

Rail Terminology

Active Warning Device: Flashing lights and/or gates used at grade crossings.



Active Warning Device



At-Grade Crossing

ADA: Americans with Disabilities Act at www.usdoj.gov/crt/ada/adahom1.html

Advance Warning Signals: A sign used along a roadway to warn that a roadway-rail grade crossing is ahead.

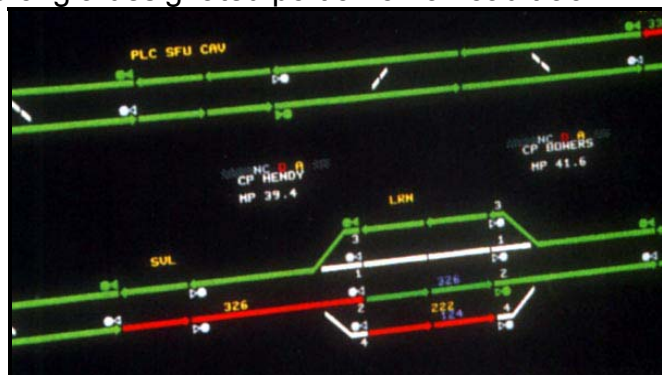
At-Grade Crossing: The surface where the rail and roadway (or pathway) cross at the same level.

Ballast: Material (crushed stone) selected for placement on the roadbed for the purpose of holding the track in place.

Bypass: A track that goes around other rail facilities (bypassing repairs or congestion). A bypass may be as simple as a track that goes around a rail yard, or may be as significant as a complete route revision.

Capital Costs: Non-recurring costs required to construct (or improve) the rail line. Capital costs include the purchase of locomotives, passenger cars, construction or rehabilitation of stations, and the design and administrative costs associated with these improvements.

Centralized Traffic Control: A computerized system that uses remote controls to change signals and switches along a designated portion of railroad track.



Examples of Centralized Traffic Control

Chokepoint: An area along the railroad track that is often congested, making it difficult for trains to pass uninterrupted.

Commuter Rail: Service between a central city and its suburbs, running on a railroad right-of-way. Examples include the Sound Transit's commuter rail system in Puget Sound, Metrolink in Los Angeles, California and Boston's MBTA Purple lines.

Consist: The number of cars or coaches forming a train.



Consist

Crossover (and Power Crossover): A set of turnouts connecting multiple tracks. A crossover allows a train to move from one track to another. A power crossover is controlled by Centralized Traffic Control.

Control Cab: A passenger car or coach with control equipment on one end, which allows the engineer to operate the locomotive from the opposite end of the train. Thereby allowing for push pull operations.



Control cabs at South Station



Commuter Rail (Sounder)

Continuous Welded Rail: Rails welded together in lengths of 400 feet or more.

Deficiencies: Areas along the track that cannot handle expected increased train frequencies.

Derail (and Power Derail): A device on the tracks used to remove a non-moving train from the tracks in case of an emergency. A power derail is operated by Centralized Traffic Control.

Dispatcher: The individual who plans and controls the movement of trains.

DMU: Diesel Multiple Units self propelled passenger cars. Current DMU builders include Colorado Railcar and Siemens. DMU can run as single units or they can be connected together depending on ridership.

Double Track: Two sets of main line track located side by side, most often used for travel in opposite directions, like roadways.

Exclusive Right-of-Way: A right-of-way that is to be used only for the rail line (either freight or passenger or both). It is usually completely grade-separated from other types of vehicles.

Flashing Light Signals: Used with the crossbuck signs at railroad crossings. When the lights are flashing, the motorist or pedestrian must stop.

FRA: Federal Railroad Administration at www.fra.dot.gov/

Frequency: A term used to describe the level of rail service. For intercity rail, frequent service means that trains serve a particular station at least every four hours.

Gates: Used with flashing signals at certain crossings to warn that a train is approaching.

Geometrics: An engineering term that refers to the design of the tracks.

Grade Crossing: The area along the track where a roadway or pathway crosses.

Grade-Separated: Crossing lines of traffic that are vertically separated from each other (i.e., a roadway that goes over a railroad track).



Grade – Separated



Heavy Rail

Heavy (or Rapid Transit) Rail: An electric railway that carries a large volume of people on exclusive right-of-way. Subways like San Francisco's BART or Washington, DC's Metrorail are examples of rapid (or heavy) rail.

