Appendix

Acronyms & Abbreviations

Acronym/Abbreviation	Definition
ADRP	Archeological data recovery plan
AMP	Archeological monitoring program
AQTR	Air Quality Technical Report
ARB	California Air Resources Board
B20	20 percent biodiesel blend
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BCDC	Bay Conservation and Development Commission
bgs	below ground surface
BMPs	Best Management Practices
BRT	Bus Rapid Transit
Caltrans	California Department of Transportation
CAS	Climate Action Strategies
CFG Code	California Fish and Game Code
CEQA	California Environmental Quality Act
CH4	methane
CCSF	City College of San Francisco
CO2	carbon dioxide
CO2E	carbon dioxide-equivalent measures
CRHR	California Register of Historical Resources
CSO	combined sewer overflow
CTCDC	California Traffic Control Devices Committee
CUPA	Certified Unified Program Agency
DPH	San Francisco Department of Public Health
DPW	San Francisco Department of Public Works
DTSC	California Department of Toxic Substances Control
ERO	Environmental Review Officer
FARR	Final Archeological Resources Report

Acronyms & Abbreviations

FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
FY	fiscal year
GHGs	greenhouse gases
HRER	Historic Resource Evaluation Response
LID	low-impact design
LRV	light rail vehicle
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MMTCO2E	million metric tons of CO2E
MSDS	Materials Safety Data Sheet
Muni	San Francisco Municipal Railway
N2O	nitrous oxide
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NOP	Notice of Preparation of an Environmental Impact Report and Notice of Public Scoping
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	California Archaeological Site Survey Northwest Information Center
OHP	Office of Historic Preservation
OPR	Office of Planning and Research
OWE	Overhead Wire Expansion
PAR	Preliminary Archaeological Review Checklist
PDF	Portable Document Format
PDR	paleontological discovery report
POP	Proof of Payment Group in the Security Operations Unit of SFMTA

Acronyms & Abbreviations

PRMMP	Paleontological Resources Monitoring and Mitigation Program
RPD	San Francisco Recreation and Park Department
RTPs	regional transportation plans
SCI	Systemwide Capital Infrastructure
SEIR	Subsequent Environmental Impact Report
SFFD	San Francisco Fire Department
SFHA	Special Flood Hazard Area
SFMTA	San Francisco Municipal Transportation Agency
SFPD	San Francisco Police Department
SFPUC	San Francisco Public Utilities Commission
SFUSD	San Francisco Unified School District
SoMa	South of Market Area
TDM	Travel Demand Management
TEP	Transit Effectiveness Project
TIS	Transportation Impact Study
TPS	Transit Preferential Streets
TSP	Transit Signal Priority
TTPI	Terminal and Transfer Point Improvements
TTRP	Travel Time Reduction Proposals
UCSF	University of California, San Francisco
UST	Underground storage tank

Glossary

Term	Definition
Alignment	The ground plan of a roadway, rail line, transit route, or other facility, showing the alignment or direction as distinguished from a profile, which shows the vertical element.
All Way Stop	An intersection for which every approach is controlled by stop signs.
All-door boarding	When passenger boarding is permitted at multiple doors and not just the front door of the transit vehicle.
a.m. peak	The morning commute period in which the greatest movement of passengers occurs, generally from home to work or school; the portion of the morning service period where the greatest level of ridership is experienced and service provided, generally between 7 a.m. and 9 a.m.
Biodiesel fuel	Biodiesel refers to a vegetable oil- or animal fat- based diesel fuel. Biodiesel is typically made by chemically reacting lipids (e.g., vegetable oil, animal fat (tallow) with an alcohol producing fatty acid esters. Biodiesel is meant to be used in standard diesel engines and is thus distinct from the vegetable and waste oils used to fuel *converted* diesel engines. Biodiesel can be used alone, or blended with petrodiesel.
Boarding and alighting	To get on and off a transit vehicle.
Bypass lane	A lane that allows transit vehicles to bypass general traffic congestion approaching an intersection. Applications at signalized intersections may include an exclusive traffic signal phase to allow transit vehicles to move through the intersection ahead of general traffic. See also “queue jump.”
Bypass wires	Overhead wires used by a trolley coach to bypass a second trolley coach.

