



Garden railroading at **The Colorado Railroad Museum**



1. Many of the mature dwarf Alberta spruce trees and large bridges dominate this scene. The California Zephyr is moving along track N° 3 while, above it, a diesel-powered freight crosses the stream.

The Denver Garden Railway Society's well-established railway

by Alan Olson | Arvada, Colorado | PHOTOS BY THE AUTHOR

The Colorado Railroad Museum (CRRM) agreed to allow the Denver Garden Railway Society (DGRS) to create a garden railway on an unused plot of land at the museum, below the north fill of the museum's narrow-gauge mainline in September of 1994. This area was covered with tall weeds, brush, and poison ivy. The land sloped steeply down from two sides to form a small, shallow pond created by natural drainage and seepage from a nearby irrigation canal. There were also some tall cottonwood trees that provided shade. Some DGRS members thought this location to be a poor choice, but the DGRS Museum Committee saw only potential.

The agreement with the museum required the club to run trains during special events, like the Bunny Train, Wild West

Days, Dinosaur Express, Santa Train, and of course the popular Day Out With Thomas.

To show museum visitors what was to come, we started with a simple 10'-diameter loop around one of the trees. We ran trains on this while we cleared the ground and hauled in the tons of rock and fill necessary for the track-loop terraces and walkways. The edges of several of these terraces helped to form a deeper stream and pond for our water feature. The pond is now home to water lilies and fish. Spanning the streams required the construction of several beautiful metal bridges of various designs, some single track, and one large version that carries tracks N°s 3 and 4 safely across a part of our pond.

During our first few years, our dedicated group of hard-working volunteers did everything from operating front-end

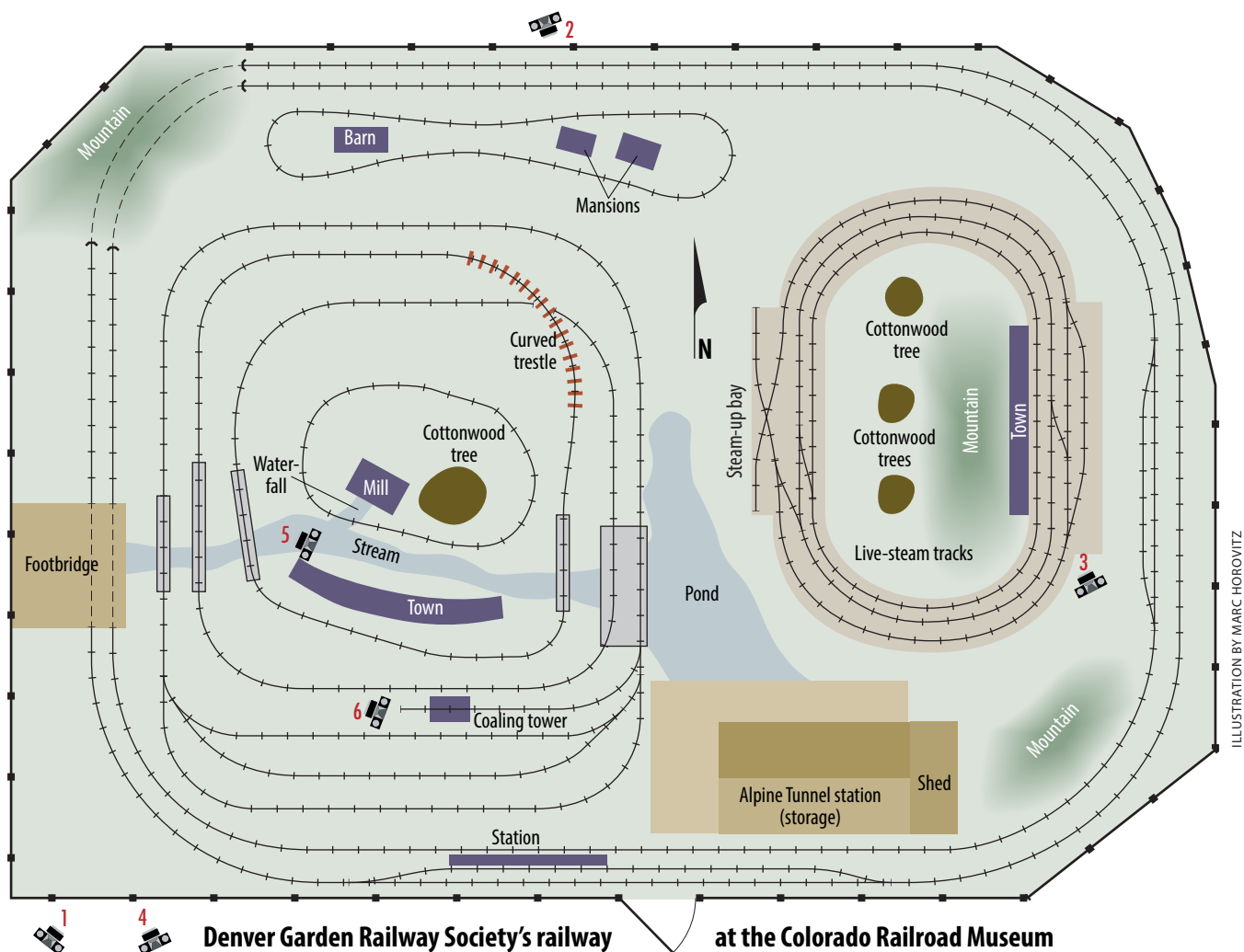


ILLUSTRATION BY MARC HOROVITZ

The railway at a glance

Name of railroad: DGRS Garden Railway at the Colorado Railroad Museum

Size of railroad: 97' x 70'

