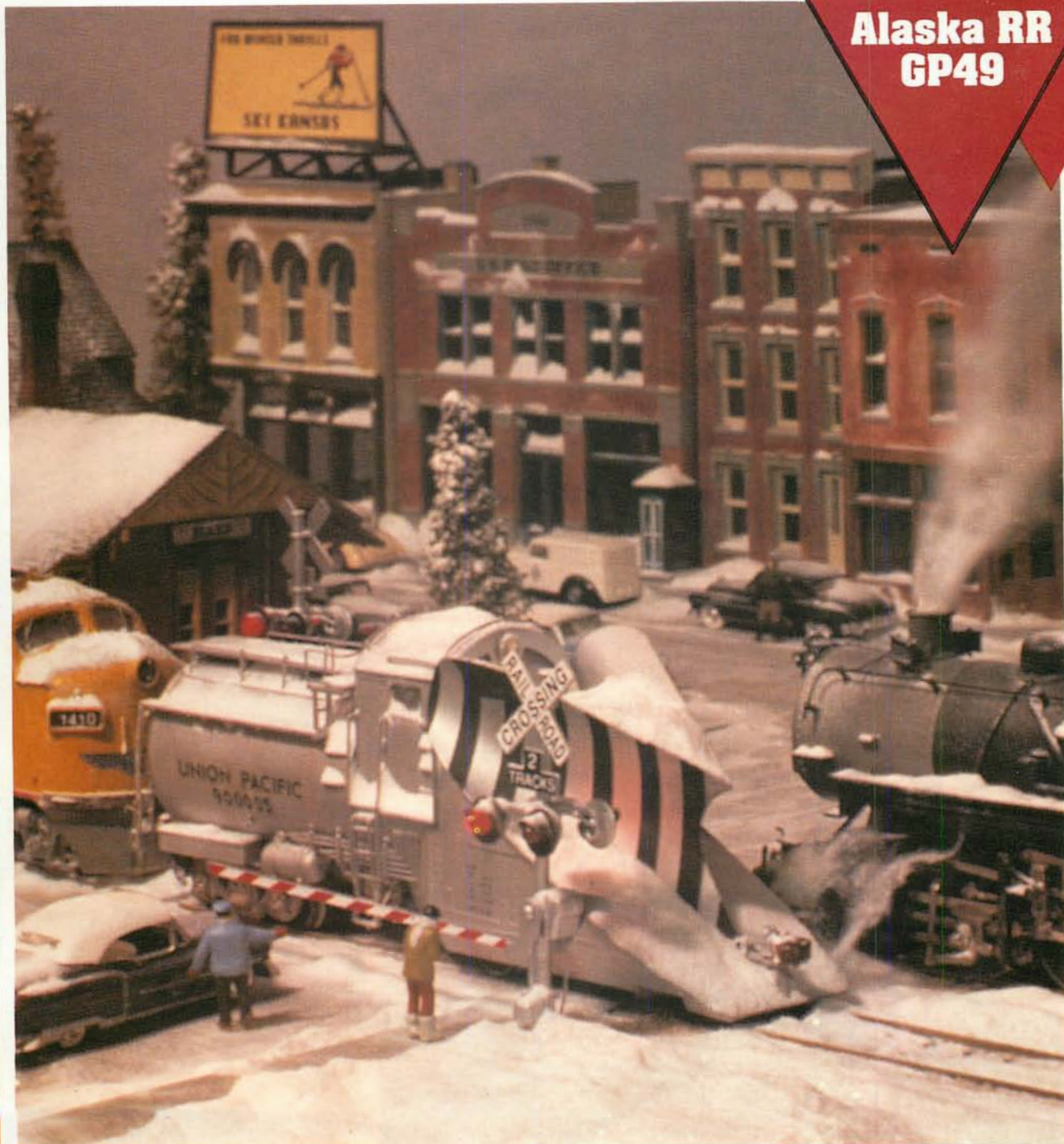


# MODEL RAILROADING



**Alaska RR  
GP49**



## HIGHLIGHTS OF THIS ISSUE:

- A Blizzard in Blake • South Rockwood & Toledo Railroad • Cotton Belt Caboose 'Bashing: Part 2 •
- The Gumboot Line • Esquimalt & Nanaimo Loading Dock and Ramp • Diesel Detail: BN SD60M • N&W Passenger Service •
- Oregon & Northwestern Caboose #300 • Track Planning for Operation • Mann's Creek Pictorial •

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# January 1992

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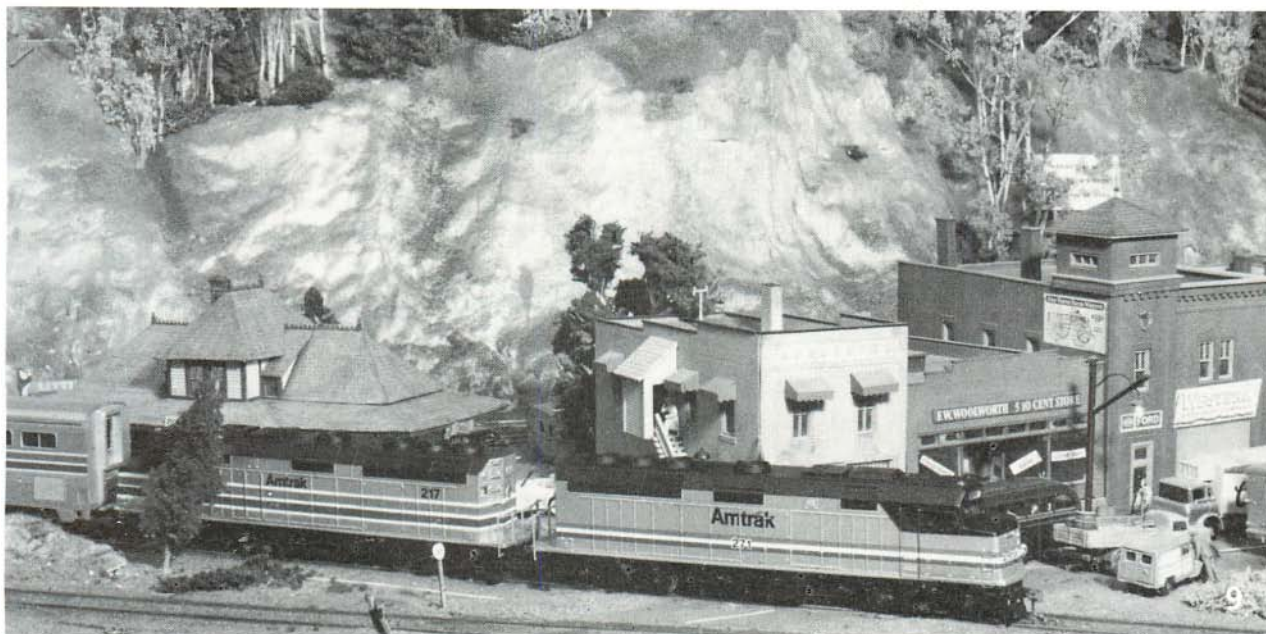


Photo by Randy Lee

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## ABOUT THE COVER

The sun has broken through the storm clouds as UP's snowplow #900005 returns from clearing the single-track main west of Blake. Turn to page 52 for more on creating snow scenes. *Photo by Randy Lee.*

INSET: Learn how to model this distinctive Alaska Railroad GP49. *George Melvin photo.*

# TO THE EDITOR

## Model Photography

Dear Bruce (Nall),

I am reading with great interest your excellent series on Photography vis-a-vis model railroading. I would like to share some of the knowledge that I gained from my years in the motion-picture business.

1. When shooting against a background, and using a main light and a fill light, one more light should be used to "wash out" the shadows on the background. A card should be used as a "barn door" to keep the background light from shining on the subject.

2. Diffusion screens are called silks in the movie business because they are made of silk and the frames they are supported with are called butterflies. A silk could be made of white acetate but of course, silk, even though very expensive, works best. I have a 4' x 6' silk with grommets around the edge, and I made a butterfly out of 1/2" electrical conduit. This makes for a much more durable and portable diffusion screen than one made of tissue. Readers who live in larger cities can buy products called Tuff Frost or Tuff Silk. Shower curtain liners can also be used. The best diffusion is of course a cloudy bright day.

3. The newsroom set of *All the President's Men* was built using Vita-Lite fluorescent bulbs in the ceiling manufactured by the Luxor Lighting Corp. These bulbs have the color temperature of north light. These bulbs were actually developed for baby incubators as they give off the ultra-violet spectrum which all living organisms need to absorb vitamins A and E.

In the late 1970s lights were imported from Europe called HMLs. These were halogen-type lights and gave off a very white light.

When I installed the lights in the basement for my Williamson Terminal model, I found that GE now makes a daylight fluorescent bulb. Brookstone sells a halogen bulb with an incandescent screw-in-type base. The cover for the June 1991 *MRG* was shot using these two types of bulbs with daylight film — no more filters or gels.

Keep up the good work.

Vern French  
Bushkill, PA

## Modeling and Detailing Diesels – Vol. 1

Hello Randy...

and thank you for *MODELING AND DETAILING DIESELS – Volume 1!*

I think that it's great to combine the various articles on detailing under one cover. Not only does it keep them together for easy reference...but allows for comparison of several different modeling approaches used by the authors.

As you indicated in the title...I would be expecting a Volume 2 down the road.

Out of the piles and cartons of magazines that I've saved over the years, it's always nice to have the "best of..." in a convenient format. Hurrah...and congratulations!!!!

George R. Cockle  
Omaha, NE

(Modeling and Detailing Diesels – Vol. 1 is now available at your local hobby shop or direct from Rocky Mountain Publishing. This 88-page book with 35 pages of color and a cover price of only \$9.95 is a bargain diesel modelers can't afford to pass up. — Randy)

## N&W Series

Dear Randy:

You and Vern French are to be commended for the N&W series. It has become the bible for those of us who model N&W, and I hope it keeps going!

Jim Teese  
Charlotte, NC

## Unhappy...Happy...Hopeful

November 10, 1991

I have not been too happy with the content of *Model Railroad-ing* lately....

However, I got the October 1991 issue two days ago and it had a killer article: "The Council Bluffs and St. Louis: From Branchline to Layout" by Joe Atkinson. Just what I like best: midwestern railroading, grain elevators, nice photos and a handsome trackplan. Very inspiring and with a reasonable space requirement. I see a lot of potential in the layout. I recently dismantled my old layout and will start a new project soon. I may use a lot of ideas from the published trackplan and adapt it to my 12' x 11' room.

I enclose my renewal subscription and hope you will publish more articles about midwestern railroading.

Kent E. Ersson  
Uppsala, Sweden

## A Poet Among Us

Dear Randy:

*As Larry suggests, I envision the entity  
My pike will be, but where is serenity  
When the room's too small, or the plan's too big,  
And you know that your cats plan on stealing the rig?  
So I sketch and I mutter, addressing necessity,  
But these days it mostly mothers profanity.*

Bear Rowell  
Louisville, KY

## October Cover

Dear Sirs:

Your October 1991 cover was for me like a time machine that in an instant of looking at that timeless photo transported me back some 35 odd years to when I was a small child up north in Ontario during the mid to late autumn. There was a place that was very similar to your cover and on that particular day I witnessed a similar scene. When I looked at the cover I could feel the air, the cool snap to it, smell the surrounding country and the smell of the engines as they sat on opposing tracks as the crews exchanged whatever crews did exchange. (As a child) I stood there, daring not to move, but knowing that time would soon march on. But for me the scene was imprinted very strongly and your cover brought it all back with a clarity that bordered on the frightening, but in a very pleasant way.

Jim Charleton  
Motor Vessel D.C. Everest (at sea)  
Oakville, Ontario

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# EDITORIAL



## Goals Not Resolutions

**H**appy New Year! Yes, it's that time again. Time to look back at the old, then move on to the new. The beginning of each new year usually prompts similar responses in most of us. It is a time for reflection, but more importantly, it inspires many of us to start anew on projects or goals that weren't accomplished during the preceding year or to tackle new enterprises.

If you were fortunate enough to hit the jackpot at Christmas, some of your modeling goals for the new year may automatically fall into place. The fulfillment of those goals, however, will still require your resolve during the months ahead. It is my hope that each issue of *Model Railroading* magazine will be a source of inspiration to help you along the way.

Setting goals for model railroading projects shouldn't be confused with making New Year's resolutions. After all, how many resolutions that are made each year are actually kept? And therein lies the problem...resolutions imply a static response — "kept." On the other hand, goals imply action — you reach them, then you move on to new ones. I must admit though that I have "kept" one resolution. Many years ago I resolved not to make any more resolutions...so far, I've kept that one.

Personally, my major goal for the new year is the finishing of the basement in the townhome my wife and I purchased last summer so that construction of the layout can commence. Judging from past experience, this will probably take longer than anticipated since funds for the project get last billing after all those other little things like car repairs, doctor and dentist bills and just about everything else.

To keep from getting bogged down, I have also set a number of other smaller goals. At present, most of these goals involve motive-power or rolling-stock projects. Until the basement is finished, structure projects would just get in the way.

When setting your goals, be realistic. Remember, this is a hobby...and hobbies are supposed to provide enjoyment and relaxation.

But that doesn't mean that we should give any project anything less than our best effort. Our talents may vary, but we owe it to ourselves to do the best we can with the abilities we have.

Although many modelers enjoy the competition of contests and are inspired to make even better models, some are intimidated because their skills are nowhere near that of others. If this latter situation describes your attitude, I encourage you to concentrate on comparing your current efforts with your previous ones. If you are getting better, take heart and prod on forward. Even if your skills are decreasing because of an impairment, remember that the point is enjoyment...as long as model railroading provides that, keep on trying.

On a different note, our best wishes go with Pam Greenberg who has left the *Model Railroading* staff to take a position with a firm here in Denver outside the hobby industry. Good luck, Pam, we'll miss you. On a happier note, we welcome Susan Goggin to the staff. Susan will be handling advertising and sales.

From the entire staff, a very Happy New Year!

*Randy*

Randy Lee  
Executive Editor

# THE SANDHOUSE

## A Product News Column

*Editor's Note: Please talk to your dealer first regarding any new products. If you would like additional information from the manufacturer, please don't forget to include a number ten, self-addressed, stamped envelope. This will help all concerned. Thanks.*

### Highlights of the Chicago Show 1991

by Larry Smith

The 1991 RCHTA/MRIA trade show was held in Chicago at the end of October. Manufacturers from all facets of the hobby were in attendance and presented many new items that will be appearing at your local hobby shop in the near future. I would like to share some of the exciting new items I saw at the show.

#### Locomotives

This seemed to be the most active part of the show with releases in everything from G to N.

*Bachmann* is releasing a G scale GE 45-ton locomotive that is unique because of the side rods on the drivers. The HO Bachmann Plus line is being expanded to include a new F7 in several roadnames. The steam engines, produced by Bachmann, have been improved with new gears and motors. Traction tires have also been removed from the locomotives.

*Walthers* had their new Fairbanks-Morse H10-44 operating the whole weekend without a single glitch. They were also displaying the N scale Alco S2 by Arnold, and the workmanship on this model is superb.

*Con-Cor* had the shells for their new HO E7 units. Several roadnames were indicated but they will wait until the press release to finalize the names. Con-Cor also had a pair of N scale RDCs running the whole time on their display layout.

*Life-Like's* Proto 2000 FA2 will be released in several more paint schemes in the spring. They may eventually offer the unit in all of the prototype schemes. The big surprise is the new GP18 coming out in the spring. It has the same qualities as the FA2 and should be a very good model. I know they are in contact with the various railroads to obtain prototype information on paint schemes. We have come a long way from the "just paint it Santa Fe and it will sell" mentality of a few years ago. Life-Like has released the BL2 in N scale. They used the plans for the Proto 2000 model to develop this locomotive rather than starting from scratch.

*MDC* has regearbed their RS3, and it should be available in the near future.

*Stewart* has announced the forthcoming FTs, and they indicated it might be released with the EMD demo colors if there is enough demand.

*Intermountain Railway* demonstrated their new O scale GP9. The die work on this locomotive is beautiful and has to be seen to be appreciated. The steps have the raised holes for drainage cast in the end sills.

*Rail Power* had their new GP35 shells on display. The model will be offered in both dynamic and non-dynamic brake versions, and both are scale width.

#### Cars

Several new cars were presented at the Chicago show representing styles never before available.

*Intermountain Railway* had the test shots on the new Canadian cylindrical grain car in HO. In O they were showing their line of boxcars.

*Accurail* had test shots of their new HO single-sheathed wood boxcar, and they look good.

*MDC* presented their new HO ACF grain hopper lettered for CNW and their HO Gunderson-rebuilt boxcars lettered for Golden West Service. They also had samples of the new tank car in N on display which will be a very nice addition to the modern scene.

*Micro-Trains®* was showing their newest car, an 89' container car based on the previously released TTX flat. The containers had operating doors and were removable from the car.

*Walthers* featured the new N scale single-dome tank car and additional roadnames for the 40' funnel-flow tank in HO along with a display of the new LP-gas tank cars in each roadname.

*Bachmann* displayed new paint schemes and new trucks for their Spectrum passenger cars. The color schemes match the F7s that will be available.

#### Structures

There seemed to be more structures on display than any other models.

*Walthers* displayed their latest additions to the Cornerstone series in N and HO. Some of the buildings are re-releases of Heljan kits previously marketed by other companies. Most of the buildings are N scale versions of the newer HO kits — Water Street Freight Terminal and Interstate Oil to mention just two. They had preproduction models of the LP-gas dealer and the Brook Hill Farm Dairy on a display layout. Both are very impressive looking structures and will add a lot to the hobbyist's layout.

*Bachmann* presented the balance of the Heljan line of structures in N and HO that are not picked up by Walthers. They also had a new 55-ton coal loader on display that was complete with hoist and pit along with the sand house and facility for sanding diesels. This structure can be used in the steam-to-diesel transition era and is a welcome addition.

*Design Preservation* displayed two new HO structures and several new N scale structures. They have also packaged the component parts into specific building designs and are marketing them.

*City Classics* has two new structures ready for release. One is an "Art Deco" design. They have modified the kits with removable cornices to allow the modeler the flexibility of placing two kits side by side or turning a corner without having a seam show.

*IHC* had two new city block buildings on display that are intriguing because of the number of extra parts each kit will have for detail. These kits should be available within the next few months.

*JAKS Industries* had the recently acquired Arkansas Valley line of structures on display. This is an excellent line of structures and JAKS is trying to make them available as soon as possible.

*Micro Engineering* had their tall steel trestle on display. Talk about impressive! The design allows the modeler considerable flexibility in the construction and placement of bridges. This is a change from all of the timber trestles used on most layouts.

#### Vehicles

*Williams Bros.* displayed their new HO 1940 Ford Coupe along with their HO Corbin Monoplane. They will be releasing a 1932 Chevrolet in the very near future and are exploring other car models.

## HO Scale

*A-Line/Proto Power West*, 3432 Lucero Ave., La Verne, CA 91750, has announced the availability of an E-unit powered chassis (#57702) for use with the Rivarossi/AHM, Model Power and Cary E-unit body shells. The units feature low current-draw can motors, matched unit performance, brass flywheels and leaded frame. Each chassis includes A-Line sideframes (#29300). Retail \$79.00. The sideframes are also available separately for \$7.85. E-unit fuel tank skirts and air tanks (#29301) are available separately. Price to be announced. Add \$3.00 per order for shipping.



*Railroad Hobbies*, 2001 Quail Dr., Lakewood, CO 80215, has released a custom-painted two-pack that contains two Athearn Santa Fe 40' single-door boxcars numbered 144473 and 146578. Custom painted by Graham Enterprises of California, the cars are light boxcar red with white lettering on the sides and ends. Railroad Hobbies obtained prototype information about the cars from the Santa Fe Modelers Organization to ensure accuracy. Retail \$15.00 plus \$3.00 shipping per order. CO residents add 4% sales tax.

*Westerfield*, Route 13, Box 300C, River Road, Crossville, TN 38555, is offering the Rock Island class B-2 40' boxcars which were clones of the Fowler design built by four builders between 1913-15. A total of 5,500 cars were ordered, with each builder's version varying somewhat from the others. Westerfield offers all the variations and includes decals to enable the modeler to do a car throughout its life. Some of the cars lasted into the late-'50s and early-'60s.

- 6400 Undecorated, 1915 Pullman
- 6401 CRI&P/RI, 1913 WSC&F (early end)
- 6402 RI, 1915 Bettendorf (high-brace door)
- 6404 RI, 1915 Pullman
- 6405 RI, 1915 Haskell & Barker (Hutchins roof)

Each retails for \$23.00, except for the undecorated which is \$22.00.

Westerfield is also now offering their catalog in VHS-format video cassette. It includes prototype (builders' photos) as well as model information for comparison. Cost is \$7.50 plus \$2.50 shipping in continental U.S., \$6.00 shipping to AL, HI and Canada. When an update becomes available, return the original tape with mailing fee and they will ship the update for free.

*Oriental Limited*, P.O. Box 6168, Evansville, IN 47719, has announced the arrival of the following Alco six-axle Centuries:

- P756 Alco C628, factory painted D&H
- P757R Alco C628, factory painted Lehigh Valley red scheme
- P774 Alco C636, factory painted Spokane, Portland & Seattle

*Microscale Industries*, P.O. Box 11950, Costa Mesa, CA 92627, has the following decals now available in HO scale:

- 87-636 UP Heavyweight Passenger & Special Cars 1947-91
- 87-637 Santa Fe Super Fleet GE Dash 8-40BW Locos
- 87-638 Santa Fe 45', 48', 53' Containers & Chassis
- 87-639 L&N Alco FA2 & RS3 Locos
- 87-640 CSX & CSL Intermodal 48' Containers & Chassis
- 87-641 CN Switchers
- 87-642 EJ&E Locomotives

- 87-643 Wabash Diesel Locos — Blue & Gray Scheme
  - 87-644 Wabash Diesel Locos — Hood & Cab Stripes
  - 87-645 Cargill Tank Cars — Corn Syrup, Vegetable Oils, Etc.
  - 87-646 SP GP60 Locos w/Speed Lettering
  - 87-647 Xtra 48' Containers, Santa Fe & CSX Versions
  - MC-4052 Dupont Training Tank Car w/Classroom (Refrigerator) Car
  - MC-4053 B&O GP30 Sunburst Scheme
  - MC-4054 C&NW Dash 8 40C Diesel — Safety & Reliability
- These HO scale decals are available for \$3.75 each.

*Wm. K. Walther's, Inc.*, 5601 W. Florist Ave., P.O. Box 18676, Milwaukee, WI 53218, has added the following new products to their HO scale line:

- Limited-run three-car set of Gulf 36', 10,000-gal. tank cars each finished in a different paint scheme (#932-9070). Retail \$29.95.

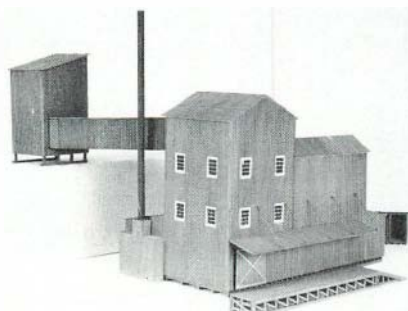


- Limited-run A. E. Staley Airlide® covered hopper is available in a three-pack (#932-9072, \$29.98) with different numbers or as a single car (#932-9073, \$9.98).
- Roco's Bucyrus Erie 200-ton crane is now available for the following roads: BN, C&NW, Conrail, CN, CP and Soo Line (#625-48696 to 48701, respectively). Retail \$19.98.

*Model Railroad Supply*, 5660 N. Quail Lane, Middletown, IN 47356-9801, with the addition of these three new freight decal sets, now offers a complete line of Monon decals from the pre-WWII era through the Monon's merger with the L&N in 1971.

- 300 Pre-WWII — White. Retail \$5.50.
- 301 Post-WWII — White. Retail \$7.50.
- 302 1960s era—Black. Retail \$5.00.

Each set includes dimensional data for box, hopper and covered hopper cars and can decorate three cars. Postage and handling are included in above prices. IN residents add 5% sales tax.



*Five Peaks Industries*, P.O. Box 2558, Eugene, OR 97402, is offering their Ochoco Mine Kit. The kit includes the mine building, ore bunker, conveyor, loading dock, outhouse and woodshed. Construction is wood with Grandt castings. This is the first kit in a series of 12 that will form a complete 2' x 4' mining complex. Retail \$74.95.



Life-Like Products, Inc., 1600 Union Ave., Baltimore, MD 21211-1998, is now offering their FA2/FB2 locomotives in the fol-

lowing new roadnames: SP&S, B&O, MoPac and Pennsylvania. Powered A units retail for \$75; dummy B units for \$40.

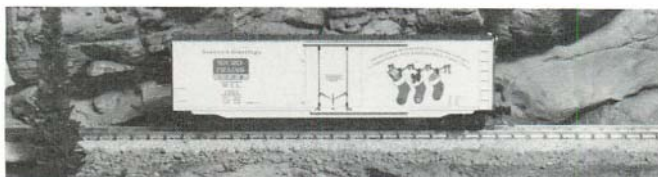
Craftworks, (c/o John Rendall), Box 2689, Niagara Falls, NY 14302-2689 or Box 90, Baysville, Ontario, Canada P0B 1A0, has released the Balaclava sawmill craftsman kit. It is the first kit in their new Timber Town series. This all wood kit builds a water-powered sawmill, shingle mill and lathe mill. This board-on-board kit includes template diagrams, color photos and metal castings. Retail \$39.95.

## N Scale

Micro-Trains®, 720 S. Grape St., Medford, OR 97501, has added the following new N scale freight cars to their line:



- Western Pacific 40' single-door standard boxcar (Road No. 15293) is aluminum with black lettering and herald. Build date June 1935. RTR #20076...\$7.90. Kit #20078...\$6.90.
- Alaska 50' single-door standard boxcar (Road No. 10700) is light boxcar red with white herald and lettering and black and white consolidated stencil and yellow and black wheel inspection mark. RTR #31220...\$9.20. Kit #31229...\$8.30.



- Holiday 1991 car, the first ever produced by Micro-Trains, is a 50' plugdoor boxcar with white sides with yellow, green, brown,

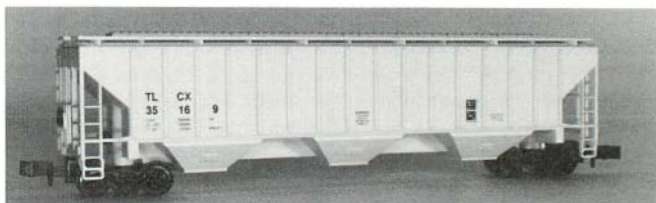
red and black lettering and sparkling "metallic" jade green ends and roof.

RTR #38170...\$13.20. Kit #38179...\$12.20.

Microscale Industries, P.O. Box 11950, Costa Mesa, CA 92627, has the following decals now available in N scale:

- 60-285 GN SD45s & Caboose — Includes Hustle Muscle
- 60-597 NS Triple Crown Services Road Railers
- 60-640 CSX & CSL Intermodal 48' Containers & Chassis
- 60-641 CN Switchers
- 60-642 EJ&E Locomotives
- 60-643 Wabash Diesel Locos — Blue & Gray Scheme
- 60-644 Wabash Diesel Locos — Hood & Cab Stripes
- 60-645 Cargill Tank Cars — Corn Syrup, Vegetable Oils, Etc.

These N scale decals are available for \$3.00 each.



Precision Masters, Inc., P.O. Box 28094, Lakewood, CO 80228-0010, now offers their 16-rib, 4740 cu. ft. capacity covered hopper as TLCX 35164 or 35169 (Pullman-Standard Leasing). These cars are painted pink with black reporting marks. Retail \$9.25.

## Miscellaneous



NorthWest Short Line, Box 423, Seattle, WA 98111, offers a wide assortment of wheelsets and replacement wheels for HO,

HO, N, O, On3 and #1 gauge rolling stock and locomotives.

In HO, many of their wheels are offered in three versions: standard, semi-finescale and finescale. The primary difference between the three is the width of the wheel tread. Standard sets have a tread width of .110"; semi-finescale is .088"; and finescale is .072".

In N, they now offer wheelsets in both standard .072" (NMRA standard) and semi-finescale .062" widths.

Wheelsets for On3 and smaller are brass (except half-axle style which are brass with steel axles). O scale wheelsets are steel and #1 gauge are nickel-plated brass (some aluminum are available until sold out). Both weathered and nickel-plated versions are available. A current catalog of NWSL wheelsets is available for \$2.00; a full-line catalog is available for \$7.00.

Greenberg Publishing Co., Inc., 7566 Main St., Sykesville, MD 21784, is offering the following new items:

- Greenberg's Guide to American Flyer S Gauge—Vol. 1: Motive Power and Rolling Stock, edited by Joe Deger. Covers years 1946-66 plus history of Gilbert Co. and couplers and trucks. Hardback, 224 pages, #10-7395. Retail \$39.95.

# PRODUCT REVIEWS

HO SCALE REVIEW

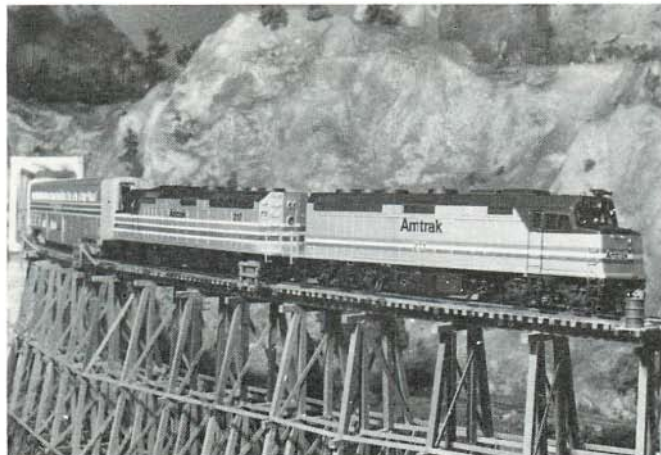
## Spectrum™ F40PH by Bachmann

by Randy Lee

*Photos by the author*



Amtrak 271 in Phase III paint pulls into Placer on the Denver HO Club layout.



A weighted 11-car Amtrak train is easily handled on the 2% grades of the mainline by this pair of Spectrum Phase II and III engines from Bachmann. A single unit almost handled it.

**B**achmann's latest addition to their Spectrum™ line of products is their new F40PH. For those not familiar with the line, it represents their top-of-the-line models designed for those modelers that demand better performance and detail from their equipment. Bachmann now offers products in three categories: Bachmann, Bachmann Plus and Spectrum. It is somewhat similar to GM or Ford offering their cars in various lines and price ranges.

From a performance point of view, the new F40PH is their best yet. It is noticeably quieter than their previous mainline engines and operates smoothly over the entire range of appropriate voltages. The test units provided have been in daily use since their arrival pulling the coin-operated Amtrak train at the Denver HO Club in the basement of the Colorado Railroad Museum. They have performed flawlessly. Bachmann has apparently improved their helical-cut gears, and the resulting quieter operation is much appreciated.

The chassis on these new units almost fills the entire shell providing the necessary weight to give these units some real power.

The chassis is divided into left and right hemispheres which are insulated from each other much like many N scale engines. The two halves encase the five-pole skew-wound motor, brass flywheels and truck assemblies. All wheels are powered.

In the roof of the shell is a circuit board which controls the two functional strobe lights above the cab and contains the directional-lighting circuitry. Pickup for the roof-mounted circuit board is provided by two sprung, flat contacts that pick up current from both sides of the chassis. In one of the test samples, one of these leads had apparently been bent accidentally during final assembly. As a result, it made contact with the wrong side of the chassis, causing a short. This was easily remedied by straightening the lead after removing the shell.

Another nice feature is the use of metal grabirons that are much closer to scale than the plastic ones offered by other manufacturers and far better than cast-on ones. Modelers who are sticklers for detail may want to rework the holes into which the

grabirons are inserted because they are larger than they need to be.

Other noteworthy features include directional lighting and painted engineer and fireman figures. These units are nicely painted and lettered and feature illuminated numberboards with corresponding numbers.

A Kadee #27 coupler was installed on the rear of each unit without modification to the coupler pocket. The front coupler pocket, however, required some modification to keep the coupler spring from hanging out in front of the pocket (and loco). After filing down the existing pocket and installing a new one with the center hole moved back about 1/16", a Kadee #5 was added.

With a retail of \$49.95, these units offer many refinements usually only found in more expensive engines. Bachmann has done an excellent job of providing excellent performance and nice detail at a reasonable price. Three road numbers are offered in both Phase II and III Amtrak schemes. They are also available for Cal Trans, NJ Transit, MBTA, RTA and undecorated.

**I**

HO SCALE REVIEW

## Stewart Hobbies' F3A Diesel Locomotive and Detail Associates' DK701 Detail Kit

by Randy Lee

*Photos by the author*



Stewart F3A (top track) after detailing with Detail Associates DK701 kit and other detail parts.



Side view highlights multi-depth casting which shows vents, frame and car side under chicken-wire detail.

When it comes to F units, first-generation diesel enthusiasts have had a wide range of choices for many years. Athearn, Bachmann, Life-Like, Mantua and Model Power all have Fs of one sort or another on the market. Even with all of these choices though, serious modelers have frequently found it difficult to model a particular railroad's equipment because of the many variations in the equipment produced by EMD.

Stewart made a significant step toward solving this problem when they joined forces with Kato to offer a series of limited-run F units which reproduce many of the variations offered in each class. Their latest offerings are several variations of the F3A. Depending on the particular prototype being modeled, Stewart offers versions with single or double headlights, two or three windows, high or low fans and chicken-wire or horizontal grille intakes.

As with their previous offerings, the new F3As run superbly and feature a level of sophisticated detail not available in the other F-series models on the market. But this quality also has its price...and it isn't a cheap one. With the F3A's retail price right at \$100, many modelers may never get beyond the "admiring" stage. This is truly unfortunate, because Stewart models are worth the asking price...and I can't neces-

sarily say that about all of the other locomotives in this price category.

The current release of Stewart F3As includes five variations: 1) Phase I (double headlight, three windows, high fans, chicken wire): Santa Fe (pass.), C&NW (orig.), NP



(freight); 2) Phase II early (double headlight, two windows, high fans, chicken wire): UP (shown), WP (pass.), RI (orig.); 3) Phase II early (single headlight): PRR, NYC, B&O; 4) Phase II Late (double headlight, two windows, low fans, chicken wire): SP (Black Widow); and 5) Phase IV (single headlight, low fans, two windows, horizontal grille and louvers, dynamic brake vents): Lehigh Valley (orig.), B&O, Reading, PRR, Santa Fe (freight), Erie, GN.

Stewart's decision to follow in the foot-

steps of Athearn and leave off detail items such as handrails and lift rings that never look right when cast into the basic shell was a wise one. Now enter Detail Associates with their new DK701 detail kit, priced at \$7.50, to provide those details not cast onto the Stewart Fs.

Included in the Detail Associates kit are the wire eyebolts, grabirons and cut levers as well as the plastic nut-bolt-washer, nose liftrig and MU hose castings to start you on the road to a detailed F unit. I emphasize the word *start*. Detail Associates have put this handy kit together to provide many of the more standard details common to the F units. Because of the many variables between roads and the changes that occurred over the years the Fs were produced, it would be impossible to offer a kit that offered all the options and was still reasonably priced.

A nice detail with the kit is a listing of other parts (by # and description) that the modeler might want to include. Some of the other details that I added to the sample unit which weren't included in kit DK701 were: ladder grabs (4), curved windshield grabs (2) and the straight roof grabs (2) by the horns. (Note: UP didn't use the EMD nose lifts. A-Line windshield wipers and MV Products class light lens were also added.)

