. To bring the turnouts and industries within the right-side loop to the front of the benchwork, I elevated one side of the main line and crossed it over the other side. So what I thought would be a dogbone actually came out a figure 8.

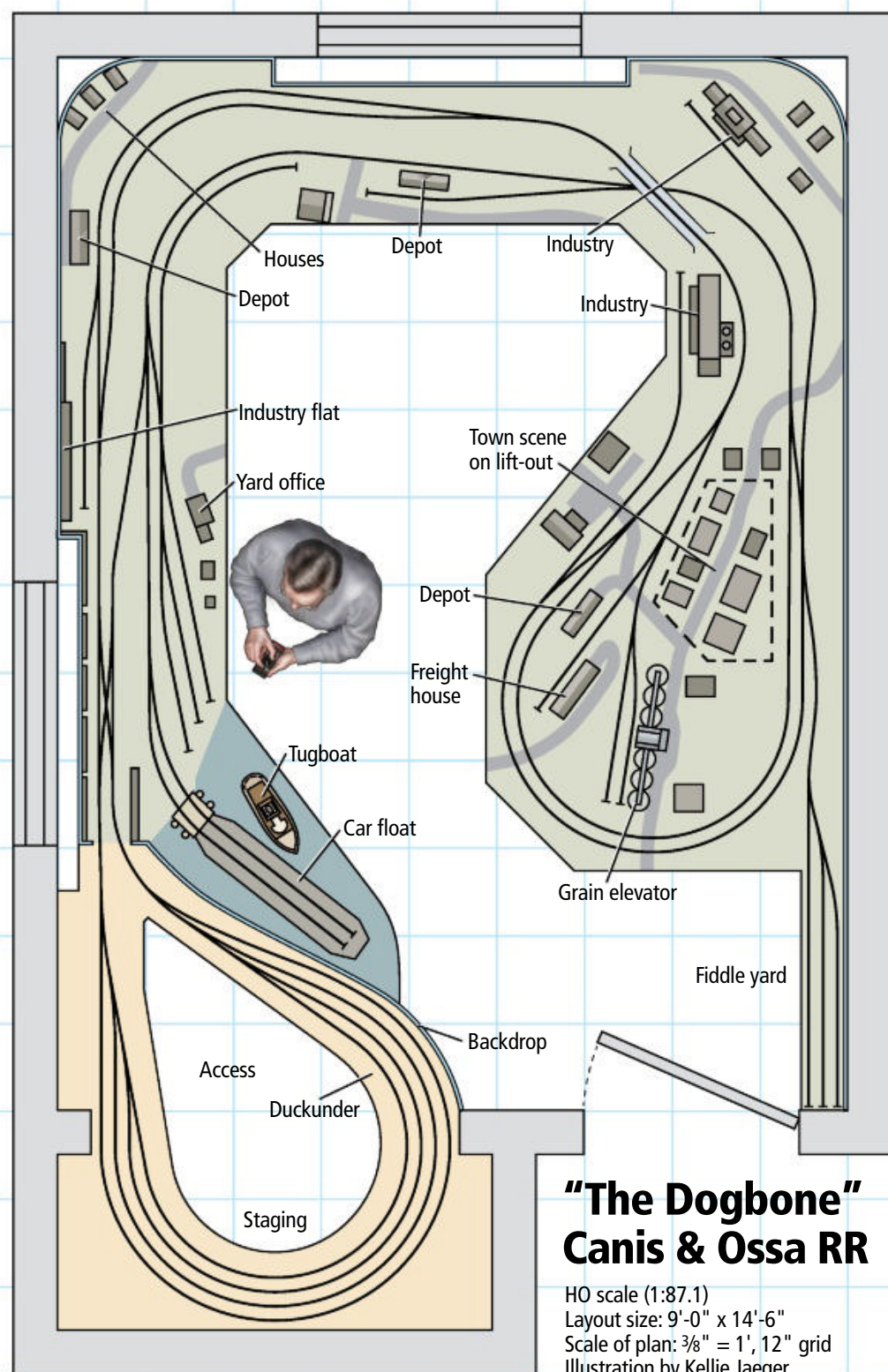
I decided to maximize the run by extending a stub-ended spur from the main line to a shelf in front of staging, separated from it by a backdrop. To get the most operating potential out of this spur, I made it a universal industry. A car float that can be fiddled during the operating session can be a source and destination for any kind of freight car. Trains can originate from staging, transit the main line, and terminate at the car float or its small adjacent yard. That operational scheme appealed to me.

The obvious place for the other operational focus on the layout was the right side loop. I wrapped a passing track around the outside of the loop, which also gave me a good place to attach industry spurs and a small fiddle yard behind the door.

There's plenty of room inside the loop for industries or a short yard, but not both. I went for industries. Since access to the back side of the loop would be difficult, I decided to put a town scene on an emergency lift-out section and keep my industries to the front of the loop.

Is there a clear winner?

Though I'm not really happy with the lack of a large classification yard on the Dogbone, I think it has fewer compromises and more visual interest than the Loop. It has a longer main line with more distance between stations than the Loop, and the



"The Dogbone" Canis & Ossa RR

HO scale (1:87.1)
Layout size: 9'-0" x 14'-6"
Scale of plan: 3/8" = 1', 12" grid
Illustration by Kellie Jaeger

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

Approach no. 2

Name: Canis & Ossa RR
Scale: HO (1:87.1)
Size: 9 x 14½ feet
Theme: Rural branch line
Locale: Eastern seaboard
Era: 1950s-1960s
Style: walk-in
Mainline run: 48 feet
Minimum radius: 18"
Minimum turnout: no. 4
Maximum grade: 2 percent

Dogbone's three depots add the option of local passenger service the Loop lacks.

Neither plan has room for a locomotive servicing area, a drawback for a steam fan like me. If you build either of these plans, you either have

to set it in the diesel era, or imagine that your locomotive terminal is off layout, represented by staging.

What other mainline configurations could fit in this size room? A 5 x 8-foot island would fit in the middle but wouldn't take very good advantage of the space. At the other extreme of complexity, a helix inside the closet could link two or three scenicked decks with a large lower staging yard. And N scale would open up even more options.

There are almost endless possibilities, even in a small spare room. Break out your graph paper and sketch out all your ideas before settling on one. **MR**



Soo Line 2-6-0 no. 148, a modified Bachmann model, crosses a river on Bob Wundrock's HO scale Rice Lake, Dallas & Menomonie RR. Bob used the Tainter gate dam in the background to transition the river scene to the backdrop.

Blend a river into a backdrop

A Tainter gate dam hides the seam between the layout and the backdrop

By **Bob Wundrock** • Photos by the author

As I was building my new Rice Lake, Dallas & Menomonie Railroad (RLD&M), I sliced a path for a future river while constructing the benchwork for version no. 3 (see my former RLD&M no. 2 in the September 2019 MR).

When it came time to build scenery on that section, I wondered how I was going to make the river transition into

the backdrop. In several places on the new layout I've used photo backdrops. While searching online for a suitable river photo, I thought of installing a dam tight to the backdrop.

I remembered that a certain type of dam that used "Tainter gates" was first used in Menomonie, Wis., in the 19th century. Since my layout was based on

the Rice Lake, Dallas & Menomonie prototype, I thought it would be appropriate to construct a Tainter gate dam in the river scene.

History

The Tainter gate was patented in 1880 by Jeremiah Burnham Tainter, an

employee of Knapp, Stout & Co. in Menomonie. In the 1880s Knapp, Stout & Co. was the world's largest lumber company. The Tainter gate dam was used to form Lake Menomin on the Red Cedar River.

The Tainter gate is a radial arm flood-gate with a convex shape facing the force of the dammed water. Two arms on either side of the gate connect to pivot points. The gate is raised or lowered via a motor drive above. Tainter gates are now used throughout the world.

My construction

Since I couldn't locate suitable drawings of these gates, I relied on online photos of them. My dam would be more than 2 feet from any viewer, so I built a representative model.

I needed to carefully plan the stages of construction of the whole dam and river scene. I would be using Woodland Scenics Realistic Water resin for the river surface, and I needed to have access to it until near the end of the project, as well as keep it protected during the project. The river bottom was a piece of $\frac{1}{8}$ " tempered hardboard that was already sealed in place. The backdrop would need to be done next.

I extensively used photo backdrops on my previous layout, and that practice continued on my current layout. Using Photoshop, I edited a suitable lake scene I found online to fit my space. I attached a print of the photo to its final location using 3M Super 77 spray adhesive. I added other photo backdrops with trees to the left and right of the river area.

The dam was constructed concurrent with the backdrop to ensure correct size. I started with a piece of 1 x 2 pine as a base, then cut chute sides from $\frac{1}{8}$ " hardboard. I cut supports for the lift drives from $\frac{1}{4}$ " thick pine lattice. These parts were glued together with wood glue ①.

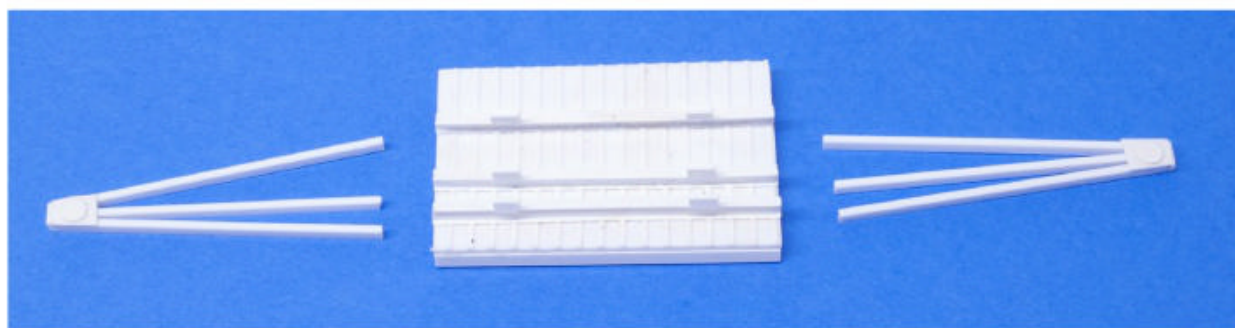
I formed the curved raceways at the bottom of the chutes from Evergreen .030" styrene sheet, glued to the chute sides with canopy glue.

After painting this whole assembly with Rust-Oleum 2X spray paint in Sand color, I weathered it with PanPastel weathering powders.

To build the gates, I started with .040" Evergreen board-and-batten sheet styrene. I submerged each of the three gate pieces in heated water, then formed the curve over a $\frac{3}{4}$ " diameter pipe. Other pieces of the gates and lift mechanism were made from various Evergreen strips and tube ②.



① **Basic structure.** Bob used a piece of pine 1 x 2 and $\frac{1}{8}$ " thick tempered hardboard to make the dam structure.



② **Styrene gates.** The Tainter gates were made from .040" thick styrene board-and-batten siding that was heated in water, then molded over a pipe. The detail parts are styrene strips and shapes.



③ **Checking progress.** Bob test-fit the dam in place on the layout. The bottom of the raceways is .030" thick styrene sheet. The supports for the gate lifting mechanism are $\frac{1}{4}$ " pine lattice.

I made several checks of my progress to ensure everything was fitting together as I had planned ③. The gates and lift mechanism were painted with Rust-Oleum 2X gray primer. I added some rust spots with acrylics. Then I attached the gates and lift mechanism to the dam structure with canopy glue. I added rusty mineral deposits with acrylics.

I created river banks using a mixture of Sculptamold and leftover brown tile grout. I painted the river banks with dark tan acrylic and lapped that color onto the river edges ④. In the spaces I left, I built abutments to support an Atlas plate girder bridge I saved from my previous layout. I cut the abutments from $\frac{1}{8}$ " tempered hardboard and $\frac{1}{4}$ "



4 River banks. The river banks are a mixture of Sculptamold and tile grout. Bob would later paint the tempered hardboard base of the river with dark green acrylic.



5 Recycled bridge. Bob reused an Atlas plate girder bridge from his old layout. The abutments were made from hardboard with a pine lattice top covered in .020" thick sheet styrene. The waxed paper helps protect the backdrop from spatter.

pine lattice with a top cover of .020" styrene **5**. The abutments were painted with Rust-Oleum 2X Sand and weathered with PanPastels.

I painted the river bottom with dark green acrylic craft paint. The green was blended into the sand-colored edges of the banks. I installed the dam using silicone rubber caulk. This fixed the dam in place and sealed the base for the water pour. Then I added vegetation and some rocks to the river banks.

To simulate water in the river, I used Woodland Scenics Realistic Water. Before pouring the one-part resin from the bottle, I painted the shoreline and abutments with the product to help prevent creeping. I used only one 1/8" pour. The green color of the river bottom added a surprising amount of depth to the river, so I didn't need a second pour. After it dried, I added waves using Woodland Scenics Water Effects, **6**. I also brushed on some Realistic Water over the dirty streaks on the raceways.

Track, ballasting, trees, and other small details finished the scene.

I had sought some suggestions on modeling the river from friend John Mueller, since it was the first river I ever attempted. I was pleased with the overall dam and river scene. **MR**

Bob Wundrock is a retired broadcast engineer and longtime member of the National Model Railroad Association's South Central Wisconsin Division. His previous Rice Lake, Dallas & Menomonic RR appeared in the September 2019 issue of Model Railroader.



6 Water effects. Bob used Woodland Scenics Realistic Water for the river. He applied Woodland Scenics Water Effects to create ripples in the surface. The bridge was placed after the water surface was completed.

TRAIN COLLECTORS ASSOCIATION™

JOIN TCA!

**Friendships that
Last a Lifetime!**

Here are just a few great TCA benefits:

- TCA Train Meets (including York, PA!)
- *3* Publications: The Train Collectors Quarterly, National Headquarters News & TCA E-Train, our online magazine
- TCA x-change (online marketplace)
- National Toy Train Museum
- Toy Train Reference Library



**Call or visit us online for
your application today!**

717.687.8623

www.tcamembers.org

- Lionel
- MTH
- K-Line
- LGB
- Bachmann
- Atlas
- Kato
- Prewar & Postwar Selection



75 YEARS!

**13 West Merrick Road
Freeport, NY 11520**

516-378-9594

Or visit us at NassauHobby.com

WifiTrax Wi-Fi DCC Modules - Use Apple, Android, TCS.

www.wifitrax.com

- WFD-30/31 adds Wi-Fi to your **NCE System** - Power Pro, Power Cab.

- WFD-27/46/48 complete **5-Amp Wi-Fi DCC Cmd. Stations/Boosters**.

- Garden Railway Wi-Fi/DCC modules in **Battery Locos** with DCC Decoder.

- Control your **Turnouts** in groups of four or eight - Wi-Fi or DCC.

WFD-30/31 for NCE



WFD-27/46/48 5-Amp
Wi-Fi DCC Cmd Station/
Booster Series



WDMI-27 for
Large Scale Locos



WFS-47/87
for Turnouts



Buy in the US from
IRON PLANET HOBBIES

www.ironplanethobbies.com

Check all our Wi-Fi Model Railroad Products now stocked by Iron Planet.

Your

#1

**Model Railroading
Source!**



Subscribe today!

Trains.com/mrr/subscription-plans/



**Same Great Quality at a
Fraction of the Cost!**

Econami decoders offer the same sound quality as Tsunami2 in a budget friendly package. Use these decoders to upgrade more of your models and enjoy amazing sound with great features!

