

ROOM-SIZE TRACK PLAN with a rail barge



Model Railroader

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2-10-2 tested**

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Beyond the basics

**Visit a New England layout
a step above in accuracy**

**How the MR staff built
realistic urban structures
for the Beer Line layout**

HOW TO

- Add a **WORKING** beacon to an N SCALE diesel
- Build a **REALISTIC** trackside **FOUNDRY**
- Put a **DCC DECODER** into a **BRASS** diesel
- Make **LIGHTWEIGHT** waffle-style **BENCHWORK**

PLUS

- **DETAILS** for a time and place, **STEP BY STEP**
- Tips on operating **DOUBLEHEADERS** and **PUSHERS**

John Grosner accurately models trains, track, and city structures on his HO scale layout. See page 58

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Beyond the basics

Visit a New England layout a step above in accuracy

By John Grosner • Photos by Lou Sassli





1. Train BO-3 heads for Maybrook, N.Y., on John Grosner's HO scale New York, New Haven & Hartford layout. John models the Derby, Conn., area, closely following the prototype.



My New York, New Haven & Hartford RR is a product of everything I've learned from building three previous railroads. My first was based on a 4 x 8 foot plan that was published in *Boys' Life* magazine when I was 11. My newest, which has been under construction for more than eight years, occupies a 15'-6" x 19'-6" space in my basement.

The track plan grew out of two influences. First, I made a 1:8 proportion drawing of the available space with 34" minimum radius circles drawn in all the corners. Second, I selected a prototype location: Derby Junction, Conn., a spot with a lot of railroad history.

A busy prototype

The New Haven's Naugatuck Line branches off the four-track, electrified Shore Line Route at Devon, traveling eight miles along the Housatonic River to Turkey Brook Yard. The New Haven had many small yards close to industrial areas, and like the others, Turkey Brook Yard was used as a drop-off and pick-up point for symbol freights. The Derby/Shelton switcher stationed there dispersed these cars. Just beyond Turkey Brook Yard was Derby Junction, with its wye. Here the Naugatuck Line

ran northward and the Maybrook Line turned westward.

An interlocking tower, or signal station SS B-253 as referred to by the New Haven, controlled the routing of trains. The wye permitted train movements in all three directions.

The double-tracked Maybrook Line featured hourly 100-car freight drags in both directions. Westerly trains leaving the Cedar Hill classification yard consisted mostly of other roads' empties. Arriving at the Maybrook classification yard, these cars would be interchanged with the Erie; Lehigh & New England; New York, Ontario & Western; Lehigh & Hudson River; and the New York Central. By my layout's time, this line was freight only, with passenger service ending in the 1930s, but it did see the occasional fan trip.

At Derby Junction, the Naugatuck Line continued north. It paralleled its namesake river through Waterbury to Winsted, where it terminated.

Modeling Derby Junction

My model of this railroad begins at Turkey Brook Yard and extends past SS B253's interlocking. A portion of the Naugatuck Line extends north past Derby Station, through the backdrop

2. Already running late, RDC no. 121 loses even more time as it waits for no. 1206 to clear the interlocking. The GP9 is heading back to Turkey Brook Yard after switching Canal Street.

and on to hidden staging at Waterbury. Westward, at the junction, the Maybrook Line runs through Derby, across the Housatonic River and into Shelton. Then it, too, passes through the back-drop, where it continues to the yard at Maybrook, N.Y. In Shelton, the modeling focus is the Canal Street area. This locale was rich with water-powered factories of all types. This area is under construction.

I began work on the train room in November 2000. I coved the corners of the room with Sonotube, a heavy-duty cardboard tube used in construction, cut in quarters. I installed fluorescent

