



Garden Railroading News

May/June 2022 • 2022 #3 • www.GRNews.org

Denver Layout Preview

Tips on 3D Printing a Train

Operations Logistics in Ottawa

A free digital magazine produced by garden railroaders for garden railroaders



Garden Railroading News

May/June 2022 • 2022 #3 • GRNews.org

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Go to **Page 40** for An Online Magazine Explainer
 How to Download a PDF & Customize Page View to Your Preference.
 Magnifying GR News and the "Hamburger" Icon.





Photo by Bob Dunlap

Above: This picture was taken on Bob Dunlap's layout D&RGW Foothills Branch. It is 1:20.3 scale with an Accucraft #488 pulling six Hartford passenger cars. The RPO, Baggage and Parlor cars were kitbashed from Hartford passenger cars. This layout will be on tour for the June NGRC 2022 convention. Located in the foothills 2,000 feet above Denver, the layout features 'real' scenery. In the background is snow-covered Mt Evans 14,260 feet and Mt Rosalie 13,575 feet. • Golden, Colorado

Below: Colorado & Southern No. 10, an LGB 2-6-0, pulls a freight consist past a meadow of portulaca (better known as moss roses) on the Petrified Progress Railroad as cows clear the pasture in the distance. Craig Evans may run his live steam locomotives during the June 2022 NGRC convention. • Littleton, Colorado



Photo provided by Bob Finch



*MAY
WE SUGGEST...
Something New*



2022 National Garden Railway Convention in Denver, Colorado

Now is the time to complete your registration for the 2022 National Garden Railway Convention in Denver, June 19th to 25th. Denver Garden Railway Society is hosting garden railroaders for the ninth time. Tour great garden railroads, attend clinics, explore the vendor hall, and make new friends at the barbecue, banquet and Ice Cream Social. Details on the Registration page at:



DENVER GARDEN RAILWAY SOCIETY

www.NGRC2022.org

Garden Railroading News will be leading a round-table discussion/clinic on growing our hobby, keeping garden railroaders connected, supporting our vendors, and rethinking conventions to make sure garden railroaders can get together while reducing the burden of convention hosting on individual clubs. The discussion will be held in the hour before the Ice Cream Social. Please bring your ideas. How about a roving convention moving through a section of the country with a vendor hall at the end? Perhaps alternating national and regional convention years? Plan conventions around excursion railroads or major G-Scale public railroads? All ideas welcome.



Coming Soon in GR News: Building a Funicular Railway

by John Carmichael, Tucson AZ



Look for a late May arrival for Accucraft's AML 1:29 3-Bay Hopper

These 1:29 scale 3-Bay Hopper cars come with die-cast trucks and metal wheels. Expect arrival in late May for CSX, CONRAIL, and ATSF cars.



Coming in July, hopper cars for UP, CN, Burlington Northern and BNSF.



Check with *RLD Hobbies* for arrival of their exclusives: Chessie, Gold West Service, Illinois Central, Milwaukee Road, MKT, and Rock Island hoppers. *Winona Garden Railway* will have the exclusive for Canadian Pacific hoppers. *Gold Coast Station* will handle exclusive Southern Pacific Black Widow hoppers.

Road number information available at:
www.livesteamstation.com & accucraft.UK.com

New from LGB America: A Complete Train as run at the Wicasset Waterville & Farmington Railway (1894–1933) Museum in Maine

Run your own museum excursions with a Forney steam locomotive and historically accurate passenger cars from the WW&F Railway, formerly the Wicasset & Quebec, a 2 foot gauge railroad in Maine. The locomotive includes an mfx/DCC decoder for digitally controlled light, sound and smoke functions with metal wheelsets driven by a Bühler motor. Running sounds also work in analog operation.



27254 WW&FRy # 9 Forney Steam Locomotive

The typical old time American passenger cars feature the clerestory in the center of the car roof.



36813 Wicasset & Quebec #3 Passenger Car

Doors can be opened, and cars have complete interior details.



36814 WW&FRy #8 Passenger Car

LGB Club Members Only WW&FRy Box Car



This year's North American LGB Club Car, offered only to club members, is a WW&FRy boxcar to add to this set. LGB Club info at: lgb.com/club/registration-uscanada



Introducing the Garden Railroading News Advertiser Directory A Quick Reference to Product & Contact Information

Providing information for garden railroaders is one of our goals at *Garden Railroading News*. We have assembled a directory of our advertisers to help our readers contact them when it's time to make a purchase or request a service. The downloadable PDF directory contains a short product description and contact information for our recurring advertisers for easy reference.

We hope this assists hobbyists when looking for products to build your railroads and when searching for services to make your model railroad match your vision. The directory helps our readers easily reach our vendor advertisers.

Please remember to thank our advertisers when you contact them. *GR News* is a free digital magazine thanks to our advertisers, whose support covers our modest costs.

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Readers: Please let our advertisers know that you found them through *Garden Railroading News*. Thank you.

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Bridgemasters	www.bridge-masters.com	714-985-9007	Gary Lawrence	gmlawrence@cox.net	CA STRUCTURE LIGHTS
Bridgewater	www.bridgewater.com	253-225-9032	Mark Sauerwald	mark@bridgewater.com	OR POWER CONTROLLERS & THROTTLES
CVP Products (AirWire)	www.cvpusa.com	972-238-9966	Sales	info@cvpusa.com	TX BATTERY POWER SYSTEMS
Denver 37 th NGRC	www.ngrc2022.org	--	--	--	CO 2022 NATIONAL CONVENTION

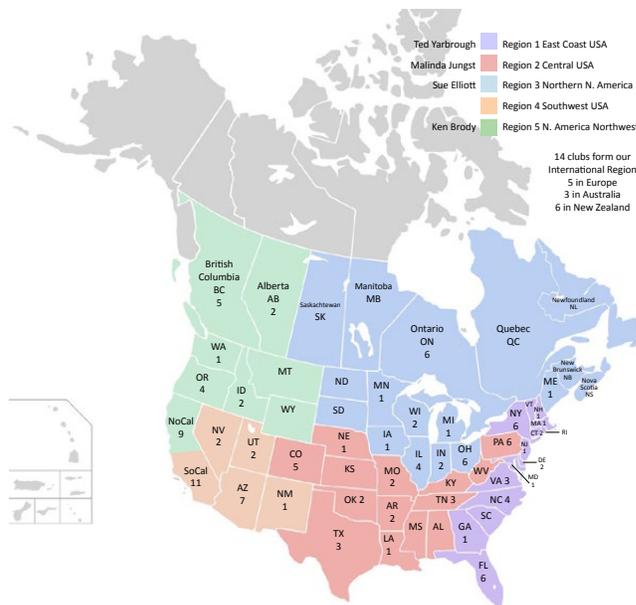
An example section from the Advertiser Directory. Go to the Advertiser tab on the *GR News* website, click on the green button and download your full copy: www.grnews.org/advertisers

Garden Railroading News Announces North American Feedback Regions

To help us get perspectives across the USA and Canada, the four volunteers publishing *Garden Railroading News* have divided North America into five time-zone-oriented regions. We've recruited volunteers to be Regional Advisors for each region to gather and share feedback from the clubs in their regions. The map below shows the five regions. Overseas clubs are our sixth region. In future issues, we will introduce all the Regional Advisors. Let's start with Sue Elliott who is the Regional Advisor for Region 3, Northern North America.

Sue is the President of the Minnesota Garden Railway Society and is very active in the garden railroading community. For example, earlier in May, she was part of a team that displayed a 25'x40' layout with 6 running loops at the St. Paul State Fairgrounds. She is also her club's Newsletter Editor. Sue has already made contact with 13 of the 22 clubs in her region and has started to share feedback with the West Coast based *GR News* Team, perspectives which identify topics that garden and large-scale railroaders in her region would be interested to see in future editions of *Garden Railroading News*.

We are thrilled to have Sue on board.



PIKO America Offers a Battery-Powered R/C 25-Ton Diesel Switcher

For summer delivery, PIKO is introducing a detailed GE 25-Ton diesel electric locomotive with lights, and the loco will come factory equipped for full battery-powered operation (including realistic sound) from a supplied pocket remote. Just add six AAA batteries! Motor is completely isolated from track power.

These switchers were introduced before World War II and proved popular with yard crews on multiple railroads. PIKO will be offering Pennsylvania RR, Santa Fe, US Army, and Knoxville Locomotive Works detailing.



38512 KLV Thumper 25-Ton Diesel



& 38510 PRR 25 Ton Diesel



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North American Regions Map • www.GRNews.org

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LNER B1
1:32, Alcohol Fired
Kit \$3100, RTR \$3600



USRA Mikado Heavy
1:32, Alcohol Fired w/ 6 Free Cars
Kit \$4400, RTR \$5500



GWR 43xx 2-6-0
1:32, Butane, Green and Black
Kit \$2695, RTR \$2895



N&W 4-8-4 J-Class
1:32, Alcohol Fired or Electric
Alcohol \$5950, Electric \$5250



Adams Radial Tank
1:32, Butane Fired
Kit \$1995, RTR \$2160



Tiger 0-6-0 with Tender
1:32, Alcohol Fired
Kit \$3250, RTR \$3800



Kerr Stuart 'Victory'
1:32, Butane Fired
RTR \$1100



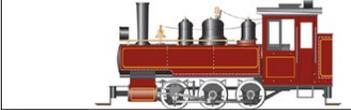
D&RGW C-25
1:20.3, Coal or Butane
RTR \$5250



D&RGW C-18
1:20.3, Butane Ceramic
\$3095-\$3395



Baldwin "Mabel" 0-6-0T
1:20.3, Butane Fired
Kit \$1249, RTR \$1499



Ruby #1 0-4-0T
1:20.3, Butane Fired
Black, Red, Blue and Brown
Kit \$649, RTR \$699
New 2022



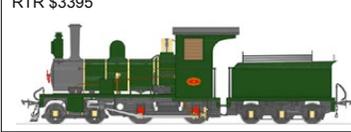
Dora 0-4-0T
1:20.3, Butane Fired
Black, Maroon, Blue & Green
RTR \$499



'Cranmore' Peckett
1:19, Butane Fired
Kit \$1695
RTR \$1795



Lawley 4-4-0
1:19, Butane Fired
RTR \$3395



"Tallylyn" Railway 0-4-2ST
1:19, Butane Fired
RTR \$1700



Shay 13T
1:13.7, Butane Fired
Kit \$1995, RTR \$2145
New 2022



Forney SR&RL & WW&F
1:13.7, Butane or Coal
Butane \$3200, Coal \$4200



"Train Bleu" CIWL Sleeper J&M Models
1:32, Brass
\$950/Car, \$3800/Set of 4



BR Mk1 Passenger Cars
1:32, Plastic body, Metal Trucks
\$295/Car



L&SWR Coaches J&M Models
1:32, Brass
\$800/Car, \$3040/Set of 4 Cars



Jackson & Sharp Coach AMS
1:20.3, Ball Bearing Trucks, Lighting
\$295/Car



Logging Disconnects AMS
1:20.3, Plastic Body, Metal Trucks
\$120/Car



Gondola AMS
1:20.3, Plastic Body, Metal Trucks
\$160/Car



GP60/GP60M AML
1:29, DCC & Sound Option
\$599 Base model, \$799 Sound



3-Bay Hopper AML
1:29, Plastic Body, Metal Trucks
\$160/Car



High Cube Box Cars AML
1:29, Plastic Body, Metal Trucks
\$150/Car



Allchin MAXITRAK
1.5" Scale, Butane Fired
RTR \$3800



Austerity 0-6-0T MAXITRAK
5" & 4 3/4" Gauge
Kit \$5800 RTR \$6050



RGS #6 Goose
2.5" Scale, 7.5" Gauge
\$4950



2-4-0 7.5" Gauge Ride-on
2.5" Scale, Coal Fired
Kit \$15000 RTR \$18000



Code 332 Rail
Brass and Alum Rail System



Visit the scenic Colorado & Sparktown Railway

By Doug Mayes

My Colorado & Sparktown Railway will be celebrating its twentieth anniversary this year and I hope you visit my layout during the 2022 National Garden Railway Convention. From a modest loop around a Christmas tree to over 1,300 feet of track has been a journey that I'd like to share with you.