# Your trek plan for the weekend...

## ◆ ALABAMA

### *Birmingham, AL*

**Event:** Smokey City Rails Model Railroad Club, Inc.'s Train Day '92  
**Date:** Feb. 29, 1992, 10 AM to 4 PM  
**Location:** Fraternal Order of Police Lodge #1, 2275 Green Springs Hwy.  
**Admission:** Adults \$2, children 6-12 \$1, children under 6 free

**Information:** By mail: Smokey City Rails Model Railroad Club, Inc., PO Box 94606, Birmingham, AL 35220 or by phone: John M. McPherson (205) 956-4959 (after 6 PM CT)

## ◆ ARKANSAS

### *Little Rock, AR*

**Event:** Arkansas RR Club's 12th Annual RR Antiques & Collectibles Show & Sale  
**Date:** May 2, 3, 1992, 10 AM to 5 PM  
**Location:** Fairground Hall of Industry  
**Admission:** Adults \$2, \$3 both days  
**Information:** Dick Davis, Box 9151, N. Little Rock, AR 72119-9151, (501) 843-9658

## ◆ CALIFORNIA

### *Atwater, CA*

**Event:** NMRA-PCR Daylight Div./ Merced Model RR Society Meet  
**Date:** Feb. 8, 1992, 9 AM to 3:30 PM  
**Location:** Castle Air Museum  
**Information:** Bart McLellan, 620 Klamath Dr., Atwater, CA 95301, (209) 358-1129

### *San Diego, CA*

**Event:** San Diego Model RR Museum Operating Exhibit/Show  
**Date:** Feb. 1992, daily except Mondays & Tuesdays, 11 AM to 4 PM (weekdays), 11 AM to 5 PM (weekends)  
**Location:** San Diego Model RR Museum, 1649 El Prado in Balboa Park  
**Admission:** Adults \$1.50, children free  
**Information:** Charles A. Pratt, (619) 696-0199

### *San Mateo, CA*

**Event:** O Scale West Meet  
**Date:** Feb. 7-9, 1992  
**Location:** Dunfey Hotel  
**Admission:** Family \$10; Tables — first \$15, add'l \$10 ea.  
**Information:** Send LSSAE to: Rod Miller, O Scale West, P.O. Box 50261, Palo Alto, CA 94303

## ◆ COLORADO

### *Lakewood, CO*

**Event:** Foothills Society of Model RRers' Model RR & Toy Train Swap Meet  
**Date:** Jan. 18, 1992, 9 AM to Noon  
**Location:** Christ on the Mountain Church, 13922 W. Utah Ave.  
**Admission:** Adults \$2, under 12 \$1; tables \$7 (8'), \$5 (6')  
**Information:** Maynard Rorman (303) 985-4362 or Steve Shoe (303) 988-0391

## ◆ DELAWARE

### *Delmar, DE*

**Event:** Delmarva Model RR Club Open House  
**Date:** Jan. 12, 1992, 1 PM to 5 PM  
**Location:** Delmarva Model RR Club, 103 E. State St.  
**Admission:** Free  
**Information:** Charles A. Russell, (301) 749-7974 (home) or (301) 548-5515 (work)

## ◆ FLORIDA

### *Bradenton, FL*

**Event:** Sarasota Model RR Club Swap Meet  
**Date:** Jan. 19, 1992, 10 AM to 3 PM  
**Location:** Bradenton Muni. Auditorium, 100 10th St. W.  
**Admission:** Adults \$3, teens \$1, kids \$.25  
**Information:** Chuck Place, 6810 Whitman Pl., Sarasota, FL 34243, (813) 756-7584

### *Bradenton, FL*

**Event:** Sarasota Model RR Club Open House  
**Date:** Mar. 14, 15, 1992, 10 AM to 5 PM (Sat.), 10 AM to 4 PM (Sun.)  
**Location:** 6730 15th St. E., (East) Old US 301  
**Admission:** Free  
**Information:** Don Freeman, 4821 Palm Aire Dr., Sarasota, FL 34243, (813) 355-8948

### *St. Petersburg*

**Event:** Sarasota Model RR Club Swap Meet  
**Date:** Feb. 23, 1992, 10 AM to 3 PM  
**Location:** Florida Nat'l. Guard Armory, 3601 38th Ave. S.  
**Admission:** Adults \$3, teens \$1, kids \$.25  
**Information:** Chuck Place, 6810 Whitman Pl., Sarasota, FL 34243, (813) 756-7584

## ◆ ILLINOIS

### *Wauconda, IL*

**Event:** Lake County Model RR Club Open House  
**Date:** Mar. 14, 15, 1992, 11 AM to 6 PM  
**Location:** 107 S. Main St. (Rear)  
**Admission:** Free  
**Information:** Don Tohill, 5N593 Quail Ct., St. Charles, IL 60175

## ◆ INDIANA

### *Indianapolis, IN*

**Event:** Naptown & White River Model RR Club Swap Meet  
**Date:** Jan. 25, 1992, 11 AM to 4 PM  
**Location:** Beech Grove Benedictine Center, 1402 Southern Ave. (Beech Grove)  
**Admission:** \$2 per person, \$3 per family  
**Information:** Carl Tomamichel, 222 S. 11th St., Beech Grove, IN 46107, (317) 786-1183

## ◆ MASSACHUSETTS

### *Attleboro, MA*

**Event:** Little Rhody Division NMRA Annual Show  
**Date:** Feb. 16, 1992, 9 AM to 3 PM  
**Location:** Masonic Temple, 71 N. Main St.  
**Admission:** Adults \$2, family max \$5, under 12 free  
**Information:** Stephen Boothroyd, PO Box 365, Wakefield, RI 02880, (401) 789-1420

### *West Springfield, MA*

**Event:** Amherst Ry. Society Annual RR Hobby Show  
**Date:** Feb. 8, 9, 1992, 10 AM to 5 PM  
**Location:** Better Living Center, grounds of Eastern States Exposition, Memorial Ave.  
**Admission:** Adults \$4, under 12 \$1, under 5 free  
**Information:** Robert A. Buck, PO Box 718, Warren, MA 01083-0718, (413) 436-5318

## ◆ MICHIGAN

### *Dearborn, MI*

**Event:** Allen Park Model RR Club's 18th Annual Flea Market and Show  
**Date:** Jan. 12, 1992, 11 AM to 4 PM  
**Location:** Dearborn Civic Center, Michigan Ave. at Greenfield  
**Admission:** Adults \$2, under 12 free with adult  
**Information:** A. Zombor, 12973 Wesley, Southgate, MI 48195, (313) 283-5060

### *Saginaw (Bridgeport), MI*

**Event:** NCR Div. 7 — Mid-Upper Michigan Area Meeting  
**Date:** Jan. 12, 1992, 2 PM  
**Location:** 1st of Amer. Bank, 5540 Dixie Hwy., Bridgeport  
**Admission:** Free  
**Information:** Carl Goodman, 2065 Sunset Ln., Saginaw, MI 48604 (517) 753-7940

## ◆ MISSOURI

### *St. Joseph, MO*

**Event:** Big Boys' Toys Train Show  
**Date:** Feb. 1, 2, 1992, 11 AM to 6 PM (Sat.), 11 AM to 5 PM (Sun.)  
**Location:** Holiday Inn, 102 S. 3rd St. (just off I-229 Business Loop Exits)  
**Admission:** Adults \$2, 10 and under free with adult  
**Information:** Curt Gardner, 707 Edmond St., St. Joseph, MO 64501, (816) 232-0948, Mon. to Sat. until 5:30 PM

## ◆ MONTANA

### *Helena, MT*

**Event:** 12th Annual Helena RR Fair  
**Date:** Apr. 16, 1992, 1 AM to 4 PM  
**Location:** Helena Civic Center Ballroom  
**Admission:** Adults \$1, under 12 free; tables \$15  
**Information:** Bob Solomon, 161 Fairway Dr., Helena, MT 59601, (406) 442-6118

## ◆ PENNSYLVANIA

### *Pittsburgh (Gibsonia), PA*

**Event:** Pittsburgh Model RR Historical Society's Holiday Train Display  
**Date:** Jan. 3-5, 10-12, 1992: 6 PM to 10 PM (Fri.), 11 AM to 5 PM (Sat. & Sun.)  
**Location:** 5507 Lakeside Dr., Gibsonia  
**Admission:** Adults \$3, 12 and under \$1  
**Information:** William Humphrey, 5507 Lakeside Dr., Gibsonia, PA 15044, (412) 444-6944

## ◆ UTAH

### *Ogden, UT*

**Event:** Hostlers RR Festival  
**Date:** Mar. 6-8, 1992, 6 PM to 10 PM (Fri.), 10 AM to 8 PM (Sat.), 10 AM to 5 PM (Sun.)  
**Location:** Ogden Union Station, 25th St. & Wall Ave.  
**Admission:** Adults \$2, 12 and under free  
**Information:** Paul Karczewski, (801) 825-7620 (eves)

## ◆ VIRGINIA

### *Vienna, VA*

**Event:** Northern Virginia Model RRers Open House  
**Date:** Jan. 18, Feb. 15, Mar. 14, 1992, 1 PM to 5 PM  
**Location:** 231 Dominion Rd. (Washington & Old Dominion RR Station at Ayr Hill Rd.)  
**Admission:** Donations accepted  
**Information:** Call (703) 938-5157 Tuesday evenings or on day of open house

## ◆ WASHINGTON

### *Lacey, WA*

**Event:** Olympia Capitol City Lions Club 7th Annual Model RR Swapmeet & Exhibition  
**Date:** Mar. 21, 1992, 10 AM to 4 PM  
**Location:** St. Martins Pavilion, Pacific Ave.  
**Admission:** Adults \$3, students \$2, 12 and under free  
**Information:** Bill Lovelace (206) 956-9851 or 753-1977 or Gordon Robinson (206) 456-5046 or 753-1056

## ◆ CANADA

### *Lindsay, Ontario*

**Event:** Lindsay and District Model Engineers Show  
**Date:** Apr. 11, 12, 1992, 11 AM to 5 PM (Sat.), Noon to 5 PM (Sun.)  
**Location:** Victoria Park Armory, Kent St. West  
**Admission:** Adults \$4, seniors \$2, children \$1  
**Information:** Box 452, Lindsay, Ontario K9V 4S5, or Budd Bates (705) 324-6080 or Ted Graveline (705) 324-2047

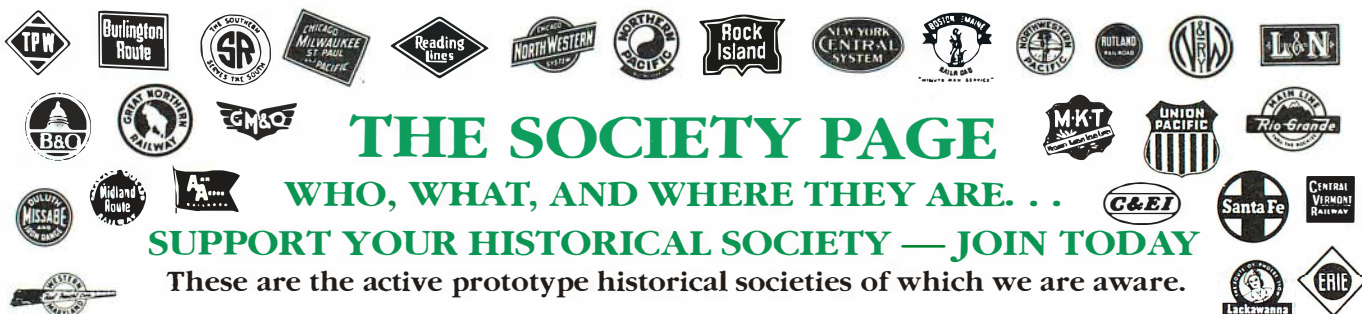
### *Mississauga, Ontario*

**Event:** Erin Mills Model RR Assn. 10th Annual Beginners Clinic  
**Date:** Jan. 25, Feb. 1, 1992, 12:30 PM to 5 PM  
**Location:** Jan. 25—St. Andrews Presbyterian Church, 293 Queen St. (South Streetsville); Feb. 1—Sheridan United Church, 2581 Truscott Dr. (Clarkson)  
**Admission:** Adults \$6, 12 and under \$3  
**Information:** Pat Konkle, 2233 Blue Beech Cres., Mississauga, Ontario, Canada L5L 1C2, (416) 820-6114

## ◆ NEW ZEALAND

### *Masterton, New Zealand*

**Event:** Wonderful Wairarapa 1992 Convention  
**Date:** April 17-20, 1992  
**Location:** Wairarapa College, Pownall St.  
**Information:** The Secretary, Wonderful Wairarapa 1992 Convention, PO Box 627, Masterton, New Zealand



# THE SOCIETY PAGE

WHO, WHAT, AND WHERE THEY ARE...

SUPPORT YOUR HISTORICAL SOCIETY — JOIN TODAY

These are the active prototype historical societies of which we are aware.

## American Truck Historical Society

P.O. Box 59200, Dept. MRG, Birmingham, AL 35259.  
Bimonthly magazine, \$15.

## Ann Arbor Railroad Technical & Hist. Assoc.

(also covers Michigan Northern and Tuscola & Saginaw Bay), P.O. Box 51, Chesaning, MI 48616  
Newsletter, \$10

## Anthraxite Railroads Historical Society

(Central of New Jersey, Lackawanna, Lehigh & Hudson River, Lehigh & New England, Lehigh Valley, Reading).  
Annual Dues: \$20, newsletter, P.O. Box 519, Lansdale, PA 19446-0519

## Baltimore & Ohio

Annual Dues: \$18, foreign \$30, magazine, B&O RRHS, P.O. Box 13578, Baltimore, MD 21203.

## Boston & Maine

Annual Dues: \$25 US/\$30 Canadian, B&MRRHS, Inc. c/o Membership Secretary, P.O. Box 2936, Middlesex Essex, GMF Woburn, MA 01888-9998.

## Canadian National Lines

Annual Dues: \$25 sust. (US or Canadian). Covers CNR, GT, CV, DWP, GTW and subsidiaries. Send #10 SSAE for info-pack. In Canada, send to: CN Lines SIG, 112 Mapleton Dr., Winnipeg, MB R2P 1C9 In U.S., send to: CN Lines SIG, RD 1, Box 295, Alum Bank, PA 15521-9658

## Central Vermont Historical Society

Annual Dues: \$15/\$20 sust. Quarterly newsletter, c/o John Haropoulos, Secretary, 1070 Belmont Street, Manchester, NH 03104. LSSAE for further information.

## Chesapeake & Ohio

Annual Dues: \$16/\$32 sust. C&OHist Soc., Membership Officer, P.O. Box 79, Clifton Forge, VA 24422

## Chicago Burlington & Quincy

Annual Dues: \$17.50/\$35 sust. Burlington Route Hist Soc., P.O. Box 456, LaGrange, IL 60525.

## Chicago & Eastern Illinois

Annual Dues: \$15/\$25 sust. C&EIHist Soc., c/o Membership Chairman, P.O. Box 606, Crestwood, IL 60445.

## Chicago & North Western

Annual Dues: \$15.50. C&NW Hist. Soc., Lou Hamilton, P.O. Box 1436, Elmhurst, IL 60126-9998.

## Colorado Midland

Subscription: \$10 a year, Colorado Midland Quarterly, 1731 N. Cooper, Colorado Springs, CO 80907.

## The Conrail Historical Society

Annual Dues: \$15, \$20 - Canada/Mexico, \$30 - Overseas, P.O. Box 1019, St. Johns, AZ 85936.

## Early American Railroad Group

P.O. Box 101-Z, Allegan, MI 49010. Newsletter, \$7.50.

## East Broad Top

(Friends of the ), P.O. Box 551, Dept. MRG, Riverside, NJ 08075. Quarterly magazine, \$20.

## East Tennessee & Western North Carolina

Annual Dues: \$10, ET&WNC Railroad Hist. Soc., c/o John R. Waite, 604 North Eleventh Street, De Soto, MO 63020. Newsletter.

## Erie Lackawanna

Annual Dues: \$18, Erie Lackawanna Hist. Soc., c/o Dave Olesen, 116 Ketcham Road, Hackettstown, NJ 07840.

## The Feather River Rail Society

Membership levels ranging from \$15 to \$300. For information contact Harry D. "Hag" Manil, c/o The Feather River Rail Society, P.O. Box 608, Portola, CA 96122.

## Fonda, Johnstown & Gloversville RR

Annual Dues: \$6, newsletter, Walt Danylak, 115 Upland Road, Syracuse, NY 13207-1119.

## Great Northern Railway

Annual Dues: \$17.50 sust./\$35, Canada: \$22/\$25 1st class. Other nations \$23/\$32 air mail. GNRHS, 1781 Griffith, Berkeley, MI 48072.

## Gulf Mobile & Ohio

Annual Dues: \$18.50, GM&OHist Soc., Inc., P.O. Box 463, Fairfield, IL 62837-0463.

## H.J. Heinz Special Interest Group

c/o Bill Dippert, 2650 NW Robinia Ln., Dept. MRG, Portland, OR 97229-4037. Quarterly magazine, \$15 per year (\$6 to NMRA members).

## Illinois Central Historical Society

Annual Dues: Regular \$15, Sustaining \$20. ICHS Membership Dept., c/o James Kubajak, 14818 Clifton Park, Midlothian, IL 60445

## Illinois Terminal

Annual Dues: \$10/\$15 sust. IT RR Hist. Soc., c/o A. Gill Siefert, Ill. Cent. College, East Peoria, IL 61635.

## Illinois Traction Society

c/o Dale Jenkins (Editor), Dept. MRG, 20209 E. 14th St. North, Independence, MO 64056, or Mark Barnett (ITS membership), 1124 Barker St., Bloomington, IL 61701, (309) 829-2728. Quarterly newsletter, \$15.

## Kansas City Southern Historical Society

P.O. Box 17815, Kansas City, MO 64134. Monthly newsletter, semi-annual magazine and free admission to convention and swap meets. \$15

## Katy Railroad Historical Society

(also covers Missouri Kansas & Texas Railroad).  
Annual Dues: \$15/regular, \$13/under 18 or over 65, \$50/supporting. Quarterly magazine and the KATY FLYER and yearly historical calendar. c/o Roy V. Jackson II, 732 Via Miramonte, Mesquite, TX 75150-3054.

## Locomotives in Parks SIG

c/o Dick Nedrow, P.O. Box 501, Dept. MRG, Manchester, WA 98353. Send SSAE for information.

## Louisville & Nashville

Annual Dues: \$15/\$30 sust., L&N Hist. Soc., P.O. Box 17122, Louisville, KY 40217.

## Maryland & Pennsylvania Preserv. & Hist. Soc.

Annual Dues: \$15/\$25 contr. c/o Fred H. Voelcker, Jr., P.O. Box 224, Spring Grove, PA 17362, (301) 628-0735 SSAE for more information.

## Milwaukee Road

Annual Dues: \$12/\$24 sust. Milwaukee Road Railfans Assoc., c/o Wendell Murphy, 7504 W. Ruby Ave., Milwaukee, WI 53218.

## Milwest

(Milwaukee Road-Lines West) Annual Dues: \$10 newsletter Ron Hamilton, Milwest, 2506 S. W. Fissure Loop, Redmond, OR 97756-9486

## Missabe Railroad Historical Society

(Duluth, Missabe & Iron Range and predecessors)  
Annual Dues: \$12.50/\$20 sust. Foreign — send for current rate 719 Northland Avenue, Stillwater, MN 55082. Quarterly magazine

## Missouri & Arkansas Railroad Museum

(also covers Missouri & North Arkansas, Arkansas & Ozarks, and others), P.O. Box 44, Beaver, AR 72613. Magazine, \$10.

## Missouri Pacific (Includes Texas & Pacific)

Annual Dues: \$15/\$20 sust./\$23 foreign. Missouri Pacific Hist. Soc., P.O. Box 187, Addis, LA 70710

## Monon

Annual Dues: \$10/\$16 sust. Monon HH Hist. & Tech. Soc. Inc., c/o James Stirother, Membership Chairman, 3876 Kensington Dr., Lafayette, IN 47905

## National Model Railroad Association

Annual Dues: \$24. NMRA Bulletin is published monthly. National Model Railroad Association Inc., 4121 Cromwell Road, Chantanooga, TN 37421. (615) 892-2846

## National Railway Historical Society

Annual Dues: \$10/\$9 chap. + dues, National Railway Hist. Soc., c/o N. W. Bowers, Vice President Member, P.O. Box 58153, Philadelphia, PA 19102.

## New Haven

Annual Dues: \$25 reg./\$35 sust. 4 shorliners, 8 newsletters, annual meeting. Membership Chairman, NHRHTA Inc., P.O. Box 122, Wallingford, CT 06492

## New York Central System Historical Society

P.O. Box 745, Mentor, OH 44060. Qtrly. magazine, \$15.

## Nickel Plate Road

Annual Dues: \$15, NPRHTS, P.O. Box 54027, Cincinnati, Ohio 45254.

## Norfolk & Western Historical Society

Annual Dues: \$14/\$16 Can., Mex. Norfolk & Western Hist. Soc., 638 Jefferson St., Ashland, OH 44805

## Northern Pacific Railway

Annual Dues: \$15/\$30 sust. Duane D. Durr, Number 10 32nd Ave. NE, Fargo, ND 58102

## Northwestern Pacific

Annual Dues: \$12.50, Northwestern Pacific RR Hist. Soc., P.O. Box 721, Larkspur, CA 94939.

## Ontario & Western

Annual Dues: \$21.50 including NRHS \$12.50 subscription. Ont. & Western RY Hist. Soc. Inc., Box 713, Middletown, NY 10940.

## Pennsylvania Railroad Technical & Historical

Annual Dues: \$25, PRR Tech. & Hist. Soc., Inc., Box 389, Upper Darby, PA 19082.

## PRR

(Philadelphia Chapter, PRR T & HS), 137 Stockton Rd., Dept. MRG, Bryn Mawr, PA 19010. Quarterly magazine, \$10.

## Pittsburgh, Shawmut & Northern Railroad Historical Society

RD 1, Box 361, Alfred Station, NY 14803. Newsletter.

## Railroad Club of Chicago

c/o Richard C. Young, P.O. Box 4920, Dept. MRG, Chicago, IL 60680. Monthly newsletter/magazine, \$20 (within 150 mi. of Chicago), \$10 elsewhere.

## Railroad Club of Chicago

3737 W. Lyndale St., Dept. MRG, Chicago, IL 60647. Newsletter, send SSAE for membership information.

## Railway & Locomotive Historical Society

Annual Dues: \$15, Railway & Locomotive c/o H. Arnold Wilder, Treas., 46 Lowell Rd., Westford, MA 01886.

## Reading

Annual Dues: \$20, RCT & HS, c/o Robert L. Danner, P.O. Box 5143, Reading, PA 19612.

## Rio Grande Southern Hist. & Tech. Society

P.O. Box 3358, Dept. MRG, La Mesa, CA 92044. Quarterly magazine, \$6

## Rock Island

Annual Dues: \$10, Rock Island Tech. Soc., David J. Engle, 8746 North Troost, Kansas City, MO 64155.

## Rutland Railroad

Annual Dues: \$15. Quarterly Newsliner, Rutland RR Hist. Soc., P.O. Box 6262, Rutland, VT 05701.

## Santa Fe Modeler

Annual Dues: \$18/\$28 sust. Canada: \$23/\$33 sust. Other Nations: \$28/\$38 sust. Santa Fe Modelers Organization, 1704 Valley Ridge Rd., Norman, OK 73072.

## Santa Fe Railway Historical Society, Inc.

P.O. Box 92887, Dept. MRG, Long Beach, CA 90809-2887. Quarterly magazine, \$12

## Shore Line Interurban

Annual Dues: \$12/\$18 contr. Shore Line Interurban Hist. Soc., P.O. Box 346, Chicago, IL 60690

## Society of Freight Car Historians

c/o David G. Casdorff, P.O. Box 1458, Monrovia, CA 91017. Magazine (Freight Cars Journal), \$15

## Southeastern Railroad Technical Society

(covers Atlantic Coast Line, Seaboard Air Line, and Seaboard Coast Line), 4007 Paddiewheel Dr., Brandon, FL 33511. Quarterly magazine, \$12

## Southern Pacific

Annual Dues: \$12.50/\$18.75 sust./foreign SP Hist. & Tech. Soc., P.O. Box 11118, Santa Ana, CA 92711.

## Southern Railway Historical Association Inc.

Annual Dues: \$15/\$25 sust./\$30 foreign. Mail to SRHA Inc., P.O. Box 33, Spencer, NC 28159.

## Southern Railway Historical Society

Annual Dues: \$15, Southern RY Hist. Soc., c/o B. F. Roberts, P.O. Box 4094, Martinez, GA 30907

## The Soo Line

Annual Dues: \$16/\$30 contr. The Soo Line Hist. & Tech. Soc., c/o Michael Harrington, Treas., 3410 Kasten Ct., Middleton, WI 53562

## Tidewater Southern Historical Society

Annual Dues: \$15 (includes biannual newsletter) Tidewater Southern Ry Hist. Soc., c/o Benjamin Cantu, Jr., P.O. Box 1283, Manteca, CA 95336

## Spokane, Portland & Seattle

Annual Dues: \$15, foreign \$20, sust. SPSRHS, 8002 N.E. Highway 99 #40, Vancouver, WA 98665

## Teen Association of Model Railroaders

c/o John Reichel, 88 Whitmore St., #201, Oakland, CA 84611. Bimonthly newsletter, \$10

## Toledo Peoria & Western

Annual Dues: \$12/\$15 contr. TP&W Hist. Soc., 615 Bullock St., Eureka, IL 61530.

## Union Pacific

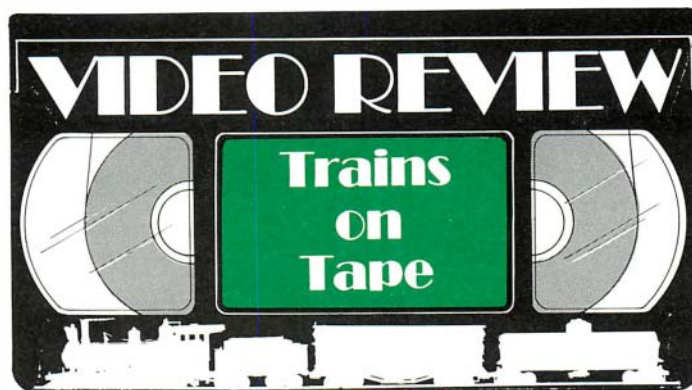
Annual Dues: \$15/\$30 sust. UPHS, c/o Membership Secretary, P.O. Box 5663, Arvada, CO 80005-0653

## Wabash

Annual Dues: \$9/\$12.50 contr. Wabash RR Hist. Soc., c/o Vance Lischer, Secretary, 535 Dielman Road, St. Louis, MO 63132

## Western Maryland

Annual Dues: \$18/\$23 foreign. WMRRHS Inc., P.O. Box 395, Union Bridge, MD 21791.



by Richard D. Forest, Esq.

## Pikes Peak by Rail — Mountain Automation

**O**f all the famous mountain peaks in Colorado, or the entire country for that matter, Pikes Peak near Colorado Springs, Colorado, is probably the most famous. We have all seen pictures of the "Prairie Schooner" wagons going across the prairies, with "Pikes Peak or Bust" emblazoned on the canvas. Fortunately, a cog railway was built to the summit of Pikes Peak in 1891, and it continues to thrill visitors to this day.

Now a very enjoyable videotape has been produced by Mountain Automation Corporation (photographed by Dr. Claude Wiatrowski), which gives an excellent taste of the Manitou & Pikes Peak Railway for those who have not yet taken the ride to the summit. It also does an excellent job of refreshing memories and providing a high degree of education for those who have enjoyed the trip to the top (I am happy to count myself as being among those who have this great mileage). The tape starts with a good, but brief, historical description of the mountain itself, starting with its being named after Lt. Zebulon Pike, who is credited with being the first caucasian to see the mountain, in 1806.

Then the tape moves to the railway itself, which was opened in June of 1891. There is nice but too brief black-and-white footage of a touring car arriving at the depot in the '30s, and then we go to today. There is a good view of the depot area and a period view of where the trolley line connected with the cog railway many years ago.

Basically, we are then taken on a ride on a cog train, which is part of a fleet of Swiss-built diesel rail cars (with those great openable heavy glass windows that make Swiss-built equipment so much fun to ride), with many views both of and from the train; an explanation of the cog system is also given. We see the 1976-built passing siding at Minnehaha Falls, in the National Forest, and we see a "meet." There is a view of "Sonofagun Hill," a 25% grade, aptly named by firemen of the steam engines that preceded the Swiss diesel railcars that now ply the rails.

The views taken as we climb the line are interspersed with black-and-white views of the locations in years past, and the historical views and descriptions greatly add to the enjoyment of the ride up the mountain. There are many views of the spectacular scenery of the line, and of the "Big Hill" that takes the track above the timberline. A scene of a track gang doing MofW work above timberline is a real plus and really captures the effort required to keep the track in condition as well as some absolutely terrific scenery. Then the train arrives at the Summit House with its fantastic views in all directions.

Snow removal is covered, and is most interesting, with scenes of the past as well as the present. There are also some scenes of the recent resurrection of a steam locomotive; really great footage that captures the steam heritage of the Manitou & Pikes Peak.

This tape is a superb production and

packs a great deal into its 40-minute length. It is an absolute steal for \$19.95. The photography is done very well with creative and varied camera work capturing superb scenery and many train views. Narration is very informative, and gives the ignorant (like me) an excellent education on both the line and its mountain location. (I only wish I had seen the tape before riding the line, as it would have made the trip much more meaningful.) Editing is sharp, and there is no boredom from excessive length of scenes, which is always a problem with slow-moving trains; the interspersing of period views adds greatly to the enjoyment of the tape, and breaks it up, making it seem to go faster.

There are period views of the older Swiss equipment (not that long ago), as well as the present equipment. The history and heritage of the Swiss equipment is described by the narrator. All in all, this tape is excellent and is highly recommended for everyone, whether or not a railfan (even my girlfriend was glued to the TV when I first looked at the tape; there can be no greater praise).

*Pikes Peak by Rail*, approx. 40 minutes, color with some black and white, produced by Mountain Automation Corporation, P.O. Box 6020, Woodland Park, CO 80866-6020. Price is \$19.95. Can also be ordered through Pentrex, telephone 1-800-950-9333 and ordering item #SUB-PEAK, add \$3.00 for shipping and handling. Available in VHS only.

**I**



# Track Planning for Operation

## Part Three: We Have Made the Grade

by Jim Mansfield

*Illustrations by the author*

In the previous two parts of this series, we discussed the Jersey Western layout's Corn Junction and the staging area, and introduced the JWRR mainline from Tortilla Flats to Mountainair. This time, I will discuss the details of the Northern Division mainline schematic (stage four) and the means of fitting it into the layout space. I will also consider operations on the mainline.

### Research

My interest in Southern Pacific's Tehachapi Loop began more than 15 years ago, but I had not read much about it. I knew that the track looped over itself, and I always considered it a good example for a common track arrangement on a model railroad layout. For some time now, I have wanted to model a representation of the loop, and so it was decided that the loop would be included on the JWRR layout. As track routing of the JWRR was through the Chupadera Mountains, the name "Chupadera Loop" was selected for this loop, which was to be included in the trackplan as a major operational and scenic feature.

About the time Margaret and I started thinking about the Jersey Western layout, we purchased the Hopewell Productions video entitled *Tehachapi: Tonnage & TOFC*. This was our first close look at the Tehachapi Loop. The tape allowed us to follow trains around the loop about a million times and gave us a very detailed picture of the track arrangement and scenic features involved.

The one thing that was not included with the tape was a map showing the plan of the track. A search through magazines also didn't yield a plan. A quick call to Jim Kelly at Kalmbach Publishing, however, did result in his sending me a page from Kalmbach's book entitled *Railroads You Can Model* written by Mike Schafer, published in 1976 (out of print). There, on page 67, was a good drawing of the Loop.

I enlarged the drawing on a copier to a size that fit into the available layout space on a scale drawing of the JWRR trackplan. This gave me a shape that I could work into the available space and to which I could make any minor changes. I then drew the scale development scheme shown in Figure 1 (*Editor's Note: Figure 1 has been reduced to 50% of author's original—original was 1"=2'; drawing in Figure 1 is 1/2"=2'*). The track centerline shown is the inside track of the loop's double track; the radii of the various curved segments are shown in the figure. Since this takeoff was done directly from the Kalmbach plan, the proportional aspect of the original loop was accurately captured. The compression of the prototype on the layout resulted in a model loop that is a little smaller than half scale size. The trackplan from the overpass to tunnel No. 10 (on the prototype) has the same form but is shortened.

Another resource used was Pentrex's video entitled *Cajon Pass-Tehachapi Loop*. A portion of this tape is dedicated to the Loop and provides a cab ride and fur-

ther details of the operations and appearance of the Loop and approaches to it. The cab ride is especially nice. Track and roadbed scenery details are easily seen from the engine.

### Details of the Plan Schematic

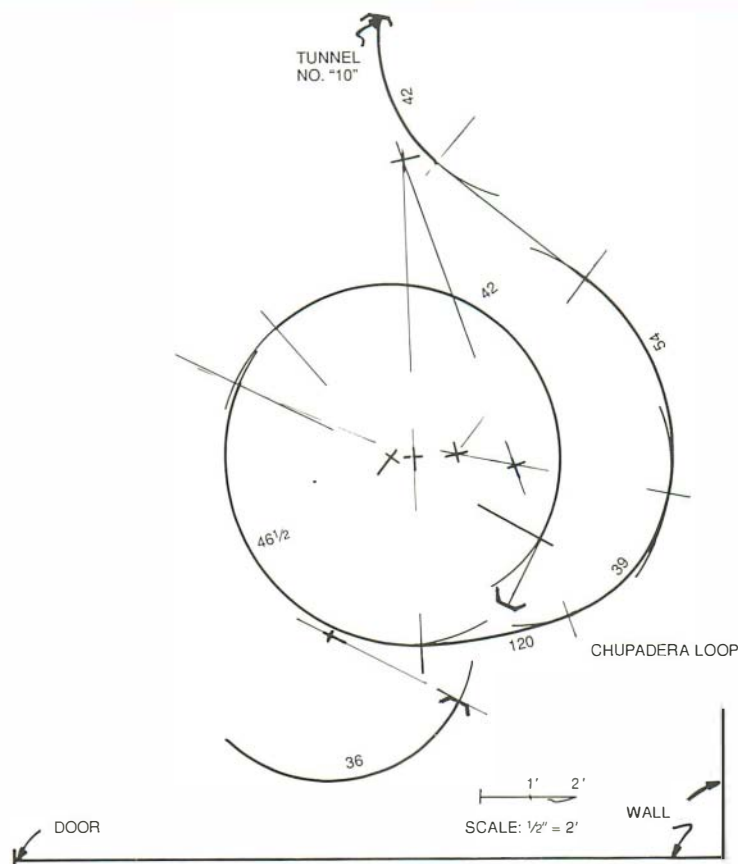
The Jersey Western mainline starts at the north switch of Tortilla Flats and runs to Shining Time Station. The thoroughfare is about 120' long and has two locations with passing tracks. This line lifts the JWRR 12" to the summit at Humphreys Tank. This is approximately a scale 90' rise in 1 3/4 scale miles.

The northbound ruling grade of 2.1% for the division starts at Toolong and ends just north of the loop overpass. The line then continues rising to a summit at Coyote Point (M.P. 84'). From Coyote, the track descends slightly towards Barren and rises again towards Humphreys Tank and drops once again into Shining Time Station. Figure 2 shows the Condensed Profile for the Northern Division.

### Into the Space

As mentioned above, I used a copy of the Tehachapi Loop trackplan as an aid to fitting the Chupadera Loop into the available space. It was determined that a 42" minimum radius could be used for the loop. This radius was found by making a scale measurement from the final sized copy of the Kalmbach drawing.

Besides the loop, I wanted to include Tunnel No. 10 on the layout. The final

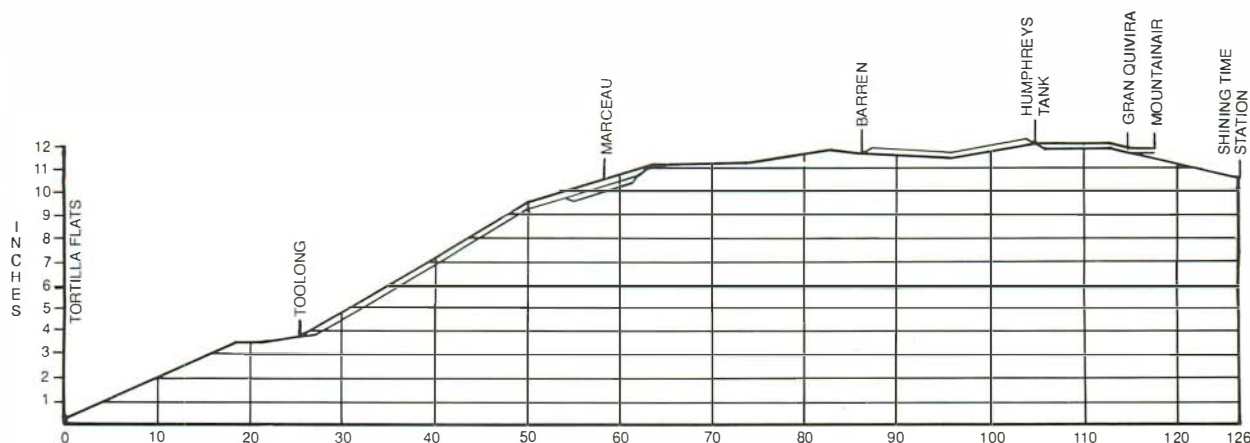


**Figure 1** — The development scheme of the model loop has the shape, and the approaches capture the shape and feel, of the prototype loop. The scheme was drawn using the Kalmbach drawing mentioned in the text. The distance between the railheads at the overpass is 6" or about 44 scale feet as compared to the prototype height of 77'.

track plan design uses the tunnel to conceal the track forming the tight horseshoe curve in the upper right corner of Figure 3. In this way, not only is all the corner trackage hidden from view, but the Chupadera Loop becomes a center of attention of the layout. The increase in the apparent size of the scene helps dwarf the impact of the trains as they wind their way up the side of the mountain (see sidebar for more information). Next month, Margaret discusses this scenery technique as well as some methods of blending a trackplan and scenery from the start of the design.

In Figure 3, the first three stages of the trackplan are shown in black (please see the first part of this series in the November 1991 issue for the details) and the Northern Division is shown in green. After the line climbs the mountainside using the loop and turns back in the corner inside Tunnel No. 2 (see No. 10), the right-of-way had to be placed to complement the view of the scene below. The slight curving, and the rising and falling of track for the rest of the line, was chosen to represent a line working its way through a mountain range after climbing up the escarpment on the loop. By the time a train reaches the layout room's wall on the bottom of Figure 3, it will be winding through cliff's and rock excavations, starting down the Chupadera Range past Humphreys Tank.

At the doorway into the room, the mainline crosses a small canyon before reaching the junction of Gran Quivira. This junction leads to Mountainair to the left while the mainline to the right goes towards Shining Time Station. These two destinations are located at the end of the Northern Division and are located where the tracks end along the left wall and upper left portion of Figure 3.



**Figure 2** — The Condensed Profile for the model JWRR Northern Division System shows the stations, elevations and track distances along the main track. The profile gives an overall view of the mainline and helps engineers unfamiliar with the layout run trains up the mountain. The 126' mainline rises to a maximum of 12" at Humphreys Tank.

## Stations Along the Line

Starting on the southern end of the division at Tortilla Flats, the station list reads, in order: Toolong, Marceau, Barren, Humphreys Tank, Gran Quivira and the final stations.

Toolong and Marceau are on opposite ends of the double track around the loop. Toolong is located at the turnout just north of the underpass of the loop and the Marceau station is on the short passing track on the north end of the double track.

Barren is the turnout location of the south end of the passing track along the bottom wall in the room and Humphreys Tank is the location of the lap crossover.

## Scenery Design

For scenery to be effective on the layout, it must be considered when track planning first gets underway. Just as scenery should add to the trackplan, the track (i.e., roadbed, color, path) should add to scenery. Only when the two are designed together is a scene on the layout believable.

