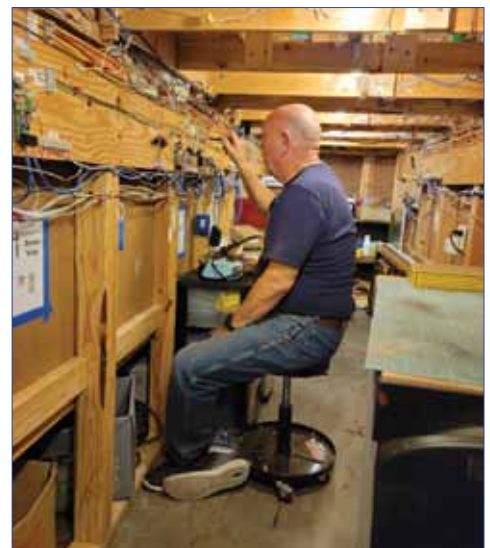
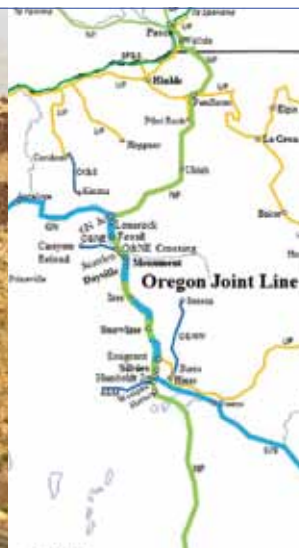
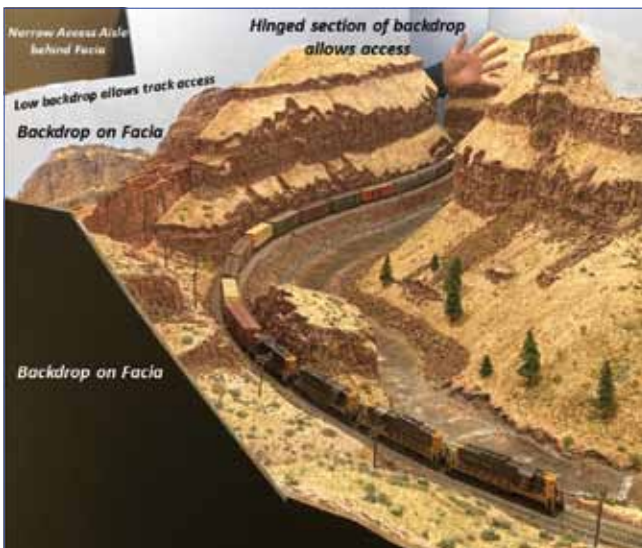


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LAYOUT DESIGN JOURNAL 71



Iron Range Concept Creation
Helpers, TT&TO, and Five Lines
Roll-Under Benchwork
Ten-Turnout Layouts
Building to Move



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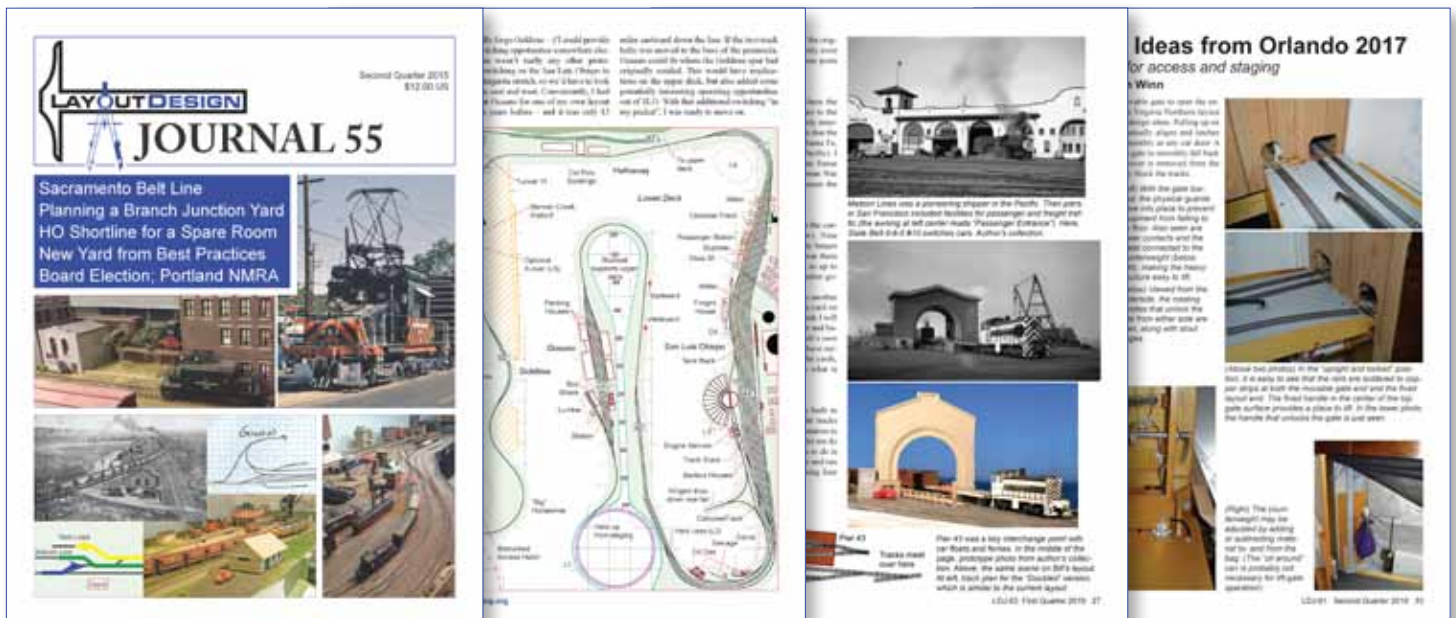
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sions on my previous railroad. The GN had no passenger service to Hibbing. (Trivia to impress your friends: the Greyhound Bus Lines began in Hibbing.) Any yards for an expanded Hibbing would be strictly ore yards which don't provide the kind of freight yard switching I wanted to model.

