

17. GLOSSARY OF TERMS & ABBREVIATIONS

1 Hour Ozone NAAQS - The 1-hour ozone national ambient air quality standard codified at 40 CFR 50.9.

8-Hour Ozone NAAQS - The 8-hour ozone national ambient air quality standard codified at 40 CFR 50.10.

Access Management - Process of providing and managing access to land development while preserving flow of traffic in terms of safety, capacity and speed.

Act 51 - Michigan Public Act 51 of 1951 as amended, which establishes and governs distribution of funding for maintenance, preservation and improvement of transportation facilities for the state, counties and cities and establishes legal responsibilities for transportation systems.

Air Quality Conformity Analysis - Process of documenting transportation plans and projects do not prevent or delay an area from meeting National Ambient Air Quality Standards (NAAQS) set by the U.S. Environmental Protection Agency. This involves estimating emissions for a specific geographic area during a defined time period. In areas in violation of air quality standards, the conformity process demonstrates future transportation projects are consistent with the State Implementation Plan developed to show how the area will attain these standards.

All-Season Roads - Roads not subject to seasonal weight limitations during the spring thaw.

Americans with Disabilities Act (ADA) - Federal law requiring disabled persons (as defined by the Act) must have equal access to employment, public services, public facilities or telecommunications. As it relates to transportation facilities and services, this includes removal of physical barriers in public facilities like rest areas, buses, trains, pedestrian facilities and intermodal passenger facilities.

Annual Average Daily Traffic (AADT) - Total number of vehicles passing a given location on a roadway over of one year, divided by 365 days.

Area Source - Small stationary and non-transportation pollution sources that are too small and/or numerous to be included as point sources but may collectively contribute significantly to air pollution (i.e. dry cleaners).

Asset Management - Process of strategically managing the transportation system in a cost-effective, efficient manner. It consists of five major elements: developing policy goals and objectives; data collection; planning and programming; program delivery and monitoring/reporting results. The asset management approach emphasizes preservation, upgrading and timely replacement of highway and other transportation assets through cost-effective planning and resource allocation decisions.

Attainment Area

An area considered to have air quality that meets or exceeds U.S. Environmental Protection Agency (EPA) health standards used in the Clean Air Act. An area may be an attainment area for one pollutant and a nonattainment area for others. Nonattainment areas are areas considered not to have met standards for designated pollutants.

Bikeway - Any road, path or way open to bicycle travel, regardless of whether it is designated for exclusive use of bicycles or shared with other modes, as defined by the American Association of State Highway and Transportation Officials.

Bridges - Highway bridges carry automobiles and trucks. Non-highway bridges carry pedestrians and trains. Bridges are 20 feet or more in length. Culverts are less than 20 feet.

Capacity - Maximum number of vehicles a road can be reasonably expected to carry at expected speeds under normal conditions.

Capital Assistance - Funds to purchase structures and equipment such as roads, bridges, maintenance facilities, buildings, equipment and vehicles.

Capital Expenses (also, expenditures, or costs) - Non-recurring or infrequently recurring costs for long-term assets such as buses, stations or buildings and often including related expenses. Capital funding is financial assistance from federal, state or local sources to finance public highway or transit capital related projects.

Carbon monoxide (CO)

A colorless, odorless, tasteless gas formed in large part by incomplete combustion of fuel. Human activities (i.e. transportation or industrial processes) are largely the source for CO contamination in ambient air.

Clean Air Act Amendments of 1990 - Federal legislation which reduces emissions from vehicles, factories and other pollution sources in areas having the worst air pollution.

Commuter Rail - Local and regional passenger train operations between a central city, suburbs and/or another central city using diesel-electric or electrically propelled trains operating over existing railway trackage. Riders typically board trains at a suburban station and go to a central city work location. Commuter rail is typically characterized by heavy inbound traffic in morning to the central business district and heavy outbound traffic in late afternoon. Service 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.

Comprehensive Transportation Fund (CTF) - Fund derived from state gas tax, vehicle registration and other fees authorized by Act 51 and allocated to provide public transportation services.

Conformity - Process to assess compliance of any transportation plan, program or project with air quality implementation plans. The conformity process is defined by the Clean Air Act and regulated by the conformity rule.

Congestion - What occurs when road capacity is exceeded and vehicles are forced to travel slower than the road's designated speed. Congestion can be recurring congestion (happening often, even daily) or non-recurring (caused by random forces, such as a traffic crash).

