

South Western Region Long Range Transportation Plan 2007-2035



Endorsed by:
South Western Region
Metropolitan Planning Organization
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SOUTH WESTERN LONG RANGE TRANSPORTATION PLAN 2007-2035

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C. TSB, Coastal Corridor TIA, and the South Western Region MPO 2004-2007

South Western Region Long Range Transportation Plan 2007-2035 Frequently Asked Questions (FAQs)

What is the South Western Region Long Range Transportation Plan 2007-2035 (Plan) and why does the region need one?

What is the South Western Region Metropolitan Planning Organization (SWRMPO) and what is its role in the Plan?

What is the Transportation Technical Advisory Group (TTAG) and what role does it play in Plan development?

How is the Plan developed and what does it include?

How does the Plan relate to the Transportation Improvement Program (TIP)?

Who is responsible for developing the Plan?

Who reviews and approves the Plan?

Once the Plan is adopted can it be amended?

What is in the Plan?

What are the regional transportation goals and objectives?

What are the region's key strategies for meeting the transportation goals and objectives?

What are the region's near term priority projects and programs?

How is the 2007-2035 Plan different from the South Western Region Long Range Transportation Plan 2004-2030?

How much will it cost to maintain and operate the region's transportation system?

What is the South Western Region Long Range Transportation Plan 2007-2035 (Plan) and why does the Region need one?

The South Western Region Long Range Transportation Plan (Plan) is the "blueprint" for transportation in the eight towns of the South Western Region: Darien, Greenwich, New Canaan, Norwalk, Stamford, Stamford, Weston, Westport, and Wilton. It serves as a guide for developing a transportation system that is accessible, safe, and reliable and contributes to a higher quality of life for the region's citizens. The Plan reflects the current state of the region, identifies future transportation needs, and plans responsibly for the entire region. The Plan is also a federal requirement and must be in place before federal transportation dollars can flow to the region. The South Western Region Metropolitan Planning Organization (SWRMPO) is required to review and update the Plan every three years. The *South Western Region Long Range Transportation Plan 2004-2030* is the current plan for the region. The 2007-2035 Plan is being developed and is proposed for adoption by the SWRMPO in May 2007.

What is the South Western Region Metropolitan Planning Organization (SWRMPO) and what is its role in the Plan?

The South Western Region Metropolitan Planning Organization (SWRMPO) is responsible for developing long range regional transportation plans and transportation improvement programs for the eight towns in the South Western Region. The SWRMPO voting membership includes the chief elected official of each of the towns, and representatives from the Norwalk Transit District, the Stamford Transit District and the Westport Transit District. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) is the current federal legislation that controls transportation programs and requires metropolitan planning organizations to develop regional transportation plans in cooperation with federal, state, and local agencies.

What is the Transportation Technical Advisory Group (TTAG) and what role does it play in Plan development?

The Transportation Technical Advisory Group (TTAG) is the region's technical committee and provides support to the SWRMPO. The TTAG participates in studies, and assists in the development of programs and plans that are prepared for the SWRMPO. The TTAG members are technical representatives from the transit districts, municipal planning, public works or transportation departments, South Western Regional Planning Agency (SWRPA), the Connecticut Department of Transportation (ConnDOT), USDOT Federal Highway Administration (FHWA) and USDOT Federal Transit Administration (FTA). SWRPA is the region's designated transportation planning agency, and serves as staff to the SWRMPO and TTAG.

How is the Plan developed and what does it include?

Development of the Plan is a multi-pronged approach. The SWRMPO and the South Western Regional Planning Agency (SWRPA), as the transportation planning agency, work with local elected and technical officials, state and regional transportation agencies and other stakeholders such as the public, special interest groups, business and industry representatives. The SWRMPO and SWRPA staff also participate in local, regional, state and metro-New York transportation studies and committees to ensure that there is up-to-date information and interaction on

transportation issues and initiatives of concern to the region. Public input and involvement is encouraged through public information sessions, study and committee advisory groups, and targeted efforts to engage stakeholders in the development of plans and programs. The technical and quantitative aspects are developed and maintained by SWRPA in cooperation with ConnDOT. SWRPA collects and maintains data and conducts analyses and studies that identify needs, and analyze alternatives and impacts of transportation improvements. The end results are policies, initiatives, and projects that represent the long range transportation vision and investments for the region.

How does the Plan relate to the Transportation Improvement Program (TIP)?

The Transportation Improvement Program (TIP) is the five year financial program for implementation of federally-funded projects. The TIP is developed in cooperation with ConnDOT, and is another responsibility of the SWRMPO. Projects in the TIP must be included in the long range transportation plan.

Who reviews and approves the Plan after it is approved by the region?

Before the Plan can be implemented and federal transportation funds spent, it is subject to a review and approval at the state and federal levels. After the Plan is endorsed by the SWRMPO, the Plan is submitted to ConnDOT, USDOT FHWA and FTA, as well as the CT Department of Environmental Protection, and the US Environmental Protection Agency to review and issue a finding of conformity with federal regulations.

Once the Plan is adopted can it be amended?

To keep the Plan up-to-date and responsive to regional needs it must be flexible. Amendments to the Plan are possible, and the requirements for public involvement, technical and policy endorsements are the same as the usual four year plan update.

What is in the Plan?

What are the regional transportation goals and objectives?

The South Western Region Long Range Transportation Plan 2007-2035 goals are to provide safe, efficient, cost effective and balanced transportation systems that promote mobility, access and choice with minimum adverse impacts and optimal investment of available resources in the transportation systems. The objectives are:

- I **Economic Competitiveness** – to make timely investments in the transportation system to maintain a healthy regional economy and to promote quality of life.
- II **Infrastructure** – to maintain in a state of good repair transportation equipment and facilities, including highways, bridges, and transit systems.
- III **Accessibility and Mobility** – to maintain and increase options for the movement of people and goods.
- IV **Safety** – to promote the safety of all modes of transportation for all users and operators.
- V **Security** - to increase security of all modes of transportation for all users and operators.

- VI **Environmental and Clean Air Responsibility** – to avoid, minimize, or mitigate negative environmental impacts of transportation projects and systems whenever possible.
- VII **Land Use and Transportation** – to support strategies that promote transit oriented development, context sensitive design solutions and quality of life in the region.
- VIII **Intermodal Connectivity** – to enhance the integration and connectivity of transportation systems and modes for people and freight.
- IX **Systems Efficiency and Productivity** – to optimize current systems and resources through ‘transportation systems management’ and the use of new technology to increase system productivity.
- X **System Performance** – to develop measurement and monitoring tools and strategies to better assess transportation systems performance, and revise programs to improve systems operations and performance.
- XI **Financing** – to provide resources to maintain existing transportation systems and services in a state of good repair, and to support improvements and services that meet the needs of system users and operators. The Transportation Plan describes the financial framework for system operation, maintenance and improvement.

What are the Region’s key strategies for meeting the transportation goals and objectives?

The Plan identifies strategies and projects for highways, safety and security, traffic signals, bridges, congestion management, incident management, bus and rail transit, elderly and disabled transportation, freight/goods movement, transportation demand management and commuter choice, bicycling and walking, waterborne transportation, intelligent transportation systems (ITS), and land use. The strategies focus on new planning and engineering studies that will define future investments, and also call for development of operational programs to increase safety, mobility or commuter choice.

Strategies to increase mobility and commuter choice include:

- Regional Transit Strategies Plan will develop the vision and an implementation plan for transit within the region and will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry and air.
- Stamford Transportation Investment Strategies Study will develop a comprehensive plan for highway and all modes of transit in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access and arterial roadways, rail bridges and infrastructure, and Stamford Harbor.
- Stamford Transportation Center Master Plan will define near term and long term capital projects, maintenance and operating requirements and financing.
- Stamford Transportation Center commuter connections operations assessment will rationalize taxi, shuttle bus and vehicular use of the Stamford Transportation Center.
- Stamford Transportation Center operations plan will integrate Stamford Urban Transitway

and the Stamford Transportation Center existing services, operations and physical layout.

- A South Norwalk Intermodal Facility Concept Plan will develop the scope, cost and timetable for intermodal facilities at the South Norwalk rail station.
- The Merritt 7 Area Transportation Study will develop a program of multimodal improvements coordinated with land use to improve mobility and access and manage congestion.
- The Danbury Rail Line Electrification Study Phase 2 will assess five alternatives developed in the Phase 1 report, and should further evaluate a rail service enhancement program and commuter connections to provide additional train service to the Wilton/Merritt 7/South Norwalk corridor.
- A New Canaan Branch implementation program will identify rail service, parking needs and intermodal connections to enhance enhance transit options and support transit oriented development.
- A Route 1 Norwalk-Stamford-Greenwich Bus Rapid Transit (BRT) Study will explore possibilities for establishing BRT along the Route 1 corridor of the South Western Region.
- The Stamford Ferry Feasibility Study, initiated in 2007, will develop a ferry implementation program when the study of waterside and landside issues, and alternative sites is completed.

Operations and safety strategies include:

- A Route 7 corridor needs assessment for the section of Route 7 between Olmstead Hill Road, Wilton, and the Route 35, Ridgefield will establish an implementation program for operational, intersection, safety, and multimodal improvements, access management, and streetscaping enhancements with a context sensitive design approach, in cooperation with ConnDOT, the Housatonic Valley Council of Elected Officials (HVCEO), the SWRMPO and SWRPA.
- Development of a Route 7 and 15 Interchange “Plan B”, if necessary, that will define the program of projects and investments needed to replace completion of the fully directional Route 7 and 15 interchange project that was delayed by court action. In tandem with Plan B, a new environmental assessment for the full interchange would be initiated.
- The ConnDOT Value Pricing Pilot Program Pre-implementation Statewide Study will evaluate various pricing options, identify system benefits and constraints and develop a value pricing program implementation plan
- The Darien Route 1 congestion, circulation and access management study and the Greenwich and Stamford Route 1 congestion, circulation and access management study will develop a congestion, circulation and access management improvements program.
- The Stamford Rail Bridge/Underpass Priority Program will define the implementation program for improvement of rail underpasses to improve operations, safety and access and to support current, proposed and future land use development, including Atlantic Street and East Main (Route 1).
- Develop protocols for NYSDOT and ConnDOT variable message signs to reinforce Merritt Parkway and Hutchinson River Parkway restrictions.
- A comprehensive truck safety and enforcement program is needed to:
 - Establish truck safety and enforcement as high priorities for the State with funding to (1) operate weigh stations at current or increased levels (2) increase truck safety inspections at I-95 and I-84 inspection/weigh station areas, and (3) implement

- effective use of the I-95 Weigh-in-Motion project (#56-290) scheduled for design completion in 2005.
- Set up a “truck information” webpage on the ConnDOT website to provide truckers with information on state truck regulations and programs, state rest areas and private truck stops, vertical or horizontal bridge clearance restrictions and weight-restricted bridges along with alternate routes, information about the Merritt Parkway and commercial vehicle restrictions, links to the ConnDOT Incident Management webpage where information is provided on various state programs of interest to truckers, ConnDOT traffic cams and information on incidents in progress. Future capabilities relate to real time traveler information on truck stop and rest area parking availability and 511 information programs.
 - Encourage NYSDOT and ConnDOT development of an overheight/overweight detection program for the Merritt and Hutchinson River Parkways to prevent further damage of structures or hazardous spills, and to develop protocols for NYSDOT and ConnDOT variable message signs that reinforce Merritt Parkway and Hutchinson River Parkway use restrictions.

Participate in key project and program planning initiatives:

- The ConnDOT Service Plaza and Rest Area Study
- The ConnDOT Danbury Branch Electrification Study Phase 2
- The ConnDOT New Canaan and Waterbury Branch Study
- The locally coordinated human service transportation plan (LOCHSTP) for the Bridgeport-Stamford Urbanized Area
- Continue cooperation, collaboration and projects undertaken by the state, partners within the Bridgeport-Stamford Urbanized Area, other Connecticut regions, the Transportation Strategy Board (TSB), and New York metro area organizations to address transportation issues, and to develop cohesive investment strategies that result in funding and tangible projects.

What are the Region’s near term priority projects and programs?

Implementation of projects included in the FFY2007-2011 TIP and special projects is a priority.

Route 7 Corridor Highway and Transit Projects

- Complete the Route 7 and Route 15 full interchange (Norwalk)
- Route 7 widening between the Route 7 expressway terminus at Grist Mill (Norwalk) and Route 33 (Wilton)
- Implement the Danbury Rail Line signal and communications project (#302-0007)
- Route 15 – Merritt Parkway Projects for operational and safety improvements within context sensitive design and consultation.

Coastal Corridor Highway and Transit Projects

- I-95 – develop and implement operational and safety improvements in the South Western Region.
- Construct and operate the I-95 Greenwich Weigh In Motion Project.
- Construct I-95 Exit 16 improvements

- Route 1 operational and safety improvements

Special and Priority Projects

- Stamford Urban Transitway Phase 1 (Stamford Transportation Center to Elm Street)
- Stamford Urban Transitway Phase 2 (Myrtle Avenue)
- Stamford Ferryboat Facilities
- Norwalk Pulse Point Security and Safety Project
- Norwalk Route 1 Cross Street improvements and design
- Other high priority projects that secure local, state and federal funding subject to consistency with transportation plan goals and objectives.

Rail Transportation Infrastructure and Operations

- Complete rehabilitation of existing rail fleet (M-2s)
- Purchase additional M8 rail cars to replace the aging M2 fleet, and begin operations along the New Haven Line.
- Purchase additional locomotives and coaches for the MetroNorth New Haven Line and Branches
- Expand intrastate commuter rail service
- Improve and expand rail parking
- Replacement of Stamford Transportation Center garage parking
- Complete design and rehabilitate the Walk and Saga Bridges
- Continue to fund and to develop services, marketing and amenities to support the use of rail, including bus and shuttle commuter connections, local and inter-regional bus services, waterborne transit, bicycle facilities and pedestrian connections.
- Implement projects to attain and maintain a state of good repair for rail infrastructure and rolling stock.

Bus Transit Infrastructure and Operations

- Implement projects to attain and maintain a state of good repair for bus systems, including infrastructure, ITS and rolling stock.

Other needed near term projects

The Plan recommends immediate implementation of certain new near-term projects and programs, including:

- Enhanced rail and bus services in the Route 7 corridor between Norwalk and Danbury, including increased Danbury Branch rail service oriented to work trips in the Route 7 corridor, express bus from the Danbury area to Stamford via I-684, continued support for 7Link bus service and enhanced service, as well as incentive-based ridesharing programs similar to NuRides.
- Continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability and related measurement and evaluation capabilities in any and all applicable projects, as well as the State Incident Management System.

- Increased funding for bus services, including ADA companion service, increased commuter connections, and shuttles between rail parking and rail stations (South Norwalk and Stamford),
- Implementation of real time traveler information services

How is the 2007-2035 Plan different from the South Western Region Long Range Transportation Plan 2004-2030?

The new Plan extends the planning and programming timeframe to 2035. Unlike the last Plan, federal funding has been authorized. Funded projects are ones that are contained in the FFY2007-2011 Transportation Improvement Program, the ConnDOT 2007 Transportation Master Plan, and the ConnDOT Bureau of Public Transportation Capital Plan 2007-2027.

How much will it cost to maintain and operate the Region's transportation system?

The South Western Region Long Range Transportation Plan 2007-2035 is financially constrained. The cost to implement the Plan is estimated at \$4.2 billion, while the anticipated financial resources are \$5.1 billion. The net reserve balance is \$923 million, as shown in Table FAQ 1.

Table FAQ 1: Summary of Financial Resources and Needs			
South Western Region Long Range Transportation Plan 2007-2035			
Anticipated Financial Resources 2007-2035		Estimated Project Costs 2007-2035	
Funding Category	Estimated Funds	System Category	Estimated Cost
Highway System Improvements	\$1,454,422,869	Highway System Projects	\$617,873,600
Highway System Preservation	\$783,583,513	Highway System Preservation	\$707,236,065
Major State Projects	\$129,455,750	Major State Projects	\$203,600,000
		Region's STP-BS Projects	\$54,059,000
Subtotal	\$2,367,462,132	Subtotal	\$1,582,768,665
Transit Capital Program – Bus (a)	\$118,358,000	Transit Capital Program – Bus	\$ 1,582,768,665
Transit Capital Program – Rail (a)(b)	\$881,426,000	Transit Capital Program – Rail	\$118,358,000
Operating Subsidies – Bus	\$593,303,402	Operating Subsidies – Bus	\$881,426,000
Operating Subsidies – Rail (c)	\$844,872,950	Operating Subsidies – Rail	\$593,303,402
Subtotal	\$2,437,960,352	Subtotal	\$844,872,950
Discretionary Funding	\$169,000,000	Special Projects	\$2,437,960,352
Subtotal	\$169,000,000	Subtotal	\$30,003,528
Total Anticipated Funds	\$4,974,422,484	Total Estimated Project Costs	\$30,003,528
Net Reserve (Under Budget Limit)	\$923,689,939		

(a) Transit Capital Program figures include all projected near-term costs through 2011, and long-term costs provided for the period 2012-2027. To estimate costs through 2035, the figures for 2012-2027 were prorated and extended to 2035.

(b) Rail Transit Capital includes all rail projects related to Metro-North and Shore Line East, with 25% of the cost figures allocated to the South Western Region.

(c) The annual rail operating subsidy for the South Western Region was estimated to be 25% of the total annual subsidy for Metro-North and Shore Line East.

Note:

Improvements are projects and enhancements to promote safety, improve mobility, and increase system productivity or support economic growth.

Preservation and maintenance projects include paving, bridge repair or replacement.

**SOUTH WESTERN REGION
LONG RANGE TRANSPORTATION PLAN
2007-2035**

INTRODUCTION

The South Western Region of Connecticut is dependent on a balanced and well maintained multimodal transportation network that promotes a first-rate quality of life for residents, economic prosperity for businesses, and connectivity to neighboring regions for intrastate and interstate movement of persons and goods. Recent transportation expenditures and appropriations by the State of Connecticut require implementation to achieve these goals, while additional investments and enhancements are necessary to ensure that aging infrastructure and congestion do not stymie the advancements that have occurred. Furthermore, integration of responsible land use strategies into the transportation planning process is essential in the pursuit of smart growth initiatives and congestion relief.

This document is the update of the South Western Region Long Range Transportation Plan 2004 - 2030 to the time period of 2007 to 2035. This plan provides the framework for transportation planning, programming and decision-making that builds upon over twenty-five years of regional, municipal and state plans and transportation programming documents. After describing current events and trends in transportation policy making, and information on the South Western Region's location, characteristics and trends, information on the Transportation Plan update, goals and objectives, issues, challenges and responses will be presented for diverse elements along with a financial component summarizing needs and available resources.

South Western Regional Plan of Conservation and Development, 2006-2015

The Regional Plan of Conservation and Development, 2006-2015 (Regional Plan) for the South Western Region replaced the 1995 SWRPA Regional Plan of Conservation and Development in February 2006. The comprehensive Regional Plan's major principle is the concept of "centrality", which involves directing development to those places with the infrastructure available to support growth while at the same time restricting development in rural or environmentally sensitive areas. The Regional Plan also reinforces the need to preserve environmentally sensitive, rural and historically or culturally significant places. The plan also recognizes the need to integrate land use planning with transportation, infrastructure and critical facilities, and energy planning to ensure that our communities remain vibrant and sustainable for the future.

The Conservation and Development Policies Plan for Connecticut, 2005-2010

The Conservation and Development Policies Plan for Connecticut 2005-2030 (C&D Plan) replaced the previous state plan which covered 1997-2003. The C&D Plan consists of two separate but important, components – the Plan text and the Locational Guide Map. Both components include policies that guide the planning and decision-making processes of state government relative to: (1) addressing human resource needs and development; (2) balancing

economic growth with environmental protection and resource conservation concerns; and (3) coordinating the functional planning activities of state agencies to accomplish long-term effectiveness and economies in the expenditure of public funds.

The policies contained in the C&D Plan text provide the context and direction for state agencies to implement their plans and actions in a manner consistent with the following six Growth Management Principles:

- 1) Redevelop and Revitalize Regional Centers and Areas with Existing or Currently Planned Physical Infrastructure
- 2) Expand Housing Opportunities and Design Choices to Accommodate a Variety of Household Types and Needs
- 3) Concentrate Development Around Transportation Nodes and Along Major Transportation Corridors to Support the Viability of Transportation Options
- 4) Conserve and Restore the Natural Environment, Cultural and Historical Resources, and Traditional Rural Lands
- 5) Protect and Ensure the Integrity of Environmental Assets Critical to Public Health and Safety
- 6) Promote Integrated Planning Across all Levels of Government to Address Issues on a Statewide, Regional and Local Basis

As required, the development of SWRPA's 2006 Regional Plan was guided by that state's Growth Management Principles, and is consistent with the principles.

Development Area Policies in priority order are:

- 1) Regional Centers – Redevelop and revitalize the economic, social, and physical environment of the state's traditional centers of industry and commerce.
- 2) Neighborhood Conservations Areas – Promote infill development and redevelopment in areas that are at least 80% built up and have existing water, sewer, and transportation infrastructure to support such development.
- 3) Growth Areas – Support staged urban-scale expansion in areas suitable for long-term economic growth that are currently less than 80% built up, but have existing or planned infrastructure to support future growth in the region.
- 4) Rural Community Centers – Promote concentration of mixed-use development such as municipal facilities, employment, shopping, and residential uses within a village center setting.

Conservation Area Policies in priority order are:

- 1) Existing Preserved Open Space – Support the permanent protection of public and quasi-public land dedicated for open space purposes.
- 2) Preservation Areas – Protect significant resource, heritage, recreation, and hazard-prone areas by avoiding structural development, except as directly consistent with the preservation value.
- 3) Conservation Areas – Plan for the long-term management of lands that contribute to the state’s need for food, water and other resources and environmental quality by ensuring that any changes in use are compatible with the identified conservation value.
- 4) Rural Lands – Protect the rural character of these areas by avoiding development forms and intensities that exceed on-site carrying capacity for water supply and sewage disposal, except where necessary to resolve localized public health concerns.

The Locational Guide Map provides a geographical interpretation of the state’s conservation and development policies, which assists in the coordination of state actions.

Transportation Strategy Board (TSB)

In 2001, the Connecticut Legislature passed Public Act 01-5, “An Act Implementing the Recommendations of the Transportation Strategy Board (TSB)” with the stated purpose to enhance Connecticut’s economic position and quality of life through the development of a statewide transportation strategy. The TSB submitted an initial plan to the legislature in January 2002, which established strategic goals and underlying principals, as well as preliminary financial projections. There were a series strategic goals identified along with objectives, challenges, and active initiatives and programs, which can be found in Appendix C to this report.

The TSB action plan, Transportation: A Strategic Investment (January 2003) laid out the TSB’s 2003-2013 vision for a robust state economy supported by an improved and expanded transportation system This vision hoped for “a pristine set of shoreline and rural areas; stimulating urban centers; valued educational institutions; a hot bed for technology, bioscience and other critical industry clusters; and employment opportunities to enable all of its residents to pursue their dreams”. The transportation system would support the vision by employing various planning tools and strategies.

The TSB Status Report: July 2004 to the Legislature and Governor summarized Public Act 01-5 Section 16 services funded, including several additional commuter connection bus services, express and extended service for Shoreline East customers, and the Jobs Access and Dial-a-Ride program for Southeastern Connecticut. The report noted other projects that were started or implemented since January 2003 including funding for feeder barge service in Bridgeport, expansion of New Haven Line rail station parking, planning of Coastal Corridor highway operational improvements, marketing of Bradley International Airport, and review of the rail branch line efficiencies. In 2004, the CT Legislature also approved \$4.7 million in the State FY2005 for Section 16 projects.

In 2005, the TSB Status Report: January 2005 reiterated many key points portrayed in the 2003 TSB Action Plan, including the need to focus on projects in the Coastal Corridor that will assist in sustaining the economic vitality of South Western Connecticut. The TSB developed a prioritization of projects that the state should center its attention on, including improving and expanding interstate and intrastate rail, performing operational improvements to Connecticut's highways, developing alternative transportation modes, and increasing use of transportation demand management strategies. To address funding concerns, the TSB reiterated its support for an increase in the gasoline tax, evaluating additional potential revenue resources other than fuel tax increases, implementing congestion pricing on certain limited access highways, and linking programs related to land use and economic development to transportation. The TSB advocated for the pursuit of a dedicated special transportation fund through a shift of the Gross Receipts Tax to the Special Transportation Fund's Town Aid for Roads program. Further identification of revenue sources that could be invested in the transportation system was also called for. Passage of the \$1.3 billion Public Act 05-4 addressed various transportation initiatives through its funding of replacement rail cars, rail maintenance facilities, other rail improvements, operational improvements on I-95, and various other investments.

Following the investments signed into law in 2005, the TSB Status Report: January 2006 identified and reiterated initiatives that would contribute to sustainable economic growth and enhanced quality of life. These initiatives included rail station parking and platform expansions, a new rail station at West Haven/Orange, a New Haven-Hartford-Springfield Commuter Rail line, transportation demand management measures to enhance efficiency of transportation modes, implementation of recommendations by the Statewide Task Force on Incident Management, involvement in freight rail studies, congestion pricing and considering transportation, land use and economic development as a common thread. Public Act 06-136 shifted the TSB into the Office of Policy and Management for administrative purposes. Public Act 06-136 also included \$2.3 billion in appropriations for various improvements related to transit improvements, including upgrading rolling stock and meeting the costs of capital improvements on the State's rail network, improving service on the Danbury Branch and operational improvements on I-95.

In January 2007, the TSB issued its second plan, titled Moving Forward: Connecticut's Transportation Strategy – Report and Recommendations of the Transportation Strategy Board. To reflect the legislative advances that had occurred in recent years, the TSB considered implementation of approved initiatives to be its top priority, and addressed the need for “results based accountability” and “speed in execution”. The updated 2007 strategy had an increased focus on addressing and mitigating congestion by expanding and improving multimodal transit, improving safety and engaging in responsible growth, and embraced transportation demand management improved interstate cooperation. The 2007 Plan also restated the strategies initially approved in 2003.

Key specific recommendations related to the South Western Region are as follows:

Highways

- Undertake a comprehensive review and analysis of electronic tolls.

Commuter Rail

- Improve integration of New Haven Line, the branch lines, and Shore Line East.
- Purchase additional electric rail cars for use on the New Haven Line to increase reliability and support additional service.
- Support cost effective proposals for Metro North access to Penn Station and intermediate stops.
- Encourage transit-oriented development at and near rail stations.
- Develop, in consultation with local officials and commuters, a uniform policy concerning rail governance and implement as existing leases come up for renewal. The policy should provide for centralized oversight of rail stations and parking, uniform policies, permits and fees and should ensure adequate funding for station and parking area maintenance
- Expedite replacement of the Stamford rail station parking garage.
- Expedite design and construction of a Centralized Train Control system for the Danbury Branch Line.
- Expedite completion of the New Canaan and Waterbury Branch Line study, as well as the Danbury Branchline Electrification Study Phase 2.
- Funding and implementation of programmed improvements including rehabilitation of the Walk (Norwalk) and Saga (Westport) bridges; completion of other scheduled bridge replacements and rehabilitation; replacement of the catenary system on the MetroNorth line by 2014; replacement and improvement of electric sub stations; and, replacement and enhancement of the main line signal system.
- Support DOT's inclusion in its annual capital plan of an appropriate amount to lengthen the platforms at 14 Metro North stations to the preferred standard platform length of 850 feet to accommodate 10 rather than 8 coaches.
- Support the efforts of DOT, the Governor and the General Assembly to obtain voting representation for Connecticut on the MTA and the MetroNorth Board of Directors;....continue DOT's participation on a non –voting basis; and take other actions necessary to ensure the long term financial and operational vitality of the MetroNorth line as one of the most critical components of the State's transportation infrastructure.
- Continue to evaluate and enhance transit connections between rail stations and major residential and employment centers.

Bus Transit

- Design and implementan integrated multimodal transit network that uses a common brand identity and that takes into account all forms of bus service and provides links to the state's rail system.
- Review transit district funding formulas and requirements in order to ensure adequate funding for bus transit services and parity with state-owned or operated transit services, including Connecticut Transit.
- Provide additional transit districts with funding flexibility consistent with program accountability.
- Provide additional state matching funds for transit district capital projects.
- Continue state funding for the Jobs Access and Reverse Commute program while making maximum use of federal funds to support needed services.

- Identify and implement additional service opportunities as appropriate. Implement bus retrofits and other clean diesel initiatives.

Bus Rapid Transit

- Encourage the continued evaluation of other bus rapid transit services, whether dedicated or complementary to existing highways, in light of the anticipated results of the New Britain-Hartford busway, including its economic development contributions.

Bicycles and Pedestrians

- Provide dedicated bike space on passenger trains at all times of the day.
- Identify and remedy existing bicycle storage and parking deficiencies especially in urban centers and transportation centers.
- Adopt a policy of allowing bicycles to be carried on state funded bus routes and as new buses are ordered equip them to permit the carriage of bicycles.
- Encourage municipal and regional officials to work closely with DOT to include expanded bicycle and pedestrian facilities as a part of all roadway projects. Support the development and the implementation of the safe Routes to School program.

Rail Freight

- Develop a comprehensive analysis of the potential for enhanced rail service to and through Connecticut

Maritime

- Expedite the long overdue dredging of Bridgeport harbor.
- Support continued federal funding for development and completion of a Dredged Material Management Plan for Long Island Sound.
- Entertain and potentially fund proposals for feeder barge services from ports other than Bridgeport.

In a letter dated January 23, 2007 the SWRMPO provided the following comments on the TSB 2007 Plan to the Governor and TSB:

Highway recommendations deal with undertaking a comprehensive review and analysis of value pricing.

- Implementing this approach should also be mentioned because where it has been tried it has met with great success. The major benefits are usually fewer vehicles on the road, greater use of transit, cleaner air and a new revenue source that can be earmarked for transportation improvements.
- Having a transit network in place to absorb any auto trips that leave the road is essential. Transit is very important in a substantially built out area such as South Western.
- Describing the program, with “tolls” should not be used because this is viewed as negative branding especially in Connecticut where they were eliminated. The approach is also different, using boothless technology and applications from the information age.

- Alleviating the potential detrimental impacts on local roads and intra-city traffic, especially as related to emergency vehicles, is vital in framing a comprehensive program.

The transit recommendations cover a number of actions which we are pleased to support. However, there are two major exceptions:

- Rail station parking has emerged as the issue of greatest concern to us. The proposal is for a uniform policy and centralized oversight of rail stations as the leases come up for renewal. In our opinion, this proposal is too much like one shoe fits all feet and does not reflect the varied conditions at all stations. Some stations may be working fine, others perhaps might benefit from a state partnership and others may benefit from even more state participation. However, it is not a rational policy to promote one policy given the number and variety of conditions at the rail stations.

- With regard to buses, the major objective should be to move the bus from being stuck in traffic so that it can be a more attractive transit option. Bus rapid transit is the most viable approach to increasing usage. We want to encourage BRT services whether dedicated or complementary to existing highways. The South Western Region lacks the space for a busway such as the New Britain-Hartford route but skip stops, preferential green and distinctive branding, among other approaches, can achieve similar results along Route 1 from Greenwich to Westport, the coastal corridor and selected north-south routes into New Canaan, Wilton and Weston. To promote BRT, approaches other than just busways should be advanced.

The South Western Region Metropolitan Planning Organization strongly supports bicycle use with two major exceptions:

- The TSB report recommends dedicated bike space on passenger trains at all times of the day. In our view, the number of rail cars and their delayed delivery must be reconciled first given the number of seats lost by providing dedicated bike space.

- Another policy encourages municipal and regional officials to work closely with DOT to include expanded bicycle facilities as part of all roadway projects. Providing such facilities may not always be appropriate on all roadway projects.

An improved rail freight program is vital to the economy of the South Western Region and the Connecticut coastal corridor. The TSB only recommends a comprehensive analysis for enhanced rail service.

- New York City has completed a major investment study that supports a dedicated rail tunnel between the Greenville Yards in Jersey City and South Brooklyn which could be connected to the Bay Ridge Line in Brooklyn and to the Hell Gate Bridge to provide rail freight access along the Bronx, Westchester and Connecticut coast. Attention should be paid to implementing this much too long discussed project rather than doing yet another analysis.

With regard to maritime issues, while Bridgeport needs long overdue dredging, we would also like to see the TSB broaden their view so that Norwalk, Darien and

Stamford harbors are also included as municipalities in need of this treatment.

The South Western Region Metropolitan Planning Organization is very concerned that the TSB report has a strong commitment to responsible growth in its recommended allocation of capital resources.

- We suggest that the TSB report identify and give the highest priority to projects within the State's core employment and population centers. This is in keeping with South Western's, Regional Plan of Conservation and Development, 2006-2015 where the concept of "centrality" and development along corridors is promoted. For example, direct State investment of approximately \$35 million during the next ten years to support the expansion of antiquated MetroNorth overpasses within Stamford's downtown would not only bring about substantial congestion relief but more significantly would promote adjacent development in which residents will be able to walk, bike or use transit for their trips rather than further exacerbating the South Western's near gridlock conditions on the roads.

Coastal Corridor Transportation Investment Area (Coastal Corridor TIA)

To assist the TSB, Public Act 01-5 also created Transportation Investment Areas (TIAs) for 5 major corridors to provide local and regional input to the TSB. The South Western Region is part of the Coastal Corridor TIA which encompasses the I-95 corridor from Greenwich to Branford, Route 7 corridor, Route 8 and Route 25 corridors. Both SWRPA and the SWMPO have representation on the Coastal Corridor TIA.

In early 2002, the TIAs provided the TSB with its "top 5 priorities":

1. To relieve congestion on major arterials in the CCTIA, increase the number of trips using alternative modes of transportation (including rail, bus, ferry, telecommuting, bicycle, and pedestrian modes) and provide incentives for employers and users;
2. Develop cost-effective, efficient alternatives to trucks for the movement of goods;
3. Identify new, stable sources of funding, beyond federal and state sources, to support a multi-modal transportation system
4. Study the best practices in managing public transportation to determine how best to enhance focus on, accountability for, marketing of, and commitment to, public transportation in Connecticut.
5. Integrate land use and transportation planning.

In November 2002, The Coastal Corridor released its initial plan entitled Twenty-Year Strategic Plan for Transportation in the Coastal Corridor Transportation Investment Area (Initial Plan), which set forth a vision to provide "a transportation system that offers people and goods a choice of safe, convenient and integrated modes of transportation, including: (a) roads, (b) waterborne, (c) airborne, (d) rail and other modes of public transit and (e) facilities that make walking and bicycling viable transportation options. The Initial Plan restated the Coastal Corridor TIA's identified top priorities originally identified in early 2002, and identified a series of initiatives and recommendations to facilitate the movement of people and integrate transportation with

economic, land use, environmental and quality of life issues. An additional goal was to identify policies and sources that provide an adequate and reliable flow of funding necessary for a quality multimodal transportation system. Details on recommendations and goals of the Initial Plan can be found in Appendix C to this report.

The Coastal Corridor TIA re-endorsed its initial plan in 2004, with an additional recommendation to place a greater emphasis on roadway safety through development and implementation of a multi-faceted highway safety program featuring a statewide incident plan, increased traffic surveillance and enforcement; further incorporation of ITS into highway management, safety and enforcement; a program of public outreach and education targeting drivers of both passenger and commercial vehicles; expanded use of weigh stations to promote truck safety and freight security; an analysis of systems management techniques; and development of a legislative agenda that included larger penalties for motor vehicle violations. The Coastal Corridor TIA also encouraged improved north/south connectivity in the corridor, with a focus on operational and safety improvements along Route 7 and State Route 25, along with improved rail and bus transit along the Route 7 Corridor.

In 2006, the Coastal Corridor TIA re-endorsed its 2002 initial plan, amended for the additional strategy related to safety that was endorsed in 2004. The Coastal Corridor TIA also provided comments on the extent to which the TSB Connecticut lawmakers have addressed their endorsed strategies via a letter to the TSB Chairman. The letter stated that although there were some strategies and recommendations enacted in Connecticut, many of the positions of the Coastal Corridor TIA were either not supported by the TSB or acted on legislatively¹. The letter also provided a set of projects considered by the Coastal Corridor TIA needed to carry out Connecticut's transportation strategy, including development of a series plans and studies focusing on public transportation improvements, freight movement, and congestion pricing.

South Western Region Metropolitan Planning Organization (SWRMPO) Interactions with the TSB and Coastal Corridor TIA

Since the inception of the TSB and TIA, the South Western Region MPO and SWRPA staff have participated in the process in a number of ways, including: MPO-designated representatives to the Coastal Corridor TIA; MPO members and SWRPA staff participation in TSB working groups; and, ongoing review and communication of SWRMPO recommendations, policies, and priorities and recommendations to both the TSB and TIA.

The South Western Region Metropolitan Planning Organization Transportation Investment Area Plan for the Coastal Corridor (October 2001) was formulated to guide development of the Coastal Corridor's initial plan. The policy recommendations are still valid in 2007.

The SWRMPO supported **policy recommendations** that appeared in the draft CCTIA Plan and urged the State of Connecticut and the Transportation Strategy Board to do the following:

¹ Certain recommendations of the Coastal Corridor that were addressed in their 2006 letter to the TSB were included in the TSB 2007 Strategy Report, Moving Forward – Connecticut's Transportation Strategy.

1. Establish a Statewide Planning Division within the Connecticut Office of Policy Management for the comprehensive coordination and monitoring of various short and long-range plans, including but not limited to regional plans of conservation and development, long-range transportation plans, the Statewide Transportation Improvement Program, regional transportation plans, and town/city plans of development.
2. Advocate for the creation of a seat for the State of Connecticut on the Metropolitan Transportation Authority board.
3. Evaluate policies regarding overhead and side clearances on rail lines to identify changes necessary to increase opportunities for use of the state's rail infrastructure for interstate freight movement.
4. Streamline existing environmental review and approvals process to eliminate duplication of efforts and enhance coordination among local, state and federal agencies.
5. Create incentives to encourage transit-oriented development.
6. Expand the use of federal provisions shielding state agencies, municipalities and political subdivisions from liability associated with the clean-up, redevelopment or reuse of brownfields and other contaminated sites.
7. Institute a program through which the Connecticut Department of Transportation and other state agencies will acquire the skills and capacity to consider and model the impact of various transportation policies on the natural environment, land use, community character and quality of life.
8. ConnDOT should take full advantage of the flexible nature of many federal funding streams and allow municipalities and others to fund the construction of sidewalks and bicycle and pedestrian facilities where eligible.
9. Explore public/private partnerships that may lead to the private financing and operation of facilities in the public interest, such as truck stops and highway rest areas.

The SWRMPO recommended additional **policy recommendations** for the final Coastal Corridor TIA Plan, including:

1. Consistent with the principles of the Gallis report and Sections 4(b)(5) and 4(b)(13) of the Act, Connecticut state agencies need to reinforce collaboration both within the state and with appropriate agencies in neighboring states to ensure coordinated and compatible development of transportation and other infrastructure.
2. Examine procurement policies and practices to ensure that competitive bidding is used as a tool for containing costs and maximizing level and quality of service, particularly with long-term service contracts.

The SWRMPO supported a many of the **funding recommendations** in the draft Coastal Corridor TIA Plan, including:

1. Implement ConnDOT's intelligent transportation systems initiatives for highway and transit including, but not limited to, adequate diversion route signage and advisories, functional highway advisory radio broadcasts, route markers and other real time traffic information.
2. Purchase commuter rail equipment identified by ConnDOT and MTA as necessary to maintain existing and enhanced levels of service and reliability for interstate and intrastate commuters.
3. Conduct a corridor freight planning study to identify origin and destination movements; current and programmed freight delivery systems; recommended capital projects, policies and programs;

additional freight planning initiatives to augment initiatives currently underway in the tri-state area; and opportunities for public outreach and education about freight movement in the corridor.

4. Evaluate *value pricing* opportunities for highway and public transportation in the state.
5. Implement the recommendations of the *Statewide Bus Study*.
6. Conduct a site selection study for the expansion of the New Haven Line rail maintenance facilities and purchase land for a new rail service maintenance facility, as proposed in Section 16(a)(5).
7. Work in partnership with Amtrak, MTA Metro-North and rail labor unions to allow Shore Line East trains to run through New Haven to Bridgeport, Stamford and Greenwich for a two-year trial period, as proposed in Section 16(a)(9).
8. Expand bus services connecting with rail services in the Coastal Corridor TIA, as proposed in Section 16(a)(6).
9. Provide operating funding to expand bus services for existing and new western Connecticut commuters to utilize Metro-North's Upper Harlem Line for commuting to New York City and White Plains, as proposed in Section 16(a)(12).
10. Where the demand exists, provide for more inter-district, inter-town, inter-regional and interstate bus service like the Coastal Link, including routes linking rural communities.
11. Implementation of a demonstration project for a freight feeder barge service on Long Island Sound between the port facilities of New York and New Jersey and those in Bridgeport and New Haven, as proposed in Section 16(a)(21).
12. Fund a high-speed ferry from Bridgeport to Stamford to New York, as proposed in Section 16(a)(20).
13. Market the *Deduct-A-Ride* program and expand support for existing commuter incentive programs, including but not limited to *Deduct-A-Ride* and *TransitChek*, as proposed in Section 16(a)(3).*
14. Provide annual operating support to replace expiring *Access to Jobs* grants for the Coastal Link, later evening bus service route extensions and customized paratransit services for residents in the cities of Bridgeport, New Haven, Norwalk, Stamford and Waterbury, as proposed in Section 16(a)(1).*

* *Underlined text represents SWRMPO modification to projects as stated in the Act.*

Additional funding recommendations were recommended by the SWRMPO, including:

1. Evaluate operational and construction improvements to I-95 to relieve congestion and improve access in the corridor. Improvements to consider may include operational lanes between critical interchanges, “zipper lanes” to increase capacity in peak directions and strategic exit closures to discourage “local” traffic on I-95.
2. Develop and implement a universal fare card and collection system for all transit services statewide.
3. Partner with Amtrak to provide an additional peak period train from Connecticut to Penn Station for a two year trial period and promote monthly tickets from Connecticut to Penn Station, as proposed in Section 16(a)(10).
4. Study, and where appropriate, fund parking improvements at MTA Metro-North and Shore Line East stations in the Coastal Corridor TIA.
5. Develop “commuter connections” between transportation hubs, residential areas and employment centers.
6. Implement the recommendations from the *Route 7 Travel Options Implementation Plan*, prepared by the South Western Regional Planning Agency and the Housatonic Valley Council of Elected Officials. (Note: Although the draft CCTIA Plan supports the Danbury Branch Line improvements proposed in the *Route 7 Travel Options Implementation Plan*, the SWRMPO would like all elements of that plan to be funded.)
7. Enhance public transportation access to metropolitan area airports including Bradley, Kennedy, LaGuardia, Newark and Westchester County airports.

The SWRMPO's December 2001 recommendations to the TSB on the priorities for Section 16 funding were three projects that would contribute to reducing congestion and/or improving mobility along the I-95 and Merritt Parkway corridors and that were in the Region's long range transportation plan. The projects were:

- Incident Management Clearance Pilot. (Several Incident Management projects were funded, and the Clearance Pilot to speed removal of overturned tractor trailers was instituted, successfully according to the Connecticut Department of Transportation (ConnDOT), and the Connecticut Department of Public Safety (DPS).
- Commuter train service to New York's Penn Station via Amtrak. (This is included in the TSB 2007 Plan).²
- Passenger ferry service between Bridgeport, Stamford and New York City (Studies are underway in 2007, and supported by the TSB 2007 Plan.)

In response to the TSB's 2002 request for five priorities for the TSB plan, the SWRMPO³ identified the top 5 priorities as:

1. **Order new rail cars.** Increased commuter rail capacity is needed in order to attract and retain new riders, particularly to intrastate services. One hundred (100) new rail cars should be ordered by 2006, as recommended in the Connecticut Department of Transportation's fleet configuration study. Adequate maintenance and repair facilities also must be developed to ensure that Connecticut's commuter rail fleet remains safe and reliable.
2. **Increase rail parking at New Haven Line stations.** Additional parking capacity is needed within the South Western Region to meet existing demand. Additional parking capacity is also needed east of Westport in order to encourage drivers to commute to intrastate locations by rail, thereby reducing congestion on the Region's highways and arterials.
3. **Expand intrastate commuter rail service.** Access to "subway-style" service along the New Haven, Danbury and New Canaan branch lines will facilitate intrastate commuting and reduce traffic congestion on the Region's roadways.
4. **Fund the Stamford Urban Transitway project.** The Urban Transitway will provide a single point of access to local and regional bus service, commuter rail, Amtrak and ferry services within downtown Stamford. Easy access to a variety of transportation services will promote use of mass transit and decrease reliance on personal vehicles.
5. **Improve transportation connections serving the South Western Region.** Rail service, local and inter-regional bus services, waterborne transit, bicycle facilities and pedestrian connections should be used in combination to link housing, employment, retail and transportation centers to encourage use of mass transit.

State of Connecticut Funding for Transportation

The CT Legislature established the TSB with Public Act 01-5 that included funding for identified projects, in Section 16 of the Act. The funding, originally drawn from a projected budget surplus of \$50 million, was reduced to \$36 million. Between 2002 and 2004, investments totaled \$27

² Moving Forward: Connecticut's Transportation Strategy – Report and Recommendations of the Transportation Strategy Board, January 2007

³ SWRMPO letter dated April 26, 2002 to TSB.

million. In 2004, the CT Legislature approved \$60 million for TSB-supported projects for purchase rail rolling stock and rail maintenance facilities, and \$4.5 million for Section 16 projects.

In 2005, Public Act 05-4 was signed into law, dedicating \$1.3 billion to repair and replace Connecticut's aging transportation infrastructure and equipment, highlighted by an appropriation of funding for the complete replacement of the New Haven Line railcar fleet through the purchase of 342 M8 cars and the construction of a new fleet maintenance facility in New Haven. Public Act 05-4 addressed a multitude of other multimodal transportation needs through funding of 25 new transit buses, operational improvements on Interstate 95, improvements on roadways other than I-95 based on consultation with regional planning agencies, assistance to municipal dial-a-ride programs to improve mobility for seniors and persons with disabilities, and bond authorizations for various transportation programs. A \$1 surcharge on MetroNorth tickets to be imposed beginning in 2008 was also approved into law.⁴

An additional \$2.3 billion was appropriated in 2006 with passage of Public Act 06-136. Funding supplied through Public Act 06-136 were intended for strategic transportation projects and investments such as the rehabilitation of passenger coaches for the New Canaan, Danbury and Waterbury Branches, funding for capital improvements along the branch lines, funding for parking and rail station improvements across the state rail network, additional service on the Danbury Branch and Shore Line East and support for transit oriented development. Public Act 06-136 also provided a significant investment in other regions, including funding for New Haven-Hartford-Springfield commuter rail service and a busway between Hartford and New Britain.

Responsible Growth

Land use and transportation policies are inextricably linked. In any community, land use policies and practices are factors in determining the feasibility and, hence, the availability of transportation options. In fact, research has shown that population density, balance between residential and commercial land uses, connectivity of travel routes and regional accessibility impact vehicle trips, vehicle miles traveled, and availability and choice of travel options.

In 2006, Governor M. Jodi Rell issued Executive Order #15, which created an Office of Responsible Growth to focus on issues related to containing sprawl and protecting Connecticut's natural resources through initiatives that bridge the land use and transportation connection. The following excerpt from Executive Order #15 highlights Governor Rell's directive:

- 1) There shall hereby be created an Office of Responsible Growth within the Office of Policy and Management.
- 2) The Office of Responsible Growth shall be responsible for the following:

⁴ As of March 2007, there were efforts to legislatively amend the \$1 surcharge, which have been contested by rail passenger advocacy groups and some South Western Region legislators.

- a. **Chairing an Interagency Steering Council**, consisting of the Commissioners of the Department of Economic and Community Development, Department of Environmental Protection, Department of Agriculture, Department of Transportation and the Department of Public Health as well as the Executive Directors of the Connecticut Housing Finance Authority and the Connecticut Development Authority, to coordinate policy development and capital planning in an effort to efficiently utilize state expertise and financial resources.
- b. **Creating Regional Roundtables** that will invite the ongoing participation of city and town officials and foster the development of planning agendas tailored to the specific needs of different parts of our state, starting with new transit corridors.
- c. **Developing support and incentives for communities** to engage in regional planning, to update zoning maps and ordinances and to build the capacity of municipal staff, boards and agencies to make complex land use decisions. This effort will include the establishment of a new municipal training program that will be created in conjunction with regional planning organizations, the Connecticut Land Use Academy and resources that already exist in our state's colleges and universities.
- d. **Updating the "Green Plan" for Connecticut** by June of 2007 to better identify sensitive ecological areas and unique features, guide acquisition and preservation efforts, support local build-out maps and assessments, and make these and other maps accessible to state agencies, regional planning agencies, local communities and nongovernmental organizations through geographic information systems (GIS).
- e. **Reviewing transportation policies and projects** to increase opportunities to promote mass transit and roadway design that support state and local economic development while preserving and enhancing the character, as well as the "walkability," of our communities.
- f. **Expanding housing opportunities** to meet the needs of all Connecticut residents and support an expanding workforce with housing that provides ready access to passenger rail and bus service.
- g. **Reviewing all State Funding** that has an impact on the growth and development of Connecticut and establishing criteria that will target funds for uses that are consistent with goals that emerge for responsible growth.
- h. **Targeting economic incentives** to support development in designated Responsible Growth areas.
- i. **Creating a new "Green and Growing" webpage** to highlight best practices and develop a virtual toolbox and roadmap to promote Responsible Growth region by region and community by community.

- 3) The Office of Responsible Growth shall be housed within the Intergovernmental Policy Division of the Office of Policy and Management. Two additional planning staff shall be added to the existing planning staff in the Division.
- 4) The Secretary of the Office of Policy and Management shall designate a member of his staff to serve as the State Responsible Growth Coordinator.

Progress Was Made in the Last Three Years Since the 2004 Long Range Transportation Plan

In addition to the financial investments approved by Public Acts 05-4 and 06-136, there has been measurable progress in some areas since 2004. Major highway and transit construction projects were completed, design on priority projects continued, bus and rail services were enhanced, and important planning studies were completed, while others were initiated. Some of the key successes include:

- Rail improvements – including ongoing rehabilitation of M2 rail cars, Construction of a new rail fleet maintenance facility in New Haven in 2006, ADA compliance improvements at Greenwich and Westport rail stations, repairs to the parking garage at Stamford Transportation Center, along with other rail infrastructure improvements for maintenance, power, communications described in the Rail System: Passenger Service section of the Plan.
- Bus improvements - Completion of the new CT Transit Stamford maintenance facility occurred in 2005, replacement buses for Norwalk Transit District and CT Transit Stamford continued as scheduled, upgraded on-board technology was installed on Norwalk Transit District buses, and construction of physical enhancements such as improved signage, installation of bike racks and construction of bus shelters took place.
- Highway improvements – Operational improvements to I-95 have been fast-tracked, with speed change lanes between I-95 Exits 10 and 12 currently in construction and the next set of speed change lanes in design between Exits 12 and 13, construction began on the widening of Route 7 in Wilton between Wolf Pit Road and Olmstead Hill Road (Project 161-118,121), Merritt Parkway Gateway, resurfacing, bridge and safety projects have been completed.
- Key studies have been funded, initiated, or completed - The ConnDOT Danbury Branch Electrification Feasibility Study Phase 1 to evaluate the feasibility of electrifying the Danbury Branch Rail Line with the objective of reducing travel times on the Danbury Branch, was completed in 2006. A scope for Phase 2 Danbury Branch Electrification Feasibility Study of the study was released. The Darien and Norwalk Parking Study was also released. Funding is approved for a SWRPA and HVCEO study of Route 7 needs between Olmstead Hill Road, Wilton, and Route 35, Ridgefield ConnDOT initiated the Rest Area and Service Plaza Study, with participation of stakeholders including SWRPA, Darien, New Canaan, and Greenwich. Study completion is targeted for FY2008. SWRPA is conducting a study of Darien Route 1 circulation, congestion and access management. Funding is approved for a SWRPA study of Route 1 operations and access management study in Greenwich and Stamford from the vicinity of the NY state line to Washington Boulevard.

Setbacks Occurred in the Last Three Years

There have also been setbacks in implementing needed transportation projects. The setbacks are attributable to design delays, permitting complications, financial constraints, and other factors, and include:

- The lawsuit of the Merritt Parkway Conservancy, National Trust for Historic Preservation, CT Trust for Historic Preservation and others in 2005 against the USDOT Federal Highway Administration, halted the first phase of the Route 7 and 15 interchange project (Project #102-312). As of March 2007, the parties are in discussion about the alternatives and next steps. The Danbury Branch signal and communications system continued to be hampered by delays. The revised ConnDOT schedule for this project (#302-0007) has pushed back the start date for construction to 2007.
- There has been no proactive congestion management or construction mitigation planning for the Route 7 corridor from Norwalk to Danbury and beyond to Brookfield and New Milford unlike the I-95 Pearl Harbor Bridge/New Haven corridor where a comprehensive mitigation program increased rail service on Shore Line East. Disruptions caused by the confluence of construction activities on the highways, rail line, power transmission lines, and continued growth of commuter traffic will be significant in the coming years.
- Congressional delays in appropriation of FFY2007 funding have delayed initiation of an East Main Street rail station study.
- Project 102-278 in Norwalk was originally planned to provide safety and operational improvements to I-95 between Interchanges 15 and 14. Drainage improvements for I-95, raising of bridges over I-95 to attain the a vertical clearance of 16'6", along with public involvement, and permitting issues are increasing the cost and delaying the start date from the previously anticipated advertising in spring of 2008.

This update of the region's long range transportation plan to 2035 occurs within a financially constrained framework, with federal transportation funding essentially flat for the state and depleted by earmarks for special projects, and costs increasing due to energy and construction materials and labor. When the 2004 Transportation Plan was prepared, the mainstay of regional and state transportation planning and programming, authorized federal transportation funding was being extended by continuing Congressional resolutions instead of approval for the 2003-2009 period. A similar situation exists now, in 2007, with a Congress elected in 2006 that resulted in a shift of party control. The FFY2007 federal transportation funding has not been approved though continuing resolutions have been passed. Because certain federal transportation funding programs cannot be programmed, the stalemates experienced between 2003 and 2006 have occurred again. As noted in the 2004 Plan, the unpredictable funding situation has forced state departments of transportation to use available funds to cover active project cost increases, and limit initiation of new or major projects. In concert with the requirement that long range transportation plans be financially constrained and must program projects only within available funds, this plan restates and emphasizes the region's long term priorities and projects. New projects, plans and programs are generally classified as future un-funded needs. Beginning with a description of the region and its characteristics, the Transportation Plan and the transportation planning process will be described, followed by goals and objectives, and then specific plan elements.

Regional Context

The South Western Region's Transportation network is heavily influenced by the planning programs of the neighboring regions and the statewide policy initiatives and priorities of ConnDOT and the State of Connecticut. Furthermore, the South Western Region's dual role as a regional employment center and a bedroom community for employees working in Westchester County and New York City call out the need to consider the implications of transportation plans for the greater New York City metropolitan area. The regional context in which the South Western Region Long Range Transportation Plan 2007-2035 exists underscores the importance of the South Western Region's coordination with its peer agencies.

Although the individual priorities and initiatives of each individual plan differ based on the specific needs of the regions represented by the plans, each shares the eight common planning factors that are required under SAFETEA-LU⁵:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and, efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized users;
4. Increase the accessibility and mobility of people and for freight;
5. Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient systems management and operation; and,
8. Emphasize the preservation of the existing transportation system.

The following section highlights the key policies of the transportation plans of related transportation plans, and describes their relationship to the South Western Region:

ConnDOT

The 2007 ConnDOT Master Transportation Plan (MTP) represents the planning priorities of the State of Connecticut in regards to its transportation, and is consistent with the planning principles put forward by the TSB. Noting the difficulties of expanding its transportation system in past years, the MTP recognizes the importance of addressing mobility needs through improved integration of transportation planning and land use planning. The MTP is multimodal in nature, and seeks to "maximize use of the existing transportation system", utilize TDM measures, and improve infrastructure through state funding sources provided in recent legislative sessions.

⁵ The NYMTC 2005-2030 Regional Transportation Plan was adopted prior to the implementation of SAFETEA-LU, and therefore conforms to TEA-21. Although SAFETEA-LU planning factors two and three were previously consolidated into one objective under TEA-21, the planning objectives of SAFETEA-LU and TEA-21 do not differ significantly. NYMTC is planning on adopting a Plan Addendum in conformity with SAFETEA-LU by July 2007.

The MTP identified mobility as a primary issue facing Connecticut's transportation network, and identified five challenges facing the state, including availability of funding for transportation services and facilities, the need to maintain and improve the highway system, demand for public transportation as a result of welfare reform, mobility for seniors and persons with disabilities, and dredging of ports and channels.

The MTP incorporates all projects included in the South Western Region Transportation Improvement Program (TIP). This includes projects related to the New Haven Line and its branches, improvements to the local bus networks, and highway improvements along I-95, Routes 1, 7, and 15. The plan also describes various transit and highway projects of statewide importance outside the South Western Region, including a broad goal of widening all interstate highways to at least six lanes, completion of a bus rapid transit system in the Hartford/New Britain Area, improvements to the state's airports, and waterways.

Housatonic Valley

The region represented by the Housatonic Valley Council of Elected Officials (HVCEO) borders the South Western Region to its north. With a population that has been growing at rate far exceeding that of the rest of Connecticut, the Housatonic Valley has witnessed an increased occurrence of employees commuting to South Western Region employment centers in Stamford, Norwalk and Greenwich. Much of the pressure resulting from these commuting patterns is concentrated along the shared Route 7 Corridor. The HVCEO Regional Transportation Plan (HVCEO Plan) supports a variety of initiatives to improve transportation along the Route 7 Corridor, although it does not support proposals to construct an expressway between Danbury and Norwalk. Similar to SWRPA, the HVCEO plan aims to conduct a needs assessment of the Route 7 Corridor between Olmstead Hill Road and Route 35, and establish an implementation program for context sensitive enhancements, including widening and other capacity improvements.

Recognizing that a multimodal approach to improving Route 7 is needed, the HVCEO plan has defined the upgrading of signals along the Danbury Branch of MetroNorth to centralized traffic control as a legislative priority. Completion of the long delayed project is necessary to reduce travel times and successfully meet HVCEO's goal of upgrading the rail line to the extent necessary to become a "more vital component of Western Connecticut's transportation infrastructure." To fulfill this initiative, a reorientation of service to Stamford rather than New York City is called for, along with increased and enhanced service along the branch.

Additionally, promotion of transit oriented development along the Danbury Branch is advised, including a proposed multimodal center in Georgetown. Parking improvements at rail stations are also recommended, along with fixed route bus service to the rail stations. For New York City bound commuters, improved commuter connections to stations along the Harlem Line are suggested, as optimal travel times that may result from service enhancements along the Danbury Branch would still fall short of those offered on the Harlem Branch. In regards to the Danbury Branch Electrification Study, HVCEO hopes that its municipalities, SWRPA, and citizen groups will all come together to support a common recommendation.

The other key transportation node in the HVCEO region is Interstate 84, which alternatively serves as a bypass route for I-95 through the South Western Region. The HVCEO plan supports expansion of I-84 to “meet the demands of current growth and facilitate future economic growth”, and believes that upgrading must be a “high statewide priority”, as it is necessary to “insure economic viability for all of Connecticut”. Expansion of I-84 in New York State east of I-684 would also need to be considered. In the near-term, HVCEO is calling on ConnDOT to perform an environmental assessment of I-84 between Waterbury and the New York State Line, and completing the upgrade of interchanges in the immediate vicinity of Danbury.

Greater Bridgeport

Bordering the South Western Region to its east, the Greater Bridgeport Planning Region is a diverse area encompassing Connecticut’s largest city and areas more suburban and even rural in nature. The recent population growth in the Greater Bridgeport Region has been modest, with its smaller municipalities’ growth rates far exceeding those of its more urbanized areas. Although the Greater Bridgeport Region’s population growth is expected only be 6.6% through 2040, employment growth in the region is projected to be over 33%. Such growth will surely have an impact on the major transportation corridors that are shared by the Greater Bridgeport and South Western Regions.

The Greater Bridgeport Regional Planning Agency (GBRPA) has developed the Regional Transportation Plan for the Greater Bridgeport Planning Region 2007-2035 (GBRPA Plan) with a primary objective of pursuing a “balanced transportation system”, including preservation and maintenance of existing infrastructure, enhancement of mobility and expansion of capacity in a multimodal fashion. The GBRPA Plan identifies a series of recommendations related to passenger rail to achieve these goals, many of which are in alignment with SWRPA’s Long Range Transportation Plan recommendations for the New Haven Line of MetroNorth. These include upkeep of the right of way in a state of good repair, rehabilitation and replacement of the catenary, structures, track and bed, purchase of new rail cars to replace the aging M2 fleet, and expanding parking capacity and improving access in various locations. ITS advancements such as real time traveler information for transit and a regional electronic transit fare and integration system are also supported.

In addition to rail, the GBRPA plan also is pursuing other transit improvements with the potential of providing regional improvements. The GBRPA plan advocates for enhanced bus transportation on a regional basis, and looks to enhance human service transportation as defined in the LOCHSTP plan which also encompasses the South Western Region. The Coastal Link bus service can also benefit from the broad goals to expanded fixed route bus service and development of satellite transit hubs and transfer centers. Improvements to waterborne transportation infrastructure are needed to develop high-speed ferry service that can connect Bridgeport to Stamford and Manhattan, and allow for increased containerized freight activity in the Port of Bridgeport that could assist in relieving pressure on the region’s roadways.

The Greater Bridgeport Region’s highway system is linked to the South Western Region by Interstate 95, Route 15 and Route 1. Various improvements are called for on each roadway, including interchange/intersection improvements, the addition of lanes at key locations, and

other operational improvements. Preservation and maintenance is also pursued, through periodic resurfacing, reconstruction and rehabilitation projects. Support of the Congestion Management System Program and implementation of ITS Architecture such Enhanced Corridor Highway Operations Systems is also recommended.

New York State

The transportation initiatives in neighboring New York State are of paramount interest to the South Western Region, as many local residents travel daily to their workplaces in New York City and Westchester Counties. Additionally, commuters residing in New York City, Westchester, Rockland, and Putnam Counties and beyond are also increasingly destined for worksites in the South Western Region. As a result of the regional issues that arise from an economy and transportation system that transcend state borders, the transportation plans of entities within New York State are of particular interest to the South Western Region.

The New York State Department of Transportation identifies its statewide transportation goals in its document entitled Strategies for a New Age: New York State's Transportation Master Plan for 2030 (NYSDOT Plan). Among its strategies, the NYSDOT Plan focuses on realizing a vision of a seamless transportation system with a focus on designating major multimodal transportation corridors. Interstates 95, 84 and 287 have been identified as “trade corridors” which connect major commerce centers in New York and Connecticut. ITS is prominent in the NYSDOT Plan, with recommendations for “managed lanes” on highways such as the Tappan Zee Bridge, improved real time technology on highways, expanded E-Z pass and improved incident management. Targeted capacity expansion to facilitate the movement of goods in the downstate region is also recommended, with a focus on improving rail and waterborne movement of freight.

Noting the importance of an efficient mass transit system in the Downstate Region of New York, the NYSDOT Plan highlights the need for capacity and service improvements, such as expansion of rail transit and bus service in New York City and its suburbs, improved bus service including bus rapid transit, and an expansion of ferry services. Additional recommended strategies of note include maintaining infrastructure in a state of good repair, improving rail/highway connections, providing adequate parking at public transportation access points, coordinating transfers between transit modes, and improving connections to airports via transit. New York State also aims to manage travel demand through increased efficiency of public transportation.

The New York Metropolitan Transportation Council (NYMTC) is the MPO that represents New York City, Long Island and the lower Hudson Valley. NYMTC's 2005-2030 Regional Transportation Plan (NYMTC Plan) was released in 2005, and included objectives such as improving the regional economy, enhancing the regional environment, improving the regional quality of life, providing convenient, flexible transportation access and obtaining necessary resources to implement transportation improvements. To meet these objectives, The NYMTC Plan describes a multitude of investment proposals that are of specific interest to the South Western Region.

The Tappan Zee Bridge Long-Term Needs Assessment and Alternative Analysis for the I-287

Corridor, and a related environmental review are currently ongoing. As of April 2007, a series of alternatives are being considered, ranging from rehabilitation of the existing structure to construction of a new bridge with multimodal transit options along the I-287 corridor in Rockland and Westchester Counties. Penn Station Access for MetroNorth options under consideration would provide a direct connection to Penn Station from the New Haven Line, maximizing the use of existing rail infrastructure and potentially result in reduced automobile based pollution and improved flexibility on the region's rail network. The extension of the #7 Train of the New York City Subway to the Far West Side of Midtown Manhattan would provide an important Connecticut commuter rail link for the anticipated economic development projects and employment opportunities likely to occur in association with development in the vicinity of Hudson Yards and the construction of a second passenger rail tunnel under the Hudson River that is the cornerstone of the Access to the Region's Core project. The NYMTC Freight Plan includes discussion of a cross-harbor freight tunnel, which would expedite rail freight destined for Connecticut and points east. Other proposals include major investment studies for I-84 from I-684 to the Connecticut State Line, consideration of improvements to airport access via rail, including Stewart Airport in Newburgh, improvements to the region's waterborne transportation network, and congestion mitigation as part of an I-95 congestion management plan and related proposals to arise from the CMS Vision 2020 report issued by SWRPA.

In 2006, ConnDOT published Transportation in Connecticut: Trends and Planning Data, which described a series of other transportation projects being undertaken or under consideration by the State of New York through NYSDOT or the New York State Thruway Authority (NYSTA). The NYSTA has undertaken a capacity project along the New England Thruway (I-95 in Westchester and Eastern Bronx Counties), and is also planning a corridor study of after 2010. NYSDOT is planning on pursuing operational improvements along its highways, including the widening of I-84 between I-684 and the Connecticut State Line, reconstructing I-287 between White Plains and I-95, and reconstructing the entire length of I-684.

THE SOUTH WESTERN REGION

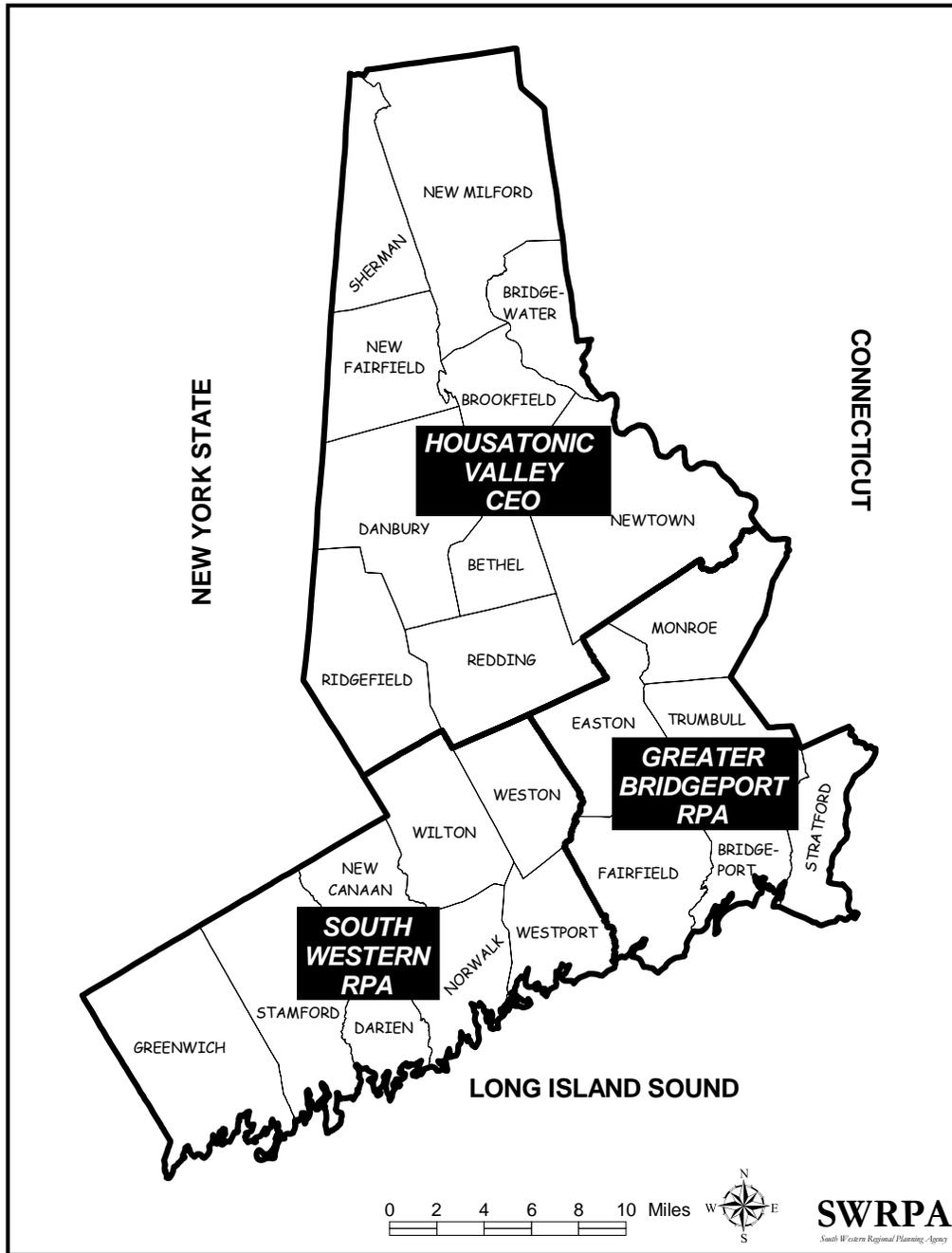


Figure 1. South Western Region Location

The South Western Region (“the region”) is comprised of eight municipalities: Darien, Greenwich, New Canaan, Norwalk, Stamford, Weston, Westport, and Wilton. The region is bordered by the Housatonic Valley Planning Region on the north, the Greater Bridgeport Planning Region on the east, Long Island Sound on the south, and New York State on the west and northwest.

REGIONAL CHARACTERISTICS

Connecticut's South Western Region ('the region') comprises eight municipalities in Fairfield County and is part of the New York City metropolitan area. The region and the remainder of the New York metropolitan area are linked economically by a shared workforce and a concentration of financial services firms. Located along the northeast corridor between New York and Boston, the region is an important gateway between New England and the Mid-Atlantic. As a result, economic growth and land use changes in the region impact not only the local transportation system but also the significant flow of traffic through the region.

Population

Between 1990 and 2000, the population of the South Western Region increased by 7.2% or approximately 24,000 persons to 353,556. This increase is a reverse from the previous two decades when most municipalities in the region experienced declining or stagnant population. By 2004, it was estimated that the region's population had grown by approximately 8,600 persons, or 2.4% since 2000.

Table 1. Population: South Western Region, 1990-2000

Area Name	Population		Percent Change 1990-2000	State Rank 2000 Population
	1990	2000		
Darien	18,196	19,607	7.8%	51
Greenwich	58,441	61,101	4.6%	10
New Canaan	17,864	19,395	8.6%	53
Norwalk	78,331	82,951	5.9%	6
Stamford	108,056	117,083	8.4%	4
Weston	8,648	10,037	16.1%	94
Westport	24,410	25,749	5.5%	39
Wilton	15,989	17,633	10.3%	65
South Western Region	329,935	353,556	7.2%	3¹
Connecticut	3,287,116	3,405,565	3.6%	--

¹ The South Western Region is third in population as compared with the other regions of the state.

Source: Connecticut Department of Economic and Community Development, Connecticut Population Information, Population of Connecticut Towns, 1970-2000

The South Western Region is the third most populous of Connecticut's planning regions behind the Capital Region, which includes Hartford and the South Central Region, which includes New Haven. The region is the second most densely populated planning region behind only the Greater Bridgeport Region. Stamford, Norwalk and Greenwich are among the top ten most populated municipalities in Connecticut, ranking third, sixth, and ninth, respectively.

During the 1990s, all of the region's municipalities experienced population growth in excess of the state's population growth rate of 3.6%. Weston experienced the largest percent growth (16.1%) while Stamford experienced the largest absolute growth (approximately 9,000 persons).

Since 2000, population growth has continued at a steady pace for all eight municipalities. Total population for the region is estimated to have increased by approximately 8,600 persons or 2.4%.

Stamford experienced the most absolute growth (approximately 3,100 persons) while Darien experienced the greatest percentage growth (4.8%). Only Darien, New Canaan, and Westport had population growth in excess of the state's growth rate (2.9%) during this period.

Table 2. Population Estimates: South Western Region, 2000-2005

Geography	Census (Decennial)	Conn. Dept. of Public Health Estimates					Census (ACS)
	2000	2001	2002	2003	2004	2005	
Darien	19,607	20,049	19,887	19,921	20,547	*	
Greenwich	61,101	61,606	61,784	61,972	62,317	*	
New Canaan	19,395	19,882	19,734	19,839	19,965	*	
Norwalk	82,951	82,617	84,127	84,170	84,412	86,354	
Stamford	117,083	117,267	119,850	120,107	120,160	118,568	
Weston	10,037	10,199	10,229	10,239	10,263	*	
Westport	25,749	26,514	26,171	23,620	26,564	*	
Wilton	17,633	17,999	17,860	17,909	17,965	*	
South Western Region	353,556	356,133	359,642	357,777	362,193	*	
Fairfield County	882,567	885,368	896,202	899,152	903,291	884,050	
Connecticut	3,405,565	3,425,074	3,460,503	3,483,390	3,503,604	3,394,751	

Source: US Census Bureau, Summary File 3, 2000, American Community Survey, 2005

* denotes data not available

Connecticut Dept. of Public Health, Population Estimates for Counties and Towns

According to projections from ConnDOT, all eight municipalities are projected to experience sustained population growth through 2040. Stamford is projected to experience the most absolute growth (approximately 29,000 persons) while Weston is projected to experience the most percentage growth (29.7%). New Canaan is projected to experience both the smallest absolute growth (approximately 1,500 persons) and percentage growth (7.7%). Overall, the region is projected to add approximately 60,000 persons, or 16.8%. This rate of growth is stronger than what is forecast for Fairfield County's (13.8%) but weaker than what is forecast for the state (17.6%).

Table 3. Population Projections: South Western Region, 2000-2040

Geography	Census (Decennial)	ConnDOT Series 27B Projections				
	2000	2005	2010	2020	2030	2040
Darien	19,607	19,869	20,130	20,500	20,880	21,304
Greenwich	61,101	61,586	62,070	65,170	68,300	70,700
New Canaan	19,395	19,548	19,700	20,110	20,510	20,882
Norwalk	82,951	84,631	86,310	88,270	90,210	92,630
Stamford	117,083	120,587	124,090	131,400	138,800	146,039
Weston	10,037	10,409	10,780	11,520	12,270	13,014
Westport	25,749	26,395	27,040	27,940	28,400	29,284
Wilton	17,633	17,867	18,100	18,470	18,830	19,229
South Western Region	353,556	360,892	368,220	383,380	398,200	413,082
Fairfield County	882,567	897,332	912,080	943,040	974,070	1,004,571
Connecticut	3,405,565	3,475,016	3,544,380	3,696,560	3,853,000	4,004,271

Source: US Census Bureau, Summary File 3, 2000; Connecticut Dept. of Transportation, Series 27B

According to the 2000 Census, 81% of the region's population identify themselves as White while 9% identified themselves a Black or African American, 4% as Asian, and 6% as some other race. Among the entire population, nearly 40,000 persons, or 11% of the total population identified themselves as Hispanic or Latino, which is counted separately from race by the Census. The region's minority population tends to be concentrated in its two largest municipalities, Stamford and Norwalk, and to a lesser degree in Greenwich.

Table 4. Population by Race: South Western Region, 2000

Geography	Total Population	White, not Hispanic		Black or African-American, not Hispanic		Asian, not Hispanic		Other Race(s), not Hispanic		Hispanic or Latino, any race	
		Count	%	Count	%	Count	%	Count	%	Count	%
Darien	19,607	18,468	94.2%	77	0.4%	602	3.1%	139	0.7%	321	1.6%
Greenwich	61,101	52,255	85.5%	1,173	1.9%	3,250	5.3%	797	1.3%	3,626	5.9%
New Canaan	19,395	18,304	94.4%	139	0.7%	378	1.9%	161	0.8%	413	2.1%
Norwalk	82,951	53,283	64.2%	12,290	14.8%	2,603	3.1%	1,857	2.2%	12,918	15.6%
Stamford	117,083	71,474	61.0%	17,351	14.8%	5,718	4.9%	2,971	2.5%	19,569	16.7%
Weston	10,037	9,435	94.0%	97	1.0%	207	2.1%	164	1.6%	134	1.3%
Westport	25,749	24,013	93.3%	217	0.8%	675	2.6%	292	1.1%	552	2.1%
Wilton	17,633	16,635	94.3%	66	0.4%	495	2.8%	146	0.8%	291	1.7%
South Western Region	353,556	263,867	74.6%	31,410	8.9%	13,928	3.9%	6,527	1.8%	37,824	10.7%

Source: US Census Bureau, 2000 Census, Summary File 3

Income and Housing

Within the region, median household income varies by municipality. In 2000, the region's median household income was \$76,554, which was significantly higher than the state average of \$53,935. Darien had the highest median household income at \$146,755, followed closely by Weston, New Canaan, and Wilton. In fact, median household income in these four municipalities as well as in Westport was more than double the state median household income. Norwalk and Stamford have the lowest median household incomes in the region, at \$59,839 and \$60,556 respectively.

Table 5. Educational Attainment, Median Household Income and Housing Value: South Western Region, 2000

Geography	Total Population	High school Graduate or higher, %	Bachelor's degree or higher, %	Households	Median household income (\$)	Median home value* (\$)
Darien	19,607	95.7%	70.4%	6,624	146,755	711,000
Greenwich	61,101	92.1%	58.8%	23,259	99,086	781,500
New Canaan	19,395	96.7%	71.6%	6,803	141,788	831,000
Norwalk	82,951	82.8%	34.2%	32,703	59,839	270,100
Stamford	117,083	82.2%	39.6%	45,454	60,556	362,300
Weston	10,037	98.1%	74.4%	3,327	146,697	633,900
Westport	25,749	96.4%	69.4%	9,565	119,872	625,800
Wilton	17,633	95.0%	70.7%	5,898	141,428	561,100
South Western Region	353,556	87.6%	49.4%	133,633	76,554	**
Fairfield County	882,567	84.4%	39.9%	324,403	65,249	288,900
Connecticut	3,405,565	84.0%	31.4%	1,301,670	53,935	166,900

* Median value is for specified owner-occupied units. ** Median housing value not available for the South Western Region

Source: US Census Bureau, 2000 Census, Summary File 3

The region has a higher median household income than both Fairfield County and the state. One explanation for this could be higher levels of educational attainment among residents of the region as compared to both Fairfield County and the state. While the percentage of residents who are high school graduates is roughly similar for the region, Fairfield County, and the state, significant differences emerge at the municipal level. For instance, all five municipalities with a median household income in excess of \$100,000 were also characterized by a high percentage (at least 95%) of high school graduates among the adult population. Those five municipalities were also characterized by a high percentage (at least 69%) of residents with bachelor degrees or higher among the adult population. Overall, nearly fifty percent of adults in the region have a bachelor degree or higher, well in excess of either the state or Fairfield County figures. The high median household incomes could also be attributed to the economy of the region, which is characterized by a strong cluster of financial services firms and corporate headquarters.

Homeownership is another important economic measure. Homeownership rates in the South Western Region are generally comparable to state and national rates. Approximately two-thirds of the region's households own their own home. Much like income, home ownership rates vary by municipality. Within the region, home ownership rates tend to be lower in the larger municipalities (Stamford (57%) and Norwalk (62%)) and higher in the smaller municipalities (Darien (88%) and Weston (93%))⁶. Higher homeownership rates in the smaller municipalities can be attributed to historic trends, which have over time resulted in a land use pattern dominated by single family detached housing. These communities were largely rural for most of their existence and have only recently experienced significant development. On the other hand, larger communities, like Stamford and Norwalk, have older housing stocks that include more multi-family dwellings. These multi family dwellings are more likely to be renter occupied.

⁶ US Census Bureau, Census 2000 Data Summary File.

Employment

According to data from the Connecticut Department of Labor, the South Western Region has had a lower unemployment rate than the state over the last ten years. This circumstance is largely attributed to the strong local economy and proximity to New York City's large labor market. Within the region, unemployment rates tend to be higher in larger municipalities. This may be partly attributable to the fact that these municipalities host the vast majority of the region's poverty population. Nevertheless, unemployment rates in Norwalk and Stamford have generally been in line with the state's unemployment rate. In 2005, Weston had the lowest unemployment rate (3.1%) while Stamford had the highest (4.2%). Only Norwalk (4.1%) and Stamford had higher unemployment rates than the state average (3.8%).

Table 6. Employment: South Western Region, 1995-2005

	1995	2000	2003	2005		1995	2000	2003	2005
Darien					Weston				
Labor Force	9,652	10,016	9,764	9,037	Labor Force	4,840	5,022	5,147	4,825
Employed	9,409	9,919	9,500	8,743	Employed	4,723	4,985	5,019	4,674
Unemployed	243	97	264	294	Unemployed	117	37	128	151
Percent	2.5%	1.0%	2.7%	3.3%	Percent	2.4%	0.7%	2.5%	3.1%
Greenwich					Westport				
Labor Force	30,207	32,857	30,971	29,639	Labor Force	14,192	14,936	14,236	12,390
Employed	29,274	32,526	30,175	28,664	Employed	13,820	14,782	13,882	11,977
Unemployed	933	331	796	975	Unemployed	372	154	354	413
Percent	3.1%	1.0%	2.6%	3.3%	Percent	2.6%	1.0%	2.5%	3.3%
New Canaan					Wilton				
Labor Force	9,350	9,931	9,534	8,730	Labor Force	8,742	9,460	8,989	8,195
Employed	9,154	9,854	9,335	8,455	Employed	8,521	9,371	8,743	7,925
Unemployed	196	77	199	275	Unemployed	221	89	246	270
Percent	2.1%	0.8%	2.1%	3.2%	Percent	2.5%	0.9%	2.7%	3.3%
Norwalk					South Western Region				
Labor Force	47,633	50,633	48,841	47,568	Labor Force	187,007	201,767	194,020	185,875
Employed	45,510	49,768	46,676	45,608	Employed	179,855	198,935	187,103	178,760
Unemployed	2,123	865	2,165	1,960	Unemployed	7,152	2,832	6,917	7,115
Percent	4.5%	1.7%	4.4%	4.1%	Percent	3.8%	1.4%	3.6%	3.8%
Stamford					Connecticut				
Labor Force	62,391	68,912	66,538	65,491	Labor Force	1,712,500	1,783,600	1,803,100	185,875
Employed	59,444	67,730	63,773	62,714	Employed	1,618,100	1,743,500	1,704,000	178,760
Unemployed	2,947	1,182	2,765	2,777	Unemployed	94,400	40,100	99,100	7,115
Percent	4.7%	1.7%	4.2%	4.2%	Percent	5.5%	2.2%	5.5%	3.8%

Source: Connecticut Dept. of Labor, Labor Market Information, Local Area Unemployment Statistics (not seasonally adjusted), 1995, 2000, 2003, 2005

TRANSPORTATION INVENTORY AND TRAVEL CHARACTERISTICS

A diverse transportation system with highway, transit, freight, and transportation demand management components serves local, regional and inter-regional travel needs. The Region's state and local highway system includes more than 1,500 miles of roads, almost 800 road and rail bridges, 20 railroad stations, 2 commercial harbors, 22 at-grade rail/highway crossings, more than 800 traffic signals, 5 commuter park and ride lots, and thousands of public parking spaces in structures, on-street and off-street lots as well as bicycle and multi-modal trails, bicycle storage, and sidewalks. Commuter rail service by Metro-North and ConnDOT provides intrastate and interstate service, with Amtrak providing interstate service at Stamford. Local bus transit services provided by Norwalk Transit District and Connecticut Transit include fixed route service, commuter connections in Greenwich, Norwalk, Stamford, Westport and Wilton, I-Bus between Stamford and White Plains, Coastal Link between Norwalk and Milford, Route 7 Link between Norwalk and Danbury, and Easy-Access the regional elderly and disabled transportation service.

Journey to Work

Between 1990 and 2000, the region experienced a 7.2% increase in population. However, the region also experienced an approximately 3.0% decrease in the work force population, from 176,528 in 1990 to 171,458 in 2000. This circumstance is attributed in part to growth of the 17 and under and 65 and over populations. In contrast, employment in the region actually increased by 3.2% during this period, from 205,871 in 1990 to 212,394 in 2000.

Between 1990 and 2000, the region's resident work force increasingly looked to other areas of the Connecticut and to New York State for employment. The percent of the region's residents who work within the region decreased from 75% to 69% between 1990 and 2000 (sub-table A of Table X). By 2000, roughly 10% of the region's labor force worked in other areas of Connecticut, whereas only 6% did so in 1990. The adjacent Bridgeport and Danbury regions were the top choices followed by the New Haven region. During the same period, the region's population employed in New York increased slightly (+1.2%), primarily in areas other than Manhattan, such as Westchester County or other New York City boroughs. As mentioned previously, the total number of employed persons residing in the region declined during this period, signifying an out-migration of working adults from the region.

Table 7. Place of Employment and Residence Trends, South Western Region, 1990-2000

A. Place of **work** for persons residing in the South Western Region

Geography	Workers		Percent of Total	
	1990	2000	1990	2000
Darien	6,141	6,248	3.5%	3.6%
Greenwich	22,705	21,104	12.9%	12.3%
New Canaan	5,067	4,947	2.9%	2.9%
Norwalk	29,132	25,227	16.5%	14.7%
Stamford	53,931	47,087	30.6%	27.5%
Weston	1,246	1,374	0.7%	0.8%
Westport	9,072	7,928	5.1%	4.6%
Wilton	4,510	4,831	2.6%	2.8%
South Western Region	131,804	118,646	74.7%	69.2%
Housatonic Valley Region	1,935	4,908	1.1%	2.9%
Greater Bridgeport Region	5,522	8,488	3.1%	5.0%
South Central Region	1,582	2,085	0.9%	1.2%
Connecticut total	142,310	136,628	80.6%	79.7%
New York total	30,958	32,087	17.5%	18.7%
New Jersey total	1,651	1,203	0.9%	0.7%
Elsewhere	1,609	1,540	0.9%	0.9%
Total employed persons residing in the South Western Region	176,528	171,458	100.0%	100.0%

B. Place of **residence** for persons working in the South Western Region

Geography	Workers		Percent of Total	
	1990	2000	1990	2000
Darien	5,780	4,876	2.8%	2.3%
Greenwich	19,668	16,634	9.6%	7.8%
New Canaan	5,908	4,999	2.9%	2.4%
Norwalk	36,916	33,290	17.9%	15.7%
Stamford	47,135	44,573	22.9%	21.0%
Weston	2,790	2,797	1.4%	1.3%
Westport	8,245	6,590	4.0%	3.1%
Wilton	5,362	4,890	2.6%	2.3%
South Western Region	131,804	118,646	64.0%	55.9%
Housatonic Valley Region	12,752	15,102	6.2%	7.1%
Greater Bridgeport Region	26,149	30,446	12.7%	14.3%
South Central Region	6,178	8,284	3.0%	3.9%
Connecticut total	182,967	181,782	88.9%	85.6%
New York total	20,228	26,748	9.8%	12.6%
New Jersey total	1,294	1,976	0.6%	0.9%
Elsewhere	1,382	1,888	0.7%	0.9%
Total persons working in the South Western Region	205,871	212,394	100.0%	100.0%

Source: US Census Bureau, Census 1990 and 2000, Summary File 3

As the number of persons working in the region increased between 1990 and 2000, the percent of them who also resided in the region declined substantially (sub-table B of Table X). The net result of this trend has been increase in the number of workers commuting into the region, from 35% of all workers in the region in 1990 to 44% in 2000. The increase is largely attributable to residents of adjacent areas, like the Bridgeport and Danbury areas. The number of New York State residents working in the region has also increased, most notably residents from Manhattan who make a “reverse commute.”

Mode of Transportation

Driving alone is the most popular mode of commutation for residents of the South Western Region. The number of workers who drove alone decreased slightly between 1990 and 2000 from 123,996 to 118,474 persons, or from 70.8% to 69.6%. The percent of workers commuting in a carpool remained about the same, at 8.4%. This is notable because both Fairfield County as a whole and the state experienced a decrease in the percent of carpoolers during this period. The percent of workers who carpool in the region is lower than both the state (9.4%) and national (12.2%) rates. Within the region, residents of the two larger municipalities (Norwalk and Stamford) utilize carpooling more than residents of the smaller municipalities.