GN passenger trains mean a mainline

In order to get GN passenger trains I'd have to be on a mainline somewhere. Few GN mainlines in Minnesota intersect on the iron ore deposit. But the line from Duluth/Superior to Grand Forks, ND still had passenger trains until 1959. Almost every photograph of this line has an EMD NW-3 diesel, a baggage car, and a coach – which would be fun to model. If I modeled this, I could add a few more express cars to recreate a mini-*Fast Mail*.

This mainline also provided the ability for overhead freight trains including Great Lakes-bound grain and Dakota-bound empty "box extras." The Duluth/Superior to Grand Forks line doesn't have many towns requiring local switching, but there are a few.

Missing the Missabe

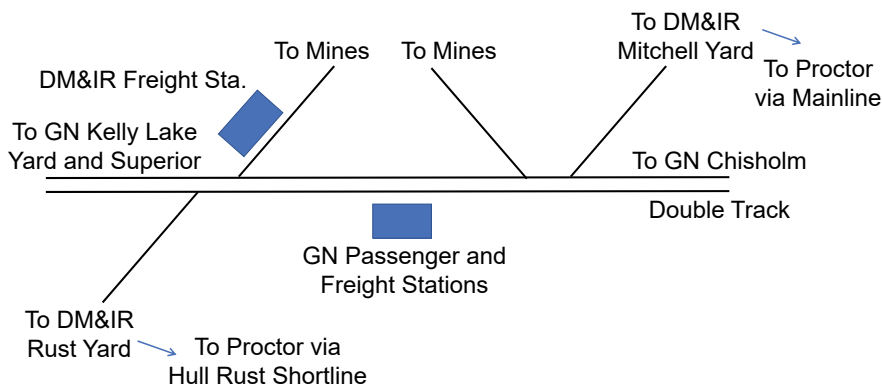
But how to connect the Missabe (DM&IR)? Hibbing is not on this mainline. The line serving the Mesabi Iron Range diverges from this GN mainline, so the Missabe territory east of Hibbing is even farther away from the GN than Hibbing.

Duluth/Superior was a possibility, but that is mostly yards. There are none of my desired iron mines in Duluth/Superior, though there are ore docks. But I'm from the Iron Range and it's fair to say there's a little animosity between the "north end" of the railroads and the "Twin Ports." Also, I live not too far from Dan Holbrook's fabulous rendition of Duluth/Superior that I can't hope to duplicate.

