



# L RTP

## Long Range Transportation Plan 2007 Update

A long range transportation plan that seeks to preserve the infrastructure, improve safety, provide system connectivity, improve mobility, increase access, protect air quality and support economic growth in the Greater Syracuse area.

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# LONG RANGE TRANSPORTATION PLAN

Syracuse Metropolitan Planning Area

*Final Report  
June 2007*

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## List of Acronyms

AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
Amtrak	Passenger railroad company
APC	Auto Passenger Counter
APU	Auxiliary Power Unit
AVL	Automatic Vehicle Locator
BMS	Bridge Management System
BPCMS	Bridge and Pavement Condition Management System
BTU	British Thermal Unit
CAAA	Clean Air Act Amendments
CBD	Central Business District
Centro	Common name for CNYRTA
CLASS	Centralized Local Accident Surveillance System
CMAQ	Congestion Mitigation and Air Quality
CMS	Congestion Management System
CNG	Compressed Natural Gas
CNYRPDB	Central New York Regional Planning Development Board
CNYRTA	Central New York Regional Transportation Authority
CO	Carbon Monoxide
CO2	Carbon Dioxide
CoE-ES	Center of Excellence in Environmental Systems
COMCO	Cayuga Oswego Madison Cortland and Onondaga Development Corporation
CSS	Context Sensitive Solutions
CSX	Railroad
CSXT	Railroad
CTPP	Census Transportation Planning Package
DPZ	Duany, Plater, Zyberk & Associates (A Planning Firm)
DVMT	Daily Vehicle Miles Traveled
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration

FHWA	Federal Highway Administration
FOCUS	Forging Our Community's United Strength
FTA	Federal Transit Administration
GIS	Geographic Information System
GOP	Goal Oriented Program
HOV	High Occupancy Vehicle
HPMS	Highway Performance Monitoring System
HUD	Housing and Urban Development
IAP	Industrial Access Program
ICG	Intragency Consulting Group
LEV	Low Emissions Vehicle
IEN	Information Exchange Network
I/M	Inspection Maintenance
ISTEA	Intermodal Transportation Efficiency Act of 1991
ITS	Intelligent Transportation Systems
JARC	Job Access Reverse Commute
LED	Light Emitting Diode
LRTP	Long Range Transportation Plan
MDA	Metropolitan Development Association
MMC	Mobility Management Center
MPA	Metropolitan Planning Area
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NHS	National Highway System
NO	Nitrous Oxide
NS	Northern Suffolk
NYS DEC	New York State Department of Environmental Conservation
NYS&W	New York, Susquehanna & Western Railway
NYSAMPO	New York State Association of Metropolitan Planning Organizations
NYS DMV	New York State Department of Motor Vehicles
NYS DOT	New York State Department of Transportation
NYS P	New York State Police

NYSTA	New York State Thruway Authority
OCPB	Onondaga County Planning Board
OCDOT	Onondaga County Department of Transportation
PARP	Petroleum Addiction Rehabilitation Park
PIP	Public Involvement Plan
PMS	Pavement Management System
PSAP	Public Safety Answering Point
ReMAP	Regional Mobility Action Plan
SAC	Study Advisory Committee
SEP	State Energy Plan
SCI	Shared Cost Initiative
SEQR	State Environmental Quality Review
SIDA	Syracuse Industrial Development Agency
SIMS	Safety Information Management System
SIP	State Implementation Plan for Air Quality Redesignation Request
SMARTNET	Syracuse Metropolitan Area Regional Transportation Network
SMTTC	Syracuse Metropolitan Transportation Council
SNI	Syracuse Neighborhood Initiative
SOV	Single Occupancy Vehicle
SyREN	Syracuse Regional Emergency Network
TAC	Transportation Advisory Committee
TANF	Temporary Assistance to Needy Families
TCM	Transportation Control Measure
TCSPPP	Transportation/Community Systems Preservation Pilot Program
TE	Transportation Enhancements
TEA-21	Transportation Equity Act for the 21 <sup>st</sup> Century
TIP	Transportation Improvement Program
TMC	Transportation Management Center
TMODEL	Software program used for Transportation Modeling
TND	Traditional Neighborhood Design
TNT	Tomorrow's Neighborhoods Today
TransCAD	Software program used for Transportation Modeling
TSE	Truck Stop Electrification



UPWP	Unified Planning Work Program
USDOT	United States Department of Transportation
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound.

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**RESOLUTION**

**SYRACUSE METROPOLITAN TRANSPORTATION COUNCIL  
POLICY COMMITTEE**

**June 12, 2007**

- WHEREAS,** the Syracuse Metropolitan Planning Area (MPA) contains a complex, multimodal transportation system, which must be maintained in a good state of repair to preserve the infrastructure, increase safety, increase security, provide system connectivity, improve mobility, increase access, support economic development and growth, and protect/enhance the environment; and
- WHEREAS,** the Syracuse Metropolitan Transportation Council (SMTC) has been designated by the Governor of the State of New York as the Metropolitan Planning Organization (MPO) responsible, together with the New York State Department of Transportation, for the comprehensive, continuing, and cooperative transportation planning process for the Syracuse MPA, including the preparation of the Long-Range Transportation Plans; and
- WHEREAS,** the current Federal Metropolitan Planning Regulations (23 CFR Part 450) mandate that MPOs update their Long-Range Transportation Plans every four years in nonattainment and maintenance areas; and
- WHEREAS,** the SMTC has prepared the Long-Range Transportation Plan 2007 Update to examine and consider changes in trends and conditions, and to confirm the validity of the forecasts and assumptions used in the 1995 Long-Rang Transportation Plan and the subsequent Updates of 1998, 2001 and 2004; and
- WHEREAS,** Onondaga County was designated in October 1993 as a maintenance area under the provisions of the Clean Air Act of 1990; and
- WHEREAS,** the New York State Department of Environmental Conservation established a State Implementation Plan for Onondaga County containing motor vehicle emissions budget for transportation conformity purposes; and
- WHEREAS,** the Long-Range Transportation Plan 2007 Update and the 2007-2012 Transportation Improvement Program meet all applicable requirements in 40 CFR Part 93 and conform to the purpose of the State Implementation Plan for air qulaity; and
- WHEREAS,** the Long-Range Transportation Plan 2007 Update was developed collectively by the SMTC Central Staff and the SMTC Planning Committee, including coordination and consultation with Federal, State, and Tribal land management, wildlife and regulatory agencies as appropriate; and been made available for public comment; and

