

GLOSSARY OF TERMS

ACTIVE TRANSPORTATION: Any form of human-powered, non-motorized transportation.

AUTOMATED VEHICLES: Human-driven vehicles with automated safety features like parking and braking assist and lane departure correction.

AUTONOMOUS VEHICLES (AV): Completely “driverless” vehicle capable of driving itself without human intervention.

ADMINISTRATIVE MODIFICATION (ADMOD): Any minor change to a previously-approved project on the TIP which may consist of cost increases, minor scope changes or funding source changes.

AMENDMENT: Any major change to a previously-approved TIP including the addition/deletion/major scope change of an existing project and requires a public review period.

AMERICANS WITH DISABILITY ACT OF 1990: federal legislation which mandates changes in building codes, transportation, and hiring practices to prevent discrimination against persons with disabilities.

ANNUAL ELEMENT: The section of the Transportation Improvement Program which lists all transportation improvement projects proposed for the first year of the program.

AUTONOMOUS VEHICLES (AV): A vehicle that can guide itself without human conduction.

BACKHAUL (HEAD HAUL): The return movement of a transportation vehicle from its delivery point back to its point of origin.

BIKEWAY: Any road, street, or path that is designated to accommodate bicycle travel. Bikeways do not have to be separated facilities and may be shared with other travel modes.

BEYOND PRESERVATION: Projects that include system renewal projects that address bridge replacements and major rehabilitations; and pavement rehabilitations and reconstructions.

CAPACITY: A transportation facility’s ability to accommodate a moving stream of people or vehicles in a given time period.

CAPACITY DEFICIENCY: Vehicles on a roadway exceeds the desired level of service threshold volumes for that roadway.

CAPITAL COSTS: Non-recurring or infrequently recurring costs of long-term assets, such as land, guideways, stations, buildings, and vehicles.

CENTERLINE AUDIBLE RESONANCE DELINEATORS (CARDS): Raised or grooved patterns on the roadway and provide driver with both an audible warning (rumbling sound) and a physical vibration.

CLEAN AIR ACT AMENDMENTS OF 1990: Congressional legislation with significant program reforms for transportation. Air quality standards and associated conformity regulations are established, along with requirements for the development of clean fuels, vehicles and their operations.

COLLECTORS: Functional classification of streets which distribute trips from arterials and channel trips to arterials. Additionally, these roadways provide access and circulation within residential neighborhoods.

COMMUNITIES OF CONCERN (COC): Areas with significant concentrations of residents with low incomes, people of color, foreign born residents, individuals with disabilities, senior citizens and children, and limited English proficiency (LEP) speakers.

COMPLETE STREETS: Designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

COMPRESSED NATURAL GAS (CNG): A readily available alternative to gasoline that's made by compressing natural gas to less than 1% of its volume at standard atmospheric pressure.

CONFORMITY: In non-attainment areas, the process of assessing the compliance of transportation plans and projects with air quality standards defined by the Clean Air Act.

CONGESTION: The volume of traffic at which transportation facility performance is no longer operating at an acceptable level of service.

CONGESTION MANAGEMENT PLANNING/PROCESS (CMP): Provides information on transportation system performance and finds alternative ways to alleviate congestion and enhance the mobility of people and goods, to levels that meet state and local needs.

CONGESTION MITIGATION AND AIR QUALITY (CMAQ): A funding program which provides funds for projects and activities which specifically reduce congestion and improve air quality.

CONTAINER: A large standardized shipping container, designed and built for intermodal freight transport from ship to rail to truck – without unloading and reloading their cargo.

CULVERT: Any kind of channel or tunnel that directs unwanted water away from roads and other corridors of travel.

DELAY: A unit of time measure reflecting driver discomfort, frustration, additional fuel consumption, and increased travel time.

DRONE: An unmanned aircraft.

ELECTRIC VEHICLE (EV): Vehicles that use electricity as their energy source.

ENVIRONMENTAL IMPACT STATEMENT (EIS): A detailed statement required (when applying for federal funds) by the Environmental Policy Act of 1969.

ENVIRONMENTAL JUSTICE (EJ): Assures that services and benefits allow for meaningful participation and are fairly distributed to avoid discrimination.

ENHANCEMENT PROJECTS: Various scenic, historic and environmental activities eligible for project funding under the Surface Transportation Program (STP) element of Federal Transportation funding resources.