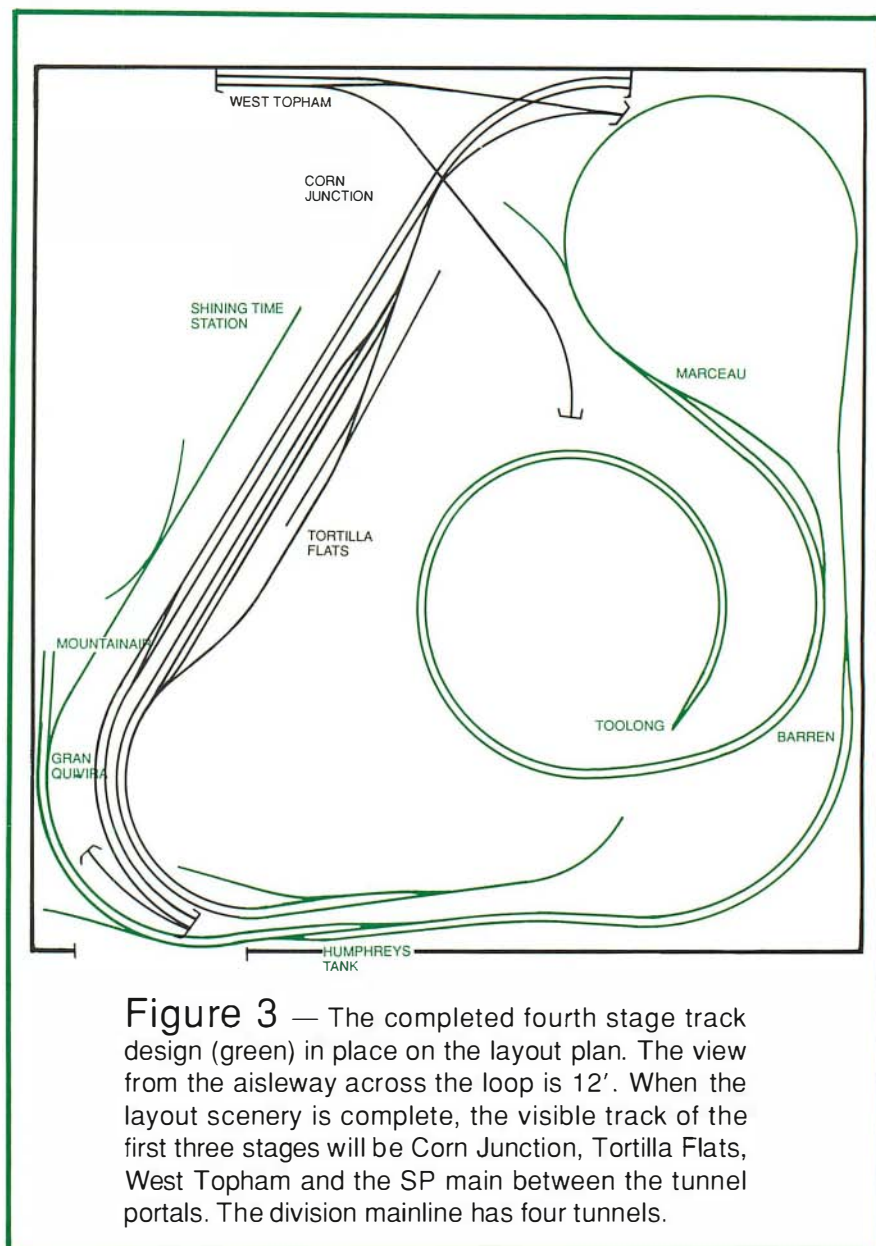
Next month, Margaret is going to take over the series and review how she and I designed the scenery for the layout. She will also cover how we combined both track and scenery design to solve a scene at the door of the room. This scene had to be visible from both sides and appear realistic in a mountainous setting. She will also discuss her scenic solutions for other track locations on the layout.

## Operation Overview

Down trains from Mountainair face a trip of siding waits and slowspeeds. If up trains are numerous, a down train may make as many as five meets before arriving in Tortilla Flats. Generally, a down train does the waiting required so that an up train doesn't need to start on the grades of the loop. A down train may set in the siding at Barren so that an up train can pass without stopping through Gran Quivira. Dispatchers tend to get down trains in sidings as quickly as possible to help in eliminating the need to stop up-bound trains.

A down train's existence starts when it is called in the departure yard at Tilford in Mountainair. The call is made about 15 minutes before it is scheduled to depart. An engineer is assigned and all paperwork (e.g., train orders) is given to the engineer for review prior to starting the trip. The trip can be quite long, what with the waiting, and quite interesting with the meets and passes to be made until it reaches its destination in the staging area.

An up train's trip generally starts somewhere in the staging area and terminates in Tilford Yard. A number of the trains go to Shining Time Station (for direct access to the Santa Fe) and then through the Mountainair reverse and come directly back to the staging area without being classified.



**Figure 3** — The completed fourth stage track design (green) in place on the layout plan. The view from the aisleway across the loop is 12'. When the layout scenery is complete, the visible track of the first three stages will be Corn Junction, Tortilla Flats, West Topham and the SP main between the tunnel portals. The division mainline has four tunnels.

These trains come back down as different trains with different numbers. Crews are also changed at Shining Time Station.

## Trackplan Design Base

The design of the JWRR trackplan was based on the standard train length of 20' (30 car lengths). The final design allows for five trains to be sitting in passing sidings and reverse loops in the staging section, and three trains in sidings on the mainline of the Northern Division. This leaves three thoroughfares (e.g., the two Southern Pacific continuous loops, and the division mainline and the Mountainair reverse) open so that each can have any of the eight trains.

The plan maintains Tortilla Flats Yard and passing siding empty so that it can be used to allow these three thoroughfare trains to pass or meet. Two trains can use the main

and passing siding while the third train can use the yard to cut itself into pieces for a meet and then re-assemble itself. The Mountainair reverse loop allows a train to be turned to head back down towards the SP. This way, the three trains can all be running on the layout at the same time.

Tilford Yard, which starts inside the Mountainair reverse, also adds to the train count of the layout. This yard has a four-track receiving-departure yard and a six-track classification yard. The class yard has a capacity of 90 cars. This capacity will fill three of the R/D yard tracks. If 30 cars (i.e., one train's worth) are placed in the R/D yard as a train, there is then remaining capacity in the R/D yard for the three trains running on the thoroughfares. This additional train brings the total number of trains on the layout to nine. The class yard then has enough room for three trains'

worth of cars. This empty capacity in the class yard is for three more of the eight trains in passing sidings and reverse loops.

If two of the three thoroughfare trains are brought up to Tilford and yarded (received) in the R/D yard, this leaves one train on the mainline running with no interference, an empty Tortilla Flats Yard and one train's worth of open capacity in the Tilford R/D yard in addition to the three train capacity of the class yard.

This final setup started with the base design configuration I chose for the layout's trackplan: simply put, a single-track loop-to-loop with two yard locations, one being a "major" yard. The small yard was to have an open capacity of one train while the major yard was to have an open capacity of one train plus classification capacity of at least 25% of the cars on the layout.

The loops in the case of the JWRR layout are the fusion reverse loop (see explanation and Figure 1 in Part 1 of this series) and the Mountainair reverse. The smaller yard is Tortilla Flats and the major yard

with the classification capacity is located at Tilford.

I chose to place one end of the major yard inside one of the reverse loops to make the design of the yard practical. The second yard was placed along the mainline.

The length of the mainline was maximized and was incorporated (using the fusion reverse loop) into the double-track SP continuous loop. The total length of the mainline, with the two end reverse loops, is 352'. The total number of cars on the layout is to be 270 with an additional storage capacity (sidings and yards) of 180 cars. This ratio of the number of cars to places to put them will keep any layout interesting and smooth flowing.

Of particular note is the track arrangement at Humphreys Tank. This arrangement is known as a lap crossover. It derives its name from the function of dividing a long passing track into two shorter ones ("lapping" the two shorter

ones together). In this way two long trains can make a meet or pass, a long and two short trains can meet and/or pass, or three short trains can meet and pass at the same time. On the JWRR layout, the length of the short siding between Barren and Humphreys Tank is 18', somewhat shorter than standard, but still useful for local, passenger and the shorter Jersey Western "Quality Quick" expedite trains. The other lap siding starting at Humphreys and ending on the Mountainair reverse (stage five) is the standard 23' long. Please see December 1991 "On TRACK" column for more details.

### Tilford Yard

As mentioned earlier, some of the up trains are yarded in Tilford Yard (stage six). The rest connect directly with the Santa Fe by going directly onto their tracks at Shining Time Station. Many down trains originate out of this yard bound for locations in the staging area.

In the March article: up into the yard.. **I**

The term "ruling grade" is used in the text during a discussion of the Chupadera Loop. This term refers to the portion of track that has the steepest grade on a larger segment of track. The 2.1% grade at the loop is shown to be the steepest slope in Figure 2. This grade, which runs from M.P. 26' to M.P. 50', is the ruling grade northbound (from left to right in the figure) on the Northern Division.

To determine a very close value for the percentage of grade for a section of track, you simply divide the height the track rises by the length of the track. This is fine for measuring grades on the layout and will aid in making a profile.

The reason this percentage value is

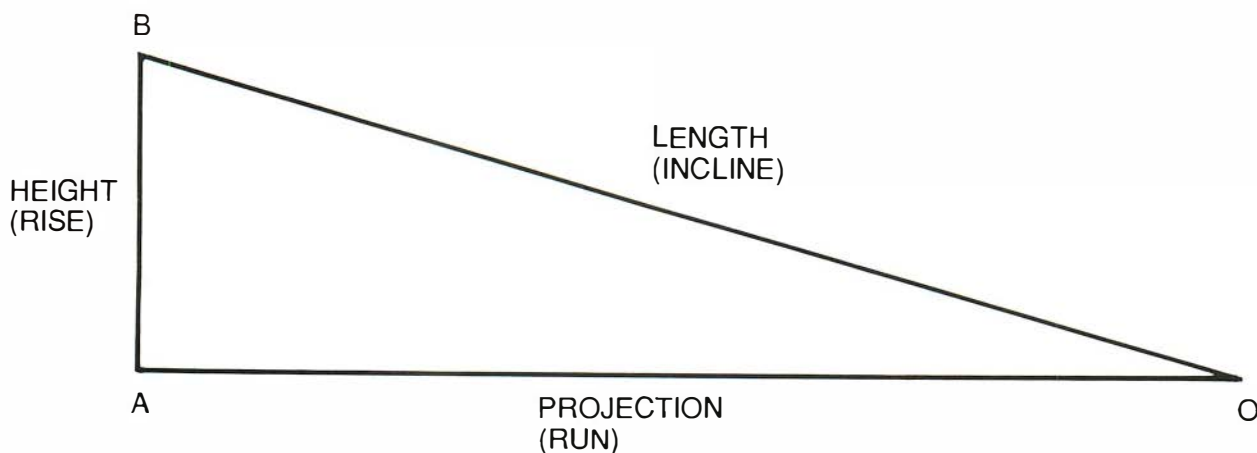
approximate can be seen by use of the sketch below. When you draw a loop of track on a trackplan, as in Figure 1, the distance around the loop on the plan is represented by the line OA in the sketch. If the track is rising as it goes around the loop, the distance it travels is greater because it is rising along an incline. This incline is represented by the line OB in the sketch. When the length of track is measured as discussed above, the measurement is along this incline.

To find the true percent of grade, the height AB is divided by the projection line OA. In the example of Chupadera Loop, the track rises 6" in 24' as measured on the drawing. To find the true

percentage of grade, first, convert the feet measurement into inches:  $24' \times 12" = 288"$ . Secondly, divide the "rise" of 6" by the "run" of 288", which results in a value of 0.02083. This number rounds to 0.021. The final step is to multiply this number by 100, resulting in a percent of grade of 2.1%.

The "incline" OB can be calculated by using geometry. For the Chupadera Loop, the length is 288.062". There is really no difference, and this is why you can use the incline measurement for determining the percent of grade.

Figure 2 shows that the ruling grade southbound is between M.P. 126 and M.P. 112. The grade rises 1.5" in 14' for a grade of 0.9%.





# BEHIND THE SCENES

## Tunnels: Inside and Out

by Margaret Mansfield

Photos by Jim Mansfield

Last month's "Behind the Scenes" ended with a completed cliff face and tunnel portals minus final scenery and tunnel interiors. This month we will complete the scene and go inside the tunnels for interior detailing.

Two different tunnel bores break through the cliff face at Corn Junction near Carrizozo, New Mexico. The Southern Pacific tunnel is a double-track bore with no lining; it is cut directly through the rock. In contrast, the Jersey Western RR bore is a single-track tunnel with a poured-concrete lining. This lining is fronted by the stone portal that was set into place last month.

### Southern Pacific Tunnel

The Southern Pacific double-track tunnel lining required several special techniques to produce the interior. Because of viewing and photographic angles from the final layout aisleways, the visible depth of the tunnel interior was determined to be 27". In addition, since the tunnel runs directly along a backdrop, the backdrop itself could be utilized as one side of the interior. To model the first 10" inside (and 3" outside) the tunnel, a piece of  $\frac{3}{8}$ " plywood was cut to the contour of the mountain rising above the tunnel. The contour was drawn by slipping a piece of paper between the backdrop and plaster land form and drawing the profile on it (see Photo 1). This contour was then transferred to the plywood, and the plywood was cut to size.

Several  $\frac{1}{2}$ " holes were then drilled

through the plywood, and a number of small  $\frac{3}{8}$ " wire brads were nailed into the plywood (see Photo 2). The holes and brads were to serve as anchors for holding a  $\frac{3}{8}$ " layer of plaster to be carved with rock details. For the plaster mix, three parts plaster of paris, one part brown dry powdered tempera and one part water were mixed, then applied and allowed to dry fully. The rock detail was then chipped using small nut picks (see Photo 3).

To complete the rough-cut rockwork, the plaster coating was washed with the same oil paint/turpentine mixture that was used to color the cliff in last month's column. The contour board was then placed into position next to the backdrop using Walther's Goo. A final touch of oil paints sufficed to blend the rockwork into the backdrop scenery.

Attention then turned to finishing the actual tunnel portal. On the first paper/plaster go-around, the resulting portal opening was too high above track level. To correct this, a small piece of screen wire was shaped to the desired final shape of the opening and attached above the portal by inserting 18-gauge wire into the screen and plaster layer forming the mountain surface. Small pieces of plaster-soaked paper towels were then placed on the screen and allowed to dry; an additional application of plaster provided the final rock detail necessary to complete the portal. Once again, thin washes of oil paints were used to blend the new rocks into the completed scene.

To extend the lining detail for the full 27" inside the bore, chunks of plaster were attached directly to the backdrop using Walther's Goo. Then a mixture of acrylic gesso and small pieces of plaster and rocks was applied to the backdrop surface in a thin coat using a 4" brush. This "texture paint" produced enough relief to make the lining believable once it was painted with artist's oil paints.

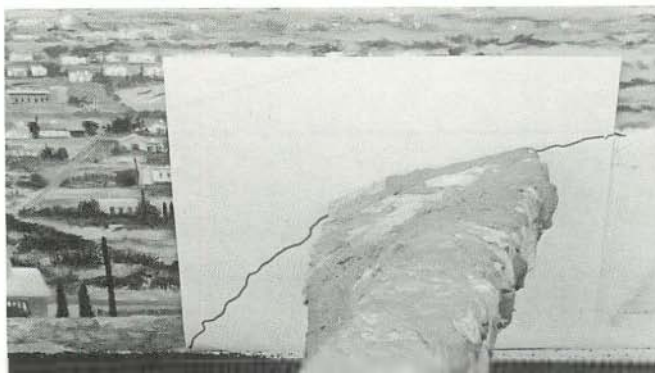
Next, the track was ballasted and detailed.

Photo 4 shows a section being made for the remainder of the tunnel lining. A piece of screen wire was cut 27" long, and formed to the general shape of the revised portal. A portion of the side of the lining was removed to allow easy access to a turnout at the end of the lining. (Note, however, that this cut left a portion of the side to add rigidity to the top.) After this section was covered with plaster and the rockwork completed and painted to match the initial rockwork in the bore, it was fitted into place. A small amount of plaster was used to attach it to the portal. A small amount of plaster was also used as required to seal the top of the tunnel lining to the backdrop and to build a strengthening rib across the top of the section.

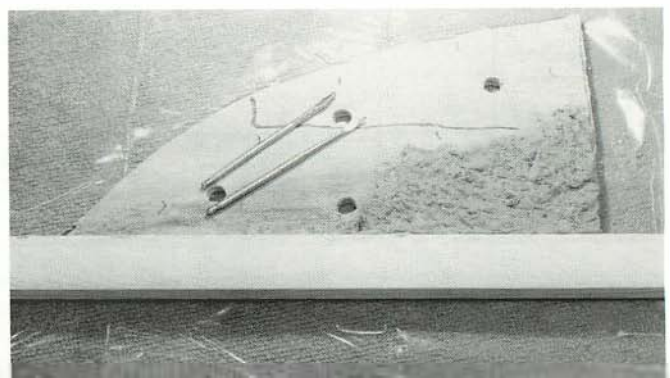
### Jersey Western Tunnel

In contrast to the roughcut SP bore, the interior of the JWRR tunnel was modeled to resemble a poured-concrete lining. Several steps were required in order to accomplish this: first was the construction of a

**1 – A piece of paper was slipped between the backdrop and the plaster land form to draw the contour for the first portion of the SP tunnel lining.**



**2 – Holes were drilled and wire brads driven into the contour board to hold the plaster coating that was to become a portion of the tunnel lining.**





**3 – The rockwork on the contour board was carved and painted with artist's oils prior to being installed onto the backdrop using Walthers Goo.**



**4 – The section that completed the Southern Pacific tunnel was finished on the workbench. It was held square during the work with a plaster box.**



**5 – The Jersey Western tunnel lining was cast using a homemade mold that had seams representing the separate sections of the prototype tunnel.**



**6 – A true "Behind the Scenes" photo. Here are the two tunnel linings in place "under" a future mountain. Full access to turnouts is provided.**

form to support the concrete. A 3" mailing tube served as the basic shape. This tube was stapled to the top of a 1" x 4" board cut 3" wide. Three-mil plastic sheet was then wrapped tightly around the tube and board, and stapled to the board.

To represent the seams between the sections of poured concrete, a piece of computer paper was folded every 18 scale feet and then flattened back out. These folds were all made in the same direction, not as a fanfold. The paper was then wrapped around the tube with the folds to the inside, going around the tube. The paper was stapled to the edges of the board. To hold the shape of the seams, ten coats of Testors Dullcote were sprayed on the paper. Finally, a piece of clear plastic food wrap was stretched over the paper to protect it from plaster and moisture.

Next, a paper towel was dipped in a soupy plaster mixture (1 part plaster, 3 parts water), draped over the form and allowed to dry. The towel was then coated with a thick layer of plaster — about 1/8" thick — that was allowed to dry for about four hours.

To act as a support for this detailed tunnel lining, a piece of screen wire was then formed in place around the plaster. To this a 1/4" coat of thick plaster was applied and allowed to dry overnight. The result: a complete lining.

The next step involves removing the form from the actual plaster tunnel. In order to accomplish this, the bottom edges of the tunnel were slightly separated from

the mold using an old dinner knife. The mold then slid out of the lining; as planned, the folds in the paper had left impressions that represented the desired seams. The end of the lining that was to go against the portal was then sanded and squared using a sheet of medium sandpaper (see Photo 5).

Now for final detailing. First, the interior of the lining was painted a concrete gray color and then coated with black diesel exhaust, heavily on the top and lighter down the sides. On the layout, the lining was aligned with the portal by setting it on blocks. The lining was then removed, the track ballasted and ballast built up even with the blocks. Once the ballast had set overnight, the lining was glued in place on the ballast supports.

To finish the juncture between lining and portal, masking tape was applied on the portal next to the end of the lining, followed by a small amount of plaster on the seam between the two. This patching was

then painted to match the rest of the lining, and the masking tape removed.

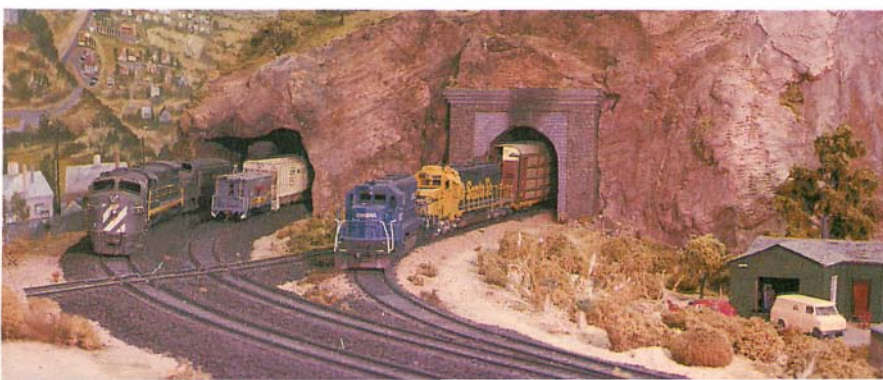
### Epilogue

It's time to shed light on the two deep, dark secrets that were mentioned last month. (Yes, Larry, this is for you!)

When my husband Jim applied for his NMRA Achievement Program Award in Scenery, Contributing Editor Larry Smith chose to be one of the judges. The only thing Larry seemed interested in was the Jersey Eastern layout having tunnel interiors. Every time we saw or spoke with Larry, he brought it up; and those of you who know Larry, know how he can bring things up. Anyway, Jim solved the problem. To appease Larry and get his goat, Jim simply used black construction paper bent in a "U" shape for the linings.

The other secret? A certain Contributing Editor who shall remain nameless, but probably not silent, turned 50 last year. 

**Here is a view of the Southern Pacific (left) and Jersey Western tunnel bores as seen from the Corn Junction tower. Traffic is heavy at times.**





# Model the Alaska GP49



by George Melvin

Model by Gary Munsey, Sr.

Photos and illustrations by the author

The prototype Alaska 2802, Anchorage, AK. January 23, 1984.

Raymond Danowski photo. Gary Munsey collection

The GP49 is a 12-cylinder version of the 16-cylinder GP50; the smallest member in the "fifty family" of GP49, GP50 and SD50. This series of EMD locomotives is now being described as an interim model between EMD's highly successful and long-running Dash 2 units and the currently produced "sixty family" of units; the GP59-GP60-SD60 models, with the new 710 prime mover.

Starting with the GP39 in 1972, EMD has offered a 12-cylinder turbocharged four-axle road switcher as an alternative between a non-turbocharged 16-cylinder unit, such as the GP38 and the 16-cylinder,

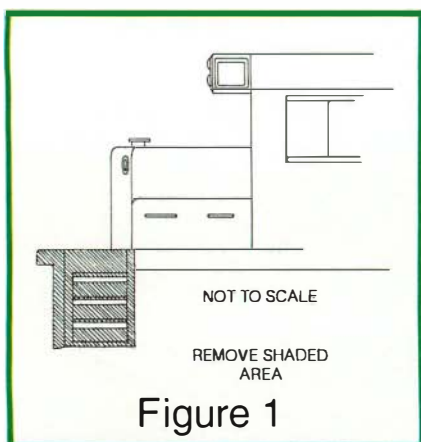
turbocharger-equipped GP40; offering 15% more horsepower than the smaller GP38 but with better fuel economy and less maintenance than the big brother GP40. Only 23 GP39s were built. The GP39-2 received better acceptance and sold in respectable numbers to such roads as Burlington Northern, Delaware & Hudson and the Reading.

The GP49 was only offered for a short time and the nine units sold to the Alaska Railroad, units 2801-2809, in two orders in 1983-85, are the only pure GP49s built. Two other orders of engines, the Southern GP39X of 1980 (units 4600-4605) which

was a prototype for the GP49 and the MKT's order for GP39-2s (units 360-379) of 1984 which was built after the GP49 was available, are both externally indistinguishable from the GP49.

So, the Alaska's GP49 units, even straight from the box, would be a notable group of engines, but, with the Alaska's array of modifications, mostly to cope with that state's winters, they became most distinctive!

Let's see how Gary Munsey, Sr., went about building his excellent model of Alaska GP49 #2802. Just as the prototype is based on the GP50, Gary's work began



Front view.



Left front view.



The completed Alaska GP49 as modeled by Gary Munsey, Sr.

with an undecorated Athearn GP50 with dynamic brake.

### Nose Modification

From the front, the following modifications were made: using a razor saw, Gary made a cut level with the deck top back to the first step up to the cab and under the tapered area of the short hood. A second cut from the bottom of the shell upward separated this piece consisting of the pilot, front steps and deck. This goes into the parts box. See Figure 1.

Using two thicknesses of .060 styrene sheet bonded together to form a piece about 9" (scale) thick, a new deck was cut out using the dimensions in Figure 2 and attached in place of the removed deck. To the front edge of this, a Details West #189 anticlimber was attached.

Next, a sandwich of .060 and .030 styrene sheet was bonded together for an approximately 6" (scale) thick pilot, cut to the dimensions in Figure 2. This was attached to the deck and braced with two pieces of .020 styrene, which also formed the sides of a scratchbuilt coupler pocket. A block of styrene was fitted in between these braces to form a pad for the coupler, bringing it to the proper height. This pad was tapped and drilled for a screw. A modified Kadee coupler pocket cover was used to form the bottom of the pocket (see photo). To this scratchbuilt assembly, sec-

**Underside view of scratchbuilt pilot and frame with coupler removed.**



tions of ladder stock from Central Valley set #1602 were fitted for the ladders which replace the steps. Though the resulting ladders were not as delicate as a more accurately styled ladder would be, ruggedness was desired for handling. (*Editor's Note: This is a point that should be considered by the modeler when making any fragile parts that are susceptible to breakage.*) Also added was a Details West #140 snowplow, Detail Associates #2212 coupler lift bar, #1502 tall MU stand, six Precision Scale #3937 handrail stanchions with Detail Associates .020 wire, and a piece of Builders in Scale #250 chain. Precision Scale #3935 handrail stanchions were used on the sides. The stock Athearn hand brake was retained.

Short-hood modifications consisted of cutting a sheet of .010 styrene 3' 4" W x 3' 9" L and fitting it with a Detail Associates #2202 handgrab to make the toilet hatch. Cannon & Co. has since produced a detail part for this. Class lights from MV Products were added after painting. A Details West #121 toilet vent and another handgrab were added to the engineer's side of the hood.

### Cab Modifications

On the Alaska diesels, the stock headlight location is used for an oscillating light while the upper add-on assembly carries the regular headlights. The stock Athearn cast-on headlights were retained and a Detail Associates #1003 headlight was mounted on a block of styrene. Two pieces of .010 sheet styrene were formed to make a base for the rotary beacon, which was taken from the Roco emergency light set #1750 (see photos). To the left of this assembly is the electronic bell (more reliable in the winter than a mechanical bell) which was made from a scrap of styrene with a bit of MU hose trimmed to represent the cone. On the right side of the roof a

Detail Associates #1903 roof vent was added, and to the rear a Details West #157 firecracker-type radio antenna was installed. The L-shaped window was made by cutting out one post area on the stock Athearn cab. The Cannon & Co. #1501 Dash 2 cab comes with this option and could be used for an even more detailed model. Detail Associates #1301 cab sunshades complete the detailing.

### Long Hood Changes

Moving to the long hood, on the left side, the straight blower duct was replaced with the Cannon & Co. #1601 GP60-style angled blower housing. Make sure you read the instructions with the part and install correctly so it is recessed into the shell. Snow shields 7' 6" long were built from .020 styrene (see Figure 3 for measurements) and fitted over the air intakes behind the cab on each side. Above the snow shields are Details West #194 smoke deflectors installed after painting. Detail Associates #1101 lift rings were added to the corners of the dynamic brake housing and radiator housing. The large winterization cover is a Gingerbread Stop #9003. The two forward fans had to be removed to fit this piece flush with the roof. The air

(Continued on page 31.)





# Cotton Belt Caboose 'Bashing

## Part II

by Martin Lofton

*Photos by the author unless otherwise indicated*

**T**he 2300 series combination caboose/merchandise cars of the Cotton Belt have a character all their own. With nine rows of passenger seats, a merchandise compartment and a cupola perched precariously on the end, these 51' cars were jacks of all trades.

The wooden bench-style seats in the branchline combines could not have offered much comfort to paying passengers. The one potbelly stove would have provided little heat to customers in the far end of the coach area. And the car must have been sweltering in the hot summer months. This prototype conveyance likely was rued by the local natives, but it makes a pleasing model for craftsmen interested in branchline operations.

These combines were assigned throughout the northeastern part of Arkansas and the southeast section of Missouri — the region referred to as the Bootheel of Missouri. Employees named it the Gumboot Line. The land had been retrieved from swamplands created by the New Madrid earthquake. Even with vast sums of money spent on drainage, the areas was wet most of the time, requiring rubber boots or "gumboots" to traverse. For more information on the branches see the accompanying article on "The Gumboot Line," which is excerpted from my forthcoming book on the line.

The 2300-series cabooses differed modestly from the 2000-series mainline cabooses discussed last month in a few areas other than length. The combines had a flexible metal roof, that is, a wood structure with a thin-gauge metal covering. A steel centersill was supplemented by a pair of truss rods. Short queen posts for these truss rods attached to 9" I beams near mid-body. A toolbox was slung under the carbody on the left side and side hooks bore poling bars and cables. The latter came in handy on the isolated branches. All these characteristics gave the 2300 series a dowdy but functional appearance, one befitting a combine for backwoods service.

The construction of the 2300-series combines is a bit more involved than the mainline caboose in Part I. More windows must be constructed. A merchandise compartment must be created, giving the opportunity to model an open-door scene. The underbody construction differs somewhat. Other than this, the approach used in the mainline cars is followed.

The process begins with the disassembly of a Hallmark "2300" series 41' caboose. Use a propane torch or large soldering iron to take the car apart. The objective is to retain the cupola, ends with steps and railings, stovepipe, cupola braces and side doors. With care these parts can be retrieved from the brass car.

Begin, as in the mainline caboose construction, with creation of new sides. Cut .020 styrene with 3/4" scribing to 44' 8" by 7' 4". The left side (when viewed from the cupola end) had nine windows, the right eight. The front window on the right side was given over to space for a stove; thus the windows start one space later, but are otherwise paired with the left side.

Some of the 2300-series combines vary one from another. The most notable change in the cars is in the number of windows. Some cars had a set of eight windows on the left side and seven on the right. The last windows were the last in the series — as viewed from the cupola end. To create these cars, simply ignore the last windows and begin with the second-to-last window location on the drawing.

Refer now to the diagram of the left side for cutting openings for the windows. Use the Grandt Line windows, #5069, reduced in height to 3'. Create a new lower sill of .010 x .040 styrene. As in the construction of the mainline caboose, cut the opening smaller than the 2' x 3' shown and expand with the nibbler or a file, testing the fit of the window casings as you proceed.

Create door openings 4' 3" W x 5' 6" H that are 10' 9" from the cupola end. The bottom of the door opening is 9" from the bottom of the car side. If you choose to have a closed door, you can insert the



Cotton Belt 2304 leaves Malden, MO, in 1961 on the local to New Madrid.

Steve Patterson photo

Hallmark caboose door into the side. If you wish an open door, await the discussion below.

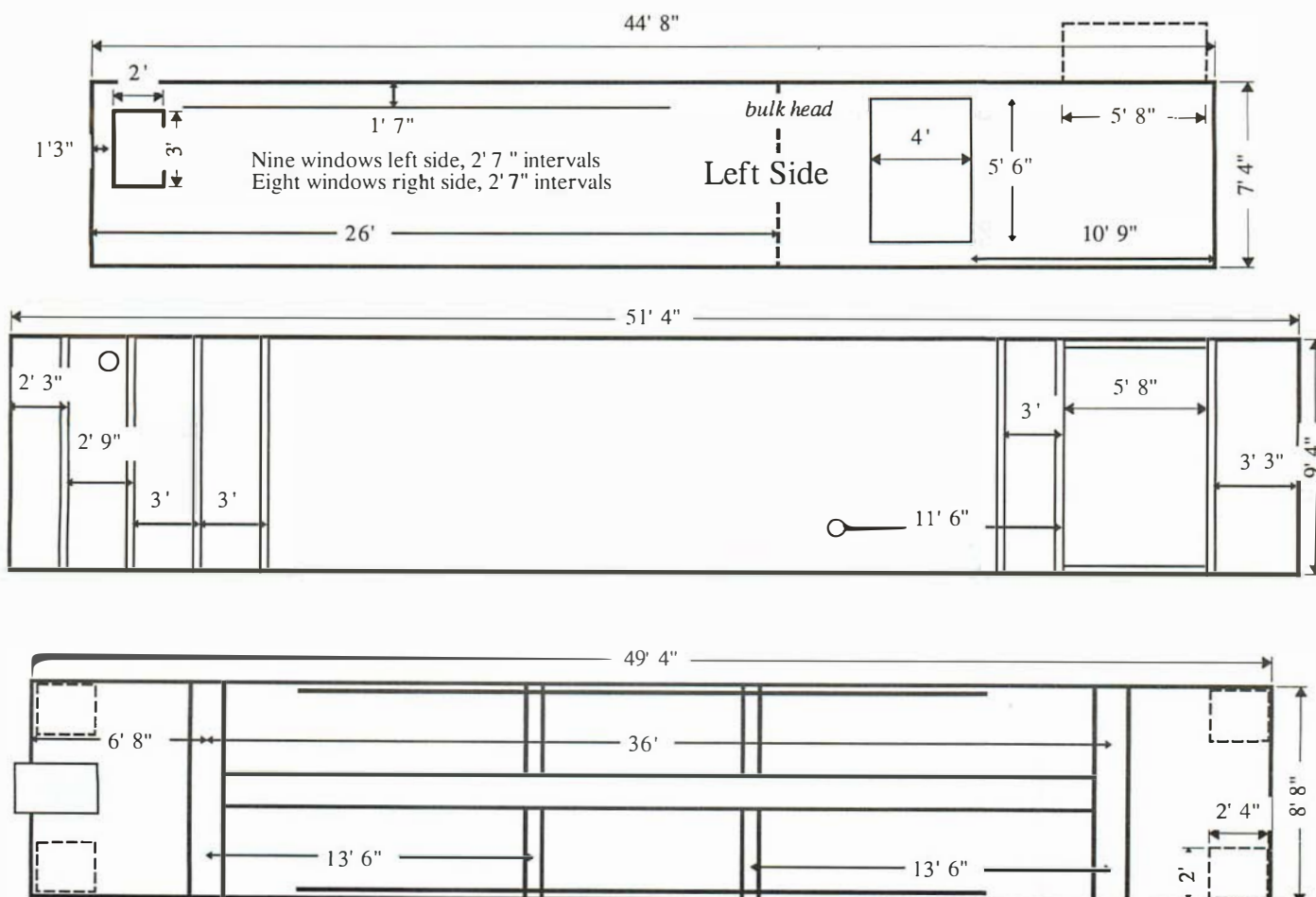
Cut a piece of .020 styrene 51' 4" L x 9' 4" W for the roof. Scribe a line down the middle of the roof. Add roof ribs of 1 x 4 styrene, using the layout on the diagram. Create an opening for the cupola which is 5' 8" in length. Test-fit and finish the opening. Begin cutting two holes for the stovepipes.

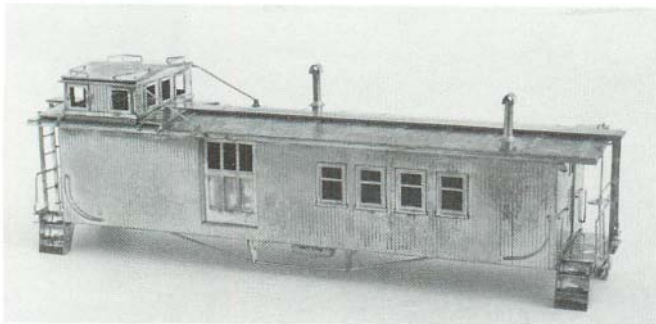
Cut a piece of .040 styrene scribed to .060 for the floor. The basic size is 49' 4" L x 8' 8" W. Place body bolsters 36' apart. Add a twin I beam centersill of 2 x 12 styrene strip. Create 9" I beams from styrene or substitute Plastruct I beams. These crossbearers had an approximate 45° angle at the outside ends. Place them 13' 6" inboard from the body bolsters.

Add 6" queen posts for the truss rods. Place the posts on the 9" I beams 12"

inboard from the side of the car. Make truss rods of .020 brass wire. Insert in the car floor 4' from the centerline of the bolsters, over the queen posts and into the floor on the other side, 4' from the other bolster.

Notch the corners of the floor assembly with 2' 4" x 2' cutouts. These notches accept the steps from the Hallmark caboose ends. Final trimming of the under-





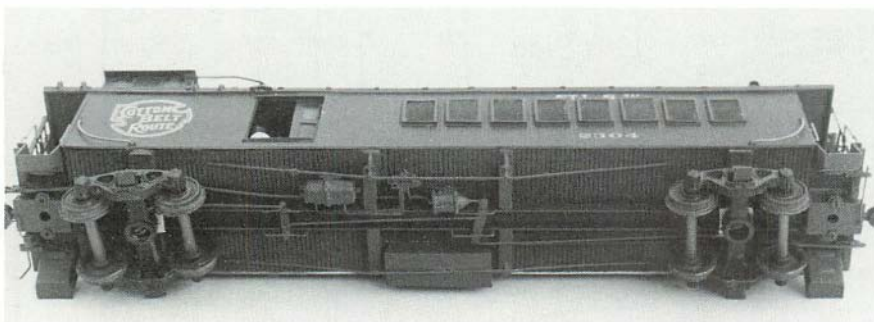
A Hallmark "2300"-series caboose was used by Martin Lofton as a basis for modeling both the 2000-series and 2300-series cabooses.



SL-SW 2334 is the prototype for the 41' branchline combine produced by Hallmark Models. *Author's collection*



The Cotton Belt has conveniently provided an underbody shot of the 51' branchline combine. The car derailed on the Trumann line and lots of folks were available to give advice. *Author's collection*



Underbody of model 2304.

The Paragould-Blytheville (AR) local turns on a wye in a cotton field. A SL-SW combine is part of the train in 1961.

*Steve Patterson photo, Martin Lofton collection*

body will come with the assembly of the car.

Assemble the parts — styrene sides, roof and underbody — with the pieces kept from the Hallmark 2300-series brass caboose. Add styrene posts to the outside edge of the brass ends. Leave room in the corner for the floor to fit. Sand the post to a smooth edge. Attach the sides to these posts with solvent. Make any adjustments necessary.

### Interior Detailing

At this point some interior work is necessary if you choose to have an interior. There is a bulkhead at the end of the row of windows. There likely was also a partition creating the Jim Crow seating two thirds of the way from the end of the passenger compartment. These can be formed of scribed styrene. This will also serve as a truss for the sides.

An interior floor is required if you will model the merchandise compartment open. This should be scribed styrene, simulating wood flooring. The floor in the passenger area, however, was probably akin to linoleum. The interior floors and walls need to be finished before installation.

If you wish part of the LCL compartment door open, you can use the brass door or use its dimensions to create one of styrene.

Additional trusses to assure straight sides are required. Add a piece of 4 x 12



styrene down the center of the ceiling to support the roof. Attach the roof with solvent and ACC. Add a 1 x 2 fascia on the side. Add an end fascia of 1 x 4 tapered to match the side fascia where they join.

Late rebuildings of the 2300 series incorporate some modest changes in the fascia. For example, the side fascia was 2" deeper at the ends of the car sides and the end fascia was curved on its bottom side, even though the car had a straight roof. Fashion attaching brackets for lanterns on the upper side on all four corners.

Insert the cupola. Add one set of braces, facing forward. Retrieve these from the Hallmark car. Add running boards either side of the cupola and lateral walks at the corners with ladders. Also add lateral walks all around the cupola either side of the running board. Secure the end railings and ladders from the brass car to the new roof. Insert stovepipes into the roof. Add the curved caboose grabs from the brass car or fashion new ones.

The 2300 series used an AB brake system. Create this from the Tichy or Cal-Scale sets. The brake cylinder was at the car center, facing away from the cupola. The triple valve and reservoir were on the same side — the right side when viewed from the cupola end. Add brake levers, hangers of straight grabirons, piping of .010 plastic rod and rods of brass wire.



**SL-SW 2304 has completed its run to New Madrid and the crew has tied up in Malden for the evening.**

*Steve Patterson photo*

Refer to the underbody photos.