Glossary

California Traffic Control Devices Committee (CTCDC)	This committee advises the California Department of Transportation (Caltrans) about standards and polices for official traffic control devices in California. Through this committee, Caltrans fulfills its obligation to consult with local agencies and the public, before adopting rules and regulations prescribing uniform standards and specificatio ns for all official traffic control devices used in California.
Capital improvement project	A project that requires changes to physical infrastructure.
Capital infrastructure	Physical structures or devices that provide long-term support to the operation of transit service.
Capital investment	One-time change to physical infrastructure for improvement, either to replace worn out infrastructure or to add new infrastructure. Contrasts with operating investments and expenses, which are on-going.
Center lane	A travel lane located in the middle of the roadway, beyond the curb lane and, in roadways with two or more travel lanes in each direction, the innermost lane.
Community Connector Van Service	Community Connector service provided by smaller vehicles such as vans or shuttle buses.
Community Connectors	Low-ridership bus routes that circulate through San Francisco's hillside residential neighborhoods and fill in gaps in coverage to connect customers to the core network.
Contraflow lane	A lane in which restricted traffic flows in the opposite direction of the adjacent lanes, limited to certain vehicle types such as transit or carpool vehicles.
Corridor	A broad geographical band that follows a general directional flow or connects major sources of trips. It may contain a number of parallel streets and highways and many transit lines and routes.
Couplet	A pair of parallel streets that operate one-way in opposite directions.

Glossary

Crosswalk	Legally designated location for pedestrians to cross from one side of a roadway to the other. Present at all intersections that intersect at approximately right angles; may be marked or unmarked.
Curb cut	Location where the sidewalk curb is depressed to the level of the roadway for a curb ramp, driveway, or other feature.
Curb lane	The lane of traffic closest to the curb, which may or may not have parking adjacent to it. (Opposite of center lane).
Curb ramp	Location where the curb is depressed to the level of the roadway to provide a flush transition from the sidewalk to the roadway to enable accessible street crossing or movement.
Curbside	The side nearest to the curb; in a divided 4-lane road, the curbside lane is the right lane.
Customer	A person who rides a transportation vehicle, excluding the driver.
Dedicated turn lane	A lane from which a vehicle is required to turn left or right.
Diesel hybrid-electric motor coaches	Diesel hybrid-electric buses or motor coaches are electric buses that get their electricity from a small diesel engine. The diesel engine powers a generator that, together with traction batteries that store the energy, supplies the necessary electrical energy to move the bus through the streets of San Francisco. A diesel hybrid-electric bus can also recover and store braking energy. This increases the vehicle's fuel economy and brake life.
Duct bank	A conduit, typically installed underground, used to run power supply and other wired infrastructure from one point to another.
Dwell time	The time when a bus is stopped to load and unload customers at a transit zone.

Glossary

Expanded alternative	The Expanded Alternative for the TTRP corridors employs TPS Toolkit elements that may have a greater potential to trigger additional physical environmental effects, such as substantial changes to traffic, bicycle, or pedestrian circulation or similar impacts, whereas the Moderate Alternative is expected to have fewer physical environmental effects due to the nature of the TPS Toolkit elements chosen for each TTRP corridor.
Express service	Service operated non-stop over a portion of an arterial in conjunction with other local services. The need for such service arises where customer demand between points on a corridor is high enough to separate demand and support dedicated express trips.
Farside of intersection	The second or furthest side of the intersection encountered when passing through. Contrasts with nearside of intersection.
Flag stop	A transit stop where the bus or LRV stops within a traffic lane without a designated curbside transit zone, often adjacent to parked vehicles. Often marked with a sign or painted marking noting the transit route.
Frequency of service	The amount of time scheduled between consecutive buses or trains on a given route segment; in other words, how often the bus or train comes (also known as Headway)
Headway	The scheduled time interval between any two revenue transit vehicles operating in the same direction on a route.
Implementation schedule	The planned dates and durations of time during which the proposed project would be carried out.
Inbound direction	Unless otherwise defined, inbound means headed toward Embarcadero Station or Downtown. It is the opposite of outbound direction. Routes that do not go to the Embarcadero Station or Downtown or serve Embarcadero / Downtown mid-route have explicit definitions for inbound and outbound (e.g. 22 Fillmore is defined as heading inbound to the Marina and outbound to Potrero Hill; the F Market & Wharves is defined as heading inbound to Fisherman's wharf and outbound to Castro).

