



**DIESEL GARDEN  
RAILWAY  
CONTEST**

**3<sup>rd</sup>  
Place**

1. An eastbound transfer job observes the 10 mph restriction at Skunk Hollow Creek on a beautiful June day. It must be a good fishing spot—that fisherman is always there. An assortment of native greenery blends into the scene.

# Visit a **1970s** **branch line**

*The Union Pacific/CB&Q Railroad provides service  
for local industries*

by Bob Rivard | Minneapolis, Minnesota | Photos by the author





## Plants on the UP/CB&Q

Minneapolis, Minnesota  
USDA Hardiness Zone 4-5

### CONIFERS

Little Jamie white cedar  
*Chamaecyparis thyoides*  
'Little Jamie'  
Dwarf Alberta spruce  
*Picea abies* 'Conica'

### TREES AND SHRUBS

Boxwood  
*Buxus* sp.

### GROUND COVER

Wood sorrel  
*Oxalis* sp.  
Creeping phlox  
*Phlox subulata*  
Stonecrop  
*Sedum* sp.

**W**hen I started planning my outdoor railroad, I had a few primary goals and concepts in mind. Since my space was limited, I decided to model a branch line. This meant no big, six-axle locomotives, which wouldn't look good on sharp curves. Motive power and rolling stock would have to be commercially available and already painted and lettered for my chosen road.

Although the railroad would be free-lance and not modeled after any specific area I knew, I wanted to incorporate certain features that would give it a reason for existing. For example, I wanted a grain elevator and a lumber yard. I would eventually add an oil-and-gas distributor, a team track, a food warehouse, and a ballast-loading facility.

### Motive power

I needed to decide on a road before I could start acquiring motive power. After doing some research, I decided to model a CB&Q branch line. A USA Trains GP-7 was my first acquisition, equipped with a Sierra sound and lighting. Although the model was quite accurate with that big "Everywhere West" lettering on the hood, there were minor details that bothered me. I found a photo on the Internet of N° 264. My GP-7 was numbered 269 and, as far as I could tell, the CB&Q's roster did not reflect a number 269, so I changed the last digit from a 9 to a 4 on all four number boards.

Another issue was that most CB&Q diesels had Mars lights. To model this, I shaped a small block of styrene to match the headlamp fixture, made a mold of the headlamp housing, and used casting resin

to produce a new casting. One of the features found on the Sierra light circuit is a Mars output. Now all my CB&Q power could have correct working Mars lights.

An F-3 and a GP-30 were next added to the roster. USA Trains offered an Alco S-4 switcher featuring fan-driven smoke. I had to have a pair. I decided to incorporate a Union Pacific/CB&Q interchange so that I could justify operating UP motive power as well.

Last year I acquired a UP GP-30. In this engine I installed a working, rotating "gumball" type beacon and headlamp from Ram Track.

### Rolling stock

For 30 years I have been modeling actual scenes on the Soo Line in Minneapolis and St. Paul in HO scale. I model these scenes and my freight cars from photos taken during my 1977 modeling era. Although my outdoor-railroad rules would be more flexible, I still needed to choose a specific year to model, so I chose 1970.

The Burlington, the Northern Pacific, and the Great Northern merged into the Burlington Northern in 1970. This meant that any BN freight cars would have to look brand new. My first pieces were USA Trains 40' boxcars lettered for GN and CB&Q. Because I wanted to model a

