

DIESEL GARDEN  
RAILWAY  
CONTEST

2<sup>nd</sup>  
Place

# The Wascana Canyon Railway

*Traversing a  
canyon carved  
from the plains  
of Canada*

by Rupert James | Regina, Saskatchewan  
Photos by the author

Garden  
RAILWAYS  
MAGAZINE

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1. A grain train on the upper loop (left) of the Wascana Canyon Railway approaches the steel bridge over the canyon. The currently unoccupied picnic site beside the stream is a great railfan location because of its proximity to trains on both the upper and lower loops. After the snow melts, the snow-on-the-mountain (to the left of the truss bridge) continues to brighten up the far reaches. Below it, creeping Charlie begins to bloom yellow flowers and, downstream, several stonecrops prove they were named well. Blue spruce stonecrop flanks the deck-girder bridge.

**T**he Wascana Canyon Railway (WCR) is an imaginary line located in Regina, the capital city of the Canadian prairie province of Saskatchewan.

Anyone who has traveled across southern Saskatchewan will spot the irony in the name of my railway, as it is not a place where canyons prevail.

Regina was founded shortly before the arrival of the Canadian Pacific Railway (CPR) and, to this day, is on the CPR's mainline. The CPR has operating rights across the WCR, hence the preponderance of CPR locomotives that wind their way along the red sandstone canyon, the centerpiece of the railway.

I think the germ of the idea for rails in the garden was my lifelong itch for making a railway to be proud of. I had previously dabbled in HO and N but a family and career obligations came first. In 2006, my wife Sue suggested I contact the husband of one of her colleagues who had spoken of his garden railway. At that time he was "between railways" with no garden railway to show off, but he had a collection of over 100 back issues of *Garden Railways* magazine. I spent hours scouring this treasure trove, became inspired, and ordered a subscription.

### Planning

I wanted to see the same rolling stock on my railway that I could see in full-size operation. My long-held interest in the history of the CPR's contribution to the creation of our country, as well as its proximity to our home, made it a natural choice. To avoid visitors asking what



2. A grain train on the storage/staging track, which is suspended from the workshop ceiling. The track clears the author's head with an inch to spare.



