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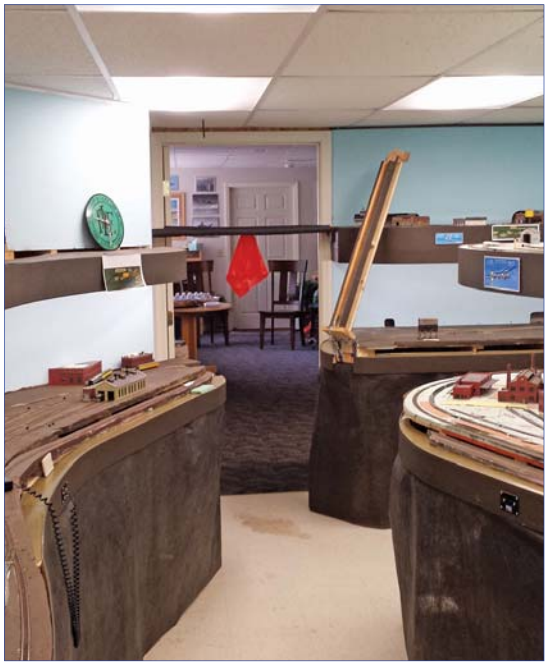
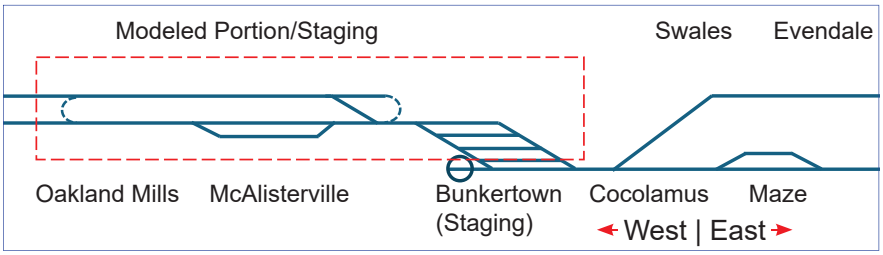
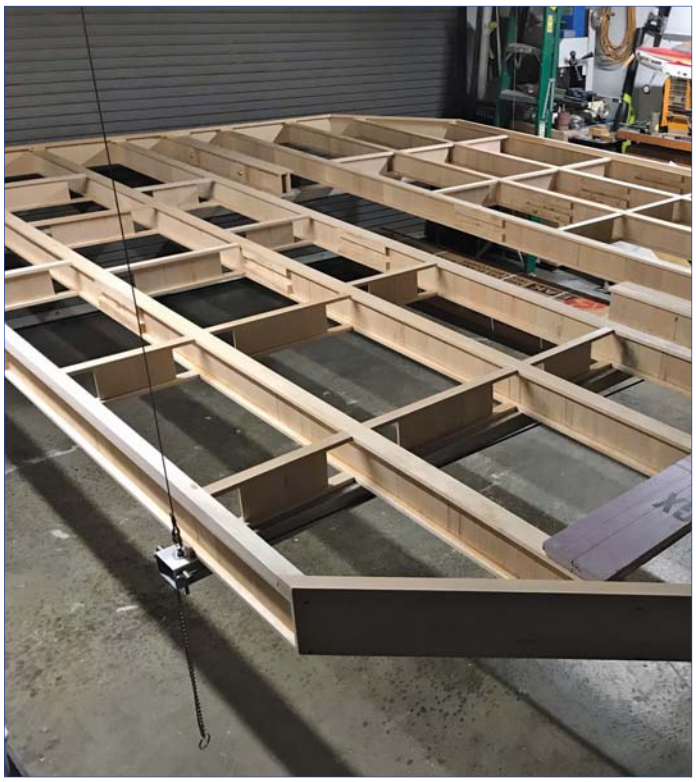
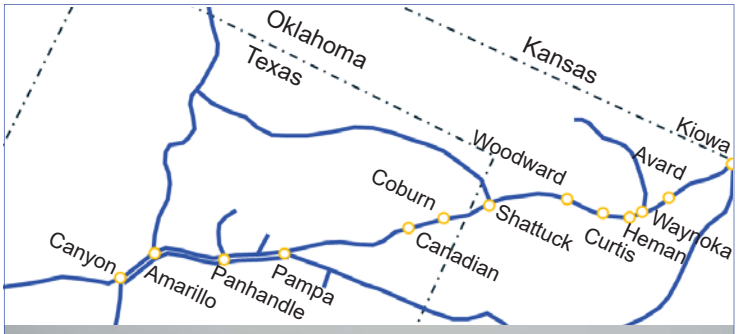
LAYOUT DESIGN JOURNAL 74