While attending the Colorado Home and Garden Show over twenty years ago, I made a most unexpected discovery. Hidden among a sea of hot tub, window replacement, and patio-cover booths was a beautiful landscaped garden with a miniature train running through it. It was a temporary garden railroad constructed by members of the Denver Garden Railway Society (DGRS) in conjunction with a local landscape company. I was mesmerized by the steam engine, probably an LGB Mogul, pulling several freight cars and a caboose around a single track that wandered through a display of colorful spring flowers. It brought back memories of Lionel trains flying around my basement many, many years ago. A boyhood love of trains was rekindled by that railroad in the garden.

By the following Christmas, I had joined DGRS, found Caboose Hobbies, and had a Bachmann trolley circling the tree. For Christmas 2001, I added enough track to encircle the room, while turnouts created some interesting detours.

The next logical step was to move outside. In anticipation of relocating to the backyard, I purchased numerous "how to books", magazines, and videos on garden railroading. All were terrific resources, not only for gaining knowledge, but confidence as well. The numerous photos provided ideas and inspiration, which continue to influence the direction of my ever-evolving railroad.

Contrary to the advice in my "how to" resources, there was no master plan when I began construction in April 2002. A modest loop provided reliability with low maintenance and temporarily satisfied my desire to run trains while I determined how to transform my backyard into a garden railroad. The LGB sectional track from my enlarged Christmas loop was reconfigured in a small rock garden. Two-by-fours served as bridges spanning the larger gaps and bricks worked well to level the track over small depressions. The trolley didn't object to running outdoors, as it bounced to and fro over uneven and unballasted track. It wasn't a scene worthy of a train magazine photo, but it was a real garden railroad operating in my yard. Ballast and bridges have since been added to this inaugural loop and, with only minor modifications, it remains today the center of my railroad.

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Photo by Bob Finch

This 25 foot stream, spanned by multiple bridges, meanders through the central, mountainous section of the railroad. The fishing shack has been moved over the years as stream reconstruction shifted the landscape.

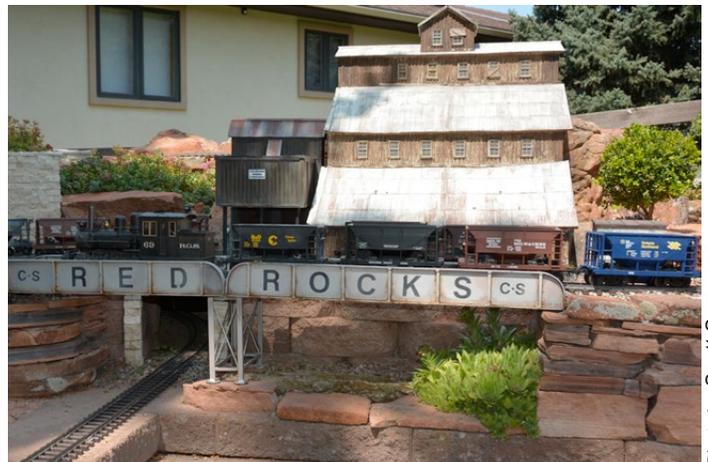


Photo by Scott Sorensen

The Red Rocks branch of the Colorado & Sparktown runs in a raised bed along the slope on the south side of the house.

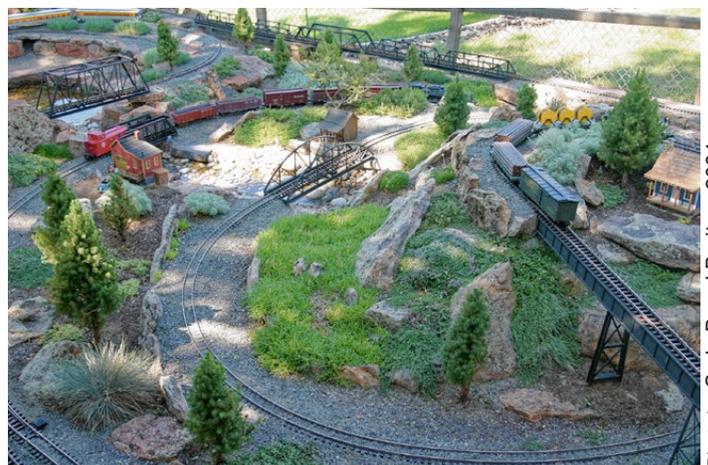


Photo by Carla Brand Breitter, 2004

Doug's original circle of LGB Christmas tree track (with some extension pieces) moved to the backyard rock garden in 2002. That loop remains central to the railroad.



Photo by Carla Brand Breitrner 2004



The central, Phase I section of the railroad is visible from patios at each end and a raised deck on the long edge.

Photo by S Sorensen



Photo by CBB 2009

Photo by CBB 2004



Photo by Luke Miller

Viewing the south, Phase II section along the ramp and stairs to the backyard starts with a rural raised bed railroad and finishes with an industrial spur by a patio.

Photo by CBB 2015



Photo by S Sorensen

Design factors

By the summer of 2002, I had viewed hundreds of photos, visited dozens of railroads, and attentively listened to the advice of many sage, old DGRS members. The synthesis of all this information would guide the design and development of my yet-to-be-named railroad. I wanted continuous loops with a minimum of turnouts for unattended operation and high reliability. There would be multiple intertwined loops for simultaneous operation. Track power was quick and easy. Mountainous terrain could provide varied elevations and the natural inclusion of bridges and tunnels. The railroad would be set in the 1950s, a time period that was significant to me as I had witnessed the New York Central steam era giving way to diesels.

Also, it was important to incorporate the expansive patio areas adjacent to the railroad into the overall design to provide numerous viewing angles and make the railroad more watchable. The downside of using loops, especially in confined spaces like mine, was the appearance of a train essentially going in circles.

Mountains, tunnels, and rows of trees would allow the trains to disappear, even momentarily, and then reappear. I felt that, if these features were properly executed in conjunction with an attention to detail, they would create a "wow" factor. "Wow" was the unsolicited response of my autistic grandson, Bryce, who loves trains and will watch silently for hours.

There were three distinct sections of my backyard to be developed – central, south and north, which I designated Phase I, II and III to denote the order of development. Phase I would encompass the original rock-garden oval and a non-functional water feature. Phase II was a long, narrow section — 45 by 8 feet on the side of a hill, with a 30-foot tree in the center. It was separated from Phases I and III by a terraced patio. Fortunately, Phase III wasn't severely sloped like Phases I and II, but it did contain three 40-foot pine trees that had to be removed. A common problem for all three sections would be limited access to

continued on next page

Photo by Scott Sorensen



Moss-covered gray rock forms a mountain backdrop for this logging train on one of the central section loops.

the backyard. All construction material would have to be hand carried or hauled in wheelbarrows up a stairway to reach the various building sites.

To create relatively flat surfaces for Phases I and II, I utilized dozens of landscaping ties and stone blocks to create walls as tall as four feet. It took several hundred wheelbarrows of dirt, rocks and gravel to level those slopes behind the retaining walls. While I pushed that wheelbarrow, I visualized track plans for Phase I and II.

Pallets of native Colorado decorative rock were delivered every weekend and I carried them up the stairs to build mountains, cliffs and canyons. To add variety, gray, moss-covered rock was used for Phase I construction and red moss rock for Phase II. Gravity held most of the rock in place, but some of the taller mountains required cement.

What's in a name?

There was no urgency to name my railroad until I began filling out the form to be included on the club's layout tours during the 2004 Garden Railway Convention. I wanted a name that was descriptive and unique, not cute or whimsical. Colorado is synonymous with the mountains and is certainly descriptive of my railroad, but it wasn't unique. Sparktown would be my mythical Rocky Mountain town of the fifties, named after my dog Sparky. He was a constant companion during the construction and patrolled the tracks and tunnels for critters and varmints. Colorado & Sparktown was descriptive and unique. So far, five steam engines—and a 22-foot girder bridge—have been proudly re-lettered with the name Colorado & Sparktown Railway.

Bridges and buildings

After a devastating hail storm in 2004, I was thankful for my decision to use metal and stone bridges and also that none of my buildings were left outside. Wooden bridges, buildings and trestles on many garden railroads in my area had been severely damaged or destroyed by hailstones forceful enough to bend brass rail. All but one of 14 bridges currently on my railroad are either metal or stone, as are the tunnel portals.

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C&S Rwy hauls freight in a wide variety of rail cars.

Photo by Scott Sorensen



Truss bridges cross streams and canyons on the C&S Rwy.

Photo by Carla Brand Breitrner 2009



Cabins and houses are shaded by trees along the tracks.

Photo by Scott Sorensen



A cab forward on the lower loop crosses under a curving girder bridge. Separate loops provide reliable railroad operation.

Photo by Carla Brand Breitrner 2015



Photo by CBB 2015

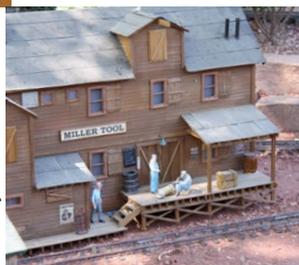


Photo by CBB 2015

Throughout Doug Mayes' layout, attention to tiny details complete scenes, even to advertising on sides of buildings.

Photo by S Sorensen



Photo by S Sorensen

I've built dozens of buildings for my railroad, mostly kitbashed, with a few scratchbuilt. Because I don't leave buildings out overnight, I used construction techniques and materials more suited to indoor railroads. I'm able to create dioramas with these buildings by permanently attaching figures, details, vehicles, and even landscaping to them. For me creating these dioramas has become one of the most enjoyable aspects of garden railroading. I only display buildings three or four times each year for club railroad tours and neighborhood events. These accessorized buildings are easily transferred from the garage to their railroad locations before visitors arrive and are quickly returned after they depart.

Landscaping and Water Features

I don't have a green thumb and despite having the greenest lawn in the neighborhood, I had no experience with groundcover, climatic zones, miniature, midget, or dwarf trees. Fortunately, the books and magazines I'd purchased to learn about the railroading aspects of this hobby also had chapters devoted to gardening. Nancy Norris' articles in *Garden Railways* were especially helpful.

Most of the garden railroads I visit in Colorado had an abundance of dwarf Alberta spruces. My local Home Depot carried dwarf Alberta spruces, as well as several varieties of inexpensive boxwoods that, with a little time and practice, could be sculpted into miniature broad-leaf trees. I preferred the boxwoods to the spruces and expanded my search to local nurseries and garden centers, where I discovered other varieties of boxwoods and similar slow-growing trees and shrubs perfectly suited for my garden railroad. Today there are over 200 perennial trees and bushes on the layout.

I've been characterized as a patient person, but waiting for groundcover to grow pushed me to the limit. It crept across the dirt and rocks at glacial pace. Finally, after three years, broad expanses of flowering groundcover blanketed my railroad. By year four, it was blanketing my track and out of control. During the summer I must trim along the tracks every four to six weeks; however, the visual effect of the groundcover more than offsets the effort to control it. My more nimble-footed granddaughters, Kirsten, Avery, and Paige, helped Grandpa trim the really hard-to-reach places.

There are now two water features in the central section of my railroad: a 25-foot stream (which I've built, torn down, and rebuilt four times) and a small pond (which, after the fifth failed attempt, I hired a professional to complete). With all the practice you'd think I'd be an expert by now. The visual effect of the water features appeal to everyone and the sound of water cascading over the rocks is so relaxing to me. Without the stream, there would be no justification for the three bridges that span it.

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Photo by Scott Sorensen

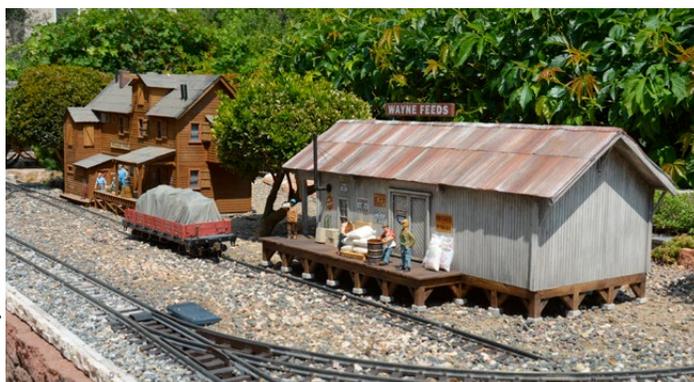


Photo by Scott Sorensen

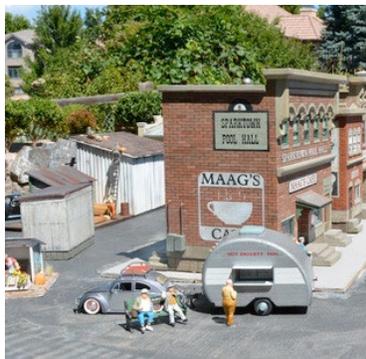


Photo by Scott Sorensen

Numerous plantings trimmed as trees and fields of ground cover add color and realism to the many farm, industry and town scenes all around the railroad.