Public transit, primarily the railroad, is the second most popular mode of commutation for the region’s residents. The number of public transportation users increased from 21,081 persons in 1990 to 22,160 persons in 2000, or from 12.2% to 12.9% of all workers. Perhaps in contrast to commonly accepted beliefs, transit commutes were most popular among residents of smaller, wealthier, suburban communities, such as Darien, Westport, and New Canaan. In these communities, ‘transit’ almost exclusively refers to the railroad. Bus commuters reside overwhelmingly in Stamford, Norwalk, and to a small extent Greenwich. The percentage of

residents commuting by bus in the region is generally on par with the rates of Fairfield County and the state. However, the significant number of rail commuters in the region put it leaps and bounds ahead of both Fairfield County and Connecticut in terms of percent of workers using all forms of public transit.

Within the region, Stamford, Norwalk, and Greenwich are home to the greatest number of walk and bicycle commuters.

Perhaps the most interesting commutation trend between 1990 and 2000 was the increase in the number of residents who worked at home, from 4.9% to 5.9% of all residents. This trend, which was most pronounced in Weston and Wilton, may be a reaction to increasingly difficult commutes. It may also be a realization of today's ability to work at home via the telephone and personal computer.

Table 8. Means of Transportation to Work: South Western Region, 1990-2000

Geography	Drove alone		Carpooled		Public trans.		Public trans.: Bus		Public trans.: Rail		Bicycle + Walked		Worked at home	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Darien	61.0%	60.3%	5.7%	3.3%	22.7%	26.0%	0.5%	0.5%	21.8%	24.8%	2.6%	1.7%	7.3%	8.3%
Greenwich	65.4%	64.4%	7.6%	6.0%	15.1%	17.4%	0.2%	0.6%	13.9%	15.9%	4.6%	3.7%	6.3%	7.7%
New Canaan	68.5%	65.1%	4.5%	5.3%	16.2%	17.2%	0.2%	0.2%	15.6%	16.1%	2.8%	3.3%	7.4%	8.5%
Norwalk	75.8%	74.2%	9.9%	10.9%	8.0%	8.5%	2.7%	3.2%	5.0%	4.9%	2.7%	2.2%	3.2%	3.7%
Stamford	70.2%	70.1%	10.0%	10.6%	11.1%	10.7%	3.4%	4.6%	7.3%	5.7%	4.7%	3.9%	3.2%	3.8%
Weston	70.1%	65.6%	4.8%	3.0%	13.4%	13.8%	0.0%	0.0%	12.8%	13.4%	1.9%	2.1%	9.5%	14.7%
Westport	66.4%	64.5%	5.5%	2.9%	16.0%	18.6%	0.3%	0.3%	14.9%	18.1%	1.9%	2.1%	9.2%	11.1%
Wilton	75.6%	71.8%	4.1%	4.9%	10.4%	12.1%	0.4%	0.0%	9.2%	11.9%	2.4%	1.0%	6.9%	9.4%
South Western Region	70.2%	69.1%	8.3%	8.4%	12.2%	12.9%	2.0%	2.6%	9.7%	9.9%	3.6%	3.0%	4.9%	5.9%
Fairfield County	75.4%	74.7%	10.0%	9.6%	7.3%	8.1%	1.8%	2.3%	5.2%	5.5%	3.1%	2.4%	3.5%	4.5%
Connecticut	77.7%	80.0%	11.2%	9.4%	3.9%	4.0%	2.3%	2.2%	1.4%	1.6%	3.8%	2.9%	2.7%	3.1%

Source: US Census Bureau, Summary File 3, 1990 and 2000

Commute Time

The amount of time spent commuting by the residents of the South Western Region increased between 1990 and 2000. This trend is attributed to greater congestion on local and interstate highways as well as longer distances between home and work. In 1990, 55% of the region's residents had a commute time of less than 20 minutes. By 2000, only 47.9% of residents had a commute time of less than 20 minutes. In contrast, the percentage of residents with commutes of more than an hour showed the greatest increase, from 11.8% in 1990 to 15.7% in 2000.

Table 9. Commute Time, in Minutes: South Western Region, 1990-2000

Geography	Worked at home		Less than 15 minutes		15 to 30 minutes		30 to 45 minutes		45 to 60 minutes		60 to 89 minutes		More than 90 minutes	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Darien	7.3%	8.3%	31.2%	25.5%	28.1%	25.5%	5.8%	6.9%	4.0%	3.8%	18.0%	22.0%	5.5%	8.0%
Greenwich	6.3%	7.7%	34.2%	31.2%	32.0%	28.3%	7.4%	7.4%	3.8%	5.2%	13.3%	15.0%	3.0%	5.2%
New Canaan	7.4%	8.5%	29.0%	24.3%	31.6%	26.4%	14.1%	14.9%	1.8%	2.8%	9.1%	12.6%	6.9%	10.5%
Norwalk	3.2%	3.7%	36.1%	32.3%	36.8%	32.3%	14.3%	16.8%	3.2%	5.4%	4.3%	5.8%	2.2%	3.7%
Stamford	3.2%	3.8%	36.5%	32.6%	37.9%	37.7%	10.3%	12.6%	3.3%	3.6%	6.3%	6.1%	2.6%	3.5%
Weston	9.5%	14.7%	22.9%	12.3%	29.8%	28.7%	19.9%	14.8%	5.3%	7.1%	6.9%	8.3%	5.7%	14.1%
Westport	9.2%	11.1%	33.0%	23.8%	24.4%	23.0%	12.7%	10.9%	4.7%	5.3%	9.4%	12.4%	6.4%	13.5%
Wilton	6.9%	9.4%	28.5%	19.0%	27.8%	23.1%	22.7%	18.9%	5.7%	9.6%	4.0%	6.7%	4.3%	13.3%
South Western Region	4.9%	5.9%	34.4%	29.8%	34.2%	31.8%	11.8%	12.9%	3.6%	4.8%	7.8%	9.0%	3.4%	5.7%
Fairfield County	3.5%	4.5%	32.8%	27.9%	36.1%	33.5%	14.0%	15.0%	5.6%	6.9%	5.8%	7.6%	2.2%	4.7%
Connecticut	2.7%	3.1%	33.0%	29.8%	38.2%	37.2%	16.3%	16.8%	5.4%	5.9%	3.6%	4.5%	0.9%	2.6%

Source: US Census Bureau, Summary File 3, 1990 and 2000

Between 1990 and 2000, mean travel time to work increased in all municipalities. This trend is most notable in regards percentage of workers with commute times less than 20 minutes and those with commute times greater than 60 minutes. For instance, the percentage of workers in Wilton with commute times of less than 20 minutes decreased by about 14% while the percentage with commute times greater than 60 minutes increased by about 13%. The percentage of workers in the region with commute times of 20 to 39 minutes and 40 to 59 minutes remained relatively unchanged. On average, commute times were shortest in the region's two largest municipalities, Stamford and Norwalk, while commute times were highest in smaller residential communities further from urban centers, such as Weston, Westport, and Wilton. The commute time trends observed are attributed to a workforce increasingly looking outside the region for work, greater reliance on public transportation for long trips (especially for trips to Manhattan), and growing congestion on the region's principal roadways.

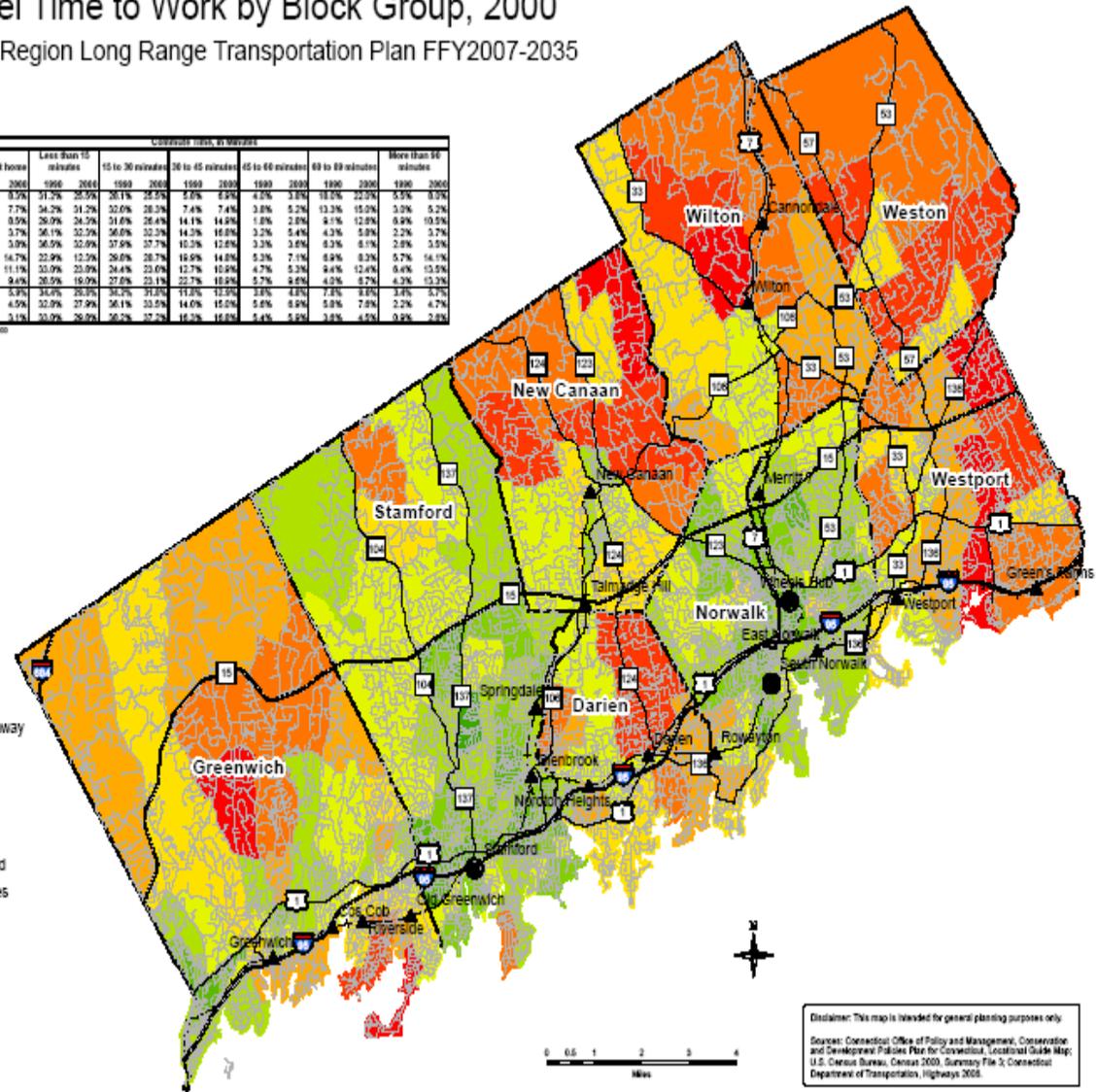
Figure 2. Mean Travel Time to Work by Block Group, 2000

Mean Travel Time to Work by Block Group, 2000
 South Western Region Long Range Transportation Plan FFY2007-2035
 Figure 2

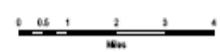
Geography	Commute time, in minutes													
	Worked at home		Less than 15 minutes		15 to 30 minutes		30 to 45 minutes		45 to 60 minutes		60 to 90 minutes		More than 90 minutes	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
State	7.5%	8.3%	31.2%	25.9%	20.1%	25.5%	5.8%	8.9%	4.2%	3.3%	10.2%	22.0%	5.5%	8.3%
Greenwich	6.2%	7.7%	34.2%	31.2%	22.0%	20.3%	7.4%	7.4%	3.8%	5.2%	13.3%	15.0%	3.2%	5.2%
New Canaan	7.4%	0.9%	28.0%	34.5%	21.6%	25.4%	14.1%	14.9%	1.8%	2.0%	9.1%	12.8%	6.9%	10.5%
Norwalk	3.2%	3.7%	36.1%	32.5%	36.0%	32.3%	14.2%	16.0%	3.2%	5.4%	4.3%	5.0%	2.2%	3.7%
Stamford	3.2%	3.9%	36.5%	32.8%	37.9%	37.7%	15.2%	12.6%	3.2%	3.6%	6.2%	6.1%	2.8%	3.5%
Weston	8.6%	14.7%	22.9%	12.5%	20.6%	20.7%	19.8%	14.0%	5.2%	7.1%	8.2%	8.3%	5.7%	14.1%
Westport	8.2%	11.1%	33.9%	23.9%	24.4%	22.0%	12.7%	16.9%	4.7%	5.3%	8.4%	12.4%	8.4%	13.9%
Wilton	6.9%	9.4%	20.5%	19.0%	27.6%	23.1%	22.7%	18.9%	5.7%	8.6%	4.0%	6.7%	4.2%	13.3%
South Western Region	4.9%	5.9%	34.4%	30.3%	35.2%	31.0%	11.8%	12.9%	2.8%	4.0%	7.8%	8.0%	3.4%	5.7%
Fairfield County	3.5%	4.5%	32.8%	27.9%	26.1%	33.5%	14.0%	15.0%	5.6%	6.6%	5.9%	7.6%	2.7%	4.7%
Unincorporated	2.7%	3.1%	30.9%	26.9%	28.2%	27.2%	16.2%	16.8%	5.4%	5.2%	3.8%	4.9%	3.2%	7.9%

Source: U.S. Census Bureau, Summary File 3, 1990 and 2000

- Minutes**
- 48.1 - 53.0
 - 44.1 - 48.0
 - 40.1 - 44.0
 - 36.1 - 40.0
 - 32.1 - 36.0
 - 28.1 - 32.0
 - 24.1 - 28.0
 - 20.1 - 24.0
 - 16.1 - 20.0
 - 12.4 - 16.0
- Limited Access Highway
 - Highway
 - Local Road
 - Intermodal Center
 - ▲ Railroad Station
 - Metro-North Railroad
 - Municipal Boundaries



Prepared on March 21, 2007
SWRPA
 South Western Region

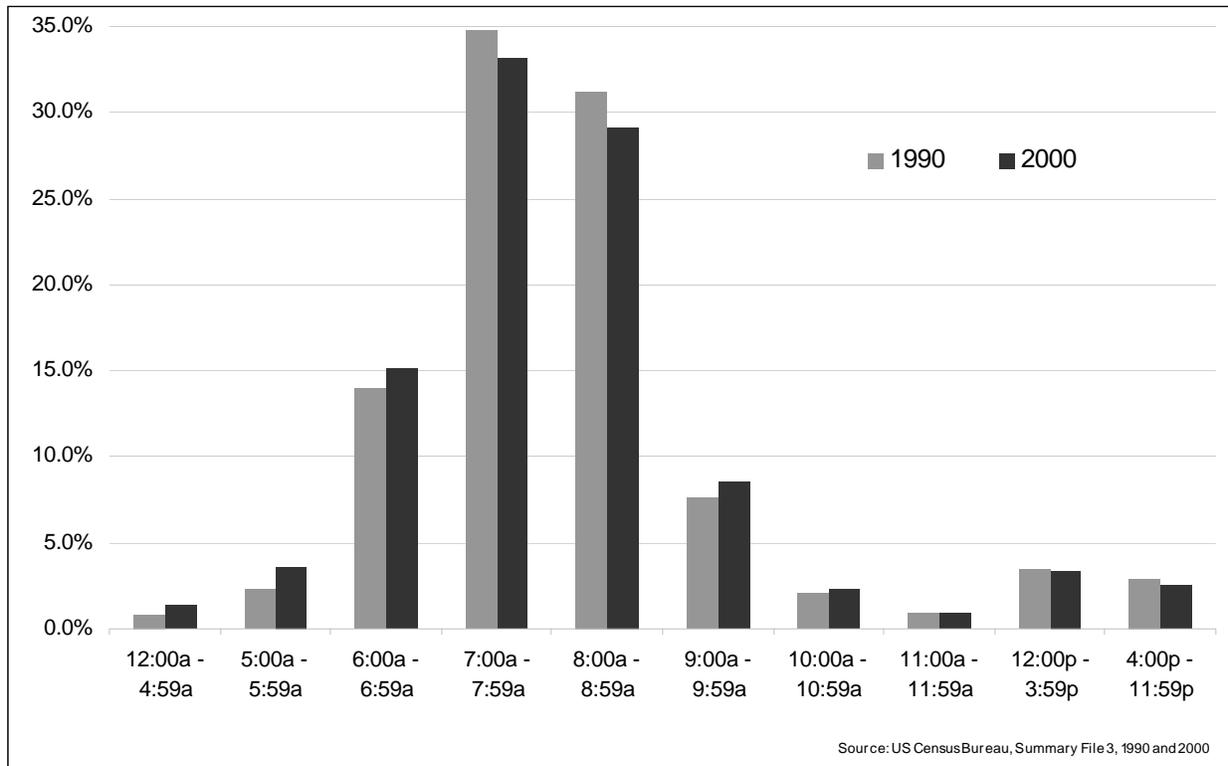


Disclaimer: This map is intended for general planning purposes only.
 Source: Connecticut Office of Policy and Management, Conservation and Development Policies Plan for Connecticut, Localized Guide Map; U.S. Census Bureau, Census 2000, Summary File 3; Connecticut Department of Transportation, Highways 2005.

Time Leaving Home

As commutes become longer and congestion becomes a bigger influence on work trips, workers have adjusted the time they leave the house to go to work. Increasingly, commuters are avoiding the most congested portion of the peak period, between 7:00 a.m. and 9:00 a.m. in favor of the “shoulder” (earlier or later times).

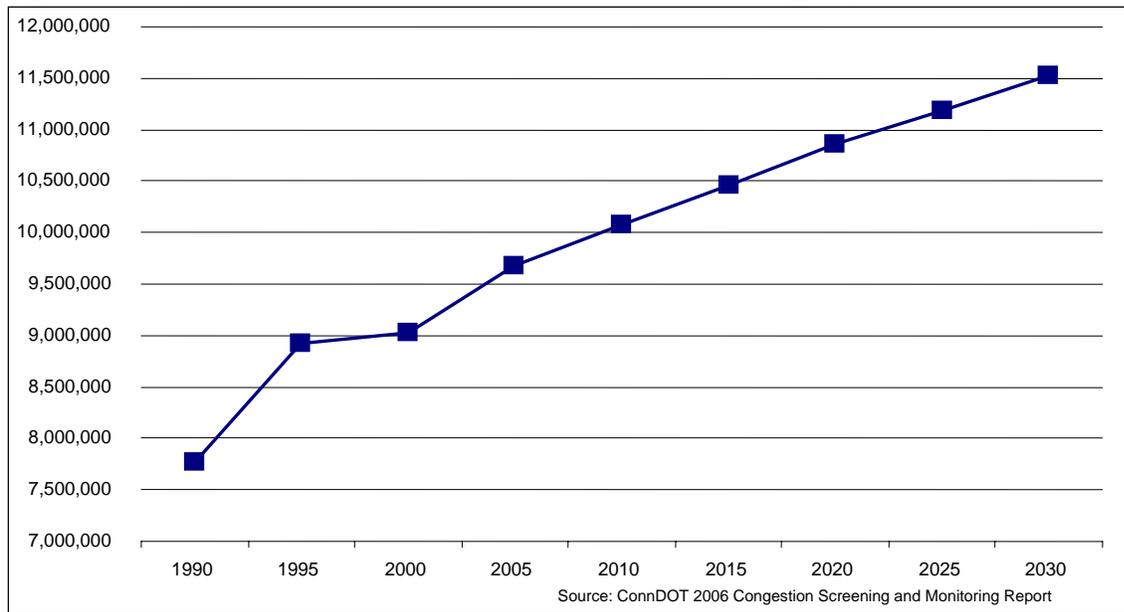
Figure 3. Time Leaving Home for Work: South Western Region, 1990-2000



Vehicle Miles of Travel, Vehicle Occupancy and Congestion

In 2005, the South Western Region generated 9.68 million daily vehicle miles of travel (DVMT) daily. This represents a 7.2% increase in DVMT over 2000 figures, which exceeds the estimated 3.5% growth in population during the same period. Between 2005 and 2030, the VMT is predicted to increase to 11.52 million miles. This represents an increase of 1.84 million DVMT or 19.0%, according to ConnDOT ([ConnDOT Congestion Management System 2006 Congestion Screening and Monitoring Report](#), September 2006). The growth in VMT during this period will exceed the projected 12.6% growth of population.

Figure 4. Daily Vehicle Miles Traveled: South Western Region, 1990-2030



In 2006, the region’s average vehicle occupancy in the A.M. (7:00 a.m. to 9:00 a.m.) peak period was 1.22 persons per vehicle. During the P.M. peak period (4:00 p.m. to 6:00 p.m.), average vehicle occupancy was 1.40. These figures are virtually unchanged since 2002.

Figure 5. Mean Vehicle Occupancy, South Western Region, 2002-2006

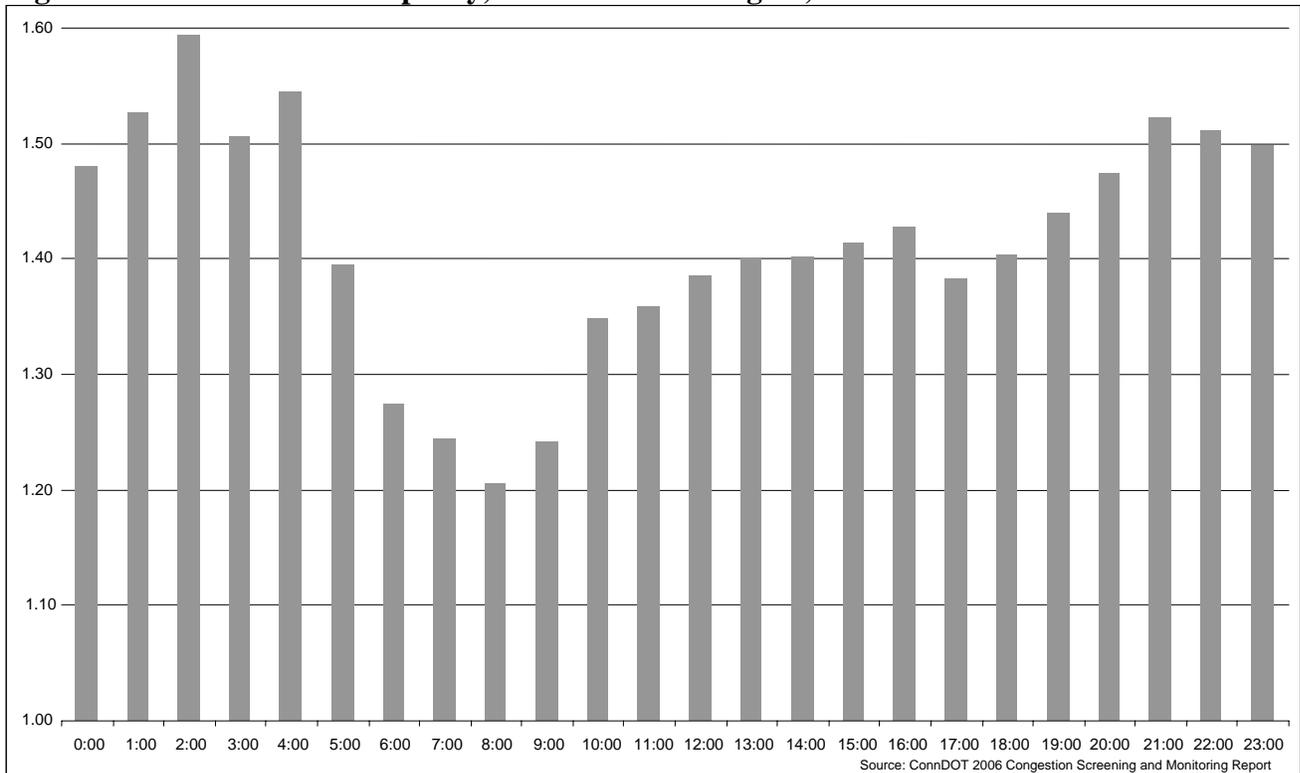


Figure 6. Traffic Volume and Volume-to-Capacity Ratio by Route Segment, 2005

Traffic Volume and Volume-to-Capacity Ratio by Route Segment, 2005

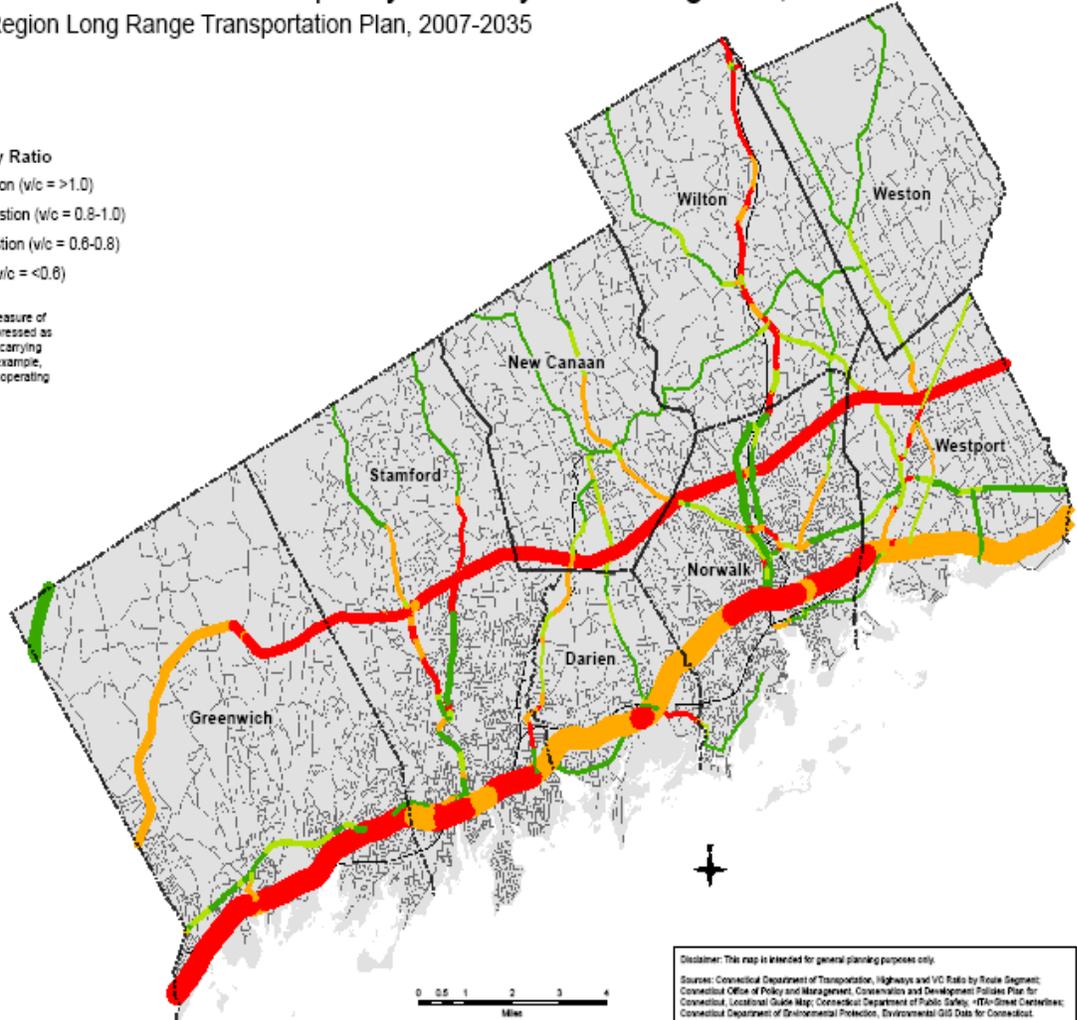
South Western Region Long Range Transportation Plan, 2007-2035

Figure 6

Volume-to-Capacity Ratio

- Severe Congestion (v/c = >1.0)
- Moderate Congestion (v/c = 0.8-1.0)
- Marginal Congestion (v/c = 0.6-0.8)
- No Congestion (v/c = <0.6)

Volume-to-Capacity Ratios a measure of traffic demand on a facility (expressed as volume) compared to its traffic-carrying capacity. A v/c ratio of 0.7, for example, indicates that a traffic facility is operating at 70 percent of its capacity.



Prepared on March 15, 2007
SWRPA
 South Western Region
 Long Range Transportation Plan

Disclaimer: This map is intended for general planning purposes only.
 Sources: Connecticut Department of Transportation, Highways and VC Ratio by Route Segment; Connecticut Office of Policy and Management, Conservation and Development Policies Plan for Connecticut, Localized Guide Map; Connecticut Department of Public Safety, RTA-Street Centerlines; Connecticut Department of Environmental Protection, Environmental GIS Data for Connecticut.

Figure 7. Traffic Volume and Volume-to-Capacity Ratio by Route Segment, 2025

Traffic Volume and Volume-to-Capacity Ratio by Route Segment, 2025

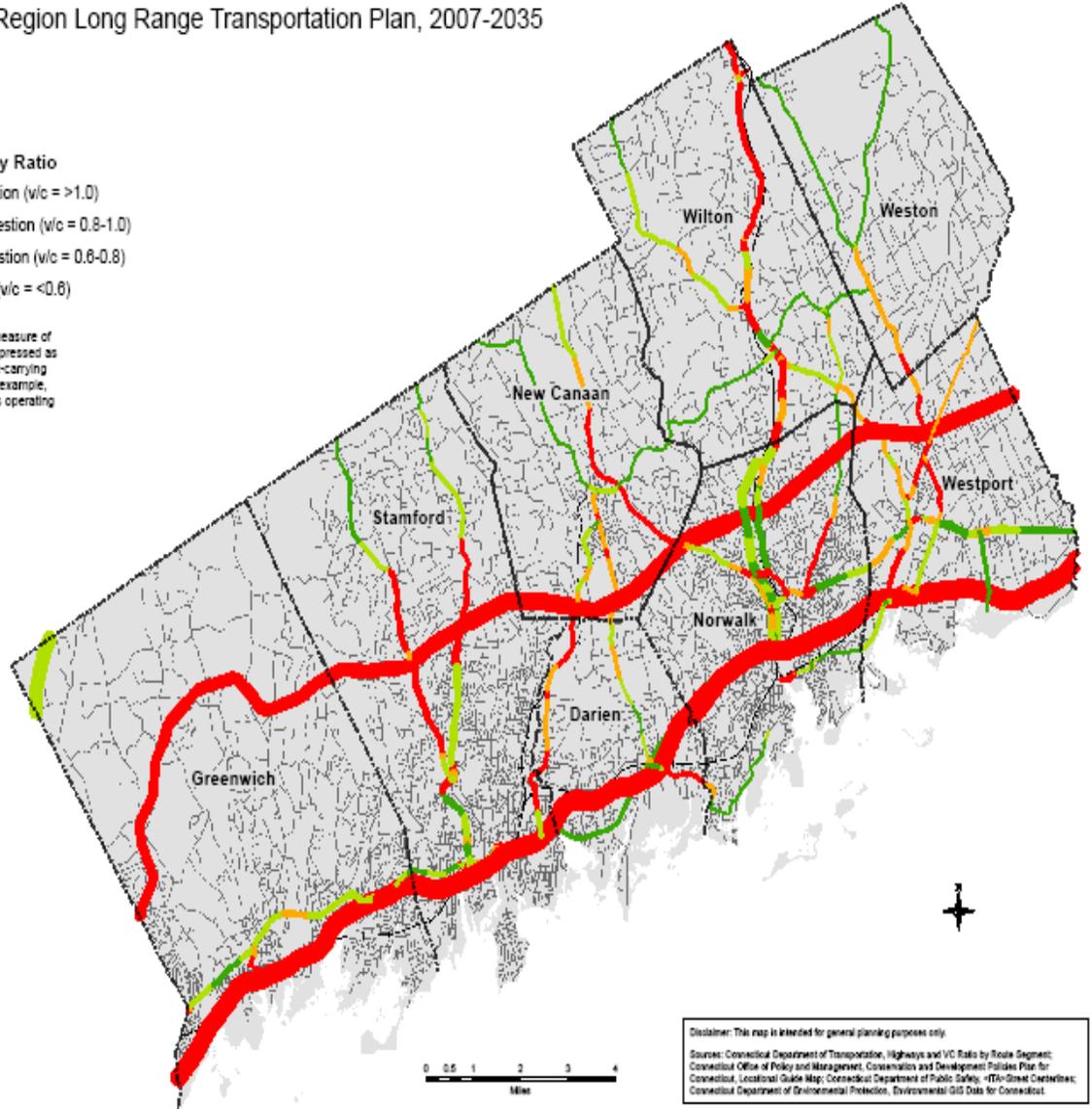
South Western Region Long Range Transportation Plan, 2007-2035

Figure 7

Volume-to-Capacity Ratio

- Severe Congestion (v/c = >1.0)
- Moderate Congestion (v/c = 0.8-1.0)
- Marginal Congestion (v/c = 0.6-0.8)
- No Congestion (v/c = <0.6)

Volume-to-Capacity Ratios a measure of traffic demand on a facility (expressed as volume) compared to its traffic-carrying capacity. A v/c ratio of 0.7, for example, indicates that a traffic facility is operating at 70 percent of its capacity.



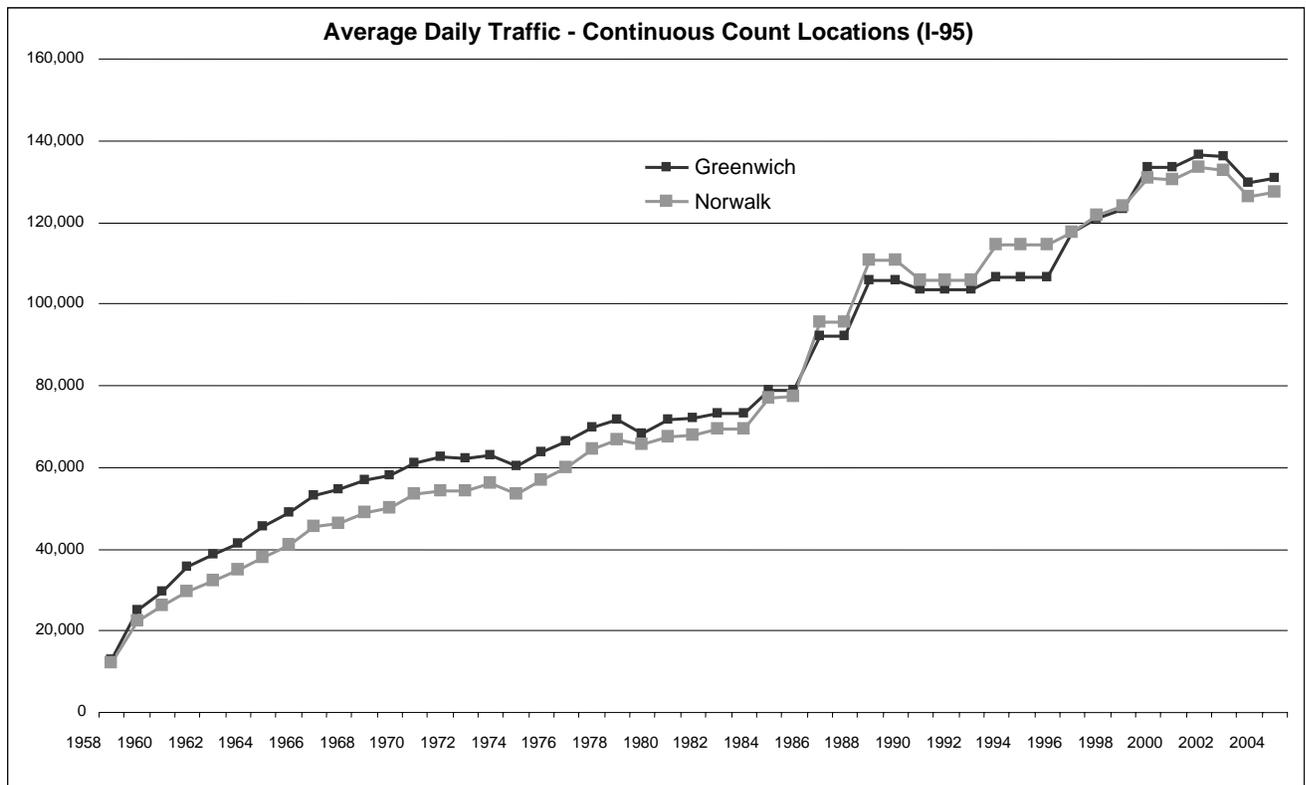
Prepared on March 15, 2007



Disclaimer: This map is intended for general planning purposes only.
Sources: Connecticut Department of Transportation, Highways and VC Ratio by Route Segment; Connecticut Office of Policy and Management, Concentration and Development Policies Plan for Connecticut; Local Road Guide Map; Connecticut Department of Public Safety, I-95/Route Centerlines; Connecticut Department of Environmental Protection, Environmental GIS Data for Connecticut.

The Region's most heavily traveled expressway, I-95, carries as many as 150,000 vehicles per day in sections. By 2025, ConnDOT's travel model forecasts traffic volumes in excess of 210,000 vehicles per day in Greenwich, and over 190,000 vehicles per day in Stamford and Norwalk. Traffic volumes of this magnitude represent volume to capacity (V/C) ratios greater than 1.5, which is indicative of extremely congested roadways. In 2005, 74% of the expressway segments in the South Western Region were approaching or over capacity. When all state highways are considered, 38% were approaching or over capacity as compared to 33% in 1995. The duration of congestion is increasing because traffic volumes and VMT are also increasing while capacity remains constrained. By 2025, 58.5% of VMT on I-95 will be considered congested while 35.3% of Route 15 will be considered congested. Overall, 39.3% of VMT on all state highways in the South Western Region will be considered congested by 2025.

Figure 8. Average Daily Traffic – Continuous Count Locations (I-95): Greenwich & Norwalk, 1958-2004



Between 2002 and 2006, truck travel delay increased despite little increase in truck traffic. For this period, total DVMT (including all types of vehicles) on state highways ranged from 4.87 million DVMT to 5.10 million DVMT. Of that total, truck travel on state highways accounted for between 9.5% and 9.8% of DVMT each year. Over this period, average truck speed decreased, from a high of 44.29 mph in 2002 to a low of 42.63 in 2005. Not surprisingly, daily hours of delay for trucks increased, from 1,537 hours in 2002 to 2,014 hours in 2006

Table 10. Truck Travel Delay: South Western Region, 2002-2006

Year	Total VMT	Truck VMT	% Truck	Speed	Delay Rate Min/Mile	Hours of Delay
2002	5,101,755	485,287	9.5%	44.29	0.19	1,536.52
2003	5,010,059	486,872	9.7%	43.57	0.21	1,741.35
2004	4,871,768	466,899	9.6%	42.86	0.23	1,786.31
2005	4,879,436	470,219	9.6%	43.01	0.23	1,783.69
2006	5,074,704	496,375	9.8%	42.73	0.24	2,014.43

Source: ConnDOT, Congestion Screening and Monitoring Report, 2002-6

Additional information on transportation services, facilities, functionality, and limitations is provided in detailed specialized reports, such as Congestion Mitigation Study Vision 2020 – Task 3 Existing Conditions Technical Memo on SWRPA’s website at www.swrpa.org.

<p style="text-align: center;">THE SOUTH WESTERN REGION LONG RANGE TRANSPORTATION PLAN 2007-2035</p>

The South Western Region Long Range Transportation Plan 2007-2035 is an update of the Region's Long Range Transportation Plan 2004-2030 which was adopted in October 2004, and found to be conforming by U.S. DOT in November 2004. Federal metropolitan transportation planning regulations require that regional transportation plans be updated every four years. This update of the South Western Region Long Range Transportation Plan began in 2006 with initial discussions with the Transportation Technical Advisory Group (TTAG) and South Western Region Metropolitan Planning Organization (MPO), and the region's town planners. Discussions with stakeholders on transportation issues, needs, projects and priorities shaped development of the draft plan that was circulated for TTAG and MPO review in March, leading to release of the Draft Plan for public review in April 2007, prior to MPO consideration of endorsement in May 2007. The public participation process is documented in a separate section of the plan.

The South Western Region Long Range Transportation Plan 2007-2035:

- complies with the requirements of the metropolitan planning process for a long range transportation plan that looks forward at least 20 years,
- contains the basic components of a transportation plan,
- is financially constrained,
- has been determined to meet air quality conformity requirements (analysis conducted by ConnDOT in March 2007),
- has been developed in accordance with the South Western Region MPO's Public Involvement Process adopted on December 5, 1997,
- was developed within a certified transportation planning process which was certified by the SWRMPO in June 2007, and will be certified again in June 2007, and
- incorporates key documents by the Connecticut Department of Transportation (ConnDOT), the Connecticut Office of Policy and Management (CT OPM), the South Western Regional Planning Agency (SWRPA) and the South Western Region Metropolitan Planning Organization (MPO) including: the ConnDOT 2007 Master Transportation Plan; the ConnDOT Public Transportation Capital Plan 2004-2014; the FFY2007-2011 Transportation Improvement Program (TIP); The Regional Plan of Conservation and Development 2006-2015; the Conservation and Development Policies Plan for Connecticut 2005-2010; and, the SWRPA Congestion Mitigation Systems Plan "Vision 2020".

Development of a regional long range transportation plan is an ongoing process. Through the continuing, comprehensive, cooperative transportation planning process, changing policies, regulations, funding, and needs are addressed. The South Western Region transportation planning work program is described in the annual Unified Planning Work Program (UPWP) of the South Western Region MPO.

Accomplishments and Changes Since the Last Plan Endorsement in 2004

Since the South Western Region Long Range Transportation Plan 2004-2035 was endorsed in

2004, there has been significant investment in transportation operations and improvements, and maintenance of existing facilities. According to ConnDOT federal funding obligation reports, more than \$420 million in transportation projects have benefited the South Western Region in the last three federal fiscal years. As shown in Table 10a, there was \$176 million invested in transportation projects in the South Western Region in federal fiscal years 2003, 2004 and 2005, along with \$128 million in statewide, \$125 million in district-wide projects and multi-region projects that benefit the South Western Region. A complete listing of FFY2003-2005 project obligations is provided in the Financial Component section of the Plan.

Table 10a. FFY2003-2005 Obligated Projects Benefiting the South Western Region

Project Type	2003	2004	2005	Total
South Western Region	\$ 101,946,400	\$ 53,305,000	\$ 21,145,285	\$ 176,396,685
Statewide	\$ 63,091,000	\$ 40,354,000	\$ 25,025,330	\$ 128,470,330
District 3	\$ 46,546,000	\$ 23,622,000	\$ 33,453,512	\$ 103,621,512
Multi-Region	\$ 11,094,498			\$ 11,094,498
TOTAL	\$ 222,677,898	\$ 117,281,000	\$ 79,624,127	\$ 419,583,025

Source: SWRPA February 2007 - using ConnDOT obligated projects information FFY2003-2005.

Included in the South Western Region total, are projects undertaken by the towns of Greenwich, New Canaan, Norwalk, and Stamford for safety and operational improvements to local bridges, intersections, roadway sections, and signal systems along with design and construction of multi-use trails. State projects that were completed or started in the last three years include: rail projects for catenary and bridge improvements (Stamford to Norwalk); rail station parking expansion at Stamford; I-95 bridge improvements; I-95 resurfacing and median projects in Stamford, Darien and Norwalk; speed change lanes in Darien and Norwalk; and, Merritt Parkway/Route 15 gateway and safety improvements in Greenwich and North Street (Interchange 31). Construction of Route 104/Long Ridge Road (Interchange 34) was started in 2006. The first phase of the Route 15 and Route 7 interchange project (#102-312) was started in 2005, then terminated due to court action. The Route 7 widening project (#1161-118, 124) between Wolfpit Road and Olmstead Hill Road in Wilton, started in 2006. The Route 7 improvement project between the Route 7 expressway terminus at Grist Mill Road in Norwalk and Route 33 in Wilton (#102-305) is in design, with start of construction targeted for 2009. ConnDOT anticipates advertising the Danbury Branch Centralized Train Control and Signal Improvements Project (#302-0007) in mid-2007, with construction scheduled to start in late 2007 and conclude in late 2009.

There have been incremental enhancements and adjustments to bus and rail services for MetroNorth, Shoreline East and branch service, as well as Coastal Link bus service and commuter connections bus service in Stamford and Norwalk. Nu-Ride the incentive-based ridesharing program was started in 2005.

The State Incident Management Program continued its Bridgeport Operations Center co-located at Connecticut State Police Troop G. The operations center monitors traffic operations in the I-95 Bridgeport to Branford corridor using camera and electronic detection equipment. The Incident Management Program includes service patrols (CHAMP), traveler notification through variable

message signs and highway advisory radio (HAR), and daily faxes, and coordination with local and regional officials including the South Western Region Incident Management. Additional vehicles for CHAMP expansion to the Merritt Parkway was funded in 2005, though CMAP service is not yet provided on the Merritt (March 2007). In 2005, I-95 diversion routes were updated and made available in digital format. The SWRPA Corridor Emergency Communications project funded improvements to the CT Department of Public Safety 800 I-TAC I-CALL system which improved interagency interoperable communications for first responders to incidents.

In the last three years a number of planning efforts were completed. SWRPA's Darien and Norwalk Parking Study (2004) recommended regional strategies for parking information technology systems, wayfinding and signage and demand management couples with specific recommendations for Noroton Heights and South Norwalk rail stations. The recommendations for promote bicycle and pedestrian access, improved signage, systems management and technology, recommend ways to expand parking, and integrate parking into area development plans.

ConnDOT completed the Danbury Branch Electrification Study Phase 1 (2006) which evaluated improvement and extension options against six factors (operational, impact, environmental impact, fleet impact, travel demand, time savings, and financial impact) to whittle twenty six alternatives down to five alternatives in the Phase 2 study/environmental assessment. The alternatives are: no build; TMS/transportation system management; build alternative – South Norwalk to Danbury; extension of service – new service to New Milford; and, TSB partial electrification from South Norwalk to the vicinity of Route 15. Phase 2 is expected to start in the fall of 2007, and conclude with recommendations for implementation in 2009.

The ConnDOT Rail Governance Study (2005) evaluated rail station parking and management of the MetroNorth New Haven Line, New Canaan, Danbury and Waterbury Branches with a mission “to develop a Governance Policy and Financial Policy which improves current conditions and offers improved quality of service for our riders”. Phase one was issued in January 2004, and included: surveys of stakeholders; an inventory of rail parking capacity, utilization, fees, layouts, and physical facilities; station, parking, and platform condition surveys; a review of parking and station operations including contracts and finances with development of initial strategies for improvement; evaluation of the governance methods and identification of issues and opportunities for governance; and a summary report. Phase two was concluded and issued in November 2004 and included: review of governance issues; survey of industry practices; development of three alternative methods of governance; and a discussion of evaluation criteria. Three governance options were presented:

- Minimal Strategy: This option would incorporate standardization of leases through revised and strengthened leases between municipalities and ConnDOT; operating guidelines; lease enforcement and termination provisions; and application of a Standards and Practices Manual.
- Memorandum of Understanding (MOU): Such a strategy would include improvement of all leases on state-owned stations and parking; negotiation of a MOU for all non-state-owned property at stations; application of a Standards and Practices Manual.

- ConnDOT or Public Transit Management Authority Governance (single entity governance): All stations and parking would be operated by single-entity, and would include standardized revenue control, monitoring, wayfinding. This option would require acquisition of all commuter rail stations and surface lots not owned by state, and would implement single-entity governance authority.

The Rail Governance study recommendations or policies were never officially adopted by ConnDOT (as of March 2007).

Other studies were initiated but not completed, and include the ConnDOT Service Plaza and Rest Area Study, and South Western Region Intelligent Transportation Systems (ITS) Strategic Plan. Both will be completed in FY2008.

The Transportation Strategy Board (TSB) plans and programs of 2001-2007, along with Coastal Corridor Transportation Investment Area (Coastal Corridor TIA) plans described in the introductory section of this Plan and the appendix reinforce many of the SWRMPO's priorities. Since 2002, TSB recommendations have supported State funding for additional investment in rail rolling stock, maintenance facilities, rail parking facilities, increased rail service to Stamford, and increased commuter connections with rail, additional inter-regional and express bus services. Through State funding, TSB-recommended rail fleet modernization of the New Haven Line rail cars, improvements to the New Canaan, Danbury, and Waterbury Branches have been programmed, while studies of new rail service potential (New Haven-Hartford-Springfield), and corridor needs (I-95 Southeast Corridor from Branford to the R.I. state line) have been completed. A new Office of Maritime Policy within ConnDOT was created, as was an Office of Responsible Growth within the Office of Policy and Management that will address the connection between transportation and land use. Additional incident management programs for highway assistance (CHAMP), development of additional diversion route plans in the Hartford area and update of the I-95 Greenwich to Bridgeport diversion route plans have also been funded.

SWRMPO Designated a Transportation Management Agency (TMA)

As noted in the last long range transportation plan, changes in the framework for metropolitan transportation planning and programming resulted from the 2000 Census and the inclusion of the Stamford Urban Area and the Norwalk Urban Area as part of a consolidated and expanded urbanized area designated as the Bridgeport-Stamford Urbanized Area. This redesignation by the US Department of Commerce Bureau of Census in May 2002, transformed the South Western Region Metropolitan Planning Organization (SWRMPO) into a new relationship with the other Metropolitan Planning Organizations, regional planning organizations, and transit operators in the new Bridgeport-Stamford Urbanized Area. In July 2002, the U.S. Department of Transportation designated the Bridgeport-Stamford Urbanized Area as a "transportation management area", a category that applies to all urbanized areas with a population over 200,000. This designation is new to the SWRMPO, and institutes requirements for development of certain planning documents (a congestion management systems plan) and triennial reviews of the transportation planning program by USDOT. As a consequence of re-designation, the Memorandum of Understanding Regarding Transportation Planning and Funding in the Bridgeport-Stamford Urbanized Area was executed by the 5 MPOs, 6 regional planning

organizations, 5 transit operators, and ConnDOT in December 2002. Since the MOU, coordination of the Bridgeport-Stamford urbanized area planning and transit agencies and activities has taken place with respect to shared Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funding programs, such as the FHWA Surface Transportation Program-Urban for the Bridgeport-Stamford Urbanized Area (STP-BS), and FTA Section 5307 Enhancement program, and development of the locally coordinated human service transportation plan. Future coordination of Transportation Improvement Programs (TIPs), long range transportation plans, and congestion management systems (CMS) plans is envisioned. Figure 8a, shows the Bridgeport-Stamford Urbanized Area.

South Western Region Long Range Transportation Plan 2007-2035 Recommendations

The Plan supports planning and engineering studies that define future strategies and investments, including:

- A Regional Transit Strategies Plan to develop the vision and an implementation plan for transit within the region and that will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry and air.
- A Stamford Transportation Investment Strategies Study to develop a comprehensive plan for highway and all modes of transit in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access & arterial roadways, rail bridges & infrastructure, and Stamford Harbor.
- A Stamford Transportation Center Master Plan to define near term and long term capital projects, maintenance and operating requirements and financing.
- The Stamford Rail Bridge/Underpass Priority Program will define the implementation program for improvement of rail underpasses to improve operations, safety and access and to support current, proposed and future land use development. The rail bridges include: Atlantic Street; East Main (Route 1); Elm Street; Canal Street; and, Greenwich Avenue.
- The South Norwalk Intermodal Feasibility Concept Plan received funding in 2007.
- A Merritt 7 Area Transportation Study to develop a program of multimodal improvements coordinated with land use to improve mobility and access and manage congestion.
- If needed, a Route 7 and 15 Interchange “Plan B” will define the program of projects and investments needed to replace Project #102-269 completion of the fully directional Route 7 and 15 interchange project, delayed by court action. In tandem with Plan B, a new environmental assessment for the full interchange would be initiated.
- Initiation and completion of the ConnDOT Danbury Rail Line Electrification Study Phase 2 modification of the scope of this funded study to develop rail service enhancement program and commuter connections to provide additional train service to the Wilton/Merritt 7/South Norwalk corridor. The Phase 2 study is expected to start in the fall of 2007 and conclude in 2009.
- Initiation and completion of the funded ConnDOT New Canaan and Waterbury Branch Study and environmental assessment will develop rail and commuter connection improvements on the branch lines. The study is expected to start in the fall of 2007 and conclude in 2009.
- The funded Darien Route 1 congestion, circulation and access management study will begin in 2007, and conclude by 2009.
- The funded Greenwich and Stamford Route 1 study scoping will begin in 2007.
- The funded Route 7 corridor needs assessment for the section of Route 7 between Olmstead

Hill Road, Wilton, and the Route 35, Ridgefield will establish an implementation program for operational, intersection, safety, and multimodal improvements, access management, and streetscaping enhancements with a context sensitive design approach. This study is a cooperative effort of ConnDOT, the Housatonic Valley Council of Elected Officials (HVCEO), the SWRMPO, the South Western Regional Planning Agency (SWRPA) and ConnDOT, which will be administered by HVCEO with equal governance and input by all parties.

- The Stamford Ferry Feasibility Study, initiated in 2007, will develop a ferry implementation program when the study of waterside and landside issues, and alternative sites is completed.
- Support and participate in the ConnDOT Value Pricing Pilot Program Pre-implementation Statewide Study or equivalent to evaluate various pricing options, identify system benefits and constraints and develop a value pricing program implementation plan (2007).
- Conduct the study for the first phase of the Route 1 BRT program, which is the SWRPA Norwalk-Stamford (or Norwalk-Stamford-Greenwich) bus rapid transit (BRT)/express bus implementation study funded by STP-Urban, ConnDOT and others (2007).
- Develop a comprehensive truck safety and enforcement program, including:
 - State adoption of truck safety and enforcement as high priorities with funding to support projects, and operations to support (1) already-required weigh station inspections, (2) increased truck safety inspections at I-95 Darien truck inspection station and I-84 inspection stations, and (3) to implement an effective Weigh-in-Motion (WIM) program once ConnDOT's evaluation of WIM evaluation is completed.
 - a "truck information" webpage on ConnDOT website that would provide truckers with information on: state truck regulations and programs; state rest areas and private truck stops; vertical or horizontal bridge clearance restrictions and weight-restricted bridges along with alternate routes; links to the ConnDOT Incident Management webpage where information is provided on CVISN programs, ConnDOT traffic cams and information on incidents in progress. In the future, real time traveler information on truck stop and rest area parking availability could be provided through the website, and future 511 programs. For the Merritt Parkway, use restrictions, bridge clearance restrictions, penalties and alternative routes would be included.
 - NYSDOT and ConnDOT should develop an overheight/overweight detection program for the Merritt and Hutchinson River Parkways to prevent further damage of structures or hazardous spills.
- Develop protocols for NYSDOT and ConnDOT variable message signs to reinforce Merritt Parkway and Hutchinson River Parkway restrictions.

The Plan recommends immediate implementation of certain near-term projects and programs, including:

- Replacement of Stamford Transportation Center garage parking.
- Completion of the Danbury Branch signal and communications project (#302-0007).
- Design and construction of two priority projects that are part of the Stamford Rail Bridge/Underpass Priority Program:
 - Atlantic Street rail bridge project to improve vertical and horizontal clearance, provide additional capacity and enhance operations and safety of this important link

- to the Stamford Transportation Center and South End.
 - East Main Street/Route 1 rail bridge project to improve operations and safety by increasing the vertical clearance and roadway cross section. Route 1 is the major diversion route for I-95, which does not accommodate trucks or certain public transit buses at this location, a gateway to downtown Stamford.
-
- Enhanced rail and bus services in the Route 7 corridor between Norwalk and Danbury, including: increased Danbury Branch rail service oriented to work trips in the Route 7 corridor; express bus from the Danbury area to Stamford via I-684; express bus from Ridgefield-Wilton to Stamford; continued support for 7Link bus service and enhanced service; enhanced commuter connections between South Norwalk rail station and Merritt 7 and other growth employment clusters; and, enhanced transportation demand management programs and incentive-based ridesharing programs.
- Increased funding for bus services, including ADA companion service, increased commuter connections, and shuttles between rail parking and rail stations (South Norwalk and Stamford),
- Implementation of real time traveler information services
- Continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability and related measurement and evaluation capabilities in any and all applicable projects, as well as the State Incident Management System.

The Plan supports special and priority projects that include:

- Stamford Urban Transitway Phase 1 (Stamford Transportation Center to Elm Street)
- Stamford Urban Transitway Phase 2 (Myrtle Avenue)
- Stamford Ferryboat Facilities
- Norwalk Pulse Point Security and Safety Project
- Norwalk Route 1 Cross Street improvements and design
- Other high priority projects that secure local, state and federal funding subject to consistency with transportation plan goals and objectives.

The Plan restates as the region's highest highway and transit priorities:

- Completion of Route 7 corridor projects, including:
 - Route 15 and Route 7 Interchange, Norwalk (#102-269)
 - Route 7 widening between Grist Mill Road, Norwalk, and Route 33, Wilton (#102-305)
- I-95 Exit 14 – 15 (#102-278) operational lanes; Exit 16 interchange improvements (#102-H079); Exit 16 – 17 median barrier, pavement, operations and safety (#102-295); Exit 8 to 10 northbound; and, other operational and safety improvements in the South Western Region.
- Route 15 – Merritt Parkway Projects for operational and safety improvements within context sensitive design and consultation.
- Route 1 operational and safety improvements
- Rail: order new rail cars, increase rail parking at New Haven Line stations, and expand

intrastate commuter rail service.

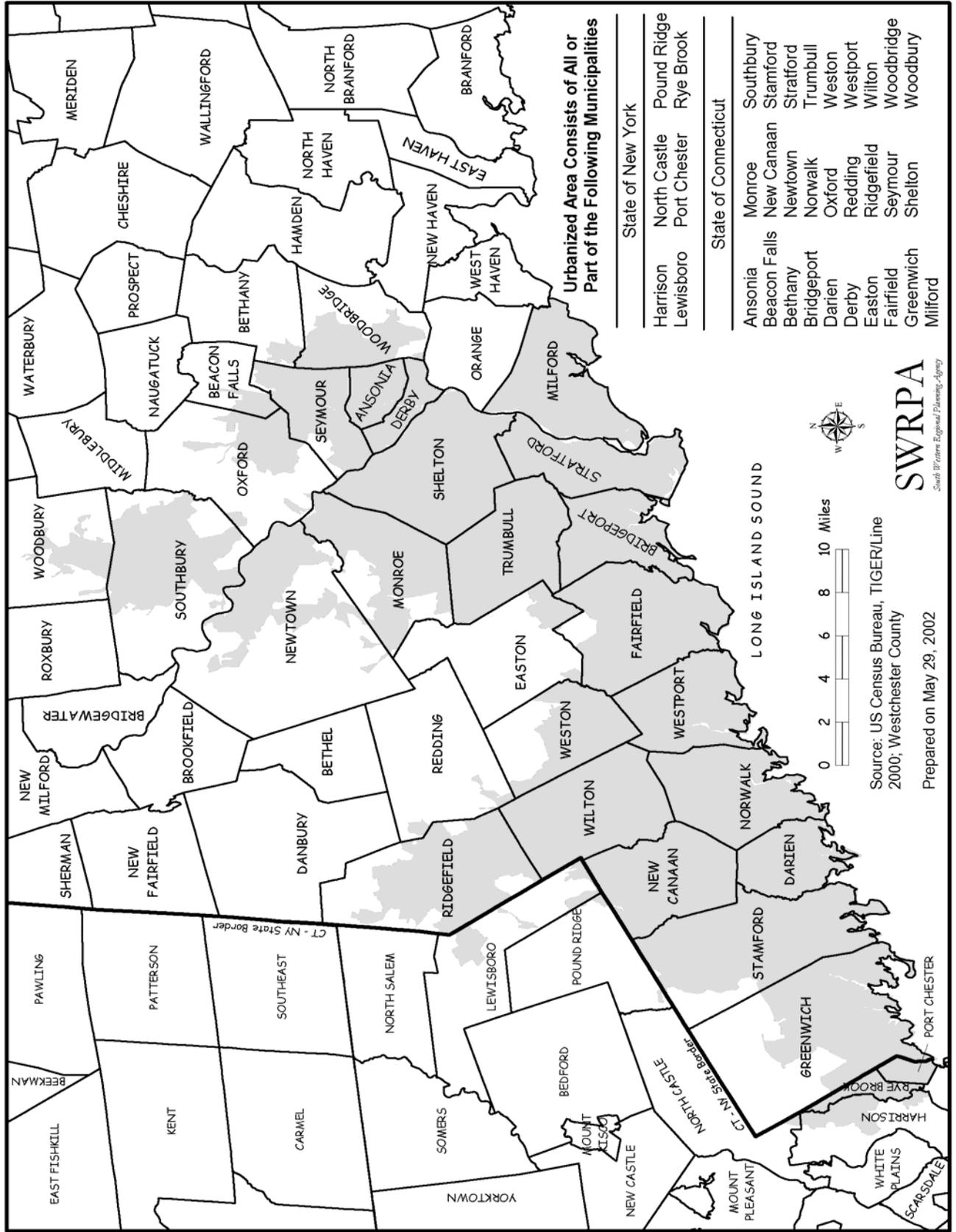
- Implement projects to attain and maintain a state of good repair for rail infrastructure and rolling stock.
- Implement projects to attain and maintain a state of good repair for bus systems, including infrastructure, ITS and rolling stock.
- Strategies, services, marketing and amenities to support the use of rail, including bus and shuttle commuter connections, local and inter-regional bus services, waterborne transit, bicycle facilities and pedestrian connections.

Participation of regional and municipal officials in project and program planning is recommended in the following:

- The ConnDOT Service Plaza and Rest Area Study
- The ConnDOT Danbury Branch Electrification Study Phase 2
- The ConnDOT New Canaan and Waterbury Branch Study
- The locally coordinated human service transportation plan (LOCHSTP) for the Bridgeport-Stamford Urbanized Area
- Continued coordination, cooperation and collaboration with the state, partners within the Bridgeport-Stamford Urbanized Area, other Connecticut regions, the TSB, and New York metro area regions to cooperatively address transportation issues, and to develop cohesive investment strategies that result in funding and tangible projects.

Because the Region's long range transportation plan is a dynamic document, the Plan will be revised as new transportation needs and recommended projects or courses of action are identified by the municipalities, the South Western Region MPO, State and Federal Governments.

Bridgeport - Stamford, CT - NY Urbanized Area



TRANSPORTATION PLAN UPDATE COMPONENTS

The South Western Region Long Range Transportation Plan 2007 – 2035 Plan Update describes the planning process, goals and objectives and transportation plan elements, including:

- The Transportation Planning Process
- Transportation Goals and Objectives
- Critical Corridors
- Municipally Identified Priorities and Needs
- Highway Systems and Operations
- Transportation Systems Management and Operations
- Safety
- Congestion Management
- Incident Management
- Bridges
- Noise Barriers
- Transit System: Buses, Locally Coordinated Human Service Transportation, Transportation for Seniors and Persons with Disabilities, and Rail Passenger System
- Freight/Goods Movement
- Transportation Demand Management and Commuter Choice
- Bicycling and Walking
- Waterborne Transportation
- Air and Pipeline Systems
- Intelligent Transportation Systems (ITS)
- Security
- Land Use
- Environmental Considerations
- Environmental Justice
- Financial Component
- Air Quality Conformity
- Public Involvement Summary

For each transportation element, the Plan Update provides background information, identifies issues and challenges, describes the process used to develop projects and programs, and summarizes recommendations. The framework for developing the Plan processes, policies, programs and projects is constructed through the Plan's goals and objectives which promote mobility, access, safety, security, new technology and congestion management while supporting economic development, environmental sensitivity and justice within a financially constrained program. The plan seeks to:

- Maintain the infrastructure and equipment in a state of good repair (goal II)

- Preserve and maintain existing systems (goal II);
- Increase system efficiency and productivity and the use of new technology (goal IX)
- Enhance and encourage intermodal connectivity (goal VIII);
- Promote mobility and commuter choices (goals III, VIII);
- Measure and monitor systems performance to forecast needs, develop transportation responses, and revise existing systems (goal X);
- Promote and enhance safety (goal IV);
- Increase transportation systems security (goal V)
- Foster economic competitiveness (goal I);
- Support environmental preservation and clean air (goal VI);
- Recognize the linkage between land use and transportation (goal VII);
- Estimate financial needs and develop adequate funding to support the Plan (goal XI).

REGIONAL TRANSPORTATION PLAN REFERENCES

The South Western Region Long Range Transportation Plan 2007-2035 incorporates the latest regional Transportation Improvement Program (TIP) and Statewide Transportation Improvement Program and endorsed adjustments and amendments as the first five years of the Long Range Transportation Plan's program. The State's latest Master Transportation Plan (2003) provides information through year 2013.

Documents that provide the platform for the South Western Long Range Transportation Plan 2007-2035 are:

- South Western Region FFY2007-2011 Transportation Improvement Program and amendments (SWRPA 2006 with updates).
- 2007 Master Transportation Plan: 2008-2017 (ConnDOT 2007).
- The ConnDOT Public Transportation Capital Project Management Plan 2004-2014. (ConnDOT 2007)
- Conservation and Development Policies Plan for Connecticut 2005-2010 (CT OPM 2006)
- Darien and Norwalk Rail Parking Study (SWRPA 2004)
- South Western Region Long Range Transportation Plan 2004-2030 (SWRPA 2004)
- The Regional Plan of Conservation and Development 2006-2015 (SWRPA 2005)
- Congestion Mitigation Systems Plan "Vision 2020" Final Report (SWRPA 2003)

As new baseline documents are made available, they will be incorporated into the Long Range Transportation Plan 2007-2035. Plan updates and amendments will undergo air quality conformity analysis, public involvement, will be financially constrained, and will respond to federal and state mandates as they are enacted.

THE TRANSPORTATION PLANNING PROCESS

The transportation planning process in the South Western Region is a cooperative effort among the South Western Regional Planning Agency (SWRPA), the Metropolitan Planning Organization (MPO) of the South Western Region, the Connecticut Department of Transportation (ConnDOT), the Connecticut Department of Environmental Protection (ConnDEP), the Federal Transit Administration (FTA), and the Federal Highway Administration (FHWA).

SWRPA is the federal and state-designated transportation planning agency for the Region. The South Western Region Metropolitan Planning Organization (SWRMPO) is the organization, which is federally mandated and designated by the Governor as the forum for cooperative transportation decision-making by chief elected local officials. The SWRMPO is composed of the Mayors and First Selectmen and First Selectwomen of the eight member municipalities, as well as the Directors of the Region's Transit Districts. The SWRPA Chairman participates as a non-voting member of the SWRMPO. In its capacity as the transportation planning agency SWRPA serves as the transportation planning staff for the SWRMPO. The Transportation Technical Advisory Group (TTAG), is a committee, which reviews and evaluates proposals and submits recommendations to the SWRMPO. The TTAG consists of professional staff from SWRPA, Transit Districts, Municipal Planning, Engineering and Traffic Engineering Departments, FHWA, FTA, ConnDOT and other interested federal and state agencies.

In accordance with the federal Transportation Equity Act for the 21st Century (SAFETEA-LU), the SWRMPO is responsible for developing the long range vision for transportation in the South Western Region. This document is the long range transportation plan, which must cover a 20 year timeframe and must be updated every three years. The SWRMPO's goals and objectives guide transportation decision-making, planning and programming of federal transportation funds. The South Western Region Long Range Transportation Plan 2007-2035 notes critical issues to the region, describes current and projected conditions, identifies needs, and proposes policies, programs and projects to address identified needs. The SWRMPO is also responsible for two other planning documents. These documents are the Transportation Improvement Program (TIP) and the annual Unified Planning Work Program (UPWP). The TIP lists projects for federal funding for the near term, three year period. Projects on the TIP must be on the region's long range transportation plan. The UPWP describes the planning activities that will be carried out during the fiscal year, and is directly related to the issues, analyses and solutions needed for the long range plan and TIP.

The key regulations that shape the region's long range transportation plan include three pieces of federal legislation: Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU), Clean Air Act Amendments of 1990, and the Americans with Disabilities Act of 1990.

SAFETEA-LU

The eight planning factors of SAFETEA-LU are embodied in the Plan:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and, efficiency;
- Increase the safety of the transportation system for motorized and non-motorized users;
- Increase the security of the transportation system for motorized and non-motorized users;
- Increase the accessibility and mobility of people and for freight;
- Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns;
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- Promote efficient systems management and operation; and,
- Emphasize the preservation of the existing transportation system.

The eight planning factors are addressed in the South Western Region Long Range Transportation Plan 2007-2035 and reflected in the goals and objectives that shape the Plan. The region's goals are described in the next section of the Plan.

Clean Air Act Amendment of 1990

Another important control in transportation is the Clean Air Act Amendments of 1990 (CAA). The CAA focuses on the relationship of transportation (as mobile source of pollution) and the environment. The effects of these regulations are great, because analytical and programming requirements are established. All plans and TIPs must conform to the State Implementation Plan (SIP) for Air Quality, with the intent that projects contribute to attaining the national ambient air quality standards. The South Western Region is designated as a severe non-attainment area for hydrocarbons and must comply with these regulations.

Americans With Disabilities Act 1990

The Americans with Disabilities Act (ADA) became law in 1990 and makes it illegal to discriminate against anyone with disabilities, physical or mental, in employment, telecommunications or public accommodations. The ADA affects and shapes all transportation systems. New transit vehicles and new facilities of public transportation systems are required to be fully accessible for persons with disabilities. Key rail stations are also to be accessible.

The Region's planning process is described in more detail in the annual planning certification report, which describes how the Region complies with the seven planning factors mandated by federal regulations, identifies major projects and accomplishments, and serves as an encyclopedia of transportation planning documents, including the MPO designation, the Memorandum of Understanding, the public involvement process, and federal regulations and requirements.

SOUTH WESTERN REGION LONG RANGE TRANSPORTATION PLAN 2007-2035 GOALS AND OBJECTIVES

The overarching goals of the South Western Region Long Range Transportation Plan 2007-2035 are to provide safe, efficient, cost effective and balanced transportation systems that promote mobility, access and choice. In addition, the transportation system is to provide multi-modal opportunities to meet the mobility needs of users and goods, while minimizing adverse impact, and optimizing investment in the transportation system.

The objectives of the Transportation Plan fall into eleven categories:

- I **Economic Competitiveness** – to make timely investments in the transportation system to maintain a healthy regional economy and to promote quality of life. A balance should be achieved between housing availability, transportation capacity, and the locations of new jobs and employment centers to avoid creating or exacerbating housing shortages, congestion, and disorganized development patterns. The Plan should be responsive to business needs, and responsive to Connecticut urban development strategies. The Transportation Plan provides the framework to guide investments in transportation to attain economic and quality of life goals.

- II **Infrastructure** – to maintain in a state of good repair transportation equipment and facilities, including highways, bridges, and transit systems. The Transportation Plan identifies the maintenance needs and resources to maintain the Region’s transportation systems.

- III **Accessibility and Mobility (ADA)** – to maintain and increase options available for the movement of people and goods. The objective is to provide transportation for the traditionally transit-dependent (young, elderly, disabled, low income) as well as options that provide commuters with viable mode choices such as transit, walking, bicycling, ferry, and ridesharing. The Transportation Plan promotes choice, alternative modes and demand management. The Transportation Plan also identifies transportation needs, strategies and projects developed through the locally developed human service transportation planning efforts. The Transportation Plan also supports the use of new technology and Intelligent Transportation Systems (ITS) to promote efficient systems, reliability, operations and management, and to increase information to users enhance their ability to make smart travel choices. The Transportation Plan identifies strategies to reduce overall traffic congestion, to increase mobility, and to improve access to employment opportunities and services.

- IV **Safety** – to promote the safety of all modes of transportation for all users and operators is a major objective of the Transportation Plan. Emphasis areas are pedestrian, bicycle and older driver safety, as well truck safety, and the security of transportation systems and the users. The Transportation Plan identifies key safety topics as more education programs, development of bicycle and pedestrian plans, Safe Routes to Schools, enhanced truck safety inspections, and increased public safety enforcement and incident management programs.

- V **Security** - to increase security of all modes of transportation for all users and operators is a major objective of the Transportation Plan. The Transportation Plan provides the backdrop of current security planning initiatives and priority action areas.
- VI **Environmental and Clean Air Responsibility** – to avoid, minimize, or mitigate any negative environmental impacts of transportation projects and systems whenever possible. Seek initiatives to improve air quality to bring the region into compliance with the clean air standards and develop a more healthy and high quality of life for all residents. The Transportation Plan identifies and implements measures to improve air quality, including promotion of alternative fuels and energy efficient transportation modes, increased public transit opportunities, transportation demand management and transportation systems management, and development of bicycle and pedestrian plans.
- VII **Land Use and Transportation** – The link between land use and transportation is recognized as a critical component for improving mobility and maintaining or improving the quality of life in the Region. The Transportation Plan supports strategies that promote transit oriented development, contribute to regional congestion mitigation, encourage sustainable travel options and promote environmental benefits. The Transportation Plan identifies strategies to support smart growth, consistency between transportation improvements, planned growth and economic development, as well as Context Sensitive Design Solutions.
- VIII **Intermodal Connectivity** – to enhance the integration and connectivity of transportation systems and modes for people and freight. Select transportation investments that support and encourage development of a balanced transportation system which uses a variety of modes operating in a complementary way to save energy, reduce congestion, strengthen urban centers and meet the needs of all residents. The Transportation Plan proposes continuation and expansion of rail and commuter connections and services, more direct and seamless transit services, and future studies of freight alternatives that link Connecticut to the Port of New York/New Jersey and the international rail grid.
- IX **Systems Efficiency and Productivity** – to make the most of current systems and resources through effective transportation systems management and operations. The Transportation Plan identifies projects and studies aimed at prolonging the effective life of facilities, refining operations, management, finance or governance to improve efficiency, and encourages new technology to achieve transportation system productivity and enhanced services.
- X **System Performance** – to develop measurement and monitoring tools and strategies to better analyze the highway and rail systems performance and adjust programs and projects. The Transportation Plan and companion Congestion Management System reports recommend projects and strategies to monitor and analyze congestion and systems performance that will lead to reduction of recurring and incident-related congestion in the southwest corridor. Recommended projects include: deployment of smart card technology, real time traveler information, various ITS projects and programs, commercial vehicle information systems (CVISN), and continuous traffic recording equipment.

XI **Financing** – to provide resources to maintain existing transportation systems and services in a state of good repair and to support improvements and services that meet the needs of system users. The Transportation Plan describes the financial framework for system operation, maintenance and improvement. Available resources are identified. Projects within the 29 year financial envelope as well as future un-funded needs are noted.

HIGHWAY SYSTEMS AND OPERATIONS

Background

The Region's highway and bridge system faces the challenges of aging infrastructure, which demands more maintenance, rehabilitation and replacements within a framework of diminishing resources and ever-increasing travel demand. Though significant investment in the State's system occurred under the Transportation Infrastructure Program in place since 1983, and there was increased federal transportation funding through federal transportation programs (ISTEA – Intermodal Safety and Efficiency Act 1991 – 1997, and TEA-21 – Transportation Efficiency Act for the 21st Century 1997-2003), SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users) which covers 2005-2009 did not increase funding to Connecticut to keep pace with inflation. This means that federal funding for Connecticut is effectively flat in real dollar terms⁷, as the needs exceed the funding that is available. The challenge is to get transportation systems operationally sufficient and into a state of good repair, to keep them functional, and to enhance and diversify systems to meet the needs of the 21st century while remaining sensitive to context and stakeholders.

As noted in past regional long range transportation plans the challenges are: “to maintain and preserve the structural integrity and operational efficiency of existing facilities; and to identify and correct safety, capacity and congestion deficiencies within financial, environmental, and regulatory constraints.”

In the South Western Region there are 1,530 miles of road, with 179 miles (12%) maintained by the state, and 1,351 miles (88%) municipally or privately maintained. Roads that are functionally classified as local (serving neighborhoods) rather than collectors, minor arterials or principal arterials (including interstate highways and expressways) account for 1,092 miles or 80.9% of town roads, and are not eligible for federal transportation funding. Information on highway system mileage, maintenance responsibility and functional classification is provided in the following tables. Figure 9 shows highways in the South Western Region and vicinity.

In addition to municipal investment in highway maintenance and improvements, a number of state grant programs provide additional funding that may be used for local roads, including paving and resurfacing programs. In FY2006 the Town Aid for Roads (TAR) program provided \$2.2m to South Western Region municipalities, and the Local Capital Improvement Program (LoCIP) provided \$2.3m. The TAR program was dramatically reduced from \$35m in 2002 to \$16m in 2003, with increases to \$28m in 2006, and \$30m in 2007. To attain the 2002 funding level with adjustments for inflation would require \$43m in 2008. The ConnDOT Local Road Accident Reduction Program targets low cost safety improvements on local roads. This annual competitive funding program was not offered in FY2006, but will be available in FY2007 and future years. The maximum grant amount is \$280,000. The following tables show TAR and LoCIP funding provided to the region's municipalities as well as the statewide total funding level.

⁷ SAFETEA-LU provides Connecticut with an average of \$523.4m per year. (2007 ConnDOT Master Transportation Plan, page IV-3).

Table 11. Public Roadway Mileage by Maintenance Responsibility as of December 31, 2005

MUNICIPALITY	LAND AREA SQUARE MILES	2004 POPULATION	MAINTENANCE		
			STATE	MUNICIPALITY	TOTAL
Darien	23.40	20,547	14.61	80.92	95.53
Greenwich	67.20	62,317	21.78	265.00	286.78
New Canaan	22.50	19,965	20.00	121.59	141.59
Norwalk	36.30	84,412	32.60	243.97	276.57
Stamford	52.10	120,160	28.74	309.62	338.36
Weston	20.70	10,263	11.36	79.37	90.73
Westport	33.30	26,564	28.01	123.12	151.13
Wilton	27.40	17,965	22.30	127.18	149.48
REGIONAL TOTAL	282.90	362,193	179.40	1350.77	1530.17
STATE TOTAL	5121.00	3,503,504	3731.37	17114.04	20846.01

Source: ConnDot Bureau of Policy and Planning - Policy and Systems Information Public Road Mileage By Maintenance Responsibility as of December 31, 2005

Table 12: Town Aid for Roads Program

	<u>SFY 2001- 2002</u>	<u>SFY 2002- 2003</u>	<u>SFY 2003- 2004</u>	<u>SFY 2004- 2005</u>	<u>SFY 2005- 2006</u>	<u>SFY 2006-2007 (est.)</u>
Darien	\$ 189,197	\$ 88,851	\$ 69,942	\$ 110,729	\$ 154,581	\$ 167,354
Greenwich	\$ 424,057	\$ 196,206	\$ 153,624	\$ 244,334	\$ 341,066	\$ 377,229
New Canaan	\$ 189,538	\$ 88,104	\$ 69,606	\$ 110,242	\$ 154,217	\$ 166,180
Norwalk	\$ 542,660	\$ 253,257	\$ 196,015	\$ 315,715	\$ 439,694	\$ 441,327
Stamford	\$ 734,904	\$ 341,625	\$ 265,658	\$ 429,421	\$ 598,767	\$ 594,192
Weston	\$ 137,804	\$ 65,273	\$ 51,180	\$ 81,668	\$ 114,087	\$ 126,260
Westport	\$ 225,590	\$ 104,671	\$ 82,957	\$ 130,764	\$ 182,951	\$ 193,137
Wilton	\$ 181,623	\$ 83,991	\$ 66,082	\$ 104,700	\$ 146,269	\$ 157,034
South Western Region TAR Total	\$ 2,625,373	\$ 1,221,978	\$ 955,064	\$ 1,527,573	\$ 2,131,632	\$ 2,222,713
Statewide TAR Total	\$ 34,856,799	\$ 15,935,763	\$ 12,449,800	\$ 19,919,919	\$ 27,887,920	\$ 29,999,993

Table 13: Local Capital Investment Program (LoCIP)

	<u>SFY 2001- 2002</u>	<u>SFY 2002- 2003</u>	<u>SFY 2003- 2004</u>	<u>SFY 2004- 2005</u>	<u>SFY 2005- 2006</u>	<u>SFY 2006-2007 (est.)</u>
Darien	\$ 104,773	\$ 109,869	\$ 109,875	\$ 108,606	\$ 110,955	\$ 110,955
Greenwich	\$ 327,823	\$ 332,665	\$ 331,749	\$ 329,229	\$ 328,958	\$ 328,958
New Canaan	\$ 115,767	\$ 117,990	\$ 118,017	\$ 117,435	\$ 117,502	\$ 117,502
Norwalk	\$ 616,304	\$ 650,768	\$ 652,676	\$ 641,201	\$ 639,431	\$ 639,431
Stamford	\$ 771,943	\$ 805,196	\$ 816,722	\$ 798,432	\$ 794,023	\$ 794,023
Weston	\$ 63,865	\$ 67,151	\$ 67,106	\$ 66,494	\$ 66,276	\$ 66,276
Westport	\$ 143,889	\$ 147,647	\$ 147,789	\$ 146,377	\$ 146,716	\$ 146,716
Wilton	\$ 113,235	\$ 114,045	\$ 113,706	\$ 113,100	\$ 112,780	\$ 112,780
South Western Region LoCIP Total	\$ 2,257,599	\$ 2,345,331	\$ 2,357,640	\$ 2,320,874	\$ 2,316,641	\$ 2,316,641
Statewide LoCIP Total	\$ 30,000,000					

Source: Connecticut Office of Policy and Management

Table 14: South Western Region Miles of Road by Functional Classification 2006

Urban Road Miles

	<u>DARIEN</u>			<u>GREENWICH</u>			<u>NEW CANAAN</u>			<u>NORWALK</u>		
	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL
Principal Arterial	13.4	-	13.4	17.2	3.9	21.1	12.7	0.5	13.2	19.9	3.4	23.3
Minor Arterial	1.3	9.1	10.3	0.6	20.2	20.8	7.3	5.6	13.0	12.7	16.0	28.7
Collector	-	10.0	10.0	-	21.1	21.1	-	21.8	21.8	-	30.1	30.1
Local Road	0.2	61.8	62.0	0.1	165.6	165.8	-	93.6	93.6	-	194.5	194.5
Total	14.8	80.9	95.7	17.9	210.8	228.7	20.0	121.6	141.6	32.6	244.0	276.6
	<u>STAMFORD</u>			<u>WESTON</u>			<u>WESTPORT</u>			<u>WILTON</u>		
	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL
Principal Arterial	28.7	0.2	28.9	-	-	-	13.0	-	13.0	7.8	-	7.8
Minor Arterial	-	27.6	27.6	8.6	-	8.6	15.0	7.8	22.8	12.5	3.6	16.1
Collector	-	33.2	33.2	-	8.6	8.6	-	13.0	13.0	2.1	10.6	12.7
Local Road	-	248.7	248.7	-	57.4	57.4	0.9	102.3	103.3	-	112.9	112.9
Total	28.7	309.6	338.3	8.6	66.0	74.6	28.9	123.1	152.1	22.3	127.1	149.4
	<u>SOUTH WESTERN REGION</u>			<u>STATEWIDE</u>								
	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL						
Principal Arterial	112.6	8.0	120.5	1,180.8	48.1	1,228.9						
Minor Arterial	58.1	89.8	147.8	926.1	747.5	1,673.6						
Collector	2.1	148.4	150.5	321.9	1,520.1	1,842.0						
Local Road	1.2	1,036.9	1,038.1	52.2	10,172.7	10,224.9						
Total	173.9	1,283.0	1,456.9	2,481.0	12,488.4	14,969.4						

Rural Road Miles ⁸

	<u>GREENWICH</u>			<u>WESTON</u>			<u>SOUTH WESTERN REGION</u>			<u>STATEWIDE</u>		
	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL
Principal Arterial	3.9	-	3.9	-	-	-	3.9	-	3.9	206.9	-	206.9
Minor Arterial	-	2.3	2.3	-	-	-	-	2.3	2.3	243.3	4.6	247.9
Collector	-	7.5	7.5	2.7	2.6	5.3	2.7	10.0	12.8	828.4	498.9	1,327.3
Local Road	-	44.5	44.5	-	10.8	10.8	-	55.3	55.3	249.3	4,086.1	4,335.4
Total	3.9	54.2	58.1	2.7	13.4	16.1	6.6	67.6	74.2	1,527.9	4,589.6	6,117.5

Source: ConnDOT Functional Classification Mileage as of December 31, 2006

⁸ Darien, New Canaan, Norwalk, Stamford, Westport and Wilton do not have any roads in areas classified as rural.

Table 15: Percentage of Road Miles by Functional Classification 2006

% of Urban Road Miles												
<u>DARIEN</u>			<u>GREENWICH</u>			<u>NEW CANAAN</u>			<u>NORWALK</u>			
	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL
Principal Arterial	13.9%	-	13.9%	7.5%	1.7%	9.2%	9.0%	0.4%	9.3%	7.2%	1.2%	8.4%
Minor Arterial	1.3%	9.5%	10.8%	0.3%	8.8%	9.1%	5.2%	4.0%	9.1%	4.6%	5.8%	10.4%
Collector	-	10.5%	10.5%	-	9.2%	9.2%	-	15.4%	15.4%	-	10.9%	10.9%
Local Road	0.2%	64.6%	64.8%	0.1%	72.4%	72.5%	-	66.1%	66.1%	-	70.3%	70.3%
Total	15.4%	84.6%	100.0%	7.9%	92.1%	100.0%	14.2%	85.9%	99.9%	11.8%	88.2%	100.0%
<u>STAMFORD</u>			<u>WESTON</u>			<u>WESTPORT</u>			<u>WILTON</u>			
	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL
Principal Arterial	8.5%	-	8.5%	-	-	-	8.5%	-	8.5%	5.2%	-	5.2%
Minor Arterial	-	8.2%	8.2%	11.6%	0.0%	11.6%	9.9%	5.1%	15.0%	8.4%	2.4%	10.8%
Collector	-	9.8%	9.8%	-	11.5%	11.5%	-	8.6%	8.6%	1.4%	7.1%	8.5%
Local Road	-	73.5%	73.5%	-	76.9%	76.9%	0.6%	67.3%	67.9%	0.0%	75.5%	75.5%
Total	8.5%	91.5%	100.0%	11.6%	88.4%	100.0%	19.0%	81.0%	100.0%	15.0%	85.0%	100.0%
<u>SOUTH WESTERN REGION</u>			<u>STATEWIDE</u>									
	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL						
Principal Arterial	7.7%	0.5%	8.3%	7.9%	0.3%	8.2%						
Minor Arterial	4.0%	6.2%	10.1%	6.2%	5.0%	11.2%						
Collector	0.1%	10.2%	10.3%	2.2%	10.1%	12.3%						
Local Road	0.1%	71.2%	71.3%	0.3%	68.0%	68.3%						
Total	11.9%	88.1%	100.0%	16.6%	83.4%	100.0%						

% of Rural Road Miles ⁹												
<u>GREENWICH</u>			<u>WESTON</u>			<u>SOUTH WESTERN REGION</u>			<u>STATEWIDE</u>			
	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL	STATE	TOWN	TOTAL
Principal Arterial	6.7%	-	6.7%	-	-	-	10.0%	-	10.0%	3.4%	-	3.4%
Minor Arterial	-	3.9%	3.9%	-	-	-	-	-	-	4.0%	0.1%	4.0%
Collector	-	12.8%	12.8%	16.9%	16.1%	33.0%	-	10.0%	20.0%	13.5%	8.2%	21.7%
Local Road	-	76.6%	76.6%	-	-	67.0%	-	70.0%	70.0%	4.1%	66.8%	70.9%
Total	6.7%	93.3%	100.0%	16.9%	16.1%	100.0%	10.0%	80.0%	100.0%	25.0%	75.1%	100.0%

The following sections of the Plan describe highway/road and bridge systems, issues, challenges, planning processes, and make recommendations.

⁹ Darien, New Canaan, Norwalk, Stamford, Westport and Wilton do not have any roads in areas classified as rural.