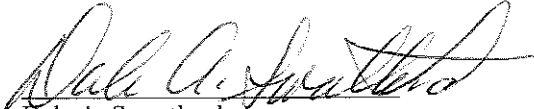
**Adoption of the  
Long-Range Transportation Plan 2007 Update**

**SMTC Policy Resolution No. 2007- 07**

**WHEREAS,** all public comments received have been evaluated, addressed as appropriate and documented as an appendix to the report; and

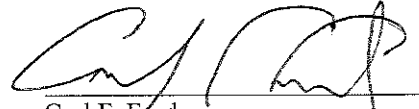
**WHEREAS,** the SMTC Policy Committee is the policy making body of the MPO having the authority to adopt the Long-Range Transportation Plan 2007 Update.

**NOW THEREFORE BE IT RESOLVED,** that the SMTC Policy Committee hereby adopts the Long-Range Transportation Plan 2007 Update and the conformity determination for the Long-Range Transportation Plan 2007 Update and the 2007-2012 Transportation Improvement Program.



Dale A. Sweetland  
Chairperson  
SMTC Policy Committee

Date: June 12, 2007



Carl F. Ford  
Secretary  
SMTC Policy Committee

Date: June 12, 2007

# **Syracuse Metropolitan Transportation Council**

## **Long Range Transportation Plan 2007 Update**

### **Executive Summary**

#### **Chapter I: Introduction**

- **Define SMTC and MPO area**

As the Metropolitan Planning Organization (MPO) designated by the Governor of the State of New York, the Syracuse Metropolitan Transportation Council (SMTC) was created in 1966 to carry out the continuous, comprehensive and cooperative transportation planning process for the Syracuse Metropolitan Area, which includes all of Onondaga County and small parts of Oswego and Madison Counties. The SMTC area is centered in the City of Syracuse, the transportation hub and economic center for Central New York (see Map 1).

The SMTC is composed of officials representing local, State and Federal governments or agencies having interest or responsibility in comprehensive transportation planning. To facilitate and encourage maximum interaction among these groups and the local community, the SMTC has adopted a committee structure that consists of a Policy, Planning and Executive Committee. Served by the SMTC central staff, these committees serve as the hierarchy to the transportation planning activities of the SMTC.

The SMTC develops three key documents that are the components to transportation planning and programming in the Syracuse Metropolitan Area: the Long Range Transportation Plan (LRTP), the Unified Planning Work Program (UPWP), and the Transportation Improvement Program (TIP). Together, these three documents represent the beginning, middle and end to an effective transportation planning process.

- **Purpose of LRTP**

The LRTP is a blueprint to guide the Syracuse Metropolitan Area's transportation development over a 20-year period. Updated every three years to reflect changing conditions and new planning principals, the LRTP is based on projections of growth and travel demand coupled with financial assumptions. The LRTP specifically looks at major urban transportation planning concerns such as environmental/air quality issues; comprehensive access to transportation; alternative transportation modes (especially transit and bicycle and pedestrian); the impact of land development on the transportation system; highway traffic congestion; and maintenance of the existing infrastructure.

The LRTP presents a vision of the transportation system and the projects that will bring that vision to reality over time. Central to that vision is the protection of the value of investments already made in developing the transportation system while providing resources to pursue innovative solutions to mobility constraints and enhancing travel choices available. Also central to the LRTP is the need to adjust the land development patterns and transportation system investments, where practical, to conform to existing development guidelines (i.e., Onondaga County's 2010 Development Guide, the Onondaga County Settlement Plan, and the City of Syracuse's Comprehensive Plan).

In January 1995, the SMTC published the 2020 LRTP. This was followed three years later with the 1998 LRTP Update, then the 2001 LRTP Update, and the 2004 Update. All documents were prepared in compliance with CFR 450.332, 49 CFR 613.100 which also is the basis for this document to fulfill triennial review and update requirements. Since this document is an update, some information and data may not be balanced due to modifying/adding data to the original 1995 information. The original 1995 Long Range Transportation Plan is the base document and this 2007 Update represents modifications to that plan and its subsequent updates. The 2007 Update is fashioned after the 2004 Update in form and content with updates reflecting only changing conditions and new legislation, the balance of the document remains the same.

On August 10, 2005, the most recent transportation legislation bill, *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) was signed into law. SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the five-year period of 2005 to 2009.<sup>1</sup> Through SAFETEA-LU, a total of \$244.1 billion in funding is guaranteed for highways, highway safety and transit. This represents the largest surface transportation investment in United States history. It is important to note that in all of its transportation planning activities, the SMTC is required to adhere to rules and regulations put forth in the new SAFETEA-LU transportation legislation. Thus, there were many additions to the 2007 Update to meet the SAFETEA-LU requirements.