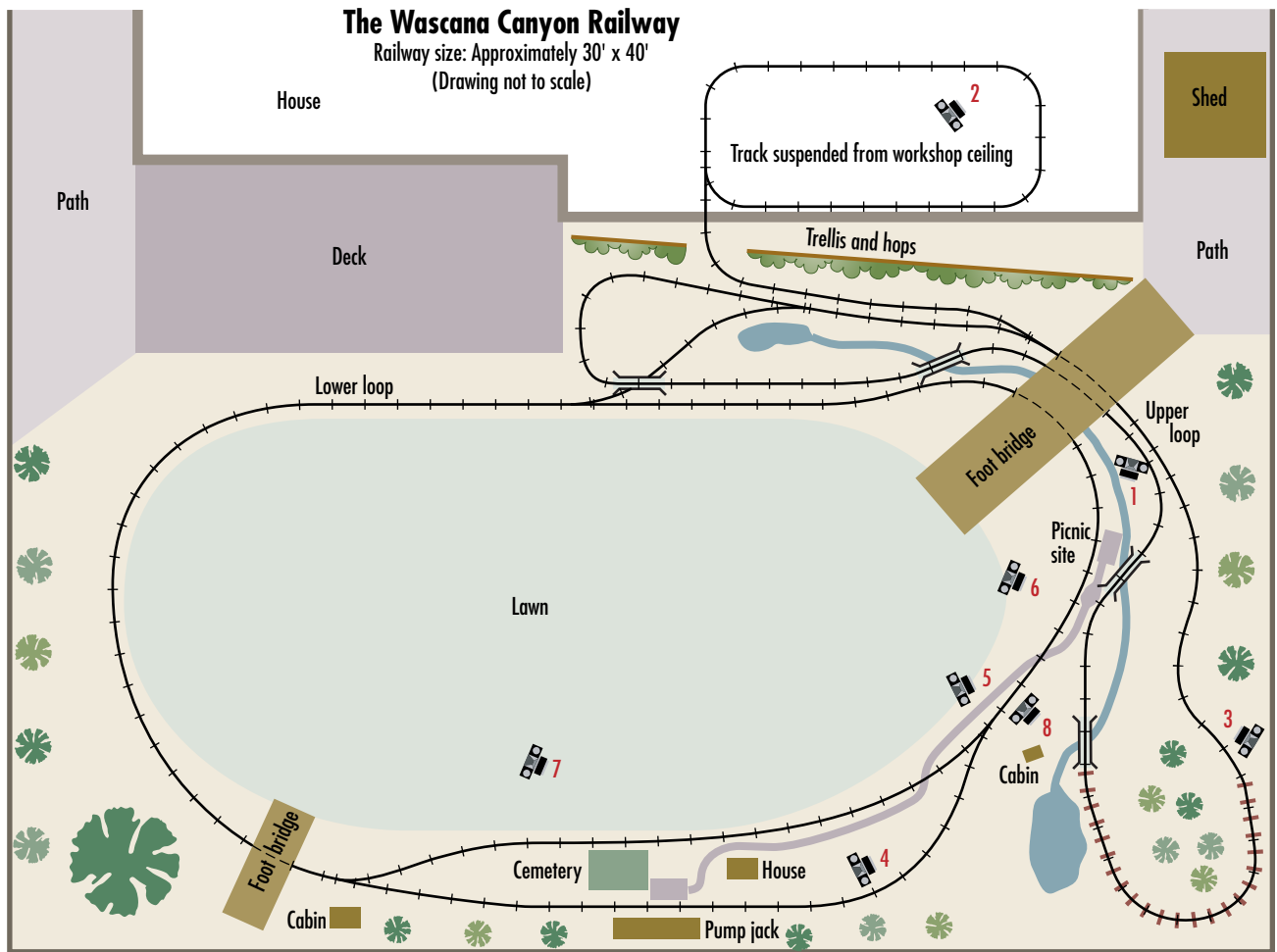


ILLUSTRATION BY MARC HOROVITZ

locale I was modeling, I decided on a fictitious railway with operating rights granted to the CPR.

I started surveying so I could spend the winter planning and doing what construction I could indoors. I used a simple tripod with a laser level to map the topography. I then laid out the criteria for my first mainline loop: eliminate grades as much as possible; create a centerpiece for the railway to wind through, around, or past; and provide continuous running. My theory was that yard work would not be as much of a chore while enjoying the sound and spectacle of trains rolling by.

The centerpiece—a canyon—played nicely into eliminating grade. Building a canyon from the ground up as the land sloped away would add drama and provide the logical course for a river. Since we already had a fish pond and waterfall at the bottom of our 3% sloped property, the creation of a second pond closer to the house would permit the construction of a 50-foot-long stream to connect the two ponds. The railway would skirt the tops of



**3.** The grain train, hauled by a GP 38-2, approaches the start of the trestle while a container train in the background passes on the lower loop. N° 3106 passes a clump of Snow Ladder sedum on the left.

the canyon walls and the track would cross the stream in three places, providing ideal opportunities for a variety of different bridges.

However, my survey revealed a hitch in the plan. Our property drops sharply at its

most distant corner. Not wanting to shorten the length of the loop, I resolved to construct a 30'-long trestle, with bents varying in height from 1' to almost 4'. I knew I had my indoor winter work cut out for me.