Scale: Various

Gauges: 0 (32mm) and 1 (45mm)

Era: Late 1800s to modern

Theme: Colorado mountains and plains

Age: 24 years

Motive power: All types, including track power, battery power, and live steam

Maximum gradient: 2.5%

Type of track: LGB and Sunset Valley

Minimum radius: 4'

Structures: Scratchbuilt and kitbashed

Control system: R/C and manual

Website: www.denvergardenrailway.org

loaders, backhoes, and driving side-dump semis loaded with dirt, to carefully laying in the rocks for the terrace walls. We added the many garden elements, plants, trees, and a sprinkler system.

Trackage

The trackplan is designed to accommodate many operators on several separate loops. This allows more club members without railways of their own to be able to run their trains. There were initially four track-powered loops and a separate elevated railway with two loops for live-steam operation. Later we were allowed a bit more real estate, and added two much larger outer loops plus a switching yard and an area for a small rose-garden railway, which gave us a total of seven operating track-powered loops.

In 2012 we were able to rebuild

the live-steam structure and add another loop with dual-gauge (0 and 1) track. We use LGB flex track on the track-powered portions. We originally used #1600 switches but, when the wider-radius #1800-series switches became available, we installed them instead. To keep the flex track aligned on the straight sections of the railway, we placed 2" x 2" cedar battens below the track. We used wood screws every foot, through the ties, to secure the track. The steam track is all code-250 flex, with various sizes of turnouts. There are two formal steam-up bays, a short passing siding, and a long storage spur.

Track cleaning is done mainly by hand but an LGB locomotive that has been modified by the addition of a small four-wheeled car with a rotating brush is sometimes used. We originally used

2. Trains are running on two different loops of tiered track. In the background is the Alpine Tunnel building that houses the DGRS rolling stock, controls, and tools. A variety of plants fill in the slopes.



Scotch-Brite-type pads mounted on drywall-sander poles for the heavier work. At one point, however, our cottonwood trees started leaving a hard-to-remove sap on the rails, which quickly gummed up the pads. Now we use open-weave fiberglass drywall-sander strips that do a good job of removing the sap.

Storage and structures

We built a, full-size (though scaled down) version of the famous Alpine Tunnel station in which to house our radio-control systems and rolling-stock collection, plus various maintenance tools. We added heat to keep us warm in the winter months, and there is a coffee maker and refrigerator—almost all of the comforts of home.

All of the buildings on the railway were scratchbuilt or kitbashed by DGRS members, while all of the bridges, both wood and metal, were scratchbuilt. There are small houses and mansions, water and coaling towers, stations, an oil-well derrick, stores, a gas station, and many more structures that give our railway a reason to exist.

At first, any style of structure or detail level was acceptable, to

quickly populate the railway with structures. As time went on, when a building needed heavy repair, it was replaced with a structure that represented the late 1930s to late 1940s, and with a higher level of detail. Because of the strong ultraviolet radiation at our elevation, paints and stains quickly fade and plastic becomes brittle. Add to that wide and sometimes sudden temperature variations, plus the occasional 100+mph winds we get along the foothills of the Rockies, and we have the need for nearly constant maintenance.

The northwest corner of the railway had a fairly wide curve that was rather plain looking. A few years ago, we added a two-track tunnel through a landscaped mountain there. People, especially children, really like seeing the trains as they enter and exit the tunnel. Sometimes when the afternoon rain storms start up in the spring and summer while operations are going on, the tunnel can be used as a place to quickly shelter trains.

The railway is in use year round, in all of the weather that Mother Nature can throw at us. When visitors ask us what do we



3. The town of Dallas Divide is on the east side of the live-steam track, under three of the shady cottonwood trees. The steam trackage is also occasionally used by small, battery-powered critters and locomotives. Structures are built from various materials and stay out year round. Elfyn thyme makes a small lawn in front of a stone building.

do with the track and buildings during winter, we explain that we run all year. Sometimes we bring out our photo album and show them our trains operating in the snow, to give them an idea of what winter garden railroading is like.