- **Public Involvement Process**

Engaging the public early and often in the planning process is critical to the success of any transportation plan or program, and it is required by numerous state and federal laws. Such legislation underscores the need for public involvement, calling on MPOs such as the SMTC to provide citizens, affected public agencies, representatives of transportation agencies, private providers of transportation and other interested parties with a reasonable opportunity to comment on transportation plans and programs.

For many of the SMTC's activities, a project-specific Public Involvement Plan (PIP) is created that sets the framework for the public participation opportunities that will be available throughout the course of the project. Such a proactive and dynamic PIP development process ensures the continual review of meaningful public involvement objectives and concepts, as opposed to one stagnant PIP that the SMTC must follow in all its transportation planning activities. The varying PIPs also consider the differing characteristics and impacts of different geographical areas on the focus of the study. Thus, the majority of the time, the SMTC creates individual project-specific PIPs in which differing methods allow the public to better participate in the study. The PIPs also pinpoint when in the project the public involvement meetings will be held that allow for the exchange of information and input.

For a majority of SMTC studies, a Study Advisory Committee (SAC) is formed to provide input and guidance to the SMTC Project Manager, the study process, study documents, and public meetings. The SAC typically consists of representatives from affected organizations, local governments, and community representatives that meet several times throughout a project's

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<sup>1</sup> U.S. Department of Transportation Federal Highway Administration, *SAFETEA-LU*, 2/22/06, <<http://www.fhwa.dot.gov/safetealu/>>.



development. In addition to the SAC, a list of interested “stakeholders” (a broader group of interested individuals with significant relations and interest in a particular planning study or activity) is maintained by the SMTC. The SMTC recognizes that the active involvement of the entire community, in addition to the SMTC Policy and Planning Committee members, is paramount to good transportation planning. Public comments are valued because they can shape the direction of a particular transportation study or planning activity, and may help to identify new transportation projects that are important to citizens of the area.

- **Process**

The UPWP identifies the federally funded transportation planning activities that are to be undertaken in the SMTC study area in support of the goals, objectives and actions established in the 2020 LRTP. The SMTC Central Staff, working with the Planning Committee and the NYSDOT, bi-annually (with updates in the off-years) initiates the process of developing the UPWP and prepares a final draft for the consideration of both the Planning and Policy Committees.

The SMTC is responsible for the maintenance of the area’s TIP, a three-year program that funds capital projects related to transit, local roadways and interstates, bicycle and pedestrian amenities, and more. The pieces of federal legislation significantly affect the TIP and the planning and programming of transportation projects. These include the SAFTEA-LU, TEA-21, ISTEA, ADA, and CAAA.

The TIP for the SMTC area is comprised of a staged five-year program of transportation capital projects together with a five-year estimate of transit capital and maintenance requirements.

## **Chapter 2 - Goals and Objectives**

- **Goals**

Part of the process for updating the 2020 LRTP during 2001, 2004, and 2007 included the identification of action plans that had been implemented under each of the LRTP’s six goals since 1995. The six goals include (1) Community Safety: To enhance the safety of the people using the transportation system, (2) Community Mobility: To improve the mobility options for people within the Syracuse Metropolitan Planning Area (MPA), (3) Community Environment: To provide a clean and environmentally sound transportation system for current and future residents, (4) Community Economy: To enhance the area’s economic competitiveness, thereby increasing opportunities for employment, (5) Community Land Use: To promote the development of an efficient urban area and a sense of community through transportation planning, and (6) Community Facilities: To provide safe, clean, well maintained and efficient transportation infrastructure. The identification of implemented action plans involved discussions with the member agencies responsible for their respective TIP projects.

In this 2007 LRTP Update, the implemented action plans are presented, together with their respective goals and objectives. The implemented action plans are summaries rather than complete descriptions. In many cases, an overlap exists because a particular action plan may apply to multiple goals. Please note that the 2007 Update includes new SAFETEA-LU requirements, especially regarding environmental mitigation.

- **Changing Program Focus**

Since the publication of the 2020 LRTP, a shift in emphasis has occurred creating a larger emphasis on bicycle and pedestrian facilities planning than previously existed. Examples of this include the Onondaga Lake Canalway Trail, the Erie Canalway Trail, and the Syracuse University (SU) Connective Corridor Project. The increase in facilities for non-motorized travel creates a stronger multimodal orientation to the work of the SMTC, which may not be reflected adequately in the original LRTP. Other issues that are currently receiving more attention, although not significantly noted in the original Plan, include roadside maintenance and periodic clean-up in order to improve the visual attractiveness of the area, as well as enhancements that make transportation facilities accessible under the Americans with Disabilities Act of 1990 (ADA).

In the future, better measures of effectiveness will be needed for assessing the quality of non-motorized transportation facilities, as well as general quality of life issues that are becoming increasingly important in the MPO area. Other issues needing future attention are the roads originally designed for home to market use. There is a need to coordinate local land use and development planning with planning for a fully developed highway network ranging from local streets to a larger network. Many agencies and government entities will need to cooperate to make this process work.

### **Chapter 3 - MPA Updated Data and Trends**

- **Updated MPA, UAB, and Functional Classification**

The Metropolitan Planning Area (MPA) is defined as the area in which the MPO is responsible for transportation planning defined by the most current Census as being urbanized, plus the area anticipated to be urbanized by the year 2020.

In Spring 2003, the MPO area boundary was revised based on the 2000 Census. The former boundary included all of Onondaga County and a small portion of Oswego County (Town of Schroepfel including the entire Village of Phoenix). The revised boundary includes the entire former portion as well as some additional areas of Oswego County and Madison County. The new areas of Oswego County extend north along Interstate 81 and New York State Route 11. The Madison County portion includes the Bridgeport area along Oneida Lake as well as a portion along I-90.