Learn More or Shop Now:
www.SOUNDTRAXX.com



TRAINZ

Trainz wants your N and HO scale collection!
With over 45 years of experience, we make
it easy to sell your collection.

sellmytrains.com/mrr
(866) 316-0175



Looking for a great selection of new
and used trains in N & HO?
Visit trainz.com

Using mini and cell phone speakers



This month Allan Gartner explores the current generation of tiny speakers. The TCS speaker (left) was the largest speaker that he looked at that would fit inside an HO diesel. The SoundTraxx speaker (right) was the smallest Allan studied that would fit inside some N scale equipment.

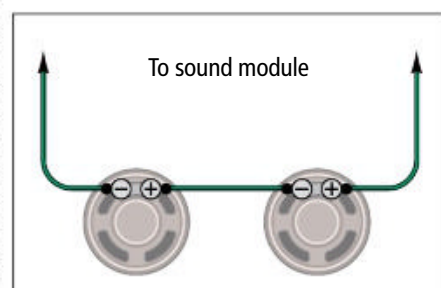
Sound in model trains adds an incredible amount of realism. The manufacturers of sound decoders and speakers continue to work hard to maximize that realism. I thought it was time to see what the current generation of miniature model train speakers and some cell phone speakers could do.

You've probably heard that a baffle is important, but might not know why. Have you ever listened to a speaker both with and without one? The miniature speakers from SoundTraxx (soundtraxx.com) have custom-made baffles. Holding the speaker to the front of the baffle makes it easy to try it with and without it. I was impressed that even these tiny baffles made a noticeable difference. When you try this, just be sure your finger isn't on the face of the speaker. If you're tempted to use a speaker without a baffle, this will change your mind.

There are two things you need to know about miniature speakers. One, there's only so much sound a tiny speaker can put out, so you should use the biggest speaker and baffle that will fit

in your locomotive. Two, they're rated for a fraction of a watt, but some sound decoders can put out 2W. So if you push the speaker too hard, you'll damage it. In fact, the instructions for SoundTraxx's Mini Cube speakers warn you of this and recommend you put two of them in series **1**.

This will give you twice as much sound. Two of them in series increases the combined impedance to 16 ohms. Doing this reduces the maximum power to the combined speakers of a 2W sound decoder to 1W. Each speaker



1 When using multiple speakers, it's imperative to wire them up in series, as shown – positive terminal to negative terminal. This will ensure the speakers work together to maximize the sound. The terminals on many small speakers aren't marked. That's OK; just wire them as shown.

will see a maximum power of .5W, so risk of damage is greatly reduced.

The SoundTraxx Mini Cube 3 **2** is rated for .3W with an allowable peak of .5W. Resist the temptation to push the speaker too much, especially in diesels. There's a lot of bass in diesel engine sounds. So avoid setting the volume of the decoder to maximum. Damage to your speaker can happen faster than you can press buttons to correct it.

If you have a decoder with an equalizer, like the Tsunami, don't think that means you can crank up the lower frequencies to make up for the speaker's small size. Instead, reduce the lowest frequencies to reduce the chance of damaging the speaker.

While two speakers in series is a great way to increase the sound you hear, perhaps you can't fit two of them. Since they're rated at 8Ω, you may wonder if you can use one speaker and just reduce the master volume to less than half. You can, but you're taking a chance. If you do a factory reset on your decoder, that may set your master volume too high again. If you're controlling your master volume with a function key, you might accidentally set the volume too high and damage the speaker.

If you only have room for one of these speakers,



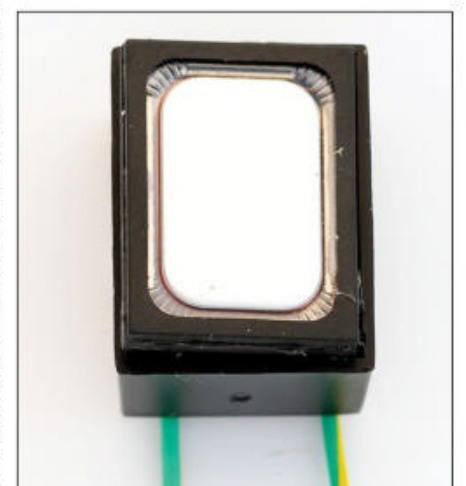
2 Without a baffle, the SoundTraxx Mini Cube 3 (no. 810162) measures 3 x 5.5 x 12mm. With the deepest baffle, it's 8.6mm thick.

I suggest you put an 8.2Ω to 10Ω (the latter is more commonly available), .5W resistor in place of the second speaker. This won't improve your sound, but will keep you from blowing the speaker.

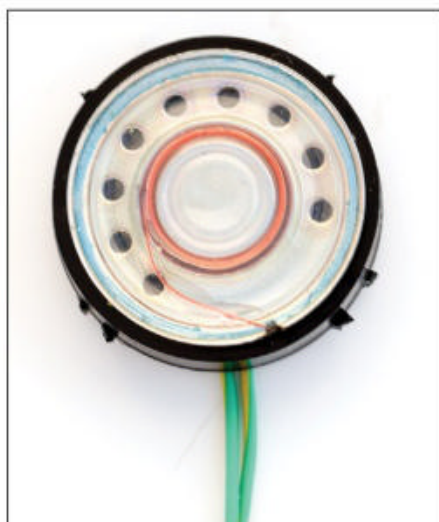
The SoundTraxx Mini Cube 3 comes with a set of six baffles. Use the biggest one that will fit.

Use care when attaching the wires. You'll need four hands – one to hold the speaker, one for the soldering iron, one for the solder, and one for the speaker wire. Even if you had four hands, these speakers are smaller than a penny, so you won't have room. Instead, using a 15W soldering pencil with a small point, put a dot of solder on the speaker terminals. Then tin your speaker wires. 30 AWG or smaller wire is fine. Use a "third hand" tool to hold the speaker. Be careful not to clamp the face of the speaker. With everything pre-tinned, apply heat to the wire and speaker terminal. Be fast!

For the Mini Cube 3, I brought the wires out the side



3 The SoundTraxx Mini Cube (no. 810154) measures 16mm x 12mm x 11.3mm. Allan drilled holes in the back of the enclosure to run the wires rather than at the seam of the baffle like he did the Mini Cube 3. To do this, make the solder connections to the speaker "on-end."



4 A SoundTraxx 20mm speaker (no. 810053) and baffle kit (no. 810109) is shown above. The speaker with a single baffle chamber is 20mm x 3.2mm x 7mm. Wire fits through holes in the back of the baffle.

of the enclosure by filing the baffle near the top for the wires to exit. For the Mini Cube 3, opposite, I soldered the speaker wires on end to the speaker terminals and brought the wires out the back of the baffle after drilling a couple of holes in it.

SoundTraxx suggests using RTV (room temperature vulcanizing) silicone rubber adhesive to glue your speaker baffle together. The nice things about RTV are that it's not as goopy and stringy as other rubber cements, and you can still take the speaker baffle apart if you need to. You can find it with the other adhesives at your local home improvement store.

For my comparisons, I tried a SoundTraxx 20mm speaker and baffle kit 4. It sounded good, but it was too wide to fit flat in the hoods of the diesels I tried. If you can use this speaker, SoundTraxx built a lot of flexibility into the baffle kit. It has



5 The fully assembled Train Control Systems no. 1717 contains a baffle, is wired, and has a connector for a decoder. It's 8 x 14.5 x 28mm.

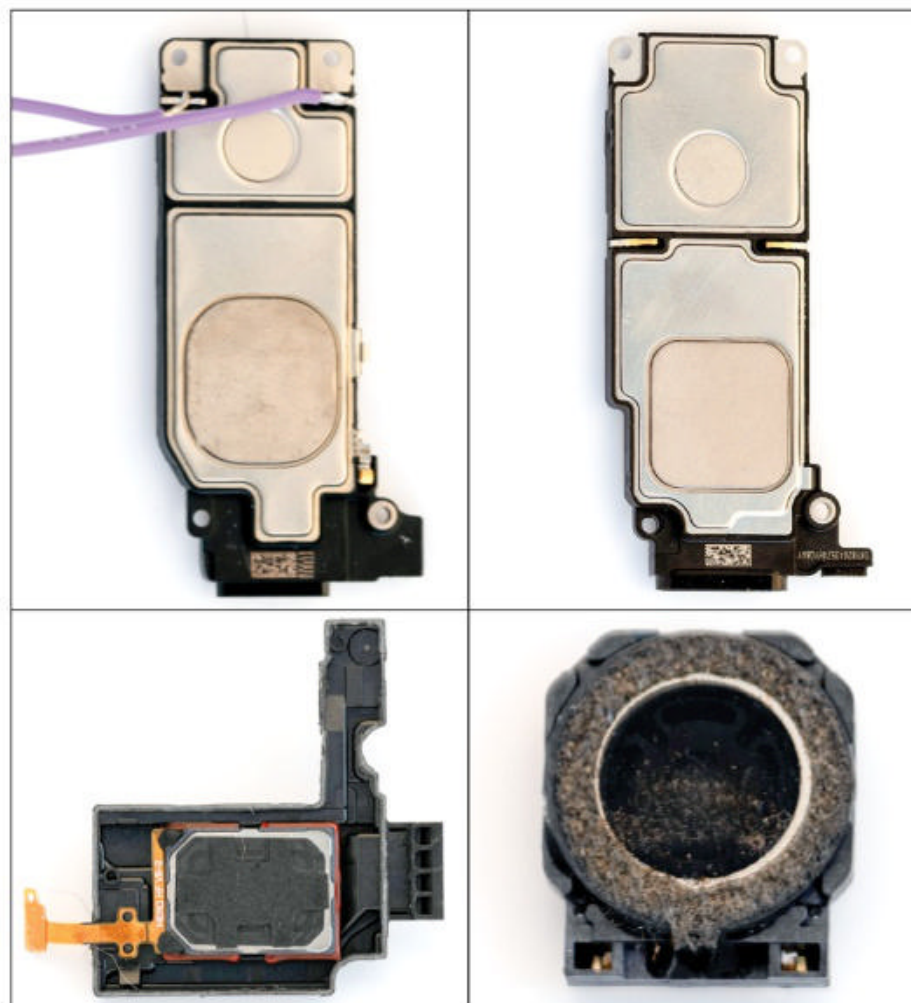
two chamber sizes you can use, and if you opt to use the mounting ring, you can put it at the front, back or middle when using the larger chamber size.

While you have to put your SoundTraxx baffle and speaker together as well as solder on the wires, you get a lot of flexibility. If you want an assembled speaker with baffle and attached wires, take a look at the Train Control Systems speaker (tcs dcc.com, part no. 1717) 5. It's long and narrow and will fit into a diesel hood. It even has a connector and can be plugged into a sound decoder with a socket on it.

Of course, I need to talk about cell phone speakers. No doubt, the cell phone industry has worked hard to get all the sound it can get out of a small speaker. Looking at the speakers in figure 6, you'll see they come in unusual shapes that don't look like your typical speaker. Their unusual shapes make use of the space available in a cell phone.



TAKE YOUR LOCOMOTIVE WITH YOU WHEN YOU GO TO THE CELL PHONE REPAIR STORE. STUDY THE SPEAKER CAREFULLY.
— ALLAN



6 Cell phone speakers come in unusual shapes, but can often fit in locomotives. Clockwise from top left, iPhone 7+, iPhone 8+, Samsung S5, and Samsung S7 replacement speakers.

Cell phones are designed to be easily assembled, so the speaker may not have solder terminals. The first one I tried had spring terminals so that the speaker could be friction-fitted into the phone. I guessed which part of the speaker was the terminals because they were brass in color. This may not always be the case. I was able to solder wires to the spring terminals. Again, I recommend tinning your wires and speaker terminals first, whatever they look like.

When I was trying to identify the speaker terminals, I used my digital meter set to measure ohms and probed the speaker. If you read nothing or zero, you probably found a feature of the housing and not the speaker terminals.

Cell phone speakers aren't sold as general use speakers, so specification sheets are usually not available for them. Who knows what power they're rated for? The

speaker I tried read 8Ω. Don't expect this to always be the case; test yours.

Take your locomotive with you when you go to the cell phone repair store. Study the speaker carefully. Cut away features with a hobby saw that serve no useful purpose to your installation. Some cell phone speakers have the antenna integrated into the speaker housing, so you may be able to cut away a lot.

The speaker cone may not be obvious, so be careful how you handle it.

Prices range from about \$5 to \$15. You can get cell phone replacement speakers on eBay for about the same price, but you may want to buy from a local store so you can see what they have and test-fit them into your locomotive. Don't ask too much; chances are they're doing you a favor to sell you an uncommon service part.

Good luck, and enjoy your newly sound-equipped locomotive! **MR**



Bowser HO scale Alco RS-3, Phase III

Bowser's long-anticipated Alco RS-3 is here, and it's worth the wait. Packed with road name-specific detail, it's available as either a direct-current (DC) or a sound-equipped Digital Command Control (DCC) model.

The RS-3 was Alco's third iteration of a road-switcher, a locomotive type created by the manufacturer with the introduction of the RS-1 in 1941. Although that model only offered 1,000hp, it rode on trucks suitable for mainline use.

More powerful options were offered by Alco, starting with the 1,500-hp RS-2 in 1946 and, in 1950, the RS-3, which got 1,600hp from its model 244 12-cylinder diesel engine. Alco built RS-3s until 1956, with about 1,300 produced.

New York Central was the largest initial buyer, with 130 units. Future merger partner Pennsylvania RR received 121

from the shops in Schenectady, N.Y. Other roads with more than 100 units delivered new were Delaware & Hudson with 104 and Louisville & Nashville with 107. Reading Co. had 76, while Erie, Southern Ry., and Seaboard Air Line all ordered more than 50. Twenty-two railroads ordered in the double digits, and 36 more placed single-digit orders.

These locomotives were used all over the United States, and with Alco subsidiary Montreal Locomotive Works building 146 in Canada, they roamed the provinces, as well. Their versatility made them popular when new, and meant they often had long second careers on smaller railroads after their time on Class 1s was over. They can still be found on short-lines and tourist railroads.

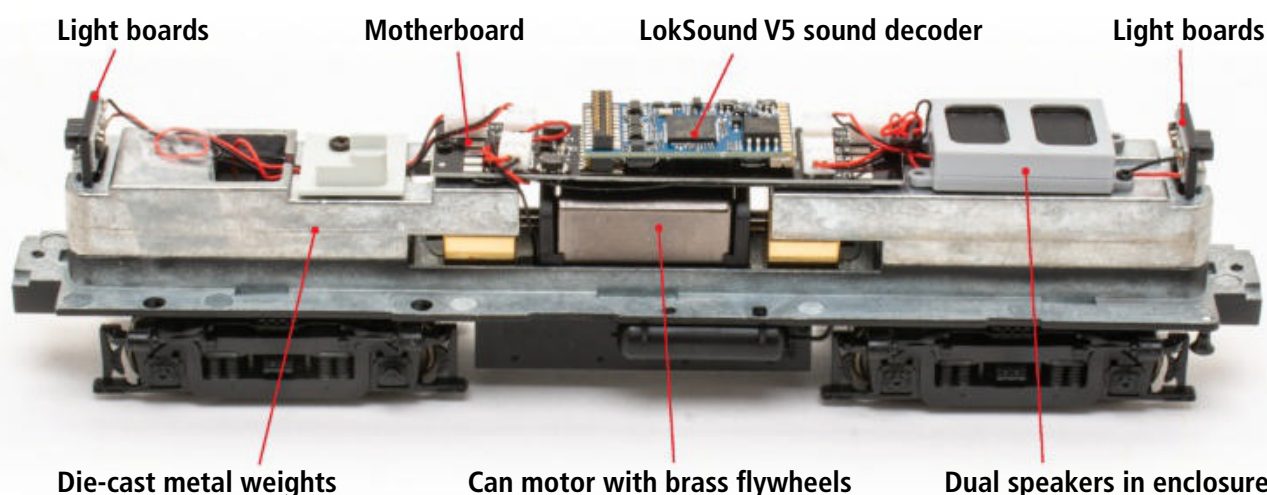
Bowser's model replicates what railfans call a Phase III locomotive, with

vertical air filters, as seen next to the radiator intake in the photo above. The model is loaded with separately applied detail parts, including grab irons, windshield wipers, cab sunshades, m.u. hoses, and uncoupling levers. One of the standouts is the separate, factory-applied handles on the access doors along the hood sides. Our Western Maryland sample had railroad-specific number boards mounted at an angle above the corners of the hoods and five-chime horns on either side of the cab.