EXPLORATORY MODELING AND ANALYSIS TOOL (EMAT): A methodological approach to exploratory modeling and analysis. It provides a window to rigorous analytical methods for handling uncertainty and making well informed decisions using travel forecasting models of all types. It is designed to integrate with an existing transportation model or tool to perform exploratory analysis of a range of possible scenarios.

FEDERAL-AID SYSTEM: Consists of roads which are eligible for either NHS (National Highway System) or STP (Surface Transportation Program) funding.

FEDERAL FISCAL YEAR (FFY): October 1 through September 30 of each year. Federal funding is provided by Federal Fiscal Year.

FEDERAL HIGHWAY ADMINISTRATION (FHWA): A division of the U.S. Department of Transportation which administers the funds for highway planning and capital programs.

FISCAL CONSTRAINT: The balancing of programmed projects with expected revenue (funding targets).

FREE FLOW: Roadway conditions in which vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.

FAST ACT: The first federal law in over a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment. It was signed into law on December 4, 2015. The FAST Act authorizes \$305 billion over fiscal years 2016 through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs.

FEDERAL TRANSIT ADMINISTRATION (FTA): The division of the U.S. Department of Transportation which administers the funds for transit planning and capital/operating programs.

FINANCIAL PLANNING: The process of defining and evaluating funding sources, sharing the information, and deciding how to allocate the funds.

FISCAL CONSTRAINT: Making sure that a given program or project can reasonably expect to receive funding within the time allotted for its implementation.

FTA SECTION 5307: FTA Urbanized Area Formula Grants.

FTA SECTION 5310: FTA Enhanced Mobility Seniors/Individuals with Disabilities.

FTA SECTION 5311: FTA Formula Grants for Other than Urbanized Areas.

FTA SECTION 5329: FTA Public Transportation Safety Program.

FTA SECTION 5337: FTA State of Good Repair Grants.

FTA SECTION 5339: FTA Bus and Bus Facilities Program.

FUNCTIONAL CLASSIFICATION: The grouping of streets and highways into classes, or systems, according to the character of service they are intended to provide. Basic to this process is the recognition that roads do not function independently, but rather as a system-wide network of roads.

GEOGRAPHIC INFORMATION SYSTEM (GIS): Computerized data management system designed to capture, store, retrieve, analyze, and display geographically referenced information.

GREEN INFRASTRUCTURE: A cost-effective, resilient approach to managing stormwater that uses vegetation, soils, and other elements to provide flood protection, and cleaner air and water.

HIGH OCCUPANCY VEHICLES (HOV): Vehicles carrying a specified minimum number of persons, usually three or more. Freeways may have lanes designated for HOV use by car-poolers, vanpools and buses.

INITIAL PROJECT PROPOSAL (IPP): A brief report documenting the concept for a project and concluding the project initiation stage.

INLAND PORT: An inland extension of a seaport, usually connected by rail to the docks for the transshipment of sea cargo to inland destinations.

INTEGRATED CONGESTION MANAGEMENT (ICM): Strategically manage traffic in order to ease congestion and alert drivers to traffic incidents through signs and in-vehicle messaging.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS): Electronic, computer and communications technology applied to surface transportation to increase safety, reduce congestion, enhance mobility, minimize environmental impact, increase energy efficiency and promote economic productivity for a healthier economy.

INTERMODAL: A transportation system connecting or including different modes of transportation.

LAND USE: The manner in which land or the structures on the land are used (i.e., commercial, residential, industrial, etc.).

LET: In context, it means that a contract has been awarded; for instance, “a contract has been let for the construction of the new expressway”.

LEVEL OF SERVICE (LOS): The quality of flow in the moving stream of people or vehicles. Typically, ranges from LOS A (free flow traffic) to LOS F (stop-and-go unacceptable conditions).

LOCAL STREETS: Functional classification for streets which are not on a higher functional classification system and provide the lowest level of mobility with through traffic movement being discouraged.

LOGISTICS: The detailed coordination of a complex operation involving many people, facilities, or supplies.

LONG-RANGE TRANSPORTATION PLAN (LRTP): See Metropolitan Transportation Plan (MTP).

MAINTENANCE AREA: A previously designated non-attainment area in which air quality conformity analyses and determinations for long range plans and TIPs must continue for 20 years.