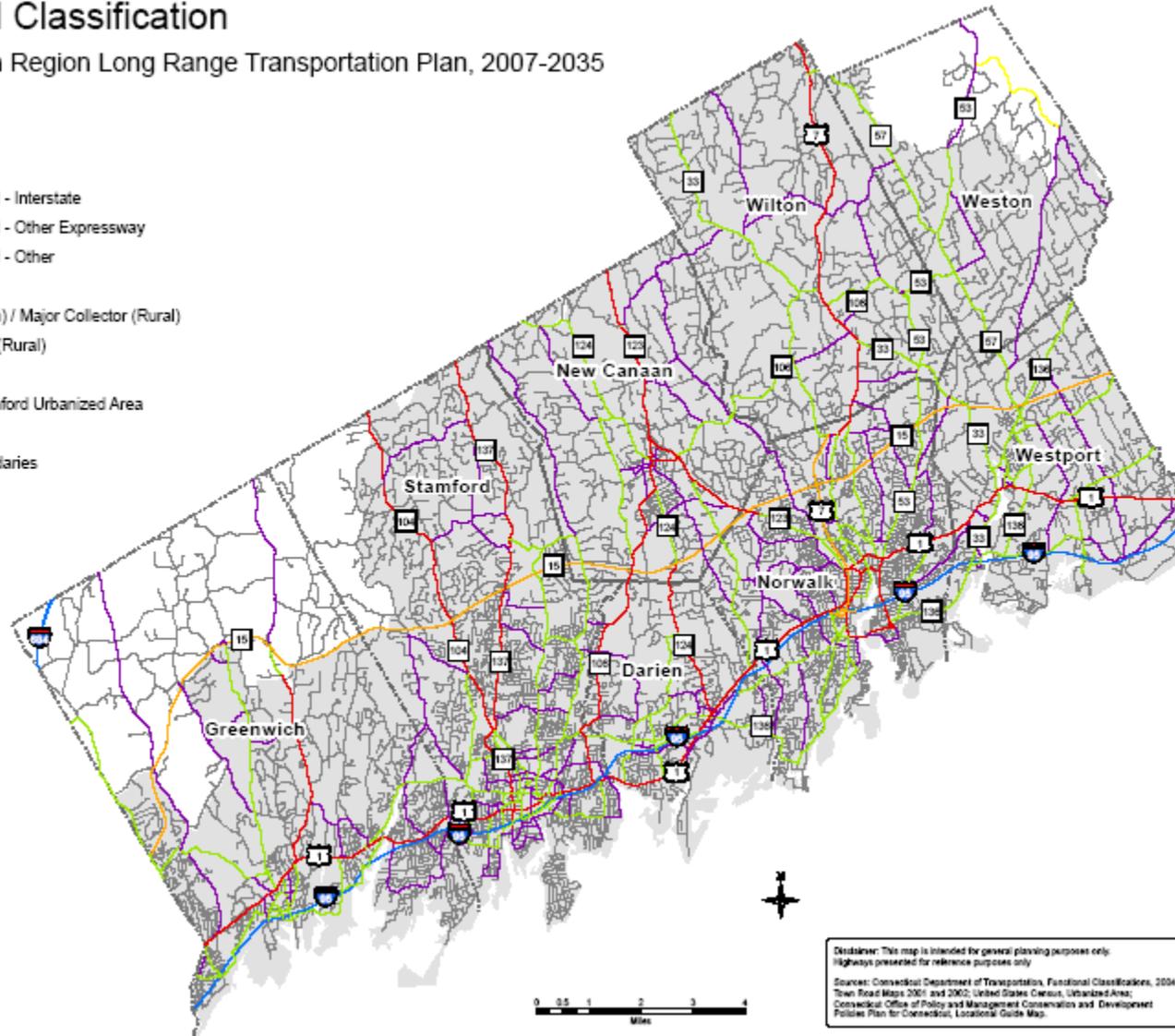
Figure 10. Functional Classification 2006

Functional Classification

South Western Region Long Range Transportation Plan, 2007-2035

Figure 10

- Principal Arterial - Interstate
- Principal Arterial - Other Expressway
- Principal Arterial - Other
- Minor Arterial
- Collector (Urban) / Major Collector (Rural)
- Minor Collector (Rural)
- Other Roads
- Bridgeport-Stamford Urbanized Area
- Rural Area
- Municipal Boundaries



Prepared on March 15, 2007
SWRPA
 www.swrpa.com/transportation

Disclaimer: This map is intended for general planning purposes only. Highways presented for reference purposes only.
 Sources: Connecticut Department of Transportation, Functional Classifications, 2004; Town Road Maps 2001 and 2002; United States Census, Urbanized Area; Connecticut Office of Policy and Management, Conservation and Development Policies Plan for Connecticut, Locational Guide Map.

TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS

Transportation System Management and Operations (TSM&O) is “An integrated program to optimize the performance of existing infrastructure through the implementation of systems, services, and projects designed to preserve capacity and improve security, safety and reliability.”¹⁰

According to the USDOT web site on Planning for Operations “Linking planning and operations is a major step toward development of a more optimized mix of projects for a region to meet its transportation needs. Projects include operations projects (ITS, signal timing, incident management, ramp meters, etc.), capital (lane additions) projects, safety projects, rehabilitation, and maintenance and preservation projects. It is a major step toward a process where projects are evaluated, selected, and prioritized based on common criteria and performance measures related to how well they meet the transportation needs of a region. This is especially important given the constraints of a limited (fixed) transportation budget and the limited numbers of projects that can be funded at any particular point in time. Another result is better communication among planners and operators in a region. Better communication means improved levels of information and resource sharing. Information and resource sharing equates to enhanced opportunities for improved delivery of transportation projects and services to meet a regions transportation needs and goals.”¹¹

Process

The South Western Region metropolitan planning program will evaluate and determine opportunities for the three components of transportation systems management and operations:

1. Regional concepts for transportation operations.
2. Coordination and collaboration among the stakeholders who may include planners, operations staff, local governments, transit operators, MPOs, the State DOT, emergency services, law enforcement, and others as appropriate. The coordination and collaboration should be formalized and continuous.
3. Linking of transportation planning and operations which may include data or resource sharing, cooperative planning or operations activities.
4. Several activities already in place and documented in other sections of this plan include: the South Western Region Incident Management Task Force and the Statewide Incident Management Task Force (refer to Incident Management section); the Bridgeport-Stamford Urbanized Area Locally Coordinated Human Services Transportation Planning initiative (refer to the LOCHSTP section); the People to Jobs Collaborative (which coordinates the access to jobs program); and, the Bridgeport-Stamford Urbanized Area FTA Enhancement Working Group. In addition, the South Western Region MPO and the SWRPA work closely with the New York Metropolitan Transportation Council (NYMTC), participating on committees, working groups, and sharing data and resources.

¹⁰ Getting More by Working Together: Opportunities for Linking Planning and Operations – A Reference Manual, USDOT FHWA, November 2004

¹¹ IBID

The on-going Regional Planning Coalition is developing and executing a Memorandum of Understanding that documents the relationships, which will be executed in 2007. Since 2003, SWRPA has been an active participant in emergency management and evacuation planning with the CT Department of Emergency Management (DEMHS), and is now part of the Regional Emergency Planning Committee formed in 2007, and will serve as co-chair of the Transportation Committee (RESF-1).

Recommended Strategies

Near Term

- Continue to participate in or coordinate the Bridgeport-Stamford Urbanized Area LOCHSTP Working Group and update and refine the LOCHSTP Plan (April 2007).
- Continue participation in the People To Jobs Collaborative on both Steering and Operations committees.
- Continue to coordinate the Bridgeport-Stamford Urbanized Area FTA Enhancement Working Group.
- Continue to coordinate the South Western Region Incident Management Team.
- Continue participation in the Statewide Incident Management Task Force.
- Continue to participate in the CT Department of Emergency Management (DEMHS) Regional Emergency Planning Committee, and to co-chair the Transportation Committee (RESF-1).
- In cooperation with the Norwalk Transit District and others, expand coordination and support activities with human service transportation providers in the South Western Region and nearby towns and regions to explore opportunities for operations, service and networking opportunities to maximize efficiency and use available state (Municipal Dial-A-Ride Grant), local, and federal funding (JARC, FTA 5310, and New Freedoms)
- Continue partnerships with the Southwest CT Area Agency on Agency and AARP.
- Evaluate transportation systems management opportunities, document the findings and recommendations, and pursue new opportunities.
- Review and comply with federal guidance on transportation systems management and operations when it is available.

SAFETY

In this Plan, the many facets of safety are recognized, including bicycle, pedestrian, older driver, driving under the influence of alcohol, and truck safety as well as transit operations which is discussed in the transit sections of the plan. SWRPA has assisted Connecticut DOT develop Connecticut’s Strategic Highway Safety Plan, the goal of which is to “see a continual decline of combined serious crashes and fatalities.¹²” SWRPA and the South Western Region Incident Management Team are active in transportation safety planning, training and response.

Background

In the Congestion Mitigation Study “Vision 2020” approximately 60% of all commuters surveyed indicated that highway safety was decreasing. Federal and state programs recognize the importance of planning and implementing capital and operating projects to enhance safety through such programs as incident management, highway assistance patrols, pedestrian and older driver safety programs and targeted enforcement programs.

The process to identify unsafe roadway locations begins with data collection. The State of Connecticut collects and tabulates crash (accident) data using uniform traffic crash reporting provided by local and state police. The data and analyses assist planners to identify locations on state highways with potential for accident reduction, to conduct before and after improvement analyses, and to assist in setting priorities for the allocation of resources for capital projects or for enforcement purposes. Below is a summary of the number of traffic accidents that occurred on public roadways in the South Western Region in 2004:

Table 16. Traffic Accidents: South Western Region, 2004

Town	Accidents	Injury Accidents	Fatal Accidents
Darien	812	265	2
Greenwich	1,397	493	1
New Canaan	224	72	3
Norwalk	2,476	883	5
Stamford	2,385	1,079	5
Weston	99	33	0
Westport	1,110	291	2
Wilton	499	155	0
SWR Total	9,002	3,271	18
CT Total	81,770	30,860	280
SWR %	11.0%	10.6%	6.4%

Source: Connecticut Traffic Accident Facts, ConnDOT, 2004

ConnDOT develops an annual Safety Plan that identifies all of the safety programs that it supports and how federal safety funding is used. Funding for low cost municipal safety programs is made available through the state’s Local Accident Reduction Program. There is also a Rail Crossing Program which upgrades highway and rail at grade crossings. The Connecticut

¹² Connecticut’s Strategic Highway Safety Plan, v.

Operation Lifesaver Program modeled on the nationwide program dedicated to ending collision, fatalities and injuries at highway rail grade crossings and on railroad rights of way. The program encompasses education, enforcement and engineering. A Commuter Rail System Safety Program Plan describes safety procedures for rail operations, and various contingencies plans address different service disruption scenarios.

Strategic Highway Safety Plan

The Strategic Highway Safety Plan (SHSP) provides the comprehensive framework which coordinates statewide safety initiatives and provides specific goals and objectives to reduce highway fatalities and serious injuries on all public roads. The SHSP is prepared in cooperation and collaboration with the Highway Safety Improvement Program and includes input from public agencies and private stakeholders, including SWRPA. The goal of the SHSP is to see a continual decline of combined serious crashes and fatalities. In order to achieve this goal, strategies are defined for each of the following emphasis areas:

- Traffic Records and Information Systems
- Roadway Departure
- Pedestrians and Bicycles
- Work Zones
- Driver Behavior (Alcohol, Occupant Protection and Speeding)
- Motorcycle Safety
- Commercial Vehicles
- Incident Management

SWRPA's participation has focused on the pedestrian and bicycles and incident management emphasis areas.

Process

Safety is a fundamental concern to all transportation officials and users of transportation systems. Accident data and safety analyses are used by towns, the state and the region to identify safety problem locations. Additional locations are identified by staff, elected officials and citizens. Site inspections are made, studies conducted, recommendations for corrective actions are developed and improvements are programmed. Priority is given to cost effective activities that identify and correct safety problems, both functionally and operationally.

Recommended Strategies

- Establish effective programs to monitor and evaluate the highway system to make it possible to identify locations where improvements are needed.
- Conduct necessary studies and improve deficient locations.
- Support ConnDOT's efforts to implement the strategies and achieve the goals set forth in the SHSP.
- Continue to participate in Connecticut's Strategic Highway Safety Plan and provide direct input to the SHSP's working groups.
- Encourage institution of mandatory motorcycle helmet laws in Connecticut, and inclusion of the mandatory helmet provision in the SHSP.

- Install continuous traffic count stations at I-95 and the New York State Line, Route 15 and the State Line, I-84 at the New York State Line, the Route 7 and Route 15 interchange, and at I-95 and Route 15 crossings of the Housatonic River.
- Support education and training programs and regulations for truck safety, bicycles and pedestrians, older drivers, and driving under the influence.
- Support expanded truck inspection programs and implement Weigh-in-Motion projects for I-95 and I-84 at the New York State Line.
- Support completion of the ConnDOT Service Plaza and Rest Area Study and development of supported improvements to improve operations and safety of the current facilities at Darien, New Canaan and Greenwich.
- Encourage the state of Connecticut to adopt the federally-mandated alcohol-related regulations for open container. Failure to adopt the legislation results in an annual penalty that diverts 3% of certain federal transportation programs (Surface Transportation Program, National Highway Systems, and Interstate Maintenance) equivalent to \$6.3 million to hazard elimination projects.
- Support Safe Routes to School Programs.
- Evaluate the use of cameras for enforcement, and implement proven best practices with changes in state law as necessary.
- Develop real time traveler information programs.
- Upgrade incident management programs in the southwest corridor.

Recommended Projects

- Provide funding sufficient to increase truck safety and enforcement inspections with additional personnel, equipment and training for the CT Department of Motor Vehicle and CT Department of Public Safety.
- Complete the Weigh-in-Motion evaluation and implement the recommended project at I-95 Greenwich and expand the program to I-84 in Danbury.
- Staff CT State Police Troop G at full staffing level, and fund additional State Police to promote more comprehensive traffic and truck enforcement.
- Provide highway assistance patrols (CHAMP) on the Merritt Parkway (Route 15) and Route 7 as well as I-95, as recommended by the Statewide Incident Management Task Force, with funding approved in 2005 for additional equipment.
- Post I-95 incident management diversion route plans in electronic format on a convenient web site that is convenient for the traveling public to access.
- Support state legislative adoption of mandated federal alcohol-related regulations (open container and repeat offender) to ensure federal funding is at maximum level to the state.
- Work cooperatively with Connecticut DOT and South Western Region municipalities to develop Safe Routes plans and obtain grant funding from the DOT's Safe Routes to School Infrastructure Grant Program.
- Develop a Regional Bicycle and Pedestrian Plan with a focus on identifying hazardous locations and recommending countermeasures. (See Bicycle and Pedestrian Element).
- Secure funding for a Stamford Transportation Investment Strategies plan that will define future improvements to all modes of transit, highway systems.
- Develop a Stamford Transportation Center Master Plan which includes safety elements, security measures, and real time traveler information for all modes.

ROAD CONDITION

Background

Although the state-maintained highways, arterial and interstates carry more traffic volume, and higher vehicle miles of travel, almost 90% of the South Western Region's 1,530 miles of roads are locally maintained. Ability to monitor road and pavement conditions has improved with the implementation of pavement management systems (PMS) that are in effect at ConnDOT, and all South Western Region municipalities except Wilton. PMS establish systematic ongoing data collection, monitoring and analysis of pavement condition and treatment information. This data Through the is used to develop pavement treatment plans and priorities that lead to cost-effective allocation of resources and improved pavement conditions and increase the useful life of pavement.

The Connecticut Department of Transportation goal is to repave 10% of state highways each year; this translates into an annual repaving target of 438 two-lane miles. In 2001, 81% of the state-maintained highway system was rated as good or better. Generally, municipalities do not set numerical goals, but use funding that is made available through the state Town Aid (Town Aid for Roads Program) or LoCIP (Local Capital Improvement Program) or municipal funding to address roads with poor pavement condition index ratings (PCI), distressed, cracking rough or rutting roads, in tandem with the knowledge and skill of pavement/highway maintenance personnel. The challenge is to maintain the road system and its aging infrastructure, with limited budgets, and competing priorities for available resources. As noted in the Plan section on Highway Systems and Operations, state support for the state-funded TAR and LoCIP programs were cut in FY2003. Funding has been increased, but does not meet current needs given the increase in paving materials costs and inflation.

Process

Continue to use and improve existing monitoring, management and evaluation systems of the towns, state and region to develop maintenance and paving programs and priorities to maximize pavement condition and longevity.

Recommended Strategies

- Advocate for increase in Town Aid for Road (TAR) funding. At a minimum funding should be provided to the FY2002 level of \$30m adjusted for 5% inflation. This is \$43m for FY2008. State funding should keep pace with the cost of living.
- Continue to support implementation and improvement of pavement management systems at local and state levels.
- Develop pavement that will better absorb noise not exacerbate it.
- Support asset management which is a systematic process of maintaining, upgrading, and operating physical assets cost effectively.

Recommended Projects

- Continue resurfacing, repair and safety programs for state highways, with priority

- assigned to limited access highways: Route 15 (Merritt Parkway, I-95, Route 7, I-684).
Continue SWRPA's support of municipal pavement management systems, if state-funded.

TRAFFIC SIGNALS

Background

Traffic signals are an important element of the transportation system infrastructure and operations. They provide a means of controlling vehicle and pedestrian traffic through the assignment of right-of-way to traffic or pedestrian movements. Properly located and operated, signals help to provide for orderly movement of traffic, increase the traffic-handling capability of an intersection or series of intersections, and reduce the frequency of certain types of accidents. There are more than 500 traffic signals and traffic control devices maintained by municipalities and the state in the South Western Region. Needs for new signals arise due to new development, increased traffic or other situations that warrant traffic control beyond regulatory signage. When properly timed, a traffic signal increases the traffic and pedestrian handling capacity of an intersection, and when installed under conditions that justify its use, a signal is a valuable device for improving the safety and efficiency of both pedestrian and vehicular traffic. Signals may reduce certain types of accidents, most notably right-angle (broadside) collisions. The *Manual on Uniform Traffic Control Devices*, or MUTCD defines the standards used by road managers nationwide to install and maintain traffic control devices on all streets and highways. The MUTCD is published by the Federal Highway Administration (FHWA) under 23 Code of Federal Regulations (CFR), Part 655, Subpart F.

The challenge is to adequately maintain, replace/upgrade, and develop and coordinate responsive signal timing plans to maximize vehicular and pedestrian traffic flow and efficiency.

Process

ConnDOT and towns have monitoring and evaluation systems in place that identify needed improvements. The ConnDOT procedure uses the crash data, as well as input from staff, local and state officials, and the public to identify problem locations. In accordance with MUTCD standards, engineering analyses are performed, and low cost or maintenance items are accomplished with existing staff and resources. New signal installation necessitates signal design and permits, programming of funds, and then construction. Through the use of the federal transportation funding (Surface Transportation Program – Urban or Anywhere programs and the Congestion Mitigation Air Quality Program [CMAQ]), signal systems have been upgraded or replaced in Greenwich, Stamford, Darien, and Norwalk, on Route 1, and I-95 diversion routes, and other state and local roads. The State has instituted an I-95 incident management system extending 56 miles from Greenwich to Branford which includes Bridgeport and Newington Traffic Operations Centers, cameras, detectors, coordinated signal systems, changeable message signs (CMS, formerly VMS for Variable Message Signs), highway advisory radio (HAR), and a highway assistance patrol (Champ). In addition, through other state and local programs, signals have been installed, replaced or interconnected as appropriate.

Recommended Strategies

- Continue to monitor, evaluate and recommend warranted traffic system improvements and replacements.
- Implement needed traffic signal and system improvements.
- Maintain all equipment in good operating condition.
- Establish a program for equipment replacement based upon anticipated life cycle or functional obsolescence.
- Utilize state of the art technology whenever possible.
- Implement video detection and other innovative methods to replace traffic signal detection loops.
- Complete and maintain the ConnDOT Diversion Route Signal System so the system is fully optimized and operational.
- Incorporate traffic signal systems in the South Western Region ITS Plan.
- Implement traffic adaptive (responsive) signal systems along major transportation corridors.
- Expand the Stamford, Norwalk and Greenwich traffic monitoring and surveillance systems.
- Implement 'Un-interruptible Power Systems' (UPS) and other fail-safe systems for all major traffic signal locations.
- Install 'pedestrian timing signals' that count down time remaining for pedestrian to cross at major pedestrian intersections.
- Install audible pedestrian signal equipment at key locations as warranted.
- Utilize alternative pedestrian detection and pre-emption systems as appropriate.
- Maintain traffic signal equipment in accordance with industry standards and in compliance with the Manual on Uniform Traffic Control Devices (MUTCD).

Recommended Projects

- Develop supporting diversion route signal and signing capability (future, unfunded)
- Continue development of coordinated signal systems and traffic-responsive systems, including:
 - Greenwich – future Greenwich Avenue Signal System Upgrade (\$1m, 2007)
 - Norwalk – City-wide Traffic Signal System Upgrade Phase 1 (Project 102-236, \$2.1m 2007), future City-wide Traffic Signal System Upgrade Phase 2 (\$2.8m 2007), future Norwalk Incident Management System (\$1.8m 2007)
 - Stamford – Phase F (Project 135-H055 \$2m 2007), future phases G – K (\$25m 2007)
 - Route 1 - Norwalk (Cross Street) and Westport (Route 136 to Fairfield Townline)
- Replace obsolete signals.
- Install new signals as warranted.

AT-GRADE RAIL/HIGHWAY CROSSING

Background

There are 22 public at-grade crossings of public active rail lines in the South Western Region, comprised of 19 roadway and three pedestrian crossings. Through a twenty year program to upgrade crossings, provide pavement treatments, gates and signals, all locations have been treated. ConnDOT maintains an inventory of crossings, as well as a photo log that assists in system monitoring.

Since 2002, there have been over one dozen incidents involving motor vehicles at-grade rail crossings along the New Canaan and Danbury branch lines according to the Federal Railroad Administration Office of Safety Analysis, including incidents where vehicles became disabled in the right-of-way of the rail tracks. An additional ongoing concern involves pedestrians crossing rail tracks at locations adjacent to railroad stations, where it is not unusual for commuters rushing to board a train to cross the tracks when gates are down.

There are also 18 private at-grade crossings in the South Western Region. Although some private crossings have automatic warning device systems including gates and signals, others have only standardized passive warning signs. Since 2002, there have been four incidents at private at-grade crossings, including one involving a fatality. The challenge is to upgrade the safety characteristics of private crossings in a manner consistent with federal standards to prevent future incidents and casualties.

Connecticut has been nationally recognized for designing special quad gates that restrict motorists from running lights and getting stuck on tracks as trains approach. Quad gates typically have a cost of about \$600,000 per crossing, although estimated construction expense along the New Canaan branch would likely be lower due to existing supplemental infrastructure already in place.

Process

Utilize and refine ConnDOT procedures for evaluation, priority-setting, design, and construction of projects to improve at-grade rail/highway crossings. SAFETEA-LU has provided for the continuation of programs implemented through ISTEA and TEA-21. In the 1991-1997 period, ISTEA infused additional funding for at-grade crossings. ConnDOT was able to make great progress in implementing improvements to public rail/highway grade crossings, with all of the Region's crossings having been improved by 2001. Since 2001, there have been no additional projects undertaken, nor are any currently scheduled in the foreseeable future.

Recommended Strategies

- Maintain rail at grade crossings in a state of good repair.
- Upgrade high risk at-grade locations with quad gates.
- Install automated warning device systems at all private at-grade crossings.

- Construct pedestrian walkways that do not cross active rail tracks at-grade.
- Establish a program for equipment replacement based upon anticipated life cycle to avoid deferred-maintenance-created crises.
- Install warranted gates, lights, surface improvements, and other warning devices at identified crossings.
- Upgrade facilities as needed.
- Utilize state of the art technology whenever possible, such as quad gates and intelligent grade crossings.
- Include at-grade rail/highway crossings in the South Western Region ITS Plan.
- Develop a program and funding mechanism for improvement of existing private/driveway crossings.
- Discourage land use and development that intensifies use of at grade crossings.

CRITICAL CORRIDORS

Background

To assure that the highway system meets existing and future travel needs of the Region, special attention is given to developing the implementation program for operational, safety, and capacity improvements as well as transit and ridesharing projects. Future needs and investment recommendations are defined through regional, state, and local studies of state and local roads. New interest in systems solutions to transportation, and recognition that transportation is integrally linked to the economy, not just of a town, region, or state but broader regions such as 'New England', New York metropolitan area, and even the global. Competitiveness and connectivity reach beyond the artificial boundaries of the South Western Region.

The long range transportation plan identifies "critical corridors" that include the 'southwest corridor' encompassing I-95, the Merritt Parkway (Route 15), Route 1, also Route 7, and other state highways. Multi-modal approaches and projects are proposed to improve systems performance and longevity, connectivity, and safety and to enhance commuter choice.

Since 1994 SWRPA has conducted studies of critical corridors which have led to recommended improvement programs, policies and procedures. SWRPA's 1996 Route 7 Driveway and Access Management Plan for Norwalk and Wilton developed an access and curb cut management plan for the corridor and prepared draft access management regulations for Norwalk and Wilton. The Route 7 Plan also recommended driveway modifications or closures, intersection improvements, and proposed the desirable Route 7 cross-section and profile. The 1995 Route 33 Corridor Assessment Study for Westport and Wilton developed a program of improvements for Route 33. In 2000, SWRPA in cooperation with the Housatonic Valley Region Council of Elected Officials (HVCEO) completed the Route 7 Travel Options Implementation Plan. This plan for Route 7 travel options provides a companion to planned roadway improvements and recommends \$58 million of rail, bus, and ridesharing improvements and supporting strategies for the Norwalk to New Milford corridor.

In addition, SWRPA and SWRMPO members participated in the 1997 legislatively-mandated study of the south west corridor, and the subsequent southwest corridor 5% traffic reduction program that ran from 1998 through 2003. The goal of the legislatively-mandated program, also known as the "Governor's Traffic Relief Initiatives" was to reduce highway commuter demand during peak periods from the 1997 base levels by 5% within a period of five years. The Southwest Corridor Report Year Five (February 2003) advised that while progress was made and there was a diversion of 6,635 person trips from the auto commute mode to alternative modes, this fell short of the 8,600 trip goal. ConnDOT committed to continue to improve the attractiveness and performance of commute options the southwest corridor.

The SWRPA Congestion Mitigation Systems Plan "Vision 2020" Final Report (2003) concluded there was no single solution for mitigating congestion in the region, or study area. The study recommended immediate, short term and long term transportation projects and land use initiatives. The recommendations are described in the following section, and are still relevant

even though the time line has extended. Activities and accomplishments are noted in [brackets].

Congestion Mitigation Systems Plan “Vision 2020” Final Report Recommendations

Immediate Actions (0-2 years)

Public Education

- Inform the public and decision makers of the benefits and costs of transportation strategies.
- Emphasize the importance of the transportation and land use connection.
- Engage various media outlets to keep awareness of transportation issues on the forefront.

Land Use Review

- Local land use boards should begin to review master plans and plans of conservation and development to identify how transportation is supported by local zoning regulations.
- SWRPA should conduct a detailed land use study to evaluate potential for additional transportation corridor and transit-oriented development in the study area. Such studies should also identify opportunities for the development of new or expanded intermodal hubs.

Expand Travel Demand Management Programs

- Expand Travel Demand Management (TDM) programs to help reduce the number of peak-period single occupant automobile trips in the study area. Examples of programs that can have an impact on peak period trips are as follows: telecommuting; flexible work weeks; staggered work hours; organized vanpools. [Nu-Ride, the incentive-based ridesharing program was implemented in 2004].
- SWRPA – in partnership with ConnDOT and transportation management organizations – should study the performance of existing TDM programs to assess the effectiveness of current outreach and marketing strategies, develop creative strategies for altering traveler behavior, calculate the total cost of removing single-occupant vehicles from roadways during peak periods and identify methods that may be implemented to more closely track TDM program participation and monitor program performance.

Short-Term Actions (2-7 years)

Transit Operational Improvements

- Expand parking and intermodal connections at Metro North rail stations. Significant expansion should be targeted at the following locations: South Norwalk; Noroton Heights; Stamford; Greenwich; and Wilton. [
- Intelligent Transportation Systems (ITS) should be used to improve the efficiency and operation of existing bus service in the corridor. [The South Western Region ITS Strategic Plan identification of strategies and projects will be completed in FY2008.]
- Weigh-In-Motion technology should be evaluated for use at the Greenwich weigh station. [ConnDOT initiated a feasibility and best practices review of alternatives for this project in 2006.]
- SWRPA should engage Metro North and ConnDOT in discussions about intrastate rail pricing and seek opportunities to implement pilot programs to test market response to reduced intrastate fares.
- Implement a universal commuter pass, such as a SmartCard.
- Establish intermodal hubs with strong bicycle and pedestrian connectivity. [FTA Enhancement projects at rail stations in Norwalk and Stamford have provided bicycle storage, and walkways. This program will continue. ConnDOT’s Train Station Visual Condition Report issued on February 23, 2007 identifies essential physical improvements as well as amenities needed at rail stations. At an estimated cost of more than \$400m, and \$100m in near term needs¹³, this improvement program will extend into the short-term 2-7 year period and be an ongoing maintenance requirement.]

I-95 Operational Improvements

- Seek funding for a detailed operational study of I-95 between Stamford and Norwalk.

¹³ ConnDOT Communications Director, February 22, 2007.

Traffic Systems Management (TSM)

- Improve the safety and operation of major arterial roads, such as Route 1, to reduce congestion and decrease accidents. Techniques may include: signal timing and coordination; access management; and operational improvements – i.e. turn lanes, shoulders, geometric modification. [Projects for Route 1 corridor improvements in Greenwich, Norwalk, and Westport were re-activated by ConnDOT in 2006. SWRPA is conducting a study of Darien Route 1 circulation, congestion and access management. Funding is requested by SWRPA for a Route 1 operations and access management study in Greenwich and Stamford from the vicinity of the NY state line to Washington Boulevard. Funding is approved for a SWRPA and HVCEO study of Route 7 needs between Olmstead Hill Road, Wilton, and Route 35, Ridgefield. This study would be managed by HVCEO.]

Truck Parking at Rest Area

- Assist ConnDOT with efforts to expand existing rest areas while minimizing impacts to communities. Opportunities for new rest areas should be explored. [ConnDOT is conducting the Rest Area and Service Plaza Study, with participation of stakeholders including SWRPA, Darien, New Canaan, and Greenwich. Study completion is targeted for FY2008.]

Changes to Zoning Regulations

- Work with municipalities to structure zoning regulations to embrace transit friendly development, walkable communities, increased density and mixing of land uses, reduced parking requirements, and access management along transportation corridors and in town centers.

Long-Term Actions (7-20 years)

Transit Capacity Expansion

- Improve intrastate commuter rail service. [State funding has expanded service between Shoreline East and Stamford between 2004 and 2006. ConnDOT's report Expanding Shoreline East Service Pursuant to PA06-0136 Section 2(d) issued January 1, 2007 proposes three phase of increased Shoreline East Service.]
- Explore opportunities for establishing Bus Rapid Transit (BRT) service along Route 1 and inland transportation corridors that feed into Route 1. [In cooperation with ConnDOT, the Norwalk Transit District, and CT Transit, SWRPA has proposed an implementation study for Norwalk to Greenwich BRT service (2007)].
- Evaluate expansion of commuter rail service or BRT services in the Route 7 corridor.

I-95 Capacity Expansion

- Explore possibility of expanding I-95 to include two variably priced managed lanes. [Although expansion is not being considered except through speed change lanes between I-95 Exit 10 and Exit 15, there is growing support for an implementation study of congestion/variable pricing. ConnDOT and SWRPA submitted applications for FY2006 USDOT Variable Pricing Pilot Program (VPPP) Grants. ConnDOT is submitting an application the FY2007 VPPP. Implementation of value pricing, if approved and designed, is most likely to start in the 7-20 year timeframe.]

External Connections

Interstate Rail

- Service improvements including fleet configuration, infrastructure upgrades and service upgrades should be coordinated with intrastate service improvements so that optimum system performance can be achieved.

Freight

- Further examine need for another lower Hudson River crossing to access New York City and Connecticut.
- Conduct a rail capacity study similar to the Mid-Atlantic Rail Study to determine the actual track capacity due to passenger and freight rail services and schedules.
- Conduct a market analysis of the viability of Feeder Barge Service from intermodal ports in New Jersey to a deep water port in Connecticut.

Ferry

- Monitor the results of the Long Island Sound Waterborne Transportation Plan and other studies of potential interstate passenger ferry services, particularly those focusing on improved connections between southwestern Connecticut and Long Island, Lower Manhattan and LaGuardia Airport. [In 2006, the City of Bridgeport completed an evaluation of ferry service potential from Bridgeport to Stamford to NYC which showed that service in this corridor was viable.¹⁴ The City of Stamford is studying landside and waterside issues and opportunities that will lead to identification of the preferred ferry terminal location. Stamford has received \$6.9m in USDOT Ferryboat Discretionary Grants to study, design, and to build ferry facilities.]

Airport Connections

- Examine opportunities for improving transit connections between southwestern Connecticut and regional airports.

Route 7

- CMS2020 identified operational, safety and geometric improvements for Route 7 between Wilton and Danbury. The use of ITS where appropriate along with priority signal treatments for transit was recommended. [As noted above, funding is also requested by SWRPA and HVCEO for a study of Route 7 needs between Olmstead Hill Road, Wilton, and Route 35, Ridgefield. This study would be managed by HVCEO. In addition, it is the SWRMPO's February 2007 position that a comprehensive multi-modal study of the Route 7 corridor between Norwalk and Danbury should be conducted.]

Interstate 84

- CMS2020 recommended that "Plans to widen I-84 from Danbury to Southington should be supported." In March 2007, the section of I-84 from Southington to Waterbury was constructed.

Merritt Parkway

- Evaluate this roadway and its interchanges for safety and operational deficiencies. Such evaluation should include a study of opportunities for improved emergency access and response and use of ITS to further improve the safety and operations of the roadway. [Merritt Parkway Gateway, resurfacing, bridge and safety projects have either been completed, or are programmed in the 2007-2017 timeframe. Construction of improvements to the Route 15 at Route 104 interchange (Project 135-230) began in 2006, and will be completed in 2008.]

I-95 Operational Improvements

- Seek funding for a detailed operational study of I-95 between Stamford and Norwalk.

Traffic Systems Management (TSM)

- Improve the safety and operation of major arterial roads, such as Route 1, to reduce congestion and decrease accidents. Techniques may include: signal timing and coordination; access management; and operational improvements – i.e. turn lanes, shoulders, geometric modification.

Truck Parking at Rest Area

- Assist ConnDOT with efforts to expand existing rest areas while minimizing impacts to communities. Opportunities for new rest areas should be explored. [ConnDOT Rest Area and Service Plaza Study will recommend improvements to existing facilities and operations, and propose new facilities in 2007.)

The recommendations of the Transportation Strategy Board (TSB) and the Coastal Corridor Transportation Investment Area (Coastal Corridor TIA) are provided in the next section on Southwest Corridor.

¹⁴ Market Feasibility Analysis of A Bridgeport Based High Speed Ferry Service (August 2006)

Process

Through on-going and special purpose planning efforts, ConnDOT, SWRPA and towns monitor and analyze multimodal transportation system operating and capacity deficiencies, develop plans and programs to address needs.

Recommended Strategies

Policies, studies, and proposals for the southwest corridor expressways and principal arterials (I-95, Route 15/Merritt Parkway, and Route 7) and Route 1 are presented in the next sections along with key strategies for other modes that affect the arterials. Strategies for other modes are presented in the sections of the long range plan that describe the mode or program.

Near Term

- Advocate for initiation of the Southwest Corridor Safety and Operations Engineering Study that was funded by the State/TSB for \$1.5 million (FY2004).
- Develop corridor improvement programs for Route 1 in Westport, Norwalk, Darien, and Stamford.
- Develop a corridor improvement program for Route 7 between Norwalk and Danbury.
- Develop access management plans for the Route 1 corridor in Stamford and Greenwich from Washington Boulevard, Stamford, to the New York State/Greenwich town line; and, Darien between I-95 Exit 11 and Exit 13.
- Implement enhanced transit services to mitigate and alleviate congestion caused by major transportation systems construction projects, following the precedent set by the I-95 New Haven Harbor Crossing (Q Bridge) project that implemented additional Shore Line East rail service. This applies to I-95, Route 15 and Route 7 in the South Western Region.
- Continue to work with the state, partners within the Bridgeport-Stamford Urbanized Area, other Connecticut regions, the TSB, and New York metro area regions to cooperatively address transportation issues, and to develop cohesive investment strategies that result in funding and tangible projects.
- Implement continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability in the Greenwich Weigh-In-Motion Project, Route 7 & 15 Interchange Projects (#102-312, 102-269), I-95 speed change projects, and other opportunities for upgrading real-time traffic counting capabilities.
- Initiate a comprehensive multi-modal investment study for the Route 7 corridor between I-95 and I-84 be conducted and result in an implementation action plan with timelines for feasible operational, management and construction projects. (2011)

Longer Term

- Develop access management plans for major corridors, including Route 137, High Ridge Road between Cold Spring Road and the Merritt Parkway, Stamford; Route 104, Long Ridge Road between Cold Spring Road and the Merritt Parkway, Stamford; Route 1 – East Main Street between Glenbrook Road and the Darien town line, Norwalk and Westport.

- Advocate for ConnDOT to develop a project reporting system that is user-friendly and accessible (replace current Project Capital Management System – PCMS).

The South Western Region Long Range Transportation Plan 2007-2035 also incorporates the projects that are funded in the Statewide and South Western Region Transportation Improvement Program FFY2007-2011, and the 2007 ConnDOT Master Transportation Plan, and the 2005 ConnDOT Long Range Transportation Plan.

Southwest Corridor: I-95, Route 15/Merritt Parkway, Route 1

As noted in the introduction to “critical corridors”, the 1997 legislatively-mandated study of the south west corridor, and the 1998-2003 “Governor’s Traffic Relief Initiatives” program assessed and then aimed to reduce peak hour traffic congestion on the I-95 southwest corridor. The SWRPA Congestion Mitigation Systems Plan “Vision 2020” Study (2001-2003) comprehensively studied the I-95 corridor from Greenwich to Branford, and areas served by MetroNorth rail, with the goals of improving mobility, reducing congestion, and providing options to customers as consumers. The study concluded there was no single solution for mitigating congestion in the region, or study area. Instead, coordination of transportation and land use strategies must be coordinated to develop a comprehensive transportation system with actions that are immediate, mid-term and long-term. These actions include: improving the efficiency, operation and safety of existing transportation systems; better managing the demand for travel; increasing the supply for transport services; and, establishing policies that focus on centers rather than sprawl to better overall system performance.

Since 2001, the Transportation Strategy Board (TSB) and the Coastal Corridor Transportation Investment Area advisory board to the TSB (Coastal Corridor TIA, representing the I-95 corridor from Greenwich to Branford, as well as the Housatonic Valley/Danbury (Route 7 corridor), Central Naugatuck Valley/Waterbury, the Valley (Route 8 corridor), and Greater Bridgeport areas) have developed recommendations for improvement of all facets of transportation, including the southwest corridor since that time. Funding derived from TSB initiatives has led to projects for rail infrastructure and rolling stock, increased Shoreline East rail service to Stamford, as well as highway improvements including speed change lanes on I-95 between Exits 10 and 15, additional commuter parking, continued funding for commuter connections, support for feeder barge in Bridgeport. These projects benefit the South Western Region by increasing mobility for persons and freight. The stream of TSB recommendations and state funding that resulted in the period of 2004 to 2007, along with the Coastal Corridor TIA and SWRMPO’s are described in this Plan’s introduction. TSB, Coastal Corridor TIA, and SWRMPO recommendations from 2001 through 2004 are found in Appendix C.

The next sections of the Plan describe the issues, needs and principal arteries of the southwest corridor are I-95, Route 15 – the Merritt Parkway, and Route 1, are the primary highways in the corridor, and key elements of the northeast corridor. Route 7, the region’s principal north-south artery connecting Norwalk (I-95) with Danbury (I-84).

I-95

In the last five years, I-95 projects in the region have constructed including median barrier replacement and roadway improvements in Norwalk and Darien (Exit 15 – Exit 10), and Stamford (Exit 8 – Exit 5), as well as resurfacing, and bridge rehabilitation projects. Project 35-187 is under construction and will add speed-change lanes on I-95 northbound and southbound between Interchanges 10 – 11.

I-95 projects in design in 2007 include:

- Project 35-188, currently in design, will add speed-change lanes on I-95 between Exits 11 and 12, and Exits 12 and 13 (Darien – Norwalk)
- Project 102-278 in Norwalk was originally planned to provide safety and operational improvements to I-95 between Interchanges 15 and 14. Speed-change lanes will be incorporated into the current design. Drainage improvements for I-95, raising of bridges over I-95 to attain the a vertical clearance of 16’6”, along with public involvement, and permitting are increasing the cost, and delaying the start date from the previously anticipated advertising in spring of 2008.
- Project 102-H079 (was 102-261) revise interchange ramps, lane arrangement on East Avenue and approaches, and new signals (\$5.0m, future additional funding needed)
- Project 102-295 median barrier, pavement, operations and safety improvements between Exit 16 and Exit 17, Norwalk-Westport (\$51m, future, additional funding needed)
- Project 173-350 Upgrade signing between Greenwich/NY state line and Fairfield, Exit 24 (\$5.8m)

I-95 bridge projects in the ConnDOT 2007 Master Plan include:

- Project 35-184 Hollow Tree Road, Darien – deck replacement (\$3.4m 2007)
- Project 56-289 I-95 over Indian Field Road, Greenwich – deck replacement (\$4.9m)
- Project 56-293 I-95 over Byram River, Greenwich – bridge restoration (\$3.2m – future)
- Project 102-H064 I-95 over Route 7, Norwalk – bridge coating (\$1.5m)
- Project 135-274 Route 1 over I-95, Stamford – minor bridge rehabilitation (\$4.2m)

I-95 Auxiliary Lane Projects

The ConnDOT Interstate 95 Fairfield County Auxiliary Lane Implementation Plan completed in March 2005 focused on improvements between Exits 10 and 15. The study of auxiliary lanes evolved from an earlier initiative to create commuter shoulder lanes. This study concluded that auxiliary lanes (operational lanes) and interchange speed change lanes (acceleration and deceleration lanes) were preferable to commuter shoulders and would provide operational and safety improvements. First phase projects to provide speed change lanes between I-95 Exits 10 and 11, and Exits 11 and 13, as well as an operational lane south bound, and speed change lanes northbound (Exit 14 to 15) were identified. Funding was included in the Governor’s Initiative funding program, and the projects were accelerated. State Project 35-187 is under construction and will add speed-change lanes on I-95 northbound and southbound between Interchanges 10 – 11. Project 35-188 will add speed-change lanes on I-95 between Interchanges 11 and 12 and Interchange 13. This project is scheduled for advertising in the fall of 2007.

The South Western Region Long Range Transportation Plan recommends that ConnDOT conduct a safety and operational engineering study of I-95 between Greenwich and Westport at a minimum. Additional recommendations include: a Stamford I-95 Corridor Improvement Program for I-95 between Exit 10 to Exit 6 to address safety, operations, and projected growth in Stamford and on I05; and evaluation of an operational lane/auxiliary lane/speed change lanes as appropriate between Exit 8 and Exit 10 northbound in advance of planned I-95 bridge rehabilitations in this section (MetroNorth Rail Bridge, and Route 1).

Technical analysis of the I-95 corridor prepared for CMS 2020 include ramp analyses, weave analysis, and accident data provided in tables that follow.

I-95 Operations

ConnDOT's Highway Operations Division manages the state's Incident Management Program which include traffic cameras, detectors and highway advisory radios (HAR). There are two operations centers. The Bridgeport Operations Center is co-located at the CT State Police Troop G in Bridgeport and is responsible for the South Western Region as well as a larger area. The other center is in Newington at ConnDOT. The Operations Centers monitor, verify, and respond incidents and traffic conditions. The CHAMP (CT. Assistance to Motorists Patrol) program provides motorist assistance on I-95. Since 2004 quite a few projects have been funded or implemented that benefit I-95 operations and incident management including: funding from the state to expand CHAMP coverage to include Route 7 and Route 15; update of the 1992 I-95 diversion route maps in 2005 in both paper and digital versions; certain changes in state law to promote quicker clearance; additional photogrammetry equipment for DPS to expedite crash investigations; development of a draft Unified Response Manual (URM) that establishes will establish guidelines for incident responders; and, the 2007 update of the 1992 State of Connecticut Incident Management Policy. In 2006, the SWRPA Corridor Emergency Communications Project led to implementation of upgrades to the Department of Public Safety's 800 ITAC/ICALL system that improve interagency communications for responders in South Western and Greater Bridgeport areas

Table 17.

**Ramp Analysis LOS Summary
I-95 Southbound Direction (AM Peak Hour)**

Interchange			Existing/2025 No Build/TDM		Commuter Shoulders	
	Exit	Ramp Type	Ramp Density pc/mi/ln	Ramp-Freeway Junction Area LOS	Ramp Density pc/mi/ln	Ramp-Freeway Junction Area LOS
Sherwood Island Connector	18	off	29.8	D	26.5	C
Sherwood Island Connector	18E	on	28.2	D	24.2	C
Sherwood Island Connector	18W	on	30.5	D	22.9	C
Saugatuck Ave.	17	off	31.3	D	29.0	D
Saugatuck Ave.	17	on	31.2	D	20.9	C
East Ave.	16	off	33.7	D	30.7	D
East Ave.	16	on	*	*	*	*
US 7 - West Ave.	15	off	*	*	*	*
US 7 - West Ave.	15E	on	28.5	D	18.7	B
US 7 - West Ave.	15W	on	36.6	E	21.7	C
Scribner Ave. & Fairfield Ave.	14	off	42.5	F	34.3	D
Scribner Ave. & Fairfield Ave.	14	on	33.7	D	19.5	B
US 1	13	off	36.7	E	34.9	D
US 1	13	on	34.3	D	21.1	C
Rte. 136 - Tokeneke Ave.	12	on	38.0	F	20.4	C
US 1	11	off	41.5	F	36.1	E
US 1	11	on	35.9	F	22.9	C
Noroton Ave.	10	off	38.2	F	35.4	E
Noroton Ave.	10	on	34.5	F	42.0	F
Rest Area	R/A	off	29.9	D	35.8	E
Rest Area	R/A	on	20.7	C	22.9	C
US 1 - Main St.	9	off	35.5	E	41.6	E
US 1 - Main St.	9	on	21.0	C	22.7	F
SB Elm St.	8	off	38.7	E	45.7	F

Source:

Technical Memorandum State Project No. 56-245 I-95 Commuter Shoulders Operational Analysis (Exits 8 to 18) September 2004, page 13

Notes:

* See weave analysis (Table 11).

Shaded area indicates freeway segments where a fourth lane currently exists on the mainline. The LOS changes result from volume changes for each alternative.

**Table 18. Ramp Analysis LOS Summary
I-95 Northbound Direction (PM Peak Hour)**

Interchange	Exit	Ramp Type	Existing/2025 No Build/TDM		Commuter Shoulders	
			Ramp Density pc/mi/ln	Ramp-Freeway Junction Area LOS	Ramp Density pc/mi/ln	Ramp-Freeway Junction Area LOS
Canal St.	7	on	30.3	D	23.4	C
SB Elm St.	8	on	36.3	E	21.6	C
US 1 - Main St.	9	off	41.3	E	39.1	E
US 1 - Main St.	9	on	34.3	D	21.4	C
Noroton Ave.	10	off	37.2	E	37.0	E
Noroton Ave.	10	on	33.0	D	24.4	C
US 1	11	off	36.7	E	35.9	E
US 1	11	on	35.8	E	22.2	C
Rte. 136 - Tokeneke Ave.	12	off	37.8	E	30.7	D
Rest Area	R/A	off	35.7	E	34.7	D
Rest Area	R/A	on	33.0	D	21.4	C
Rte. 136 – Tokeneke Ave.	13	on	38.3	E	21.6	C
US 1	13	off	37.6	E	38.3	E
Scribner Ave. & Fairfield Ave.	14	on	38.4	F	27.0	C
Scribner Ave. & Fairfield Ave.	14	off	49.2	F	39.5	E
US 7 - West Ave.	15	off	36.8	E	40.7	F
US 7 - West Ave.	15W	on	34.3	D	26.7	C
US 7 - West Ave.	15E	on	*	*	*	*
East Ave.	16	off	*	*	*	*
East Ave.	16	on	18.0	B	21.0	C
Saugatuck Ave.	17	off	33.7	D	33.8	D
Saugatuck Ave.	17	on	32.8	D	27.7	C
Sherwood Island Connector	18	off	31.9	D	31.8	D
Sherwood Island Connector	18	on	31.2	D	26.1	C

Source: Technical Memorandum State Project No. 56-245 I-95 Commuter Shoulders Operational Analysis (Exits 8 to 18)
September 2004, page 14

Notes: * See weave analysis (Table 12).

Table 19. Weave Analysis LOS Summary

Peak Hour/Freeway Segments	Existing/2025 No Build/TDM			Commuter Shoulders	
	Length (ft)	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
AM Peak Hour: I-95 Southbound					
Exit 16 On to Exit 15 Off	1877	85.9	F	107.3	F
PM Peak Hour: I-95 Northbound					
Exit 15 East On to Exit 16 Off	2500	49.4	F	68.3	F

Source: Technical Memorandum State Project No. 56-245 I-95 Commuter Shoulders Operational Analysis (Exits 8 to 18) September 2004, page 15

**Table 20 Accident Data Summary (2000-2002)
I-95 Southbound Direction**

Section of I-95 Southbound	Length (mi.)	Grand Total	Accident Severity			Type of Collision								
			Fatalities	Injuries	Property Damage Only	Rear End	Sideswipe (same direction)	Fixed Object	Moving Object	Backing	Overturn	Jack-knife	Parking	Unknown
Exit 18 off ramp to Exit 18E on ramp	0.15	12	-	1	11	7	2	3	-	-	-	-	-	-
Exit 18E on ramp to Exit 18W on ramp	0.16	35	-	22	13	17	11	7	-	-	-	-	-	-
Exit 18W on ramp to Exit 17 off ramp	2.08	138	-	63	75	80	28	20	9	1	-	-	-	-
Exit 17 off ramp to Exit 17 on ramp	0.17	11	-	5	6	6	-	4	1	-	-	-	-	-
Exit 17 on ramp to Exit 16 off ramp	1.57	282	1	149	132	148	61	64	8	-	-	1	-	-
Exit 16 off ramp to Exit 16 on ramp	0.24	74	1	40	33	51	10	11	1	-	-	1	-	-
Exit 16 on ramp to Exit 15 off ramp	0.31	92	-	48	44	66	13	10	3	-	-	-	-	-
Exit 15 off ramp to Exit 15E on ramp	0.22	50	-	18	32	32	9	7	2	-	-	-	-	-
Exit 15E on ramp to Exit 15W on ramp	0.2	17	-	3	14	7	4	6	-	-	-	-	-	-
Exit 15W on ramp to Exit 14 off ramp	0.57	90	-	20	70	51	18	12	6	1	1	1	-	-
Exit 14 off ramp to Exit 14 on ramp	0.18	25	-	11	14	16	4	4	1	-	-	-	-	-
Exit 14 on ramp to Exit 13 off ramp	1.46	273	-	99	174	148	60	54	6	1	2	1	1	-
Exit 13 off ramp to Exit 13 on ramp	0.24	49	-	11	38	19	14	15	-	-	1	-	-	-
Exit 13 on ramp to Exit 12 on ramp	0.87	102	-	48	54	55	19	24	3	-	-	-	-	1
Exit 12 on ramp to Exit 11 off ramp	0.27	77	-	46	31	33	18	22	3	1	-	-	-	-
Exit 11 off ramp to Exit 11 on ramp	0.43	80	-	28	52	47	21	9	3	-	-	-	-	-
Exit 11 on ramp to Exit 10 off ramp	0.21	37	-	9	28	17	12	7	1	-	-	-	-	-
Exit 10 off ramp to Exit 10 on ramp	0.64	87	-	38	49	44	15	21	3	1	1	1	1	-
Exit 10 on ramp to Rest Area off ramp	0.36	21	-	12	9	10	6	3	2	-	-	-	-	-
Rest Area off ramp to Rest Area on ramp	0.3	8	-	2	6	6	2	-	-	-	-	-	-	-
Rest Area on ramp to Exit 9 off ramp	0.38	60	-	22	38	27	19	8	4	2	-	-	-	-
Exit 9 off ramp to Exit 9 on ramp	0.43	48	-	15	33	22	20	5	-	-	1	-	-	-
Exit 9 on ramp to Exit 8 off ramp	0.3	41	-	16	25	17	17	6	1	-	-	-	-	-
Exit 8 off ramp to Exit 7 off ramp	0.6	57	-	26	31	40	12	2	3	-	-	-	-	-
Total	12.34	1766	2	752	1012	966	395	324	60	7	6	5	2	1

Source: Fitzgerald & Halliday, Inc., April 2004

Source: Technical Memorandum State Project No. 56-245 I-95 Commuter Shoulders Operational Analysis (Exits 8 to 18) September 2004, Table 4, page 19.

**Table 21 Accident Data Summary (2000-2002)
I-95 Northbound Direction**

Section of I-95 Northbound	Length (mi.)	Grand Total	Accident Severity			Type of Collision											
			Fatalities	Injuries	Property Damage Only	Rear End	Sideswipe (same direction)	Fixed Object	Moving Object	Backing	Overturn	Jack-knife	Head-on	Non-collision	Parking	Pedestrian	Unknown
Exit 7 on ramp to Exit 8 on ramp	0.38	39	-	14	25	33	3	3	-	-	-	-	-	-	-	-	-
Exit 8 on ramp to Exit 9 off ramp	0.71	110	-	43	67	68	21	11	8	-	2	-	-	-	-	-	-
Exit 9 off ramp to Exit 9 on ramp	0.13	31	-	15	16	15	8	5	2	-	-	1	-	-	-	-	-
Exit 9 on ramp to Exit 10 off ramp	1.37	224	-	100	124	132	49	35	6	1	-	-	-	-	1	-	-
Exit 10 off ramp to Exit 10 on ramp	0.38	70	-	31	39	40	9	19	2	-	-	-	-	-	-	-	-
Exit 10 on ramp to Exit 11 off ramp	0.4	66	-	28	38	23	22	17	3	-	-	1	-	-	-	-	-
Exit 11 off ramp to Exit 11 on ramp	0.4	49	-	16	33	26	14	7	2	-	-	-	-	-	-	-	-
Exit 11 on ramp to Exit 12 off ramp	0.32	49	-	18	31	19	8	21	1	-	-	-	-	-	-	-	-
Exit 12 off ramp to Rest Area off ramp	0.26	44	-	15	29	17	10	11	3	1	-	2	-	-	-	-	-
Rest Area off ramp to Rest Area on ramp	0.32	60	-	25	35	32	15	10	2	1	-	-	-	-	-	-	-
Rest Area on ramp to Exit 13 on ramp	0.25	95	-	41	54	54	16	21	3	-	1	-	-	-	-	-	-
Exit 13 on ramp to Exit 13 off ramp	0.18	49	-	12	37	31	7	10	1	-	-	-	-	-	-	-	-
Exit 13 off ramp to Exit 14 on ramp	1.59	270	-	119	151	187	30	42	5	-	3	2	-	1	-	-	-
Exit 14 on ramp to Exit 14 off ramp	0.32	188	1	83	104	126	39	17	3	1	1	-	1	-	-	-	-
Exit 14 off ramp to Exit 15 off ramp	0.16	38	-	19	19	22	11	3	-	-	1	-	-	-	-	-	1
Exit 15 off ramp to Exit 15W on ramp	0.26	52	-	27	25	23	13	12	3	1	-	-	-	-	-	-	-
Exit 15W on ramp to Exit 15E on ramp	0.2	32	-	15	17	14	8	7	3	-	-	-	-	-	-	-	-
Exit 15E on ramp to Exit 16 off ramp	0.42	118	-	44	74	62	26	19	11	-	-	-	-	-	-	-	-
Exit 16 off ramp to Exit 16 on ramp	0.31	59	-	33	26	19	15	23	2	-	-	-	-	-	-	-	-
Exit 16 on ramp to Exit 17 off ramp	1.53	114	-	41	73	30	39	38	6	-	-	-	-	-	-	1	-
Exit 17 off ramp to Exit 17 on ramp	0.15	25	-	13	12	12	3	9	1	-	-	-	-	-	-	-	-
Exit 17 on ramp to Exit 18 off ramp	2.08	153	2	77	74	80	25	35	11	-	1	-	-	1	-	-	-
Exit 18 off ramp to Exit 18 on ramp	0.39	70	-	49	21	31	12	27	-	-	-	-	-	-	-	-	-
Total	12.51	2005	3	878	1124	1096	403	402	78	5	9	6	1	2	1	1	1

Source: Fitzgerald & Halliday, Inc., April 2004

Source: Technical Memorandum State Project No. 56-245 I-95 Commuter Shoulders Operational Analysis (Exits 8 to 18) September 2004, Table 5, page 20.

Truck Stops and Rest Areas

Truck stops and rest areas are important issues in the South Western Region, because the I-95 Darien rest areas are the last on I-95 until the New Jersey Turnpike's Vince Lombardi rest area which is approximately 80 miles away. The I-95 Darien rest areas are heavily used by both passenger and commercial vehicles. Real and perceived problems arise from trucks that park in both legal and illegal locations, along the rest area access and egress roads and aisles and the highway shoulders. The safety of local emergency personnel and equipment who respond to rest area incidents is the primary concern. The state's 2001 study of truck stops and rest area acknowledged there was a 1,200 space truck parking shortfall on state interstate highways. This is a growing nationwide problem because of the growth of truck freight, demand for on-time deliveries, and use of highways as warehouses for goods in transit.

Compounding the lack of truck parking spaces in Connecticut is the lack of trucker compliance with parking restrictions and lax enforcement of parking restrictions on I-95 shoulders and in rest areas. Limited enforcement is attributable to a number of factors, including: CT State Police reluctance to enforce I-95 shoulder parking restrictions because of the possibility of that a tired trucker who is asked to relocate might have an accident; no convenient legal alternative places for the trucker to relocate; a driver's hours of service may be exceeded which means the truck driver cannot legally drive; the fine associated with illegal parking on shoulders is minimal; and, there is significant paperwork involved in issuing a ticket for this type of violation.

In 2005, ConnDOT initiated a comprehensive Rest Area and Service Plaza Study. The study is evaluating the state's overall needs, requirements, and options for rest areas and service plazas and is also evaluating the needs of each of the state's 23 service plazas and 8 rest areas. Study components include:

- Development of benchmarks for the services and facilities provided at such installations,
- Assessment of existing facilities and resources in Connecticut on a statewide basis,
- Evaluation of the condition of existing facilities, services and infrastructure for safety and location, environmental concerns, existing and projected traffic volumes, truck parking, and the potential for increasing revenue,
- Framework for policy decision-making about the development of future facilities,
- Coordination of services with the demands of the traveling public, location of facilities where they are needed, and provision of services that are needed by commercial vehicles and the traveling public,
- Exploration and development of alternatives for the accommodation of truck parking and truck services,
- Exploration of options available for privatization of services and concessions,
- Recommendations for improvements at specific existing locations, as well as potential new locations, to respond to documented service and facilities deficiencies and needs,
- Estimation of costs and funding needed to achieve project recommendations,
- Exploration of opportunities to integrate services and traveler information within rest areas and service plazas in order to expand tourism and traveler information,

- Recommendations for means to enhance revenue opportunities including privatization of facilities.
- A project web site provides detailed information on the study: www.ctreastarea.org

SWRPA staff and representatives from Darien and New Canaan, towns with rest areas or service plazas, are participants in the study's advisory committee.

Value Pricing/Congestion Pricing – A Future Possibility

With congestion growing in the U.S. and in the southwest corridor of Connecticut, the concept of studying congestion pricing also called value pricing, is gaining support. The TSB 2007 Plan supports a study, and both ConnDOT and SWRPA have applied to USDOT for Value Pricing Pilot Program discretionary funding. When SWRPA initially applied for FY2002 grant funding, the state did not support the project and would not serve as intermediary to pass the funding through to SWRPA. By 2006, however, both ConnDOT and SWRPA applied for funding. No determination on the grant applications have been received as of February 2007. ConnDOT is applying for FY2007 funding through this grant program. SWRPA's proposed project was a planning study designed to assess the feasibility of implementing a time of day, traffic volume or location-sensitive value pricing program on Connecticut's interstate system and, in particular, the South Western Region. The primary objective of the proposed project was to develop a methodology or framework for evaluating impacts of value pricing on existing, un-tolled interstates in Connecticut and throughout the nation. Once developed, the methodology was to be applied to Interstate 95 and the Merritt Parkway to identify specific costs and benefits of value pricing in the South Western Region, as well as the impacts of a highway-based value pricing program on demand for transit services.

As noted in the Congestion Pricing Primer (Primer) issued by USDOT in December 2006, congestion pricing is market-driven and "works by shifting purely discretionary rush hour highway travel to other transportation modes or to off-peak periods, taking advantage of the fact that the majority of rush hour drivers on a typical urban highway are not commuters. By removing a fraction (even as small as 5%) of the vehicles from a congested roadway, pricing enables the system to flow much more efficiently, allowing more cars to move through the same physical space. Similar variable charges have been successfully utilized in other industries - for example, airline tickets, cell phone rates, and electricity rates. There is a consensus among economists that congestion pricing represents the single most viable and sustainable approach to reducing traffic congestion." The Primer identifies four main types of pricing strategies, with all worthy of evaluation in a statewide Connecticut study. The types are:

- **Variably priced lanes**, involving variable tolls on separated lanes within a highway, such as Express Toll Lanes or HOT Lanes, i.e. High Occupancy Toll lanes
- **Variable tolls on entire roadways** - both on toll roads and bridges, as well as on existing toll-free facilities during rush hours
- **Cordon charges** - either variable or fixed charges to drive within or into a congested area within a city
- **Area-wide charges** - per-mile charges on all roads within an area that may vary by level of congestion

Congestion Mitigation System Plan “Vision 2020” Study

As part of SWRPA’s 2003 Congestion Mitigation System Plan “Vision 2020” Study I-95 interchanges, ramps and segments were evaluated and deficiencies related to safety and operations were identified. The study cited the I-95 section between Interchange 6 and Interchange 16 as having the greatest need for improvement due to the level of congestion, and interchange spacing, ramp and segment deficiencies. A complete engineering analysis combined with concept development should include:

- Safety and operational improvements at specific interchanges;
- Additional operational lanes;
- Geometric modifications of entrance and exit ramps;
- Consolidation of interchanges;
- Horizontal and vertical alignment modifications;
- Ramp metering or peak period ramp closures;
- Increased ramp spacing; and
- Deployment of additional ITS technology.

This study also evaluated the potential of “HOT” High Occupancy Travel lanes or “HOV” High Occupancy Vehicle lanes that provide preferential treatment for vehicles with 2 or more persons, and stated that added capacity through HOT or HOV lanes would help to promote a mode shift from single occupancy vehicles.

The long range plan supports immediate initiation of the ConnDOT engineering study of I-95 southwest corridor safety and operations, participation in the assessment of the Governor’s Commuter Shoulders project as a designated “cooperating agency”, implementation of aggressive truck safety, enforcement and information programs, and continuous traffic counters as part of the Greenwich Weigh-In-Motion project, and at other key locations to monitor and evaluate traffic conditions and programs for congestion and incident management purposes. The strategies and projects are described in the following sections.

Recommended Strategies

Near Term

- Support the Stamford Transportation Investment Strategies Study to develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access and arterial roadways, rail bridges and infrastructure, and Stamford Harbor and encompasses all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region.
- Continue maintenance and safety projects on I-95 for resurfacing, bridge and safety improvements and support active consultation and cooperation with municipalities.
- Upgrade real time traveler information, including adequate Diversion Route Signing and advisories, establish functional Highway Advisory Radio (HAR), install and maintain .2

- mile route markers, and institute state of the art real time traffic information programs.
- Provide additional resources to emergency responders for effective response to incidents on limited access highways (I-95, Route 15 and Route 7 incidents).
- Provide access to ConnDOT traffic cameras for qualified emergency responders through appropriate cost-effective technology, and enable Norwalk, Stamford and Greenwich traffic operations programs to access and share state and local traffic camera information.
- Institute a program for cost recovery that will reimburse municipalities for emergency response to incidents on I-95, Route 15 and Route 7 expressway.
- Establish truck safety and enforcement as priorities and provide adequate state funding for staffing, equipment and training to support (1) required weigh station inspections, (2) increased truck safety inspections and days/hours of inspections at I-95 Darien truck inspection station and I-84 inspection stations, and (3) for ConnDOT to complete the Weigh-In-Motion alternatives analysis, identify, design and construct the preferred alternative.
- Integrate ConnDOT's commercial vehicle information system (CVISN) into Weigh In Motion programs, and truck safety and inspections at Greenwich weigh station.
- Continue to participate in the ConnDOT Rest Area and Service Plaza Study to develop effective improvements and implementation program that will address truck stop and rest area problems and deficiencies, and enhance safety, operations and amenities at the facilities.
- Develop effective monitoring and response/control plan for truck stops and rest areas.
- Implement continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability in the successor project to the Greenwich Weigh-In-Motion Project (#56-290) which was cancelled and replaced with a feasibility study, Route 7 & 15 Interchange Projects (#102-312, 102-269), and as part of incident management system upgrades.
- Develop a "truck information" webpage on ConnDOT website that would provide truckers with information on: state truck regulations and programs; state rest areas and private truck stops; vertical or horizontal bridge clearance restrictions and weight-restricted bridges along with alternate routes; links to the ConnDOT Incident Management webpage where information is provided on CVISN programs, ConnDOT traffic cams and information on incidents in progress. In the future, real time traveler information on truck stop and rest area parking availability could be provided through the website, and future 511 programs.
- Advocate for a statewide evaluation of value pricing and its applicability to I-95 and other expressways.
- Complete the ConnDOT feasibility and best practices review of alternatives for Weigh-In-Motion, select a preferred alternative, and initiate design of the facility and operations.

Longer Term

- Construct and operate Weigh-In-Motion on I-95 in the New York State - South Western Region area.
- Implement the Norwalk Incident Management System proposed in 2007 which proposes

electronic signage, and centralized traffic control along with camera monitoring equipment to direct traffic diverted from I-95, Route 7 or the Merritt Parkway. Traffic camera information and diversion information will be broadcast over the internet and connected with 511. This is a project that evolved from the Diversion Route Signing Project issued by SWRPA in 1998.

Recommended Projects

Near Term

- Construct I-95 Exit 15 to 14 northbound and southbound operational lane and speed change lane improvements (Project 102-278) – revised cost estimates are being prepared as of 2/07
- Construct I-95 Exit 16 interchange, overpass and traffic signal improvements (Project 102-H079) in the near term, to enable companion East Avenue roadway improvements to proceed along with reconstruction of the East Avenue Rail Bridge. Additional funding is needed (\$5m)
- Construct Project 102-295 median barrier, pavement, operations and safety improvements between Exit 16 and Exit 17, Norwalk-Westport (\$51m, future, additional funding needed)
- Upgrade signing between Greenwich/NY state line and Fairfield, Exit 24 (Project 173-350 \$5.8m)
- Increase truck safety and weigh station inspections at I-95 Greenwich and I-84 Danbury locations by increasing trained personnel and hours and days of operation.
- Define truck stop and rest area operational, safety and ITS improvements in the SWRPA Intelligent Transportation Systems (ITS) Strategic Plan.
- Include I-95 in the SWRPA Intelligent Transportation Systems Plan and develop ITS strategies for I-95.
- Support initiation of a statewide value pricing study and development of an implementation plan, and participate as a stakeholder in the effort.
- Complete the ConnDOT feasibility and best practices review of alternatives for Weigh-In-Motion, select a preferred alternative, and initiate design of the facility and operations.

Longer Term

- Construct an I-95 Weigh-In-Motion project, in Greenwich, and fully fund the operation of the facility (costs for construction and operations TBD).
- Include continuous traffic counting capability in the Greenwich Weigh-In-Motion Project
- Implement the proposed Norwalk Incident Management Project.

Route 15/Merritt Parkway

Since the State has completed the Merritt Parkway Guidelines for Maintenance and Transportation Improvements (ConnDOT 1994), the Merritt Parkway Landscape Master Plan (ConnDOT 1994), and the Merritt Parkway Bridge Restoration Guide - May 2002. ConnDOT also constructed ‘gateway projects’ to implement the recommendations of the Merritt Parkway Plans and proposed a comprehensive program to improve the Merritt Parkway. The Merritt Parkway is on the National Historic Register, is a designated state scenic highway, and received national scenic by-way designation in 1996. To complement the Merritt Parkway historic and aesthetic nature, ConnDOT developed, tested, and received federal approval for special steel-backed guide rail, and established unique Merritt Parkway guide signs are now standard requirements on the Merritt. The guide rail and signs have been installed in the constructed gateway sections of Greenwich and Stratford/Trumbull.

The Merritt Parkway Advisory Committee was established by ConnDOT in 1992 to advise the Commissioner of Transportation of ways to preserve and enhance the unique character of the Merritt Parkway, while continuing to maintain the Merritt’s function as a primary arterial. The Merritt Parkway Advisory Committee is to review all Merritt Parkway projects and elements in relation to stakeholders’ perspectives and the ConnDOT Merritt Parkway guidelines. Membership includes representatives from Merritt Parkway towns, the South Western Regional Planning Agency, the Greater Bridgeport Regional Planning Agency, landscape architects, the Merritt Parkway Conservancy, and others. Merritt Parkway Advisory Committee meetings are held quarterly.

The Merritt Parkway “Gateway” projects in Greenwich and Stratford, implemented the first phase of operational, safety and landscaping improvements with construction that began in 1997. In the South Western Region, the North Street interchange (Interchange 31), and the section between Riversville Road and Stanwich Roads were completed in 2007. The Merritt Parkway program of safety and operational improvements to pavement, shoulders, and bridges is shown in Figure 11. Due to funding constraints, the program will extend through 2013 or beyond.

The SWRPA Congestion Mitigation System Plan “Vision 2020” Study reaffirmed the regional transportation plan recommendation to evaluate the roadway and its interchanges for safety and operational deficiencies, opportunities for improved emergency access and response, and use of ITS to further improve the safety and operations of the roadway.

In 2005, the state funded the purchase of additional CHAMP (highway assistance patrol) vehicles that will lead to expansion of CHAMP service to the Merritt Parkway. (See Incident Management element for additional information.)

The South Western Region Long Range Transportation Plan 2004-2030 recommended that more attention be given to landscaping of the Merritt Parkway, with investments to be made in a comprehensive landscape master plan, better maintenance, and correction of eyesores such as interchanges constructed when no landscaping treatments were provided. The Route 15 & 7 interchange is the major problem in the South Western Region. Development of a special

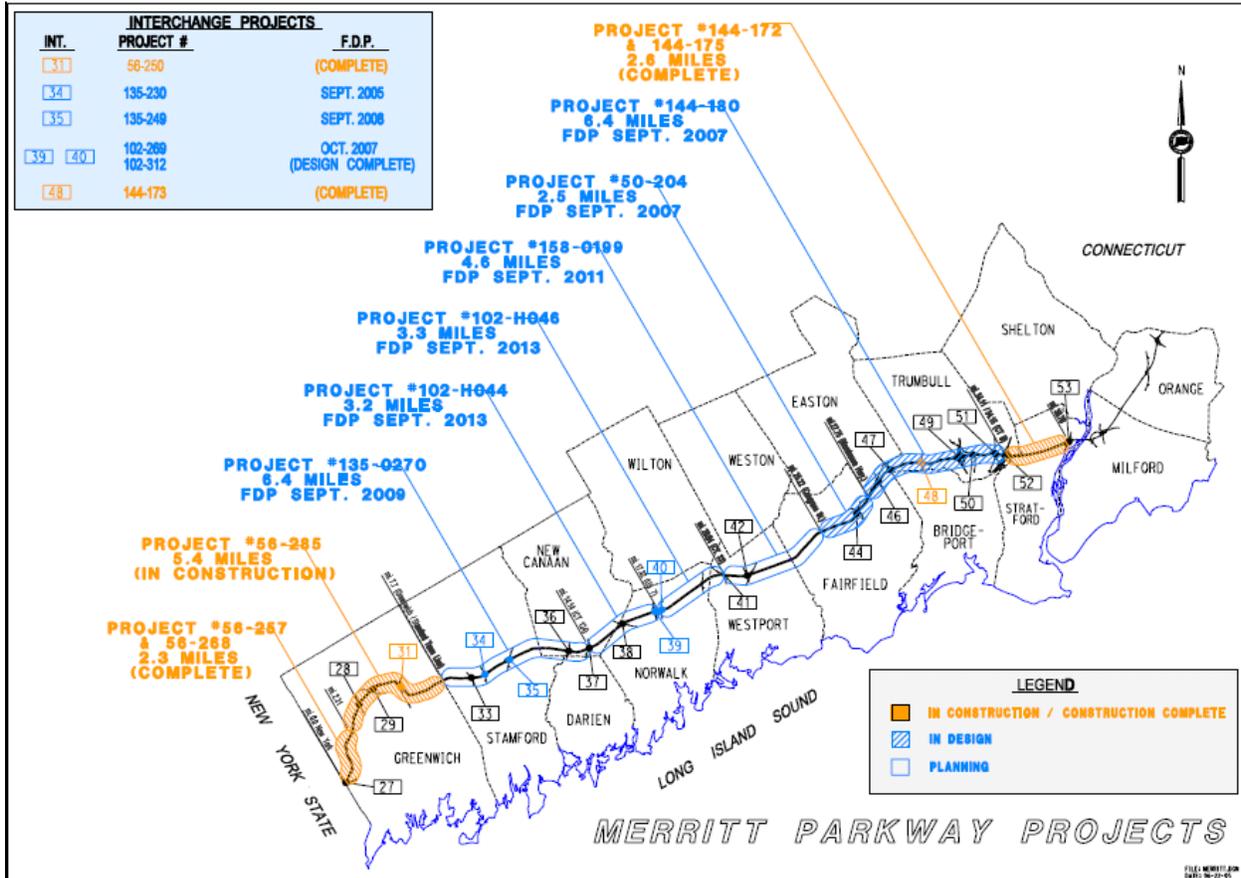


Figure 11. Merritt Parkway Projects 2007 (Source ConnDOT)

corrective action plan, and funding for landscaping were recommended in 2004, and are recommended again.

The lawsuit of the Merritt Parkway Conservancy, National Trust for Historic Preservation, CT Trust for Historic Preservation and others in 2005 against the USDOT Federal Highway Administration, halted the first phase of the Route 7 and 15 interchange project (Project #102-312). Between the initiation of court deliberations and the US District Court’s decision on March 31, 2006¹⁵, Project #102-312 was terminated. The court ordered the parties to jointly “report to the Court by April 10, 2006 on whether they will continue the voluntary moratorium, or if not, what they propose in terms of a narrowly tailored form of injunctive relief that permits such work on the interchange project as can be undertaken while the FHWA conducts its proceeding on remand.” FHWA was ordered to conduct further proceeding as necessary to cure the defects in its Section 4(f)(2) compliance and also consider the plaintiffs’ concerns under NEPA and the National Historic Preservation Act, and to then advise the court. Since then, discussions between the plaintiffs and ConnDOT occurred late in 2006. Alternative interchange plans were proposed

¹⁵ Merritt Parkway Conservancy et al. v. Norman Mineta, et al, NO.3:05CV860 (MRK), Memorandum of Decision, US District Court District of Connecticut, March 31, 2006.

by the plaintiffs and evaluated by ConnDOT. In turn, ConnDOT modified existing plans to reduce right of way impact and the elevation of certain ramps. As of March 2007, the parties are in discussion about the alternatives and next steps. The lack of progress leads to this Plan's recommendation to immediately develop a "Plan B" improvement program while dispute mediation continues. Plan B would remedy deficiencies left by the cancellation of Project 102-312 (Route 7 and 15 Phase 1) including immediate actions to remove rock piles, evaluate and address ramp and intersection deficiencies; and to develop an improvement plan that not only addresses roadway geometry, operations and safety, but also increases transit and ridesharing programs that compensate for the full interchange. If substantive changes in the interchange design are the preferred alternative, a new environmental assessment will be required, and will in SWRPA staff estimation take an estimated 8-12 years to complete before new interchange projects can be constructed.

The ConnDOT Rest Area and Service Plaza Study was initiated in 2005. The study will recommend improvements to the facilities that address service, capacity, safety, operational and revenue generation needs. Because the commercial vehicles are not permitted on the Merritt Parkway, additional truck parking capacity is not an issue as it is at interstate rest areas and service plazas. SWRPA staff and representatives from Darien and New Canaan, towns with rest areas or service plazas, are participants in the study's advisory committee.

Expansion of the ConnDOT New Canaan maintenance facility is under design, with a salt shed proposed. Because of the intensification of use of access roads, wetlands, and height of the salt shed, ConnDOT and the Town of New Canaan and other agencies have been working out design, construction and operating details.

The long range transportation plan translates the need for landscape treatments in context with the Merritt Parkway character into a number of strategies and projects that enhance the landscaping in upcoming Merritt Parkway projects (Route 7 interchange Phase 1 and Phase 2, Route 104 interchange, and Route 137 interchange), initiate a new project for a comprehensive landscape enhancement program for the entire Route 15 and Route 7 interchange to tie previous interchange quadrants that are not landscaped into a cohesive treatment for the entire interchange, and revise ConnDOT policies to enable additional maintenance and watering of landscape materials on Merritt Parkway. Other plan recommendations call for a plan for Merritt Parkway highway and bridge maintenance, treatment of deteriorating bridge facades, increased enforcement and noticing to discourage truck and commercial vehicle use of the Merritt Parkway. Also recommended is better data collection through continuous traffic count stations to assist in monitoring, evaluating and devising congestion management plans. Construction of the fully directional Route 15 and Route 7 interchange is the South Western Region's top highway priority. Resolution of outstanding issues and impediments to construction resulting from the Merritt Parkway et al lawsuit against FHWA, and dedication of required funding for the project are issues to be addressed. Concurrently, an Plan B improvement program to remedy deficiencies in the Route 7 and 15 interchange area that were to be addressed in Projects 102-312 and 102-269 is needed and should include, but not be limited to: Interchange 40a (Main Avenue) ramps; removal of rocks and debris and landscape treatment; upgrade of Main Avenue roadway and signals; Glover Avenue bridge and related improvements to Glover Avenue at Main; increased rail service to Merritt 7, along with more commuter connections (shuttles) between South

Norwalk rail station to Merritt 7.

Recommended Strategies

Near Term

- Resolve Route 7 and 15 interchange dispute, and proceed to construct the full interchange.
- Develop a Route 7 and 15 interchange “Plan B” improvement program consisting of: immediate actions to remove rock piles and landscape treatment; correct ramp and intersection deficiencies if such deficiencies are identified; development of an improvement plan for Route 123-Main Avenue roadway geometry, operations and safety, traffic signalization; also, replacement of Glover Avenue bridge and related improvements; and, implementation of increased bus and rail services to the Merritt 7 area.
- If necessary, immediately initiate a new project for completion of the full Route 7 and 15 interchange, and required planning and environmental assessment activities.
- Conduct Merritt/7 Transportation Area Study to promote effective land use and transportation development in tandem with a program to promote commuter choice and mobility.
- Initiate a comprehensive landscape enhancement program for the Route 15 and Route 7 interchange, including development of a landscape and maintenance plan, and implementation of the plan. A component of the program will be development of the concept for the future Route 7 Norwalk River Multiuse Trail along Route 7 in the
- Evaluate roadway and interchange safety and operational deficiencies along with opportunities for improved emergency access, and opportunities for ITS through the .
- Institute an Incident Management program for the corridor, including highway assistance patrols (CHAMP) Additional vehicles are funded by the State/TSB in FY2005, but funding for staff is provided for only 3 months.
- Develop a plan for Merritt Parkway highway and bridge maintenance and determine if there are sufficient funds to bring the road and bridges into a state of good repair consistent with the Merritt Parkway Plans and guidance; seek funding to assure adequate maintenance and prevent deferred maintenance.
- Address the deteriorating appearance of the Merritt Parkway bridges by providing a budget for esthetic treatments or repairs consistent with the Merritt Parkway Plan. For example, if parts of the fascia fall off, or are damaged by trucks, the damage is currently left as-is if the structural integrity is not compromised. Non-structural repairs are placed on "future needs" lists or to be done when the structure will be rehabilitated.
- A plan for repair, rehabilitation, restoration and replacement of the Merritt Parkway bridges should be developed and reviewed by the Merritt Parkway Advisory Committee and other interested parties.
- Include the Merritt Parkway/Route 15 in the SWRPA Intelligent Transportation Systems (ITS) Strategic Plan and develop ITS strategies for the Merritt Parkway.
- Develop a “truck information” webpage on ConnDOT website that would identify Merritt Parkway use restrictions, bridge clearance restrictions, penalties, and alternative routes.

Longer Term

- Completion of the full Route 7 and 15 interchange if the project is not accomplished in the near term.
- Maintain Merritt Parkway infrastructure consistent with the Merritt Parkway Master Plan.
- Replace and repair deficient guide rail, and install new guide rail as warranted.
- Resurface and make safety improvements for entire length of Merritt Parkway to eliminate hazards and promote safe and efficient operation.
- Recognize the Merritt Parkway as linear multi-modal park.
- Implement the Merritt Parkway Master Plan, which balances transportation needs, with historic and aesthetic concerns.
- Identify the Merritt Parkway as a transportation preservation corridor.
- Improve enforcement of use restrictions of the Merritt Parkway (e.g. commercial vehicles, motorcycles, over height and over weight vehicles).
- Institute a meaningful penalty for use of the Merritt by illegal vehicles to reinforce enforcement and generate revenue (the current fine is less than \$50).
- Institute a program for cost recovery for damages to the Merritt Parkway and bridges that allows for recovered funds to be used for Merritt Parkway projects.
- In cooperation with NYSDOT, ConnDOT should evaluate an overheight/overweight detection program for the Merritt and Hutchinson River Parkways to prevent further damage of structures or hazardous spills.
- Develop protocols for NYSDOT and ConnDOT variable message signs to reinforce Merritt Parkway and Hutchinson River Parkway use restrictions. (During the I-95 Howard Avenue closure in 2004, many trucks unknowingly diverted to the Merritt Parkway and Hutchinson River Parkway and had to be escorted off the facilities by state police.)
- Evaluate the Merritt Parkway/ East Coast Greenway Trail proposal.

Recommended Projects

Near Term

- Construct the fully directional interchange at Route 15 & 7 in coordination with municipalities and other stakeholders: Project 102-269 (complete fully directional interchange and Exit 40a Main Avenue), \$123.7m CON (2007 estimate – ConnDOT 2007 Master Transportation Plan shows additional funding of \$89m required) – This is a regional priority to be considered as funded.
- If needed, develop a Route 7 and 15 interchange “Plan B” improvement program consisting of: immediate actions to remove rock piles and landscape treatment; correct ramp and intersection deficiencies if such deficiencies are identified; development of an improvement plan for Route 123-Main Avenue roadway geometry, operations and safety, traffic signalization; also, replacement of Glover Avenue bridge and related improvements; and, implementation of increased bus and rail services to the Merritt 7 area.
- If necessary, immediately initiate a new project for completion of the full Route 7 and 15 interchange, and required planning and environmental assessment activities.
- Encourage ConnDOT to develop a Merritt Parkway Landscape Master Plan that includes an implementation plan with financing.

- Enhance landscaping for the Route 7 & Route 15 interchange projects (#102-269), the Route 104 & Route 15 (#135-230) interchange project, the Route 137 & Route 15 (#135-249) interchange project in consultation with municipalities, and other stakeholders.
- Project 135-230 Route 104, Interchange #34 improvements) \$8.281m CON 2006-2008
- Secure funding for the Route 15 and Route 7 Interchange Landscape Enhancement Project.
- Evaluate roadway and interchange safety and operational deficiencies along with opportunities for improved emergency access, and opportunities for ITS.
- Implement CHAMP service on the Merritt Parkway.
- Implement continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability in the future I-95 Weigh-In-Motion Project and Route 7 & 15 Interchange Projects (#102-312, 102-269).
- Conclude the ConnDOT Rest Area and Service Plaza Study and implement context sensitive design solutions recommendations developed if supported by South Western Region towns and the MPO.

Longer Term

- Implement Merritt Parkway (Route 15) projects in coordination with municipalities in accordance with context sensitive design solutions and enhanced landscaping, including:
 - Project 102-H044 (Route 124 to Route 7, Norwalk – resurfacing, bridge, safety and landscaping) - cost \$8.36m CON needed
 - Project 102-H046 (Route 7, Norwalk, to Route 33, Westport – resurfacing, bridge, safety and landscaping) - \$1.867m CON needed
 - Project 135-270 (Greenwich/Stamford town line east to Route 124, New Canaan – resurfacing, bridge, safety and landscaping) - \$16m CON needed
 - Project 158-199 (Route 33, Westport to Congress Street, Fairfield – resurfacing, bridge, safety and landscaping) - PE funded, \$11.6m CON needed
 - Project 135-249 (Route 137, Interchange # 35 improvements) – PE funded, \$6.745m CON needed
- Determine feasibility of the March 2001 Regional Plan Association and City of Stamford proposal for the ‘Merritt Parkway Trail Demonstration Project’ along the Merritt between High Ridge Road (Exit 35) and Newfield Avenue, Stamford. This is a distance of 3,500 feet with a linkage to the High Ridge Office Park, Sunrise Assisted Living facility, and Turn-of-River apartments. The feasibility of the proposal should be determined in the engineering phase of Project 135-270, the Route 15 resurfacing and safety improvements project scheduled. This project is also referenced in the “Bicycle and Pedestrian” element of the Plan.

Route 1

Since 1994, ConnDOT has advanced Route 1 turning lane projects through study and design. Some sections and intersections in Greenwich, Norwalk, and Westport have been improved, or are scheduled for improvement. A decade ago ConnDOT evaluated Route 1 Cross Street and recommended a program of improvements for the section of Route 1 between Belden Avenue and East Avenue (ConnDOT 1996). In 2004, The City of Norwalk received an earmark of \$500,000 to study Route 1 Cross Street within the context of current land use and redevelopment plans.

Between 2004 and 2006, the City of Stamford conducted the East Main Street Corridor Study¹⁶, and developed a land use and transportation revitalization strategy for this gateway to Stamford. The study area extended along Route 1 from the Darien Town Line to Elm Street. The corridor contained the essential elements for transit oriented development (TOD) - density; walking distances to transit; a mixture of uses including public, employment, housing, retail and service – and defined ways to support TOD and create an urban village. These include: creating development patterns that support transit service through physical and visual connections; encouraging complementary land uses; developing design standards to improve the quality of the physical character of the area; identifying appropriate intensity of uses; and identifying key development opportunities. To recapture the corridor, an action plan was prepared that focused on four categories of strategies: pedestrian accessibility; economic vitality; traffic and parking; and image and aesthetics. Key recommendations related to transportation include: development of an East Main transit node and Stamford Urban Transitway linkages; create pedestrian and bicycle facilities; provide off-street and internal parking; replace the functionally obsolete East Main/Route 1 rail overpass; also provide streetscaping. Earmark funding for a transit node at East Main/railroad overpass/Myrtle Avenue was secured under SAFETEA-LU. In 2006, scoping of a study to evaluate multi-modal options to develop the preferred alternative was started. Congressional delays in appropriation of FFY2007 funding have delayed initiation of this study. The earmark funding is \$800,000.

In 2006, SWRPA received funding for the Route 1 Darien circulation, congestion and access management study, which will be a cooperative effort of the Town of Darien, SWRPA, and ConnDOT. Also in 2006, Greenwich and Stamford identified operating and safety problems along Route 1, that lead to municipal, regional and state agreement to initiate a similar study for Route 1 between the Greenwich/New York State Line, or potentially further into Portchester if Westchester DOT agrees, and Washington Boulevard (Route 137), Stamford.

With respect to Route 1, the Congestion Mitigation System Plan “Vision 2020” Study (SWRPA 2003) made recommendations that echoed past long range regional transportation plans. The study recommended that the Route 1 corridor from New Haven to Greenwich be targeted for transportation systems management improvements such as signal timing coordination, turning lanes, shoulders, geometric improvements, and access controls that would improve safety and operations and result in tangible travel time savings, emissions and accident reduction. Strategic improvements were recommended for intersections or roadway segments with accident

¹⁶ East Main Street Corridor Neighborhood Plan, City of Stamford, April 2006.

experience above average or with poor levels of service. Also, use of access management would help to rationalize driveway locations and frequency to improve Route 1 operations and safety.