It also has a transverse stack, indicating the locomotive has an upgraded water-cooled turbocharger. Earlier models had air-cooled turbochargers and a longitudinally mounted stack. Some locomotives had their air-cooled turbos replaced with more reliable water-cooled models. The Western Maryland model has a stack extension. It also has cooling coils mounted behind the air tank on the fireman's side.

The black paint is smooth and opaque, and the yellow "speed lettering" is sharp and clear. The FUEL OIL FILL labels on both sides of the locomotive and the ENGINE WATER FILL label are readable under magnification. The dimensions matched drawings I found in the *Model Railroader Cyclopedia: Vol. 2, Diesel Locomotives* (Kalmbach Books, out of print).

Two things I noticed on our sample: the photo-etched screen above the radiator fan is skewed at an angle from the locomotive. I didn't see an easy way



Bowser's all-new Alco RS-3 Phase III model has a die-cast metal frame. Our sample included an ESU LokSound V5 sound decoder.

to reposition it. Also, photos of WM no. 195 at the Baltimore & Ohio Museum in Baltimore showed a large box in front of the cab on the running board on the fireman's side that isn't represented on the model. The oldest photos of the locomotive I could find were from the early '70s, so I don't know if it was something added after the locomotive was delivered.

To remove the shell, unfasten the screws holding in the draft-gear boxes. Then slide the couplers and draft-gear boxes out of the pilots and lift the shell off the frame. The long-hood end lifted first on our sample, so I used tweezers on the draft-gear box screw to lever the short-hood end free of the frame. Be cautious around the delicate ground-light castings attached to the bottom of the sill under the cab.

A can motor is mounted in the center of a die-cast metal frame, with brass flywheels on each end. The motor drives all eight wheels through driveshafts connected to worm gears at the top of gear towers on each truck. All wheels pick up power. Die-cast metal weights are mounted above the trucks. Twin speakers in a plastic enclosure are mounted facing up above the front truck.

An Electronic Solutions Ulm (ESU) LokSound V5 DCC decoder is plugged into the motherboard with a 21-pin connector. The speakers, power pickups from the trucks, and wires from the mini lighting circuit boards at each end



Bowser's model is full of road name-specific details, such as the angled number boxes on the top of the hood corners. Note the photo-etched radiator fan screen, as well.

PERFORMANCE CHARTS

DRAWBAR PULL	2.88 ounces 40 freight cars on straight, level track
SCALE SPEED (DCC)	
SPEED STEP	SCALE MPH
1	.8
7	12
14	34
21	63
28	76

of the locomotive also plug into the motherboard. Lighting is by surface-mount light-emitting diodes.

The plastic body shell is made up of multiple parts, but I didn't try to disassemble it. There's access to the engineer's and fireman's seats from inside the shell if you want to add figures.

I started testing the locomotive on DCC using an NCE PowerCab. In speed step 1, the locomotive moved at less than 1 scale mph. In speed step 28, the locomotive reached 76 scale mph. That's a bit faster than the 65 mph top speed I found in various sources, but engineers were known to push these rugged locomotives beyond their design specifications, so maybe a crew working for the quit might have coaxed an extra 10 mph out of their steed at the end of the day. Alternately, you could reprogram configuration variable (CV) 5, Vmax, to a lower value.

As it came out of the box, the locomotive ran as though the short-hood end was the front. The lettering on the body shell indicates the long hood is the front. To change this, use your programming track to read the value of CV29, add one to the recorded value, and enter that in CV29. On our sample, I changed the value from 46 to 47, and the long-hood end now ran forward.

One of the photos I found of WM 195 at the B&O Museum noted the horn as a Hexatone H5. This isn't one of the choices in the 15 options recorded on the LokSound decoder. Instead, our model had a Leslie S5T as a stand-in. I found a recording online of a Hexatone H5, and thought the Nathan K3H sounded a little closer to the recording, so I changed CV163 to 13 to get the new horn sound. Other options included a Nathan M5 and P-5-OC. You might like one of those better.

I also tried to run the locomotive on DC power, but didn't get good results. A representative from Bowser said its DCC models aren't intended to run on DC. There are DC-only models available.

Facts & features

Price: \$199.95 (DC, no sound), \$299.95 (DCC, sound)

Manufacturer

Bowser Manufacturing Co. Inc.
1302 Jordan Ave.
Montoursville, PA 17754
bowser-trains.com

Era: 1953 to late-1970s (as decorated)

Road names: Western Maryland; Boston & Maine; Burlington Northern (SP&S paint with BN number); Central Vermont; Chicago, Milwaukee, St. Paul & Pacific (Milwaukee Road); Delaware & Hudson; Erie Lackawanna; Grand Trunk Western; Green Bay & Western; Louisville & Nashville; Nickel Plate; Northern Pacific; Norfolk & Western; Pennsylvania RR; and Spokane, Portland & Seattle. All schemes are offered in multiple road numbers.

Features

- Analog (DC) version features 21 pin plug for DCC, DCC/Sound version features ESU LokSound V5 decoder
- Can motor with brass flywheels
- Directional headlight
- Knuckle couplers, at correct height
- Nickel-silver wheels with RP-25 contour flanges, in gauge
- Road-name-specific details, including fuel tank
- Separate, factory-applied air hoses, windshield wipers, grab irons, uncoupling levers, and more
- Weight: 12 ounces

I measured a drawbar pull of 2.88 ounces, equivalent to 40 free-rolling freight cars. Our sample was able to pull 13 50-foot boxcars up our 3 percent curving grade on the staff's Milwaukee, Racine & Troy layout. This is in the typical range for a diesel locomotive.

On my Washington Avenue switching layout, the Bowser RS-3 did a great job moving freight cars through the no. 4 turnouts.

Bowser's all-new Phase III RS-3 is a fine model, packed with detail, great sound, and excellent running characteristics. These locomotives ran all over North America, and Bowser has extensive plans for multiple variations. I know I want one for my railroad, how about you? – *Eric White, senior editor*



Atlas N scale General Electric Dash 8-40C

A modern General Electric diesel is now being offered as an N scale model equipped with an ESU LokSound Micro DCC Direct sound decoder by Atlas Model Railroad Co. The new GE Dash 8-40C accurately captures the look of this beefy freight locomotive.

Modern power. With the introduction of the Dash 8-40C and its four-axle counterpart, the Dash 8-40B, GE flipped its usual locomotive nomenclature. Nonetheless, some railroaders stuck with the old way and called the six-axle diesel the C40-8. Whichever way you order it, “C” stands for C-C trucks (six powered axles), while “40” denotes 4,000hp. The “Dash 8” refers to the decade of the 1980s, just as the Dash-7 series that preceded it was developed in the 1970s. (There was no Dash-6 series; the generation before that was the Universal series, launched in the 1950s.)

General Electric developed the Dash 8 control system with the B36-8,

C36-8, B32-8, and C32-8 test models. The Dash 8 improved on the Dash 7 primarily in fuel efficiency and tractive effort. These upgrades were first included in mass-production models in 1984 with the introduction of two 3,900hp diesels, the four-axle B39-8 and six-axle C39-8. Both sold modestly.

The 4,000hp Dash 8-40C improved only slightly on the C39-8. In fact, the most significant upgrades had been included in the last order of the C39-8. But the new model, unveiled in December 1987, proved much more popular, selling 581 units.

When the Dash 8-40C was premiered, the wide-nosed North American Safety Cab, also known as the Canadian Comfort Cab, was gaining in popularity among the railroads. The Dash 8-40C was the last of GE’s models to sell a large number with a standard cab. In comparison, the wide-nose Dash 8-40CW, introduced two years later, outsold it almost 2-to-1. When the Dash 9 series

came out, only Norfolk Southern requested a narrow nose for its initial purchase of 120 locomotives, and even it relented for its next order. The wide-nosed Safety Cab was here to stay.

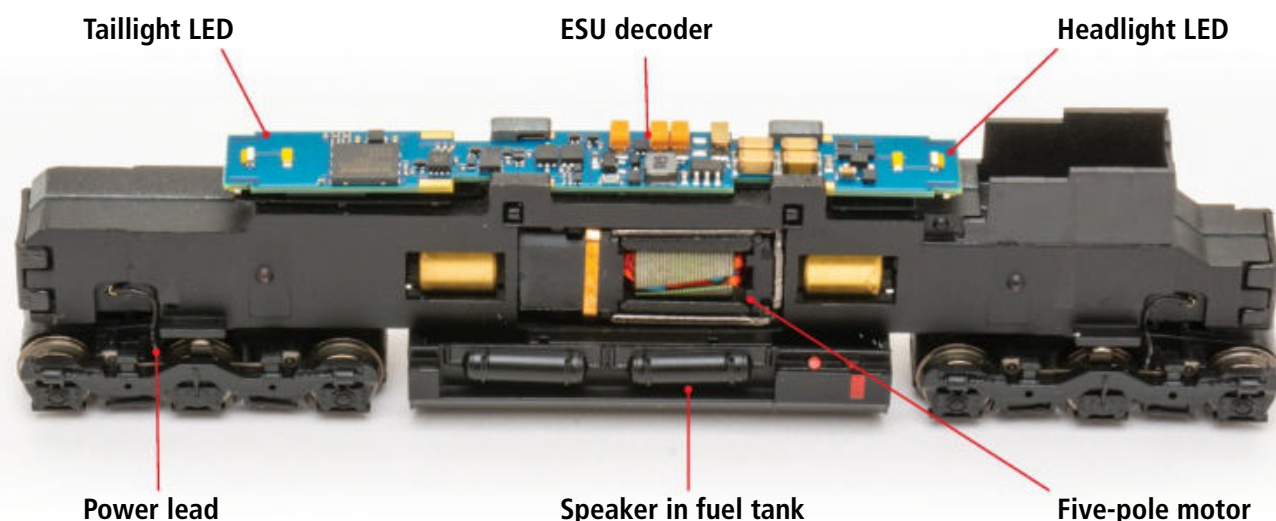
Though no Dash 8-40Cs still bear their original paint schemes thanks to railroad mergers and locomotive resales, many of them are still on the road today.

Once over. I checked the model’s major dimensions against drawings of the C40-8 that were published in the August 1989 *Railroad Model Craftsman*. All the ones I measured matched within a few scale inches. The flexible engineering plastic handrails are finely molded and close to scale thickness.

The model also resembled prototype photos I found both in published sources and online. The number, size, and placement of doors and grills on the long hood matched, including door hinges and latches.

One difference you might notice between the model and most drawings and photos is the absence of dynamic brake exhaust grills on the roof behind the model’s cab. However, photos of the prototype of Kansas City Southern de Mexico no. 3499 shows that this particular locomotive didn’t have dynamic brakes. So if your model has these grills plated over, like ours, don’t use the dynamic brake sound effect.

Another difference is the handrails flanking the front and rear steps. The model’s are painted solid yellow; on the prototype, they bear black and yellow stripes. Though these stripes would be very small on an N scale model, it would



The halves of the Atlas N scale locomotive’s split cast-metal frame carry electricity from the trucks to the decoder, clipped into the top of the frame.

be possible to add them with black paint and a 10-0 brush.

The model's paint job is applied well; all the colors are smooth and even, with sharp separation between colors and no voids across panel lines. The red stripes of the KCSM's red, black, and yellow scheme aren't completely opaque, making them look like two-tone red where they overlap the edge of the black stripe. This overlap is very small, though, so it's only visible under magnification. The cab number was also difficult to read, but it was the KCS' choice to put red numbers on top of a red stripe.

The couplers are attached to the plastic body shell, so the shell can be removed from the frame and mechanism with just a little gentle prying and rocking. Inside is a black-painted, die-cast metal split frame held together with black plastic clips front and back. The frame halves conduct electricity from the trucks to the ESU LokSound 5 Direct Digital Command Control (DCC) decoder (or the lighting circuit board in direct-current Silver Series models),

which clips into notches on top of the frame. The motor and its dual brass flywheels are enclosed in spaces in the center of the frame.

The headlight and rear light are illuminated by plastic light pipes carrying light from surface-mount device light-emitting diodes on the decoder or light board. The speaker is in the fuel tank under the sill; non-sound Silver series models also come with this speaker installed, for easier upgrading to a sound decoder later.

Test run. Our review sample is a Gold-series model, which is equipped with a dual-mode decoder. This means it would run under either DCC or direct current (DC). I tested it first on DCC.

At first, the locomotive didn't respond to speed step 1; the voltage sent to the motor at this setting was too low. The engine rolled at speed step 2, so the speeds listed in the chart on the next page start there. The locomotive rolled at 4 scale mph at that speed step; at step 28, the top setting, it streaked along at 149

Facts & features

Price: Silver series (direct current), \$139.95; Gold series (DCC and sound), \$249.95. Undecorated models \$10 less.

Manufacturer

Atlas Model RR Co.
378 Florence Ave.
Hillside, NJ 07205
atlasrr.com

Era: December 1987-present

Road names: Kansas City Southern de Mexico, Consolidated Railway Equipment, Lancaster & Chester (one road number), and Pan Am Rys. Also available undecorated in two body styles.

Features

- Accumate couplers, at correct height
- Blackened metal wheels, in gauge
- LokSound Micro DCC Direct sound decoder (Gold series)
- Minimum radius: 9.75"
- User-applied cab window sun shades
- Weight: 3.2 ounces

THE HO COMBINATION

FREE 2022 CATALOG
PICK ONE UP FROM YOUR DEALER
for details on the extensive
line of PECO Streamline
track systems

Build an authentic American railroad using a combination of
Code 83 for mainlines and Code 70 for secondary lines, yard tracks
and industrial spurs. Join them with our special Transition Track.

Scaled accurately
from A.R.E.A Drawings
& NMRA compliant

PECO STREAMLINE

CELEBRATING 75 YEARS OF INNOVATION IN MODEL RAILROADS

Made in UK
For stockists please visit
www.peco-uk.com
or call 01297 626204

TUNE IN TO: PECO TV
AT THE HEART OF THE HOBBY

For informative videos and the latest product news.
Follow the link on our website or search on YouTube.

PERFORMANCE CHARTS	
DRAWBAR PULL	1 ounce 24 freight cars
SCALE SPEED (DC)	
VOLTS	SCALE MPH
8.5 (start)	6.7
9	29
10	42
11	135
12	149
13	163
SCALE SPEED (DCC)	
SPEED STEP	SCALE MPH
2 (start)	4
7	29
14	80
21	136
28	149

scale mph. This is more than twice the prototype's top speed of 70 mph.