Photo by Scott Sorensen



Engines and Rolling Stock

I must confess I am an eBay junkie. Most of the engines and rolling stock acquired for the Colorado & Sparktown Railway were won on eBay. Until the recent purchase of a brass LGB/Aster locomotive, my favorite locomotives were LGB Mallets. Designed for steep grades and tight mountain curves, these articulated steam engines are visually and operationally compatible with the Colorado & Sparktown railroad. With its dual motors, the LGB Mallet is certainly capable of pulling 20 cars or more, but eight to ten cars is more harmonious with the long, narrow, loop design of my railroad.

One 2-6-6-2, an Americanized 0-6-6-0, an LGB Mogul and an Accucraft Heisler have been re-lettered for the Colorado & Sparktown. Sumpter Valley and Uintah 2-6-6-2s have been repainted as D&RGW Mallets. Fortunately, all of the LGB Mallets and Moguls can negotiate the curves of almost every loop on my railroad. The Bachmann Climax and the Heisler require wider radius curves and are restricted to operating on only two loops. The USA Trains Hudsons are limited to two loops utilizing only the wider LGB 18000 curved track.

The Colorado & Sparktown rolling stock is mostly freight. However, there are currently five passenger trains with engines and cars to match: Colorado & Southern, White Pass & Yukon, D&RGW, a set of four custom-built cars lettered for the Colorado & Sparktown Railway, and my favorite passenger train, an LGB Bumble Bee Mogul with five matching cars. All of the rolling stock has been converted to Kadee couplers and steel wheels.

Engines and rolling stock are stored in garage closets with customized shelving that provides security and a dust-free environment. Unfortunately, there is no way to connect the storage area to the railroad for “drive out” capability.

Phase III Prior to the 2009 NGRC in Denver

Work on Phase III began with the construction of a knee high, 90-foot oval retaining wall with a top wide enough for dual track operation. An eight foot long, double-wide metal bridge was installed to span a gap in the retaining wall. Two parallel loops of LGB flex track were laid on top of the wall for live steam operations. Steamers are unique and of great interest to everyone visiting my railroad.

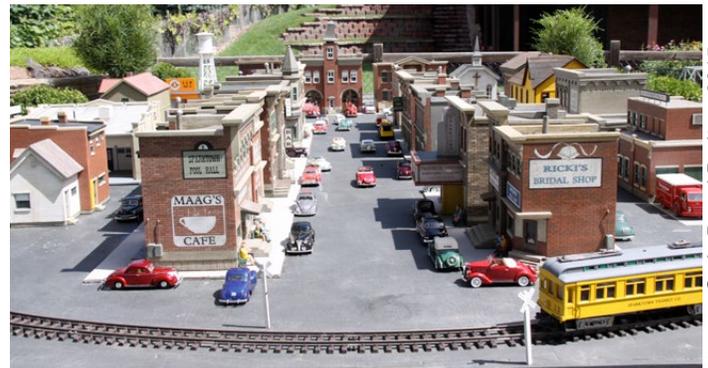
A 40x6-foot raised area at the north end of the yard necessitated the construction of two tunnels for the dual steam tracks. A 90-foot loop of track with numerous sidings was added along with four more bridges. Currently, there are over 30 custom-made wood buildings on the platform depicting the forties and fifties. Normally, the city remains covered year around and is only uncovered for shows and maintenance. Hundreds of cars, trucks and figures are added for the tours and bring the city to life.

My layout in Lakewood, Colorado, will be on tour Wednesday and Saturday during the 2022 Denver National Garden Railway Convention—and my wife, Ricki, and I look forward to sharing it with you.



The north end Phase III construction included the town of Sparktown on a circular raised bed.

Photo by Carla Brand Breitrner 2009



Sparktown (and its supporting platform) grew from town to city as new buildings were added for the 2015 NGRC.

Photo by Carla Brand Breitrner 2015



The north end expansion in 2009 extended the railroad along the back and side fences and added additional loops of track.

Photo by Carla Brand Breitrner 2009



An exit gate at the north end lets visitors take a one way path to view the railroad. Watch out for trains crossing!

Photo by Carla Brand Breitrner 2015

LGB® Garden Railroading

Get on board and join the fun!



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20283 Durango & Silverton Mogul Steam Locomotive

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Headlight and running sounds work in analog

Cars Available to Accompany This Iconic Locomotive

Cars have complete interior details and metal wheelsets



**36821 D&S RR
Passenger Car**



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



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



**30261 D&S RR
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CLUB CORNER

Curated by Bill Derville, Past President
Rose City Garden Railway Society • Portland, Oregon

I have discussed the annual Summer Tour our club conducts in the January and March issue. This column will conclude this discussion.

Last month, I discussed our booklet. These are given to our vendors to sell. Each of them signs an informal contract each year detailing how many booklets they got and stating they will give us \$9 for each book sold and the unsold booklets. We also have fliers printed. Each vendor posts one in their window, and one is mounted on a counter display advertising the event and advising that tickets are on sale there.

Since we print a limited number of booklets, we give only the number to each vendor we think they can comfortably sell plus a few more. We call them a week before the event and see how many they still have left. We deliver additional booklets if a vendor runs out, but this requires more trips, so we try to give them enough. Some vendors get only 10 books, while one always receives 75 booklets. It depends on how many they usually sell. We usually end up with a couple of hundred unsold booklets.

Promotion is important. We usually pay for a newspaper ad which can cost us almost as much as the printing of the books. We post posters on community bulletin boards, announce the event on our Summer Tour Facebook page, and are featured on a weekly garden TV show every year just before the event, where one of our layouts is filmed for a TV segment. And of course, our members all promote to their friends. We also collect email addresses from guests who want to be reminded of next year's tour. Over 1,000 people receive our announcement by email three weeks before the tour.

Each host is responsible for recruiting the crew they need for running trains. A good crew handling the trains allows the host to mingle with guests, answer questions, and talk about the club. Hosts provide cookies and lemonade or water for the guests. We

give each host \$50 to offset this cost. The host usually provides lunch for their crew. Usually someone collects the names of people visiting each layout. This provides bragging rights after the tour, but it also means that peoples' names are on a list, which discourages mischief. Since people pay for the booklets, people that come are serious, and we have not had any instances of trouble from the tour.

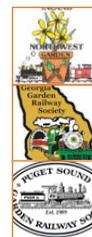
We are open from 10 am to 5 PM. People usually stay about 15 minutes before setting off for the next layout, but are welcome to stay as long as they wish. We post a crossbuck outside to identify the house with the railroad. Friends and neighbors are welcome to come without buying a booklet, but if they want to go to other layouts, they need to buy a book. Every host is given five books to sell before and during the event. We warn our neighbors about expected congestion, but no one seriously complains.

A page inside the booklet talks about the club, our activities, and how much fun we have. A membership application is included. At \$15 per family per year, the cost of joining is small, although the first year we charge for name badges. Hosts and crews encourage any guests who wish to join our club.

On the Monday following the tour, we visit the vendors to collect the booklet sales money, unsold books, and the counter displays which we store for next year. We usually net over \$1,000, but some years, it is over \$2,000. These layout tours keep our club healthy financially and our dues low.

I would very much like to hear from other clubs that conduct a layout tour for the public and how you do it. Send me an email and I may share your tips in a future column.

Look for our *Garden Railroading News* booth at the NGRC in Denver, and plan on attending our clinic about the future of this hobby and garden rail conventions. It will be a discussion more than a clinic. See you there.



Share your ideas with me by email at bill@derville4.com and your experience may be in a future column.

37th National Garden Railway Convention Denver CO June 21–25, 2022

**Craig and Cherylene Evans
The Petrified Progress Railway**

The Petrified Progress Railway has approximately 300 feet of track in a dog bone loop on 2 raised beds. The layout features 2 trestles, a covered bridge, and a small pond with a waterfall. Petrified Progress Railway was so named because Craig did not work on the layout as much as Cherylene worked on the garden. Sometimes it is difficult to find the track when he gets busy building another live steam train and the flowers take over. Live steam locomotives are particular about negotiating any change in elevation, so the layout was leveled in 2018. The garden is lovely, and the trains continue to add charm to the scene.



Here's a peek at a few more layouts that will open during the 37th National Garden Railway Convention. Register now and support garden railroading.

**Go to: www.ngrc2022.org
for more information.**

**Randy and Paula Bisgard
The Saint Mary & All Angels Railway**

The Saint Mary & All Angels Railway is a garden route with a large statue of Mary as the focal point. This small, fairly new layout currently includes approximately 210 feet of track. The over/under loop style layout includes four bridges and grades between 2% to 3%. The SM&AA Ry is a steam era railway with 20 structures and a newly added water feature. Be sure to bring the kids, there are lots of hidden creatures for them to find around the layout. Easily accessible across a level grass area.



**Paulette and Bob Poncar
P&BW RR est. 2008**

Paulette and Bob's World Railroad is comprised of approximately 250 feet of stainless steel track in a 42 foot by 30 foot area. There are two separate loops. The upper loop extends into an addition to the garage. The lower loop has a spur that runs into the garage for easy storage of the trains. Trains encounter no more than a 2% grade. Features include a trestle, a tunnel, a pondless waterfall, stone arch bridge and an operating grist mill. Creative describes the stone arch bridge constructed of Lexan plastic, covered by individual stones glued to the plastic. A goldmine, streetcar loop and a wide variety of flowers and ground cover enhance the P&BW RR. Find relaxation, fun and entertainment at "Paulette and Bob's World."



**Bob & Glen Leise
Palmer Lake Greenland Larkspur RR**

Our G scale railroad, the PLGL RR, runs past an Indian camp and three of the local towns—Palmer Lake, Greenland and Larkspur. Each town has a loop of track that helps tell the story of that town. The loops wind through 5 tunnels, two bridges, and over a 15-foot trestle. The towns contain over 100 buildings and one hundred "people." The 40 foot long logging "back and forth line" disappears into a mountain and then hauls logs to the saw mill. Trains in the mining area haul ore over a 40-foot trestle to the mill. A cog train hauls workers up a steep 30 foot climb.

Larkspur Consolidated RR 7 1/2" RR
The LCRR is our new 7 1/2" ride-on train traveling on about 2,000 feet of track.



**Mark & Jayne Sears
Worthington Central Railroad est. 2016**

This railroad consists of two branches. The 50 foot mountain branch, constructed in a raised planter with a 20-foot trestle, provides limited passenger service to the small logging community of Placer and hauls logs for the local logging companies that supply Bockman Lumber Co. The foothills branch runs 200 feet of track around the perimeter of the yard through Placer Mountain, over the fishpond past the waterfall and through Buff Canyon. It provides passenger and freight service to the communities of Blue Mesa and Worthington and several small industries along the line.



**Jim & Cindy Desautel
Desautel West Railroad est. 2014**

We've come a long way since the 300 foot Desautel West RR debuted at the 2015 NGRC. Our railroad crosses several time frames to couple our love for the Santa Fe Super Chief, the Union Pacific Railroad in Southeast Wyoming, and the narrow-gauge railways of Colorado—most notably the Colorado and Southern, on which Cindy's dad worked as a gandy dancer. DWRR has grown to over 800 feet of track. We've added a complete double loop around our folded dog-bone configuration, plus a railyard with four pass-through tracks and three sidings. Our railway includes a change in elevation of 24 inches between the upper level and lower level, creating multiple vantage points for viewing the trains.



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The Grand Valley Model Railroad Club invites you to plan a stop at Grand Junction, on Colorado's western slope, and visit our large 1/3 acre garden railroad and the historic seven car (1:1 scale) Uintah Railway display at **Cross Orchards Historic Site**. We are only 5 minutes (2.4 miles) off I-70, close to many fast food options, and four hours (251 miles) from the convention hotel in Denver.

Special hours for convention attendees are Saturday, June 18, 8 am–4 pm and Sunday, June 19, 8 am–12 noon when *both* the Uintah Railway exhibit will be open *and* the layout will be operating. Admission is free. (Normal summer museum hours are 9 am–3 pm, Thursday, Friday and Saturday.)

