

VII-1. GLOSSARY¹

AASHTO - American Association of State Highway and Transportation Officials

An interest group based in Washington, D.C., whose membership is fairly obvious from the name. Involved in research, advocacy and technical assistance.

Accessibility: 1) The extent to which facilities are barrier free and useable by persons with disabilities, including wheelchair users. 2) The ability to obtain desired goods, services and activities.

ADA - Americans With Disabilities Act: Federal civil rights legislation for disabled persons passed in 1990; calls on public transit systems to make their services more fully accessible as well as to underwrite a parallel network of paratransit service.

Aerial Tramway: An electric system of aerial cables with suspended unpowered passenger vehicles. The vehicles are propelled by separate cables attached to the vehicle suspension system and powered by engines or motors at a central location not on board the vehicle.

Alternative Fuels: Low-polluting fuels which are used to propel a vehicle instead of high-sulfur diesel or gasoline. Examples include methanol, ethanol, propane or compressed natural gas, liquid natural gas, low-sulfur or "clean" diesel and electricity.

APTS - advanced public transportation systems: See IVHS.

Arterial Street: A major thoroughfare, used primarily for through traffic rather than for access to adjacent land, that is characterized by high vehicular capacity and continuity of movement.

Articulated Bus See "Bus, Articulated".

ATIS - Advanced Traveler Information Systems (IVHS terms): No more fumbling with the map, no more dreading unknown traffic hazards that lurk ahead of you -- these innovations provide travelers with information to help in trip planning and changing course en route to bypass congestion, e.g., broadcast traffic reports, in-car computerized maps and highway CMS's. Also can include automated transit trip planning and automated rideshare matching.

ATMS - Advanced Traffic Management Systems (IVHS term): A high-tech version of the old-fashion traffic cop, ATMS uses a variety of means to more efficiently manage traffic. It can include roadside sensors, ramp metering, HOV lanes and synchronized traffic signals that respond to traffic flows.

ARZ - Auto Restricted Zone: An area in which normal automobile traffic is prohibited or limited to certain times, and vehicular traffic is restricted to public transit, emergency vehicles, taxicabs and, in some cases, delivery of goods.

Automated Guideway: An electric railway operating without vehicle operators or other crew on board the vehicle.

AFC - Automatic Fare Collection System: A system of controls and equipment that automatically admits passengers on insertion of the correct fare in coins, tokens, tickets or fare cards; it may include special equipment for transporting and counting revenues.

Automobile Dependency: Transportation and land use patterns that result in high levels of automobile use and limited transportation alternatives. In this case, "automobile" includes cars, vans, light trucks, SUVs and motorcycles.

AVLS - Automatic Vehicle Location System: Technology that tracks the current location of fleet vehicles to assist in dispatching, maintaining schedules, answering specific customer inquiries, etc.

AVCS - Advanced Vehicle Control Systems (IVHS term): New techniques to ease stresses and strains of driving are evolving, possibly leading to the day when you may be able to sit back and leave your car in charge. AVCS spans the gamut from ordinary cruise control to "smart cruise control" that helps maintain safe following distance to, researchers hope, "platooning" -- the ability to electronically link and guide a dense pack of cars moving in formation at high speed.

AVI - Automated Vehicle Identification (IVHS term): You won't even be asked to flash your driver's license when this system is in place. It combines an in-car device as well as a roadside receiver that will identify for vehicles for purposes of automated toll collection, stolen vehicle recovery, etc.

AVL - Automated Vehicle Location System (IVHS term): This computerized system can tell you the answer: It employs satellites and other technologies to track vehicles in a fleet, assisting with dispatching and other applications. Currently used by truckers and courier services, it could be used in the future by transit systems to provide real-time schedule information for patrons, and will help the CHP monitor FSP tow trucks.

AVO - Average Vehicle Occupancy: The number of people traveling by private passenger vehicles divided by the number of vehicles used. The AVO during commute hours for the Bay Area in 1990 was 1.097.