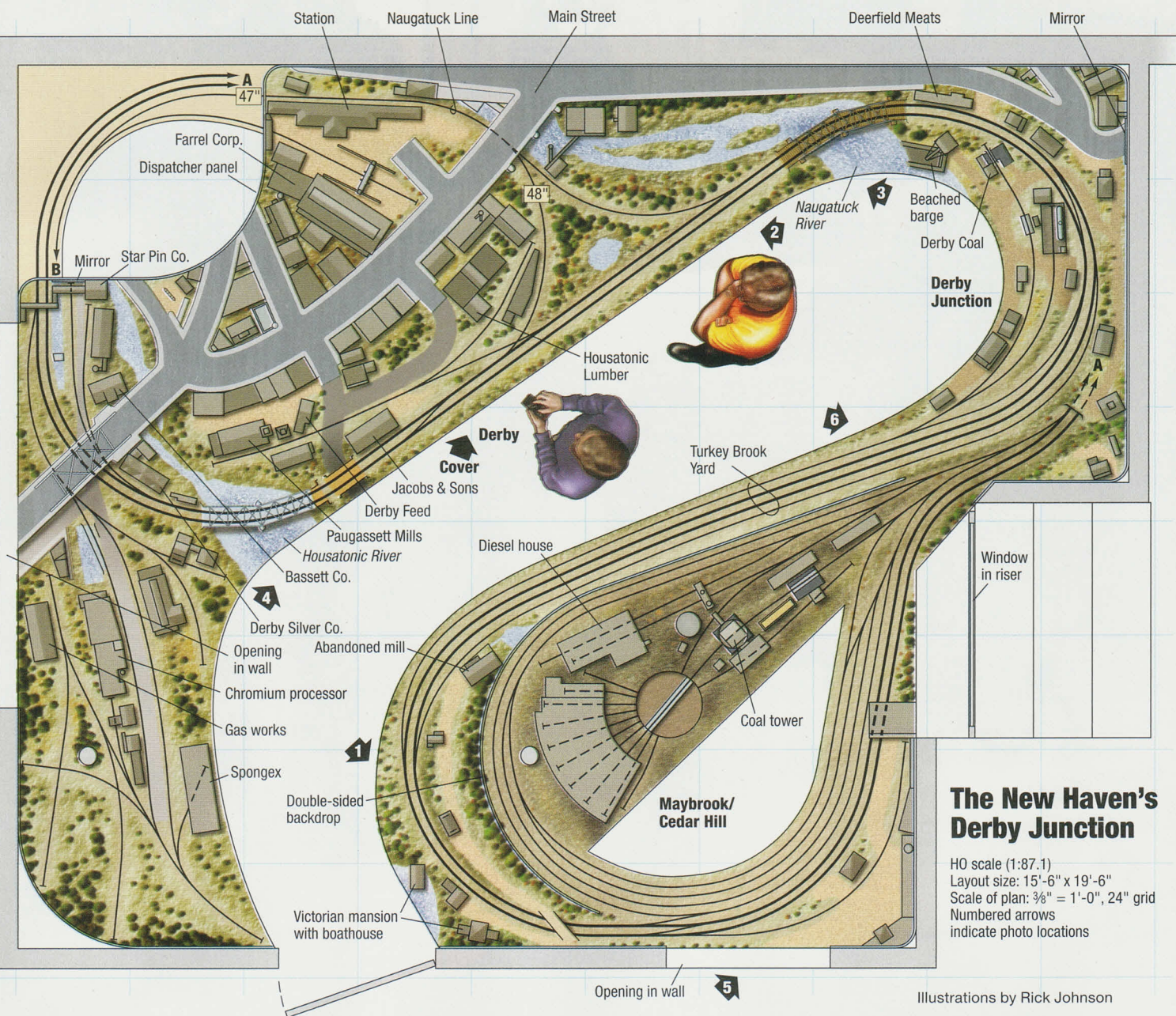
See the layout for yourself

John Grosner's HO scale Derby Junction layout will be available for tours during the National Model Railroad Association's 2009 national convention. The convention is slated for July 5-11, 2009, in Hartford, Conn. For details, go to hn2009.org.





3. A figure representing John's father fly fishes in the Naugatuck River as a General Electric 44-tonner leads a local freight over the bridge. The Bachmann locomotive was modified and painted by Rick Abramson.

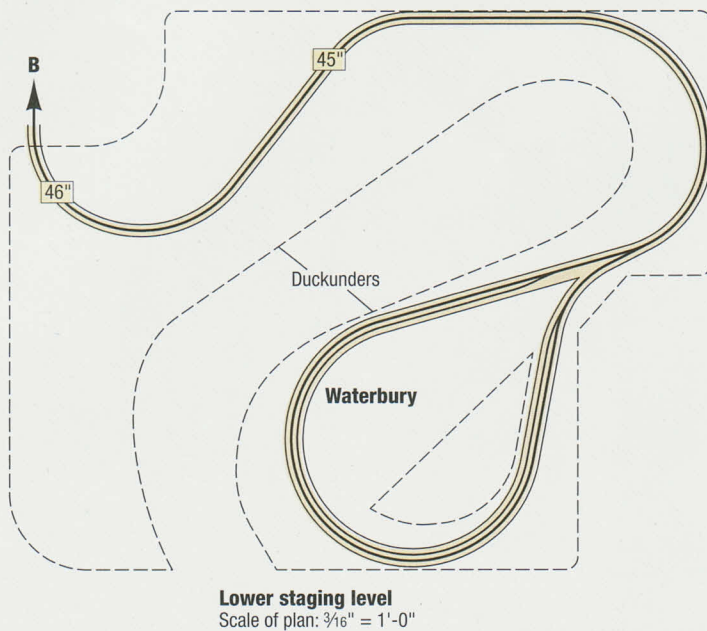


lighting fixtures over the layout, but not over the aisles, planning to add a ceiling valance.

The layout uses open-grid benchwork made from 1 x 4 no. 2 pine or 5/8" plywood. I located the joists carefully so as not to interfere with switch machines. The roadbed is a sandwich of plugged and sanded 1/2" plywood and 1/2" Homasote.

All visible track is weathered code 70 rail handlaid on basswood ties, with turnouts and crossings built in place. I used code 83 flextrack and commercial turnouts in hidden areas. All curves have easements.