High Speed Rail: Trains like the famed Japanese Bullet Train, well known in European and Asian countries. These trains travel at speeds greater than 125 miles per hour on exclusive right-of-way.

Intercity (Passenger) Rail: Service connecting central city to central city on a railroad right-of-way in densely traveled corridors. Amtrak's *ACELA* service between Washington, DC and Boston is a well-known example of higher-speed intercity rail.



ACELA



Intermodal

Intermodal: The use and connection of different types of transportation modes to move freight shipments and people, i.e., ships, trains, buses, and trucks. Also known as Multi-modal

Light Rail: Carries a light volume of traffic. "Light" refers to the number of riders that the train can carry, not the weight. Light rail may share right-of-way on a roadway or operate on exclusive right-of-way and can have multi-car trains or single cars. Trolley cars and Portland, Oregon's MAX system are examples of light rail.



Light Rail



Locomotive

Lock Switch (and Electric Lock Switch): Operated by Centralized Traffic Control to regulate when trains can enter on or off the tracks.

Locomotive: A powered piece of equipment that travels on rails and moves railroad cars.



Long Distance Train



Rail Yard

Long Distance (Long Haul) Train: A passenger train that serves major transportation centers within and beyond those of a corridor train. An example is Amtrak's *Lakeshore Limited* that travels between Boston and Chicago.

Main line (Main Line): A railroad's primary track that usually extends great distances. It usually carries both freight and passenger trains.

Operational Costs (Operating Costs): Recurring costs of operating passenger service. These costs include wages, maintenance of facilities and equipment, fuel, supplies, employee benefits, insurance, taxes, marketing, and other administrative costs.

Passive Warning Device: Signs or markers used at all grade crossings.

Patronage: The number of people carried by the passenger train during a specified period.

Pavement Markings: Painted on the pavement in advance of a railroad highway crossing, to warn the motorist or pedestrian of the rail crossing.

Positive Train Separation: A new railroad communication system, using high tech equipment to monitor train locations.

Push – Pull Operations: A train set including a locomotive and passenger cars including control cab unit. The train set can be run in either direction with the engineer operating from either the control cab or locomotive. This operation does not require the turning of the equipment or locomotive on either a turn table or a “Y”.

Rail Yard: A system of tracks within defined limits, designed for storing, cleaning, and assembling (to each other) rail cars.

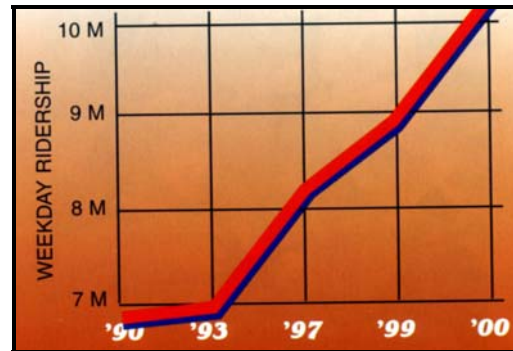
Railroad Crossbuck: A type of sign found at all public railroad crossings. This sign should be treated as a yield sign.

Railroad Tie: The part of the track, often wood or concrete, where the rails are spiked or otherwise fastened.

RDC: Rail Diesel Car were produced by Budd in the 1950 and used by many railroads for passenger branch line service.



RDC



Ridership

Reliability: service measure in transit planning, if a train or bus arrives within 10 minutes of its scheduled time, it is considered reliable. Reliability can be impacted by congestion on the tracks, delays at stations, and equipment malfunction.

Ridership: The number of people carried by the passenger train during a specified period.

Right-of-Way: The horizontal and vertical space occupied by the rail service. In the Pacific Northwest Rail Corridor, BNSF owns the right-of-way. Amtrak, WSDOT, and Sound Transit run their trains on BNSF's right-of-way through operating agreements.

Rolling Stock: Train cars or coaches.

Shipper: The person or firm from whom a shipment originates.

Siding: An auxiliary track located next to a main line that allows a train to move out of the way of an oncoming train. Sidings are also used to store trains or to add/subtract rail cars.

Switch: A set of levers and gears that guides a train over a turnout or crossover. The levers and gears are moved manually or electronically.

Travel Time: The elapsed time between a trip's beginning and end. It includes travel, transfers, and waiting time.

Turnout: A set of tracks that connect the main line to a siding or rail yard. A turnout allows the train to move on or off the main line.