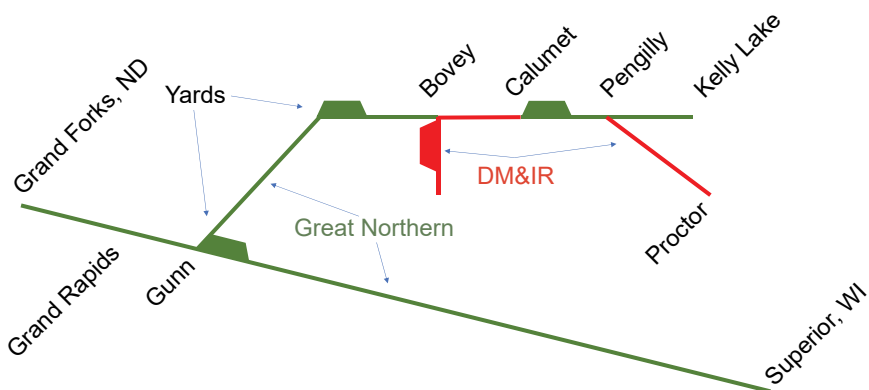
Have Gunn, will connect

West of Hibbing the Iron Range main and the Grand Forks (3rd subdivision) main converge at a place called Gunn. From Gunn the 10th subdivision of the GN heads northeast along the Iron Range, allowing the mines to be served.

The westernmost extension of the DM&IR just happens to be about six miles up the 10th subdivision from Gunn. From that convergence east for about five miles the two rail-



Robert's earlier 10X11 HO layout focused on Hibbing, Minn. (schematic above), which featured an area where the Great Northern and DM&IR shared the double-track mainline.



Robert's Hibbing layout provided plenty of operations for up to ten people, but it lacked a few desired elements, especially TT&TO traffic control – which Hibbing did not have in real life. So the search was on for a spot with similar interaction, but also TT&TO, mine traffic from the Mesabi Iron Range, etc. The schematic above included some possible locations for modeling in the new larger space.

Joint Trackage: Operating Interest and Scenes

Expansion of iron mines created the need for the railroads to hop back and forth between different trackage rights. The DM&IR mainline originally circled north of the town of Calumet. But the mines there expanded, severing the Missabe line. So the Missabe established trackage rights on the GN. Between Marble and Bovey both railroads had big bridges spanning a creek. The GN's was wooden, the Missabe's steel. The GN abandoned their bridge and established trackage rights on the DM&IR. – RH



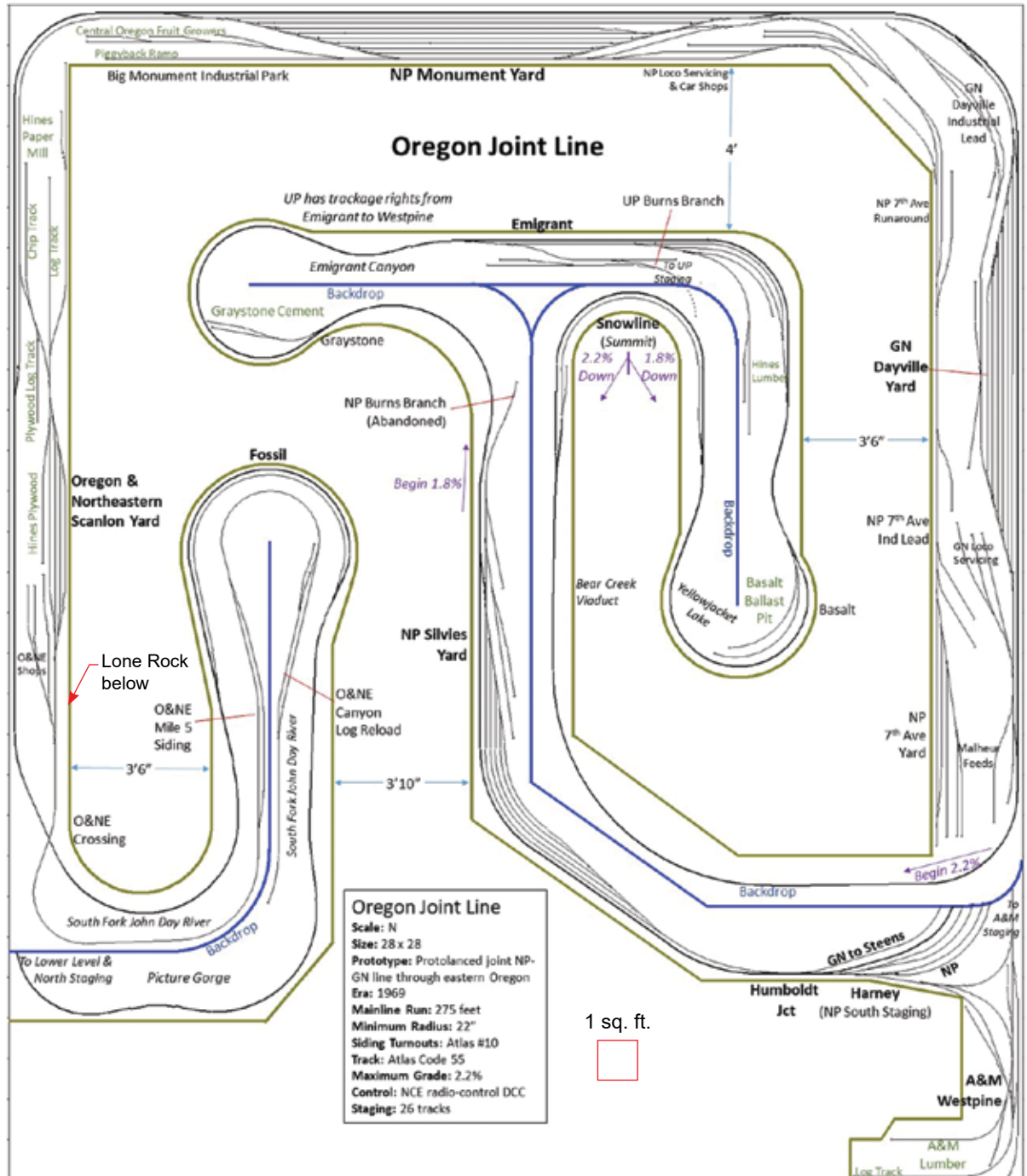
GN shared the DM&IR's Holman Bridge via trackage rights, a striking scene on Robert's layout.