Create a toolbox from styrene for the left side. Fashion it from 3/4" scribed styrene for the sides and .030 styrene for top and bottom. This box fits between floor and truss rod on the left side, between cross-bearers. On the right side, fashion hooks of .020 brass wire and add a poling rod and chains, if desired.

Paint the car boxcar red, protecting the interior decoration. Paint the curved corner grabs, the grabs on the carbody end and the exterior portion of the end railing yellow,

as was the SL-SW standard. Letter with the Champ HB-16 set. Add couplers, cut lever and trucks with leaf springs.

By creating the Cotton Belt 51' combine caboose, a modeler has a prototypical branchline crummie. It's suitable for bringing up the rear of those locals that plied most North American railroads on the not-so-well-traveled lines. Whether lettering for the St. Louis-Southwestern or a private road name, you have assurance that you have accurately represented a prototype that served that function for many years. **I**

## The Gumboot Line

by Martin Lofton

**T**he St. Louis-Southwestern began existence in 1875 as the narrow-gauge Tyler (Texas) Tap Railroad. It was built to link Tyler with the Texas and Pacific, which had passed 22 miles to the north. The cotton merchants of Tyler saw the potential of a rail route to St. Louis and reincorporated as the Texas and St. Louis. Under the direction of J. W. Paramore, they soon built to Texarkana to connect with the St. Louis and Iron Mountain and access to the St. Louis market. However, Jay Gould bought the Iron Mountain shortly after the arrival of the T&StL and shut out the little road.

Nothing was left for the T&StL to do but extend their narrow-gauge line north. They bought a former toll road company in southeast Missouri, which had built from New Madrid on the Mississippi River south of the confluence of the Ohio River to Malden, MO, near the Arkansas border. The company built their "yard wide line" north across eastern Arkansas to reach this northern outlet. New Madrid proved unsatisfactory, so the line was changed in 1882

to Bird's Point, opposite Cairo, IL, then again in 1898 to Gray's Point near Cape Girardeau, MO, each time a little further north.

The Goulds had the last laugh, however. They gained control of the road and Edwin Gould, second son of Jay Gould, was named president in 1898. In 1901, the relationship finally gave the former Tyler Tap what it wanted. The now renamed St. Louis-Southwestern and the Missouri Pacific constructed the Thebes Bridge across the Mississippi River at Illmo and shared trackage north on the east side of the river into East St. Louis.

New Madrid, MO, gave its name to the nation's most violent and dramatic earthquake. Coming in the months of late 1811 and early 1812, the series of quakes caused the land to sink in a three-state area of Arkansas, Missouri and Tennessee at the top of the Mississippi River Delta. Lakes and swamps were formed in the former passageway of the great river. The land came to be abandoned to all but the most hardy men, water moccasins and swamp lions. No one

doubted the value of the timber in the Sunk Lands, but only a major effort could retrieve them from nature. A Cape Girardeau entrepreneur by the name of Louis Houck did cut various branchlines into the swamps and later sold them to the Frisco. Later the U.S. Government drained them, making the land valuable for farming.

The former mainlines to the Mississippi River from Malden became the nexus of the branches known as the Gumboot Line. Paragould, AR, appropriately named, became the starting point of another line to the Mississippi River when the Paragould Southeastern was built to Blytheville, AR, in 1914.

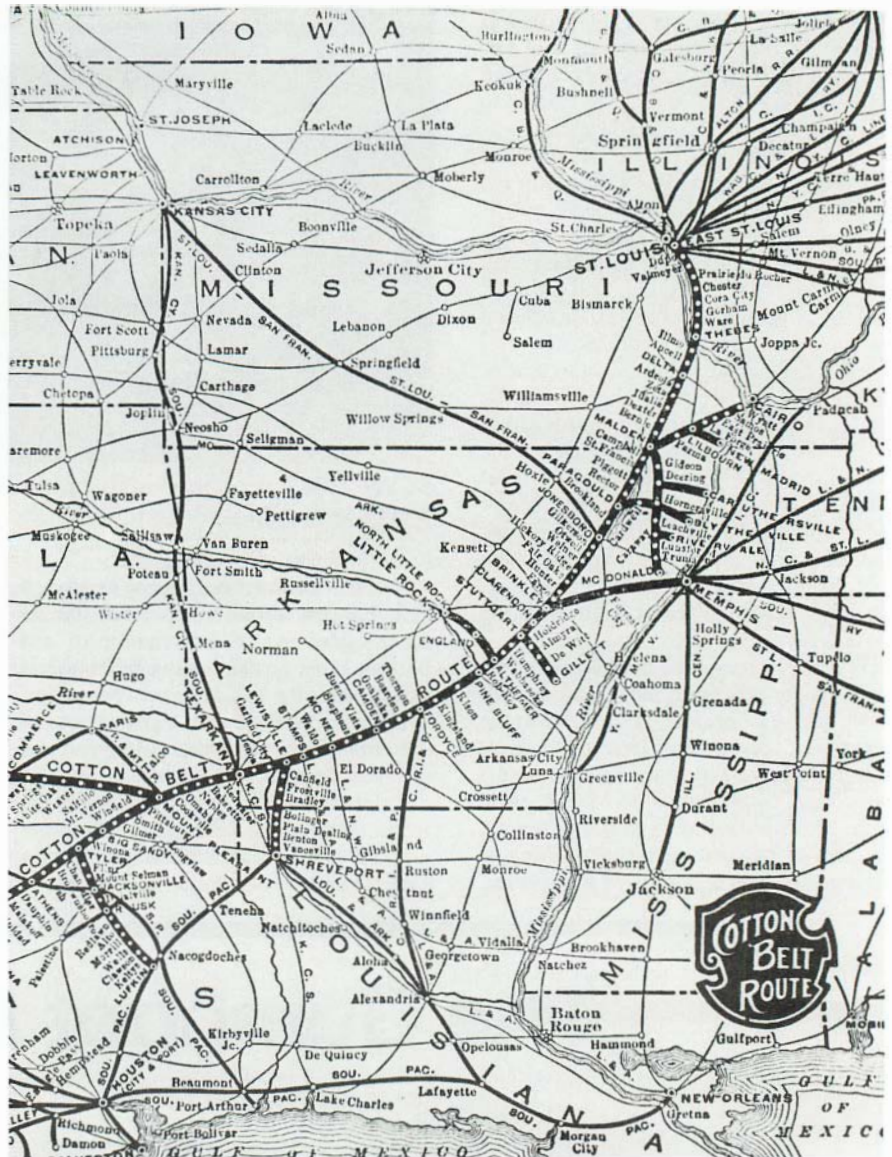
It was that dubious endeavor, known as the St. Francis Basin Project, that completed the lattice work of branches found in the late steam era. The Cotton Belt envied the Frisco's direct River Division down the west bank of the Mississippi River from St. Louis to Memphis and the myriad branches collecting agricultural bounty. The SL-SW decided in 1928 to string together various logging roads with new construction to

form a cut-off from Malden, above the Arkansas line, to a connection with the Missouri Pacific's Little Rock-Memphis line, thence via track rights to Memphis. The project was completed just in time for the Great Depression.

Of all the streams in the Sunk Lands the St. Francis River was the most impacted by the New Madrid Earthquake. The convulsions had turned the river into a lake for much of its course. The territory still contained valuable timber, being the last drained. The logging lines, such as the Gideon and North Island and Arkansas Short Line, however, were little more than tramways. The shortlines could not be turned into a expeditious route and the Memphis cut-off turned out to be a bust. The line was soon shortened to Trumann, AR, where it supplied timber to a large Singer sewing machine cabinet plant. All the St. Francis Basin Project did was create the Gumboot Line and elicit modest agricultural traffic.

The Cotton Belt, for all its peripheral status, was progressive. The road was able to gather enough General Motors' FTs to dieselize the south end of the mainline during World War II. Likewise, it dieselized the branchlines with VO-1000s by the end of World War II, far sooner than most roads. To get the small diesels, it had to accept the first ten in Atlantic Coast Line purple and silver paint, while the FTs came in their preferred gray and yellow with red trim.

The St. Francis Basin lines did challenge the Frisco in the rural areas of northeast Arkansas and southeast Missouri. The two roads crossed again and again in such little towns as Leachville, Arbyrd, Hornersville and Lilbourn. Massive cotton compresses — to Delta towns what the grain elevator



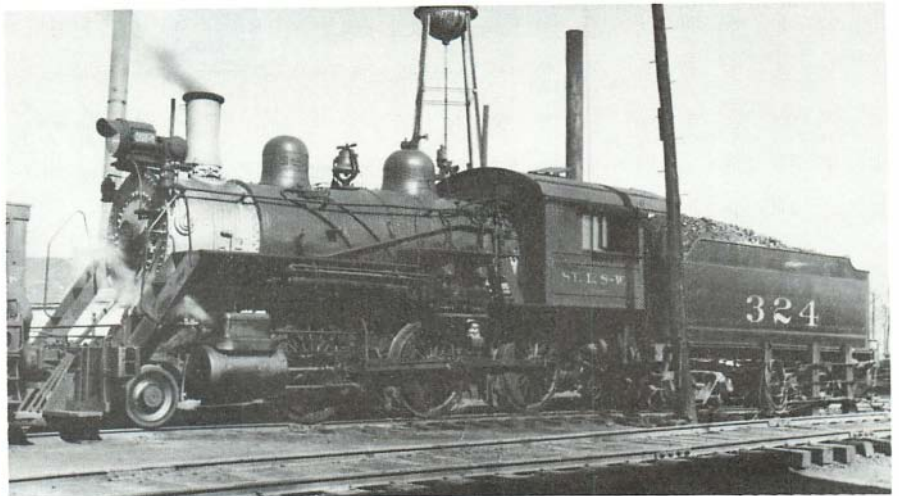
The day trip on the New Madrid branch is complete on June 23, 1962, and combine 2304 leads the train backward to Malden, MO. Steve Patterson photo



was to Plains towns — were frequently served on opposite sides by the Cotton Belt and Frisco. Cotton Belt purple and silver VO-1000s would hold at their crossings for Frisco ten-wheelers and doodlebugs. The two roads fought over the traffic of the fertile delta land like the Pennsy might fight the Central.

Malden was the center of Gumboot operations. The caboose combines radiated from Malden each day to provide limited service to the rural communities. Little Moguls handled the branch operations until supplanted by the VO-1000s. What a contrast the purple and silver VO-1000s, gray and yellow FTs and home-built Northerns must have been in Malden. The branchline terminus, also, sported a miniature single-stall enginehouse that could accommodate two engines in tandem. For nearly a century it repaired the work-a-day power of the branches. A small yard enabled assembly of the daily tricks and set-outs by passing mainline locals. Malden was a microcosm of the big railroad.

The Southern Pacific applied to the ICC for a controlling interest in the Cotton Belt in July 1930. The SL-SW provided a natural extension of the SP from southern Texas to the East St. Louis gateway — a precursor of the SP's purchase of the Rock Island Golden State route nearly a half a century later. The St. Francis Basin project contributed to the Cotton Belt bankruptcy in 1932 and the SP had to guarantee loans from the Reconstruction Finance Corp. The following 14 years of receivership did not stem the Cotton Belt's rush to modernize. The mainline was relaid with 112-lb. rail, the 85-lb. leftovers going to upgrade the Gumboot during receivership. Northerns and FTs replaced Consolidations and the Blue Streak Fast Freight accelerated its schedule. Today the Cotton Belt is best known as an operating unit for the SP/Rio Grande properties in the east, but in its period of independent operations it had a personality all its own. 



SL-SW Mogul 324 awaits its day-long journey on the branches in 1938. Malden, MO, was the locus of the branchlines of the Bootheel. Most of the road's old 2-6-0s moved to Malden to fill out their final days.

*Kaiser-McBride collection*



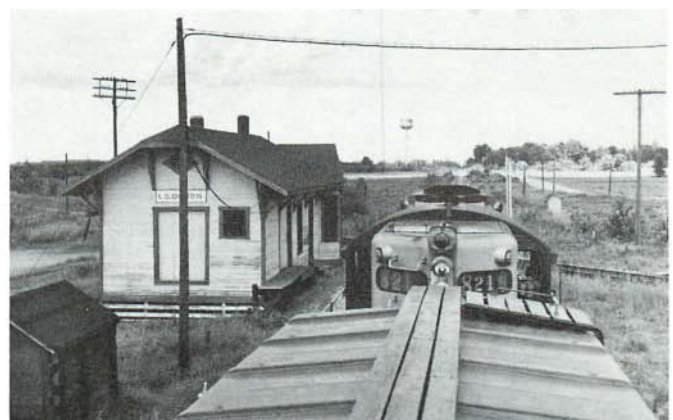
VO-1000s in the esoteric purple and silver of the ACL were used to dieselize the branches in WWII. The Cotton Belt had to take the non-standard color combination due to wartime restrictions.

*Harold Vollrath photo*



This enginehouse in Malden, MO, provided repairs to nearly a century of Cotton Belt branchline motive power.

*Author's photo*



The Wyatt, MO, local from Malden holds at the Frisco River Division (St. Louis-Memphis) crossing in Lilbourn, MO, in 1961.

*Steve Patterson photo*



## *Adventures With Layouts*



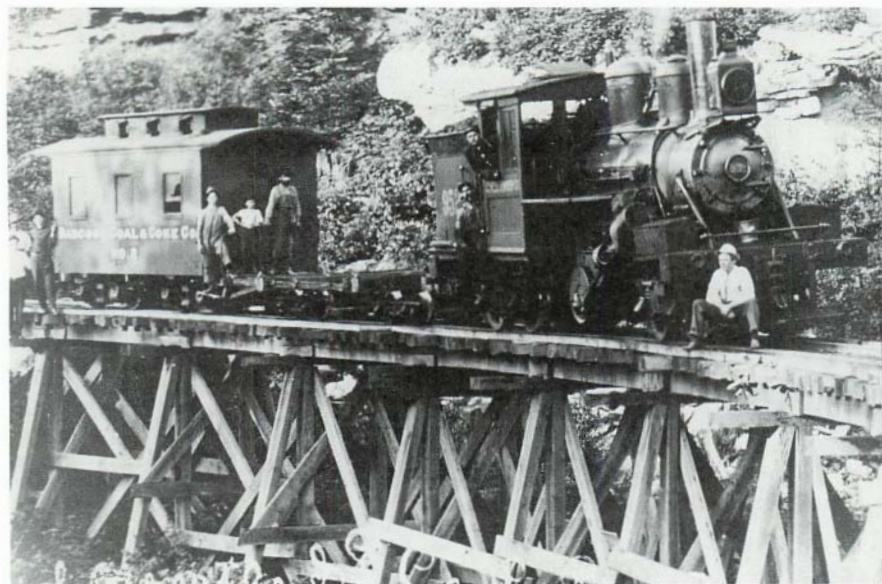
### Mann's Creek Pictorial

by Larry Smith

**T**he recent series in *Adventures with Layouts* on the Mann's Creek Railway has sparked a demand for photos that we have just been able to meet. Thanks to Ron Lane, Ted Schnepf and C. J. Riley, we are able to provide the following photos of the Mann's Creek Railway for your enjoyment.

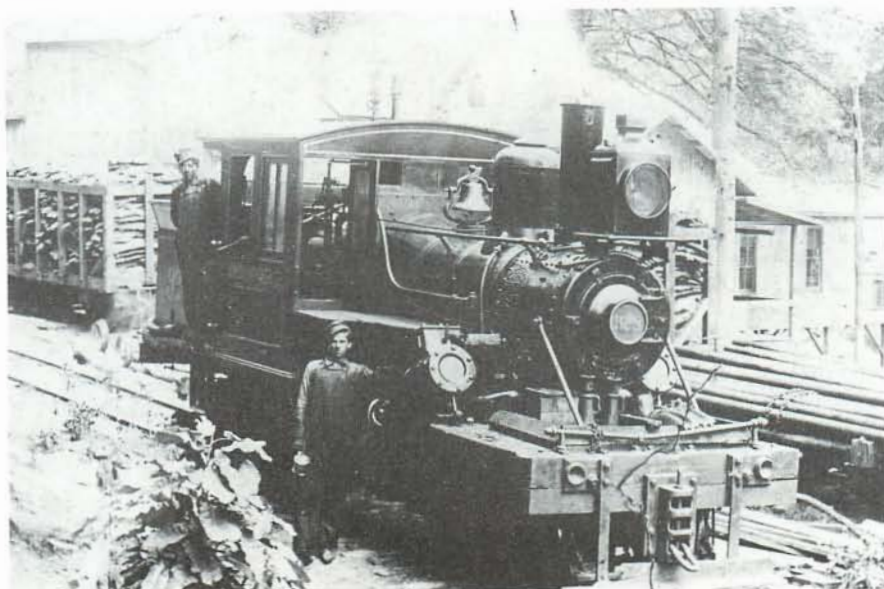
Next month, *Adventures* will visit with a layout from the past.

**Mann's Creek Railway rod locomotive and early caboose at Clifftop, WV, near company store, circa 1912.**  
*Ron Lane/Ted Schnepf collection.* ▶



◆ **Mann's Creek Railway Climax #2 (Builders No. 952—built for Sewell Lumber Co.), log car #59 and Babcock Coal & Coke Co. caboose #2 posed on Summit Trestle on the Clifftop-to-Landisburg line, near the present-day Babcock State Park administration building, shortly after 1912.**

*Ron Lane/Ted Schnepf collection.*

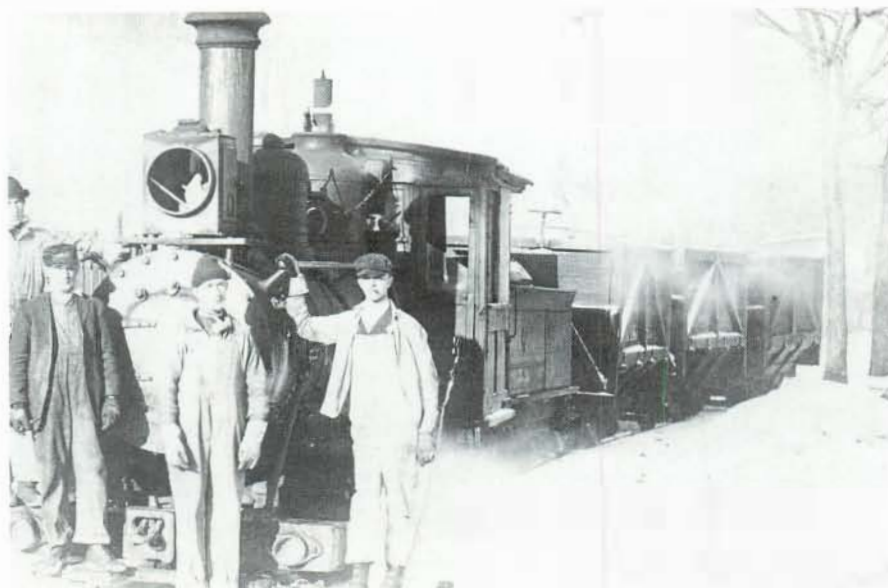


Sewell Lumber Co. Climax #1 (Builders No. 928) in the sawmill boomtown of Landisburg. Shelt Carpenter, engineer, stands on ground with oil can. Note tanbark car in upper left.

*Ron Lane/Ted Schnepf collection.*

Mann's Creek Railway rod locomotive #7 and three buck jimmies at Sewell. Note link-and-pin couplers. People, from left to right: unknown; Jim Winbrenner, engineer; Wallace Ashley, brakeman; Lake Armstrong, brakeman. Circa 1920.

*Ron Lane/Ted Schnepf collection.*



Strip tippie at Clifftop, circa 1950, near the end of operations. Last caboose is at right with flatcar. Note hopper spotted under tippie, and operating levers and cables. Track-age to Mine #10 snakes between tippie and dilapidated shed.

*Ron Lane/Ted Schnepf collection.*

Clifftop machine shop on Mann's Creek Railway. All homemade mine cars were fabricated here over the years. Beautiful example of clutter typically found around such facilities. Babcock Coal & Coke Co. Shay #3 (Builders No. 2953[?]) sits in ruins on sidetrack.

*Ron Lane/Ted Schnepf collection.*



Shay #8 at Clifftop. May 1955.

*C. J. Riley collection.*



Mann's Creek caboose at Clifftop. May 1955.

*C. J. Riley collection.*



Shay #8 taking on water from the creek at Clifftop. Note that link-and-pin coupler is still being used. May 1955.

*C. J. Riley collection.*

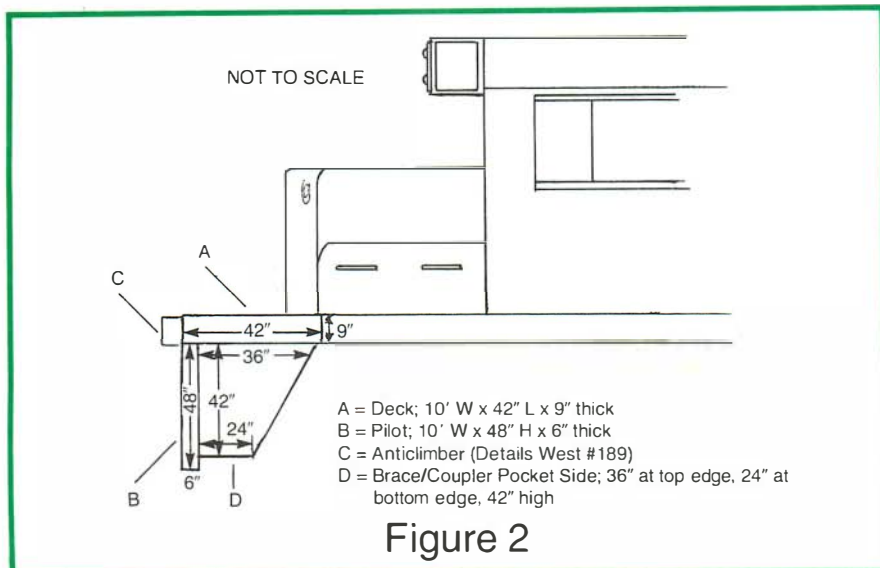


Shay #8 passes enginehouse as it approaches trestle at Clifftop. Company store is building behind engine. May 1955.

*C. J. Riley collection.*

# Model the Alaska GP49

(Continued from page 21.)



horns, Details West #175, were placed to the rear of the cooling fan. On the prototype this is done to keep them from being plugged with snow; the warm air from the radiator is utilized as a defroster. The horns were mounted on a scratchbuilt styrene bracket. Warren Custom Services #8026 or Overland #9000 are similar.

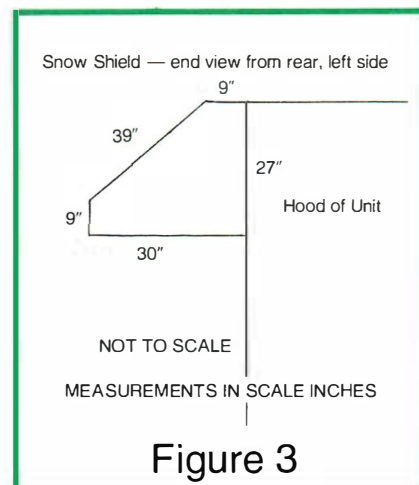
The rear hood and pilot received typical detailing with Details West #189 anticlimber, Detail Associates #2202 handgrabs, a scratchbuilt curved handgrab on the top of the hood, Detail Associates #1502 tall MU stand and Builders in Scale #250 chain. Detail Associates #1508 MU hoses, #2212 coupler liftbar and a pair of handgrabs used for MU hose retainers were added below the anticlimber.

Turning to the frame, the drawbar was removed with a hacksaw from the front of the frame as the front coupler is now mounted in the shell. The Athearn drive was retained and Ernst #44 super gears and NorthWest Shortline #71394 40" wheelsets were installed.

## Painting and Decaling

After washing and allowing a time to dry, the entire shell was given a coat of Floquil #110130 SP Lettering Gray as a primer. Next, the areas to be painted yellow were sprayed with Floquil #110033 Railbox Yellow. After several days, the yellow areas were masked off and the remainder of the body was sprayed with Floquil #110057 C&O Enchantment Blue to which a few drops of white were added to lighten it slightly. The underframe was painted Floquil #110010 Engine Black. Decaling was done with the Herald King L-1980 Alaska locomotives set except for the small road numbers on the hood ends, which are from the Microscale #87-480 Alaska loco set. Builder plates and gaskets for the class light knock-outs in the rear are from the Microscale #87-527 loco data set. No weathering was done at the time the model was photographed.

This completes Gary's distinctive Alaska Railroad GP49.



## Bill of Materials

| Manufacturer        | Part No. | Description                      |
|---------------------|----------|----------------------------------|
| Athearn             | 4646     | Undecorated GP50 w/dynamic brake |
| Builders in Scale   | 250      | Chain                            |
| Cannon & Company    | 1601     | GP60 blower housing              |
| Central Valley      | 1602     | Steps and ladders set            |
| Detail Associates   | 1003     | Headlight                        |
|                     | 1101     | Lift rings                       |
|                     | 1301     | Cab sunshades                    |
|                     | 1502     | Tall MU stand                    |
|                     | 1508     | MU air hoses                     |
|                     | 1903     | Roof air vent                    |
|                     | 2202     | Grabirons                        |
|                     | 2212     | Coupler liftbar                  |
| Details West        | 121      | Cab and body vents               |
|                     | 140      | Snowplow                         |
|                     | 157      | Radio antenna                    |
|                     | 175      | Air horn                         |
|                     | 189      | Anticlimber                      |
|                     | 194      | Smoke deflector                  |
| Ernst               | 44       | Super gears                      |
| Evergreen           | 9020     | .020 sheet styrene               |
|                     | 9030     | .030 sheet styrene               |
|                     | 9060     | .060 sheet styrene               |
| Gingerbread Stop    | 9003     | Large winterization hatch        |
| MV Products         | 19       | Headlight lenses                 |
|                     | 22       | Class light lenses               |
| NorthWest Shortline | 71394    | 40" wheelsets                    |
| Precision Scale     | 3935     | Side handrail stanchions         |
|                     | 3937     | End handrail stanchions          |
| Roco                | 1750     | Emergency light set              |
| Herald King         | L-1980   | Alaska locomotive set            |
| Microscale          | 87-527   | GE & EMD loco data               |
|                     | 87-480   | Alaska diesel locos              |
| Floquil             | 110010   | Engine Black                     |
|                     | 110033   | Railbox Yellow                   |
|                     | 110057   | C&O Enchantment Blue             |
|                     | 110130   | SP Lettering Gray                |



## Model Photography Series #13

# Picking an SLR for Model Photography

By Bruce Nail

*Photos by the author*

A Single Lens Reflex (SLR) camera system represents a substantial investment. The camera purchaser is faced with many choices. A number of features which will make model railroad photography easier may be considered before a purchase is completed.

A camera which is suitable for model railroad photography will also be suited for prototype railroad photography. Model railroad photography requires advanced camera features which may even improve vacation photos.

New cameras with state-of-the-art features are not necessary to produce good photographs. Many used cameras using older technology will produce excellent photographs. The features discussed in this article will apply to new and used cameras.

When shopping for new photographic equipment, keep in mind that cameras and lenses are usually heavily discounted from the manufacturers suggested retail prices. Many mail order firms which advertise in photography magazines offer low prices.

Discount mail order firms offer low prices by keeping service to a minimum. If you know exactly what you want and are willing to wait for your equipment, discount mail order firms may be a good choice. Warranty service on defective equipment may not be handled in a timely manner.

Some discount mail order firms are better than others. Make sure you know exactly what you are buying and what the costs are. Some mail order firms have been accused of stripping accessories from equipment. Other mail order firms have high shipping and handling charges which add to your costs.

There are several good mail order cam-

era equipment dealers who sell primarily to professional photographers. These dealers have a knowledgeable staff to answer the phones and will help in your selection of equipment. The prices from these firms may be slightly higher than from some of the discount mail order firms. I prefer to pay the slightly higher prices in exchange for an increased level of service.

Most large cities have discount photographic equipment dealers where you can see and operate the equipment before purchasing. A local dealer will also be more willing to help expedite warranty service on equipment they sold. If you live in a small town without a camera shop, it may pay to drive to the nearest large city for camera purchases.

### A Camera System

When purchasing a camera the "system" or the accessories are more important than the camera body. Many manufacturers make camera bodies and normal lenses, but very few manufacturers offer complete camera systems.

The largest and most well-known camera manufacturers offer the most complete line of accessories. In alphabetical order, some of the larger camera manufacturers are: Canon, Minolta, Nikon, Olympus and Pentax.

There are many other camera equipment manufacturers with brand names which may be unfamiliar. Some larger camera stores also sell "house-brands." Many of these cameras will produce good photographs, but the photographer may be limited by the lack of accessories.

### The Camera Body

The first feature to look for on a SLR

body should be a "depth-of-field-preview" lever or button. Most SLR cameras open the aperture in the lens to the largest opening for the brightest viewing screen image. The aperture is set to the size selected by the f-stop ring as the shutter release is pushed. The shutter actually operates after the aperture is set.

For model railroad photography the lens should be set to the smallest aperture, usually f/16 or f/22. When the lens is set to the smallest aperture (largest f-stop number) the depth of field is greatest. Refer to my article in the January 1991 issue of *MRG* for more information on depth of field.

The large aperture has a shallow depth of field but provides a bright image to aid in critical focusing. The preview control will "stop down" or adjust the aperture to the setting on the f-stop ring. The image on the viewing screen will be dark, but will represent an image with the depth of field that will appear on the film.

Some camera manufacturers use a button located on the camera body lens mount as shown on Photo 1. Other manufacturers use a lever located on the lens mount or the front of the camera body. The camera manual or sales literature should be consulted to determine if a particular camera body has a depth-of-field-preview feature.

Unfortunately, several of the newer auto-everything cameras do not have the depth-of-field-preview feature. For model photography the preview feature is very important.

### Automatic Cameras

Automatic cameras are good for model photography as long as the camera has an "aperture-priority" mode. The aperture-priority mode allows the photographer to



**1 – A typical depth-of-field preview button on a SLR camera body.**

select the f-stop and the camera will set the correct shutter speed. A majority of my model photography is done with an automatic camera in aperture-priority mode.

Some automatic cameras offer only a “program” mode. The program mode allows the camera to select both the f-stop and the shutter speed according to an internal program. The internal camera program will rarely select the correct settings required for model photography. Some automatic cameras are also difficult to operate manually.

The combination of limited lighting and small apertures usually require long exposures, sometimes longer than one second. Some cameras do not provide for automatic timing of exposures longer than one second. The longest shutter speed is usually shown on a shutter speed dial, like the dial in Photo 2, or on a special display panel.

Longer shutter speeds than those available on the shutter speed dial can be manually timed using the second hand or display on a watch. The camera must be capable of operating in a time-exposure mode, usually marked by a “B” or a “T”. A cable release is connected to the camera and the button is pushed for the correct length of time.

A camera which will meter and set long shutter speeds is much easier to use. In the camera specifications the metering may be specified as an “EV” or exposure-value range.

The EV range will be dependent on film speed and the electronic capability of the camera. The smaller number in the EV range indicates how well the camera will meter a dimly illuminated scene. The smaller number in the EV range should be 6 or less for ASA/ISO 64 film. Most model railroad scenes are illuminated within the range of the meters in newer cameras.

### Available Lenses

Most lenses are advertised by their



**2 – The shutter speed dial showing a maximum shutter speed of one second and showing the “B” setting for time exposures.**

largest aperture. A typical standard lens for a 35mm SLR is a 50mm lens. The lenses are typically sold as 50mm f/1.4 or 50mm f/1.8. The faster lens (the lens with the largest aperture) will be more expensive. Of greater interest to the model railroad photographer is the smallest aperture available on the lens.

The 50mm f/1.4 may have a minimum aperture (maximum f-stop) of f/16, while the f/1.8 lens may have a minimum aperture of f/22. In this case, the less expensive f/1.8 lens will produce model photography with greater depth of field.

A depth-of-field scale on the lens is helpful to determine what areas of the scene will be in focus. The scale is usually located adjacent to the f-stop ring as shown in Photo 3. The use of a depth-of-field scale was also discussed in the January 1991 issue of *MRG*. Many automatic-focus lenses do not have a depth-of-field scale.

Several camera manufacturers offer special “macro” or “micro” lenses. These lenses are designed to focus very close to the subject for close-up photography. The lens I use for most model railroad photography is a 55mm f/2.8 Micro-Nikkor which has a minimum aperture of f/32. If a close-up lens is not available in the camera system, another brand may be available.

There are a number of independent lens manufacturers. Many times the independent lenses will be less expensive. In general, lenses manufactured by the camera manufacturer will match the camera body and perform better.

Larger camera manufacturers will also have a better variety of wide-angle and telephoto lenses available. A camera system with a larger selection of lenses can grow with the photographers photographic skills. A system with a limited selection of lenses may be “outgrown” by the photographer.



**3 – A typical depth-of-field scale on a SLR lens.**

One lens accessory which I consider necessary is a lens hood matched to the lens. Many manufacturers do not provide matched lens hoods. A matched lens hood will help minimize lens “flare” from lights placed in front of the camera.

Lens flare is caused by internal reflections in the lens elements. Flare will reduce contrast and give the photograph a “washed out” look. Severe lens flare is the cause of the lighter pentagon-shaped objects in some photographs. The rubber “universal” lens hoods are better than no hood at all, but not nearly as good as a matched hood.

### Close-Up Accessories

The larger camera manufacturers offer extension tubes which couple the automatic functions between the camera and the lens. Independently manufactured tubes may not provide for automatic operation and be difficult to use.

Supplementary close-up lenses are available from many manufacturers and will provide good results. The more expensive close-up lenses will be coated to minimize internal reflections and lens flare.

A camera system should be able to grow as photographic skills grow. A lack of accessories may not be a problem now, but may be very frustrating later. An investment in a good camera system now may pay off later. Switching camera systems is very expensive.

My personal camera system is Nikon. I switched to Nikon from another camera system about ten years ago. The Nikon system has a complete range of lenses and accessories. While I chose Nikon, any of the other major camera manufacturers make high quality products.

Remember, the photographer makes the photographs and the camera and lenses are only tools. If you have any model photography questions or comments please write Bruce Nall in care of *MRG*.

**I**

## DIESEL DETAIL CLOSE-UP:

# Electro-Motive SD60M

Burlington Northern (BN) #9243  
HO Scale SD60 Body Shell by Rail Power Products  
N Scale Model (SD50) by Con-Cor  
by Rich Picariello

Photos by the author

### Burlington Northern SD60M #9243

#### Details (For HO scale):

|                                                             |                                  |           |      |                                                 |
|-------------------------------------------------------------|----------------------------------|-----------|------|-------------------------------------------------|
| 1 – DW139                                                   | Air filter                       | 1.00/2    |      |                                                 |
| 2 – DW186                                                   | Air horn                         | 2.50/ea.  |      |                                                 |
| 3 – DA3201                                                  | Air tank*                        | 2.25/2    | AL/  | <i>A-Line/Proto Power West</i>                  |
| 4 – CF113                                                   | Antenna                          | 3.09/2    | PPW: | 3432 Lucero Avenue<br>La Verne, CA 91750        |
| DW157                                                       | Antenna                          |           |      |                                                 |
| 5 – DW106                                                   | Beacon                           | 1.00/ea.  | CS:  | <i>Cal-Scale</i>                                |
| 6 – CC1601                                                  | Blower housing*                  | 3.50/2    |      | 21 Howard Street                                |
| 7 – DW179                                                   | Brake Wheel                      | 1.00/2    |      | Montoursville, PA 17754                         |
| 8 – DA1202                                                  | Bell                             | 1.00/2    |      |                                                 |
| 9 – SV74                                                    | Cab, N.A. Safety                 | 8.95/kit  | CS:  | <i>Cannon &amp; Company</i>                     |
| 10 – PSC48348                                               | Chain                            | 2.75/10"  |      | 310 Willow Heights                              |
| 11 – DA2211                                                 | Coupler lift bar                 | 2.00/2    |      | Aptos, CA 95003                                 |
| OM9151                                                      | Coupler lift bar                 | 1.95/2    |      |                                                 |
| 12 – DA1404                                                 | Drop step                        | 1.25/2    | CF:  | <i>Custom Finishing</i>                         |
| 13 – OM9215                                                 | Fan housing w/blade*<br>(need 2) | 3.25/ea.  |      | 379 Tully Road<br>Orange, MA 01364              |
| 14 – DW166                                                  | Fuel filler                      | 1.00/4    | DA:  | <i>Detail Associates</i>                        |
| 15 – PSC39037                                               | Fuel gauge                       | 1.50/6    |      | Box 5357                                        |
| 16 – OM9250                                                 | Fuel sight glass (brass)         | 2.95/ea.  |      | San Luis Obispo, CA 93403                       |
| PSC39011                                                    | Fuel sight glass (plastic)       | 1.50/2    | DW:  | <i>Details West</i>                             |
| 17 – DA2202                                                 | Grabirons                        | 2.50/48   |      | P.O. Box 5132                                   |
| 18 – DA6504                                                 | Grabirons, vee style             | 1.75/12   |      | Hacienda Heights, CA 91745                      |
| 19 – DA2215                                                 | Grabirons, ladder                | 2.00/12   |      |                                                 |
| 20 – SV21                                                   | Handrail set                     | 13.95/set | MV:  | <i>MV Products</i>                              |
| Note: Cab kit comes with handrails for the inner step area. |                                  |           |      | P.O. Box 6622<br>Orange, CA 92667               |
| 21 – DA1004                                                 | Headlight                        | 1.00/2    | OM:  | <i>Overland Models, Inc.</i>                    |
| 22 – MV25                                                   | Headlight lenses                 | 1.30/4    |      | 5908 W. Kilgore Ave.                            |
| 23 – DA6206                                                 | Hose, air                        | 1.25/12   |      | Muncie, IN 47304                                |
| 24 – DA1508                                                 | Hoses, MU                        | 2.00/16   | PSC: | <i>Precision Scale Company</i>                  |
| OM9350                                                      | MU hose, 3 per bracket, brass    | 4.75/4    |      | 3961 Hwy. 93 North                              |
| 25 – DA1507                                                 | MU receptacles                   | 1.00/12   |      | Stevensville, MT 59870                          |
| 26 – DA1104                                                 | Lift tab, roof                   | .85/16    | RPP: | <i>Rail Power Products</i>                      |
| 27 – DA2206                                                 | Lift rings                       | 3.00/36   |      | P.O. Box 153                                    |
| 28 – SV63                                                   | Rear battery door & hand brake   | 3.95/ea.  |      | Sandy, UT 84092                                 |
| 29 – DA3001                                                 | Sand fill hatch*                 | 1.25/6    | SV:  | <i>Smokey Valley Railroad &amp; Machine Co.</i> |
| 30 – DA2807                                                 | Speed recorder (delrin)          | 1.50/4    |      | 6120 NE 203rd Street                            |
| 31 – DW155                                                  | Snowplow pilot                   | 1.50/ea.  |      | Seattle, WA 98155                               |
| 32 – CF112                                                  | Step lights (brass)              | 2.95/2    | UP:  | <i>Utah Pacific</i>                             |
| DW172                                                       | Step lights (metal)              | 1.25/8    |      | Div. of Tomar Industries                        |
| 33 – OM9327                                                 | Mirror                           | 2.41/4    |      | 9520 E. Napier Ave.                             |
| UP77                                                        | Mirror                           | 2.00/2    |      | Benton Harbor, MI 49022                         |
| 34 – AL29200                                                | Windshield wipers (delrin)       | 1.75/8    |      |                                                 |
| CS190-419                                                   | Windshield wipers (brass)        | 3.50/4    |      |                                                 |
| PSC3968                                                     | Windshield wipers (plastic)      | 1.50/4    |      |                                                 |
| UP94                                                        | Windshield wipers (brass)        | 2.00/2    |      |                                                 |
| 35 – DW213                                                  | Winterization hatch              | 1.50/ea.  |      |                                                 |

The following parts must be fabricated by the modeler:

- A – Electrical cabinet – build from styrene.
- B – Cab sunshade – make from styrene or thin sheet brass.
- C – MU cable – make from yellow insulation from electrical wire.
- D – MU boxes – make from square-shaped styrene and part 26 covers.

