

# What's a Switching Lead?

by Rich Melvin, Publisher, *O Gauge Railroading* magazine

Did you know that the addition of a crossover and a little extra track in a yard can allow someone to switch the yard and not interfere with the running of your main line trains? Before we get to the details, I'd like to introduce you to four new operating terms. These terms come from real railroading, and they are good terms for us to use, too.

## HEADROOM

When a switcher couples to a cut of cars, it needs some room to pull the cars out of the track they are on so they can be switched. The proper term for that space is called "headroom" and it simply means the area where the switcher works while switching out the cars.

## LADDER

A series of switches making up a group of yard tracks is called a "ladder."

## YARD LEAD (or Switching Lead)

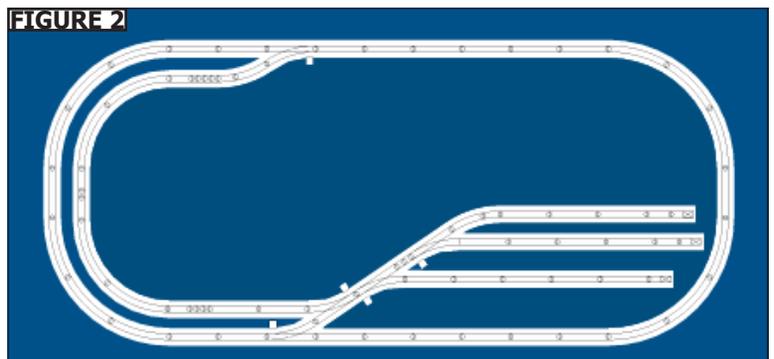
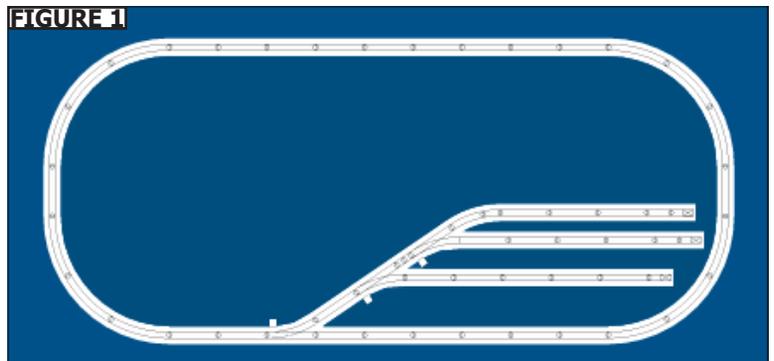
A track the switcher can use for headroom.

## FOULING

No, we're not playing baseball! If something is blocking trains from running on a track it is said to be fouling that track.

Take a look at the track diagram in Figure 1. It's a typical example of a small yard. Several switches form a ladder and the ladder leads directly to the main line. When the switcher is working this yard, it has to use the main line for headroom. That means that any time the switcher is working here, it's fouling the main line and no trains can go by on the main while the switcher is working.

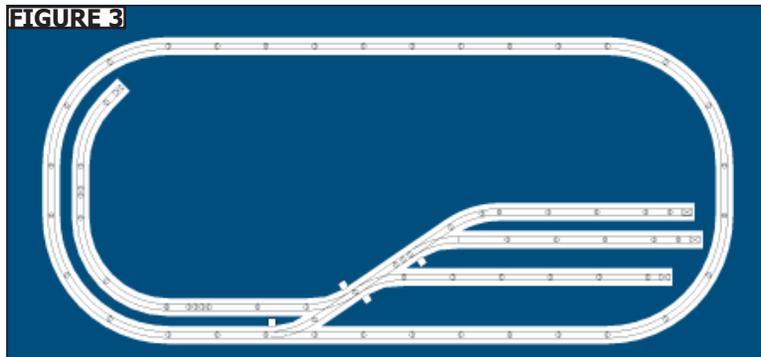
Now look at the track diagram in Figure 2. Here's the same yard, except I added a crossover and another length of track parallel to the main track. This new track is called the "Yard Lead" (as in "leader"). Now when the switcher works this yard, it can use the Yard Lead for headroom instead of the main track. The main line is not fouled (blocked) so trains can run by on the main at the same time the switcher is working the yard. The Yard Lead could be a stub end track, but if you have room to extend it to connect with the main line as I did, then you can also use the Yard Lead as a receiving and departure track for trains entering and leaving the yard. Choose a length for your yard lead that approximates the length of trains you will be switching. For example, if your yard tracks can hold 8 cars, then try to make your switching lead at least that long, and even a couple cars longer if you have the room. Don't worry if you only have room for a short lead. Even a short yard lead is better than none. A short lead can actually make switching operations a little more interesting because the switcher engineer will have to plan his moves a bit more carefully since he won't have a lot of room to work.



If you operate your layout in conventional mode, just make sure you set up the yard as a separate block. You can do this by insulating the center rail in the crossover between the main track and the Yard Lead. If you extend the yard lead and connect it to the main with another switch as I did in Figure 2, you'll also need to insulate the center rail in the diverging route of that switch. If you operate in command mode with TMCC or DCS, then no special wiring is needed because you already have separate control over individual locomotives.

If you don't have room to extend the yard lead all the way to the main line, look for a way to build a stub-end yard lead into your layout, as in Figure 3. You won't be able to bring trains in or out of the yard on that lead, but your switcher won't foul the main line when he is working the yard.

By adding a yard lead, you can run main line trains while another engineer can work in the yard and you don't get in each other's way! You should consider this design anywhere that you will have switching activities on your layout. If you're the kind of operator that enjoys slow speed operation and switching, this arrangement will let you fiddle around in the yard all night while others can enjoy running trains on the main line. In fact, you could even call it the "Fiddle Yard."



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