

Elevating a Rail Line

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When my dad (Richard) and I first discussed elevating a subway line on our O-Gauge layout in Carson City, NV, we considered wood as the material to be used for supports and braces. However, I was a little uneasy with the idea of using wood. I was thinking instead of a transparent look with sturdiness and durability. At that time I did not know what to use; I just knew I didn't want to use wood.

While going over possibilities in my mind, an aunt in New Jersey asked me to remodel her upstairs bathroom. During my time working on the remodel, as I was sweating some plumbing line, the idea hit me to use ½" copper tubing to support the elevated rail line on our layout.

I figured that copper tubing would be rigid and sturdy enough to hold the weight of the trains and "transparent" enough to see around and/or through. An added advantage would be that the tubing would "cradle" the metal ties on the track. As it turned out, the tubing approach -- with a bit of creativity -- was an almost perfect solution for elevating the line.



We had to figure out how to affix the pieces. I tried sweating some fittings, but this proved to be too time-consuming, and modifications took even longer. Next I tried glue. Super Glue worked well, but since it is a liquid, it ran considerably. Then I found Elmer's Glue-All at the Dollar Store, and this turned out to be a "dream come true" for the project. The glue is durable, holds the pieces together firmly, and the paint we later applied covered it well.



When it came to the actual painting of the tubing, we found that everything fell together like a puzzle, using new developments and products. We found a hammered gray metal paint that gave the copper tubing the correct color and added a touch of texture. We used the lighter gray for the main layout to add brightness, and on the accessory side of the layout went with the darker hammered gray to offset the elevated color.

When I work on something like this elevation project, I rely a good bit on flexible creativity. I seldom make definite plans, and I often change my approach as I proceed. The idea is to have fun as I work my way through a project that is not "carved in stone."

Here are instructions for elevating track using copper tubing on a layout. (Note: This attachment method will only work with tubular track.)

Materials needed:

- Ruler
- Pencil
- ½" straight copper tubing pipe
- ½" copper braces
- ½" 90-degree connectors
- ½" end caps
- 9" black plastic ties
- Elmer's Glue-All
- Rust-Oleum® light gray and "hammered" gray spray paint





Measure the height needed for the elevated line and cut the tubing to that length.

Measure the width of the tracks to be spanned and add at least 1" extra. If going over existing track or scenery, make the width sufficient to clear that track or scenery. On curves test with equipment that swings out wide.

Glue the two upright tubing pieces to the 90-degree angle connectors.

Glue the width tubing to the 90-degree angle connectors, creating an upside-down letter U.

Spray with the Rust-Oleum® paint.



Start connecting the uprights to the elevated track using cable ties to attach the metal track ties to the elevated structure. Where you are connecting track together, you will need to place cable ties over both metal ties, one for each track and the elevated structure.

Tighten and clip off the excess strap and discard. Continue until the line is completed.



There are three ways to attach the supports to the train table:

- Screw the end caps to the train table. (You will have to spray paint them before you screw them to the table.)
- Glue them to the table after the elevated track is done. (Shown in the photo above.)
- Attach tubing to the side of the train table with copper braces. (Shown in the top and bottom photos in the right column.)



On our layout the uprights did double duty as we used them to place the elevated stations next to the track system.

We're glad you asked how we did it and happy to share our method with LOTS Members!