\*Similar parts are included with the RPP SD60 shell.

**Note:** These detail parts may be available from your local hobby dealer, so try him first. If you must order direct from a manufacturer, include at least \$1.50 for postage and handling. You must purchase the full quantities as shown in the detail parts list.

**The Prototype SD60M:** EMD's first SD60 locomotives were built in 1984. The first "comfort cab" units were constructed for the Union Pacific in 1989. BN has 100 SD60s with a standard cab and 100 SD60Ms with the North American Safety Cab option. The first BN SD60M cabs had vertical windshields but the latest cabs have their windshields slanted to the rear much like contemporary GE wide-cab Dash 8 locomotives. The headlight on these cabs has been moved to a location above the windshield. SD60M locomotives are numbered from 9200 to 9925 on the BN and all units were acquired from 1990 to 1991. SD60 and SD60Ms are 3,800-hp units riding on six-wheel HT-C flexicoil trucks.

**The Scale Model SD60M:** The Rail Power Products SD60 shell in HO scale is used as a starting point for this project. The cab is discarded and the entire low nose and battery boxes must be removed from the shell. Smokey Valley's wide cab replaces the original parts. For a chassis, Athearn's SD40T-2 frame, trucks and motor can be used or the can-motored complete chassis units from either Overland Models or Proto Power West, which are both easy to fit into the RPP shell. The Overland chassis includes sprung brass trucks and all the chassis details in the parts list already in place. The Proto Power chassis is a tuned and weighted Athearn mechanism with a can motor. Handrails are not included with the RPP shell; the Smokey Valley handrails for the SD60 can be used (without the short hood handrails). For N scale, the Con-Cor SD50 model is nearly identical visually with an SD60 but the cab must be scratchbuilt.

**Painting and Decaling Notes:** The SD60Ms display the latest BN paint scheme variation using the standard green and black along with white nose panels and white side-sill treatment. Trucks, pilots, steps and the fuel tank are black; handrails are green with white safety paint at all step areas. Side cab windows are aluminum.

#### Decals:

HO Scale:

Microscale 80-549

N Scale:

Microscale 60-549

#### Paints:

Accupaint:

70 BN Green

1 Stencil White

Floquil:

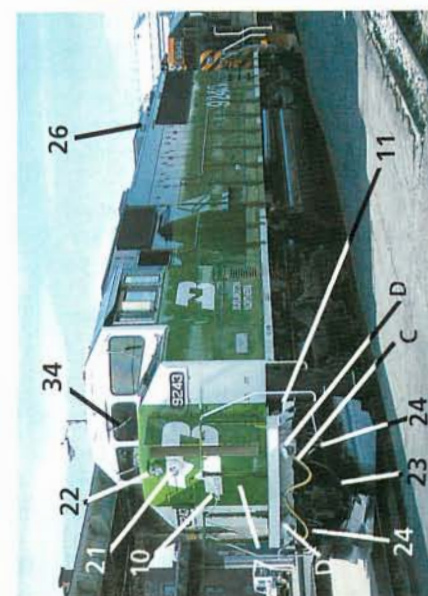
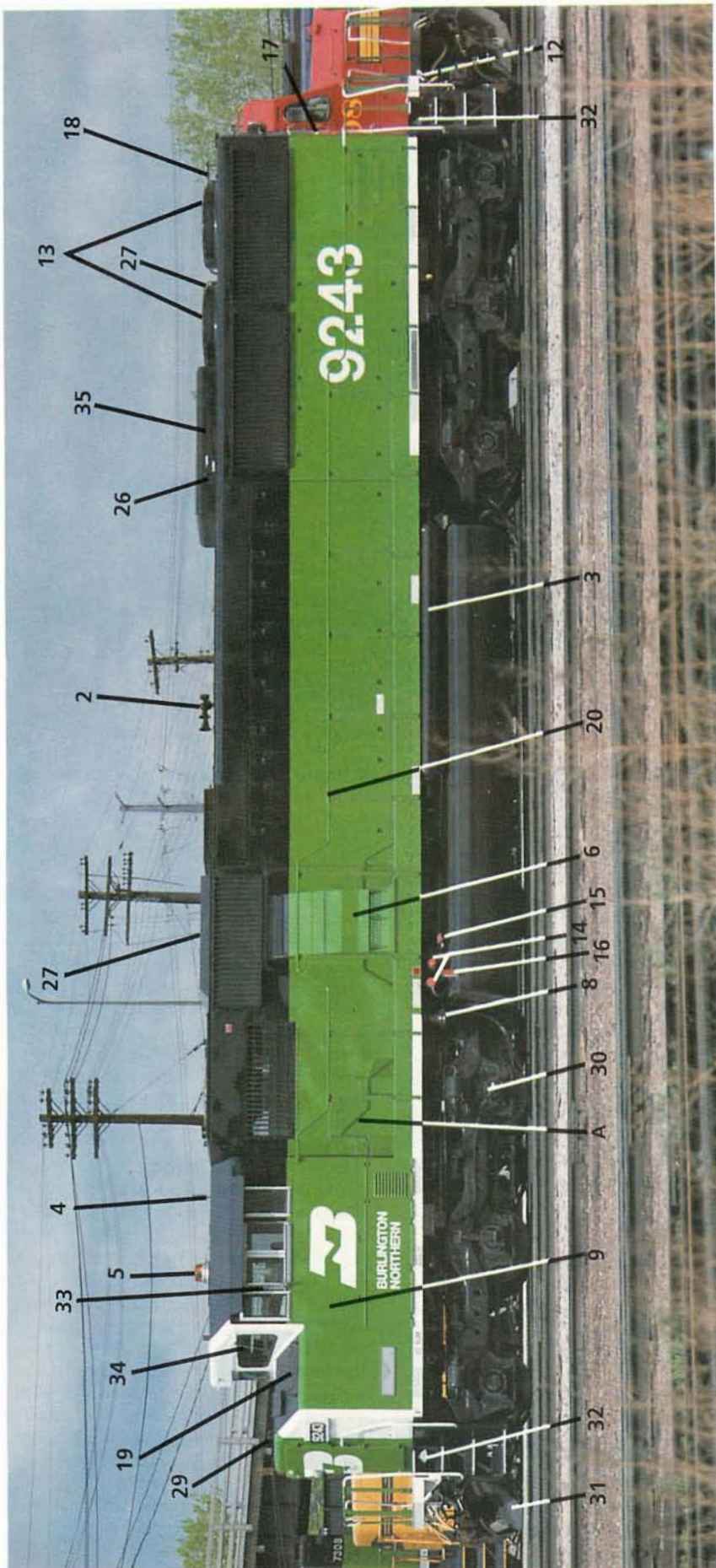
35 BN Cascade Green

11 Reefer White

Scalecoat:

38 BN Cascade Green

11 White





# The South Rockwood & Toledo Railroad

## A Small Switching Layout Designed for Operations

by Terry Carver

Photos and trackplan by Larry Wright



**1 – The mechanics at Dewey's Auto Repair appear to have plenty of work on their hands. This scene is an example of the level of detail on the SR&T.**

Being a member of a large model railroading club with a big operating layout isn't necessarily for everyone. I found that out the hard way when I first began to get serious about model railroading.

I wanted to build a small home layout, and I was looking for some helpful hints. Unfortunately, what I found at the club didn't translate into what I wanted to do at home. For one thing, the club layout was mostly complete. The wiring had been done years ago and bore little or no relation to anything I could or would do at home. And besides, no one in the club could remember how the layout was wired anyway.

I also found myself getting too impatient with the little bureaucratic and administrative details that are necessary to running a large club.

Don't get me wrong. This isn't a diatribe against club membership. But it wasn't what I was looking for.

Luckily for me, I found what I needed while attending a meeting of Division Six of the North Central Region, NMRA. I met some modelers who had their own Friday night round-robin group called *The Midnight Pocatello Yardmasters* (complete with attractive bowling shirts, I might add).

The Yardmasters were deeply into operation. They had two layouts far enough along to operate and several more under construction. (The two operating layouts have both been featured in *Model Railroading* — Larry Wright's Beaver Valley Railroad in January 1991 and Roger Parry's Great Northern in June 1991.)

They invited me into the group, and I quickly found that each had his own modeling specialty and was not reluctant to share it. That was what I was looking for. And best of all, there are no dues.

I started building my own railroad — the South Rockwood & Toledo — three years ago. I didn't have the basement space to house an empire the size of Roger's or Larry's, but I did have a spare 9'x10' room that has since become known in my family as "The Train Room."

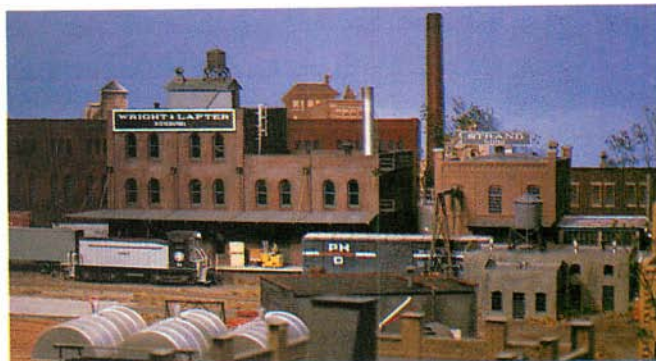
Operating on the other Yardmaster layouts gives me the opportunity to run long trains on long runs, so I felt I could concentrate in my spare room on building a layout that encompassed the features I enjoy the most — a lot of switching, an urban setting, and small diesel switchers in a shortline operation.

The benchwork was built with 1/2" Homasote glued to 1/2" plywood over L-girder construction. The trackplan presented some problems. I was committed to a point-to-point plan running around three walls because I wanted to avoid a duck-under at the entrance of the room. Plus, I needed the fourth wall for my workbench. With these limitations I found myself unable to come up with a satisfactory trackplan. I couldn't make the yard tracks long enough. Finally it hit me. If I removed the closet door I could extend the yard tracks three feet into the closet. Now I could start laying track.

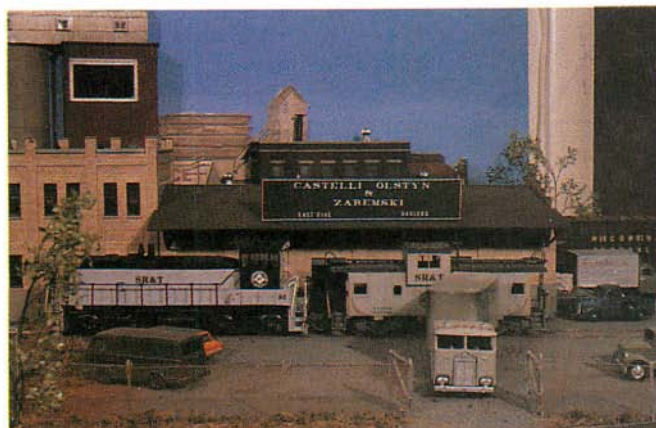
I used Code 83 flextrack with Number Four turnouts. I set a minimum curve radius of 24". The operating scheme involves making up trains to service the seven industries that form the reason for the SR&T's existence. Electrically, the railroad is a two-cab operation — a yard cab and a walkaround throttle — and is divided into seven blocks. This allows one person to use the yard cab to make up trains while another operator, using the walkaround throttle, can switch the industries and bring the empties back to the yard.



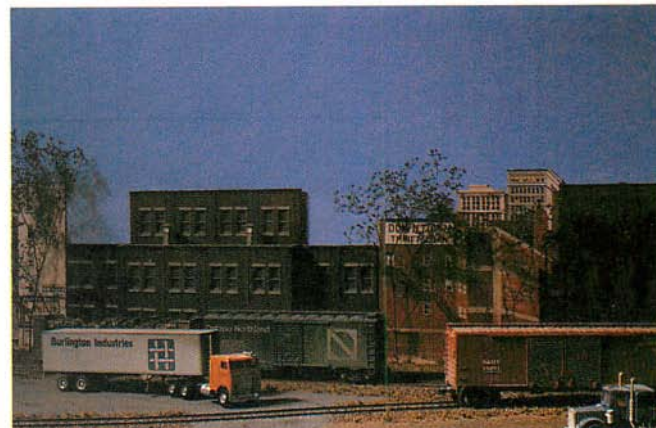
2 – The South Rockwood yard tower is at left. The background, a combination of kitbashed flats and commercial backdrops, gives the SR&T the gritty feel of urban railroading.



3 – An EMD switcher works the Wright & Lafter Co. Note the forklift on the loading platform.

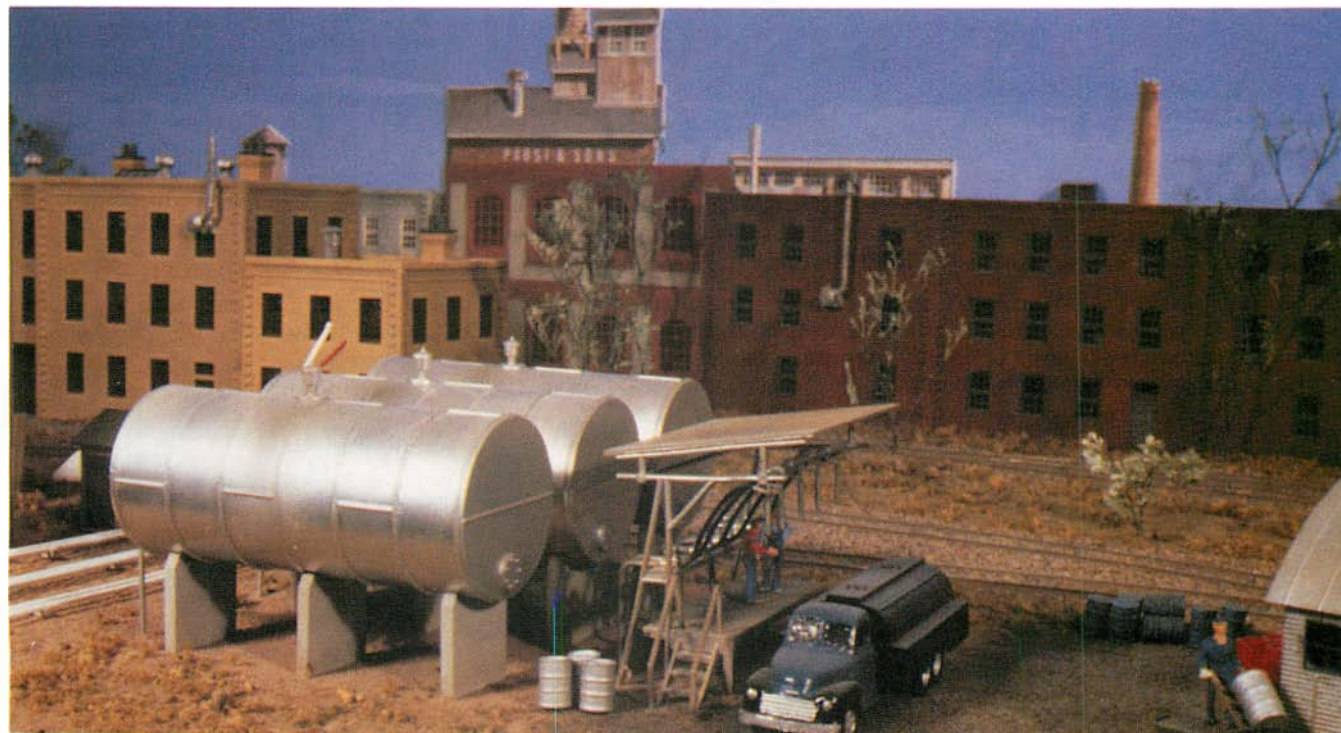


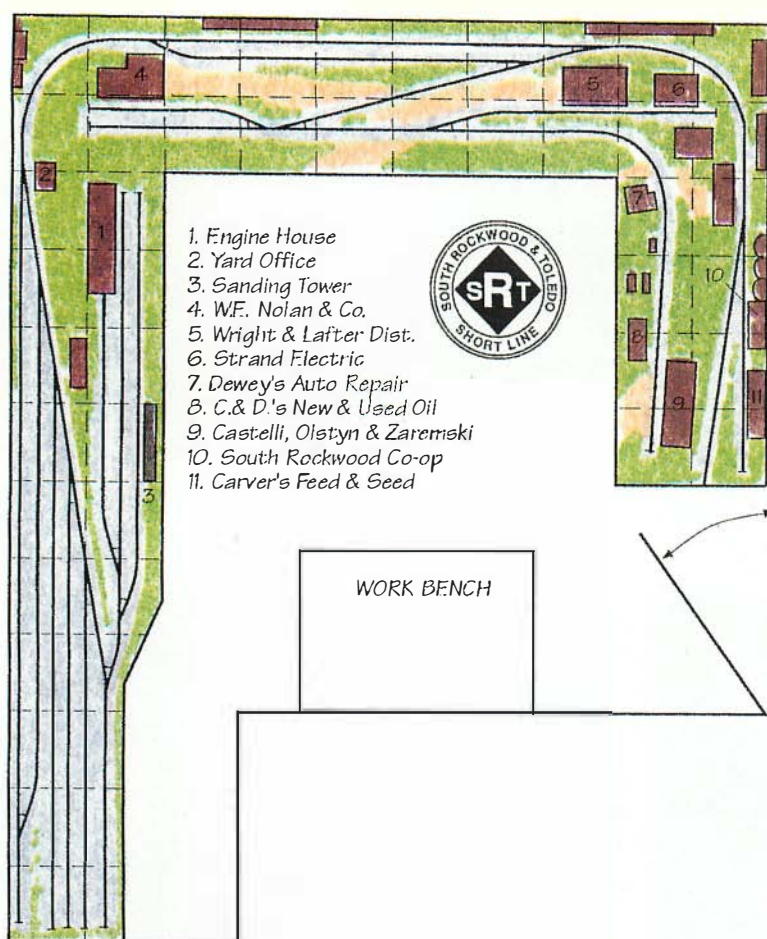
4 – An EMD 1500 switcher works the Castelli, Olstyn & Zaremski Co. warehouse. Mark Castelli, Mark Olstyn and Rick Zaremski are all fellow members of the Midnight Pocatello Yardmasters, a round-robin Friday night group that includes Terry Carver.



5 – With the early morning sun just peeking over the eastern horizon, a truck heads out of the W. E. Nolan & Co. lot.

6 – C&D New and Used oil provides plenty of traffic for the SR&T.





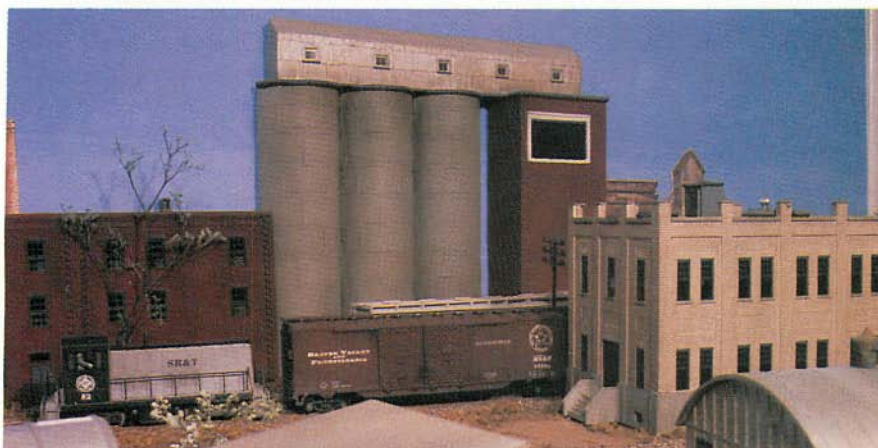
**7 – Even Terry** was surprised by the realism of this shot. This is an area of the railroad behind foreground buildings that is difficult for visitors to see, but that didn't stop Terry from detailing it.

SR&T motive power consists of an Alco RS1, an EMD SW1500 and a GE 70-tonner. Rolling stock is what you would find in southeastern Michigan in 1980, with a special emphasis on my two favorite roads, the Detroit Toledo & Ironton and the Detroit & Toledo Shoreline. I painted and lettered most of the motive power and rolling stock myself.

Almost all of the structures on the layout were scratchbuilt or kitbashed. This has become my favorite part of the hobby. And sharing your favorite part of the hobby is what makes being part of a group something special. Last year I kitbashed a collection of industrial building flats for the town of Woodward on Larry Wright's Beaver Valley.

Building the SR&T and becoming a part of the Midnight Pocatello Yardmasters has been a learning experience. The railroad is not big but it has brought me a lot of enjoyment over the last three years.

And there should be more enjoyment to come. The SR&T was taken down and packed away recently as we moved into a new home. The new place has a larger basement. It's time to start thinking...and dreaming....



**8 – A GE 70-tonner** lettered for the SR&T drops off a Beaver Valley & Pennsylvania boxcar at the South Rockwood Co-op.

**9 – An EMD switcher** wearing SR&T colors switches the Wright & Lafter distributors. Most of the industries on the SR&T are named after friends or family members. Larry Wright is a cartoonist — hence the bad pun.



**10 – South Rockwood & Toledo RS1** eases onto the siding at W. E. Nolan & Co. in order to pull out a DT&I boxcar.





## On TRACK

# Temporary Turnout Control

by Jim Mansfield

*Illustrations by the author*

If you are like me, once turnouts are complete and installed on the layout, the desire to run trains overtakes the patience to install, adjust and wire the powered switch machines. Spiking points into position is one way to hold them, but this makes operation harder.

A temporary method I developed (about 20 years ago!) to control turnouts uses a spring, some waxed cord and 18-gauge insulated hook-up wire found at Radio Shack.

First, the control linkage between the turnout throw bar and under the benchwork should be constructed. A simple design for this purpose is shown in Figure 1. A piece of  $\frac{1}{16}$ " outside diameter brass tubing is cut to length as shown in the figure. Then, a  $\frac{1}{16}$ " hole is drilled through the track board and sub-board next to one of the head ties (the long ones at the location of the throwbar).

The tube is then slipped into the hole from above and pushed all the way to the tops of the ties. A small amount of Walther's Goo is placed on the tube at the bottom of the sub-board. A drop of ACC is then placed there as well, and the tube is pushed up about  $\frac{1}{2}$ ". Next, the tube is pushed back down until its top is just below the ties. This pulls some of the glue into the hole, which, when set, will hold the tube forever.

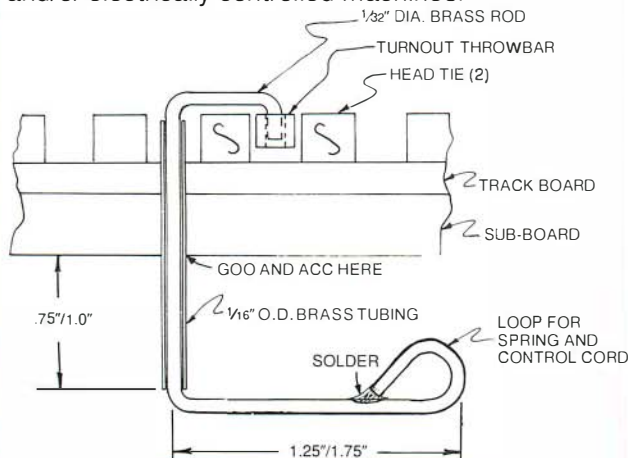
The next step requires that a piece of  $\frac{1}{32}$ " brass rod be bent in a "U" shape such that it will fit into and be centered in a .056" diameter hole in the throw bar when the points are centered in the turnout. In this way, the bend will allow movement of the throw bar. The other end of the rod is also bent as shown in the figure. A small amount of solder is then placed on the small loop.

The direction in which the rod is bent under the benchwork is determined by the location of the control cord. The bend should be made in a direction that is nearly 90° to the control cord. This linkage is sturdy enough to last for the lifetime of your layout. It can be used with other permanent controls when you are ready to install them.

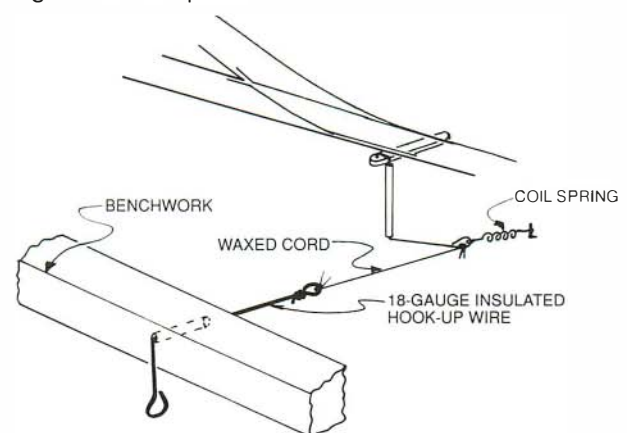
Figure 2 demonstrates the method used for the temporary turnout control. First, a coil spring is attached to the small loop on the brass rod and is anchored such that the turnout points are held in place and the spring is slightly tensed. This spring should be about an inch long and when stretched about  $\frac{3}{4}$ " should hold about two pounds and still have a small amount of stretch available.

*(Continued on page 41.)*

**Figure 1** — A simple and permanent turnout linkage can be constructed using brass tubing and rod, some adhesive and solder. Linkage can be used with the temporary control in this column and/or electrically controlled machines.



**Figure 2** — A simple and inexpensive control linkage can be constructed in a matter of minutes that is easy to use and is easy to remove when you are ready to install a permanent method of controlling the turnout points.





by Larry Puckett

## Computer Applications in Model Railroading

# DataTrain of Texas: Suppliers of Software and Shareware Exclusively for Model Railroading

A few months ago I mentioned that I was going to dedicate a column to shareware for model railroading. Unfortunately I was able to come up with only one such source — DataTrain of Texas. In addition to shareware DataTrain also provides a few copyrighted programs of their own, one of which I want to look at before we go over their shareware.

How often have you started a project by flipping through the pages of all your old model magazines, looking for background information? I do it all the time when I'm preparing an article — or should I say I used to do it that way. With DataTrain Index (DTSCAN) you can throw away all your old indexes and get complete computerized searches in just a few minutes.

DTSCAN is a dBase III+ application program, compiled for stand-alone operation using Quicksilver. The heart of the program is the database which contains the indexed contents of the last 35 years of *Model Railroader* and *Railroad Model Craftsman*, 16 years of *Narrow Gauge Gazette*, and 11 years of *Mainline Modeler* (a total of about 13,000 entries). The files are current up to April or May, 1991. The database is updated every six months and users may purchase them for \$15.00 each plus \$2 S&H.

Unlike other indexes, which are usually based on scans of the magazines' table of contents pages, for DTSCAN all of the articles in the database have been read and pertinent information extracted. In my first run I found more articles on Southern Railway than I ever knew existed! Each entry of the database includes information about the article, the magazine it was published in, the year, month, and volume number, and the starting page number.

Searches are based on a key word or phrase that you enter. The advertising brochure suggests that all articles published in a given time period can also be

listed but after a very short example, the manual refers you to the dBase manual for more information. I suspect that very complex logic-based searches can be done but only if you have access to the dBase manual. This is one area of the manual that needs beefing up.

A second program, DT, comes with DTSCAN. DT is an extremely powerful editor that allows you to search the database, change or delete entries, and add your own entries. This allows you to do your own updates if you don't want to purchase those from DataTrain of Texas. It's in this program that the free-form search criteria can be entered, if you know dBase or are willing to experiment around.

Here's how I rate DataTrain Index using the rating scheme I introduced in the December 1991 column.

|               |     |
|---------------|-----|
| Documentation | 3   |
| User friendly | 4   |
| Technical     | 3   |
| Application   | 4   |
| Value         | 4   |
| User level    | 1-5 |

I thought the documentation was a little short on details about how to use DT, the editing program. However, most users will be working with DTSCAN which is very user friendly. My mid-range score for technical sophistication reflects the shortage of information on computer/monitor capability and support of only one printer format. Also, I couldn't find any mention of mouse support in the editor program but I was able to use a mouse. I consider this program a good value which I wouldn't hesitate to recommend to all my railroading friends.

The program comes on either 3.5 or 5.25 inch disks and is essentially self installing. All you have to do is type A:INSTALL from the DOS prompt of your root directory and the program does the rest, prompting you for only a few drive

and directory instructions.

This is a **big** program, requiring about 5 megabytes of disk space, 640K RAM, and DOS 3.1 or higher. No information is provided about graphics compatibility (e.g., Hercules), and a printer capable of producing IBM graphics output is supported. Other drivers are being developed. The complete four-magazine version of DataTrain Index sells for \$59.95. Individual magazine versions are available for \$29.95, and the program by itself is \$24.95. For more information write DataTrain of Texas, 1415 Golden Gate, Carrollton, TX 75001, (800) 484-1068 (at the beep enter 5555). I'll cover more of DataTrain's copyrighted software in a future column.

### Shareware

As I said, DataTrain also has a large listing of shareware available from them for a nominal fee of \$3.50 per disk. Among their shareware is my SWITCHER program, including the newest version 5.0. (Remember now that we're into 1992 I'm out of the shareware distributing business; SWITCHER will only be available from DataTrain of Texas). Also among their programs are other computerized waybill systems (COSS, TGHAA), layout-design programs (Edit-Track, E8 Spiral Easement, Drawing, CMIR, MRRDemo, PC-RR), a string diagram plotter (TRPLT), a CTC simulation game (CTCDEMO), early versions of RRSWITCH, a database of scanner frequencies (SCANNER), and a couple of virus detection disks. Some of these are demonstration disks, but most are fully operational programs. DataTrain is always looking for new shareware to add to the list.

Another source of shareware that I haven't had a chance to explore is CompuServe, the online bulletin board. Several people have mentioned this source to me, including Dean Davis of DataTrain. I think I am correct in saying that all of the share-

ware for model railroading available on CompuServe is also available from Data-Train of Texas. Next month I'll put together some information on CompuServe for those of you interested.

## SWITCHER

As a result of the flood of requests for the new version of SWITCHER I have also had several letters with questions or suggestions for improving the program. One oversight I made was not mentioning that the program prints some output directly to the printer, not the screen. Therefore if you try to print the car location report or generate waybills, you must have a printer attached and turned on; otherwise the program will appear to hang up as it waits for a communication link with the printer. If you want to direct output to the screen, you will have to go into GWBASIC and change all the LPRINT commands to PRINT. It would be a simple modification to add a subroutine allowing output to go either to the screen or a printer; however, I've never done it since the purpose of the program is to print waybills and car location reports for use in operating sessions. If one of you makes this modification send me a copy to share with everyone else.

Another question that came up was how to get rid of all the data I put into the program. This is simple, those data were provided so you could run the program and see how it works. When you're satisfied that the program runs properly, just delete all the data files. Then use SETUP to generate your own data files. One other limitation of the program is the lack of a subroutine to delete sidings and car types. I'll try to add those in the future. For the time being, get it right the first time or delete and reenter the siding names and capacities as required.

Finally, Donald Purney suggested a few changes to the code that add color and make the menus more attractive. The line numbers in parentheses and italics are

based on the SETUP listing published in the September 1991 column, whereas the others are for the program on the distribution disk. Similar changes can be made to the SWITCHER program.

The COLOR X,X,X statements set the color of the text, screen, and screen border, respectively. Although most colors are the same for the three different settings, a few aren't. Experiment with your own color combinations using the following as a guide:

- 0 Black
- 1 Dk Blue
- 2 Green
- 3 Blue
- 4 Red
- 5 Magenta
- 6 Brown
- 7 Gray
- 8 Black
- 9 Blue
- 10 Lt Green
- 11 Lt Blue
- 12 Lt Red
- 13 Lt Magenta
- 14 Yellow
- 15 White

That's all for this session. Until next time, stay on the right track and don't run out of steam. Send your comments, questions, and programs to Larry Puckett, 9618 Dublin Dr., Manassas, VA 22110. If you submit a public domain or shareware program for review in this column please indicate whether or not you are willing to provide copies for interested readers and the conditions for that exchange. **I**

**Software Producers:** If you would like *Model Railroading* to review your software in this column please send the software and any promotional material to Larry Puckett, 9618 Dublin Dr., Manassas, VA 22110. Any materials received will be considered as gratis, unless otherwise specified. Thank you.

## Figure — Changes required to add color to SWITCHER

```
5 COLOR 15,1,3:KEY OFF:CLS
10 PRINT:PRINT:PRINT:PRINT:PRINT:TAB(20) "SETUP UTILITY FOR
  SWITCHER VERSION 5"
12 Z=Z+1:IF Z=3000 GOTO 20
13 GOTO 12
112 PRINT TAB(25) "PRESS ANY KEY TO CONTINUE": INPUT KEY$
115 CLS:PRINT:PRINT
265 (255), 585 (575), 735 (725), 1075, 1535, 1845 (1841), 1945 (1855)
  Same as 115
2371 (2231) CLS
2372 (2232) PRINT:PRINT:PRINT:PRINT:PRINT:PRINT TAB(35) "GOODBYE"
2373 (2233) Z=0
2374 (2234) Z=Z+1:IF Z=3000 GOTO 2376 (2236)
2375 (2235) GOTO 2374 (2234)
2376 (2236) COLOR 15,0,0:CLS
2400 (2240) SYSTEM
```

## On TRACK

# Temporary Turnout Control

(Continued from page 39.)

Also attached to the loop is a length of waxed cord that is about the size of a heavy kite string. Cable lacing cord is a choice that I have used. The cord is cut to a length such that, when pulled against the spring to move the points to the other position, it stops about 2" short of the edge of the benchwork. Then a small loop is tied on the free end of the cord so that the wire will slip through it.

Next an 1/8" diameter hole is drilled through the benchwork in a direct line from the turnout linkage and spring; a piece of the wire is inserted through the hole. Then, the end of the wire is inserted into the loop on the end of the cord and formed into a loop as shown in the figure.

To determine the length of the wire, let the spring pull the linkage, cord and wire to a point where the turnout points are fully against the stock rail. Cut the wire long enough so that a loop can be made on the end.

To move the turnout points, gently pull the wire until the point makes contact with the other stock rail: this is considered the reverse position. To hold the points in reverse, bend the wire down and push on the wire at the hole at the edge of the benchwork. To move the points back to the normal position, simply straighten the wire and slowly push it back into the hole. This will let the spring compress and move the points to the normal position. Note that the spring only has to move the points and cord.

The wire will last about 40 to 50 bends before breaking. One thing I have noticed is that it always breaks when it is being bent; not after it is bent. This means that the turnout points will not move while a train is going across them.

If the turnout is a few feet away from the location of the control, the cord can be guided through holes drilled in nylon pieces attached to various places under the layout. I have used cords as long as 7'.

Although this method was designed to be a temporary solution for controlling turnout points, the manual turnouts on the Jersey Eastern layout were controlled this way for nearly eight years. All the regular operators knew how to change the wire, and I would change the most frequently used turnout wires before a major operating session.

While I wouldn't recommend this method as a permanent solution, I would recommend it as a "temporary" method until you get around to installing the final turnout controls. Until then, enjoy Model RailroadING! **I**



# Norfolk and Western Passenger Service Part V

by Vern French

The ten class P3 coaches (Nos. 531-540) weighed 135,240 lbs. and cost \$101,131.00 each.

Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries

In October of 1949, 20 S1 Budd-built sleepers were delivered. The cars were painted N&W standard Tuscan Red on the ends, sides, and skirts with gold stripes at the top of the letter board and at the bottom of the side panel. The lettering was gold and the roofs were finished in dark brown and the trucks were dark green.

These cars were named for counties along the railway and for area colleges and universities. They were *Augusta County*, *Campbell County*, *Duke University*, *Emory and Henry College*, *Franklin County*, *Hampden-Sydney College*, *Hollins College*, *Mercer County*, *Ming County*, *Ohio State University*, *Pike County*, *Pulaski County*, *Randolph Macon College*, *Roanoke College*, *Scioto County*, *University of Cincinnati*, *Virginia Military Institute*, *Virginia Polytechnic Institute*, *Washington and Lee University* and *Wythe County*.

The interior walls and ceilings throughout the cars were finished in gray relieved by color in the floor coverings and window shades. The carpets in the passageways were blue, as were the bedroom and roomette doors and door curtains. The window shades were in mulberry. In the roomettes, the carpets had a pine-cone pattern in ruby red, and the mulberry window shades were the same

as those in the passageways. The seat upholstery of the transverse bedroom and the fixed seat in the longitudinal bedroom were in grey. The upholstery on the folding chair in the latter room was rust.

Flooring under the carpeted areas was surfaced with gray-marbleized rubber tile and the toilet floors were surfaced with ceramic tiles. Vestibules were finished in unpainted stainless steel. (The S2 PRR-style sleepers, the PM coaches and the heavyweight cars had their vestibules finished in Tuscan Red.)

