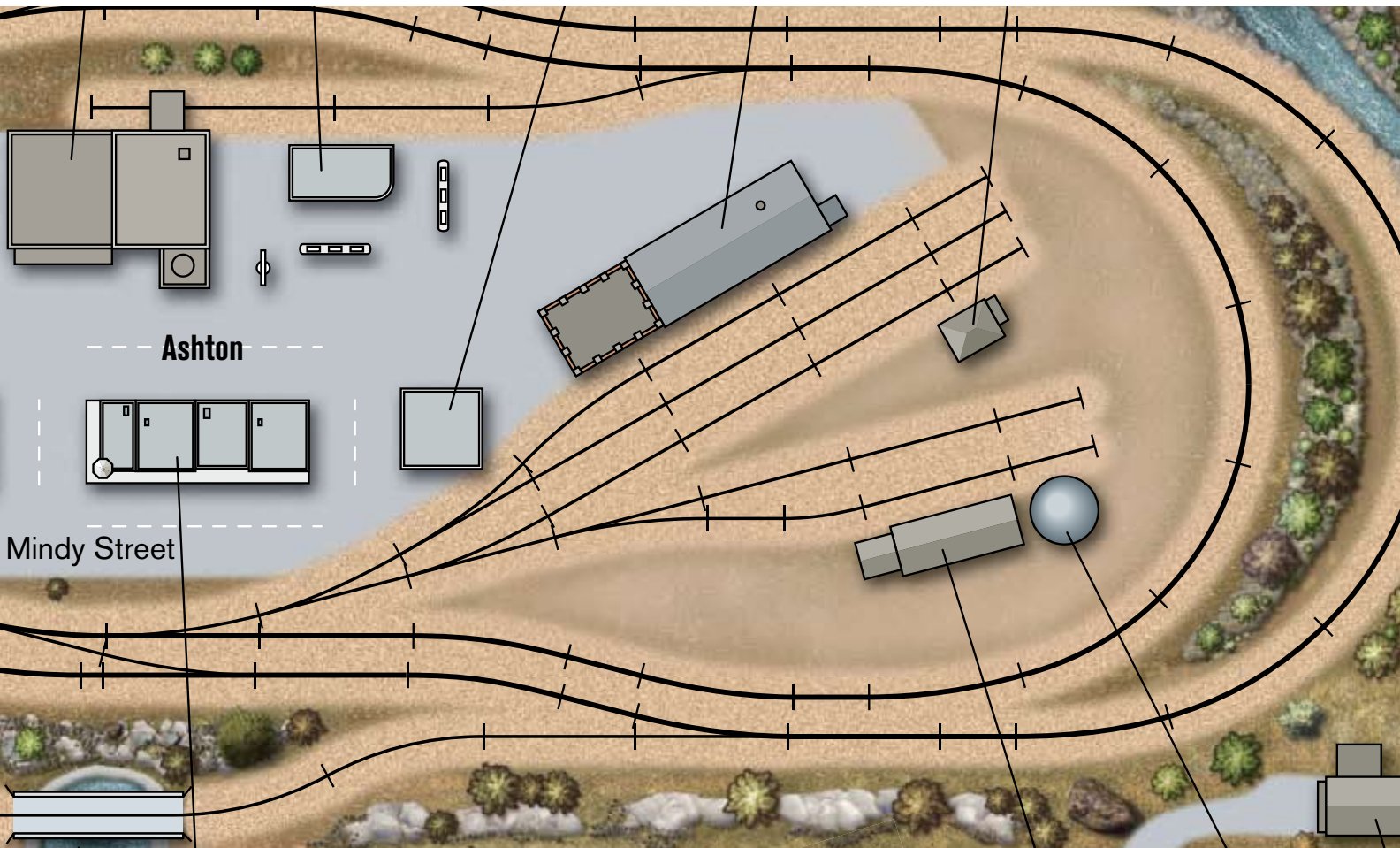


# Information Station DIGITAL DOWNLOADS



## Model railroads for small spaces

**Model  
Railroader**  
MAGAZINE



# Big-city railroading in a small apartment room

This HO scale shelf layout provides hours of model railroading enjoyment

By Howard Scodras • Photos by Peter Nesbitt

One reason many modelers never build a layout is that they think they don't have the space. Well, I've lived in apartments most of my life and can tell you that building a model railroad is possible, even if you don't have much room to spare. In fact, I was able to fit my HO scale Ontabec Central

shelf layout, a staging yard, spray booth, and small workbench into a 9½ x 11-foot spare room in my apartment.

When my wife and I lived in smaller apartments, I built model railroad dioramas. Sure, the dioramas weren't layouts, but they kept my modeling skills sharp and allowed me to try different

**1. Above:** When Howard Scodras designed the HO scale Ontabec Central, he wanted to re-create a big-city industrial area with lots of switching and street running. As OC Alco RS-1 no. 900 arrives at the Overbrook yard with a cut of cars, a Canadian National Budd Rail Diesel Car passes overhead.

techniques. When I began work on the Ontabec Central in 1992, I was able to apply the skills I gained building dioramas to my layout. Even though most of my model railroad is only 2'-4" wide, I made it appear bigger by modeling a big-city industrial area that features tall buildings, street running, and plenty of switching opportunities.

### A pleasant problem

When my wife and I decided to move into this apartment, I quickly commandeered the spare room for my model railroad. She agreed, but issued the following caveat: All train-related activities, including building, painting, and storage of materials, must be done in the layout room. With the ground rules established, I began planning how to most effectively fit all these elements into the 9½ x 11-foot room.

It quickly became apparent that I would have to use the space under the layout for storage. At first I was concerned that storing items here would make layout wiring and maintenance difficult. Those concerns were quickly put to rest, though. I wired my shelf layout as a single block, and connected all the track to two no. 14 bus wires that terminate at a ¼" two-conductor jack installed on the fascia panel (see wiring illustration on page 65).

Since my operators have both DC and Digital Command Control (DCC) locomotives, I installed two matching ¼" phone plugs that are connected to the DC and DCC power supplies.

To make troubleshooting easier for the five turnouts powered by Tortoise switch motors, I extended the eight contacts of each motor to the front of the layout with eight-conductor cables terminating at screw-type terminal strips. The power supply for the switch motors also terminates here, but at a separate strip. This wiring arrangement makes it possible to reach all switch-motor connections without having to crawl under the layout. Even though my layout wiring is simple, I took detailed notes and drew diagrams so I wouldn't lose track of the under-benchwork circuits.

### Taking it to the streets

As much as I take pride in the simplicity of the benchwork and wiring, the model railroad itself is the centerpiece of the room. I wanted the layout to be a re-creation of the scenes and type of railroading that I recalled as a child growing up in Montreal. The tall buildings, rail lines winding through the streets, and ample switching opportunities were all a must for the Ontabec Central RR.



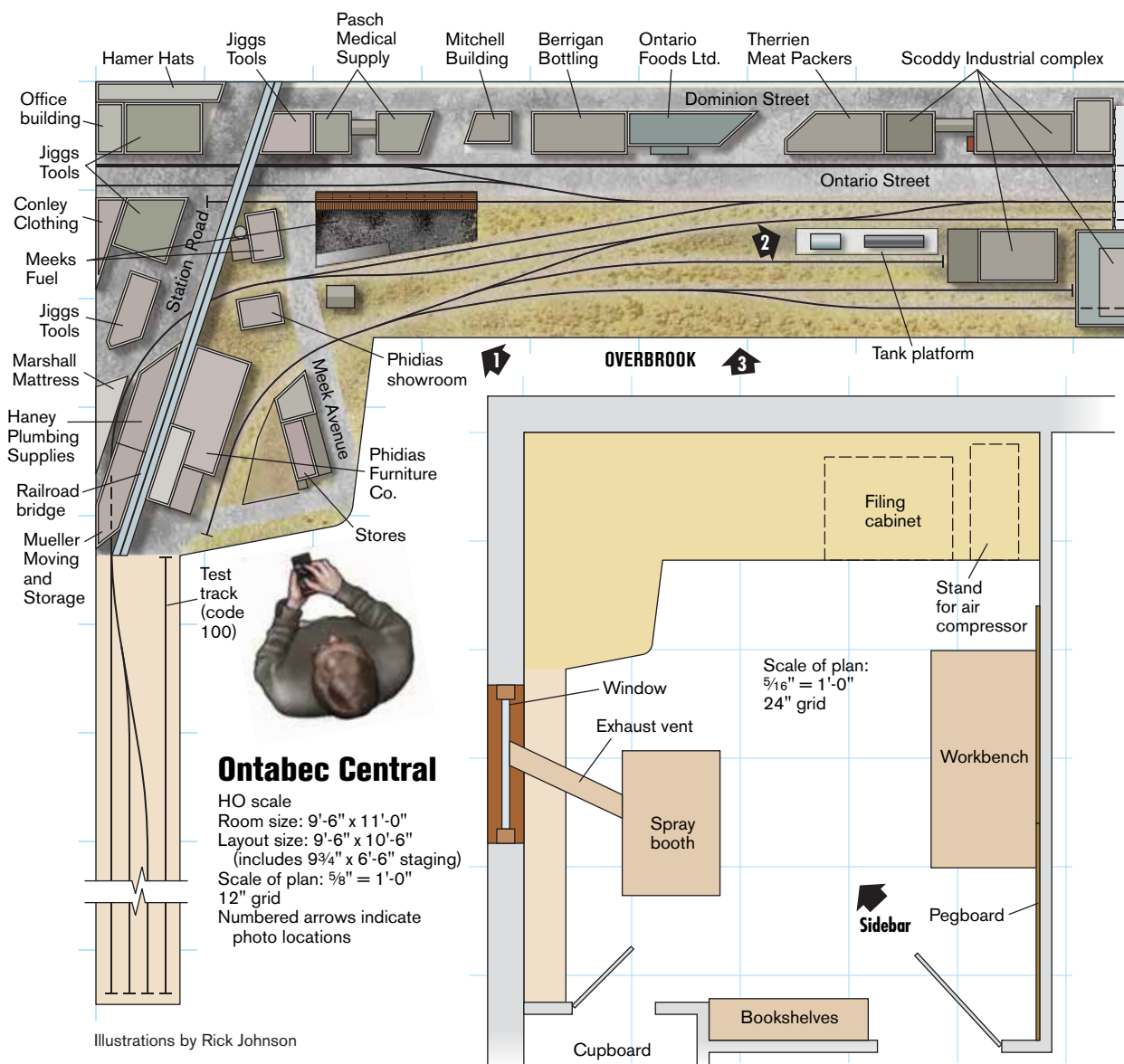
2. Scoddy Industries is the biggest business in Overbrook, so it requires regular switching. Canadian Pacific Alco S-2 no. 7019 is assigned to switch the plant today. With only one boxcar to deliver, the crew's work shouldn't take too long.

