

**APPENDIX A**  
**Glossary and Acronyms**

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**Accessibility.** 1) The ability of vehicles and facilities to accommodate the disabled and comply with the Americans with Disabilities Act; 2) A measure of the ability or ease of all persons to travel among various origins and destinations.

**Adverse Effect.** Alteration to the characteristics of a historic property, which qualify it for inclusion in the National Register, that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration is given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable impacts caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

**Alignment.** The horizontal and vertical location of a roadway, railroad, transit route, or other linear transportation facility.

**Alternatives Analysis (AA).** An analysis for major transit projects of the engineering, environmental, and financial feasibility of alternatives required before federal funds can be allocated to a project.

**Alternatives.** The set of transportation improvements or projects compared in the AA process to determine their effectiveness as potential solutions to a transportation problem.

**American with Disabilities Act (ADA).** A federal civil rights law enacted in 1990 mandating access to public facilities for persons with disabilities.

**Articulated Vehicles.** A light rail vehicle or bus designed with a jointed carbody permitting greater length while retaining sharp curve maneuverability during operation.

**At-grade.** On the ground, at surface level.

**Automatic Vehicle Location (AVL).** A geographic information system that tracks the exact location of a bus or rail vehicle while in operation. It can be used to estimate arrival times at stations through a central processor for specified transit routes.

**Ballast.** Coarse gravel or crushed rock used to form a bed for railroads. Grass, concrete, and asphalt pavement can also be used to form a bed for railroads according to environmental and/or aesthetic considerations.

**Baseline Alternative.** An alternative in the AA process that seeks to attain as many of the goals of the build alternatives through a series of smaller, less-expensive measures.

**Below Grade.** Placed below the ground surface, as with a subway or a tunnel.

**Broad Street Subway (BSS).** One of three major heavy rail systems serving Philadelphia. The BSS is run by the Southeastern Pennsylvania Transportation Authority (SEPTA) and operates from the Fern Rock Transportation Center to Pattison Avenue. Broad Ridge Spur operates between Fern Rock Transportation Center and 8<sup>th</sup> and Market Streets.

**Build Alternative.** A project alternative involving a major capital investment.

**Bus Rapid Transit (BRT).** Rubber-tired vehicles operating on fixed routes and schedules on roadways.

**Capacity.** The physical ability of a transportation system, or any of its elements, to carry travelers from one point to another.

**Capital Cost Estimate.** The estimated cost of designing and constructing a transportation investment, which typically includes guideway structure, systems, facilities, stations, vehicles, utility relocation, design, project management, and contingency costs.

**Carriageway.** The portion of a roadway used by automobiles, trucks, or buses (exclusive of sidewalks, medians, shoulders, etc);the area between the curbs but inclusive of on-street parking spaces.

**Catenary.** Electric power system using an overhead contact wire and its supporting cables and wires. The contact wire provides an electrical power source for vehicles via pantographs, the contact mechanism on the roof of the vehicle.

**Center Platform Station.** A rail station with a single platform located between the tracks.

**Connectivity.** Connecting various transportation modes and services to minimize wait times between transfers and reduce overall travel time.

**Construction Impact.** Temporary impact that would occur over a short period of time while a project is under construction.

**Cost Effectiveness Index.** A measure of the effectiveness of a transit project using measured cost per new rider. The Federal Transit Administration (FTA) has replaced this measure with Transportation System User Benefit.

**Couplers.** A device located at each end of a rail vehicle that permits the connection to other rail vehicles for the assembly of a train.

**Cut-and-Cover.** A type of underground guideway construction that involves the creation of a trench and the installation of a concrete box structure that is covered with earth and landscaped.

**Delaware Valley Regional Planning Commission (DVRPC).** Metropolitan Planning Organization (MPO) for the Philadelphia region.

**Double Track.** Two sets of tracks side-by-side most often used for travel in opposite directions.

**Dwell Time.** The time, in seconds, that a transit vehicle spends at each stop to serve boarding and alighting passengers.

**Elevated Guideway.** Structure that is constructed above street level on concrete columns and is spanned by concrete structures that support both the rail tracks and station areas.

**Environmental Justice (EJ).** Presidential Executive Order 12898 requires federal agencies to ensure that their actions, or actions they oversee, do not disproportionately discriminate against or affect minority and low-income populations.

**Exclusive Lane.** A roadway lane used by public transit vehicles only.

**Express Service.** Bus or rail service with limited stops along its route to shorten the overall travel time between origin and destination points.

**Farebox Revenue.** Value of cash, tickets, tokens, and passes given by passengers as payment for rides.

**Feasible.** Capable of being accomplished in a successful manner within a reasonable time period, within a reasonable cost, or without significant economic, social, or environmental impact.

**Final Design.** The final engineering phase of a project’s design process. During final design, contract plans and specifications necessary for bidding are often prepared for use by bidders to construct the proposed project.