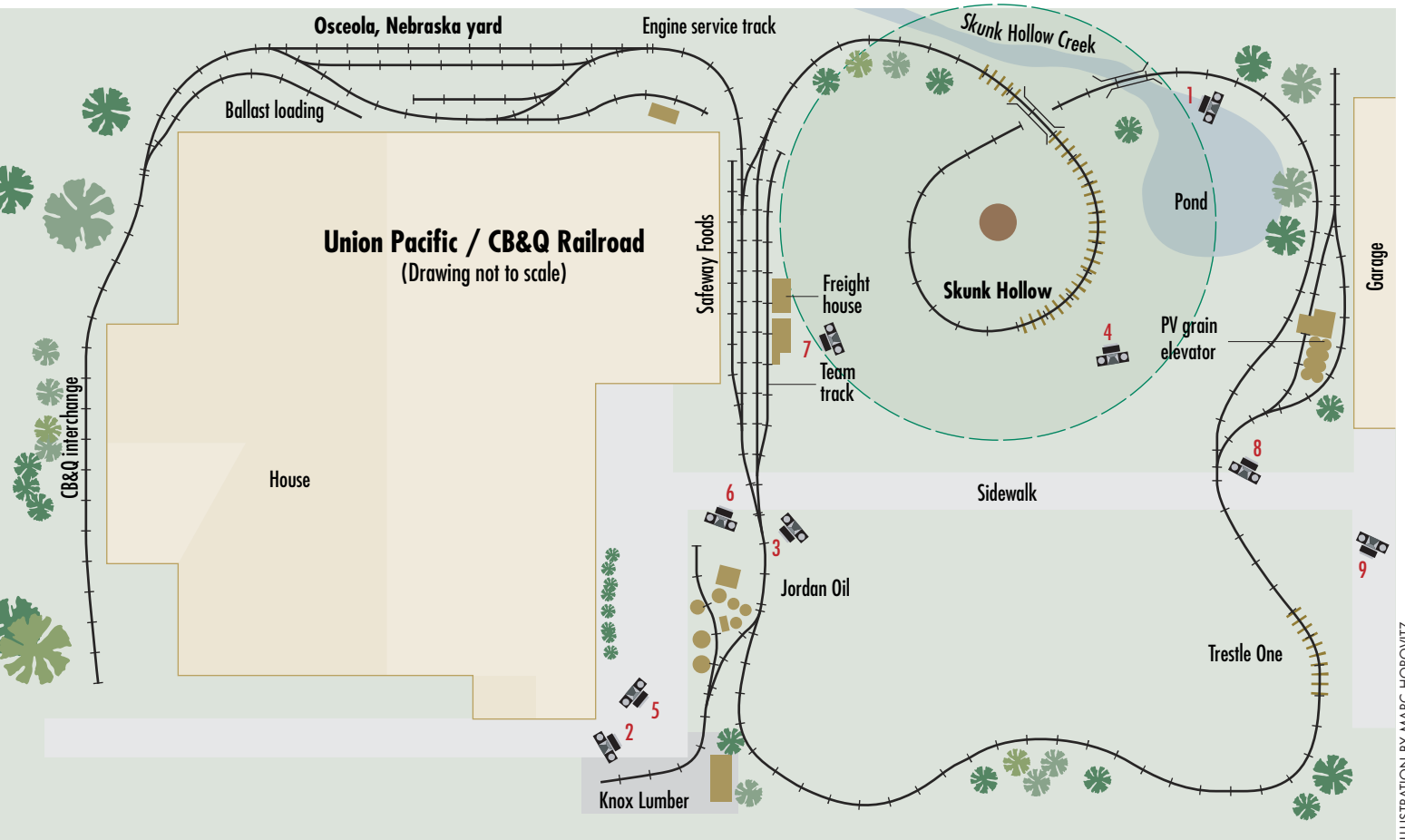


ILLUSTRATION BY MARC HOROVITZ

grain elevator, I also ordered a handful of LGB's new ACF three-bay covered hoppers, lettered in BN's Cascade Green paint scheme.

LGB also produced a 53' flatcar, perfect for transporting lumber to my lumberyard. Building removable lumber loads, complete with metal banding, would be my next project.

I discovered that large-scale decals were available from Robert Dustin, enabling me to paint and decal rolling stock using prototype photos. I decided to try scratch-building a car in large scale, and built a Soo Line Magor grain hopper out of sheet styrene and K&S brass pieces. For this I received a freight-car award at the Naperville Prototype Modelers meet in 2009.

I retrofit all of my rolling stock with metal wheels. I also insist on appropriate weathering. Even a new car in fresh paint could have rust, dust, and weathering on its couplers and trucks.

### Planning and building the railroad

My backyard is a typical city-size yard, about 40' x 40'. This space limitation is why I chose to model a branch-line operation.

My four-axle diesels and switch engines would look much more acceptable operating on tight radius, branch-line curves.

The yard has about a 30° slope, creating some engineering challenges. I started construction at the top of the hill and first built the railroad as a point-to-point line, using Aristo-Craft code-332 brass track. My local landscape-rock center sells a product called "driveway trap," a dark-blue rock, perfect for ballast.

I installed the mainline on the west end of my backyard and laid track to the grain elevator, where I had installed a siding. From the other end, I installed track to the lumberyard. The siding is located along the foundation of my three-season porch. Instead of viewing this concrete foundation as an obstacle, I realized that it could serve as a huge warehouse. I installed a siding along my instant new-found building, cutting out loading doors from sheet styrene, and glued them in place. I decided that Safeway Foods would be the ideal tenant for my new building, which can handle up to six reefers.