Plants and trees

Over the years we have learned what will survive in our climate, which can vary in temperature from 75° one day to below freezing the next, and go from drought conditions to record precipitation in a few months. There is also a concern about the various critters with whom we share space. It is

Plants on the DGRS garden railway

Golden, Colorado, Zones 5-6; Compiled by Rae Ann Banks

CONIFERS

Mother Lode juniper
Juniperus horizontalis
'Mother Lode'

Blue Star juniper
Juniperus squamata
'Blue Star'

Dwarf Alberta spruce
Picea glauca 'Conica'

Jean's Dilly spruce
Picea glauca 'Jean's Dilly'

Colorado blue spruce
Picea pungens

Mugo pine
Pinus mugo

SMALL TREES AND SHRUBS

Orange Rocket barberry
Berberis thunbergii
'Orange Rocket'

Golden Devine barberry
Berberis thunbergii
'Golden Devine'

Green Mountain boxwood
Buxus x 'Green Mountain'

Green Velvet boxwood
Buxus x 'Green Velvet'

Miniature cotoneaster
Cotoneaster thymifolia

GROUNDCOVERS

Bugleweed
Ajuga 'Bronze Beauty'

Small-leaf pussytoes
Antennaria parvifolia

Dragons Blood sedum
Sedum spurium
'Dragons Blood'

Bronze Carpet sedum
Sedum spurium
'Bronze Carpet'

Irish moss
Sagina subulata

Sweet woodruff
Galium odoratum

Creeping veronica
Veronica repens

Snow-in-summer
Cerastium tomentosum

Elfin thyme
Thymus serpyllum 'Elfin'

Golden lemon thyme
Thymus x citriodorus
'Aureus'

PERENNIALS

Lavender
Lavandula angustifolia
'Ellagance Purple'

Red miniature rose
Rosa 'Red Sunblaze'

Cranesbill
Geranium sanguineum

ANNUALS

Zonal geraniums
Pelargonium x hortorum

Small marigolds
Tagetes patula

Coleus
Solenostemon
scutellarioides

Lobelia
Lobelia erinus

WATER PLANTS

Water lily
Nymphaea sp.



4. A sampling of the crowds that show up during the many special events at the CRRM. This time it is the popular Day Out With Thomas. Toby and his train approach the No 3-track bridge. Several pieces of the museum's narrow-gauge rolling stock are visible in the background above the garden railway.

not uncommon to see deer inside the garden railway in the early mornings. There are also rabbits, foxes, raccoons, the occasional skunk, and coyotes to deal with.

We do not use strictly "scale" plants; there are many larger, flowering plants that add nice areas of color. This past year we added more plants along the eastern fence line, watered by drip lines. We have also reached the

point where we can thin out various groundcovers and transplant those sections to other areas. Achieving this level is a milestone for any garden railway and helps to fill in places where we feel we need more greenery.

A home at the CRRM

Over the years our initial relationship with the museum has grown into a partnership. A substantial

number of DGRS members work to support special events, work on the track or train crews, volunteer in the museum library, work on restoration projects, and help with day-to-day museum maintenance. Many members also serve on various museum committees and several are on the museum's board of directors.

The DGRS has given significant financial donations to the museum to help fund various projects, to show our support for the CRRM. Several of our members have become involved with the Museum's Summer Model Railroad Camps, and have given clinics that include building kits or reading railroad-related stories to groups.

We could not have a better home to show what garden railroading is all about. The public can see a huge variety of trains running, many interesting structures, and all of the different



ABOVE: 5. A C&S train passes over one of the large metal bridges that spans the plant-filled streams. Just visible above, a D&RGW diesel consist exits the tunnel.

plantings. There is a constant flow of tours visiting the CRRM from local schools, groups from retirement communities, and international groups, plus civic gatherings in the pavilion. Our members interact with visitors and answer their many questions, which include, “Are those real trees?” “What do you do with the track in the winter?” and, of course, “How much does it cost to build a garden railroad?”



LEFT: 6. A passenger consist of cars and locomotive by Lionel Trains passes through marigolds and sedum. Lower left, a Golden Devine barberry reflects the yellow flowers.

The future

The future is already here for us, as far as the aging of our membership is concerned, and it got here surprisingly fast. We will not only soon need to address how to make the garden railway more accessible to our members but also how to make ongoing maintenance easier. Several areas are being modified for easier loading of trains by people with limited mobility, and we will likely need to install unobtru-

sive handrails in some areas.

Our dedicated membership keeps the garden railway running well and looking great. Our museum garden-railway operators include those in their teens (or younger) to those in their 80s, with a good variety of garden-railway interests and experience. It appears that the DGRS garden railway at the CRRM will be around for a long time to come. 

About the museum

The Colorado Railroad Museum, 17155 W. 44th Ave., Golden, CO 80403, was founded in 1959 by Robert W. Richardson and Cornelius W. Hauck. It has evolved into one of the premier railroad museums in the world. Today it houses more than 100 narrow- and standard-gauge steam and diesel locomotives, passenger cars, and cabooses on its 15-acre site. To learn more, visit <http://coloradorailroadmuseum.org>