The decoder's sound effects were realistic. Function key 1 (F1) played the bell, while F2 sounded the horn. A coupler clank played at the press of F3, and F7 produced a wheel flange squeal. Key F8 triggers an engine startup or shutdown sequence. The dynamic brake was triggered by F4. That means that if your model is one without a dynamic brake,

like KCSM 3499, F4 is available to map a more frequently used function to. Information on how to map decoder functions to different function keys is available in the ESU LokSound 5 manual, downloadable from esu.eu/en/downloads/instruction-manuals/digital-decoders/

I also tested the engine with DC control, under which it was similarly speedy. The engine startup sound sequence began when the throttle reached 7V. (No other sounds were available under DC.) It started rolling at 8.5V. At just 10V it passed the prototype's top speed, moving at 92 scale mph. At 13V, the power pack's top voltage, the locomotive was even faster than in DCC, reaching 163 smph.

After I was done with my testing, I tried programming different values into Configuration Variable (CV) 2, also known as Vstart, to improve the locomotive's slow-speed response in DCC. It didn't take much of a tweak; a value of 6 in CV2 let the locomotive roll at 4.6 scale mph at step 1. While I was at it, I also brought down the top speed to

something more prototypical. After some trial and error, a value of 77 programmed into CV5 (also known as Vmax) lowered the locomotive's speed at full throttle to 70 scale mph.

When I test a DCC-controlled locomotive, I like to set the acceleration rate (Configuration Variable 3) and deceleration rate (CV4) to 0. Our test track is short, and if a locomotive is still getting up to speed when it reaches the speedometer, the reading will be inaccurate. But if your layout gives trains room to run, you might want to increase these settings, making the time it takes your trains to reach full speed more realistic.

In our drawbar test, the Dash 8-40C mustered 1 ounce of pull, equivalent to 24 free-rolling freight cars on straight and level track.

Smooth operator. Atlas' new Dash 8-40C is a well made model that would look great on any modern N scale railroad. Its smooth drive train and realistic sound effects make it a pleasure to run.
— Steven Otte, senior associate editor

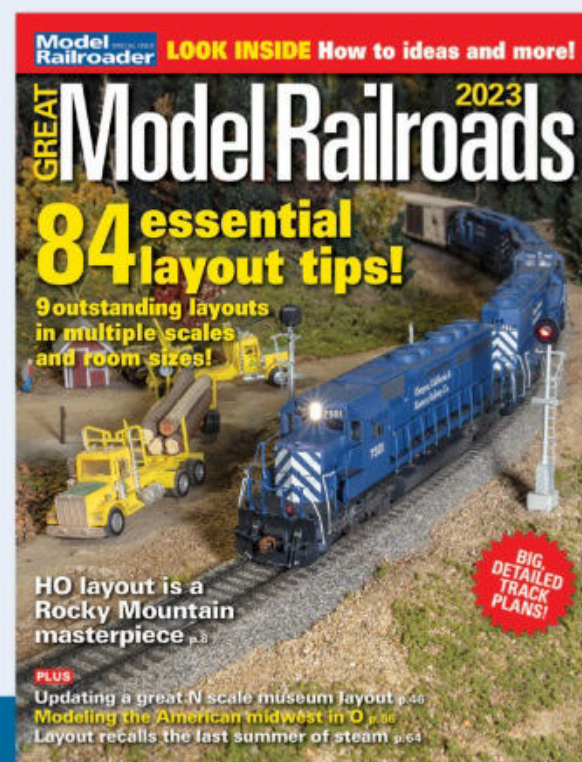
TODAY'S GREATEST LAYOUTS!

\$1 OFF + FREE SHIPPING!

Great Model Railroads 2023 is a 92-page special issue from *Model Railroader* with 9 all-new layouts in HO, N, S, O and Gn3 scales. Each story includes a detailed track plan, how-to tips from the experts, and modeling ideas you can use.

Featured stories include:

- The Colorado Model Railroad Museum's HO scale model railroad.
- The fourth of Brooks Stover's S scale Buffalo Creek & Gauley RR layouts.
- Brian Kelly models Chesapeake & Ohio's Kanawha Sub.
- Bringing the East Berkshire Branch to life with John Callahan.
- And more!



Reserve Your Copy Today at
KalmbachHobbyStore.com/GMR23

Free standard shipping to U.S. addresses only. Offer expires 10/6/22 at 11:59 p.m. CT. Sales tax where applicable.
Great Model Railroads 2023 will be available October 2022.

All new!

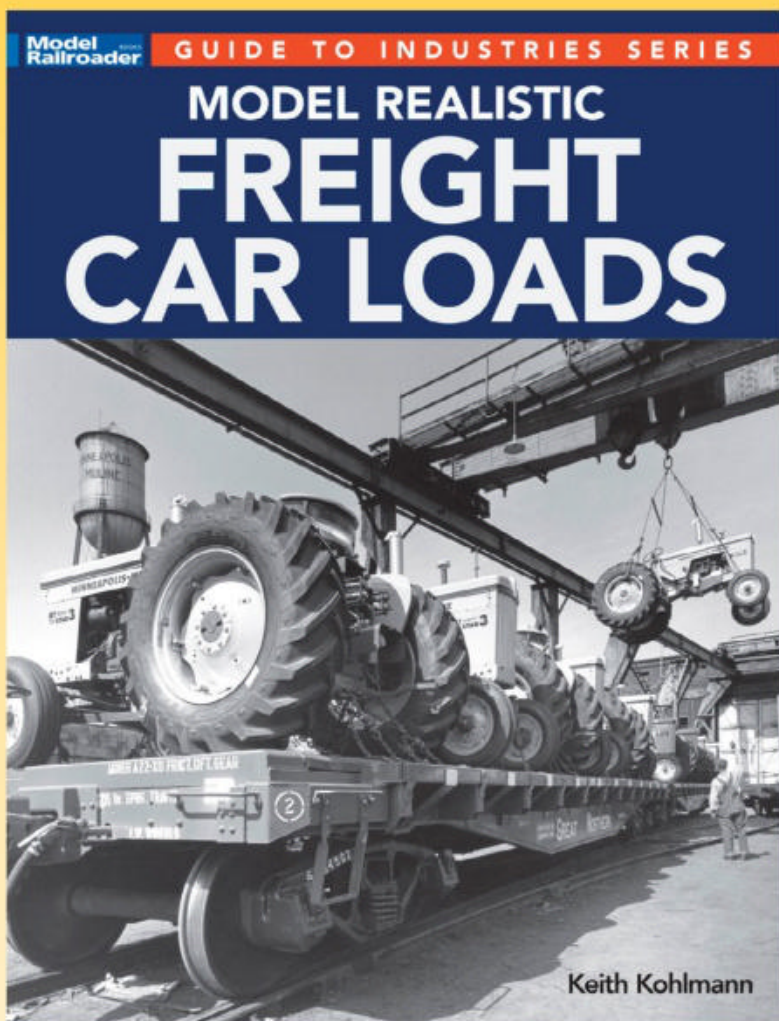


PERSONALIZE YOUR FREIGHT CARS

FREIGHT CAR LOADS ADD TREMENDOUS VARIETY TO ROLLING STOCK, AND ARE A GREAT WAY TO PERSONALIZE YOUR FREIGHT CARS AND MAKE THEM STAND OUT.

**MODEL REALISTIC
FREIGHT CAR LOADS,**

by Keith Kohlmann, gives many prototype examples of freight car loads from common to unique, and from small to large. Follow along with tons of pictures and drawings showing how to realistically secure loads and operate them.



#12838 • \$21.99

**YOU'LL GET A VARIETY
OF TYPES OF LOADS,
INCLUDING:**

- ✓ Farm machinery and heavy equipment.
- ✓ Steel and metal products.
- ✓ Buses, trucks, cars, and other vehicle loads.
- ✓ Forest products and building materials.
- ✓ And much more!

Add a realistic freight car load and make your layout unique to you!



"I'm Dan Thorne, and what I say goes!"

Rulebooks, employee timetables, schedules, and train orders weren't all that governed railroad operation. Trainmasters, road foremen, and superintendents also had plenty to say. A fire-breathing porcupine of a division superintendent played a lead role in the 1930 film *Danger Lights*. He snarled, ending with a clenched fist and a sneer: "I'm Dan Thorne, and what I say goes around here! That means everybody, see?"

Well, somebody had to say what goes, because years went by between rulebooks. Employee timetables were typically issued twice each year, spring and fall, when clocks changed. Schedule changes could occur more frequently, but imagine the chaos if rulebooks, employee timetables, and schedules changed every day! That illustrates the usefulness of train orders, which safely accommodate variation in day-to-day operation. However, train orders would clog the system if they were used for every change in conditions that railroaders face. What, then?

John Armstrong described a priority for operating documents in his book *The Railroad: What It Is, What It Does* – train orders, bulletin orders, employee timetables, and rulebooks. Each can supersede the next: a train order can supersede a bulletin order or a schedule in an employee timetable. A bulletin order can supersede an employee timetable or a rulebook.

John compared bulletin orders

with train orders. As he explained, train orders had an hours-and-minutes life from issuance to fulfillment and were addressed only to the conductor and engineer of the trains affected. Bulletin orders lasted until termination or incorporation in the timetable and were issued to all train service employees. Also known as general orders, special orders, and road bulletins, bulletin orders held everything together.

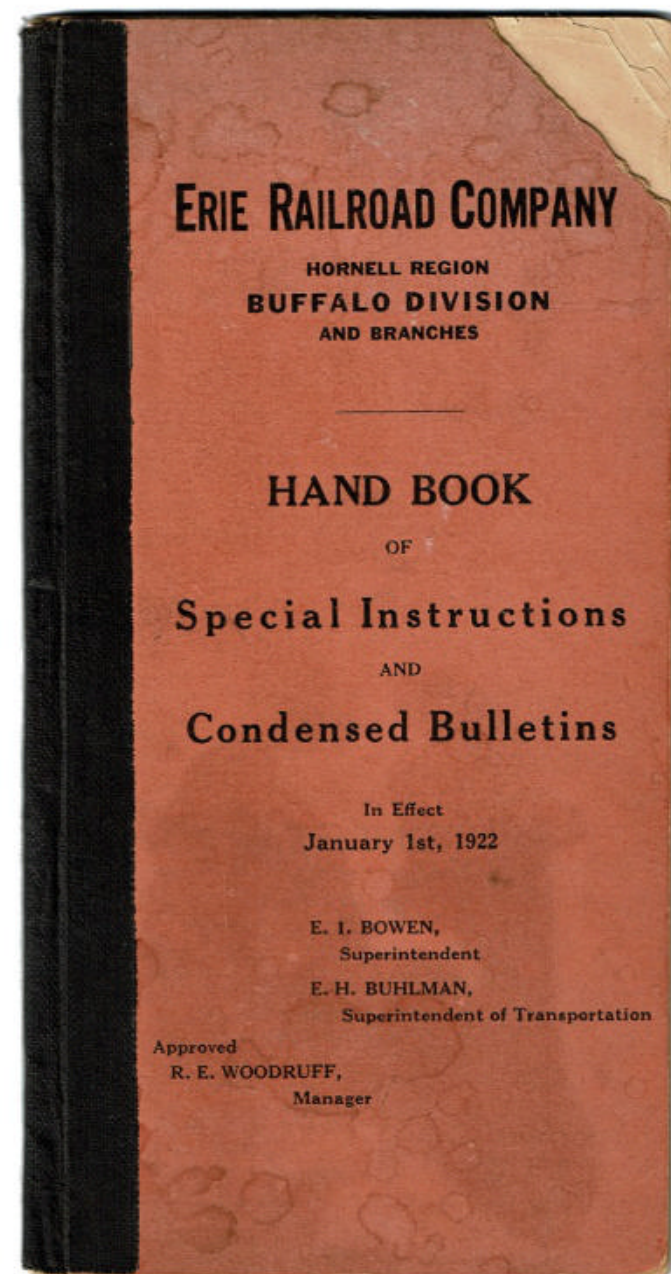
Here's a situation that calls for a bulletin order. An employee timetable lists hours of operation at open stations, but the operator job at one of them has been abolished since the current issue was printed. A bulletin order might then read: "EFFECTIVE 12:01 AM, SUNDAY, JUNE 13, 1965, OFFICE AT LONG VALLEY CLOSED PERMANENTLY." Other examples might concern retirement of a passing siding, a temporary slow order, or a schedule change. Illinois Central used a bulletin order to stop all its trains for five minutes during John F. Kennedy's funeral.

Some rulebooks in my collection have printed stickers on certain pages. The sticker contains revisions and was pasted over the affected text. Similarly, a sticker with a new schedule could be pasted over the affected column in the timetable. Employees marked their timetables or rulebooks with such changes, as necessary, all subject to inspection to ensure that they were current.

Bulletin orders were displayed, sometimes hung on an arch clip board, so crews could review them when they reported for duty. Bulletins can be updated easily, making them very practical for model railroads. Why print new employee timetables every six months when the time and expense can be devoted to other projects?

Several well-known modelers who follow this practice inspired me to have my crew review bulletins and initial them at a session's start. Mine restrict certain long-wheelbase locomotives from tight yard trackage; place a speed limit on a new, scratchbuilt bridge; remove a staging track from service; and specify hours Rule G is in effect. (2 a.m.-6 a.m., to satisfy those who are curious.) I'll use stickers for schedule changes I have in mind.

Officials asserted authority in other ways, too. My collection includes correspondence of T.R. Murphy, an earth-scorching trainmaster cut from the same cloth as Dan Thorne. He erupted over yardmasters making up a train against a caboose "in direct violation of my instructions." His copy to an assistant about the same matter fumed with "violation ... will result in drastic action." He raged after a desk that went missing from the yardmaster's office was found deep in a nearby swamp.



When Cliff Redanz hired on in 1958, he extended his family's Erie Railroad service to four generations. His father Arthur, an engineman, was issued this Hand Book of Special Instructions and Condensed Bulletins. It compiles revised rules and updates employee timetable information. Cliff Redanz collection

Danger Lights was shot on location on the Milwaukee Road in Montana and Chicago. Extensive railroad action makes it worth seeing despite its campy plot. The movie is in the public domain, so you can watch it online. A search for "Danger Lights 1930" will turn it up. One day I'll talk about the memorable "I'm Dan Thorne" prank a good friend pulled on my secretary and me. **MR**



SEVERAL WELL-KNOWN MODELERS WHO FOLLOW THIS PRACTICE INSPIRED ME TO HAVE MY CREW REVIEW BULLETINS AND INITIAL THEM AT A SESSION'S START. – JERRY



trains.com
UNLIMITED

Experience premium access to the best in modeling and railroad content with the trains.com Unlimited Membership.

Become an Unlimited Member to unlock exclusive videos, layouts, how-tos and expert tips. You will get premium content from all of the best train brands - in one convenient location. PLUS, you will also receive an exclusive Trains.com Unlimited Membership t-shirt, free upon payment.

Get started today with a 30-day free trial membership!

Visit us online at: trains.com/membership

*After 30-day free trial, Unlimited Membership is just \$6.99/month, billed annually in one installment of \$83.88.



**Model
Railroader.**

**Model
Railroader** video
PLUS

**CLASSIC TOY
TRAINS**

Classic Trains
MAGAZINE

**Garden
RAILWAYS.**

Trains

THE BEST IN MODELING & RAILROADS • ALL IN ONE STOP!