## The Wascana Canyon Railway at a glance

**Name:** Wascana Canyon Railway, with operating rights for Canadian Pacific Railway

**Size of railway:** About 30' x 40'

**Scale:** 1:29

**Gauge:** N° 1 (45 mm)

**Era:** Past 30 years

**Theme:** Mainline shipping of grain, containers, and petroleum

**Age:** Six years

**Motive power:** USA Trains SD-70, two GP 38-2s, Alco S-4; Aristo-Craft SD-45, Budd Rail Diesel Car; all track powered

**Length of mainline:** Two loops: 140' upper and 160' lower

**Maximum gradient:** 3%

**Type of track:** Code 332 stainless steel

**Minimum radius:** 4'

**Structures:** Scratchbuilt

**Control:** Aristo-Craft Revolution



4. Canada grain-hoppers pass in the foreground as the end of the train completes its crossing of the trestle and bridge at the mouth of canyon. Creeping Jenny's yellow flowers seem to float down under the bridge.



5. A driver waits at the crossing, protected by Canadian-style crossbucks near a bit of stonecrop. A deer, sheltered under a bird's nest spruce and standing on blue spruce sedum, is startled by the SD-45, pulling a container train. A grain train, hauled by a GP 38-2, roars along the upper loop. The paved road shows signs of recent pothole patching. Creeping Jenny climbs the cribbing.

### Construction

I began with the construction of the trestle. Once complete, structural rigidity and the weight of the track eliminated any need to anchor it and it hasn't moved in six years. Bi-annual coats with a 50:50 mixture of Minwax Wood Finish oil-based dark-walnut stain and boiled linseed oil have been an excellent preservative and looks similar to creosote.

I purchased railway supplies, including several items of rolling stock, an Aristo-Craft through-truss bridge (wood), a Garden Metal Models deck girder bridge (steel), and an LGB steel truss bridge (plastic), as well as an Aristo-Craft Train Engineer system. To facilitate continuous running, I used an Aristo-Craft 18V, 10-amp power supply and stainless-steel rails in 8' lengths by the same maker. A Train-Li EasyBend Duo Track rail bender proved invaluable for track laying. Joints are fastened with Split Jaw joiners.

Snow melt in the spring of 2007 revealed a blunder: I had forgotten about an existing garden shed. The planned track and stream cut off access to the lawnmower and other implements. With no practical means of relocating the shed, I set to work designing and building an

arched footbridge, 12 feet in length.

I purchased three pallets of red British Columbia sandstone and built the canyon with a cedar retaining wall in one area. I installed the upper pond and the stream. Track was laid in crusher fines with no other means of retention.

### Landscaping

I purchased a dozen dwarf Alberta spruce, along with white pines, eastern red cedars,

bird's nest spruce, and Colorado spruce, along with groundcover suited to USDA Hardiness Zone 3. I keep the conifers pruned to scale dimensions.

### Expanding the empire

After a summer of watching trains go around only one 140' loop, and having to carry rolling stock a piece at a time between the basement and the railway, I mulled over future expansion plans.





6. An Alco S-4 trundles past on top of the retaining wall, which overlooks the picnic-site parking lot. The color of the cedar cribbing reflects the author's wood preservative, a 50:50 mixture of Minwax dark walnut oil-based stain and boiled linseed oil. A bird's nest spruce partially obscures the cribbing on the right.

## A partial plant list for the Wascana Canyon Railway

Regina, Saskatchewan, Canada  
USDA Hardiness Zone 3

### CONIFERS

Eastern red cedar  
*Juniperus virginiana*  
Bird's nest spruce  
*Picea abies* 'Nidiformis'  
Dwarf Alberta spruce  
*Picea glauca* 'Conica'  
Colorado blue spruce  
*Picea pungens*  
Western white pine  
*Pinus monticola*

### LARGE DECIDUOUS TREES

Tower poplar  
*Populus x canescens* 'Tower'  
Weeping willow  
*Salix babylonica*

### SHRUBS

Red-barked dogwood  
*Cornus alba*  
Golden Elf spirea  
*Spiraea japonica* 'Golden Elf'

### GROUNDCOVER

Snow-on-the-mountain  
*Aegopodium podagraria* 'Variegatum'