## DISGUIISING hidden storage



Since my model railroad, spray booth, workbench, and supplies are all in one room, I had to use the space beneath the layout for storage. However, I needed a way to hide the stored items.

Since I'm not a seamstress, I knew sliding drapes were out. Then, while purchasing a Venetian blind for our kitchen, I thought, "These would also work great for the layout." I purchased enough Venetian blinds to go around the model railroad. The blinds add a touch of class to the layout, and they do a great job of keeping stored materials out of plain view. — H.S.



## Ontabec Central

HO scale  
 Room size: 9'-6" x 11'-0"  
 Layout size: 9'-6" x 10'-6"  
 (includes 9¾" x 6'-6" staging)  
 Scale of plan: 5/16" = 1'-0"  
 12" grid  
 Numbered arrows indicate  
 photo locations

Illustrations by Rick Johnson

### Layout at a glance

**Name:** Ontabec Central  
**Scale:** HO (1:87.1)  
**Size:** L-shaped 9'-6" x 10'-6"  
 (includes 9¾" x 6'-6" staging)  
**Prototype:** free-lance  
**Locale:** urban  
**Era:** 1950s  
**Layout style:** shelf  
**Length of mainline run:** 12 feet  
 plus 6 feet in staging  
**Layout height:** 48½"  
**Benchwork:** open grid  
**Roadbed:** cork on 5/8" plywood  
**Track:** code 70  
**Turnout minimum:** no. 4  
**Minimum radius:** 20"  
**Maximum grade:** 0  
**Scenery:** plaster covered with  
 ground foam  
**Backdrop:** foam core  
**Control:** DC and Lenz Digital  
 Command Control

I was further inspired to model large urban scenes after seeing the work of George Sellios and Earl Smallshaw. However, I kept asking myself, "With my small space, how can I emulate the work of these modelers?" The answer to the space issue was a small switching layout. The setting for my 1950s-era model railroad is the streets of an urban industrial area on the edge of a large city. I borrowed the Ontabec Central name (an amalgam of the two Canadian provinces I've lived in, Ontario and Quebec) from a 2 x 4-foot diorama I had built earlier.

Since my goal was to model big-city railroading, structures needed to dominate the scenery. I scratchbuilt, kit-bashed, and modified buildings in a variety of heights, depths, and colors to create a realistic urban environment.

### Bringing the OC to life

A typical operating session begins with Ontabec Central Alco RS-1 no. 900 leaving the staging yard for Overbrook. The train has up to eight cars that it sets

off at the Meek Avenue siding. The locomotive then pushes any cars left on the runaround track from the previous operating session back to staging.

After the OC locomotive is back in staging, Canadian Pacific Alco S-2 no. 7019 begins its work. The crew assigned to this job faces some unique challenges. For example, a number of industries are served by a single siding that runs along Ontario Street. To reach these industries, other cars have to be temporarily moved off spot.

The inclusion of facing and trailing sidings offers additional switching problems as well. Crews must do some careful planning before they begin switching as there are several industries located in and around Meek Avenue siding.

### Small layout, big benefits

I learned very quickly that careful planning is important if a small layout is to be a success. When I was drawing the track plan I realized I needed a runaround track for the type of opera-

tions I wanted. After studying the layout, I decided the best location would be Meek Avenue siding because it gives crews the most room to work.

The lack of a long mainline run is the big disadvantage of a small layout like mine. On the other hand I've found that my small layout has some advantages. From a financial perspective my layout was ideal because it didn't require much benchwork material. I've also found cleaning and electrical troubleshooting to be much easier.

Another benefit is the limited amount of equipment needed. My motive power fleet consists of a Canadian Pacific Alco S-2 and an Ontabec Central Alco RS-1. These two units are enough to keep trains moving during operating sessions.

My freight car roster has approximately 30 cars. Since I knew early on I wasn't going to need much rolling stock, I purchased high-end kits and added details such as uncoupling levers, brake hoses, and underbody details. I also installed semi-scale wheelsets and Kadec no. 58 scale couplers before I weathered the cars and put them on the layout.

### Always more to do

The Ontabec Central has turned out to be all I expected and more. Now that the layout is fully operational, I can complete other projects I've been meaning to do. This suits me just fine as I find the building aspect of the hobby most enjoyable. I let members of my Friday night operating crew run the layout.

Currently I'm adding details to structures such as fire escapes, roof vents and pipes, and signs. I also have to finish installing sidewalks and assorted street-related details. All of these projects will greatly enhance the layout's appearance and give the Ontabec Central a big-city feel. **MR**



### Meet Howard Scodras

Howard and his wife Gerry live in Ottawa, Ont., Canada. He became interested in model railroading when he built a Globe HO scale boxcar kit in 1950. Howard, a retired Bell Canada technician, credits Jacques Therrien, Mike Hamer, and his wife Gerry for making the OC a success.



**3. To make his shelf layout appear deeper, Howard used a combination of structure kits, low-relief buildings, and backdrop cutouts. Examples of low-relief buildings and backdrop cutouts can be seen behind the structure kits. The terminal strips, control panel, and fascia boards are all visible in the foreground.**

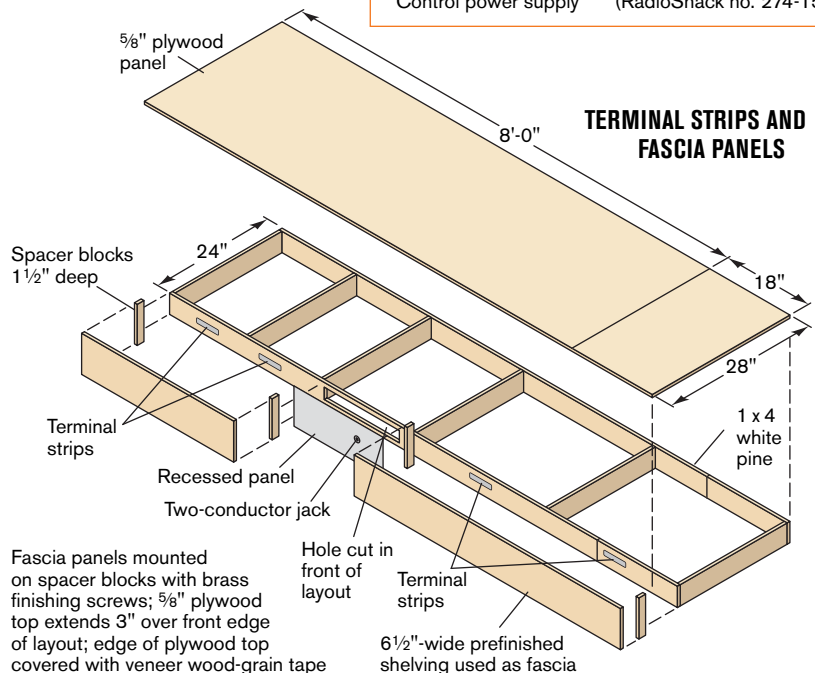
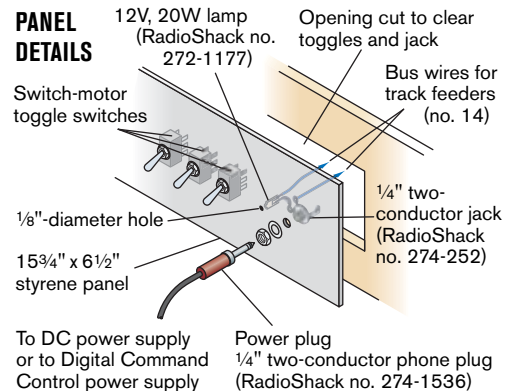
## QUICK and EASY fascia panels

The wiring for the switch machines runs to screw-type terminal strips mounted on the face of the benchwork. I didn't want the wiring exposed, so I decided to conceal the terminal strips with fascia panels.

I wanted the fascia panel to have a wood-grain finish but didn't want to spend a lot of time sanding and staining wood. Then I remembered that prefinished shelves have a simulated wood finish. I purchased the shelves and had a friend cut them to size in his workshop.

Before I could install the fascia panels, though, I had to install 1½"-deep wood spacer blocks. Next, I secured the panels to the blocks with brass finishing screws. To finish the project I covered the front of the 5/8" plywood layout deck, which extends 3" over the front edge of the benchwork, with a veneer wood-grain tape.

The fascia panels look great and give the layout a finished, professional look. — H.S.