AVR - Average Vehicle Ridership: The ratio of all people traveling by any mode, including cars, buses, trains and bicycles (or telecommuting), in a given area during a given time period to the number of cars on the road. A key measure of the efficiency and effectiveness of a transportation network - the higher the AVR, the better you're doing in terms of energy consumption and air pollution.

Bus (Motorbus): A rubber-tired, self-propelled, manually steered vehicle with fuel supply carried on board the vehicle. Types include advanced design, articulated, charter, circulator, double deck, express, feeder, intercity, medium-size, new look, sightseeing, small, standard-size, subscription, suburban, transit and van.

Bus, Advanced Design: A bus introduced in 1977 that incorporates new styling and design features compared to previous buses.

Bus, Articulated: A bus usually 55 feet or more in length with two connected passenger compartments that bend at the connecting point when the bus turns a corner.

Bus, Circulator: A bus serving an area confined to a specific locale, such as a downtown area or suburban neighborhood with connections to major traffic corridors.

Bus, Express: A bus that operates a portion of the route without stops or with a limited number of stops.

Bus, Feeder: A bus service that picks up and delivers passengers to a rail rapid transit station or express bus stop or terminal.

Bus, Intercity: A bus with front doors only, high-backed seats, separate luggage compartments, and usually with restroom facilities for use in high-speed long-distance service.

Bus, Subscription: A commuter bus express service operated for a guaranteed number of patrons from a given area on a prepaid, reserved-seat basis.

Bus, Trolley: An electric, rubber-tired transit vehicle, manually steered, propelled by a motor drawing current through overhead wires from a central power source not on board the vehicle. Also known as "trolley coach" or "trackless trolley".

(Bus), Van: A 20-foot long or shorter vehicle, usually with an automotive-type engine and limited seating normally entered directly through side or rear doors rather than from a central aisle, used for demand response, vanpool, and lightly patronized motorbus service.

Bus Lane: A street or highway lane intended primarily for buses, either all day or during specified periods, but sometimes also used by carpools meeting requirements set out in traffic laws.

Bus Shelter: A building or other structure constructed near a bus stop, to provide seating and protection from the weather for the convenience of waiting passengers.

Bus Stop: A place where passengers can board or alight from the bus, usually identified by a sign.

Busway: Exclusive freeway lane for buses and carpools.

Caltrans: The state agency that operates California's highway and intercity rail systems.

Capital Costs: Costs of long-term assets of a public transit system such as property, buildings, vehicles, etc.

Carpool: An arrangement where two or more people share the use and cost of privately owned automobiles in traveling to and from pre-arranged destinations together.

CMA - Congestion Management Agency: A countrywide organization responsible for preparing and implementing the county's CMP. The CMA can be a new or existing public agency designated by a county's cities and board of supervisors. CMAs came into existence as a result of state legislation and voters' approval of Prop. 111 in 1990.

CMAQ - Congestion Mitigation and Air Quality Program: A pot of money contained in ISTEA for projects and activities that reduce congestion and improve air quality in regions not yet attaining federal air quality standards.

CMP - Congestion Management Program: What a CMA is responsible for. Required of every county in California with an urbanized area of at least 50,000 people. Updated biennially, a CMP sets performance standards for roadways and public transit, and shows how local jurisdictions will attempt to meet those standards through TDM strategies (including a TRO) and a seven-year capital improvement programs. A CMP is necessary in order to qualify for certain funds made available through the state gas tax increase authorized in 1990. CMP's must be consistent with the RTP.

Commuter: A person who travels regularly between home and work or school.

Commuter Rail: See "Rail, Commuter".

Congestion Pricing: Road pricing that varies with the level of traffic on a congested roadway. Congestion pricing is intended to allocate roadway space efficiently.

Contra-flow Lane: Reserved lane for buses on which the direction of bus traffic is opposite to the flow of traffic on the other lanes.

Cost: Resources used to produce a good or service, which may include money, time, materials, land or even risk and discomfort. Costs can be categorized in several ways:

- Some costs are fixed (not related to consumption, such as vehicle registration fees and residential parking), while others are variable (directly increases with consumption, such as fuel and road tolls).
- Some costs are internal (borne directly by the user of a good, such as transit fares and vehicle operating costs), while others are external (borne by others, or by users indirectly and not related to their consumption, such as pollution emissions and general taxes used to fund transportation services).
- Some costs are market (commonly traded with money in a competitive market, such as vehicles and fuel), while others are nonmarket (not commonly traded in a market, such as crash risk and air quality).