Glossary

Key Stop	Light Rail Transit Service stops that include high floor boarding platforms for accessibility.
Lane modifications	Lane modification proposals would change the configuration of travel and parking lanes within the existing right-of-way, typically with striping and signage. Proposed lane modifications include creating transit- only lanes, creating transit queue jump/bypass lanes, creating dedicated turn lanes, and widening mixed-flow lanes by reducing the number of mixed-flow lanes. *[see IS, pp. 41-46.]*
Layover	A layover is a period of time included in the schedule at the end of a trip that typically takes place at a transit terminus. It serves two major functions: recovery time for the schedule to ensure on-time departure for the next trip and, in some systems, operator rest or break time between trips. Layover time is often determined by labor agreement, requiring “off-duty” time after a certain amount of driving time.
Light rail vehicle (LRV)	Light rail vehicles are a form of urban rail public transportation that generally has a lower capacity and lower speed than heavy rail and metro systems, but higher capacity and higher speed than traditional street- running tram systems. The SFMTA’s fleet of 151 Breda light rail vehicles (LRV), are used in the operation of the six Muni Metro Lines (J, K, L, M, N and T). The vehicles operate in conditions which range from level boarding and exclusive right-of-way in the Muni Metro Subway segments, to high-floor semi-dedicated right-of-way segments on some surface segments, to low-floor, mixed-flow operation on a variety of streets and street types. LRVs provide an efficient, high capacity means of transporting large numbers of passengers.
Limited Service or Limited Stop Service	Faster train or bus service where designated vehicles stop only at transfer points or major activity centers, usually about every 1/3 to 1/2 mile. Limited stop service is usually provided on major trunk lines operating during a certain part of the day or in a specified area in addition to local service that makes all stops. As opposed to express service, there is not usually a significant stretch of non-stop operation.

Glossary

Local Network	Bus routes that complement and connect to the Rapid Network to create the core network, allowing customers to get to most destinations in San Francisco with no more than one transfer.
Local service	A type of operation that involves frequent stops and consequent longer travel times, the purpose of which is to deliver and pick up transit customers as close to their destinations or origins as possible.
Midblock Stop	A transit stop where customers may alight or board that is not at an intersection of two streets.
Moderate alternative	The TTRP proposals with the more limited TPS Toolkit elements that are expected to have fewer physical environmental effects than those of the Expanded alternative TTRP corridor proposals due to the nature of the TPS Toolkit elements chosen.
Motor coach	A bus powered by a diesel engine that can typically utilize biodiesel fuel as an energy source.
Nearside of Intersection	The first or nearest side of intersection encountered when passing through. Contrasts with farside of intersection.
Network	The configuration of streets or transit routes and stops that constitutes the total transportation system.
Network enhancements	Changes to the transit network which will improve reliability and efficiency. For example, providing transit signal priority.
Network restructuring	Changes made to the network after evaluation to improve reliability and efficiency, including creation of new routes, changes to route alignment, elimination of underutilized existing routes or route segments, changes to the frequency and hours of transit service, changes to transit vehicle type on specific routes, changes to mix of local/limited/express services on specific routes.
Operational improvements	Changes made to procedures and transit operations that do not result in changes to infrastructure.
Optimizing transit stop	Locating the transit stop on one side or the other of an intersection for greater efficiency. *[See IS, p. 31.]*