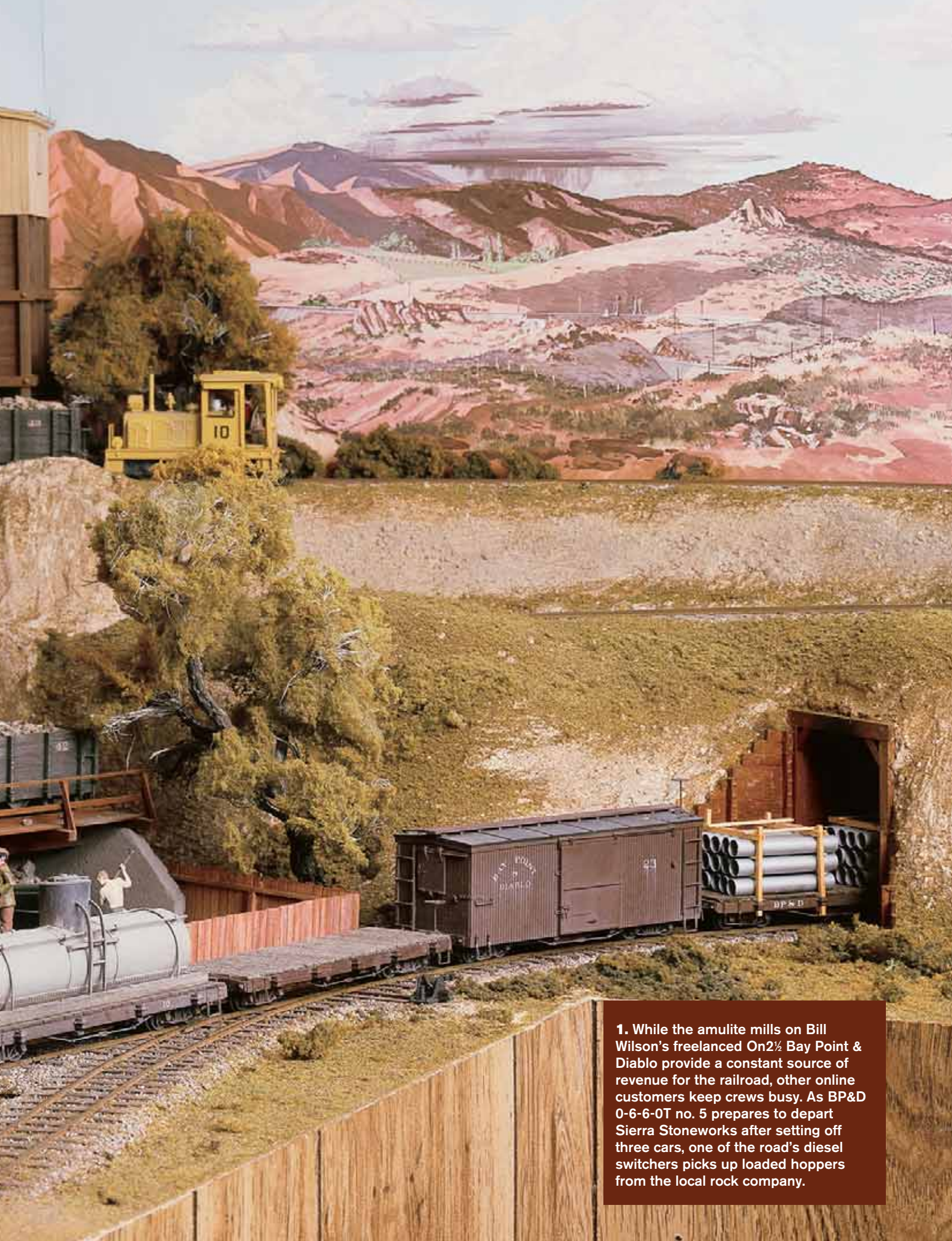


A detailed model railway layout featuring a steam locomotive, freight cars, and industrial buildings on a hillside. The locomotive is black with "MAY POPE & DIABLO" and the number "5" on its side. It is pulling several dark freight cars. In the background, there are two large buildings: one with vertical corrugated metal siding and a tall chimney, and another with horizontal wooden siding. The scene is set on a hillside with a rocky outcrop. In the foreground, there is a wooden structure with a sign that reads "SUBSISTENCE" and a "RAIL CROSSING" sign. A small figure of a person is visible near the locomotive.

# Narrow gauge in a small room

Ore trains and mixed freights keep operators busy on this freelanced On2½ layout

By **George Hall** • Photos by the author



1. While the amulite mills on Bill Wilson's freelanced On2½ Bay Point & Diablo provide a constant source of revenue for the railroad, other online customers keep crews busy. As BP&D 0-6-6-0T no. 5 prepares to depart Sierra Stoneworks after setting off three cars, one of the road's diesel switchers picks up loaded hoppers from the local rock company.

There are many schools of thought when it comes to O scale narrow gauge modeling. You can build your equipment to On3 (3 feet between the rails), On2 (2 feet between the rails), or even Om (meter gauge) standards. The newest addition to the O narrow gauge family, however, is On2½ (2½ feet between the rails). While the gauge was uncommon in North America, except for some industrial and agricultural lines, it has one big advantage for the modeler because On2½ models run on HO gauge track.

When Bill Wilson became interested in narrow gauge modeling, he chose On2½. He likes narrow gauge so much that he's built four layouts in On2½, his newest being the Bay Point & Diablo.

Bill has many reasons for liking narrow gauge, one of which is the space requirements for a layout. "Visually it's bigger than HO, yet it's operated in a space that would accommodate an HO layout," Bill said.

With lessons learned from three previous On2½ layouts, Bill made the BP&D a showcase for what's possible in On2½. He now lays track by hand, and he kitbashes and scratchbuilds locomotives and structures. Even though the track plan is fairly simple, operators keep busy running ore trains and mixed freights on the narrow gauge layout.

### Making the switch

Prior to making the switch to On2½ in the late 1970s, Bill was an active HO scale modeler. He started work on two small On2½ layouts but moved before he could make much progress on them. When Bill started work on his third layout, he decided to make it portable. "I built the layout on four hollow-core doors," Bill said. "This arrangement works fairly well. The layout was designed to be moved in four separate sections, but the flat top made it hard to do scenery."

Before moving from Washington back to California in 1990, Bill sold the layout and built an around-the-walls shelf layout in a spare bedroom at his new home. The shelves, which are 18" and 24" wide, are bolted together. To increase the layout's operating potential, Bill extended the model railroad into a walk-in closet.

The spare bedroom is more than just a layout room, though. Bill's workbench and spray booth are located underneath the layout.

### Finding inspiration

The inspiration for the BP&D came from the Bay Point & Clayton, a standard gauge railroad that operated a



**2.** During an operating session an ore train and mixed freight work the layout. The photographer caught up with both trains as they crossed Diablo Creek. The loaded ore train is going to the Bay Point Amulite Mill, while the freight is on its way to Clyde to do some switching.

nine-mile line between the northern California communities of Bay Point and Cowell during the first half of the 20th century. The railroad transported cement, agricultural goods, and rock.

With a few twists to the real railroad's history, the Bay Point & Diablo was born. While locations such as Clyde, Bay Point, and Cowell Junction are real, other facets of the railroad are made up. According to Bill's version of history, the 12-mile BP&D is a wholly owned subsidiary of the Diablo Amulite Co. The railroad transports a product called "preformulated amulite" from the mine at Diablo to the pier near Bay Point. Bill and his operators heard about preformulated amulite during a technological hoax on a local television station.

"Originally the BP&D was going to haul cement, much like the Bay Point & Clayton," Bill said. "But my friends and I wanted something different. We got a kick out of the amulite story on

television, so we developed industries on the layout that handled the product."

Bill and his operators have defined what amulite is over the years. "Amulite is a very dense product of unknown quantity and composition," Bill said. "During an operating session a fellow was switching tank cars into the amulite mill and asked why the cars were needed. We decided it was oxidizer for the amulite."

### It's all about details

On his earlier layouts, Bill used stock HO track and hid the ties with ballast. While the trains ran fine, Bill wanted the track on the BP&D to look closer to O scale proportions, so he started laying it by hand.

Bill cut the ties from a piece of first-growth redwood on a table saw. He likes to use redwood because it's soft, so spikes go in easily. The only drawback to redwood, according to Bill, is that it doesn't take stain well.





Once the ties were cut, Bill spiked code 70 rail in place. He laid the turnouts using kits from BK Enterprises [available from Tru-Scale Models, 12874 County Rd. 314B, Buena Vista, CO 81211; troutcreekeng.com – Ed.]. Peco also offers On2½ track with narrow gauge tie length and spacing.

### Kitbashing and scratchbuilding

Bill enjoys being able to use items from various scales on his On2½ layout. For example, he used modified Atlas HO scale water towers in the yards at Diablo and Bay Point. The Warren truss bridge over Diablo Creek is also from Atlas. The bridge had to be kitbashed to accommodate the larger scale trains.

In instances where Bill needs a building to fit a specific space, he'll scratchbuild the structure. Bill made some of the structures, including the Diablo Creek trestle and all of the tunnel portals, from the same piece of redwood he used for the ties. "I cut the redwood into strips, some as small as a scale 1 x 2, on a 10" table saw," said Bill. "Unfortunately, there's a lot of waste. The saw blade is ⅛" wide, so I'm losing



**3.** Amulite, a fictitious natural material, is the major commodity shipped on the BP&D. In fact, the railroad is a wholly owned subsidiary of Diablo Amulite Co. Here, BP&D Heisler no. 3 spots empty ore cars at the mill in Diablo.



### Kitbashing and scratchbuilding locomotives in On2½

When Bill got into On2½ modeling, only a small number of locomotives were available. This led Bill to begin scratchbuilding and kitbashing to get engines for his layout. The following is a list of components Bill used to make each of the locomotives shown from left to right above.

- **BP&D diesel switcher no. 10:** Athearn HO scale Hustler chassis, NorthWest Short Line power diesel truck unit, scratchbuilt cab, and hood from a Bachmann Plymouth switcher.
- **BP&D 0-6-6-0T no. 5:** Mantua HO scale 2-6-6-2 with lead and trailing trucks removed, V&T Shops cab and oil bunker, Tomalco Sn3 domes, and new drive.
- **BP&D Center-Cab diesel switcher no. 12:** Walthers HO scale SW1 chassis, scratchbuilt cab, and two hoods from Bachmann Plymouth switchers.
- **BP&D Shay no. 4:** U.S. Hobbies 15-ton Shay with modified cab and Precision Scale motor.