For my power and operating system, I decided to use good old analog DC.

### UP/CB&Q at a glance

- Name:** Union Pacific & CB&Q
- Size of railroad:** 40' x 40'
- Scale:** 1:29
- Gauge:** N° 1
- Era:** 1970
- Theme:** Southern Nebraska branch line featuring joint UP & CB&Q operations
- Age:** 9 years
- Motive power:** USA Trains Alco S-4s, GP-30, GP-7, F-3
- Length of mainline:** 180'
- Maximum gradient:** 2.5%
- Type of track:** Aristo-Craft
- Minimum radius:** 4'6"
- Structures:** Mostly scratchbuilt
- Control system:** Bridgewater's Magnum 15

Although I knew I would have to keep the tops of my rails clean, my mainline was simply not going to be that long. I purchased a Bridgewater's Magnum 15 along with the wireless throttle accessory. This





2. Most of the railroad, as it appeared in September of 2007. A year later, the loop around the 40-year-old spruce tree was built.



The Mars light on this locomotive (and others on the railroad) was scratchbuilt by the author. It is illuminated by the Sierra lighting circuit on the engine.



The author used the Morning Sun NP Color Guide as a reference for painting this LGB flatcar and applying Robert Dustin custom decals. Balsa wood and Chartpack drafting tape form the load.

system has served the railroad well. Fellow modeler Marv Koenig operates his Soo Line railroad using Airwire. Because the two operating systems are independent of one another, our trains can have meets and we can enjoy true operating sessions.

I soon wanted to extend the railroad around the rest of the yard. A small trestle, a retaining wall, and a second grade crossing through my sidewalk would accomplish this goal. With the help of Marv, I

built the new retaining wall. I was able to keep the grade on this new stretch to about 2.5%. However, the grade on the north end was around 4%. This was pretty stiff and posed some interesting operating challenges but at least I could now enjoy running a train around my yard.

About this time, Aristo-Craft came

out with wide-radius turnouts, which I used to eventually replace my five main-line turnouts. The wider-radius turnouts eliminated past operating headaches.

### Operating the railroad

When USA Trains announced production of the Alco S-4, I knew I needed at least





3. A pair of Alco S-2 switchers takes a freight train past the Jordan Oil fuel depot. Creeping phlox (right) brightens this industrial area when it blooms each spring.

one. I could justify two because of my rather stiff grades. I researched appropriate roads and decided that Union Pacific would be a good choice of road name. I also figured that, of all the roads that owned these Alcos, the UP units would most likely be equipped with MU capability.

I now needed to develop a way to route cars on the railroad. I already had experience using a car-card and waybill system, and had extra cards and waybills packed away in a box. Using this system would be fun and easy. The first thing I had to do was establish a geographical area for my railroad. This is a key point for using this system. As I studied a map of Nebraska, I

settled on a plausible scenario for my line.

The town of St. Paul, Nebraska, would be the location for the grain elevator at the bottom of the hill. It turns out that the real St. Paul is home to a PV grain elevator. I could easily reproduce the PV logo on my scratchbuilt elevator. I noticed that the town of Osceola was nearby. This would be the town at the top of the hill. Knox Lumber, Jordan Oil, Safeway Foods, and a team track would be located here. I also noticed lines of the BN and UP intersected in this region. This is how I would justify my UP/CB&Q interchange-and-joint-trackage-rights scenario. I could now start filling out my waybills and operating my railroad pro-

totypically. I soon decided that a few yard tracks would be helpful.

I ended up building a yard and extending the mainline on the north end of my house. The yard was essential for realistically operating and sorting cars for the various industries. I even extended the mainline along the front of my house. This made a perfect CB&Q interchange track. Most recently, I installed a ballast-loading facility, a loading dock, and an Aristo-Craft freight depot.

### **Inspiration for some favorite projects**

One of the first things I wanted for the railroad was a water feature. Taking





This scratchbuilt Soo Line aluminum Magor car, the pride of the author's fleet, was constructed by him from styrene and K&S structural parts. In 1970 the car would definitely be very clean. A boxwood tree graces the right side of the yard.