The SWRMPO and SWRPA should continue to coordinate with ConnDOT to identify intersections on Route 1 that could be improved through signal coordination or operational modification. SWRPA should encourage municipalities to incorporate access management practices when approving new development or revising existing site plans. The long range plan supports efforts to develop corridor congestion, circulation, access management and improvement plans, to foster transit oriented development, and to develop enhanced bus transit service along Route 1,

Recommended Strategies

Near Term

- Continue to monitor and evaluate corridor needs.
- Study deficient sections and intersections to develop improvement programs.
- Implement intersection, turning lane, signal system upgrades or traffic signal timing and coordination improvement projects in consultation with municipalities and using context sensitive design solutions.
- Support City of Stamford efforts to develop East Main Street (Route 1) and West Main Street (Route 1) corridor improvement plans.
- Support evaluation and future improvement of Route 1 needs in Norwalk in the Cross Street segment (Belden Avenue to East Avenue). The study is a USDOT earmark funded project (FFY2004 \$1,600,000). The ConnDOT 1998 estimate for roadway improvements was \$8.8 million. (Refer to ConnDOT Project 102-264, "Route 1 Study, Norwalk" dated 1999.)
- Conduct Route 1 congestion, circulation and access studies in Darien, Greenwich and Stamford.
- Adequately fund and assure sustained funding for inter-regional Route 1 service and the Coastal Link from Milford to Norwalk, with future funding for continuation of the service west from Norwalk to Stamford, to Greenwich, Portchester and White Plains, and east from Milford to New Haven.
- In Stamford, widen and increase the vertical clearance of Route 1, which is an essential diversion route for I-95, at the railroad and Myrtle Avenue.
- Use earmark funding to develop a plan for transit improvements at Route 1, East Main Street and Myrtle Avenue, which is co-terminus with Stamford Urban Transitway Phase 2.
- Conduct an implementation study for Phase 1 BRT (bus rapid transit) or express bus or express bus service from Norwalk to Stamford and Greenwich. Implement recommended services with supporting amenities.

Longer Term

- Develop corridor and access improvement programs for Route 1 Westport, Route 1 Norwalk, and the rest of Route 1 Stamford (Washington Boulevard to Glenbrook Road, and Route 1 Darien.
- Further investigate the potential for BRT/express bus in the Route 1 corridor (Congestion

Mitigation Systems Plan “Vision 2020”) to ultimately provide such service from White Plains to New Haven.

- Improve coordination and communications between ConnDOT, municipalities and other stakeholders regarding ConnDOT construction projects and maintenance activities to assure best traffic flow and to avoid multiple closures that create bottlenecks..

Recommended Projects

Near Term

- Construct Stamford Urban Transitway, Phase I (Stamford Rail Station to Elm Street), at using \$50m of earmark and supplemental funding. This project is being advertised for construction in spring of 2007, with completion anticipated in 2008.
- Complete Stamford Urban Transitway Phase 2 design, ROW and construction between Elm Street, along Myrtle Avenue to Route 1 at Lockwood Avenue. The project’s estimated cost is \$40m, with \$32m of federal earmark funding.
- Complete design and secure funding for Project #102-285 Route 1, Norwalk, Stuart Avenue-Strawberry Hill, Willard and Lois. Design is funded by \$500,000 STP-Urban.
- Complete Project 56-271 Route 1 Greenwich design and secure funding for construction. This project will improve Route 1 at: Valley Drive; Maple Avenue/ Maher Avenue/ Milbank Avenue-widen Route 1 to provide westbound left-turn lane; at Indian Field Road (Length 1000 ft)-widen Route 1 to provide opposing left-turn lanes and eastbound right-turn lane; at Orchard Street and Mead Avenue widen Route 1 to provide opposing left-turn lanes. Design is funded by \$500,000 STP-Urban.
- Through preliminary design, the appropriate scope and phasing for Norwalk Route 1 improvements for Cross Street between Belden Avenue and East Avenue should be determined, and an implementation program developed. STP-Urban funding was approved for the design (FFY2005, \$500,000, Project 102-325). The earmark funding will be used for project construction. (FFY2004 \$500,000). The ConnDOT 1998 estimate for roadway improvements was \$8.8 million. (Refer to ConnDOT Project 102-264, “Route 1 Study, Norwalk” dated 1999.)
- Conduct the Route 1 Darien congestion, circulation and access management study.
- Secure funding for the study to mitigate congestion, improve circulation and propose access management for Route 1 Greenwich/NYS Line to Washington Boulevard, Stamford.
- Develop a program of improvements road, intersection and signals for Route 1 in Westport from the vicinity of Route 33 to the Fairfield townline.
- Develop and implement Route 1 improvements in Westport as appropriate.

Longer Term

- Study Route 1 at I-95 Exit 11, Darien, to improve operations and safety particularly in the southbound off and on ramps.
- Study Route 1 at I-95 Exit 5, Greenwich, to improve operations and safety.
- Design and fund the proposed Norwalk Incident Management System project that supports ConnDOT diversion routes with signage, centralized traffic control and camera monitoring, integrated with the City’s PSAP system, and made available to the public over the internet and 511 (\$ 1.8m Norwalk 2007).

Route 7

Route 7 is one the State's major north/south arteries, extending as an expressway north 3 miles from I-95 in Norwalk to a partial interchange with Route 15 (Norwalk), and continuing another mile north to the expressway terminus at Grist Mill Road, Norwalk. Route 7 is an essential link between the business/economic centers in South Western Connecticut and the fast growing residential suburbs of northern Fairfield County in the Housatonic Valley Region. Although a Route 7 expressway between I-95 and I-84 was included in 1960's state transportation plans, environmental permitting requirements and legal appeals delayed construction of the expressway beyond Norwalk. In the early 1990's, the Connecticut Department of Transportation, chose to conduct an environmental assessment of Route 7 expressway alternatives that would continue the expressway north from Grist Mill Road to Route 33 in Wilton. In November of 1999, Governor Rowland announced that the Route 7 expressway north of Grist Mill Road would not proceed but would be replaced by improvements to existing Route 7 (Main Avenue) between Grist Mill Road and Route 33 in Wilton. This change in course was subsequently studied and resulted in the environmental assessment for Route 7 improvements approved by the USDOT in December 2000 as the Final Environmental Assessment/Section 4(F) Evaluation for Route 7/15 Interchange Improvements and Route 7 Corridor Improvements sate Projects 102-269 and 102-220 : Connecticut Finding of No Significant Impact. This document permits construction of the full Route 7 and Route 15 Interchange (Project 102-169 and Project 102-312); improvements to existing Route 7 between the Route 7 Expressway terminus at Grist Mill Road, Norwalk, and Route 33, Wilton (Project 102-305); and, the widening of Route 7 in Wilton between Wolfpit Road and Olmstead Hill Road (Projects 161-118,124). Although the break out was approved by the SWRMPO, the policy group kept the Route 7 expressway between Norwalk and Danbury as an unfunded need in the South Western Region Long Range Transportation Plans for 2001-2025, and 2004-2025.

In 2007, the Route 7 issue received considerable attention because of legislation proposed by Senator Robert Duff (Norwalk). "Proposed SB 423 – An Act Concerning Super 7" which required ConnDOT to implement a time line to complete construction of the Super 7 Highway from Norwalk to Danbury. At the February 21, 2007, the SWRMPO provided the following testimony:

"The South Western Region Metropolitan Planning Organization (SWRMPO) recognizes that the Route 7 corridor between Norwalk and Danbury is a critical link in the state's transportation network. This corridor provides north/south connections via existing Danbury Rail Line and US Route 7 facilities.

Decades of regional and state long range transportation plans and studies have developed and implemented short-term, mid-term and long-term solutions to the transportation needs of the corridor.

- The short-term "transportation system management" projects led to improved intersection operations through geometric and signal upgrades in the 1980s.

- Mid-term projects were being developed at the same time to widen segments of existing Route 7 to provide two lanes in each direction with turning lanes at critical intersections. The results of these 5-10 year initiatives have led to widening projects in Wilton and Danbury, with another widening in design for the segment from the Route 7 terminus at Grist Mill Road (Norwalk) to Route 33 (Wilton), which will include a reconfiguration of Route 7 at Route 33.
- Longer-term projects, taking more than a decade, sometimes two, are exemplified by the Route 7 and 15 interchange upgrade from a partial interchange to a full interchange, and now at an impasse due to litigation, and the Danbury Branch communications and signalization project.

Municipalities and the state share the common and frustrating experience that transportation projects take a very long time to develop, design and build. It is based on this experience, and the desire to support and facilitate development and ensure quality of life, that the SWRMPO seeks to promote multi-modal solutions for travel by persons and goods in the Route 7 corridor.

The SWRMPO recommends that a comprehensive multi-modal investment study for the Route 7 corridor between I-95 and I-84 be conducted and result in an implementation action plan with timelines for feasible operational, management and construction projects.

This effort will examine how future transportation system investments will accommodate future corridor travel for people and goods, within the context of anticipated residential, employment and development changes. A thorough environmental analysis combined with extensive public involvement will ensure this effort is meaningful and will lead to a variety of transportation choices in a seamless integrated system.”

The SWRPA Congestion Mitigation Systems Plan “Vision 2020” Final Report (2003) recommended operational, safety, geometric and signalization improvements to the Route 7 corridor between Wilton and Danbury.

Many of the South Western Region MPO’s priorities relate to Route 7 corridor highway and transit projects. The projects include: completion of the fully directional Route 15 and Route 7 interchange; as well as widening of Route 7 in Wilton and Norwalk; conduct of a Route 7 needs assessment between Olmstead Hill Road, Wilton, and Route 35, Ridgefield is jointly proposed by SWRPA and the Housatonic Valley Council of Elected Officials (HVCEO). In addition to supporting highway projects, the SWRMPO supports increased rail service on the Danbury Branch to enable the use of rail to access employment sites in the Norwalk to Danbury Route 7 corridor, Merritt/7, Wilton and South Norwalk. Each year since 2004, the SWRMPO has petitioned ConnDOT to study and implement enhanced Danbury Branch service. Because the Danbury Rail Line service is oriented to New York City, it is not a viable commute option in the corridor for regional employment destinations. The SWRMPO and HVCEO have pointed out the growth in the corridor, including: tremendous residential growth in northern Fairfield County;

the Georgetown mixed use transit oriented development at the border of Wilton, Redding and Ridgefield that will construct a new rail station; the Merritt/7 complex continues to grow and has attained status as Connecticut's largest Class A office park; and, additional office, residential and mixed use development are planned in the Route 7 corridor and other areas of Norwalk. The growth in passenger and commercial vehicles is compounded by construction along the corridor for widening projects.

The gaps in service that discourage the use of the Danbury Rail Line for commuting between Danbury to Merritt 7 and South Norwalk. In the July 2004 letter¹⁷ to ConnDOT, gaps in rail service and opportunities for improvement were noted and include:

Connections between Danbury and Norwalk: Morning Inbound Trips

- There is a 2 ½ hour gap in service between 7:57 a.m. and 10:38 a.m. The southbound train leaves Danbury at 7:57 a.m. and arrives at Merritt/7 at 8:33 a.m., and South Norwalk at 8:44 a.m.; the next southbound train leaves Danbury at 10:38 a.m. and arrives at Merritt/7 at 11:13 a.m. and South Norwalk at 11:25 a.m.
- Between 6:18 a.m. and 7:57 a.m., trains run on approximately 30 minute headways, which is a level of service that could meet commuter needs.

Connections between Norwalk and Danbury: Afternoon Return Trips

- There is a 3 hour gap in service between the 1:19 p.m. and 4:09 p.m. The northbound train leaves South Norwalk at 1:09 p.m.(Merritt/7 at 1:19 p.m.) and arrives in Danbury at 1:56 p.m.; The next train leaves South Norwalk at 4:09 p.m. (Merritt/7 at 4:19 p.m.) and arrives in Danbury at 4:56 p.m.
- Between 5:27 p.m. and 7:56 p.m., trains run on approximately 40 minute headways and provide a level of service that might be tolerated by commuters.

ConnDOT responses always advised no change in service was possible until the Danbury Branch CTC (signal and communications project was completed). In another response, the SWRMPO was advised that no equipment was available. Additional rolling stock has subsequently been acquired. Another response stated there was no demand for additional service. The final continuing response is that an operational analysis of service will be conducted as part of the Danbury Electrification Phase 2 Study. This study was to have started in late 2006, but is still on hold in March of 2007.

Looking to the future, this Plan recommends: an operational study of the Danbury Branch to develop improved service; a multi-modal needs assessment of the unimproved two-lane cross section of Route 7 between Olmstead Hill in Wilton and Route 35 in Ridgefield to be administered by HVCEO; a study of the Merritt 7 area transportation and land use to guide multimodal investments and develop transit supporting land use and services; implementation of the fully directional Route 7 and 15 interchange; development of the Route 7 and 15 interchange Plan B, in the event that the impasse of the interchange is not resolved (Refer to Route 15 section of the Plan.); and, a comprehensive multi-modal investment study for the Route 7 corridor between I-95 and I-84 be conducted and result in an implementation action plan with timelines for feasible operational, management and construction projects.

¹⁷ SWRMPO letter to ConnDOT Commissioner Korta dated July 26, 2004.

Recommended Strategies

Near Term

- Expediently complete funded projects including: Route 7 widening in Norwalk and Wilton, and expand Wilton rail parking.
- Resolve Route 7 and 15 interchange dispute, and proceed to construct the full interchange.
- Develop a Route 7 and 15 interchange “Plan B” improvement program consisting of: immediate actions to remove rock piles and landscape treatment; correct ramp and intersection deficiencies if such deficiencies are identified; development of an improvement plan for Route 123-Main Avenue roadway geometry, operations and safety, traffic signalization; also, replacement of Glover Avenue bridge and related improvements; and, implementation of increased bus and rail services to the Merritt 7 area.
- If necessary, immediately initiate a new project for completion of the full Route 7 and 15 interchange, and required planning and environmental assessment activities.
- Conduct Merritt/7 Transportation Area Study to promote effective land use and transportation development in tandem with a program to promote commuter choice and mobility.
- Initiate a comprehensive landscape enhancement program for the Route 15 and Route 7 interchange, including development of a landscape and maintenance plan, and implementation of the plan. A component of the program will be development of the concept for the future Route 7 Norwalk River Multiuse Trail along Route 7 in the
- Conduct corridor studies including:
 - A multi-modal needs assessment of the Route 7 corridor between Olmstead Hill Road in Wilton and Route 35 in Ridgefield to establish an implementation program for operational, intersection, safety, access management, multimodal and streetscaping enhancements. This assessment proposed by SWRPA and HVCEO should be a cooperative effort of ConnDOT, SWRPA and HVCEO within a framework of sensitive design.
 - A comprehensive multi-modal investment study for the Route 7 corridor between I-95 and I-84 be conducted and result in an implementation action plan with timelines for feasible operational, management and construction projects. This study, upon completion, may disclose a possible future need for an expressway.
- Implement enhanced transit services to mitigate and alleviate congestion caused by construction projects, following the precedent set by the I-95 New Haven Harbor Crossing (Q Bridge) project that implemented additional Shore Line East rail service. In the Route 7 corridor, construction disruptions may be associated with the Danbury Branch Line CTC project (if rail service is disrupted), Route 7 widening projects, and the Route 15 and 7 interchange.
- Implement enhanced transit services oriented to intrastate commutes between Danbury – Norwalk-Stamford and vice versa. Transit options include: increased Danbury Branch rail service oriented to work trips in the Route 7 corridor; express bus from the Danbury area to Stamford via I-684; express bus from Ridgefield/Wilton to Stamford; continued support for 7Link bus service with increased service, and also incentive-based ridesharing programs such as NuRide.

- Further assess the potential for express bus service from Ridgefield and Wilton to Stamford, as identified in the SWRPA Express Bus Mini-Memo (March 2007).
- Undertake a study of Merritt 7 area transportation needs to develop a program of multimodal improvements coordinated with land use to improve mobility and access, and manage congestion.
- Initiate a comprehensive landscape enhancement program for the Route 15 and Route 7 interchange, including development of a landscape and maintenance plan, and implementation of the plan. A component of the program will be development of the concept for the future Route 7 Norwalk River Multiuse Trail along Route 7 in the interchange.
- Initiate Danbury Branch Electrification Study Phase 2 with a scope that develops a rail service plan oriented to commutation in the Route 7 Norwalk to Danbury corridor with supporting bus service, and commuter connections, along with incentive-based ridesharing programs similar to the NuRide model. The service plan should develop viable commuter options to Merritt 7, Wilton and South Norwalk address Danbury Branch service options for commutation in the Route 7 Norwalk to Danbury corridor, and service to Merritt 7, Wilton and South Norwalk.
- Construct the Danbury Branch signal and communications improvements (Project #302-0007) The CTC Signal System includes a remote control of train movements and switches from Metro-North's Control Center in Grand Central Terminal. The sidings at Norwalk, Wilton, Branchville and Danbury will function as fully automatic control points (CP's). Signals at these sidings will be GO-NO-GO signals similar to those now in use on the New Haven Mainline. These signals indicate to a train to stop or proceed based on the on-board cab signal indications. Also the signals and switches are interlocked for positive control of train moves. Lastly, the branch will be electrically segmented into approximately 1 mile long blocks which provide the cab signal indication based on conditions of the track ahead.
- Consider access management principals and recommendations when development or improvement projects proposed in the corridor.
- Complement improvement projects with landscaping, sidewalks, and context sensitive design.
- Preserve the corridor for future transportation and other uses.

Longer Term

- Implement operational, intersection, safety, and capacity improvements.

Recommended Projects

Near Term

- Complete Route 7 corridor projects that are in design or construction.
 - Project No. 0102-0269. The revision to the Route 7/Merritt Parkway interchange in Norwalk to complete connections between the Merritt Parkway and the U.S. 7 expressway will include adjacent and connecting roadway improvements. The project, which was to be undertaken in two phases, is scheduled to be advertised in the summer of 2007 under a single contract. Construction is scheduled to begin in the spring of 2008.

- Project No. 0102-0305. Construction to widen the existing Route 7 from Gristmill Road in Norwalk to the Olmstead Hill Road/Route 7 intersection in Wilton (Project No. 0102-0305) is expected to be underway in the summer of 2009.
- Project Nos. 0161-0118 and 0161-0124. Construction to widen the existing Route 7 from Wolfpit Road to Olmstead Hill Road began in 2006; it is scheduled to be completed by 2010.
- Conduct the Route 7 corridor multi-modal needs assessment for the section of Route 7 between Olmstead Hill Road, Wilton, and the Route 35, Ridgefield. This study will establish an implementation program for operational, intersection, safety, and multimodal improvements, access management, and streetscaping enhancements with a context sensitive design approach. This study is jointly proposed by the SWRMPO, SWRPA and the HVCEO. The project will be administered by HVCEO.
- Undertake a comprehensive multi-modal investment study for the Route 7 corridor between I-95 and I-84. This study will develop a management and infrastructure plan and environmental assessment for the Route 7 corridor from Norwalk through Danbury. This study, upon completion, may disclose a possible future need for an expressway.
- Fund the Merritt 7 Area Transportation Study (City of Norwalk, and Norwalk Transit District) to develop a program of improvements to improve mobility and access and manage congestion. Roadway, bus, rail, shuttle, bicycle, pedestrian, land use, and transportation demand management programs will be developed to support existing, planned and forecast (build out) growth.
- Construct the fully directional Route 7 and 15 interchange (Project 102-269).
- If needed, develop a Route 7 and 15 interchange “Plan B” improvement program consisting of: immediate actions to remove rock piles and landscape treatment; correct ramp and intersection deficiencies if such deficiencies are identified; development of an improvement plan for Route 123-Main Avenue roadway geometry, operations and safety, traffic signalization; also, replacement of Glover Avenue bridge and related improvements; and, implementation of increased bus and rail services to the Merritt 7 area.
- If necessary, immediately initiate a new project for completion of the full Route 7 and 15 interchange, and required planning and environmental assessment activities.
- Conduct Merritt/7 Transportation Area Study to promote
- Implement enhanced transit services with a focus on intrastate commutes between Danbury – Norwalk-Stamford and vice versa. Transit options include: increased Danbury Branch rail service oriented to work trips in the Route 7 corridor; express bus from the Danbury area to Stamford via I-684; express bus from Ridgefield/Wilton to Stamford; continued support for 7Link bus service with increased service, and also incentive-based ridesharing programs such as NuRide.
- Further assess the potential for express bus service from Ridgefield and Wilton to Stamford, as identified in the SWRPA Express Bus Mini-Memo (March 2007).
- Initiate Danbury Branch Electrification Study Phase 2.
- Construct the Danbury Branch signal and communications improvements (Project #302-0007)
- Fund the Route 15 and Route 7 Interchange Landscape Enhancement Project to develop the design, planting and maintenance plan for landscaping the entire interchange,

including development of the concept and alignment of the extension of the Route 7 Norwalk River Multiuse Trail within the interchange.

- Implement the Route 7 Travel Options Implementation Plan (SWRPA 2000) which proposes \$57m in transit and ridesharing projects for the Route 7 corridor.
- Implement continuous traffic counting capability at I-95, I-84 and Route 15 at the New York Stateline, Route 7 & 15 interchange and other key locations to enable better monitoring and evaluation to determine the extent and severity of congestion, impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans. Include continuous traffic counting capability in the Greenwich Weigh-In-Motion Project (#56-290) and Route 7 & 15 Interchange Projects (#102-312, 102-269).

LOCALLY IDENTIFIED TRANSPORTATION PRIORITIES & NEEDS

On-going town and regional planning, engineering and maintenance activities identify transportation needs and determine priorities for improvement projects and programs. Information on local transportation deficiencies and programs is contained in local and regional plans, capital improvement programs and special studies. SWRPA has conducted studies that have dealt with a variety of transportation concerns, including: traffic engineering studies of locally-identified transportation problems; traffic impact studies; Route 7 and Route 1 corridor access management studies; the Congestion Mitigation Systems Plan “Vision 2020”; Route 7 travel options study; Route 33 study; transit studies, including the Regional Transit Card Study, development studies; commuter connection studies; and, rail parking studies. As new transportation issues or funding opportunities arise, solutions and projects are developed to respond. The South Western Long Range Transportation Plan includes information provided by the towns on local transportation needs and priorities; projects that are proposed, planned or programmed; financial information regarding needs and programming; and private sector transportation needs projects, and financial resources.

Transportation Goals and Projects of Municipal Plans

Each of the Region’s municipalities has identified transportation goals and objectives in their plans of conservation and development and other documents. A summary each of the plans is provided.

Darien – 2006 Plan of Conservation & Development

The town of Darien aims to preserve the residential character of its community through land use management. Darien seeks to accomplish this goal through the following transportation priorities:

1. Parking space management – Balance mixed use parking needs to create a pedestrian friendly downtown
 - Improve signage and visibility of municipal lots and on-street parking spaces
 - Consider reallocation of municipal parking lot spaces between retail, commuter and employee uses
 - Improve on-street space markings and signage to improve efficiency
 - Consider acquisition of a secondary parking lot near the Corbin Drive Post Office.
 - Elimination of off-street parking spaces that require backing into public streets in commercial areas
 - Evaluation of pricing adjustments at the Mechanic Street parking lot
2. Access management – manage access to developed land; preserve traffic flow on surrounding road systems
3. Traffic flow improvements along key corridors:
 - Noroton Avenue at Ledge Road, West Avenue and Middlesex Road
 - Middlesex Road at High School Lane and Leroy Avenue

- Possible directional changes of Tokeneke Road, Center Street and Corbin Drive near Boston Post Road
4. Improve specific intersections with high incident rates:
 - Heights Road near the post office
 - Boston Post Road at Ledge Road/Leroy Avenue, Corbin Drive, Noroton Avenue, Thorndal Circle and Renshaw Road
 - Mansfield Avenue at McLaren Road
 - Tokeneke Road at Raymond Street/Five Mile River Road
 - Middlesex Road at Hanson Road and Holly Lane
 - Hollow Tree Ridge Road at Ox Ridge Lane/Hancock Lane
 - Intersections highlighted in the Darien 1995 Town Plan of Development
 5. General safety enhancements to promote accident reduction:
 - Reduce Tokeneke Road truck traffic
 - Construct and improve sidewalks; improve safety for walkers and bicyclists
 6. Support of public transportation:
 - Consider acquisition of Koons Lot to provide more commuter rail parking
 - Consider commuter van shuttles between train stations and private residences
 - Consider regrading the entrance to the Darien train station.
 - Promote improvements to posting of transit schedules at municipal facilities and all bus and train stations.

Greenwich – 1998 Plan of Conservation and Development

The Town of Greenwich has three main policy areas around which they focus their transportation recommendations:

1. Improve Safety
 - Provide crosswalks, signals, signs and sidewalks in densely developed areas.
 - Use more traffic calming methods, including narrow roads, on-street parking in business zones, humps, circles and islands, consistent with safety and efficiency of traffic flow.
2. Reduce Traffic Congestion and Improve Air Quality
 - Follow State and SWRPA plans to relieve congestion.
 - Advocate better train service.
 - Encourage coordination of non-profit, corporate and public van and bus services with mass transit.
 - Increase parking at appropriate railroad stations.
 - Encourage residents to use alternatives to single-occupancy vehicles.
 - Provide more bike racks at train stations and public buildings.
 - Support SWRPA's efforts to get freight off I-95 and onto rail lines or barges.
 - Maintain LOS "C" as the Town standard.
 - Update the 1977 Transportation Plan for Central Greenwich and adopt a Traffic Management Plan for the Central Greenwich area.
 - Increase station platform access and length of platforms.
3. Provide better parking for shoppers, Town resident-commuters and employees.

- Encourage the combination of adjoining privately-owned sites for employee and shopper parking and public use of private parking after hours.
- Eliminate parking permits for non-residents and businesses in Town-owned commuter lots.

New Canaan – 2003 Town Plan of Conservation and Development

The Town of New Canaan has developed strategies and tasks to address roadway and parking issues, to enhance pedestrian and bicycle circulation and to support transit facilities. The following are the strategies and tasks included in the Transportation Implementation Program:

1. Strategies

- Continue to manage the roadway system in New Canaan.
- Continue to maintain the scenic character of local roadways.
- Continue to explore other opportunities to expand community parking.
- Continue to require sidewalks in the Town Center, in contiguous areas, along arterial roads and near schools and parks.
- Avoid sidewalks in outlying areas where the density is much lower, unless these areas are part of a greenway trail system.
- Support the establishment of trails on open space.
- Support State efforts to establish a bicycle/pedestrian trail along the Merritt Parkway in New Canaan.
- Support continued high-quality Metro-North rail service.
- Support enhanced parking and related services for rail commuters.
- Consider the need for enhancing dial-a-ride services.

2. Tasks:

- Review road design standards and road construction standards.
- Explore strategies that would minimize the present value of future road maintenance funding.
- Implement recommendations from the parking study update.
- Modify the sidewalk ordinance to specify that the Town will maintain sidewalks in the Town Center.
- Modify the sidewalk ordinance to specify that the Town will be responsible for major sidewalk repair.
- Prepare an overall concept plan for a system of bicycle routes.

Norwalk – 1990 Town Plan of Conservation and Development

Norwalk's Plan recommends a dual transportation strategy that aims to undertake roadway improvements to correct deficiencies, while at the same time enacting management measures to limit traffic demand and improve traffic flow. The following policies are designed to meet this approach:

1. Rail: support convenient and reliable rail service to satisfy the needs of commuters and to encourage greater rail ridership.
 - Encourage Metro-North to continue to review and adjust train schedules.

- Support increased train service and improved facilities on the Danbury Line.
 - Retain a rail siding in Norwalk to encourage freight deliveries and shipment.
 - Improve commuter parking lots at the East Norwalk and Merritt 7 Stations.
1. Bus and Dispatch-a-ride: support convenient, reliable and efficient services.
 - Evaluate and adjust the WHEELS bus service to expand hours of operation, adjust bus routes and schedules to reflect changes in the population and land use, and better coordinate WHEELS service with train schedules.
 - Expand dispatch-a-ride service to elderly and disabled.
 - Direct SWRPA to evaluate and encourage an express commuter bus service from other regions.
 2. Traffic: provide a safe and efficient vehicular transportation system to serve the city and minimize delays.
 - Form a Traffic Management Association to encourage flextime and increase the use of vanpools, carpools and public transportation.
 - Continue to implement the traffic safety and accident reduction program.
 - Explore the feasibility of developing a network of bicycle routes.
 - Encourage walking by providing a pedestrian circulation system of sidewalks, footpaths and crosswalks, especially in high traffic areas.
 3. Parking: provide and maintain municipal off-street parking facilities to minimize street congestion.
 - Provide adequate off-street parking to enable the elimination of on-street parking where it interferes with traffic flow and safety.
 - Encourage centralized parking in Norwalk and South Norwalk downtowns, including shared parking uses.
 - Support continued use of fee-in-lieu of parking in the Wall Street area and expand its use into South Norwalk.

Stamford – 2002 Master Plan

The plan's goal is to manage current and future traffic problems in spite of trends in population growth. The City proposes three ways to manage traffic impacts:

Transportation Demand Management

1. First Level Strategies – Employer-based Strategies:
 - Create alternative work schedules that involved telecommuting options.
 - Form a carpool matching service and a guaranteed ride home program.
2. Second Level Strategies:
 - Call for lower maximum or mandate lower parking ratios, especially near transit.
 - Mandate higher floor areas ratios near transit to encourage a dense, walkable landscape.
3. Transit Strategies
 - Lower rail fares and add more peak and evening hour trains.
 - Implement better bus connections at rail stations and increase bus service in denser areas.

- Add parking along the New Haven Line.
4. Housing Strategies
- Locate all multi-family housing within a quarter mile of a bus route or a half mile of downtown.
 - Increase housing density to at least seven units per net residential acre.

Weston – 2000 Town Plan of Conservation and Development

The plan's basic goal is to preserve and protect the rural character of the Town. The following transportation recommendations were made to coincide with this goal:

- Ensure that road improvements be designed to preserve the town's rural identity while improving safety.
- Maintain minor roads to provide adequate circulation of local traffic and improved coordination with the major and collector road system.
- Fund a comprehensive road-maintenance program.
- Develop a system to ensure that residential house numbers are clearly marked and visible from the street to assist emergency services.

Westport – 1997 Town Plan of Conservation and Development

Westport desires a transportation system of roads, intersections, bikeways and sidewalk that promotes safe and efficient traffic and pedestrian circulation. This system should also be sufficiently diverse in its modes to satisfy the full range of travel needs. The following are the goals and policy recommendations to advance this system:

1. Create and maintain a safe and efficient street and highway system that satisfies local needs and does not harm local community character or residential amenities.
 - Design traffic and street improvement around historic elements including: old stone walls, historic road structures, mature trees and front landscape areas.
 - Review, evaluate and update the "Greening of the Post Road" program.
 - Evaluate the traffic patterns on streets around the Saugatuck Station.
 - Paint fog lines on arterial and collector roads to improve traffic safety.
 - Anticipate and seek remedies for traffic problems caused by major Town construction projects.
2. Support a public transit system that maintains a high level of commuter service and provides an alternative to vehicular travel.
 - Encourage the Railroad Parking Authority to review its fee structure to promote the use of minibus service.
 - Analyze the needs and services of minibus passengers to ensure timely expansions.
3. Maintain an adequate supply of parking facilities that is accessible and suitably located to meet the needs of carpoolers, rail commuters and business center customers.
 - Parking related to new construction should be privately provided.
4. Assure pedestrian safety and convenience with a sidewalk system that is suitable to the level of neighborhood development and traffic.

- Install and maintain sidewalks of a capacity that is adequate to pedestrian volumes.
4. Create locations for safe recreational circulation, including biking, skating, jogging and walking.
 - Develop signage, traffic management and park use policies to resolve conflicts of multiple uses in heavily patronized areas.

Wilton – 1996 Plan of Conservation and Development

The Town is focused on providing for a safe and efficient overall vehicular circulation network. In addition, the Town encourages improvements and alternatives to meet transportation needs and to permit convenient access within and to all parts of town with minimum disturbance to adjoining residential areas. The following are specific projects the Town has outlined:

1. Work with the State to develop a mutually agreeable solution to congestion on Route 7.
2. Include the following objectives in the transportation program:
 - Effectively manage traffic capacity on existing roadways to avoid or defer major road improvements.
 - Address accident concentrations on state and local roads.
 - Require pedestrian improvements in Wilton Center, near schools, in commercial areas and elsewhere along arterial roads.
 - Allow steeper grades and longer cul-de-sacs due to local topography and development patterns and to minimize curb cuts on primary and secondary streets.
3. Transportation Alternatives:
 - Encourage improvements to rail service along the Danbury Line.
 - Encourage improvements to mass transit that could provide alternatives to automobile commuting.
 - Encourage the establishment of services at or near rail stations.
 - Encourage transit services that connect railroad stations to local employers.
 - Encourage employers to adopt and implement carpooling and vanpooling programs and contribute to the establishment of other commuting options.
4. Program Coordination:
 - Maintain a working relationship with ConnDOT in order to influence transportation programs and improvements on state highways and on rail and transit programs.
 - Effectively use the resources of SWRPA to coordinate and manage transportation programs.
 - Communicate with local businesses and other local departments to anticipate and effectively respond to local transportation improvement programs.
 - Periodically conduct or assist with a study of local commuter needs.

Meetings with Municipalities Regarding Transportation

Beginning in June 2006, with a meeting of the Region's town planners, SWRPA sought input from stakeholders, primarily municipal officials, transit operators, ridesharing brokerages, regarding transportation issues, needs, projects and priorities for development of the updated

regional transportation plan. The discussions lead to further input from the stakeholders which is reflected throughout the plan, and also in the projects and priorities identified for the municipalities in the following section.

Translating Transportation Needs Into Funded Projects

Federal and state transportation funding is made available for locally-sponsored projects through the regional transportation planning process. The funding categories that may be accessed include: the USDOT Surface Transportation Program for urban areas (STP-Bridgeport Stamford), the USDOT STP Enhancement Program (STP-E), the State Local Road Accident Reduction Program, the Recreational Trails Program, and the USDOT Congestion Mitigation Air Quality Program (CMAQ). USDOT Discretionary Grant programs also available to municipalities are the Ferryboat Discretionary Grant Program, and the Transportation Community and System Preservation Program (TCSP). Federal earmark funding is accessed by the State and municipalities through the Congressional delegation. Certain transit programs are coordinated by SWRPA, including: CT Municipal Dial-A-Ride Grant, FTA 5310, and FTA 5307 Enhancement. The FTA programs are described in other sections of the report.

Since 1974, more than \$86 million in local transportation projects have been implemented through the STP urban program and its predecessor the Federal Aid Urban Systems Program. Locally identified project needs exceed \$800 million. The Region's STP urban program has progressed to the eleventh phase and additional phases will be scheduled as required. South Western Region applications for CMAQ funding have not met with success, except when ConnDOT has funded traffic signal projects with CMAQ funding. In 2007, ConnDOT solicited for CMAQ funding. Applications for FY2008 and FY2009 CMAQ funding are being coordinated by SWRPA, with the intention of submitting applications to ConnDOT in advance of the October 1, 2007 deadline. To ensure that all available funds are used, the transportation planning process will continue to coordinate with technical and policy groups, USDOT, ConnDOT and others.

The lack of adequate funding for identified transportation capital, maintenance and operating needs is the most significant challenge for the Region and State. The financing problem pervades the other challenges of an aging infrastructure inadequate to meet the intensive demands of growth in traffic and development. Lack of financing also contributes to policy decisions by the State that preclude use of federal funds for eligible activities such as enhancements that provide sidewalks, streetscaping, landscaping and other non-traditional elements of transportation. In the South Western Region, discrete USDOT STP-Enhancement funding has provided landscaping, streetscaping, the Stamford rail 'Gateway' and rail trail projects, the Route 15/Merritt Parkway 'Gateway' Project, refurbished the New Canaan rail station, provided amenities at the South Norwalk Rail Station, and funded the Norwalk Heritage trail, the Norwalk River Linear Trail Phases 1 and 2, the Mill River Multi-use Trail Phase 2, and bicycle and pedestrian elements of the Stamford Urban Transitway. There is significant interest and demand for 'context sensitive' design, improving the aesthetics of transportation projects, improving the quality of life, and providing bicycle and pedestrian options.

Recommended Strategies

- Work with the state and others to enable the use of traditional federal transportation funding for eligible transportation enhancement activities as permitted by federal guidelines.
- Develop a cooperative and consultative process that makes it possible for MPOs to select

eligible regional/municipal projects for the use of STP Urban (Other) funding.

- Coordinate with Bridgeport-Stamford Urbanized Area RPOs, MPOs and transit recipients to coordinate planning and programming for the STP Bridgeport-Stamford Urban Area funding, and FTA Enhancement programs.
- Encourage the State to provide adequate staff and funding to ConnDOT to enable timely review of municipal projects and processing of agreements so that all available federal funds may be utilized.
- Develop funding opportunities, regardless of sources for identified municipal and regional needs.
- Advocate for municipal and regional access to CMAQ (Congestion Mitigation Air Quality) funds through a revamping of the system to solicit, evaluate and select projects for implementation that will be a consultative process of state, federal, regional and local stakeholders.
- Overcome institutional barriers to ‘traffic calming’ measures, and enable use of state and federal transportation funding for traffic calming.
- Support ‘context sensitive design’ solutions at municipal, regional and state levels, design and construct projects developed within the context sensitive design framework.
- Evaluate transportation issues, locations and opportunities identified by the towns, region, state and others to develop solutions that improve the transportation system, mobility, choice, and meet goals and objectives.

Municipally-identified projects and needs are referenced in the following sections, and in Stamford Long Range Transportation Plan, Norwalk Transportation Project Candidates tables.

Recommended Projects

Near Term

- Stamford Transportation Investment Strategies Study (City of Stamford, \$1 million) – will develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access & arterial roadways, rail bridges & infrastructure, and Stamford Harbor. The study will encompass all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region, and will build upon the State’s I-95 southwest corridor safety and operations study, funded by the TSB for \$1.5 million, but not yet started.
- Conduct Route 7 corridor needs assessment for the section of Route 7 between Olmstead Hill Road, Wilton, and the Route 35, Ridgefield. This study will establish an implementation program for operational, intersection, safety, and multimodal improvements, access management, and streetscaping enhancements with a context sensitive design approach. FY2007 funding for the study was jointly requested by the Housatonic Valley Council of Elected Officials (HVCEO), and the South Western Regional Planning Agency (SWRPA). The project will be managed by HVCEO.
- Develop priorities and implement City of Stamford projects that fit within the resources that are reasonably expected to be available. Stamford has identified a comprehensive program of needed multi-modal improvements totaling \$848 million (See Table **. Stamford Long

Range Transportation Plan 2007-2035, January 2007). Included in this list are: town road operational and safety improvements (\$79 million); sidewalk and bicycle enhancement projects (\$81 million); information kiosks and bus shelters (\$1 million); transit projects for a ferry terminal (\$17.5 million), Glenbrook and Springdale rail station enhancements (\$150,000); bridges (\$5.1 million); ITS projects for parking guidance and traffic signals (\$5.0 million) in station enhancements; Stamford Urban Transit Way Phase I (\$50 million, various earmarked New Starts, FTA and FHWA funding, STP-Urban and local funds); Stamford Urban Transit Way Phase II (\$40 million, partial funding through New Starts funding requested); rail underpasses at Atlantic Street, East Main Street, Greenwich Avenue, Elm Street and Canal Street (\$153 million); East Main (Route 1) Reconstruction (\$65.6 million); Greenwich Avenue Reconstruction (\$31.1 million); West Main Street (Route 1) reconstruction (\$94 million); operational and safety improvements for state highways; city wide street sign program; traffic calming program; and, bus service expansion. Also, future light rail systems for the South End and Bull's Head; and, studies for a new rail station at East Main Street (Route 10 and Glenbrook and Springdale rail parking are identified.

- The City of Norwalk Transportation Needs include traffic signals and signal systems, intersection improvements, and road reconstruction, as well as area transportation studies. The projects are noted in Table 23a.
- The Norwalk Transit District proposes FTA Enhancement projects for information kiosks at the South Norwalk Rail Station, Pulse Point Safety and Security Improvements (funded in part by a USDOT earmark and FTA), purchased or restored art for public display at the NTD facility, bus shelters, and bike racks for buses. The projects are identified in Table 23a.
- Route 1 circulation, congestion and access management studies are proposed by SWRPA, Stamford and Greenwich.

Longer Term

- Continue implementation of selected projects using all available resources.

City of Stamford Long Range Transportation Plan – December 2006

As the economic engine of Southwestern Connecticut and the state's only major city with significant population growth over the last 15 years, the City of Stamford seeks to pursue a Smart Growth strategy that focuses development on areas that are accessible to transit and that allow for a wide mix of land uses.

Clearly maintaining mobility is a critical issue to the future economic health of the City of Stamford. As noted in the City's 2002 Plan of Conservation and Development, "Traffic congestion frustrates the daily lives of Stamford residents, damages neighborhood quality of life, and threatens Stamford's economic future." Transportation was rated as "somewhat-extremely important" by 92% of the business leaders surveyed in a 2005 Fairfield County Business Survey.

The City of Stamford's long-range transportation strategy recognizes that no single mode or project offers a full solution to the broad range of issues that we face – there is no "magic bullet". However, with careful planning and strategic public investment, future development can provide:

- A more diverse housing stock meeting the needs of a broad range of households;
- Better balance of home and work locations; and
- New opportunities for open space, greenways and trails

Since the previous plan update in 2004, a number of new residential and commercial development projects have become more clearly defined. These include the anticipated 4,000-unit Antares development in the City's South End neighborhood, as well as the Royal Bank of Scotland (RBS) complex and approximately 1,500 to 2,000 units of new residential development to be built during the next ten years in the Downtown. The City also anticipates significant residential and commercial redevelopment activity in the Waterside, West Side and East Main Street neighborhoods. In total, these new developments are projected to add between 10,000 and 15,000 more residents and approximately 15,000 new jobs over the next ten years. Given this level of growth, the City has responded with a number of wide-ranging and interconnected intermodal transportation initiatives described below that will improve access to the Transportation Center in addition to increasing opportunities for transit use in the South Western Region, and local transportation corridors.

The City of Stamford's Long Range Transportation Plan 2007-2035 identifies \$848 million in projects for roadway improvements, enhancement projects, I-95, Route 15, principal arterials, transit including bus, rail and intermodal facilities, bridges, signal and ITS projects. Also included are street sign, traffic calming, pedestrian safety, transit amenities and traveler information projects. Tables for the City of Stamford Long Range Transportation Plan 2007-2035 and the City of Stamford Long Range Transportation Plan High Priority – Earmark Projects follow the recommended projects narrative.

Recommended Projects

Near Term

Stamford Transportation Center - As noted in the 2004 Regional Transportation Plan, the Stamford Transportation Center remains the busiest intermodal transportation center in Connecticut and the busiest station on the New Haven rail line outside of Grand Central Terminal, with over 7,000 rail passengers and more than 3,500 bus passengers daily. A recent Metro North report indicates that the growth in commuter rail ridership comes increasingly from suburb-suburb or reverse-direction work travel demand, including both intrastate services to Stamford from towns to the east and also eastbound travel from Fordham Station in the Bronx to Stamford.

These findings are echoed both in other recent analysis by Metro North and in the 2005 Stamford Transportation Center Multimodal Circulation Study which noted that, “Stamford’s reverse commute comprises close to twenty-five percent (25%) of the users of the STC.” With the opening of the RBS facility in 2008, both the volume and proportion of Stamford work-destination rail travel will increase significantly.

Over the last decade, there has been substantial investment of federal, state and local funds at the STC, including reconstruction of the station (1998) and a major parking garage expansion (2003). However, a recently released engineering condition report on the older of the two station garages indicates significant structural and maintenance deficiencies. The *Multimodal Circulation Study* also identifies numerous existing access constraints and passenger comfort and information deficiencies at the Transportation Center. These include:

- Substantial vehicular access restrictions to the Transportation Center due to narrow roadway widths and low vertical clearances at the railroad underpasses;

Lack of station on-site wayfinding, web-based and Intelligent Transportation System (ITS) “real time” information within the station and at surrounding access points for both pedestrians and vehicular traffic;

- Deterioration of station parking facilities and potential need for replacement of 1983 station garage;
- Lack of short-term parking and signage for passenger drop-off area;
- Congestion of station platforms and stairways at peak arrival and departure times;
- Pedestrian amenity and safety deficiencies, including an incomplete sidewalk network;
- Limited bicycle storage capacity; and
- Lack of bus passenger amenities in current CT Transit bus facility.

Stamford Urban Transitway - The City's initiatives on the Stamford Urban Transitway facility will provide a direct link between East Main Street and the Transportation Center. Phase I of the project is well underway with demolition taking place in 2006-2007, and transitway construction to begin in mid-2007. The second phase of the transitway facility is not yet fully funded. The estimated total cost of this project is \$90 million for both phases - \$45 million for each phase.

This project will provide a critical direct link from I-95 to the Transportation Center for buses, HOVs, pedestrians, bicyclists, as well as general auto traffic. The Transitway will allow for improved transit frequency, routing, and coordination of transit services between various operators. The project incorporates automobile trip reduction and travel demand management strategies that promote alternative transportation modes.

Route 1 (West Main Street/Tresser Boulevard /East Main Street) - While Route 1 serves as a critical bypass route for I-95 during major traffic incidents, it also serves an equally important and sometimes conflicting role as a commercial artery through the City's West Side, Downtown and East Main Street neighborhoods. Given this mix of functional requirements, the priority for all segments of Route 1 within the City of Stamford is to enhance their pedestrian environment and safety, while maintaining an adequate traffic flow to meet the needs of adjacent businesses and the Downtown area as a whole.

This issue has become even more critical since the previous plan update as a wide range of Downtown development initiatives have moved closer to completion. These projects include the planned Trump Parc residential tower at Broad Street and Washington Boulevard; Phases 2-4 of the Park Square West project; the Tresser Square (Loews Hotel/condominium) project at Bell Street and Washington Boulevard; and the Atlantic Centre (Ritz Carlton Hotel/condominium) project at Washington Boulevard, Atlantic Street and Tresser Boulevard. In addition, a Home Depot has been proposed for the rear portion of the Cytec site near the intersection of West Street and West Main Street.

Over the longer term, several segments of Route 1 are proposed for lane additions both to the east and west of downtown to enhance traffic carrying capacity, specifically between Daly Street and Maple Avenue for East Main Street and for turning lanes at the West Main/West Street intersection in conjunction with development of a Home Depot and a Stop and Shop supermarket. More immediately, downtown development projects will require the modification of multiple intersections and access points, including the major intersections of Tresser Boulevard with Atlantic Street and Washington Boulevard.

In 2005 and 2006, the City undertook a comprehensive study of land use and transportation issues for the East Main Street corridor extending from Glenbrook Road to the Darien Town Line. This study responded to earlier objectives outlined in the 2002 Master Plan to manage the intensification of land use and to reinforce the commercial area located along East Main Street. The East Main Street corridor contains a diverse mix of existing land uses, with a significant regional concentration of auto dealers and other auto-oriented retailing. It also is the location of the eastern terminus for the Stamford Urban Transitway, where Myrtle Avenue intersects East

Main Street in the vicinity of the Metro North railroad overpass over East Main Street. The study recommended that the City pursue an urban village concept of land use and transportation enhancements, as well as the lane additions identified above, and a potential new transitway or commuter rail intermodal station (East Main Street Intermodal Center) which is described in the following section.

Bicycle and Pedestrian Enhancements - The City is currently in the process of developing a multi-use path along the Mill River that will connect the Transportation Center to the new University of Connecticut downtown campus. Also, the City has integrated bicycle lanes into the Stamford Urban Transitway Project. The extension of the Transitway bicycle network is envisioned for Magee Avenue between Jefferson Street and Shippan Avenue. In the Waterside neighborhood, intersection improvements and pedestrian enhancements for Greenwich Avenue and Davenport Street have been planned in conjunction with anticipated mixed-use developments.

Intermediate and Long Term

Railroad Underpasses - The Atlantic Street, Elm Street, Canal Street, and the East Main Street underpasses under the Metro North railroad line are narrow, low and create restrictive bottlenecks in the roadway network. All of the underpasses need to be widened and the vertical clearance height increased to improve access. Constrained access at these traffic chokepoints leads to undesirable levels-of-service for most of the day. The current conditions of the portal areas add to commuter congestion and impede redevelopment of the South End neighborhood.

East Main Street Intermodal Center – The Metro North railroad overpass at Crystal Street and East Main Street has the potential for being developed into an urban transit node. The establishment of a transitway or rail intermodal station in this area could form an important element in neighborhood revitalization efforts and allow for some infill of high- to medium-density mixed-use development. The potential for a new train station or bus-oriented intermodal facility for this area will be evaluated by the City during 2007 and early 2008. If implemented, this type of facility would provide access to multiple modes of transportation and would provide an additional rail access point for current traffic in the I-95 corridor. In addition, a new train station on the East Side has the potential to alleviate overcrowding and traffic congestion at the Transportation Center.

Ferry Service Feasibility and Ferry Landing Facility - The City will conduct a consultant study during 2007 to determine the location for a landing facility for proposed ferry services between Stamford and a range of potential destinations in the New York region, including Midtown and Lower Manhattan, and La Guardia Airport. The location of the proposed terminal is anticipated within 2,000 feet of the Transportation Center and will include parking for approximately 400 vehicles.

Bus Service Initiatives - The Governor's recently announced Bus Service Initiative offers the possibility of additional bus vehicle purchases, including articulated 60' vehicles, through the authorization of \$7.5 million in capital funding. If approved for purchase, these new vehicles would ease overcrowding on the most heavily utilized Stamford Division bus routes. The new

funding would also open up opportunities for additional services, such as a Norwalk-Stamford express bus service; a new express service from North Stamford and Pound Ridge, NY to the Stamford Transportation Center; and a new east-west crosstown route within Stamford.

**TABLE 22 - CITY OF STAMFORD
LONG RANGE TRANSPORTATION PLAN 2007-2035**

NO	PROJECT TITLE	PROJECT LIMITS	IMPROVEMENTS	PROJECT COST	YEAR	FUNDING SOURCE
SURFACE TRANSPORTATION PROGRAM (STP)						
1	Atlantic Street	I-95 to Washington Boulevard	Widening and Streetscape	\$16,000,000	2012-2016	STP
2	Greenwich Ave/W Main St	Smith Street to I-95	Reconstruction	\$3,000,000	2011	STP
3	Hope Street	Knapp Street to Minivale Road	Reconstruction	\$4,800,000	2007-2009	STP
4	Oaklawn Avenue	Halpin Avenue to Stanwick Place	Reconstruction	\$2,375,000	2010-2011	STP
5	Scotfieldtown Road	Northeast School to High Ridge Road	Reconstruction	\$2,000,000	2012-2013	STP
6	Stillwater Road	Stillview Road to West Wood Road	Roadway Improvements	\$2,000,000	2007-2008	STP
7	Route 104 (Long Ridge Road)	Roxbury Road and Stillwater Road	Intersection Improvement	\$3,000,000	2013-2014	STP
8	Buxton Farm Road	High Ridge Road to Turn of River	Reconstruct Roadway	\$1,500,000	2011-2012	STP
9	Canal Street	Ludlow Street to Jefferson Street	Reconstruct Roadway	\$7,500,000	2017-2020	STP
10	Cove Road	Shippan Avenue to Seaside Avenue	Reconstruct Roadway	\$15,000,000	2012-2025	STP
11	Elm Street	Tresser Boulevard	Intersection Improvements	\$1,000,000	2008	STP
12	Glenbrook Road	Hamilton Avenue	Intersection Improvements	\$1,000,000	2012	STP
13	Main Street	Summer Street	Intersection Improvements	\$1,000,000	2017	STP
14	Pepper Ridge Road	Vine Road	Intersection Improvements	\$1,000,000	2014	STP
15	Stillwater Road	Cold Spring Road to Stillwater Avenue	Roadway Improvements	\$6,000,000	2017-2035	STP
16	Toms Road	Upland Road to Hope Street	Roadway Improvements	\$6,000,000	2014-2018	STP
17	Turn Of River	Buxton Farm Road to Intervale Road	Roadway Improvements	\$3,000,000	2014-2015	STP
18	Washington Boulevard	Station Place to Pulaski Street	Widen to 4 Lanes	\$2,000,000	2016	STP
19	Hope Street	Rock Spring Road to Pine Hill Avenue	Improvements & Reconstruction	\$2,500,000	2017-2035	STP
20	Hope Street	Pine Hill Avenue to Toms Road	Improvements & Reconstruction	\$2,500,000	2017-2035	STP
21	Intervale Road/Newfield Drive	Turn of River Road to Newfield Avenue	Improvements & Reconstruction	\$5,000,000	2017-2035	STP
22	Cedra Heights Road	Wire Mill Road to High Ridge Road	Improvements & Reconstruction	\$2,500,000	2017-2035	STP
23	Wire Mill Road	Cedra Heights Road to Long Ridge Road	Improvements & Reconstruction	\$2,500,000	2017-2035	STP
24	Vine Road	High Ridge Road to Newfield Avenue	Improvements & Reconstruction	\$5,000,000	2017-2035	STP
25	Newfield Avenue	Newfield Drive to Lakeside Drive	Improvements & Reconstruction	\$3,500,000	2017-2035	STP
			TOTAL	\$80,675,000		
ENHANCEMENT PROJECTS						
1	Magee Avenue	Jefferson St to Shippan Ave	Sidewalk/On-Street Bicycle Route	\$1,450,000	2012-2016	TBD
2	Mill River	Broad Street to Scalzi Park	Pedestrian/Bicycle Trail	\$2,500,000	2012-2016	TBD
3	Mill River	Broad Street Bridge	Pedestrian/Bicycle Trail	\$3,000,000	2017-2035	TBD
4	Mill River	Main Street to Broad Street (East Side)	Pedestrian/Bicycle Trail	\$1,000,000	2012-2016	TBD
5	Mill River	Richmond Hill Avenue to Tresser Boulevard	Pedestrian/Bicycle Trail	\$750,000	2007-2011	TBD
6	Mill River	Richmond Hill Avenue to Pulaski Street	Pedestrian/Bicycle Trail	\$2,000,000	2012-2016	TBD
7	Harbor Area	Marshall Trucking Site	Pedestrian/Bicycle Trail	\$350,000	2012-2016	TBD
8	Harbor Area	Northeast Utilities Site	Pedestrian/Bicycle Trail	Developed	2012-2016	TBD
9	Harbor Area	Petro Site	Pedestrian/Bicycle Trail	Developed	2012-2016	TBD
10	Harbor Area	Woodland Cemetery	Pedestrian/Bicycle Trail	\$1,000,000	2012-2016	TBD
11	Main Street	Washington Boulevard to Clinton Avenue	Streetscape	\$1,000,000	2017-2011	TBD
12	Mianus Route	Scalzi Park to Mianus River Park	Bicycle Route	\$2,000,000	2012-2017	TBD
13	Richmond Hill Avenue	Greenwich Avenue to Wilson Street	Streetscape	\$2,000,000	2012-2017	TBD
14	City Wide	City Wide	Bicycle Rack Placement Program	\$100,000	2012-2016	TBD
15	Transportation Center	Transportation Center	Bicycle Lockers	\$75,000	2012-2016	TBD
			TOTAL	\$17,225,000		
I-95 & MERRITT PARKWAY						
1	I-95	State of CT	Long Range Comprehensive Plan	\$750,000	2007-2011	TBD
2	Merritt Parkway	Greenwich to New Canaan Border	Greenway Trail	\$15,000,000	2012-2016	TBD
			TOTAL	\$15,750,000		
MAJOR ARTERIALS						
1	Route 137 (Washington Boulevard)	Tresser Boulevard to Division Street	Reconstruct Median	\$2,500,000	2007-2011	TBD
2	Route 137 (High Ridge Road)	Cold Spring Road to Merritt Parkway	Access Management Plan	\$500,000	2007-2011	TBD
3	Route 1 (Tresser Boulevard)	Atlantic Street to Washington Boulevard	Reconstruct Median	\$1,500,000	2012-2016	TBD
4	Route 1 (Tresser Boulevard)	Canal Street to Elm Street	Reconstruct Median	\$2,000,000	2012-2016	TBD
5	Route 104 (Long Ridge Road)	Cold Spring Road to Merritt Parkway	Access Management Plan	\$250,000	2017-2021	TBD
6	Courtland Avenue	East Main Street to Hamilton Avenue	Reconstruction	\$5,000,000	2007-2009	TBD
			TOTAL	\$229,875,000		
TRANSIT : BUS, RAIL AND INTERMODAL						
1	Ferry Terminal	West Branch and Atlantic Street	Terminal & Parking Facility	\$17,500,000	2012-2016	TBD
2	Commuter Connection	Downtown	Improved Service	\$100,000	2007-2011	TBD
3	Commuter Connection	South End, Water Side	New Service	Transit	2007-2011	TBD
4	Glenbrook Train Station	Station	Enhancements	\$75,000	2007-2011	TBD
5	Springdale Train Station	Station	Enhancements	\$75,000	2007-2011	TBD
6	North Stamford	North of Merritt Parkway	Small Buses, Expanded Service	Transit	2007-2011	TBD
7	South End	Transportation Center - South End Loop	Light Rail	Transit	2017-2035	TBD
8	Bull's Head	Transportation Center - Bull's Head Loop	Light Rail	Transit	2017-2035	TBD
8	City Wide	City Wide	Next Bus Information System	Transit	2007-2011	TBD
11	Train Station Parking Study	Springdale & Glenbrook	Transportation Study	\$500,000	2007-2011	TBD
			TOTAL	\$18,250,000		
BRIDGES						
1	Pulaski Street	Pulaski Street	Bridge Replacement	\$3,000,000	2007-2011	TBD
2	Cold Spring Road	Cold Spring Road	Bridge Rehabilitation	\$1,100,000	2007-2011	TBD
3	South State Street	South State Street	Bridge Rehabilitation	\$500,000	2007-2011	TBD
4	June Road	June Road	Bridge Rehabilitation	\$500,000	2007-2011	TBD
			TOTAL	\$5,100,000		
NO	PROJECT TITLE	PROJECT LIMITS	IMPROVEMENTS	PROJECT COST	YEAR	FUNDING SOURCE
SIGNAL / ITS PROJECTS						
1	Downtown	Downtown	Parking Guidance System	\$5,000,000	2007-2011	TBD
2	City Wide	City Wide	Traffic Signal System - Phase F	\$3,000,000	2007-2011	TBD
2	City Wide	City Wide	Traffic Signal System - Phase G	\$3,000,000	2007-2011	TBD
2	City Wide	City Wide	Traffic Signal System - Phase H	\$3,000,000	2007-2011	TBD
2	City Wide	City Wide	Traffic Signal System - Phase I	\$3,000,000	2007-2011	TBD
2	City Wide	City Wide	Traffic Signal System - Phase J	\$3,000,000	2007-2011	TBD
2	City Wide	City Wide	Traffic Signal System - Phase K	\$3,000,000	2007-2011	TBD
			TOTAL	\$23,000,000		
OTHER PROJECTS						
1	City Wide	City Wide	Street Sign Program	\$700,000	2007-2011	TBD
2	City Wide	City Wide	Safe Routes To School Program	\$1,000,000	2008-2011	TBD
2	City Wide	City Wide	Safe Routes To School Program	\$2,000,000	2012-2016	TBD
2	City Wide	City Wide	Safe Routes To School Program	\$4,000,000	2017-2035	TBD
3	City Wide	City Wide	Traffic Calming	\$5,000,000	2007-2011	TBD
3	City Wide	City Wide	Traffic Calming	\$5,000,000	2012-2016	TBD
3	City Wide	City Wide	Traffic Calming	\$15,000,000	2017-2035	TBD
4	City Wide	City Wide	Traffic Park - Educational Facility	\$5,000,000	2012-2016	TBD
5	Transportation Center	Downtown, South End, Waterside	Pedestrian Safety Program	\$7,500,000	2007-2011	TBD
6	Downtown	Old Town Hall/Veteran Park	Bus Shelters - Plaza	\$250,000	2007-2011	TBD
7	Downtown	Downtown	Kiosks	\$1,000,000	2007-2011	TBD
			TOTAL	\$46,450,000		
			PLAN TOTAL	\$239,200,000		

**TABLE 23 - CITY OF STAMFORD
LONG RANGE TRANSPORTATION PLAN
HIGH PRIORITY - EARMARK PROJECTS
January 2007**

Project Name	Phase/Activity	Federal	State	Local	Total	Comments
Myrtle Avenue Reconstruction	Design/Survey	\$1,800,000		\$450,000	\$2,250,000	Priority 1
	ROW	\$11,200,000		\$2,800,000	\$14,000,000	
	Environmental Remediation	\$4,000,000		\$1,000,000	\$5,000,000	
	Construction	\$10,400,000		\$2,600,000	\$13,000,000	
	Project Management	\$2,000,000		\$500,000	\$2,500,000	
	Contingencies	\$1,040,000		\$260,000	\$1,300,000	
	Incidentals	\$1,560,000		\$390,000	\$1,950,000	
		\$32,000,000		\$8,000,000	TOTAL COST \$40,000,000	
Atlantic Street Rail_Road_Underpass	Design/Survey	\$1,600,000	\$400,000		\$2,000,000	Priority 2
	ROW	\$0	\$0		\$0	
	Environmental Remediation	\$2,000,000	\$500,000		\$2,500,000	
	Utility Relocation	\$800,000	\$200,000		\$1,000,000	
	Force Account	\$2,000,000	\$500,000		\$2,500,000	
	Construction	\$24,000,000	\$6,000,000		\$30,000,000	
	Project Management	\$2,000,000	\$500,000		\$2,500,000	
	Contingencies	\$2,400,000	\$600,000		\$3,000,000	
	Incidentals	\$3,600,000	\$900,000		\$4,500,000	
	\$38,400,000	\$9,600,000		TOTAL COST \$48,000,000		
East Main Street Rail_Road_Underpass	Design/Survey	\$1,600,000	\$400,000		\$2,000,000	Priority 3
	ROW	\$4,800,000	\$1,200,000		\$6,000,000	
	Environmental Remediation	\$2,000,000	\$500,000		\$2,500,000	
	Utility Relocation	\$800,000	\$200,000		\$1,000,000	
	Force Account	\$2,000,000	\$500,000		\$2,500,000	
	Construction	\$24,000,000	\$6,000,000		\$30,000,000	
	Project Management	\$2,000,000	\$500,000		\$2,500,000	
	Contingencies	\$2,400,000	\$600,000		\$3,000,000	
	Incidentals	\$3,600,000	\$900,000		\$4,500,000	
	\$43,200,000	\$10,800,000		TOTAL COST \$54,000,000		
Greenwich Avenue South State to Selleck Street	Design/Survey	\$1,600,000		\$400,000	\$2,000,000	Priority 4
	ROW	\$6,000,000		\$1,500,000	\$7,500,000	
	Environmental Remediation	\$2,000,000		\$500,000	\$2,500,000	
	Utility Relocation	\$800,000		\$200,000	\$1,000,000	
	Construction	\$10,000,000		\$2,500,000	\$12,500,000	
	Project Management	\$2,000,000		\$500,000	\$2,500,000	
	Contingencies	\$1,000,000		\$250,000	\$1,250,000	
	Incidentals	\$1,500,000		\$375,000	\$1,875,000	
		\$24,900,000		\$6,225,000	TOTAL COST \$31,125,000	
East Main Street Train Station	Design/Survey	\$1,600,000	\$400,000		\$2,000,000	Priority 5
	ROW	\$40,000,000	\$10,000,000		\$50,000,000	
	Environmental Remediation	\$8,000,000	\$2,000,000		\$10,000,000	
	Utility Relocation	\$4,000,000	\$1,000,000		\$5,000,000	
	Force Account	\$4,000,000	\$1,000,000		\$5,000,000	
	Construction	\$32,000,000	\$8,000,000		\$40,000,000	
	Project Management	\$4,000,000	\$1,000,000		\$5,000,000	
	Contingencies	\$3,200,000	\$800,000		\$4,000,000	
	Incidentals	\$4,800,000	\$1,200,000		\$6,000,000	
	\$101,600,000	\$25,400,000		TOTAL COST \$127,000,000		
East Main Street Reconstruction	Design/Survey	\$1,600,000	\$400,000		\$2,000,000	Priority 6
	ROW	\$16,000,000	\$4,000,000		\$20,000,000	
	Environmental Remediation	\$2,000,000	\$500,000		\$2,500,000	
	Utility Relocation	\$800,000	\$200,000		\$1,000,000	
	Construction	\$24,000,000	\$6,000,000		\$30,000,000	
	Project Management	\$2,000,000	\$500,000		\$2,500,000	
	Contingencies	\$2,400,000	\$600,000		\$3,000,000	
	Incidentals	\$3,600,000	\$900,000		\$4,500,000	
		\$52,400,000	\$13,100,000		TOTAL COST \$65,500,000	
Elm Street Street Rail_Road_Underpass	Design/Survey	\$1,600,000	\$400,000		\$2,000,000	Priority 7
	ROW	\$2,000,000	\$500,000		\$2,500,000	
	Environmental Remediation	\$2,000,000	\$500,000		\$2,500,000	
	Utility Relocation	\$800,000	\$200,000		\$1,000,000	
	Force Account	\$2,000,000	\$500,000		\$2,500,000	
	Construction	\$24,000,000	\$6,000,000		\$30,000,000	
	Project Management	\$2,000,000	\$500,000		\$2,500,000	
	Contingencies	\$2,400,000	\$600,000		\$3,000,000	
	Incidentals	\$3,600,000	\$900,000		\$4,500,000	
	\$40,400,000	\$10,100,000		TOTAL COST \$50,500,000		
Canal Street Street Rail_Road_Underpass	Design/Survey	\$1,600,000	\$400,000		\$2,000,000	Priority 8
	Environmental Remediation	\$2,000,000	\$500,000		\$2,500,000	
	Utility Relocation	\$800,000	\$200,000		\$1,000,000	
	Force Account	\$2,000,000	\$500,000		\$2,500,000	
	Construction	\$24,000,000	\$6,000,000		\$30,000,000	
	Project Management	\$2,000,000	\$500,000		\$2,500,000	
	Contingencies	\$2,400,000	\$600,000		\$3,000,000	
	Incidentals	\$3,600,000	\$900,000		\$4,500,000	
		\$38,400,000	\$9,600,000		TOTAL COST \$48,000,000	
Greenwich Avenue Rail_Road_Underpass	Design/Survey	\$1,600,000	\$400,000		\$2,000,000	Priority 9
	ROW	\$2,000,000	\$500,000		\$2,500,000	
	Environmental Remediation	\$2,000,000	\$500,000		\$2,500,000	
	Utility Relocation	\$800,000	\$200,000		\$1,000,000	
	Force Account	\$2,000,000	\$500,000		\$2,500,000	
	Construction	\$24,000,000	\$6,000,000		\$30,000,000	
	Project Management	\$2,000,000	\$500,000		\$2,500,000	
	Contingencies	\$2,400,000	\$600,000		\$3,000,000	
	Incidentals	\$3,600,000	\$900,000		\$4,500,000	
	\$40,400,000	\$10,100,000		TOTAL COST \$50,500,000		
West Main Street Reconstruction	Design/Survey	\$3,200,000	\$800,000		\$4,000,000	Priority 10
	ROW	\$28,000,000	\$7,000,000		\$35,000,000	
	Environmental Remediation	\$6,000,000	\$1,500,000		\$7,500,000	
	Utility Relocation	\$4,000,000	\$1,000,000		\$5,000,000	
	Construction	\$24,000,000	\$6,000,000		\$30,000,000	
	Project Management	\$4,000,000	\$1,000,000		\$5,000,000	
	Contingencies	\$2,400,000	\$600,000		\$3,000,000	
	Incidentals	\$3,600,000	\$900,000		\$4,500,000	
		\$75,200,000	\$18,800,000		TOTAL COST \$94,000,000	
GRAND TOTAL		\$486,900,000	\$107,500,000	\$14,225,000	\$608,625,000	\$608,625,000

City of Norwalk Transportation Needs

The City of Norwalk has undertaken systematic improvements to transportation systems to bring existing facilities into a state of good repair, and also to provide new roads and bridges to support planned development. The list of active, functional roadways, signals As the economic engine of Southwestern Connecticut and the state's only major city with significant population growth over the last 15 years, the City of Stamford seeks to pursue a Smart Growth

Active Projects

Lowering of Monroe Street (STP-Urban funded)

Utility breakout work has been completed. Project is awaiting main line railroad work, bridge replacement and roadway lowering.

East Avenue Improvements (STP-Urban funded)

Design completed. Project is awaiting main line railroad work, bridge replacement and roadway lowering.

Rowayton Avenue Railroad Bridge Roadway Improvements (STP-Urban funded)

This project is currently under construction.

102 -236 Traffic Signal Upgrade (CMAQ funded)

An RFP was released for this design of this project in Spring 2006. The project involves the upgrade of 26 traffic signals and communication system in the South Norwalk area. Final design plans are expected to be completed in Fall 2007. Project design costs are approximately \$360,000 with the construction costs estimated to be \$2.1M. This project is 100% federally funded.

102-299 Norwalk River Valley Multi-purpose Trail (STP-Enhancement funded)

This project was advertised for bid in October 2006. It involves the 2nd phase of a multi-phase multi-purpose trail that runs from South Norwalk to the Wilton town line. This portion of the work includes construction of an access road and two parking lots within Mathews Park and approximately 3000 feet of trail from Mathews Park to Union Park. The construction cost of this phase is \$1,000,000 of which 60% is covered by State and Federal funds

Wall Street Bridge – (Local Bridge Program)

This project was designed in 2006 and bid in January 2007. It consists of repairs to both the stone arch and concrete abutments. Repairs include repointing of portions of the stone arch and partial repairs to the concrete abutment. The bridge railings will also be replaced. The construction price for this project is approximately \$450,000 with 30% state funding/70% City funding.

102-319 Perry Avenue Bridge over Norwalk River (Local Bridge Program)

The preliminary design portion for this project has been awarded to URS in January 2007 and expected to be completed by May 2007. It is anticipated at this time to be a total superstructure replacement estimated at \$700,000. The cost for preliminary design work is \$100,000 with 80%

state/federal funding and 20% City funding.

102-320 James Street Bridge over Norwalk River (Local Bridge Program)

The design work for this project has been awarded to URS in January 2007 with final design expected to be completed by March 2008. It is anticipated at this time to be a total superstructure replacement estimated at \$700,000. The cost for design work is \$200,000 with 80% state/federal funding and 20% City funding.

102-315 Westmere Bridge over Farm Creek (Local Bridge Program)

The design work for this project has been awarded to URS in January 2007 with final design expected to be completed by Fall 2008. It is anticipated at this time to be a total superstructure replacement estimated at \$750,000. The cost for design work is \$230,000 with 80% state/federal funding and 20% City funding.

Project in Concept Review for STP –Urban Funding – Proposed 2004 or earlier

Route 1 culvert

The City is in the process of completing its review of the Keeler Brook watershed which will allow ConnDOT to determine the size of culvert required to replace existing culvert under Route 1.

Fairfield Avenue

This project involves the reconstruction of Fairfield Avenue. It is currently in the project concept unit awaiting review.

Williams Street

This project involves the reconstruction of Williams Street. It is currently in the project concept unit awaiting review.

Washington Street

This project involves the reconstruction of Washington Street. It is currently in the project concept unit awaiting review.

Scribner Avenue

This project involves the reconstruction of Scribner Avenue. It is currently in the project concept unit awaiting review.

Projects Proposed for STP-Urban or CMAQ Funding 2007

City-wide Traffic System Upgrade – Phase 2

This is second phase of a two-phased request to upgrade traffic controllers in Norwalk. The proposed scope of this phase is to upgrade the traffic signal at the 30 remaining signals on the City's centralized system. The project involves the replacement of existing controllers, installation of fiber optic communication, and video detection at critical intersections to facilitate traffic signal communications. ADA ramps and pedestrian signals will be installed at new signal or full replacement locations.

Project Schedule: Consultant Advertisement – June 2008
 Preliminary Design – December 2008
 Final Design – July 2009
 Construction Advertise – October 2009
 Construction Award – December 2009
 Construction Completed – October 2010

Project Budget: Estimated cost for this project is approximately \$2.8M.
 Design - \$350,000
 Full-intersection replacement (10 locations) - \$1,600,000
 Controller and detector replacement (20 locations) - \$600,000
 Communication - \$250,000

Norwalk River Valley Trail – Phase 2

This is the 2nd phase of a multi-phase project to provide pedestrian and bicycle transportation between several office and residential complexes such as Reed-Putnam, West Avenue, the Merritt buildings and several others to mass transportation facilities like the Wheels Pulse Point, Merritt 7 RR station and the South Norwalk Train Station. This phase of the project will construct the trail from Union Park to New Canaan Avenue and from Broad Street to Perry Avenue. The estimated cost for this portion of the project is \$2.0M

Project Schedule: Preliminary Design – January 2008
 Final Design – October 2008
 Construction Advertise – January 2009
 Construction Award – March 2009
 Construction Completed – October 2009

Norwalk Incident Management System

This project will provide the City with the ability to implement the diversionary plans prepared by ConnDOT. The project will consist of installing approximately 50 electronic blankout signs at various locations throughout the City, all of which can be activated by the City's central traffic control software and camera monitoring equipment. In addition, the City's ITS systems will be fully integrated with the City's PSAP computer-aided dispatch (CAD) system, GIS and AVL systems. Information will be made available to the public over the internet and through the 511 travel information system. Estimated cost for this project is approximately \$1.8M.

Project Schedule: Consultant Selection – June 2009

Preliminary Design – January 2010
 Final Design – July 2010
 Construction Advertise – October 2010
 Construction Award – December 2010
 Construction Completed – October 2011

Projects in Development

Riveredge Multi-use Trail

The Riveredge trail plan was developed in 1984 to create a continuous waterfront multi-use trail along the east side of the Norwalk Harbor between Wall Street and Veterans Park. As of 2007, approximately 4,000 feet of bikeway is either completed or approved. At two critical points there are gaps of approximately 1,200 feet which would be completed by the future project. One parcel is owned by the City and the other by the State. Completing the trail would bikeway on these parcels would provide a continuous waterfront public park similar to one that already exists on the west side – north of the Maritime Aquarium.

Table 23a - Norwalk Transportation Projects 2007-2011

Location	Project Type	Cost	Project #	Project Name
Rt. & 7 Area	Bikeway	-		Norwalk River Valley Trail - Phase 3
Rt. 1 along Rt. 7 to Matthew's Park	Bikeway	-	102-299	Norwalk River Valley Trail - Phase 2
Strawberry Hill Ave.	Bikeway	-		"Safe Routes To School"
Cedar Street over I-95	Bridge Replacement	-	102-278	Part of I-95 Exit 14 Improvements
CT123	Bridge Replacement	-	102-303	Bridge Replacement CT 123 Over Norwalk River
Fairfield Avenue over I-95	Bridge Replacement	-	102-278	Part of I-95 Exit 14 Improvements
James St.	Bridge Replacement	-		James St. over Silvermine River Bridge
Perry Ave.	Bridge Replacement	-		Perry Ave. over Silvermine River Bridge
Perry Ave.	Bridge Replacement	-		Perry Ave. over Norwalk River Bridge
Rowayton Ave.	Bridge Replacement	1,960,000	300-098	Rowayton Ave. Improvements @ RR Bridge (ConnDOT 5/03)
RR of Norwalk River	Bridge Replacement	-		Metro - North Bridge Improvements
RR over East Ave.	Bridge Replacement	2,777,000	102-297	Reconstruction of East Ave. Metro-North RR Bridge #42.14
RR over Monroe Street	Bridge Replacement	-	102-275	Metro - North Bridge Improvements
Taylor Avenue over I-95	Bridge Replacement	-	102-278	Part of I-95 Exit 14 Improvements
Wall St.	Bridge Replacement	-		Wall St. over Norwalk River Bridge
Westmere Ave.	Bridge Replacement	-		Westmere Bridge
Fairfield Ave.	Intersection Improvements	230,000		Fairfield Ave. at Cedar St. Intersection
Strawberry Hill Avenue at US-1	Intersection Improvements	-	102-285	Route 1 at Strawberry Hill - Widen Rt. 1 to Provide Five-Lane Cross Section
Stuart Avenue at Route 1	Intersection Improvements	-	102-285	Route 1 at Stuart Avenue - Widen
US-1	Intersection Improvements	-	102-285	Route 1 at Lovatt and County Streets - Widen Rt. 1 to Provide Five-Lane Cross Section
Willard Avenue at US-1	Intersection Improvements	-	102-285	Route 1 at Willard Rd. - Widen Rt. 1 to Provide Five-Lane Cross Section
East Avenue Widening	Major Widening	-		Roadway Widening from I-95 to Winfield Street
US 7	Major Widening	3,000,000	102-305	Reconstruct and Widen US 7 From Gristmill Rd. To CT 33 in Wilton
US-1	Major Widening	350,000	102-325	Intersection Improvement at CT53 and Belden
West Ave.	Major Widening	-		West Ave. - Garner to Butler, Crescent St.
Reed St.	New Bridge	-		Reed St. Rail Bridge
Fairfield Ave.	Roadway Improvements	600,000		Fairfield Ave. - Flax Hill Rd. to Rt. 1
I-95	Roadway Improvements	4,110,000	102-261	I-95 Interchange 16 @ East Ave. Provide Turn Lanes on Bridge @ Approaches and Reverse Signals
I-95	Roadway Improvements	26,900,000	102-278	Provide Revised Access for I-95 at US 1 Interchange # 14 - AC Conv.
I-95	Roadway Improvements	22,000,000	102-295	Reconstruct the Median on I-95 & Install 45" Concrete Barrier Curb in Norwalk - AC Conv. & AC Entry
Route 1	Roadway Improvements	280,000	102-H055	Rt. 1 Culverts (Keeler Brook) (ConnDOT5/03)
Rt. 7 and Merritt Pkwy	Roadway Improvements	67,450,000	102-269/102-3	US 7 & CT 15 in Norwalk, Upgrade to Full Interchange With Merritt Parkway, Phase 2 - AC Entry
Scribner Ave.	Roadway Improvements	850,000		Scribner Ave. Flax Hill Rd. to Rt. 1
Washington St.	Roadway Improvements	1,100,000		Washington St. - Water St. to Flax Hill
William St.	Roadway Improvements	1,100,000		William St. - Strawberry Hill Rd. to County St.
Fire House at Van Zant St.	Traffic Signal	-		Traffic Signal - Van Zant Fire Station
Foxboro Dr.	Traffic Signal	-	102-311	Foxboro Traffic Signal at Rt.7
Intersection of Adams Ave., Cannon St., Ward St. and France St.	Traffic Signal	-		Traffic Signal
Intersection of Gregory Blvd., First St., and Sycamore St.	Traffic Signal	-		Traffic Signal
Main St. at Wall	Traffic Signal	-		Traffic Signal - Main St. and Wall St.
Osborne Ave at Van Zant.	Traffic Signal	-		Traffic Signal - Osborne and Van Zant
Redcoat Rd.	Traffic Signal	-		Traffic Signal - Fox Run Rd. and Redcoat Rd.
Ward St.	Traffic Signal	-		Traffic Signal - Ward St. and Senoir Ct.
East Ave.	Traffic Signal System	-		Traffic Controller Upgrade on East Avenue
South Norwalk	Traffic Signal System	-	102-H066	Traffic Signal Upgrade South Norwalk

Darien Transportation Projects

Darien's transportation emphasis is on multi-modal transportation, bringing facilities into a state of good repair, revitalization of the downtown, and safety and operations improvements to highways and transit.

Projects of importance include:

- The Route 1 Circulation, Congestion and Access Management Study that will be administered by SWRPA starting in 2007.
- Replacement of obsolete sound barriers and installation of additional sound barriers along I-95.
- Implementation of the Heights Road flooding remediation project.
- Remediation of Route 1 drainage problems at Jaguar dealership.
- Traffic signals as warranted.
- Downtown pedestrian crossing improvements.
- Various maintenance and clean up projects by ConnDOT, including Brookside Drive, Route 106 and Mechanic Street.
- School zone safety improvements.
- Enforcement of Route 136 Martin Luther King Drive truck prohibition .
- Additional rail service at Noroton Heights station.
- Additional rail parking – including surface parking at I-95 Exit 12, and Darien and downtown parking joint development.

INCIDENT MANAGEMENT

Congestion has two components: recurring congestion -- the predictable delay caused by highway demand exceeding capacity; and non-recurring or incident-related congestion -- the unpredictable delay caused by incidents. Incidents include accidents/crashes as well as a wide variety of other events related to malfunctioning vehicles, debris or spills on the roadway, weather, etc. Through incident management the severity and duration of this type of congestion can be reduced.

The South Western Region Metropolitan Planning (MPO) formed an Incident Management Team (formerly called the Freeway Management Team) in 1991. Composed of local emergency responders (police, fire, EMS), traffic and public works personnel, and agencies such as ConnDOT, the State Police, and Towing and Recovery Professionals, the Team meets to develop plans for coordination of activities and responses to incidents, critique past efforts, increase awareness and working relationships, and participate or review incident management studies and projects. I-95 incident management diversion routes, standpipe plans, and an interagency communications study have been completed with tangible results. Desktop and full scale field exercises have tested and improved Incident Management Team capabilities by leading to revisions in procedures that enhance emergency agency responsiveness. In 2006, the SWRPA Corridor Emergency Communications Project led to implementation of upgrades to the Department of Public Safety's 800 ITAC/ICALL system that improve interagency communications for responders in South Western and Greater Bridgeport areas.

Since 2002, the region has participated in the Statewide Incident Management Task Force which developed the TSB Incident Management Task Force White Paper (October 2003). This report, endorsed by the TSB in November 2003, recommended policies and implementation plans to enhance Connecticut's incident management programs and their effectiveness. In 2004 a permanent statewide Incident Management Task Force was created and includes representatives from the South Western Region. In 2005, the highway motorist assistance program (CHAMP) with expansion to Route 7 and the Merritt Parkway received funding for additional vehicles (not yet on the road in 2007). Funding for development of additional diversion route plans in electronic format enabled update of the southwest corridor diversion route plans in electronic format for use by emergency responders. SWRPA coordinated municipal review and revision of the plans, which were completed and distributed in 2005. The adopted change in state statutes reduced the time that disabled or abandoned vehicles can be left on shoulders of expressways to 6 hours. Since 2005, progress was made on a number of other recommendations, including: preparation of a Unified Response Manual (URM) that will establish guidelines for incident responders; update of the 1992 State of Connecticut Incident Management Policy with eventual adoption by stakeholders was endorsed by the TSB for signature by ConnDOT, DPS, DMV, DEP, the Department of Consumer Protection, CT Police Chiefs Association, The CT Fire Chiefs Association, Towing and Recovery Professionals. Also implemented was the saddle tank recovery pilot project which allows trained and certified heavy-duty wreckers to off-load diesel fuel from saddle tanks that are not breached, thereby reducing time to clear the highway. State Police cruisers have been equipped with push bumpers on new vehicles. Additional

photogrammetry equipment for DPS will expedite crash investigations. Additional diversion route plans are being developed for the Hartford area. Additional regional incident management teams have been created. DPS developed updated requirements for towing training and certification, and revised the wrecker rotation program. Additional equipment and manpower requirements were established for heavy-duty wreckers. The State's capability to use 911 geo-location capabilities for incident reporting has increased through cell phone technology. Some Incident Management Task Force recommendations were studied but were tabled, including incentive programs for towers to expedite removal of vehicles from expressways, and repositioning of service/towing equipment during peak hours and at critical locations. Recommendations that still merit implementation are: training and manuals to support the URM, National Incident Management System (NIMS), and other facets of incident management. Also needed are creation of a unique state website for Connecticut Traveler Information Programs with incident management information posted; expansion of regional incident management teams modeled on the South Western and Capitol Region teams; and, implementation of public awareness programs to support effective incident scene management. Particularly important to the South Western Region are: live video feeds or restricted internet access to traffic cameras for appropriate responders; enhanced interoperable interagency communications for incident response; and expansion of the standpipe program.

With creation of stronger and broader-based emergency management and homeland security programs since 9/11, many of the region's first responders who are part of the South Western Region Incident Management Team also participate in regional emergency planning. This reinforces the relationships, planning, training and exercises that were solely promoted by the South Western Incident Management Team between 1991 and 2004. In 2005, SWRPA joined regional emergency planning efforts in developing the region's evacuation plan coordinated by the CT Department of Emergency Management and Homeland Security (DEMHS). In 2007, DEMHS formed the Regional Emergency Planning Committee (REPC). SWRPA and other transportation planning agencies, as well as transit operators are members of the REPC, as well as the Transportation Committee (RESF-1).

Recommended Strategies

Near Term

- Continue to facilitate South Western Region Incident Management Team meetings, activities and training.
- Participate in and support the activities of the Statewide Incident Management Task Force.
- Continue participation in DEMHS Regional Emergency Planning Committee (REPC) and the Transportation Committee (RESF-1).
- Establish the Unified Command System (UCS) and National Incident Management System (NIMS) as Connecticut's standard for incident command, adopt at the municipal level, and develop appropriate unified response manuals and supportive training and exercises.
- Continue to enhance the working relationships of agencies involved in incident management.
- Advocate for the state to provide municipal access to the resources and technology of the

State's Incident Management Program through live video feed or secure internet access to traffic cameras.

- Secure diversion route sign, barricade, and other support materials for towns to deploy when incidents occur and diversions are necessary.
- Develop the South Western Region Intelligent Transportation Systems (ITS) Strategic Plan. The effort is funded and will be completed in FY2008 in cooperation with the state, the Incident Management Team, and other stakeholders.
- Institute an Incident Management program for the Route 15 corridor, including highway assistance patrol (CHAMP), traffic cameras, and other program measures. The concept for expansion has been approved by the TSB and ConnDOT, with funding for additional CHAMP vehicles provided by the state.
- Support real-time traveler information systems and a state 511 program.
- Continue to work with New York State, Westchester County, the I-95 Corridor Coalition and others on incident management and information/communication/monitoring systems.
- Bring the .2 milepost marker system into a state of good repair, and maintain the markers.
- Support completion of the ConnDOT study of '511' traveler information systems, and advocate for implementation of a multi-modal 511 traveler information system.
- Support multi-agency and multi-modal coordinate emergency preparedness response planning, training, and secure resources for effective programs.
- Develop a "truck information" webpage on ConnDOT website that would provide truckers with information on: state truck regulations and programs; state rest areas and private truck stops; vertical or horizontal bridge clearance restrictions and weight-restricted bridges along with alternate routes; links to the [ConnDOT Incident Management web page](#) where information is provided on CVISN programs, ConnDOT traffic cams and information on incidents in progress. In the future, real time traveler information on truck stop and rest area parking availability could be provided through the website, and future 511 programs. For the Merritt Parkway, use restrictions, bridge clearance restrictions, penalties and alternative routes would be included. Information on incidents and diversions could be posted on this site.

Longer Term

- Develop and implement an interoperable interagency communications system for incident management and emergency response for the South Western Region and adjacent regions as funding permits.
- Implement the South Western Region Intelligent Transportation Systems (ITS) Strategic Plan and regional ITS architecture to enhance incident management program effectiveness.
- Implement the Norwalk Incident Management System proposed in 2007 which proposes electronic signage, and centralized traffic control along with camera monitoring equipment to direct traffic diverted from I-95, Route 7 or the Merritt Parkway. Traffic camera information and diversion information will be broadcast over the internet and connected with 511. This is a project that evolved from the Diversion Route Signing Project issued by SWRPA in 1998.
- Institute .1 milepost reference system and maintain it.
- Include public rest areas in the ConnDOT traffic camera surveillance program.
- Plan for future installation of cameras for surveillance and security of rail lines and

stations.

- Implement automatic vehicle location systems (AVL) and related dispatching programs for emergency responders, transit and other partners in incident management.

CONGESTION MANAGEMENT SYSTEM/CONGESTION MANAGEMENT PROCESS

Background

The metropolitan planning region covered by the South Western Region Metropolitan Planning Organization (SWRMPO) was designated as a Transportation Management Area (TMA) as a result of population growth measured by the 2000 Census. As a result, the SWRMPO implemented its first congestion management system (CMS) in early 2004. This CMS was incorporated into the Long Range Transportation Plan endorsed by the SWRMPO later that year.

The SWRMPO, through the South Western Regional Planning Agency (SWRPA), began preparation of its initial CMS in 2001. Early that year, ConnDOT entered into an agreement with SWRPA that provided federal CMAQ and state funds to conduct a study of the projected impacts of various congestion mitigation strategies on the Region's major roadways.

The purpose of this study was identify strategies that support safe, reliable, convenient and affordable travel options for the movement of persons and goods in and through southwestern Connecticut, with a focus on those travel options which have the greatest potential for reducing traffic congestion, improving environmental quality, promoting sustainable growth and offering long-term, flexible opportunities for increasing transportation system capacity. The study, called the Congestion Mitigation Systems "Vision 2020" Plan, was completed in February 2003.

The Vision 2020 report concluded that there is no single solution for mitigating congestion in southwestern Connecticut. The report recommends that transportation and land use strategies must be coordinated to form a comprehensive transportation system with immediate, mid-term and long-term planned actions. These actions include improving the efficiency, operation and safety of existing transportation systems, better managing the demand for travel, and increasing the availability of travel services. Specific study recommendations have been incorporated throughout this Long Range Transportation Plan.

Process

SWRPA used the Vision 2020 report as the foundation for the development of the South Western Region Congestion Management System Technical Memorandum. This technical memorandum was first submitted to the FHWA and ConnDOT in January 2004, and defines the Region's approach to congestion management systems. Annual updates to this report are prepared by SWRPA, with the most recent update released in June 2006.