must be “dog-caught”^{*} by the switch crew before they can begin their regular work putting them behind for the entire session. My regular operators never know what challenges might pop up, which keep things fresh.

** When a real-life railroad crew exceeds their allowable hours on the job, they must stop wherever they are. A “dog catch” crew is driven out to operate the train to the closest terminal. – BH*

Losing a band, “unwinding” a helix

Starting our layout tour (track plan below) from the north end we come first to GN Junction, which is where the mainlines of the NP and GN pop out of staging and combine to become the Oregon Joint Line. Immediately adjacent is Lone Rock siding – part of my “unwound” helix. Originally, I built a helix to connect the lower staging deck with the main deck. But when additional mid-room layout



When Dean was able to expand into more space, he eliminated a helix in favor of multiple peninsulas to provide running room for grades that depict the geographic locale and still provide headroom for staging beneath the visible layout. The turnback curves (“blobs”) are typical of real-life railroads battling grades in the modeled area.



At left is the main entrance to both the layout (red arrow) and the subterranean access "tunnel" below the layout (blue arrow). Only a couple of steps are needed up to the raised floor; and a rolling stool eases movement within the access space, which is well-lighted. The sign on the fascia reads: "Welcome to Jerry's Station; Presenting the Most Scenic Routes in America" (echoing the tourist marketing slogan applied to the D&RGW narrow gauge in the 1950s).



The large liftout in the photos above is another access point at the end of a peninsula. Made from lightweight blue extruded foam with resin rock castings, it is easy to move and resistant to chipping and cracking. Note steps down to the floor from the raised aisle.



(Left) Two sliding doors in the Masonite skirt below the layout offer access to the "people tunnel" beneath. One is shown here in the closed- and open positions. Note also the slots in the fascia to allow access to the staging tracks from the raised aisle. These additional access points avoid a long walk all the way around the layout from the primary access.

10-Turnout Branch Terminus

Portion of a larger design refined as a standalone layout

by Robert Stafford

When I designed the trackage to represent Pen Argyl, Pennsylvania on my HO Bangor and Portland Railway, I realized after the fact that it was a 10-turnout-or-fewer track plan. The track plan is designed to fit into the closet of a 10' by 12' bedroom that I will be using to construct my new layout.

Inspiration, not replication

On the prototype the Pen Argyl Branch left the main track at Pen Argyl Junction and extended about two miles total into the east side of the Borough of Pen Argyl to the freight house. (The map on page 25 does not include the branch.)

