

## **GLOSSARY OF TERMS**

**AC/DC power** – Alternating current and direct current.

**Altamont Commuter Express (ACE)** – Commuter rail system which carries about 3,000 passengers a day, and serves nine stations from Stockton to San Jose. Serves Santa Clara and San Jose Diridon stations.

**Amtrak** – Since 1992, the operator for Caltrain, under contract with the Peninsula Corridor Joint Powers Board. Also the operator for Capitol Corridor and Amtrak Intercity services.

**Amtrak Intercity** – Intercity passenger rail service that is part of a national passenger rail system operated by Amtrak. Serves San Jose Diridon station and connects to destinations throughout California.

**Aspect** – The color displayed by a signal light.

**At-grade** – A type of crossing where railroad tracks, or railroad tracks and roads, intersect at ground-level.

**Automatic Train Control (ATC)** – A safety system where a train receives continuous data in order to maintain the correct speed and to prevent trains from passing stop signals if the driver should fail to react.

**Automatic Vehicle Locator (AVL)** – A device that tracks vehicle fleet location. This may use wayside beacons or onboard Global Positioning Systems (GPS) devices.

**Baby Bullet** – Caltrain “express” service that serves limited stations between San Francisco and San Jose with a total travel time of less than one hour. All Baby Bullet trains serve the San Francisco, Millbrae and San Jose Diridon stations, but other trains have varying stopping patterns. Other Baby Bullet stations include the downtown San Mateo station, plus Hillsdale (San Mateo), Redwood City, Menlo Park, Palo Alto, Mountain View, Sunnyvale, and Tamien. Southbound morning trains and northbound evening trains stop at the 22nd Street station south of the San Francisco terminal.

**Bay Area Rapid Transit (BART)** – A 104-mile rapid transit system that carries over 300,000 passengers daily and serves 43 stations in four of the Bay Area counties, with an extension planned to San Jose, also known as Silicon Valley Rapid Transit (SVRT). Direct transfers between BART and Caltrain are available at the Millbrae Intermodal station. Future transfers will be available at Santa Clara and San Jose Diridon as part of the SVRT project. BART is the management agency for the Capitol Corridor on behalf of the Capitol Corridor Joint Powers Board (CCJPA).

**Block** - A length of track governed by block signals, cab signals or both. Distances between trains are maintained by preventing a train from entering a block that is already occupied by another train.

**Block Signal** – A fixed signal at the entrance of a block to govern trains and engines entering and using that block.

**Block Signal System** – A series of consecutive blocks governed by block signals, cab signals or both, actuated by a train, engine or by certain conditions affecting the use of a block.

**Cab Car** – A passenger car equipped with train controls for an engineer. Generally used at one end of a push-pull train with the power for the train provided on the locomotive end.

**Cab Signal** – A signal located in engineer's compartment or cab, indicating a condition affecting the movement of a train or engine and used in conjunction with interlocking signals and in conjunction with or in lieu of block signals.

**California High-Speed Rail (CHSRA or HSRA)** - Established in 1996, the California High-Speed Rail Authority (CAHSRA) is charged with planning, designing, constructing and operating a state of the art high-speed train system in California. The proposed system would connect Southern California cities, including Los Angeles and San Diego, to Northern California destinations, including San Francisco, Oakland and Sacramento, via the Central Valley. With trains operating at speeds up to 220 mph, the express travel time from downtown San Francisco to Los Angeles would be under 2 hours and 40 minutes. It has been proposed that HSR would operate within the Caltrain right-of-way in order to reach San Francisco.

**California Public Utilities Commission (CPUC)** - The CPUC regulates privately owned electric, telecommunications, natural gas, water and transportation companies, in addition to household goods movement and rail safety. In terms of rail safety, the CPUC regulates issues such as grade crossings and clearance envelopes in which trains may operate.

**Capacity** – Track capacity refers to the number of trains that can be moved past a fixed point within a certain period of time (e.g. peak commute hour) and generally depends on the quantity and configuration of track. Vehicle or train capacity is the number a passengers that a vehicle or train can hold. Passenger capacity refers to the number passengers that can be moved past a fixed point within a certain period of time. Passenger capacity is dependent on vehicle, train and track capacity, and therefore, when used as a general term, 'capacity' encompasses all of these factors.