**Fiscally Constrained.** The financial requirement that all projects must have an identified funding source.

**Fixed Guideway.** For rail transit systems—rail tracks; for bus systems—roadways used only by buses. Federal usage in funding legislation also includes exclusive right-of-way bus operations as “fixed-guideway” transit.

**Floodplain (100-year).** The area adjacent to a stream that is inundated once a century (on average).

**Grade.** 1. Refers to a rise in elevation within a specified distance; for example, a 1 percent grade is a 1-foot or 0.305-meter rise in elevation in 100 feet or 30.5 meters of horizontal distance. 2. The rate of upward or downward slope of a roadway, expressed as a percent. 3. “At grade” refers to a transportation facility built at ground level in a level intersection of both modes. See grade separation.

**Grade Separation.** Two transportation rights-of-way that are separated vertically and for which there is no shared common intersection. A transit right-of-way may be fully grade-separated or partially grade-separated.

**Guideway.** The fixed structure that provides the actual path for a transit vehicle or automobile.

**Headway.** The period of time at a rail station or bus stop between one bus/rail vehicle and the next.

**Heavy Rail.** An electric railway with high passenger carrying capacity, characterized by exclusive rights of way, multi-car trains, high speed, and high-level platform passenger loading. Examples include the Broad Street Subway (BSS) and Market-Frankford Subway Elevated (MFSE).

**Hinged.** A jointed or flexible device that allows the turning or pivoting of a structure; e.g., . a door that is hinged to the body of a bus or rail vehicle.

**Historic Property.** Any prehistoric or historic building, site, structure, object, or district that is listed in or eligible for listing in the National Register of Historic Places.

**Intermodal.** The ability to connect and the connections between different modes of transportation.

**ITS (Intelligent Transportation System).** Advanced technology that improves the efficiency of a transportation system; e.g., the Automated Vehicle Location (AVL) system proposed for express buses in the Transportation System Management (TSM).

**Kiss-and-Ride.** A drop-off and pick-up area for transit users being driven by car to a transit station or transfer point.

**Lane Configuration.** The enumeration of lanes along Roosevelt Boulevard.

**Level of Service (LOS).** A qualitative measure describing operational conditions within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. LOS A represents free flow and LOS F represents gridlock.

**Light Rail.** An electric passenger railway characterized by exclusive or in-street rights of way, two- to three-car trains and single-person operation; e.g., SEPTA's Sharon Hill and Norristown High Speed Lines.

**Locally Preferred Alternative (LPA).** The project alternative chosen by a sponsoring agency resulting from the federal project-development process. It defines the alternative that is deemed best suited to meet the region's transportation goals, is responsive to community concerns and input, and has been examined and declared superior in relation to its social, economic, and environmental impacts.

**Low Floor Vehicles.** Transit vehicles with lower floors that have a step-less entry and so allow wheelchairs to roll directly into the vehicle. In addition to improving accessibility, low floors allow fully mobile passengers to board more quickly. Passenger compartment floors are generally no more than 14 inches above the rail or street surface through at least a major portion of the vehicle.

**Low-Income Population.** Any readily identifiable group of low-income persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed federal transportation program, policy, or activity. For the purposes of this study, low-income populations are determined to be present where median household income in a Census block group is less than or equal to 50 percent of the county (Philadelphia) median household income.

**Maintenance or Storage Facility.** A site with facilities and buildings for the storage, maintenance, and clearing of transit vehicles and the storage of other system maintenance equipment. May also include crew facilities such as locker rooms and break facilities.

**Market-Frankford Subway Elevated (MFSE).** One of three main heavy rail systems serving the City of Philadelphia. The MFSE BSS is operated by SEPTA from Bridge Street to 69<sup>th</sup> Street.

**Minority.** A person who is. (1) Black (having origins in any of the black racial groups of Africa); (2) Hispanic (or Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); (3) Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands; or (4) American Indian and Alaska Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

**Minority Population.** Any readily identifiable groups of minority persons who live in geographic proximity, and if circumstance warrant, geographically dispersed/transient persons (such as migrants). For the purposes of this study, minority populations are determined to be present where the percentage of minority persons in a Census block group is 50 percent or greater than the County (Philadelphia) percentage of minority persons.

**Mitigation.** Measures designed to lessen or eliminate the adverse impacts resulting from a proposed project or alternative. An action taken to eliminate or reduce risk to certain cultural resources.

**Mixed Traffic.** The operation of rail vehicles on public roads with car and truck traffic. Where tracks are embedded in the road, rail vehicles and cars can share the same road. Rail vehicles must obey all traffic laws.

**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 riding public transportation.

**Mode.** Refers to a specific form of transportation (auto, bus, LRT, heavy rail, pedestrian, bicycle, etc.)

**National Environmental Policy Act (NEPA).** The federal law that requires every federal agency to evaluate the effect of its proposed actions on the natural and man-made environment by doing an Environmental Assessment or Environmental Impact Statement.

**National Register of Historic Places.** A federal listing of historic resources protected under the National Historic Preservation Act of 1966. Resources include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

**No Build Alternative.** The alternative that includes only those projects already programmed for construction. Typically used in a Transportation Investment Study to indicate the alternative that does not include any new transportation investments.