Corridor: A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways and transit route alignments.

Demand Responsive: Non-fixed-route service utilizing vans or buses with passengers boarding and alighting at pre-arranged times at any location within the system's service area. Also called "Dial-a-Ride".

Elasticity of Demand: A measure of the sensitivity of demand for a commodity to a change in its price. It equals the percentage change in consumption of the commodity that results from a one-percent change in its price. The greater the elasticity, the more price-sensitive the demand for the commodity. Price elasticities are an important indicator of the effects of pricing strategies.

Electronic Road Pricing: This refers to various electronic systems that collect vehicle tolls, which can reduce or eliminate the need for tollbooths and for vehicles to stop.

Emission Charges: Vehicle charges that vary based on emission rates.

Exclusive Right-of-Way: A highway or other facility that can only be used by buses or other transit vehicles.

Fare Box Recovery Ratio: Measure of the proportion of operating expenses covered by passenger fares; found by dividing fare box revenue by total operating expenses for each mode and/or system wide.

Fare Box Revenue: Value of cash, tickets, tokens and pass receipts given by passengers as payment for rides; excludes charter revenue.

Ferryboat: A boat providing fixed-route service across a body of water.

Fixed Guideway System: A system of vehicles that can operate only on its own guideway constructed for that purpose (e.g., rapid rail, light rail). Federal usage in funding legislation also includes exclusive right-of-way bus operations, trolley coaches and ferryboats as "fixed guideway" transit.

Fixed Route: Service provided on a repetitive, fixed-schedule basis along a specific route with vehicles stopping to pick up and deliver passengers to specific locations; each fixed-route trip serves the same origins and destinations, unlike demand responsive and taxicabs.

Fringe Parking: An area for parking usually located outside the Central Business District (CBD) and most often used by suburban residents who work or shop downtown.

FSP - Freeway Service Patrol: Free, roving tow truck service to get you moving. By the spring of 1993, FSP trucks will aid stranded motorists and help to clear incidents along 100 miles of the region's most congested freeways. A JUMP Start project that is jointly sponsored by the MTC SAFE, Caltrans and the CHP.

HAR - Highway Advisory Radio (IVHS term): Radio warnings broadcast via a special frequency to prepare for and avoid hazardous or difficult road conditions ahead. See TOS.

Headway: Time interval between vehicles moving in the same direction on a particular route.

Heavy Rail: See "Rail, Heavy".

High Speed Rail: See "Rail, High Speed".

High-Occupancy Vehicle (HOV): a passenger vehicle carrying more than a specified minimum number of passengers. HOV's include carpools, vanpools, and buses. HOV requirements are often indicated as 3+ (three or more passengers required) or 4+ (four or more passengers required).

HOV - High-Occupancy-Vehicle Lane: The technical term for a carpool lane, commuter lane or diamond lane.

HOT Lanes (High Occupancy Toll Lanes): HOV facilities that allow lower occupancy vehicles, such as solo drivers, to use the facility if they pay a toll. This offers users three options: drive alone on an unpriced but congested general purpose lane, drive alone and pay to use a less congested lane, or rideshare (carpool, vanpool or ride transit) to use a less congested lane without any additional fee.

Intermodal: Those issues or activities which involve or affect more than one mode of transportation, including transportation connections, choices, cooperation and coordination of various modes. Also known as "multimodal". The term "mode" is used to refer to and to distinguish from each other the various forms of transportation, such as automobile, transit, ship, bicycle and walking. Intermodal refers specifically to the connections between modes.

ISTEA - Intermodal Surface Transportation Efficiency Act: This landmark \$151 billion legislation signed into law in December 1991 proposes broad changes to the way transportation decisions are made. In the words of the STPP folks, it emphasizes diversity and balance of modes, as well as the preservation of existing systems over construction of new facilities, especially roads.

