



Mystic Mountain Railroad

The **Mystic Mountain Railroad** is a back country shortline loosely set in the early 1900's. The MMRR is now an operations-oriented, point-to-point railroad with a yard (North End), two large industrial areas to provide challenging switching, and several industry spots along the way providing opportunity for freight movement operations for various industries. A helix inside a mountain connects the newest industrial area, Newton. The Mystic branch runs over rugged mountains and deep canyons, necessitating several steel bridges to reach the town of Mystic. The Costa branch provides another complex industrial switching opportunity. The MMRR interchanges with the Santa Fe and UP RRs. A turntable allows turning engines for point-to-point operation, if desired.

A unique feature is the use of concrete rock wall castings painted with artist acrylics. Numerous custom structures provide "business" for the railroad. A panoramic view of Silicon Valley serves as a natural "backdrop" to the railroad. Several sound effects units are installed around the layout. The railroad is lit for nighttime operation.

Track

The MMRR has about 600' of mostly Llagas Creek code 250 Nickel Silver track resting on granite fines. The minimum radius is 5'. Mainline grade is less than 2.8%. The Mountain branch has a helper grade of 4.5% up to the town of Mystic, the high point on the layout.

Control

The Mystic Mountain railroad operates battery-powered, radio-controlled trains using Aristocraft (now Crest) Revolution. Batteries are Li-Ion and can be swapped quickly and recharged in an hour or so. The batteries are good for 1.5 - 4 hours. Trains all have sound systems (SoundTraxx and MyLocoSound). Some of the sound effects are automated with magnets on every engine and caboose.

Structures

Structures are a mix of kits, kit-bashed, and scratch-built. Custom-built structures include:

- the roundhouse, turntable, station, and coal/water tower at North End yard,
- the ACME Manufacturing factory (Acrylic),
- the wharf and Mercury Canning Co. at North End (Acrylic, PVC, and old political signs)

I enjoy adding details and kit bashing commercial structures. Notice the workers repairing the water tower at Newton, and the combination water and coal tower made from an old tender at North End. The building "halves" at Union Junction are kit-bashed from Colorado Models kits.

Most buildings are lit for nighttime operation using LEDs and Christmas tree lights. Some bridges are commercial and some I've built myself. Mystic Mountain is a story in itself – and a twelve-month construction project. Eight feet high, it houses a 1 ½ turn helix and a storage cabinet for trains.

Construction

The Mystic Mountain Railroad was started in December 1999, 18 months after we bought this house. When we moved in, this yard was just flat, bare dirt. We spent from 12/98 to 12/99 planning, putting in electrical and plumbing lines, building the raised planters, labyrinth, walkways, lighting, waterfall, creek, and pond. It took nearly 100 yards of material to fill the raised planters. The labyrinth is 7,000 hand-laid pavers. The plants are "drip" watered. We did everything ourselves, except the concrete and flagstone walkways. It took about a year to

complete the track in the first phase with some plantings and structures. Later, plants and structures and more spurs were added. The train room was added in a home remodel in the summer of 2001. In 2003-2004 the Mountain Division was created nearly doubling the amount of track. The Mountain Division originally included a complex four-turn helix to gain the needed elevation to create a scene with deep canyons and high bridges. The cast concrete rockwork for the Mountain Division took over 12 months in itself.

The waterfall, creek, and pond are lined with a thick rubber liner to prevent water loss, but the pond was attracting “unsavory characters” - Raccoons and other varmints. In 2014 it was converted to “pondless” to avoid this and cut down on maintenance.

2014 & 2018 Layout Changes

During the major renovation in 2014, I simplified the helix greatly making the Mountain Division an automated loop-to-loop for continuous running. I also added a team track at Mystic and a spur for the Sierra Club Logging Camp at North End yard. Because of the helix simplification, I was able to change the wye at the bottom of the mountain, adding a spur for more switching operations. Two storage tracks were added at South Providence yard. And the entire Sawdust sawmill complex area was added to the railroad. I created a track layout in this area specifically to add complexity to switching operations here.

2018 saw the addition of a branch line to the new industrial area "Costa" to provide additional switching challenges during operations (uses code 332 Brass track). In 2020 I added three new industry spots named for my local granddaughters. In 2021 I replaced the 1 ½ turn helix trackage which had deteriorated greatly in nearly 20 years. The two return loops inside the mountain will need replacement – or maybe abandonment.

2024 Downsizing

After 25 years my Mystic Mountain RR was showing its age – most of it is in full sun all the time. There was – and had been – a lot of track damage – mostly broken ties. Trees drop leaves and needles in the winter and need pruning to control growth in the Spring and Summer. And weeds!!! And broken drip watering.

My Seiju Elms were a maintenance problem in themselves; they drop sticky sap on the tracks; they drop little leaves that, when wet, stick in the track. They grow to about four feet high every year and the pruning got to be onerous. The trunks had grown to about 8-10” in diameter over their 20 years in that spot. The trees made a nice view block but I determined they had to go to reduce maintenance.

In 2024 I decided I would downsize the railroad to reduce maintenance to a manageable level. I inspected the whole railroad in detail and made a list of all the track needing repair or replacement and all the other elements of the RR needing repair/maintenance work. There was a lot! The part of the railroad with the worst track condition – and most plant maintenance -- was the West-facing yard, which gets 100% sun the whole day. The return loops inside the mountain were also high maintenance and were to be removed. With *much* help from Roger Nicholson, we removed structures and track from that area of the railroad -- about two-thirds of the RR. With all of that part of the railroad gone, I designed a new terminus point for the RR as it exits from the lower end of the helix inside the mountain. The custom six-foot curved steel bridges I built were removed and area filled in. The point of this was to give the railroad some new industries to work. The railroad no longer has a loop for continuous running. All operations are point-to-point; the one regret I have is not being able to run round-and-round attention-free for open houses.

Points of Interest

The rock cliffs are cast in rubber molds or aluminum foil molds using white concrete. The rocks are then painted with many washes of acrylic (artist) paints. Some have been in the sun over 10

years; some fading is evident. Some additional washes were added in 2016 to darken the rockwork.

I have sound effects in several of the buildings including a bluegrass band in the Newton gazebo, a telegraph operator in Newton station, an operating machine shop, water and fog horn sounds at the wharf, and a piano player in the Mystic Gentlemen's Club.

Other Items of Interest

The Wisteria provides passive solar heating and cooling to the house. In the winter it is dormant and leafless letting the sun into the house for warmth. In the summer it blocks the sun from the house while providing a beautiful view from inside via holes cut here and there. The 9 KW PV system pays about 30% of the electricity bill each year. The observatory came with the house but there was too much city light for serious astronomy so the telescopes were sold a few years ago to someone who could give them a good home in a more suitable setting. The Labyrinth is a copy of the one in the cathedral at Chartres, France. The weaving workshop (spiral roof) in the "tennis court" orchard is my wife's project - made of Cob - a mixture of mud, sand, and straw.

Photos, videos, and additional information is at: <http://www.mysticmountainarts.com/MMRR/> .



Mercury Canning on the Wharf at North End



Crew Removing Track for 2024 Downsizing



Newton – New Terminus of Mystic Mountain RR