Along with the revisions of the new MPO Area Boundary, the Urban Area Boundary was also revised. The former Urban Area Boundary surrounded the City of Syracuse metropolitan area and remained within Onondaga County. The revised Urban Area Boundary expanded to additional metropolitan areas within Onondaga County, and now includes the urbanized portions of Oswego County and Madison County that are contiguous to Onondaga County. The portions of the Urban Area Boundary and the MPO Boundary that are outside of Onondaga County coincide (e.g., the only portions of the MPO that are outside of Onondaga County are the expanded urban areas.). See Map 6 for the updated Urban Area Boundary based on the 2000 Census.

Functional classification is the process by which streets and highways are grouped into classes or systems according to the character of service they are intended to provide. Basic to this process

is the recognition that individual roads and streets do not serve travel independently but are part of a greater network. This network “channels” traffic in a logical, safe and efficient manner, and helps define the functional classification hierarchy. A simplified hierarchy of a functional classification (from lowest class to highest) consists of local roads, major and minor collector roads, minor arterial, and principal arterials. The functional classification system has been revised to take the 2000 Census and revised MPO boundaries into consideration.

- **Planning Area Trends**

This 2007 Update includes a basic profile of some of the most important demographic trends and changing conditions that affect transportation planning in the SMTC area. The Syracuse MPA has seen notable changes since 1990 in population, economic transition and land use shifts. The trends are typical to most Northeast communities, including:

- A declining metropolitan area population, and a shift in population away from the city core to suburban and rural areas;
- A changing economic base from manufacturing to a more diversified information and service based economy;
- A continued land use pattern towards suburban sprawl and decreasing density;
- A concentration of poverty in the City of Syracuse; and
- Increased commuting into Onondaga County, and from the City to the suburbs.

Included in the LRTP are descriptions of demographic trends (population, local economy, land use), and how they relate to transportation planning in the SMTC area.

- **Travel Demand Modeling**

The SMTC recently undertook a transition to a new Travel Demand Model Software for the SMTC in an effort to improve on the quality and usability of the MPO’s model. The transition was completed in late 2006. Travel Demand Modeling is the utilization of a computer software package to replicate the “real world” transportation system around us including roads, intersections, traffic control devices, congestion delays, use of a transit system, etc. Once the computer model can accurately replicate the existing conditions of an area, it can be used to predict future travel patterns and demands based on changes in the transportation system (e.g., new roads, wider roads with more capacity, closed roads, etc.); changes in land use (e.g., more residential development, a new industrial site, etc.); and changing demographics (e.g., more or less people in a specific area, access to a vehicle, etc.). By simulating the current roadway conditions and the travel demand on those roadways, deficiencies in the system can be identified. It is also an important tool in planning future network enhancements and analyzing currently proposed projects. In addition to simulating vehicular traffic, the model will be able to adjust for transit vehicles, bicycles and pedestrians.

The new model is a traditional, four-step model that involves the processes of (1) trip generation, (2) trip distribution, (3) mode choice, and (4) trip assignment. The new model will utilize TransCAD software and include a Geographical Information Systems (GIS) interface. The model will soon be utilized by the SMTC staff to perform a wide range of transportation planning activities.

## **Chapter 4 - Changing Transportation Needs and Impacts**

- **Travel Modes**

Passenger vehicles: By far, the most common mode of transportation utilized in Onondaga County is the passenger motor vehicle, and the popularity of this mode of commuting continues to increase over time. The 2000 commuting data shows that most people commute in single occupant vehicles. Correspondingly, there has been a 43% increase in vehicle miles traveled (VMT) since 1990. Overall, a small percentage of work trips are made via public transportation. However, in certain zones in the urbanized area, transit is utilized more and is regarded as an indispensable mode of travel for many people. In no instance did bicycling reach even one-half of one percent of work trips made. Carpooling remains an alternative for many.

Bicycle and Pedestrian Travel: Since 1990, Onondaga County has seen a decrease in pedestrian travel, potentially attributable to a decrease in city population over the past decade. Other factors such as the condition of pedestrian facilities, perceived safety, and alternative mode choices may also be attributable to the decrease. With the majority of bicycle and pedestrian trips covering short distances, land use patterns play a critical role in the current and future development and use of bicycle and pedestrian facilities. Both Onondaga County and the City of Syracuse have bikeway plans and projects underway, several of which are funded through the MPO's Transportation Improvement Program (TIP). Several examples are listed in the LRTP.

Public Transit: Centro operates the public transportation system in Onondaga, Oswego and Cortland Counties. Centro transports 28,000 people per day in Onondaga County on over 100 transit routes. Centro operates connecting routes between the Cities of Syracuse, Oswego, Fulton and Auburn, as well as city transit services within each of these cities. In 2005, Centro expanded their transit services into the Cities of Utica and Rome. Within Onondaga County, service frequencies in the rush hours are such that all Common Center bus stops are in continuous and heavy use. Centro has reported increases in ridership in the last few years as new services have been implemented. Centro has actively been involved in choosing the location of a new "Common Center" central location where a new facility will be built. The public meeting that reviewed the new location was held in December 2006.

Water Transportation: The New York State Canal System is operated by the New York State Canal Corporation. In order to address issues and capture the potential economic development benefits associated with increased tourism, the Canal Corporation is working with canal communities along the system to improve facilities and support the efforts of private entrepreneurs to improve the number, quality and spacing of privately sponsored facilities. Many of these improvements have become reality through programs at the federal, state, and local level including the NYS Canal Revitalization Program which provided over \$35 million for canalside harbors, ports and trails. The Canal Corporation has also introduced several new marketing initiatives as part of the Erie Canal Greenway program. Although there are gaps in water transportation services and facilities in the MPO area, there is potential for increasing future use of the water features in the area.