**Capital Program** - The Capital Program is a rolling long-range (10 to 20 year) plan for Caltrain's fleet and infrastructure needs. The Program identifies capital needs, establishes priorities, and identifies potential funding sources.

**Capitol Corridor** - The Capitol Corridor is a 172-mile (275 km) passenger train route operated by Amtrak in California. It carries about 16,000 passengers daily between the San Francisco Bay Area and Sacramento. In the Bay Area, it travels between Martinez and San Jose Diridon station via the East Bay. One daily-scheduled train continues through the eastern Sacramento suburbs to Auburn, in the foothills of the Sierra Nevada. BART is the management agency for the Capitol Corridor on behalf of the Capitol Corridor Joint Powers Board (CCJPA).

**Catenary** – the overhead wire system used to send electricity to a trainset that runs on electric power.

**Center-island or Center-boarding Platform** – A station platform with tracks on either side, which allows trains to board passengers from either side of the platform.

**Centralized Equipment Maintenance and Operations Facility (CEMOF)** – Caltrain's maintenance and operations facility on the site of the old Southern Pacific rail yard at the end of Lenzen Avenue in San

Jose. The facility accommodates many critical activities including daily inspections, scheduled maintenance, running repairs, train washing and storage.

**Centralized Traffic Control (CTC)** - A remotely controlled block signal system under which train movements are authorized by block signals whose indicators supersede the superiority of trains.

**Central Control Facility (CCF)** - A facility from which the functions of the CTC system are controlled remotely.

**Clearance envelope** – The vertical and horizontal cross-sectional area within which a train may operate. For Caltrain, the clearance envelope is determined by the CPUC and affects platform design and the ability to provide level boarding.

**Collision avoidance** – A method of preventing collisions between trains or between trains and obstructions in the right-of-way by using technology, such as positive train control.

**Commuter rail** – A form of public transportation that provides rail service between a central business district and suburbs or other locations that draw large numbers of people on a daily basis. In general, commuter rail trains are built to railroad standards, and are larger and are operated less frequently than rapid transit systems. Commuter rail systems are regulated by the FRA while rapid transit systems are not.

**Consist** – A group of rail vehicles, which makes up a train. A typical Caltrain consist has four to five passenger cars and one locomotive with a cab car at the opposite end from the locomotive. A reconfigurable consist is one that can be shortened or lengthened depending on passenger demand and level of service.

**Control Stand** – The control box for the Locomotive Engineer used to control the speed and stopping of the train.

**Controlled Siding** – A siding within CTC or interlocking limits, the authorization for use of which is governed by signal indication or control operator.

**Crashworthiness** - The ability of a vehicle to prevent occupant injuries in the event of an accident. The FRA sets crashworthiness standards for the rail industry, based on the design and weight of rail vehicles.

**Crossing Warning System** – warning devices installed at grade crossings. “Active” devices include gates, lights, and bells. “Passive” devices include crossbucks, yield signs, and stop signs.

**Crossover** – a pair of turnouts that allow trains to cross from one track to another.

**Deadhead** – Non-revenue train movements where trains are being moved from one location to another without carrying any passengers.

**Destination** – The final location or destination of a person’s trip. A destination station is a station that has more passengers arriving during the morning peak period than boarding. Destination stations

typically require less parking than origin stations, but require good pedestrian and transit connections to people's final destinations.

**Diesel Multiple Unit (DMU)** –self-propelled diesel railcars which may be coupled together and be operated from one control stand.

**Diridon Station** - (formerly the Cahill Depot or the Southern Pacific Depot) is the central passenger rail depot for San Jose, serves as a major transit hub for Santa Clara County, and is designated as the South Terminal on the Caltrain mainline. In addition to Caltrain, it is also served by ACE, Capitol Corridor, Amtrak Intercity, VTA light rail, and VTA buses. Future plans for Diridon station include proposed SVRT and HSR service.

**Diverge** – A rail movement in which one track splits into two separate tracks.

**Dwell Time** – door dwell time is the length of time that a transit vehicles doors are open when stopping to board/alight passengers. Station dwell time is the length of time that a transit vehicle is at a station (Door dwell time plus deceleration and acceleration time) or the scheduled time a train is allowed to discharge and take on passengers at a stop, including opening and closing the doors.