Once the benchwork and track were done, the electronics came next. I originally wired the layout for DC common rail cab control, with five walkaround throttles. Though this setup worked well, the benefits of Digital Command



4. This overall view of the Derby section of John's layout shows the photo backdrops he created on his computer.



Making backdrops from digital photos

To create my own photo backdrops, I scan slides of hills, farmlands, and buildings into my computer. I then import them into a photo-editing program called *Print Shop Pro*. I use the software to backdate the photos by removing or altering details like power lines, telephone poles, and parked cars. I then size the photos to fit the desired

perspective; usually, this involves printing the photos several times at different sizes. I then cut out the sky and put the photos together to make a montage, a process that takes patience. When I have an arrangement I like, I use a glue stick to adhere them to the painted sheetrock, Masonite, sheet plastic, or other backdrop material.

►► The layout at a glance

Name: New Haven's Derby Junction
Scale: HO (1:87.1)
Size: 15'-6" x 19'-6"
Prototype: New York, New Haven & Hartford Railroad
Locale: Shelton/Derby, Conn., and Maybrook, N.Y.
Era: late 1940s to mid-1950s
Style: walk-in
Mainline run: 80 feet
Minimum radius: 32¼" (main), 24" (sidings)
Minimum turnout: no. 5 (main), no. 4 (sidings)

Maximum grade: 1.5 percent
Benchwork: open grid
Height: 45" to 48"
Roadbed: ½" Homasote on ½" plywood
Track: code 70 handlaid on visible track; code 83 flextrack for hidden track
Scenery: joint compound over expanded bead foam board
Backdrop: painted Lexan sheet or drywall with coved corners
Control: NCE Corp. Digital Command Control

Control led me to change the system. I use the NCE Pro Cab system, and have equipped most of my locomotives with sound decoders. This conversion went smoothly, with few problems.

All turnouts are powered. Mainline switches have two-color light-emitting diodes on the control panels to indicate their alignment.

The railroad features an operating signal system. I handbuilt the signals using Oregon Rail Supply components and photocell detectors. Other electronics include crossing flashers, one with gates and bell; a track scale (see "Build a working track scale," August 2000 *Model Railroader*, page 84); and structure lighting.

The terrain went together quickly with 2" white Styrofoam stacked in place and hot-glued. I roughed in the hillsides with a steak knife, then shaped the final contours with the metal nozzle of my Shopvac. I raked the hose over the foam, and the vacuum removed the mess. I then covered the foam with joint compound. This technique lets me sculpt exactly the topography I desire.

I use all types of ground cover imaginable, both natural and synthetic. The deciduous trees are made of celadon (candy tuft), a dried flower. I spray these with shades of green paint and roll them in ground foam. Once they are in place, I use joint compound to thicken the trunk, blend in the sprigs, and add a root system. I make coniferous trees similarly, but with commercial floor-scrubbing pads for foliage.

True-to-life structures

I try to build the structures for the layout to be as true-to-life as possible. Few of the buildings are stock kits; many have been kitbashed or scratch-built using cast-resin components. I



5. Engine S160 passes through Turkey Brook Yard on its way to Maybrook, N.Y., with train BO-1. The steamer is a modified Bachmann engine.



researched buildings along the line using both online sources and books such as Grimaldi's *History of Derby*; books on Shelton, Conn.; books published by Bob's Photos; and the New Haven Historical and Technical Association's quarterly *Shore Liner* magazine. These have greatly helped me capture the region accurately.

When it comes to detailing, the question is "How much is enough?" The time and extra work spent building the rods of a mechanical interlocking or the starred truss ends on the walls of an old brick factory is worth it when a visitor raves about them.

Operations

During operating sessions, through freights OB-2 or ED-2 set out and pick up cars at Turkey Brook Yard. The Turkey Brook switcher or a local freight distributes these cars. Meanwhile, a crew at Maybrook keeps busy breaking up and assembling trains, sorting cars, and serving local industries. Occasion-

ally, the "Naugy," a local passenger train running between Waterbury and Bridgeport, makes an appearance.

Typical operating sessions last one to two hours. The switch lists used by crews call for setouts and pickups at numbered locations. These locations are easily discernable by flipping the card over, where track plans are shown with spotting numbers on the tracks. Even though the railroad has more than 30 spotting locations, this system helps operators unfamiliar with the layout get their jobs done right with a minimum of questions.

When showing the railroad to visitors, I usually run long freights of 60 to 70 cars. Typical motive power would be Alco FAs in a three-unit arrangement or double-headed class L-1 2-10-2s.

A fulfilling hobby

Building a model railroad has been a fun, fulfilling, and fabulous experience. It has also allowed me to come in contact with many wonderful people who share my interests. The model railroad-related conversations I have had with complete strangers have been incredible. Few hobbies inspire such camaraderie. **MR**

6. New York, New Haven & Hartford 2-8-0 Consolidation no. S150, renumbered to avoid conflict with another engine no. 150, passes through Turkey Brook on John's layout.



Meet John Grosner

John grew up watching long Maybrook freights across the Housatonic River from his bedroom window. John has been a wood-working teacher for 35 years. He and his wife, Lana, have two grown children, John Jr. and Tracy. John and Lana both enjoy solving complicated switching puzzles.

More on our Web site

Current subscribers can see a 360-degree panorama of John Grosner's layout at www.modelrailroader.com