More details at: www.NGRC2022.org (click on "More," then "Nearby Attractions," then "Grand Valley Model Railroad Club," and then "More Information")



National Garden Railway Convention 2022

Attention all Youth!!! 2nd Annual Youth Clinics and Modeling Contest

It's time to get on board for fun at the NGRC 2022 on Wednesday, June 22, by participating in the youth clinics and modeling contest!!

There will be two clinics:
a train car to build a load & a building to paint.

Once you complete the clinics, enter your train car and building in the Youth Modeling Contest. You're welcome to participate in both.

What a wonderful way to take a special memory home with you from the Denver NGRC 2022!!

Please see www.NGRC2022.org for more details.
There will be a nominal material fee for each clinic.



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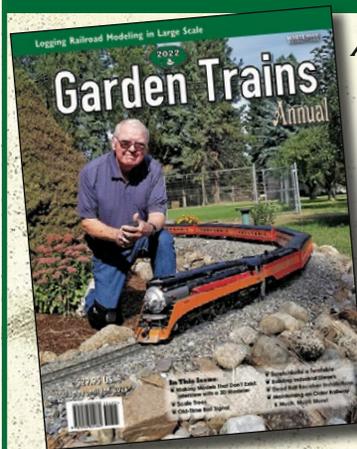
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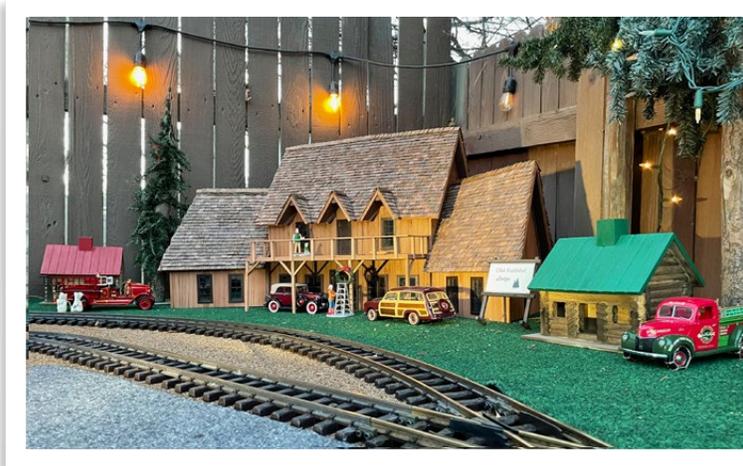
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Something Unique About My Railway

By John Cushman

Yellowstone's Old Faithful Lodge Recreated on the Boulder Valley & Pacific RR For the National Convention

The Grand Lodges: Nestled in the heart of the great national parks of the west, are the Grand Lodges.



The *Ahwahnee Hotel* at Yosemite National Park, *El Tovar* at Grand Canyon National Park, Grand Teton's *Jackson Lake Lodge*, *Lake McDonald Lodge* at Glacier National Park and the *Old Faithful Inn* of Yellowstone are just a few of the inspirational and welcoming park retreats that many of us have visited.

In designing my Garden Railway, I wanted a city, a horse ranch and a national park. For the National Garden Railway Convention, a new Grand Lodge would be built to occupy a prominent central corner of our elevated railway.

I sent measurements and a conceptual design to my friend Doug Lodge in Santa Rosa, California, with whom I had worked at the Children's Museum. Doug had showed me how to construct wooden houses and buildings from strips of scale lumber that I cut on my own table saw, and how to cut cedar shake shingles for roofs. Doug and I enjoyed building things together, and our design and construction ideas often meshed at the museum. He would be the right partner for this project.



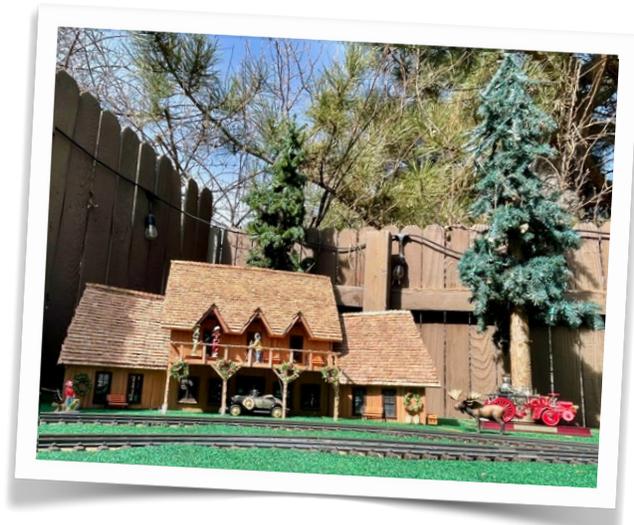
Design and Construction: My lodge would consist of three sections joined into a single multistory building with large sloping roofs, a main hall with attached guest rooms in the wings, and a drive-under balcony where guests could unload baggage before heading inside for check in. Guest cabins would surround the lodge like those I remember from Old Faithful. We found the unfinished cabins at Michaels among the wooden birdhouses, and we painted roofs, aged the wood, and sprayed them with a sealer to fill out the scene.

Doug built the lodge of milled redwood, with lots of windows, and shingled sloping roofs. I added racks of antlers above entries, holiday lights, wreaths, people, benches and boxes. To complete the park environment we found early 20th century Franklin Mint 1:24 sedans and supply trucks to park in front of the lodge. I'm still looking for a yellow park bus or coach in 1:24 scale. Families of large mammals lurk under trees and behind fences. I built Buckrail fences that are popular in Colorado and Wyoming to define the borders of the scene. (See *GRNews*, January/February 2022. <https://dl.orangedox.com/2022.1.GRNews.Jan.Feb.2022.Final>)



The Grand Opening: Railroads once brought visitors and supplies to the national parks. The Great Northern Railway brought people to Yellowstone who arrived at the classic station in Livingston, and completed their journey in coaches up the beautiful Paradise Valley to the northern entrance at Gardiner. My trains get much closer to the lodge in my small backyard.

The grand opening for the Old Faithful Lodge will be June 21 when we welcome visitors to the National Convention. I hope it will fill guests with memories of their visits to the National Parks of the west with their parents and children — just as it does for me.



John Cushman

Telling the Tale of the Track

Rod & Pat Eaton's Hosta La Vista Junction

By Rod Eaton, Champlin, Minnesota

Fairy gardens are still very popular. Walk through any garden center and you'll find shelves full of tiny Hobbit-like houses, bridges, fences, colorful stones, and elf, fairy and gnome figures. Combining miniature plants with these diminutive dwellings and fantasy creatures, fairy gardens can be created in an indoor pot or planted in a corner of your outdoor garden.

Near the beginning of this trend Pat and I decided we'd like a fairy garden in our backyard. And we wanted to run a train around it. Since a large portion of the yard was filled with our Hitchcock Railway, it made sense to stick with G-scale for the fairy garden. So the first step was

to lay a circle of Gauge 1 track around a tree. Small trap rock provided ballast.

We christened the fledgling railway Hosta La Vista Junction. It was located in a hosta garden, and the name played on the phrase made famous by Terminator Arnold Schwarzenegger. Rail fans may also appreciate the fact that the simple loop of track is anything but a junction.

Entering our backyard from the front visitors encountered the Hosta La Vista Junction first, with the whimsical orange and green engine running round and round the tree. Many adults were charmed and we received lots of compliments during our summer Sunday open houses. Even non-garden railway gardeners asked about building a simple "gnome train" in their home gardens. About half the children enjoy the little line while the other half rush past it to our bigger and more railroady traditional layout.

Building a fairy garden was a nice change of pace. Though the Hitchcock Railway had some whimsical elements, it's pretty much a depiction of the real world 1890s West. The Hosta La Vista Junction, on the other hand, found its roots in fairy tales, folklore, and fantasy. If the Hitchcock was John Ford, the Hosta was Walt Disney.

It's pure fun to turn a pumpkin into a house, colored stones into a stream, a St. Bernard's brandy cask into a water tank. There are no rivets to count, no scale to adhere to, no straight lines to follow. The only problem is preventing wildlife from munching the flowers.

Construction Details Article on Page 25



The Hosta La Vista Junction, like most of our yard, is almost entirely in the shade. We relocated naturally occurring moss from around the yard. Annuals planted include impatiens and begonias for color and texture. And of course... hostas.

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Tips on 3D Printing an Entire Train

Notes from a Six Month Journey

By Rick Bremer, LA County Fairplex Garden Railroad Exhibit Coordinator since 2015 and volunteer since 2000

Since the advent of 3D printing, model railroaders have embraced this new technology in most aspects of the hobby. The release of free modeling software has also given modelers the ability to create their own objects. To us ‘old-timers’ this is nothing short of a miracle – you design something on your computer and minutes or hours later, you have the object in your hand.

At the Fairplex Garden Railroad, we have also followed this technology with great interest. In 2018, I conducted an introductory-level class in 3D printing which was well received. Since then, many of our volunteers have their own printers and have become adept at design and printing. Items produced are engine parts, coupler mounts, scale windows and doors, and various accessories. At a recent Technology Fair for students and parents sponsored by Fairplex, we showcased a 3D printed locomotive that I built along with showing the operation of three different printers with Q&A sessions for the students.



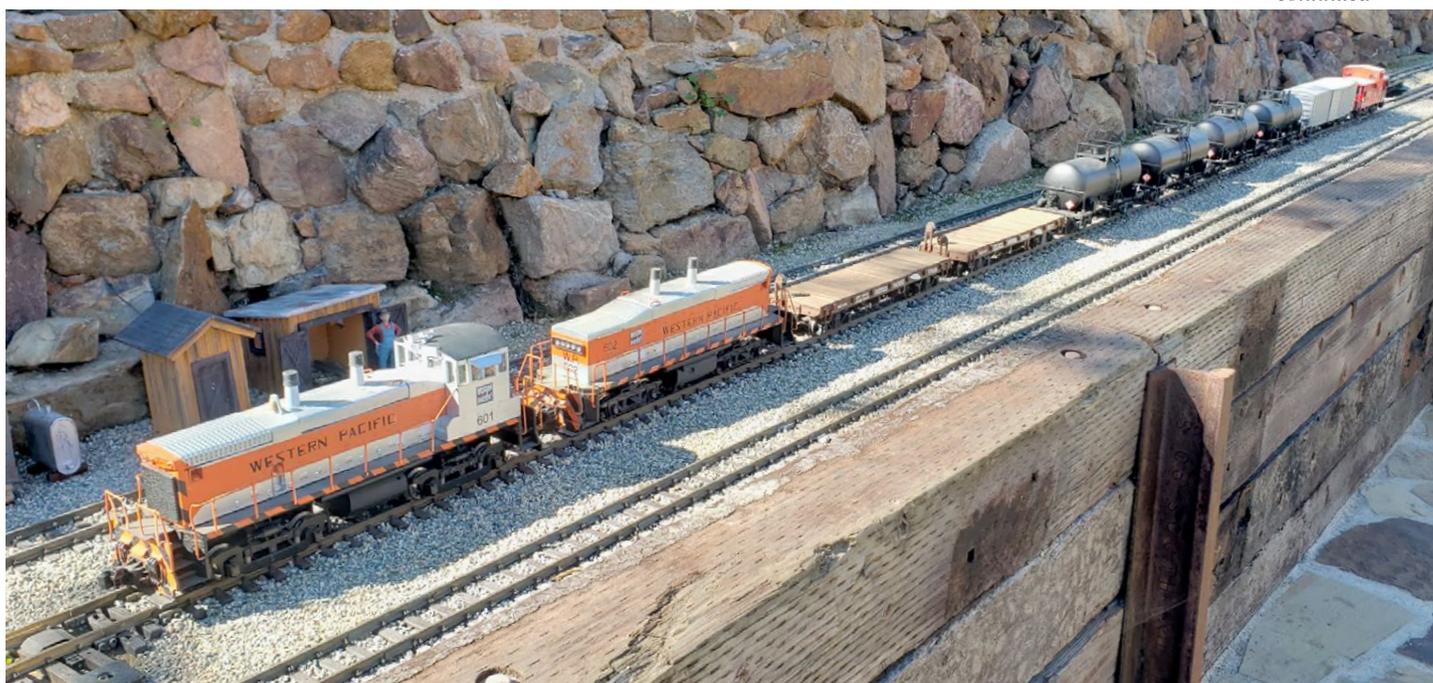
Sadly, the pandemic forced the closure of Fairplex in March 2020 and our volunteers went into working at home. We have since been able to return to maintain the railroad with all volunteers checking in daily on an app for Covid Compliance. With all of that ‘at home’ time, I decided to expand on the SW-1500 locomotive that I printed for the Tech Show. Since then I have printed a calf unit, 2 flatcars, 4 short tank cars, a boxcar and a caboose, shown in the photo below. All of these pieces were not my design but rather files that are available for free online. A list of the files is included at the end of this article. This train was printed over a period of six months and during that time I learned some valuable lessons that hobbyists may find useful. These are as follows:

Use available files. If you are an experienced designer, you are probably familiar with Autocad, Solid Works or Fusion 360 but if you are not, there are available files online. I found all of my projects on thingiverse.com and there are other sites such as yeggi.com. Some files are free but others have fees.