"I try to make my locomotives look like O scale models, not converted HO scale models," Bill said. "I fill every crack on my locomotives with lead for added traction. I have to overhaul the mechanisms periodically because of the extra weight on the locomotives and the steep grades on the layout." – G.H.

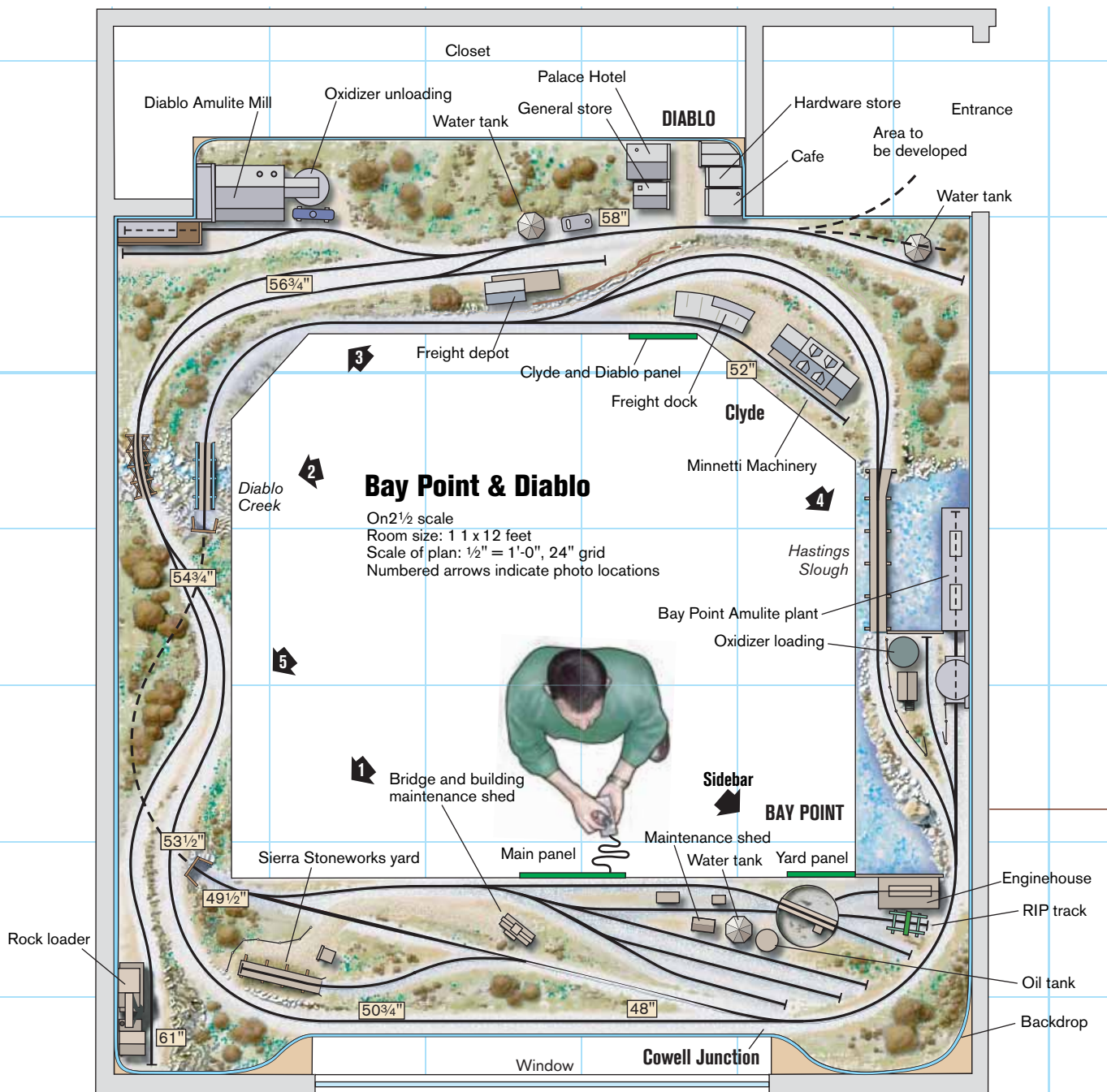


Illustration by Robert Wegner

1/8" to get a 1/2" piece of wood. For projects that require smaller strip stock, I use Kappler scale wood and Evergreen styrene strip."

### Scenic elements

Bill made the scenery base for his layout by spreading Structolite plaster over window screen. He added Mountains in Minutes rock castings to give his scenery more texture. To complete the scenes, Bill applied various shades of Woodland Scenics ground foam and installed several of the firm's trees.

The Bay Point & Diablo is populated with figures manufactured by Artista. Bill repaints many of the figures so they don't look like those found on other model railroads.

### Narrow gauge operations

An operating session on the BP&D requires three operators – two who serve as engineers and one to be both a dispatcher and brakeman.

During a session Bill and his crew run two trains. The first is an ore train that runs between the two mills. The second is a mixed train with freight cars and a combination coach.

The engineer of the ore train starts by getting his locomotive and caboose at the Bay Point yard. Then the engineer backs the caboose hop over to the Bay Point Amulite Mill and picks up empty ore cars. The train then makes one complete trip around the layout before stopping at the Diablo Amulite Mill to drop off its empties and pick up loads.



### ▶▶ Meet Bill Wilson

Bill Wilson has been interested in prototype and model railroading since childhood. His father worked for the Southern Pacific as a bridge tender. As a youth, Bill had a Marx windup tinplate train and later began modeling in HO scale.



**4.** Bay Point & Diablo no. 5, an 0-6-6-0T, leads a mixed train near Hastings Slough. The engineer assigned to the mixed

train is responsible for switching all of the industries on the layout except for the amulite mills.

## ►► Layout at a glance

**Name:** Bay Point & Diablo RR  
**Scale:** On2½ (1:48 proportion, 2½-foot gauge)  
**Size:** 11 x 12 feet  
**Prototype:** Bay Point & Clayton RR  
**Locale:** San Francisco Bay  
**Era:** Early 20th century  
**Layout style:** around the walls  
**Length of mainline run:** 33½ feet  
**Layout height:** 52" to 61"  
**Track:** handlaid  
**Turnout minimum:** no. 5 (main line), no. 4 (yard)  
**Minimum radius:** 24"  
**Maximum grade:** 5 percent  
**Scenery:** Structolite over screen  
**Backdrop:** Instant Horizons backdrops applied to walls  
**Control:** Cab control



**5.** Bill used an assortment of commercial products, including Woodland Scenics ground foam and Instant Horizons backdrops, to scenic his layout. All of the scenery products are visible in this photo of a BP&D freight near Diablo Creek.

The mixed freight works the other industries on the layout. The engineer of this train is responsible for dropping off less-than-carload lot traffic at the Clyde freight station and spotting hoppers at the rock loader. Bill says operating sessions, which take roughly two hours, can really test the skills of the operators. "With two trains sharing a single-track main line, things can become hectic," Bill said. "If the trains are

short enough, a meet can be set up at Clyde. Some operators like to do saw-by meets here."

### Future goals

Bill is working on several small projects to enhance his layout, including adding interior lighting to the structures. He is also in the process of equipping all of his locomotives with constant lighting.

Down the road Bill would eventually like to expand the BP&D by adding more industries, lengthening the main line, and increasing siding capacity. Since his model railroad is freelanced, Bill knows he has some leeway in how he makes these additions. "One of the best aspects of this layout is that it doesn't lock me into modeling anything specific," he said. "But I still want the layout to run and look like a real railroad." **MR**

# Start big, finish small



Dreams of an HO scale empire yield to this compact Great Northern N scale layout

By Don Culp

Photos by the author

**L**ike many other model railroaders, I intend to construct a big HO scale layout. Someday. As life would have it, however, those lofty aspirations were put on hold several years ago when I moved into a new home with an unfinished basement. While waiting for my plans to materialize into finished walls, I desperately needed something to model.

Although at heart I'm really an HO scale model railroader, I've always been intrigued with N scale trains. More than once, I've thought how neat it would be to have a few. Being without any other outlet for modeling, those thoughts translated into the Havaphew Central, my first N scale layout.

I modeled the railroad to represent Great Northern Railway operations in

the Pacific Northwest. The fact that Great Northern tracks once traversed the area where I now live made the railroad an appealing prototype to model. The period for my layout is loosely set between the late 1950s and the early 1960s. While I strive to maintain a reasonable degree of period awareness, I tend to model simply for the pleasure of doing so rather than trying to reconstruct a specific time or place.

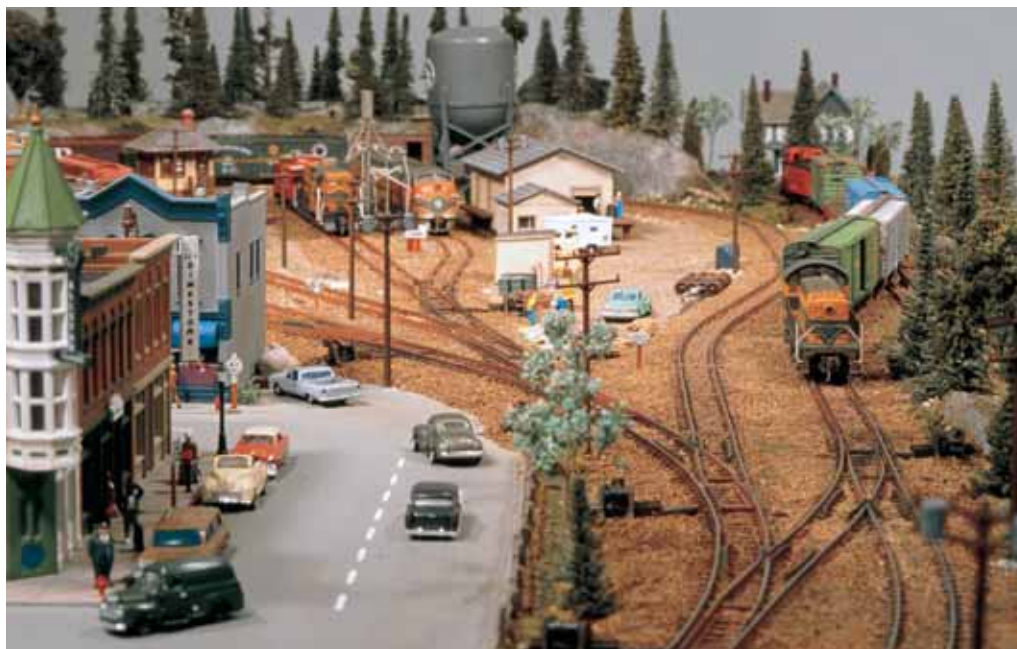
## Framework

Measuring only 2½ feet wide and 5 feet long, the layout is indeed compact. I built it 32" high with the thought that I could sit in a normal desk chair to operate trains. The open-grid framework is assembled from 1 x 4 lumber, a ½" plywood top, and 2 x 2 legs. Although

1. Powered by Great Northern GP7 no. 624, a westbound local rumbles past the business district of Ashton, a fictional community on Don Culp's 2½ x 5-foot N scale Havaphew Central.