Congestion Mitigation and Air Quality Improvement Program (CMAQ) - A categorical funding program under the Federal Aid Highway program. Directs funding to projects that contribute to meeting or maintaining national air quality standards in nonattainment and maintenance areas. CMAQ funds generally may not be used for projects that result in construction of new capacity for (through lanes) SOVs (single-occupant vehicles).

Corridor - A linear road or path which typically serves a grouping of metropolitan areas and markets that, by their proximity and configuration, lend themselves to efficient service by ground transport.

County Roads - Roads under jurisdiction of a county road agency. Includes all non-state trunklines outside of cities and villages. Townships have no jurisdiction over roads.

Demand Response Transit - Non-fixed route transit service using vans or buses with passengers boarding and alighting at pre-arranged times at any location in the system's service area.

Emissions Inventory - A complete list of sources and amounts of pollutant emissions in a specific area and time interval.

Environmental Justice - Based on Title VI of the Civil Rights Act of 1964 and Executive Order 12898 of 1994, there are three basic principles of environmental justice - to avoid, minimize or mitigate disproportionate negative effects on low-income and minority populations; to enable meaningful public participation in decision making; and to assure equitable distribution and no denial of benefits to persons regardless of race, color or national origin.

Environmental Protection Agency - Federal regulatory agency responsible for administering and enforcing federal environmental laws including the Clean Air Act, Clean Water Act, Endangered Species Act and others.

Federal Aviation Administration (FAA) - Federal agency responsible for administering aviation funds. Oversees aviation service, safety, regulation and federal-aid eligible airport construction nationwide.

Federal Highway Administration (FHWA) - Federal agency responsible for distributing highway funds; oversees maintenance and construction of federal-aid eligible roads, street, highways, bridges and non-motorized facilities.

Federal Railroad Administration (FRA) - Federal agency responsible for railroad safety enforcement and assistance to local freight railroads.

Federal Transit Administration (FTA) - Federal agency responsible for distributing transit funds. Oversees maintenance, operation and construction of federal-aid eligible transit systems including local and intercity bus and rail passenger infrastructure.

Financial Constraint - Federal regulations require the Plan and TIP be financially constrained, i.e., all projects must have identified sources of funding.

Fixed Route Transit - Transit service on a repetitive, fixed-schedule basis along specific routes with vehicles picking up and discharging passengers at designated stops.

Freight - All cargo being transported.

Geographic Information Systems (GIS) - A computerized database management system for capture, storage, retrieval, analysis and display of data related to a location (using coordinates or other physical or linear reference systems) and displayed spatially or geographically.

High Occupancy Vehicles – Generally, vehicles carrying three or more people. Freeways, expressways and other large volume roads may have lanes designated for use by carpools, vanpools and buses. The term HOV also sometimes refers to high-occupancy vehicle lanes.

Highway - Term applies to roads, streets and parkways and also includes rights-of-way, bridges, railroad crossings, tunnels, drainage structures, signs, guardrails and protective structures in connection with highways.

Hydrocarbons (HC) - Colorless gaseous compounds originating from evaporation and incomplete combustion of fossil fuels.

Infrastructure - As it relates to transportation, physical systems or facilities such as highways, bridges, railroads, ports, airports, buses, bikeways, pedestrian facilities, rest areas, welcome centers and intermodal facilities.

Inspection and Maintenance Program (I/M) - An emissions testing and inspection program to ensure catalytic or other emissions control devices on in-use vehicles are properly maintained over time.

Intelligent Transportation Systems (ITS) - Integrated application of advanced information, electronics, communications and other technologies to improve efficiency and safety of surface transportation systems.

Intermodal - Movement of people or goods between means of transportation; can apply to passenger or freight transportation. Planning, infrastructure and operations that focuses on connectivity between modes (such as trucks, planes, trains) as a means of facilitating tripmaking.

Intermodal Connectivity - Linkages among modes that ensure ability of people or goods to move easily from one mode to another.

Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 - Act which authorized federal revenue for surface transportation nationwide. It represented a major revision of federal transportation programs and funding following completion of the interstate system. The Act allowed competition among modes for federal funds, broadened planning requirements and strengthened roles of Metropolitan Planning Organizations. ISTEA was in effect from 1992 to 1997.