Air Passenger Transportation: The number of enplaned passengers through an airport typically fluctuates in response to changes in the economy and other local, national and international conditions. The full utilization of Hancock International Airport also has been adversely affected

by high airfares. The City of Syracuse has attempted to bring in lower cost airlines to the airport that offer more competitive airfares.

Passenger Rail Service: Rail passenger service in the SMTC area is provided through two companies. The National Railroad Passenger Corporation (Amtrak) provides intercity rail passenger service in the Central New York region. The OnTrack shuttle trains operate over track operated by the Syracuse, Binghamton & New York Railway, a subsidiary of New York, Susquehanna & Western Railway (NYS&W). A number of initiatives being considered have the potential for improving passenger rail service in Central New York. The State of New York is currently assessing the feasibility of high-speed rail service across Upstate. If this service is implemented, changes will be required in the configuration of the William F. Walsh Regional Transportation Center to accommodate high-speed trains and the resulting increase in the number of rail passengers. In the Central New York region, there is a need for improved service for passenger rail transportation.

Freight Movement (Air, Highway, Rail and Water): Among the attractions to doing business in Onondaga County and the Central New York region is the crossroads location of the County for air, highway, rail and water transportation and the variety of freight movement services available. Air cargo service is available at Syracuse Hancock International Airport, which is directly linked to Interstate 81. U.S. Customs inspection services are also available at Hancock Field. Two interstate highways intersect at Syracuse, the New York State Thruway (Interstate 90) and Interstate 81, providing excellent truck access to the SMTC planning area. Rail freight services in Onondaga County are available from three providers. Water transportation is available on the New York State Canal System.

- **Emerging Initiatives**

There are several emerging initiatives relating to transportation planning that currently have a direct impact on the planning activities in the MPO area and they are discussed below.

First is a series of planning documents impacting the SMTC area such as the Onondaga County 2010 Development Guide, the Onondaga County Settlement Plan, the City of Syracuse Comprehensive Plan, and New York State's Master Transportation Plan. The *2010 Plan's* vision, goals and policies are intended to guide future individual government decisions on land use, transportation and infrastructure development, utilizing balanced goals that include economic growth, creating an attractive community, encouraging diversity and choice, and enhanced fiscal strength. The Syracuse-Onondaga County Planning Agency also enlisted the services of the firm Duany Plater-Zyberk & Associates (DPZ) in 1999 to prepare the *Onondaga County Settlement Plan*. The Settlement Plan for Onondaga County was designed to present a comprehensive "toolbox" of strategies to encourage the traditional neighborhood development patterns outlined by New Urbanism, as an alternative to conventional zoning and suburban development patterns which many deem an inefficient use of land and a burden on transportation facilities. The City of Syracuse Comprehensive Plan provides the framework for the City to make reasonable, informed decisions on how to address the issues and concerns that presently face public officials. The NYS Master Transportation Plan articulates a long-term, intermodal vision of the State's future transportation system and provides policy level guidance to achieve that vision.

A second emerging initiative relating to planning in the MPO area is Environmental Justice. In recent years, the concept of Environmental Justice has become a very important aspect of

transportation planning. The USDOT, which governs the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), has mandated that Environmental Justice be included in all aspects of transportation planning. The value of such an analysis is important to transportation planning operations because agencies and related contractors who receive federal funding are required to comply with various relevant regulations set forth by the USDOT. This concept focuses on the equal and fair treatment of all persons, particularly racial or ethnic minorities and low-income populations. In addition, it is unlawful to disproportionately distribute the benefits or disadvantages of transportation planning amongst disparate areas of minority/income group concentration. Based upon the primary assessment done by SMTC in 2004, the Environmental Justice Study showed that the transportation planning and programming activities performed by the SMTC are not known to have been disproportionately distributed regarding the designated target populations.

Transportation Needs for Senior Citizens is becoming an area of increasing concern as the population of the MPO ages. At the suggestion of the FHWA in furthering environmental justice initiatives, and recognizing a growing elderly population (as discussed in previous chapters), this LRTP 2007 Update represents the second time that the SMTC has devoted specific attention to senior citizen transportation needs.

An emerging initiative that has a great deal of potential benefit for the MPO area is Intelligent Transportation Systems (ITS). ITS refers to the application of electronics, communications, hardware, and software that support various services and products to address transportation challenges. The NYSDOT in conjunction with the SMTC and its member agencies developed a strategic plan for deployment of ITS for the Syracuse Metropolitan Area (principally Onondaga County).

Another significant emerging initiative is Security. Since September 11, 2001, security has affected all levels of government in a substantial manner. Transportation is no exception. Most of the issues related to security and transportation are outside of the purview of the MPO. The MPO can, however, act as a conduit to facilitate interagency cooperation to that end.

Another emerging initiative is the Safe Routes to Schools Program (SRTS) is a Federal-Aid program of the U.S. Department of Transportation's Federal Highway Administration (FHWA). The Program was created by Section 1404 of SAFETEA-LU. The SRTS Program is funded at \$612 million over five Federal fiscal years (FY 2005-2009) and is to be administered by State Departments of Transportation (DOTs). The Program provides funds to the States to substantially improve the ability of primary and middle school students to walk and bicycle to school safely.

