

Commuter Train Layout

This compact layout is designed to fit in a Dining room, being only 10' x 15'. The minimum main line curvature is O-54 for passenger car esthetics, and the layout uses a minimal amount of turnouts, achieved by using tracks for multiple purposes and sharing spurs with multiple customers. The focus is 80's era equipment, and particularly **commuter passenger operations** (such as like CalTrain). The modeled area is the immediate environs surrounding a terminating commuter station in a minor city (approximately 50 miles from a major city).

There are two standard speed freight destinations. A Newspaper (utilizing a Hi-Cube paper roll boxcar in captured service), and a Team Track. At the end of the Team Track is a side-unloading ramp adjacent to an inspection pit (simulated using a MTH unloading track). Note that the only Repair-In-Place fixes performed over this pit would be simple temporary patches, just good enough to make a car safe enough to move to a real RIP track located elsewhere.

There are three high speed freight destinations. A Trailer-on-Flat-Car intermodal facility (utilizing a "piggybacker" to transfer the trailers), a railroad owned Express building (Freighthouse), and a private Express depot (FedEx Ground). Fedex express cars will be moved as head-end cars on scheduled commuter trains, as will the occasional Freight House express car (the majority of the Freight House merchandise is transported on standard speed freight cars). The "piggybacker" is simulated by hand swapping the trailers to/from a small shelf under the TOFC benchwork.

Additionally there is a runaround Interchange Track (that receives cars for local "off-stage" destinations). At the end of the Interchange Track is a Scale for weighing LCL loads (simulated with a "terminal track"). Real railroads will NEVER allow a locomotive on a scale, because its weight will damage the scale ("parking" a car on a scale track should also be avoided). To service the Interchange; a bi-directional locomotive will begin to pull new cars in through the Station Lead Track into the Interchange Track. The locomotive will then couple its front coupler onto any old cars already parked on the Interchange Track. The locomotive is now able to push these old cars forward into the Station Tail Track, while simultaneously pulling the new cars fully into the Interchange Track. The locomotive will then uncouple the new cars (leaving them all on the Interchange Track), and finish pushing the old cars fully through the turnout into the Station Tail Track. The locomotive will now reverse direction, and pull the old cars through the Station Platform Track and out through the Station Lead Track.

There is a spot for locomotives to be refueled and occasionally sanded, and locomotives can layover on either the short spur or on the entrance of the TOFC spur. The short spur (keep it short for both esthetic and access reasons) has sufficient length to park a medium sized locomotive, a business car, or two pieces of forty foot M.o.W. equipment. Note that during mid-day traffic slack periods the commuter locomotives are normally reassigned to light freight duties along the commuter trackage, rather than left standing idle.

The passengers station has a ticketing office, waiting area, rest room, and vending. It also houses a small employee lounge, commissary, and janitorial room. The station (which is at the end of the commuter line) is supported by a three track passenger yard. There is NO "Y" or Loop here to turn trains. Without special double-ended passenger equipment, trains must use bi-directional locomotives (or cab diesels that have been MUed into a back-to-back A+A configuration).

The station track can handle at least seven daily terminating commuter train arrivals and departures, as well as at least one terminating long-distance train arrival and departure (during their layover the long-distance train cars are moved to the yard, so as to allow commuter trains to continue to use the station platform). Although the other end of the line is where major commuter car maintenance is performed and the ready-spares are kept; this station has sufficient infrastructure to park commuter cars overnight, clean cars, change linens, and restock food.

To perform a typical direction reversal, the inbound train will head into the station for unloading. The road locomotive will then uncouple and move onto the turnout marked "engine pullup". The station switcher, which was waiting near the fueling area, will come up behind the cars and push them into the station's tail track. The road locomotive will then back out through the station onto the station's lead track and wait. The switcher will pull the cars back into the station for loading, uncouple, and return to the fueling area. The road locomotive will return to the station track and re-couple onto the opposite end of the train, allowing the passenger cars to be pulled from the station for their return trip. Note that commuter train passengers are given at least 10 minutes to load or unload themselves.

Note that the scheduled commuter passenger trains are NOT static, and that their train lengths will change throughout the day (and on weekends/holidays) as loads vary. A few of these trains will also be given a head end Express car to be delivered to the opposite end of the line. Upon arrival commuter trains will have to have trash removed, and many will also have to be re-configured with different equipment from the yard, so as to balance the amount of "wheel time" on each passenger car. Passenger cars are expensive, so if there is enough time between runs, a railroad will NOT keep a unique set of cars parked in the yard for each scheduled train, and instead keep each car rolling as much as possible by re-assigning the cars into different trains (car pooling was common in the 80's).

An uncommon feature of this track plan is the amount of space allotted for freestanding non-railroad town buildings. Even more interesting, the track passes *between* buildings, just like urban tracks do in the real world. This should be used to an advantage to mostly obscure the curved main line, in order to provide both scene separation between the staging tracks and the station, and to disguise the curve's sharpness.

To save on both space and the cost of purchasing turnouts, the staging tracks are built on a pullout (similar to a desk drawer). The small spot covered in low-pile carpeting can be used to temporarily place cars and loads being "fiddled". Being rugged O-scale trains, it is assumed that cars will be shuffled, or even picked up, by human hands.

A small point-to-point schematic such as this is ideal for one person to operate on a timetabled "sequential train movement" basis. As there has been sufficient floor space allocated for two people, operations could be evenly divided so that one person would operate the station switcher and switch the station yard tracks, while the other person would "fiddle" the staging tracks and operate all the road locomotives (one minimum, but three in rotation are suggested).