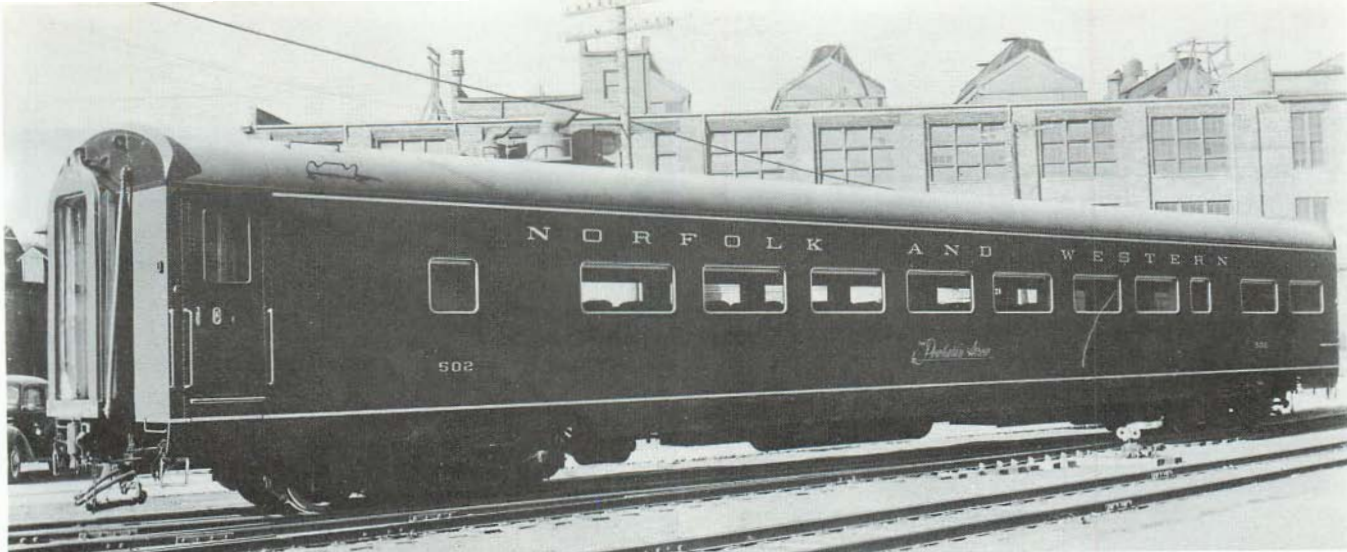
October 18 and 19, 1949, saw the delivery of the D1 class diners No. 494 named *Frederick J. Kimball* and No. 493 named *General William Mahome*, delivered from Pullman-Standard of Chicago. These cars were for use on the *Pocahontas*. On November 18, 1949, Pullman-Standard finally started delivery of the *Powhatan Arrow* cars and delivery was completed by the end of the month. The first of the new *Arrows* made its debut to the press and radio in a special run on November 30 from Roanoke to Bluefield and back. Then came an exhibition run from December 4-11 when thousands inspected and acclaimed the trains at stations where the *Arrow* made regular stops.

The railway's Public Relations Department proclaimed:

These are more than just new trains. They are new conceptions of travel comfort, safety, and convenience—all the way from the train crew's compartment and lockers in the head coach to the exciting and luxurious lounge-tavern-observation car on the rear.

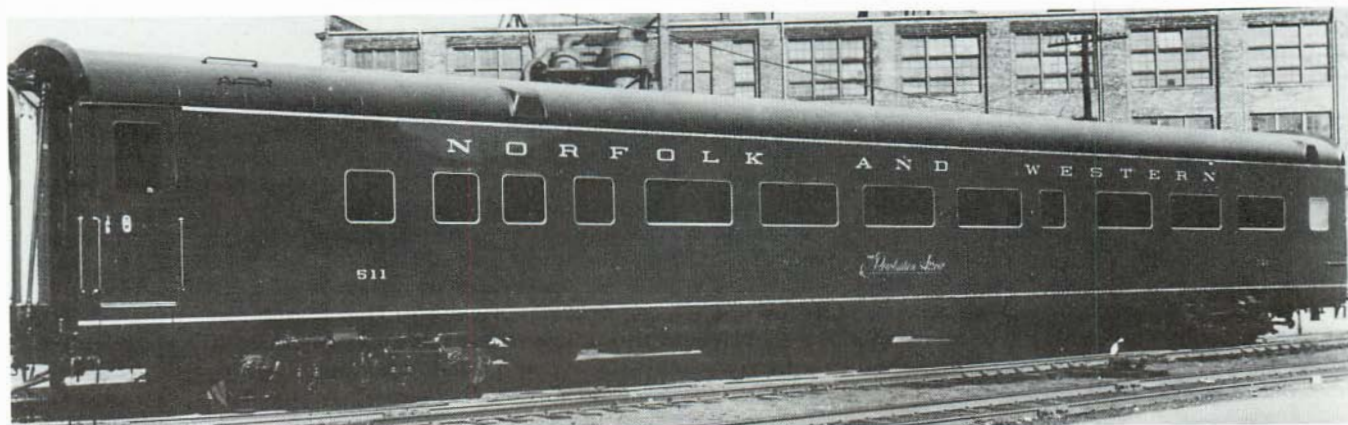
Here are a few distinctive features of the new cars that make the *Powhatan Arrow* one of the truly fine trains of America:

- ...large, fog-proof picture windows.
- ...interiors beautiful in color, decoration and furnishings.
- ...coach seats of foam rubber, seats that are really restful, seats that rotate and recline.
- ...automatic thermostat-controlled heating and air-conditioning, insuring temperatures that are just right, always.
- ..."feather touch" doors, that open with fingertip pressure that close automatically.
- ...wire-recorded music, assuring a wide selection of favorite melodies.
- ...quiet riding due to sound insulation
- ...smooth riding on roller bearing trucks, equipped with shock absorbers, bolster roll stabilizers and other devices.
- ...inviting and hospitable dining cars, furnished with the most attractive



Class P1 cars Nos. 501 & 502 contained a crew compartment. They weighed 134,600 lbs. and cost \$113,751.00 each.

Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries



Class P2 coaches Nos. 511 & 512 weighed 136,075 lbs. and cost \$116,817.00 each.

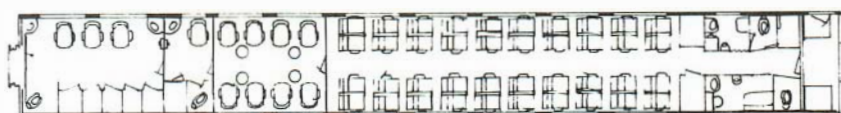
Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries

appointments ...dining car kitchens with frozen food lockers, electric dish washers, garbage disposal units, plate warmers, etc.

...unusual and striking observation-lounge-tavern cars, with rounded observation end, where passengers may enjoy music and refreshments, read, write letters, play cards and have a sweeping view from the Vista-View windows of the scenic panorama along the Norfolk and Western.

The interiors of the cars were described in the December 10, 1949, issue of *Railway Age* and also in the *Norfolk and Western Magazine* of December, 1949. Rev. Jim Nichols combined information from these two articles as each gives additional non-conflicting information. The Rev. Nichols' article appeared in the March/April 1991 *Norfolk and Western Historical Society Newsletter* and is reprinted with his permission.

The Powhatan Arrow cars came from Pullman Standard in late 1949...(the diners) according to the December 10, 1949 issue of *Railway Age*: "The ceilings are a light yellow and the walls and wainscoting gray. The upper portions of the bulkhead walls are covered in quilted maple Flexwood finished in gray tones. Seat coverings are a special red needlepoint material, and the carpet is a deep red two tone



Class P1

VF



Class P2

VF



Class P3

VF

Hooksett type." Flesh tinted mirrors with etched gold designs on the backs completed the decor of the dining room. The windows had Venetian blinds. "The passageway at the steward's end has a ceiling of light yellow with walls of medium tan. A buffet in blond wood veneer is used at the main bulkhead with a round mirror above it in gold tint. The floor in this section of the car is a red marbled rubber tile." The entire

kitchen was stainless steel, as were the vestibules of all cars in this order.

"The main coach compartment in the combination coach and locker car has a ceiling of light tan and wall tones of medium green. The window shades are a gold tone textured material and seat coverings are in deep brown with a chevron pattern. The floor under the seats is mahogany brown rubber tile. The main aisle strip is green



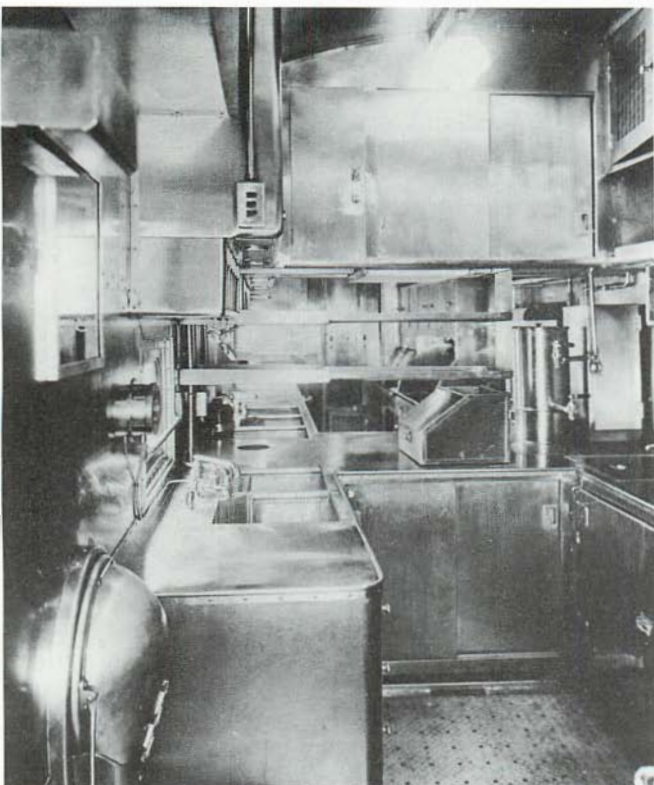
Interior of class P2 coach. The ceilings were light tan and the walls a medium tan with the window shades a slightly darker tan. The seats were upholstered in a brown chevron pattern. October 28, 1949.

*Norfolk & Western Ry. Archival Collection,  
Virginia Polytechnic Institute and State University Libraries*



Interior of class P3 coach. There were three color schemes in the full coaches: tan and brown; gray and cedar; and blue, brown and tan. September 13, 1949.

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Pantry of class D1 diner.

*Norfolk & Western Ry. Archival Collection,  
Virginia Polytechnic Institute and State University Libraries*



Kitchen of class D1 diner. **Norfolk & Western Ry.**

*Norfolk & Western Ry. Archival Collection,  
Virginia Polytechnic Institute and State University Libraries*



Budd delivered 20 ten roomette/six bedroom sleepers in October 1949. Five (Wythe County, Augusta County, Duke University, Ohio State University and University of Cincinnati) has T-94 trucks, all other had T-89. Cost \$156,826.75 each. February 17, 1950. Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries



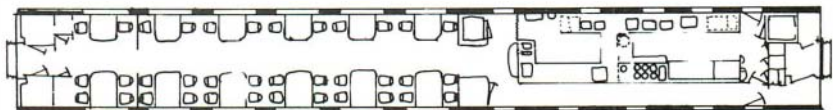
Interior of class P1, P2 and P3 coaches. Note mural of N&W mainline. Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries



Interior of converted class PM (Nos. 1720-1722) tavern-lounge car. Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries

marbleized tile." N&W Magazine adds that the bulkheads are covered in a beige corded synthetic leather and large gold tone mirrors are placed on either side of the door openings.

In the two compartment coach, Railway Age notes the use of beige corded synthetic leather and gold tone mirrors on the bulkheads, but N&W Magazine gives the more complete description of the rest of the car's finish: "Ceilings are light tan, walls are medium tan. The window shades, made of horizontally striped, textured material are in a slightly darker than the wall colors. Coach seats are upholstered in a brown Chevron pattern. The floor is covered with red marbleized tile under the seats, with mahogany brown for the aisle and passage-way floors. On either side of the main entrance doors...are photomurals, worked out in gold tones. In the men's and women's rooms...blue is used with tan to contrast with the main body of the coach.



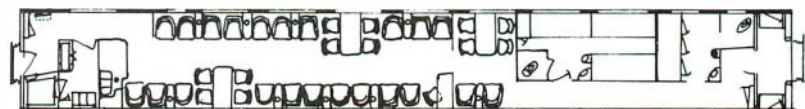
Class S2

VF



Class PM 1947

VF

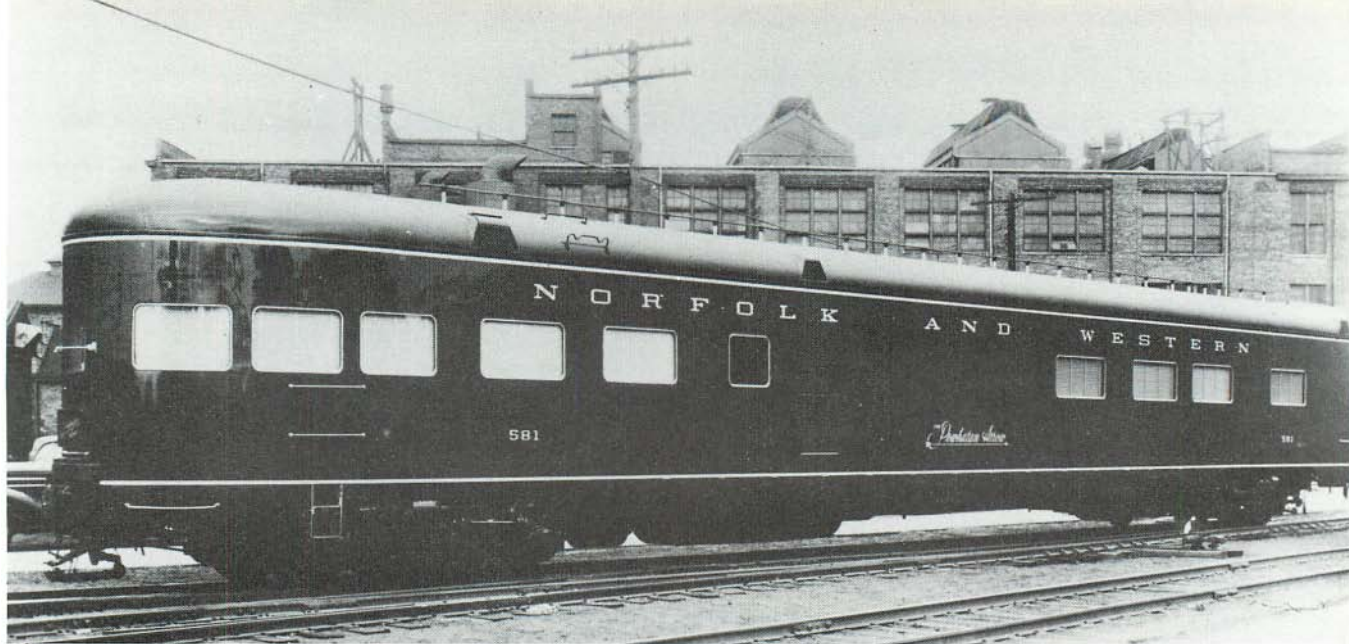


Class PM 1950s

VF

Ceilings are light blue, walls medium blue, window shades in tan, seat coverings in blue and the floor in mahogany marbleized rubber tile."

There were THREE different color schemes in the full coaches. This is contrary to what has been in three more recent publications that there were only two



Class P4 lounge-tavern-observation cars Nos. 581 & 582 were to N&W fans the most beautiful passenger cars ever built. They were purchased from PSCM Co. in later 1949 for \$149,252.00 each.

Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries

schemes. (I can also certify the fact of THREE schemes from personal observation.) The first scheme (apparently applied to two cars of the 10 car order) was a tan and brown scheme, identical to the two compartment cars. "Another (apparently 4 cars) is done in gray and cedar combinations, with the main coach compartment having ceilings of light gray, walls of medium gray, and window shades of a two tone cedar material. Coach seats are upholstered in a gray super needlepoint. Flooring under the seats is a gray tile and the aisle is in a cedar red rubber tiling." The third scheme (apparently 4 cars) is not adequately described in either the Railway Age or N&W Magazine articles. N&W Magazine says simply, "The remaining coach is done in a blue and brown combination, with lounge rooms in tan and blue." Railway Age adds this information on the lounge rooms: "Ceilings are light tan, walls medium tan, and window shades are in light blue. Chairs are upholstered in brown and the floor covering in a blue marbleized rubber tile." No description of the main coach compartment is given in either

account, which is a pity, as I personally thought these were the most handsome coaches in the train. I remember the walls being light blue and the coach seats in a dark blue fabric. This suggests that the scheme in these cars was basically a reversal of that used in the two compartment cars (above), swapping tan coach and blue lounge schemes in one car for blue coach and tan lounge schemes in the other.

The tavern-lounge-observation cars were divided into a number of sections, and the description given in Railway Age differs a little from that given in N&W Magazine. Each contains some information not given in the other. Combining the two, I think this is an accurate description of the interiors of these remarkable cars: featuring a lower ceiling, the lounge section is divided to form the tavern-lounge section in the middle of the car by lucite wing partitions. The ceiling is light apricot and the walls are gray rift oak. The bulkhead is covered with synthetic leather in a corded design and has framed illuminated color transparencies of typical N&W country. The seat covering is blue with a darker

blue carpet. Table tops are in a blonde wood Formica with special inlays done in red and black. Pier panels are covered with flesh tint mirrors. The lounge section has ceilings of light apricot, walls of medium blue and draperies of two tone horizontal striped cedar rose material. Table tops at the card sections are a pearl type Formica. In the tavern section the bar front is worked out in a diamond design of red leather with yellow leather piping. The bar top is yellow Formica and flesh tint mirrors are used at the backbar. A photomural of a beautiful waterfall covers the center of the back bar. The observation-lounge has ceilings of light apricot and walls of medium blue. The forward bulkhead has squares of rift oak Flexwood applied with alternating grain lines and features two water color paintings of the sea. Draperies are two tone gold horizontal striped material, and the seat coverings alternate in tones of gold and red. Blue carpet and flesh tint mirrors on the pier panels complete the decor.

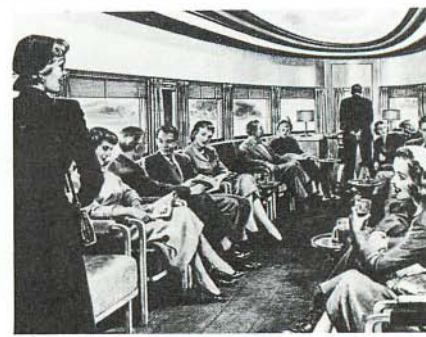
During the '50s, several of the heavy-weight class DE dining cars received addi-



August 31, 1949



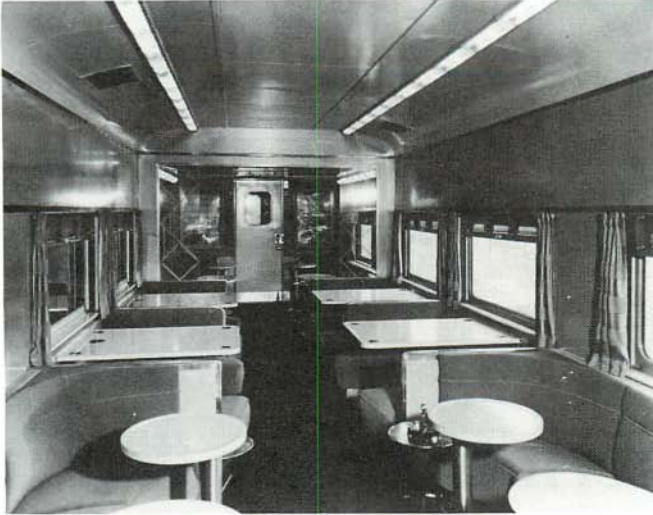
September 28, 1951



June 16, 1952

Three Walton drawings of the new lounge car for the Powhatan Arrow.

Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries



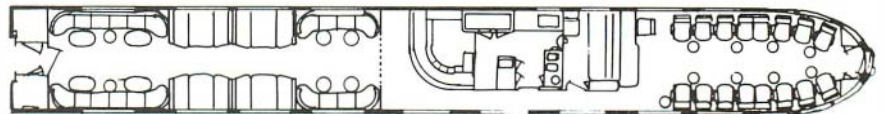
Lounge section of class P4 car No. 582. The bulkhead was covered with synthetic leather in a corded design and had framed illuminated color transparencies of typical N&W country. The seat covering was blue with a darker blue carpet. The walls were medium blue and draperies of a two-tone horizontal striped cedar-rose material. September 19, 1952. Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries



Tavern section of class P4 car No. 582. The lounge section was separated from the tavern section by lucite wing partitions. The ceiling was light apricot and the walls gray rift oak. Table tops were blonde wood Formica with special inlays done in red and black. The front of the bar was red leather with yellow piping. September 19, 1952.

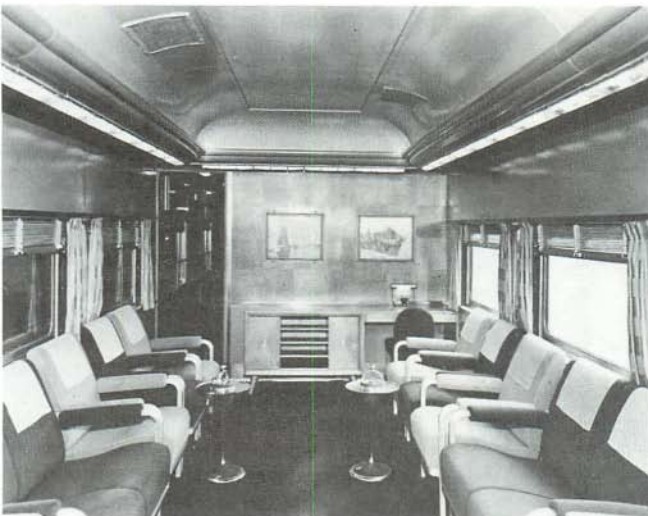
Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries

tional modifications and more modern interior colors. My memory is that the basic interior featured light blue walls and darker blue upholstery on the chairs. I am uncertain about the carpet color. For all practical purposes, this marked the end of mahogany grained panels in mainline service, as most mainline coaches now had reclining seats and modern color schemes.



Class P4

VF



Forward portion of observation section of class P4 car No. 582. The observation lounge had walls of medium blue. The forward bulkhead had squares of rift oak Flexwood applied with alternating grain lines and featured two watercolor paintings of the sea. The draperies were two-tone gold horizontal striped material. The seat covers alternated in tones of gold and red. September 19, 1952.

Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries



Rear portion of observation section of class P4 car No. 582. Blue carpet, light blue walls and an apricot ceiling that was lowered made the observation section a favorite on the early '50s Powhatan Arrow. September 19, 1952.

Norfolk & Western Ry. Archival Collection, Virginia Polytechnic Institute and State University Libraries



# Oregon & Northwestern Caboose #300

This former N&W caboose spent more of its active service life in the Pacific Northwest than it did on the Norfolk & Western. The story of this caboose opens the door to a variety of modeling possibilities.

by Errol Spangler

**I**n a tale that is akin to finding a classic old automobile in some farmer's barn, the subject of this story, Oregon and Northwestern caboose #300, was discovered in a lumber company building in the south-eastern corner of Oregon. Sharing space with the caboose were four Baldwin AS-616s, a couple of flatcars, and countless pieces and parts for the engines. Even with all this booty, there was plenty of room left over as the building they were in is approximately ten stories tall and almost a mile long.

O&NW 300 was built by the Norfolk and Western in September of 1915 in the company shops at Roanoke, VA, as N&W 18121. It was renumbered to 518121 in the general renumbering of all N&W cabooses. In 1945 the car somehow wound up as part of the equipment owned by the Hines Lumber Company, owner and operator of the Oregon and Northwestern Railroad.

The Oregon and Northwestern was built in the 1920s and ran from the Hines lumber mill just south of Burns, OR, (the area

around the mill became the town of Hines in 1930) some 51 miles north to Seneca, OR. Also included were several branches running back into the woods from various points along the line. At Burns, the O&NW connected with the 141-mile Union Pacific branch which meanders east and north to a connection with the UP mainline on the Oregon-Idaho border some 40 miles south-east of Huntington, OR.

Over the years the general downturn in the logging business, combined with the shift to trucks, forecast doom for the railroad. The final blow came during the winter of 1983-84 when severe weather followed by massive flooding washed out several miles of Union Pacific tracks, which led to abandonment of their branch. It was at this time that the O&NW equipment was placed in storage pending a revival of business and a new connection with the outside world.

In 1990 a change in ownership of the mill and equipment at Hines spelled the end of any hope for the O&NW. The new owners of the line, Tecton Laminates of Denver, CO, contacted the scrap dealers to bid on the remaining railroad assets. The fate of the equipment came to the attention of Wayne Monger of the Feather River Rail Society, who had become familiar with the O&NW in the late '70s. It was through the efforts of Wayne and the FRRS that the caboose and four Baldwin diesels were saved from the torch of the scrappers and are being preserved for future generations.

The mill at Hines is again running, as part of Snow Mountain Pine Lumber with all logs being brought in by truck. The tracks between Hines and Seneca have all



Use Floquil Reefer Yellow for yellow areas on sides and ends. Floquil's Caboose Red can be used for cupola and upper band around sides and ends and lower portion of sides. Platforms, undercarriage, smokestack and all grabs and ladders are black. Use Floquil Grimy Black on the roof to simulate the added weatherproofing. The interior is a gloss gray. The diamond-shaped dots on side sill and steps are pieces of yellow Scotchlite. The ONW 300 stenciling is black.

*Mardi Vincent photo*



**Note supply box added on three-window side. Compare with photo of N&W class CF #518360 on page 48 of April 1991 issue of MRG.** *Mardi Vincent photo*

been removed and the remaining equipment sold off. Interestingly, the rail line from Hines to Boise was reopened as the Oregon Eastern Railroad.

When I was first contacted by Wayne regarding the caboose, we had no idea what its parentage was. Wayne had photographed the car in 1983 and thought it might be an ex-Union Pacific CA1. However, when I saw the photos I knew it was not from the UP nor any western road I knew of. It was not until after the equipment had been pulled out of storage into the light of day that we located the N&W stenciling on the center beam. Then, of course, the other clues started to hit us between the eyes: most of the metal parts were cast with the initials N&W along with a part number, including the trucks which carry a large N&W on the face. Upon learning of the N&W connection, I contacted the Norfolk and Western Historical Society, who identified the car as a class CF — the first class of four-axle cars to replace the old two-axle bobber-style cabooses. Tom Dressler of the N&W Society also supplied me with drawings and photos of the class which confirmed our findings.

### O&NW Modifications

The car appears to be pretty much as built by the N&W and even escaped the application of plywood sides which was done to the class in the '50s by the N&W. When we acquired the car there was one set of handrails from the ladder to the roofwalk which were not in any of the N&W photos and which we removed. The other end of the car was apparently in a minor accident at some time in the past which bent in the ladder. The accident must have damaged the handrails and roofwalk as they were removed and never replaced.

Other changes to the car include a propane gas system to power the Caban

stove and an Onan generator for an electrical system which was installed. One interesting detail which was added by the O&NW was weld beads applied to the steps to make them more non-skid, but also to mark the acquisition of the car. Welded into the steps are the date "10-29-45," location "Seneca, Ore." and the railroad "O&NW."

The interior of the car has an additional layer of tongue-and-groove siding applied to all exterior facing walls and ceiling (the temperatures in that section of Oregon can be extremely cold in the winter). The rest of the interior cabinets located under the cupola appear to still be the original wood. The business end of the car contains a small desk, a stainless-steel sink, a water cooler, a large triangular-shaped dining table, and the Caban stove. The other end of the car still contains the two lower bunks with storage underneath as in the original, but without the two hanging bunks above. Also in this end is the water

tank which supplies the sink and toilet (located just forward of the cupola at the other end).

### On to Portola

Moving day for the caboose was finally designated to be July 8, 1991. Since the Union Pacific would not haul the car due to its age and friction-bearing trucks, we hired the services of Cazassa Trucking in Reno, NV, for the 350-mile move from Hines, OR, to the Feather River Rail Society Museum at Portola, CA. We met the truck at Hallelujah Junction, CA (I love that name), at 5 a.m. for the drive north to Hines, arriving there just after noon. With assistance from Snow Mountain Pine Lumber, who used their log loaders to push the car onto the truck, we were back on the road out of Hines and headed south by 4 p.m.

Fortunately for us, the entire distance from Hines to Portola doesn't have a single bridge or overpass to hinder excess height loads (we topped out at just over 17'). Our only problems were the cable TV lines in Lakeview, OR; and Alturas and Susanville, CA. Lakeview was our overnight stop and after receiving the proper California permits, we proceeded on to Portola arriving there just after noon on July 9. The FRRS provided one of its ex-army 44-tonners and an idler flatcar which was coupled to the caboose for the pull from the truck to the new home rails.

Plans for the present call for the caboose to remain in its two-tone yellow and red paint scheme to match the two Baldwin units which were acquired by the FRRS. At some point in the future, the museum plans to repaint one Baldwin back to its original SP livery and the other back to the McCloud River Railroad scheme it once wore. At that point we will decide which of its two parents the caboose will be painted for.

**I**



**O&NW 300 before removal of roof handrails above ladder. Photo shows placement of relocated stove vent and added propane tank and battery box.**

*Errol Spangler photo*



## Circus Train Update

by Randy Lee and Bill Hill

*Photos by Bill Hill unless otherwise indicated*

New equipment is always being added and old equipment is being replaced, renumbered or eliminated on the Red Unit of Ringling Bros. and Barnum & Bailey's Combined Shows. Here is a brief look at some of the equipment that wasn't modeled by Bill in his HO model of the train based on its 1989 configuration. All of the photos presented here were taken while the Circus was in Denver in October 1991.

RBX 53, a former UP baggage car, is the new PIE car. The windows are square. ➡



Compare this view of RBX 32 with photo taken in 1987 which was shown on page 20 of the January 1991 issue of *MRG*.



Opposite side of RBX 53. Note that bannerline doesn't touch red stripe.



This year, one of the "mules" is red.



New Ford tractor with rear forklift. Note new lion-and-tiger-cage wagon in rear.



Front of new Bluebird bus.



Rear view of new Isuzu water truck.



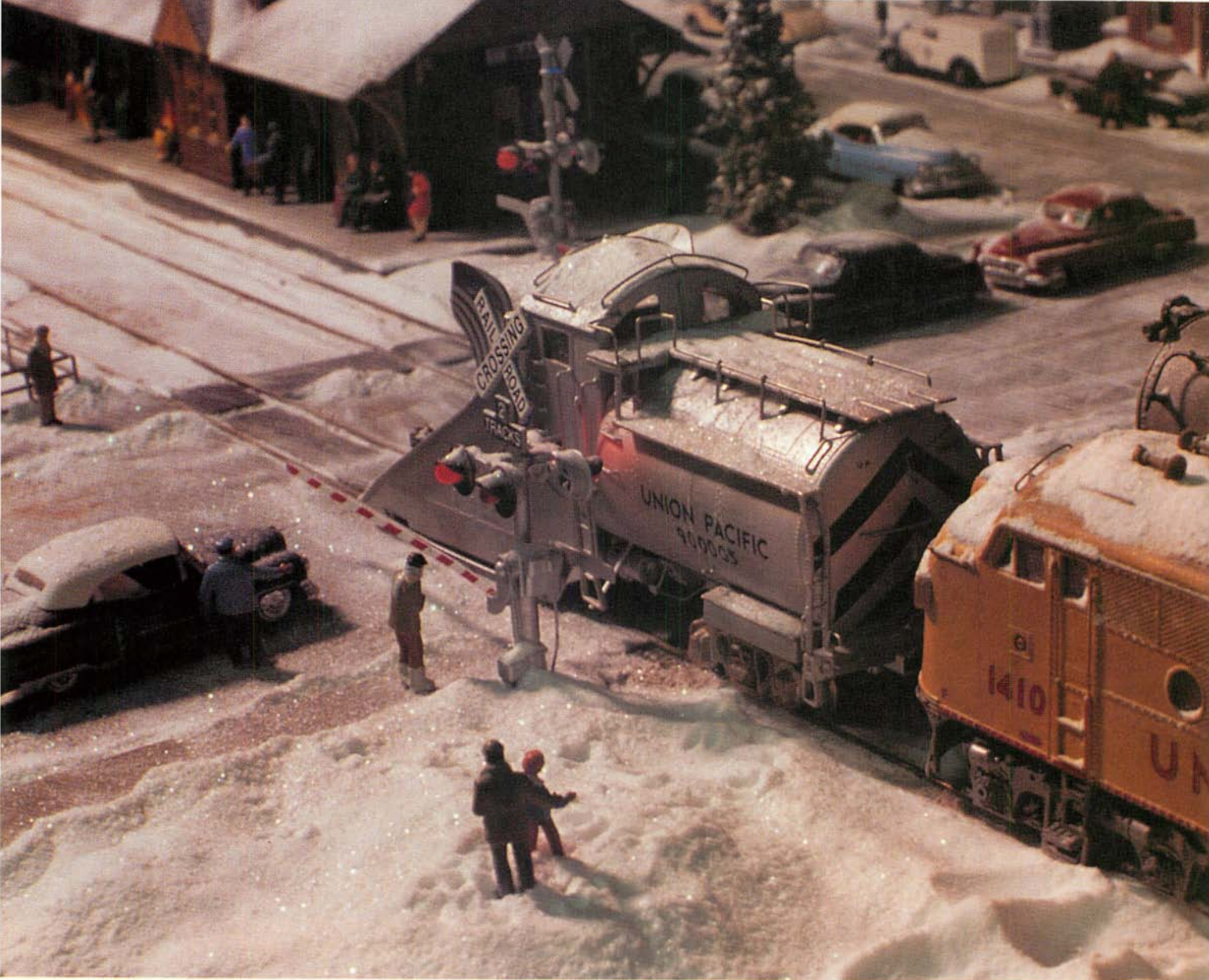
Closeup of end and roof detail on RBX 37 and 38.

*Randy Lee photo*



RBX 33, a former UP baggage car, is used for the zebras and buffalo which are a part of the 1991 circus. The opposite side is configured identically.

*Randy Lee photo*



It's a cold January afternoon during the late '50s, and drifts over 8' high have blocked the single-track mainline west of Blake, forcing UP 2-10-2 #5033 with a mixed freight to hold in Blake. Union Pacific's wedge plow #900005 has been called in to clear the main. With 4,500 hp provided by F3A #1410 and two F7B boosters from Stewart Hobbies, the job should be accomplished soon...provided the plow doesn't derail. Derailments are an ever-present danger with wedge plows, particularly when encountering drifts.

## A Blizzard in Blake

by Randy Lee

*Photos by the author*

After some of the recent snowstorms in Denver, it only seemed appropriate for it to snow in Blake. With help from Scott Anderson, we created Blake's blizzard after work one Monday evening. This was a fun project that you might want to

try on your layout. To help you along, here's how we did it.

The snow is baking soda with a little Vintage Reproductions snow crystals mixed in to provide glisten. The crystals were mixed in with the baking soda in a

handy container (in our case a Mercedes hubcap "borrowed" from the collection of LaDonna, our Production Manager). The mixture was then sprinkled onto the module with a spoon which was held about 8"-12" over the module.

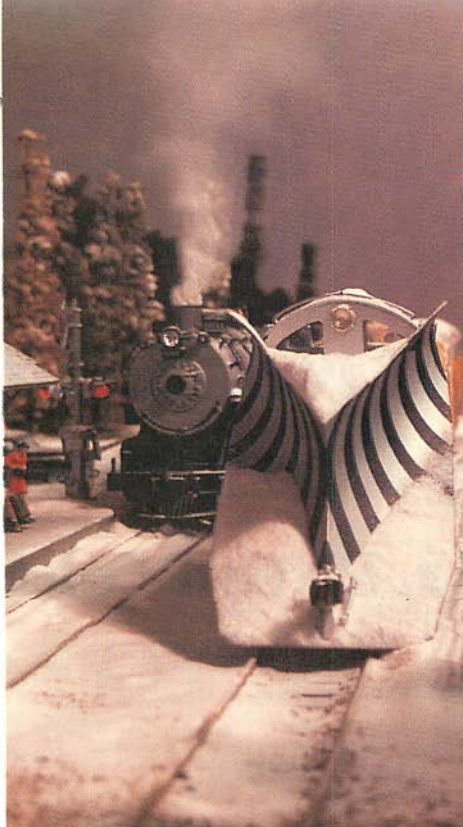
With Denver's dry climate, using baking soda for snow is not a problem. I have left baking-soda snow on a scene for nearly five months without any adverse effects. I am aware though of modelers in humid climates who have had difficulties, particularly if the baking soda was not removed almost immediately.

The streets and sidewalks were "plowed" with a business card. A business card was also used to "flip" snow up into areas like windows on the buildings and onto the sides of the diesels and snowplow so it would stick to steps and other details. Using a short, stiff, flat brush, the snow was brushed away from stacks and fans on top of the diesel.

To "muddy" the snow at the entrance to the parking lot, tan chalk scrapings were mixed in by running a vehicle back and forth over the baking soda/chalk mixture. Footprints were created by "walking" HO figures through the scene.

To keep the Tomar Industries grade crossing signals from flashing, the leads to the lights on one side were "hot wired" so they would remain on through the entire exposure.

The smoke and steam were made from a cotton wipe which was carefully pulled apart. A dab of rubber cement was placed in the smokestack of 5033 to secure the



**The sun has broken through the storm clouds as plow #900005 passes by #5033 with its steam glistening in the sunlight as it waits for the main to be cleared.**

"smoke" so it could be wiggled during the exposure.

A Crescent Faux Marble mat board (Light Blue Marble #4404) was used for the background. To create the stormy appearance, it too was moved during the exposures, thus creating the streaking.

Fujichrome 100D film was used in a Pentax ME Super set at f22. Light was from a 500W blue photoflood (main light) and two 250W blue photofloods (fill and back lights). All of the photos in this article and the cover photo were the 2X exposures. All photos were bracketed at 1/2X, 1X and 2X; because of the predominance of the snow, I should have also tried 4X exposures. (I should have paid closer attention to Bruce's articles.)

The next day, after I was sure the photos had turned out, the "snow" was vacuumed using the flat nozzle intended to go between cushions, being careful not to vacuum up any people or other details. A soft brush was then used to brush any residual snow off vehicles, windows and other similar surfaces.

Why not try your hand at creating a winter scene and sending your results to *Model Railroading*? The best entries will be used in a winter issue next winter...either in the magazine or on the cover. 