### Bugleweed

*Ajuga reptans*

### Lily of the valley

*Convallaria majalis*

### Cheddar pinks

*Dianthus gratianopolitanus*

### Variegated creeping Charlie

*Glechoma hederacea* 'Variegata'

### Hosta hybrids

*Hosta* 'Fragrant Bouquet'  
*Hosta* 'American Dream'  
*Hosta* 'Bright Lights'  
*Hosta* 'Showboat'

### Creeping Charlie

*Lysimachia nummularia*

### Stonecrop varieties

*Sedum forsterianum* 'Oracle'  
*Sedum makinoi* 'Snow Ladder'  
*Sedum reflexum* 'Blue Spruce'  
*Sedum rupestre* 'Angelina'  
*Sedum spurium* 'Dragon's Blood'

### Hen-and-chicks

*Sempervivum x hybrid*

### PERENNIALS

#### Daylily

*Hemerocallis* 'Happy Returns'

#### Hops

*Humulus lupulus*

#### Hard shield fern

*Polystichum aculeatum*

That winter I constructed an oval-loop staging and storage track suspended from my workshop ceiling to reduce manhandling the equipment. A turnout directs trains through a basement window, through a hole cut in a trellis, to the mainline upper loop. Hops climb the trellis in summer.

The snow melt of 2008 was soon followed by the construction of a second loop, 160' long (the lower loop), with a connecting track between the loops. I used Aristo-Craft turnouts and LGB turnout motors.

The lower loop circumnavigates a reduced lawn area and follows the contours of the land with no grade modification. Trains descend a 3% grade away from the house and climb a 3% grade on the return side of the loop. This slope is no problem for my all-diesel locomotive fleet of USA Trains and Aristo-Craft engines.

The locomotive roster is all CPR, except for a Budd Rail Diesel Car that began life as a Canadian National unit, converted to WCR using appropriate decals. Rolling stock consists of numerous Canada grain hopper cars, Saskatchewan Grain Car Corporation grain hoppers, as well as intermodal container cars, tank cars, and an assortment of gondolas and a pipe carrier.

I upgraded the control system to the Aristo-Craft Revolution, which is excellent. Kadee couplers adorn all rolling stock to ensure compatibility. All locomotives are equipped with Phoenix Sound. Locomotives are weathered to look as grimy as the CPR specimens that run through our city. Many of the hoppers have extensive graffiti, which I hand painted with Testors enamel using prototypical writing styles. A close look will reveal the names of family pets and inside jokes hidden in the graffiti. All rolling stock has been coated with a clear, matte spray finish to protect the weathering (from weathering, I guess).

### Structures

My preference is for trains to roll through the countryside without an abundance of structures. I have three trackside buildings, two of which are made from JigStones and one of ¼" plywood.

There is a short paved road, made from pothole-patching compound, which starts at the cemetery, goes past the house, and across two level crossings to the parking





7. The railway's Budd Rail Diesel Car runs along the siding beside the house, having passed the cemetery. The locomotive of the container train on the lower loop passes the operating oil-well pump jack. Along the fence several hosta plants appreciate partial shade.

lot of a picnic site beside the stream. The site is complete with picnic table and out-house. I built an operating oil well pump jack typical in this part the country.

### Conclusion

My exposure to those 100-plus back issues of *Garden Railways* was the beginning of a rewarding journey. I have posted a few videos of the WCR on YouTube. Just search for "Wascana Canyon Railway" to find a selection of videos of the railway. I hope you enjoy them. 🚂

### About the author

Rupert James is a Chartered Accountant and is a senior executive with the Brandt Group of Companies.



Rupert is married to Sue, who does the gardening. The couple has two grown children who live in Alberta and Saskatchewan. The picture was taken in front of Rupert's HO version of the Wascana Canyon Railway, currently under construction.



8. A GP 38-2 diesel gets a break from plowing the snow as it reaches the trestle. Spruce trees don't mind a little snow.