**Dumbarton Rail Corridor (DRC)** - the Dumbarton Rail Corridor Project will extend commuter rail service across the South Bay between the Peninsula and the East Bay. The proposed service includes six trains leaving the East Bay in the morning peak, which cross the Bay via the Dumbarton Rail Bridge to access destinations on the Peninsula, and returning to the East Bay in the evening. Service is estimated to start in 2012.

**Electric Multiple Unit (EMU)** –self-propelled electric railcars which may be coupled together and be operated from one control stand.

**Electrification** – the installation of overhead wire (Catenary) or third rail power distribution facilities to enable trains to run on electric power. When Caltrain is electrified it will be powered through overhead wires.

**Elevated Structure** – a railway built on supports over other rights-of-way, generally operating over city streets.

**Federal Railroad Administration (FRA)** – The FRA was created in 1966 as a division of the U.S. Department of Transportation to promote rail transportation and safety and to absorb the regulatory duties of the Interstate Commerce Commission in the area of railroads. The Federal Railroad Administration (FRA) sets standards for crashworthiness for vehicles that provide commuter or other short-haul rail passenger train service in a metropolitan or suburban area in the United States. Rapid transit operations in an urban area that are not connected to the general railroad system of transportation are exempt from these requirements. The selection of rolling stock depends on compliance with FRA regulations.

**Federal Transit Administration (FTA)** - The administration within the U.S. Department of Transportation (DOT) that provides financial and technical assistance to local public transit systems.

**Fleet** - group of vehicles operating together under the same ownership.

**Footprint Study** – A study which considers multiple options at the conceptual design level for increasing track capacity through four station areas in San Mateo County: Burlingame, San Mateo, Redwood City, and Atherton.

**Fourth and King Station** – also known as the San Francisco Terminal or North Terminal of the Caltrain system, this is currently the northernmost station on the Caltrain corridor located in the rapidly developing South of Market district at Fourth and King Streets. The Fourth and King station serves the highest number of riders of any station in the system. The proposed Downtown Extension will include extension of tracks to the rebuilt Transbay Terminal.

**FRA-compliant** – Terminology referring to vehicle that is compliant with FRA requirements for crashworthiness.

**Gallery Car** – passenger cars that feature upper level mezzanines running along both sides of the car, with an open area between the mezzanines that enable the conductor(s) walking along the lower level to easily reach up and inspect tickets of the passengers seated on the mezzanine level.

**Gate Downtime** – the period of time that a crossing gate is in the down position when it stops traffic to allow trains to cross a roadway or a pedestrian crossing.

**Gilroy Extension** – The Caltrain extension south of the Tamien station on UPRR-owned track that extends to Gilroy. There are five stations on the Gilroy extension including Capitol, Blossom Hill, Morgan Hill, San Martin, and Gilroy. Regular commuter service to the extension began in 1992.

**Global Positioning System (GPS)** – GPS refers to a satellite-based radio positioning system that provide 24 hour three-dimensional position, velocity and time information to suitably equipped users anywhere on or near the surface of the Earth.

**Grade** – the rise or fall in elevation of railroad track, measured in increments of 100 feet. A rise of 1 foot in elevation in 100 feet of track is a 1% ascending grade. Similarly, a decrease of 1 foot in elevation in 100 feet of track is a 1% descending grade.

**Grade Crossing** – where a road or highway crosses railroad tracks at-grade.

**Grade Separation** - The process of separating rail from roads, or rail from rail at different heights (grades) such that they do not disrupt the flow of traffic on one another when they cross. This is achieved by building bridges over or tunnels under the crossing site, allowing roads and or railways and canals to pass another without interrupting the flow of traffic.

**Gradient** - is the pitch of a slope, and is often expressed as a percent tangent, or "rise over run". It is used to express the steepness of slope on a hill, roof, or road, where zero indicates *level* (with respect to gravity) and increasing numbers correlate to more vertical inclinations.

**Headway** – the time by which two transit vehicles are separated or the time interval between trains moving in the same direction on a particular route. For example, vehicles operating at a five-minute headway will cross a given point five minutes apart from one another.