Glossary

Outbound direction	Unless otherwise defined, outbound means headed away from Downtown or Embarcadero Station. This is the opposite of inbound direction. Routes that do not go to Downtown or Embarcadero Station have explicit definitions for inbound and outbound (e.g. 22 Fillmore is defined as heading inbound to the Marina and outbound to Potrero Hill)
Overhead wires	Wires suspended over streets and rail tracks to provide electric power to trolley coaches and LRVs.
Owl Service	Service that operates during the late night/early morning hours or all night service, usually between 1:00 a.m. and 6:00 a.m.
Paratransit	Transportation service for individuals with disabilities who are unable to use fixed-route transit service. The service must be comparable to the fixed-route service and is required by the Federal Americans with Disabilities Act.
Parking restriction	Where the ability to park is limited in duration, type of vehicle, type of use, type of driver, or is forbidden.
Peak period	The hours in the morning or evening when most commuters are commuting and the travel system carries the largest number of passengers (transit) or vehicles (traffic). The morning peak period is generally between 7 a.m. and 9 a.m. and the evening peak period is generally between 4 p.m. and 6 p.m., although these hours may change over time. If not specified, evening commute hours are usually meant.
Pedestrian bulb	A sidewalk extension at a non-transit stop that improves pedestrian visibility and minimizes pedestrian exposure to vehicular traffic.
Pedestrian refuge island	Raised median installed in the center of a roadway that provides a safe place for pedestrians to stop while crossing a street.
Platform	Area of pavement raised above a road or railbed where passengers can board or alight from transit vehicles.
Platform Display System	LED (light-emitting diode) electronic display panels on platforms in Metro stations.

Glossary

p.m. peak	The afternoon commute period in which the greatest movement of transit passengers occurs, generally from work or school to home; the portion of the afternoon service period where the greatest level of ridership is experienced and service provided, generally between 4 p.m. and 6 p.m.
Project variant	Several options or “project variants” are under consideration by the SFMTA to allow for flexibility in the phasing and implementation of the TEP. Proposed Service Improvement variants would modify portions of routes or change the type of vehicle used on routes. TTRP variants would modify the locations of one or more TPS Toolkit elements along the corridor. For areas where more than one variant is proposed, only one variant would be implemented.
Protected turn	At signalized intersections, where traffic from a dedicated turn lane is shown green arrow to indicate when vehicles may safely complete that turn while being protected from conflicting vehicles and pedestrians.
Queue jump	A type of roadway geometry and striping that allows transit vehicles to move around vehicles stopped at an intersection, could be combined with a special signal phase to allow transit vehicles to proceed through the intersection in advance of general traffic. See also “bypass lane.”
Rapid Network	Frequent, heavily used bus routes and rail lines that make up the backbone of the Muni system.
Real-Time arrival Signage	LED panels in transit shelters that provide next arrival and emergency messaging; however, these units are also sparingly used to advise customers of service and event-related information and other topics of importance, such as major issues and public input opportunities.
Right-of-way	A right-of-way is a strip of land that is granted, through an easement or other mechanism, for transportation purposes, such as for a pedestrian path, sidewalk, driveway, rail line or highway.

Glossary

Route	A specified path taken by a transit vehicle usually designated by a number or a name, along which customers are picked up or discharged.
Service Improvements	Network restructuring that includes the creation of new routes, changes to route alignment, elimination of underutilized existing routes or route segments, changes to the frequency and hours of transit service, changes to transit vehicle type on specific routes, changes to mix of local/limited/express services on specific routes.
Service management	Improving service delivery on Muni by vehicle and infrastructure maintenance, operator availability, supervision, and traffic management. *[See IS, p. 1, and described in April 2011 Draft Implementation Strategy, pp. 1-4].*
Service Policy Framework	An outline of policies and action items for implementing future transit service changes, including changes proposed as part of the TEP.
Service reliability	How often transit vehicles meet planned schedules of stops.
Service-related Capital Improvements	Physical improvements to the transit system that support, or are in some cases necessary, to implement the TEP Service Improvements, including Terminal and Transfer Point Improvements (TTPI), Overhead wire expansions (OWE), and Systemwide Capital Infrastructure (SCI).
Sidewalk widening	Where the width of the pedestrian right-of-way is increased at the expense of a street or other transportation right-of-way.
Span of Service	The span of hours over which service is operated (e.g., 6 a.m. to 10 p.m). Service span often varies by weekday, Saturday, or Sunday.
State of Good Repair	Federal Transportation Agency (FTA) defined program that seeks to improve the condition of transit capital assets in order to improve transit performance and reliability.