IVHS - Intelligent Vehicle-Highway Systems: Also known as "smart cars," "smart streets" and even "smart buses," it promises to move the daily commute from the era of the Flintstones to the age of the Jetsons, from frustration-filled gridlock to computer guided navigation. The term refers to a wide range of advanced electronics and communications technology applied to roads and vehicles. Designed to improve safety and productivity, IVHS also can have a positive impact on air quality by cutting congestion. When the term is applied to transit, it is called APTS; in commercial trucking, it is referred to as CVO. The European, especially seem to stretch the limits of the English language to come up with clever names for the nearly endless IVHS programs that have been spawned of late: DRIVE (Dedicated Road Infrastructure for Vehicle Safety in Europe) is a European Community-sponsored IVHS program that contains within it CIDER (Communication Infrastructure for DRIVE on European Roads), PAMELA (Pricing and Monitoring Electronically of Automobiles), PANDORA (Prototyping a Navigation Database of Road Network Attributes) and SOCRATES (System of Cellular Radio for Traffic Efficiency and Safety).

Jitney: Privately owned, small or medium-sized vehicle usually operated on a fixed route but not on a fixed schedule.

Kiss and Ride: A place where commuters are driven and dropped off at a station to board a public transportation vehicle.

Light Rail: See "Rail, Light".

Linked/Unlinked Trip: An unlinked trip is a passenger trip made on a single vehicle, such as a single automobile or bus ride. A linked trip is a person's entire trip between an origin and destination, which may involve transferring between vehicles (e.g., Park & Ride or bus and rail transit), or multiple stops, such as stopping at a daycare center or store along a commute trip.

Load Factor: The ratio of passengers actually carried versus the total passenger capacity of a vehicle.

LOS - Level of Service: A report card that rates traffic flow from A (excellent) through F (fails), and compares actual or projected traffic volume with the maximum capacity of the intersection or road in question.

LRT - Light-Rail Transit: Fixed guideway transportation mode that typically operates on city streets and draws its electric power from overhead wires; include streetcars, trolley cars and tramways. Differs from heavy rail -- which has a separated right of way, and includes commuter and intercity rail -- in that it has lighter passenger capacity per hour and more closely spaced stops.

Maglev - Magnetic Levitation: This technology permits trains to move at high speed above a guideway on a cushion of air generated by magnetic force.

Managed Lane: A lane, which is restricted to particular types of vehicles, to provide improved travel conditions to eligible users. Eligibility can be based on the number of people in the vehicle, the type of vehicle, users who are willing to pay a toll, or other criteria. Examples include HOV lanes, HOT lanes, freight lanes, and Value Priced lanes.

Market Distortions: Market conditions that violate basic market principles such as consumer choice, cost-based pricing or economic neutrality.

Mobility: The movement of people and goods.

Modal Split: A term that describes how many people use alternative forms of transportation. Frequently used to describe the percentage of people using private automobiles as opposed to the percentage using public transportation.

Model: An analytical tool (often mathematical) used by transportation planners to assist in making forecasts of land use, economic activity, travel activity and their effects on the quality of resources such as land, air and water.

Monorail: An electric railway in which a rail car or train of cars is suspended from or straddles a guideway formed by a single beam or rail. Most monorails are either heavy rail or automated guideway systems.

Motor Vehicle Fuel Tax: Taxes on motor vehicle fuels, which are usually considered a road user fee.

Multimodal: Refers to the availability of multiple transportation options, especially within a system or corridor. A concept embraced in ISTEA, a multimodal approach to transportation planning focuses on the most efficient way of getting people or goods from place to place, be it by truck, train, bicycle, automobile, airplane, bus, boat, foot or even a computer modem.

NHS - National Highway System: An approximately 155,000-mile, still-to-be-designated network brewed in ISTEA to provide an interconnected system of principal routes to serve major travel destinations and population centers. Picks up where the Interstate Highway System left off.

Nonmotorized Transportation (NMT): includes walking, cycling, skating, scootering and wheelchair travel.