Don’t be a Scrooge. Free files are great but some modeler has spent a lot of time designing the project. Don’t be afraid to hit the ‘Show Some Love’ button and tip the designer.

Learn 3D modeling. In most cases, you will want to modify some or all of the parts of your model. This requires you to think and then learn to manipulate objects in a 3D environment. For instance, with my SW-1500 engine, I installed an Airwire G4X wireless decoder system, mainly because this decoder has 8 different lighting outputs so I could install ditch lights, step lights and a cab light in addition to front and rear headlights. This caused me to make

continued



many custom parts to accommodate the lights and to allow me access to the Airwire and sound inputs. The coupler mounts needed special parts for reinforcement and modifications may need to be made for motor blocks and details. Scale must also be taken into consideration and some test prints might be necessary.

As mentioned above, modelers can use AutoCad or SolidWorks but these programs can be pricey. However, there are several free modeling programs available too:

Fusion 360, offered by the makers of Autocad, is free to hobbyists if you register. This is an in-depth program which has a large learning curve but is a professional-level program. <https://www.autodesk.com/products/fusion-360/overview?term=1-YEAR&support=null>

Tinkercad is a free program which was designed by Autodesk and was originally developed for young school-aged students, but has gained a large use in the modeling community. It is simple, easy to use and your files can be stored in their cloud. Although basic, you can import files into the program and add or subtract parts. I used Tinkercad on everything needed to print my train.

www.tinkercad.com.

Be familiar with your printer. Before starting a large project like this, you should know the ins and outs of your printer: how to adjust the slicer settings, what materials print best, and how your printer uses filament. Of course, your print volume size is critical in determining how you can print the various parts of a model. As you progress to more complicated parts and larger parts, your print times will increase. Until you are comfortable with long (sometimes overnight) prints, keep watch on your printer, espe-

cially when printing ABS which needs high temperatures. Many printers now have built-in cameras so you can monitor or even control your printer remotely.

Use a good slicer. The slicer is the software that tells your printer how to print your file. Most printers come with their own version and many use a program called CURA. I have found that Simplify 3D is a great program for slicing, simple yet powerful and well worth the roughly \$100 price tag. <https://www.simplify3d.com>. The slicer is where you will be doing most of your printer control. Variables in this software give you an endless amount of selections on nozzle control, speed, temperature and many, many others. In the slicer you can scale parts up and down. This is also where you add supports which can be critical for some parts, where you can duplicate them for mass printing and rotate a part for the best print. Sometimes, especially when starting out, you may have to find the best orientation for a part, and trial and error may be your best solution.

Use ABS filament. Although this may be a topic of debate among hobbyists, I have found that for modeling, especially for outdoor G-scale models, ABS is far superior. Its advantages are that you can cut, sand, fill and drill and tap as opposed to PLA which (in my opinion) is more difficult to work with. ABS should withstand outdoor extremes better as well and CA glues work very well in attaching pieces together. However, it should be noted that in order to print ABS, you need a printer with an enclosure to maintain the higher temperatures during printing. I have also installed glass beds on all of my printers in order to help the ABS filament adhere to the bed. The borosilicate glass can with-

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stand temperature changes and helps ABS adhere better. With glass beds however, one needs to use 'ABS juice', a mixture of acetone and scrap ABS pieces to roughen up the bed surface and help the print stick. YouTube has lots of videos on these subjects for many different printers. I should add a caveat here: recently new mixtures of PLA have been available and some modelers swear by them.

Failure is an option. During the recent tech show, a volunteer brought a guest to me with a question identifying me as "our 3D printing expert!" I laughed and replied that if I'm the expert it's only because I have made more mistakes than everyone else! Commercial 3D printing is still a fairly new technology for the general public and it is constantly evolving. You WILL have failures, but fortunately there are lots of support and discussion groups online. Find some and you eventually find a solution to your problem or question. I am fortunate to be part of a core group of tech-oriented volunteers who routinely share ideas, problems and solutions. Persevere and overcome!

Finally when starting a project of this nature, think of it as a journey rather than a trip. You will have failures along the way, sometimes more than a few times! Be prepared for challenges, some which may be very perplexing. If you stay the course, you will have the satisfaction of knowing that "I made that myself!"



SOURCES:

Locomotive: <https://www.thingiverse.com/thing:916416>

Tank Cars: <https://www.thingiverse.com/thing:3239142>

Boxcar: <https://www.thingiverse.com/thing:2997111>

Note: This is an S scale model that I scaled up.

Caboose: <https://www.thingiverse.com/thing:4774314>

Another wide-vision caboose in 027 that I scaled up.

Bogies: <https://www.thingiverse.com/thing:4061557>

Again, test print to check the scale. Although these are designed to be working trucks, I glued the parts in place and added steel springs for realism.

ABOUT FAIRPLEX GARDEN RAILROAD:

This railroad began as an exhibit in a tent at the 3rd Los Angeles County Fair. It now covers 2/3 acre with 10,000 feet of train tracks, landscaping and areas illustrating the history of California from 1850 through Post World War II development to modern industry. The railroad is currently on display through May 30, 2022, during the 100th anniversary of the LA County Fair in Pomona, California. Other running dates and more information can be found at their website: www.fgrr.org





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Native Plants at Sunny Bay Garden Railroad

Article and photos by Kathy Thurston

Questions by newcomers at the April meeting inspired me to write this gardening article. I am not a plant/gardening expert, just a low-key gardener who wants to do more with less (work).

Gig Harbor has a very temperate wet climate for the most part, but in the summer season our temperatures and climate are more like a Mediterranean climate with several months of little rainfall, high temperatures in the 80 to 90s and occasionally hitting the 100s. We are classified as Zone 8b.

Unique to our situation is that the Sunny Bay Railroad is built under a mixed coniferous forest with mostly dry shade. Douglas firs and western red cedar drop needles year round, making the soil very acidic. We have found to our delight that native plants that were already embedded in the area, not surprisingly, do very well in this environment. We started with an area already planted with rhododendron, mountain huckleberry, sword ferns, salal, Oregon grape and woodland violets. They need minimal water or care and seem to thrive in the dry shade. Bill has installed some irrigation to use during the hottest months of the summer: watering once a week for 30 minutes.

New plants you introduce may need extra water for a while until their root systems are well established. I am all in favor of low or no maintenance and the plants I've listed have thrived over time with little care. Although native plants are best adapted to these conditions, some of these are not strictly native, but all are perennials. Native plants need less water, return each season, and tend to spread under the conditions I've listed. The more groundcover you use, the less room there is for weeds to grow! Finding dwarf and miniature plants for the railroad scale is also a challenge and the listed plants have worked well for us.

The groundcovers we added that have naturalized are: 22

1. Bishop's Hat (*Epimedium pinnatum* subsp. *colichicum*)

Beautiful evergreen perennial: heart shaped medium sized green leaves with sprigs of golden flowers in spring. Slow spreading. Grows well under larger trees. Optional: cut back old leaves in fall/winter to force beautiful new leaves to grow in the spring. These grow around our dry creek bed under a wild dogwood tree. Sold at native plant nurseries.



2. White Inside-Out Flower (*Vancouveria hexandra*)

Perennial herb. Clusters of miniature leaves, small white "inside out" white flowers. Will naturalize over time. Great small plant for railroad scale. Good background plant near the Basalt Mine and the sawmill near an old cedar stump. No maintenance. Found at native plant nurseries.



Continued on next page.

Page 

Puget Sound Garden Railroading

May 2022

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Continued from previous page.

3. Sweet Woodruff (*Galium odorata*) Perennial. Small “spikes” of small dark green leaves with tiny fairy-like, sweet smelling, white flowers. Likes moist soil. Spreads slowly throughout the railroad and gives it a fairy like feeling in spring when in bloom. Grows well around rocky areas and water features. No maintenance. Found in nurseries and native plant nurseries.



4. Snow on the Mountain, Bishop’s Weed, (*Aegopodium podagraria* ‘Variegatum’) A medium sized variegated green and white leaf with delicate white flowers on stalks, bloom in late spring and summer. As they grow, plants mound up and spread via runners. We use it in the front borders where it’s sunny or dappled shade. **Caution:** Pretty, but will become invasive over time: variegated variety is less invasive. May inhibit the establishment of conifers or native trees. In sunny areas with late summer heat, leaf edges turn brown, and eventually it dies back in late summer. We chop back the runners and mow back growth next to the track as they approach our lawn. Bill uses his custom made Dremel miniature string trimmer tool (see page 26) weekly on this plant to control it near the tracks and borders. Medium maintenance. Found in most nurseries.



5. New Zealand Brass Buttons (*Leptinella squalida*) A very cool miniature fernlike plant in the daisy family. Perennial spreads slowly with rhizomes. Has small creamy yellow flower “buttons.” Scale of plant works well next to tracks. No maintenance. Sold in starter packs as a groundcover.



6. Hardy Cyclamen, Sowbread (*Cyclamen hederifolium*) Clusters of medium sized variegated silver and green heart shaped leaves that grow under base of trees or ferns. Grow from tubers. Goes dormant in summer. In the fall new leaves come up and are followed later by small pink, white or magenta flowers with upswept petals. They are slow to spread and have naturalized in our garden underneath ferns and Oregon grape. No maintenance. Sweet, unusual flowers remind me of “shooting star” wildflowers. One of my favorites.



Stepable.com brand has a website showing extensive information on groundcovers. They unfortunately do not sell Steppable brand groundcovers currently in Western Washington.

Go Plant! Go Native!

Below are some native plant nurseries in the Puget Sound area:
Woodbrook Native Plant Nursery

- woodbrooknativeplantnursery.com
- Urban Earth urbanearthnursery.com
- Go Natives! Nursery gonativesnursery.com
- Brothers Greenhouses www.brothersgreenhouses.com
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Constructing a G-Scale Fairy Garden Railroad

By Rod Eaton, Champlin, Minnesota

The Hosta La Vista Junction engine began as a Lionel Large Scale switcher rescued on eBay. I tossed the body and began the metamorphosis by constructing a boiler from a Metamucil can, strip wood, and a plastic gourd from a craft store. An upside-down candleholder, a holiday bell, a little sheet brass, and miscellaneous parts completed the model. Six rechargeable double-A batteries, the same pack I used in all my G scale locos, powered the engine. Unscrewing the lid of the Metamucil can permitted the battery pack to slip inside the boiler. A simple on-off switch-controlled train movement.

The consist consisted of simple wooden flats riding on one or two trucks. All were flamboyantly painted in decidedly non-railroad colors. Loads included a small watering can, an ear of brightly colored corn, and an assortment of pinecones. Hardware store hooks and eyes became couplers.



The Hosta was crewed by a collection of strange looking gandy dancers once sold through Schrader's Railroad catalog. Each figure is about three-inches tall. One rode on the "caboose" under a bouncing um-



Bobs and bits from recycling and the parts drawer, craft store clay, inventive reuse, and imagination come together to create a whimsical train and town.

rella that provided both shade and free animation. Other small gnome figures inhabited the space, tending flowers and harvesting mushrooms.

With the train complete, the Hosta La Vista Junction needed structures. The houses and details sold in garden stores are much too small for G scale so we cobbled our own. Inspiration came from the long-gone A.W.N.U.T.S. Magazine (Always Whimsical, Not Usually To Scale). Raw materials included a craft store foam pumpkin, a flowerpot, and a lunch box.