The final emerging initiative in Chapter 4 is Enhancement Projects. The Transportation Enhancement Programs (TEP) has continued through all of the transportation legislation, now including SAFETEA-LU. Through the TEP there are innovative opportunities to improve the transportation system through the implementation of a specific list of activities intended to benefit the traveling public, increase transportation choices and access, enhance the built and natural environment, and provide a sense of place.

- **Emerging Projects**

University Hill Area: The University Hill area is one of the most intensive areas in terms of land use and transportation in the SMTC study area. Due to complex transportation issues in the University Hill area, a comprehensive transportation study known as the “University Hill Transportation Study” has been initiated. The goal of the study is to develop a set of recommendations (policy and infrastructure) that address the wide range of transportation and land use issues in the University Hill study area. The study consists of three parts: data collection and analysis, identification of issues, and the presentation of alternative solutions and recommendations.

Due to the existing intensive land use in a limited geographic area, a comprehensive transportation study that focuses on the issues of interstate access, institutional parking, and transit/walking/biking. There is also a need to look at non-automobile alternatives and improvements such as additional park and ride shuttle systems and other mass transit options. A major aim of the initiative is to ensure the economic viability of the institutions located in the study area while minimizing impacts to surrounding neighborhoods.

Lakefront Development District: Over the past 15 years, the City of Syracuse and several public and private partners have been working to redevelop a long vacant and underutilized area in the northern part of the city. The area is undergoing a continued transformation into what is now known as the *Syracuse Lakefront*. Included in the 800-acre district are the Franklin Square district, the existing Carousel Center (regional shopping mall), and the Syracuse Inner Harbor. Some of the more significant redevelopment projects underway and proposed for the Lakefront Development area include the development of DestiNY USA, the continued redevelopment of abandoned manufacturing facilities into new mixed-use housing and offices in Franklin Square and the significant redevelopment of an underutilized canal port on the Barge Canal system at the southern end of Onondaga Lake. Similar to revitalization efforts across the entire Erie Canalway, the Syracuse Inner Harbor is being renovated into a recreational and tourism facility, inclusive of a public promenade, marina, amphitheater, mixed-use waterfront development, housing, and recreational amenities.

Congressional Funded Projects (Earmarks): Approximately \$22 million in Congressional Earmarks will be funded through the projects listed in Chapter 4.

## **Chapter 5 - Safety Conditions and Infrastructure Maintenance**

- **Vehicle Safety**

Strategies to improve the safety of the highway systems are often grouped in one of three categories: education, engineering and enforcement. Overall, traffic fatalities have declined in recent years locally, particularly when measured against the number of miles traveled per vehicle. National and statewide fatality rates have also declined. Much of this recent improvement results from increased education, enforcement efforts aimed at reducing the number of people driving with ability impaired, and new vehicle safety systems such as air bags and anti-lock brakes. The SMTC member agencies play a key role in reducing the number and severity of accidents as well. Much of the local effort is directed at engineering improvements to the highway system itself.

- **Bike/Pedestrian Safety**

As part of the SMTC's Bicycle and Pedestrian Plan, the SMTC examined bicycle/motor vehicle and pedestrian/motor vehicle collisions, and their associated injuries and fatalities in Onondaga County for the years 1987-2000 using collision data gathered from the New York State Department of Motor Vehicles (NYSDMV), which was the most recent data available. Upon examination and analysis of the data, generally speaking, the number of bicycle/motor vehicle collisions and pedestrian/motor vehicle collisions over the fourteen-year period analyzed has decreased (with some annual fluctuation). Collision locations were mapped utilizing the NYSDOT Centralized Local Accident Surveillance System (CLASS) along with the SMTC's GIS system and the SMTC found that the majority of high bicycle/motor vehicle and pedestrian motor vehicle collision incidences and occurred in the City of Syracuse at heavily traveled intersections.

- **Infrastructure**

Bridges: Onondaga County has 492 bridges on thruway, state, county and local roads. The NYSDOT maintains a Bridge Management System (BMS) for all of these bridges. The BMS rates the bridge deck, bearings and other structural elements on a weighted scoring system. Thruway, state and local bridges are rated by the NYSDOT on a scale of 1.0 to 7.0, with scores falling into three categories: Priority Deficient, Deficient, and Non-Deficient. A deficient condition does not mean that the bridges are unsafe, but rather they are candidates for rehabilitation work, replacement or even perhaps closure. Priority deficient bridges are given a priority for funding over those that are deficient. Many bridges with condition ratings of less than 3.0 have to be closed to some or all traffic. State and local bridges are inspected every two years, regardless of condition rating. The condition of bridges in the SMTC area has been a critical funding issue for a number of years. The large number of bridges and the percentage of bridges that are rated as Priority Deficient and Deficient combined with the limited amount of money available for funding improvements has made this a key improvement area noted by the NYSDOT and other SMTC member agencies.

Pavement: The NYSDOT uses a Pavement Management System (PMS) that attempts to maximize the effectiveness of the limited dollars spent on maintaining pavements. Pavements have a varying life cycle dependent on many conditions. A PMS allows the NYSDOT and other highway departments to determine the pavement rating relative to all other pavements in a jurisdiction. It also allows year-to-year monitoring of pavements and facilitates predictions of when to cost effectively overlay, rehabilitate or reconstruct a road. The NYSDOT system uses a visual rating system with a scale of 1 to 10 for surface conditions, which are categorized into poor, fair, good, or excellent condition. The Onondaga County Department of Transportation (OCDOT) and the City of Syracuse also maintain pavement management systems. The City of Syracuse rates approximately half of the pavement each year in the City on a 1-10 scale, similar to the NYSDOT scale. Although the OCDOT rating system is not identical to the NYSDOT system, it is comparable since OCDOT also uses a 1-10 scale. By placing an annual work activity on the SMTC's UPWP to examine pavement condition, the SMTC is able to produce a document that allows its member agencies to comprehensively view the total pavement condition in a summary format both numerically and graphically. This helps allow for the decision makers to plan for the appropriate funding expenditures for proper pavement maintenance.