2. Judging by the array of realistically weathered locomotives and rolling stock spotted in Welsh Yard, Don's collection now includes more than just "a few" N scale items. For Don, collecting equipment is just as enjoyable as operating it.



3. With a day's work in tow, GN RS-1 no. 183 prepares to switch off the main line. The crew looks forward to ending their trick in Welsh Yard and heading to the bustling business district of downtown Ashton.

the layout isn't particularly heavy, casters on the legs make it easy to move. The backdrop, made from ¼" hardboard fixed to a 1 x 2 wood frame, extends 10" above the surface of the layout.

To help re-create the rugged skyline typical of the Pacific Northwest, I first covered the backdrop surface with light blue (flat finish) latex paint and then used spray adhesive to apply commercially printed background scenes from Detail Associates.

### Track and power

You might recognize the track plan as an Atlas original that I modified into an expanded double-loop scheme. Following the design, I used Atlas Snap Track secured to cork roadbed with track nails. The Atlas Custom Line manual turnouts

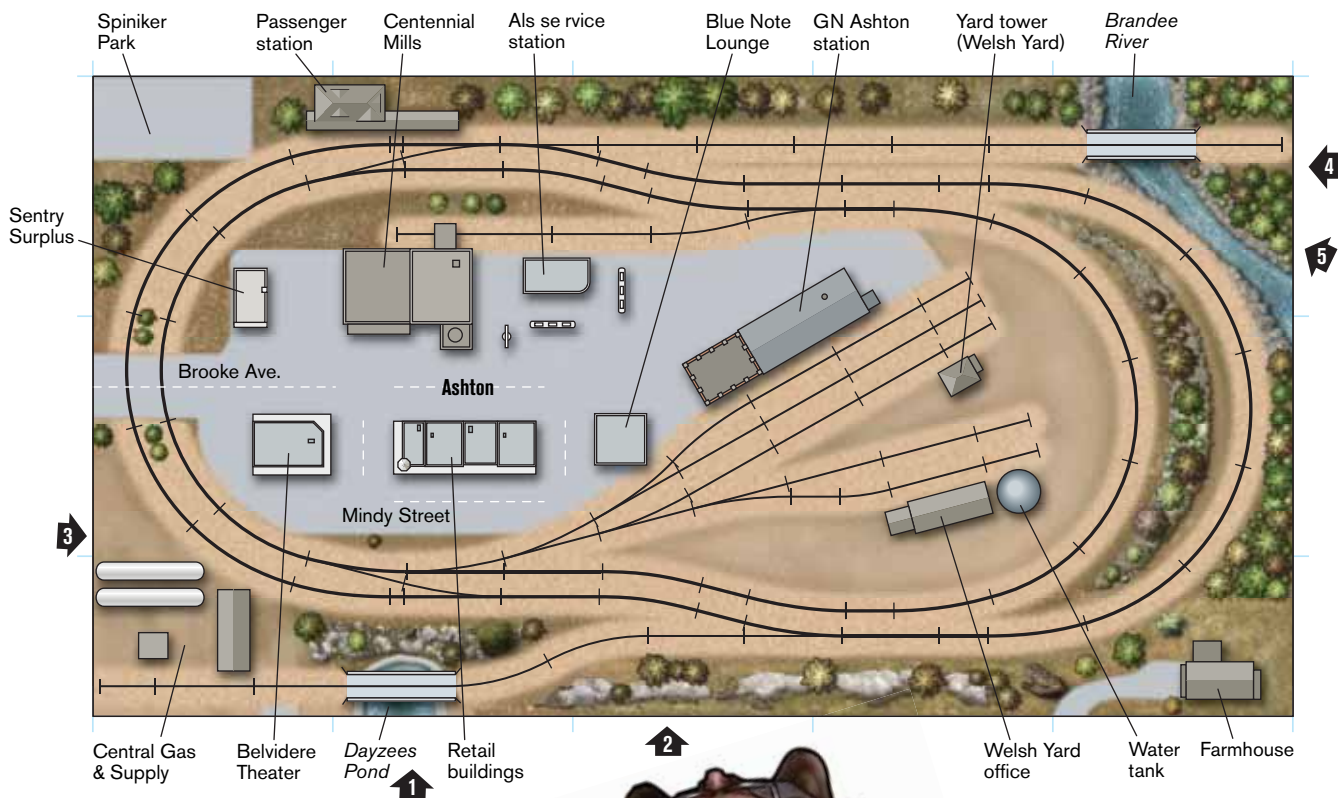
## CRAFTING the trees

**Although most of the trees** on the Havaphew Central are commercial products from Woodland Scenics and Life-Like, I also made several of my own.

Many of the evergreens are crafted from a material called bumpy chenille found at craft stores. Bumpy chenille is a fine plastic strip material that's twisted into a wire stem. Each length of chenille has several conical shapes or bumps that resemble evergreen trees attached end to end. I used a sharp pair of wire cutters to cut them apart to form individual trees.

For model railroad purposes, the material is too shiny and uniform as it comes. I did a little random pruning with scissors so their shape would be less uniform. Then I stuck the tree trunks into a sheet of scrap cardboard to hold them upright while I covered them with a dark green (flat finish) spray paint that's normally used for painting dried flowers. Once the paint dried, I dribbled diluted white glue onto each tree and then sprinkled on subtle hues of green ground foam to add texture.

Other trees and wooded growth I made using ground-foam-coated twigs, dried candy tuft, and some real twigs to represent logs and stumps. — D.C.



## Don Culp's Havaphew Central

N scale  
 Scale of plan: 1 1/4" = 1'-0", 12" grid  
 Numbered arrows indicate photo locations

Illustration by Rick Johnson and Elizabeth Kelly

### More on our Web site

To view a detailed sectional track plan of the Havaphew Central, please visit our Web site [www.modelrailroader.com](http://www.modelrailroader.com)



**4. Unfettered by the arriving passenger train, the crew of GN SW9 no. 16 continues switching at Centennial Mills. A double-loop track plan, divided into 10 electrical blocks, makes it possible to operate two trains independently.**

are operated by ground throws from Caboose Industries. Following installation, I sprayed the track with a combination of flat rust and black paints, applied Woodland Scenics ballast, and then cleaned the top of the rails. The plan also includes a Warren truss bridge and a plate girder bridge, both from Atlas.

Power to the rails comes from an MRC Tech II Dual Power 2800 power pack. With the double-loop design broken into 10 separate blocks, I can have two trains running at the same time. One train can run continuously on the outside loop while I switch with another locomotive on the inside loop.

### Landscaping

Hydrocal, paper towels, and cardboard forms cover the layout surface. I painted the landscaping with diluted acrylic paints and added ground covering from Woodland Scenics. Although I made several Hydrocal rock castings using molds from Woodland Scenics, I also included a few real rocks that amount to N scale boulders. Hydrocal, stippled for a wave effect, provided the basis for water that I painted with acrylics and coated with gloss medium.

### Locomotives and rolling stock

What starts out as "a few" trains can easily turn into a few too many, especially on a small layout. Although I'm not always certain exactly where an item will fit on my layout when I acquire it, I'm never hesitant to add something to my collection and worry about where it fits on some other day.

Like many model railroaders, I've found collecting equipment can be just as enjoyable as operating it. As it now stands, I have a full roster of locomotives and rolling stock on the Havaphew Central. All of my equipment is fitted with Micro-Trains couplers and realistically weathered using water-based paints and powdered pastels.

The appearance of a model is typically what attracts me first, but reliable, high-quality performance has become increasingly important as I gain experience. If rolling stock doesn't function well, it can quickly become a source of recurring frustration.

### Structures and vehicles

The structures are all kits from Walthers Cornerstone, Stewart Products, Plastruct, Model Power, Heljan, and Atlas. Due to space limitations, I had to refine my selection to suit a particular need or location. As with my rolling stock, I weathered all the structures using powdered pastels and then sealed them with Floquil Figure Flat.

The vehicles I have on the layout are from Champion, Con-Cor, Detail Asso-

## »» Layout at a glance

**Name:** Havaphew Central

**Scale:** N (1:160)

**Size:** 2'-6" x 5'-0"

**Prototype:** free-lanced Great Northern

**Locale:** Pacific Northwest

**Period:** 1950s to 1960s

**Layout style:** free-standing portable

**Layout height:** 32"

**Benchwork:** open grid

**Roadbed:** cork

**Track:** Atlas Snap Track

**Length of mainline run:** 13 feet

**Turnout minimum:** Atlas Custom Line

**Minimum radius:** 9¾"

**Maximum grade:** 0

**Scenery:** Hydrocal and paper towels over cardboard forms

**Backdrop:** ½" hardboard

**Control:** cab control



5. Great Northern E7A no. 504 leads an eastbound passenger train over the Brandee River and into deeply forested terrain.