The CMS technical memorandum – retitled the Congestion Management Process, or CMP, to conform to SAFETEA-LU nomenclature – provides an outline of those activities that will be undertaken by SWRPA to implement its CMP. These activities are organized by category: planning and coordination; data collection and analysis; development of performance measures; evaluation of systems performance; and reporting. It is anticipated that the CMP will see significant changes in content and/or format in 2007 when new CMP regulations are released by the FHWA.

Recommended Strategies

Planning and Coordination. SWRPA will be involved – either as a lead agency or as a participant – in activities to improve passenger and freight transport services, enhance coordination between SWRPA and its partners in adjacent planning regions, and better link land use and transportation planning efforts within the South Western Region.

SWRPA also will actively advocate for the development of an urbanized area-wide CMP. Through the Bridgeport-Stamford Urbanized Area Planning and Coordination Committee, SWRPA will educate its peer agencies about the benefits of an urbanized area-wide CMS and seek consensus on the development of such a CMS during the next LRTP update cycle. SWRPA will invite ConnDOT and the FHWA to be partners in this process.

Data Collection and Analysis. SWRPA will engage in data collection and analysis activities to identify baseline conditions and characteristics, and review, reorganize and update data collected as part of the Vision 2020 planning process.

To date, SWRPA has obtained the following data sets: (1) data collected and analyzed as part of the Vision 2020 planning process; (2) Census 2000 data; and (3) the Department of Transportation’s CMS Data Books for the years 2002 through 2006. Initially, this data will be separated into two categories: transportation networks, and geography and population.

Additional data collection activities are underway and include efforts to develop a framework for collection and analysis of freight flow data, identification of the role of ITS in data collection activities and evaluation of regional data available as part of the New York Metropolitan Transportation Council’s Best Practices Model.

Development of Performance Measures. The Vision 2020 study identified acceptable system performance as Level of Service (LOS) “C” or better. This study also identified five metrics that provide a basis for measuring transportation system performance. Those metrics are travel time, vehicle miles traveled, mode shift, accessibility and safety. SWRPA will continue to review those assessments and the underlying data to determine whether those metrics will be incorporated into the CMP as proposed in the Vision 2020 study or modified.

The following framework will be used to guide this process:

Defining congestion.

- Focus on peak period only, or also consider off-peak times?
- Identify the start/end times for peak periods.
- Use performance measures as basis.
- Consider the technical and policy perspectives.
- Should corridor and “hot spot” congestion be defined differently?
- Analyze patterns of incidents.
- Develop method for analyzing recurring v. non-recurring congestion.

Establishing performance measures.

- **Acceptable V/C ratio (corridor, “hot spot”)?**
- **Acceptable LOS (corridor, “hot spot”)?**
- **Acceptable accident rates (e.g. targeted reduction over current)?**
- **Acceptable hours of congestion (e.g. targeted reduction over current)?**
- **Percentage increase in travel speed desired?**

Strategy Evaluation. Through its Vision 2020 study, SWRPA has identified a collection of strategies that will help mitigate the growth of traffic congestion in the South Western Region. These strategies are incorporated into this Long Range Transportation Plan.

Future evaluation will be conducted using the process developed for the Vision 2020 study. First, possible improvements will be identified as a systems management, a demand management or a capacity enhancing improvement. The placement of individual improvements along this continuum will assist in the initial assignment of priorities. Improvements then will be reviewed on the basis of professional judgment to determine their potential to achieve:

1. Reduction in person trips during peak periods
2. Reduction in VMT during peak periods
3. Measured shift from SOV to other modes
4. Measured shift from SOV to HOV
5. Measured improvement in systems/operational efficiency, e.g. on-time performance etc.
6. Desired capacity increases

SWRPA will also seek to identify quantitative methods for evaluating strategies and improvements that survive the initial screening and assessment process. Such quantitative methods will be designed once performance measurements have been developed. Initial evaluation of the impacts of ITS as both a data collection and congestion mitigation tool will begin in 2007.

Progress Reports and Updates to CMP. Annual reports on the status of CMP implementation will be released each June. Updates will be made concurrent with updates to the Long Range Transportation Plan and as required by changes to applicable state or federal regulations.

Several projects recommended in the initial CMP have been completed or are underway. The Southwest Corridor Safety and Operations Engineering Study funded by ConnDOT and the Transportation Strategy Board concurred with the findings of the Vision 2020 study, recommending the design and construction of operational improvements on I-95 from the New York State line to Westport. A study of traffic flow and possible improvements to Route 1 in Darien, and Greenwich-Stamford will be initiated in FY2008.

Recommended Projects

Near Term

- Conduct the following corridor-level studies to identify strategies to improve traffic flow and operations:
 1. Route 7 Corridor Needs Assessment for Route 7 between Olmstead Hill Road, Wilton and Route 35, Ridgefield (funded for FY2008);
 2. Route 1 Corridor Circulation, Congestion and Access Management studies for Darien, and Greenwich-Stamford (funded for FY2008);
 3. Greenwich-Norwalk Bus Rapid Transit (BRT) (funded for FY2008); and,
 4. Stamford Transportation Investment Strategy Study (proposed).

- Working with FHWA and Connecticut DOT, undertake a comprehensive study to understand the effects of implementing value pricing on roadways with recurring congestion in the South Western Region and elsewhere in Connecticut.
- Implement enhanced transit services to mitigate and alleviate congestion caused by major transportation systems construction projects, following the precedent and model set by the I-95 New Haven Harbor Crossing (Q Bridge) project.
- Implement enhanced transit services to mitigate and alleviate access problems and congestion in the Route 7 corridor resulting from myriad utility upgrade projects and construction projects such as the Route 15/Route 7 interchange project and the widening of Route 7 through Wilton. Recommended transit options include: increased Danbury Branch rail service oriented to work trips in the Route 7 corridor; express bus from the Danbury area to Stamford via I-684; continued support for 7 Link bus service and enhanced service; and new incentive-based ridesharing programs.
- Implement corridor communications programs for major transportation projects modeled on the I-95 New Haven Harbor Crossing Corridor (Q-Bridge) program to provide information to users and officials about construction and maintenance activities. Immediately advocate for implementation of a Route 7 Corridor Communications Program that involves the participation of SWRMPO, SWRPA, HVCEO, the business community and other stakeholders in the Route 7 corridor.
- Implement continuous traffic counting capability at I-95, I-84, Route 15 at the New York State line, Route 7 and 15 interchange, and other key locations to enable better monitoring and evaluation of congestion, as well as the impacts of maintenance, construction, enforcement, or emergency/incident management programs and diversion plans.

BRIDGES

Background

Since the collapse of the I-95 Mianus Bridge in the early 1980's the State of Connecticut has had a comprehensive program of monitoring and funding for rehabilitation, repair and replacement of deficient or functionally obsolete bridges. Two decades of systematic investment have resulted in more structurally safe and functional bridges. Since 2004, projects were completed at the following bridge locations:

Table 24: Bridge Report South Western Region 2007

Bridge Number	Town	Route	Location
03959	Greenwich	Valley Road	Mianus River
00001	Greenwich	I-95	Byram River, S. Water St.
05007	Stamford	Buckingham Dr.	Rippowam River
05506	Stamford	Studio Rd.	Rippowam River
03673	Greenwich	SR 742	Arch Street

Source: ConnDOT Bridge Report – January 2007.

There are still many bridges in need of rehabilitation in the South Western Region. With respect to local bridges, there are 113 local bridges over 20 feet in length in the South Western Region included in the Connecticut FY 2007 Local Bridge Program, which comprises approximately 8% of 1,343 such bridges statewide. Only 12 bridges (11%) in the South Western region were rated in “good” overall condition, while 69 (61%) were rated “fair”; 32 bridges (28%) were considered either in “poor” condition or worse¹⁸, with three of these bridges receiving a failing grade. Load restrictions were posted on 15 bridges (13%). Statewide, 43% of bridges were considered “good”, 41% “fair”, and 15% “poor” or worse, including 18 bridges that failed. Load restrictions were in effect on 7% of bridges across Connecticut. (ConnDOT FY2007 Local Bridge Program)

The South Western region contains 160 bridges and culverts less than 20 feet in length, comprising nearly 8% of the statewide total of 2,104 such structures. Bridges under 20 feet are not inspected by Connecticut on a regular basis and have not been inspected since 1992. Thus, reliable condition ratings are unavailable. Scour analysis is not performed on these structures.

The Local Bridge Program provides state financial assistance to municipalities for the removal, replacement, reconstruction or rehabilitation of local bridges. There are 23 bridges (20 feet or more in length) and 13 bridges or culverts (less than 20 feet) that qualify for grants or loans through the state Local Bridge Program as of SFY 2007.

In 2004, ConnDOT implemented an automated bridge scour monitoring system called ScourWatch, which is part of a scour critical bridge action plan. Bridges with spans greater than 20 feet in length and bridges classified as “scour critical” are included. Under the ScourWatch system, a scour critical event will trigger notification to the responsibility agency. The event is usually a rainfall or stream flow, in which sufficient soil may be eroded and possibly undermine

¹⁸ Poor or worse includes all bridges rated “poor”, “serious”, “critical”, “imminent failure” and “fail”.

the structure, endangering its stability and safety. There are 27 structures in the Local Bridge Program that are considered Scour Critical.

Process and Goals

The goal is to improve all deficient structures as soon as possible, and to provide adequate funding to inspect, maintain, rehabilitate or replace all state and local structures. The process is to use ConnDOT inspection findings and recommendations in concert with local priorities as the basis for developing a program of recommended bridge improvements. Often the investment required to rehabilitate, replace or even adequately maintain a local structure exceeds a municipality's means.

Recommended Strategies

- Continue funding for the State Bridge Program but at an increased level.
- Advocate for increased state funding for the Local Bridge Program and develop new local bridge programs that provide adequate funding so that all local bridge deficiencies can be addressed in a 10 year timeframe.
- Advocate for legislatively mandated updated inspections of local bridges and culverts under 20 feet in length for scour and other deficiencies, and the development of regular inspection schedules
- Make local and regional needs and priorities known to state and federal officials.
- Institute a town aid grant program for local bridges that would provide funds for maintenance of all locally maintained structures (un-funded need).

Projects

Table 25: Bridges Requiring Funding for Rehabilitation Through the Local Bridge Program (Unfunded)

Bridge Number	Town	Route	Location
5011	Greenwich	Shore Road No. 1	Horseneck Brook
3954	Greenwich	Sound Beach Avenue	Cider Mill Brook
5014	Greenwich	Riversville Road	East Branch Byram River
5604	Greenwich	Lake Avenue	Horseneck Brook
4995	Darien	Old Tokeneke Road	Five Mile River
4095	New Canaan	Old Norwalk Road	Five Mile River
5001	New Canaan	Nursery Road	Five Mile River
3682	Stamford	South State Street	#1 Rippowam River
4064	Stamford	Richmond Hill Avenue	Rippowam River
4070	Stamford	Wire Mill Road	Haviland Brook
4071	Stamford	River Bank Road	East Branch Mianus River
4933	Weston	Old Redding Road	Aspetuck River
4960	Weston	River Road	Saugatuck River
4971	Westport	Old Road #2	Sacco Brook
4983	Wilton	Bald Hill Road	E. Branch Silvermine River
4986	Wilton	Sugar Hollow Road	Norwalk River

5734	Wilton	Borglum Road	Silvermine Brook
5991	Wilton	Ruscoe Road	E. Branch Silvermine River
56010	Greenwich	Pemberwick Road	Crossing Path
89008	New Canaan	Ponus Ridge	unnamed Brook
Bridge Number	Town	Route	Location
89010	New Canaan	Greenley Road	Noroton River
89012	New Canaan	West Road	unnamed Brook
89013	New Canaan	Wahackme Road	Noroton River
89014	New Canaan	Richmond Hill Road	unnamed Brook
135011	Stamford	Riverbank Road	E. Branch Mianus River
158008	Westport	Greens Farms Road	Muddy Brook
158009	Westport	High Point Road	Muddy Brook
158018	Westport	Sasco Creek Road	unnamed Brook
158021	Westport	Kings Highway North	Willow Brook

Source: ConnDOT Bridge Report – January 2007.

Table 26: Bridges under Construction as of January 2007

Bridge Number	Town	Route	Location	Program
06163	Greenwich	'North Porchuck Road	Byram River (East Branch)	Local Bridge Program
05000	New Canaan	TRLakeview Avenue	Five Mile River	Bridge Liaison
05003	New Canaan	Dans Highway	Rippowam River	Local Bridge Program
05810	New Canaan	SR 15	Lapham Road over Rte 15	None
01664	Norwalk	SR 123	Norwalk River	None
02295	Norwalk	SR 136	Norwalk River	Local Bridge Program
08027R	Norwalk	SR 102	Metro-North RR	None
00032	Stamford	I-95	Metro North RR	None
00037	Stamford	I-95	US 1 over I-95	None

Source: ConnDOT Bridge Report – January 2007.

Table 27: Bridges with Completed Design as of January 2007

Bridge Number	Town	Route	Location	Program
02144	New Canaan	SR 15	Five Mile Brook	None
04997	New Canaan	Valley Road	Silver Mine River	Local Bridge Program
03562	Norwalk	US 7	I-95 & TR802,Rte 7	None
05008	Stamford	Farms Road	Mianus River	None
04968	Westport	North Avenue	Aspetuck River	Local Bridge Program

Source: ConnDOT Bridge Report – January 2007.

Table 28: Bridges in Design as of January 2007

Bridge Number	Town	Route	Location	Program
04995	Norwalk/ Darien	Old Tokeneke Rd.	Five Mile River	Local Bridge Program
00041	Darien	I-95	I-95	None
00043	Darien	I-95	US 1	Hazardous Waste Removal
00013	Greenwich	I-95	I-95	None
00017	Greenwich	I-95	I-95	None
05011	Greenwich	Shore Rd. #1	Horseneck Brook	Local Bridge Program
05015	Greenwich	Porchuck Rd.	Byram River (East Branch)	Local Bridge Program
05018	Greenwich	Sherwood Ave.	Byram River	Local Bridge Program
04998	New Canaan	Hickock Road	Silver Mine River	Local Bridge Program
04999	New Canaan	Mariomi Road	Silver Mine River	Local Bridge Program
05574	New Canaan	Jelliff Mill Road	Noroton River	Local Bridge Program
00051	Norwalk	I-95	I-95	None
00718	Norwalk	SR 15	Silver Mine River	None
Bridge Number	Town	Route	Location	Program
00723	Norwalk	SR 15	Rte 15	None
04046	Norwalk	Burnell Blvd.	Metro North Railroad	None
04154	Norwalk	Perry Ave.	Norwalk River	Local Bridge Program
04440	Norwalk	Westmere Ave.	Farm Creek	Local Bridge Program
04989	Norwalk	James St.	Silver Mine River	Local Bridge Program
03824	Stamford	US 1	Rippowam River	None
04962	Weston	Valley Forge Rd.	Saugatuck River	Local Bridge Program
03852	Westport	Hales Rd.	Metro North Railroad	None

Source: ConnDOT Bridge Report – January 2007.

NOISE BARRIERS/SOUND BARRIERS

Background

The increase in traffic along the highways of the South Western Region, along with the increase in truck traffic and truck size resulting from tandems being permitted on I-95, has increased local interest in mitigating highway noise. The ConnDOT policy adopted in 1997 provides for projects to mitigate highway construction projects (Type 1), but does not initiate stand-alone noise barrier projects to correct existing deficiencies (Type 2 noise barrier projects). Although Type 2 projects are eligible to use federal transportation funding, ConnDOT has devoted these resources to highway/bridge rehabilitation and safety projects.

Since 1990, ConnDOT has not provided state funding for the construction of new Type 2 noise barriers. Maintenance of existing wooden barriers along is not performed, resulting in the deterioration of current structures and a reduced level of noise abatement to neighboring residents and businesses. The existing wooden barriers in the region are approaching the end of their 20 year life span.

The latest available information on the extent of noise problems along limited access highways is the ConnDOT 2006 update of a 1985 study that ranked areas that qualify for Type 2 projects. In the South Western region, there are 30 locations on ConnDOT's 2006 list. Installation of barriers for these locations is estimated to cost \$11.68 million (2006, using a cost factor of \$1.3 million per mile, for the 47,425 feet of barrier required). Residents, community groups and elected officials continue to express interest and advocate for new barriers and replacement barriers along the highways of the South Western Region.

Table 29: 2006 ConnDOT Retrofit Noise Abatement Program – South Western Region

Route	Town	Neighborhood	Statewide Rank (2006)
95	Greenwich	Meyer Place	9
95	Greenwich	Center Drive	16
95	Norwalk	Beacon Street	18
95	Greenwich	New Lebanon Avenue	20
95	Stamford	Courtland Circle	26
95	Greenwich	Cliff Avenue	37
95	Westport	Jennie Lane	38
7	Norwalk	Catherine Street	43
95	Greenwich	Circle Drive Extension	48
95	Westport	Ferry Lane	49
7	Norwalk	Van Buren Avenue	52
95	Greenwich	Leonard Avenue	53
95	Norwalk	Cossitt Road	54
95	Westport	Underhill Parkway	58
95	Stamford	Stafford Road	63
95	Westport	Hale Street	63
95	Greenwich	Buxton Lane	67
95	Greenwich	Hartford Avenue Extension	70
95	Greenwich	Mead Avenue	72
Route	Town	Neighborhood	Statewide Rank (2006)
95	Norwalk	Shadybrook Lane	74

95	Greenwich	Norias Street	77
15	Stamford	Studio Road	81
95	Norwalk	Olmstead Place	84
95	Westport	Green's Farm Road	85
95	Greenwich	Maplewood Avenue	88
7	Norwalk	Elm Street	93
95	Norwalk	Hendricks Avenue	106
95	Westport	Post Office Lane	114
95	Westport	Indian Hill Road	119
95	Westport	Signal Lane	122

Source: ConnDOT Office of Environmental Planning 2007

Recent advances in noise barrier material have produced more esthetically-pleasing options for barriers that are also more durable, have longer life spans and offer improved noise abatement. It is now easier to install 'context sensitive' barriers that are acceptable to abutting property owners.

The challenges are to determine the extent of the current noise problem on limited access highways and to develop a proactive policy and plan to remedy deficiencies supported by funding.

Recommended Strategies

The recommendation is to create a new noise barrier program, using the existing retrofit barrier priority list as a starting point. The new program will require state legislative action to mandate and fund a Type 2 noise barrier program (stand alone noise barriers that correct existing deficiencies), and to revise the ConnDOT policy to permit construction of Type 2 barriers in areas where residential growth has occurred. The noise barrier program should provide funding for construction of new barriers, adequate maintenance of existing barriers, and barrier replacement when the useful life (20-50 years) has been reached. A reassessment of noise levels along highways to update 1985 noise measurements is also recommended.

- Advocate for creation of a statewide noise barrier program through the legislature that will fund construction of Type 2 barriers, maintain existing barriers, and replace obsolete barriers.
- Revise the existing ConnDOT policy to permit 'retrofit noise barrier' construction in areas that have displayed population growth following the completion of highway construction.
- Perform an updated evaluation of noise levels at locations abutting highways (including those with existing barriers), and re-rank locations eligible for the retrofit program.
- Establish a state of good repair program for existing barriers to maintain functionality and prevent eyesores.
- Develop a planned replacement program when barriers reach the end of their 20-50 year life-cycles.
- Secure funding for Type 2 barriers in the South Western Region.
- ConnDOT should evaluate the effectiveness of already-installed barriers to guide future specifications and maintenance, and to guide priority-setting procedures.
- ConnDOT should continue to research best practices and new technology.

- Change specifications and bidding process to enable use of best technology and context sensitive design barriers rather than low bid barriers.
- Design and install barriers that provide emergency personnel access (doors to nearby fire hydrants).
- Amend zoning in areas abutting highways with high density housing complexes to allow sound barriers.

Projects

- Construct barriers along all highway stretches identified in the ConnDOT Retrofit Noise Abatement Program (unfunded).
- Routinely maintain existing sound barriers along Interstate 95.
- Perform an assessment of noise conditions along all stretches of highway eligible for sound barrier construction.

TRANSIT SYSTEM: BUSES

Background

The bus transit system in the South Western Region is a mosaic of services and management arrangements. Connecticut Transit (CT Transit), which is the contracted bus operator for the Connecticut Department of Transportation (ConnDOT) and funded entirely by state funds, is the service provider for Stamford. CT Transit's service area includes portions of Greenwich and Darien, and includes a connection to Norwalk via Route 1. In Norwalk and Westport, service is provided by Norwalk Transit District, which operates under the jurisdiction of the Norwalk Transit District and the Westport Transit District. This service is funded by the State of Connecticut and the municipalities within the transit districts. Commuter connections linking railroad stations and employment sites are provided in Greenwich, Norwalk and Westport by the Norwalk Transit District, and in Stamford by CT Transit. Bus service is also available on an inter-regional basis. Service between Stamford and White Plains, NY is provided by CT Transit's I-Bus. Coastal link service between Norwalk and Milford is provided by the Norwalk Transit District, the Greater Bridgeport Transit Authority, and the Milford Transit District. Norwalk Transit District, in conjunction with HART (Housatonic Area Transit), provides service between Norwalk and Danbury via the Route 7 Link. Transit services for seniors and persons with disabilities are described in the next section of the Plan.

There have been significant improvements to the South Western Region's bus network in recent years, coinciding with ridership growth across the systems. New complexes were constructed for both Norwalk Transit District and CT Transit's Stamford division. Norwalk Transit District opened its new facility in 2001, comprising of administrative offices and a maintenance center. CT Transit completed the expansion and renovation of its Stamford facility in 2005 with the completion of its maintenance facility in 2005, which followed the opening of its administration building in 2004.

The State's bus replacement program has resulted in new buses for Norwalk Transit District and CT Transit, in accordance with the recommended routine replacement of the fixed route bus fleet at 12 years of age. Changes in local bus service have been made to improve service, connections and continuity while reducing expenses, as both CT Transit and Norwalk Transit District have reconfigured bus routes and hours of service to provide more efficient operations and enhance service to various locations. Following the January 2005 fare increase by CT Transit, base fares for fixed route services across the South Western Region are \$1.25 as of March 2007.

Norwalk Transit District has also upgraded its on-board and dispatching technology. New state-of-the-art fareboxes that are the most technologically advanced in Connecticut were installed during 2004, and pass systems were introduced during 2005. A new two-way digital radio communication system became operational in 2007. New dispatching and scheduling software was installed in 2005 for its door-to-door services. In 2002, the Norwalk Transit District developed the Pulse Point Safety and Security Project for its existing hub at Burnell Boulevard. Funding has been secured through the FTA, with construction anticipated in 2008.

CT Transit's Stamford Division and Norwalk Transit District have been proactive in the utilization of ultra-low sulfur diesel fuel buses, which contribute to a 90% reduction in certain emissions compared to a standard diesel bus. CT Transit has also recently added a biofuel mix to its ultra-low sulfur diesel, assisting in further reducing fossil fuel emissions. CT Transit Stamford has also been operating a hybrid diesel/electric vehicle that generates a 15-20% increase in fuel economy, which has earned CT Transit accolades. On a statewide basis, CT Transit has increased use of biodiesel fuel and ethanol.

Through FTA Section 5307 Enhancement Program funding available to the South Western Region since 2002, one percent of FTA Section 5307 available funding is reserved for enhancement projects physically or functionally related to transit facilities. Since 2004, approximately \$180,000 has been approved for projects in the South Western Region, many of which were applied to the bus network in the South Western Region. Proposed projects for FFY 2006 and beyond, along with projects funded in recent years are displayed in Table 30.

Table 30: Bridgeport-Stamford Urbanized Area FTA Enhancement Program 2004-2006: Federal Funding Portion (As of March 2007)

	2004	2005	Proposed 2006 and Future Years
City of Stamford			
Glenbrook RR Station Improvements		\$ 38,400	
Glenbrook Bus Shelters		\$ 16,000	
Springdale RR Bike Storage		\$ 5,700	
Springdale RR Station Fence & Landscaping			\$ 25,753
Historical Photos			\$ 15,000
Stamford Urban Transitway Projects			\$ 200,000
Subtotal	\$ -	\$ 60,100	\$ 240,753
Norwalk Transit District			
Bus Shelters	\$ 27,000		
Artwork	\$ 21,000		
Coastal Link Bike Racks	\$ 11,400		
Bus Shelters in Historic South Norwalk		\$ 20,000	
Noroton Heights RR Station Bus Shelter		\$ 16,000	
NTD Artwork		\$ 12,000	
Bike Racks for SoNo and East Norwalk RR Stations		\$ 6,080	
SoNo RR Station Bus Signage & Info Kiosk		\$ 6,400	
Washington St. Bridge Underpass Lighting			\$ 40,000
Greenwich Bus Shelter			\$ 39,000
Bus Mounted Bike Racks			\$ 29,450
Washington St. Area Bike Racks			\$ 28,500
NTD Artwork			\$ 12,000
InfoPost			\$ 8,640
Backlit Map Displays for Saugatuck RR Station			\$ 4,800
Subtotal	\$ 59,400	\$ 60,480	\$ 162,390
Total	\$ 59,400	\$ 120,580	\$ 403,143

Source: SWRPA and information provided by ConnDOT

Metropool, an organization with a mission of delivering transportation demand management solutions to improve mobility, has forged partnerships with local transit operators in the South Western Region to promote local and interregional services. Branding efforts of the Coastal Link service were undertaken, and the creation of route maps have been developed for Coastal Link and Route 7 Link services. Video has been produced for Norwalk Transit District in outreach efforts to the Senior and Spanish speaking population segments to encourage greater use of the local buses.

Recent reports and studies have highlighted various initiatives needed to support the bus network in the South Western Region. The 2007 Connecticut Master Transportation Plan describes ConnDOT efforts to investigate opportunities to incorporate various applications of Intelligent Transportation Systems (ITS), including automatic vehicle location systems that can assist in providing information to customers, real time dispatching, maintaining schedules and providing better connections. A demonstration project is being conducted by GBTA for a prototype for a statewide AVL system. In 2006, ConnDOT's Bureau of Public Transportation released its top 10 initiatives, which included the following strategies related to bus transit:

- Maintain public transportation systems by continuing to subsidize and insure the efficient and cost effective operation of the Connecticut Transit System, the Transit Districts, and private operators providing local and commuter bus services and paratransit services;
- Renewal of transit systems through funding the upgrading its revenue collection systems, replacing the radio systems, incorporating ITS technologies such as automatic vehicle location (AVL), regular fleet replacement based on a 12 year useful life.

In 2006, CT Transit released the I-Bus Operational Analysis. The report highlighted the strong growth that has occurred since the inception of the I-Bus in 1996, and recommended service and marketing improvements to encourage continued growth and address on-time performance issues. Recommendations included:

- The addition of one PM peak bus
- The addition of a 9:00 AM Stamford to White Plains bus (effective December 2006)
- Increasing midday service from 90 minute headways to 60 minute headways
- Modifying schedules to allow better intermodal connections at transit hubs (effective December 2006)
- Extending service later on weekday evenings by adding two trips in each direction (effective December 2006)
- Adding earlier service on Saturday mornings through the addition of one additional trip in each direction
- Adding later service later on Saturday evenings by adding by adding three trips in each direction

Between 2004 and 2006, the City of Stamford conducted the East Main Street Corridor Study, which developed a land use and transportation revitalization strategy for this gateway to Stamford between Route 1 from the Darien Town Line to Elm Street in Stamford. The corridor contained the essential elements for transit oriented development (TOD) - density; walking distances to transit; a mixture of uses including public, employment, housing, retail and service –

and defined ways to support TOD and create an urban village. To recapture the corridor, an action plan was prepared that focused on four categories of strategies: pedestrian accessibility; economic vitality; traffic and parking; and image and aesthetics. Key recommendations that could produce positive impacts related to bus transit include development of an East Main transit node and Stamford Urban Transitway linkages, and the creation of pedestrian and bicycle facilities.

The 2003 SWRPA Congestion Mitigation Study “Vision 2020” investigated various bus transit options, including bus rapid transit for major corridors. A long term recommendation was to further explore bus rapid transit (BRT) for Route 1, with inland north-south bus rapid transit possibilities to be considered in the future. BRT could provide for faster operating speeds, greater service reliability, and increased convenience by offering elements such as a more limited number of bus stops than existing Coastal Link service, preferential treatment and exclusive lanes for buses on certain roadway segments, and real time information systems. Additional recommendations included near term strengthening of intermodal hubs with strong bicycle and pedestrian connectivity to rail and bus services, and implementation of ITS technology for the Stamford Transportation Center and the South Norwalk rail stations.

The South Western Region Metropolitan Planning Organization Transportation Investment Area Plan for the Coastal Corridor (October 2001) recommended strategies that support transit including:

- Encourage development of multi-modal transportation to facilitate movement of persons and goods throughout the Coastal Corridor TIA.
- Reinforce a transit agenda by promoting incentives for use and development of mass transit, seamless transfers between multiple modes and increased choices for commuters.
- Target development to encourage preservation of community character, revitalization of urban centers and support development or expansion of transit networks.
- Promote more efficient use of existing transportation facilities and infrastructure with an emphasis on integration, safety and connectivity of services.
- Use technology to improve transportation planning, management and operations.

Recommendations related to bus transit include:

- Develop and implement a universal fare card and collection system for all transit services statewide.
- Expand bus services connecting with rail services in the Coastal Corridor TIA, as proposed in Section 16(a)(6).
- Provide operating funding to expand bus services for existing and new western Connecticut commuters to utilize Metro-North's Upper Harlem Line for commuting to New York City and White Plains, as proposed in Section 16(a)(12).
- Develop “commuter connections” between transportation hubs, residential areas and employment centers.
- Implement the recommendations from the *Route 7 Travel Options Implementation Plan*, prepared by the South Western Regional Planning Agency and the Housatonic Valley Council of Elected Officials.
- Provide annual operating support to replace expiring *Access to Jobs* grants for the Coastal Link, later evening bus service route extensions and customized paratransit services for

residents in the cities of Bridgeport, New Haven, Norwalk, Stamford and Waterbury, as proposed in Section 16(a)(1).

- Where demand exists, provide for more inter-district, inter-town, inter-regional and interstate bus service like the Coastal Link.

The Connecticut DOT Statewide Bus System Study (July 2000) evaluated local bus service and recommended efficiency improvements that included additions and reductions, and enhancements that offer new services or additions to existing services. The study found that most Connecticut systems were average or better than average when compared to national peers with respect to productivity and cost effectiveness. The study identified issues that needed to be addressed, including: implementing bus service changes at the local level; securing funding for recommendations; serving less dense areas using flexible services; attracting ‘choice’ riders; creating seamless and coordinated interregional connections; and responding to changes by ongoing monitoring and systems revisions. Recommendations relevant to the South Western Region are noted in Table 30a.

In 1994 and 1995, SWRPA prepared a comprehensive Transit and Transportation Demand Management Study which led to the 1995 update of the Region’s Long Range Transportation Plan (SWRPA 1995). Positive outcomes from this effort were implementation of: Stamford/White Plains bus service (I-Bus in 1996) and extended evening hours on weekdays for CT Transit Stamford (1996). SWRPA’s 1995 commuter connections feasibility studies for Darien, Norwalk and Stamford resulted in additional new services. Funding provided by Access to Jobs and the Connecticut Department of Social Services have made it possible to extend weekday and Saturday hours of bus service in Stamford and Norwalk, initiate Sunday service in Stamford and for I-Bus, implement and expand the Coastal Link bus service on Route 1 between Norwalk and Milford and increase Route 7 Link service between Norwalk and Danbury. Additional service funded by Access to Jobs will be introduced by CT Transit in Stamford in May 2007.

Two issues which need to be addressed include service sufficiency and funding. The viability of current services and the need for additional transit services is usually addressed only when funding is constrained. Adequate funding is needed to keep the bus fleets in a state of good repair, to provide current services, including fixed route, shuttle, commuter connections and services funded through Access to Jobs, CT DSS and other special funding sources. Norwalk Transit District also relies on funding for mandated ADA services that complement their fixed route operations. The Connecticut Association of Community Transit (CACT), a group of transportation organizations that includes ConnDOT, CT Transit, Norwalk Transit District, along with various agencies and non-profit organizations, highlighted these issues in its report Transportation in Connecticut: Don’t Miss the Bus (2006). The report described the need for an infusion of funding for bus-related capital and operating expenses across Connecticut to allow bus transit operators to address unmet needs and expand bus services. SWRMPO has supported investment in the region’s bus infrastructure to address the issues raised by CACT.

Inter-regional and intra-regional bus service improvements are a potential mitigation measure to the congestion on the South Western Region’s roadway and rail network. The SWRMPO has encouraged BRT Services whether dedicated or complementary to existing highways. The Long

Range Transportation Plan recommends a study of bus rapid transit service on US 1 corridor between Greenwich and Norwalk to assess the various elements that characterize BRT systems and develop a feasible approach to BRT in the South Western Region that can be implemented in the near-term. In 2007, SWRPA produced a Bus Rapid Transit vs. Express Bus Technical Memo, which sought to determine if there were comparable characteristics in the South Western Region and the Hartford Region, where express buses are a key component of the Capital Region's transportation network. The technical memo described various possibilities for express bus service between employment centers and residential areas with substantial town-to-town commuter flow in the South Western Region, which could provide new direct services and compliment existing rail and bus services.

The long range transportation plan proposes development of a number of other essential planning studies that will guide investment in transit for the next 25 years, including Stamford Transportation Investment Strategies, Stamford Transportation Center Master Plan, and immediate action operations plans for the Stamford Transportation Center, as well as a concept plan for the South Norwalk Rail Station Intermodal Area, and a Merritt 7 Area Transportation Study. In 2007, SWRPA participated in the development of a locally coordinated human services transportation plan (LOCHSTP) for the Bridgeport/Stamford Urbanized Area, in which bus transit was a central element. Key recommended strategies derived from the LOCHSTP development related to the bus network have been integrated below, with additional information and recommendations included in the LOCHSTP chapter of the Long Range Transportation Plan.

Secure and sustainable funding is critical to continue existing transit services, and expand transit services to increase mobility, access and choice. Bus and shuttle transit is proposed to support and mitigation for construction disruptions is advocated, particularly in the Route 7 corridor where highway, power transmission lines, and rail signal communications projects are impacting auto and rail travel. The long range plan encourages new technologies, such as real time traveler information, "smart cards", and other Intelligent Transportation Systems programs that will be defined through the SWRPA ITS Plan, the ConnDOT regional ITS architecture, and specific studies. The recommended strategies and projects follow.

Recommended Strategies

Near Term

- Undertake a Regional Transit Strategies Plan that will develop the vision and an implementation plan for transit within the region and that will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry and air.
- Conduct the study and implementation of a Bus Rapid Transit service on US 1 in the South Western Region.
- Implement express bus service from Ridgefield/Wilton to Stamford via Route 7 and I-95.
- Develop inter-regional and intra-regional limited and express bus routes to compliment the region's existing transit options and improve connectivity.
- Utilize park and ride facilities as a staging area for commuter express bus service.
- Analyze and consider the use of high capacity articulated buses to ease crowding on bus

- routes operating at or near capacity.
- Continue to integrate environmentally friendly technology into the region’s bus fleet, including the use of hybrid technology, biodiesel fuel/ethanol, and fuel cell technology to reduce emission of greenhouse gases.
 - Conduct the Stamford Transportation Investment Strategies Study to develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access & arterial roadways, rail bridges & infrastructure, and Stamford Harbor and encompasses all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region, and will build upon the State’s I-95 southwest corridor safety and operations study, funded by the TSB for \$1.5 million, but not yet started.
 - Secure funding and conduct the Coastal Link Market Research Project to perform a comprehensive and detailed ridership travel patterns assessment to develop a marketing program focusing on Coastal Link service.
 - Adequately fund and assure sustained funding for sufficient levels of inter-regional Route 1 service and the Coastal Link.
 - Secure funding from ConnDOT for Norwalk Transit District companion ADA service, to replace former FTA funding for transit operations no longer available as a result of 2002 redesignation of Norwalk and Stamford into the consolidated Bridgeport-Stamford urbanized area, and mainstream funding into the ConnDOT budget.
 - Continue to fund 7Link inter-regional service between Norwalk and Danbury, increase service as warranted to keep up with demand and as a congestion mitigation measure in the Route 7 corridor.
 - Implement enhanced transit services to mitigate and alleviate congestion caused by major transportation systems construction projects, following the precedent set by the I-95 New Haven Harbor Crossing (Q Bridge) project that implemented additional Shore Line East rail service. For the Route 7 corridor construction disruptions resulting from Route 7 widening in Norwalk, Wilton, Ridgefield and Bethel, and Route 7 and 15 interchange, transit options include: increased Danbury Branch rail service oriented to work trips in the Route 7 corridor, express bus from the Danbury area to Stamford via I-684, continued support for 7Link bus service and enhanced service, also incentive-based ridesharing programs.
 - Upgrade Norwalk Transit District and CT Transit Stamford operating capabilities to include “Intelligent Transportation Systems” or ITS capabilities to improve the efficiency and operation of existing bus services including but not limited to bus locator systems, dispatching, real time traveler information, electronic fare collection, and enhanced communications.
 - Conduct a comprehensive study of express bus options for the South Western Region.
 - Increase demand responsive transit for seniors and persons with disabilities.
 - Replace transit vehicles to maintain reliable and safe service on a regular basis.
 - Provide for routine maintenance and upgrading of bus safety hardware, bus service elements and operational features including the rolling stock and maintenance facilities (ConnDOT Long Range Transportation Plan 2004-2030).
 - Develop long term plans for implementation of a universal fare card and collection

- system for all transit services statewide.
- Develop and implement “smart traveler” programs to provide real time transit information.
 - Continue to provide operating assistance to operators of public fixed route bus service at a level sufficient to maintain or expand service.
 - Maintain and upgrade maintenance and administrative facilities to accommodate needs and technological advances.
 - Continue state subsidization of bus transit providers.
 - Continue funding for the operation of existing commuter connections and modify service to respond to changing conditions and needs.
 - Continue to develop “commuter connections” between transportation hubs, residential areas and employment centers.
 - Conduct commuter connection studies for new residential or employment markets, refine existing services, and implement new services or modify existing services (e.g. South End, Waterside and downtown Stamford; Merritt 7, Norwalk; Greenwich downtown circulator options and commuter connections).
 - Provide amenities including bus shelters, directional signing and information kiosks for transit use at hubs, pulse points and other key locations.
 - Improve intermodal connections between bus, rail, shuttles, bicycles and pedestrians.
 - Provide transit services that promote access to jobs, and continue to work with regional partners on ‘Access to Jobs’ including; developing an inventory of transportation resources that assist job-developers and clients.
 - Continue to support to ‘People to Jobs’ and encourage development of a ‘transportation resource center’ that will provide current information on resources and will serve as the basis for matching clients, jobs and available transportation resources.
 - Continue to work with officials from adjacent regions, and the New York Metropolitan area to collaborate in planning on public transportation issues, including corridor for public transportation solutions.
 - Promote utilization of bicycle racks on buses and at bus stops.
 - Advocate for funding to continue current transit services when special funding sources expire.
 - Regularly evaluate transit system operations, services and effectiveness and develop updated “transit development programs.”
 - Develop effective marketing programs for current and new services to enhance the public awareness of existing transit services and to encourage expanded use of the services.
 - Provide information dissemination and education to potential bus passengers in various languages to promote a diverse ridership base, such as through integration with English as a second language (ESL) courses.
 - Continue to target key commuter demographics, including seniors, students and commuters through focused promotional and educational efforts and development of specialized services for each distinct population.
 - Monitor bus ridership data to allow providers to adjust service levels based on changing conditions on a short-term basis.
 - Develop transit incentive programs for state employees to encourage use of buses.
 - Improve connectivity between bus and other modes of transit.

Longer Term

- Evaluate the feasibility of a reduced fee commuter bus/rail pass (supported by CMS 2020 survey respondents.)
- Identify express bus system possibilities (supported by CMS 2020 survey respondents.)
- Evaluate financing options, including the potential and advantages for a dedicated mass transit capital and operating fund.

Recommended Projects

Near Term

- Secure funding for the Regional Transit Strategies Study.
- Study and implement the Route 1 Bus Rapid Transit Study (Norwalk to Greenwich).
- Secure funding for the Stamford Transportation Investment Strategy Study.
- Develop the South Norwalk Rail Station Intermodal Concept Plan.
- Install AVL technology in Norwalk Transit District and CT Transit buses, and provide real-time information to passengers at bus stops and from remote locations.
- Prepare Merritt 7 Area Transportation Study.
- Implement enhanced transit services in the Route 7 corridor to counteract the negative impacts of construction in the corridor.
- Conduct a comprehensive bus study for the South Western Region.
- Implement selected express bus pilot projects.
- Implement express bus service from Danbury area to Stamford via I-84, I-684, Route 287 and I-95 as a Route 7 construction mitigation measure.
- Sustain capital and operating funds for expanded fixed route services provided by CT Transit and Norwalk Transit District.
- Increase shuttle service from South Norwalk rail station to Merritt 7 to keep pace with the growth in the state's largest class A office park (un-funded need).
- Replace buses as they reach the end of their useful lives.
- Purchase component bus infrastructure for enhanced communications and safety.
- Sustain funding for current shuttle, commuter connections, extended hours and days of service, Coastal Link, Route 7 Link once funding from sources lapse.
- Expand commuter bus connections throughout the South Western Region.
- Implement Norwalk Transit District projects including Burnell Boulevard Pulse Point security and safety project (\$600,000 earmark, FTA 5307, and local funds), routine replacement of buses and other equipment, as well as enhancement projects for bus shelters, information kiosks (South Norwalk Rail Station), art work, and bicycle racks on buses.
- Install improved signage and construct additional bus shelters along bus routes and at transit hubs in the South Western Region
- Prepare a Stamford Transportation Center Master Plan for near term and long term for capital projects, maintenance and operations, with a financial plan.
- Immediate action – conduct Stamford Transportation Center shuttle operations assessment and rationalization of taxi, shuttle bus and vehicular use of the Stamford

Transportation Center.

- Immediate action – develop a Stamford Transportation Center operations plan for integration of Stamford Urban Transitway and the Stamford Transportation Center existing services, operations and physical layout.
- Maintain facilities in a state of good repair.

**Table 30a: South Western Region Bus Transit Recommendations
ConnDOT Statewide Bus Transit Study 2000**

CTTRANSIT Stamford Division

- **F-Norwalk** – Add one bus to ease loading during weekday peak-usage periods (7AM – 9PM, 2-6PM).
- **H-South End / H-Strawberry Hill** – Lengthen midday headways to 60 minutes to better match service to level of demand.
- **J-Route** – Modify to serve assisted living facility located on Palmers Hill Road, just north of Connecticut Avenue.
- **New Peak Period Express Bus Route** – Implement between New Canaan and downtown Stamford to supplement New Canaan Branch commuter rail service.
- **New Peak Period Express Bus Route** – Implement between Trumbull (Rt. 8/ Rt. 108) and downtown Stamford.
- **New Cross-town route** – Implement east-west service using smaller buses connecting Springdale to Stamford Hospital.
- **New Cross-town route** – Implement east-west service using smaller buses connecting Springdale to High Ridge/ Long Ridge.

Norwalk Transit District

- **Route 1-** Terminate at Ponus Middle School rather than operating out to Fox Run Elementary School.
- **Route 3** – Increase service level to provide service at 20 minute headways.
- **Route 5 and 6** – Combine lower portion of Route 5 to operate as part of a combined Route 5/6 that would operate north from the WHEELhub along Newtown and Wolfpit to Starlight Drive and Starlight at S.T.A.R., and then down Wolfpit to Westport Ave., and back to WHEELhub. The new route would operate on a 30 minute headway during the peak and 60 minutes during the off-peak and Saturdays.
- **Route 8** – Operate on alternate runs into the un-served area off Strawberry Hill Avenue.
- **Route 9** – Increase the service level to provide service at 20-minute headways.
- **Route 10** – Increase the service level to provide service at 20-minute headways.
- **Day-Tripper 10** – Eliminate tripper services in the peak periods.
- **Routes 11 and 12** – Reconfigure two loop routes (11 and 12) into two new routes, one which would operate from East Norwalk to Norwalk Community Technical College, and the other one which would operate from South Norwalk to Rowayton, terminating at Jacob Street/ Rowayton Avenue.
- **Route 13** – On its return trip, modify the route so that it uses Connecticut Avenue rather the West Cedar **and** increase frequency to 20-minute headways.
- Lengthen weekday off-peak headways on Route 1 & new Route 5/6 to 60 minutes.
- Change off-peak headways on all other routes from 35 to 30 minutes.
- Lengthen Saturday headways on Route 1 and 7.
- **New Sunday Feeder/ Distributor Service** – In conjunction with Coastal Link service, three routes similar to the three evening shuttles should be implemented to complement this service

Westport Transit District

- Set productivity standards for employer shuttles.
- Implementation of signed bus stops along daytime routes.

LOCALLY COORDINATED HUMAN SERVICE TRANSPORTATION PLAN

Background

One of the provisions in SAFETEA-LU is the requirement that organizations and programs eligible for grants under Section 5310 (Elderly Individuals and Individuals with Disabilities Program), Section 5316 (Job Access and Reverse Commute Program) and Section 5317 (New Freedom Program) be derived from a locally developed, coordinated public transit-human services transportation plan (LOCHSTP).

The development of the LOCHSTP must be done through a process that includes representatives of public, private, for profit and non-profit transportation and human services providers and users. Through this coordination, the LOCHSTP will strive to streamline transportation services for persons with disabilities, seniors, and lower-income individuals by improving accessibility to transportation, encouraging new services while minimizing service duplications and utilizing existing resources in a more efficient manner.

Federal Transit Administration grants awarded to recipients of LOCHSTP strategies and initiatives are allocated based on the U.S. Census classified urbanized areas. Southwestern Connecticut's local area is located in the Bridgeport/Stamford Urbanized Area (UZA), one of three urbanized areas in Connecticut with a population over 200,000 (along with Hartford and New Haven). As the regional planning organizations (RPOs) representing the Bridgeport/Stamford Urbanized Area, South Western Regional Planning Agency has coordinated with Greater Bridgeport Regional Planning Agency and Valley Council of Governments in the development of the LOCHSTP. Additional statewide LOCHSTP funds are allocated to the remaining urbanized areas with populations under 200,000 persons and to regions with fewer than 50,000 persons. LOCHSTP funding component allocations are as follows:

Table 31: Job Access Reverse Commute (FTA Section 5316)

	2006	2007	2008	2009
Bridgeport/Stamford UZA	\$260,506	\$274,578	\$297,459	\$313,667
Statewide Total Funding	\$1,121,532	\$1,186,944	\$1,285,856	\$1,355,919

New Freedom Program (Section 5317)

	2006	2007	2008	2009
Bridgeport/Stamford UZA	\$256,338	\$268,886	\$290,464	\$307,062
Statewide Total Funding	\$1,034,018	\$1,097,915	\$1,186,020	\$1,253,792

Elderly Individuals and Individuals with Disabilities (Section 5310)

	2006	2007	2008	2009
Statewide Total Funding¹⁹	\$1,364,251	\$1,437,179	\$1,556,343	\$1,633,799

Source: Created by SWRPA using information provided by ConnDOT.

The initial LOCHSTP was completed on April 1, 2007. Although annual plan revisions are not required, ConnDOT is requesting a 2008 plan revision that seeks to build upon the initial

¹⁹ Section 5310 funding is allocated to each planning region based on a separate application process from LOCHSTP. However, service proposals for 5310 applicants must address gaps described in the LOCHSTP.

LOCHSTP. This plan revision will identify secondary organizations that were unable to be identified during the development of the 2007 LOCHSTP.

Through outreach efforts including the administering of transportation surveys to human service organizations and cyclical meetings with a LOCHSTP stakeholder working group, a series of needs and gaps were identified, including:

- Service to smaller towns that lack fixed-route bus service
- Inter-regional service to key locations such as the Burke Rehabilitation Center in White Plains, NY, the VA Hospital in West Haven, and facilities in the Capital Region.
- Intra-regional between towns in the South Western Region
- Service during off peak hours: early weekday mornings, weekday evenings, weekends, holidays
- Service for residents of assisted living complexes
- On-demand service
- Lack of travel escorts
- Funding for support services: additional vehicles, qualified Drivers, insurance for volunteers
- Insufficient amenities, including bus shelters, signage, bilingual information
- Information and education availability
- Lack of coordination, including inter-regional coordination, centralized information dissemination, marketing, training, vehicle sharing, passenger education
- Eligible recreational trip purposes on non-ADA mandated services
- Door through door service
- Door to door service

Recommended Strategies

- Identify organizations that are interested in and equipped to provide new or expanded services.
- Expand services during early morning, late evening and weekend and holiday timeframes.
- Encourage vehicle sharing coordination to address a lack of available vehicles and allow vehicle operators to contract with other organizations to allow usage of their vehicles during idle timeframes when other transportation options are unavailable.
- Expand the types of eligible trip purposes on non ADA mandated services, such as shopping, attending religious services, visiting friends and relatives, and medical trips.
- Promote ride sharing between organizations providing transportation coverage to common areas
- Create a human service inter-regional transportation to provide service to all persons requiring transportation to certain locations to areas outside the immediate region.
- Expand intra-regional transportation services.
- Provide physical amenities along fixed-routes that encourage ridership by providing information and shelter.
- Provide additional funding to support door-to-door and door-through-door service.
- Modify regulations restricting mobility for residents of assisted living facilities.

- Develop a consolidated marketing approach to promote transportation services, and offer centralized information.
- Offer expanded travel training through Public Transit 101 courses, mobility manager and travel assistant programs
- Develop taxi voucher programs for trips that can not be anticipated or are unable to be handled by other providers.
- Centralize training and dispatching for vehicle operators to address the reported shortage of qualified drivers that have been reported
- Promote maintenance coordination.
- Secure funding for additional vehicles and additional qualified drivers and to support volunteer operations.
- Develop demand management approaches to shifting the demand for service if operators were begin to levy fees or increase fares to discourage travel during peak demand timeframes.
- Initiate a transportation options campaign, and target medical providers to reach potential users that are unaware of transportation services available to patients.
- Centralize volunteer coordination dispatch by identifying an organization to keep a database of volunteer information and organize efforts to distribute volunteers between geographic areas and timeframes to provide greater coverage.
- Hold regular meetings of focus groups with organizations concerned about transportation matters for persons of lower incomes, seniors and persons with disabilities.

Projects

- Provide trips for US Veterans to the VA Hospital in West Haven, in coordination with multiple municipalities
- Provide centralized information for human service transportation providers and services

TRANSPORTATION FOR SENIORS & PERSONS WITH DISABILITIES

Background

The transportation options for seniors and persons with disabilities offered in the South Western Region provide a vital link for members of the community who otherwise lack the mobility or financial means to access social opportunities, essential services such as medical appointments and nutrition sites, and retail shopping. Transportation options for seniors and persons with disabilities also serve the special needs of the emotionally and physically disabled youth of the region.

The Americans with Disabilities Act (ADA) was signed into law on July 26, 1990. This civil rights legislation was an outgrowth of nearly 20 years of debate on the issue of disability rights which mandates equal opportunity in employment, transportation, telecommunications, and places of public accommodations for individuals with disabilities.

The ADA delineates specific actions that public entities must take to avoid discrimination, which have had a positive effect on the mobility of seniors and persons with disabilities:

- All vehicles used in fixed route are accessible;
- Public entities providing fixed route public transportation service also offer comparable paratransit service;
- New facilities are accessible;
- Alterations to transit facilities continue to include features that make them accessible, including ADA compliant bus shelters;
- Bus stops are announced on fixed route systems; and,
- Personnel are trained to proficiency so that they operate vehicles and equipment safely and properly treat individuals with disabilities who use the service in a respectful and courteous way.

Plans were prepared in 1992 for each of the fixed route transit operators with specific measures to be taken to comply with ADA requirements.

In addition to the fixed route bus service operated by CT Transit and Norwalk Transit District that is accessible to seniors and persons with disabilities, and the complimentary service provided to eligible persons with disabilities living within $\frac{3}{4}$ of a mile from a fixed route, there are an array of services provided on the local level to further promote mobility for those unable to gain access to public transportation, as shown in Table 32.

Table 32: Transportation for Seniors and Persons with Disabilities 2007

Service	Towns Served	Description
Gallivant	Darien	Door-to-door service for seniors and persons with disabilities for various trip purposes
Greenwich Dial-A-Ride	Greenwich	Dial-a-ride service provided by Transportation Association of Greenwich (TAG)
The GetAbout	New Canaan	Dial-a-ride service

Service	Towns Served	Description
Town-to-Town	New Canaan, Norwalk, Westport, Wilton	Regional door-to-door service for travel between towns for any trip purpose (except for Wilton, which is limited to medical trips)
Dispatch A Ride	Norwalk	ADA door-to-door
Easy Access	Stamford, Portions of Darien, Greenwich, Norwalk within 3/4 of a mile of Route 1.	ADA door-to-door service
Stamford Senior Transportation	Stamford	Group trips for ambulatory seniors for nutrition/shopping
Weston Dial A Ride	Weston	Dial-a-ride service
Westport Door-to-Door	Westport	Dial-a-ride service for seniors and ADA door-to-door
Dial-a-Ride of Wilton	Wilton	Dial-a-ride service

Source: SWRPA 2007

The senior segment of society and those who are impacted by disabilities is increasing as persons from the “baby boomer” generation have begun to reach 60 years of age. According to ConnDOT’s Transportation in Connecticut: Trends and Planning Data (2006), the population growth of seniors is expected to be among the fastest growing demographics in Connecticut, far outpacing the State’s general population growth. This will likely result a steadily increasing demand for paratransit and specialized transportation catering to persons age 60 and over as they age in place.

Persons with disabilities in particular have benefited from the People to Jobs Task Regional Transportation Task Force in 2002 and 2003, which brought together diverse stakeholders such as the Connecticut Departments of Transportation and Social Services, transit operators, MetroPool, social service agencies including The WorkPlace and Kennedy Center, as well as the South Western Regional Planning Agency with the mission of educating persons with disabilities and supporting service agencies about fixed route public transportation options for work trips. The project titled “Transit 101” developed a user-friendly publication “Getting On Board - The Southwestern Connecticut Accessible Transportation Guide”, a video “Opening Doors”, a travel training program, and various handouts. There were multiple funding sources for this project, including U.S.DOT Access to Jobs and CMAQ, CT Department of Social Services and TANF grants, as well as the in-kind staff resources of the transit providers and regional planning agencies.

In 2006, the State of Connecticut provided initial funding for the State Matching Grant Program for Elderly and Disabled Demand Transportation (Municipal Dial-a-Ride Grant), which was

originally authorized during the 1999 legislative session²⁰. For both SFY 2006 and 2007, the Municipal Dial-A-Ride Grant allocated \$5 million in funding to municipalities based on land area and senior population, amounting to over \$375,000 each year for South Western Region communities:

Table 33: Apportionment of Dial-A-Ride Funding to CT Municipalities - 2008

Apportionment of Dial-a-Ride Funding to CT Municipalities - 2008

Municipality	Percent of State Senior Population	Allocation by Senior Population	Percent of Total State Square Miles	Allocation by Square Miles	Total Apportionment
Darien	0.524%	\$13,110	0.297%	\$7,429	\$20,539
Greenwich	2.100%	\$52,489	1.009%	\$25,230	\$77,719
New Canaan	0.572%	\$14,306	0.465%	\$11,618	\$25,924
Norwalk	2.325%	\$58,117	0.552%	\$13,812	\$71,929
Stamford	3.443%	\$86,077	0.796%	\$19,895	\$105,972
Weston	0.227%	\$5,687	0.415%	\$10,371	\$16,058
Westport	0.846%	\$21,143	0.447%	\$11,169	\$32,313
Wilton	0.476%	\$11,893	0.535%	\$13,363	\$25,256
Total SWR	10.513%	\$262,821	4.516%	\$112,888	\$375,710
Total Statewide	100.00%	\$2,500,000	100.00%	\$2,500,000	\$5,000,000

Source: ConnDOT.

The Municipal Dial-a-Ride program has allowed dial-a-ride and demand responsive transportation providers to offer an array of expanded services, such as:

- Greenwich: Expanded dial-a-ride service, new transportation service into Westchester County; supplemental American Red Cross medical transportation, additional service for Greenwich Senior Center clients;
- New Canaan: Inter-region dial-a-ride service;
- Norwalk: Increased service for clients of Norwalk Senior Center, Elderhouse and STAR;
- Weston: Expansion of Dial-A-Ride service to five days a week;
- Westport: Expanded door-to-door service to areas outside the mandated ADA service boundaries

As of early 2007, Darien, Stamford and Wilton were finalizing their service plans to utilize their respective Municipal Dial-A-Ride Grant. Darien expected to increase service hours of their dial a ride service, Stamford proposed expansion of their non-ADA Stamford Senior Transportation (SST) service and begin a taxi-voucher program, and Wilton proposed expanding Dial-A-Ride services to seven days a week . To assist Stamford in identifying service gaps that could be addressed by the Municipal Dial-A- Ride Grant funding, SWRPA assessed senior transportation needs and developed the Stamford Elderly and Demand Responsive Transportation Technical

²⁰ Connecticut General Statutes Section 13b-38bb

Memo (2006). Recommendations included programs to improve SST marketing and outreach, expansion of Stamford's Senior Transportation's trip purposes and service hours, and alterations to the reservation requirements of SST. The report also recommended additional promotion of fixed route bus services, and education programs such as expanded travel training and mobility instructors.

In 2007, SWRPA participated in the development of a locally coordinated human services transportation plan (LOCHSTP) for the Bridgeport/Stamford Urbanized Area. In developing the LOCHSTP, the needs of seniors and persons with disabilities was a key component. Key recommended strategies derived from the LOCHSTP development related to transportation for seniors and persons with disabilities have been integrated below, with additional information and recommendations included in the LOCHSTP chapter of the Long Range Transportation Plan.

Recommended Strategies

- Promote increased mobility of seniors and persons with disabilities through continued and enhanced transportation services.
- Continue accessible fixed route bus and complementary door-to-door service as required by ADA for seniors and persons with disabilities.
- Continue financial support for existing transit operations and transportation services for persons with disabilities beyond those required by the ADA.
- Seek to expand transportation services to the seniors with disabilities, as well as youth with disabilities as needed beyond the mandated ADA requirements.
- Provide additional services to able-bodied seniors that do not live in close proximity to fixed route bus service and are not eligible for ADA services.
- Expand travel training and mobility manager programs to promote use of fixed route bus systems by seniors and persons with disabilities.
- Extend service hours of demand responsive transportation for seniors and persons with disabilities during early morning, evening and weekend timeframes.
- Expand town to town and inter-regional demand responsive transportation service to seniors and persons with disabilities, and provide expanded service to key destinations in New York State.
- Explore possibilities for coordination through vehicle sharing, maintenance coordination, driver training coordination, and user education and marketing programs to cost-effectively support transportation services for seniors and persons with disabilities.
- Routinely replace paratransit vehicles to maintain reliable and safe service.
- Develop centralized information resources where a potential user can find out about availability for all available transportation options.
- Continue to coordinate existing services to avoid duplication and fragmentation of services.
- Provide capital and operating assistance to those organizations seeking to introduce new transportation service to seniors and persons with disabilities.
- Participate in Everyone Rides and United We Ride programs with state, regional and local stakeholders to identify opportunities to maximize existing services and efficiencies and fill service gaps.

TRANSIT SYSTEM: RAIL PASSENGER

Background

The South Western Region has an extensive commuter rail system. The MetroNorth New Haven Line provides intrastate and interstate rail service to New York City and New Haven with branch service to New Canaan, Danbury, and Waterbury. Shore Line East Service provides additional rail service between New Haven and New London, with some trains that connect directly with Stamford. Amtrak also provides inter-regional rail service along the northeast rail corridor, with Stamford serving as a key stop. Service is summarized in Table 34. Rail lines are depicted in Figure 12.

Through the early 1990s, MetroNorth service was oriented to New York City. In recent years, rail service improvements for intrastate and reverse commute trips have been made. Weekday intrastate service was enhanced in 2000 as part of the Governor's I-95 Initiative to reduce traffic by 5%. Through State/TSB Section 16 funding, additional Shore Line East express and limited stop service connecting New Haven with Bridgeport and Stamford in the morning peak, and Stamford with Bridgeport and New Haven in the evening peak were added in 2002 and 2003. At the same time, supporting commuter connection shuttle service coordinated with rail service was expanded in Stamford, Norwalk, Westport, and other towns through State/TSB funding. As a result, there are more commuters destined for Stamford than those boarding trains for other destinations, including 2,500 intrastate commuters arriving daily in Stamford from points further east. Greenwich reported an additional 800 intrastate commuters. Interstate commuting has also flourished, with 1,800 and 1,300 passengers on a daily basis traveling outbound from points in New York State²¹.

Additional rail parking was added at Bridgeport and Stamford, with more parking programmed for Wilton, Milford and Stratford. New stations are in proposed in Fairfield, West Haven and Orange²².

According to Connecticut's Transportation Strategy – Report and Recommendations of the Transportation Strategy Board (2007), ridership on Connecticut's Rail Network included 31,825,814 passengers on the New Haven Branch, 1,390,800 on the New Canaan Branch, 757,700 on the Danbury Branch and 168,400 on the Waterbury Branch. Ridership was expected to grow in 2007. There were also another 432,900 annual Shore Line East riders.

In FY2006 the state of Connecticut subsidized an average of \$1.83 per passenger, which compares strongly to other nationwide transit systems and has improved since FY 2003, when the average subsidy was \$2.62. Broken out by branch, the passenger subsidy was: \$1.33 for the New Haven Line, \$2.42 for the New Canaan Branch, \$7.61 for the Danbury Branch, \$27.24 for the Waterbury branch, and \$21.20 for Shore Line East. Rail fares were increased by 15% in July 2003, along with institution of significant penalties for on-board purchase of tickets. An

²¹ Connecticut Department of Transportation News Release – Stamford Top Destination for Intrastate Commuters (2006).

²² Funding may only be available for a station at either West Haven or Orange.

additional 5.5% fare increase occurred in early 2005. As part of Public Act 05-4, a legislatively mandated \$1 surcharge on all MetroNorth tickets has been approved and is scheduled to take place beginning July 1, 2007.

Table 34: Train Service in the South Western Region – March 2007

Trains Per Day	Weekday	Saturday	Sunday
New Haven Line	201	118	89
New Canaan Branch	40	37	37
Danbury Branch	20	12	12
Waterbury Branch	12	8	8
Amtrak	36	28	31
Shore Line East*	5	-	-

*Note: Shore Line East provides an additional 17 trains to areas East of New Haven.

Source: New Haven Line Timetable, Effective October 1, 2006 through March 31, 2007. Table 34 summary developed by SWRPA, February 2007.

ConnDOT's 2007 Master Transportation Plan identifies six transportation investment goals in determining their financial investment priorities:

- Ensure safety
- Maintain the existing system
- Increase system productivity
- Promote economic development
- Provide required capacity
- Utilize all available state and federal funds efficiently
- Americans with Disabilities Act (ADA) requires that the key stations be accessible to the disabled.

The ConnDOT 2007 Master Transportation Plan acknowledges that the “first three goals should be the focal point for transportation resources as Connecticut transitioned from the ambitious infrastructure renewal ‘catch up’ program of the 1980s to a program targeted more at maintaining and improving the efficiency of the existing transportation system.” The projects that have been completed in recent years, along with the anticipated future upgrading of the system suggests that ConnDOT and state elected officials have adhered to the goals set forth as it relates to rail transit.

Since 2004, investment in rail equipment, facilities and infrastructure has been significant. The Rail Car Fleet Replacement Plan: New Haven Line – Maintaining Connecticut’s Rail Infrastructure (2004) presented a strategy for replacing the New Haven Line rail fleet and providing additional maintenance and storage facilities. The plan recommended that the first generation rail fleet cars, 241 electric multiple unit (EMU) cars be replaced with 342 EMU cars rather than with coaches and locomotives. The strategy addresses fleet reliability, ridership and service growth and meets ADA requirements. The EMU fleet would also be capable of operating on Shore Line East.

In 2005, Public Act 05-4 was signed into law, dedicating \$1.3 billion to repair and replace Connecticut’s aging transportation infrastructure and equipment. Among the specific

investments included in the Public Act 05-4 was the complete replacement of the New Haven Line railcar fleet through the purchase of 342 M8 cars at \$2.5 million apiece, and the construction of a new fleet maintenance facility in New Haven. As of 2007, 300 M8 cars have been ordered, and are scheduled to be introduced into service between 2009 and 2013. The remaining 42 M8 cars are to be ordered in 2010.

In 2006, Public Act 06-136 was signed into law, allocating \$2.3 billion over a 10 year period to transportation improvements across Connecticut. Projects supported by Public Act 06-136 included funding for the rehabilitation of passenger coaches for the New Canaan, Danbury and Waterbury Branches, funding for capital improvements along the branch lines, funding for parking and rail station improvements across the state rail network, and additional service on the Danbury Branch and Shore Line East.

Additional investments in the rail system were also appropriated in recent years preceding 2004. In 2001, ConnDOT acquired 4 new Genesis diesel-electric locomotives and 10 passenger coaches. The 2004 session of the Connecticut Legislature approved funding for additional rail equipment and facilities, and resulted in the purchase of 10 Mafersa cab cars and 23 coaches from the State of Virginia for \$13.4 million. Over 2,000 seats were to be added to the State's rail system through 10 Cars put into service through 2006 and the scheduled implementation of the remaining 23 pieces of equipment by August 2007 at a cost of \$6 million.

At the same time, the rail fleet rehabilitation and overhaul program is rehabilitating the 242 M-2 cars through a Critical Systems Replacement Plan (CSR). The rehabilitation will increase the life span until 2012, when the last of the M8 cars are scheduled to be ready for service. The cars completed under CSR have proven twice as reliable, averaging nearly twice the mean travel distance between failures (MTDBF) than unimproved M2 cars.

In December 2006, a new \$33 million maintenance facility was opened in the New Haven Rail Yard to allow more efficient maintenance of the existing M2 rail fleet. The facility was designed and constructed within two years, and has the ability to allow work to be performed on 12 rail cars concurrently. The complex will also be better equipped to plan for the improvements and alterations that will be needed for maintenance of the M8 cars that are expected to begin arriving in 2009. Design and construction of further expansion of the New Haven Rail Yard Facility is expected to occur through 2013, and cost an estimated \$800 million, and will include: a main maintenance facility; a service/inspection facility; ancillary support facilities; a car repair shop; and, storage yards.

The New Haven Line rail bridge rehabilitation and replacement program is being coordinated with the catenary replacement program. Bridges that are in this replacement or rehabilitation program include:

- Arch Street bridge replacement, Hamilton Avenue/North Water Street bridges rehabilitation (completed in 2004)
- Sound Avenue bridge rehabilitation in Greenwich – scheduled to start in 2008 and be completed in 2011 (\$20 million)
- Tomac Bridge rehabilitation in Greenwich – scheduled to start in 2008 and be completed in 2011

- Route 1 bridge rehabilitation in Darien – started in 2004, scheduled for completion in 2009 (\$8 million)
- Rowayton Avenue bridge replacement in Norwalk – started in 2006, scheduled for completion in 2009 (\$5 million)
- Monroe Street bridge rehabilitation in Norwalk – started in 2006, scheduled for completion in 2009 (\$8 million)
- East Avenue bridge rehabilitation in Norwalk – scheduled to start in 2008 and be completed in 2015 (\$8 million)
- Walk (Norwalk River) bridge rehabilitation in Norwalk - scheduled to start in 2008 and be completed in 2015; Sauga (Saugatuck River) bridge rehabilitation in Westport - scheduled to start in 2010 and be completed in 2015 (Total Cost \$334.78 million)
- Culverts are also repaired or replaced, including the Tokeneke River culvert in Darien by 2009

An abutment slope stabilization project at Old Stamford Road (Route 106) in New Canaan is scheduled to be completed in 2009. Included in the ConnDOT Bridge Program are rail crossings of I-95 in Stamford, Burnell Blvd. in Norwalk and Hales Road in Westport. In addition, various bridge projects are to be undertaken at various locations east of Westport, including at North Benson Road in Fairfield, Westway Road in Fairfield, Main St. in Bridgeport, Fairfield Ave. in Bridgeport, and South Avenue in Bridgeport. Rehabilitation of these bridges is integral to the operations of the entire New Haven Line.

The Atlantic Street, Elm Street, Canal Street, and the East Main Street underpasses under the Metro North railroad line are narrow, low and create restrictive bottlenecks in the roadway network. All of the underpasses need to be widened and the vertical clearance height increased to improve access.

The catenary system of the New Haven Line is being replaced in four stages with a constant-tension wire-supporting system. The estimated cost will be more than \$450 million. In the South Western Region, Section A between the Greenwich/New York state line and Stamford was completed in 2004. Section B was initiated in 2004 to extend the catenary improvement from Stamford to Norwalk. Section C1a will cover Norwalk to Westport, and is scheduled to be completed by 2015.

Rail stations have been systematically improved, and rail parking has been expanded. Stamford, Greenwich, New Canaan, Darien and Westport are key stations that have been retrofitted to comply with ADA (American with Disabilities Act). South Norwalk station was constructed in the 1990's to be ADA-compliant. The New Canaan station was completed in 2000. Darien station was completed in 2002. Greenwich rail station retrofit was combined with the catenary and bridge replacement program and extension of platforms and completed in 2005. Westport's Saugatuck rail station ADA improvements were completed 2005. The Stamford Transportation Center project included new center island platforms, modifications to the Washington Boulevard rail bridge and roadway, Station Place and taxi area, along with ADA compliance improvements that were completed in 2004, at an estimated cost of \$150 million. An additional 1,200 parking spaces were added at the Stamford Transportation Center, and the existing structure was repaired in 2004 (\$30 million). Similar improvements are being made throughout the system, including

ADA upgrades to the Milford station that was upgraded in 2006 and Fairfield is scheduled to be completed in 2009. A new station at State Street New Haven opened in 2002. Shore Line East stations are in the process of being upgraded for compatibility with high speed rail.

An adequate supply of safe, convenient and affordable rail parking is essential to facilitate the use of rail transit. In addition to the Stamford rail parking expansion, a tiered parking facility is in design for Wilton at the northwest corner of the intersection of Routes 33 and 7. Construction is expected to begin in 2010, and will cost \$5 million. Capacity is also being added to the parking structure in Bridgeport. A planned new rail station in Fairfield will include parking (1,440 spaces), as will potential stations at West Haven and/or Orange. A parking deck is under design for Stratford, and will add approximately 450 spaces upon its completion in 2011.

To define future rail parking possibilities, SWRPA conducted the Darien and Norwalk Parking Study (2004) to develop a series of options for improving parking and circulation at the Noroton Heights and South Norwalk stations. Recommendations included the following strategies:

Regional Improvements:

- Parking Information Technology Systems
- Wayfinding and signage systems
- Demand management

Noroton Heights

- A pricing analysis and the possibility of relocating a portion of Darien Station's parking to Noroton Heights
- Systems management options to increase capacity and efficiency, including parking ITS
- Development of a pedestrian master plan
- Improvement of bicycle facilities and connections
- Parking expansion

South Norwalk

- Bike and pedestrian linkages to nearby neighborhoods
- Renovation of the former police lot for day parking or an intermodal hub
- Integrating parking expansion into South Norwalk redevelopment

Other towns in the region also grapple with rail parking supply and demand. As of September 2006, nearly all stations on the New Haven Main Line and the New Canaan Branch did not have monthly parking spaces immediately available to new patrons. The estimated time one could expect to wait for a space to become available ranged from a matter of month in Old Greenwich, Cos Cob and Riverside, to 3 years or more at Greenwich, Noroton Heights, Darien, Westport, Greens Farms and New Canaan (Table 35)

Table 35 – South Western Region Railroad Station Parking Fees and Waiting Lists – September 2006

Station Name	# of Parking Spaces	Annual	Monthly	Daily	# on Waiting List	Estimated Time on Wait List
New Haven Line						
Green's Farms	474	\$225.00		\$4.00	Residents: 1,000 Non Residents: 900	Residents: 4 Years Non Residents: 6 Years
Westport	1,307	\$225.00		\$4.00		
East Norwalk	241	N/A	\$30.00		120	12-18 months
South Norwalk	754	N/A	\$70.00	\$7.00	160	12-18 months
Rowayton	317	\$315.00	\$50.00	\$5.00	33	1 year
Darien	860	\$288.00		\$3.00	898	5 years
Noroton Heights	772	\$288.00		\$3.00	748	4 years
Stamford South State Street Lot	115		\$70.00		0	none
Stamford Garage	1,912		\$70.00	\$8.00 (b) \$10.00 (b)	450	none
Old Greenwich (a)	578	\$242.00		\$5.00	57	2-3 months
Riverside (a)	324	\$242.00		\$5.00	41	2-3 months
Cos Cob (a)	567	\$242.00		\$5.00	84	2-3 months
Greenwich Plaza (a)	378	\$423.00		\$5.00	355	5-8 years
Greenwich (outside station) (a)	820	\$242.00		\$5.00	576	3 years
New Canaan Branch						
New Canaan	487	\$345.00		\$3.00 (c)	1006	3-6 years
Talmadge Hill	319	\$345.00		\$3.00 (c)	217	14 months
Springdale	208		\$42.00 residents; \$84.00 non-residents	\$3.00 (c)	63	2 years
Glenbrook	156		\$42.00 residents; \$84.00 non-residents	\$3.00 (c)	51	1 year
Danbury Branch						
Cannondale	140		No Charge		N/A	N/A
Wilton	212		No Charge		N/A	N/A
Merritt 7	88		No Charge		N/A	N/A

(a) Greenwich prices became effective October 1, 2006.

(b) \$8 for up to 16 hours, \$10 up to 24 hours

(c) Rate effective for up to 12 hours

Source: Created by SWRPA.

- ConnDOT released the Train Station Visual Inspection Report in January 2007, which highlighted the varying physical characteristics that rail stations exhibit along with the essential physical improvements and amenities needed at rail stations. At an estimated cost of more than \$400m, and \$100m in near term needs²³, this improvement program will extend into the short-term 2-7 year period and be an ongoing maintenance requirement.

The ConnDOT Rail Governance Study (2005) evaluated rail station parking and management of the MetroNorth New Haven Line, New Canaan, Danbury and Waterbury Branches with a

²³ ConnDOT Communications Director, February 22, 2007.

mission “to develop a Governance Policy and Financial Policy which improves current conditions and offers improved quality of service for our riders”. Phase one was issued in January 2004, and included: surveys of stakeholders; an inventory of rail parking capacity, utilization, fees, layouts, and physical facilities; station, parking, and platform condition surveys; a review of parking and station operations including contracts and finances with development of initial strategies for improvement; evaluation of the governance methods and identification of issues and opportunities for governance; and a summary report. Phase two was concluded and issued in November 2004 and included: review of governance issues; survey of industry practices; development of three alternative methods of governance; and a discussion of evaluation criteria.

The Rail Governance study highlighted the disparities that exist when comparing physical and financial traits of rail stations across Connecticut. To address the inconsistencies, the following governance options were developed for consideration:

- **Minimal Strategy:** This option would incorporate standardization of leases through revised and strengthened leases between municipalities and ConnDOT; operating guidelines; lease enforcement and termination provisions; and application of a Standards and Practices Manual.
- **Memorandum of Understanding (MOU):** Such a strategy would include improvement of all leases on state-owned stations and parking; negotiation of a MOU for all non-state-owned property at stations; application of a Standards and Practices Manual.
- **ConnDOT or Public Transit Management Authority Governance (single entity governance):** All stations and parking would be operated by single-entity, and would include standardized revenue control, monitoring, wayfinding. This option would require acquisition of all commuter rail stations and surface lots not owned by state, and would implement single-entity governance authority.

The SWRMPO has taken the position that ConnDOT focus on the development of uniform administrative standards and performance benchmarks for the State’s rail system, similar to the approach presented in the MOU option. The SWRMPO does not support the concept of centralized ownership, control and operation of the rail system, as the costs associated with the acquisition and operation of a State-administered rail services program would far outweigh any economies of scale or other benefits that may be achieved.

Other rail facilities are in construction or design to provide enhancements to power, rail communications and multi-fiber optic communications, along with rail interlockings to enable switching between tracks (including CP248 in Greens Farms). New Haven shop and yard projects including rail car storage, crew, and power supply, fuel supply, wheel truing shop have been are under construction. Also, 5 New Haven Line substations, including facilities in South Norwalk and East Norwalk are to be constructed by 2010, and a tagging relay project is expected to be completed by 2010.

Each year unexpected emergencies require immediate investment, such as the 2004 barge damage to the Walk Bridge fender systems, damaged rolling stock, stations, and all facilities. The ConnDOT Bureau of Public Transportation Capital Project Management Plan 2004-2024

details annual rail capital investments, and includes planned and emergencies expenditures.

Danbury Branch Improvements

There has been a focus in recent years to improve the performance of the Danbury Branch. A signal communications project (#302-0007) for the Danbury Line is needed to replace the manual block system in place that restricts service or the ability to increase service on the line. This project is expected to start in 2007 and be completed in late 2009. The SWRMPO supports the signal communications project, and has also advocated for an immediate operational analysis of Danbury Branch service to develop near-term service adjustments that will meet the commutation needs of the employers and employees in the Danbury-Wilton-Norwalk-New Haven corridor.

Also underway is the Danbury Branch Electrification Feasibility Study, which is evaluating the feasibility of re-electrifying the Danbury Branch Rail Line with the objective of reducing travel times. The Phase I study final report was issued in 2006, and included four distinct tasks and a final report to evaluate the ability to construct the catenary and power supply infrastructure and estimates construction costs. The first study task reviewed existing conditions, service schedules, and prepared a purpose and needs report. Task 2 describes the engineering alternatives, evaluating track geometry, the addition of double tracking and passing siding improvements under three alternative travel time reduction scenarios of 5, 10 and 15 minute travel time reductions for the South Norwalk to Danbury section, and the proposed Danbury to New Milford section. Task 3 utilized the ConnDOT statewide Travel Demand Model to developed ridership projections for the proposed electrification. Task 4 evaluated the physical and financial impacts that electrification would have on existing infrastructure, and screened the 32 improvement alternatives that were developed. Five alternatives will further be assessed in Phase II:

- Alternative A: No build, (assumes the Signalization project is completed)
- Alternative B: Transportation Systems management improvements
- Alternative C: South Norwalk to Danbury electrification
- Alternative D: Extension of diesel passenger service to New Milford.
- Alternative E: TSB Option for Partial Electrification from South Norwalk to Route 15.

A recommendation of this long range transportation plan is for the Phase II study to develop a service and operating plan for increased rail service that will enable use of the Danbury Branch for commutation to employment in the Norwalk to Danbury corridor. The scope of Phase II will consist of ten tasks, including transportation alternatives development and evaluation, conceptual engineering and evaluation, and environmental impact statements, and is scheduled to be completed in 2009.

Stamford Transportation Center

One of the Region's most important rail and multimodal assets is the Stamford Transportation Center. The facilities include the train station, bus area, shuttle area, taxi area and parking. The Stamford Transportation Center is used by more than 11,000 persons per day. Available transportation modes include commuter rail (MetroNorth), inter-regional rail (Amtrak), local bus (CT Transit Stamford), inter-regional bus (Greyhound), taxis (Stamford Taxi, Eveready Taxi),

and corporate shuttles. A proposed ferry terminal likely to be situated within a half mile of the Stamford Transportation Center will further enrich the transportation options available in Stamford.

In 2002, a study of the Stamford Transportation Center was initiated by the City of Stamford to develop a program for improvements to circulation, performance and use of the facility and to create stronger linkages with businesses and the community, and enhance the users experience at the facility. In the study's August 2004 Stamford Transportation Center Multimodal Circulation Study Draft Recommended Improvement Plan, nine areas of improvements were proposed, and included: governance; marketing; internal wayfinding; SmartTraveler/real time traveler information systems; commuter connections; Stamford Transportation Center area physical improvements; vehicular access and circulation; pedestrian and bicycle access; and, Stamford Transportation Center infrastructure. The following table provides a summary of the nine identified project programs.

Table 36: Stamford Transportation Center Improvement Recommendations - September 2004

Program	Projects	Implementation Leader	Timeframe	Estimated Cost
Station Governance Plan	<ol style="list-style-type: none"> 1. Station Map availability 2. Signage and enhancements to Gateway entrance 3. Passenger wayfinding signs 4. Internal standardization of signage and station branding linked to off-site signage 5. Directional signage and program such as color coded striping of STC 6. Information kiosk or live concierge 	ConnDOT with City of Stamford	<1 year	<\$100,000
STC Marketing Program	<ol style="list-style-type: none"> 1. STC Website 2. Station branding 3. Transportation outreach program 4. Development and coordination of a marketing plan 	ConnDOT	<1 year	<\$100,000
STC Internal Wayfinding Program	<ol style="list-style-type: none"> 1. Station map availability 2. Signage and enhancements to Gateway entrance 3. Passenger wayfinding signs 4. Internal standardization of signage and station branding linked to off-site signage 5. Directional signage program 6. Information kiosk or live concierge 	ConnDOT	1-5 years	\$100,000-\$500,000
SmartTraveler Initiative	<ol style="list-style-type: none"> 1. Integration with Trips 123 2. Integration with SWRPA ITS projects 3. Traveler information on I-95 4. Real time traveler information in station and garage 5. STC WiFi availability 6. Garage parking management 7. Real time transit information 	SWRPA	1-5 years	\$100,000-\$500,000
Commuter Connection Program	<ol style="list-style-type: none"> 1. Annual review of existing CTTtransit routing 2. Review of corporate shuttle routing and opportunities for cooperative 	City of Stamford	1-5 years	\$100,000-\$500,000

	<ul style="list-style-type: none"> 3. Metropool liaison to STC 4. Stamford Urban Transitway circulation 5. Shuttle connection to high speed ferry 6. Expand route and frequency of downtown commuter shuttle 			
STC Area Physical Improvement Project	<ul style="list-style-type: none"> 1. Ticket window consolidation/reorganization 2. Bus Area improvements 3. Corporate shuttle waiting area improvements 4. Location of ticket vending machines / real time transit information on garage walkway 	ConnDOT	1-5 years	\$500,000-\$1,000,000
Vehicular Access, Parking and Circulation Improvements	<ul style="list-style-type: none"> 1. Short term parking program 2. Review of Station Place 3. Pick-up/drop-off area improvements 	ConnDOT	1-5 years	\$500,000-\$1,000,000
Pedestrian/Bike Access Improvement Project	<ul style="list-style-type: none"> 1. Pedestrian pathway to downtown 2. Pedestrian signage and information within downtown 3. Enhancements to North State Street/Gateway crossing area 4. Sidewalk improvements on the South State Street/Atlantic Street intersection 5. Review of South State Street/Atlantic Street intersection 6. Downtown area pedestrian amenity improvement projects 7. Streetscape guidelines for south of STC areas 8. Bicycle rack placement and installation program 9. North State Street improvements 	City of Stamford	1-5 years	\$500,000-\$1,000,000
STC Infrastructure Improvements	<ul style="list-style-type: none"> 1. Increase the visibility of train platform staircases 2. Construct a crosswalk across South State Street 3. Expand station concourse area over South State Street 4. Enhanced visibility through the provision of projects such as glass elevator cabs and shafts in ticket concourse and lower level 5. Clearer connections between the Gateway passageway 6. Reorient South State Street stairs 	ConnDOT	5-10 years	>\$1,000,000

Source: Stamford Transportation Center Multimodal Circulation Study Recommended Improvement Plan, September 2004

An outgrowth of the Stamford Transportation Center multimodal circulation study, and the State's implementation of a Taxi Starter Token System in March 2004, which was abandoned in August 2004, was recognition of needs to: develop ways to improve communications between the Connecticut Department of Transportation (ConnDOT) as operator of the Stamford Transportation Center, transit operators and tenants, and users; improve many facets of Stamford Transportation Center operations; plan for the future integration of the Stamford Urban Transitway, which will connect Elm Street with the Stamford Transportation Center in just a few years; and to develop a vision and master plan for the Stamford Transportation Center. These needs translate into recommendations for strategies and projects to be included in the regional long range transportation plan, and development of investment plans for highway and transit modes in Stamford and a regional transit strategy, to more immediate steps that should be taken to address operational issues at the Stamford Transportation Center. The recommendations are:

- To initiate a Stamford Transportation Investment Strategy which will develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access and arterial roadways, rail bridges and infrastructure, and Stamford Harbor. The study will encompass all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region, and will build upon the State's I-95 southwest corridor safety and operations study, funded by the TSB for \$1.5 million, but not yet started.
- To develop a Regional Transit Strategies Plan that will define an implementation program for all modes of transit, ridesharing and transportation demand management within the region and will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry, and access to regional airports.
- To prepare a Stamford Transportation Center Master Plan to define near term and long term capital projects, maintenance and operating requirements, and financing.
- For ConnDOT and the City of Stamford to coordinate on development of an operations plan for integration of the Stamford Urban Transitway into the existing physical layout of the Stamford Transportation Center and the existing services and operations, including physical changes needed to accommodate the new facility.
- For ConnDOT as owner and operator of the Stamford Transportation Center to create a Stamford Transportation Center Advisory Committee modeled after the ConnDOT Merritt Parkway Advisory Committee which meets regularly to review and comment on projects and programs, providing input to the Commissioner of Transportation. The Advisory Committee should include various stakeholders including public agencies (City of Stamford, South Western Regional Planning Agency, MTA Police), service providers (CT Transit, MetroNorth, AMTRAK, taxi operators, shuttle operators), rail riders (MetroNorth New Haven/Shoreline East Commuter Council), tenants of the Stamford Transportation Center, the business community and other stakeholders.
- To initiate review of current operations, such as taxis, shuttles and Station Place to develop a program of immediate actions with a budget that can be considered in the SFY2010 budget cycle.

In September 2006, ConnDOT released the Stamford Transportation Center Parking Garage Condition Assessment Report, which described an estimated \$35 million in significant repairs necessary required to maintain the original parking garage and enable it to have a life expectancy lasting to between 2026 and 2031. In comparison, the cost of replacing the existing structure with a new facility would be \$28 million, and have a life expectancy of 40-50 years.

Areas within walking distance of the Stamford Transportation Center are being targeted for transit oriented development (TOD). The proposed Antares project including both the Yale and Towne and Harbor Point sites is a mixed use development in Stamford's South End, including 4,000 units of housing. There is also a housing component proposed at Metro Center II, a mixed use complex located adjacent to the Stamford Transportation Center.

Between 2004 and 2006, the City of Stamford conducted the East Main Street Corridor Study, which developed a land use and transportation revitalization strategy for this gateway to Stamford located along Route 1 from the Darien Town Line to Elm Street. The corridor contained the essential elements for TOD - density; walking distances to transit; a mixture of uses including public, employment, housing, retail and service – and defined ways to support TOD and create an urban village. In addition to consideration of a new East Main Street rail station, key recommendations related to rail include: development of an East Main transit node and Stamford Urban Transitway linkages; replace the functionally obsolete East Main/Route 1 rail overpass. Earmark funding for a transit node at East Main/railroad overpass/Myrtle Avenue was secured under SAFETEA-LU. In 2006, scoping of a study to evaluate multi-modal options to develop the preferred alternative was started. Congressional delays in appropriation of FFY2007 funding have delayed initiation of this study. The earmark funding is \$1,500,000.

South Norwalk Rail Station

This key station is considered a “hub” in the system by the SWRMPO because it is a major stop on the MetroNorth rail line as well as the Danbury Branch's point of connection with the New Haven Line, with rail parking in a structure and surface lots, fixed route and shuttle bus service. The South Norwalk rail station is located in an area that was assessed for redevelopment in the South Norwalk Planning Study (2005), with transit oriented development and a new intermodal area to serve not only the Norwalk Transit District services, but limousines and taxis as well. Among recommendations of the study are the perusal of a concept plan for the South Norwalk intermodal area to enhance intermodal connectivity, modest expansion of parking that can be used for commuting and other purposes, and inclusion of South Norwalk as a stop on Shore Line East trains destined for Stamford.

New Canaan Branch Needs and Opportunities

Interest in rail parking, rail service and transit connections for the New Canaan Branch, as well as the outstanding need to rehabilitate the New Canaan Branch bridge over the Merritt Parkway (Route 15) are reasons to evaluate the New Canaan Branch. In the 2004 Stamford Long Range Transportation Plan, the City of Stamford identified the need for study of rail parking at the New Canaan Branch rail stations of Glenbrook and Springdale. At the same time, Stamford has received USDOT earmark funding to study the feasibility of a new intermodal facility in the vicinity of Route 1 (East Main Street) and Myrtle Avenue, which could include a stop on the New Canaan Branch. In 2004, the Town of New Canaan has approved expansion of surface

parking at Talmadge Hill. There are also issues related to downtown New Canaan parking and rail parking. The long range transportation plan recommends that a rail operation, intermodal connections and parking needs assessment of the New Canaan Branch be undertaken. A needs and feasibility study is to be initiated in 2007.