Air-dry clay from Crayola provided a fun and functional material for creating doors, windows and details for our fairy garden buildings. To make attachments that would conform to the building's surface, I placed clear food wrap over the area where a door or window would be, then molded the feature in place. Simple

sculpting tools were made from craft sticks sanded to a variety of points and wedges. Clay is infinitely malleable and easy to work – if it doesn't look right, you just ball it up and begin again. Working with clay really brings out the child in you.



After allowing the parts to dry for several days, they were painted, then glued to the base structure. Repeating colors from the rail cars helped pull the garden scene together. And the clunky, curvy, slumpy doors and windows in our small village give the various structures a common comic design element. Finally, everything was given a coat of clear gloss.



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Maintenance Tip

Article and photos by Bill Thurston

Note: The unusual April weather combined with the high maintenance needs of the SBRR led to a demonstration during the club meeting of one of the tools I use to keep small plants trimmed. At least one person asked that I write an article on the tool I use. It took only one request! The following is a consolidation and editing of two articles I previously wrote for the newsletter.

My layout is mostly at ground level and I have ground cover and other plants that can quickly spread over the railroad track. The plants cause derailments, decoupling and other assorted ills.

Hand pruning and trimming is very time consuming and my gas powered weed whacker is too big for cutting plants near or on the track. When Dremel came out with their battery powered rotary tool, I saw a possible use they don't mention in their literature: a mini-weed whacker.

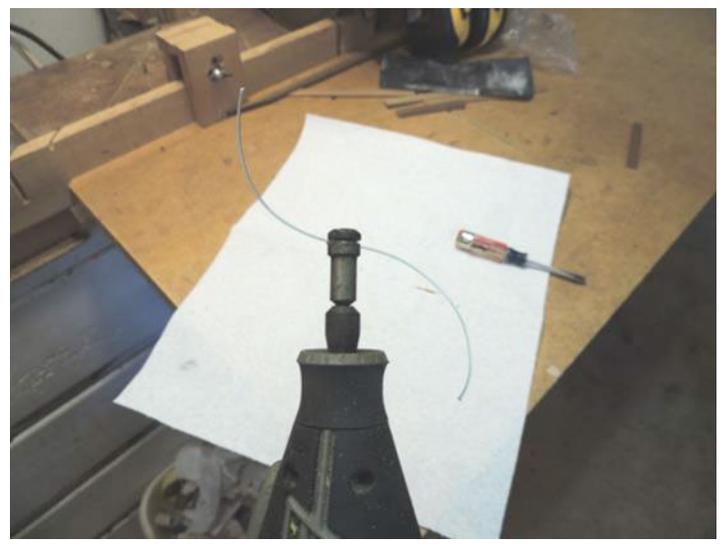
I currently use a battery powered Model 8220 rated at 12 volts. Using about 6 inches of 60 # fishing line at 1500 rpm works well for me.



Dremel Model 8220 with a mandrel from a Harbor Freight rotary tool accessories pack. The mandrel is larger in diameter than the standard Dremel mandrel and provides a better holding surface for the 60# fishing line I found in my tackle box.



After just a few days of no train running, plants start to take over.



Use a simple overhand knot (shown in the top photo) to tie the line around the spindle screw, tighten the screw down, and you are ready for trimming.



The mini-weed whacker cleans up the right-of-way in short order.

Continued on next page.

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1:24 & 1:20

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STONWORKS

Continued from previous page.

Using the Dremel does make trimming easier, but I quickly found another rather simple but effective modification to make it easier to use: an extended handle to reduce the need to get down on the ground. I cut and drilled an old broom handle and bolted on a holding block cut to support the Dremel as shown in photos 1-4. I attached the Dremel to the block using two heavy duty rubber bands.



An old broom handle drilled and cut to hold the block of wood.



5



6

The Dremel is attached using heavy duty rubber bands and can be rotated into different positions. Friction between the wood block and broom handle holds the Dremel in the different positions.

I used 3 inch rubber bands similar to those found on Amazon. Search for Ranger Bands Mixed 35 Count Made from EPDM Rubber for Survival, Emergency Tinder and Strapping Gear of Various Sizes. A reliable source tell me that the rubber bands used to hold bunches of asparagus together are of similar size and may work as well.



2



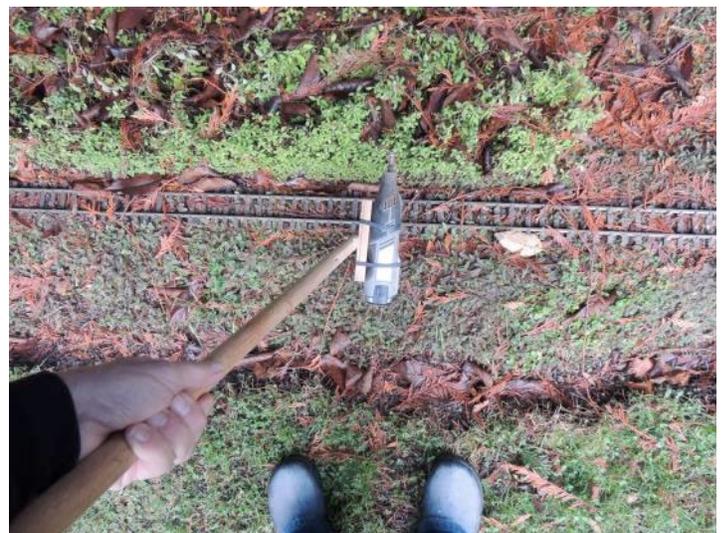
3

Above: a block of wood about 1x2x5 inches drilled and a rough arched channel cut into it. The channel provides a better support for the Dremel than a flat surface.

Below: the block is bolted to the broom handle.



4



The mini weed -wacker put to use while standing!



CONVERTING A 1:20.3 FLATCAR TO 1:13.7

I found an easy way to convert a two axle Accucraft flatcar to a 1:13.7 or 7/8 scale flatcar. What makes it so easy is all the axles, wheels, and undercarriage are already there. I'm willing to bet that almost all live steamers have at least one Accucraft two-axle flatcar lying around.

I started my conversion by first removing the couplers, stake pockets, and brake wheel stand. I then decided on the dimensions I would use to build a 7/8 scale flatcar and came up with 4 and 13/16 inches wide by 8 and 11/16 inches long. I cut a sheet of 1/8 inch styrene to the above measurement; this would become the new decking. I formed the new side and end frames using two #189 stripes of Evergreen styrene putting one strip on top of the other to form 1/2 inch frame sides and ends.

With the new decking attached to the new frame sides and ends, it's time to install a strip of #169 to the inside of the new frame sides only and then a #255 square tubing to the #169 strip, sides only. This will form the spacing that's needed to allow the Accucraft flatcar to fit snugly inside the new framework.

All the styrene strips and tubing are from Evergreen styrene. I also used #189 strip to form the end beams.

Before going any further, check to see that the Accucraft flatcar fits inside the new frame snugly.

1:20.3 flatcar inside a
1:13.7 or 7/8 scale flatcar



Continued

PAGE 

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DAVE'S CORNER

Dave Frediani

With a pocket knife I scribed planking on the new deck.

Now it's time to simulate the wood grain to the newly-planked deck, frame sides and end beams. I did this by using a piece of hacksaw blade held in place with a pair of vice grips.

After simulating the wood planking and etched wood grain, it's time to reinstall the brake wheel stand. I installed the new couplers, stake pockets, brake wheel and end corners.

Here's a list of all the other parts that I used from Ozark Miniatures:

2 - # 4018 couplers

6 - # 4001 stake pockets

4 - # 4041 frame corners

1 - # 4035 brake wheel.

I've used these Accucraft flatcars to build many different two axle 7/8 scale cars using the flatcar for the base.

Completed 7/8 scale flatcar



Continued

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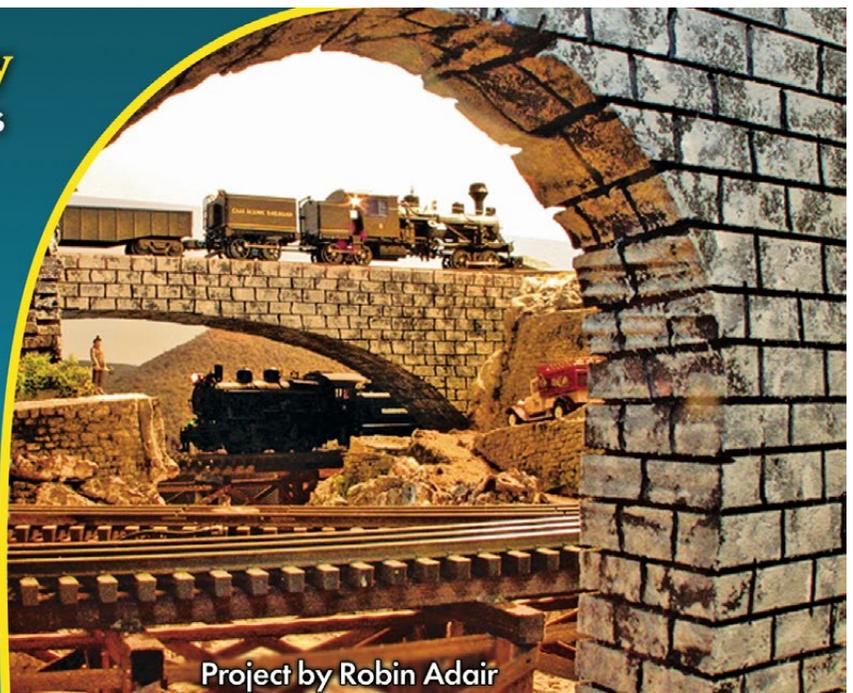


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Project by Robin Adair

DAVE'S CORNER

Dave Frediani



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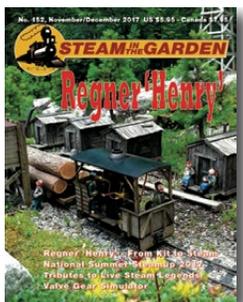
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Until then — Happy Steaming!

Operations Logistics on the IPP&W and RP&M Operated by the Ottawa Valley GRS

By Mike Hamer and Doug Matheson

Photos by Pat Brennan, Bernie Goodman, Mike Hamer, Mark Shumelda, Malcolm Vant and Lawrence Watkins

Editor's Introduction: Realistic train operations in model train scale provides a framework for friends to gather and enjoy their trains together. During an Operations session, trains move from railyard to towns and industries, using sidings to pass other trains and to set out/pick up rolling stock along the way. The March/April 2022 issue of Garden Railroading News featured layout, Fred Mills' IPP&W and RP&M, operated by the Ottawa Valley Garden Railway Society, runs regular operating sessions on weekends from May to October where multiple trains deliver freight and passengers to more than twenty destinations. As Fred Mills has emphasized, the friendships are as important to the operators as the trains.

Twenty-five trains run over three hours. Crews arrive at 9:00 am to distribute cars to their designated industries and sidings. The bell is rung and operators assemble for the pre-ops safety briefing. News is discussed; then operations begin. A post-ops barbecue caps off the event.

Because our railroad is a shortline, all trains are wayfreights, other than the ore train which runs as a unit bulk carrier and, of course, the passenger trains. Wayfreights are given their title because they stop at distant way stations to work the sidings in those towns. They are typically the slowest running trains on the system.

Three passenger runs occur during the session with one of special interest. It is Pool Train 15 which runs along the iron of both the IPP&W and RP&M railroads. The equipment is "pooled" between the two lines as are the costs and the monetary benefits... thus the term "Pool" train. Eastbound runs are designated even numbers and westbound trains, odd.

While all IPP&W trains operate as "extras" and do not adhere to a timetable, passenger consists are granted priority, as are ore drags which only stop at the two mines on the railroad. Dispatch makes every attempt to have these superior trains pass slower traffic whenever possible. When a meet is imminent, lower priority crews are ordered to protect their train against approaching traffic from either direction by moving onto a siding. The crew simply ensures the turnout at each end of their siding is thrown in a manner to allow the incoming train to safely run around their cars. Every siding is longer than the longest train running on the system, which serves the dispatcher well when orchestrating train meets. Two remote sidings are strategically located where there are long runs between towns.

This begs the question, "Which train is superior when two trains of the same class meet in opposing directions?" In Canada with its broad east-west configuration, east



Operators enjoy a discussion at Mercer Siding, one of two remote areas where trains can meet each other, as long-hood forward TH&B diesel with Train 311 sits on the siding for ten minutes awaiting clearance into its next destination, Peter's Pond. Once Train 304 clears the turnout, 311 will be able to proceed ahead.