6. This overall view of the Havaphew Central reveals just how much Pacific Northwest scenery and railroad operation Don captured in a few square feet.

ciates, Mini Metals, and Road Apples. Although the Champion vehicles are actually a collection of toy cars that are slightly larger than true N scale proportion (1:160), they are fairly nice representations that look fine when placed strategically on the layout.

All of the vehicles have been detailed to include painted headlights, tail lights, and door handles. It really isn't that difficult to do in this small scale, provided you use a very fine brush and a magnifying lamp.

### Figures and details

The layout population includes an assortment of figures and animals from Model Power, Preiser, and Rustic Rails. I repainted some of the figures and even did a little plastic surgery on a few of them to change their positions.

Changing the positions of plastic figures, can be done using tweezers to

hold them close to (but not touching) a hot soldering iron, or by cutting away appendages and then gluing them back in a modified position.

To add even more visual interest to the layout, I placed an array of plastic and cast-metal details including signs, telephone poles, garbage cans, and miscellaneous parts from my scrap box.

### A start to something bigger

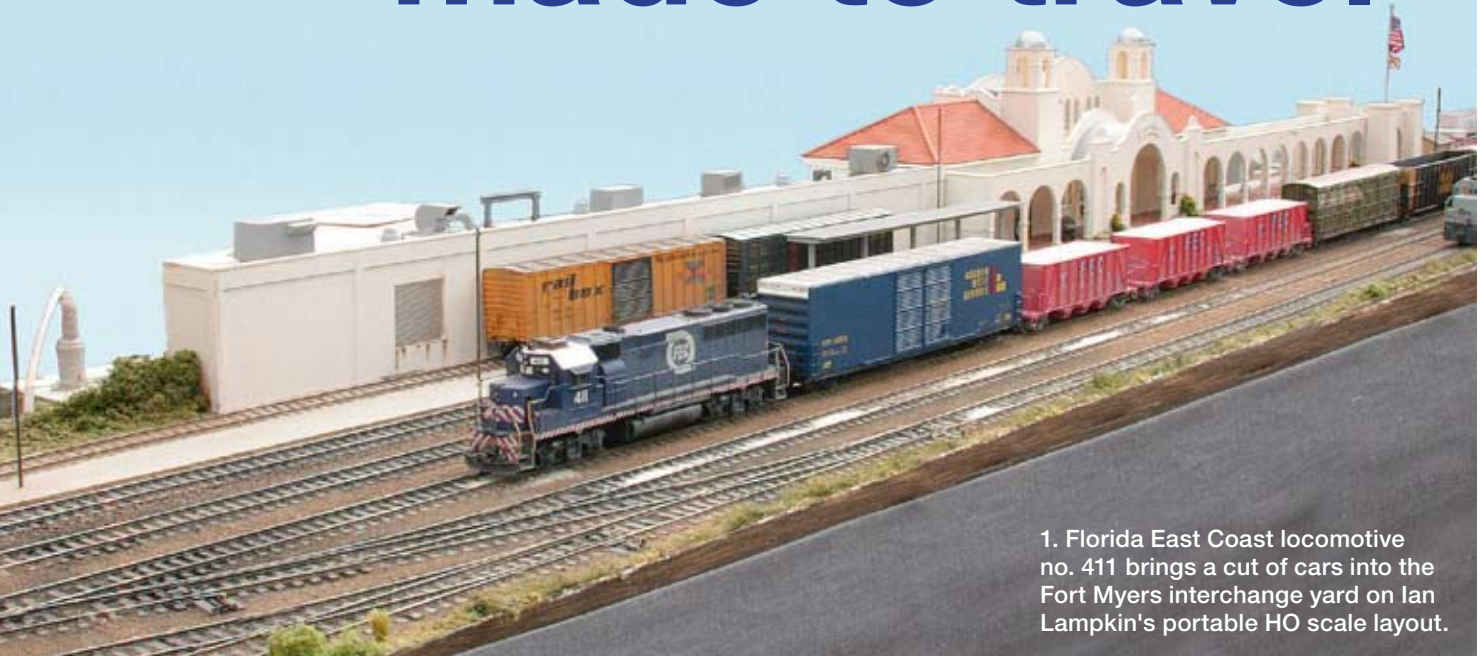
Building the Havaphew Central was both enjoyable and educational. Multiple options in the track plan also make it very entertaining. But most important, in a matter of a few square feet I've been able to practice techniques I'll surely use on my next layout – whatever size or scale it might be. **MR**



## »» Meet Don Culp

Don became interested in model railroading after reading an issue of *Model Railroader* magazine in his junior high school library. He's now been active in model railroading for more than 30 years. Don is a deputy sheriff and lives in East Wenatchee, Wash., with his wife Jan. They have two grown children, one daughter and one son.

# Fort Myers, Florida, made to travel



1. Florida East Coast locomotive no. 411 brings a cut of cars into the Fort Myers interchange yard on Ian Lampkin's portable HO scale layout.

## Modeling modern Florida railroading in HO scale from the United Kingdom

By Ian Lampkin • Photos by Andrew Burnham

Inspiration for my portable HO scale Fort Myers layout came in 1993 during a vacation to Florida. Partway through that trip, I'd visited The Train Depot, a hobby shop in Winter Park near Orlando. Having spent the earlier part of the holiday watching trains around Orlando, I decided to purchase a few souvenirs from my trip, and these included an Athearn locomotive and a several freight cars.

Later during the same trip, I stumbled upon the Seminole Gulf Ry., a short line running from Arcadia through Fort Myers towards Naples in the southeastern part of the state. In addition to freight service, the railroad operates a dinner train that features a number of

restored coaches pulled by a rebuilt Electro-Motive Division GP9.

Once I got home, and while the memories were still fresh, I decided to look at the feasibility of building a layout based on what I'd seen. Impressed with the performance of my Athearn purchases, I pushed ahead and started some serious planning.

### Putting the plan together

After sifting through the numerous photos I'd taken of trains in the southern half of Florida, I chose Fort Myers as the focal point. In designing my layout, this city

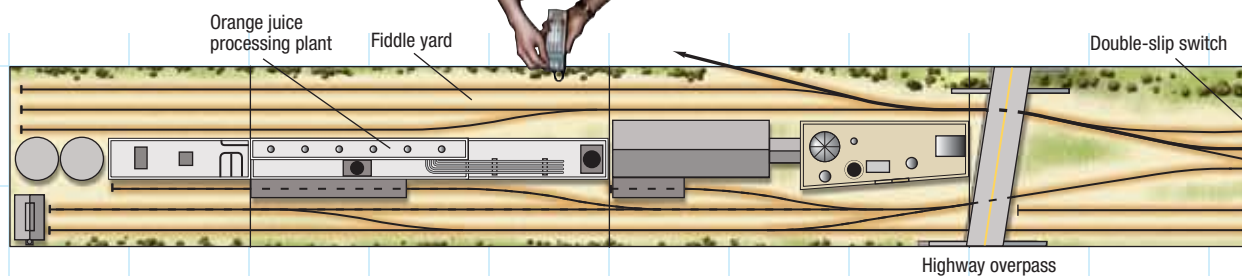
includes the Seminole Gulf Ry. and the terminus for its dinner train. I added an interchange with CSX, though the prototype interchange is farther north at Arcadia. There is also a connection with the Florida East Coast Ry.

Although Amtrak had ceased running to the area in the 1970s, I reinstated Amtrak service on the layout to add operating interest.

Much of the freight movement on the railroad is in the form of interchange traffic. However, I also included some local industry, such as an orange juice processing plant and a distribution warehouse. The warehouse was originally a cement silo, but the model was too hard to transport to shows.

### Fort Myers Ry.

HO scale (1:87.1)  
Scale of plan:  $\frac{5}{8}'' = 1'-0''$   
All turnouts no. 5





## Fort Myers on the move

So I can take the layout to train shows, I built it to be portable. I've always favored simple baseboard construction. (We call the benchwork sections "baseboards" in the United Kingdom.) I use 1 x 2s for the frame with either 1/2" MDF (medium-density fiberboard) or, as in this case, 1/2" chipboard for the deck. My Fort Myers layout is made up of six 3-foot and two 2-foot sections. When fully assembled the layout measures 18" wide, 22 feet long, and 48" tall.

I built the layout sections so that they can be bolted together in pairs to form boxes for traveling to shows. The boxes can then be stacked and fit across the back seat or in the boot (trunk) of most cars. I've used this same design for other layouts, and it has proved to be a real boon, since the entire Fort Myers layout has fit in every car I've owned over the years.