Jurisdiction - Agency with authority or responsibility for construction, operation or maintenance of part of the transportation system.

Just-In-Time - A method of inventory control and information exchange that minimizes warehousing. Cargo must arrive “just-in-time” for the receiver’s use.

Land Use - Refers to manner in which portions of land or structures on them are used (i.e., commercial, residential, retail, industrial, etc.).

Level of Service (LOS) - Term used to indicate quality of service on a road under a given set of operating conditions, or frequency of intercity passenger service. For roads, level of service describes degrees of congestion or travel delay with “A” being uncongested and “F” being completely stopped.

Maintenance Area - Any geographic region of the United States previously designated nonattainment pursuant to the CAA Amendments of 1990 and subsequently redesignated to attainment subject to requirements to develop a maintenance plan under section 175A of the CAA, as amended.

MDEQ - Michigan Department of Environmental Quality.

MDOT - Michigan Department of Transportation. State agency overseeing operation of state roads and distribution of state transportation funds.

Metropolitan Planning Organization (MPO) - An organization of local officials representing governmental units, transportation providers and other agencies in any urbanized area with a population of 50,000 or more and a contiguous area expected to become urbanized in 20 years. An MPO develops transportation plans and programs for the metropolitan area necessary to satisfy federal transportation planning requirements to be eligible for federal funds.

Michigan Transportation Fund (MTF) - Fund derived from state fuel taxes, vehicle registrations and other fees authorized by Act 51, which are used for maintenance, construction and reconstruction of county roads, city streets and state highways.

Mobile Source - Mobile sources include motor vehicles, aircraft, seagoing vessels and other transportation modes. Mobile source related pollutants are carbon monoxide (CO), hydrocarbons (HC) or volatile organic compounds (VOCs), nitrogen oxides (NOx) and small particulate matter (PM-10 or PM 2.5).

Modes - Form, means or manner of transportation including motorized and non-motorized conveyances.

Motor Vehicle Emissions Budget - Portion of total allowable emissions defined in the submitted or approved control strategy implementation plan revision or maintenance plan for a certain date for the purpose of meeting reasonable further progress milestones or demonstrating attainment or maintenance of the NAAQS, for any criteria pollutant or its precursors, allocated to highway and transit vehicle use and emissions.

Multi-modal - Planning, infrastructure or operations that consider more than one mode to serve transportation needs.

NAAQS - National Ambient Air Quality Standards - National standards for criteria pollutants set by the Clean Air Act to protect human health and the environment.

National Highway System (NHS) - Federally designated interconnected highway system serving major population centers, international border crossings, specific modal and intermodal facilities, other major travel destinations, meet national defense requirements and serve interstate and interregional travel. Consists of 155,000 miles of highway nationally. Approximately 5,800 miles are in Michigan.

National Environmental Policy Act (NEPA) - The National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.). Major legislation that requires federal actions to address potential environmental impacts.

Nitrogen Oxides (NOx) - A group of highly reactive gases that contain nitrogen and oxygen in varying amounts. Many nitrogen oxides are colorless and odorless. NOx is formed when oxygen and nitrogen in air react with each other during combustion. Primary sources of nitrogen oxides are motor vehicles, electric utilities and other industrial, commercial and residential sources that burn fuels.

Non-Motorized Transportation - Any method of transportation not using a motor vehicle (usually bicycling or walking).

Operating Expenses (also, expenditures, or costs) - Expenses necessary to provide transportation service, to plan and coordinate improvements or to maintain safe conditions, including both direct costs (such as wages and fuel) and indirect costs (computer expenses and advertising).

Operating Funds - Financial assistance from federal, state or local sources to finance public highway or transit operating expenses.

Oxygenated Gasoline - Gasoline enriched with oxygen bearing liquids to reduce CO production by permitting more complete combustion.

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 HC and NO_x combine in the presence of sunlight. Ozone is associated with smog or haze conditions. Although 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.

Particulate matter (PM), (PM-10), (PM-2.5) - Any material that exists as solid or liquid in the atmosphere. Particulate matter may be in the form of fly ash, soot, dust, fog, fumes, etc. Small particulate matter is too small to be filtered by the nose and lungs. PM-10 is particulate matter less than 10 microns in size. PM-2.5 is particulate matter that is less than 2.5 microns in size. A micron is one millionth of a meter.