MAJOR METROPOLITAN TRANSPORTATION INVESTMENT: A high type highway or transit improvement of substantial cost that is expected to have a significant effect on capacity, traffic flow, level of service or mode share of the transportation corridor or sub-area scale. A MIS is required for such investments.

MAP-21: MOVING AHEAD FOR PROGRESS IN THE 21ST CENTURY ACT: A streamlined, performance-based, and multimodal surface transportation legislation program to address the many challenges facing the U.S. transportation system. It was signed into law on July 6, 2012.

MATCHING FUNDS: Funds which one funding source requires from others as a condition of receiving the funds from that funding source. Generally, the match is set as a percentage of the total project, or project phase cost.

METROPOLITAN PLANNING AREA: The region in which the MPO carries out its transportation planning responsibilities and is designated as such by the MPO and the Governor in accordance with ISTEA regulations. The GBNRTC's metropolitan boundary encompasses the entire Erie-Niagara region.

METROPOLITAN PLANNING ORGANIZATION (MPO): Regional policy body, required in urbanized areas with populations over 50,000, and designated by local officials and the governor of the state. Responsible in cooperation with the state and other transportation providers for carrying out the metropolitan transportation planning requirements of federal highway and transit legislation.

METROPOLITAN TRANSPORTATION PLAN (MTP): A long-term (20+ years) forecast plan which must consider a wide range of social, environmental, energy and economic factors. The plan addresses overall regional goals and how transportation can best meet those goals within financial limits. The MTP was previously referred to as the Long Range Plan (LRP).

MINOR ARTERIALS: The functional classification for those facilities which augment the Principal Arterial System and serve trips of moderate length. Minor Arterials put a greater emphasis on land access and less importance on mobility.

MAJOR INVESTMENT STUDY (MIS): A more detailed planning procedure to inform decision-makers of the impacts and consequences of various transportation options on a corridor or sub-area basis. The preferred strategy will be included as a refinement of the regional transportation system plan.

MOBILITY AS A SERVICE (MAAS): A platform that treats transportation as a customizable, on-demand service with “à la carte” mobility, real-time travel information and smart payment systems across transportation options.

MOBILITY HUB: Connections to and from transit buses, transportation network companies, carshare, bikeshare, real-time travel information, and other services and amenities.

MOBILITY STRATEGIES: A set of innovative strategies to maximize the people-moving capability of the transportation system, while at the same time, reducing the number of vehicles on that system.

MODE: A particular form of travel, for example, walking or traveling by automobile, transit or bicycle.

MODE SPLIT: The process by which the number of trips that will be made by two or more modes of transportation is surveyed or estimated.

METROPOLITAN PLANNING ORGANIZATION (MPO): The agency designated by the Governor to administer the federally required transportation decision-making process in urbanized areas with a population over 50,000. The designated planning area for the GBNRTC is comprised of Erie and Niagara Counties. Core responsibilities include the Long Range Plan, the Transportation Improvement Program and the MPO forum for that decision-making.

NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS): Federal standards developed by the Environmental Protection Agency (EPA) that set allowable concentration for various pollutants including carbon monoxide, transportation hydrocarbons, nitrogen oxides, and particulate matter.

NATIONAL HIGHWAY PERFORMANCE PROGRAM: The purposes of the National Highway Performance Program (NHPP) are (1) to provide support for the condition and performance of the National Highway System (NHS); (2) to provide support for the construction of new facilities on the NHS; and (3) to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS.

NATIONAL HIGHWAY SYSTEM (NHS): A 155,000 mile interconnected system of roads, including 5,119 miles in New York State, authorized through ISTEA. Comprised of Interstate highways and roads designated as most important to interstate travel, national defense, intermodal connections, and international crossings. Congressional approval of the NHS system was formalized by the National Highway System Act of 1995.

NEW MOBILITY: The “next generation” of transportation offering shared, electric, and autonomous travel options, and relies on technology **AND** data to create an integrated transportation system.

NON-ATTAINMENT AREA: Any geographic region that has been designated as non-attainment due to a transportation related pollutant(s) that violates the national ambient air quality standard. The Clean Air Act requires that these areas perform air quality analyses and determinations to ensure conformity.

OPERATING COST: The costs of actually operating a transportation system. These are separate from capital costs, and include such items as wages, fuel, oil, maintenance, etc.