Glossary

State of Good Repair Investment	An SFMTA project that replaces or rehabilitates transportation capital assets in order to improve the condition of capital assets and improve system performance and reliability.
Stop spacing	The distance between consecutive transit stops. If a bus stop occurs on every block, the stop spacing is every block.
Supplemental service	Service provided that is not daily or weekly. Examples of supplemental service include bus service for professional sports games, or school-day only services for middle schools and high schools. [See http://www.sfmta.com/cms/ mroutes/SupplementalService.htm]
Switches	A switch is a mechanical installation enabling LRVs or Trolley Coaches to be guided from one track or set of overhead wires to another, such as at a railway junction or where a spur or siding branches off.
Terminal	The point where a transit route starts or ends, where vehicles stop, turn or reverse, and wait before departing on their return journeys.
Tow-away Zone	A lane in which private vehicles, if stopped or parked, can be removed and the owners fined.
Traffic calming measure	Roadway devices or practices that encourage drivers to proceed slowly through the use of visual or actual roadway narrowings, horizontal or vertical shifts in the roadway, or other features.
Traffic circle	Generally circular raised areas in the center of an intersection that force vehicles to go slowly around them, provide space for landscaping, and slow traffic by visually narrow the roadway.
Traffic Control Device	These include markings, signs, and signal devices used to inform, guide and control the orderly, uniform and efficient movement of all roadway users.
Transfer	A point or location where two or more transit routes come together at the same time to allow passengers to efficiently connect between intersecting transit routes. A short layover may be provided at timed transfer points to enhance the connection.

Glossary

Transit boarding island	Raised area with a transit stop within the roadway that provides a safe place for customers to board and alight, allowing transit vehicles to use center lanes without having to pull over to the side of the roadway for customers to board
Transit bulb	Curb extension at a transit stop designated for passengers to wait for, board to and alight from transit vehicles. A transit bulb allows transit vehicles to board and alight passengers without pulling in and out of traffic.
Transit service efficiency	A measure of how quickly transit trips are completed, how many transit rides are offered, and the cost to provide transit rides.
Transit signal priority	A name for various techniques to speed up transit at intersections with traffic signals. Transit vehicles signal their impending arrival via radio systems and, on their arrival at the intersection, receive green lights.
Transit stop	Where transit vehicles cease movement to permit customers to alight and board.
Transit stop changes	Transit stop changes adjust the size, location, or type of a transit stop. Transit stop changes reduce travel time by changing the distance between stops, making boarding and alighting easier for customers, reducing transit dwell time, and/or reducing the time it takes for a transit vehicle to move in and out of traffic. *[See IS,* pp. 30-40.]
Transit travel time	A measure of the amount of time for transit vehicles to move between two points along a transit route.
Transit Travel Time Reduction Proposals (TTRP)	The transit corridors along which TPS Toolkit elements are proposed to be applied are 17 of the Rapid Network Corridors.
Transit vehicle	A vehicle used for public mass transit, including Cable Cars, LRVs, Motor Coaches, Hybrid electric/diesel motor coaches, Streetcars, and Trolley Coaches.

Glossary

Transit zone	A zone along a curb where no vehicles aside from transit vehicles may stop or park, and where the transit vehicle allows passengers to board and alight. A transit zone allows room for a transit vehicle to approach a curb for customer boarding and alighting.
Transit-only lane	A travel lane that is dedicated for the exclusive use of transit vehicles.
Travel lane	The right of way in which a vehicle may travel.
Trolley coach	Trolley buses (also known as “trolley coaches” or “trackless trolleys”) are rubber-tired vehicles with motors powered by electricity from overhead wires. “Trolley” refers to the trolley poles on the roof of the bus that are used to transmit the electricity from the overhead wires. Thus, “Electric trolley bus” is a redundant term, but must be used occasionally to differentiate real trolley buses from the faux trolley cars and cable cars that are actually small buses.
Turn lane	A secondary lane from which a turn may be made. Contrast with a no-turn lane.
Turn pocket	A short zone carved out of a lane or curb parking, permitting vehicles to make a turn at a given intersection. Most often used to prevent turning vehicles from blocking non-turning vehicles.
Turn Restrictions	Signs limiting vehicles from turning, which reduces the blockage of transit vehicles and other traffic. Turn restrictions can be part-time or full-time. *[IS, p. 46.]*
Wayfinding signage	Directional signage located on the sidewalk, used to help pedestrians orient themselves and locate nearby destinations