Since 2001, the South Western Region MPO has set improvement of rail service and investment in rail equipment and supporting infrastructure as the Region's highest priorities. The rail orientation supports the goal of increasing mobility and choice, and reducing congestion while also supporting economic development and promoting quality of life. The supported strategies include:

- Purchase commuter rail equipment identified by ConnDOT and MTA as necessary to maintain existing and enhanced levels of service and reliability for interstate and intrastate commuters.
- Establish and adhere to a program for systematic replacement of rail cars so that no cars are kept in service beyond their useful lives.
- Construct rail maintenance, repair and storage facilities needed to ensure that Connecticut's commuter rail fleet is safe and reliable.
- Increase rail parking at New Haven Line stations to provide needed parking capacity both within the South Western Region, and east of Westport to encourage drivers to commute to intrastate locations by rail.
- Expand intrastate commuter rail service ultimately developing "subway-style" service along the New Haven, Danbury and New Canaan branch lines.
- Maintain funding for existing rail and other transit services.
- Develop commuter connections between transportation hubs, residential areas and employment centers.
- Recognize Stamford and South Norwalk rail stations as essential intermodal transportation hubs.
- Develop an implementation plan for improved rail service and commuter connections in the Route 7 corridor as a construction mitigation measure for the Route 7 widening and Route 7/Route 15 interchange projects that will disrupt the use of this principal arterial for the next decade.
- Institute additional rail service on the Danbury Rail Line to enable use of rail to access employment sites in the Route 7 corridor between Danbury to Norwalk that will fill service gaps and support service to regional employment needs.
- Implement the recommendations from the Route 7 Travel Options Implementation Plan (2000) prepared by the South Western Regional Planning Agency and the Housatonic Valley Council of Elected Officials.
- Advocate for the creation of a seat for the State of Connecticut on the Metropolitan Transportation Authority (MTA) board.
- ConnDOT study of the feasibility and benefits of a "universal peak" fare that would apply peak rates in all directions during peak periods, rather than the "directional peak" fares currently in effect.

Specific projects endorsed by the SWRMPO include:

- Wilton station tiered parking.

- Rehabilitation of M2 cars.
- Repair/replacement of rail bridges and culverts in poor condition.
- Replacement of catenary system on the New Haven Line.
- Stamford ferry terminal and parking as an integral part of the Stamford Transportation Center
- Assessment of future rail parking needs and opportunities at: Merritt 7 (Norwalk), Glenbrook (Stamford), Springdale (Stamford), and Talmadge Hill (New Canaan)
- Investigation of possible new rail stations to be investigated include: East Main Street/Route 1 and Myrtle Avenue (Stamford), Reed-Putnam (Norwalk), and Wall Street (Norwalk)
- Stamford Urban Transitway Phase 1 which provides an improved roadway between Elm Street and the Stamford Transportation Center with exclusive lanes for buses and high occupancy vehicles, bicycle lanes and sidewalks, along with ITS features that provide real time information on signs, kiosks and bus stops (\$50 million).
- Stamford Urban Transitway Phase 2, continues the improved multimodal road from Elm Street, along Myrtle Avenue to Route 1/East Main Street (\$40 million).
- Route 7 Travel Options Implementation Plan projects.
- Enhanced rail service on the Danbury Branch to make rail commutation to jobs in the region a viable option, and to serve as a construction mitigation measure during the construction of Route 7 corridor projects.

Since 1994 the South Western Region Long Range Transportation Plans (1994, 1995, 1998, 2001, 2004) have noted the deterrents to adequate rail service, including budget constraints, rolling stock and equipment maintenance and replacement, intermodal connections, scheduling, fares, and station conditions, but advocated for increased investment, service, parking, and supporting rail infrastructure. The Route 7 Travel Options Implementation Plan (2001) proposed \$58 million in rail, bus and supporting strategies to improve transportation options in the Route 7 corridor between Danbury and Norwalk. The recommendation to study electrification of the Danbury Rail Line was translated into the current study, through earmarked federal transportation funding. The complete list of Route 7 Travel Options Implementation Plan recommendations is given in the table provided in the Financial Component section, and individual projects are included as recommended projects in this chapter. In 2004 the SWRMPO asked ConnDOT to develop a construction mitigation plan for the Route 7 corridor that provides enhanced rail service with commuter connections to counteract the negative impacts of construction disruption that will occur for the next decade as major projects proceed to widen Route 7, and construct a fully directional interchange at Route 15/Route 7 and a new expressway section (New Milford). In addition, a viable design for the Danbury Branch signaling and communications project must be achieved and constructed. In August 2004, a ConnDOT letter to the SWRMPO advised that increased service on the Danbury Branch is only possible after the “manual block” system is replaced under the signal communications project (#302-0007).

The SWRPA Congestion Mitigation Systems Plan “Vision 2020” Final Report (2003) concluded there was no single solution for mitigating congestion in the region, or study area. Recommendations for rail include:

Short-Term Actions (2-7 years) for Transit Operational Improvements

- Expand parking and intermodal connections at Metro North rail stations. Significant expansion should be targeted at the following locations: South Norwalk; Noroton Heights; Stamford; Greenwich; and Wilton.
- Intelligent Transportation Systems (ITS) should be used to improve the efficiency and operation of existing bus service in the corridor (and connections to rail)
- SWRPA should engage Metro North and ConnDOT in discussions about intrastate rail pricing and seek opportunities to implement pilot programs to test market response to reduced intrastate fares.
- Implement a universal commuter pass, such as a SmartCard.
- Establish intermodal hubs with strong bicycle and pedestrian connectivity.

Long-Term Actions (7-20 years) for Transit Capacity Expansion

- Improve intrastate commuter rail service.
- Evaluate expansion of commuter rail service or BRT services in the Route 7 corridor.

Other Strategies and External Connections for Interstate Rail

- Service improvements including fleet configuration, infrastructure upgrades and service upgrades should be coordinated with intrastate service improvements so that optimum system performance can be achieved.

Airport Connections

- Examine opportunities for improving transit connections, including rail transit, between southwestern Connecticut and regional airports.

The strategies and projects that have evolved from past regional transportation plans, special studies, identified needs, and SWRMPO recommendations are listed in the following sections.

Recommended Strategies

Near Term

- Undertake a Regional Transit Strategies Plan that will develop the vision and define an implementation plan for all modes of transit, ridesharing and transportation demand management within the region and will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry, and access to regional airports.
- Conduct the Stamford Transportation Investment Strategies Study to develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access and arterial roadways, rail bridges and infrastructure, and Stamford Harbor and encompasses all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region, and will build upon the State's I-95 southwest corridor safety and

- operations study, funded by the TSB for \$1.5 million, but not yet started.
- Prepare a Stamford Transportation Center Master Plan for near term and long term for capital projects, maintenance and operations, with a financial plan.
 - Provide art, signage and beautification enhancements to the Stamford Transportation Center.
 - Assess the feasibility of providing platform access at the Stamford Transportation Center as part of Atlantic Street improvements.
 - Address drainage issues that exist at the Stamford Transportation Center.
 - Immediate action – conduct a Stamford Transportation Center shuttle operations assessment and rationalization of taxi, shuttle bus and vehicular use of the Stamford Transportation Center.
 - Immediate action – develop a Stamford Transportation Center operations plan for integration of Stamford Urban Transitway and existing services, operations and physical layout.
 - Fund development of the South Norwalk Intermodal Facility Concept Plan to support City of Norwalk South Norwalk revitalization efforts.
 - Seek to implement service and supporting strategies recommended in the Route 7 Travel Options Implementation Plan (SWRPA 2000).
 - Develop a construction mitigation plan to deal with the construction disruptions that will occur through 2015 due to Route 7 and CTC construction projects. This plan should be modeled after the I-95 New Haven Corridor/Q Bridge Plan that provides additional rail and bus service as remediation measures and should: increased rail and/or bus service on the Danbury Branch with commuter connections; increased bus service between Norwalk and Danbury; instituting of express bus service from the Danbury area to the Stamford area via I-684; and, implementation of ridesharing incentive programs comparable to NuRide.
 - Prepare a comprehensive multi-modal investment study for the Route 7 corridor that results in an implementation action plan for operational, management and construction projects.
 - Include in Phase II of the Danbury Branch Electrification Study: development of a rail service evaluation and service plans to provide additional rail service and commuter connections in the Norwalk to Danbury corridor with emphasis on the Wilton/Merritt 7/South Norwalk corridor; and, an ITS Plan for the Danbury Branch.
 - Fund the Merritt 7 Area Transportation Study to develop a program of multimodal improvements coordinated with land use to improve mobility and access and manage congestion.
 - Designate South Norwalk Rail Station as a hub station.
 - Study and develop a New Canaan Branch implementation program for rail service, parking needs and intermodal connections that will enhance transit options, identify transit supporting strategies and recommend transit oriented development possibilities.
 - Support completion of the rehabilitation of the EMU (electrical mechanical units, including M-2s, M-6s) rail fleet.
 - Expand rail rolling stock and maintenance facilities to accommodate forecast ridership growth and economic expansion in the Greater Bridgeport/Stamford urbanized area.
 - Support and monitor ConnDOT's development of the rail financial plan.

- Continue to fund direct Shore Line East (SLE) between Stamford, New Haven and points east of New Haven during peak periods and secure sufficient equipment to operate the service.
- Add additional Shore Line East service to Stamford and Greenwich and introduce weekend service.
- Institute a universal peak fare that would charge peak rates in all directions during peak periods, rather than the “directional peak” fares currently in effect during PM hours (A peak period fare was established for all peak trains leaving Grand Central Terminal, while trains arriving at Grand Central Terminal during the PM peak period are not charged a peak period fare).
- Support development of uniform administrative standards and performance benchmarks for the State’s rail system.
- Implement enhanced transit services to mitigate and alleviate congestion caused by major transportation systems construction projects, following the precedent set by the I-95 New Haven Harbor Crossing (Q Bridge) project that implemented additional Shore Line East rail service.
- Near term – develop and implement enhanced rail and bus services and incentive-based ridesharing programs in the Route 7 corridor between Norwalk and Danbury to mitigate construction of major highway and utility projects.
- Develop an ITS Plan for Danbury Rail Line under Phase 2 of the Danbury Branch Electrification Study (Route 7 Travel Options Implementation Plan, SWRPA 2000)
- Support the MTA’s East Side Access project, which could help generate track space in Penn Station for future direct New Haven Line Service.
- Plan for future transit connections to the Interstate 287 corridor in association with multimodal components of a rehabilitated or new Tappan Zee Bridge.
- Promote off-site auxiliary parking for stations with parking deficits, utilizing commuter connections.
- Install additional bicycle racks at rail stations.
- Investigate options for commuter parking, rail parking and rail station design to promote secure environments for passengers.
- Upgrade amenities at rail stations

Longer Term

- Strive to provide enhanced ‘subway service’ on the New Haven Line (20 minute service in peak direction at hub stations).
- Develop a comprehensive asset management system and plan for the Connecticut Rail System.
- Maintain/Overhaul/Replace rolling stock and equipment to provide reliable and safe service.
- Recognize the railroad and its complementary systems of parking, stations, and shuttle services as a single system.
- Upgrade MetroNorth New Haven Line Rail stations with regard to buildings/shelters, platforms, hours of service, and safety conditions. Support efforts of other regions to construct new stations or renovate existing stations.
- Provide additional parking at New Haven Line stations, which have and/or are projected

to have a parking deficit. Place priority on parking and service improvements at stations which serve regional needs. Support efforts of other regions to increase rail parking supply as lack of parking is a critical constraint to use of the rail system.

- Continue to improve the Stamford Transportation Center and retro-fit as necessary to make user-friendly and to provide capacity needed through 2035.
- Complete the State's ADA key station plan by working with the affected municipalities to develop improvements that complement local needs.
- Maintain and improve existing rail service on the New Haven, New Canaan Branch, and Danbury Branch Rail Lines (policy).
- Enhance rail service on the New Haven, New Canaan, and Danbury Rail Lines including: increase frequency on Danbury Branch; improve service to Greenwich and Stamford for reverse commute trips, increase mid-day rail service between New York and South Norwalk, expanded peak hour service, extended peak period local service east of Stamford; expanded express service; and lengthening of station platforms (unfunded needs).
- Conduct feasibility study of Reed-Putnam and north downtown Norwalk stations on Danbury Branch (Route 7 Travel Options Implementation Plan, SWRPA 2000)
- Study and implement vanpool/jitney/bus shuttles to Danbury Rail Line and Harlem Line (Route 7 Travel Options Implementation Plan, SWRPA 2000).
- Continue to work with officials from Westchester County, New York State, New York Metropolitan Transportation Council, and HVCEO to identify multi-modal public transportation issues and solutions in the MetroNorth Harlem, Hudson and Danbury Rail Line corridors.
- Develop an intrastate fare policy that encourages automobile users to shift to rail use.
- Develop a unified intermodal pricing structure.
- Develop and implement real time traveler information systems throughout the rail system.
- Improve intermodal transfers and schedules, secure funding and implement additional commuter connections.
- Implement a universal transit card that will promote seamless use of multiple modes, based upon recommendations of the SWRPA Regional Transit Card Implementation Study Final Report (December 2001)
- Support efforts to have the State of Connecticut represented on the MTA Board. The interests of the State of Connecticut and Connecticut rail commuters can most effectively be advanced with a voting member on the MTA Board. This will also enable ongoing communication and in-depth knowledge of MTA, MetroNorth activities, plans, issues and challenges. It will contribute to the establishment a meaningful dialog with the rail governing board, the state of New York, and the rail operator (South Western Region MPO recommendation, February 2000.)
- Reassess the MTA MetroNorth/Connecticut contract and all legal, operational terms, consider best practices and options and develop recommendations for restructuring of the agreement or seeking alternative service providers.
- Improve coordination and integration of all facets of the State's rail network as part of effective transportation systems management and operations.
- Continue to consider the use of AMTRAK for commutation within Connecticut and

between Connecticut and Penn Station, the addressing institutional barriers, and development of a commutation fee structure. Develop a market program that will provide additional seats, and premium service to the Penn Station area, which is the destination of 20% of Connecticut's New York City, bound commuters.

- Future – study light rail service between the Stamford Transportation Center and the South End and Bull's Head – Stamford.
- Study the placement of an additional rail station at East Main Street – Stamford.
- Investigate and implement reduced intra-town rail fares to promote rail use (e.g. in Greenwich where there are four rail stations, Norwalk where there are three rail stations, and Stamford where there are three rail stations).
- Engage MetroNorth and ConnDOT in discussions about intrastate rail pricing and seek opportunities to implement pilot programs to test market response to reduced intrastate fares.
- Study alternative power sources for the New Haven Line, including fuel cell power stations.
- Support statewide marketing programs that promote public transportation alternatives to driving.

Recommended Projects

Near Term

- Replace the original Stamford Transportation Center parking garage with a new facility, and provide adequate parking for displaced customers for the duration of the project.
- Purchase additional M8 rail cars to replace the aging M2 fleet, and begin operations along the New Haven Line.
- Complete rehabilitation of all M2 cars.
- Complete the overhaul of the Mafersa rail equipment to allow entry into service along the New Haven Main Line and Branches.
- Secure funding for the Regional Transit Strategies Plan that will develop the vision and define an implementation plan for all modes of transit, ridesharing and transportation demand management within the region and will address external transit connections to New York City and the New York metro area, including interstate passenger rail service, passenger ferry, and access to regional airports.
- Fund the Stamford Transportation Investment Strategies Study to develop a comprehensive plan for investment in the area of Stamford that includes the Stamford Transportation Center, I-95 (Exit 5 – Exit 10), access and arterial roadways, rail bridges and infrastructure, and Stamford Harbor and encompasses all modes including, rail, bus, shuttles, taxis, ferry, walking and biking. The products will be a master plan for the Stamford I-95 and rail corridor, with congestion management, investment, financing, access and mobility recommendations. This study will set the stage for investment in South Western Region, and will build upon the State's I-95 southwest corridor safety and operations study, funded by the TSB for \$1.5 million, but not yet started.
- Advocate for a Stamford Transportation Center Master Plan for near term and long term for capital projects, maintenance and operations, with a financial plan.

- Immediate action – conduct Stamford Transportation Center shuttle operations assessment and rationalization of taxi, shuttle bus and vehicular use of the Stamford Transportation Center.
- Immediate action – develop a Stamford Transportation Center operations plan for integration of Stamford Urban Transitway and the Stamford Transportation Center existing services, operations and physical layout.
- Construct Greenwich interlocking facility west of Greenwich to create capability to run enhanced intra-state Connecticut service between Greenwich and all points east.
- Fund development of the South Norwalk Intermodal Facility Concept Plan to support City of Norwalk South Norwalk revitalization efforts.
- Fund the Merritt 7 Area Transportation Study to develop a program of multimodal improvements coordinated with land use to improve mobility and access and manage congestion.
- Implement Norwalk/Danbury Phase I rail service improvements (more shoulder peak and mid-day service, direct service from Branch line to Stamford) (Route 7 Travel Options Implementation Plan, SWRPA 2000) and SWRMPO recommendations (July 2004).
- Complete Phase II of the Danbury Rail Line Electrification Study, and further analyze development of rail service enhancement programs and commuter connections to provide additional train service to the Wilton/Merritt 7/South Norwalk corridor.
- Conduct an evaluation of Danbury Rail Line service in Phase II of the Danbury Rail Line Electrification Study, as recommended in the Route 7 Travel Options Implementation Plan, (SWRPA 2000).
- Study and develop a New Canaan Branch implementation program for rail service, parking needs and intermodal connections that will enhance transit options, identify transit supporting strategies and recommend transit oriented development possibilities.
- Support completion of the rehabilitation of the entire EMU (electrical mechanical units,) rail fleet.
- Support and monitor ConnDOT’s development of the rail financial plan.
- Support ConnDOT evaluation of “universal peak” fare pricing feasibility and benefits.
- Complete Danbury Branch signalization and communications project (#302-0007).
- Purchase additional rail cars to maintain current service and reliability.
- Expand service capability with the purchase of 40 additional rail cars.
- Purchase additional engines to maintain and expand service capability and reliability.
- Conduct rehabilitation of rail bridges and culverts that are in need of repair or replacement.
- Implement improvements of rail underpasses to improve operations, safety and access and to support current, proposed and future land use development. The rail bridges include: Atlantic Street; East Main (Route 1); Elm Street (unfunded); Canal Street (unfunded); and, Greenwich Avenue (unfunded).
- Continue catenary replacement along the New Haven Line.
- Maintain communications and signal systems in a state of good repair.
- Expand and upgrade New Haven Rail Yard facilities in preparation for delivery of M8 cars.
- Upgrade rail tracks along the New Haven Line.
- Install kiosks at key rail stations that contain information such as real-time train arrival

information, schedule and service disruptions and intermodal connections as a demo project.

- Construct rail station platform and parking infrastructure in Georgetown for use by incoming residents of a proposed transit oriented development.

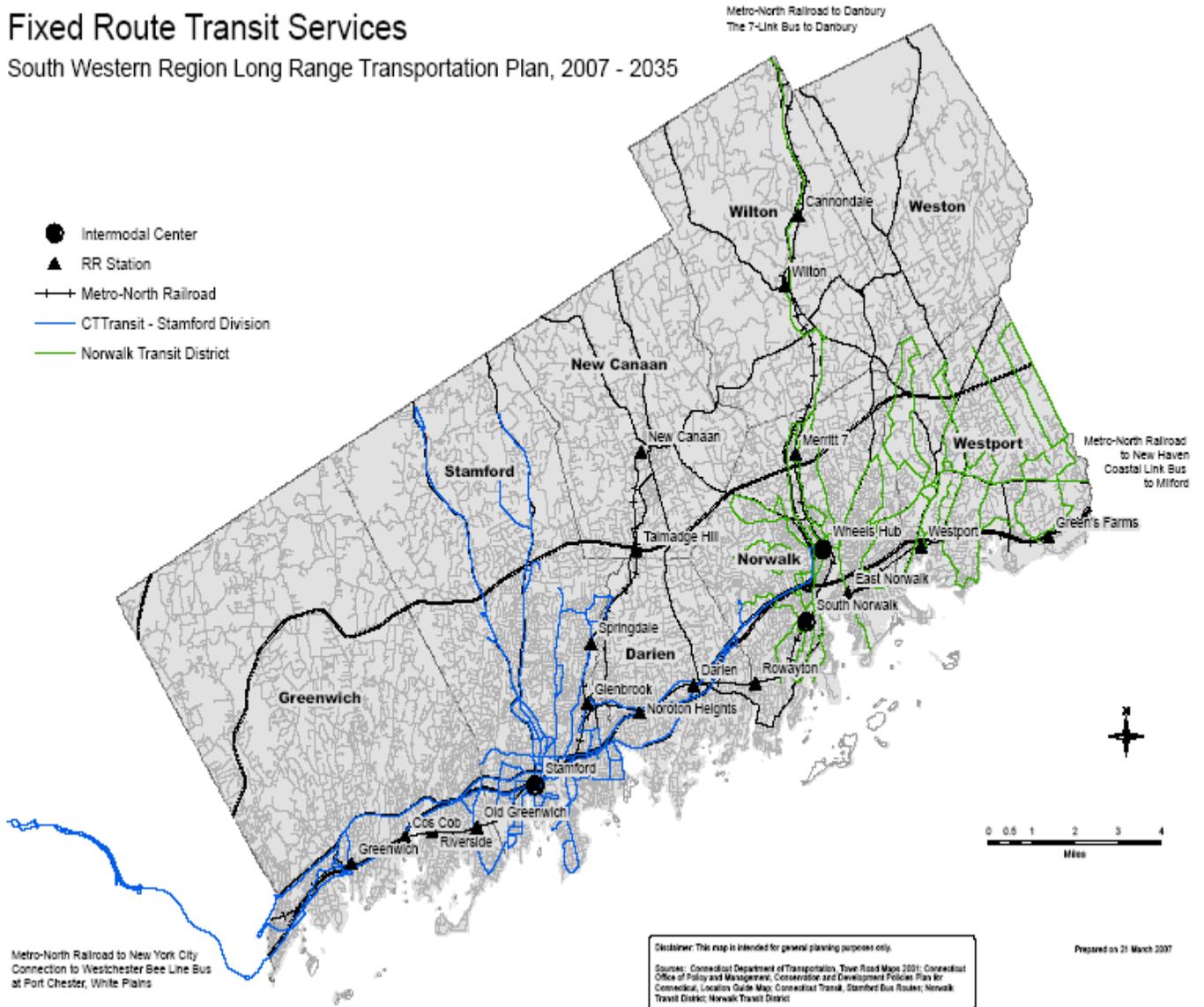
Long Term

- Implement Norwalk/Danbury rail service improvements to reduce headways to 1 hour throughout the day and provide more direct service between the Branch line and Stamford (Route 7 Travel Options Implementation Plan, SWRPA 2000).
- Implement rail station enhancements at Wilton, Cannondale and other Danbury Rail Line stations (expand parking, provide lighting and amenities) (Route 7 Travel Options Implementation Plan, SWRPA 2000).
- Provide pedestrian overpass and amenities at Merritt 7 Station (Route 7 Travel Options Implementation Plan, SWRPA 2000).
- Develop program and funding to provide commuter bus connections to the South End and Waterside neighborhoods in Stamford
- Implement a universal commuter pass, such as a SmartCard.
- Complete improvements to the South Norwalk Intermodal Center.

Figure 12. Fixed Route Transit Services

Fixed Route Transit Services

South Western Region Long Range Transportation Plan, 2007 - 2035



FREIGHT/GOODS MOVEMENT

Background

The efficient movement of goods is critical to a sustainable economy. In southwestern Connecticut, the primary movers of goods are commercial trucks. Even where rail connections exist to transport freight into the state, trucks still serve as the final delivery mechanism for businesses and consumers. The same is true for goods entering the state by water. While movement of goods by truck is economical, flexible and efficient, congestion on the state's roadway system is great and expected to grow over the next twenty-five years.

The projected increase in truck volume poses several problems for southwestern Connecticut. The most significant of these are a reduction of operating efficiency, an increase in recurring delays, decreased safety, and inadequate parking facilities. When combined with projected increases in the passenger vehicle volume, the result is a continued deterioration of roadway level of service. It is likely that current peak direction rush hour conditions could be present in both directions throughout much of the day. Such a scenario would not only inconvenience travelers, but would also impact the region's economy through higher shipping costs.

Inadequate truck parking facilities is one of the most immediate freight issues in the South Western Region. Currently, the state has an inventory of approximately 375 truck parking spaces at rest areas. Privately-operated truck stops in Connecticut provide another 770 parking spaces. Unfortunately, on any given night, there is an estimated shortage of more than 1,200 spaces. As a result, many trucks are forced to park illegally and unsafely along the shoulders of limited access highways in the vicinity of rest areas. Because of federal restrictions on operator hours of service, police are powerless to move trucks, even if they are causing an unsafe condition on the highway. The shortage of truck parking spaces is forecast to grow to 1,600 spaces by 2020. ConnDOT is currently studying the feasibility of redeveloping public service areas including the potential to increase truck parking spaces. Separate but coordinated efforts are also underway in New Jersey and New York based on an understanding that any solutions must be interjurisdictional.

There are many reasons for the region's heavy reliance on trucks for movement of goods. Connecticut's proximity to major intermodal gateways such as the Ports of New York and New Jersey places most, if not all, Connecticut destinations within a short truck haul. The density of commuter operations on the northeast rail corridor, inadequate and outdated rail infrastructure throughout the rest of the state, and a lack of connections across the Hudson River to the continental rail network has been impediments to the more widespread use of rail freight. Many water dependent commercial uses are being priced or regulated out of waterfront location in favor of high-end residential development. A shift from an industrial to a service-oriented economy, Connecticut's geographic position as the gateway to New England and a public policy that emphasizes commuter-oriented highway investments also play a role in the dominance of trucks.

Alternative modes for moving goods are available and both can and should be developed to

provide options and redundancy in the transportation system and to serve vital niche segments of the economy. Such alternatives include:

- Waterborne. Norwalk and Stamford Harbors process a small but important list of commodities. Three firms operate five facilities that rely on barge shipments to distribute fuel oil, sand, gravel, concrete, and asphalt. The market area for these products is generally within the region, save for fuel oil which is distributed to adjacent regions as well. Operators in Norwalk harbor are constrained by inadequate channel depth, which only allows less-than-fully-loaded barges to be brought in and only at high tide. If the channel depth continues to deteriorate, these operations would be forced to truck in necessary materials.

Container barge service to southwestern and south-central Connecticut has been evaluated by the Greater Bridgeport Regional Planning Agency, the South Central Regional Council of Governments and the Connecticut Department of Transportation. Initial studies have found that barge feeder service is feasible and may move as many as 400 containers per day, resulting in the removal of approximately 80 trucks per day from I-95. An 80 trucks-per-day reduction on I-95 will have only a minimal effect on traffic congestion in the corridor. Despite the limited effect on congestion, barge feeder service would provide a safer alternative to transport by truck and may yield other benefits for the region including reduced noise and air pollution. The Bridgeport Port Authority is currently evaluating the steps necessary to implement such a service.

- Freight rail. Southwestern Connecticut has a well developed railroad network that includes the northeast corridor mainline between Boston and Washington and a north-south connecting line running from Pittsfield, Massachusetts, via Danbury to South Norwalk along the Route 7 corridor. All rail lines in the region are owned by State of Connecticut with freight service provided by private operators (CSX and Providence & Worcester). Currently, these lines are operated almost exclusively for commuter service between New York City and Connecticut. Due to clearance restrictions and capacity constraints, freight trains cannot pass through New York City's Pennsylvania Station. Freight bound for destinations west of the Hudson River must be routed via Springfield and Albany.

The total volume of freight traffic on the study area rail lines in Connecticut is quite small in proportion to both capacity and total volume of goods consumed and produced in the region. Analysis conducted by the City of New York and New York Metropolitan Transportation Council indicates that changing industrial geography and demographics, public ownership and regulation of infrastructure and services, and inadequate or outdated physical facilities and infrastructure are several of the factors contributing to low volumes of total freight traffic moving in the region via rail.

Although some circumstances, such as changing industrial geography, cannot be easily changed or addressed, other circumstances can be addressed with public investment. The proposed Cross Harbor Freight Tunnel is one such investment. Running from Jersey City to Brooklyn beneath Upper New York Harbor, this route would provide access to Southern New England via the Hell Gate Bridge. Such a tunnel, or similar lower Hudson River crossing would greatly improve links between Southern New England and the continental rail

network and make movement of goods by rail a more cost and time-effective option.

In addition to the barriers and impediments noted above, a number of other critical issues must be addressed in order to make the movement of goods by rail or water viable and to ensure that trucking activities are conducted safely. These critical issues include:

- The need for increased coordination of infrastructure and service planning in the New York Metropolitan Area. Such coordination is needed in order to ensure that regional improvements are made in a cost-effective, compatible and well-sequenced manner.
- The need to evaluate existing policies regarding overhead and side clearances and weight restrictions for all railroad lines in Connecticut to ensure that the state's rail infrastructure meets current standards and supports modern freight rail equipment.
- The need to evaluate current policies and practices that grant exclusive or preferred access to publicly owned infrastructure to specific rail operators. Shared access policies should be explored.
- The need to greatly improve Connecticut's connection to the continental rail network and develop direct freight rail access to Port of New York and New Jersey.
- The need to maintain minimum depths along shipping channels in Norwalk and Stamford Harbors to ensure that the waterborne facilities can support existing barge operations.
- The need to connect roads, rails and water ports to create intermodal freight hubs.
- The need to implement effective ways to improve safety on I-95 by providing additional truck stops and increasing enforcement of unsafe, overweight trucks through the I-95 coastal corridor.

Recommended Strategies

Near Term

- Continue advocacy for the further development of freight transport options through the Transportation Strategy Board, Transportation Investment Areas, East of Hudson Task Force, NYMTC Freight Working Group, and other relevant policymakers, agencies, commissions and policy boards.
- Support coastal feeder barge and carfloat operations to the ports of Bridgeport, New Haven and New London.
- Support Incident Management activities to reduce incident-related congestion along major highway corridors throughout the region.
- Seek effective ways to improve safety on I-95 by providing additional truck stops and increasing enforcement of weight restrictions and other safety regulations along the I-95.
- Work with stakeholders in Connecticut as well as New York and New Jersey to develop and implement solutions to truck stop and rest area problems and deficiencies.
- Develop an effective monitoring and emergency response/control plan for truck stops and rest areas.
- Develop a "truck information" webpage on ConnDOT website that would provide truckers with information on: state truck regulations and programs; state rest areas and private truck stops; vertical or horizontal bridge clearance restrictions and weight-restricted bridges along with alternate routes; links to the ConnDOT Incident Management webpage where information is provided on CVISN programs, ConnDOT traffic cams and information on

incidents in progress. In the future, real time traveler information on truck stop and rest area parking availability could be provided through the website, and future 511 programs. For the Merritt Parkway, use restrictions, bridge clearance restrictions, penalties and alternative routes would be included. (Critical Corridors – I-95, Route 15, Congestion Management, Incident Management, Freight)

- In cooperation with NYSDOT, ConnDOT should evaluate an overheight/overweight detection program for the Merritt and Hutchinson River Parkways to prevent further damage of structures or hazardous spills. (Critical Corridors – Route 15)
- Develop protocols for NYSDOT and ConnDOT variable message signs to reinforce Merritt Parkway and Hutchinson River Parkway use restrictions. (During the I-95 Howard Avenue closure in 2004, many trucks unknowingly diverted to the Merritt Parkway and Hutchinson River Parkway and had to be escorted off the facilities by state police.) (Critical Corridors – Route 15)
- Monitor and support efforts to ensure minimum channel depth in Norwalk and Stamford Harbors to support existing barge operations.

Long Term

- Undertake a Southwestern Connecticut Corridor Freight Plan that details origin and destination movements; describes current and programmed freight delivery systems; recommends capital projects, policies and programs; suggests further freight transportation planning initiatives; and provides public outreach and education regarding freight movement in the corridor. The study will build upon current efforts underway within Connecticut, New York and New Jersey.
- Evaluate rehabilitating the Poughkeepsie Rail Bridge over the Hudson River or identify a new rail crossing south of Albany, New York. Connecticut needs to actively engage New York and New Jersey to link Connecticut directly to the continental rail grid and produce convenient freight rail access to the Port of New York and New Jersey.
- Revise public policy to actively promote rail freight service along the northeast corridor and through the New York Penn Station's tunnels
- Evaluate and update policies regarding overhead and side clearances as well as weight restrictions for all railroad lines in Connecticut to ensure that the state's rail infrastructure meets current standards and support modern freight rail equipment

TRANSPORTATION DEMAND MANAGEMENT/COMMUTER CHOICE

Background

Transportation demand management (TDM) strategies are actions that focus on reducing vehicle trips. These actions are primarily directed at commuter travel and are structured to either reduce solo driving or to alter the timing of travel to off peak hours.

Transportation demand management strategies include the following actions:

- carpooling;
- vanpooling;
- public transit (bus and rail);
- walking;
- bicycling;
- compressed work week;
- telecommuting work week;
- compressed work week;
- telecommuting; and,
- strategies to support these measures such as provision of employee services (e.g. guaranteed ride home, child care services, food services, and shuttle services, transit pass sales); facilities and equipment (e.g.. bus shelters, bicycle lockers/racks; changing rooms, home office equipment, park and ride lots); information and marketing (e.g.. brochures, newsletters, promotional events/items); trip reduction management policies (e.g.. parking management program, corporate commitment, late meeting and overtime policy); and incentives (e.g.. monetary rewards, subsidies, recognition, preferential parking for carpools/vanpools, etc.)

Transportation demand management measures have been historically encouraged in the State of Connecticut and the South Western Region through: the funding of ridesharing activities and ridesharing organizations, transit and planning organizations; construction, operation and maintenance of commuter park and ride lots; bus and rail transit, and selective funding “enhancement” projects.

Ridesharing programs funded by the Connecticut Department of Transportation include: support for ridesharing brokerages; the commute incentive programs enabled by federal tax law (Commuter Tax Benefit, which permits pre-tax deductions for transit up to \$115 per month at this time); other commute incentive or infinity programs; telecommute programs; marketing and research programs; vanpooling programs; ride matching; and, on-going outreach and information services such as a variety of newsletters and customer service representatives. With annual ridesharing program investments averaging \$15 million per year, the ridesharing organizations, including MetroPool and 2Plus, have responded to the need for carefully evaluating all programs and establishing benchmarks for performance. The objective is to invest limited funds wisely. Consequently, since FY 2003, MetroPool has initiated many innovative TDM programs to help reduce single-occupancy vehicle use and traffic congestion as well as improve workforce effectiveness and quality of life in the region.

Accomplishments:

Prior to FY 2004

In FY 2003, MetroPool undertook a three-phase market research study to identify commuting issues, identify potential solutions, the best ways to reach commuters effectively and determine what might motivate them to use ridematching and other commuter solutions more readily. The research was a pivotal effort that shaped MetroPool's programs in the succeeding years. Among the most significant findings were that communications to employers first was an effective way to reach commuters and incentives played a significant role in attracting commuters to use alternative transportation methods. These findings were taken into consideration as MetroPool implemented various programs.

Deduct-a-Ride

MetroPool had begun promoting statewide to employers the federal Commuter Choice program, called Deduct-a-Ride in Connecticut, in FY2000. Several different strategies were executed to launch the program and gain early acceptance. Two-hour workshops were held to inform employers, business organizations, chambers, and industry group of this new tax-free benefit. The workshops were scheduled in partnership with ten Chambers of Commerce. From FY2001 – FY2004, MetroPool conducted dozens of workshops and presentations, averaging more than 30 presentations a year and enrolling more than 200 employers with more than 17,000 participants.

In FY 2003, ConnDOT, MetroPool, Rideworks, The Rideshare Company and the state's business organizations, MetroPool submitted an application to ACT (Association for Commuter Transportation) and won the Outstanding Service Award for promotion of the statewide Deduct-A-Ride program. During that year, workshops were broadened to include other mobility issues and solutions. One-on-one employer meetings were held. In addition to DAR, information on transit, telecommuting and construction communications were discussed. Seven workshops and one-on-one meetings were held. (31 new employers enrolled in program). DAR materials were distributed on site. Information Kiosks were placed at employer sites, libraries, malls, hospitals, realtors, etc. Information about DAR and transportation alternatives was distributed at these locations.

In FY2004, MetroPool continued to hold Mobility Solutions workshops and one-on-one employer meetings. Billboards advertising DAR were placed along I-95 and Route 8 in Bridgeport. DAR was promoted at the Buick Golf Championship tournament in 2005 with the theme "Commute like a pro and save with DAR" on 40,000 event parking tickets). A DAR website was launched with forms that could be completed and submitted as well as calculators showing potential tax savings for employers and commuters. It was later updated to meet new ConnDOT standards for usability for people with disabilities and MetroPool refreshed the site in FY2006 and changed the name of the program to Commuter Tax Benefit to more clearly identify the nature of the program. The program continues to be supported with mobility workshops and one-on-one employer meetings as part of the package when visiting new clients and/or during

vanpool formation meetings and relocations.

Commuter Outreach Programs

The People to Jobs Transportation Task Force (PTJ) of Southwestern Connecticut created a partnership to deal with jobs access. In addition to the region's work force entity, the WorkPlace this Task Force included the state funding agencies (ConnDOT and Department of Social Services), transit providers, regional planning organizations, representatives from various social service agencies and MetroPool. In addition to funding transit services to provide access to jobs, the prototype information guide for transit information and outreach was developed by PTJ. The document, Getting on Board – The Southwestern Connecticut Accessible Transportation Guide, published in May 2003, was produced by ConnDOT, in cooperation with People to Jobs, the region's transit operators and MetroPool. The guide informed and educated people with disabilities (and human services professionals) about the public transportation network and services in Southwestern Connecticut and how to use fixed-route (local) bus and rail services for traveling to work, rather than use paratransit services. The guide complemented training of jobs developers/placement coordinators and "Public Transportation 101" run by The Kennedy Center. The guide had broad distribution to job developers, career counselors, HR professionals, employment and placement agencies, employers, libraries, municipal/government centers, realtors, hospitals, rehabilitation centers, senior centers and others. Update of the guide is a priority as a means to provide commuter choice, and to support the jobs access program.

Best Workplaces for Commuters

During FY 2000-2007 MetroPool worked with employers and business organizations to promote and implement outstanding and innovative commuter programs at work sites. Employers with programs that met the guidelines set by the Environmental Protection Agency received national recognition for their efforts and joined an elite group of winners. Presently Cartus, CT Transit, Gartner Group, GBTA, HART, Hyperion, Lecoq Cuisine, MetroPool, Nestle Waters, Norwalk Hospital, PanAmSat, People's Bank, Preferred Tool & Die, Purdue, Reckson, Ricoh, SACIA, SWRPA and Time Warner Cable have won recognition in the nationwide program.

2004 - Present

NuRide

In FY 2005 MetroPool launched NuRide, the first incentive-based ridesharing program in the U.S. The online network allows commuters to share rides and accumulate reward points that can be redeemed for prizes. The program has grown from 2,200 participants in 2005 to 3,600 participants in 2007. In 2005, there were 2,186 participants, 814 active riders and 347 organizations represented. In 2006, there were 3,514 participants, 1,187 active riders and 586 organizations represented. Several promotions with \$10 Shell gas cards and \$10 TGIF restaurant cards were offered via the website to increase ridership. Direct outreach to commuters included a Park and Ride-lot initiative in which NuRide slim-jims were put on every car parked in Park and Ride lots in MetroPool's service area. In addition, Connecticut's Governor M. Jodi Rell urged commuters to join the CT NuRide Challenge to remove 2 million miles from the

roadways by ridesharing. Connecticut drivers responded and surpassed the Challenge. 4,000 people removed 2.2 million vehicle miles of travel from the state's roadways and highways, shared 74,000 rides, removed 984 tons of emissions and saved 192 parking spots per working day.

Station Cars

In FY 2005, station car or van programs were started to provide an affordable and convenient way for groups of rail commuters to travel between the train station and work site. The pilot project was set up for Sikorsky in Stratford. Initially, two Easy Street vans began running in May 2005 from the Stratford RR to the Sikorsky plant in Stratford. Currently, there are 24 daily commuters who pay a monthly fee of \$30 – the cost of the bus/shuttle portion of a Uniticket. ConnDOT subsidizes each van per month with costs varying from \$500 to \$700 depending on the number of commuters. The town of Stratford supplied MetroPool with two designated parking spaces/signs for the Easy Street vans.

In FY 2006, Greenwich High School also implemented station cars. Two Easy Street vans began running in November 2006. One travels from Greenwich High School to the Greenwich railroad station; the other travels from the Middle School to the Cos Cob railroad station. The cost is \$776 per month and can vary depending on the number of commuters using the service. Greenwich High School pays \$500 per month, per van, while ConnDOT will subsidize the remaining portion. Greenwich High School also is offering a Guaranteed Ride Program trip to the program in addition to the two ConnDOT pays for to make it three per year) and activating the Commuter Tax Benefit. The program lasts for the 10-month school year and funding is being put into the budget to continue Easy Street next school year. Twenty commuters use this service on a daily basis and Greenwich Railroad has provided parking spaces for the vans.

In FY 2007, Pitney Bowes is slated to implement a station car program. One Easy Street van is being considered for commuters in the PB office park in the Shelton area. The vehicle will make two round trips to the Stratford railroad station per day at a cost estimated to be \$1550 per month. Pitney Bowes is committed to paying \$600 per month; ConnDOT will subsidize the remaining portion of approximately \$1000 per month. MetroPool anticipates that the Town of Stratford will reserve a designated parking space/sign for the vehicle and about 16 to 24 commuters will use the service daily.

Statewide Guaranteed Ride Program

Guaranteed Ride Home (GRH) is a supporting strategy which provides a ride in the event that a commuter needs to leave work. Eligible commuters use express buses, Easy Street vans, or Shoreline East. After an evaluation of the possibilities in 2005, ConnDOT decided to continue the existing statewide GRH program for express buses, Easy Street vans, and Shoreline East commuters.

Planet Connecticut (www.planetconnecticut.org) Environmental Education Program created and launched in 2004. Connecticut DOT supported the development of an education program (web based) for middle school students in Connecticut, to increase awareness of

commute alternatives and how making different choices can contribute to a better quality of life in the state. Developed in partnership with the Northeast Sustainable Energy Association and a team of Connecticut teachers, Planet Connecticut delivers exciting activities and lesson plans that explain global warming and climate studies within a curriculum designed to meet Connecticut State Education Department Science standards for middle school. In 2005 the curriculum was promoted to educators at various venues, including the National Science Teacher's Association conference, held in Hartford, as well as at the Department of Environmental Protection's Kellogg Environmental Education Center in Derby. Planet Connecticut is linked to and from the official Connecticut state climate change web site (www.ctclimatechange.com). Planet Connecticut receives over 1,000 visits per month, mainly from teachers/educators downloading the online lesson plans.

Connecticut DOT Commuter Services Branding Guide created in 2005. The state's ridesharing organizations and ConnDOT developed a unified brand for the various commuter services supported by ConnDOT, including the Easy Street vanpool program, TelecommuteCT! and Commuter Tax Benefit (formerly Deduct-A-Ride). From this effort, the following improvements in marketing and promoting commute programs and services to employers and the general public have occurred: coordinated statewide multi-media marketing campaigns promoting Easy Street, online ridematching (NuRide) and public transportation in 2005 and 2006; new statewide Commuter Services Employer Brochure developed and printed in 2006; new statewide Commuter Services Commuter brochure (in development).

MetroPool Transit Partnership Program

Following years of discussions with ConnDOT, MetroPool, and SWRPA, FHWA supported funding for transit partnership services to promote local and interregional bus service. Projects funded since 2005 include:

1. Promotion of interregional services

a) Coastal Link service branding/creation of route map – MetroPool worked with ConnDOT and the three service operators (Norwalk Transit District, Greater Bridgeport Transit Authority, Milford Transit District) to brand the Coastal Line service through developing a map/schedule for customers (printed in both English and Spanish) and a set of decals for buses used on the route.

b) Route 7 Link creation of route map – similar to above, MetroPool worked with ConnDOT and two service operators (Norwalk Transit District and Housatonic Area Regional Transit) to develop a map/schedule for customers (printed in both English and Spanish).

2. Produce videos for outreach to various targeted segments of the population to encourage greater use of the local buses. For Norwalk Transit District, created a six to eight minute video for outreach to senior citizens and the same length video for outreach to the Hispanic population in Norwalk. Both videos are used in grassroots efforts for transit presentations at community centers, local churches, etc.

3. Produce coloring book for outreach to preschoolers in Norwalk who visit the transit facility, plus the school district's 3rd graders who take a "Discover Norwalk Tour" on the buses and learn about the city as part of their history curriculum (the coloring book also provides important

safety messages regarding riding the local buses, as well as includes a map of Norwalk Transit's routes).

4. Branding/creation/design/printing of bus passes and materials/collateral to launch a new bus pass system for the Greater Bridgeport Transit Authority. The new "Zip Trip" pass program was created to provide a means for riders (both current and potential/new) to travel more easily and conveniently on GBTA's system. As an outgrowth of this initiative, MetroPool is currently working with GBTA on creating a "Rider's Guide," which will house all GBTA's routes/schedules in one handy, portable book, as well as include important "how-to" information about riding the bus and getting around GBTA's service area using public transportation.

Recommended Strategies and Projects

2007-2011

- Update Getting on Board which was prepared in 2003, but is outdated because of transit service changes.
- Implement a comprehensive user-friendly commuter services portal that interfaces with other systems such as 511 to provide a comprehensive region-wide system.
- Assist with and promote ConnDOT's '511' traveler information system and other real time traveler systems and increase usage of it.
- Publicize TRIPS123.com and other traveler assistance services.
- Enhance commuter communications to disseminate information and alerts to mobile devices such as cell phones and Blackberries.
- Implement and promote public/private shuttles to transport commuters from transit centers to work locations.
- Expand commuter connection services beyond rush hour and during mid-day.
- Offer school pool consulting and implementation services.
- Work with municipalities to introduce ridesharing to train stations to alleviate parking problems and cut parking-permit waiting lists.
- Develop I-95 corridor rail station information kiosks to provide schedules, connecting and other transit information in a consistent template from one station to another.
- Implement a senior mobility program involving ridesharing for medical and other appointments via NuRide and corporate volunteers.
- Educate seniors, Hispanics and other target groups about mass transit options.
- Create an air-quality improvement program similar to Clean Air NY to help reduce emissions and vehicle miles traveled.
- Propose a "green company" strategy encompassing TDM programs to area companies.
- Enlist community organizations to help promote TDM services and air-quality improvement actions.
- Foster interstate/interagency cooperation to address cross-border transportation issues and services.
- Establish a zip car program to encourage SOV drivers to enjoy the flexibility of still being able to drive periodically, but use public transit regularly.
- Launch a regional recognition program for employers who implement ridesharing,

Commuter Tax Benefit and other TDM programs.

- Evaluate GRH best practices and effectiveness that will lead to validation or refinement of Connecticut's statewide GRH program.
- Expand services to include contingency transportation planning/preparedness.
- SWRPA should continue to implement, market and monitor Travel Demand Management (TDM) strategies to help reduce the number of peak-period single occupant automobile trips in the Connecticut and the South Western Region. TDM strategies that focus on providing incentives to modify travel behavior are preferred to those that penalize. Examples of programs that can have an impact on peak period trips are as follows: telecommuting; flexible work weeks; staggered work hours; organized vanpools; and voluntary distance-based pricing. (Congestion Mitigation Systems Plan "Vision 2020")
- SWRPA in partnership with ConnDOT, ridesharing organizations, and other stakeholders, should study the performance of existing TDM programs to assess the effectiveness of current outreach and marketing strategies, develop creative strategies for altering traveler behavior, calculate the total cost of removing single-occupant vehicles from roadways during peak periods and identify methods that may be implemented to more closely track TDM program participation and monitor program performance. (Congestion Mitigation Systems Plan "Vision 2020")
- Improve coordination and collaboration with ConnDOT, ridesharing brokerages, and the Region's stakeholders to develop, evaluate and modify ridesharing programs.
- Expand ridesharing programs to include employers with less than 100 employees and concentrations of employees, and evaluate program effectiveness.
- Improve maintenance of the Region's park and ride lots.
- Develop and implement measures to encourage greater use of carpooling and vanpooling, and use of public transportation, railroads, and buses, and coordination of these transportation elements to reduce traffic congestion.
- Support existing commuter incentive programs such as Deduct-A-Ride and new incentive-based approaches to ridesharing, such as NuRide.
- Implement a comprehensive user-friendly transportation website.
- Create a rail station shuttle database and means of communicating with corporations, shuttle operators and commuters regarding real time traveler information.

2012-2016

- Provide road construction and traffic conditions information on GPS systems to help alleviate congestion in the region.
- Promote and educate commuters about the I-287 light rail system.

BICYCLING & WALKING

The region's vision for bicycling and walking echoes the state's vision and goals at a regional level: 'To enhance the bicycle and walking environment throughout the South Western Region (Connecticut) by providing for the safe, convenient and enjoyable use of these modes of transportation in an effort to meet the public's demand for improved mobility and a better quality of life.' (ConnDOT Bicycle and Pedestrian Plan, 1999). Safe and connected pedestrian and bicycle facilities are essential elements of the comprehensive multi-modal transportation system envisioned for the South Western Region. These modes provide personal transportation choices that are alternatives to the single occupant vehicle. They are environmentally-friendly and benefit air quality and reduce energy use and traffic congestion. They can be relatively low cost, and contribute to a better quality of life. The challenge is to develop a 'bicycle and pedestrian friendly' region and state.

The issues and impediments are varied, ranging from regressive state policies that prevent or restrict access to available funding for sidewalk projects and enhancements, to lack of knowledge about the 'rules of the road' by both motorists and bicyclists, to the lack of routine road maintenance to clear debris off road so that cyclists may travel safely. Other issues include: funding for new projects; maintenance of new facilities; design standards for bicycle and pedestrian facilities; adequate, secure bicycle storage at key intermodal facilities and public and private activity centers; safety and education; and, involvement of stakeholders in the planning process.

The response is to develop a more detailed regional bicycle and pedestrian plan, to include the regional bicycle and pedestrian advisory group in the transportation planning process, to continue to seek a change in the Connecticut Department of Transportation (ConnDOT) sidewalk policy so that new sidewalks are possible and bicycle and pedestrian projects are funded through all eligible federal programs and provided state funding, and to work cooperatively with ConnDOT's bicycle and pedestrian advisory group.

Developing a regional plan for bicycling and walking is an essential building block. SWRPA will work with municipalities, the state, and bicycling advocates to inventory current facilities, develop policies, recommend specific projects and identify funding sources. This in-house SWRPA effort will result in a framework for bicycle and pedestrian systems and projects and build a coalition to gain recognition and obtain funding for selected projects.

A number of the bicycle and pedestrian projects identified in the 2004 long range transportation plan have been implemented or are underway, including: the Stamford Washington Boulevard pedestrian improvements; Safe Routes to Schools programs in Greenwich, Stamford and Norwalk; and, bike racks on Connecticut Transit and Coastal Link buses. The initial phases of the Norwalk/Route 7 and Stamford Mill River trails are in design or rights of way phases. Future extensions of both the Norwalk River and Mill River trails are proposed. Funding for the next phases was requested in November 2000.

The most ambitious multimodal project for the region, the Stamford Urban Transitway, includes

sidewalks and a dedicated bicycle lane, along with bus and road improvements. Construction has begun on the first phase between the Stamford Transportation Center and Elm Street. The next phase of the Stamford Urban Transitway will extend the project east from Elm Street to Route 1/East Main along Myrtle Avenue.

Stamford continues to develop and implement comprehensive bicycling, walking and traffic calming plans and programs. The Stamford Master Plan 2000 Traffic and Transit Report (2002) reinforces the Stamford Bicycle Plan (2001) goal to maximize a full range of bicycle and pedestrian improvements. Wherever possible, major capital projects are to include bicycling and walking elements. In 2006, Stamford completed the initial phase of the Mill River multi-use Trail between Tresser Boulevard and Broad Street. This project is a unique collaboration of public (Stamford and USDOT Surface Transportation Program Enhancement funding), private, and non-profit efforts. The first phase of the Washington Boulevard Pedestrian Safety Improvement Plan (Tresser Boulevard to Broad Street) was completed in 2005. Funding has been requested to extend the improvements south from Tresser Boulevard to Division Street. Improvements in the North State Street pedestrian crossing the Stamford Transportation Center to the "Rail Trail" to the east of Washington Boulevard are planned. Additional improvements have been identified in the Stamford Multimodal Services Study (2004), and the Stamford Long Range Transportation Plan (2004). Bike racks will soon be installed at the Glenbrook and Springdale rail stations thanks to funding from the USDOT Surface Transportation Program Enhancement Programs.

Norwalk continues to expand its bicycle and pedestrian facilities. The Norwalk Heritage Trail linking the Maritime area with Matthew's Park was opened in 2000. The Norwalk River (Route 7) Multimodal Trail will connect with the Heritage Trail at Mathews Park and extend north to Route 123. This project, also funded through USDOT Surface Transportation Program Enhancement funding is in design, with construction expected in 2005. Another trail is planned for South Norwalk following the right-of-way of an abandoned rail spur. Bike racks will soon be installed at the East Norwalk and South Norwalk rail stations as well as in the vicinity of Washington Street. The Norwalk Transit District has equipped nine fixed route buses with bicycle racks and should soon obtain twenty-one additional racks to cover the entire fleet. Both the stationary and bus-mounted bicycle racks were funded by the USDOT Surface Transportation Program Enhancement program, with completion scheduled for 2007.

Greenwich has installed count-down pedestrian signal heads and audible pedestrian-activated traffic signals at downtown locations. Cross-walk striping has been enhanced at key locations to calm traffic and support pedestrian movements. An established sidewalk program enables sidewalk improvements, most recently on Hamilton Avenue. In 2001, Greenwich completed its Bicycle Master Plan, which recommends developing a network of bicycle routes with specific construction treatments for bicycles.

The South Western Region's smaller municipalities are also working to improve their bicycle and pedestrian facilities. New Canaan's 2003 Plan of Conservation and Development recommends a number of pedestrian and bicycle improvements including the requirement for sidewalks in the downtown, town assumption of responsibility for downtown sidewalk maintenance and repair, and preparation of an overall concept plan for a bicycle route system in

the town. The update to Westport's plan of conservation and development is helping to focus attention on bicycle and pedestrian needs in the community. The updated plan will recommend developing public access along the west bank of the Saugatuck River between Saugatuck Center and Downtown Westport as well as making pedestrian improvements in the vicinity of Harding Plaza. Westport has also successfully lobbied the Connecticut Department of Transportation to maintain a pedestrian walkway along the Metro-North bridge over the Saugatuck River as part of the redesign/replacement of the bridge.

In addition to the proposed Route 7 linear trail, which is being implemented in phases by the City of Norwalk, there are two proposals for an extensive multi-use trails along the Merritt Parkway (Route 15). A demonstration project on the south side of the Merritt between High Ridge Road (Route 137) at Exit 35, east approximately a mile to Newfield Avenue was proposed in 2001 by the Regional Plan Association. A joint application for STP-Enhancement funding was developed by the City of Stamford and Regional Plan Association in 2002. The Merritt Parkway Trail is the proposed routing for the East Coast Greenway through the region. Completed sections of the East Coast Greenway can be found in other parts of the state around New Haven, Hartford, and Willimantic. The East Coast Greenway Alliance considered the section through Southwestern Connecticut to be the most critical gap in the entire trail north of Washington, DC.

Safe Routes to Schools is an increasingly important element of the region's non-motorized transportation system. Safe Routes plans have been developed for a number of primary schools in Greenwich, Norwalk, and Stamford. In 2006, Norwalk and Stamford were each awarded grant funds from ConnDOT's Safe Routes to School Infrastructure Program to make improvements to pedestrian and bicycle facilities in the vicinity of schools. These improvements will encourage more students to walk or bike to school by improving the safety and quality of bicycle and pedestrian facilities. Greenwich, which has five schools with Safe Routes plans, is actively seeking funding for its improvements through the Surface Transportation Program.

The USDOT Federal Highway Administration (FHWA) Recreational Trails program provides grant funds for construction of new motorized and non-motorized trails, maintenance and restoration of existing recreational trails, access to trails by persons with disabilities, purchase of equipment to construct or maintain trails, acquisition of land or easements for a trail or rail corridor, and funding for promotion, education, and interpretation. Funding for the program is approximately \$500,000 a year, beginning with FFY2003. In 2005, Stamford was awarded grant funds that will be used towards the completion of the Mill River multi-use pathway. In 2006, Stamford was awarded grant funds that will assist in the development of the Barrett Park pedestrian trail.

Recommended Strategies

Near Term

- Recognize that bicycling and walking are essential modes in the transportation system and that they are viable transportation options for many travelers.
- Build bicycle and pedestrian elements into transportation and community facilities
- Promote the development of a robust intermodal network in which bicycles and pedestrians play an integral role.

- Promote bicycle and pedestrian safety and education programs targeted at vulnerable groups such as seniors and youth.
- Construct and maintain secure bicycle storage at intermodal and community facilities.
- Develop safe walking and bicycling routes to schools (Safe Route to Schools).
- Promote bicycling and walking as ways to improve health.
- Secure funding for selected bicycle and pedestrian improvements identified in the Stamford Multimodal Services Study (2004).
- Advocate for revision of the ConnDOT sidewalk policy so that new sidewalks are possible and bicycle and pedestrian projects are funded through all eligible federal programs and provided state funding.
- Support ConnDOT's statewide bicycle and pedestrian advisory group as well as other pedestrian and bicycle focused advisory groups convened by ConnDOT.
- Enact appropriate legislation that requires consideration of bicycle and pedestrian supporting elements in all USDOT and state funded projects and as a part of State Traffic Commission review of major traffic generators.
- Provide technical assistance to municipalities and advocacy groups regarding bicycle and pedestrian issues, projects, programs and plans.
- Meet regularly with the regional bicycle and pedestrian working group and encourage them to participate in the regional transportation planning process.
- Advocate for and secure funding for additional bicycle and pedestrian improvements that are consistent with the vision, goals and objectives of the regional transportation plan.
- Support recreational trails projects developed to use USDOT Recreational Trails Program funding and administered by the CT Department of Environmental Protection.
- Determine the feasibility of the March 2001 Regional Plan Association and City of Stamford proposal for the 'Merritt Parkway Trail Demonstration Project' along the Merritt Parkway between High Ridge Road (Exit 35) and Newfield Avenue, Stamford.

Recommended Projects

Near Term

- Develop a South Western Region Bicycling and Pedestrian Plan as a SWRPA staff effort.
- Implement the current phases of the Norwalk River Valley (Route 7) Linear Trail
- Continue to support and promote bicycle racks on buses (near term, FTA Enhancement funding, and in-house support from involved agencies and organizations).
- Install secure bicycle storage at train stations, community and government facilities, and institutions. Specific projects are identified in the Stamford 2004 Long Range Transportation Plan project listing.
- Complete the second phase of the Washington Boulevard Pedestrian Improvements (Tresser Boulevard to Division Street)

Longer Term

- Seek funding for future phases of the Norwalk River Valley (Route 7) Linear Trail through Norwalk and Wilton.
- Implement the Stamford Mill River Multi-use Trail Phase 2 (near term, \$1,950,000).
- Seek funding for future phases of the Stamford Mill River Multi-use Trail.

- Implement the Stamford Harbor Bicycle and Pedestrian Plan
- Continue Washington Boulevard Pedestrian Improvements to extend improvements beyond the first two phases (Broad Street – Tresser Boulevard, Tresser Boulevard – Division Street.)
- Work with advocacy groups, Connecticut DOT, and municipalities to develop a signed, on-street trail and eventually a dedicated, off-street trail to carry the East Coast Greenway through the Region.
- Install secure bicycle storage at rail stations, community facilities, and major institutions.
- Seek to accommodate bicycles storage on new rail cars while acknowledging that accommodating passengers is the top priority.

WATERBORNE TRANSPORTATION

In Connecticut and in New York, increasing traffic volumes and the resulting traffic congestion continue to strain an already overburdened road network. Opportunities to expand roadway capacity are limited for community, environmental and fiscal reasons. Thus, it is critical that alternatives to highway transportation be developed to provide a range of convenient and affordable travel options, enhance access and mobility, sustain regional economic growth and maintain quality of life in the region.

Within the South Western Region and along Connecticut's coastline, opportunities exist to more fully develop a waterborne transportation network for the movement of persons and goods. Such a network can also create new travel paths between southwestern and south-central Connecticut and neighboring New York. The creation of such travel paths would serve as a component of a broader strategy for regional congestion mitigation. The SWRMPO has endorsed projects to increase use of waterborne transportation options.

In 2004, the Connecticut Maritime Commission (CMC) was established by Public Act 04-143 to advise the Governor, General Assembly and ConnDOT Commissioner on waterborne issues and develop a maritime policy to establish dredging priorities and promote economic development. The CMC recommended maintenance dredging of channels in ports, harbors and waterways to depths that meet federal requirements in its State of Connecticut Maritime Policy (2005). In the South Western Region municipalities have identified or are in the process of identifying priority dredging projects.

Some elements of a waterborne transportation network are already in place. Within the South Western Region, petroleum, sand and gravel products travel by barge into Stamford and Norwalk Harbors. Other waterborne transport options may be accessed within close proximity to the South Western Region: Passenger ferry service to Long Island is provided at the port of Bridgeport and barges and small ships carry freight shipments to the ports of Bridgeport, Stamford and New Haven. The CMC has provided its support to projects promoting intermodal connections between waterborne, rail and highway networks.

There have been recent studies supporting the proposal for passenger ferry service in the South Western Region. The Long Island Sound Waterborne Transportation Plan (2005) (LISWTP) analyzed the feasibility of introducing ferry service between the South Western Region and New York City. Based on projected ridership and cost recovery, the LISWTP determined that a 35 knot vessel has the potential to provide sustainable service between Bridgeport, Stamford and Manhattan. The Bridgeport Port Authority Market Feasibility of a Bridgeport-Based High Speed Ferry Service (2006) study indicates that a ferry operating between Bridgeport, Stamford and Midtown Manhattan would attract 4.5% of the potential daily Bridgeport-Stamford peak commuter market, and 2.8% of the daily Stamford-Midtown commuter market. Based on the ridership assumptions, the study concluded that a ferry service can sustain profitable operations and provide travel times competitive with rail and automobile commutes. The city of Stamford has received Ferryboat Discretionary funding and SAFETEA-LU earmarks totaling approximately \$7,700,000 (\$6.1 million federal, \$1.6 million state and local match) to study,

design and construct ferry terminals and parking, and will be initiating a ferry study in 2007 that will analyze waterside and landside needs related to the construction of a ferry terminal.

The LISWTP also raised the possibility of establishing water taxi service connecting Norwalk and Stamford with coastal communities in Westchester County. Although further study of the economics of such a proposal is necessary, the LISWTP viewed service on 20-knot vessels between South Norwalk and Stamford, continuing south to Port Chester, Rye, Mamaroneck and New Rochelle, as potentially feasible.

Recommended Strategies

- Continue to support and participate in activities related to the implementation of the LISWTP and related activities sponsored by the Long Island Sound Ferry Coalition (LISFC)²⁴.
- Support initiation of high speed passenger ferry service from Stamford to Manhattan including the design and construction of land-side infrastructure improvements linking ferry landing and harbor development sites with the Stamford Transportation Center.
- Promote intermodal connectivity between waterborne, rail and road networks.
- Support LISWTP ferry terminal and service initiatives in neighboring regions to create the critical mass necessary for additional ferry service opportunities in the South Western Region, such as Bridgeport, Westchester County and LaGuardia Airport.
- Continue to participate in the High Speed Ferry Task Force initiatives in Connecticut to address the needs of commercial and recreational boaters in Long Island Sound. The Task Force acts as a forum for the discussion and resolution of safety and environmental issues on Long Island Sound, as well as for the dissemination of ferry and boating information.
- Support ConnDOT initiatives and studies pertaining to the development of intrastate commuter ferry services along Long Island Sound with origins and destinations in the South Western Region.
- Continue maintenance dredging of harbor channels to ensure safe passage of passenger and commercial vessels, access to land-side infrastructure, maintenance of the recreational use of the region's rivers and harbors, and an undesirable shift to land transportation.
- Support a state funding program for dredging operations, inventories of dredging needs and harbor infrastructure improvements.
- Support feeder barge service, infrastructure improvements, and to the ports of Stamford, Bridgeport, New Haven and New London to help alleviate truck freight congestion along I-95.
- Balance the need to maintain waterways as viable corridors for the movement of goods and persons with other economic development and recreational interests.
- Continue to permit use of dredge disposal sites in Long Island Sound as a means of maintaining cost-effective disposal options for Connecticut.
- Conduct further study of water taxi service feasibility between Norwalk, Stamford and coastal Westchester communities, as identified in the LISWTP.

²⁴ The Long Island Sound Ferry Coalition is a partnership of Connecticut and New York state agencies that provides a framework for planning, promoting and implementing ferry services on Long Island Sound and its tributaries.

- Support legislation requiring representation from the South Western Region on the Connecticut Maritime Commission, and seek appointment of a representative.

Recommended Projects

- Work in conjunction with private developers to construct a Stamford Ferry Terminal and parking facility.
- Implement ferry service between Bridgeport, Stamford and New York.
- Complete Phase II dredging of the Norwalk River and Norwalk Harbor (unfunded).
- Perform dredging operations at the following locations: Holly Pond in Darien, Mianus River and Captain's Harbor in Greenwich, and Saugatuck River in Westport.
- Carry out recommendations of the Stamford Harbor Plan (2007)

AIR & PIPELINE SYSTEMS

Background

Air transportation is essential to the movement of people and goods. The South Western Region is near the three major New York metropolitan airports (Kennedy, LaGuardia, and Newark), while Westchester County (White Plains) Airport is located within a half mile of King Street in northern Greenwich. Bradley International Airport is the state's major air facility with a full range of scheduled domestic and international air passenger and freight services, and general aviation facilities. In 2005, Bradley attracted only 7% of its air passengers from the Fairfield County. Less than one hour in travel time away are two municipal airports: Bridgeport's Sikorsky Airport is a regional service and general aviation airport currently offering helicopter service to Manhattan, Kennedy Airport and Newark Airport; Tweed-New Haven Airport offers scheduled flight service via US Airways in addition to general aviation service. Both have issues associated with securing permits for improvements including construction of safety areas.

The challenge is to achieve good air service, which is necessary to support the Region's economy for both passengers and goods. Environmental concerns, new requirements for improved navigational aids, and funding availability are constraints to the ability of Connecticut and New York Metropolitan airports to meet current and future demands. To meet these demands, the Federal Aviation Administration is reviewing airspace design of the New York/New Jersey/Philadelphia region, and is assessing the potential environmental impacts in the South Western Region that could result from alterations to the air traffic patterns to New York/New Jersey/Philadelphia region.

Pipelines in this Region are confined to natural gas transport. The increasing challenge is to assure adequate and affordable energy supplies.

Recommended Strategies

- Support quality air service opportunities at Connecticut and metro-New York Airports.
- Enhance access to airports by public transportation, also evaluate and promote ferry access to LaGuardia, rail connections to Kennedy, Newark, and improved transportation to Bradley International Airport.
- Provide public transportation connections between CT Transit and Westchester County Bee Line Transit to make it possible to use public transportation to access Westchester County Airport.
- Encourage cooperation between Westchester County Airport, the Town of Greenwich and the State of Connecticut to reduce airport impacts on neighboring residents in New York and Connecticut.
- Encourage the state to determine the adequacy of gas pipelines and sustainability of energy supplies to maintain a strong economy and to promote public policies that provide adequate energy supplies while addressing environmental concerns and regulations.
- Support efforts to minimize noise and pollution impacts of air traffic.

Projects

- Implement CT Transit/Bee-Line connector service to provide access to Westchester County Airport

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Background

SWRPA is developing an ITS plan for the South Western Region. This effort will yield a strategic assessment of new and/or enhanced opportunities for the implementation of intelligent transportation systems (ITS) applications in the South Western Region, with a focus on improving the safety and efficiency of the regional transportation network.

The primary study area is comprised of the eight towns in the South Western Region (Darien, Greenwich, New Canaan, Norwalk, Stamford, Weston, Westport, Wilton). Key transportation facilities and corridors in this study area include Interstate I-95, the Merritt Parkway, Routes 1 and 7, and the New Haven, New Canaan and Danbury rail lines, stations and amenities. External connections to the study area also will be considered to the extent necessary to ensure that the development of ITS projects in the region is compatible with ITS projects in place or planned at other locations in the State of Connecticut, the New York metropolitan area and the I-95 corridor. Particular attention will be paid to shared and adjacent facilities.

Primary study objectives are as follows:

- To identify regional issues, concerns and conditions that the Connecticut Department of Transportation should consider in its development of a regional/state-wide ITS;
- To establish ITS program policies that provide a framework for local and regional planning;
- To identify regional ITS program priorities and recommend specific projects for implementation over a 20-year period;
- To identify institutional and other challenges to plan implementation and propose strategies for meeting those challenges;
- To educate federal, state and local policy-makers, as well as the general public, about the role of ITS in transportation systems design and the benefits of implementation; and

To actively involve federal, state and local stakeholders in the development of the regional ITS plan.

Project tasks include project scoping and mobilization; data collection and analysis; public involvement; development of alternatives and improvements; detailing of a recommended program; evaluation of recommended strategies; and the preparation of reports and post-completion outreach materials. The resulting plan will support the state-wide architecture and will meet the ITS-related program requirements of both the FHWA and the FTA.

Recommended Strategies

- Complete an ITS Plan for the South Western Region during FY 2007, in coordination with all other active state, regional and local initiatives and stakeholders.
- Encourage ConnDOT to develop statewide policies for the review, maintenance and update of the statewide ITS architecture.
- Encourage ConnDOT to develop policies governing the ownership, archival and sharing of data collected through ITS systems.
- Seek implementation of ITS strategies recommended in the Congestion Mitigation System “Vision 2020” plan including Weigh-in-Motion technology on I-95 in Greenwich; automatic vehicle location systems (AVL) and related dispatching programs for transit operators, emergency responders and other partners in incident management; enhanced use of variable message signs on I-95 and the Merritt Parkway; and traveler information systems.
- Advocate for development of a Danbury Branch ITS plan as part of Danbury Branch Electrification Study Phase 2.
- Incorporate ITS elements into the design of projects and implement the projects. Some projects with ITS elements include Stamford Urban Transitway.
- Include consideration of ITS strategies as part of a South Western Region bus rapid transit study and as part of a multi-region or statewide value pricing study.

SECURITY

Homeland security is an essential component of all transportation systems planning and is handled by CT Department of Emergency Management and Homeland Security (DEMHS) in coordination with state, regional and local officials and plans.

Background

South Western Region involvement in security preceded 9/11. Through the South Western Region Incident Management Team (IMT), SWRPA and a network of emergency responders have worked together on freeway incident management since 1991, building relationships, skills, mutual aid compacts, training and conducting tabletop and field exercise drills since its inception. Many of the members of the IMT are municipal Emergency Management Directors (EMD). In addition, many of the drills and supportive training involved acts of terrorism.

For the IMT, SWRPA prepared the LIS Waterborne Assets Inventory in 1995 which identified assets available to respond to incidents on the Long Island Sound. In 1991, SWRPA worked with ConnDOT and the municipalities to develop the first I-95 diversion route plans in the corridor and the state. In 2004-2005, SWRPA and the municipalities updated the diversion route plans, which were then officially released by ConnDOT in digital format in September 2005.

SWRPA's involvement with DEMHS and its predecessor agencies the CT Department of Emergency Management and the CT Department of Homeland Security began in 2002, with administration of the CERT (Community Emergency Response Team) program, and has continued to 2007 with administration of federal FY2004 and FY2005 Homeland Security Grants to municipalities. In 2005 - 2006, SWRPA participated in DEMHS Region 1 preparation of the Region 1 Evacuation Plan as well as the training, exercises and development of the Region 1 Tactical Interoperable Communications (TIC) plan. In 2007, with those initial efforts substantially completed, DEMHS Region 1 is forming the Regional Emergency Planning Committee (REPC). SWRPA is participating in both the regional committee (REPC) and the transportation committee (RESF-01, Regional Emergency Service Function 1). The planned April 2007 disaster exercise involving MetroNorth, and disruption of rail service and highway operations due to an act of terrorism will meet MetroNorth emergency preparedness requirements and complete initial TIC plan testing.

SWRPA's Pre-Disaster Mitigation Plan was approved by the Federal Emergency Management Agency (FEMA) in 2005 and positions the Region's municipalities to qualify for certain FEMA funds in the event of any number of natural disasters. Separately, and through a CT Department of Environmental Protection (Grant, SWRPA and is special interoperable communications training and procedures effort that (Additional focus A Commuter Rail System Safety Program Plan describes safety procedures for rail operations, and various contingencies plans address different service disruption scenarios.

As required by the Federal Transit Administration (FTA), each transit operator has prepared an emergency response plan. Norwalk Transit District's plan is dated 2004. In addition, Norwalk

Transit District is included annexes to the municipal emergency management plans of Norwalk and Westport (October 2004).

Process

SWRPA will continue to participate in emergency planning activities coordinated by DEMHS and others.

Recommended Strategies

- Support security programs and projects to “harden” transportation assets and operations.
- Continue participation in regional emergency planning coordination, and the regional emergency planning coordination for transportation (RESF-01).

Recommended Projects

- Develop Transportation Resources Inventories for RESF-01
- Coordinate with other regions and agencies on RESF-01

LAND USE

Land use and transportation policies are inextricably linked. In any community, land use policies and practices are factors in determining the feasibility and, hence, the availability of transportation options. In fact, research has shown that population density, balance between residential and commercial land uses, connectivity of travel routes and regional accessibility impact vehicle trips, vehicle miles traveled, and availability and choice of travel options.

In February 2003, SWRPA released its Congestion Mitigation Systems “Vision 2020” Plan (Vision 2020), a portion of which examines the relationship between selected development strategies and transportation options. For the purposes of the Vision 2020 analysis, three land use strategies were identified for evaluation:

- Maintain existing land use policies and practices. This strategy was defined as continuation of land use practices that emphasize neither regional coordination nor the comprehensive use of planning practices that promote development of sustainable travel options. The common result of such a land use strategy is the creation of an automobile-centered community.
- Strengthen existing transportation corridors. Transportation corridors are defined as both roadway and transit corridors. These corridors are characterized by heavy development either along an entire corridor or at particular intersections. Some mixing of land uses is present, although commercial development often dominates. Although transportation corridors may have sufficient destination densities to support transit, the automobile remains the most popular mode of travel.
- Promote transit-oriented neighborhoods. This strategy is characterized by transit hubs surrounded by dense, mixed use development. The clustering of origins, destinations, complementary land uses and transit hubs create an environment where reliance on the automobile for daily personal and business travel becomes unnecessary.

Each land use strategy evaluated is comprised of any number of elements that may be implemented at the municipal level through zoning regulations, master plans, plans of conservation and development or site plan review or, in the absence of regulatory mandates or incentives, by private developers and property owners. These strategies and design elements were evaluated with regard to their potential to: (1) contribute to regional congestion mitigation; (2) support sustainable travel options; and (3) produce direct or indirect environmental benefits. Supporting transportation investments also were evaluated using a similar rating system. What the evaluation yielded is simple: Opportunities for the creation of sustainable travel options increase with the intensification of development densities, the mixing of land uses and the creation of transit nodes or hubs. The performance of the transportation investments supports this analysis.

SWRPA’s *Regional Plan of Conservation and Development, 2006-2015* adopts and expands upon the recommendations of the Vision 2020 study. Under the guiding principle of centrality, the *Regional Plan* recommends more compact and mixed use development targeted to transportation hubs and other areas where supporting infrastructure (water, sewer, etc.) already exists. The *Regional Plan* also recommends the rehabilitation of abandoned or under-used

properties, flexible parking standards, a “park-and-walk” pattern, improved pedestrian and bicycle facilities with an emphasis on safety, and consolidation of curb cuts.

In 2005, the Connecticut General Assembly approved the *Conservation and Development Policies Plan, 2005 – 2010*. The objective of the plan is to guide a balanced response to the current and future human, economic, and environmental needs of the state. The plan outlines a series of broad-based principals of growth management:

- Redevelop and Revitalize Regional Centers and Areas with Existing or Currently Planned Physical Infrastructure
- Expand Housing Opportunities and Design Choices to Accommodate a Variety of Household Types and Needs
- Concentrate Development Around Transportation Nodes and Along Major Transportation Corridors to Support the Viability of Transportation Options
- Conserve and Restore the Natural Environment, Cultural and Historical Resources, and Traditional Rural Lands
- Protect and Ensure the Integrity of Environmental Assets Critical to Public Health and Safety
- Promote Integrated Planning Across all Levels of Government to Address Issues on a Statewide, Regional and Local Basis

Accompanying the *Conservation and Development Policies Plan* is the *Location Guide Map*, which classifies and assigns development and conservation area policies. As part of the effort to integrate planning across all levels of government, SWRPA’s *Regional Plan* adopted the state’s *Location Guide Map* as SWRPA’s land use policy.

SWRPA holds its *South Western Region Town Planners Meeting* on a quarterly basis. Planning directors from each of the eight municipalities in the South Western Region as well as a representative from the Connecticut Office of Policy and Management are invited to attend. The meetings are an opportunity for attendees to update each others of their activities, to discuss pertinent matters, and to coordinate efforts.

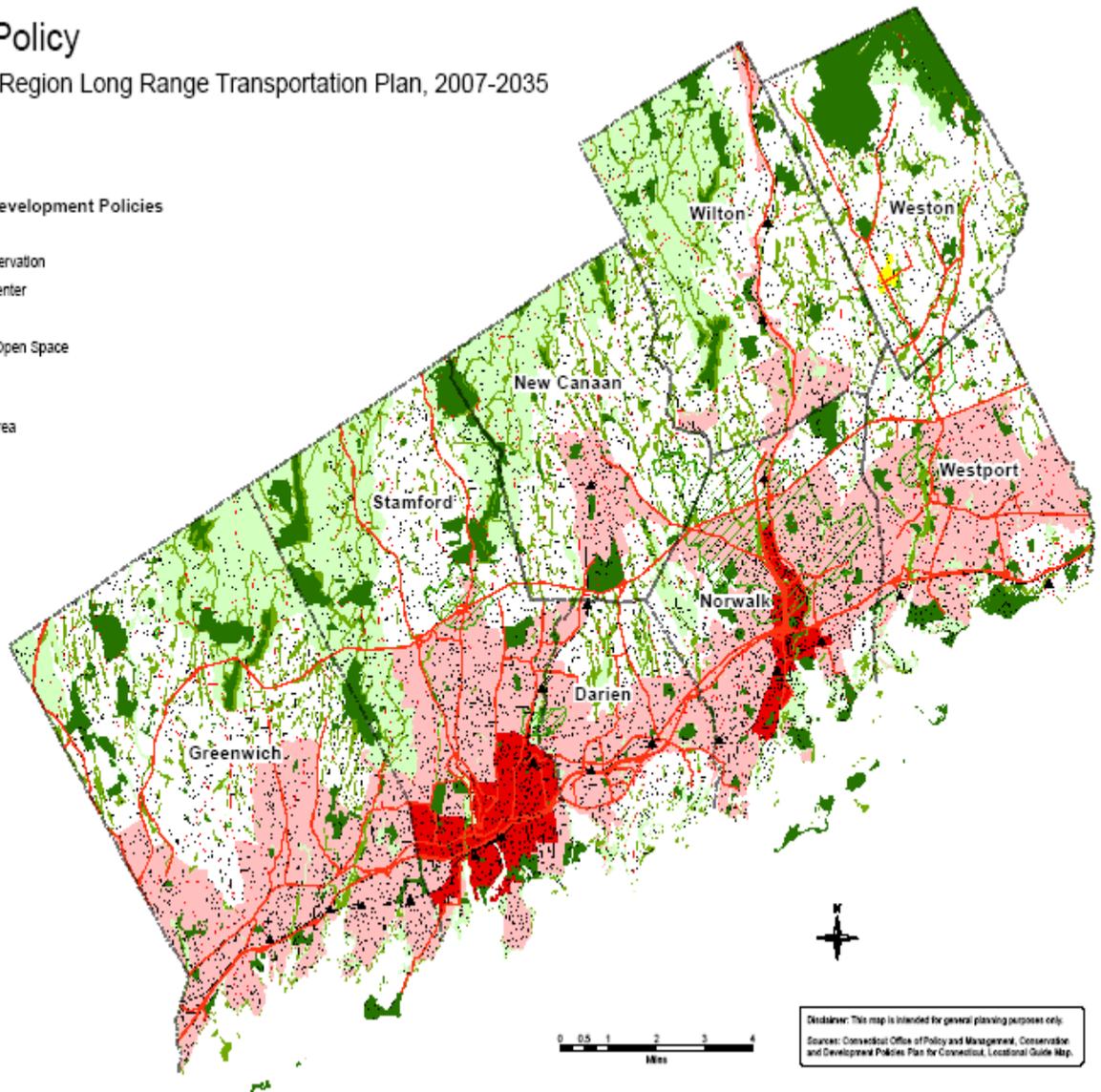
Figure 13. Land Use Policy

Land Use Policy

South Western Region Long Range Transportation Plan, 2007-2035

Conservation and Development Policies

- Regional Center
- Neighborhood Conservation
- Rural Community Center
- Rural Land
- Existing Preserved Open Space
- Preservation Area
- Conservation Area
- Aquifer Protection Area
- Historic District
- Municipal Boundary
- Primary Highway
- Secondary Highway
- Local Road
- Railroad
- Rail Station



Prepared on March 15, 2007
SWRPA
South Western Region Planning Agency

Disclaimer: This map is intended for general planning purposes only.
Source: Connecticut Office of Policy and Management, Conservation and Development Policies Plan for Connecticut, Locational Guide Map.

Recommended Strategies

- Support the goals of the *Regional Plan of Conservation and Development, 2006-2015*, foremost of which is promoting centrality by directing development to those areas with the infrastructure to best accommodate growth (map attached).
- Review municipal and regional land use policies and plans to identify the extent to which such policies support transportation investments or contribute to sprawl
- Support municipal efforts to restructure zoning regulations to embrace transit-friendly development, walkable communities, density and mixed uses, reduced parking requirements, and access management.
- Support municipal “smart growth” initiatives -- such as the Stamford South End Development, Stamford Mill River Corridor, Darien Center Revitalization, and the South Norwalk Reed-Putnam Development projects -- that link transit opportunities with central city business district development projects.
- Perform a build-out analysis of the Region to determine the potential for development given zoning and environmental considerations.
- Support greenway linkage projects that preserve open space and provide alternative travel opportunities.
- Support implementation of the FHWA and ConnDOT **Context Sensitive Design Solutions** approach which seeks to ensure that transportation projects are developed in harmony with host communities and preserve environmental, scenic, aesthetic and historic resources while maintaining safety and mobility.

Figure 14. Transit-Supporting Population and Employment Density: Rail Service

Transit-Supporting Population and Employment Density: Rail Service
 South Western Region Long Range Transportation Plan, 2007-2035

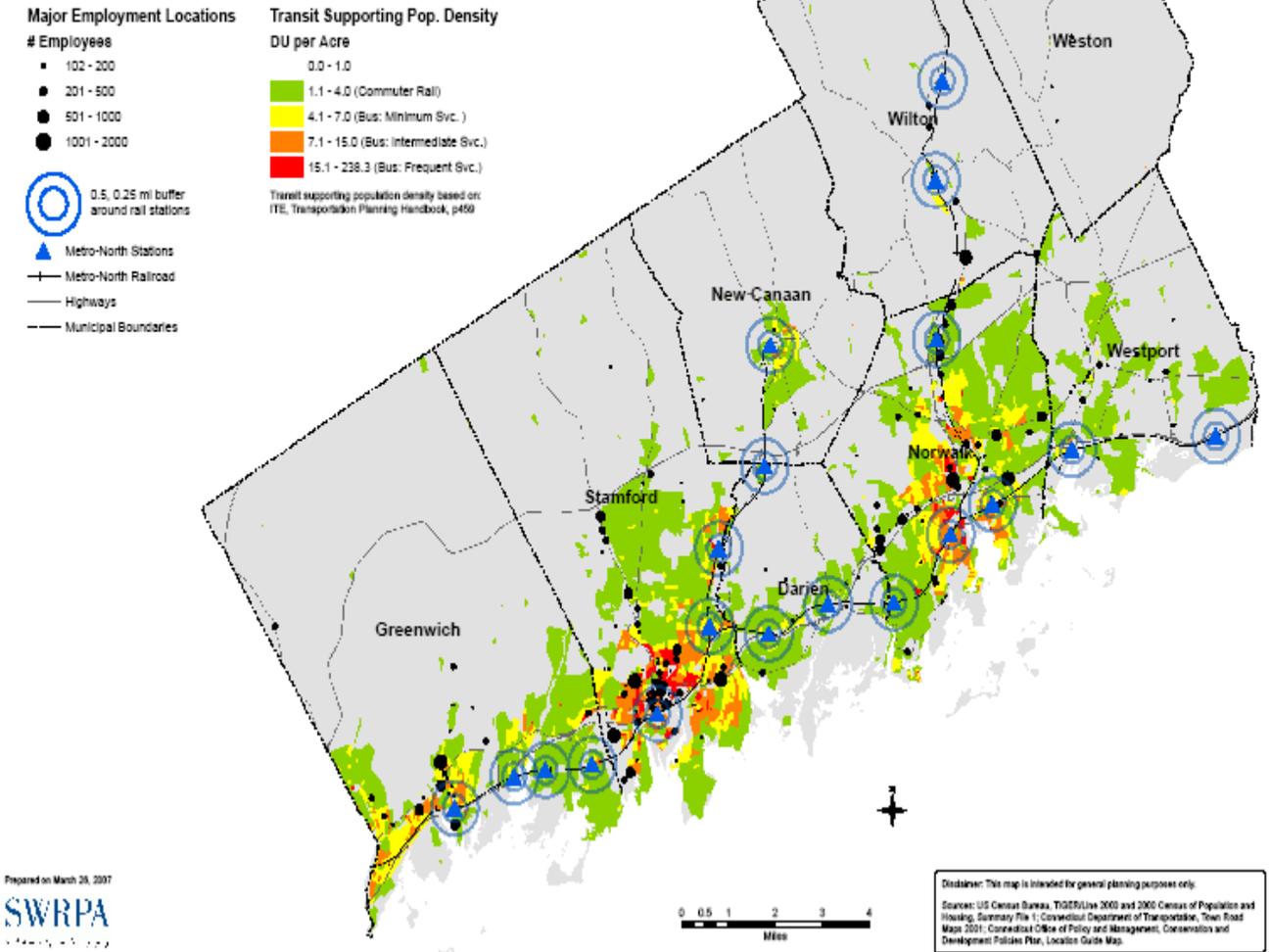
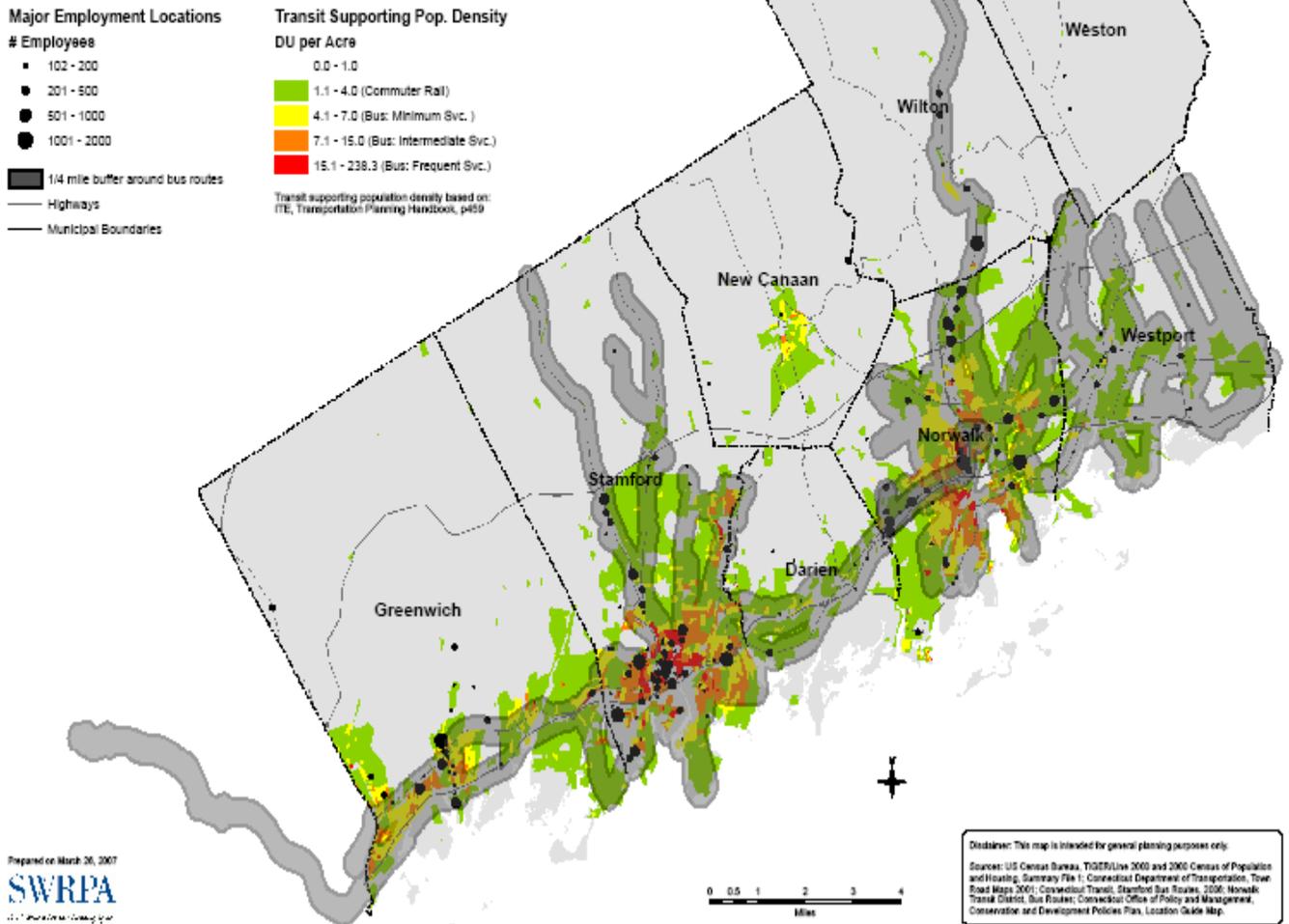


Figure 15. Transit-Supporting Population and Employment Density: Bus Service

Transit-Supportive Population and Employment Density: Bus Service

South Western Region Long Range Transportation Plan, 2007-2035



ENVIRONMENTAL CONSIDERATIONS

Important controls and challenges for the South Western Region are the legal requirements of the federal Clean Air Act Amendments of 1991, other environmental regulatory requirements, and energy supplies. The Clean Air Act focuses on the relationship of transportation (as mobile source of pollution) and the environment. The regulations mandate analyses, creation of budgets and plans to attain set standards. All plans and transportation projects must conform to the State Implementation Plan for Air Quality. Fairfield County, along with most of metropolitan New York counties, is in a “severe non-attainment area” for ozone under the Clean Air Act. At the same time, the importance of balancing transportation systems improvements, and public needs with environmental concerns is acknowledged as important to preserving the quality of life and the quality of the environment.