Our pre-ops briefing is the most important aspect of the session. Safety concerns in the event of a medical emergency are always addressed and then other news is discussed. Of course, a joke or two is shared as witnessed in this image!



We encounter a "triple meet" of trains at the remote location known as Watkins Siding. Pool train 15 in care of the lovely "blueboy" has already passed Train 313 and now encounters Train 328.

continued on next page

bounds are designated superior to those heading west. The same is true in the United States for east and west travel. For north and southbound running, American northbound trains hold precedence over those travelling south. While these are the accepted rules, dispatch may allow an inferior train "situational" priority depending on issues which may arise. An example during our sessions would be allowing a crew that is far behind to catch up in order to keep the train operations as "balanced" as possible.

Freight trains on our railroad consist of two-person crews. Passenger and ore trains are typically handled by a single person. Yard masters control the main yards and an assistant can be assigned when extra personnel are available. From a centrally located dispatch booth, a single dispatcher controls train movements via two-way radio. The dispatcher's console consists of a linear schematic of the system. Small magnetic identification blocks follow train progress and crews are given verbal clearances.

No train crew has authority to move along the mainline outside town limits without clearance from dispatch. In Canada we call this communication between dispatch and train crews "Occupancy Control System (OCS) Rules," our country's version of track warrants. We also refer to dispatchers as Rail Traffic Controllers. On the IPP&W we have simplified the process somewhat. Crews wishing to move must first contact dispatch with their intentions. The dispatcher issues the warrant verbally by radio and the train crew repeats the warrant to ensure nothing is misunderstood. (On the real railroad, crews would copy the instructions on a specified form and read back the warrant to ensure clarity.)

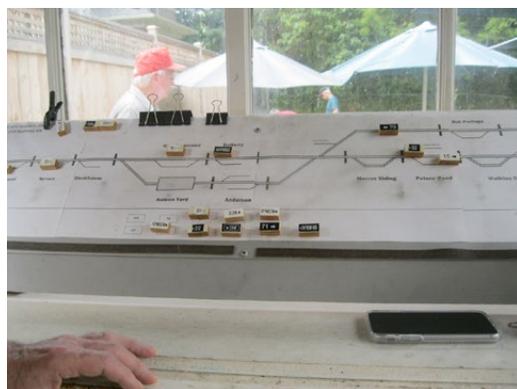
On alternate weeks we run narrow gauge sessions when steam locomotives and older rolling stock ply the high iron, and we really should use the form of communications from that era, Time Table and Train Orders. For simplicity we use the modern Canadian OCS rules for both standard and narrow gauge sessions. It's our railroad, so we can amend and adapt as we wish! The key is having fun! Big grin!



Along with remote sidings, dispatch organizes train meets in the various town locations en route. The ore train in care of the White Pass & Yukon diesel has priority over the way freight hauled by the Union Pacific locomotive. It has cleared the far turnout and the way freight is already seen backing up to continue switching here.



A train crew finds itself in the forested area of Mount St. Helens. At this location all of the industry spurs run the same way which allows for ease of switching. Note the name plaque clearly evident on the fascia.



The dispatch hut, or dispatch "tower," is centrally located along the railroad line adjacent to Nelson Yard, the central classification yard.

The dispatcher uses a magnetic console with train identification blocks on a linear map of the two railroads to track train progress. While 25 trains run throughout a session, up to ten could be on the move (and on the board) simultaneously at certain points in time.

Nelson Yard, at the midpoint of the line, handles traffic for both the IPP&W and the RP&M. Trains are made up or broken down here by switching between the nine tracks. We see the ore train on the arrival/departure track behind a huge steamer.

continued on next page

The first step to consider in preparing for operations is to determine which trains you wish to run on your railroad and which car types and industries you want. The OVGRS uses the RailOp programme to generate four required lists. The "master list" contains every car in the system indicating its destination pre-ops. A second "set-out" list places cars to their towns and specified sidings; handy when setting out equipment. The "yardmaster list" identifies the location and trains to which each car is assigned in their yard; helpful for blocking as trains move around their yard to break down and rebuild consists. The "switch list", given to each train crew, indicates the cars in their train and the set-outs and pick-ups required in each town along the route and the number of cars you should have in your train as you depart each stop (e.g., 5 cars out).



Craig Leigh is located at the eastern terminal of the line. We find our affable yardmaster in the process of making up the next outgoing train at Douglas Yard.



The recently completed Northland Ore dock harbours a number of ore cars in Craig Leigh. Empties go out over the railroad to the two mines and loads return to the dock. The wye around the tree in the distance (detail photo below) is used for turning the ore train. One of the purposes of a wye is to offer railroads the ability to turn their locomotives at the end of a line. They also are very useful for turning entire passenger trains should they need to be backed into a terminal building.



Yardmaster List

CRAIG LEIGH SWITCH LIST -- 9:29 PM 2021-10-09

Stock	Yar	Stock	D&RG	6453	Green
(Listed by Train Departure Times)					
- Local car switching will usually appear at the bottom of the list, but may be done anytime the car is available. -- ORIGINATING HERE					
- Pickups are listed in the order train should be blocked. Departing for St HELENS at 9:03					
===== MARSHAL FOR PICKUP BY TRAIN =====					
IPP&W Train 2 -- Passenger					
Coke Loa Gondola RP&M 527 Brown					
Northern Tank, Oil CONX 8 Black					
Scobies F Reefer, Ice D&RG 40 Yellow					
Bruns's MaReefer, Ice PFE 1604 Orange					
Stock Yar Stock IPP&W 5912 Black					
Arriving from St HELENS and Terminating					
===== SET OUT CARS FROM TRAIN =====					
1 Arrival DBaggage 2Dr RP&M 140					
1 Arrival DCombine IPP&W [18]					
1 Arrival DCoach IPP&W [402]					
1 Arrival DCoach IPP&W [409]					
1 Arrival DCoach IPP&W [405]					
3 Arrival DBaggage 1Dr IPP&W 206					
3 Arrival DReefer Expre IPP&W 112					
===== MARSHAL FOR PICKUP BY TRAIN =====					
IPP&W Train 30 -- Transfer					
-- ORIGINATING HERE					
Departing for St HELENS at 9:04					
===== MARSHAL FOR PICKUP BY TRAIN =====					
Ice House Reefer, Ice PFE 4216 Yellow					
Ice House Reefer, Ice HAMX 6053 Blue					
===== MARSHAL FOR PICKUP BY TRAIN =====					
IPP&W Train 301 -- Wayfreight					
-- ORIGINATING HERE					
Departing for St HELENS at 9:01					
===== MARSHAL FOR PICKUP BY TRAIN =====					
Ice House Reefer, Ice PFE 42740 Orange					
Ice House Reefer, Ice BWB 908 White					
Ice House Reefer, Beer BBRX 1044 Green					
NorthLandBox PFE 71924 Yellow					
Douglas Y Flat RP&M 702 Brown					
===== MARSHAL FOR PICKUP BY TRAIN =====					
IPP&W Train 302 -- Freight					
-- ORIGINATING HERE					
Departing for St HELENS at 9:02					
===== MARSHAL FOR PICKUP BY TRAIN =====					
Northern Tank, Oil CONX 593 Silver					
Douglas Y Box SP 4055 Orange					
Ice House Reefer, Ice CMX 4258C White					
Douglas Y Box D&RG 60145 Red					
===== MARSHAL FOR PICKUP BY TRAIN =====					
IPP&W Train 303 -- Freight					
-- ORIGINATING HERE					
Arriving from St HELENS and Terminating					
===== SET OUT CARS FROM TRAIN =====					
NorthLandBox FCLX 11					
NorthLandFlat TTPX 116					
Douglas Y Stock IPP&W 946					
Douglas Y Gondola IPP&W 12					
Douglas Y Flat B&O 15					

Train Crew Switch List

Manifest for Train 301 -- 9:30 PM 2021-10-03

-- 6 Cars Out, 248 Ft, 168 Tons

MANIFEST for TRAIN 301
WestBound FROM: CRAIG LEIGH TO: NELSON YARD

CRAIG LEIGH

PickUps (5)			
Ice House Track	PFE	42740	Reefer, Ice
Ice House Track	BWB	908	Reefer, Ice
Ice House Track	BBRX	1044	Reefer, Beer
NorthLand Int	PFE	71924	Box
Douglas Yard	RP&M	702	Flat

-- 5 Cars Out, 243 Ft, 180 Tons

ST HELENS

PickUps (3)			
Valley Fuels	C&S	4310	Gondola
Pelkola Packers	D&RG	6437	Stock
McKenzie Lumber	IPP&W	10	Gondola

-- 5 Cars Out, 223 Ft, 144 Tons

IRONWOOD

PickUps (4)			
Ironwood Brick	LV	9	Box
Ironwood Brick	D&RG	9056	Gondola
Mills Windmill Co	TTPX	142	Flat
Mills Windmill Co	RP&M	538	Gondola

-- 5 Cars Out, 243 Ft, 144 Tons

SPRUCE

PickUps (4)			
Spruce Spur	CONX	596	Tank, Oil
McKenzie Lumber	RGS	8512	Box
Valley Supply	LRR	4	Box
Valley Supply	TTPX	119	Flat

-- 5 Cars Out, 240 Ft, 192 Tons

NELSON YARD

SetOuts (5)			
LRR	4	Box	Yard
CON	596	Tank, Oil	Yard
RGS	8512	Box	Yard
IPP&W	10	Gondola	Yard
TTPX	119	Flat	Yard

Time Move Completed _____
Comments _____

continued on next page

At the end of each session cars are placed in trays with colour-coded tags indicating the town or yard location where they have terminated. The trays are then stored in sheds on the property. It's a simple matter of pulling the cars from their storage area at the beginning of the next session (for their gauge) and returning the rolling stock to the same location to start the next run. The RailOp programme takes this continuity into consideration. Train Masters who create these lists can control such variables as specific car types visiting specified industries, which trains will have work in which towns, as well as determining train lengths, to name a few options.



The trays which house the cars between sessions all have a colour-coded tag attached indicating the town location where the cars were left at the end of the last session involving their gauge. They simply begin the next session where they left off last. The gang arrives early to set out the cars to their desired locations. These two crewmates are reviewing the car set-out list for Glen Hammond.



While the scenery down in Rat Portage may not be of the natural variety, the train action is enough to see railfans flock to this location each week to catch double and triple train meets. Pool Train 15 has arrived at the station after heading out to the front property. The "All Aboard" call will announce its departure at any moment. The two RP&M crews will determine the most expedient way to get the passengers through.



With limited real estate, a turntable is an effective way to turn a locomotive at the end of its run. We find this turntable at the western end of the line in Firgrove.

continued on next page

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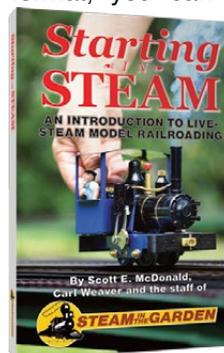
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There is a fifth list, not part of the RailOp programme, which is created by the dispatcher. This is a “crew call” sent out midweek, long in advance of the next operating session. Members contact the dispatcher by midnight Tuesday with their intentions of participating in the following Saturday’s session and any trains they wish to run for the gauge of the week. The dispatcher then assigns all participants to the various train crews and yard assignments and emails the list back to the group by Thursday. Three dispatchers rotate in this role and they get to run trains in both gauges during their two weeks off.

Please note that while RailOp is now obsolete (although we continue to use it successfully) an alternative is available called JMRI. Java Model Railroad Interface offers free on-line tools for setting up train operations and they wish to make it accessible to as many hobbyists as possible. Their website is JMRI.org.

More information at: ovgrs.org
or gardenrailroadottawa.blogspot.com



Enjoying the shade under a stand of evergreens, our engineer switches the local businesses in Cedar Rock. There is no “runaround” track up here, so all moves must be pre-determined before you bring cars up from Peter’s Pond. Some may be shoved up the branch in front of the engine while some may trail behind, often creating a locomotive “sandwich” with freight cars on either side of the crew!