Trackside Photos

Pere Marquette no. 1410, a United States Railroad Administration 0-8-0 working the Holly Turn out of Saginaw, Mich., switches its namesake town of Holly, Mich., on a fall day in 1950. Jay Qualman of Milford, Mich., shot the photo on the HO scale Michigan Lines he built along with his wife, Brook Qualman, and their friend John Bussard. The Holly Hotel gained notoriety when temperance crusader Carrie Nation attacked bar patrons in 1908.







A Union Pacific passenger train led by Electro-Motive Division E7 no. 990 rolls past the New York Central interchange yard. Though the UP and NYC never directly interchanged in real life, both railroads prowl the same rails on Pete LaGuardia's HO scale Western Illinois Division layout. The UP locomotives are Life-Like Proto 2000 models; NYC Fairbanks-Morse H16-44 no. 7010 is from Atlas. Paul Dolkos photo

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 them to fileupload.kalmbach.com/contribute. For our photo submission guidelines, contact senior associate editor Steven Otte at sotte@kalmbach.com.



Denver & Rio Grande Western class

K-27 2-8-2 Mikado no. 463 stops for fuel while workers unload a gondola of coal on the upper track into the tipple. The action takes place on the Sn3 model railroad built by Mike Schwab of Santa Cruz, Calif. The tipple was built from a Crystal River kit; the locomotive is a PBL brass import. Mike shot the photo.



Northwestern Pacific no. 323, a 2-8-0 Mogul, is about to enter Alto Tunnel with its train after leaving the scenic views of Mount Tamalpais behind. The action takes place on the HO scale Sonoma Mountain RR belonging to Jan Swaney of Santa Rosa, Calif. The locomotive is a brass import from Pacific Fast Mail. David Elam photo



Bradley-Train-Store
Quality N Gauge Trains
 Great Prices, Fast Shipping
 Check us Out!
 Micro-Trains & Atlas New & Collectible
 All Makes
www.bradleytrainstore@ebay.com



THE TRAINMASTER, LLC
 Detailed Craftsman Kits
www.TheTrainMaster.com
 Pursuing Excellence



Rix Products Pikestuff
 Web site: www.rixproducts.com
 Send LSASE for new 20 page catalog.
 3747 Hogue Rd. Evansville In. 47712
 Phone (812)426-1RIX FAX (812)423-3174
 Model Railroad Structures & Accessories



LOGIC RAIL™ TECHNOLOGIES
 Come see us at the National Train Show in St. Louis (8/12-14)!
 Product demonstrations
 New product announcement
 Products available for purchase
<https://www.logicrailtech.com>
info@logicrailtech.com

railroadbooks.biz
 has 1,900+ new titles,
 all at discount!
 Domestic shipping FREE over \$63
 E-mail for free printable PDF list. railroadbooks@att.net
www.railroadbooks.biz
 ORDERS: U.S. (800) 554-7463
 BUSINESS & INTERNATIONAL: +01 (812) 391-2664
 SEND: \$2 for paper book list.
 International Service. Book Search.
 PO Box 4, Bloomington, IN, 47402-0004 U.S.A.



FIFER HOBBY SUPPLY LLC
 Your Local Internet N Scale Hobby Shop
WWW.FIFERHOBBY.COM

GOODDEALSDCC
www.gooddealsdcc.com
HOME OF THE PROGRAMMER TEST TRACK SYSTEMS
 All Scales Available Custom Orders
 Clear Acrylic Inspection Cars 224-703-0111
 Gary Cohn
 106 Center Street
 Fox River Grove, IL 60021
gary@gooddealsdcc.com



Conowingo Models
 Models designed for all skill levels
 Wood craftsman rolling stock and structure kits
CONOWINGOMODELS.COM

ALLEGHENY SCALE MODELS
 LOCOMOTIVES AND ROLLING STOCK
 HO, O, S, N, and Large Scale Out of Production Models
 Sales, Consignments, Estates, Appraisals
www.alleghenyscale.com
 phone: 908-684-2070
oscale@alleghenyscale.com
 470 Schooley's Mtn. Rd. Suite 8-117
 Hackettstown, NJ 07840

BACKDROPS
 HO, O, N Scales
WWW.TRAINJUNKIES.COM
 <-----Up to 100 Feet Long----->



We Like BIG PUMPS
 (and we cannot lie)
 You'll like our 300+ Industrial / Electrical Freight Loads
 MADE IN USA
www.Multiscale.Digital

FREIGHT CAR PARTS
 80 + PARTS (HO)
 300 + DECALS (ALL SCALES)
 200 + HO WINDOWS & DOORS
 Catalog call 336-329-9038
www.TICHYTRAINGROUP.com

ONLINE 24/7 MTC HOBBIES & COLLECTIBLES

 What we offer!
 • T-Shirt
 • Mugs
 • Pillows
 • Hoodies
 • Artwork
 SHOP NOW
mtchobbies.collectibles@gmail.com
mtchobbiescollectibles.com VISIT US ON INSTAGRAM AND FACEBOOK FOR DAILY BLOGS

ALL ELECTRONICS CORPORATION
 Electronic Parts and Supplies for Your Project.
www.allelectronics.com

TK TRAINS HOBBY
 Phone 740-633-6607
 HO, N, O & G Trains, Track, Scenery, Accessories and Much More!
 We have Walthers, Athearn, Spectrum, Branchline and many others!
 Visit us on line for great savings!
www.tandkhobby.com

Touch Toggles *Elegant*
 Run track circuits, Tortoises, twin-coils, servo motors, and more with a touch!

 See our website for a video introduction
 Made in the USA
www.berretthillshop.com

Subscribe to
Model Railroader!
 Go to
Trains.com

Like us on Facebook!
 Go to
[Facebook.com/ModelRailroader](https://www.facebook.com/ModelRailroader)



PNP TRAINS
MODEL TRAINS & ACCESSORIES
www.pnptrains.com
 425-496-8844
 Facebook: PNP Trains
 eBay: Ombra

S Scale Trains
 Building S scale trains for 40 years.
 Check out our line of quality Steam & Diesel engines, numerous freight cars, cabooses and passenger cars.
 The most realistic track made.

www.americanmodels.com
 Phone 734-449-1100
AMERICAN MODELS, LLC
 11770 Green Oak Industrial Dr.
 Whitmore Lake, MI 48189

Ron's Books
 The largest railroad book seller with over **6,000** titles and over **475** DVDs!
 Free shipping on orders over \$25 in the U.S. Send \$3 for a catalog.

 P.O. Box 714
 Harrison, NY 10528
 914-967-7541
ronsbooks@aol.com
 Online catalog at ronsbooks.com

American Limited

New run of GATC Tank Cars
HO, N scale Passenger car Diaphragms and other details
www.Americanlimitedmodels.com
Phone 303-284-5072 Tuesday thru Thursday 11:00-2:30 MST

Train Installations LLC
MODEL RAILROADS FOR HOME OR BUSINESS

HELP WANTED See Our New Online Store!
(770) 597-0038 ~ Since 2001 ~
dave@traininstallations.com
www.traininstallations.com

DON BLACK WE BUY & SELL BRASS
VISIT US ONLINE
WWW.DONBLACK.COM
HUNDREDS OF PICTURED
MODELS TO CHOOSE FROM
Don Black 119A Bernhurst Rd New Bern NC 28560
Toll Free 1-866 HO BRASS

IHOP in HO!
(337) 436-8481
www.summit-customcuts.com

Rail Scale Models
Your Source For:
▪ Craftsman Kits
▪ Laser-Cut Detail Items
▪ Custom Scale Structures
▪ Laser-Cutting Services
Items in All Scales
www.Rail-Scale-Models.com

MODEL RAIL SCENES
CUSTOM LAYOUTS
& BUILDINGS
207-564-0705
www.modelrailscenes.com

BackdropsOnly.com
BackdropsOnly@gmail.com
800-320-5057

Artisan Home Railroads
Building Quality since 1988
ALL PROJECT TYPES FROM BENCHMARK TO SCENERY
drbozanovs@gmail.com
artisanhomerailroads.com

LIGHTING WITHOUT WIRING
Dwarvin.shop/no-wiring
DWARVIN

Model Trees that Stand Out!
ModelTreeStore.com

YOUR CHOICE for **N-HO-S-O**
ONE-PIECE 6-foot photo backdrops connectable to infinity!
-2022- our 18th year!
Sceniking
Les@705-739-4878 (ET zone).com

HO SCALE **Newest!**
40-Ton ARA Trucks
Tahoe Model Works
TEL: 775-600-9992 Send SASE for flyers
PO Box 3935 • Carson City, NV 89702
www.resincarworks.com/tahoe.htm

FREE SHIPPING IN USA ON ORDERS \$25.00 OR MORE (PRODUCT)
SEE WEBSITE, BELOW, FOR COMPLETE DETAILS

HO Model Shown
Other HO & N Models Available
www.rps-vehicles.myshopify.com

November 4, 5, 6 2022 • 10am-5pm • Santa Rosa Event Center
1350 Bennett Valley Road, Santa Rosa 95402

The Redwood Empire Train Show

Senior Fri 10am-12pm 60+ \$5 • Gen Admission \$7 • Kids under 12 Free
Parking \$10 (Paid directly to fairgrounds)

GRANDT LINE PRODUCTS
Are now online as **San Juan Details**.
Same great products as always
N,HO,S and Large Scale Part and Kits
WWW.SANJUANDetails.COM
303-284-5072 TUE-THUR 11-2:30 MST

Check out
Model Railroader Channel
on YouTube!

What can *Model Railroader* magazine do for you?
To advertise, call
888-558-1544 ext. 643

Want more
Model Railroader?
Check out
Trains.com/MRR

Go Digital!
Read *Model Railroader* on your tablet or laptop!

- Live links.
- Zoom in & magnify.
- Bookmark pages.
- Search & print pages.
- Save storage space.

Visit
www.trains.com/MRR/subscription-plans/

After You've Looked at the Others...

Progressive pmd Model Design MUSEUM QUALITY - CUSTOM
LAYOUT MODELING SERVICE

WHAT CAN WE BUILD FOR YOU?
WWW.PROGRESSIVEMODELDESIGN.COM
211 RocBaar Drive, Romeoville, IL 60446
(815) 886-9010 FAX: (815) 886-9076
ULTIMATE MODEL MAGIC™

Custom Layout Building

Layout Design

By Lance Mindheim
www.shelflayouts.com
301-404-8164

Classified Advertising

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

AZ, PRESCOTT: Beat the Heat Model Trains Swap Meet. NEW LOCATION! Embry-Riddle Aeronautical University, 3700 Willow Creek Rd., Prescott, AZ 86301. Saturday, August 6, 2022, 9am-1pm. Raffle and door prizes handed out during the swap meet. Admission: \$5.00, children 12 and under FREE. Sponsored by the Central Arizona Model Railroad Club. Contact: Fred Williams, 928-830-5913

GA, ATLANTA: Scott Antique Markets (featuring Anton's Antique Toy & Train Show), September 8 – 11, 2022. Atlanta Exposition Center, 3650 & 3850 Jonesboro Rd., Atlanta, GA 30354. Thursday: 10:45am-6pm, Friday & Saturday: 9am-6pm, Sunday: 10am-4pm. Admission \$5, good all weekend. Contact: Anton 937-397-3499, or email: tweissmann6@gmail.com

IA, DELMAR: Delmar Train Show & Swap Meet. Sunday, September 4, 2022. 10am-4pm. Delwood School Gym, 311 Delmar Avenue, Delmar, IA 52037. Admission: Free Will Donation. Free tours of Delmar Railroad Museum. Vendor tables: \$15 each (limit 10 tables per vendor). Food & drink available. Free parking/handicapped accessible. Information: sjebsen@fbcom.net

IL, GREENVILLE: American Heritage Railroad Train Show @ American Farm Heritage Museum, 1395 Museum Ave., Greenville, IL 62246. I-70 @ IL Rt. 127 (Exit #45). Saturday, June 11, 2022, 10:00am-4:00pm. Admission: \$5.00, under 12 FREE. Train ride with paid admission. Operating layouts. Dealers welcome, \$15.00 per table. Contact Jim @ 217-825-6230.

IL, ST. CHARLES: 46th Annual Kane County Railroadiana and Model Train Show. Kane County Fairgrounds, (Front Building), 525 South Randall Rd., Zip: 60174. Sunday, June 12, 2022, 10:00am-3:00pm. Admission: \$6.00 w/tax. Children under 12 FREE. Tables starting at \$60.00. Please visit our website for latest Covid updates. For information: 847-358-1185, RussFierce@aol.com or www.RRShows.com

KS, KANSAS CITY AREA: Turkey Creek Division train show/swap meet. Saturday, August 6, 2022, Lenexa Community Center, 13420 Oak Street, Lenexa, Kansas 66215. 8:00am-3:00pm; Layout tours 3:30pm-8:30pm. Admission: \$10.00, NMRA members \$9.00 at the door. 12 and under free with paid adult. Pre-register to receive \$2.00 off admission. Vendors/registrants contact Jack Ferris, fhs1955@gmail.com, 816-804-0152. www.tc-nmra.org

MO, JOPLIN: Joplin History & Mineral Museum Train Show and Swap Meet. Saturday, July 16, 2022, 9:00am-3:00pm. Schifferdecker Park, 7th Street & Schifferdecker, between the golf course and pool. Adults \$5.00, under 12 free. Rick Gardner, 11486 County Lane 214, Oronogo, MO 64855; 417-673-4888 or e-mail: rickgardner4449@gmail.com

OH, VAN WERT: Van Wert Railroad Heritage Weekend Model Railroad Show & Swap. Van Wert County Historical Society, Van Wert County Fairgrounds, 1055 S. Washington St., Van Wert, OH 45891. July 23-24, 2022. Saturday 10am-4pm & Sunday 10am-3pm. Adults \$6.00. Scouts in Uniform and Children 12 & under: FREE. Info: Chuck White, railcarman@frontier.com, 260-760-1666, www.vvrrhw.com

OK, EDMOND: Train Show – Steaming into Summer Fun. July 15-16, 2022. Friday, 5pm-7pm. Saturday, 9am-3pm. Admission: \$5.00, under 18 free with paid adult. Edmond Community Center, 28 E. Main St., in the heart of downtown Edmond, OK 73034. Buy/Sell/Trade. Operating train layouts and door prizes. Sponsored by the TTOS Sooner Division. Further information visit: www.ttos-soonerdiv.org

TX, AUSTIN: Austin Train Show. Over 25,000 sq.ft. of railroading fun for the whole family! Palmer Events Center, 900 Barton Springs Road, Austin, TX. August 27-28, 2022. Saturday 10am-5pm, Sunday 10am-4pm. Admission \$8 (includes both days), 12 and under FREE w/adult. Vendors, model and Lego railroads, clinics, home layout tour included. For more information visit: austintrainshow.org

WI, LA CROSSE: Rail Fair, Copeland Park, Rose & Clinton Streets. Saturday, July 16, 2022, 10am-4pm. Admission \$5.00, under 12 free with adult. Railroad Show–Flea Market–Swap Meet. BUY/SELL/TRADE. Model, Toy & Antique Trains & Memorabilia, Railroad Exhibits & Displays. Information: 4000 Foundation, PO Box 3411, La Crosse, WI 54602, 608-781-9383 or 608-498-9522. www.4000foundation.org

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

Classifieds

Wanted-N Scale

#1 ESTATE BUYER OF N SCALE COLLECTIONS! We buy all makes and types - including Brass & European! Even Nn3! Call us TOLL FREE: 1-866-462-7277. Don Black 119 Bernhurst Road, New Bern, NC 28560. E-mail: don@donblack.com

BUYING N SCALE train collections, large or small. Call Tom 630-443-9137.