**Hold-Out Rule** – The rule enforced at Caltrain stations that have only one outside boarding platform which prevents a train from entering the station while another train at the station boarding or alighting passengers. Platform upgrades will allow the hold-out rule to be eliminated, either by adding a second outside boarding platform on the opposite side, or by replacing the existing platform with a center-boarding platform.

**Interlocking** – a place on a railroad where one or more tracks converge, diverge or cross, requiring that signals displayed to trains are put in proper sequence to avoid conflicts in the movement of trains using those routes.

**Intermodal Station** – A station which is served by more than one mode of public transportation, such as trains, rapid transit, buses, shuttles, etc.

**Junction** – A point where two lines of a railroad meet, usually with provision for operating trains from one line to the other.

**Layover Time** – Time built into a train schedule between arrival at the end of a route and the departure for the return trip.

**Level Boarding** - Refers to having trains that have interior floors that are level with station platforms, so that a passenger does not have to climb any steps to board the train. This allows people in wheelchairs to board quickly and easily without any special assistance. It also speeds up boarding and disembarking by able-bodied passengers, passengers with strollers, and bicyclists, who tend to be slowed down by steps.

**Level of Service** - Is a measure by which transportation planners measure the quality of service on transportation systems, usually referring to travel time (the shorter, the better) and thus to speed. For rail systems, level of service refers to the frequency and speed of such service.

**Lifecycle Costs** - Is made up from the costs reflecting not only the acquisition and development costs but also the operational and support costs throughout the life of the equipment.

**Light Rail Transit (LRT)** – A form of passenger rail that employs lightweight vehicles, usually electric, and whose tracks can be built at-grade on city streets.

**Locomotive: Diesel** – A locomotive that is powered from an onboard diesel engine.

**Locomotive: Electric-Powered** – A locomotive having one or more electric motors that obtain power either from a third rail or from wire suspended above the track (OCS). Contact with the overhead wire is made by a pantograph mounted on top of the.

**Locomotive: Dual-Mode** – A special type of locomotive that can be powered either from an external electricity supply (i.e. as an electric locomotive) or from an onboard diesel engine. Typically, they are more powerful when operating from an electric supply, since due to space constraints the diesel engine is small and therefore generates less power.

**Married set or married pair** – A pair of rail transit vehicles that are self-propelled and operate as one unit sharing equipment such as air compressors that may be located on only one car of the married pair. Multiple pairs can be joined to form a longer trainset.

**Main Line** – The principal line on a railroad. Caltrain's mainline extends from CP Lick station to the San Francisco 4<sup>th</sup> and King station.

**Merge** - A rail movement in which two separate tracks combine to form a single track.

**Midline overtake** – A passing siding or express track located near the middle of a long train corridor where express trains bypass or overtake local trains that make more stops. Midline overtakes make it possible to provide more express service by offering operational flexibility.

**Mini-high platform** – A fixed, raised platform connected to the main platform by a ramp, used at rail stations to allow level boarding at the vehicle floor height for passengers in wheelchairs.

**Mixed traffic** – a condition where both passenger and freight service run on the same tracks. This may also include the condition where FRA-compliant and non-FRA-compliant vehicles share the same tracks. This condition may only exist with FRA approval.

**Monterey/Salinas Extension** – This extension involves utilizing an existing rail line to provide commuter rail service between Gilroy and Salinas. The branch serving Monterey will either be a rail line or bus service with stops at Monterey, Seaside/Sand City, Marina, Castroville, and Salinas with intercity rail connections to Pajaro/Watsonville, Gilroy, San Jose and San Francisco.

**Multi-Level Car** – In passenger car construction, a design that places passengers on two levels throughout the length of the car.

**Municipal Railway (Muni)** – The San Francisco transit agency that operates buses, light rail/subway, cable cars, and streetcars, and is part of the San Francisco Municipal Transportation Agency (SFMTA). Caltrain and Muni light rail service interface at the San Francisco Terminal.

**National Transportation Safety Board (NTSB)** - An independent Federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in the other modes of transportation, including rail. The NTSB issues safety recommendations aimed at preventing future accidents but has no enforcement authority.

**North Terminal** – See San Francisco Caltrain Station.

**Oakdale Station** – the proposed station in the Bayview neighborhood in San Francisco located between the 22<sup>nd</sup> Street and Bayshore stations.