Downsizing Early: Texas ATSF
Tape, Templates, & Wax Paper
Give Your Layout a Lift
Penna. Narrow Gauge in 11
Design Ideas from NMRA 2024









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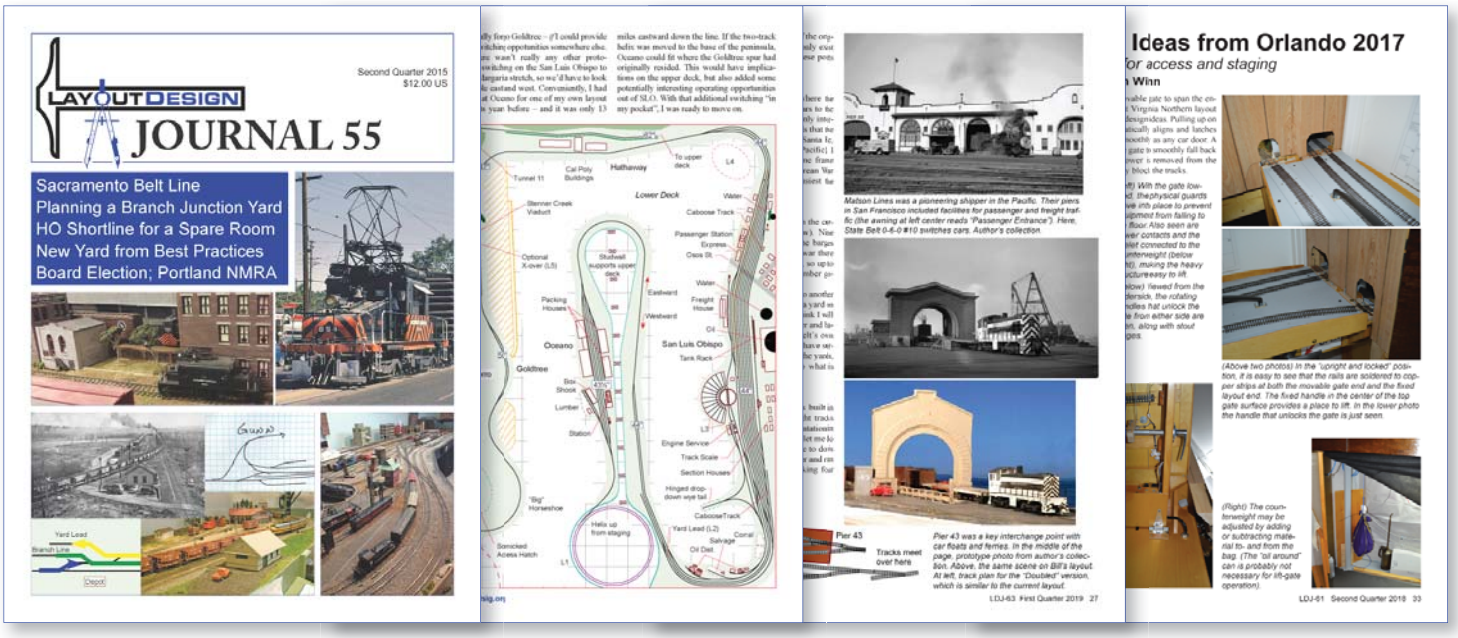

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See Samplers of many back issues at www.ldsig.org/ldj-index

Cimarron and Santa Fe in HO

Downsizing early with a do-able scope

Story, images, and captions by Tim Fisher, except as noted

Downsizing real-estate is never easy. It is so painful that many of my contemporaries are putting it off. After a few years of retirement, I realized that I could no longer maintain a free-standing house that routinely required climbing on ladders.

"[Those] who downsized early ... managed much better."