OPERATING REVENUES: Money received from users of a transportation system such as fares, tolls, charter fees, etc.

ORPHAN NONATTAINMENT AREA: Areas that were designated “nonattainment” for 1997 ozone NAAQS at the time of its revocation and were designated “attainment” for the 2008 ozone NAAQS.

OZONE (O3): Ozone is a colorless gas with a sweet odor. Ozone is not a direct emission from transportation sources. It is a secondary pollutant formed when VOCs and NOx combine in the presence of sunlight. Ozone is associated with smog or haze conditions. Although the ozone in the upper atmosphere protects us from harmful ultraviolet rays, ground-level ozone produces an unhealthy environment in which to live. Ozone is created by human and natural sources.

PEAK: The period during which the maximum amount of travel occurs. It may be specified as the morning (a.m.) or evening (p.m.) peak.

PERFORMANCE MEASURES: Indicators of how well the transportation system is performing with regard to such things as average speed, reliability of travel, and accident rates. Used as feedback in the decision making process.

PERSON TRIP: A trip made by a person from a single origin to a single destination.

PRELIMINARY ENGINEERING: The cost of preparing the detailed design of a project. P.E. entails not only survey, mapping, preparation of plans and contract documents, environmental analyses, all required public hearings, and any other required state or federal procedures, but may also include “right-of-way incidental activity” which is the field and office work preparatory to the actual purchase of property.

PRESERVATION: A lower-cost treatment designed to extend the life of a road or bridge.

PLANNING FUNDS: Primary source of funding for metropolitan planning designated by the FHWA.

PLANNING AND COORDINATING COMMITTEE (PCC): Committee that meets once month to discuss transportation events, planning initiatives and projects with GBNRTC Member Agencies. PCC meetings are usually held the first Wednesday of every month.

PLATOONING: The linking of two or more trucks in convoy, using connectivity technology and automated driving support systems.

PRESERVATION FIRST: One of the Forward Four guiding principles that promotes an asset management strategy that invests in preservation of infrastructure using the right treatment at the right time in the life of the investment.

PREVENTATIVE MAINTENANCE INITIATIVE (PMI): Cost-effective treatments to the surface of a structurally sound pavement to preserve the system, retard future deterioration, and maintain or improve the functional condition of the system without increasing its structural capacity.

PRINCIPAL ARTERIALS: The functional classification for high volume roadways which carry the major portion of daily trips to centers of activity in the metropolitan area. Principal arterials put a greater emphasis of mobility over access to land and include fully and partially controlled access facilities stratified into three categories, Interstates, Expressways and Streets.

PROGRAMMING: The designation of funds for transportation projects which when approved are included in the transportation improvement program (TIP).

PROJECT IDENTIFICATION NUMBER (PIN): The identification number given to each project by NYSDOT.

PROJECT SCREENING: The process of considering and designating candidate projects for inclusion in the TIP.

PROJECT SELECTION: The advancement of programmed projects in the TIP, for commitment of specific Federal funds for those projects usually in the first (“annual element”) or second (“budget element”) years of a multi-year program.

PLANS, SPECIFICATIONS AND ESTIMATES (PS&E): The preliminary data submitted by the State to FHWA so that Federal funds are set aside for a specific highway project.

PUBLIC PARTICIPATION: The active and meaningful involvement of the public in the development of transportation plans and programs.

RAMP METERING: Signals control the frequency of cars entering highways to help balance the flow of traffic and minimize congestion.

REHABILITATION: Work consisting of structural enhancements that extend the service life of an existing pavement or bridge and/or improve its structural capacity.

RIGHT-OF-WAY (ROW): Land corridors needed for the construction of highways, transit facilities, railroads, etc. ROW is broken down into two subcategories: “Acquisition” and “Incidentals”.

STATE ENVIRONMENTAL QUALITY REVIEW ACT (SEQR): Legislation that sets state standards for environmental quality control.

STATE FISCAL YEAR (SFY): April 1 through March 31 of each year.

SMART CORRIDORS: Select roads that use new technologies like sensors, coordinated signals, smart lighting, upgraded street features and emerging transportation services.

SMART GROWTH: A set of policies and programs designed by local governments to protect, preserve, and economically develop established communities and natural and cultural resources. Smart growth encompasses a holistic view of development.