**Its mission a success, plow #900005 (Overland Models) returns through Blake after being turned on the wye at Larimer. In a few minutes #5033 (an old Balboa import) will be able to continue its journey.**





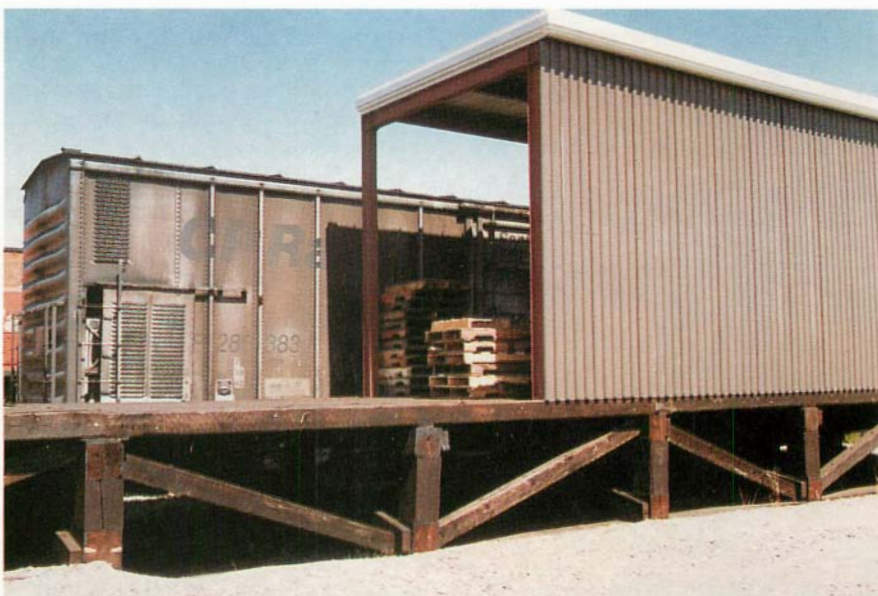
# Esquimalt & Nanaimo Railway Loading Dock and Ramp Victoria, British Columbia

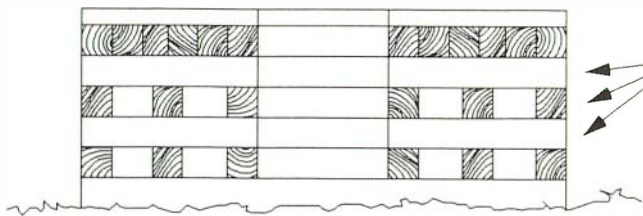
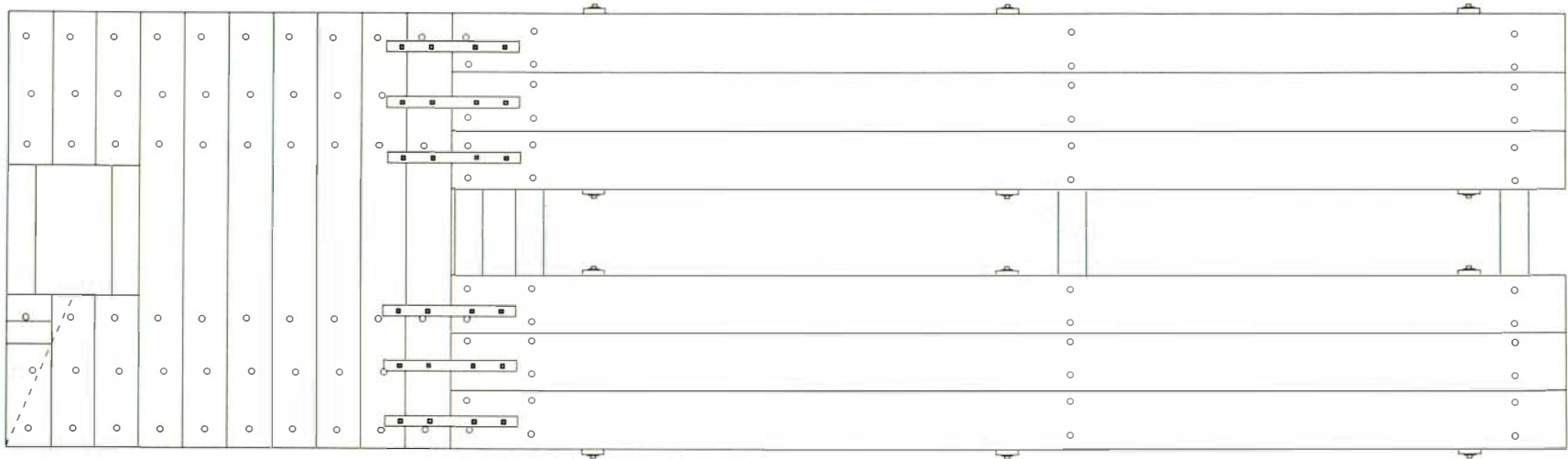
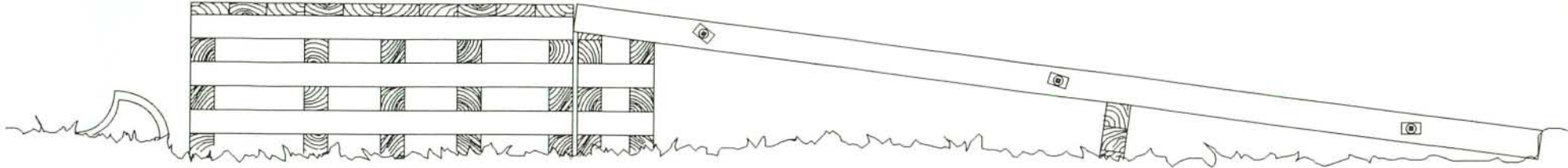
by Patrick Lawson

*Photos and plans by the author*

**T**hese two innocuous structures are located on the same track in the E&N yard in Victoria. They are generally used to load/unload one car at a time. Modelers will want to dress up these structures with miscellaneous debris, such as pallets, scrap lumber from packing crates, metal banding, etc. Adding a touch of real creosote before an operating session would also lend realism to the atmosphere. (A note of caution here when handling creosote — wear gloves or be very careful not to get any on your skin.)

As you can see from the photographs, these structures really do blend into the scene. They are the sort of large-detail that the eye at first passes over on a model scene then homes in on for a closer look. The loading dock offers a great place to spot a boxcar that has been reworked with interior detail. A small action scene could also be designed around the ramp involving the loading of a flatcar with an interesting piece of machinery.





NOTE:  
THESE THREE LEVELS ARE ANGLED BACK TO  
ACCOMMODATE COUPLER CUT BARS

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BY PATRICK LAWSON  
THESE DRAWINGS MAY BE REPRODUCED  
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| MATERIALS LIST: |                |
|-----------------|----------------|
| 7 1/2" X 7 1/2" | - BASE         |
| 9" X 17"        | - RAMP         |
| 4" X 12"        | - DECK         |
| N-B-W CASTINGS  |                |
| 3" X 36"        | - METAL STRAPS |
| JUNECO          | - WHEEL STOPS  |

LOADING RAMP

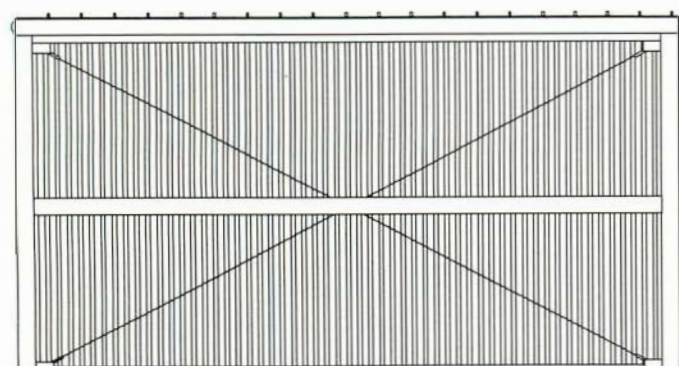
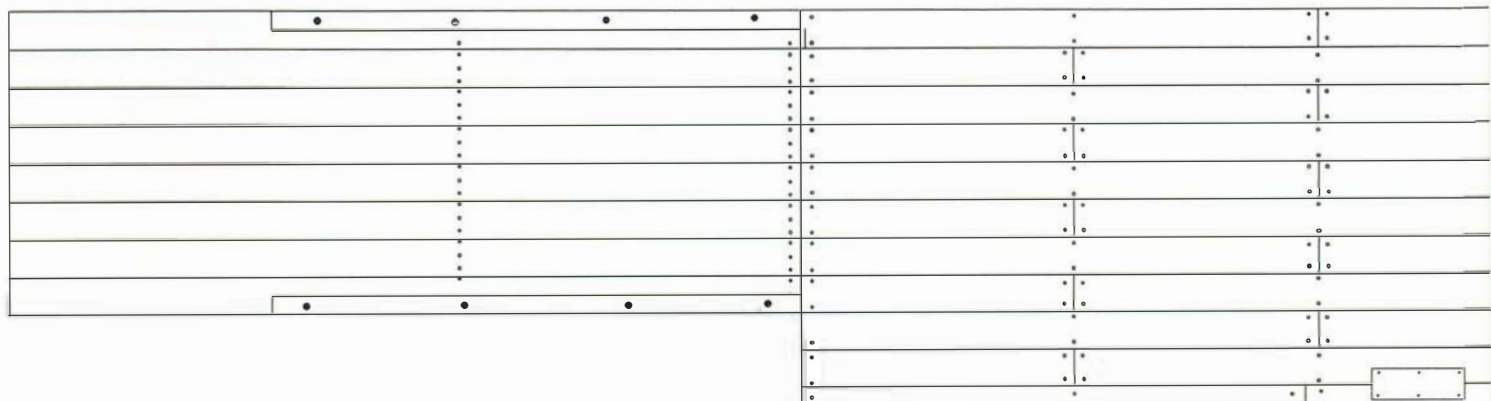
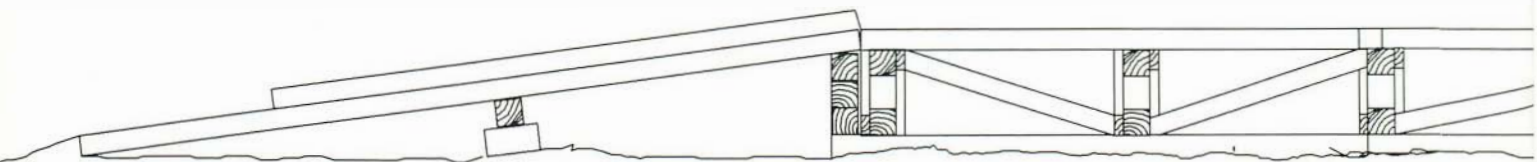
E & N RAILWAY

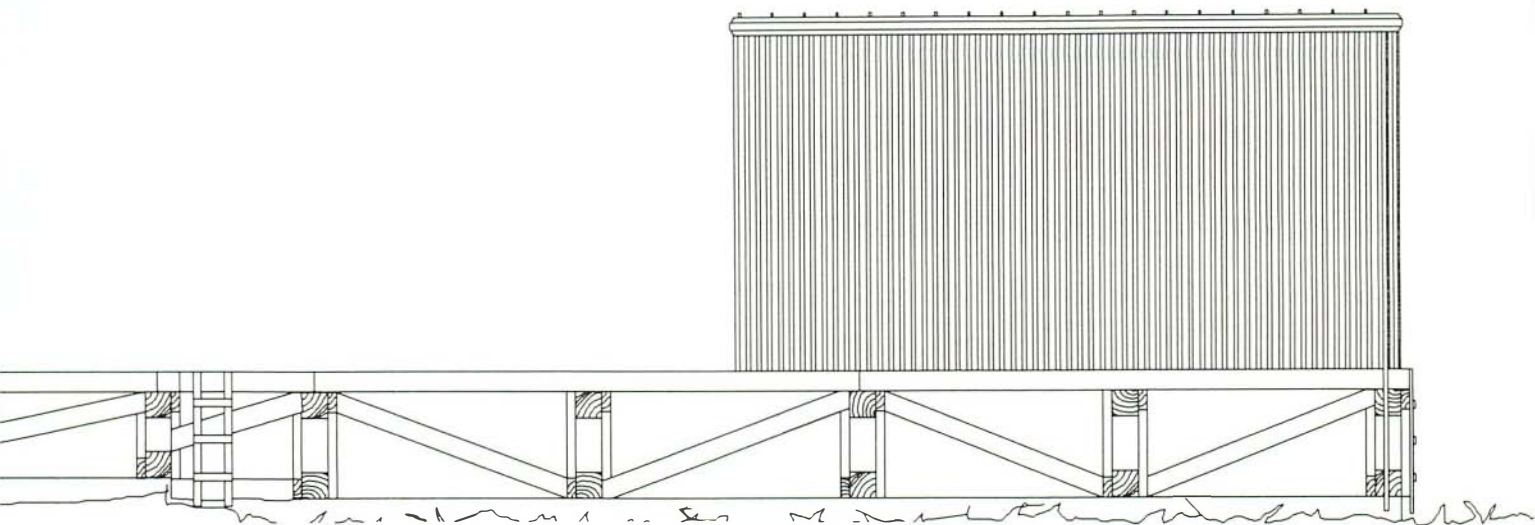
VICTORIA B.C.

SCALE: 1/4" = 1'-0"

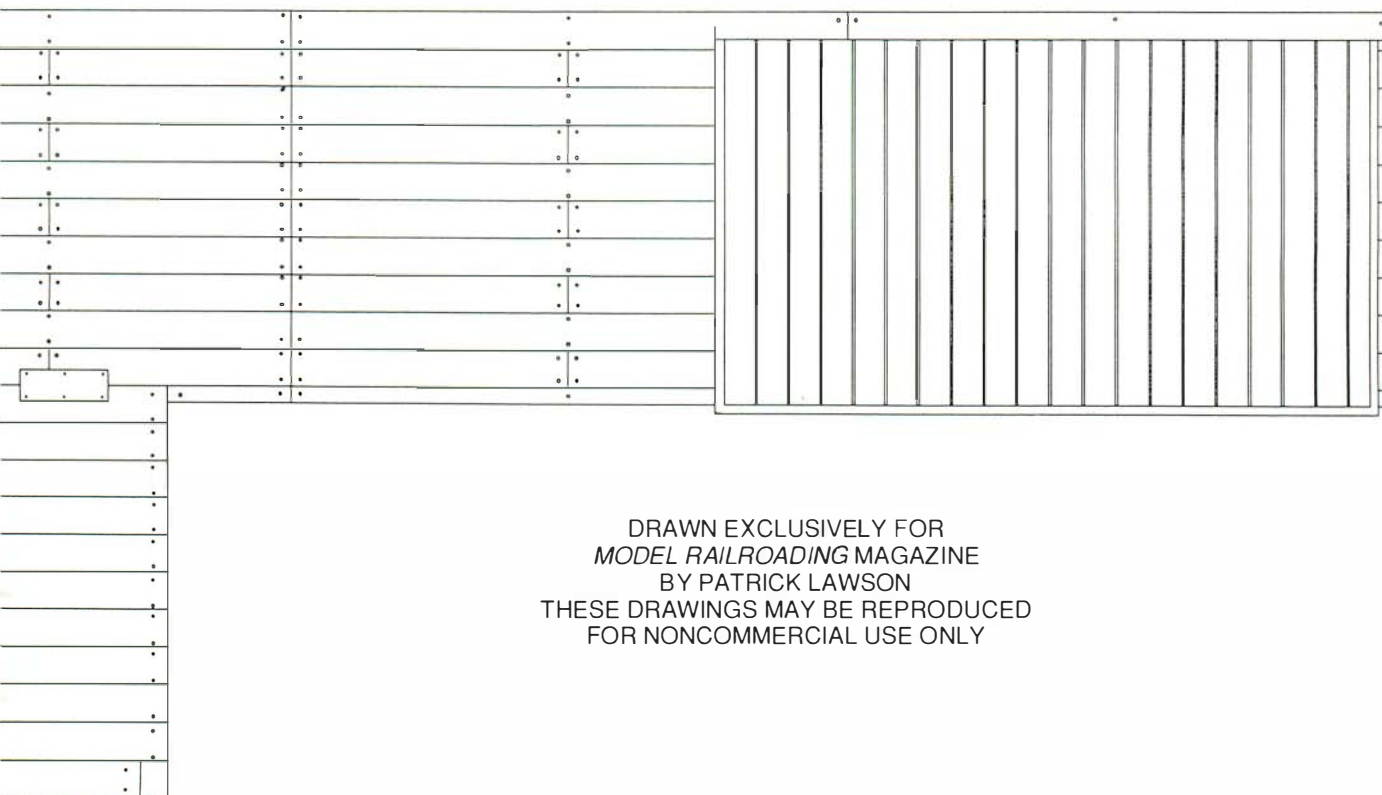
# LOADING / UNLOADING DOCK E & N RAILWAY VICTORIA B.C.

SCALE: 1/87

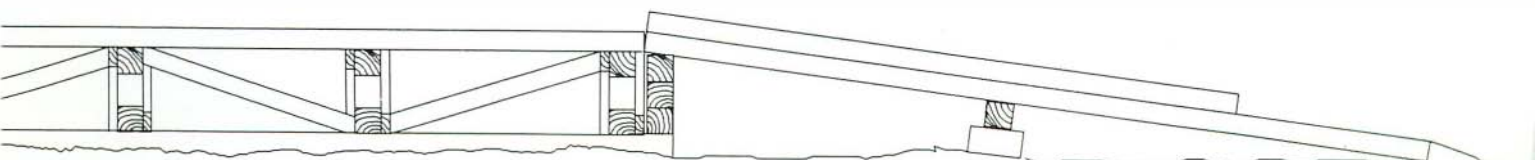




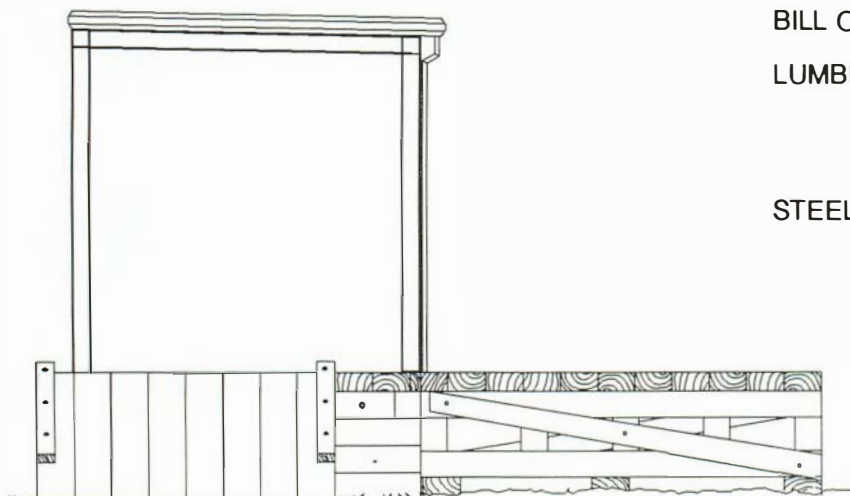
SOUTH ELEVATION



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NORTH ELEVATION



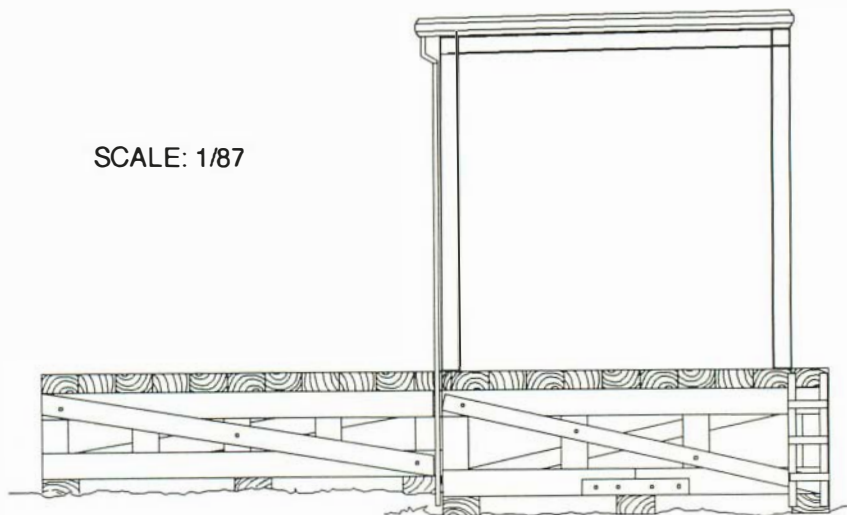
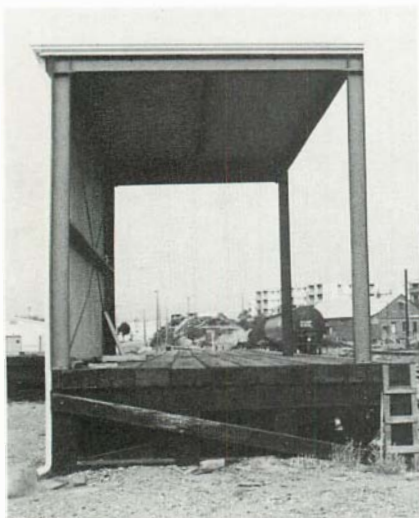
WEST ELEVATION

**BILL OF MATERIALS:**

**LUMBER** (all treated with creosote)  
 12" x 12" POSTS AND BEAMS  
 9" x 17" DECK AND FOUNDATION  
 4" x 7 1/2" BRACING

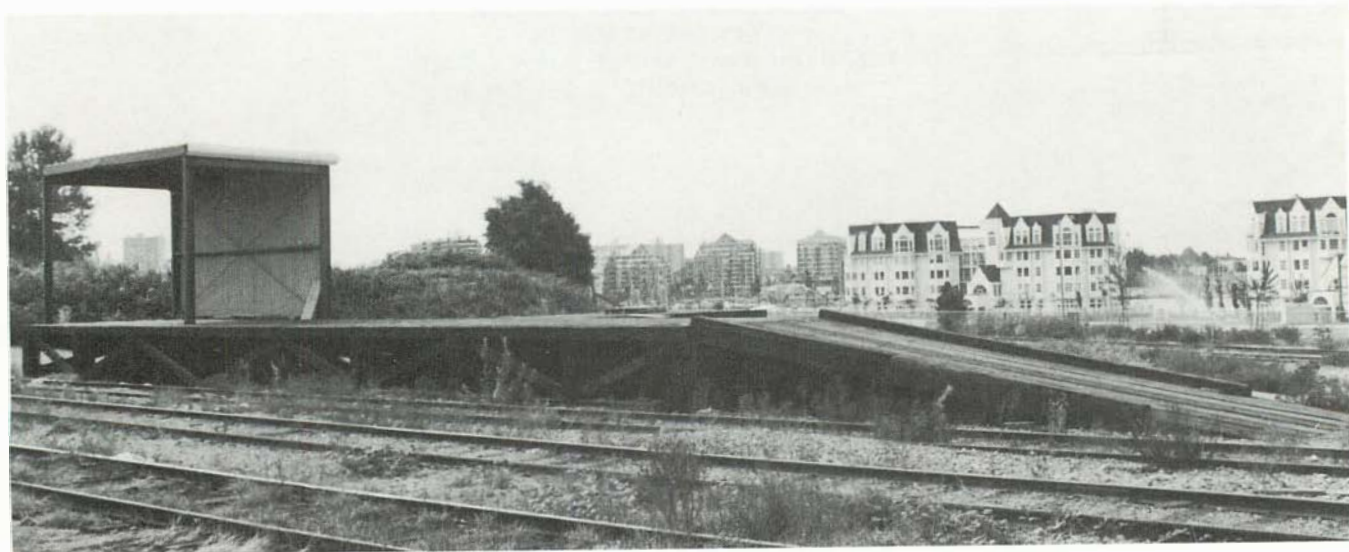
**STEEL**  
 5 1/4" x 8 1/4" "I" BEAMS  
 3" x 3" ANGLE  
 2' x 7" (approx.) CHANNEL  
 MISC. CABLE etc.  
 METAL ROOFING & SIDING  
 NUT/BOLT/WASHER CASTINGS  
 DRIFT PINS

SCALE: 1/87



EAST ELEVATION

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| <b>DAROEENELLE</b><br>RIVER VALLEY HOBBIES<br>PO BOX 425<br>72834 501-229-1270            | <b>LOS ANGELES</b><br>ALLIED MODEL TRAINS<br>4411 SEPULVEDA BLVD.<br>90230 213-313-9353               | <b>STOCKTON</b><br>DELTA DEPOT<br>5939 PACIFIC AVE.<br>95207 209-473-3410                                 | <b>LAKEWOOD</b><br>COLPAR HOBBIES<br>3333 S. WADSWORTH BLVD.<br>80227 303-989-7008                                    | <b>LEWES</b><br>FIRST STATE HOBBIES<br>1604 SAVANNAH RD<br>LEWES PLAZA<br>19958 302-645-7700                             | <b>TAMPA</b><br>HAPPY HOBO<br>5403 N. CHURCH ST.<br>33614 813-886-5072                                            | <b>BERWYN</b><br>HOBBY CITY<br>6910 CERMAK RD.<br>60402 708-795-0280                    |
| <b>FORT SMITH</b><br>GOLDEN SPIKE<br>505 S. 17TH<br>72901 501-785-2557                    | <b>LOS ANGELES</b><br>NATICK STORE<br>505 S. FLOWER ST., C LEVEL<br>90071 213-626-3339                | <b>STOCKTON</b><br>STANDARD HOBBIES<br>7542 PACIFIC AVE.<br>95207 209-477-0477                            | <b>LOVELAND</b><br>THOMPSON'S HOBBIES<br>1730 W. EISENHOWER BLVD.<br>80537 303-669-2326                               | <b>WILMINGTON</b><br>HOBBY ART INC<br>4709 KIRKWOOD HWY.<br>19808 302-999-0144                                           |                                                                                                                   | <b>BLOOMINGTON</b><br>HOBBLAND INC.<br>616 N. MAIN ST.<br>61701 309-828-1442            |
| <b>NORTH LITTLE ROCK</b><br>MADJO HOBBY HOUSE<br>5302 MacARTHUR DR.<br>72118 501-753-0495 | <b>LOS ANGELES</b><br>TROXEL BROS. MODELS<br>4319 W. 2ND ST.<br>90004 213-382-6626                    | <b>TORRANCE</b><br>ALL ABOARD MODEL RR<br>3766 PACIFIC COAST HWY<br>90505 213-791-2637                    | <b>STERLING</b><br>COLORADO MODEL RR MUSEUM<br>109 S. THIRD ST.<br>80751 303-522-7456                                 | <b>WILMINGTON</b><br>MITCHELL S. INC.<br>2119 CONCORD PIKE<br>FAIRFAX SHOPPING CENTER<br>19803 302-652-3258              | <b>GEORGIA</b>                                                                                                    | <b>BURBANK</b><br>GOLDEN SPIKE TRAIN SHOP<br>6357 W. 79TH ST.<br>60459 708-598-3114     |
|                                                                                           | <b>MORENO VALLEY</b><br>LONG'S DRUG STORE #224<br>25070 ALESSANDRO BLVD.<br>92388-4313 714-242-5060   | <b>TURLOCK</b><br>SQUARE ROUNDHOUSE<br>1468 LANDER AVE.<br>95380 209-668-4454                             | <b>WESTMINSTER</b><br>HOBBY TOWN<br>6975 E. 88TH AVE.<br>80020 303-431-0482                                           |                                                                                                                          | <b>ALBANY</b><br>HOBBY TOWN<br>2601 DAWSON RD<br>31707 912-436-3393                                               | <b>CHAMPAIGN</b><br>PRAIRIE GARDENS<br>3000 W. SPRINGFIELD<br>61821 217-356-5558        |
| <b>CALIFORNIA</b>                                                                         | <b>NORTH HOLLYWOOD</b><br>THE ROUNDHOUSE<br>12804 VICTORY BLVD.<br>91606 818-769-0403                 | <b>VENTURA</b><br>FRIENDS RIGHT TRACK HOBBIES<br>1818 E. MAIN ST.<br>93003 805-643-5338                   |                                                                                                                       | <b>FLORIDA</b>                                                                                                           | <b>ATHENS (WATKINSVILLE)</b><br>MEMORY STATION<br>PO BOX 56<br>HIGHWAY 441 SOUTH<br>30677 404-769-8986            | <b>CHICAGO</b><br>CHICAGOLAND HOBBY<br>6017 N. NORTHWEST HWY<br>60631 312-775-4848      |
| <b>ALBANY</b><br>KIT & CABOODLE<br>1404 SOLANO AVE.<br>94706 415-524-9942                 | <b>ORANGE</b><br>FRANK'S HOBBY SHOP<br>666 N. TUSTIN AVE.<br>92667 714-639-9901                       | <b>WESTMINSTER</b><br>ARNIES TRAINS<br>6540 WESTMINSTER AVE.<br>92683 714-893-1015                        |                                                                                                                       | <b>DAYTONA BEACH</b><br>DUNN TOYS AND HOBBIES<br>1545 BEACH ST.<br>9-6 MON-SAT 32014 CLOSED SUN 904-253-7691             | <b>ATLANTA</b><br>SOUTHEASTERN HOBBY DEPOT<br>4246 PEACHTREE RD.<br>30319 404-262-7508                            | <b>CHICAGO</b><br>TROT HOBBY SHOP<br>3105-3111 W. 63RD ST.<br>60629 312-925-1000        |
| <b>BERKELEY</b><br>BERKELEY HARDWARE<br>2145 UNIVERSITY AVE.<br>94704 415-845-0410        | <b>PALM DESERT</b><br>SUITE P HOBBIES<br>73140 HIGHWAY 111, UNIT #1<br>92260 619-568-9822             |                                                                                                           | <b>CONNECTICUT</b>                                                                                                    | <b>FORT LAUDERDALE</b><br>WARRICK CUSTOM HOBBIES<br>DAVE SHOPPING CENTER<br>4693 S. UNIVERSITY DR.<br>33328 305-434-9777 | <b>ATLANTA (CHAMBLEE)</b><br>ATLANTA TRAIN WAREHOUSE<br>5726C NEW PEACHTREE RD.<br>30341 404-458-1010             | <b>CREST HILL</b><br>WALT'S HOBBY SHOP<br>1701 N. LARKIN AVE.<br>60435 815-741-0043     |
| <b>BREA</b><br>IRON HORSE<br>116 S. BREABLDV.<br>92621 714-529-1795                       | <b>PALM SPRINGS</b><br>REALISTIC MINIATURE TRAINS<br>2233 N. PALM CANYON DR.<br>92262 619-325-3662    |                                                                                                           | <b>BRANFORD</b><br>BRANFORD HOBBIES<br>609 BOSTON POST RD.<br>WEST MAIN<br>06405 203-488-9865                         | <b>LAKELAND</b><br>PERKINS<br>HOBBIES/COLLECTIBLES<br>1117 S. FLORIDA AVE.<br>33803 813-683-3251                         | <b>CHAMBLEE</b><br>GANDY DANCERS<br>5460 PEACHTREE RD.<br>30341 404-451-7425                                      | <b>DES PLAINES</b><br>DES PLAINES HOBBIES<br>1464 LEE ST.<br>60018 708-297-2118         |
| <b>BURBANK</b><br>THE TRAIN SHACK<br>1030 N. HOLLYWOOD WAY<br>91505 818-842-3330          | <b>PETALUMA</b><br>MODELS AND MORE<br>218 PETALUMA BLVD. N.<br>94952 707-762-2378                     |                                                                                                           | <b>DANBURY</b><br>DANBURY HOBBY CENTER<br>366 MAIN ST<br>06810 203-743-9052                                           | <b>LANTANA</b><br>THE DEPOT<br>603 RIDGE RD.<br>33462 407-585-1982                                                       | <b>COLUMBUS</b><br>TOYS FOR BIG BOYS<br>4710 HAMILTON RD<br>31904 404-327-4546                                    | <b>DOWNERS GROVE</b><br>DOWNERS GROVE HOBBIES<br>6234 S. MAIN ST.<br>60516 708-960-5900 |

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| <b>ILLINOIS</b>                                                                                | INDIANAPOLIS<br>BILL'S MODEL RAILROAD<br>7995 W. 21ST. UNIT 5<br>46214 317-271-0819 | <b>KENTUCKY</b>                                                                               | <b>MASSACHUSETTS</b>                                                                                             | DEARBORN<br>JOE'S HOBBY CENTER<br>7845 WYOMING AVE.<br>48126 313-933-6567                                         | <b>MINNESOTA</b>                                                                       | <b>NEBRASKA</b>                                                                            |
| EDWARDSVILLE<br>TRACK II TRAINS<br>108 N. MAIN ST.<br>HOME OF PROTO-BED<br>62025 618-656-6109  | INDIANAPOLIS<br>MASTER HOBBIES<br>8501 BASH<br>46250 317-576-1961                   | PARIS<br>CABOOSE CORNER<br>2015 MAIN ST.<br>40361 606-987-1257                                | BEDFORD<br>BEDFORD TRAIN SHOP<br>32 SHAWSHOEN AVE.<br>01730 617-275-7525                                         | EAST DETROIT<br>JOE'S HOBBY CENTER<br>17900 E. TEN MILE<br>48021 313-773-8294                                     | LITTLE CANAUA<br>HUB HOBBY CENTER<br>82 MINNESOTA AVE.<br>55117 612-490-1675           | INCOLN<br>HOBBY TOWN USA<br>SUTTER PLACE MALL<br>5221 S. 48TH ST.<br>68516 402-483-7427    |
| ELGIN<br>B & G TRAIN WORLD<br>829 WALNUT AVE.<br>60120 708-888-2646                            | INDIANAPOLIS<br>N GAUGE TRAIN SHOP<br>8863 PENDLETON PIKE<br>46226 317-898-4883     |                                                                                               | BOLTON<br>SCALE MODEL PRODUCTS<br>63 HUDSON RD.<br>PO BOX 72<br>01740 508-779-5056                               | FARMINGTON<br>JOE'S HOBBY CENTER<br>35203 GRAND RIVER<br>48024 313-477-6266                                       | RICHFIELD<br>HUB HOBBY CENTER<br>6416 PENN AVE. S<br>55423 612-866-9575                | LINCOLN<br>HOBBYTOWN<br>EAST PARK MALL<br>220 NORTH 66TH ST.<br>68505 402-464-2858         |
| FRANKLIN PARK<br>END OF TRACK HOBBIES<br>9706 FRANKLIN AVE.<br>60131 708-455-2510              | LAFAYETTE<br>MAIN HOBBY<br>625 COLUMBIA ST.<br>47901 317-742-6634                   |                                                                                               | BROCKTON<br>CUSTOM TRAIN WORKS<br>24 TINA AVE<br>02402 508-580-5644                                              | FLINT<br>RIDER'S<br>THE BETTER HOBBY PEOPLE<br>3012 CORUNNA RD.<br>48503 313-234-4051                             | ROBBINSDALE<br>HUB HOBBY CENTER<br>4114 LAKELAND AVE. N<br>55422 612-535-5628          | LINCOLN<br>ROLLIES MODEL RAILROAD<br>CROSSING<br>5606 S. 48TH ST.<br>68516 402-423-9337    |
| LA GRANGE<br>LA GRANGE HOBBY CENTER INC.<br>25 S. LAGRANGE RD.<br>60525 708-354-1220           | MICHIGAN CITY<br>B & A HOBBIES & CRAFTS<br>408 FRANKLIN<br>46360 219-874-2382       | <b>LOUISIANA</b>                                                                              | CENTERVILLE<br>THE ENGINE HOUSE<br>1682 FALMOUTH RD. ROUTE 28<br>CENTERVILLE SHOPPING CTR.<br>02632 508-771-5311 | FRASER<br>P & D HOBBY SHOP<br>31902 GROESBECK HWY.<br>48026 313-296-6116                                          | SAINT PAUL<br>SCALE MODEL SUPPLIES<br>458 N. LEXINGTON PARKWAY<br>55104 612-646-7781   | OMAHA<br>HOBBY TOWN USA<br>ROCK BROOK VILLAGE<br>11011 ELM ST.<br>68144 402-391-5669       |
| MT. MORRIS<br>STAUFFER'S HOBBIES<br>9 N. MCKENDRIE AVE.<br>61054 815-734-6627                  | SOUTH BEND<br>HOBBY LAND<br>343 LINCOLN WAY W.<br>46601 219-287-0180                | BATON ROUGE<br>LOUISIANA CENTRAL HOBBIES<br>10230 FLORIDA BLVD.<br>70815 504-273-0095         | DANVERS<br>NEW ENGLAND MODEL SUPPLY<br>467 MAPLE ST.<br>TUES-FRI 12-8 SAT 9-5<br>01937 508-777-1387              | GRAND RAPIDS<br>EARL'S TRAIN WORLD<br>10560 CASCADE ROAD SE<br>6 MILES FROM END OF 28TH ST.<br>49331 616-868-7495 | SPRING LAKE PARK<br>UNIVERSITY HOBBIES<br>185 UNIVERSITY AVE. NE<br>55432 612-780-4189 | OMAHA<br>HOUSE OF TRAINS<br>8106 MAPLE ST.<br>68134 402-391-2311                           |
| MUNDELEIN<br>RON'S MUNDELEIN HOBBIES<br>431 N. LAKE ST.<br>60060 708-949-8680                  |                                                                                     | LAFAYETTE<br>RON'S MODEL RAILROAD SHOP<br>1416 S. COLLEGE RD.<br>70503 318-232-5536           | EAST LONGMEADOW<br>THE FAMILY HOBBY SHOP<br>48 SHAKER RD.<br>01028 413-525-7345                                  | GRAND RAPIDS<br>HOBBY WORLD<br>2851 CLYDE PARK SW<br>49509 616-538-6130                                           | ST. PAUL/MAPLEWOOD<br>HOBBYTOWN<br>3035 WHITE BEAR AVE<br>55109 612-770-6530           | OMAHA<br>SCALE RAIL<br>4205 S. 87TH ST., BOX 27242<br>68127 402-339-3380                   |
| NORMAL<br>JEFFREY ALANS<br>701 TOWANDA<br>61761 309-454-7456                                   | <b>IOWA</b>                                                                         | NEW ORLEANS<br>HUB HOBBY SUPPLY<br>2618 S. BROAD ST.<br>70125 504-822-3914                    | EAST WEYMOUTH<br>SO. SHORE HOBBY CENTER<br>777 BROAD ST.<br>02189 617-331-1234                                   | GRAND RAPIDS<br>RIDER'S HOBBY SHOP<br>2055 28TH ST. SE<br>49508 616-247-9933                                      |                                                                                        | OMAHA<br>TRAINMAN TRADING POST<br>5215 S. 21ST ST.<br>68107 402-734-7233                   |
| PALATINE<br>PALATINE HOBBY, LTD.<br>43 E. NORTHWEST HWY.<br>60067 708-359-7888                 | CEDAR RAPIDS<br>BOX KAR HOBBIES<br>109 THIRD AVE. SE<br>52401 319-362-1291          |                                                                                               | METHUEN<br>MODELER'S JUNCTION<br>88 LOWELL ST., ROUTE 113<br>01844 508-683-0885                                  | KALAMAZOO<br>RIDER'S HOBBY SHOP<br>3417 S. WESTNEDGE AVE.<br>49008 616-349-2666                                   | <b>MISSISSIPPI</b>                                                                     | SCOTTSBLUFF<br>HOBBY TOWN<br>MONUMENT MALL<br>2302 FRONTAGE RD.<br>69361 308-635-7001      |
| PARK RIDGE<br>HILL'S HOBBY & COLLECTORS<br>SHOP<br>10 PRAIRIE<br>60068 708-823-4464            | DES MOINES<br>HOBBY HAVEN<br>7672 HICKMAN RD.<br>50322 515-276-8785                 |                                                                                               | NORTHAMPTON<br>H. L. CHILDS & SON<br>25 STATE ST.<br>01061                                                       | KALAMAZOO<br>STAN'S ROUNDHOUSE<br>5228 S. WESTNEDGE<br>49008 616-345-0004                                         | LAUREL<br>HOBBY CORNER<br>1534 N. FIRST AVE.<br>39440 601-649-4501                     |                                                                                            |
| PEORIA<br>JEFFREY ALANS<br>4601 N. SHERIDAN ROAD<br>61614 309-693-7773                         | FORT DODGE<br>BOB BAKER HOBBY SHOP<br>1424 5TH AVE. S<br>50501 515-955-9894         | <b>MAINE</b>                                                                                  | WARREN<br>TUCKERS HOBBIES<br>BOX 1090 - 8 BACON ST.<br>01083 413-436-5318                                        | LAPEER<br>J & D HOBBIES<br>288 S. MAIN<br>48446 313-664-1414                                                      |                                                                                        |                                                                                            |
| QUINCY<br>TOP HAT HOBBIES, INC.<br>126 NORTH 5TH<br>62301 217-222-0040                         | MASON CITY<br>EAST SIDE TRAINS<br>932 E. STATE ST.<br>50401 515-423-1748            | AUBURN<br>FREIGHT STATION<br>TAYLOR BROOK MALL<br>MINOT AVE., ROUTE 11<br>04210 207-784-6556  | WEST BOYLSTON<br>HENRY'S HOBBY HOUSE<br>67 W. BOYLSTON ST. UNIT 1<br>01583 508-835-6165                          | PETOSKEY<br>DOUG'S PHOTO AND HOBBY<br>303 E. MITCHELL<br>49770 616-347-4233                                       | <b>MISSOURI</b>                                                                        | <b>NEVADA</b>                                                                              |
| SKOKIE<br>NORTH SHORE HOBBY AND<br>COLLECTORS GALLERY<br>4848 OAKTON ST.<br>60077 708-673-4849 |                                                                                     | NORTH YARMOUTH<br>TRAIN & TROOPER<br>13 MEMORIAL HWY. (ROUTE 9)<br>04021 207-829-3211         | WESTFORD<br>HOBBY USA<br>174 LITTLETON ROAD<br>01866 508-392-9522                                                | PORT HURON<br>BLUE WATER HOBBIES<br>1414 PINE GROVE AVE.<br>48060 313-984-8764                                    | BALLWIN<br>CHECKERED FLAG HOBBY CNTRY.<br>14755 MANCHESTER RD.<br>63011 314-394-7600   | LAS VEGAS<br>PRC TRAINS<br>300 W. UTAH<br>89102 702-383-3325                               |
| SPRINGFIELD<br>JEFFREY ALANS<br>1602 WABASH<br>62704 217-787-7771                              | <b>KANSAS</b>                                                                       |                                                                                               |                                                                                                                  | ROGERS CITY<br>THE TRAIN DOCTOR<br>156 S. 3RD ST.<br>49779 517-734-3372                                           | BLUE SPRINGS<br>MAINLINE TRAINS<br>807 MAIN ST.<br>64015 816-224-6962                  | LAS VEGAS<br>TRAIN EXCHANGE<br>6008 BOULDER HWY.<br>89122 702-456-8766                     |
| SPRINGFIELD<br>WHISTLE POST<br>2347 W. MONROE PLAZA<br>62704 217-744-6675                      | GREAT BEND<br>TAYLOR'S TOYS<br>3120 10TH ST.<br>67350 316-793-9698                  | <b>MARYLAND</b>                                                                               |                                                                                                                  | ROCHESTER<br>JOE'S HOBBY CENTER<br>CAMPUS CORNERS SHPG. CTR.<br>105 S. LIVERNOIS<br>48063 313-651-8842            | FARMINGTON<br>A&I HOBBY CENTRAL<br>310 B. POTOSI ST.<br>63640 314-756-7909             | NORTH LAS VEGAS<br>PETERSON HOBBIES/CRAFTS<br>32628 CIVIC CENTER OR.<br>89030 702-649-3311 |
|                                                                                                | KANSAS CITY<br>J'S HOBBY HAVEN<br>4601 STATE AVE.<br>66102 913-287-3030             | BALTIMORE<br>M B KLEIN, INC.<br>162 N. GAY ST.<br>(INCLUDES MAIL ORDER)<br>212-2 301-539-6207 | <b>MICHIGAN</b>                                                                                                  | SOUTHFIELD<br>DEL'S TRAIN CENTER<br>23123 LAHSER RD.<br>48034 313-357-5770                                        | KANSAS CITY<br>SPOTLIGHT MODEL RAILROAD<br>7427 TROOST AVE.<br>64131 816-444-7331      | RENO<br>HIGH SIERRA MODELS<br>3677 KINGS ROW<br>89503 702-747-7444                         |
| <b>INDIANA</b>                                                                                 | OVERLAND PARK<br>OVERLAND RAILS<br>7327A W. 97TH ST.<br>66212 913-341-1144          | CATONSVILLE<br>PRO CUSTOM HOBBIES, INC.<br>721 FREDERICK RD.<br>21228 301-788-8770            | ANN ARBOR<br>RIDER'S HOBBY SHP<br>115 W. LIBERTY<br>48104 313-668-8646                                           | ST. CLAIR SHORES<br>WHISTLE STOP HOBBY TRAINS<br>21714 HARPER AVE.<br>48080 313-771-6770                          | ROGERS CITY<br>THE TRAIN DOCTOR<br>156 S. 3RD ST.<br>49779 517-734-3372                | RENO<br>HOBBIES EMPORIUM<br>5001 S. McCARRAN BLVD.<br>89502 702-825-9670                   |
| BROWN'S COUNTY<br>NASHVILLE RAILROAD CO.<br>ANTIQUE ALLEY<br>NASHVILLE<br>47448 812-988-1558   | TOPEKA<br>FUN FOR ALL HOBBIES<br>2023 SW GAGE BLVD.<br>66604 913-272-5772           | COLLEGE PARK<br>BURRETT HOBBIES<br>4917 NIAGARA RD.<br>20740 301-982-5032                     | BAY CITY<br>CUM CRAFT INC.<br>1008 ADAMS<br>48706 517-892-6177                                                   | UTICA<br>ENGINE HOUSE HOBBIES<br>46727 VAN DYKE<br>48317 313-739-6680                                             | ST. LOUIS<br>NORTH CENTRAL HOBBIES<br>9120 LACKLAND RD.<br>63114 314-426-0031          | RENO<br>HOBBIES OF RENO<br>535 E. MOANA LANE<br>89502 702-826-6006                         |
| EVANSVILLE<br>A A HOBBY SHOP<br>2023 W. FRANKLIN ST.<br>47712 812-423-8888                     |                                                                                     | GAITHERSBURG<br>PASTIMES<br>531 QUINCE ORCHARD RD.<br>20878 301-977-7902                      | CANTON<br>RIDER'S HOBBY SHOP<br>42007 FORD RD.<br>48187 313-981-8700                                             | WESTLAND<br>DAVE'S HOBBY & TV<br>29026 WARREN RD.<br>48185 313-422-4464                                           |                                                                                        |                                                                                            |
| FORT WAYNE<br>HOBBY LAND<br>416 COLISEUM BLVD.<br>46805 219-483-8186                           |                                                                                     | MOUNT AIRY<br>DENNISON'S TRACKSIDE<br>HOBBIES<br>2-4 S. MAIN ST.<br>21771 301-831-7211        | COLOMA<br>J & W MODEL TRAINS, INC.<br>6450 BECHTRD.<br>49038 616-468-5586                                        | WESTLAND<br>NANKIN HARDWARE & HOBBY<br>35101 FORD RD.<br>48185 313-722-5700                                       |                                                                                        |                                                                                            |