Parts per million (ppm) – Measure of air pollutant concentrations.

Pedestrian - An individual traveling by foot (or wheelchair).

Public Comment - Feedback from the community as part of any public involvement process.

Public Involvement - Public involvement includes techniques targeting the entire community (including ethnic, minority and low-income groups) and assures the public has opportunity to help shape substance of plans and projects. This includes public participation events, activities, committees and special “visioning sessions.”

Public Transit - Passenger transportation service operating on established schedules along designated routes or lines with specific stops and designed to move large numbers of people at one time (e.g., buses and subways). Could involve dial-a-ride, subscription or demand responsive services. Also known as “mass transit,” “public transportation,” “mass transportation” and “transit.” As used in this plan it typically means service by rubber-tired buses or other similar vehicles used to convey the general public.

Railroad Grade Crossing – General location where a railroad and road or pedestrian path cross at the same level.

Rails-to-Trails - Nationwide program to preserve abandoned railroad right-of-way for future transportation use and conversion to trails for public use. Some 1,000 miles have been converted in Michigan.

Reformulated gasoline (RFG) - Gasoline specifically developed to reduce undesirable combustion products.

Right-of-Way - Entire width between ownership boundary lines of roadways (publicly-owned) and railroads when any part of it is open for transportation purposes.

Road Commission - The agency overseeing county roads. Clinton, Eaton and Ingham counties each have road commissions.

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU): National legislation reauthorizing the nation's surface transportation programs signed into law August 10, 2005. SAFETEA-LU replaces and modifies TEA-21 transportation programs and provides federal transportation funding for road and public transit projects for 2005 through 2009.

State Implementation Plan (SIP) - A plan mandated by the CAA and developed by the State that contains procedures to monitor, control, maintain and enforce compliance with the NAAQS.

Stationary Source - Relatively large, fixed sources of emissions (i.e. chemical process industries, petroleum refining and petrochemical operations, or wood processing).

Service Standards - Criteria established by agreement of parties to define intended functions and levels of service of transportation facilities, according to specific objectives.

State Long Range Plan (SLRP) - A document required by SAFETEA-LU with a 20-year planning horizon to provide statewide transportation policy and guide future transportation investment. It is revised every three to five years.

State Transportation Improvement Program (STIP) - A three-year program of road and transit transportation projects using federal funds, required by SAFETEA-LU to be financially constrained, meet air quality conformity guidelines and be consistent with policies of the State Long Range Plan. For metropolitan areas, the portion of the STIP is Transportation Improvement Program as approved by the MPO and Governor.

TEDF - Transportation Economic Development Fund - Legislatively-established program in Michigan to provide funding for road and transit projects to support economic growth.

Telecommuting - Substitution (either partially or completely) for transportation to a conventional office or job through use of computer and telecommunications technologies (e.g., telephones, personal computers, modems, facsimile machines, electronic mail).

TIP - Transportation Improvement Program - TCRPC's (or other MPO's) document listing transportation projects programmed for federal transportation funds over a three-year period. To be eligible for federal funding, a project must be in the TIP. For metropolitan areas, this document in its entirety constitutes the STIP (above) for the metropolitan area.

TMA - Transportation Management Area - An urbanized area typically with a population over 200,000. TMA designation is requested by the governor and MPO and is officially designated by FHWA and FTA. TCRPC is a designated TMA.

Transit - Generally refers to passenger service provided to the general public along established routes with fixed or variable schedules at published fares. Related terms include: public transit, mass transit, public transportation, urban transit and paratransit.

Transit Operating Assistance - Funds to transit agencies to supplement farebox revenues and pay costs of operating the transit system. Operating assistance can be provided at federal, state or local levels.

Transportation Control Measures (TCMs) - Any measure specifically identified and committed to in a State Implementation Plan that is either listed in section 108 of the CAA, or any other measure to reduce emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Notwithstanding the first sentence, vehicle technology-based, fuel-based and maintenance-based measures which control emissions from vehicles under fixed traffic conditions are not TCMs for purposes of transportation conformity.

Transportation Enhancement Program - Competitive program administered by MDOT and authorized by Congress with a 10% set aside of state Surface Transportation Program funds for specific authorized Transportation Enhancement activities such as landscaping, bicycle paths, historic preservation and highway storm water run-off mitigation.