BUYING N-SCALE COLLECTIONS. Will pay top dollar, requires a Listing and Conditions sent to me. Call Terry at 920-410-7525

CANADIAN TRAIN COLLECTIONS AND ESTATES: Buying entire collections anywhere in Canada or the USA. Brass, plastic, engines, cars, buildings, memorabilia - everything! Call Don 403-585-2772. E-mail: modeltrains@shaw.ca

Wanted-HO Scale

#1 A+ ESTATE BUYER OF ALL TRAIN ESTATES- Brass Pieces & Collections wants your material. Including all types of Brass, old trains, kits, plastic, diecast, buildings, etc.- we buy it all. Buildings and estates included. We seek better items for personal collections. Call us before you sell for our offer as we pay the highest prices. Call Don Black toll free 1-866-462-7277. Don Black, 119 Bernhurst Road, New Bern, NC 28560. E-mail don@donblack.com

\$1,000,000 CASH AVAILABLE- For your collection! Brass, Plastic, Memorabilia, we buy it all. Call us 352-292-4116 or mail your list to: BRASSTRAINS.COM, 10515 SE 115th Ave., Ocala, FL 34472. E-mail: collections@brasstrains.com

BRASS PASSENGER CARS; Craftsman's kits; LIRR brass and plastic. Brass Business Cars; Coach Yard PRR. Please call Bob at 212-874-6569 or e-mail grandt7@yahoo.com

BUYING HO TRAIN COLLECTIONS, large or small. Also brass. Call Tom 630-443-9137.

CASH PAID FOR HO AND N SCALE TRAINS. No collection is too big or too small. 414-377-1255

CANADIAN TRAIN COLLECTIONS AND ESTATES: Buying entire collections anywhere in Canada or the USA. Brass, plastic, engines, cars, buildings, memorabilia - everything! Call Don 403-585-2772. E-mail: modeltrains@shaw.ca

Wanted-Large Scale

BUYING G SCALE, and Large Scale train collections. Call Tom 630-443-9137.

For Sale - Miscellaneous

COAT RACKS, SHELF BRACKETS and other items fabricated from recycled railroad spikes. Go to WhittakerWelding on ETSY.

EMBROIDERED RAILROAD PATCHES, 1,000 designs. Catalog \$5.00. The Patch King, PO Box 145, York Harbor, ME 03911.

Wanted - Miscellaneous

ALL SLOT CARS WANTED. Any kind, any condition. Top dollar paid. PAUL at 248-760-6960. E-mail: slotcarguy@slotcarguy.com

ALL TRAIN COLLECTORS & MODELERS- We need more trains to supply our ever expanding group of interested buyers. We buy HO & N Scale Trains - Brass, Marklin, Rivarossi, Atlas, Kato, MicroTrains, etc. as well as better trains in all scales. We also purchase store inventories. We also can auction your trains with rates starting as low as 15%. We travel extensively all over the US and Canada. Send us your list today or for more information see www.trainz.com/sell Trainz, 2740 Faith Industrial Dr., Buford, GA 30518. 866-285-5840, Scott@trainz.com Fax: 866-935-9504

LOOKING TO ACQUIRE model train collections, all scales, plastic to brass. No collection too big or too small, will travel. Please call or text Tim @ 817-991-5420 or email: karrstrains@aol.com. Located in the Dallas/Fort Worth area.

MODEL AUTOMOBILE AND TRUCK KITS WANTED- unbuilt or built, any size collection. Fred Sterns, 48 Standish, Buffalo, NY 14216. 716-838-6797. email: fsterns@aol.com

Custom Painting & Building

CUSTOM BUILDING & PAINTING, kit building, kit-bashing & scratchbuilding. Locomotives, rolling stock, structures & more. 12 Penny Lane, Newark, DE 19702, 302-229-6010, www.tmbcustommodels.com

Real Estate

NICE RANCH HOME FOR SALE with an S gauge layout filling 2/3rds of the full basement. Located in a small town 85 miles south of Chicago. Asking \$180,000. 815-683-2016 or 815-685-0227.

Information

A DIFFERENT WAY TO START. New to model railroading? Check out my free tips and ideas for a simple approach to getting started. <https://www.BostonType.com>

**Subscribe to
Model Railroader
Today!**

CLOSING DATES:

September 2022 closes June 20, October closes July 25, November closes August 22, December closes September 20.

Need more
Model Railroader?

Check out
Model Railroader Channel
on YouTube!

www.youtube.com

LEADING MODEL RETAILERS

Retail Directory spaces are sold on a year's basis at \$654 per year (payable in advance) or at \$60 per month (billed to established accounts for one year minimum); also for six months at \$353 (payable in advance). Ads will be set in standard listing typography. All insertions must be consecutive and may be invoiced if you have credit established with us. No mention of mail order business permitted. CLOSING DATES are listed in the "Classifieds" section. For more information call 1-888-558-1544, ext. 551, email: classads@kalmbach.com.

ARIZONA • Apache Junction

New Store! Arizona's premier hobby shop.
Full scale, all service hobby shop. Trains,
planes, cars, boats and R/C. Special orders.
Open Mon - Sat
OBIES TRAINS
2114 West Apache Trail #11 480-203-1796

ARIZONA • Avondale (85323)

DCC Systems, Decoders, Layout Supplies
Professional Installations G to Z scales
Mon - Fri 8:00-5:00, Sat 8:00-Noon
Online Store: LitchfieldStation.com
E-mail: Sales@LitchfieldStation.com
LITCHFIELD STATION
1412 N. Central Ave., Ste. D 623-298-7355

ARIZONA • Phoenix

Narrow gauge almost exclusively.
On3 - Sñ3 - HOñ3 - On30.
Kits, parts, brass & books.
Mon-Fri 8-12, 1-5, Sat 8-12.
CORONADO SCALE MODELS
1544 E. Cypress St. 602-254-9656

ARKANSAS • Jacksonville

Headquarters for scale hobbies.
Models: N-HO-O trains; tools; paint, etc.
Discounts & special orders.
Open 10-6, closed Sundays and Wednesdays
RAIL & SPRUE HOBBIES
1200 John Harden Dr. 501-982-6836

CALIFORNIA • Atascadero

All scales G to Z. Special orders welcome.
Midway LA & SF. US 101-US 41, easy access.
Open Tue - Sat: 10-5, Sun - Mon: By Appt.
E-mail Anita at: anita@cctrains.com
Web site: www.centralcoasttrains.com
CENTRAL COAST TRAINS
7600 El Camino Real # 3 805-466-1391

CALIFORNIA • Burbank

All scales G through N, collectibles old & new.
Authorized LGB, Lionel, MTH & Märklin dealer.
One of the most complete train stores in
So. Calif. UPS worldwide shipper.
Visit our website at www.trainshack.com
THE TRAIN SHACK
1030 N. Hollywood Way 800-572-9929

CALIFORNIA • Concord

Largest selection in the East Bay. 93 foot HO
layout. Buy - sell - trade - consign - repairs -
detail parts in all scales. Lionel.
Discount prices & friendly service.
Website: www.just-trains.com
JUST TRAINS
5650 Imhoff Dr. 925-685-6566

CALIFORNIA • Hemet

We carry Lionel, MTH, HO, N, Atlas, Walthers,
Ross switches, Gargraves & Peco.
45' long in-store layout. Open 7 days.
www.dynamichobbieshemet.com
DYNAMIC HOBBIES
811 East Florida Avenue 951-925-9331

CALIFORNIA • Hollister

Model planes, car, ships & figures. Model train
scales: Z, N, HO, O & G. Paints, tools, R/C &
parts; incl. service. Craft & educational kits,
supplies, products. ESU Lok Sound Dealer -
clinics available. Tue - Sat 11-6; Sun 12-4
B.C.T. HOBBY & CRAFTS
201-C McCray St. 831-635-0537

CALIFORNIA • Pasadena

Model rail specialists since 1951.
LGB, Lionel, O, S, On3, HO, HOñ3, N, Z.
Complete stock of brass imports, new & used.
Books, tools, structures, detail parts.
Open 7 days. www.thewhistlestop.com
THE ORIGINAL WHISTLE STOP INC
2490 E. Colorado Blvd. 626-796-7791

CALIFORNIA • Rohnert Park

HO and N Scale is our specialty. We sell
new and vintage. Factory-trained DCC
installation. Model trains is all we do.
Tues - Sat 10-6, Sun 12-4
Email: poggiestrains@yahoo.com
POGGIES TRAINS
505 Martin Ave. 707-974-9042

CALIFORNIA • Roseville (Sacramento)

Exclusively model trains since 1989.
Athearn, Kato, MDC, Lionel, Atlas, LGB,
Märklin, Brass Imports, books, detail parts.
Everyday low prices. Open 7 days.
www.rrhobbies.com
RAILROAD HOBBIES
119 Vernon St. 916-782-6067

CALIFORNIA • San Diego (La Mesa)

Exclusively trains. Craft kits,
detail parts, scratch supplies, books.
Ride the trolley to Reed's.
Open Mon through Sat 10-6; Sun 12-4
reeds@abac.com www.reeds-hobbies.com
REED'S HOBBY SHOP
8039 La Mesa Blvd 619-464-1672

CALIFORNIA • Santa Clara

100% trains. Discount prices. Super selection.
Tuesday - Saturday 10:00am-5:00pm
Closed Sunday & Monday
Dennis Cole Email: thetrainshop@att.net
THE TRAIN SHOP, LLC
1829 Pruneridge Ave. 95050 408-296-1050

CALIFORNIA • Westminster (Orange Co.)

World Famous
Model/Toy Trains Only
7,000 sq. ft. Super Center
www.arniestrains.com
ARNIE'S MODEL TRAINS
6452 Industry Way 714-893-1015

CALIFORNIA • Yuba City

A full service model train store. Large
inventory, HO, N, O & O27 Tinplate.
Books, videos, collector & gift items.
Repair service. We buy old toy trains.
www.westerndepot.com
THE WESTERN DEPOT
1650 Sierra Ave. #203 530-673-6776

CONNECTICUT • Winsted

A hobby shop for modelers by modelers.
From hard to find to latest & greatest.
Free classes & clinics / multi scales.
Large store of quality products @ fair prices.
rrhobbysupplydotcom.wordpress.com
RR MODEL & HOBBY SUPPLY
100 Whitting Street 860-379-3383

DELAWARE • Ocean View

No sales tax at the Delaware seashore.
Lionel new & used...also Atlas, Bachmann,
MTH. We buy used trains. Auth. Lionel repairs.
Large inventory of used HO trains.
Open Tues - Sat 10-4:30, Closed Sun & Mon
SEASIDE HOBBIES
15 Daisey Ave. 302-539-1601

FLORIDA • Cape Canaveral

Lionel, American Flyer, MTH
on the internet.
www.traincity.com
www.choochooauctions.com
TRAIN CITY, INC. - CHARLES SIEGEL
387 Imperial Blvd., Ste. 2 321-799-4005

FLORIDA • Melbourne

The Space Coast's Model Train Shop.
Z thru G scales. N scale our specialty!
Digitrax, Kato, Lionel & Walthers Dealer.
Atlas, IIM, BWL, Piko, LGB & Rokuhan.
Mon-Sat 10am-5pm Email: trftrains@cfl.rr.com
TRF TRAINS & MNT HOBBIES
2715 N. Harbor City Blvd., #10/11321-241-4997

FLORIDA • Miami

Shop "Warehouse Style" for N to G.
MTH, Lionel, Kato, LGB, Broadway Ltd., Atlas,
Walthers at discount prices. Open Mon-Sat
10am-5pm, Open Sunday Nov-Jan 10am-1pm.
Email us at rrtrains@aol.com
READY TO ROLL
831 NW 143rd Street 305-688-8868

FLORIDA • Ocala

HO, N trains & accessories
Visa, MC, AX, Discover
Open Mon - Fri 10-5:30, Sat 9-4
Call for Sunday hours.
ROB'S HOBBY WORLD
8585 SW Hwy. 200 352-854-2799

FLORIDA • Pensacola

Competitive prices, friendly service.
All makes & models, trains & accessories.
Tues-Sat. 10:00am-5:00pm.
www.trainssbyjohnson.com
Old Palafox St. at 10 Mile Rd.
TRAINS BY JOHNSON
10412 N. Palafox Hwy. 850-478-8584

FLORIDA • Pinellas Park (Tampa Bay)

Serving our customers for over 45 years. Huge
inventory! Running Layouts! Your one-stop
shop for trains, toys and other modeling needs.
Daily 10-5, Sat 10-5, Sunday-seasonal.
hrrtrains.com
HR TRAINS & TOYS
7900 49th St. N 727-526-4682

FLORIDA • Port Orange (Daytona Beach)

Your Southern Connection for Quality Products!
Featuring O, HO, N, Woodland Scenics, MTH
MegaStation & National Service Center.
Breyer Horses. Mon - Fri 9:30-5;
Sat 9:30-4. www.roundhousesouth.com
ROUNDHOUSE SOUTH
4611 S. Ridgewood Ave. 386-304-7003

FLORIDA • Tampa Bay - Pinellas Park

2600 sq. ft. Showroom. Lionel & MTH Dealer
NEW, USED, BUY/SELL * All Gauges Z thru G
Over 6,000 Parts. Repair Services. Trains, Track,
Sets, Scenic Supplies. Mon 1-5, Tue-Sat 10-6
www.zitniktrains.com
ZITNIK TRAINS
5193 73rd Ave. N. 727-201-9668

GEORGIA • Atlanta (Lilburn)

HO, Atlas, Bachmann, MTH
Complete scenery supplies.
Operating HO layout and 400 sq. ft. layout.
HUGE selection in a 11,000 sq. ft. store.
www.legacystation.com
LEGACY STATION TRAINS
4153 Lawrenceville Hwy., #12 770-339-7780

ILLINOIS • Des Plaines

N, HO, S, O, G Std. & Narrow gauge too.
Lots of scratchbuilding supplies and
other neat stuff. Brass, books & DVDs.
Close to O'Hare. Open seven days a week!
Web Store: www.desplaineshobbies.com
DES PLAINES HOBBIES
1524 Lee St. (Mannheim Rd.) 847-297-2118

ILLINOIS • Downers Grove

HO and N Scale Model Trains and Accessories
Two Blocks South of Metra Station
at Maple Ave.
www.timberlinetrainshop.com
TIMBERLINE TRAIN SHOP, LTD.
5228 Main St 630-324-6136

ILLINOIS • Elgin

HO & N Scale
Scratch building supplies, paints, tools and
much more. We special order. Digitrax dealer.
www.bgtrainworld.com
B & G TRAIN WORLD
829 Walnut Ave. 847-888-2646

ILLINOIS • Geneseo

Trains, Scale Models & Hobby Supplies.
Specializing in Midwest Roads. Scout says
wide selection to scratch your Hobby Itch.
Visit our website at GRHobbies.com
or call for directions & hours.
GREEN RIVER HOBBIES
119 W. Exchange St. 309-944-2620

ILLINOIS • Marion

Full-Line Hobby Shop.
HO & N scale locomotives, scenery,
plastic models, R/C, tools, paints, and more.
Open Tue - Fri 1:30-6:30pm, Sat 10am-4pm
Fax: 618-993-9177
CHUCK'S DEPOT
1913 W. Rendelman St. 618-993-9179