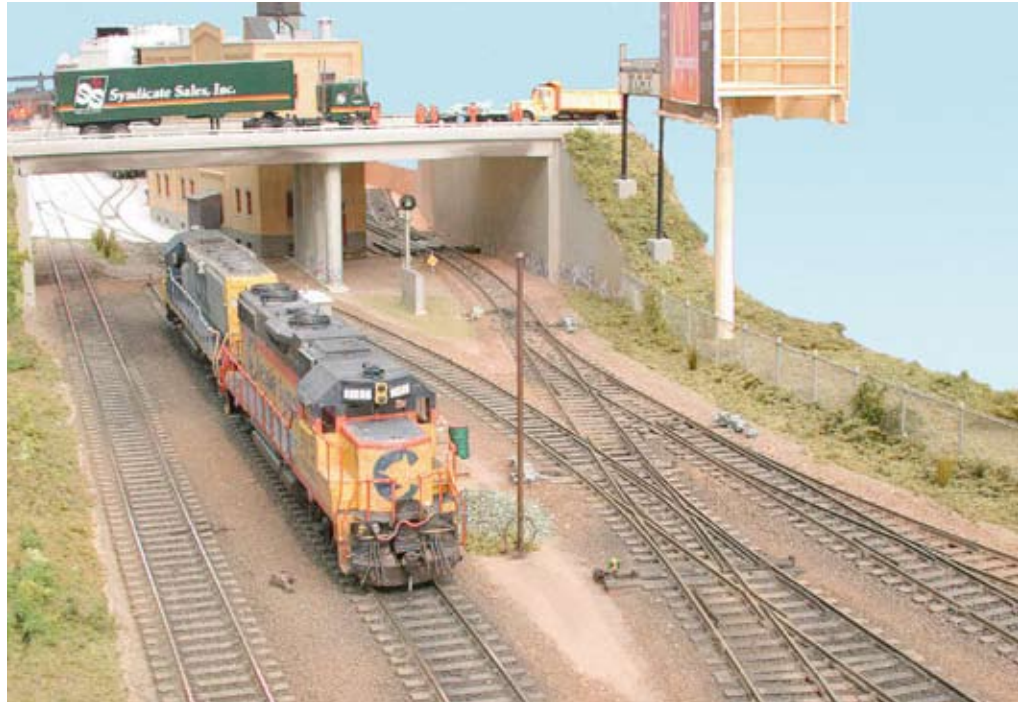
I support the sections on plug-in legs made from 1 x 2s with 1/4" plywood bracing to give them rigidity. These legs are solid enough that I can mount electrical sockets and several drop-down tables (for drinks and operating materials and such) to them. And, because the legs simply plug into the layout sections, I can set up the layout in about 10 minutes once it's unloaded from the car.

Recently, I've installed lights under the fiddle yard section on the layout. The lights illuminate two rolling stock storage trays mounted under the layout, so they're easier to see when swapping trains.

The two 3-foot car-storage boxes bolt to the legs under the fiddle yard. All stored trains are kept in designated slots in the boxes until it's time for them to be put on the track in the yard. The lights and storage boxes have sped up the time it takes to change trains during shows.

## Track and control

All the track on my Fort Myers layout is Peco code 75. The turnouts are powered by Seep switch machines sold by Gaugemaster. These are mounted under the layout and are operated by



push buttons on a separate panel. Electrical connections across layout section joints are made with 25- and 37-pin computer connectors. These can be laborious to wire, but after a few nights in front of the TV with a soldering iron, I eventually finished the job. The payoff is that setting up and taking down the layout is very easy when using this type of connector.

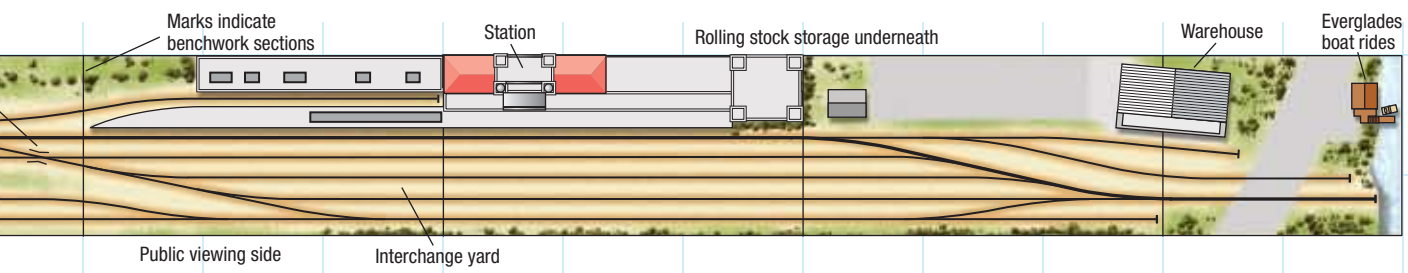
I originally wired the layout for DC cab control with handheld cabs that plugged into the fascia using 5-pin DIN plugs. My friends wired their DC control systems in the same configuration, so this allowed us to share handheld cabs between layouts.

In the past few years I've run the Fort Myers layout with a Digitrax Digital Command Control (DCC) system. However, I still use the same type of 5-pin DIN cab plugs. I've also left the DC cab control wiring in place and run the DCC system with all the conventional cab-selector switches set to the same position. This way I can revert to conventional DC within seconds should there be a problem with my DCC equipment. To date, the DCC equipment has been extremely reliable.

2. A pair of CSX Geeps are tied up on the engine track awaiting their next assignment. On Ian's layout, Fort Myers serves as an interchange point for the Florida East Coast, CSX, and the Seminole Gulf Coast Ry.

## Layout at a glance

**Name:** Fort Myers Ry.  
**Scale:** HO (1:87.1)  
**Size:** 18" x 22'-0"  
**Prototype:** Seminole Gulf Ry.  
**Locale:** Fort Myers, Fla.  
**Era:** 1990s  
**Style:** portable sectional layout  
**Mainline run:** 18 feet  
**Minimum radius:** 32"  
**Turnout minimum:** no. 5  
**Maximum grade:** none  
**Benchwork:** 1 x 2 frame with 1/2" MDF top  
**Height:** 48"  
**Roadbed:** cork  
**Track:** Peco code 75  
**Scenery:** plaster  
**Backdrop:** none  
**Control:** Digitrax Digital Command Control





## Show operation

When my Fort Myers railroad is on display at a show, my friends and I operate the layout. The railroad normally takes two people to run, but sometimes we include a third person for short periods of time during the session.

I use a sequence system that has two sets of cards mounted in an old file binder: one set each for the two operating positions – the station and the fiddle yard. The cards are numbered (indicating the step in the sequence) and provide operating instructions for the crew members, such as where a particular train is to go and which cars are to be picked up or dropped off. How the crew member carries out those instructions is part of the challenge, as not all the moves are straightforward.

I like the system as I believe the switching work keeps the mind active, especially when the yard is nearly full of cars. – J.L.

The big benefit with DCC has been the addition of lighting effects on all my engines and sound decoders in many of them. As more friends convert their layouts to DCC, our familiarity with the system is improving greatly.

### Scenery modeling

I find modeling scenery to be one of the most enjoyable aspects of model railroading. Florida, however, is pretty flat, so I focused a lot of my efforts on the layout's structures.

One of the major structures on the layout is the orange juice processing plant, which is located at the left-hand end of the railroad. The plant conceals the fiddle yard, so it needed to be big. I

3. Though he models Fort Myers, the station on the layout is actually modeled after the one in Orlando, Fla. Ian scratchbuilt the model from styrene.

kitbashed the main buildings and warehouses using pieces from various Walther's kits, and I added a lot of extra details, such as air conditioning units and piping. I've also included detailed interiors in some of the buildings. All my structures with completed interiors have lighting so that the details can be fully appreciated.

The largest single building on the layout is the station. I based the model on the prototype at Orlando. I chose to build the Orlando station instead of the one in Fort Myers because I'd not yet visited that station in the daylight. In fact, at the time, I had no idea that it still stood, so I modeled the ornate Orlando station. As it turns out, the real Fort Myers station still exists and is now a museum, complete with a coach mounted on rails outside, but by the time I discovered that, I'd already built the Orlando station.

I scratchbuilt the station from styrene. The arches were the biggest challenge, as each one is made up of four layers of styrene, and all were cut individually. The time I spent building this has been well worth it, however, since the structure has shown no signs of warping after more than 10 years. I now have the photos necessary to build an accurate interior for the station and plan to do so, including illuminated cold drink dispensing machines.

At the other end of the layout is a modern warehouse made up from versatile Pikestuff/Rix plastic parts (marketed in the United Kingdom by Modern Structures in Miniature).

The warehouse area features some typical Florida scenery, including tall grass and a few palm trees. In addition, I've added a number of details to enhance the layout. These include a company offering tours via a propeller-



4. The layout's major industry is an orange juice processing plant. The large kitbashed factory hides the railroad's fiddle yard.

driven airboat, a couple of alligators basking in the sun, and a drug bust by the local police.

### A first step

Building the Fort Myers layout has been very enjoyable, and it was my first step in modeling American prototypes. Since starting the project, I've done a lot more research on American railroads, which has led me to add more details to my layout and rolling stock. It has also inspired more trips to the United States and Canada, and I've since built two other North American-prototype layouts.

What's next, you may ask? As the layout is now quite a few years old, my thoughts have turned to building a replacement. However, the challenge will be to build something in the same space that would be more interesting. So for now, the Fort Myers railroad continues to be improved and travel to shows. **MR**

*Ian Lampkin's story and Andrew Burnham's photos are used by permission of Peco Publications.*

### Meet Ian Lampkin

Ian was five when he got his first model train for Christmas. Fort Myers is his sixth layout, and he's since built two more. Ian lives in Surrey, United Kingdom, with his partner Sarah. They enjoy foreign traveling, finding good ale houses and micro breweries, and photographing railroads around the world. Ian's layout was most recently featured in the September 2005 *Continental Modeller*.



**1.** Modeling a big industry on a small layout isn't as difficult as you might think. John Drye, who models a branch line of the Pennsylvania RR on a 6 x 8-foot N scale layout, built Schaefer Paper in just three square feet.

# BIG industry on a small layout

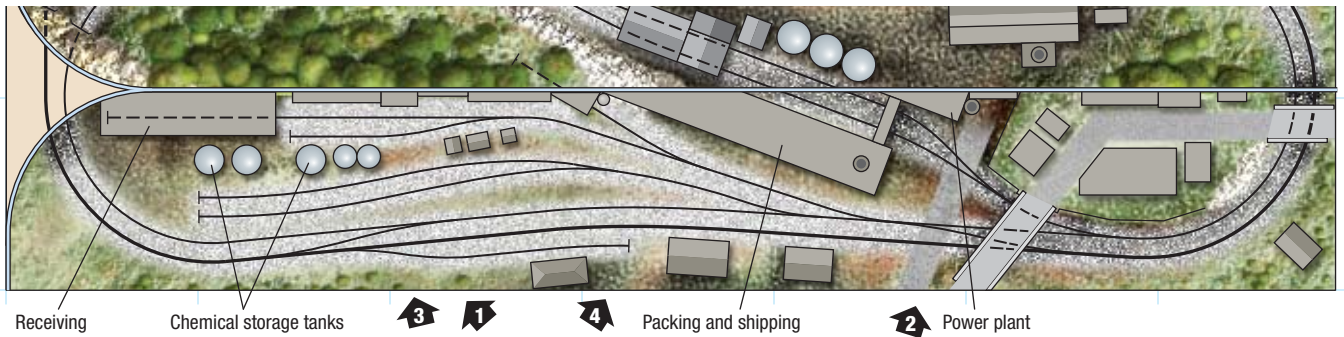
A major industry that occupies just three square feet in N scale

By John Drye • Photos by the author

**W**e normally associate models of big industries with large basement layouts. However, through kitbashing and some careful structure placement, you can suggest a major industry in a small space. I was able to model Schaefer Paper Mill, the major industry on my 6 x 8-foot N scale Pennsylvania RR Bald Eagle Branch layout, in just three square feet.