I learned from my older model railroad mentors that the group who downsized early, while they could, managed much better than the few that let the problem go for a few decades.

We decided to shop for a condo and found nothing interesting in the resale market of 2016. We chose new construction and got a condo with a basement, good for a new model railroad. We closed on the new condo August 2017 and got our favorite contractor Tony and his buddy Dave to finish the basement during the winter months of 2018. By February 2018, the space was finished and I started building the layout in June 2018.

2-10-2 #3896 runs west at Pampa station in front of the freight house, team tracks, and massive grain elevator. Tim's layout scope consists primarily of this town and secluded staging, which allowed him to build quickly and begin operations sooner after downsizing to a condo with basement. – BH

A three-year plan

I have always been interested in track planning and had built three layouts previously (see page 12). The current plan is based on earlier choices from those prior layouts.

Time was a major consideration. I wanted to build a new railroad in three years, because I am not getting any younger. Ultimately, the functional build took 1,000 hours in 17 months.

Theme and locale

When planning a new layout, I have selected a new theme each time. I always want to leverage my Santa Fe models and stay in HO.

The first step is to list what areas would present a good theme. Here are some of the places that I considered for a layout that would be simple to build – with a single town and one staging yard:

- Pampa, Texas – Plains Division, oil industry, branch line, small yard
- Panhandle, Texas – Main line connection to Borger branch
- Borger, Texas – Branch terminal with refinery, carbon black plant and oil field services
- Hereford, Texas – feed lots, grain and Holly Sugar
- Clovis, New Mexico – division point yard served all SF engine types
- Belen, New Mexico – division point, helper grade
- Pueblo, Colorado – Union Station for SF, D&RGW, FW&D, MP
- Phoenix, Arizona – terminal yard classifies for east and west for a split to the North, refrigerated produce, union terminal with SP
- Richmond, California – terminal yard, barge terminal, port facilities

Remain in the plains (Division)

In the end, the desire to stay in the Plains Division (Pampa) won over other sites because of modern steam engines in service. I had previously considered Pampa as a site for the two prior layouts.