**Off-Peak Period** – Non-peak periods of the day outside the normal commute periods when travel activity is generally lower and less transit service is scheduled.

**Origin** – The original station location or origin of a person's trip. An origin station is a station that has more passengers boarding in the morning peak period than arriving. Origin stations typically require



more parking than destination stations, but also benefit from good pedestrian and transit connections that alleviate the need for greater parking supply.

**Over Crossing** – A structure, meant for trains, automobiles, or pedestrians, that crosses over rail right-of-way or a roadway.

**Overhead Contact System (OCS)** – A system of overhead lines used to deliver electric power to transit vehicles.

**Pantograph** – A device for collecting current from overhead wire (Catenary) on an electrified railroad consisting of a jointed frame operated by springs or compressed air, and a collector at the top.

**Park and Ride Lot** – A designated parking area for automobile drivers, who then board transit vehicles.

**Passenger Miles** – A measure of service utilization, which represents the cumulative sum of the distances, ridden by each passenger.

**Peninsula Corridor Joint Powers Board (PCJPB or JPB)** - A government entity (joint powers authority) which manages the Caltrain commuter rail line. The PCJPB consists of three member agencies from the three counties in which Caltrain line serves, each member agency sends three representatives to constitute a nine member Board of Directors. The member agencies are: The City and County of San Francisco; San Mateo County - San Mateo County Transit District (SamTrans); and Santa Clara County - Santa Clara Valley Transportation Authority (VTA).

**Peninsula Rail Program (PRP)** – A partnership between Caltrain and the California High-Speed Rail Authority have created which jointly coordinates and facilitates the design and implementation of high-speed train service and improvements to modernize Caltrain along the Caltrain corridor from San Francisco to San Jose.

**Peak Period** – Morning and afternoon time periods when transit ridership and travel by other modes is the greatest.

**Persons Needing Assistance (PNA)** – Passengers in wheelchairs or other passengers requiring assistance from train crew members.

**Platform** – The part of the station where trains stop and board and alight passengers. The platform edge is the long edge of the platform where trains pull alongside. Platforms are generally raised, though their heights vary from system to system. See Level Boarding.

**Positive Train Control (PTC)** – A form of collision avoidance that integrates command, control, communications, and information systems for controlling train movements with safety, security, precision, and efficiency.

**Predictive arrival** – The condition where transit vehicle arrival times are predicted using various types of technology and provided to passengers in advance of the arrival or used in the signal system to control crossing gate down time.



**Proof-of-Payment** – The fare policy employed by Caltrain, which requires that passengers purchase their fare before boarding a train, and show proof-of-payment when asked by a fare inspector. Proof-of-payment has been instituted by multiple transit operators to save time and operating costs associated with collecting fares.

**Push-Pull** – The operation of a passenger train that may be controlled from either the locomotive or a cab car at the opposite end of the train consist. When in the “pull” mode, the locomotive is pulling the train; in “push” mode, the locomotive is pushing it (i.e. it is running backward).

**Rapid Transit** – Rail transit service operating completely separate from all the other forms of transportation on an exclusive right-of-way. Rapid transit systems generally offer very frequent service and serve densely populated urban areas.

**Redwood Junction** – The junction in Redwood City, which connects the Dumbarton Rail corridor to the Caltrain mainline.

**Reliability** – The ability of a transit system to perform its required functions under stated conditions for a specified period of time. Reliability is a critical service characteristic which determines whether passengers can depend on the system to arrive at a destination as scheduled.

**Regulatory Issues** – Any issues which involve the granting of an exemption from regulatory agencies that affect an anticipated outcome. See CPUC, FRA, STB.

**Revenue Service** – Operation of a public transportation system during which time passengers can be carried.

**Reverse Commuting** – Movement in a direction opposite the main flow of traffic, such as from the central city to a suburb during the morning peak period.

**Ridership** – The number of rides taken by people using a public transportation system in a given time period.

**Right-of-Way (ROW)** – Any strip or area of land, including surface, overhead, or underground, granted by deed or easement, for construction or maintenance according to designated use. Caltrain owns its own right-of-way from San Francisco to the Tamien station, a distance of about 49 miles.

**Rolling Stock** – Is the collective term that describes all the vehicles which move on a railway. It usually includes both powered and unpowered vehicles, for example locomotives and railroad cars.