**Off-Board Fare Collection.** Collection of transit fares off the vehicle, typically at a station. Boarding time is greatly reduced with off-board fare collection. When off-board fare collection is used, verification of fare payment is often made by random inspection onboard vehicles.

**Off-line stations.** Express bus stops located outside the cartway.

**Off-peak hours.** The period of travel other than the morning and evening peak periods. Includes late evening and weekend travel periods.

**Open Cut, Below-grade.** Transit or roadway guideway that is located below the existing ground level but open to the sky.

**Operation and Maintenance Costs (O&M Costs).** All costs involved with running a transit system, including labor for operations, vehicle and fixed guideway maintenance, fuel and/or electric power, spare parts and other supplies, insurance premiums, and claims payments.

**Operating Plan.** For transit, an operating plan details characteristics such as running times, frequency, required number of vehicles, changes in frequency throughout the day, and assumptions pertaining to stations.

**Origin-Destination Study.** A method to determine where trips are coming from and going to, or where travel is desired.

**Peak hours.** The period(s) during which the maximum amount of travel occurs. It may be specified as the morning (a.m.) or afternoon (midday) or evening (p.m.) peak.

**Portal.** The structure through which a highway or railroad enters or exits an underground tunnel to or from the surface.

**Preliminary Engineering.** The phase at which design is approximately 30 percent complete. The deliverables at the 30 percent submittal include contract drawings, specifications, design calculations, and a preliminary cost estimate. Environmental impacts and property impacts/requirements will be noted on the plans.

**Purpose and Need Statement.** A project's purpose is a broad statement of the proposed action's overall objective. A project's need is a more detailed explanation of the specific transportation problems that exist or are expected to occur in the future. It is the foundation to determine if alternatives meet the needs in the area.

**Overhead wire.** The electrical wire that hangs from single poles or a catenary structure. This wire contacts the rail vehicle's pantograph to collect power for operation.

**Pantograph.** A jointed power collection arm extending from the roof of a rail vehicle to an overhead wire. The Light Metro version is retractable.

**Park-and-Ride.** A facility located near a bus or rail station that provides a place for automobile parking for transit commuters.

**Peak Hours.** The period of time in which maximum automobile or transit travel occurs; typically, the morning and late afternoon hours.

**Recovery Space.** Room near the terminus station where a bus can be parked, thus, allowing the operator to take a break and prepare for return service.

**Revenue Collection.** The process of collecting passenger fares through vehicle operators, ticket collectors, or ticket vending machines.

**Revenue Service.** On a specified route, the period of passenger transit operation.

**Right-of-Way.** A corridor of land acquired by purchase, reservation, dedication, or condemnation, intended to be utilized as a roadway, rail line, utility service, facility or parking area, buffer, or similar use.

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

**Scoping.** The process of defining and refining alternatives for a major capital investment study Draft Environmental Impact Statement (DEIS). The scoping process usually provides opportunities for input from the public.

**Seismic.** Of, subject to, or caused by an earth vibration.

**Shared Lanes.** Surface streets where transit operates in lanes with regular traffic.

**Side platform station.** A rail station with a passenger platform located on either side of the rail tracks that allows access to trains in one direction or the other, but not both.

**Signal prioritization.** Technique of altering the sequence or timing of traffic signals at intersections to provide priority treatment for transit vehicles.

**Streetscape.** The space between the buildings on either side of a street that defines its character. The elements of a streetscape can be natural or man-made and include buildings, set back of buildings, sidewalks, signs, public furnishings, trees, landscaping, street lights, above-ground utilities, bus stop shelters and street furniture.

**Tail tracks.** Tracks beyond the terminus of a particular rail system that allows trains to turn back and continue service in the opposite direction.

**Third rail.** An electric conductor rail located alongside the running rail. Power is collected by means of a sliding contact shoe attached to the truck of electric rail vehicle.

**Tie-backs.** Steel beams anchored in the earth that hold soldier beams in a vertical position.

**Transportation System Management (TSM).** A proposal or group of proposals that seeks to maximize the utility of the current transportation system specific to a certain area, and demonstrates the extent to which these problems can be resolved without a major investment in new facilities.

**Traffic Analysis Zone (TAZ).** A geographic area typically ranging in size from a city block to a one-square-mile section (or larger) used in computer models that project changes in traffic flow based on estimated land use changes, population growth, employment growth, and other factors.

**Travel Demand Forecast.** A forecast for travel demand on future or modified transportation system alternatives using existing or projected land use, socioeconomic, and transportation services data.

**Travel Time.** The average time required to travel between two points, including delays at intersection, but not including terminal or waiting time.

**Trunk line.** The main line of a transportation system (bus or rail).

**Vertical profile.** Shows the vertical elevation of a particular alignment in relation to the existing grade.

**Wayside.** The side or edge of a rail right-of-way.

**Yard.** A system of tracks, other than main tracks and sidings, used for making up trainsets, storing of cars and for other purposes.