Sound or “smart” land use policies can help regions continue to grow without worsening traffic or reducing the quality of life that attracts residents and businesses. As noted in the land use section, positive environmental benefits occur and the use of travel options increases as mixed land uses, with transit-supporting densities are planned near transit nodes. Both SWRPA’s *Regional Plan of Conservation and Development, 2006-2015* and the Connecticut Office of Policy and Management *Conservation and Development Policies Plan, 2005 – 2010* support smart land use policies that recommend revitalization of areas with existing infrastructure, concentrating development around transportation nodes and corridors, conserving and restoring the natural environment, and promoting integrated land use planning across all levels of government. For more information on this topic, please see the *Land Use* chapter.

Long Island Sound is arguably the Region’s most important natural resource. The presence of the Sound, actually an estuary, gives form to both the physical and social environment of the South Western Region. The Sound not only forms the southern boundary of the Region but also serves as the Region’s primary recreational facility and makes the Region a highly desirable place to live. Unfortunately, the Sound suffers from severe environmental degradation that has puts its long-term viability in jeopardy. The states of Connecticut and New York as well as the United States Environmental Protection Agency (EPA) have made protecting and restoring the sound a priority. In 1994, the two states and US EPA approved the Comprehensive Conservation and Management Plan for Long Island Sound. The plan “characterizes the priority problems affecting Long Island Sound and identifies specific commitments and recommendations for actions to improve water quality, protect habitat and living resources, educate and involve the public, improve the long-term understanding of how to manage the Sound, monitor progress, and redirect management efforts.”²⁵

The Connecticut Department of Environmental Protection’s (DEP) Statewide Comprehensive Outdoor Recreation Plan (SCORP), published in 2005, fulfills the requirements for participation in the Federal Land and Water Conservation Fund. However, the SCORP document goes beyond this by serving as a guide for “state investments and resource allocations for meeting the outdoor recreational needs of Connecticut’s citizens and visitors during the plan’s five year term.” The SCORP is based on an inventory of each municipality’s recreational facilities as well

²⁵ Comprehensive Conservation and Management Plan for Long Island Sound, introduction.

as surveys of recreational facility users and municipal recreation officials. In order to best provide outdoor recreation facilities and services to Connecticut residents, the SCORP recommends that focusing on: capital maintenance, land acquisition, facility development, access impediments, property management, municipal assistance, and implementation.

In 2005, the DEP published a draft of the Connecticut Recreational Trails Plan. The document describes the current status of trails in Connecticut and lays out the goals and objectives for Connecticut's trails system. The five overarching goals are:

- Ensure the continuity and linkage of trails around the state;
- Develop areas for all trail users in the state;
- Ensure public participation in and support for the state trails programs;
- Ensure construction and maintenance of trails in an environmentally sound manner; and
- Utilize trails as education media.

The plan presents a list of priority projects for completion based on national, regional, state, and local significance. Chief among these priority projects is development of a trail between New Haven and the New York state line, which will be part of the East Coast Greenway. The East Coast Greenway Alliance considered the section through Southwestern Connecticut to be the most critical gap in the entire trail north of Washington, DC.

In order to more fully consider the environment as it relates to transportation planning, SWRPA will consult with representatives of appropriate Federal and State agencies to review their inventories of historic, natural, and cultural resources as well as related efforts. These consultations should help elevate environmental conservation and mitigation, land use, and historic preservation as important considerations in SWRPA's transportation planning program.

Recommended Strategies

- Consult with representatives of appropriate Federal and State agencies to review their inventories of historic, natural, and cultural resources as well as related efforts.
- Work with appropriate Federal and State agencies to determine potential environmental mitigation activities that restore and maintain the environmental functions affected by the SWRPA's transportation planning.
- Balance increased demand for transportation infrastructure and services with the need to preserve quality of life and protect the quality of air, water and other natural resources.
- Streamline existing environmental review and approvals processes to eliminate duplication of efforts and to enhance coordination among local, state and federal agencies.
- Institute programs through which the ConnDOT and other state agencies will acquire the skills and capacity to consider and model the impact of various transportation policies on the natural environment, land use, community character and quality of life.
- Promote clean air initiatives to: encourage smart growth and transit oriented development; use alternative fuels and low sulfur fuels; expand effective travel demand management programs such as telecommuting, flexible work weeks, staggered work hours, and various forms of ridesharing; support public transit, rail freight, traffic flow improvements, and incident management programs.
- Consider energy supply and conservation in the development of transportation strategies.

ENVIRONMENTAL JUSTICE

Background

As a result of federal mandates, growing attention has been placed on the need to incorporate environmental justice (EJ) principles into the processes and products of transportation planning. Recipients of federal-aid must abide by nondiscrimination policies as laid out by Title VI of the Civil Rights Act of 1964. These requirements were amplified by Executive Order No. 12898, issued February 11, 1994, which requires that each federal agency incorporate EJ into its mission “by identifying and addressing...disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations”. For the purpose of this analysis, these groups collectively comprise the “population of concern”.

The US Department of Transportation (US DOT) mandates that EJ be considered in each phase of the planning and implementation processes. The US DOT outlined three principles to guide Metropolitan Planning Organizations (MPOs) in their EJ efforts:

1. Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.
2. Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. Prevent the denial of, the reduction in or the significant delay in the receipt of benefits by minority and low-income populations.²⁶

In 2005, the Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was signed into law. SAFETEA-LU regulations may likely represent a continuation of the efforts from previous surface transportation bills to implement EJ principles and procedures at all levels of transportation decision making.

Communities of Concern

In order to structure planning efforts to comply with EJ mandates, the geographic distribution of the population of concern was evaluated against four criteria at the Census block group level using data gathered from the *2000 Census of Population and Housing, Summary File 3*. The following four criteria were used in the analysis:

- percent of minority population (all persons except those identifying themselves as White, not Hispanic);
- per capita income;
- percent of persons below the poverty level; and
- percent of households receiving public assistance income.

²⁶ US DOT, “An Overview of Transportation and Environmental Justice.”

Table 37: Environmental Justice Criteria: South Western Region, 2000

Item	New									Region	Threshold
	Darien	Greenwich	Canaan	Norwalk	Stamford	Weston	Westport	Wilton			
Total Population	19,607	61,101	19,395	82,951	117,083	10,037	25,749	17,633	353,556		
Minority Population	1,139	8,846	1,091	29,668	45,609	602	1,736	998	89,689		
Percent Minority	5.8%	14.5%	5.6%	35.8%	39.0%	6.0%	6.7%	5.7%	25.4%	25.4%	
Per Capita Income	\$77,519	\$74,346	\$82,049	\$31,781	\$34,987	\$74,817	\$73,664	\$65,806	\$51,462	\$51,462	
Pop. for whom Poverty Status is Determined	19,494	60,561	19,294	82,243	115,851	10,033	25,524	17,357	350,357		
Pop. Below Poverty Level	391	2,436	484	5,944	9,194	190	657	503	19,799		
Percent Pop. Below Poverty Level	2.0%	4.0%	2.5%	7.2%	7.9%	1.9%	2.6%	2.9%	5.7%	5.7%	
Total Households	6,624	23,259	6,803	32,703	45,454	3,327	9,565	5,898	133,633		
Households Receiving Public Assistance	19	217	81	826	1,188	18	128	30	2,507		
Percent Households Receiving Public Assistance	0.3%	0.9%	1.2%	2.5%	2.6%	0.5%	1.3%	0.5%	1.9%	1.9%	

Source: US Census Bureau, Summary File 3, 2000

A geographic area satisfies one of the criteria if it exceeds a designated threshold. In the case of per capita income, an area satisfies the criteria if the area's per capita income does not exceed a designated threshold. The threshold for each criterion is set at the regional mean or in the case of per capita income, the regional per capita income. If an area meets all four of the criteria, it is highlighted as an area with a significant population of concern. The thresholds for each criterion are listed in the last column of the above table.

Using the method described above, an analysis was conducted examining all Census block groups in the Region. Block groups were chosen because of the availability of data and ability to perform fine grain geographical analysis. Further, data at the block group level can be easily aggregated.

Table 38: Communities of Concern: South Western Region, 2000

Item	Thresholds	Greenwich	Norwalk	Stamford	Total	Regional Share	Region
Number of Census Block Groups		2	18	24	44	16.2%	272
Total Population		2,180	27,996	41,198	71,374	20.2%	353,556
Minority Population		914	17,549	27,634	46,097	51.4%	89,689
Percent Minority	25.4%	41.9%	62.7%	67.1%	64.6%	-	25.4%
Per Capita Income	\$51,462	\$27,736	\$21,526	\$22,200	\$22,105	43.0%	\$51,462
Pop. for whom Poverty Status is Determined		2,180	27,727	40,737	70,644	20.2%	350,357
Pop. Below Poverty Level		219	3,438	5,922	9,579	48.4%	19,799
Percent Pop. Below Poverty Level	5.7%	10.0%	12.4%	14.5%	13.6%	-	5.7%
Total Households		911	10,594	15,545	27,050	20.2%	133,633
Households Receiving Public Assistance		44	592	849	1,485	59.2%	2,507
Percent Households Receiving Public Assistance	1.9%	4.8%	5.6%	5.5%	5.5%	-	1.9%

Source: US Census Bureau, Summary File 3, 2000

Race and Ethnicity

According to the 2000 Census, 25.4% of the population of the South Western Region identifies themselves as a member of a minority group (all groups except White, not Hispanic). Census block groups with a minority population exceeding the defined threshold of 25.4% were highlighted as potential communities of concern. In 2000, 79 block group had a minority population that exceeded 25.4% of its total population. All of these block groups were located in Greenwich, Norwalk and Stamford.

Income

According to the 2000 Census, median household incomes in the region ranged from \$59,839 in Norwalk to \$146,755 in Darien. Darien, New Canaan, Weston and Wilton had median household incomes over \$140,000 per year. The median household incomes for Fairfield County and Connecticut were \$65,249 per year and \$53,935 per year, respectively.

According to the 2000 Census, per capita incomes in the region ranged from \$31,781 in Norwalk to \$82,049 in New Canaan. Census block groups with per capita income below the defined threshold of \$51,462 were highlighted as potential communities of concern. In 2000, 159 block groups had a per capita income below \$51,462. These block groups were located primarily in Norwalk and Stamford but there were also blocks groups meeting this criteria in every municipality in the region except Weston.

Poverty

According to the 2000 Census, 5.7% of the region's population was living below the poverty level. This figure is lower than either that of either Fairfield County (6.9%) or the state (7.9%). This figure is also low in comparison to the rest of the nation where 12.4% of the population was living below the poverty level. Stamford and Norwalk have the highest concentrations of persons living below the poverty level, totaling 9,194 persons (7.9%) and 5,944 persons (7.2%) respectively. Census block groups with a poverty rate exceeding the defined threshold of 5.2% of were highlighted as potential communities of concern. In 2000, 88 block groups had a poverty rate that exceeded 5.7% of the total population. These block groups were located primarily in Greenwich, Norwalk and Stamford but also in New Canaan, Westport, and Wilton.

Public Assistance

According to the 2000 Census, approximately 1.9% of households in the region received some form of public assistance income. Similar to the poverty figures, both Fairfield County (2.7%) and the state (3.4%) had a greater percentage of households receiving public assistance income. Across the nation, 3.4% of households received public assistance income. Census block where the percent of households receiving public assistance exceeded the defined threshold of 1.9% were highlighted as potential communities of concern. In 2000, 91 block groups had rates of households receiving public assistance that exceeded 1.9%. These block groups were located primarily in Norwalk and Stamford but also in all other municipalities except Weston.

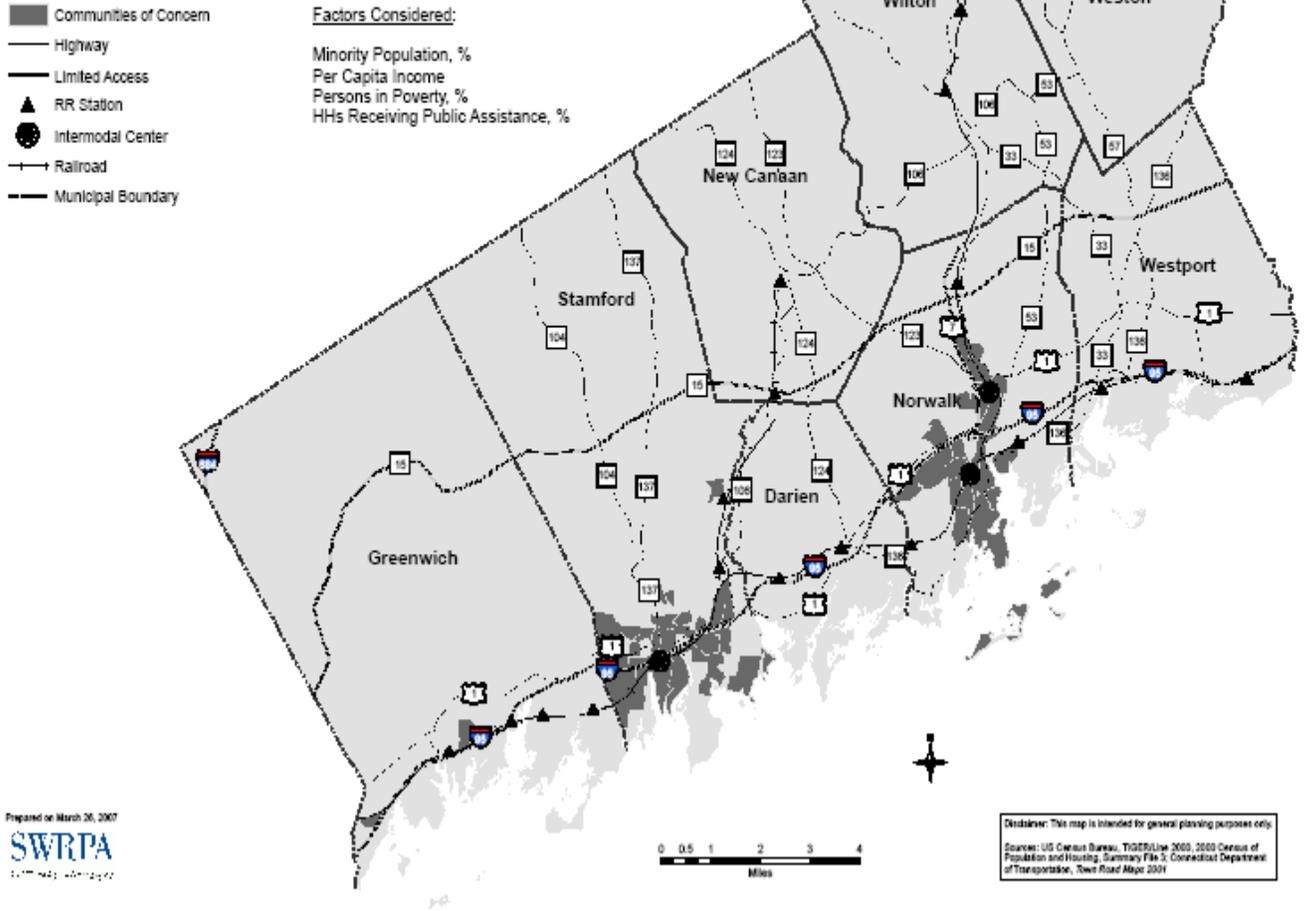
Composite of Communities of Concern

An analysis of Census block group determined that 44 (16.2%) of the Region's 272 block groups met all four EJ criteria. As shown in Figure 16, Greenwich has two qualifying block groups, which are located along the Route 1 corridor between the Mianus and Byram Rivers. In Norwalk, the eighteen qualifying block groups are concentrated in Central and South Norwalk generally along the Route 7 Corridor. In Stamford, the twenty-four qualifying block groups are located in the Downtown, Waterside, South End, Glenbrook, and Springdale areas, generally along the Route 1 and Interstate 95 corridor. Among the other municipalities, only Westport had any block groups (and only one) that exceeded the thresholds for even two of the criteria used to locate a community of concern. The South Western Region Environmental Justice Report August 2006 provides detailed demographics for the identified communities of concern as well as maps locating the communities and planned transportation improvement projects.

Figure 16. Communities of Concern

Environmental Justice - Communities of Concern

South Western Region Long Range Transportation Plan, 2007-2035



Prepared on March 26, 2007
SWRPA
 South Western Region

Implications

This analysis provides SWRPA and its partners with a basis for identifying and understanding potential benefits and burdens upon communities of concern as a result of transportation planning and improvement projects. In order for the EJ process to be more responsive to communities of concern, an effort needs to be undertaken to involve effected communities in planning processes. Such a process would help the MPO to consider how current federal aid funds are allocated and address any inconsistencies in benefits and burdens brought to bear on communities of concern.

In the South Western Region, it is the policy of SWRPA and the SWRMPO to provide public access and involvement under a collaborative planning process in which the interests of all of the stakeholders are reflected and considered. SWRMPO has an endorsed public involvement process that is based upon proactive public involvement program at both MPO and Transportation Technical Advisory Group (TTAG) meetings. SWRPA seeks to enhance this process by developing new networks of contacts and venues for community and neighborhood involvement in the transportation planning and programming process.

Recommended Strategies

- Annually review and update the South Western Region MPO Public Involvement Process, adopted on December 4, 1997, to incorporate noteworthy public involvement practices and address new regulations, guidance, and regional needs.
- Continue to expand EJ analyses and document findings and recommendations in reports.
- Rely on major project's environmental assessments and EJ components to evaluate and remediate EJ impacts and consider the findings and recommendations in regional EJ assessments and reports.
- Develop and document a systematic way to review the effectiveness of public outreach efforts and use the information to modify public involvement procedures.
- Expand the community network for transportation and regional planning; expand outreach efforts to bring the plans and projects to community and neighborhood groups, and other venues and at convenient times and locations.
- Continue to issue media releases and public service announcements regarding transportation projects, programs, studies and issues of concern.
- For major transportation planning studies undertaken by SWRPA or others, customize the public outreach efforts to assure outreach and input of identified "communities of concern" with the assistance and participation of community, neighborhood and social service agencies.

FINANCIAL COMPONENT

The financial component of the Plan identifies policies that are used to guide financing, the process for identifying specific elements of the financial plan, the resources available to support the Plan, recommended elements of the financially constrained plan, and un-funded needs.

Policies

- Maintain and preserve basic transportation systems
- Enhance safety and system productivity
- Promote system connectivity
- Support multi-modal and multi-disciplinary program.
- Address and direct funding to federal and/or state mandates
- Provide needed transportation systems enhancements
- Utilize state, federal, and town funding to maximum extent
- Develop financially realistic and constrained plans and programs

Process

Maintain the Long Range Transportation Plan and Transportation Improvement Program (TIP) in accordance with the latest available information and guidance, and develop accurate and financially constrained implementation programs that are based upon financial resources that are reasonably expected to be available. The Long Range Transportation Plan and the TIP are developed in concert with the TTAG, the MPO, funding agencies, sponsors, stakeholders and others. Conduct studies and incorporate supported findings and recommendations. Seek creative solutions.

Financial Assessment

The South Western Region Long Range Transportation Plan 2007-2035, presents a program of transportation capital and operating projects, programs and studies that fall within the envelope of available financial resources. The Financial Plan identifies as “funded” only projects that are approved by ConnDOT and included in the current TIP (FFY2007-2011 Transportation Improvement Program), ConnDOT 2007 Transportation Master Plan, Air Quality Conformity Determination, or are approved for discretionary funding by USDOT in earmark, FTA New Start, Ferryboat Discretionary, or Transportation Community System Preservation (TCSP) programs. All other projects are deemed to be proposed future un-funded needs.

The Region’s Surface Transportation Program – Bridgeport Stamford program (STP-BS) projects include active projects already in design, rights of way or construction, projects in review at ConnDOT’s “Project Concept Unit”, or recently proposed under the Region’s STP Phase IX program. The projects total approximately \$54 million, which can be accomplished in 10.5 years at the current funding level of \$4,625,000 as shown in Table 48.

The South Western Region Long Range Transportation Plan 2007-2035 is financially constrained. The cost to implement the Plan is estimated to cost \$4.0 billion, while the

anticipated financial resources are \$4.9 billion. The net reserve balance is \$923 million. The following sections of the Plan describe available funding, programmed projects, and un-funded needs.

Table 39 – Summary of Financial Resources and Needs			
South Western Region Long Range Transportation Plan 2007-2035			
Anticipated Financial Resources 2007-2035		Estimated Project Costs 2007-2035	
Funding Category	Estimated Funds	System Category	Estimated Cost
Highway System Improvements	\$ 1,454,422,869	Highway System Projects	\$ 617,873,600
Highway System Preservation	\$ 783,583,513	Highway System Preservation	\$ 707,236,065
Major State Projects	\$ 129,455,750	Major State Projects	\$ 203,600,000
		Region's STP-BS Projects	\$ 54,059,000
Subtotal	\$ 2,367,462,132	Subtotal	\$ 1,582,768,665
Transit Capital Program – Bus(a)	\$118,358,000	Transit Capital Program – Bus	\$118,358,000
Transit Capital Program Rail(a)(b)	\$881,426,000	Transit Capital Program – Rail	\$881,426,000
Operating Subsidies – Bus	\$593,303,402	Operating Subsidies – Bus	\$593,303,402
Operating Subsidies – Rail (c)	\$844,872,950	Operating Subsidies – Rail	\$844,872,950
Subtotal	\$2,437,960,352	Subtotal	\$2,437,960,352
Discretionary Funding	\$169,000,000	Special Projects	\$30,003,528
Subtotal	\$169,000,000	Subtotal	\$30,003,528
Total Anticipated Funds	\$4,974,422,484	Total Estimated Project Costs	\$4,050,732,545
Net Reserve (Under Budget Limit)	\$923,689,939		

(a) Transit Capital Program figures include all projected near-term costs through 2011, and long-term costs provided for the period 2012-2027. To estimate costs through 2035, the figures for 2012-2027 were prorated and extended to 2035.

(b) Rail Transit Capital includes all rail projects related to Metro-North and Shore Line East, with 25% of the cost figures allocated to the South Western Region.

(c) The annual rail operating subsidy for the South Western Region was estimated to be 25% of the total annual subsidy for Metro-North and Shore Line East.

Note: Improvements are projects and enhancements to promote safety, improve mobility, and increase system productivity or support economic growth. Preservation and maintenance projects include paving, bridge repair or replacement.

South Western Region Allocation of Funds for Highway System Preservation and Enhancement

According to ConnDOT estimates provided in February 28, 2007 guidance²⁷ there is approximately \$77 million per year available to preserve or enhance the Region's highway system. Between 2007 and 2035, this is an investment of more than \$2.2 billion.

Over the twenty-nine (29) year span of the Plan between 2007 and 2035, over \$783 million will be spent on system preservation and maintenance for projects such as paving, bridge repair or replacement and other forms of reconstruction in place. This equates to \$27 million per year for system preservation and maintenance.

ConnDOT also estimates that enhancement of the highway system will be allocated \$50 million per year. The twenty-nine (29) year expenditure is approximately \$1.45 billion for system improvements for projects that promote safety, improve mobility, increase system productivity or support economic growth.

²⁷ ConnDOT letter dated February 28, 2007 from Gerald Jennings to Regional Planning Organizations regarding Allocation of Anticipated Funds to Connecticut Planning Regions (2004-2025).

Major Projects of Statewide Significance

In the allocation of funds ConnDOT also reserved some future revenue for projects they classified as “major projects of statewide significance”. For the South Western Region, this allocation was \$129 million, and included the Route 7 and 15 interchange, Route 7 widening and improvement projects in Norwalk and Wilton, and improvements to I-95.

Taken together, the South Western Region’s allocation for the time span of the new long range transportation plan (2007-2035) is \$2.36 billion.

Table 39a – Major Projects of Statewide Significance

<u>REGION</u>	<u>PROJECT</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>PROJECT COST</u>
1	0102-0269	NORWALK	U.S. 7 & RTE 15 INTRCHANGE	\$53,960,000
1	0102-0278	NORWALK	I-95 AT U.S. 1 INTERCHANGE 14	\$24,000,000
1	0102-0295	NORWALK	I-95 MEDIAN RECONSTRUCTION	\$13,767,750
1	0102-0305	NRWLK/ WILTON	U.S. 7 RECONSTRUCTION	\$14,912,000
1	0161-0118	WILTON	U.S. 7 MAJOR WIDENING	\$12,700,000
1	0161-0124	WILTON	U.S. 7 RECONSTRUCTION	\$10,116,000
		TOTAL		\$129,455,750

Highway Projects

The South Western Region Long Range Transportation Plan 2007-2035 incorporates the ConnDOT-sponsored state highway projects on the FFY2007-2011 Statewide Transportation Improvement Program identified in Table 40, totaling \$310 million.

TABLE 40 - FFY 2007-2011 STATEWIDE TIP: STATE HIGHWAY PROJECTS (as of 2/28/07)

FACode	Proj#	Rte/Sys	Town	Description	Phase	Year	Tot\$0000	Fnds\$0000
STPA	0135-4055	CT 106	STAMFORD	MAJOR INTERSECTION IMPRVMENTS ON COURTLAND AVE (CT 106) AT RT 1 & HAMILTON AVE.	ROW	2007	3,000	2,400
STPA	0173-0368	CT 110 & 113	VARIOUS	UPGRADE GUIDERAIL ON NON-NHS HIGHWAYS IN DIST 3.	CON	2008	1,715	1,372
STPA	0158-0201	CT 136	WESTPORT	INTERSECTION IMPROVEMENTS ON CT57/136 @ WESTON RD., AND CT57/136 @ CLINTON AVE.	CON	2009	1,510	1,208
STPA	0158-0201	CT 136	WESTPORT	INTERSECTION IMPROVEMENTS ON CT57/136 @ WESTON RD. & CT57/136 @ CLINTON AVE.	ROW	2007	250	200
NHS	0135-0249	CT 137	STAMFORD	CONSTRUCT RAMP FROM CT 137 SB, PROVIDE TURN LANES, WIDEN CT 15 BRIDGE, REVISE SIGNAL	ROW	2008	750	600
NHS	0135-0249	CT 137	STAMFORD	CONSTRUCT RAMP FROM CT 137 SB, PROVIDE TURN LANES, WIDEN CT 15 BRIDGE, REVISE SIGNAL	CON	2009	5,995	4,796
NHS	0102-4044	CT 15	NORWALK	REDURFACE, SAFETY & BRIDGE IMPRVMTS - CT 124 TO US 7.	PE	2010	360	288
NHS	0102-4044	CT 15	NORWALK	REDURFACE, SAFETY & BRIDGE IMPRVMTS - US 7 TO RT 33.	PE	2010	370	296
NHS	0102-4044	CT 15	NORWALK	REDURFACE, SAFETY & BRIDGE IMPRVMTS - US 7 TO RT 33.	CON	2010	8,300	6,640
NHS	0135-0270	CT 15	STAMFORD	RESURFACING BRIDGE AND SAFETY IMPROVEMENTS FROM TL TO CT 124 [NEW CANAAN]	CON	2010	16,000	12,800
NHS	0158-0199	CT 15	WESTPORT	RESURFACING BRIDGE AND SAFETY IMPROVEMENTS FROM CT 33 TO CONGRESS ST	CON	2010	11,600	9,280
I-M	0056-4062	I-684	GREENWICH	PAVEMENT REHAB, SAFETY, DRAINAGE.	CON	2007	1,952	1,757
I-M	0102-0261	I-95	NORWALK	I-95 INTERCHANGE 16 @ EAST AVE PROVIDE TURN LANES ON BRIDGE @ APPROACHES AND REVISE SIGNALS	CON	2008	4,110	3,699
I-M	0102-0278	I-95	NORWALK	PROVIDE REVISED ACCESS FOR I-95 AT US 1 INTERCHG #14 - AC CONV.	CON	2009	14,270	12,843
I-M	0102-0278	I-95	NORWALK	PROVIDE REVISED ACCESS FOR I-95 AT US 1 INTERCHG #14 - AC CONV.	CON	2010	12,630	11,367
I-M	0102-0278	I-95	NORWALK	PROVIDE REVISED ACCESS FOR I-95 AT US 1 INTERCHG #14 - AC ENTRY.	CON	2009	0	0
I-M	0102-0295	I-95	NORWALK	RECONST THE MEDIAN ON I-95 & INSTALL 45' CONC BARRIER CURB IN NORWALK & WESTPORT - AC CONV.	CON	2008	11,000	9,900
I-M	0102-0295	I-95	NORWALK	RECONST THE MEDIAN ON I-95 & INSTALL 45' CONC BARRIER CURB IN NORWALK & WESTPORT - AC CONV.	CON	2009	11,000	9,900
I-M	0102-0295	I-95	NORWALK	RECONST THE MEDIAN ON I-95 & INSTALL 45' CONC BARRIER CURB IN NORWALK & WESTPORT - AC ENTRY.	CON	2008	0	0
I-M	0173-0350	I-95	VARIOUS	UPDATE SIGNS ON I-95 FROM THE NY STATE LINE TO EXIT 24 IN FAIRFIELD.	CON	2007	5,300	5,300
STPA	0056-0271	US 1	GREENWICH	INTERSECTION IMPROVEMENTS, US 1, GREENWICH - AC CONV.	CON	2009	4,455	3,564
STPA	0056-0271	US 1	GREENWICH	INTERSECTION IMPROVEMENTS, US 1, GREENWICH - AC ENTRY.	CON	2008	0	0
STPA	0056-0271	US 1	GREENWICH	INTERSECTION IMPROVEMENTS, US 1, GREENWICH.	ROW	2007	200	160
STPBS	0102-0325	US 1	NORWALK	INTERSECTION IMPROVEMENT AT CT 53 & BELDEN.	ROW	2007	350	280
STPA	0135-4055	US 1	STAMFORD	INTERSECTION IMPROVEMENT AT CT 106.	CON	2009	1,530	1,224
STPA	0158-0193	US 1	WESTPORT	INTERSECTN IMPROVEMTS & OPERATIONAL LANE ADDITIONS IN WESTPORT ON US 1 AT GRD UNION DR & TURKEY HILL RD.	CON	2008	4,464	3,533
STPA	0158-0193	US 1	WESTPORT	INTERSECTION IMPROVEMTS & OPERATIONAL LANE ADDITIONS IN WESTPORT ON US 1 AT GRD UNION DR & TURKEY HILL RD.	ROW	2007	450	360
NHS	0102-0305	US 7	NORWALK/WILTON	RECONSTRUCT & WIDEN US 7 FROM GRISTMILL RD TO CT 33 IN WILTON.	ROW	2007	3,000	2,400
NHS	0102-0310	US 7	NORWALK	REDURFACE, SAFETY & BRIDGE IMPRVMTS - I-95 TO CT 123.	CON	2010	7,200	6,480
STPA	0161-0118	US 7	WILTON	MAJOR WIDENING OF US 7 FROM WOLF PIT RD TO THE NORTH JUNCTION OF CT 33 & 106 - AC CONV.	CON	2007	4,750	3,800
STPA	0161-0118	US 7	WILTON	MAJOR WIDENING OF US 7 FROM WOLF PIT RD TO THE NORTH JUNCTION OF CT 33 & 106 - AC CONV.	CON	2008	4,750	3,800
STPA	0161-0118	US 7	WILTON	MAJOR WIDENING OF US 7 FROM WOLF PIT RD TO THE NORTH JUNCTION OF CT 33 & 106 - AC CONV.	CON	2009	4,715	3,772
STPA	0161-0124	US 7	WILTON	RECONSTRUCTION FROM OLD DANBURY RD TO VIC OF OLMSTEAD HILL RD IN WILTON - AC CONV.	CON	2009	2,235	1,790
STPA	0161-0124	US 7	WILTON	RECONSTRUCTION FROM OLD DANBURY ROAD TO VIC. OF OLMSTEAD HILL ROAD IN WILTON - AC CONV.	CON	2007	4,375	3,500
STPA	0161-0124	US 7	WILTON	RECONSTRUCTION FROM OLD DANBURY ROAD TO VIC. OF OLMSTEAD HILL ROAD IN WILTON - AC CONV.	CON	2008	3,850	3,080
STPA	0102-0269	US 7/CT 15	NORWALK	US 7 & CT 15 IN NORWALK, UPGRADE TO FULL INTERCHG WITH MERRITT PKWY, PHASE 2 - AC CONV.	CON	2008	18,750	15,000
STPA	0102-0269	US 7/CT 15	NORWALK	US 7 & CT 15 IN NORWALK, UPGRADE TO FULL INTERCHG WITH MERRITT PKWY, PHASE 2 - AC CONV.	CON	2009	18,750	15,000
STPA	0102-0269	US 7/CT 15	NORWALK	US 7 & CT 15 IN NORWALK, UPGRADE TO FULL INTERCHG WITH MERRITT PKWY, PHASE 2 - AC CONV.	CON	2010	19,146	15,317
STPA	0102-0269	US 7/CT 15	NORWALK	US 7 & CT 15 IN NORWALK, UPGRADE TO FULL INTERCHG WITH MERRITT PKWY, PHASE 2 - AC CONV.	CON	FYI	10,804	8,643
STPA	0102-0269	US 7/CT 15	NORWALK	US 7 & CT 15 IN NORWALK, UPGRADE TO FULL INTERCHG WITH MERRITT PKWY, PHASE 2 - AC ENTRY.	CON	2008	0	0
STPA	0102-0312	US 7/CT 15	NORWALK	US 7 & CT 15 IN NORWALK, UPGRADE TO FULL INTERCHG WITH MERRITT PKWY, PHASE 1 - AC CONV.	CON	2007	13,978	11,183
BRXZ	0170-0BRX	VARIOUS	STATEWIDE	ON/OFF-SYSTEMS BRIDGE IMPROVEMENTS, BRX & BRZ.	ALL	2007	11,782	5,000
BRXZ	0170-0BRX	VARIOUS	STATEWIDE	ON/OFF-SYSTEMS BRIDGE IMPROVEMENTS, BRX & BRZ.	ALL	2008	11,782	5,000
BRXZ	0170-0BRX	VARIOUS	STATEWIDE	ON/OFF-SYSTEMS BRIDGE IMPROVEMENTS, BRX & BRZ.	ALL	2009	11,782	5,000
BRXZ	0170-0BRX	VARIOUS	STATEWIDE	ON/OFF-SYSTEMS BRIDGE IMPROVEMENTS, BRX & BRZ.	ALL	2010	11,782	5,000
BRXZ	0170-0BRX	VARIOUS	STATEWIDE	ON/OFF-SYSTEMS BRIDGE IMPROVEMENTS, BRX & BRZ.	ALL	FYI	11,782	5,000
STPA	0171-0280	VARIOUS	VARIOUS	BRIDGE WORK ON BRIDGES #02444, 02672 & 02722.	CON	2007	1,232	986
STPA	0173-0344	VARIOUS	DISTRICT 3	INSTALLATION & REVISION OF STC TRAFFIC CONTROL SIGNALS IN DIST 3.	CON	2007	1,009	807
NHS	0173-H169	VARIOUS	DISTRICT 3	OPERATE INCIDENT MGMT SYSTEM ON I-95 FROM BRNFD TO NY ST LINE - AC CONV.	CON	2007	2,440	2,200
NHS	0173-H169	VARIOUS	DISTRICT 3	OPERATE INCIDENT MGMT SYSTEM ON I-95 FROM BRNFD TO NY ST LINE - AC CONV.	CON	2008	2,440	2,200
NHS	0173-H169	VARIOUS	DISTRICT 3	OPERATE INCIDENT MGMT SYSTEM ON I-95 FROM BRNFD TO NY ST LINE - AC CONV.	CON	2009	2,220	2,000
NHS	0173-H169	VARIOUS	DISTRICT 3	OPERATE INCIDENT MGMT SYSTEM ON I-95 FROM BRNFD TO NY ST LINE - AC ENTRY.	CON	2007	0	0
STPA	0173-H182	VARIOUS	DISTRICT 3	INSTALLATION & REVISION OF STC TRAFFIC CONTROL SIGNALS IN DIST 3.	ROW	2007	100	100
STPA	0173-H182	VARIOUS	DISTRICT 3	INSTALLATION & REVISION OF STC TRAFFIC CONTROL SIGNALS IN DISTRICT 3.	CON	2008	1,354	1,083
STPA	0173-H184	VARIOUS	DISTRICT 3	INSTALLATION & REVISION OF STC TRAFFIC CONTROL SIGNALS IN DISTRICT 3.	ROW	2007	100	100
STPA	0173-H184	VARIOUS	DISTRICT 3	INSTALLATION & REVISION OF STC TRAFFIC CONTROL SIGNALS IN DISTRICT 3.	CON	2009	1,354	1,083
STPA	0173-H185	VARIOUS	DISTRICT 3	INSTALLATION & REVISION OF STC TRAFFIC CONTROL SIGNALS IN DISTRICT 3, 100% FEDERAL.	CON	2007	1,110	1,110

South Western Region Highway Projects FFY 2007-2011 TIP

310,131 234,200

Source: Prepared by SWRPA using FFY 2007-2011 Statewide TIP

Transit Capital Projects

The Plan considers transit capital projects as funded if they are included in the FFY2007-2011 TIP or the ConnDOT Transit Capital Program 2011-2027. Table 41 shows \$499 million in transit capital projects on the South Western Region FFY2007-2011 TIP. The projects include: replacement or rehabilitation of rail bridges at East Avenue (Norwalk), Walk Bridge over the Norwalk River, Sauga Bridge over the Saugatuck River in Westport; construction of a parking structure at the Wilton station, bus and paratransit vehicle replacement; and, various small bus transit capital and service vehicle replacements. Also on the TIP are projects that benefit the South Western Region, including the catenary replacement project, the new Fairfield railroad station, access road and high level platforms, the New Haven Line Track Program, rail car (M2) rehabilitation/overhaul, replacement of substations, design of the Devon Bridge (Milford/Stratford), and New Haven Rail Yard facility construction, as well as transit capital planning, and purchase of accessible vans for non-profit organizations under the FTA 5310 program.

TABLE 41 - FFY 2007-2011 STATEWIDE TIP: TRANSIT CAPITAL PROJECTS (as of 2/28/07)

FACode	Proj#	Rte/Sys	Town	Description	Phase	Year	Tot\$(000)	Fed\$(000)	Sta\$(000)	Loc\$(000)
5307C	00TS-0801	CT-STAM	STAMFORD	CTS - STAMFORD REPLACE 26 BUSES.	ACQ	FY1	9,750	7,800	1,950	0
5307S	0161-0136	US 7/CT 33	WILTON	CONSTRUCT A PARKING STRUCTURE AT THE WILTON STATION AT US 7 & CT 33.	CON	2008	2,500	2,000	500	0
CMAQ	0161-0136	US 7/CT 33	WILTON	CONSTRUCT A PARKING STRUCTURE AT THE WILTON STATION AT US 7 & CT 33.	CON	2010	2,500	2,000	500	0
5307C	0300-T010	NHL-ML	VARIOUS	NEW HAVEN LINE TRACK PROGRAM.	CON	2007	7,527	6,022	1,505	0
5307C	0301-T111	NHL-ML	VARIOUS	NEW HAVEN LINE TRACK PROGRAM.	CON	FY1	8,000	6,400	1,600	0
5307C	0301-0072	NHL-ML	VARIOUS	REPLACEMENT OF 5 NHL SUBSTATIONS IN S. NORWALK, E. NORWALK, BRIDGEPORT & NEW HAVEN.	CON	2007	25,000	20,000	5,000	0
5309A	0301-T120	NHL-ML	VARIOUS	NH-ML CATENARY REPLCMNT - PECK TO DEVON, SECTION C2.	CON	2009	33,000	26,400	6,600	0
5309A	0301-T120	NHL-ML	VARIOUS	NH-ML CATENARY REPLCMNT - PECK TO DEVON, SECTION C2.	CON	FY1	52,000	41,600	10,400	0
5309A	0301-T119	NHL-ML	VARIOUS	NH-ML CATENARY REPLCMNT - WALK-CP248, SECTION C1A.	CON	2008	40,000	32,000	8,000	0
5307C	0301-T129	NHL-ML	GREENWICH	REHAB BRIDGES - SOUND BEACH AVE/TOMAC AVE - GREENWICH.	CON	FY1	20,000	16,000	4,000	0
5307C	0301-0040	NHL-ML	WESTPORT/STAMFORD	REHABILITATE WALK AND SAGA MOVEABLE BRIDGE	CON	2008	46,107	36,886	9,221	0
5307C	0301-0040	NHL-ML	WESTPORT/STAMFORD	REHABILITATE WALK AND SAGA MOVEABLE BRIDGE	CON	2010	79,086	63,269	15,817	0
5307C	0301-0040	NHL-ML	WESTPORT/STAMFORD	REHABILITATE WALK AND SAGA MOVEABLE BRIDGE	CON	FY1	21,587	17,270	4,317	0
5307C	0412-T073	NRWLK TD	NORWALK	NRWLK TD - ADMIN CAPITAL & SCV REPL - PROGRAM.	OTH	2007	250	200	50	0
5307C	0412-T073	NRWLK TD	NORWALK	NRWLK TD - ADMIN CAPITAL & SCV REPL - PROGRAM.	OTH	2008	100	80	20	0
5307C	0412-T073	NRWLK TD	NORWALK	NRWLK TD - ADMIN CAPITAL & SCV REPL - PROGRAM.	OTH	2009	100	80	20	0
5307C	0412-T073	NRWLK TD	NORWALK	NRWLK TD - ADMIN CAPITAL & SCV REPL PROGRAM.	OTH	2010	100	80	20	0
5307C	0412-T073	NRWLK TD	NORWALK	NRWLK TD - ADMIN CAPITAL & SCV REPL PROGRAM.	OTH	FY1	100	80	20	0
5307C	0412-T073	NRWLK TD	NORWALK	NRWLK TD - REPLACE PARATRANSIT VEHICLES - PROGRAM.	OTH	2007	500	400	100	0
5307C	0412-T073	NRWLK TD	NORWALK	NRWLK TD-REPLACE PARATRANSIT VEHICLES PROGRAM	ACQ	FY1	600	480	120	0
5307C	0170-T707	VARIOUS	STATEWIDE	TRANSIT CAPITAL PLANNING.	OTH	2007	225	180	45	0
5307C	0170-T708	VARIOUS	STATEWIDE	TRANSIT CAPITAL PLANNING.	OTH	2008	250	200	50	0
5307C	0170-T709	VARIOUS	STATEWIDE	TRANSIT CAPITAL PLANNING.	OTH	2009	350	280	70	0
5307C	0170-TXXX	NHL-ML	STATEWIDE	TRANSIT CAPITAL PLANNING.	OTH	2010	350	280	70	0
5307C	0170-TXXX	NHL-ML	STATEWIDE	TRANSIT CAPITAL PLANNING.	OTH	FY1	350	280	70	0
5309A	0301-0040	NHL-ML	WESTPORT/STAMFORD	REHABILITATE WALK AND SAGA MOVEABLE BRIDGE	CON	2008	48,000	38,400	9,600	0
5309A	0301-0040	NHL-ML	WESTPORT/STAMFORD	REHABILITATE WALK AND SAGA MOVEABLE BRIDGE	CON	2009	36,000	28,800	7,200	0
5309A	0301-0040	NHL-ML	WESTPORT/STAMFORD	REHABILITATE WALK AND SAGA MOVEABLE BRIDGE	CON	2010	52,000	41,600	10,400	0
5309A	0300-T124	NHL-ML	NORWALK	REPLACE EAST AVENUE BRIDGE - NORWALK.	CON	2008	8,000	6,400	1,600	0
5310C	0170-T711	VARIOUS BUS	STATEWIDE	PURCH ACCESSIBLE VANS/BUSES - SEC 16-PRGM FY 07.	ACQ	2007	1,425	1,140	285	0
5310C	0170-T712	VARIOUS BUS	STATEWIDE	PURCH ACCESSIBLE VANS/BUSES - SEC 16-PRGM FY 08.	ACQ	2008	1,543	1,234	309	0
5310C	0170-T713	VARIOUS BUS	STATEWIDE	PURCH ACCESSIBLE VANS/BUSES - SEC 16-PRGM FY 09.	ACQ	2009	1,619	1,295	324	0
South Western Region Transit Projects FFY 2007-2011 TIP							498,919	399,135	99,784	0
New Haven Region TIP (South Central Region Council of Governments)										
5309A	0301-T107	NHL-ML	NEW HAVEN	NEW HAVEN YARD MASTER COMPLEX FACILITY CONSTRUCTION	CON	2007	5,000	4,000	1,000	0
5309A	0301-0070	NHL-ML	NEW HAVEN	NHL CATENARY REPLACEMENT SECTION C1B INCLUDING BRIDGES	CON	2007	23,500	18,800	4,700	0
5307C	0301-T107	NHL-ML	NEW HAVEN	NEW HAVEN YARD MASTER COMPLEX FACILITY CONSTRUCTION	CON	2007	41,330	33,064	8,266	0
Total New Haven Region TIP							69,830	55,864	13,966	0

Source: Prepared by SWRPA using FFY 2007-2011 Statewide TIP

The ConnDOT Transit Capital Program 2011-2027 extends the timeframe to 2027. Based on ConnDOT's estimates through 2027, SWRPA extended the capital program to 2035. As shown in Tables 42 and 43, the capital investment requirements beyond the TIP period is \$1.18 billion for 2011 – 2035.

Transit Operating and Replacement Costs

Maintaining existing bus and rail operations for 29 years will cost approximately \$1.438 Billion. Using information provided by transit operators and current TIP documents, Tables 44 through 46 were developed. The annual operating deficit (SFY2007) for bus transit is estimated to be \$15.5 million. The bulk of the deficit, or 96%, is made up by federal and state funding. Approximately 4%, or \$785,000 per year is contributed by local sources.

The annual MetroNorth rail transit operating deficit is \$116,534,200. Based on 25% of this deficit allocated to the South Western Region, the resulting annual deficit applied to the South Western Region amounts to \$29.1 million. Over the 29 year period of 2007-2035, the cost for MetroNorth rail operations is \$845 million. In future long range transportation plans, farebox revenues and deficits will also be provided as part of the discussion of transit operating and replacement costs. Shoreline East Service between New Haven and Stamford is funded through state/TSB accounts, and not included in the South Western Region rail operating costs. The annual deficit for regular Shoreline East Service is roughly \$5 million, and is noted in Table 46.

Ridesharing and Transportation Demand Management Program Operations

Based upon the FFY2007-2011 Statewide Transportation Improvement Program, Table 47, the State of Connecticut spends approximately \$9.9 million per year on ridesharing and other transportation demand management programs. Over the five year period of the TIP, \$49.6 million will be spent on TDM programs that include: four ridesharing brokerages; telecommuting; promotion of the pre-tax deduction program, called "Deduct A Ride" in Connecticut; vanpool financing and vanpool promotion and delivery programs; marketing; customer information; ride-matching; and, ConnDOT's staff to manage programs. The South Western Region's fairshare allocation for TDM programs is roughly \$1 million per year. Over the 29 year period of the long range transportation plan, the current TDM programs are forecast to cost more than \$28 million for South Western Region's 10% fairshare.

Projects Proposed or Sponsored by the South Western Region for the Use of STP-BS or CMAQ Funding

The current level of "fairshare" funding available to the South Western Region under SAFETEA-LU through the Surface Transportation Program – Urban Bridgeport Stamford Urbanized Area program (STP-BS) is approximately \$4.1 million per year (FFY2005-2009). This plan assumes that \$4.1 million in federal STP-BS funds is available annually from 2007-2035. Once federal funds are matched with state and local funds, generally in a ratio of 80% federal and 20% state or local funds, the annual federal funds of \$4.1 million are matched with \$1.0 million which provides \$5,145,000 per year. In the 2007-2035 time period of the plan this generates approximately \$149 million for local and regional projects.

The STP-BS funding is the only federal or state source of funding that is controlled by the SWRMPO, in consultation with ConnDOT and USDOT. As of March 2007, the FFY2007-2011

TIP included \$3.5 million in STP-BS projects (\$2.9 million federal). For FFY2007, ConnDOT approved the use of \$400,000 of the \$4.1 million annual allocation for corridor studies of Route 1 Greenwich-Stamford, and Route 7 Wilton.

As shown in Table 48, the South Western Region has \$5.4 million in projects programmed on the FFY2007-2011 TIP. Another \$ 500,000 in projects is approved for FFY2007 funding, \$3.0 million are in design, and \$16.0 million are in the project concept review stage. The South Western Region STP Working Group, members of the TTAG, are updating the STP program selection criteria and programming guide for FFY2007-2011. Additional projects are expected to be included as “funded” projects in the near future.

Since the South Western Region 2004 solicitation for new STP-BS or CMAQ projects under the South Western Region STP Phase IX program which generated candidate projects proposals totaling \$34.9, some submitted projects have been withdrawn and other projects submitted as replacements. With respect to CMAQ, ConnDOT is now accepting candidate projects for FFY2008 and FFY2009 CMAQ funding with the \$2 million total available statewide each year, with decisions on projects to be made after October 1, 2007. SWRPA candidate projects from Greenwich, Norwalk, Norwalk Transit District and Stamford exceed \$10 million.

South Western Region Projects Proposed for the Use of STP-Enhancement Funding

The STP-Enhancement Program was established under ISTEA in 1992 to fund transportation-related activities that strengthen the cultural, esthetic, and environmental aspects of intermodal transportation systems. The funding enables the implementation of non-traditional projects such as the restoration of historic transportation facilities, bike and pedestrian facilities, landscaping and scenic beautification, and mitigation of water pollution from highway runoff. In the South Western Region enhancement projects sponsored by towns, the Norwalk Transit District, and ConnDOT have included landscaping, streetscaping, multi-use trails, rail station rehabilitation and beautification, drainage improvements, and other non-traditional projects. The seventeen projects that were funded as of March 2007 were programmed to use \$18.0 million in STP-Enhancement funding and are noted in Table 49.

In response to ConnDOT’s 2002 solicitation for new STP-Enhancement projects, the South Western Region submitted five candidate projects, totaling \$6.7 million. The South Western Region Candidate Projects and Priorities are shown in Table 50, which includes the Stamford Urban Transitway Bicycle and Pedestrian Elements Project that was funded. The projects submitted in 2002 continue to be unfunded needs. ConnDOT does not plan to solicit for new STP-Enhancement projects until the successor to SAFETEA-LU is authorized in FFY2010.

South Western Region Projects Proposed for the Use of FTA Enhancement Funding

One measurable benefit of the South Western Region’s 2002 designation as a “transportation management area” after incorporation into the Bridgeport-Stamford Urbanized Area, is the ability to access the FTA Section 5307 funding set-aside for enhancement projects. This set-aside is equivalent to 1% of the FTA Section 5307 funding for the urbanized area. For the Bridgeport-Stamford Urbanized Area, this is \$211,260 per year. The Bridgeport-Stamford Regional Planning Organizations, FTA-designated transit recipients, ConnDOT and USDOT have established an on-going process to develop, select, program and monitor eligible projects for

funding. Through this cooperative process, the City of Stamford and the Norwalk Transit District received \$462,650 in funds for projects between FFY2004 and FFY 2006, which are described in Table 51 along with additional project proposals developed by the City of Stamford.

Special Projects Proposed or Funded in the South Western Region

Through TEA-21 and SAFETEA-LU, several projects in the region have received earmark and discretionary program funding that included High Priority Projects, Ferryboat Discretionary Programs, Transportation and Community and System Preservation (TCSP) Pilot Program²⁸, FTA New Starts, as well as special earmark funding. The roster of projects and funding sources for special projects is provided in Table 29, and includes: Stamford Urban Transitway Phase 1; Stamford Urban Transitway Phase 2; MetroNorth rail underpasses at Atlantic Street, Elm Street, Canal Street and Route 1, Stamford; Stamford Ferry Terminal; Route 1 (Cross Street), Norwalk; Norwalk Transit District Pulse Point Security and Safety Project; the Norwalk Center/West Avenue Project; the South Norwalk Intermodal Project; and, the Mill River Greenway/Revitalization Project. ConnDOT has also received earmark funding for a number of projects that benefit the South Western Region, such as the catenary system upgrade.

Additional Potential Funding Sources: Federal Discretionary or Earmark Funding, and State/TSB Funding

Based upon past experience, it is reasonable to expect that the Region will receive additional discretionary funding from federal and state sources. It is also reasonable to expect that new special projects will be submitted for federal transportation funding and other programs in multi-year reauthorization programs as well as in annual authorizations and allocations of federal transportation projects.

As discussed in the preceding section, the Region's special projects have successfully applied for and received federal transportation discretionary funding under Congressional actions that authorized High Priority Project funding Stamford projects (Stamford Urban Transitway Phases 1 and 2, Rail Underpasses, East Main Street Rail Station/Transit Hub, Mill River Revitalization, Stamford Ferry Terminal), Norwalk (Route 1 between Belden Avenue and East Avenue, and Norwalk Center/West Avenue Corridor), and Norwalk Transit District (Norwalk Transit District Pulse Point/Security, and South Norwalk Intermodal Facility). Between 1999 and 2004, federal discretionary funding totaled \$40.6 million between FFY1999 and FY2004, which is approximately \$6.8 million per year. Using \$6.5 million as the annual target level for special funding for special projects, \$188 million in additional funding will be available between 2007 and 2035. Information on special projects and discretionary funding is provided in Table 52.

The Region and its municipalities may also be able to tap into additional state resources. In 2001, CT Public Act 01-5 (HB 7506) – An Act Implementing the Recommendations of the Transportation Strategy Board set up mechanisms for funding capital and operating projects. When the Act was passed, \$50 million in state funding from the state surplus was set aside for transportation projects identified in the Act, but this was reduced to \$36 million when the state incurred a deficit rather than a surplus. Additional transportation projects were funded by public acts in 2005 and 2006. The 2007 state legislature is developing the State FY2008 and State

²⁸ The Stamford Waterside Transportation and Community and System Preservation project was funded in FFY2002 for \$250,000.

FY2009 budgets. Additional state resources are not assumed for this Plan.

Projects and Programs that Are Unfunded Future Needs

The proposed projects identified in Table 53 Route 7 Travel Options Implementation Plan (dated June 2000) are future un-funded needs.

Recommended Strategies

- Seek to secure adequate level of local, state, and federal funding to perform maintenance, management and monitoring, system optimization, or expansion and to implement needed improvements.
- Tables that document the Plan’s needs, recommendations, and financial resources are provided in Tables 42 through 53 on the following pages.

Category	Total 2007-2011	2012-2035	Total 2007-2035	SWR Allocation
Bus Administration Capital (SWR)	500	3,188	3,688	3,688
Bus Maintenance Facilities (SWR)	-	70,500	70,500	70,500
Bus Rolling Stock (SWR)	1,450	33,450	34,900	34,900
Miscellaneous Bus/Paratransit (SWR)	1,470	7,800	9,270	9,270
Subtotal	3,420	114,938	118,358	118,358
Rail Line Structures (Statewide)	440,564	1,536,422	1,976,986	494,246
Rail Communications and Signals (Statewide)	-	-	-	-
Miscellaneous Rail (Statewide)	1,525	53,927	55,452	13,863
Rail Parking/Stations (Statewide)	43,250	140,982	184,232	46,058
Rail Power (Statewide)	189,969	90,000	279,969	69,992
Rail Maintenance Facilities (Statewide)	153,279	169,083	322,362	80,591
Rail Rolling Stock (Statewide)	482,800	223,902	706,702	176,676
Subtotal	1,311,387	2,214,315	3,525,702	881,426
Total	1,314,807	2,329,253	3,644,060	999,783
Source: ConnDOT Capital Project Management Plan 2007-2027				
Methodology: 2007-2011 timeframe figures are derived directly from the ConnDOT Capital Project Management Plan.				
For Outer years, available figures from 2012-2027 were computed, prorated, and extended out to 2035.				
25% of capital costs for rail capital projects were allocated to the South Western Region.				

Table 43: ConnDOT Public Transportation Capital Projects for the South Western Region
2007-2011 (Cost in \$000)

CATEGORY	SYSTEM OR RR	R/B	PROJ NUMBER	PROJECT DESCRIPTION	MPO/ AREA	SFY YR PRGMD	Funding Source	2007	2008	2009	2010	2011	Total
ROLLING STOCK	CT-STAM	B	CTS-0801	CTS - STAMFORD REPLACE 26 BUSES (2001) (403-0003)	SW	2012	SECS307	-	-	-	-	-	-
ROLLING STOCK	CT-STAM	B	CTS-0102	CTS - STAMFORD REPLACE BUSES	SW	>2020	-	-	-	-	-	-	-
ADMIN CAPITAL	NRWLK TD	B	412-T073	NRWLK TD - ADMIN CAPITAL & SCV REPL - PROGRAM	SW	2004	SECS307	100	100	100	100	100	500
PARATRANSIT	NRWLK TD	B	412-T073	NRWLK TD-REPLACE PARATRANSIT VEHICLES-PRGRM	SW	2006	SECS307	370	-	500	-	600	1,470
ROLLING STOCK	NRWLK TD	B		NRWLK TD - FACILITY SGR (COMPLETED 2001)	SW	2008	SECS307	-	400	-	-	-	400
ROLLING STOCK	NRWLK TD	B		NRWLK TD - REPLACE 3 1990/1991 BUSES	SW	2007	SECS307	1,050	-	-	-	-	1,050
MISCELLANEOUS	VARIOUS BUS	B	BMS-0399	TRANSIT DISTRICT W/ REVE STATE SHARE	ALL	2012	-	-	-	-	-	-	-
MISCELLANEOUS	VARIOUS BUS	B	BMS-0498	MNT'N STATE OF GOOD REPAIR BUS PRJCTS-REVENUE	ALL	2012	-	-	-	-	-	-	-
MISCELLANEOUS	VARIOUS BUS	B	BMS-0499	MNT'N STATE OF GOOD REPAIR BUS PRJCTS-BOND	ALL	2011	SECS307	-	-	-	-	5,848	5,848
COMM & SIGNALS	NHL-ML	R		PE C & S REPLACEMENT	SW	>2020	-	-	-	-	-	-	-
COMM & SIGNALS	NHL-ML	R	RCS-0101	MAINTAIN STATE OF GOOD REPAIR C&S	SW	2013	-	-	-	-	-	-	-
LINE STRUCTURES	NHL-ML	R	170-1375	PE FOR REPLACEMENT OF RAILROAD BRIDGES	SW	2005	-	400	-	-	-	-	400
LINE STRUCTURES	NHL-ML	R	300-T069	PE BRIDGES/CULVERTS	SW	2008	STATE	-	1,754	2,024	1,860	1,800	7,438
LINE STRUCTURES	NHL-ML	R	300-0033	PE BRIDGES/CULVERTS	SW	2002	-	1,000	-	-	-	-	1,000
LINE STRUCTURES	NHL-ML	R	300-T001	BRIDGE/CULVERT REPLACEMENT PROGRAM	SW	2008	STATE	-	711	4,734	4,729	5,135	15,309
LINE STRUCTURES	NHL-ML	R	304-0008	PE - 4 BRIDGE REHABS-NAUGATUCK, SEYMOUR, BEACON FALLS	NV	2006	STATE	200	-	-	-	-	200
LINE STRUCTURES	NHL-ML	R	304-0008	CON - 4 BRIDGE REHABS-NAUGATUCK, SEYMOUR, BEACON FALL	NV	2008	SECS307	-	7,500	-	-	-	7,500
LINE STRUCTURES	NHL-ML	R	300-0126	S-16 BRIDGE REHAB PROGRAM	SW	2007	STATE	2,000	-	-	-	-	2,000
LINE STRUCTURES	NHL-ML	R	300-0126	S-16 BRIDGE REHAB PROGRAM	SW	2007	STATE	250	-	-	-	-	250
LINE STRUCTURES	NHL-ML	R	300-T008	BRIDGES REHAB PROGRAM (S- PROGRAM)(B-PROGRAM)	SW	2008	STATE	-	2,500	2,628	3,020	3,000	11,148
LINE STRUCTURES	NHL-ML	R	300-0121	BRIDGE TIMBER PROGRAM	SW	2006	STATE	1,000	1,000	1,000	1,000	1,000	5,000
LINE STRUCTURES	NHL-ML	R	302-0010	PE-RETAINING WALLS IN NC & STAMFORD	SW	2007	STATE	200	-	-	-	-	200
LINE STRUCTURES	NHL-ML	R		CON-RETAINING WALLS IN NC & STAMFORD	SW	2008	SECS307	-	2,000	-	-	-	2,000
LINE STRUCTURES	NHL-ML	R		PECK BRIDGE - REPAIRS - ADDITIONAL	SW	2007	STATE	900	-	-	-	-	900
LINE STRUCTURES	NHL-ML	R	300-T124	REPLACE EAST AVENUE BRIDGE - NORWALK (W/ C1A)	SW	2009	SECS309	-	-	8,000	-	-	8,000
LINE STRUCTURES	NHL-ML	R	301-0092	REHAB BRIDGES- SOUND BEACH AVE/TOMAC AVE- GREENWICH	SW	2011	SECS307	-	-	-	-	20,000	20,000
LINE STRUCTURES	NHL-ML	R		PE- REHAB RR BRIDGE MAIN ST, STRATFORD MP 59.01	GB	2008	STATE	-	800	-	-	-	800
LINE STRUCTURES	NHL-ML	R		REHAB RR BRIDGE MAIN STREET, STRATFORD MP 59.01	GB	2011	SECS307	-	-	-	-	11,000	11,000
LINE STRUCTURES	NHL-ML	R	301-0087	PE - DEVON AND COS COB FIELD VERIFICATION	GB	2005	STATE	300	-	-	-	-	300
LINE STRUCTURES	NHL-ML	R	301-0087	COS COB BRIDGE REHABILITATION	GB	2007	STATE	1,000	-	-	-	-	1,000
LINE STRUCTURES	NHL-ML	R		DEVON & COS COB MOVABLE BRIDGES-STUDY PHASE	GB	2008	STATE	-	1,500	-	-	-	1,500
LINE STRUCTURES	NHL-ML	R	300-0077	PE DEVON & COS COB MOVABLE BRIDGES	GB	2009	SECS307	-	-	14,000	-	-	14,000
LINE STRUCTURES	NHL-ML	R	300-0077	CONSTR DEVON BRIDGE, MILFORD/STRATFORD	GB	2012	-	-	-	-	-	-	-
LINE STRUCTURES	NHL-ML	R	301-0040	PE, ROW & UTILITY NEW WALK & SAGA BRIDGE	SW	2003	-	5,000	-	-	-	-	5,000
LINE STRUCTURES	NHL-ML	R	301-0040	CONSTRUCT NEW WALK AND SAGA BRIDGE (W/ C1A)	SW	2011	SECS309	-	-	-	-	52,000	52,000
LINE STRUCTURES	NHL-ML	R	301-0040	CONSTRUCT NEW WALK AND SAGA BRIDGE(W/ C1A)	SW	2010	SECS307	-	-	-	63,583	21,338	84,921
LINE STRUCTURES	NHL-DB	R	302-T001	DANBURY BRANCH-BETHEL PASSING SIDING	HV	>2020	-	-	-	-	-	-	-
LINE STRUCTURES	NHL-ML	R	300-T128	CONSTRUCT NC BRANCH RETAINING WALL REPAIR	SW	>2020	-	-	-	-	-	-	-
LINE STRUCTURES	NHL-ML	R	301-0048	CONSTRUCTION STAMFORD YARD SWITCHES	SW	>2020	-	-	-	-	-	-	-
LINE STRUCTURES	NHL-ML	R		NHL-NEC(100% FEDERAL)	SW	>2020	-	-	-	-	-	-	-
LINE STRUCTURES	NHL-ML	R	300-T010	NEW HAVEN LINE TRACK PROGRAM	SC	>2020	-	-	-	-	-	-	-
LINE STRUCTURES	NHL-ML	R	301-T111	NEW HAVEN LINE TRACK PROGRAM	SC	2004	SECS307	-	-	-	-	4,652	4,652
LINE STRUCTURES	NHL-ML	R	301-T111	NEW HAVEN LINE TRACK PROGRAM	SC	2004	SECS307	2,000	7,376	-	-	-	9,376
LINE STRUCTURES	NHL-ML	R		INTERLOCKING RENEWAL PROGRAM	SC	>2020	-	-	-	-	-	-	-
MAINT FACILITIES	NHL-ML	R	301-0088	NEW HAVEN SHOPS & YARDS - MASTER COMPLEX	SC	2008	GOV-INT	-	90,000	84,670	-	-	174,670
MAINT FACILITIES	NHL-ML	R	301-0089	NEW HAVEN YARD - SECURITY (JASI/REGIONAL)	SC	2006	STATE	526	-	-	-	-	526
MAINT FACILITIES	NHL-ML	R	301-0089	NEW HAVEN YARD - SECURITY - ADDITIONAL	SC	2006	STATE	245	-	-	-	-	245
MAINT FACILITIES	NHL-ML	R	092-0426	PE NEW HAVEN SHOPS & YARDS	SC	2002	STATE	236	-	-	-	-	236
MAINT FACILITIES	NHL-ML	R		PE- CSR SHOP CODE UPGRADE AND IMPROVEMENTS	SC	2007	STATE	500	-	-	-	-	500
MAINT FACILITIES	NHL-ML	R		NH MASTER COMPLEX - CSR/MU FACILITY IMPROVEMENTS	SC	2007	SECS309	6,000	-	-	-	-	6,000
MAINT FACILITIES	NHL-ML	R		MU SHOP CODE UPGRADE AND IMPROVEMENTS	SC	NEXT2	SECS307	-	-	-	-	-	-
MAINT FACILITIES	NHL-ML	R		NEW HAVEN YARD EASEMENT FOR UTILITY	SC	2007	STATE	150	-	-	-	-	150
MAINT FACILITIES	NHL-ML	R	301-0088	PE NEW HAVEN SHOPS & YARDS	SC	2006	GOV-INT	18,190	-	-	-	-	18,190
MAINT FACILITIES	NHL-ML	R	301-0088	NH YARD - POWER PLANT DEMO - IN ADVANCE OF CON	GB	2007	GOV-INT	2,000	-	-	-	-	2,000
MAINT FACILITIES	NHL-ML	R	300-T183	CONSTRUCTION - M8 ACCEPTANCE FACILITY	GB	2007	GOV-INT	11,000	-	-	-	-	11,000
MAINT FACILITIES	NHL-ML	R	301-T106	FUEL FACILITY IMPROVEMENTS - NEW HAVEN	SC	2007	SECS307	6,000	-	-	-	-	6,000
MAINT FACILITIES	NHL-ML	R	301-T107	NH SHOPS & YARD - WHEEL TRUING SHOP	SC	2007	SECS307	24,874	-	-	-	-	24,874
MAINT FACILITIES	NHL-ML	R	301-T107	NH SHOPS & YARD - WHEEL TRUING SHOP-MATCH TO '05 FED	SC	NEXT2	-	-	-	-	-	-	-
MAINT FACILITIES	NHL-ML	R		NH SHOPS & YARD - MASTER COMPLEX	SC	2008	SECS307	-	18,048	37,635	-	-	55,683
MAINT FACILITIES	NHL-ML	R		NH SHOPS & YARD - MASTER COMPLEX	SC	2008	SECS309	-	25,125	-	-	-	25,125
MAINT FACILITIES	NHL-ML	R	300-T184	PE - EAST BRIDGEPORT TRAIN STORAGE TRACKS	GB	2007	STATE	250	-	-	-	-	250
MAINT FACILITIES	NHL-ML	R	300-T184	CON - EAST BRIDGEPORT TRAIN STORAGE TRACKS	GB	2008	SECS307	-	2,500	-	-	-	2,500
MAINT FACILITIES	NHL-DB	R	302-0004	PE DANBURY MOE & CAR STORAGE FACILITY	HV	>2020	-	-	-	-	-	-	-
MAINT FACILITIES	NHL-DB	R	302-0004	DANBURY MOE & CAR STORAGE FACILITY	HV	>2020	-	-	-	-	-	-	-
MAINT FACILITIES	NHL-ML	R	RMF-0407	REHAB EAST BRIDGEPORT NOW FACILITY	GB	2012	-	-	-	-	-	-	-
MAINT FACILITIES	NHL-ML	R	RMF-0101	STATE OF GOOD REPAIR SHOP&YARD PRJCTS	SW	>2020	-	-	-	-	-	-	-
MISCELLANEOUS	NHL-ML	R	170-T435	TRANSIT CAPITAL PLANNING	ALL	>2020	-	-	-	-	-	-	-
MISCELLANEOUS	NHL-ML	R	170-2512	TRANSIT CAPITAL PLANNING	ALL	2003	-	225	250	350	350	350	1,525
MISCELLANEOUS	VARIOUS FRR	R	170-	CONSTRUCT FREIGHT IMPROVEMENTS	ALL	2012	-	-	-	-	-	-	-

CATEGORY	SYSTEM OR RR	R/B	PROJ NUMBER	PROJECT DESCRIPTION	MPO/ AREA	SFY YR PRGMD	Funding					Total	
							Source	2007	2008	2009	2010		2011
PARKINGSTATIONS	NHL-ML	R	301-T080	PE/ENVIRONMENTAL NEW HAVEN STATION GARAGE	SC	>2020	-	-	-	-	-	-	
PARKINGSTATIONS	NHL-ML	R	301-T080	CONSTRUCT NEW HAVEN STATION GARAGE	SC	>2020	-	-	-	-	-	-	
PARKINGSTATIONS	NHL-ML	R	301-T009	PE STATION/PARKING IMPROVEMENTS	SW	>2020	-	-	-	-	-	-	
PARKINGSTATIONS	NHL-ML	R	301-T010	CONSTRUCT STATION/PRKNG IMPROVEMENTS	SW	>2020	-	-	-	-	-	-	
PARKINGSTATIONS	NHL-ML	R	161-0136	CONSTRUCTION OF TIERED PARKING AT WILTON STATION	SW	2008	GMAO	-	5,000	-	-	5,000	
PARKINGSTATIONS	NHL-ML	R	301-0060	CONST ADA IMPROVEMENTS - FAIRFIELD	GB	2007	SECS309	23,000	-	-	-	23,000	
PARKINGSTATIONS	NHL-ML	R	301-0078	NEW HAVEN-UNION STATION PUBLIC ADDRESS & VMS	SW	2008	SECS307	4,000	-	-	-	4,000	
PARKINGSTATIONS	SLE	R	310-0022	SLE BOTH SIDES - WESTBROOK RR STATION	SC	2008	SECS307	-	11,000	-	-	11,000	
PARKINGSTATIONS	SLE	R		SLE STATIONS - ADDITIONAL STATION AMENITIES	SC	NEXT2	STATE	-	-	-	-	-	
PARKINGSTATIONS	NHL-ML	R		HIGH LEVEL PLATFORM REHAB - MAINLINE	SW	>2020	-	-	-	-	-	-	
PARKINGSTATIONS	NHL-DB	R		PE HIGH LEVEL PLATFORM REHAB - DANBURY BRANCH	HV	2008	STATE	-	250	-	-	250	
PARKINGSTATIONS	NHL-DB	R		HIGH LEVEL PLATFORM REHAB - DANBURY BRANCH	HV	>2020	-	-	-	-	-	-	
POWER	NHL-ML	R	173-0184	PE CATENARY/POWER SYSTEM IMPROVEMENTS	SW	2002	STATE	1,000	1,000	-	1,000	3,000	
POWER	NHL-ML	R	301-0054	NH-ML CATENARY REPLCMINT-STAM/NORWALK-SECTION B	SW	2002	SECS307	10,000	-	-	-	10,000	
POWER	NHL-ML	R	301-T118	NH-ML CATENARY REPLCMINT-CP248-PECK-SECTION C1B	SW	2008	SECS309	21,125	-	9,100	-	30,225	
POWER	NHL-ML	R	301-T118	NH-ML CATENARY REPLCMINT-CP248-PECK-SECT C1B-MATCH TO US FED	SW	>2020	-	-	-	-	-	-	
POWER	NHL-ML	R	301-T118	NH-ML CATENARY REPLCMINT-CP248-PECK-SECTION C1B	SW	>2020	SECS307	16,719	10,000	-	-	26,719	
POWER	NHL-ML	R	301-T119	NH-ML CATENARY REPLCMINT-WALK-CP248-SECTION C1A	SW	2009	SECS309	-	-	33,025	52,000	85,025	
POWER	NHL-ML	R	301-T119	NH-ML CATENARY REPLCMINT-WALK-CP248-SECTION C1A	SW	2011	SECS307	-	-	-	10,000	10,000	
POWER	NHL-ML	R	301-T120	NH-ML CATENARY REPLCMINT-PECK TO DEVON - SECTION C2	SW	2012	SECS309	-	-	-	-	-	
POWER	NHL-ML	R	301-0072	REPLACE 5 NHL SUBSTATIONS	GB	2008	SECS309	-	25,000	-	-	25,000	
POWER	NHL-ML	R		SUBSTATION COMPONENT CHANGEOUT	SC	>2020	-	-	-	-	-	-	
ROLLING STOCK	NHL/SLE	R	170-T382	ACQUIRE 4 GENESIS LOCOMOTIVES	SC	>2020	-	-	-	-	-	-	
ROLLING STOCK	NHL-ML	R	300-0085	M2 REHABILITATION/OVERHAUL(CT SHARE)BND MATCH	SW	>2020	-	-	-	-	-	-	
ROLLING STOCK	NHL-ML	R	300-0085	M2 REHABILITATION/OVERHAUL(CT SHARE)BND MATCH	SW	>2020	-	-	-	-	-	-	
ROLLING STOCK	NHL-ML	R		M4 REHABILITATION/OVERHAUL (CT SHARE)	SW	>2020	-	-	-	-	-	-	
ROLLING STOCK	NHL-ML	R		M6 REHABILITATION/OVERHAUL (CT SHARE)	SW	>2020	-	-	-	-	-	-	
ROLLING STOCK	NHL-ML	R	RRS-0201	REPLACE 342 EMU RAIL CARS (CT SHARE)	SW/GB/SC	2007	GOV-INT	29,800	54,700	82,900	132,400	183,000	482,800
SUBTOTAL RAIL PROGRAM								192,097	270,022	282,075	261,952	315,286	1,321,432
SUBTOTAL BUS PROGRAM								1,520	500	600	100	6,548	9,268
TOTAL PROGRAM								193,617	270,522	282,675	262,052	321,834	1,330,700

Source: Prepared by SWRPA using ConnDOT Capital Project Management Plan 2007-2027 – March 2007.

Table 44. South Western Region Estimates for Transit Operations FY2007-2035

Program	FY2007			2007-2011 Estimate		
	Federal & State	Local	Total	Federal & State	Local	Total
CT Transit Stamford	\$ 10,627,800	\$ -	\$ 10,627,800	\$ 53,139,000	\$ -	\$ 53,139,000
Norwalk Transit - Fixed Route	\$ 3,968,465	\$ 356,811	\$ 4,325,276	\$ 19,842,325	\$ 1,784,055	\$ 21,626,380
Westport - Fixed Route	\$ 729,616	\$ 185,181	\$ 914,797	\$ 3,648,080	\$ 925,905	\$ 4,573,985
Norwalk ADA	\$ 1,129,493	\$ 78,844	\$ 1,208,337	\$ 5,647,465	\$ 394,220	\$ 6,041,685
Stamford ADA/Elderly Service	\$ 1,525,367	\$ 90,000	\$ 1,615,367	\$ 7,626,835	\$ 450,000	\$ 8,076,835
Westport ADA	\$ 166,326	\$ 69,021	\$ 235,347	\$ 831,630	\$ 345,105	\$ 1,176,735
Greenwich Shuttle	\$ 220,218	\$ -	\$ 220,218	\$ 1,101,090	\$ -	\$ 1,101,090
Norwalk Commuter Shuttles	\$ 410,015	\$ -	\$ 410,015	\$ 2,050,075	\$ -	\$ 2,050,075
CT Avenue Evening Shuttle	\$ 70,465	\$ -	\$ 70,465	\$ 352,325	\$ -	\$ 352,325
Route 7 Evening Shuttles	\$ 46,965	\$ -	\$ 46,965	\$ 234,825	\$ -	\$ 234,825
Sunday Shuttles	\$ 46,832	\$ -	\$ 46,832	\$ 234,160	\$ -	\$ 234,160
Coastal Link - NTD	\$ 552,190	\$ -	\$ 552,190	\$ 2,760,950	\$ -	\$ 2,760,950
Route 7 Link	\$ 180,129	\$ 5,000	\$ 185,129	\$ 900,645	\$ 25,000	\$ 925,645
Bus Total	\$ 19,673,881	\$ 784,857	\$ 20,458,738	\$ 98,369,405	\$ 3,924,285	\$ 102,293,690
Rail Total	\$ 29,133,550	\$ -	\$ 29,133,550	\$ 145,667,750	\$ -	\$ 145,667,750
Transit Total	\$ 48,807,431	\$ 784,857	\$ 49,592,288	\$ 244,037,155	\$ 3,924,285	\$ 247,961,440

Program	2012-2016 Estimate			2017-2035 Estimate		
	Federal & State	Local	Total	Federal & State	Local	Total
CT Transit Stamford	\$ 53,139,000	\$ -	\$ 53,139,000	\$ 201,928,200	\$ -	\$ 201,928,200
Norwalk Transit - Fixed Route	\$ 19,842,325	\$ 1,784,055	\$ 21,626,380	\$ 75,400,835	\$ 6,779,409	\$ 82,180,244
Westport - Fixed Route	\$ 3,648,080	\$ 925,905	\$ 4,573,985	\$ 13,862,704	\$ 3,518,439	\$ 17,381,143
Norwalk ADA	\$ 5,647,465	\$ 394,220	\$ 6,041,685	\$ 21,460,367	\$ 1,498,036	\$ 22,958,403
Stamford ADA/Elderly Service	\$ 7,626,835	\$ 450,000	\$ 8,076,835	\$ 28,981,973	\$ 1,710,000	\$ 30,691,973
Westport ADA	\$ 831,630	\$ 345,105	\$ 1,176,735	\$ 3,160,194	\$ 1,311,399	\$ 4,471,593
Greenwich Shuttle	\$ 1,101,090	\$ -	\$ 1,101,090	\$ 4,184,142	\$ -	\$ 4,184,142
Norwalk Commuter Shuttles	\$ 2,050,075	\$ -	\$ 2,050,075	\$ 7,790,285	\$ -	\$ 7,790,285
CT Avenue Evening Shuttle	\$ 352,325	\$ -	\$ 352,325	\$ 1,338,835	\$ -	\$ 1,338,835
Route 7 Evening Shuttles	\$ 234,825	\$ -	\$ 234,825	\$ 892,335	\$ -	\$ 892,335
Sunday Shuttles	\$ 234,160	\$ -	\$ 234,160	\$ 889,808	\$ -	\$ 889,808
Coastal Link - NTD	\$ 2,760,950	\$ -	\$ 2,760,950	\$ 10,491,610	\$ -	\$ 10,491,610
Route 7 Link	\$ 900,645	\$ 25,000	\$ 925,645	\$ 3,422,451	\$ 95,000	\$ 3,517,451
Bus Total	\$ 98,369,405	\$ 3,924,285	\$ 102,293,690	\$ 373,803,739	\$ 14,912,283	\$ 388,716,022
Rail Total	\$ 145,667,750	\$ -	\$ 145,667,750	\$ 553,537,450	\$ -	\$ 553,537,450
Transit Total	\$ 244,037,155	\$ 3,924,285	\$ 247,961,440	\$ 927,341,189	\$ 14,912,283	\$ 942,253,472

Source: Prepared by SWRPA using ConnDOT, NTD and CT Transit information - March 2007

Key:

ADA = companion paratransit service for persons with disabilities

NTD = Norwalk Transit District

CT Transit Stamford services include fixed route, commuter connections, and I-Bus. Funding is provided through FTA Access to Jobs, Connecticut DSS, and Connecticut's TSB.

Note: The statewide rail operations deficit is provided by ConnDOT was \$116,534,200 for FY2007. SWRPA assigned 25% to the South Western Region.

Table 45. South Western Region Estimates for Bus Transit Revenues and Subsidies FY2007-2035

Program	FY2007			2007-2011 Estimate		
	Operating Expenses	Farebox Revenue	Deficits	Operating Expenses	Farebox Revenue	Deficits
CT Transit Stamford	\$ 10,627,800	\$ 3,050,389	\$ (7,577,411)	\$ 53,139,000	\$ 15,251,945	\$ 68,390,945
Norwalk Transit - Fixed Route	\$ 4,325,276	\$ 1,065,840	\$ (3,259,436)	\$ 21,626,380	\$ 5,329,200	\$ 26,955,580
Westport - Fixed Route	\$ 914,797	\$ 164,737	\$ (750,060)	\$ 4,573,985	\$ 823,685	\$ 5,397,670
Norwalk ADA	\$ 1,208,337	\$ 164,406	\$ (1,043,931)	\$ 6,041,685	\$ 822,030	\$ 6,863,715
Stamford ADA /Elderly Service	\$ 1,615,367	\$ 98,799	\$ (1,516,568)	\$ 8,076,835	\$ 493,995	\$ 8,570,830
Westport ADA	\$ 235,347	\$ 11,422	\$ (223,925)	\$ 1,176,735	\$ 57,110	\$ 1,233,845
Greenwich Shuttle	\$ 220,218	\$ 57,039	\$ (163,179)	\$ 1,101,090	\$ 285,195	\$ 1,386,285
Norwalk Commuter Shuttles	\$ 410,015	\$ 113,372	\$ (296,643)	\$ 2,050,075	\$ 566,860	\$ 2,616,935
CT Avenue Evening Shuttle	\$ 70,465	\$ 17,263	\$ (53,202)	\$ 352,325	\$ 86,315	\$ 438,640
Route 7 Evening Shuttles	\$ 46,965	\$ 12,040	\$ (34,925)	\$ 234,825	\$ 60,200	\$ 295,025
Sunday Shuttles	\$ 46,832	\$ 20,204	\$ (26,628)	\$ 234,160	\$ 101,020	\$ 335,180
Coastal Link - NTD	\$ 552,190	\$ 186,862	\$ (365,328)	\$ 2,760,950	\$ 934,310	\$ 3,695,260
Route 7 Link	\$ 185,129	\$ 20,133	\$ (164,996)	\$ 925,645	\$ 100,665	\$ 1,026,310
Total	\$ 20,458,738	\$ 4,982,506	\$ (15,476,232)	\$ 102,293,690	\$ 24,912,530	\$ 127,206,220

Program	2012-2016 Estimate			2017-2035 Estimate		
	Operating Expenses	Farebox Revenue	Deficits	Operating Expenses	Farebox Revenue	Deficits
CT Transit Stamford	\$ 53,139,000	\$ 15,251,945	\$ 68,390,945	\$ 201,928,200	\$ 57,957,391	\$ 259,885,591
Norwalk Transit - Fixed Route	\$ 21,626,380	\$ 5,329,200	\$ 26,955,580	\$ 82,180,244	\$ 20,250,960	\$ 102,431,204
Westport - Fixed Route	\$ 4,573,985	\$ 823,685	\$ 5,397,670	\$ 17,381,143	\$ 3,130,003	\$ 20,511,146
Norwalk ADA	\$ 6,041,685	\$ 822,030	\$ 6,863,715	\$ 22,958,403	\$ 3,123,714	\$ 26,082,117
Stamford ADA /Elderly Service	\$ 8,076,835	\$ 493,995	\$ 8,570,830	\$ 30,691,973	\$ 1,877,181	\$ 32,569,154
Westport ADA	\$ 1,176,735	\$ 57,110	\$ 1,233,845	\$ 4,471,593	\$ 217,018	\$ 4,688,611
Greenwich Shuttle	\$ 1,101,090	\$ 285,195	\$ 1,386,285	\$ 4,184,142	\$ 1,083,741	\$ 5,267,883
Norwalk Commuter Shuttles	\$ 2,050,075	\$ 566,860	\$ 2,616,935	\$ 7,790,285	\$ 2,154,068	\$ 9,944,353
CT Avenue Evening Shuttle	\$ 352,325	\$ 86,315	\$ 438,640	\$ 1,338,835	\$ 327,997	\$ 1,666,832
Route 7 Evening Shuttles	\$ 234,825	\$ 60,200	\$ 295,025	\$ 892,335	\$ 228,760	\$ 1,121,095
Sunday Shuttles	\$ 234,160	\$ 101,020	\$ 335,180	\$ 889,808	\$ 383,876	\$ 1,273,684
Coastal Link - NTD	\$ 2,760,950	\$ 934,310	\$ 3,695,260	\$ 10,491,610	\$ 3,550,378	\$ 14,041,988
Route 7 Link	\$ 925,645	\$ 100,665	\$ 1,026,310	\$ 3,517,451	\$ 382,527	\$ 3,899,978
Total	\$ 102,293,690	\$ 24,912,530	\$ 127,206,220	\$ 388,716,022	\$ 94,667,614	\$ 483,383,636

Source: Prepared by SWRPA using ConnDOT, NTD and CT Transit information - March 2007

ADA = companion paratransit service for persons with disabilities

NTD = Norwalk Transit District

CT Transit Stamford services include fixed route, commuter connections, and I-Bus. Funding is provided through FTA Access to Jobs, Connecticut DSS, and Connecticut's TSB.