SMART PAVEMENT: May be embedded with fiber-optic cable for high-speed Internet, sensors to count vehicles, technology to support connected and autonomous vehicles, or electromagnetic coils to charge electric vehicles as they drive.

SMARTLY ENHANCE MULTIMODAL ARTERIALS (SEMAS): Select radial roads and other corridors designed to efficiently move people and goods using new technologies, upgraded street features and emerging transportation services.

SPRAWL: Urban form that connotatively depicts the movement of people from the central city to the suburbs.

STAKEHOLDERS: Individuals and organizations involved in or affected by the transportation planning process.

STATE TRANSPORTATION IMPROVEMENT PROGRAM (STIP): A staged, multi-year, statewide, intermodal program of transportation projects, consistent with the statewide transportation plan and planning processes as well as metropolitan plans, TIPs, and processes.

SUPPLY CHAIN: The sequence of processes involved in the production and distribution of a commodity.

SURFACE TRANSPORTATION BLOCK GRANT PROGRAM (STBG): A flexible federal funding program designed to best address State and local transportation needs broken down into FLEX, Large Urban and Off System Bridge categories.

SUSTAINABILITY: How transportation supports a sustainable society by advancing environmental stewardship, economic competitiveness, and social equity in transportation decisions and actions.

TRAFFIC ANALYSIS ZONE (TAZ): The smallest geographically designated area for analysis of transportation activity.

TRANSIT-ORIENTED DEVELOPMENT: The creation of compact, walkable, pedestrian-oriented, mixed-use communities centered on high quality transit (train) systems.

TRANSPORTATION ALTERNATIVES PROGRAM (TAP): Federal competitive funding program for projects such as on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity; recreational trail projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former divided highways.

TRANSPORTATION CONFORMITY: Process to assess the compliance of any transportation plan, program, or project with air quality implementation plans defined by the Clean Air Act.

TRANSPORTATION DEMAND MANAGEMENT: Programs and policies to reduce peak demand for transportation and to maximize efficient use of the transportation system. Such strategies may include HOV lanes, ride sharing and vanpooling, and congestion pricing.

TRANSPORTATION IMPROVEMENT PROGRAM (TIP): A capital investment program prepared by the MPO cooperatively with the State and transit operator that prioritizes transportation projects to be implemented with Federal funds over a five year period consistent with the Long-Range Transportation Plan.

TRANSPORTATION PROJECT SUBCOMMITTEE (TPS): Subcommittee meets to address any and all issues pertaining to the development, maintenance and monitoring of the region's Transportation Improvement Program (TIP). TPS meets every third Wednesday.

TRANSPORTATION NETWORK: A schematic representation of the roadway or transit system via a series of links and nodes in a computer database.

TRANSSHIPMENT: The shipment of goods or containers to an intermediate destination, then to another destination.

TRAVEL DEMAND FORECASTING: The technical process of estimating the number of future users by mode of a system and their particular travel times and routes.

TRAVEL MODEL IMPROVEMENT PROGRAM (TMIP): Conducts research, provide technical assistance, and deliver training to local, regional and state transportation planning professionals.

TRIP ASSIGNMENT: the process of allocating highway and transit trips among the different facilities included in a network.

TRIP DISTRIBUTION: The process of estimating the travel between traffic analysis zones.

TRIP GENERATION: The process of estimating trips that will be produced and/or attracted to a geographic unit based on the population and employment characteristics of that unit.

UNIFIED PLANNING WORK PROGRAM (UPWP): A description of the transportation planning work tasks and their funding sources for a period that usually covers twelve (12) month time span.

URBANIZED AREA: An area with a population of 50,000 or more designated by the U.S. Census Bureau.

VARIABLE MESSAGE SIGN (VMS): An electronic traffic sign often used on roadways to give travelers information about emergencies, warnings and special events.

VEHICLE MILES OF TRAVEL (VMT): The amount of vehicle travel on a designated set of roadways multiplied by the total mileage of those roadways.

VEHICLE-TO-INFRASTRUCTURE (V2I) COMMUNICATIONS: Exchange of information between vehicles and road infrastructure.

VEHICLE-TO-VEHICLE (V2V) COMMUNICATIONS: Exchange of information between vehicles.

VENDOR IN-PLACE PAVING (VPP): Vendor provided single course overlays applied to asphalt concrete surfaced pavements in fair to good condition to preserve the roadway.