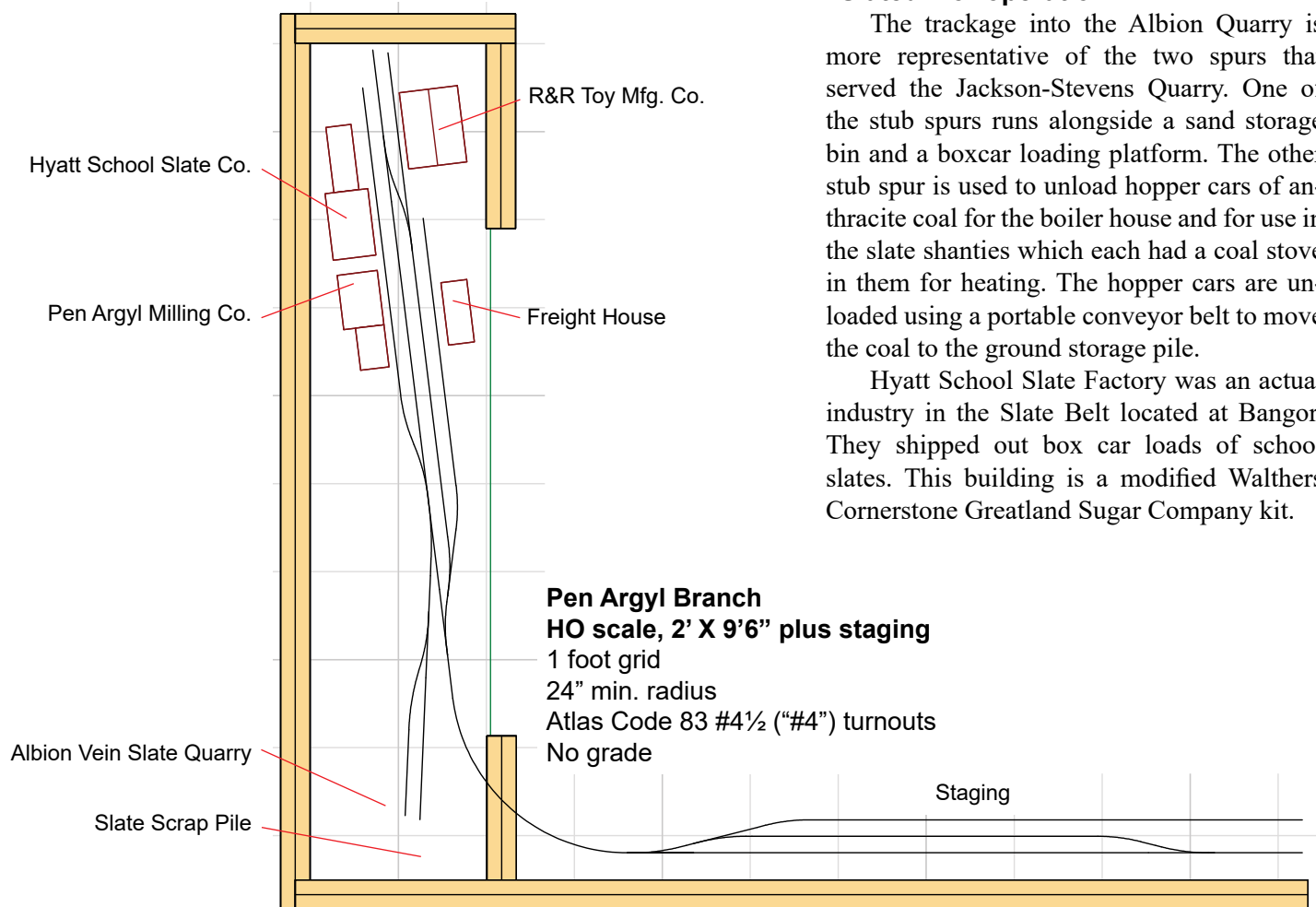
Two tracks extended beyond the freight house, one several miles long, to service several slate quarries and a structural slate factory. Just beyond Pen Argyl Junction was a 5-car double-ended spur that originally served the Albion Slate Quarry. In later years it was used as a team track.

The track layout (lower left) is not in any way true to the prototype. It was designed to fit inside of a closet and does not reflect the actual layout of the trackage at Pen Argyl. Likewise, the industry buildings are structures I had built for my prior layout and are not actual models of buildings located in Pen Argyl.

“Slated” for operation

The trackage into the Albion Quarry is more representative of the two spurs that served the Jackson-Stevens Quarry. One of the stub spurs runs alongside a sand storage bin and a boxcar loading platform. The other stub spur is used to unload hopper cars of anthracite coal for the boiler house and for use in the slate shanties which each had a coal stove in them for heating. The hopper cars are unloaded using a portable conveyor belt to move the coal to the ground storage pile.

Hyatt School Slate Factory was an actual industry in the Slate Belt located at Bangor. They shipped out box car loads of school slates. This building is a modified Walthers Cornerstone Greatland Sugar Company kit.



The line from the Pen Argyle scene in the closet connects to the rest of the layout on the author's home plan. For this article, he has substituted a small staging yard. He plans to remove the closet doors. Track and industry arrangements don't duplicate the prototype location exactly, but the types of commodities handled are the same.

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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): _____

Other interests (Main line, branch, yards, division, multi-scales, etc.) _____

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