**Run Time** – The time required for a train to cover a given distance, from one location to another. End-to-end run time is the time required to run from one end of the rail line to another.

**San Francisco Caltrain Station** – also known as the North Terminal of the Caltrain system, this is currently the northernmost station on the Caltrain corridor located in the rapidly developing South of Market district at Fourth and King Streets. The San Francisco station serves the highest number of riders of any station in the system. The proposed Downtown Extension will include an extension of the tracks to the future Transbay Transit Center.

**San Francisco Downtown Extension (DTX)** – A 1.3 mile extension through an underground tunnel in San Francisco, between Caltrain’s San Francisco Terminal at 4<sup>th</sup> and King Streets to the future Transbay Transit Center near 1<sup>st</sup> and Mission Streets in the Financial District. The terminal would connect Caltrain, AC Transit, Golden Gate and SF Muni, with Caltrain.

**San Mateo County Transit District (SamTrans)** – A member of the Peninsula Corridor Joint Powers Board and the designated management agency for Caltrain on behalf of the JPB which operates bus service within San Mateo County.

**Santa Clara Valley Transportation Authority (VTA)** – one of the three partners of the Peninsula Corridor Joint Powers Board, the VTA serves as the Congestion Management Agency and operator of buses and light rail in Santa Clara County.

**Silicon Valley Rapid Transit (SVRT)** - The Silicon Valley Project is a 16-mile extension of the BART system that would begin at the planned BART Warm Springs Station in the City of Fremont in Alameda County and proceed through the cities of Milpitas, San Jose and Santa Clara in Santa Clara County. The project will serve the San Jose Diridon and Santa Clara Caltrain stations, which will add two more intermodal stations that enable passengers to transfer between Caltrain and BART.

**Shared Use** – The condition where passenger and freight, or FRA-compliant and non-FRA-compliant vehicles share the same corridor, but not necessarily the same track. Shared use between FRA-compliant and non-FRA-compliant vehicles may only exist with an FRA approval.

**Signal System** – A system used to indicate one or more of the following: that the rail line ahead is clear (free of any obstruction) or blocked, that the driver has permission to proceed, that points (also called *switch* or *turnout* in the US) are set correctly, which way points are set, the speed the train may travel, the state of the next signal, and that the train orders are to be picked up by the crew.

**Siding** – A track next to the mainline, connected by turnouts, used to allow trains to pass each other (usually on a single-track railroad).

**South Terminal** – The portion of the Caltrain right of way starting just north of the Santa Clara station to just south of the San Jose Diridon station. This is the only area of the right of way where there are currently multiple passenger operators. It is also the only area of the Caltrain corridor where freight trains operate throughout the day.

**Superelevation** - The banking of railroad track on curves which allows the forces produced by the weight of the train to counteract the forces of the speed of the train on the outside rail thus allowing higher speeds with greater safety margins.

**Surface Transportation Board (STB)** - The STB is an economic regulatory agency that Congress charged with the fundamental missions of resolving railroad rate and service disputes and reviewing proposed railroad mergers. The STB is decisionally independent, although it is administratively affiliated with the U.S. Department of Transportation.

**State of Good Repair** – Part of the Caltrain Capital program, this refers to bringing the current infrastructure up to the best condition possible so that other projects will not degrade service while they are underway. Projects include replacing rail bridges along the system as they near their useful life;

adding much-needed crossovers; replacing jointed rail with seamless welded rail; removing hold-out rule stations; improving train access in and out of terminal stations to increase the number of trains that can operate; and improving radio and signal systems.

**Station Access** – The means by which passengers arrive at or leave a rail station, via any mode of transportation, including walking.

**Terminal** – A railroad facility used for handling passengers classifying, assembling, and dispatching trains. A terminal station is a station that is at the end of the line (or end of the main line) where trains can layover for maintenance, cleaning, refueling, and storage.

**Throughput** – A measure to quantify the number people carried by a rail system, defined as the number of people moved past a certain point or screenline over a given period of time. Because a transit system carries the most number of people during the peak commute hour, a system's throughput during this time generally represents its maximum passenger carrying capacity. Throughput is affected by track capacity, vehicle capacity, and station access.