Transportation Equity Act for the 21st Century (TEA-21) - Federal transportation Act effective June, 1998 which authorized highway, highway safety, transit and other surface transportation programs for fiscal years 1998-2003. The legislation built on ISTEA with new programs to improve safety, protect and enhance communities and the environment and advance economic growth and competitiveness. "Equity" refers to guaranteed funding levels based on receipts to the Highway Trust Fund and more funding for "donor" states such as Michigan.

Transportation Infrastructure - The physical underpinnings of society at-large, including, but not limited to, roads, bridges, transit, sidewalks and bikeways.

Transportation Management System (TMS) - Six systems mandated by ISTEA to measure performance of transportation systems and evaluate alternatives. They consist of management systems for pavements, bridges, safety, congestion, public transportation and intermodal facilities. In 1993 Congress removed requirements for all of these except a Congestion Management System in Transportation Management Areas. MDOT developed an integrated and automated decision support tool called the Transportation Management System (TMS). In the context of transportation asset management, TMS provides capability to identify condition, analyze usage patterns and determine deficiencies of transportation infrastructure. In addition, Michigan initiated two other management systems for construction and maintenance.

Transportation Plan - A long range plan that identifies facilities that should function as an integrated transportation system developed pursuant to Title 23 USC (United States Code) and the Federal Transit Act. It gives emphasis to facilities that serve important national and regional transportation functions and includes a financial plan that demonstrates how the long range plan can be implemented.

Transportation System - Intermodal system containing all forms of transportation in a unified, interconnected manner, including highways, transit, non-motorized pathways, aviation, marine ports, etc.

Trip - Travel from specific origin to specific destination by a person involving a motorized vehicle, walking (five minutes or more) or bicycle. Walking for exercise, neighborhood strolling and recreational biking are not typically considered trips.

Trunkline System - Highways under jurisdiction of the Michigan Department of Transportation consisting of "I," "US" and "M" designated routes.

Urbanized Area - Metropolitan area with 50,000 or more people surrounded by a closely settled incorporated area, which meets specific criteria for population and density. Lansing and surrounding cities are an urbanized area.

USDOT - United States Department of Transportation.

USEPA - United States Environmental Protection Agency.

Vehicle Miles of Travel (VMT) - Generally an area wide travel measure. Calculated by summing data on a link basis or by multiplying average trip length by total number of vehicle trips.

Volatile Organic Compounds (VOCs) - VOCs come from vehicle exhaust, paint thinners, solvents and other petroleum-based products. A number of exhaust VOCs are also toxic, with potential to cause cancer.

Walkways - Pedestrian facilities such as sidewalks, overpasses and skywalks.

LIST OF ABBREVIATIONS

Public Agencies/Funding Sources

CATA	Capital Area Transportation Authority
CCRC	Clinton County Road Commission
CRAA	Capital Region Airport Authority
CATS	Clinton Area Transit System
ECRC	Eaton County Road Commission
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
ICRC	Ingham County Road Commission
MAC	Michigan Aeronautics Commission
MDOT	Michigan Department of Transportation
TCRPC	Tri-County Regional Planning Commission
TEDF	Transportation Economic Development Fund

Funding Categories

<u>Source</u>	<u>Abbreviation</u>	<u>Which Means</u>
HIGHWAY PROGRAMS:		
Bridge	BRRP	Bridge Replacement and Rehabilitation Program
High Priority	HPP	Congressional High Priority Projects
Transportation Economic Development Fund	EDFA	Category A
Transportation Economic Development Fund	EDFD	Category D
Transportation Economic Development Fund	EDFF	Category F
Interstate Maintenance	IM	Maintenance
National Highway System	NHS	National Highway System

Surface Transportation Program:

Small Urban Program	STPC	Population: 5,000 to 50,000, including Small Urban Clusters
Enhancement	STPE	Transportation Enhancements
State Flexible	STPF	State Discretionary Funding
Rural STP	STPR	Rural areas or communities smaller than 5,000 Population
Safety Program	STPS	Safety projects
Urban STP	STPT	Population greater than 200,000

TRANSIT PROGRAMS:

Section 5307 (Capital and Operating)	5307	Formerly Section 9
Section 5309	5309	Formerly Section 3
Section 5310	5310	Rural Demand Response Program*
Section 5311 (Capital and Operating)	5311	Formerly Section 18

* This program previously was the Section 16(b)2 program.