4. GP-30 N° 840 drifts onto the Skunk Hollow Trestle on a perfect summer morning.

advantage of the fact that my backyard has a slope, I made several trips to a local landscape center for some perfect-looking rocks with which to construct my waterfall and stream. I dug a 7'-diameter hole for my pond, which also provides a water source for the waterfall and stream. I routed the bottom of my S-curve over the stream via a small timber trestle. I constructed the bridge from scale-size timbers that I cut on my table saw. Rails are spiked directly to the ties.

As time went by, I became frustrated with the stock Aristo-Craft turnout actuators. The June 2007 issue of *GR* had a great article on building switchstands. After building and using these stands on the rail-





5. The afternoon transfer rounds the curve at the top of a stiff 2.5% grade as it passes Knox Lumber. The crew has a setout for the lumber yard today. Pink-flowering sedum and dwarf Alberta spruce live behind the building.



6. Soo N° 375 is in the hole at Osceola. As soon as the UP transfer clears, N° 375 can depart.



7. The local Osceola farm-implement supplier has been waiting for this shipment of Ford 5000-series tractors, seen here on the dock at the freight house.

road, I made modifications to Mr. Chandler's original design by using larger K&S brass structural components and utilizing a second penny for modeling the target. To date I have built over a dozen of these neat, prototypical, operating switchstands.

### The trestle project at Skunk Hollow

In 2008, I was having a great time switching and setting out cars. But there was still that nagging 4% grade with which west-bound trains had to contend. The answer was to construct a Tehachapi-type loop around the spruce tree.

By late March, 2009, I was able to start

grading the new right-of-way. My plan called for half of the loop to gently rise to the height of a landscape timber. The rest of the loop would cross back over the mainline via a bridge. I opted to build a trestle to achieve the required rise. At the point where the track crosses over itself I scratchbuilt a plate girder bridge. I found the book *Model Railroad Bridges & Trestles* from Kalmbach to be helpful during this project.

I constructed the trestle from cedar fence boards, which I cut to scale-size strips using a table saw. The trestle, which took about six weeks to complete, is 23' long and includes 41 bents. Each bent was

cut to height as I fastened the stringers to it. I used deck screws and 7/16" pan screws, which resemble prototypical nut-and-bolt castings, to fasten all of the parts. The trestle rests on sections of landscape timbers. I used Titebond III to fasten 486 ties to the stringers. I gave the structure a coat of thinned oak stain to give it a realistic, weathered appearance. I then glued the ties to the stringers. I hand-spiked the rail to every fourth tie and was pleased with the result.

The loop effectively reduced the original 4% grade by half. I decided to call this new spot Skunk Hollow, the name of an





8. The UP transfer job has work at the PV elevator in St. Paul, Nebraska. The crew will have to cut the crossing first. The grain elevator was scratchbuilt by the author. Native wood sorrel is right at home beneath the trestles.

industrial area on the ex-MN&S railroad in St. Louis Park. The trestle has survived four Minnesota winters so far and should last many more.

### My favorite plants

Here in Minnesota, we are limited to certain plant varieties. Minneapolis is considered to be in Zone 4-5. Dwarf Alberta spruce are right at home here and are on my railroad in abundance.

My favorite plant is the boxwood shrub. These tree-like shrubs, along with the dwarf Alberta spruce, are always available at my local Home Depot during the growing season. They have small green leaves that do not fall off, so even in the dead of winter, I can still enjoy a bit of green poking through the snow. Most of these little shrubs seem to have multiple trunks. I look for shrubs that have a single trunk resembling a miniature tree. I enjoy pruning my boxwoods to keep their tree-like look.

Another plant I discovered is creeping phlox, a perennial groundcover. The small purple and pink flowers come out in late spring. I also have many patches of wild wood sorrel that sprout up along the right-of-way. In 2005, I ordered a couple of small cedar trees (*Chamaecyparis thyoides* 'Little Jamie') from Mini Forest in Oregon. Today these mail-order trees are over 2' tall and doing great.



9. The snow-plow extra, clearing the track at Trestle One in December 2005.

### The future

Next year, I hope to add a second Union Pacific GP-30 diesel. This would allow the PV elevator the opportunity to purchase one of the UP's aging S-4 Alcos. Now that the mainline travels along the front of my house, I wonder if it would be possible

to extend the track around the entire front yard? I think I'll leave this one alone for a while. My fiancé Vickie is in charge of the front yard and some major negotiations would be in order to establish a right-of-way through her rose bushes. 🚂