**Trackage Rights Agreement (TRA)** - Trackage rights or running rights is an arrangement where the company that owns the line retains all rights, but allows another company to operate over certain sections of its track. The agreement may specify whether the latter company can serve customers on the line. The JPB has a TRA with the Union Pacific Railroad, which uses its right-of-way.

**Traction Power** - An electricity grid for the supply of electrified railroads.

**Transbay Terminal** - San Francisco's Transbay Terminal was built in 1939 at 1st and Mission Streets as a California Toll Bridge Authority facility in order to facilitate commuter rail travel across the lower portion of the San Francisco-Oakland Bay Bridge. A new terminal, Transbay Transit Center, has been proposed at the existing terminal location and will create a central downtown bus and rail station that will connect the San Francisco Bay Area and the State through eight transit systems including: AC Transit, BART, Caltrain, Golden Gate Transit, Greyhound, MUNI, SamTrans, and High Speed Trains.

**TransLink** - The universal fare medium that can be used to store a dollar value for use on transit systems in the Bay Area. When a passenger touches the Translink card to a card reader, the card reader automatically deducts the correct fare and applies any appropriate discounts, including transfers.

**Turnout** – Two tracks joined together with a frog and a switch that allow trains to transfer from one track to the other.

**Union Internationale des Chemins de Fer (UIC)** – The International Union of Railways was founded in 1922 and is the world-wide organization for international cooperation among railways and promotion of the rail transport mode. The UIC Research & Technology Department is coordinating the railway activities with regard to drafting the Technical Specifications for Interoperability. It also assures the link to the other standardization bodies such as ISO, CEN, CENELEC, OTIF, etc. It is providing technological support for the development and unification of railway safety standards and to preserve and enhance the inherent environmental friendliness of the railway mode. In accordance with its mission, the UIC Technical and Research Platform (PTR) is to manage and carry out technical research and migration concepts in order to develop and to guarantee a coherent, competitive, international railway system mainly throughout Europe - but also world wide - according to the UIC objectives and general programs.

**Under Crossing** - A structure, meant for trains, automobiles, or pedestrians, that crosses under rail right-of-way or a roadway.

**Union Pacific Railroad (UPRR)** - Is an operating subsidiary of Union Pacific Corporation. It is the largest railroad in North America, operating in the western two-thirds of the United States. The UPRR operates freight trains on the Caltrain corridor, serving Ports and other industries along the Peninsula and in San Francisco.

**Vertical Options** – Options for locating railroad infrastructure above, at, or below grade. See *Grade Separation*.

**Wayside** – The area right next to the tracks, but within the right-of-way.

## ACRONYMS

ACE – Altamont Commuter Express  
ATC – Automatic Train Control  
AVL – Automatic Vehicle Locator  
BART – Bay Area Rapid Transit  
CHSRA – California High Speed Rail Authority  
CCF – Central Control Facility  
CCJPA – Capitol Corridor Joint Powers Authority  
CEMOF – Centralized Equipment Maintenance and Operations Facility  
CPUC – California Public Utilities Commission  
CTC – Centralized Traffic Control  
DMU – Diesel Multiple Unit  
DRC – Dumbarton Rail Corridor  
DTX – San Francisco Downtown Extension  
EMU – Electric Multiple Unit  
FRA – Federal Railroad Administration  
FTA – Federal Transit Administration  
GPS – Global Positioning System  
HST – High-speed Train  
JPB – Peninsula Corridor Joint Powers Board  
LRT – Light Rail Transit  
Muni – San Francisco Municipal Railway  
OCS – Overhead Contact System  
PCJPB – Peninsula Corridor Joint Powers Board  
PNA – Persons Needing Assistance  
PTC – Positive Train Control  
ROW – Right of Way  
SamTrans – San Mateo County Transit District  
SFCTA – San Francisco County Transportation Authority  
SFMTA – San Francisco Municipal Transportation Agency  
SMCTA – San Mateo County Transportation Authority  
STB – Surface Transportation Board  
SVRT – Silicon Valley Rapid Transit  
TRA – Trackage Rights Agreement  
TJPA – Transbay Terminal Joint Powers Authority  
TTC – Transbay Transit Center  
UIC – International Union of Railways  
UPRR – Union Pacific Railroad  
VTA – Santa Clara Valley Transportation Authority