ILLINOIS • Mundelein

Specializing in trains, HO, N, O, G, Lionel.
Books and videos. Northern IL railfan
headquarters. Closed Monday. Please call for
other hours. Fax 847-949-8687.
ronhobby@aol.com
RON'S MUNDELEIN HOBBIES
431 N. Lake St. (Rt. 45) 847-949-8680

ILLINOIS • Springfield

HO / G / N.
Special orders / discount prices.
Display layouts / clinics / assistance.
Call for hours.
CASTLE TRAINS & TREASURES
4782 Old Jacksonville Rd. 217-793-0407

IOWA • Urbandale

N, HO, & O. Lionel, MTH, Atlas
Exit #129 I-80/I-35, 2 miles south
Iowa's premier Model Railroad store
Open 7 days a week
www.hobbyhaven.com
HOBBY HAVEN
2575 86th Street 515-276-8785

KANSAS • Overland Park (KC Area)

O, S, HO, N, Z & G Scale
Lionel, MTH, A/F, Marklin, LGB & more!
New, Used & Vintage. Extensive scenery line.
Repair, custom work & layouts.
www.fredstrainshop.com
FRED'S TRAIN SHOP
8909 Santa Fe Dr. 913-383-3500

MAINE • Yarmouth

Specializing in HO trains. Custom weathering,
painting, DCC, scenery, diorama building, structure
building. Between Falmouth and Freeport on
Route 1. Tues, Thur, Fri 10-5, Wed, 10-7 Sat. 9-4
(Call ahead Mon) www.maine-modelworks.com
MAINE MODELWORKS
374 US Route One, Unit 2 207-781-8300

MARYLAND • Annapolis

If we don't have it, we'll get it! LGB,
Woodland Scenics, Walthers Dealer, PIKO,
Lionel, Bachmann, Spectrum, MTH.
Mon - Sat 10-6. Full line Kalmbach!
www.shopstarhobby.com
STAR HOBBY
1564 Whitehall Rd. 410-349-4290/4291

MASSACHUSETTS • Ashburnham

Specializing in New England road names,
HO/N Scale. Micro-Trains, Walthers, Horizon.
Special orders discounted.
Thurs-Fri-Sat 10am-6pm
service@halfpricehobby.com
SHEPAUG RAILROAD COMPANY
23 Westminster St. 978-537-2277

MICHIGAN • Flint

G (LGB & 1:20.3), O (Lionel & MTH), On30, HO,
N, & Z. Locos, cars, figures, buildings, track,
kits, scenery supplies, details, books & videos.
Digitrax Dealer. Repair service. VISA/MC.
Mon-Fri 10-8, Sat 10-6, Sun 12-5
RIDERS HOBBY SHOP
2061 S Linden Rd 810-720-2500

MICHIGAN • Fraser

Full line hobby shop.
Open Mon 10-6, Wed-Sat 10-6, & Sun 12-5
Closed Tuesday
www.pdhobbyshop.com
P & D HOBBY SHOP
31280 Groesbeck Hwy. 586-296-6116

MICHIGAN • Grand Rapids

LGB, O (Lionel, MTH & Scale), HO, N & Z
Locos, cars, figures, buildings, track, tools,
kits, scenery supplies, details, books, videos.
Digitrax Dealer. Repair service VISA/MC
Open Mon - Fri 10-8, Sat 10-7, Sun 12-5
RIDER'S HOBBY SHOP
2055 28th Street SE 616-247-9933

MICHIGAN • Traverse City

Let your imagination run wild!
Z to G, Lionel, scenery, tools,
structures, scratchbuilding supplies,
special orders, ships, armor, cars, more...
TRAINS & THINGS HOBBIES
210 East Front St. 231-947-1353

MONTANA • Billings

Model railroading headquarters for the
Northern Rockies. HO, HOñ3 & N scale. Kits,
parts, tools, books. Tues-Fri 10-5:30; Sat 10-3.
Closed Sun & Mon. trains28@jimsjunction.com
JIM'S JUNCTION
811-B 16th St. West 406-259-5354

NEBRASKA • Deshler

One of the largest HO/N scale inventories.
Come check us out! All major brands
plus books, videos, tools & scenery.
Mon-Fri 9-6, Sat 9-3
www.springcreekmodeltrains.com
SPRING CREEK MODEL TRAINS, LLC
304 E. Bryson Ave. 402-365-7628

NEBRASKA • Omaha

Trains & supplies for all scales Z-G. We are
DCC ready & installation service available.
Service work, repairs, technical support.
Family owned since 1936.
www.houseoftrains.com
HOUSE OF TRAINS
8106 Maple St. 402-934-RAIL (7245)

NEVADA • Las Vegas

Big selection of HO, N and Lionel O Gauge
trains. Only 7 miles west of the Las Vegas strip.
www.westsidetrainslv.com
WESTSIDE TRAINS
2960 S. Durango #117 702-254-9475

NEW JERSEY • Bellmawr

A complete Train Store. Repairs &
Decoders Installed, N, HO, S, O. DCC
Specialists Authorized Dealer. Digitrax
ESU-Loksound, NCE Soundtraxx, TCS.
www.yankeedabbler.com
YANKEEDABBLER.COM
101 W Kings Hwy, 08031 856-312-8084

NEW JERSEY • Kenil

Full service hobbies, a full line of
HO, N, 3-Rail, military, cars, boats,
planes, dollhouses, scratchbuilding
supplies, plus details-details-details!
KENVIL HOBBIES
590 Rt. 46 973-584-1188

NEW JERSEY • Mountain Lakes

Direct dealer for LIONEL and MTH. The
largest train store in Northern NJ since 1974!
4 showrooms plus Operating Layout. WE BUY
OLD TRAINS ~Lionel Service Station #556
www.TRAIN-STATION.COM
THE TRAIN STATION
12 Romaine Road 973-263-1979

NEW JERSEY • Piscataway

Serving hobbyists since 1933.
Large selection of HO, N, & O scale
Railroad books - complete repair service
www.themodelrailroadshop.com
THE MODEL RAILROAD SHOP, INC.
290 Vail Ave. 732-968-5696

NEW JERSEY • Westmont

Athearn, Atlas, Bowser, Walthers.
Structures, books.
Exclusively trains since 1955.
HO and N.
SATTLER'S HOBBY SHOP
14 Haddon Ave. 856-854-7136

NEW YORK • Wellsville

HO, N & O Accurail, Bowser, Atlas, Walthers,
Williams & Kadee. Scenery & modeling
supplies. Plastructs, magazines & building kits.
Old local lines like WAG, Erie & EL.
Tues. - Fri. 12-4, Sat. 12-3
EAST DYKE DEPOT
332 E. Dyke St.(Rt. 417E) 585-593-0005

NORTH CAROLINA • Spencer

Across from NC Trans Museum. Big selection
of trains in all scales, Digitrax Dealer, RR
videos/books & children's toys Tue-Sat:
10-5:30. www.littlechoochooshop.com
or info@littlechoochooshop.com
LITTLE CHOO CHOO SHOP, INC.
500 S. Salisbury Av.704-637-8717/800-334-2466

OHIO • Alliance

HO & N scale trains. Athearn, Walthers,
& Kadee. Accessories, detail parts, scratch-
building supplies. Digitrax, TCS, & SoundTraxx
dealer. Tue, Thu, Fri: 12-8pm, Sat: 10-3pm.
www.robstrains.com
ROB'S TRAINS
333 E. Main St. 330-823-7222

OHIO • Columbus

Exclusively trains.
LGB, Lionel, O, HO, N scales.
Books, Thomas, videos.
Mon - Thur 10-6, Fri 10-8, Sat 10-6, Sun 12-5
www.trainstationohio.com
THE TRAIN STATION
4430 Indianola Ave. 614-262-9056

OREGON • Beaverton

Complete full line hobby shop.
Z, N, HO, O, Lionel, and LGB.
Open Mon - Fri 10-6, Sat 10-5, Sun 12-5.
TAMMIES HOBBIES
12024 SW Canyon Rd. 503-644-4535

OREGON • Portland

HO, N, Z, Lionel, DCC, brass
Reservation discounts, new, used,
Consignments, 16 minutes from Airport
www.hobbysmith.com
THE HOBBY SMITH
1809 NE Cesar Chavez Blvd. 503-284-1912

OREGON • Portland

Your complete model railroad store.
Gauges Z through G.
Mon-Sat 10am-4pm, Closed Sunday
www.wsor.com

WHISTLE STOP TRAINS

11724 SE Division St. 503-761-1822

PENNSYLVANIA • Blue Ridge Summit

The Exclusive model railroad store.
From N to G, we stock it all.
OPEN 7 days a week.

Only minutes from Frederick, MD.
www.mainlinehobby.com

MAINLINE HOBBY SUPPLY

15066 Buchanan Trail E. 717-794-2860

PENNSYLVANIA • Broomall

Lionel, American Flyer, LGB, Atlas & MTH
HO, N, ON30, Standard, O & S gauges
bought, sold & traded. Auth. service station.
www.nstrains.com

NICHOLAS SMITH TRAINS

2343 West Chester Pike 610-353-8585

PENNSYLVANIA • Hatboro

Lionel, American Flyer, LGB, MTH, Marklin,
Bachmann, Williams, HO, N & Z. We buy,
sell & repair. Mon-Fri 10-6; Sat & Sun 10-4
www.JoesTrainStation.com

JOE'S TRAIN STATION

283 E. County Line Rd. 215-322-5182

PENNSYLVANIA • Jeannette

Trains exclusively. Lionel, MTH, HO & N.
Supplies and accessories at discount prices.
Open daily 9:30-5, Fri 9:30-7, Sat 9-4.
Closed Tues & Sun. Expanded hours Nov & Dec.
www.needztrains.com

NIEDZALKOSKI'S TRAIN SHOP

214 South 4th Street 724-523-8035

PENNSYLVANIA • Montoursville

Mon - Fri 9-5:30, Sat 9-4.
Extended weekday & Sun hours in Nov. & Dec.
E-mail: englishmodel@gmail.com
www.englishmodelrailroad.com

ENGLISH'S MODEL RAILROAD SUPPLY

201 Streibigh Lane 570-368-2516

PENNSYLVANIA • Strasburg

From trains to diecast to scenery, everything
for the layout builder. Open 7 days a week.
N, HO, O, Lionel, LGB.

Buy, sell, trade used trains. Located adjacent
to the Choo Choo Barn. www.etrainshop.com

STRASBURG TRAIN SHOP

226 Gap Road 717-687-0464

RHODE ISLAND • Warwick

HO trains & acces., detail parts, plastic &
craftsperson kits. Hobby supplies, tools.
Tues - Fri noon-6pm, Sat 10am-5pm
1/2 mile west of airport
E-mail: aahobbies@gmail.com

A. A. HOBBIES, INC.

655 Jefferson Blvd. 401-737-7111

SOUTH CAROLINA • West Columbia

All scales, all major brands of
model railroad equipment.
We buy & sell used Lionel trains.
Open daily 10-6. Closed Sun.

NEW BROOKLAND RR & HOBBY SHOP

405 State Street 803-791-3958

TENNESSEE • Knoxville

Located in Knoxville's premier shopping
destination. We are the area's most diverse
hobby store with a large selection of HO, N,
and O. Open 7 days a week.
Turkey Creek Area.

HOBBYTOWN USA

11145 Turkey Dr. 865-675-1975

TEXAS • Athens

Specializing in HO, HO3 • Digitrax Dealer
Soundtraxx • InterMountain • Kadee
Micro Engineering • Rapido • Atlas • Walthers
-----WE BUY HO3-----

jack@harrishobbies.com www.harrishobbies.com

HARRIS HOBBIES

9323 County Rd 1127 903-489-2646

TEXAS • Dallas

Official Lionel Layout Builder Since 2001
Traingineer shop/showroom includes:
Custom Layouts, Modulars, Model Stations,
Bridge Kits...come see...there's always
something new!! www.TWTrainWorxStore.com

TW TRAINWORX

2808 McGowan St. 877-881-4997

TEXAS • Dallas (Addison)

Great discounts on thousands of
G to Z scale items. NCE & Digitrax dealer.
Monday - Saturday 10-6
Model Railroaders '19 & '20 Readers Choice
"Favorite Retail Storefront in the Southwest"

DISCOUNT MODEL TRAINS

4641 Ratliff Lane 972-931-8135

TEXAS • Houston

HO & N, Lionel trains. Complete line of
plastic kits, military, architectural supplies,
paints and tools. Open Mon-Fri 11am-6pm,
Sat 10am-5pm, Sun 12pm-5pm.
www.gandgmodels.com

G & G MODEL SHOP

2029 Southwest Fwy 713-529-7752

TEXAS • Houston

All trains, all scales, Magazines, Books, Videos, Re-
pairs, Brass, Consignments. Discount program, will
ship. papabenstrains@gmail.com Mon-Fri 10-6;
Sat 10-5; Closed Sun. Open Sunday's Oct-Nov-Dec.
Major Credit Cards. www.papabens.com

PAPA BEN'S TRAIN PLACE

4007-E Bellaire Blvd. 713-523-5600

TEXAS • San Antonio

Model railroading our specialty.
Märklin, G, HO, N, O, Z.
Superdetailing parts galore.
Books, structures, figures and tools.
Tue-Sat 10am-6pm www.dibbleshobbies.com

DIBBLE'S HOBBIES

1029 Donaldson Ave. 210-735-7721

UTAH • Orem

It's cheaper than therapy.
Trains all scales, LGB, Broadway Limited,
Atlas, Lionel, Micro-Trains, Athearn.
Visit us on Facebook:
Hobby Stop Utah/@ItscheaperthanTherapy

HOBBY STOP

934 N. State St. #101 801-226-7947

VERMONT • Rutland

Exclusively Model Railroading. Most major
lines. Brass, custom painted models.
Competitive prices. Personal service.
Open by appt. Eves 6-10, Sat 10-10.

THE STEAM SHACK

6 Roberts Ave 802-775-2736

VIRGINIA • Ashland (Richmond)

OPEN 7 DAYS: Mon-Sat 10-6; Sun 11-4
Personal service/repairs/layout ideas. We ship.
Gauge G, O, HO, N, Thomas Brio, & more.
I-95, EXIT 92, ONLY 1.2 Miles West to tracks.
www.trainandtoystore.com

TINY TIM'S TRAINS & TOYS

104 S. Railroad Ave. 804-368-0063

VIRGINIA/MARYLAND • Manassas, VA

Full service storefront & online store. All makes
& scales. New/used trains sales, service, repair
& upgrades. All scales & Digitrax dealer.
Online Sales Visit www.traindepot.biz

TRAIN DEPOT

7249 Gabe Ct. 703-953-3767

WASHINGTON • Burien (Seattle)

Close to SEA-TAC airport - short drive from
downtown Seattle. New & vintage electric
trains in all scales. Tues - Sat 11-6
www.electrictrainshop.com

THE ELECTRIC TRAIN SHOP

625 SW 152nd St. 206-244-7077

WASHINGTON • Kirkland

Lionel, American Flyer, LGB, HO, N.
Buy, sell, and repair.
Supplying all your railroading needs.
Open Mon-Sat.
www.eastsidetrains.com

EASTSIDE TRAINS, INC.