One thing that needs to be pointed out is that the vast infrastructure for bridges, pavements and other resources that exists in the MPO area requires constant maintenance and upkeep to operate safely and effectively. This required maintenance utilizes the lion's share of the annual transportation capital expenditures and leaves little left over for new initiatives.

## **Chapter 6 - Mobility, Accessibility and Intermodal Transportation**

- **Existing Trends**

A few of the key trends in the local community that relate to transportation planning and programming are outlined below.

Changing Demographics and Transportation Choices: The changing demographics have resulted in a shift in transportation choices being made by the community. This is reflected in the increase in vehicles per household, increase in total vehicle miles traveled, and also a corresponding increase in average commute times.

Regional/Global Economy Factors: Previously, the majority of employment and manufacturing were mainly concentrated in a few large employment centers in Onondaga County, yet now smaller firms are spreading throughout the region. Due to the large number and type of niche markets of these smaller size firms, there is more diversity in employment in the MPO area.

Changing Demographics and Transportation Design Parameters: As outlined in the document, the demographics of the MPO area have changed in the past 20 years. In particular, the change in demographics over the past decade plus has shown an increase in the elderly population in the SMTC region. Although this is not a new finding since the SMTC's original LRTP, changing demographics have contributed to a shift in certain transportation design parameters, particularly toward improved/increased visibility.

- **Operating Agency Practices**

Individual transportation agencies within the SMTC MPO have their own practices and/or policies for addressing areas such as corridor management, access management, Intelligent Transportation Systems (ITS), multimodal needs, and asset management. Each of these areas are described in more detail in the full LRTP 2007 Update.

- **Inter-Municipal Collaborations**

A safe and efficient transportation system is necessary to provide for a multiplicity of services and needs, thus inter-municipal cooperation is key to its success. This section of the 2007 LRTP Update examines how the entities in the SMTC area are working together for the common goals of the transportation network. There are certain key areas (Corridor Management, Access Management, ITS Implementation) discussed in the LRTP 2007 Update where improvements to the current collaborative effort are vital.

While communications between the agencies are improving, there are many opportunities for future improvements. The SMTC has a unique opportunity as an MPO to facilitate the diverse viewpoints of the various member agencies. By virtue of the role that an MPO plays, the SMTC functions as a facilitator for agencies and municipalities in many areas. The SMTC can work toward bridging the gaps in communication and inter-municipal cooperation for many transportation planning and land use projects. Utilizing the SMTC as a foundation for this

facilitation in this process allows for making well informed and cost saving decisions on future projects.

## **Chapter 7 - Air Quality and Conformity Determination**

- **Air Quality and Conformity**

Air Quality, as it pertains to the operations of the SMTC and its member agencies, includes the state and federal requirements for transportation conformity, project level analysis for Congestion Mitigation/Air Quality (CMAQ) funding, and requirements for the State Energy Plan (SEP) and Greenhouse Gas analysis. The SMTC and its member agencies take a multi-faceted approach to improving and monitoring air quality impacts within the SMTC planning area

Transportation conformity ("conformity") is a way to ensure that Federal funding and approval is applied to those transportation activities that are consistent with air quality goals. Conformity applies to transportation plans (such as the SMTC's LRTP, TIP, and projects funded or approved by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA)) in areas that do not meet or previously have not met air quality standards for ozone, carbon monoxide, particulate matter, or nitrogen dioxide. These areas are known as "non-attainment areas" or "maintenance areas," respectively.

Transportation projects must demonstrate conformity in order to be funded. A conformity determination demonstrates that the total emissions projected for a plan or program are within the emissions limits ("budgets") established by the State Implementation Plan (SIP), and that transportation control measures (TCMs) are implemented in a timely fashion. TCMs are specific programs designed to reduce emissions from transportation sources by reducing vehicle use, changing traffic flow or congestion conditions. Examples include programs for improving public transit, developing high occupancy vehicle (HOV) facilities, and ordinances to promote non-motor vehicle travel.

In examining the results of the conformity analysis for the SMTC relative to this 2007 LRTP Update, output shows that carbon monoxide emissions between the base year of 2003 and the forecast year of 2027 will be significantly reduced. The analysis indicates that with the completion of construction or implementation of the projects on the TIP, the area will still result in emission levels that are lower than the 2003 base year.

Since the regional implementation program of transportation projects, as reflected in the TIP and derived from the goals and objectives of the LRTP, have been shown to meet the required emission reduction test for air quality conformity, and there are no applicable TCMs in the current SIP for the Onondaga County area, **the LRTP 2007 Update has been shown to be consistent with applicable conformity regulations and the SIP.** No goals, directives, recommendations or projects of the LRTP will contradict requirements or commitments of the SIP or the intent of the CAAA or other applicable federal and state guidance.

- **Energy and Greenhouse Gas Impacts**

A policy objective of both the U.S. Department of Transportation and the State of New York is the conservation of energy through a reduction in motor fuel consumption. In addition, the New York SEP has identified a reduction of greenhouse gases (CO<sub>2</sub>) as an objective for all LRTPs.