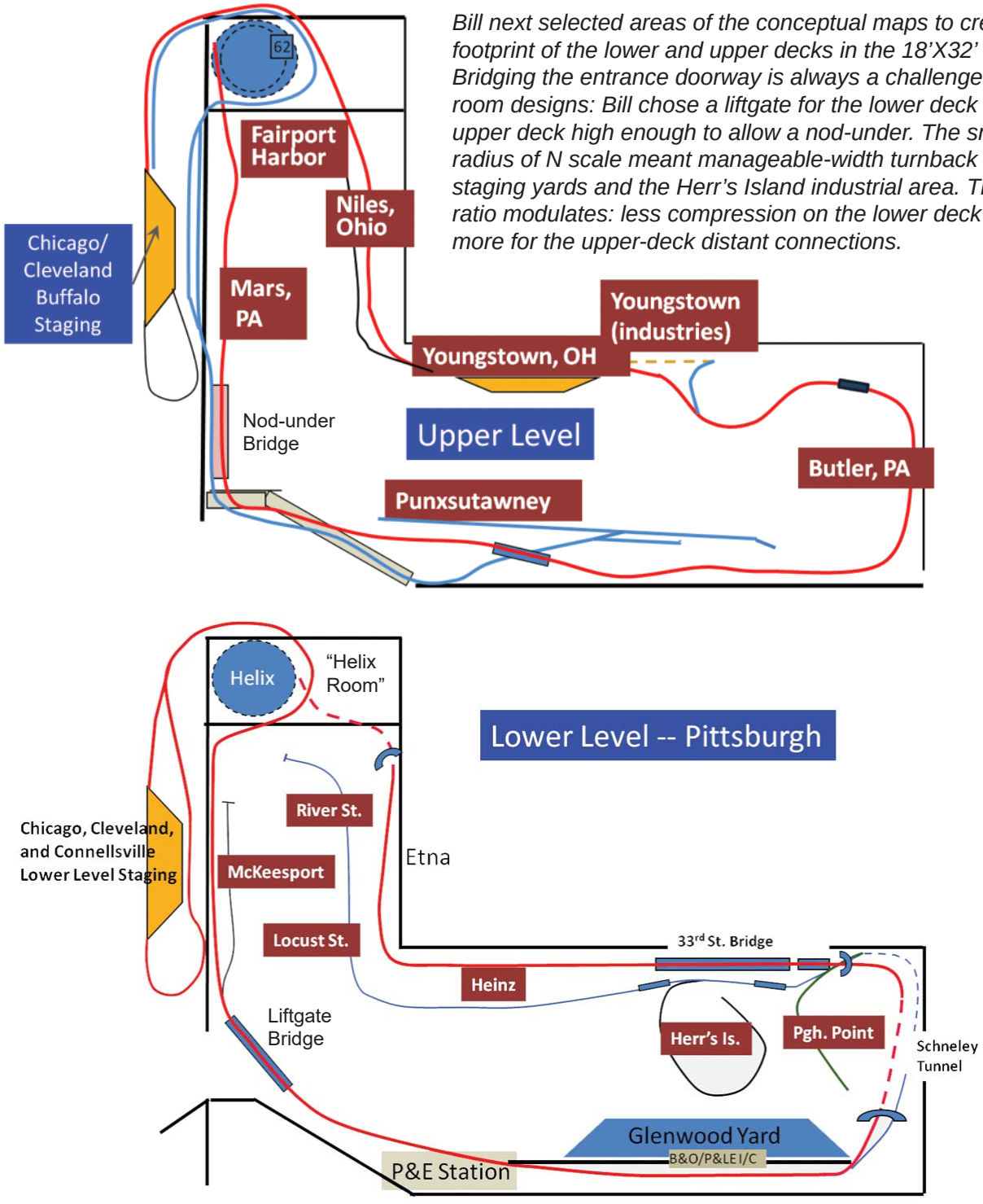
Creating a footprint

I had a 31 ft. by 18 ft. L-shaped room for the layout. A portion of it was squeezed by basement stairs—not much room for factories but definitely room for a helix—and a large diameter one, at that! After sketching many hours in hotel rooms and at home, I finalized "the plan" (below).

Next: what would be the heights of the two layout levels? What maximum grade? How deep will the layout be—aisle edge to backdrop? Would there be room for wide aisles? Staging yard location?

Construction begins

After several weeks of "am I sure?" thoughts, the basic construction started in 2010. Chuck Place and Bill Raymond (photos page 20), my two assistants, and I removed the plywood shelving and 2X4s and saved the wood for the layout. We installed a suspended ceiling with florescent lights, secured layout



Bill next selected areas of the conceptual maps to create a general footprint of the lower and upper decks in the 18'X32' overall area. Bridging the entrance doorway is always a challenge in around-the-room designs: Bill chose a liftgate for the lower deck and raised the upper deck high enough to allow a nod-under. The smaller minimum radius of N scale meant manageable-width turnback curves for the staging yards and the Herr's Island industrial area. The compression ratio modulates: less compression on the lower deck for industries, more for the upper-deck distant connections.

Give Your Layout a Lift

Classic HO layout lifts to share garage with a car

Story and images by Ray DeWeese

Some 30 years ago, as millions of others have done, I started looking for a good area to build a model railroad layout – however my wife and I live in a very small home with little to no extra space. Even the extra bedroom had become my office.

So I went looking in the garage where my wife parks her car – I am told it was in the fine print of our marriage contract!! While a layout around the walls would have been nice, I can't see that working because that is where all my power tools & shelving are located.

So up was the only way out: so I built a 9' X 14' table that raised and lowered remotely. Picture an upside-down shoe box: the lid being the table and the box is where the table raises up into to keep the layout dust-free while not in use. This concept has worked for me for the past 30 years. Now retired with lots of time, I wanted a new layout – and it requires an 11' X 15' table with a 2' X 7' opening in the middle for access.

"Simplificate and add lightness" is the motto of aircraft designers. Ray has carried this over to his liftable benchwork (above). I-Beams are built with thin and light wood; and the whole assembly rests on strong extruded square aluminum tubes attached to the four lift cables.