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| <b>NEW HAMPSHIRE</b>                                                                                         | <b>WESTMONT</b><br>SATTLE'S HOBBY SHOP<br>14 HADDON AVE.<br>08108 609-854-7136                                           | <b>GLENMONT</b><br>H O CUSTOM TRAINS<br>4 BRIGHTON WOOD RD.<br>12077 518-462-6209                              | <b>ASHEVILLE</b><br>CAROLINA ART, CRAFT & HOBBY<br>128 SWANNANDA RIVER RD.<br>28805 704-258-2227                  | <b>LORAIN</b><br>THE CORNER STORE<br>1249 COLORADO AVE.<br>44052 216-288-2351                                    | <b>PORTLAND</b><br>WHISTLE STOP TRAINS<br>14037 SE STARK<br>97233 503-252-7118                                | <b>PITTSBURGH</b><br>IRON HORSE HOBBY SHOP<br>1950 PAINTERS RUN RD.<br>15241 412-221-2250                 |
| <b>BOSCAWEN</b><br>CONCORD CAR SHOPS<br>RT. 3 & 4, 115 KING ST.<br>03303 603-796-2320                        |                                                                                                                          | <b>HICKSVILLE</b><br>HOBBY IMAGES<br>89 JERUSALEM AVE.<br>11801 516-822-8259                                   | <b>ASHEVILLE</b><br>SINK'S MODEL WHOP<br>175 M WEAVERVILLE HIGHWAY<br>28804 704-658-9476<br>11-8 WED-SAT, 1-5 SUN | <b>MAUMEE</b><br>J & M HOBBIES<br>1238 CONANT ST.<br>43537 419-893-2621                                          |                                                                                                               | <b>READING</b><br>IRON HORSE HOBBY HOUSE<br>60 S. 6TH ST.<br>19602 215-373-6927                           |
| <b>MANCHESTER</b><br>PAUL E. BOURQUE CO. INC.<br>608 WILLOW ST.<br>03103 603-625-8919                        |                                                                                                                          | <b>HORSEHEADS</b><br>ALTOONA SHOPS<br>584 WESTINGHOUSE RD.<br>VILLAGE PLAZA<br>14845 607-739-8916              | <b>CHARLOTTE</b><br>A READY TO RUN HOBBY STORE<br>P.O. BOX 560021<br>2240 ROUTE 49<br>28256-0021 704-455-2220     | <b>MIDDLETOWN</b><br>SOUTH PARK HOBBIES<br>1815 TYTUS AVE<br>45042 513-424-5124                                  |                                                                                                               | <b>READING</b><br>G & K HOBBY CENTRE<br>720 GORDON ST.<br>19601 215-374-8598                              |
| <b>NASHUA</b><br>HOBBY EMPORIUM<br>ROYAL RIDGE MALL<br>03060 603-888-3366                                    | <b>NEW MEXICO</b>                                                                                                        | <b>HUNTINGTON</b><br>CABOOSE INC.<br>208 WALL ST.<br>11743 516-427-8288                                        | <b>CHARLOTTE</b><br>CHARLOTTE ELECTRIC TRAIN CTR.<br>114-D FREELAND LANE<br>28217 704-527-0392                    | <b>NORTH CANTON</b><br>NICK'S SALES & SERVICE<br>7251 MIDDLEBRANCH NE<br>44721 216-494-0125                      | <b>PENNSYLVANIA</b>                                                                                           | <b>STRASBURG</b><br>STRASBURG TRAIN SHOP<br>ROUTE 741E, BOX 130<br>17579 717-687-0464                     |
| <b>NORTH CONWAY</b><br>BRASS CABOOSE<br>(UNDER CARROLL REED)<br>NORCROSS CIRCLE<br>03860 603-356-9922        | <b>LAS CRUCES</b><br>THE HOBBY HUT<br>126 WYATT DR.<br>88005 505-524-0991                                                | <b>JOHNSON CITY</b><br>THE TRAIN SHOP<br>210 GRAND AVE.<br>13790 607-797-9035                                  | <b>CHARLOTTE</b><br>THE MODELER'S HOBBY SHOP<br>4808 C CENTRAL AVE<br>28205 704-537-9963                          | <b>NORWALK</b><br>PAUL'S HOBBIES<br>46 E. MAIN<br>44657 419-668-3019                                             | <b>ALLEN TOWN</b><br>ALLEN TOWN TOY TRAIN SERV.<br>125 1/2 N. 11TH ST.<br>18102 215-821-0740                  | <b>WAYNE</b><br>SMALL WORLD HOBBIES<br>163 E. LANCASTER AVE.<br>19087 215-687-6875                        |
| <b>NORTH HAMPTON</b><br>FITS PHOTO & HOBBY SHOP<br>VILLAGE SHOPPING CENTER<br>US RT. 1<br>03862 603-964-9292 |                                                                                                                          | <b>LAKE LUZERNE</b><br>LAKE LUZERNE TRAIN & HOBBY<br>1933 LAKE AVE.<br>BOX 465, ROUTE 9N<br>12846 518-696-4905 | <b>HENDERSON</b><br>CORNISH & SONS HOBBY<br>430 S. GARNET<br>27536 919-438-4470                                   | <b>YOUNGSTOWN</b><br>BOARDMAN HOBBY CENTER<br>6820 MARKET ST.<br>44512 216-758-1522                              | <b>BETHLEHEM</b><br>MAC'S HOBBY HALL<br>721 LINDEN ST.<br>18018 215-866-8465                                  | <b>WESTCHESTER</b><br>BRANDYWINE HOBBIES<br>1502 WESTCHESTER PIKE<br>19382 215-696-9049                   |
| <b>NORTH SWANZEE</b><br>THE LOOSE CABOOSE<br>ROUTE 12, PETE'S AUTO CENTER<br>03446 603-357-8821              | <b>NEW YORK</b>                                                                                                          | <b>MINEOLA</b><br>WILLIS HOBBIES<br>285 WILLIS AVE.<br>11501 516-746-3944                                      | <b>SPENCER</b><br>LITTLE CHOO CHOO SHOP, INC.<br>500 S. SALISBURY AVE<br>28159 800-932-2466<br>704-637-8717       |                                                                                                                  | <b>BLUE RIDGE SUMMIT</b><br>MAINLINE HOBBY SUPPLY<br>15015 BUCHANAN TRAIL E<br>17214 717-794-2860             |                                                                                                           |
|                                                                                                              |                                                                                                                          | <b>AMITYVILLE</b><br>K & P HOBBIES<br>55 MERRICK RD.<br>11701 516-598-2405                                     | <b>NEW YORK</b><br>THE TRAIN SHOP<br>23 W. 45 ST.<br>10036 212-730-0409                                           | <b>OKLAHOMA</b>                                                                                                  | <b>ERIE</b><br>CARS & TRAINS HOBBY SHOP<br>4500 E. LAKE RD.<br>HARBOR CREEK MALL<br>16511 814-899-1347        |                                                                                                           |
| <b>NEW JERSEY</b>                                                                                            | <b>BALLSTON SPA</b><br>THE DEPOT<br>108 MILTON AVE.<br>12020 518-885-8789                                                | <b>PATCHOGUE</b><br>HARRY'S DEPOT<br>128 MEDFORD AVE. RT. 112<br>11772 516-475-9056                            |                                                                                                                   | <b>OKLAHOMA CITY</b><br>WOODWARDS<br>2941 W. HEFNER RD.<br>73120 405-751-4994                                    | <b>EVANS CITY</b><br>CRANBERRY HOBBY DEPOT<br>20327 PERRY HIGHWAY<br>CRANBERRY TOWNSHIP<br>16033 412-776-3640 |                                                                                                           |
| <b>ABERDEEN</b><br>HOBBY SHOP<br>RT. 34<br>STRAITMORE SHOPPING CENTER<br>07747 908-583-0505                  | <b>BILLINGS</b><br>BILLINGS MODEL TRAIN<br>& HOBBY<br>BILLINGS PLAZA, ROUTE 82<br>12510 914-223-7570                     | <b>ROCHESTER</b><br>ANDY'S TRAINS<br>208 SCOTTSVILLE RD.<br>14611 716-235-1587                                 | <b>NORTH DAKOTA</b>                                                                                               | <b>TULSA</b><br>ACTION HOBBIES<br>4955C SOUTH MEMORIAL<br>74145 918-663-8998                                     | <b>GETTYSBURG</b><br>TOMMY GILBERT MODEL<br>RAILROAD SUPPLY<br>346 E. WATER ST.<br>17325 717-337-1992         | <b>RHODE ISLAND</b>                                                                                       |
| <b>ABSECON</b><br>THE ROUNDHOUSE INC.<br>400 NEW JERSEY AVE.<br>08201 609-641-8474                           | <b>BINGHAMPTON</b><br>GEORGE'S CABOOSE<br>85 ROBINSON ST.<br>13904 607-771-8358                                          | <b>ROCHESTER</b><br>THE WHISTLE STOP<br>1967 RIDGE RD. E<br>14622 716-467-7590                                 | <b>FARGO</b><br>OMNI HOBBY & GAMES<br>4340 13TH AVE. SW<br>TJ MAXX PLAZA<br>58103 701-282-5675                    | <b>TULSA</b><br>WINGS-N-THINGS, INC.<br>5241 S. PEORIA<br>74105 918-745-0034                                     | <b>JENKINTOWN</b><br>JENKINTOWN HOBBY CENTER<br>GREENWOOD AVE. & LEEDOM ST.<br>19046 215-884-7555             | <b>CRANSTON</b><br>A.A. HOBBIES<br>106 ROLFE ST.<br>02910 401-941-6781                                    |
| <b>CHESTER</b><br>THE HOBBY & GAME ANNEX<br>ROUTE 24<br>07930 908-879-4263                                   | <b>BROOKLYN</b><br>HOBBY KING<br>2720 AVENUE U<br>11229 718-648-5399                                                     | <b>ROCKY POINT</b><br>EASTERN HOBBIES INC.<br>259 ROUTE 25A<br>11778 516-821-3175                              |                                                                                                                   | <b>TULSA</b><br>WINGS-N-THINGS, INC.<br>5241 S. PEORIA<br>74105 918-745-0034                                     | <b>JOHNSTOWN</b><br>AL'S TRAINS<br>161 VILLAGE STREET<br>15902 814-535-2597                                   | <b>FOSTER</b><br>SHIPPEETOWN MODEL SHOP<br>184 DANIELSON PIKE<br>02825 401-647-2640                       |
| <b>COLTS NECK</b><br>JUST TRAINS<br>41 HWY. 34<br>07722 908-409-2772                                         | <b>BROOKLYN</b><br>WALT'S HOBBY SHOP<br>7909 5TH AVE.<br>11209 718-745-4991                                              | <b>SCHENECTADY</b><br>ADIRONDACK HOBBIES<br>2331 ALTON ST.<br>12309 518-393-8836                               | <b>OHIO</b>                                                                                                       | <b>OREGON</b>                                                                                                    | <b>LANCASTER</b><br>SMITTY'S HOBBY & CRAFT<br>1226 MILLERSVILLE PIKE<br>17603 717-393-2521                    | <b>WAKEFIELD</b><br>THE TRAINSHED<br>79 OLD TOWER HILL RD.<br>02879 401-789-1420                          |
| <b>FLORENCE</b><br>SPORTS AMERICA &<br>HOBBY CENTER<br>ROUTE 1305, PO BOX 255<br>08518 609-499-2992          | <b>BUFFALO</b><br>K VAL HOBBIES<br>277 HINMAN AVE.<br>14216 716-875-2837                                                 | <b>SMITH TOWN</b><br>THREE GUYS HOBBIES<br>99 E. MAIN ST.<br>11787 516-265-8303                                | <b>CINCINNATI</b><br>GOLF MANOR HOBBIES<br>2235 LOSANTVILLE AVE<br>45237 513-351-3849                             | <b>BEAVERTON</b><br>TAMMIE'S HOBBIES<br>3545 SW HALL BLVD.<br>97005 503-644-4535                                 | <b>LEMOYNE</b><br>KEYSTONE HOBBY CENTER<br>239 S. 3RD ST.<br>17043 717-763-7534                               | <b>SOUTH CAROLINA</b>                                                                                     |
| <b>MERCERVILLE</b><br>IRON HORSE HOBBIES<br>116 FLOCK RD.<br>08629 609-586-2282                              | <b>BUFFALO</b><br>NIAGARA HOBBY & CRAFT MART<br>OPEN EVENINGS & SUNDAY<br>3366 UNION RD. AT WALDEN<br>14225 716-681-1666 | <b>STATEN ISLAND</b><br>HABILD'S<br>60 WINHAM AVE.<br>10306 718-987-4335                                       | <b>CINCINNATI</b><br>GEORGE'S HOBBIES<br>THE CROSSING OF BLUE ASH<br>9525 KENWOOD RD. #29<br>45242 513-793-5112   | <b>COTTAGE GROVE</b><br>VILLAGE DEPOT<br>725 ROW RIVER RD<br>97424 503-942-5117                                  | <b>LITITZ</b><br>RULES MODEL TRAINS<br>101 N. BROAD ST.<br>17543 717-626-1273                                 |                                                                                                           |
| <b>MONMOUTH</b><br>HOBBY & GAME #3<br>4095 US HWY. 1, SUITE 19<br>08852 908-329-0030                         | <b>CLAY</b><br>SYRACUSE TRAIN & HOBBY<br>8135 RT. 11<br>13041 315-422-3328                                               | <b>WHITE PLAINS</b><br>WESTCHESTER HOBBIES<br>102 E. POST RD.<br>10601 914-949-7943                            | <b>CLEVELAND</b><br>HOBBY HOUSE INC.<br>800 HURON RD.<br>44115 216-781-3210                                       | <b>OREGON CITY</b><br>DUALITY FARM TOYS & HOBBIES<br>712 MAIN ST.<br>97045 503-650-8023<br>LGB, AF, HO, N TRAINS | <b>MONTOURSVILLE</b><br>ENGLISH MODEL RR SUPPLY<br>21 HOWARD ST.<br>17754 717-368-2516                        | <b>GREENVILLE</b><br>GREAT ESCAPE<br>PLEASANTBURG SHOPPING CTR.<br>1426 LAURENS RD.<br>29607 803-235-8320 |
| <b>PENNSAUKEN</b><br>TED'S ENGINE HOUSE<br>6307 WESTFIELD AVE.<br>08110 609-662-0222                         | <b>CLIFTON PARK</b><br>HOBBY TOWN USA<br>629 PLANK RD.<br>12065 518-383-1215                                             |                                                                                                                | <b>CLEVELAND</b><br>WING'S HOBBY SHOP, INC.<br>17112 DETROIT AVE.<br>44107 216-221-5383                           | <b>PORTLAND</b><br>HOBBIES UNLIMITED<br>4503 N. INTERSTATE AVE.<br>97217 503-287-4090                            | <b>PERKASIE</b><br>LESHER'S VARIETY-HOBBIES<br>21 N. 7TH<br>18944 215-257-4055<br>IN PA 1-800-A TRAIN O       | <b>WEST COLUMBIA</b><br>NEW BROOKLAND RAILROAD &<br>HOBBY<br>405 STATE ST.<br>29169 803-791-3958          |
| <b>PISCATAWAY</b><br>MODEL RAILROAD SHOP<br>VAIL AVE. & NEW MARKET RD.<br>08854 908-968-5696                 | <b>EAST ROCHESTER</b><br>DESPATCH JUNCTION<br>100 STATION RD. 1<br>4445 716-385-5570                                     |                                                                                                                | <b>COLUMBUS</b><br>STRETE HOBBIES<br>3655 SULLIVANT AVE.<br>43228 614-279-6959                                    | <b>PORTLAND</b><br>HOBBY WAREHOUSE<br>8532 SW APPLE WAY<br>97225 503-292-3790                                    | <b>PHILADELPHIA</b><br>S & H HARDWARE & SUPPLY<br>6700 CASTOR AVE<br>19149 215-745-9375                       |                                                                                                           |
| <b>RED BANK</b><br>HOBBYMASTERS INC.<br>62 WHITE ST.<br>07701 908-842-6020                                   | <b>FERNDALE</b><br>SUSIE-Q HOBBY SHOP<br>RD BOX 220<br>BUSHVILLE-SWAN LAKE RD.<br>12734 914-292-0921                     | <b>NORTH CAROLINA</b>                                                                                          | <b>COLUMBUS</b><br>THE TRAIN STATION<br>4430 INDIANOLA AVE<br>43214 614-262-9056                                  | <b>PORTLAND</b><br>SWITCH STANO HOBBIES<br>2514 SE 122ND AVE.<br>97236 503-760-5804                              | <b>PITTSBURGH</b><br>A B CHARLES SON HOBBY SHOP<br>3213 W. LIBERTY AVE.<br>15216 412-561-3068                 |                                                                                                           |
| <b>RUTHERFORD</b><br>CHOOCHOO EDDIES<br>38 AMES AVE.<br>07073 201-438-4588                                   | <b>GENEVA</b><br>LAKE CITY HOBBIES<br>30 CHERRY ST.<br>14456 315-781-0807                                                | <b>ASHEVILLE</b><br>ANTIQUE TRAIN & TOY CO<br>523 MERRIMON AVE.<br>28804 704-253-7648                          | <b>CUYAHOGA FALLS</b><br>RAIL CROSSING<br>119 W. PORTAGE TRAIL<br>44221-3221 216-945-5552                         | <b>PORTLAND</b><br>T C TRAINS<br>1625 SE HOLGATE<br>HOLGATE PLAZA<br>97202 503-238-0797                          | <b>PITTSBURGH</b><br>BILL & WALT'S HOBBY SHOP<br>116 SMITHFIELD ST.<br>15222 412-281-9040                     |                                                                                                           |

|                                                                                                                   |                                                                                                                  |                                                                                                          |                                                                                                                         |                                                                                                                                                                                                                        |                                                                                                             |                                                                                               |
|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>SOUTH DAKOTA</b>                                                                                               | <b>HOUSTON</b><br>LARRY'S HOBBIES<br>156-F 1960 EAST<br>77073 713-443-7373                                       | <b>LYNCHBURG</b><br>TRAINS UNLIMITED<br>2016 LAKESIDE DR.<br>24501 804-385-5036                          | <b>WEST VIRGINIA</b>                                                                                                    | <b>CANADA</b>                                                                                                                                                                                                          | <b>HALIFAX</b><br>MARITIME HOBBIES & CRAFTS<br>SCOTIA SQUARE<br>NS B3J 1W9 902-423-8870                     | <b>TORONTO MARKHAM</b><br>RAILVIEW TRAINS<br>501 ALDEN RD., UNIT 4<br>ON L3R 3L4 416-470-6200 |
| <b>SIOUX FALLS</b><br>DONOVANS HOBBY CENTER<br>INDEPENDENCE PLAZA<br>3813 S. WESTERN AVE.<br>57105 605-338-6945   | <b>KILLEEN</b><br>HOBBY CENTER<br>414 N. 8TH ST., PO BOX 849<br>76541 817-634-0488                               | <b>MANASSAS</b><br>TRAIN DEPOT<br>7214 NEW MARKET CT.<br>22110 703-335-2216                              | <b>NITRO</b><br>NITRO HOBBY-N-CRAFT CENTER<br>104 21ST ST., PO BOX 695<br>25143 304-755-4304                            | <b>BURLINGTON</b><br>CANADIAN FINE SCALE<br>N SCALE SPECIALTIES<br>535 LOCUST ST.<br>ON L7S 1V4 416-333-6560                                                                                                           | <b>KANATA</b><br>KANATA HOBBY CTR. (OTTAWA)<br>471 HAZELDEAN RD., UNIT 14<br>ON K2L 4B8 613-836-6040        | <b>TRURO</b><br>UNEEDA HOBBY<br>25 INGLIS PLACE<br>NS B2N 4B5 902-895-0308                    |
|                                                                                                                   | <b>LEWISVILLE</b><br>SOUTHWEST TRAINS<br>540 SURF, SUITE 118<br>75067 214-221-5891                               | <b>MIDLOTHIAN</b><br>CHESTERFIELD HOBBIES INC.<br>13154 MIDLOTHIAN TURNPIKE<br>23113 804-379-9091        |                                                                                                                         | <b>BURLINGTON</b><br>HUTCH'S TRAINS<br>490 BRANT ST.<br>ON L7R 2G4 416-637-3721                                                                                                                                        | <b>KINGSTON</b><br>LLOYD SHALES HOBBY SUPPLY<br>208 DIVISION ST.<br>ON K7K 3Z1 613-548-8427                 | <b>VANCOUVER</b><br>CENTRAL HOBBIES<br>2835 GRANDVIEW HWY.<br>BC V5M 2E1 604-874-5716         |
| <b>TENNESSEE</b>                                                                                                  | <b>MESQUITE</b><br>COLLECTOR SHOP AND<br>HOBBY 1220 N. TOWN EAST BLVD.<br>75150 214-613-2051                     | <b>RICHMOND</b><br>HOBBY CENTER<br>4925 W. BROAD ST. #402<br>23230 804-359-4720                          | <b>WISCONSIN</b>                                                                                                        | <b>CALGARY</b><br>HOBBY WEST<br>5011 MACLEOD T.R. SW<br>AB T2O 0A9 403-244-9990                                                                                                                                        | <b>MONTREAL</b><br>HOBBY WORLD LTD.<br>5450 SHERBROOKE W<br>PO H4A 1V9 514-481-5434                         | <b>WINNIPEG</b><br>THE GOLDEN SPIKE<br>MODEL SHOP<br>185 STADAONA ST.<br>R3T 3L2 204-667-2080 |
| <b>BRENTWOOD</b><br>NASHVILLE DEPOT HOBBY SHOP<br>4924 THOROUGHbred LANE<br>37027 615-371-5350                    | <b>SAN ANTONIO</b><br>HOBBY STOP<br>19 BREESE BLVD.<br>78209 512-828-9117                                        | <b>RICHMOND</b><br>TOY CENTER, INC.<br>10441 MIDLOTHIAN TPKE.<br>23235 804-288-4475                      | <b>APPLETON</b><br>BEST'S HOBBIES<br>2700 W. COLLEGE AVE., #8<br>54914                                                  | <b>CALGARY</b><br>TRAINS & SUCH<br>4125-4 ST. NW<br>AB T2K 1A3 403-282-2442                                                                                                                                            | <b>NORTH WESTMINSTER</b><br>CREATIVE HOBBY CRAFT STORES<br>42 6TH ST.<br>BC V3L 2Z1 604-525-6644            | <b>WINNIPEG</b><br>GOOCH'S HOBBIES<br>185 SHERBROOK ST.<br>MB R3C 2R7 204-775-2743            |
| <b>CHATTANOOGA</b><br>CHATTANOOGA DEPOT<br>3701 RINGGOLD RD.<br>37412 615-622-0630                                |                                                                                                                  | <b>ROANOKE</b><br>KEN'S TRAINS<br>3414 ORANGE AVE. NE<br>MARKET SQUARE EAST<br>24012 703-343-1057        | <b>BROOKFIELD</b><br>HOBBY HORSE<br>16750 W. BLUEMOUND<br>53005 414-782-2170                                            | <b>EDMONTON</b><br>ROUNDHOUSE SALES<br>6519 104 ST.<br>AB T6H 2L3 403-430-9072                                                                                                                                         | <b>PETERBOROUGH</b><br>DE BVS HOBBY EMPORIUM<br>183 SIMCOE STREET<br>PO BOX 1552<br>ON K9J 7H7 705-742-7238 |                                                                                               |
| <b>CLARKSVILLE</b><br>THE HOBBY SHOP<br>1616 CUNNINGHAM PL.<br>37042 615-553-0350                                 | <b>UTAH</b>                                                                                                      | <b>ROANOKE</b><br>ROANOKE RAILS<br>11 S. JEFFERSON ST.<br>24011 703-342-5930                             | <b>EAU CLAIRE</b><br>HOBBY MASTER<br>3944 ANDERSON DRIVE<br>54703 715-835-5004                                          | <div>LIST YOUR SHOP<br/>IN OUR<br/>DEALER<br/>DIRECTORY</div> <div>\$6<br/>PER<br/>MONTH</div> <div>CALL THE<br/>CIRCULATION<br/>DEPARTMENT</div> <div>800-736-0427<br/>or<br/>303-292-0124<br/>FAX 303-295-6477</div> |                                                                                                             |                                                                                               |
| <b>KNOXVILLE</b><br>DAN'S TRAINS<br>EMORY ROAD AT I-75 NORTH<br>37849 615-938-7212                                | <b>PROVO</b><br>WELL TRAINED<br>118 W. CENTER ST.<br>84601 801-374-0307<br><i>COMPLETE MODEL RR SUPPLIES</i>     | <b>ROANOKE</b><br>THE RAIL YARD<br>6711 A WILLIAMSON ROAD<br>24019 703-362-1714                          | <b>KENOSHA</b><br>IRON RAILS OF KENOSHA<br>2031 22ND AVE.<br>53140 414-552-8075                                         |                                                                                                                                                                                                                        |                                                                                                             |                                                                                               |
| <b>MEMPHIS</b><br>MODEL RR HOBBY SHOP<br>3436 PARK AVE.<br>38111 901-324-7245                                     | <b>SALT LAKE CITY</b><br>DOUGLAS MODELS<br>*** 55TH YEAR ***<br>2065 E. 33RD SOUTH ST.<br>84109 801-487-7752     | <b>SUFFOLK</b><br>MIKE'S TRAINLAND<br>5661 SHOULERS HILL RD.<br>23435 804-484-4224                       | <b>LA CROSSE</b><br>TRAIN HOUSE<br>65 COPELAND AVE.<br>54603 608-784-1161                                               |                                                                                                                                                                                                                        |                                                                                                             |                                                                                               |
| <b>PIGEON FORGE</b><br>PIGEON FORGE TOY & HOBBY<br>2919 MIDDLE CREEK RD.<br>P.O. BOX 1271<br>37868 615-428-0918   | <b>SALT LAKE CITY</b><br>GREAT ESCAPE HOBBIES<br>1773 WEST 4160 SOUTH<br>84119 801-966-7785                      |                                                                                                          | <b>MADISON</b><br>HOBBY CRAFT OF MADISON<br>6632 ODANA ROAD<br>53719 608-833-4944                                       |                                                                                                                                                                                                                        |                                                                                                             |                                                                                               |
| <b>MEMPHIS</b><br>WORLD OF GAMES AND<br>HOBBIES<br>2796 S. PERKINS<br>38118 901-365-2080                          | <b>SALT LAKE CITY</b><br>HAMMOND HOBBIES<br>50 S. MAIN, SUITE 211<br>84144 801-531-6074                          | <b>WASHINGTON</b>                                                                                        | <b>MILWAUKEE</b><br>TERMINAL HOBBY SHOP<br>5619 W. FLORIST AVE.<br>53218 414-461-1050                                   |                                                                                                                                                                                                                        |                                                                                                             |                                                                                               |
|                                                                                                                   | <b>SANDY</b><br>MRS HOBBY SHOP<br>9425 UNION SQUARE<br>84070 801-572-6082                                        | <b>AUBURN</b><br>WAGNER'S HOBBY HOUSE<br>131 E. MAIN ST.<br>98002 206-939-2515                           | <b>NEENAH</b><br>BEST'S HOBBIES<br>1011 S. LAKE ST.<br>54956 414-722-8532                                               |                                                                                                                                                                                                                        |                                                                                                             |                                                                                               |
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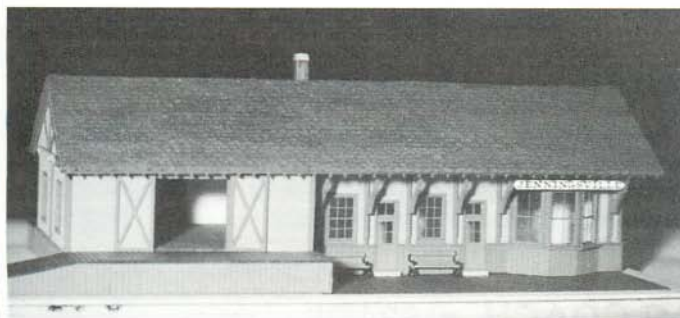
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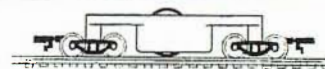
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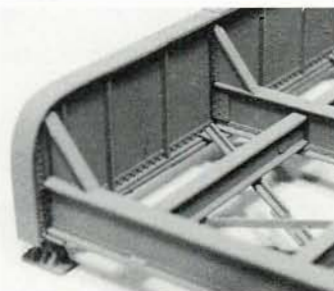
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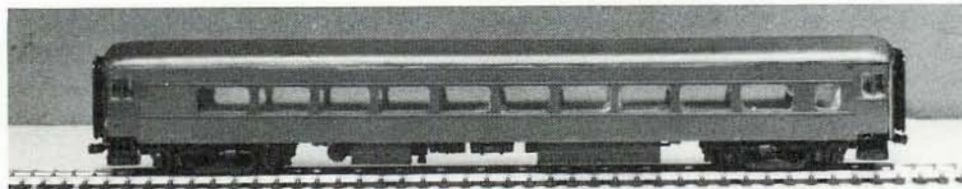


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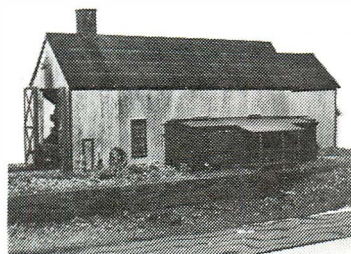
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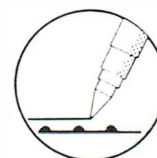


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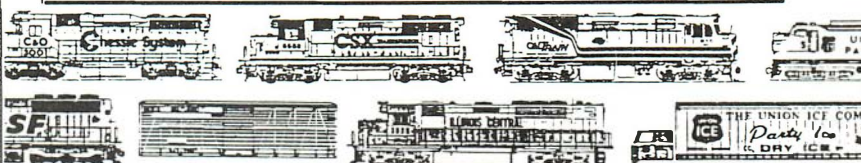
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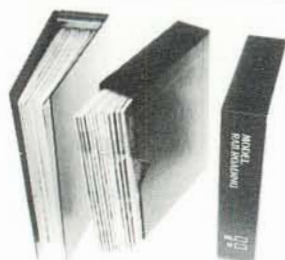
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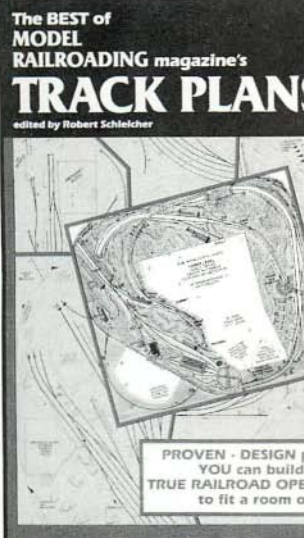
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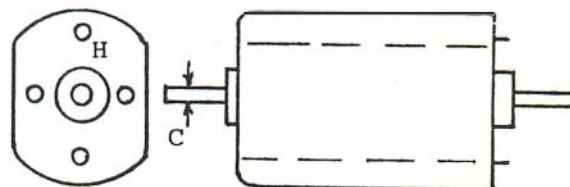
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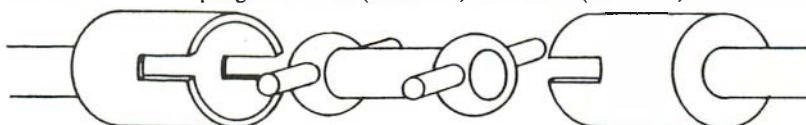
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