Off-Peak Period: Non-rush periods of the day when travel activity is generally lower and less transit service is scheduled. Also called "base period".

Paratransit: Comparable transportation service required by the Americans with Disabilities Act (ADA) of 1990 for individuals with disabilities who are unable to use fixed-route transportation systems.

Park and Ride Lot: Designated parking areas for automobile drivers who then board transit vehicles from these locations.

Parking Cash-Out: This means that people (typically commuters, and sometimes residents of multi-family housing) who are offered a free parking space are also offered the cash equivalent when they use alternative transportation modes and so do not impose parking costs.

Parking Management: Strategies aimed at making better use of available parking supply. Parking management strategies include preferential parking or price discounts for carpools and/or short-term parkers, and disincentives, prohibitions and price supplements for those contributing more to congestion.

Parking Pricing: This means that motorists pay directly for using parking facilities. Time variable parking pricing can be used as a congestion reduction strategy.

Passenger Miles: The total number of miles traveled by passengers on transit vehicles; determined by multiplying the number of unlinked passenger trips times the average length of their trips.

Peak Period: Morning and afternoon time periods when transit riding is heaviest.

Price: The direct, incremental costs that individual consumers trade off in exchange for using a good or service (perceived, internal, variable costs).

Public Transportation: Transportation by bus, rail, or other conveyance, either publicly or privately owned, which provides to the public general or special service on a regular and continuing basis. Also known as "mass transportation," "mass transit" and "transit".

Rail, Commuter: Railroad local and regional passenger train operations between a central city, its suburbs and/or another central city. It may be either locomotive-hauled or self-propelled, and is characterized by multi-trip tickets, specific station-to-station fares, railroad employment practices and usually only one or two stations in the central business district. Also known as "suburban rail".

Rail, Heavy: An electric railway with the capacity for a "heavy volume" of traffic and characterized by exclusive rights-of-way, multi-car trains, high speed and rapid acceleration, sophisticated signaling and high platform loading. Also known as "rapid rail," "subway," "elevated (railway)" or "metropolitan railway (metro)".

Rail, High Speed: A rail transportation system with exclusive right-of-way which serves densely traveled corridors at speeds of 124 miles per hour (200 km/h) and greater.

Rail, Light: An electric railway with a "light volume" traffic capacity compared to heavy rail. Light rail may use shared or exclusive rights-of-way, high or low platform loading and multi-car trains or single cars. Also known as "streetcar," "trolley car" and "tramway".

Rapid Transit: Rail or motorbus transit service operating completely separate from all modes of transportation on an exclusive right-of-way.

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.

Ridesharing: A form of transportation, other than public transit, in which more than one person shares the use of the vehicle, such as a van or car, to make a trip. Also known as "carpooling" or "vanpooling".

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

Rolling Stock: The vehicles used in a transit system, including buses and rail cars.

Shuttle: A public or private vehicle that travels back and forth over a particular route, especially a short route or one that provides connections between transportation systems, employment centers, etc.

SOV - Single-Occupant Vehicle: A vehicle with one occupant, the driver, who is sometimes referred to as a "drive alone", sometimes an epithet hurled by frustrated transportation planners.

Subway See "Rail, Heavy".

Revenue Neutral: Revenue-neutral pricing means that any increase in some consumer charges are offset by reductions in other consumer charges so total revenue collected does not change.

Road Pricing: The general term for any charge for use of a roadway. It is sometimes limited to direct charges, such as tolls, or may include other vehicle fees, including fuel taxes, license fees and parking charges.

Smart Growth: Land use development practices that create more resource efficient and Livable communities, with more Accessible land use patterns. An alternative to sprawl.

Sprawl: Dispersed, low-density, single-use, automobile dependent land use patterns (Galster, et al, 2001).

Stakeholder: Individuals or groups that are affected by a decision and have an interest in its outcome.

Time-Variable Pricing: Any user charge that varies by time period as a way to manage demand and reduce congestion. This is the basis of congestion pricing. Such fees are higher during peak periods when the congestion is most severe, and lower during off-peak periods. Many services (telephone, electric utilities, airlines) use time-variable pricing to encourage more efficient use of system capacity and allow users to save by shifting their consumption to off-peak periods. Some road tolls and parking charges are time-variable pricing.