IPP&W Crew Assignments		
Date: Saturday, August 7 th (Session #5) Narrow Gauge		
Dispatcher: Mike Hendrix		
STATION	Yard Master	Assistant
Craig Leigh	Bernie Goodwrench	Mark Papamany
Nelson Yard	Henk Van Nelson	Bill Scoobidoo
Firgrove	George Grovefir	Len Trainer
TRAIN		
IPP&W		
Pgr 2, Pool Train and Pgr 1	Pat Brewster	
3017 311/328	Steve Watsup	Seanna Thatsup
CL-NY-FG-GH Staging		
3027312/319	Robin Rollthedice	Paul Harley
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3277304/314	Paul Henderson	Moe Coteau
GH Staging-FG-NY-CL		
Ore Loads & Empties	Marcel Arizona	
RP&M		
NY-Bell Turn 65-66 plus Transfer	Malcolm McVan	Andrew Preacher
NY-GH – Rat 71		
Transfer NY-GH – Rat 70 plus NY-Bell Turn 67-68	Pat Bruiser	Bob Tradingpost



The crew aboard Train 301 in Ironwood needs to drop the second boxcar (CP “Spans the World”) attached to their locomotive at the trailing siding (the spur that trails behind the locomotive) to the bottom left of the photo. They will then lift the CPRail car in the distance. It is sitting on a facing siding (the spur that faces the locomotive). With their work complete, they will reassemble their train and seek clearance from dispatch to continue west to Spruce.

Valley Train Station

13780 Pipeline Ave
Chino CA 91710

Phone: 909-902-5351

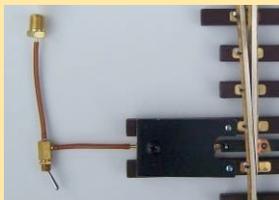
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LUBRICANT RESEARCH FROM DUKE'S CORNER....

I recently did a bit on GSCALE.Net on FaceBook about journal box lube for the axles on my rolling stock. Most of the replies were in favor of Powdered Graphite vs oils as oils will tend to collect dirt and cause abrasion on the axles and journal boxes. Being elevated and not on the ground, this probably isn't a huge worry for me as the elevation tends to keep me out of a lot of dirt and the rains regularly wash off the deck of my layout. Still I am intrigued to find a better way to do almost anything. **Here is my test of powdered graphite.** Please continue to use what you like best; this I did just to try and see if it worked better all the way around.



On the left, I first bought a bottle of powdered graphite from Amazon. It cost \$7.49 + tax for less than One (1) **OUNCE**. On the right, I went to my John Deere Tractor Dealer and bought Two (2) **POUNDS**. It cost me \$10.89 Total for that.

I have a lot of rolling stock...

My next test was to try it out. Simple right? Just squeeze a small puff of it on the axle ends and all is good. Well, I got more on me, my bench and the car than where I really wanted it. I know oil will go into the journal point by capillary action, dry powder goes **EVERYWHERE!!** Must be a better way....



I had bought 5 bottles from Amazon for use on some very expensive penetrating oil "Kroil" and had 3 extras so I decided to experiment.

DISCLAIMER HERE!! I'm NO chemist!

I decided after much internet research to try adding the graphite to a liquid so it would take advantage of the capillary action and also NOT puff out all over everything. My choices were 70% Isopropyl Alcohol and Light Silicone Oil.

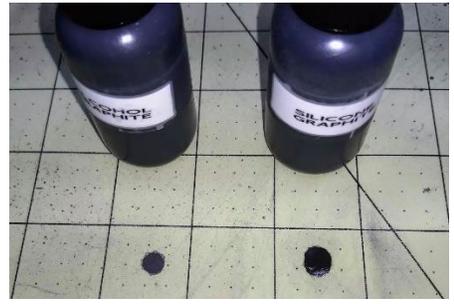


I roughly filled each bottle half full of powdered graphite and the rest with the liquid. These will have to be thoroughly shaken up before each use as they will separate when left standing a few hours.

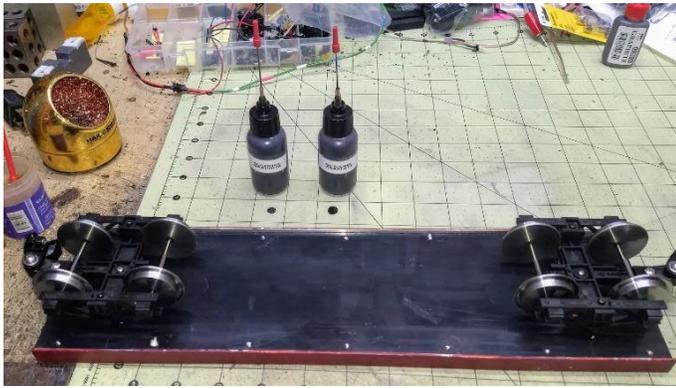


I put a drop of each on the plastic bench mat to see if the liquids would evaporate and just leave the graphite behind as desired. **NOTE **** I was very happy that neither bottle of the mix started to glow a green color and give off high amounts of radiation at this point!

After 3 hours, the 70% Alcohol mix had nicely evaporated leaving only the powdered graphite. The Silicone oil mix had mostly evaporated, but was still a wet sludge, however not bad in my belief.



continued on next page



Application and run test. Here I used a homemade flat car with USAT Trucks and did some testing. The 70% Alcohol mix was easier to apply by a little bit as it went straight where I wanted it to by capillary action. The Silicone mix tended to be more runny and dripped a bit but not bad. Just have to be more careful as it wants to run more.

Then doing wheel & axle spin tests, they pretty much were both equal as far as I could tell. The Silicone mix did spin about 1 second more as close as I could tell.

IN CONCLUSION - I will probably use the 70% Alcohol Mix as it's easy and cleaner to apply vs the dry power by far, and a wee bit over the Silicone Oil Mix.

At any rate, I certainly will not be running out of this lubricant anytime soon!

May 2022 Addendum from Duke: After a year of usage. I did notice that, with 70% alcohol, the powdered graphite would dry out and clog the needle applicator after a few days in storage. This is very easy to unclog with a fine piece of wire; then shake the bottle well to mix the 70% alcohol and the graphite together. This was NOT an issue with the silicone oil as it kept the powdered graphic from drying out completely.

Thanks Duke for the information!

JULY 2021 MGRS NEWSLETTER

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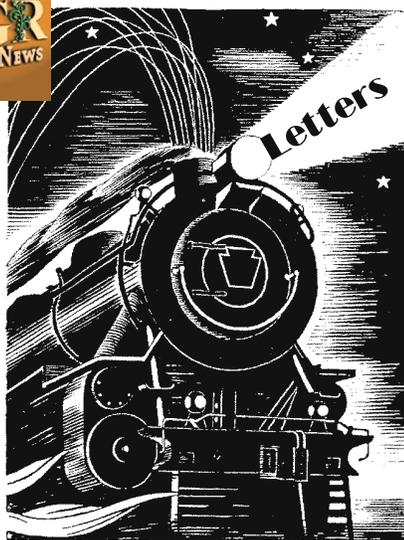
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STRAIGHT FROM THE IRON HORSE'S MOUTH

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Letters will then be addressed accordingly and/or passed on to the author for further edification. Unless marked otherwise, letters to this publication are assumed to be submitted for print. Please include your name and club affiliation. Please note that we may not be able to print all letters, though we will try to respond to them. Letters may be edited for length and clarity. We are unable to answer requests for information about specific products or systems; these are best addressed to the appropriate manufacturer.

Hot Wire Foam Factory Tools: Testimonial & Knock Off Warning

Hi David,

I bought one of your kits from Hobby Lobby two weeks ago. I was in North Carolina visiting my daughter. I was helping her with a school project requiring building a display of the ocean floor. I would not have thought to use Styrofoam had I not known about your products from your ad in our magazine. Since I was only going to be there a week, I looked at the local Hobby Lobby, found the kit you sell through them, purchased it, and it worked great. My daughter learned how to carve rocks with it and we cut the sheet into several layers, shaped them, and glued them in place. Once carved, we painted them and glued sand and ballast to the surface to

look like ocean floor. We even made a cave to house an octopus which now lives there. It looks great. It was a great project to do with her. I loved using your products, and I would not have known about them except for your ads in our magazine. We very much appreciate your support and are pleased we can help you promote your products.

Sincerely, Bill Derville
 GRNews Advertising Manager

Hi Bill,

That hot wire set you bought from Hobby Lobby is a Chinese knockoff

of the tools we've been making for the last 30 years. At least of the dozen or so knockoffs of our tools the set you picked up is one of the better of the bunch. I'd still like you to have the real deal. We're sending you a complimentary Pro 4-In-1 Kit.

Best regards, Dave
 Hot Wire Foam Factory
www.hwff.com

Bill Derville emailed your editor to say, "I got the unit, and it is great, far better and more sophisticated than the one from Hobby Lobby, which is very basic."

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Photos Welcome for Seen on the Tracks

A G Scale Realistic Scene Photo Gallery

Please send uncompressed photo (with caption information describing the scene and rolling stock, railroad name & proprietors, location, and photographer's credit) to:

Editor@GRNews.org; photos may also appear on the *GR News* website and social media.





- AR Greater Hot Springs Garden Railway Society
- Northwest Arkansas Garden Railway Society
- AR/OK/MO*... Ozark Garden Railroad Society
- AZ Arizona Big Trains Operators
- Central Arizona Model RR Club
- Gadsden Pacific Div. Toy Train Operating Museum
- Oracle Community Learning Garden Kid's Railroad
- Sun City West Model Railroad Club
- Tucson Garden Railway Society
- VDO Garden Railroad Club
- CA 1:32 Scale Group
- Bay Area Garden Railway Society
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- Upland Garden Railroad Society
- CO Denver Garden Railway Society
- Grand Valley Model Railroad Club
- Mile High Garden Railway Society
- Northern Colorado Garden Railroaders
- Rocky Mountain Live Steamers
- CT Central Connecticut "G" Gaugers Modular Club
- Central Connecticut "G" Scalers
- D.C./MD/VA* Washington, Virginia & Maryland GRS
- DE First State Model Railroad Club
- Shore Line Garden Railroad
- FL Emerald Coast Garden Railway Club
- Florida Garden Railway Society
- Gulf Coast & Central Florida RR Museum, Bushnell Stn
- Model RR Division of Florida RR Museum
- Tradewinds & Atlantic Railroad, Inc
- West Florida Railroad Museum
- GA Georgia Garden Railway Society
- IA Central Iowa Garden Railway Society
- ID Southern Idaho G-Scale Railroad Society
- ID/WA* Inland Northwest Garden Railroad Society
- IL Chicago Area Garden Railway Society
- LGB Model Railroad Club of Chicago
- Midwest RAILS (Railroaders Active In Large Scale)
- IN Illiana Garden Railway Society
- Indiana Large Scale Railroaders
- KS/MO* MO-KAN Garden Railroaders
- KY/OH* Greater Cincinnati Garden Railway Society
- LA Greater Baton Rouge Model Railroaders
- MA Rusty Rails & Rotten Ties
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- Riverside Railroad Crew
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- OK/AR/MO*... Ozark Garden Railroad Society
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- Medford Garden Railroaders
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- Pennsylvania Garden Rail Society
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| | | Sveriges Tradgardsjarngar (Stockholm) |
| | | CH US G-Scale Friends Switzerland |
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| | | Kent Group: G Scale Society |

* Club/Society includes members from multiple states and is listed under each state.

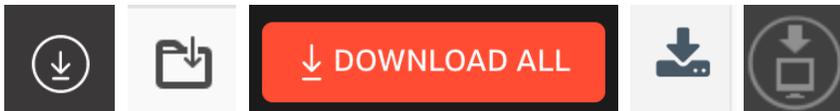


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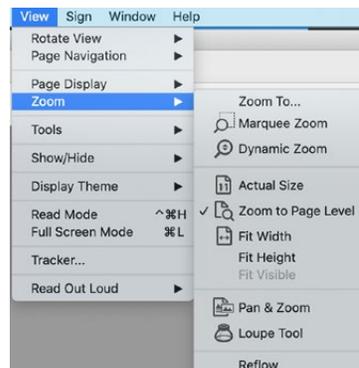
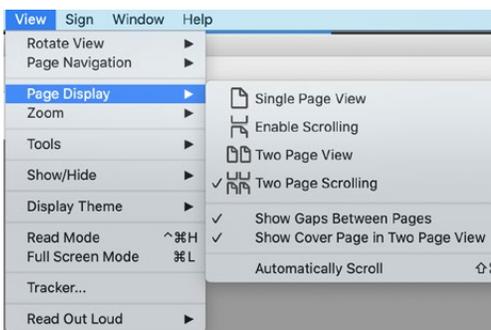
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