Similar to the documentation relating to air quality emissions above, the SMTC performed a quantitative analysis on both energy consumption and carbon dioxide emissions that may result from the implementation of the 2007 LRTP. This analysis, included to promote the policy objectives of federal and state transportation departments, is intended to focus awareness on these issues. The results of the analysis demonstrate that the projects new to the 2027 LRTP horizon year will provide for a decrease in the emission of VOC, NO<sub>x</sub>, CO, and CO<sub>2</sub> and the amount of direct energy used by vehicles in the Syracuse MPA.

The SMTC and its member agencies will continue to develop processes and tools to further monitor and improve our air quality for a variety of pollutants, while working towards enhanced energy savings and a more effective transportation system operation. In addition, the SMTC and its member agencies will continue to work closely with the New York State Department of Transportation Environmental Analysis Bureau to achieve the goals and objectives of the State Energy Plan. However, it is anticipated that significant additional resources and funding will be required to address this area. Metropolitan Planning Organizations (MPOs) generally do not have the level of expertise and resources on hand that are now being required for increasingly more complex and integrated analysis in this subject area. In addition, the MPOs will require greater clarity and consistent detailed guidance, training and tools to allow for such analysis.

## **Chapter 8 - Long-Term Outlook and the Financial Plan**

- **Asset Management**

Asset Management and Infrastructure Maintenance: First and foremost, as shown in the previous sections of this plan, the vast majority of financial resources relating to transportation for the Syracuse Metropolitan Transportation Council (SMTC) area are committed to maintaining the extensive, diverse, and aging infrastructure that already exists in the community. This infrastructure maintenance includes, but is not limited to the major activities that are discussed in the LRTP 2007 Update.

Pavement Maintenance/Road Reconstruction: Most member agencies have programs for preserving infrastructure maintenance, including pavement and bridges.

Bridge Repairs/Improvements: The NYSDOT inspects all bridges in the Metropolitan Planning Organization (MPO) area and determines goals for the condition of both state and local (non-state) bridges.

Other Safety Improvements: Safety is a high priority for the implementing agencies in the MPO area. Most member agencies regularly schedule safety improvements for corridors, roadways and intersections.

Transit Maintenance and Improvements: Centro is leading the way in Central New York in the use of alternative fuel, low emissions vehicles. CNYRTA is seeking funding to construct a stand-alone Common Center transit facility where bus operations can be conducted off-street and out of general traffic patterns.

- **Exceptions**

Notable Exceptions: It is expected that the majority of the resources that will be expended in the near future relate to maintenance via the activities previously discussed and other required actions. However, there are some notable exceptions that should be called out, listed below.

- **Additional Capacity:** While not a major activity in the MPO area, adding capacity is an occasional activity that is required due to economic and residential expansion into outlying areas. While there are no current major capacity building efforts on the programmed TIP, it is possible that in the near future some additional capacity will be needed in select and isolated portions of the transportation system in response to growth.
- **New Transit Initiatives:** Centro will continue to pursue alternative service concepts.
- **Additions and improvements to the Non-Motorized System (Bicycle & Pedestrian System):** Since the Intermodal Transportation Efficiency Act (ISTEA) of 1991 legislation, bicycle and pedestrian planning activities continue to be addressed through the UPWP. Bicycle and pedestrian capital projects have also become a growing element of the Transportation Improvement Plan (TIP).
- **New Development Potential:** Theoretical plans for the Lakefront area call for various economic development opportunities. One such plan is the Destiny USA initiative. If built to its advertised potential, these plans could significantly impact the MPO area.
- **Intelligent Transportation Systems (ITS):** ITS is becoming more of an active methodology to assist in traffic and incident management.
- **Specific Identified Improvements:** As part of the SMTC's long range planning process, four projects (two federally funded, two privately funded) are identified as essential to the transportation systems, but not currently programmed on the TIP. The projects include Bear Street Extension, third lane of Frontage Road, additional travel lane on NY 31, and North Salina Street lane reduction.

- **Resources Available**

The 2020 LRTP, when published in 1995, anticipated a total of \$3.050 billion in funding over the 25-year planning period. This LRTP 2007 Update anticipates a total of \$3.034 billion in funding over the remaining term of the planning period. The major sources of funding, shown in Table 8-1 and 8-3, include the federal government at 31.0% (\$941 million) of the total, the State Dedicated Fund at 26.4% (\$802 million), Onondaga County at 6.4% (\$193 million) and the City of Syracuse at 1.4% (\$43 million). The balance is comprised of other State and local sources at 24.3% (\$679 million)<sup>2</sup> and Centro operating revenue at 6.8% (\$206 million). It is anticipated that all traditional funding mechanisms will be exhausted with the implementation of this LRTP 2007 Update.

The largest share of the total resources available will be expended to maintain the existing transportation system. For this 2007 Update, the 2001 cost of each objective has been pro-rated using the new 20-year resource base of \$3.034 billion. The results show that maintenance of

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<sup>2</sup> The number does not match the number for "Other State and Local Funds" on Table 8-1 because it includes some non-transit funding that cannot be broken out from that number.

existing bridges and pavement will absorb 59% of the budget (\$1.79 billion). An additional 23.8% (\$722 million) will be allocated to support the area transit system; 10.7% (\$324 million) will be used to improve congested locations, reduce single occupancy vehicles (SOVs) and the Americans with Disabilities Act (ADA) compliance; and 3.6% (\$110 million) will be spent for efforts to increase safety at high incident locations. The remaining 3.0% (\$90 million) of the budget will support transportation projects that enhance economic development, environmental quality and efforts to coordinate land use and transportation planning decisions in the study area. The 2007 Update also supports a number of innovative initiatives new to this area. Examples of the latter include funds which have been allocated to encourage the application of ITS technology in the Syracuse region and an effort to devise a cost/benefit methodology for application to future TIPs.