TDM - Transportation Demand Management: TDM - Low-cost ways to reduce demand by automobiles on the transportation system, such as programs to promote telecommuting, flextime and ridesharing.

TMA - (1) Transportation Management Association: A voluntary group set up by employers or other entities to reduce vehicle trips within certain areas.

(2) Transportation management area: A region subject to certain planning requirements under ISTEA. Any urbanized area with a population of more than 200,000 automatically is a TMA.

TMP - Transportation Management Plan: When it comes to widening a freeway, traffic usually gets a whole lot worse before it gets any better, which is why the feds require a TMP showing how traffic flows will be smoothed or diverted during construction. A TMP might call for installing ramp meters or upgrading parallel roads; boosting public transit service; aggressively marketing carpooling vanpooling; and mounting a public information campaign.

TOC - Traffic Operations Center: The place from which the TOS is run.

Toll Road: A section of road where motorists are charged a direct user fee (or toll).

TOS - Traffic Operations System: In the Bay Area, Caltrans and the CHP will monitor traffic flows by means of detectors embedded in pavement and closed-circuit television cameras, quickly dispatching tow trucks and other assistance. Message signs and broadcasts will alert drivers and transit riders to conditions ahead, while ramp metering will control traffic flows. All these devices together comprise the TOS.

Transfer Center: A fixed location where passengers interchange from one route or vehicle to another.

Transit: See "Public Transportation".

Transit Pass: A tax-free employee commute benefit in which an employer subsidizes up to \$60 per month for an employee's transit fares or vanpool charges. This benefit also applies to military and government employees.

Transit System: An organization (public or private) providing local or regional multi-occupancy-vehicle passenger service. Organizations that provide service under contract to another agency are generally not counted as separate systems.

TransLink: MTC's prototype for a universal ticket valid on all transit modes, from BART to buses to ferries.

Transponder: An electronic tag installed in a vehicle for electronic road pricing. An electronic tolling device that automatically assesses the amount of the user fee reads the tag electronically.

TravInfo - Bay Area Intermodal Traveler Information System: The theory here is that the more you know, the better decisions you can make about your daily travel patterns. Spearheaded by MTC, this ATIS project will employ state-of-the-art technology to disseminate detailed, timely information on transit schedule adherence and roadway congestion -- possibly even parking availability. Travelers will be able to access data from the TravInfo nerve center (TIC) from home or at work as well as en route. A JUMP Start project implemented by a partnership of public agencies and private firms; expected to become fully operational by the mid-1990s.

TRO - trip reduction ordinance: This regulation is to limit the number of SOV users in order to stanch polluting emissions. Aimed at employers, TRO's have been enacted by local governments in response to CMP requirements, which vary from county to county. Now the BAAQMD has passed an Employer-based Trip Reduction Rule that should result in cities and counties adopting more stringent and more uniform TRO's.

Trolley Bus: See "Bus, Trolley".

Trolley Car: See "Rail, Light".

TSM - Transportation Systems Management: Low-cost improvements to make the transportation system work more efficiently, such as traffic signal coordination.

Universal Design: Transportation systems designed to accommodate a wide range of users, including people with disabilities and other special needs.

Value Pricing: A synonym for Congestion Pricing that applies when motorists are offered a choice between an unpriced but congested facility, and a Value Priced facility which provides a superior level of service. It emphasizes the extra benefits that users receive in exchange for paying a premium.

Vanpool: An arrangement in which a group of passengers share the use and cost of a van in traveling to and from pre-arranged destinations together.

VFV - Variable Fuel Vehicle, aka Flexible Vehicle: runs on gasoline along with less polluting alternative fuels, such as CNG.

VMT - Vehicle Miles Traveled: The more cars there are on the road at the same time in the same area, the worse congestion will be. This term helps pin down the numbers. Reducing VMT can help ease traffic congestion and improve air quality.

¹The following glossary is from the Victoria Transport Policy Institute and the Mineta Transportation Institute.