217 Central Way 425-828-4098

WISCONSIN • Bay View (Milwaukee)

Specializing in HO, N, Books, DVD's, DCC.
Special Orders Welcome. Discount Prices.
Thurs 11-7, Fri 11-5, Sat 9-5, Sun 11-4
Available other days by appt.
www.southsidetrains.com

SOUTH SIDE TRAINS

3979 S. Howell Ave. 414-482-1566

WISCONSIN • Green Bay

Exclusively trains, specializing in DCC, N,
G, & HO. DCC installation and award winning
custom painting and building available.
WWW.ENGINEHOUSESERVICES.COM

ENGINEHOUSE SERVICES, LLC

2737 N. Packerland Dr. 2H 920-490-4839

WISCONSIN • Milwaukee

Exclusively Model Railroading since 1932.
One-stop shopping from Z to G.
800-487-2467 walthers.com

WALTHERS SHOWROOM

5619 W. Florist Avenue 414-461-1050

WISCONSIN • Monroe

N & HO scale trains & accessories, plastic
kits, Books, videos & tools. Summer hours:
Tue-Fri 10-5, Sat 10-4, Sun 12-4 Winters only.
Always closed on Monday!
Call ahead to be sure we're open!

THE HOBBY DEPOT

835 17th St. 608-325-5107

WISCONSIN • Waukesha (Pewaukee)

Märklin • Lionel • MTH • AF • LGB • Z to G
• buildings • scenery • detail parts • books
• scratchbuilding supplies • special orders •
NMRA discounts • Mon - Fri 11-6 • Sat 10-5
Sun 12-5. www.hiawathahobbies.com

JETCO'S HIAWATHA HOBBIES

2026 Silvernail Rd. 262-544-4131

CANADA-BC • Savona

Model trains in G, O, S, HO, N, Z. Old toy
trains, railway antiques, art, books, DVDs,
souvenirs and Thomas too. Canadian road
names a specialty. 20 min. west of Kamloops.
www.kellyskaboose.ca

KELLY'S KABOOSE, THE RAILWAY STORE

6648 Savona Access Rd. 250-377-8510

CANADA-BC • Vancouver

Large selection of model RR supplies includ-
ing Min. by Eric, Athearn/MDC, Atlas, Peco,
Digitrax, Rapido, SoundTraxx, brass, etc.
Special orders. www.central-hobbies.com
Mon-Fri 11-5, Sat 10:30-5. Closed Sundays.

CENTRAL HOBBIES

2825 Grandview Hwy. 604-431-0771

CANADA-ON • Dundas

Your full line hobby shop. Open 7 days a
week. N, HO, AF, Lionel, LGB. Scenery and
scratchbuilding supplies. Walthers dealer, Kato
products. Special orders welcome!
E-mail us at: sales@dundasvalleyhobby.ca

DUNDAS VALLEY HOBBY

15 Cootes Dr. 905-628-9156

CANADA-ON • London

Complete Canadian trains & more N, HO, OO,
G, Athearn, Hornby, Peco, Walthers. Special
orders, Plastic kits, parts, supplies, books.
Mon - Fri 10-6, Sat 9-5.
sales@rrhobby.ca www.rrhobby.ca

BROUGHDALE HOBBY

1444 Glenora Drive 519-434-0600

CANADA-ON • Mississauga

6,000 sq. ft. All Trains!
Premier Selection & Service!
In store clinics and layouts!
Railfan Headquarters! Quick special orders!
www.cvrco.com

CREDIT VALLEY RAILWAY COMPANY, LTD

2900 Argenta Rd. Unit #24 1-800-464-1730

CANADA-ON • Toronto (Markham)

North American Train Specialists since 1962
HO, N, O, G and DCC
Railfanning beside CNR Mainline
Closed Mondays www.georgestrains.com

GEORGE'S TRAINS LTD.

550 Alden Rd., Unit 101 905-470-6200

GERMANY • Kaarst

Europe's best known address for US Railroads.
We carry N, HO & G scale for all road names,
Atlas to Walthers.

Mon - Fri 10-6:30, Sat 10-2
Overseas orders with VS & MC

ALL AMERICAN TRAINS

www.aat-net.de E-mail: info@aat-net.de

Run your Retail Directory
ad in the next issue of
Model Railroader!

Call 888-558-1544, ext. 551
for more information.

**Model
Railroader.**



Like us on Facebook!

Model MAGAZINE
Railroader.



www.facebook.com/ModelRailroader



Display Ad Index

We believe that our readers are as important as our advertisers. If you do not receive your merchandise or a reply from an advertiser within a reasonable period, please contact us with details about your order. Model Railroader magazine, 21027 Crossroads Circle, Waukesha, WI 53186.

2B in Trains	25	Mianne Benchworks	25
Atlas Model Railroad Co., Inc.	5	Micro-Mark	7
Axian Technology	14	Modelers Marketplace	60-61
Azatrax	25	Model Realistic Freight Car Loads	53
Bachmann Industries, Inc.	68	Nassau Hobby Center	45
Blair Line	25	National Train Show	7
BPL	25	NCE Corp.	20
Central & Western Homaroad Supply	25	Nicholas Smith Trains	7
Circuitron	25	PECO Products	51
Custom Model Railroads	7	Pre-Size Model Specialties	25
Digitrax	19	Rapido Trains	2
Downtown Deco	25	Ready To Roll, Inc	17
Enginehouse Services	25	SBS4DCC.com	25
Evan Designs	25	Showcase Express	17
Evergreen Scale Models	14	Sievers Benchwork	17
Factory Direct Hobbies	17	SoundTraxx	45
Good Deals DDC	25	Spring Creek Model Trains, LLC	14
Great Midwest Train Show	14	Tichy Train Group	25
Great Model Railroads 2023	52	Toy Train Operating Society	7
Great Train Expo	14	Train Collector's Association	45
Greenberg Show	14	Trains & Travel	25
Halfpricehobby.com	17	Train Sets Only	25
Hattons Model Railways, Ltd	10-11	Train World	14
JB Wheel Sets	25	Trains.com	55
Kato USA, Inc.	67	Trainz.com	45
KR Models Ltd	9	Trix	16
LGB	27	WifiTrax Model Science	45
Loco-Boose Hobbies	17	Wm. K. Walther's	3
Mainline Hobby Supply	25	Woodland Scenics	15
Menard, Inc.	21	Yankee Dabbler	25

The Display Advertiser Index is provided as a service to *Model Railroader* magazine readers. The magazine is not responsible for omissions or for typographical errors in names or page numbers.

Model Railroader MAGAZINE



Coming Up

Build a signature scene around a pond, part 2

Lou and Cheryl Sassi continue their work on Winter Mill Pond, adding water, foliage, and ripples to the Sandy River & Rangeley Lakes scene.

A compact N scale layout for railfanning

The Sierra Northern, built on a hollow-core door, hosts transition-era Union Pacific, Southern Pacific, and Northern Pacific trains.

Plus more:

- Keep up with the latest developments on Eric Brooman's Utah Belt
- Wrap a passenger diesel in custom decals to model a prototype
- Build a laser-cut wood structure kit, Step By Step
- Tony Koester on facing the blank canvas of a new train room

Subscribe today!

1-877-246-4879

www.Trains.com

You had to be there



A 3600 hp Southern Ry. Electro-Motive Division (EMD) SD45 bearing down on you long-hood-forward with the radiators flaring like the nostrils of a snorting racehorse was a sight and sound not soon forgotten. Ron Flanary photo

I'm often asked whether I miss the Allegheny Midland or whether I regret dismantling it. Of course I do, but that isn't to say I think doing so was a mistake; after all, it occupied my basement for a quarter of a century.

Whatever value one derives from such an enterprise should have been reasonably well realized in that interval, I would think.

(Which brings up a startling point: The Nickel Plate Road St. Louis Division, which now occupies my basement, is in its 22nd year; is its demise nigh?)

Perhaps a more germane point for discussion would be why the Allegheny Midland was replaced by the NKP. There are myriad reasons, starting with the one I just mentioned: It was fully amortized. The only thing left to do was to complete the Centralized Traffic Control system, which would have made it even easier for road crews to run their trains over

the railroad by simply obeying the signals. Would the time and money that it would cost be worth it on a relatively compact layout like the AM?

So for the AM to have survived would have taken something else, a really impressive Something Else. What might that have been?

A giant leap forward was sound. The AM employed Power System's (PSI) Dynatrol analog command control system, which was state-of-the-art for its time. PSI head Abbott Lahti didn't offer a diesel sound system, but he did sell an excellent steam exhaust sound system. One of Max Robin's Western Maryland 2-10-0s had a tender as long as the engine, which accommodated a big speaker, and when that thing blasted up Cheat River Grade, it truly sounded like it was working for a living. My Berkshires and Mikes and 2-6-6-2s sounded just fine, too.

But the first-generation diesels just whirled along the railroad, not something a trio

of Alcos should be doing. Before them, when the AM had migrated into the second-generation, Appalachian Lines diesel era, Virginian & Ohio GP40s and Virginia Midland SD35s should have been singing their turbo-charged hearts out. But they, too, just whirled along. It's no wonder the railroad drifted back to the steam era when high-quality brass NKP and Chesapeake & Ohio brass steam power became available in the early 1980s.

That's history. Nonetheless, it's fun to ponder what might have been. Had the AM been born at a time when double-deck railroads were in vogue and the sound options of Digital Command Control were available, the Midland Road might have assumed a

different format: a much longer main line operated under timetable and train-order rules and with second-generation diesels like Alco C-630s and C-636s (which were on the roster) and maybe even EMD SD45s up front.

Perhaps the NKP influence would have segued into some Norfolk & Western (N&W) run-through or pool power. Maybe you had to have been there to appreciate it, but seeing a high-nose N&W or Southern Ry. SD45 coming at you with those flared radiators looking like the nostrils of a snorting racehorse was indeed impressive, an experience one is unlikely to forget!

Modeling is often about recapturing memories. As such, it's a form of time machine. You can set the dial to 1869 or 1918 or 1954 or yesterday. The dial of my time machine has been set on several such dates, and each of them delivered a different result. Each was satisfying in a way, lacking in another, much as choosing one prototype over another or one segment of a prototype over another to model invariably turns out to be. There may be a best solution, but there's rarely an only solution. This isn't mathematics.



MODELING IS OFTEN ABOUT RECAPTURING MEMORIES. AS SUCH, IT'S A FORM OF TIME MACHINE.
— TONY

I'm quite happy with the AM's replacement in my basement. But I heed the words of Doug Tagsold, who recently said he has another four or five great ideas for future model railroads lurking in the shadows. Why not? If we weren't dreamers, we wouldn't be good modelers. **MR**

HO
SCALE

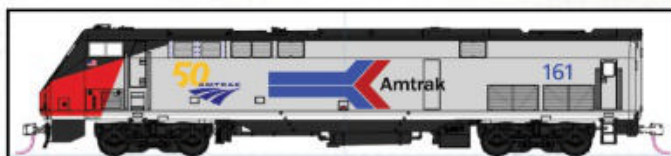


Brand New Amtrak® Equipment for HO!

The Viewliner® II is Amtrak's newest addition to its fleet of single-level rolling stock, with new Baggage cars, diners, and Sleeping cars all entering standard service in recent years.

Right now Amtrak is operating 55 Baggage cars in this new style, wearing a special "Phase III heritage" paint scheme that combines the classic red-white-and-blue stripes with Amtrak's new modern logo and the phrase "Amtrak America".

Kato USA is proud to introduce this specialty car to its HO lineup of rolling stock in 2022, joining the standard double decker Superliner I and II cars already on offer. Look for new releases of the HO P42 also coming later in 2022, in particular sporting 50th Anniversary paint schemes! (shown to the right)



Item Number	Description	MSRP (USD)
Item #35-6074	NEW HO Amtrak® Superliner® I Diner Phase VI #38028	\$87
Item #35-6093	NEW HO Amtrak Superliner I Coach-Baggage Phase VI #31035	\$87
Item #35-6211	NEW HO Amtrak® Viewliner® II Baggage Heritage Phase III #61006	\$87
Item #35-6212	NEW HO Amtrak® Viewliner® II Baggage Heritage Phase III #61058	\$87
Item #35-6251	HO Amtrak Superliner II Transition Sleeper Phase IVb #39027	\$90
<i>Locomotives Shipping in 2022:</i>		
Item #37-6112	NEW HO GE P42 "Genesis" Amtrak 50th Anniversary Phase V Late #46	\$215
Item #37-6113	NEW HO GE P42 "Genesis" Amtrak 50th Anniversary Midnight Blue #150	\$215
Item #37-6114	NEW HO GE P42 "Genesis" Amtrak 50th Anniversary Phase I #161	\$215
Item #37-6115	NEW HO GE P42 "Genesis" Amtrak 50th Anniversary Phase VI #108	\$215
Item #37-6116	NEW HO GE P42 "Genesis" Amtrak 50th Anniversary Dash-8 Phase III #160	\$215
Item #37-6117	NEW HO GE P42 "Genesis" Amtrak Phase V Late #17	\$210
Item #37-6118	NEW HO GE P42 "Genesis" Amtrak Phase V Late #180	\$210
Item #37-6119	NEW HO GE P42 "Genesis" Amtrak Operation Lifesaver® #203	\$220

Amtrak, Viewliner, and Superliner are registered service marks of the National Railroad Passenger Corporation. Operation Lifesaver service mark is a registered service mark of OLI. Officially licensed by Amtrak and OLI.

See How-To's, product spotlights, and more at our youtube channel!
youtube.com/KatoUSAInc

Stay updated on all of the latest Kato News - Follow us on Twitter and Facebook!

@KatoUSAInc

/officialkatousainc

KATO
PRECISION RAILROAD MODELS
100 Remington Road
Schaumburg, IL 60173
www.katousa.com

BACHMANN®

N
SCALE



NEW PRR #1120
Item No. 53951



LATE STEAM ELEGANCE IN N SCALE

At the close of the 1930s, American railroads were steaming forward with a wave of improvements to the passenger experience. Lightweight coaches, streamlined designs, and new forms of locomotive propulsion were fast revolutionizing the industry. In some cases, legacy steam locomotives were also upgraded to meet these new design standards. Between 1940 and 1941, four Pennsylvania Railroad K4 Pacifics received modern streamlined shrouding developed by acclaimed Art Deco designer, Raymond Loewy. The locomotives would spend the following decade wearing this striking appearance as they traversed the PRR system in express passenger service. The Bachmann Streamlined PRR K4 comes equipped with *Econami™* Sound Value DCC, featuring the *Soundtraxx®* steam package, a die-cast boiler, and a precision motor. Factory set for realism, the *Soundtraxx®* steam package offers a choice of 16 whistles, 6 bell types, 4 prototypical chuffs, 5 air pumps, and 5 dynamos, plus cylinder cocks, grade crossing quill, blowdown, brake squeal/release, coupling/uncoupling, water stop, and "all aboard" announcements with coach door operation effects - all in 16-bit polyphonic sound. Give this Art Deco late steam masterpiece the recognition it deserves on your N scale layout!



PRR #2665
Item No. 53952



PRR #3678
Item No. 53953

Available Now
MSRP: \$475.00 each



PRR #5338
Item No. 53954



Extra front Streamlined pilot
cover included
(HO scale model shown)

FEATURES INCLUDE

- DCC sound-equipped with *Econami™* Sound Value package
- precision motor
- operating headlight and reverse light
- directional Rule 17 lighting
- die-cast boiler and chassis
- blackened metal wheels and side rods
- separately applied details
- E-Z Mate® Couplers