Schaefer Paper is loosely based on the paper mills once common in central Pennsylvania. By kitbashing full kits into low-relief structures and setting the buildings at angles against the backdrop, I was able to capture the essence of a large paper mill.

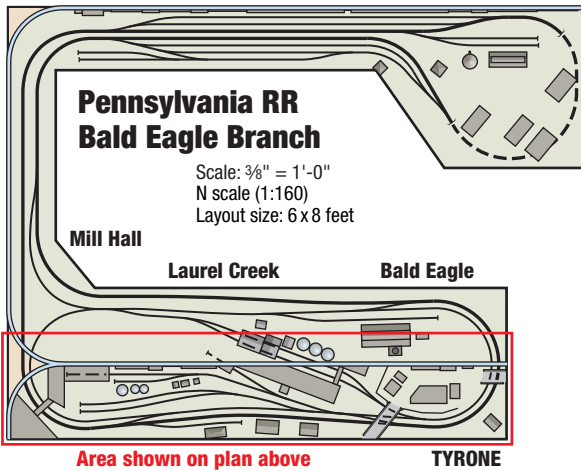
The techniques I used for Schaefer Paper can be adapted to any scale or industry. With a bit of creativity, you can



Scale: 1" = 1'-0", 12" grid, N scale (1:160)

Illustrations by Rick Johnson

## Schaefer Paper mill complex



### Track plan at a glance

**Name:** Pennsylvania RR Bald Eagle Branch  
**Scale:** N (1:160)  
**Size:** 6 x 8 feet  
**Prototype:** Pennsylvania RR branch line  
**Period:** summer 1956  
**Length of mainline run:** 28 feet  
**Minimum radius:** Visible 18", hidden 9"  
**Minimum turnout:** main line no. 6, sidings no. 4  
**Maximum grade:** main line 2 percent, sidings 6 percent  
**Track:** Peco code 55  
**Backdrop:** styrene sheet over foam board  
**Scenery construction:** foam board

convey the impression of a big industry without taking up much layout space.

### A destination industry

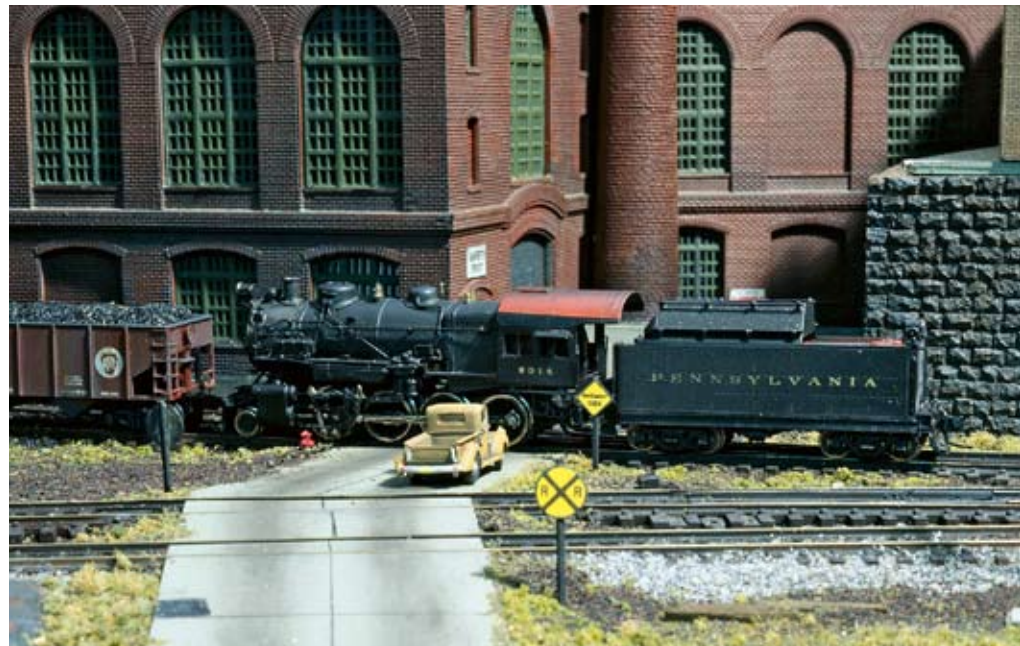
Schaefer Paper handles several dozen cars a day, including inbound and outbound boxcars with paper, inbound tank cars with chemicals, covered hoppers with kaolin, open-top hoppers with coal for the power plant, and flatcars with manufacturing equipment. There's plenty of work to keep one operator busy during an operating session.

Like many Pennsylvania paper mills, Schaefer Paper doesn't handle pulpwood. Instead, it receives processed pulp in the form of rolled paper carried in boxcars. The plant refines this raw paper into fine writing and drafting products for other industries.

Because of the traffic, the mill has a small yard and a dedicated switcher. Since my model railroad is set in the steam-to-diesel transition era, either a PRR class H9 2-8-0 steam locomotive or first-generation Electro-Motive Division diesel can be found in the yard.

### Modeling variety

The Schaefer Paper Mill consists of four buildings: receiving, shipping, processing, and a power plant. The structures are strung together in linear fashion along the backdrop to give the impression



**2.** Pennsylvania RR 2-8-0 no. 8014 shoves a loaded coal hopper into a siding adjacent to the power plant. John set the buildings at angles against the backdrop so the mill would seem larger.

of a large industry. In addition, I modeled a few small buildings to represent the yard office and tool sheds.

Mills and other industries that have been around for several years have varied architectural styles representing additions and modifications made over the

decades. I used parts from several kits to re-create this variety.

I added numerous details to the mill buildings so they'd look prototypical and to conceal gaps and joints in the kitbashed structures. Several manufacturers offer pipes in most common



**3.** Many structures in Pennsylvania were made using bricks manufactured in the Keystone State. John painted the mill buildings with similar shades of red to suggest that the bricks came from the same source.



**4.** John added vents and covered over windows so it would appear the mill has been upgraded over the years. Simple tricks like this add realism to any structure.

scales. Plastic or brass tubing can also be used for piping.

### Mill buildings

I kitbashed George Roberts Printing, a Walthers Cornerstone Series kit, to model the receiving building. I used the back of the kit as a low-relief structure and placed it against the backdrop. The rear of the structure features a covered loading dock where cars are spotted to protect the paper from the elements while being unloaded.

Because of space considerations, I had to cut down the two side walls. I made the cuts along the vertical concrete columns so I'd have clean cut lines and space for a loading dock. I also added vents and pipes to the roofs and walls to conceal the gaps where the building meets the backdrop.

A spur next to the receiving building serves several sets of tanks (from Walthers' Superior Paper kit). To give the tanks some extra detail, I added etched-metal catwalks.

I pieced together the shipping building from several walls included with the Superior Paper kit. I modeled the loading dock from sections of the kit's long shipping wall and cut it to fit the angled track and adjacent backdrop.

Because the shipping building receives many cars, I extended the spur through the backdrop and under a hill made from extruded-foam insulation board.

I used a pair of Design Preservation Models Goodnight Mattress Co. kits to model the processing building. The kit is positioned at a 30-degree angle from the backdrop, so one side has two long wall sections, and the other side has

only one. I covered the joint between the wall panels with air ducts.

Where the long wall faces the aisle, I modeled the overhead door in the open position so I could add interior details. I used HO scale woodworking machinery (lathes and drill presses) to represent paper processing machinery. Though designed for a larger scale, the HO scale parts work well for simulating heavy machinery in N scale. I also added a Woodland Scenics water tank to the roof of the processing building.

Finally, I kitbashed Walthers' Northern Power & Light to model the power plant. Like the processing building, the power plant has two walls set at an angle to the backdrop. The tracks pass between the power plant and processing building and through a hole in the backdrop. Leftover pipes from the Superior Paper kit mask the backdrop opening.

I used one of the long walls from Northern Power & Light to make the power plant seem bigger. A cast-plaster chimney disguises the angled joint between the walls. I replaced the kit's peaked roof with flat styrene and added rooftop vents to help blend the building into the backdrop.

Though the buildings represent different styles of architecture, I used Polly Scale Boxcar Red for the brick color on all three kits. In many towns, bricks came from the same location, so airbrushing the structures the same color gives the industrial complex a uniform look. I painted the processing building Polly Scale CSX Tan to add variety.

### A new mill

Schaefer Paper was a major industry on my old Bald Eagle Branch, but I had to dismantle it and the rest of the layout in preparation for a move. However, I'm currently working on a new version of the mill.

One of the lessons I learned from building the mill was that low-relief structures look more believable than flats. I'm trying to keep all of the low-relief buildings for my new paper mill at least 1/2" deep.

I don't yet know how much space the new Schaefer Paper Mill will require. But that industry, or yours, in any scale, can be easily modeled by kit-bashing structures and stringing them together. **MR**

*John Drye is a defense analyst for the United States Navy. While not running trains, he volunteers with the American Red Cross and enjoys sailing on Chesapeake Bay. His N scale PRR Bald Eagle Branch was featured in the December 2001 issue of Model Railroader.*