Engineered layout components

The table is made up from balsa & basswood I-Beams (photo top right). These beams are 15' long and spaced about 16" on-center to create the 11' width. The original table was built from redwood beams and they never warped or sagged over the 30 some years in use. The eight new beams are longer and lighter: weighing 7 pounds each. Basswood is used for the top and bottom rails and vertical grain balsa for the beam. Basswood is cut 2" wide X 3/8" thick X 7.5' long and the balsa is 3/8" thick X 4" tall.

The 15' beams are tied together with short 14" I-beams to create an open grid where 1½" thick extruded pink or blue foam lays. The foam is not tied to the beams, allowing the wood to expand and contract without affecting the layout. (It can get really hot in Southern California during the summers!

Extruded foam subroadbed rests inside the framework, but is not attached to allow for seasonal changes in the wood. A foam "lid" protects the layout from dust when raised to the ceiling. A sophisticated cable system keeps the layout level during raising and lowering, and so rolling stock can remain on the rails.

Pennsylvania Narrow Gauge in ~~10~~11

Freelanced railroad goes "beyond the basement"

Story and images by John Brett, except as noted

The Juniata County Railway (JCR) is a freelanced 3-foot-gauge railroad operating in central Pennsylvania around the beginning of the 20th century. Loosely based on the Tuscarora Valley Railroad, the fictitious JCR is a common carrier whose primary purpose is to transport coal from a connection with the real life Trevorton and Susquehanna Railroad in Port Trevorton to an imaginary coal gasification plant in Mifflintown.

Additional on-line traffic generators are presumed to include dairy and agricultural products from the many farms in the area, a rock quarry and a small lumber mill. A large percentage of traffic is incoming material destined for the small towns the railroad serves.

Switch 'em or watch 'em

My Challenge design (plan and imagined schematic page 35) is an out-and-back shelf layout intended to satisfy the needs of a solo operator who enjoys watching a variety of trains running through scenery as much as they enjoy switching operations.

While the East Broad Top (seen here in 2019 near Orbisonia) is the best-known, there were more narrow-gauge railroads in Pennsylvania. John's freelanced layout is inspired by the nearby Tuscarora Valley Railroad that operated from 1891 into the '30s. Photo by Bruce Fingerhood via flickr; Creative Commons License CC BY 2.0 ATTRIBUTION 2.0 GENERIC Deed

The plan provides staging for several trains, several locations for switching, and a continuous-running option. Although designed as narrow gauge, the 18" curves are sufficient for the plan to be built as standard gauge if track spacing is adjusted at the siding.

The layout represents the town of McAlisterville, the second largest town on the line. Its location provides for a variety of traffic passing through, and its size results in numerous local industries requiring rail service. All of the other towns served by the JCR are represented by staging. McAlisterville thus provides opportunities for the railfan as well as the operating modeler.

Variety of traffic

Traffic on the JCR is a mixture of freight and passenger operations. A daily coal train from Port Trevorton to Mifflintown and back supplies the coal gasification plant. Daily morning and evening passenger trains from Oriental to Mifflintown provide reliable local transportation, with the morning train picking up milk from the many dairy farms in the area and delivering it to the bottling plant in Mifflintown.

There would be mixed turns out of Bunkertown as required to Mifflintown, Port Trevorton, Sinking Springs and Richfield to service the local businesses. Because of its location, many of these trains would pass through McAlisterville.

Operating focus

Designed for a space of 16 ft by 3¼ ft, the main portion of the layout fits on a deep shelf. The single passing siding represents the town of McAlisterville, which forms the operational focus of the modeled railroad.

Just east of McAlisterville is the start of the Sinking Springs branch, which serves as a reversing track and connects to the west end of McAlisterville. Another reversing track branches off the main line east of McAlisterville and connects to one of the industrial sidings off of the Sinking Springs branch. These two tracks enable continuous running.

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Special interest or skills, such as scratch building structures, yard design, cars, operations, scenery, etc?

☐ Yes ☐ No Special interest or skill: _____

Would you be willing to be a presenter or clinician at a national, regional or local meet? ☐ Yes ☐ No

Do you model a specific prototype? ☐ Yes ☐ No Prototype(s) modeled: _____

What specific areas or locale of railroading do you model (location) ? _____

Era modeled: _____ Scale(s): _____

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