TABLE 46 - FFY 2007-2011 STATEWIDE TIP: TRANSIT OPERATING PROJECTS (as of 2/28/07)

FACode	Proj#	Rte/Sys	Town	Description	Phase	Year	Totls(000)	Fed\$(000)	Sta\$(000)	Locs(000)
53070	0102-P007	NRWLK TD	NORWALK	NORWALK TD - E&D OPER. - FFY 2007.	OTH	2007	804	402	0	402
53070	0102-P007	NRWLK TD	NORWALK	NORWALK TD - E&D OPER. - FFY 2008.	OTH	2008	804	402	0	402
53070	0102-P007	NRWLK TD	NORWALK	NORWALK TD - E&D OPER. - FFY 2009.	OTH	2009	804	402	0	402
53070	0400-0001	CT TRNST	STAMFORD	CONNECTICUT TRANSIT-STAMFORD - FFY 2007.	OTH	2007	4,500	1,850	2,650	0
53070	0400-0001	CT TRNST	STAMFORD	CONNECTICUT TRANSIT-STAMFORD - FFY 2008.	OTH	2008	4,500	1,850	2,650	0
53070	0400-0001	CT TRNST	STAMFORD	CONNECTICUT TRANSIT-STAMFORD - FFY 2009.	OTH	2009	4,500	1,850	2,650	0
53070	0412-0056	NRWLK TD	NORWALK	NORWALK FIXED ROUTE. - FFY 2007.	OTH	2007	3,948	1,150	2,798	0
53070	0412-0056	NRWLK TD	NORWALK	NORWALK FIXED ROUTE. - FFY 2008.	OTH	2008	3,948	1,150	2,798	0
53070	0412-0056	NRWLK TD	NORWALK	NORWALK FIXED ROUTE. - FFY 2009.	OTH	2009	3,948	1,150	2,798	0
53070	0412-0057	NRWLK TD	WESTPORT	WESTPORT-FIXED RTE. - FFY 2007.	OTH	2007	503	0	503	0
53070	0412-0057	NRWLK TD	WESTPORT	WESTPORT-FIXED RTE. - FFY 2008.	OTH	2008	503	0	503	0
53070	0412-0057	NRWLK TD	WESTPORT	WESTPORT-FIXED RTE. - FFY 2009.	OTH	2009	503	0	503	0
South Western Region Transit Projects FFY 2007-2011 TIP							26,853	9,000	17,853	0
53070	0300-0065	N HVN LN	VARIOUS	NEW HAVEN LINE RAIL OPERATING ASSISTANCE - FFY 2007.	OTH	2007	44,505	0	44,505	0
53070	0300-0065	N HVN LN	VARIOUS	NEW HAVEN LINE RAIL OPERATING ASSISTANCE - FFY 2008.	OTH	2008	44,505	0	44,505	0
53070	0300-0065	N HVN LN	VARIOUS	NEW HAVEN LINE RAIL OPERATING ASSISTANCE - FFY 2009.	OTH	2009	44,505	0	44,505	0
MetroNorth Operating Assistance Total							133,515	0	133,515	0
53070	0310-0014	SHR LN EST	NEW HAVEN	SHORELINE EAST - AMTRAK OPERATING - FFY 2007.	OTH	2007	5,040	0	5,040	0
53070	0310-0014	SHR LN EST	NEW HAVEN	SHORELINE EAST - AMTRAK OPERATING - FFY 2008.	OTH	2008	5,040	0	5,040	0
53070	0310-0014	SHR LN EST	NEW HAVEN	SHORELINE EAST - AMTRAK OPERATING - FFY 2009.	OTH	2009	5,040	0	5,040	0
Shoreline East Operating Assistance Total							15,120	0	15,120	0

Source: Prepared by SWRPA using FFY 2007-2011 Statewide TIP

TABLE 47 - FFY 2007-2011 STATEWIDE TIP: TDM AND RIDESHARING PROJECTS (as of 2/28/07)

Region	FACode	Proj#	Rte/Sys	Town	Description	Phase	Year	Tot\$(000)	Fed\$(000)	Sta\$(000)	Loc\$(000)
07	CMAQ	0015-TX01	VARIOUS	BRIDGEPORT	BRIDGEPORT TDM Office	OTH	2007	124	124	0	0
07	CMAQ	0015-TX01	VARIOUS	BRIDGEPORT	BRIDGEPORT TDM Office	OTH	2008	127	127	0	0
07	CMAQ	0015-TX01	VARIOUS	BRIDGEPORT	BRIDGEPORT TDM Office	OTH	2009	127	127	0	0
07	CMAQ	0015-TX01	VARIOUS	BRIDGEPORT	BRIDGEPORT TDM Office	OTH	2010	133	133	0	0
07	CMAQ	0015-TX01	VARIOUS	BRIDGEPORT	BRIDGEPORT TDM Office	OTH	FYI	137	137	0	0
02	CMAQ	0034-TX01	DANBURY	DANBURY	DANBURY TDM OFFICE	OTH	2010	133	133	0	0
02	CMAQ	0034-TX01	DANBURY	DANBURY	DANBURY TDM OFFICE	OTH	FYI	137	137	0	0
02	CMAQ	0034-TXX2	DANBURY	DANBURY	DANBURY TDM OFFICE	OTH	2007	124	124	0	0
02	CMAQ	0034-TXX3	DANBURY	DANBURY	DANBURY TDM OFFICE	OTH	2008	127	127	0	0
02	CMAQ	0034-TXX4	DANBURY	DANBURY	DANBURY TDM OFFICE	OTH	2009	130	130	0	0
10	CMAQ	0063-TX01	GRTR-HARTFORD	GRTR-HARTFORD	GREATER HARTFORD REGIONAL RIDESHARE	OTH	2010	1,182	1,182	0	0
10	CMAQ	0063-TX01	GRTR-HARTFORD	GRTR-HARTFORD	GREATER HARTFORD REGIONAL RIDESHARE	OTH	FYI	1,217	1,217	0	0
10	CMAQ	0063-TXX2	GRTR-HARTFORD	GRTR-HARTFORD	GREATER HARTFORD REGIONAL RIDESHARE	OTH	2007	1,083	1,083	0	0
10	CMAQ	0063-TXX3	GRTR-HARTFORD	GRTR-HARTFORD	GREATER HARTFORD REGIONAL RIDESHARE	OTH	2008	1,115	1,115	0	0
10	CMAQ	0063-TXX4	GRTR-HARTFORD	GRTR-HARTFORD	GREATER HARTFORD REGIONAL RIDESHARE	OTH	2009	1,148	1,148	0	0
08	CMAQ	0002-TX01	GRTR-NEW HAVEN	GRTR-NEW HAVEN	GREATER NEW HAVEN REGIONAL RIDESHARE	OTH	2010	855	855	0	0
08	CMAQ	0002-TX01	GRTR-NEW HAVEN	GRTR-NEW HAVEN	GREATER NEW HAVEN REGIONAL RIDESHARE	OTH	FYI	880	880	0	0
08	CMAQ	0002-TXX6	GRTR-NEW HAVEN	GRTR-NEW HAVEN	GREATER NEW HAVEN REGIONAL RIDESHARE	OTH	2007	784	784	0	0
08	CMAQ	0002-TXX7	GRTR-NEW HAVEN	GRTR-NEW HAVEN	GREATER NEW HAVEN REGIONAL RIDESHARE	OTH	2008	807	807	0	0
08	CMAQ	0002-TXX8	GRTR-NEW HAVEN	GRTR-NEW HAVEN	GREATER NEW HAVEN REGIONAL RIDESHARE	OTH	2009	831	831	0	0
13	CMAQ	0094-TX01	NEW LONDON	NEW LONDON	NEW LONDON TDM INITIATIVE	OTH	2010	175	175	0	0
13	CMAQ	0094-TX01	NEW LONDON	NEW LONDON	NEW LONDON TDM INITIATIVE	OTH	FYI	180	180	0	0
13	CMAQ	0094-TXX2	NEW LONDON	NEW LONDON	NEW LONDON TDM INITIATIVE	OTH	2007	162	162	0	0
13	CMAQ	0094-TXX3	NEW LONDON	NEW LONDON	NEW LONDON TDM INITIATIVE	OTH	2008	166	166	0	0
13	CMAQ	0094-TXX4	NEW LONDON	NEW LONDON	NEW LONDON TDM INITIATIVE	OTH	2009	170	170	0	0
75	CMAQ	0135-TX01	VARIOUS	VARIOUS	SOUTHWESTERN CT REGIONAL RIDESHARE	OTH	2007	1,163	1,163	0	0
75	CMAQ	0135-TX01	VARIOUS	VARIOUS	SOUTHWESTERN CT REGIONAL RIDESHARE	OTH	2008	1,197	1,197	0	0
75	CMAQ	0135-TX01	VARIOUS	VARIOUS	SOUTHWESTERN CT REGIONAL RIDESHARE	OTH	2009	1,232	1,232	0	0
75	CMAQ	0135-TX01	VARIOUS	VARIOUS	SOUTHWESTERN CT REGIONAL RIDESHARE	OTH	2010	1,288	1,288	0	0
75	CMAQ	0135-TX01	VARIOUS	VARIOUS	SOUTHWESTERN CT REGIONAL RIDESHARE	OTH	FYI	1,308	1,308	0	0
05	CMAQ	0151-TX01	WATERBURY	WATERBURY	WATERBURY TDM OFFICE	OTH	2010	175	175	0	0
05	CMAQ	0151-TX01	WATERBURY	WATERBURY	WATERBURY TDM OFFICE	OTH	FYI	180	180	0	0
05	CMAQ	0151-TXX3	WATERBURY	WATERBURY	WATERBURY TDM OFFICE	OTH	2007	162	162	0	0
05	CMAQ	0151-TXX3	WATERBURY	WATERBURY	WATERBURY TDM OFFICE	OTH	2008	166	166	0	0
05	CMAQ	0151-TXX4	WATERBURY	WATERBURY	WATERBURY TDM OFFICE	OTH	2009	170	170	0	0
76	CMAQ	0170-TX03	VARIOUS	STATEWIDE	Commuter Incentive (Greater CT Moderate)	OTH	2010	266	266	0	0
76	CMAQ	0170-TX03	VARIOUS	STATEWIDE	Commuter Incentive (Greater CT Moderate)	OTH	FYI	273	273	0	0
75	CMAQ	0170-TX03	VARIOUS	STATEWIDE	COMMUTER INCENTIVE (NY-NJ-CT Moderate)	OTH	2010	266	266	0	0
75	CMAQ	0170-TX03	VARIOUS	STATEWIDE	COMMUTER INCENTIVE (NY-NJ-CT Moderate)	OTH	FYI	273	273	0	0
76	CMAQ	0170-TX04	VARIOUS	STATEWIDE	Statewide Ridesharing Services (Greater CT Moderate)	OTH	2010	136	136	0	0
76	CMAQ	0170-TX04	VARIOUS	STATEWIDE	Statewide Ridesharing Services (Greater CT Moderate)	OTH	FYI	141	141	0	0
75	CMAQ	0170-TX04	VARIOUS	STATEWIDE	STATEWIDE RIDESHARING SERVICES (NY-NJ-CT Moderate)	OTH	2010	325	325	0	0
75	CMAQ	0170-TX04	VARIOUS	STATEWIDE	STATEWIDE RIDESHARING SERVICES (NY-NJ-CT Moderate)	OTH	FYI	334	334	0	0
76	CMAQ	0170-TX06	VARIOUS	STATEWIDE	Statewide Marketing (Greater CT Moderate)	OTH	2010	389	311	76	0
76	CMAQ	0170-TX06	VARIOUS	STATEWIDE	Statewide Marketing (Greater CT Moderate)	OTH	FYI	400	320	80	0
75	CMAQ	0170-TX06	VARIOUS	STATEWIDE	STATEWIDE MARKETING (NY-NJ-CT Moderate)	OTH	2010	911	729	182	0
75	CMAQ	0170-TX06	VARIOUS	STATEWIDE	STATEWIDE MARKETING (NY-NJ-CT Moderate)	OTH	FYI	938	750	188	0
76	CMAQ	0170-TX07	VARIOUS	STATEWIDE	Telecommuting Partnership (Greater CT Moderate)	OTH	2010	309	247	62	0
76	CMAQ	0170-TX07	VARIOUS	STATEWIDE	Telecommuting Partnership (Greater CT Moderate)	OTH	FYI	318	254	64	0
75	CMAQ	0170-TX07	VARIOUS	STATEWIDE	Telecommuting Partnership (NY-NJ-CT Moderate)	OTH	2010	309	247	62	0
75	CMAQ	0170-TX07	VARIOUS	STATEWIDE	Telecommuting Partnership (NY-NJ-CT Moderate)	OTH	FYI	318	254	64	0
75	CMAQ	0170-TX10	VARIOUS	STATEWIDE	SOUTHERN CT VANPOOL	OTH	2010	284	284	0	0
75	CMAQ	0170-TX10	VARIOUS	STATEWIDE	SOUTHERN CT VANPOOL	OTH	FYI	292	292	0	0
76	CMAQ	0170-TX14	VARIOUS	STATEWIDE	Commute Incentive(GREATER CT MODERATE)	OTH	2007	245	245	0	0
76	CMAQ	0170-TX15	VARIOUS	STATEWIDE	Commute & Deduct A Ride Incentive(GREATER CT MODERATE)	OTH	2008	252	252	0	0
76	CMAQ	0170-TX16	VARIOUS	STATEWIDE	Commute & Deduct A Ride Incentive(GREATER CT MODERATE)	OTH	2009	259	259	0	0
76	CMAQ	0170-TX16	VARIOUS	STATEWIDE	Statewide Ridesharing Services (GREATER CT MODERATE)	OTH	2007	127	127	0	0
76	CMAQ	0170-TX19	VARIOUS	STATEWIDE	Statewide Ridesharing Services (GREATER CT MODERATE)	OTH	2008	130	130	0	0
76	CMAQ	0170-TX20	VARIOUS	STATEWIDE	Statewide Ridesharing Services (GREATER CT MODERATE)	OTH	2009	133	133	0	0
76	CMAQ	0170-TX26	VARIOUS	STATEWIDE	Statewide Marketing (GREATER CT MODERATE)	OTH	2007	357	287	70	0
76	CMAQ	0170-TX27	VARIOUS	STATEWIDE	Statewide Marketing (GREATER CT MODERATE)	OTH	2008	367	294	73	0
76	CMAQ	0170-TX28	VARIOUS	STATEWIDE	Statewide Marketing (GREATER CT MODERATE)	OTH	2009	378	302	76	0
76	CMAQ	0170-TX34	VARIOUS	STATEWIDE	Telecommuting Partnership (GREATER CT MODERATE)	OTH	2007	284	227	57	0
76	CMAQ	0170-TX35	VARIOUS	STATEWIDE	Telecommuting Partnership (GREATER CT MODERATE)	OTH	2008	292	234	58	0
76	CMAQ	0170-TX36	VARIOUS	STATEWIDE	Telecommuting Partnership (GREATER CT MODERATE)	OTH	2009	300	240	60	0
70	CMAQ	0170-TX41	VARIOUS	STATEWIDE	VANPOOL FINANCING PROGRAM	OTH	2008	7,500	7,500	0	0
70	CMAQ	0170-TX41	VARIOUS	STATEWIDE	VANPOOL FINANCING PROGRAM	OTH	FYI	7,500	7,500	0	0
75	CMAQ	0170-TX55	VARIOUS	STATEWIDE	COMMUTE INCENTIVE (NY-NJ-CT MODERATE)	OTH	2007	245	245	0	0
75	CMAQ	0170-TX56	VARIOUS	STATEWIDE	COMMUTE & DEDUCT-A-RIDE INCENTIVE (NY-NJ-CT MODERATE)	OTH	2008	252	252	0	0
75	CMAQ	0170-TX57	VARIOUS	STATEWIDE	COMMUTE & DEDUCT-A-RIDE INCENTIVE (NY-NJ-CT MODERATE)	OTH	2009	259	259	0	0
75	CMAQ	0170-TX63	VARIOUS	STATEWIDE	STATEWIDE RIDESHARING SERVICES (NY-NJ-CT MODERATE)	OTH	2007	299	299	0	0
75	CMAQ	0170-TX64	VARIOUS	STATEWIDE	STATEWIDE RIDESHARING SERVICES (NY-NJ-CT MODERATE)	OTH	2008	307	307	0	0
75	CMAQ	0170-TX65	VARIOUS	STATEWIDE	STATEWIDE RIDESHARING SERVICES (NY-NJ-CT MODERATE)	OTH	2009	316	316	0	0
75	CMAQ	0170-TX72	VARIOUS	STATEWIDE	SOUTHERN CT VANPOOL	OTH	2007	261	261	0	0
75	CMAQ	0170-TX73	VARIOUS	STATEWIDE	SOUTHERN CT VANPOOL	OTH	2008	268	268	0	0
75	CMAQ	0170-TX74	VARIOUS	STATEWIDE	SOUTHERN CT VANPOOL	OTH	2009	276	276	0	0
75	CMAQ	0170-TX76	VARIOUS	STATEWIDE	STATEWIDE MARKETING (NY-NJ-CT MODERATE)	OTH	2007	835	668	167	0
75	CMAQ	0170-TX77	VARIOUS	STATEWIDE	STATEWIDE MARKETING (NY-NJ-CT MODERATE)	OTH	2008	860	688	172	0
75	CMAQ	0170-TX78	VARIOUS	STATEWIDE	STATEWIDE MARKETING (NY-NJ-CT MODERATE)	OTH	2009	885	708	177	0
75	CMAQ	0170-TX84	VARIOUS	STATEWIDE	Telecommuting Partnership (NY-NJ-CT MODERATE)	OTH	2007	284	227	57	0
75	CMAQ	0170-TX85	VARIOUS	STATEWIDE	Telecommuting Partnership (NY-NJ-CT MODERATE)	OTH	2008	292	234	58	0
75	CMAQ	0170-TX86	VARIOUS	STATEWIDE	Telecommuting Partnership (NY-NJ-CT MODERATE)	OTH	2009	300	240	60	0
Total Statewide TIP - TDM and Ridesharing Projects								49,618	47,753	1,885	0

Note: Average annual investment in TDM and Ridesharing is \$9,923,600.
 Federal CMAQ funds cover 96.2% of all TDM programs. The South Western Region fairshare of TDM programs and resources is \$1 million per year.
 The South Western Region fairshare allocation for 2007-2035 is \$28,779,440.
 South Western Region fairshare is 11% based on the "Allocation of Anticipated Funds to CT Planning Regions 2007-2035 dated 2/28/06"
 Source: Prepared by SWRPA using FFY 2007-2011 Statewide TIP

TABLE 48. SOUTH WESTERN REGION STP-BS PROJECTS: FUNDED IN THE FFY2007 TIP, IN CONCEPT REVIEW, OR PROPOSED									
PROJECTS INCLUDED IN THE FFY2007 TIP									
Proj#	Rte/Sys	Town	Description	Phas	Year	Tot\$(000)	Fed\$(000)	Sta\$(000)	Loc\$(000)
0015-318	VARIOUS	VARIOUS	URBAN PROGRAM, DESIGN ACTIVITIES, PHASED FINANCED	PE	2007	500	400	100	0
0102-0297	EAST AVE	NORWALK	RECONSTRUCTION OF EAST AVE AT METRO-NORTH RAILROAD BRIDGE # 42.14.	ROW	2007	300	240	30	30
0102-0297	EAST AVE	NORWALK	RECONSTRUCTION OF EAST AVE AT METRO-NORTH RAILROAD BRIDGE # 42.14.	CON	2008	4,316	3,453	863	0
56-H044	Glenville Road	Greenwich	Glenville Road @ Weaver Road Traffic Signal (Greenwich 3/07)	CON	2007	271	271	0	0
Sub-total						5,386	4,363	993	30
PROJECTS APPROVED FOR FUNDING IN FFY2007									
TBD	Route 7	Norwalk/Ridge	Route 7 Needs Study (Olmstead Hill Rd, Wilton to Route 35, Ridgefield) (SWRPA 8/04, 3/07)	Study	2007	125	100	25	0
TBD	Route 1	Greenwich/St	Route 1 Corridor Circulation and Access Management Study (SWRPA 3/07)	Study	2007	375	300	75	0
TBD	Route 1	Greenwich/St	Route 1 Corridor Circulation and Access Management Study (SWRPA 3/07)	Study	TBD	100	80	20	0
Sub-total						500	400	100	0
PROJECTS IN DESIGN									
Proj#	Rte/Sys	Town	Description	Phase	Year	Tot\$(000)	Fed\$(000)	Sta\$(000)	Loc\$(000)
0135-H066	Various	STAMFORD	SIGNAL SYSTEM PHASE F (CMAQ)	CON	2006	2,440	2,440	0	0
102-H065	Rowayton Ave	Norwalk	Rowayton Avenue Roadway Improvements at Rowayton RR Bridge (ConnDOT 5/03)	CON	TBD	1,960	1,568	392	0
102-236	Various	Norwalk	Traffic Signal System Upgrade Phase 1 (CMAQ)	CON	TBD	3,038	3,017	0	0
Sub-total						3,038	3,017	0	0
PROJECTS IN CONCEPT REVIEW FOR STP and/or CMAQ FUNDING									
Proj#	Rte/Sys	Town	Description (Cost Estimate Source & Date)	Phase	Year	Tot\$(000)	Fed\$(000)	Sta\$(000)	Loc\$(000)
56_Hxxx	Riversville Rd	Greenwich	Riversville Road Bridge Replacement	All	TBD	2,300	1,840	230	230
102-H055	Route 1	Norwalk	Rte. 1 Culverts (Keeler Brook) (ConnDOT 5/03)	CON	TBD	280	224	56	0
102-H065	Rowayton Ave	Norwalk	Rowayton Avenue Roadway Improvements at Rowayton RR Bridge (ConnDOT 5/03)	CON	TBD	1,960	1,568	392	0
TBD	Fairfield Ave	Norwalk	Fairfield Ave (Flax Hill to Route 1), Washington St (Water to Flax Hill) (Norwalk 8/04)	CON	TBD	1,700	1,360	340	0
TBD	Scribner Ave	Norwalk	Scribner Ave (Flax Hill to Route 1), Williams (Strawberry Hill to County)(Norwalk 8/04)	CON	TBD	1,950	1,560	390	0
135H070	Hope Street	Stamford	Hope Street Operational and Safety Improvements (Minivale to Northhill) (Stamford 8/04)	ROW	TBD	420	336	84	0
135H070	Hope Street	Stamford	Hope Street Operational and Safety Improvements (Minivale to Northhill) (Stamford 8/04)	CON	TBD	3,843	3,074	769	0
135-H069	Route 137	Stamford	Washington Blvd Raised Median (Tresser Boulevard to Division Street) (ConnDOT 8/04)	CON	TBD	1,500	1,200	300	0
135-H071	Stillwater Road	Stamford	Stillwater Road at Clover Hill Drive Intersection Improvement	ROW	TBD	200	160	40	0
135-H071	Stillwater Road	Stamford	Stillwater Road at Clover Hill Drive Intersection Improvement	CON	TBD	1,800	1,440	360	0
Sub-total						15,953	12,762	2,961	230
PROJECTS PROPOSED FOR STP and/or CMAQ FUNDING: 2007									
Proj#	Rte/Sys	Town	Description (Cost Estimate Source & Date)	Phase	Year	Tot\$(000)	Fed\$(000)	Sta\$(000)	Loc\$(000)
TBD	Multimodal	Regional	South Western Region Transit Strategies Study (SWRPA 8/04)	Study	TBD	500	400	100	0
TBD	Multimodal	Stamford	Stamford Transportation Investment Strategies Study (SWRPA 8/04)	Study	TBD	1,000	800	100	100
TBD	Multimodal	Norwalk	Merritt 7 Area Transportation Study (SWRPA 8/04)	Study	TBD	300	240	30	30
TBD	Strawberry Hill	Norwalk	Signal System Interconnect (Route 136 to Route 1) (Norwalk 8/04)	CON	TBD	300	300	0	0
TBD	Redcoat Lane	Norwalk	Redcoat Lane at Fox Run Road Signal Replacement (Norwalk 8/04)	CON	TBD	120	96	24	0
TBD	Strawberry Hill	Norwalk	Strawberry Hill Avenue at Tierney - New Traffic Signal (Norwalk 8/04)	CON	TBD	150	120	30	0
TBD	Cannon Street	Norwalk	Cannon Street at East Road Road Intersection Improvements (Norwalk 8/04)	CON	TBD	300	240	60	0
TBD	Route 53	Norwalk	Route 53 (Newtown Avenue) & Dry Hill & Murray Intersection Imp. (Norwalk 8/04)	CON	TBD	230	184	46	0
TBD	Fairfield Ave	Norwalk	Fairfield Avenue at Cedar Street Intersection Improvements (Norwalk 8/04)	CON	TBD	230	184	46	0
TBD	Route 137	Stamford	Washington Blvd Raised Median (Division Street to North State Street) (Stamford 8/04)	ROW	TBD	250	200	25	25
TBD	Route 137	Stamford	Washington Blvd Raised Median (Division Street to North State Street) (Stamford 8/04)	CON	TBD	1,000	800	200	0
TBD	Oaklawn Ave	Stamford	Oaklawn Avenue Reconstruction (Halpin Ave to Stanwick Pl) (Stamford 8/04)	ROW	TBD	1,000	800	100	100
TBD	Oaklawn Ave	Stamford	Oaklawn Avenue Reconstruction (Halpin Ave to Stanwick Pl) (Stamford 8/04)	CON	TBD	1,500	1,200	300	0
TBD	Toms Road	Stamford	Toms Road Reconstruction (Hope Street to Belltown Road) (Stamford 8/04)	ROW	TBD	400	320	40	40
TBD	Toms Road	Stamford	Toms Road Reconstruction (Hope Street to Belltown Road) (Stamford 8/04)	CON	TBD	6,000	4,800	1,200	0
TBD	South State St	Stamford	South State Street Sidewalk (Stamford Transportation Center to Atlantic Street) (Stamford 8/04)	CON	TBD	425	340	85	0
TBD	Various	Stamford	Traffic Signal System Upgrade Phase G (Stamford 8/04)	CON	TBD	3,250	3,250	0	0
TBD	Various	Stamford	Traffic Signal System Upgrade Phase H (Stamford 8/04) - CMAQ	CON	TBD	3,000	2,400	600	0
TBD	Various	Stamford	Traffic Signal System Upgrade Phase I (Stamford 8/04) - CMAQ	CON	TBD	3,000	2,400	600	0
TBD	Various	Stamford	Traffic Signal System Upgrade Phase J (Stamford 8/04) - CMAQ	CON	TBD	3,000	2,400	600	0
TBD	Various	Stamford	Traffic Signal System Upgrade Phase K (Stamford 8/04) - CMAQ	CON	TBD	3,000	2,400	600	0
TBD	Various	Wilton	Wilton Train Station Pedestrian Walkway	CON	TBD	226	181	45	0
Sub-total						29,181	22,615	4,601	165
Total						53,559	42,757	8,555	425
COMPARISON OF STP-BS FUNDING AVAILABILITY AND NEED									
AVAILABLE FUNDS						Tot\$(000)			
STP-BS Fairshare Allocation to South Western Region						5,145			
Federal Funding Amount (80%)						4,116			
State or Local Match (20%)						1,029			
STP-BS Annual Funding Available (Including Federal and State/Local Match)						5,145			
STP-BS Available FFY2007-2035						149,205			
FUNDING NEED									
Active Projects						5,386			
Approved for Funding FFY2007						500			
Projects In Design						3,038			
Projects In Concept Review						15,953			
Proposed STP-BS or CMAQ						29,181			
Total						54,059			
Time Required to Complete STP-BS Projects that are Active, In Concept Review, and Proposed STP-BS Program = 10.5 years									
Notes:									
Annual STP-BS fairshare to SWR is \$4,116,025 per Financial Management 7-26-06									
Source: Prepared by SWRPA using FFY 2007-2011 Statewide TIP									

**TABLE 49. FUNDED SOUTH WESTERN REGION STP ENHANCEMENT PROJECTS
As of March 2007**

Town	Project No.	Project Name	Federal	Federal Total	Total
			Total Obligated	To Complete	Federal
Darien	35-0179	Restore Tidal Wetlands at Holly Pond	\$ 72,000.00	\$ 320,000.00	\$ 392,000.00
Greenwich	56-0259	Landscape Plantings along Greenwich Ave.	\$ -	\$ -	\$ -
Greenwich	56-0268	Landscape & Guiderail on Merritt Parkway from New York SL to 2500' N/O Riversville Rd. 2.7 Miles	\$ 2,911,791.66	\$ -	\$ 2,911,791.66
New Canaan	303-0003	Rehab New Canaan Railroad Station	\$ 3,063,376.00	\$ -	\$ 3,063,376.00
Norwalk	102-0229	Scenic Beautification & Pedestrian Access to the South Norwalk RR Station	\$ 900,000.00	\$ -	\$ 900,000.00
Norwalk	102-0258	Landscape Plantings along Water Street	\$ 22,481.28	\$ -	\$ 22,481.28
Norwalk	102-0263	West Ave. (SR 814) - New Sidewalks w/Brick Pavers, Landscape Planters, St. Planters and Trees	\$ 310,240.00	\$ -	\$ 310,240.00
Norwalk	102-0266	Railroad Switch Tower 3 Story Brick Structure Built in 1896	\$ 198,120.00	\$ -	\$ 198,120.00
Norwalk	102-0276	Construct a Pedestrian/Bicycle Facility Between South Norwalk & Norwalk Ctr	\$ 1,145,173.60	\$ -	\$ 1,145,173.60
Norwalk	102-0299	Norwalk River Valley Multipurpose Trail	\$ 589,600.00	\$ -	\$ 589,600.00
Stamford	135-0208	Stmfd Rail Trail Phase I - Imps. Walkways from the McKinney Trans. Ctr. to Downtwn CBD	\$ 1,659,054.00	\$ -	\$ 1,659,054.00
Stamford	135-0224	Streetscape Improvements from Downtown District to RR Station	\$ 1,023,920.00	\$ -	\$ 1,023,920.00
Stamford	135-0237	Phase I - Gateway at Stamford Station Includ Peds. Sys. to Link Train Station to Downtown Stamford	\$ 714,960.00	\$ -	\$ 714,960.00
Stamford	135-0238	Phase II - Gateway at Stamford Station Includ Peds. Sys. to Link Train Station to Downtown Stamford	\$ 2,595,999.97	\$ -	\$ 2,595,999.97
Stamford	135-H074	Stamford Urban Transitway Phase 1 - Bicycle and Pedestrian Elements	\$ 1,680,000.00	\$ -	\$ 1,680,000.00
Stamford	135-0271	Mill River Bicycle and Pedestrian Route	\$ 761,440.00	\$ -	\$ 761,440.00
Westport	158-0189	Drainage Imps. To Mitigate Water Pollution Due to Highway Runoff	\$ 60,831.03	\$ -	\$ 60,831.03
TOTAL			\$ 17,708,987.54	\$ 320,000.00	\$ 18,028,987.54

Notes

Project 135-H074 was added to the FFY2007TIP by the SWRMPO on 12-11-07 and is not included in the FFY2007 TIP dated 12-14-06.
Project 56-259 Greenwich Avenue Landscaping was cancelled by the Town of Greenwich.

Source: SWRPA using TIP and ConnDOT information 3/07

Table 50
South Western Region STP Enhancement Program Candidate Projects & Priorities
South Western Region MPO - March 24, 2003

Town	Description	Design Total \$	ROW Total \$	Con Total \$	Total	STP-E Request
Norwalk	Norwalk River Valley Bikeway Phase III Union Park north to New Canaan Avenue (Route 123) Sponsor: City of Norwalk Norwalk Priority # 1 Regional Priority # 2	\$150,000	\$0	\$1,657,900	\$1,807,900	\$1,446,320
Stamford	Stamford Urban Transitway Pedestrian & Bicycle Route Phase 1 : Transportation Center to Elm Street Sponsor: City of Stamford Stamford Priority # 1 Regional Priority # 1	\$0	\$0	\$2,135,000	\$2,135,000	\$1,708,000
Stamford	Stamford Mill River Multi-use Trail Phase III Broad Street to Bridge Street Sponsor: City of Stamford Stamford Priority # 2 Regional Priority # 4	\$142,000	\$0	\$1,109,000	\$1,251,000	\$1,000,800
Stamford	Merritt Parkway Trail Demonstration High Ridge Road (Route 137) to Newfield Road, Stamford Sponsor: City of Stamford & Regional Plan Association Stamford Priority # 3 Regional Priority # 5	\$60,000	\$0	\$601,600	\$661,600	\$529,280
Greenwich	Byram Sidewalk Enhancement Project Sponsor: Town of Greenwich	\$76,500	\$20,000	\$740,150	\$836,650	\$669,320
	1. South Water Street from Mill to William	\$20,000	\$5,000	\$176,280	\$201,280	\$161,024
	2. Mead Avenue from Mill to William	\$40,000	\$10,000	\$422,394	\$472,394	\$377,915
	3. South Water Street from Church to Division Greenwich Priority # 1 Regional Priority # 3	\$16,500	\$5,000	\$141,476	\$162,976	\$130,381
South Western Region Total		\$428,500	\$20,000	\$6,243,650	\$6,692,150	\$5,353,720
Funded FY2007		\$0	\$0	\$2,135,000	\$2,135,000	\$1,708,000
Un-funded Need		\$20,000	\$20,000	\$4,108,650	\$4,557,150	\$3,645,720

TBD = To be determined

Note:

The region's number 1 priority was funded, and is scheduled to be advertised with the Stamford Urban Transitway Phase 1 project in early 2007.

Source: SWRPA using ConnDOT and SWRPA information 3/07

Table 51 - Bridgeport-Stamford Urbanized Area FTA Enhancement Program 2004-2006 - Federal Funding Portion
SOUTH WESTERN REGION

	Obligated 2004	Obligated 2005	Recommended 2006	Proposed 2006
City of Stamford				
Glenbrook RR Station Improvements	\$	38,400		
Glenbrook Bus Shelters	\$	16,000		
Springdale RR Bike Storage	\$	5,700		
Springdale RR Station Fence & Landscaping				\$ 25,753
Historical Photos				\$ 15,000
Subtotal	\$ -	\$ 60,100	\$ -	\$ 40,753
Norwalk Transit District				
Bus Shelters	\$ 27,000			
Artwork	\$ 21,000			
Coastal Link Bike Racks	\$ 11,400			
Bus Shelters in Historic South Norwalk		\$ 20,000		
Noroton Heights RR Station Bus Shelter		\$ 16,000		
NTD Artwork		\$ 12,000		
Bike Racks for SoNo and East Norwalk RR Stations		\$ 6,080		
SoNo RR Station Bus Signage & Info Kiosk		\$ 6,400		
Washington St. Bridge Underpass Lighting			\$ 40,000	
Greenwich Bus Shelter			\$ 39,000	
Bus Mounted Bike Racks			\$ 29,450	
Washington St. Area Bike Racks			\$ 28,500	
NTD Artwork			\$ 12,000	
InfoPost			\$ 8,640	
Bike Racks (on behalf of Milford Transit District)			\$ 6,080	
Backlit Map Displays for Saugatuck RR Station			\$ 4,800	
Subtotal	\$ 59,400	\$ 60,480	\$ 168,470	\$ -
Total	\$ 59,400	\$ 120,580	\$ 168,470	\$ 40,753

Source: Created by SWRPA – March 2007

Table 52. Special Projects and Discretionary Funding

Project	Cost Estimate	Estimate Date	Funding Status			Comment
			Funded	Anticipated	Funding Needed	
Stamford Urban Transitway Phase I	\$ 49,500,000	Stamford 3/2007	\$ 24,684,613			FTA Section 5309 New Starts: FFY99-03 FHWA Earmark FFY03 FHWA STP-BS or STP-O City of Stamford FY97,00,01,02,03,04 City of Stamford FY2005-2007 Other - to be determined
			\$ 7,925,144			
			\$ 6,980,000			
			\$ 7,950,000			
			\$ 1,960,243			
Total	\$ 49,500,000		\$ 49,500,000	\$ -	\$ -	Fully funded - CON scheduled 2007-2009
Stamford Urban Transitway Phase II	\$ 40,000,000	Stamford 1/2007	\$ 3,936,715	\$ 6,417,451		FTA Section 5309 New Starts: FFY2003 Future Federal Trans. New Starts City of Stamford FY2005-2010 Other - to be determined
			\$ 2,976,000			
			\$ 5,830,669			
			\$ 12,926,418		\$ 6,057,973	
			\$ 927,387	\$ 927,387		
Total	\$ 40,000,000		\$ 26,597,189	\$ 7,344,838	\$ 6,057,973	
Stamford Ferry Terminal	\$ 17,500,000	Stamford 3/2007	\$ 1,000,000			USDOT Ferryboat Discretionary (FFY03,04) Earmark SR 3852 2006 Earmark Future Federal Trans. New Starts City of Stamford FY2003-2004 City of Stamford FY2009-2011 Other - to be determined
			\$ 2,000,000			
			\$ 2,750,000			
				\$ 7,500,000		
				\$ 200,000	\$ 1,500,000	
Total	\$ 17,500,000		\$ 5,750,000	\$ 7,700,000	\$ 4,050,000	
Stamford Rail Underpasses Atlantic, Elm, Canal, Route 1/East Main	\$ 200,000,000	Stamford/2007	\$ 800,000			High Priority Projects Sec. 1702 (FFY2004) Future Federal Earmarks City of Stamford FY2005-2010 Other - to be determined
			\$ 7,000,000	\$ 50,000,000	TBD	
			\$ 1,000,000	TBD	TBD	
				TBD	TBD	
Total	\$ 200,000,000		\$ 8,800,000	\$ 50,000,000	\$ 141,200,000	
Stamford Mill River Revitalization	\$ 1,875,000	Stamford/2006	\$ 1,500,000			High Priority Projects Sec. 1702 (FFY2005) City of Stamford Other - to be determined
				\$ 375,000		
					TBD	
Total	\$ 1,875,000		\$ 1,500,000	\$ 375,000		
NTD Pulse Point Safety & Security	\$ 2,055,065	NTD 3/2007	\$ 1,444,052			FTA Earmarks FFY2002-2006 FTA 5307 Grant Transfer: FFY2004 State and local match Other - to be determined
			\$ 200,000			
			\$ 182,513	\$ 200,000		
					\$ 28,500	
Total	\$ 2,055,065		\$ 1,826,565	\$ 200,000	\$ 28,500	
South Norwalk Intermodal	\$ 2,055,065	NTD 3/2007	\$ 1,444,052			FTA Earmark (FFY2006) FTA 5307 Grant Transfer: FFY2004 State and local match Other - to be determined
			\$ 200,000			
			\$ 182,513	\$ 200,000		
					\$ 28,500	
Total	\$ 2,055,065		\$ 1,826,565	\$ 200,000	\$ 28,500	
Route 1/Cross St Belden Avenue to East Avenue (Route 53)	\$ 2,000,000		\$ 1,600,000			High Priority Projects (FFY2006) Future High Priority Projects City of Norwalk Other - to be determined
					TBD	
				\$ 400,000	TBD	
				TBD	TBD	
Total	\$ 2,000,000		\$ 1,600,000	\$ 400,000	\$ -	
Norwalk Center West Avenue Corridor	\$ 1,250,000		\$ 1,000,000			High Priority Projects (FFY2006) Future High Priority Projects City of Norwalk Other - to be determined
					\$ 250,000	
				TBD	TBD	
Total	\$ 1,250,000		\$ 1,000,000	\$ 250,000	\$ -	

Total Additional Funding Required for Special Projects \$ 151,364,973
Total Estimated Available Funding 2007-2035 \$ 169,000,000

Source: SWRPA 3/07 using information provided by Stamford, Norwalk, Norwalk Transit District, and federal earmark sources.
 Note: Anticipated Funding is based upon "reasonably expected to be available" assumption based upon past experience with similar projects of \$6.8 million per year.
 Between 1999 and 2004, special projects received \$40,646,472 in federal earmark and discretionary funding which equates to \$6,774,412 per year.
 A reasonable estimate for funding for special projects between 2007-2035 assuming \$6.5 million per year is \$188 million.

TABLE 53
Route 7 Travel Options Implementation Plan
Future Unfunded Needs

PROJECT No. Name	CONCEPTUAL COST ESTIMATES			ANNUAL OPERATING	STUDY COST	BENEFITS/COMMENTS
	Infrastructure	Equipment	Total			
RAIL						
1 Enhanced Danbury Branch Service - Phase 1*	\$0	\$5,300,000	\$5,300,000	\$1,314,084	\$0	Potential for over 400 new daily riders (800 trips)
2 Enhanced Danbury Branch Service - Phase 2*	\$0	\$12,900,000	\$12,900,000	\$895,712	\$0	Potential to add almost 250 new riders above Phase 1 (500 trips)
Sub-Total Enhanced Danbury Service	\$0	\$18,200,000	\$18,200,000	\$2,209,796	\$0	Potential for 650 new daily riders (1300 trips)
3 New Milford Extension - Phase 1*	\$10,800,458	\$2,800,000	\$13,600,458	\$1,775,456	\$0	Potential for almost 150 new daily riders (300 trips)
4 New Milford Extension - Phase 2*	\$6,261,906	\$0	\$6,261,906	\$682,239	\$0	Potential to add 320 additional riders over Phase 1 (640 trips)
5 New Milford Extension - Phase 3*	\$12,685,004	\$1,400,000	\$14,085,004	\$1,053,380	\$0	Potential to add 60 additional daily riders over Phase II (120 trips)
Sub-Total New Milford Extension	\$29,747,368	\$4,200,000	\$33,947,368	\$3,511,075	\$0	Potential for 520 new daily riders (1040 trips)
6 Norwalk Station(s) Feasibility Study	\$0	\$0	\$4,000,000	\$30,000	\$200,000	Ridership/Operations/Concepts
7 Redding Station Feasibility Study	\$0	\$0	\$0	\$0	\$150,000	Ridership/Operations/Concepts
8 Branchline Service Evaluation and Governance Study	\$0	\$0	\$0	\$0	\$250,000	Examination of Costs/management
9 Pursue extension of branchline service to Stamford	\$0	\$0	\$0	\$0	\$0	Examine operational feasibility with respect to main line operations.
10 Evaluate Electrification of branchline	\$0	\$0	\$0	\$0	\$275,000	Examine feasibility, benefits & costs
Sub-Total Rail Projects	\$29,747,368	\$22,400,000	\$56,147,368	\$5,750,871	\$875,000	Potential for 1,170 new daily rail riders (2,340 trips)
BUS						
11 Route 7 Corridor Bus Service	\$0	\$0	\$0	\$615,000	\$0	Alternative travel mode servicing over 7,000 jobs along the corridor.
12 HART Pulse Point Fixed Route Service	\$0	\$0	\$0	\$185,000	\$0	
13 Rail/Employment Sites Shuttle Connections Study	\$0	\$0	\$0	\$0	\$150,000	Might be undertaken by local transit providers, regional planning agencies, or MetroPool through expanded outreach to employers
Sub-Total Bus Projects	\$0	\$0	\$0	\$800,000	\$150,000	
SUPPORT STRATEGIES						
14 Train Station Enhancements	\$2,000,000	\$0	\$2,000,000	\$0	\$0	Varies by Station: Stations requiring significant enhancements include: Branchville, Cannondale, Wilton and Merritt 7
15 Transit Oriented Development Feasibility Study	\$0	\$0	\$0	\$0	\$250,000	
16 Danbury Branch Transit ITS Study	\$0	\$0	\$0	\$0	\$175,000	Applicability to Danbury Branch to enhance customer service
17 Universal Transit Card Feasibility Study	\$0	\$0	\$0	\$0	\$100,000	Initiated by SWRPA in FY99-2000
18 Establish Route 7 Travel Options Coalition	\$0	\$0	\$0	\$0	\$0	To advocate for and oversee implementation of transportation recommendations in the corridor.
Sub-Total Other Projects	\$2,000,000	\$0	\$2,000,000	\$0	\$525,000	
TOTAL	\$31,747,368	\$22,400,000	\$58,147,368	\$6,550,871	\$1,550,000	

* The costs presented are incremental costs for each phase of the project (i.e. the total New Milford Extension costs equal the Phase 1 + 2 + 3 costs.
Source: VHB
Prepared for: South Western Regional Planning Agency
Prepared by: Vanasse Hangen Brustlin, Inc.
June 2000

TRANSPORTATION CONFORMITY

Transportation Conformity is a process, established under joint guidance from the United States Department of Transportation (USDOT) and the United States Environmental Protection Agency (EPA), which ensures that federal funding goes to transportation projects that are consistent with goals for air quality improvement in areas where concentrations of air pollutants exceed national air quality standards. The transportation conformity process emerged from the Clean Air Act Amendments (CAAA) of 1990 and the Intermodal Surface Transportation Efficiency Act of 1991. The current transportation conformity rule was promulgated on July 1, 2004, with a supplemental final rule on June 6, 2005 to establish PM_{2.5} requirements.

Ozone

Effective February 4, 2004, EPA approved a revision to the Connecticut State Implementation Plan (SIP) for the attainment and maintenance of the one-hour National Ambient Air Quality Standard (NAAQS) for ground level ozone. Emissions budgets for the 2007 VOC and NO_x (volatile organic compounds and nitrous oxides, respectively) were calculated using MOBILE6.2 for the Connecticut portion of the New York-Northern New Jersey-Long Island (severe) non-attainment area and the 2007 motor vehicle emissions budgets for the Greater Connecticut (serious) non-attainment area. Procedures and criteria contained in the Connecticut Department of Transportation OZONE Air Quality Conformity Determination: 2007 Regional Transportation Plans and the FY 2007-2011 Transportation Improvement Programs (March 2007) document the conformity determination. Implementation of rules has been worked out through a cooperative effort of the Regional Planning Agencies, the Environmental Protection Agency (EPA), Federal Transit Administration (FTA), Federal Highway Administration (FHWA), Connecticut Department of Transportation (ConnDOT) and the Connecticut Department of Environmental Protection (CTDEP).

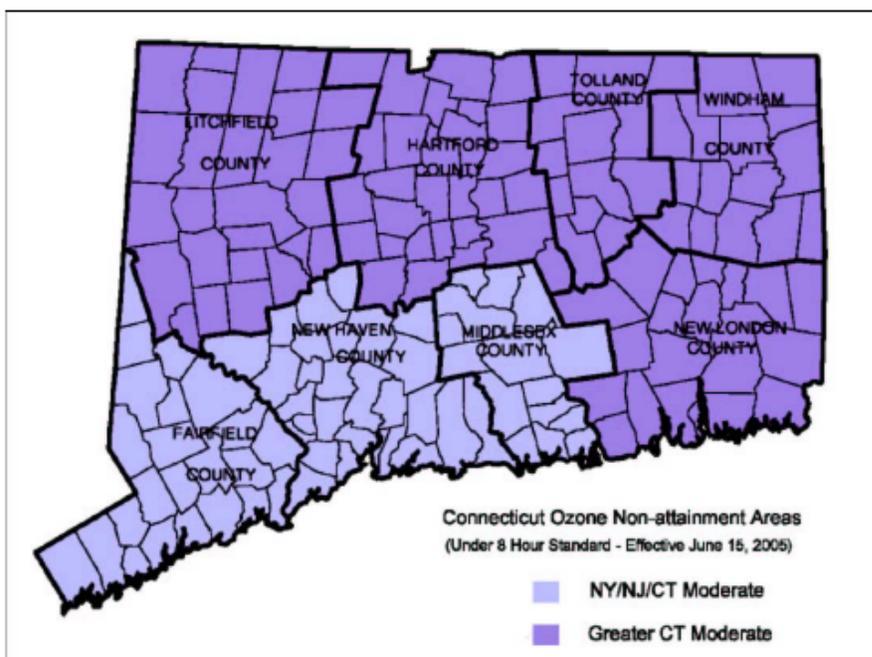
ConnDOT has assessed its compliance with the applicable conformity criteria requirements of the 1990 CAAA. Based upon the March 2007 analysis, it was determined that all elements of ConnDOT's transportation program and the Regional Long-Range Plans conform to applicable SIP and 1990 CAAA Conformity Guidance criteria.

ConnDOT conducted the air quality conformity analysis of the South Western Region Long Range Transportation Plan 2007-2035. A finding of conformity was issued for the State of Connecticut including the network changes proposed by the South Western Region.

Under the current conformity rules, the transportation improvement program and the long range transportation plan must meet two required conformity tests:

- Test 1 – Emissions from future action scenarios²⁹ must be less than existed in 1990;
- Test 2 – For VOC and NO_x, transportation emissions from the action scenarios must be less than the 2007 SIP transportation emission budgets;

Figure 17. Connecticut ozone non-attainment areas.



Source: ConnDOT Ozone Air Quality Conformity Determination – March 2007

In July 2004, EPA issued a rule that reclassified three areas of Connecticut (southwestern, greater New Haven, and greater Hartford) from CO non-attainment areas to CO Limited Maintenance Plan status, which eliminated the need for budget testing.

PM_{2.5}

In July 1997, EPA issued NAAQS regulations for PM_{2.5}. EPA issued official designations for the PM_{2.5} standard in on December 17, 2004 and made modifications in April 2005. Identified PM_{2.5} non-attainment areas were required to implement transportation conformity effective April 4, 2006. The New Jersey – New York – Connecticut multi-state non-attainment area was designated by EPA because the region's air quality fails to meet the annual PM_{2.5} NAAQS. The multi-state non-attainment area encompasses the entire SWRPA region.

The transportation conformity process includes a significant level of cooperative interaction among many regional, state, and federal agencies in the multi-state non-attainment area. In

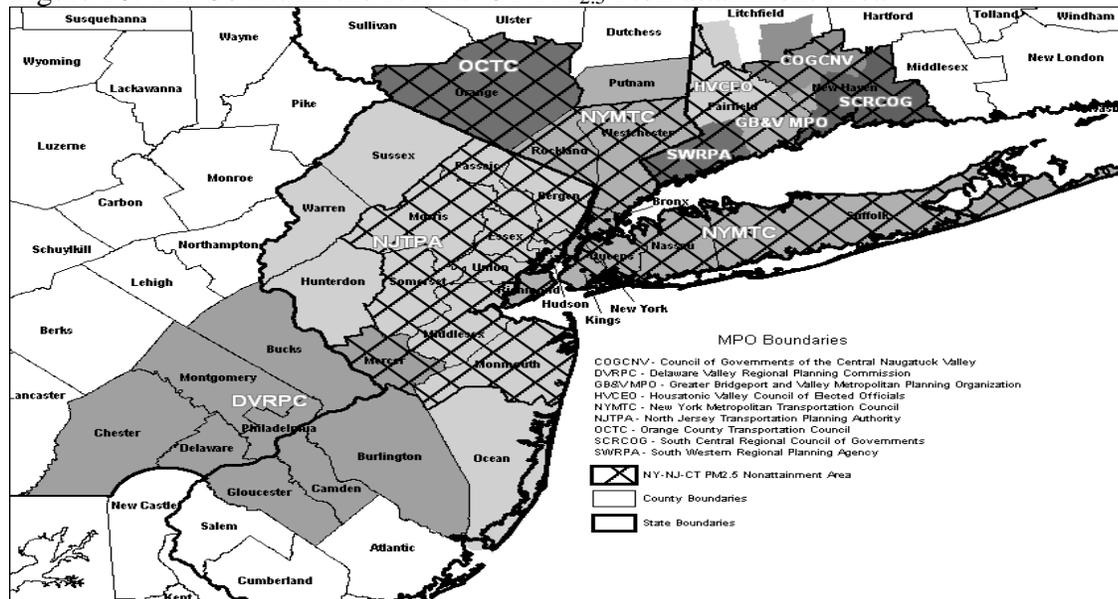
²⁹ The action scenarios are the future transportation systems that result from full implementation of the TIP and the Long Range Transportation Plans.

Connecticut, the effort was led by DOT and DEP in cooperation with the MPOs fully or partially within the non-attainment area. States are required to submit their PM_{2.5} SIPs no later than April 5, 2008. Once SIPs have been established, each MPO will have a budget for PM_{2.5} emissions with which to compare projected future emissions resulting from implementation of Plans and TIPs. Until that time, EPA requires that one or two interim emissions tests be used to demonstrate PM_{2.5} conformity.

- *Baseline Test:* Requires that emissions projected for each future analysis year be no greater than emissions in 2002 (the baseline year)
- *Build/No-Build Test:* Requires that, for each future analysis year, emissions from the “build” scenario be no greater than emissions from the “no-build” scenario.

Within the multi-state PM non-attainment area, the baseline year test has been selected as the interim emissions test.

Figure 18. MPOs within the NY-NJ-CT PM_{2.5} Non-attainment Area



Source: ConnDOT Air Quality Conformity Determination – March 2007

Table 54. Direct PM_{2.5} Interim Emissions Test Results (tons per year).

	2002 Base Year	2010	2020	2030	2035
COGCNV (part of 1 county)	67.8	44.5	32.5	32.9	33.6
GB&V MPO (part of 2 counties)	98.8	62.5	45.1	46.5	46.5
HVCEO (part of 1 county)	55.7	37.4	28.9	30.1	31.0
SCRCOG (part of 1 county)	173.0	111.2	80.4	81.3	83.0
SWRPA (part of 1 county)	125.4	78.8	57.2	57.8	58.8
NYMTC (9 counties)	2,016.98	1,462.19	973.27	1,003.79	*
OCTC (1 county)	233.8	141.9	86.0	86.9	*
TOTALS:	2,771.48	1,938.49	1,303.37	1,343.19	*
<i>Conclusion</i>		Pass	Pass	Pass	

ConnDOT has assessed its compliance with the applicable conformity criteria requirements of the 1990 CAAA. Based upon the March 2007 analysis, it was determined that all elements of ConnDOT's transportation program and the Regional Long-Range Plans conform to applicable 1990 CAAA Conformity Guidance criteria.

ConnDOT conducted the PM_{2.5} conformity analysis of the South Western Region Long Range Transportation Plan 2007-2035. A finding of conformity was issued for the transportation network changes proposed by the South Western Region.

PUBLIC INVOLVEMENT SUMMARY

Opportunities for public participation were incorporated throughout the update of the *South Western Region Long Range Transportation Plan 2007-2035*. The public involvement program met and exceeded the requirements of the South Western Region MPO Public Involvement Process, and served several purposes:

1. To get input on important transportation issues, needs, projects and priorities from key stakeholders to during the development of the draft plan.
2. To provide the opportunity for the TTAG and MPO to review and comment on the draft plan and to approve the draft plan for public review.
3. To provide the public the opportunity to learn about the metropolitan transportation planning process, and to review and provide input on the draft plan.
4. To comply with federal requirements regarding public participation in the development of the long range transportation plan.

The *South Western Region Long Range Transportation Plan 2007-2035* update began in early 2006 with an initial outreach to municipal planners in June, followed by TTAG and MPO sessions, meetings with the SWRPA board, each municipality, Norwalk Transit District and CT Transit.

Throughout the plan development process public information and involvement opportunities were provided. In addition to the traditional publication of legal notices of availability of the Draft Plan in the region's newspapers, the Draft Plans are available for review at the main branches of town libraries, and at SWRPA offices. The Draft Plan is also posted on the SWRPA web site. Media releases about the Plan Update were issued at key points in the process, including notice of availability of the Draft Plan and public information session. Once a final Plan is adopted, another media release will be issued

The South Western Region Long Range Transportation Plan Update web page included: draft plan documents; legal notices; schedule of activities; notices of related meetings; public involvement opportunities; ways to comment; and, a Spanish translation program that enables translation of documents into Spanish.

Public review and comment on the Draft Plan is scheduled for April 1, 2007 through April 30, 2007. Public information sessions are scheduled for April 17, 2007 at 1-2:30 p.m. and 6-7:30 p.m. at SWRPA offices.

The public outreach and participation activities conducted during the long *South Western Region Long Range Transportation Plan 2007-2035* are described in the following section along with the Plan Update Schedule which is Table 55.

Technical and Policy Committees

The Transportation Technical Advisory Group (TTAG) and the South Western Region MPO (SWRMPO) were consulted throughout the development of the plan update. Public input opportunities were provided at these meetings, and the long range transportation plan update was an agenda item at the meetings.

TAG

June 13, 2006
September 12, 2006
October 10, 2006
November 28, 2006
January 16, 2007
March 15, 2007
April 10, 2007
May 1, 2007

MPO

June 26, 2006
September 25, 2006
October 23, 2006
January 29, 2007
March 26, 2007
April 23, 2007
May 8, 2007 (MPO action was scheduled and resulted in endorsement of the Plan)

Summaries of these meetings are available at: www.swrpa.org

Outreach

An extensive effort to engage stakeholders and the public was undertaken for the plan update. This included meetings with the region's town planners, planning and zoning commissions, elected officials, the business community, and various community, neighborhood and faith-based organizations and groups.

June 26, 2006	South Western Region Planners – at SWRPA offices
October 3, 2006	SWRPA Board – at SWRPA offices
October 5, 2006	South Western Region Planners – at SWRPA offices
October 13, 2006	Stamford Transportation Planner and Traffic Engineer – at SWRPA offices
November 2, 2006	Darien First Selectwoman and town officials – at Darien Town Hall
November 6, 2006	Norwalk principal engineer – at SWRPA offices
December 5, 2006	Weston First Selectman and town officials – at Weston Town Hall
December 7, 2006	Westport First Selectman and town officials – at Westport Town Hall
December 14, 2006	New Canaan First Selectwoman and town officials – at New Canaan Town Hall
December 20, 2006	Norwalk Transit District officials – at Norwalk Transit District
January 5, 2007	Greenwich First Selectman and town officials – at Greenwich Town Hall
January 8, 2007	Stamford Transportation Planner and Traffic Engineer – at SWRPA offices
January 9, 2007	CT Transit officials – at CT Transit Stamford offices

Public Meetings

Members of the general public will be provided with opportunities to learn about the transportation planning process and the draft *South Western Region Long Range Transportation Plan 2007-2035* at public information sessions scheduled as follows:

Date

April 10, 2007 10:00 a.m.

April 17, 2007 1:00 – 2:30 p.m.

April 17, 2007 6:00 – 7:30 p.m.

April 23, 2007 8:15 a.m.

Location

Darien Town Hall (as part of the TTAG agenda)

SWRPA Offices, Stamford Government Center

SWRPA Offices, Stamford Government Center

Norwalk Transit District (as part of the MPO agenda)

Public Review of the Draft Plan: April 1, 2007 – April 30, 2007

The 30 day public review period extended from April 1, 2007 to April 30, 2007. Legal notice of the availability of the Draft Plan for review, public information sessions, and how to comment were published in region's two major newspapers (The Advocate and The Hour). Copies of the Draft Plan were available for review the main library of each town and at SWRPA offices. The draft Plan for public review was posted on the SWRPA web site at: <http://www.swrpa.org/projects/transplan.htm>

Media releases on the Draft Plan availability and public information sessions were sent out.

Comments Received and Disposition

During the 30 day public review period, only three written comments were received two transmittals were for the Town of Wilton and state the Town's concern and opposition to including the "Route 7 expressway from Norwalk to Danbury" as future unfunded need (April 12, 2007 and April 26, 2007). A letter from a Wilton citizen who spearheads the "Route 7.org" group, wrote in support of the Route 7 expressway (April 29, 2007). Each letter was acknowledged via email. A follow up letter apprised the correspondents about the disposition of their comments. On May 8, 2007, following discussion, the MPO agreed to modify the text of the draft Plan regarding the Route 7 corridor, multimodal investment study, and the Route 7 expressway found on pages 99 – 102 of the draft Plan. The changes result in no reference to Route 7 expressway as a future unfunded as a longer term strategy or longer term recommended project. The wording of the near term strategy and recommended project was revised to add the last sentence to the near term strategy and near term project: "A comprehensive multi-modal investment study for the Route 7 corridor between I-95 and I-84 be conducted and result in an implementation action plan with timelines for feasible operational, management and construction projects. *This study, upon completion, may disclose a possible future need for an expressway.*

Table 55.

**SOUTH WESTERN REGION
LONG RANGE TRANSPORTATION PLAN 2007-2035
UPDATE SCHEDULE**

January 2007

1/16/07 TTAG reviews and comments on Long Range Transportation Plan (LRTP) update projects for air quality (AQ) conformity modeling
1/29/07 MPO approves LRTP projects for AQ conformity modeling
1/30/07 ConnDOT and USDOT sent LRTP projects for AQ conformity modeling

February 2007 Draft LRTP prepared

March 2007

3/15/07 TTAG review and revision of draft LRTP
3/15/07 ConnDOT AQ conformity modeling results released and incorporated in LRTP
3/26/07 MPO review and approval of release of LRTP for public review

April 2007

4/1/07 Public review of LRTP initiated (runs 4-1-07 through 4-30-07)
Legal notices of availability published
LRTP copies available at SWRPA, towns, libraries and posted on SWRPA web site
4/10/07 Public information session held as part of TTAG meeting
4/17/07 Public information sessions held at SWRPA 1-2:30 p.m. and 6-7:30 p.m.
4/23/07 Public information session held as part of MPO meeting
4/30/07 Public review of LRTP concludes
Public involvement report and responsiveness summary prepared
Draft LRTP revised as needed

May 2007

5/1/07 TTAG review and endorsement of Final LRTP
5/8/07 MPO review and endorsement of Final LRTP
5/9/07 Notify ConnDOT, FHWA, FTA and other stakeholders of LRTP endorsement
5/9/07 Post endorsed LRTP on SWRPA web site
Legal notices of LRTP endorsement published

June 2007 Federal conformity finding issued (by 7-1-07)

July 2007

Federal conformity finding to be incorporated in LRTP
Final LRTP to be published in paper and electronic versions, and posted on the SWRPA web site

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- 1999 Stamford Harbor Area Development Plan – Stamford, CT, November 1999
- 2000 Washington Boulevard Pedestrian Safety Plan, August 2000
- 2001 Interstate 95 Transportation Corridor Study, March 2001
- 2002 Stamford Master Plan 2000 Growth Management Study: Traffic and Transit Report November 2002
- 2004 Stamford Transportation Center Multimodal Circulation Study Draft Recommended Improvement Plan, June 2004 (Prepared by Fitzgerald & Halliday Inc. for the City of Stamford)

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2006 Congestion Pricing – A Primer, December 2006

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DOCUMENTATION: TRANSMITTAL, ENDORSEMENTS, CONFORMITY FINDING

SWRPA

South Western Regional Planning Agency
Stamford Government Center
888 Washington Boulevard, 3rd Floor
Stamford, Connecticut 06901
203 316 5190 Phone
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www.swrpa.org

May 9, 2007

Mr. Jayson Newman
Federal Highway Administration
628 – 2 Hebron Avenue, Suite 303
Glastonbury, CT 06033

Mr. Andrew Motter
Federal Transit Administration – Region I
55 Broadway – Kendall Square
Cambridge, MA 02142

Mr. Richard Corona
Bureau of Policy and Planning
Connecticut Department of Transportation
P.O. Box 317546
Newington, CT 06131-7546

Gentlemen:

On May 8, 2007 the South Western Region Metropolitan Planning Organization (SWRMPO) endorsed the **South Western Region Long Range Transportation Plan 2007-2035**. The SWRMPO approved resolutions approved the annual certification of the metropolitan planning program, air quality conformity for PM 2.5 and ozone, as well as the updated long range transportation plan.

The MPO actions are recorded in the enclosed resolutions:

- **Resolution #2007-010 Annual Certification of Metropolitan Transportation Planning by the South Western Region Metropolitan Planning Organization – May 2007**
- **Resolution #2007-011: Conformity with the Clean Air Act – PM 2.5 South Western Region Long Range Transportation Plan 2007-2035 and South Western Region FFY2007-2011 Transportation Improvement Program**
- **Resolution #2007-012: Conformity with the Clean Air Act – Ozone South Western Region Long Range Transportation Plan 2007-2035 and South Western Region FFY2007-2011 Transportation Improvement Program**
- **Resolution #2007-013:South Western Region Long Range Transportation Plan 2007-2035 Endorsement**

Copies of the Plan are enclosed for your consideration.

As always, please feel free to contact me for information or assistance. Thank you.

Sincerely,



Sue Prosi,
Senior Transportation Planner

Enclosures

South Western Region Long Range Plan 2007-2035
Transmittal
May 9, 2007
Page 2

Copies with Plan transmitted to:

Richard Corona, ConnDOT (3 copies & cd)
Jayson Newman, FHWA (2 copies & cd)
Andrew Motter, FTA (1 copy)

Transmittal sent to:

Gerald Jennings, ConnDOT
Eloise Powell, FHWA
Peter Butler, FTA

SOUTH WESTERN REGION METROPOLITAN PLANNING ORGANIZATION

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888 WASHINGTON BOULEVARD • STAMFORD, CT 06901 • (203) 316-5190 • FAX (203) 316-4995

Resolution #2007-010

Resolution of Annual Certification of Metropolitan Transportation Planning by the South Western Region Metropolitan Planning Organization – May 2007

The Metropolitan Planning Organization of the South Western Region, the designated Metropolitan Planning Organization for the South Western Region, hereby certifies that the planning process is addressing the major issues facing the area and is being conducted in accordance with all applicable requirements of:

- (1) Section 134 of title 23, U.S.C., Section 8 of the Federal Transit Act (49 U.S.C. app. 1607) and this part;
- (2) Sections 174 and 176 (c) and (d) of the Clean Air Act (42 U.S.C. 7504, 7506, [c] and [d]);
- (3) Title VI of the Civil Rights Act of 1964 and the Title VI assurance executed by each State under 23 U.S.C. 2324 and 29 U.S.C. 794;
- (4) Section 1003 (b) of the Intermodal Surface Transportation Efficiency Act of 1991 (Pub. L. 102-240) regarding the involvement of disadvantaged business enterprise in the FHWA and the FTA funded projects (sec. [f], Public L. 97-424, 96 Stat 2100; 4 CRF part 23;
- (5) The provisions of the Americans with Disabilities Act of 1990 (Pub. L. 101-336, 104 Stat 327, as amended) and U.S. DOT regulations. "Transportation for Individuals with Disabilities" (49 CFR parts 27, 37, and 38); and,
- (6) All other applicable regulations and guidance pertaining to regional transportation planning.

This resolution is effective: May 8, 2007

Dated: May 8, 2007

By:



Woody Bliss,
Chairman

SOUTH WESTERN REGION METROPOLITAN PLANNING ORGANIZATION

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Resolution 2007-011: Resolution on Conformity with the Clean Air Act – PM 2.5 South Western Region Long Range Transportation Plan 2007-2035 South Western Region FFY2007-2011 Transportation Improvement Program

WHEREAS,

The South Western Region Metropolitan Planning Organization (MPO) is required to submit an Air Quality Conformity Statement to the US Federal Highway Administration (FHWA) and to the US Environmental Protection Agency (EPA) in accordance with the final conformity rule promulgated by EPA (40 CFR 51 and 93) when adopting an annual Transportation Improvement Program or when effecting a significant revision of the Regions Transportation Plan; and

WHEREAS,

Title 42, Section 7506 (3) (A) states that conformity of transportation plans and programs will be demonstrated if:

1. the plans and programs are consistent with recent estimates of mobile source emissions;
2. the plans and programs provide for the expeditious implementation of certain transportation control measures;
3. the plans and programs contribute to annual emissions reductions consistent with the Clean Air Act of 1977, as amended; and

WHEREAS,

It is the opinion of the South Western Region MPO that the plans and programs submitted to FHWA and EPA and approved on September 19, 2006 conform to the requirements of Title 42, Section 7506 (3) (A) as interpreted by EPA (40 CFR 51 and 93); and

WHEREAS,

The New York – New Jersey – Long Island, NY-NJ-CT area is designated a PM 2.5 Nonattainment area; and

WHEREAS,

The State of Connecticut has elected to jointly assess conformity in all PM 2.5 nonattainment areas in Connecticut (Fairfield County and New Haven County) and accordingly, the Connecticut Department of Transportation has jointly assessed the impact of all regional transportation plans and programs (TIPS) in all PM2.5 nonattainment areas and provide said conformity to the New York Metropolitan Transportation Council (NYMTC), the nonattainment area coordinator; and

WHEREAS,

NYMTC will provide a Multi-state PM2.5 Conformity (“Umbrella”) document containing the combined regional analysis for the PM2.5 nonattainment area; and

WHEREAS,

The results of the required emissions analysis performed by the Connecticut Department of Transportation on the *South Western Region Long Range Transportation Plan 2007-2035* and the *FFY 2007-2011 South Western Region Transportation Improvement Program (TIP)* shows that the implementation of the projects contained therein will result in emissions of PM2.5 in each analysis year that are less than the emissions of the baseline year; and

WHEREAS,

This document, *ConnDOT PM 2.5 Air Quality Conformity Determination of the 2007 Regional Transportation Plans and the FY2007-2011 Transportation Improvement Programs for the Connecticut portion of the NY-NJ-CT PM 2.5 Nonattainment Area, March 2007*, demonstrates that the emissions analysis from all the other MPOs within the New York – Northern New Jersey – Long Island, NY-NJ-CT area show that emissions in each analysis year are less than those in the baseline year – thus meeting the interim emissions test for the New York-Northern New Jersey-Long Island, NY-NJ-CT PM2.5 nonattainment area.

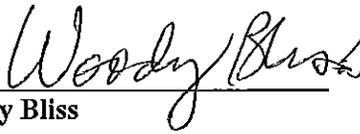
Now, THEREFORE BE IT RESOLVED,

That the South Western Region MPO finds that the *South Western Region Long Range Transportation Plan 2007-2035* and the *FFY 2007-2011 South Western Region Transportation Improvement Program (TIP)* conform to air quality requirements of the U.S. Environmental Protection Administration (40 CFR 51 and 93), related U.S. Department of Transportation guidelines (23 CFR 450) and with Title 42, Section 7506 (3) (A) and hereby approves the PM2.5 Conformity Determination contingent on the final analysis being essentially the same as distributed during the public comment period and that no major adverse comments were received during said period.

CERTIFICATE

The undersigned duly qualified and Chairman of the South Western Region MPO certifies that the foregoing is a true and correct copy of a resolution adopted at a legally convened meeting of the South Western Region MPO on May 8, 2007.

DATE: May 8, 2007

BY: 
Woody Bliss
Chairman

SOUTH WESTERN REGION METROPOLITAN PLANNING ORGANIZATION

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**Resolution #2007-012: Conformity with the Clean Air Act for Ozone
South Western Region Long Range Transportation Plan 2007-2035
South Western Region FFY2007-2011 Transportation Improvement Program**

WHEREAS,

The South Western Region Metropolitan Planning Organization (MPO) is required to submit an Air Quality Conformity Statement to the US Federal Highway Administration (FHWA) and to the US Environmental Protection Agency (EPA) in accordance with the final conformity rule promulgated by EPA (40 CFR 51 and 93) when adopting an annual Transportation Improvement Program or when effecting a significant revision of the Regions Transportation Plan; and

WHEREAS,

Title 42, Section 7506 (3) (A) states that conformity of transportation plans and programs will be demonstrated if:

1. the plans and programs are consistent with recent estimates of mobile source emissions;
2. the plans and programs provide for the expeditious implementation of certain transportation control measures;
3. the plans and programs contribute to annual emissions reductions consistent with the Clean Air Act of 1977, as amended; and

WHEREAS,

It is the opinion of the South Western Region MPO that the plans and programs approved today, March 3, 2006 and submitted to FHWA and EPA conform to the requirements of Title 42, Section 7506 (3) (A) as interpreted by EPA (40 CFR 51 and 93); and

WHEREAS,

The State of Connecticut has elected to assess conformity in the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT Ozone Moderate Nonattainment area (Fairfield, New Haven and Middlesex Counties) and the Greater Connecticut Ozone Moderate Nonattainment Area (Hartford, New London, Tolland, Windham and Litchfield counties), and the Connecticut Department of Transportation has jointly assessed the impact of all transportation plans and programs in these nonattainment areas (*ConnDOT Ozone Air Quality Conformity Determination of the 2007 Regional Transportation Plans and the FY2007-2011 Transportation Improvement Programs for the Connecticut portion of the NY-NJ-CT Ozone Nonattainment Area and the Greater Connecticut Ozone Nonattainment Area, March 2007*)

WHEREAS,

The Connecticut Department of Transportation's assessment (above) has found that plans and programs jointly meet mobile source emission's guidelines advanced by EPA pursuant to Section 7506 (3) (A).

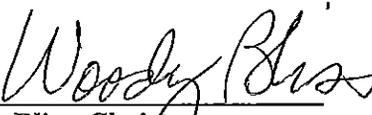
NOW, THEREFORE BE IT RESOLVED BY THE SOUTH WESTERN REGION MPO,

That the South Western Region MPO finds that the *South Western Region Long Range Transportation Plan 2007-2035* and the *FFY 2007-2011 South Western Region Transportation Improvement Program (TIP)* conform to air quality requirements of the U.S. Environmental Protection Administration (40 CFR 51 and 93), related U.S. Department of Transportation guidelines (23 CFR 450) and with Title 42, Section 7506 (3) (A) and hereby approves the Ozone Air Quality Conformity Determination.

CERTIFICATE

The undersigned duly qualified Chairman of the South Western Region MPO certifies that the foregoing is a true and correct copy of a resolution adopted at a legally convened meeting of the South Western Region MPO on May 8, 2007.

DATE: May 8, 2007

BY: 
Woody Bliss, Chairman

SOUTH WESTERN REGION METROPOLITAN PLANNING ORGANIZATION

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Resolution #2007-013 South Western Region Long Range Transportation Plan 2007-2035 Endorsement

- WHEREAS:** The SWRMPO annually certifies that the transportation planning process is addressing the major issues facing the area and is being conducted in accordance with applicable federal requirements and is operating under the certification issued May 1, 2007 (SWRMPO Resolution #2007-010); and
- WHEREAS:** The South Western Region Metropolitan Planning Organization (SWRMPO) has developed an update of the South Western Region Long Range Transportation Plan to cover the period of 2007 to 2035; and
- WHEREAS:** The South Western Region Long Range Transportation Plan 2007-2035 and the Financial Supplement were developed and reviewed in accordance with the MPO's Public Involvement Process (Endorsed June 23, 1994 and revised December 4, 1997) and fulfills the requirements of public involvement of federal regulations (23 and 49 CFR 450.316[b][1]); and
- WHEREAS:** It is the opinion of the SWRMPO that the South Western Region Long Range Transportation Plan 2007-2035 conforms to the requirements of the applicable federal requirements regarding the metropolitan transportation planning process: transportation plan (23 and 49 CFR 450.322), and
- WHEREAS:** The SWRMPO and the Connecticut Department of Transportation have determined that the South Western Region Long Range Transportation Plan 2007-2035 meets air quality conformity requirements and has issued statements to this effect (Resolutions #2007-011 and #2007-012) based upon the ConnDOT Conformity Determinations for PM 2.5 and Ozone – March 2007;

NOW THEREFORE BE IT RESOLVED THAT THE SWRMPO:

Adopts the South Western Region Long Range Transportation Plan 2007-2035.

This resolution is effective: May 8, 2007.

Dated: May 8, 2007.

By:



Woody Bliss
Chairman

APPENDICES

(A) ACRONYMS

(B) AIR QUALITY CONFORMITY 2007

- [Ozone Air Quality Conformity Determination, March 2007](#)
- [PM 2.5 Air Quality Conformity Determination, March 2007 Revised](#)

(C) TSB, COASTAL CORRIDOR TIA, AND THE SOUTH WESTERN REGION MPO 2004-2007

APPENDIX A - ACRONYMS

AARP	American Association of Retired Persons
ACS	American Community Survey
ACT	Association for Community Transit
ADA	American with Disabilities Act
AQ	Air Quality
AVL	Automatic Vehicle Location
BRT	Bus Rapid Transit
CAA	Clear Act Amendments
CAAA	Clean Air Act Amendments
CACT	Connecticut Association of Community Transit
CAD	Computer Aided Dispatch
CCTIA	Coastal Corridor Transportation Investment Area
CFR	Code of Federal Regulations
CHAMP	Connecticut Assistance to Motorists Patrol
CMAQ	Congestion Mitigation Air Quality Program
CMC	Connecticut Maritime Commission
CMS	Congestion Management System
ConnDOT	Connecticut Department of Transportation
ConnDPT	Connecticut Department of Environmental Protection
CP	Control Points
CSR	Critical Systems Replacement Plan
CT OPM	Connecticut Office of Policy and Management
CTC	Centralized Traffic Control
CVISN	Commercial Vehicle Information Systems
DAR	Deduct a Ride
DEMHS	Connecticut Department of Emergency Management
DPS	Connecticut Department of Public Safety
DVMT	Daily Vehicle Miles of Travel
EJ	Environmental Justice
EMD	Emergency Management Directors
EMU	Electric Multiple Unit
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FFY	Federal Fiscal Year
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GIS	Geographic Information Systems
GRH	Guaranteed Ride Home
HAR	Highway Advisory Radio

HART	Housatonic Area Rapid Transit
HVCEO	Housatonic Valley Council of Elected Officials
IMT	Incident Management Team
ISTEA	Intermodal Safety and Efficiency Act 1991-1997
ITS	Intelligent Transportation Systems
JARC	Job Access Reverse Commute
LISFC	Long Island Sound Waterborne Ferry Coalition
LISWTP	Long Island Sound Waterborne Transportation Plan
LOCHSTP	Locally Coordinated Human Services Transportation Plan
LoCIP	Local Capital Improvement Program
LOS	Level of Service
LRTP	Long Range Transportation Plan
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MTA	Metropolitan Transportation Authority
MTDBF	Mean Travel Distance Between Failures
MUTCD	Manual on Uniform Traffic Control Devices
NAAQS	National Ambient Air Quality Standard
NIMS	National Incident Management System
NOx	Nitrous Oxide
NTD	Norwalk Transit District
NYMTC	New York Metropolitan Transportation Council
PCI	Pavement Condition Index
PMS	Pavement Management System
PTJ	People to Jobs
RBS	Royal Bank of Scotland
REPC	Regional Emergency Planning Committee
ROW	Right of Way
SAFETEA- LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SFY	State Fiscal Year
SHSP	Strategic Highway Safety Plan
SIP	State Implementation Plan
SLE	Shore Line East
SST	Stamford Senior Transportation
STC	Stamford Transportation Center
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
STP-BS	STP Funding specifically for the Bridgeport-Stamford Urbanized Area
SWRMPO	South Western Region Metropolitan Planning Organization

SWRPA	South Western Regional Planning Agency
TAR	Town Aid for Roads
TCSP	Transportation Community System Preservation
TDM	Travel Demand Management
TEA-21	Transportation Efficiency Act for the 21st Century 1997-2003
TIA	Transportation Investment Area
TIC	Tactical Interoperable Communications
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TOD	Transit Oriented Development
TSB	Transportation Strategy Board
TSM	Traffic Systems Management
TSM&O	Transportation System Management and Operations
TTAG	Transportation Technical Advisory Group
UCS	Unified Command System
UPS	Un-interruptible Power Systems
UPWP	Unified Planning Work Program
URM	Unified Response Manual
USDOT	United States Department of Transportation
V/C	Volume to Capacity
VOC	Volatile Organic Compounds
VPPP	Variable Pricing Pilot Program
WIM	Weigh-in-Motion

APPENDIX C

TRANSPORTATION STRATEGY BOARD (TSB), COASTAL CORRIDOR TRANSPORTATION INVESTMENT AREA (COASTAL CORRIDOR TIA), AND THE SOUTH WESTERN REGION MPO INTERACTIONS WITH THE TSB & COASTAL CORRIDOR TIA 2001-2004³⁰

Transportation Strategy Board (TSB)

In 2001, the CT Legislature passed Public Act 01-5, “An Act Implementing the Recommendations of the Transportation Strategy Board,” with the stated purpose to enhance Connecticut’s economic position and quality of life through the development of a statewide transportation strategy. The TSB was set up as a 15 member advisory board appointed by and reporting to the CT General Assembly. The Act required delivery of a draft strategy to the General Assembly on or before January 15, 2002. This strategy was to be results-driven and focus on the following public policy goals: sustainable economic growth; enhanced quality of life; development of tools for demonstrating the link between transportation systems and public benefits; improved mobility of people and goods throughout the state; improved connectivity with regional, national and global economies; and enhanced safety and security for users of the state’s transportation infrastructure and systems. The statewide strategy was to consider plans developed by each of the 5 Transportation Investment Areas (TIAs), and the 17 factors identified in the Act, including: the strategic concerns associated with movement of people and goods; technological and multi-modal transportation options; relationship between transportation, sustainable development, environmental quality and other related concerns; funding for capital and operational costs; methods for evaluating needs and transportation system performance; and use of incentives to meet goals and involve a variety of different sectors in implementing solutions to the state’s transportation challenges.

As required by the Act, the TSB submitted an initial plan to the legislature in January 2002, which established strategic goals and underlying principals, as well as preliminary financial projections. To assist in development of the plan, 5 working groups were created: Movement of People; Movement of Goods and Freight; Land Use and Economic Development; Evaluation; and, Funding and Finance.

There were 5 strategic goals identified along with objectives, challenges, and active initiatives and programs:

- Improve personal mobility within and through Connecticut
- Improve the movement of goods and freight within and through Connecticut
- Integrate transportation with economic, land use, environmental and quality of life issues
- Develop policies and procedures that will integrate the state economy with regional, national and global economies
- Identify policies and sources that provide an adequate and reliable flow of funding necessary for a quality multi-modal transportation system

³⁰ This appendix is from the South Western Region Long Range Transportation Plan 2004-2030, pages 2-11.

The principles underlying development of the strategies were:

- Connecticut's transportation system must have a **“customer”** orientation.
- Connecticut's transportation systems must always operate at its most **efficient** level.
- Connecticut's transportation system must be **multi-modal and inter-modal**.
- Connecticut's transportation system must provide a **safe, secure, and well-maintained** means of moving people and goods within and through the State, including during times of threatened homeland security.

The TSB action plan, Transportation: A Strategic Investment (January 2003) laid out the TSB's 2003-2013 vision for a robust state economy supported by an improved and expanded transportation system. This vision hoped for “a pristine set of shoreline and rural areas; stimulating urban centers; valued educational institutions; a hot bed for technology, bioscience and other critical industry clusters; and employment opportunities to enable all of its residents to pursue their dreams.” The transportation system would support the vision by:

- employing modern land use planning tools and techniques in conjunction with transportation planning to achieve a smarter approach to the State's economic growth and quality of life;
- mitigating congestion on our highways, especially in the Coastal Corridor, by increasing the quality and quantity of transit options and by improving the safety and traffic flows of the State's highways;
- providing easier access for tourists to reach the expanding attractions of the Southeastern Corridor;
- having transit centers throughout the State serve as magnets for the development of business and housing complexes thereby providing Connecticut residents with more options to link their employment, residences, and leisure activities;
- developing our water ports as sites for increased freight related employment, appropriate business and residential complexes, and for moving both people and goods across Long Island Sound;
- strengthening the airport system, especially at Bradley International Airport (hereinafter “Bradley”), to provide travel and cargo services that are highly valued by businesses, municipalities, residents, and visitors; and
- using the State's fiscal and other incentive programs to link an enhanced transportation system with economic development initiatives to leverage urban-based infrastructure and to preserve targeted open space in a manner that benefits the entire State for generations to come.

The TSB set forth a proposed strategy consisting of 5 elements that:

- leverage existing transportation and other infrastructure assets, especially in urban centers;
- expand and market the quality and quantity of options to single occupancy automobile trips to mitigate road and transit congestion throughout the State with an initial focus on the Coastal Corridor;
- expand and coordinate the State's air, rail, road, and water infrastructure to expand the quality and quantity of options for the movement of freight;
- implement a 10 year financing plan with the revenue dedicated to funding the capital component of the Strategy's strategic actions and tactics; and

- ensure adequate and reliable financing of the State’s ongoing capital and operating costs of the transportation system.

The financial estimate for proposed actions were estimated to require incremental capital investments of approximately \$4.8 billion, increase average annual operating costs for ConnDOT by \$60 to \$70 million, and to fund \$17 million of studies and other items during the 10 year period of FY2004-FY2013. This is in addition to the current average annual investment of \$1.4 billion per year on the transportation system, \$900 million of which is paid by State revenues and \$500 million of which comes from Federal sources. The \$900 million represents approximately 6.5% of the current State budget of \$14 billion.

In 2003 the TSB focused on:

- public education and involvement to secure the enthusiastic support required for your adoption of the Strategy;
- refining the role of the TSB and the TIAs in the federal and state transportation planning process;
- preparing quantitative and qualitative evaluation of the projects funded by the FY2002 surplus for projects identified in Public Act 01-5 Section 16 and for not yet funded Section 16 projects;
- establishing Task Forces on the topics of Maritime Policy, Feeder Barge Facilities, and Incident Management to develop recommendations for TSB consideration; and,
- developing evaluation tools and metrics.

The TSB Task Forces developed papers, policy recommendations and projects that were later adopted by the TSB in 2003 or 2004, leading to the creation of an Office of Maritime Policy within ConnDOT, creation of a Statewide Incident Management Task Force, FY2005 funding for additional CHAMP vehicles, operational support for CHAMP, diversion route plans (\$60,000), support for Bridgeport feeder barge (\$1.5 million), and support for implementation of operational and safety improvements for I-95 and the Merritt Parkway (\$1.5 million).

The TSB Status Report: July 2004 to the Legislature and Governor, summarized Public Act 01-5 Section 16 services funded including several additional commuter connection bus services, express and extended service for Shoreline East customers, and the Jobs Access and Dial-a-Ride program for Southeastern Connecticut. The report noted other projects that were started or implemented since January 2003 including funding for feeder barge service in Bridgeport, expansion of New Haven Line rail station parking, planning of Coastal Corridor highway operational improvements, marketing of Bradley International Airport, and review of the rail branch line efficiencies. The report also noted the FY2005 funding approved by the CT Legislature for TSB projects. (Refer to previous and following paragraphs.)

In 2004, the CT Legislature approved \$4.7 million in the State FY2005 for Section 16 projects, including the following projects that benefit the South Western Region:

- New Haven Line Commuter Connection Service (Project 170-2306) - \$223,029, which continues funding for Norwalk Commuter Connections, and Stamford/High Ridge Commuter Connection.
- Fairfield County Interregional Service (Project 170-2307)-\$786,737 which funds increased

Coastal Link service between Milford and Norwalk, the 7Link between Norwalk and Danbury, Stamford Commuter Connection East, and increase service on Stamford Commuter Connection Central.

- Danbury Feeder Service (Project 170-2308)-\$201,158 funds bus service between Ridgefield and the Harlem Line Katonah station.
- Shore Line East Extended Service (Project 310-0031)-\$2,153,557 provides direct Shore Line East commuter service beyond New Haven to Bridgeport and Stamford.

The TSB projects included in Section 16 of Public Act 01-05 were originally estimated to cost \$39 million, but cost estimates were revised to \$60 million. Through FY2004, \$21.4 was expended on 27 projects, that include:

- Commuter Parking Lot Expansion including I-95 Exit 16, Norwalk (*to be built under the I-95 Exit 16 project #102-295.*)
- West Haven/Orange Station Design Study – *in progress, June 2005 completion scheduled.*
- Study - I-95 Widening in the Southeast Corridor between Branford and Rhode Island – *report issued July 200, study to be completed December 2004.*
- Rail Study – New Haven/Hartford/Springfield – *report issued June 2004, study to be completed December 2004.*
- Feeder Barge Service Capital Investment for Bridgeport or New Haven – *funding authorized.*
- Bus Demonstration – Purchase of 10 Buses for Fairfield County Inter-regional Service – *purchase completed, buses in service in 2004.*
- Bus Demonstration - Purchase 7 Commuter Buses to Expand Hartford Area Express Bus Service – *purchase completed and buses in service in 2003.*
- Expand Commuter Parking Lots – at I-95 Exit 59 Guilford and Route 9 Exit 3 Essex - *in design, additional funding to construct is needed.*
- New Haven Line Maintenance Facility -Purchase Site (ROW) – *2 parcels were acquired in 2002 to enable expansion of New Haven Rail Maintenance facilities.*
- Develop Coastal Road Improvements – \$1 million.
- Expand New Haven Line Railway Station Parking - \$9 million – *Bridgeport and Stratford rail parking expansions planned.*
- Expand New Haven Line - Bridgeport Garage Railway Station Parking - \$4 million – *Bridgeport rail parking expansion planned.*
- Purchase Mafersa Rail Cars - \$17 million.
- Develop Intermodal Tourism Service Plan - Southeastern Connecticut –
- Jobs Access and Reverse Commute Supplemental Funding – \$1.2 million expended *funded 2002-2003, now federally funded.*
- Bus Demonstration - Additional New Haven Line Commuter Connection Service – *began in 2002, is funded in 2005.*
- Bus Demonstration - Additional Fairfield County Interregional Service – *began in 2002, is funded in 2005.*
- Bus Demonstration - Danbury Area Bus Feeder Service to Harlem Line Rail Stations – *began in 2002, is funded in 2005.*
- Bus Demonstration - Bus Demo - Expand Hartford Area Express Bus Service – *began in 2002, is funded in 2005.*
- Study Transit Oriented Development Opportunities - New Britain - Hartford Busway – *2002-*

2004, study to be completed in 2004.

- Jobs Access for Southeast Connecticut and Dial-a-Ride - *began in 2002, is funded in 2005.*
- "Deduct-A-Ride" Commuter Benefit Program – *FY2003 and is now federally funding.*
- Rail Demonstration - Extend Shore Line East Service through New Haven to Bridgeport and Stamford -
2 year demonstration project began in December 2001; an additional through train was added in June 2002 when the State Street Station opened (FY2004 - \$1.5 million, FY2005 - \$2.2 million).
- Parkville Hartford Project - \$25,000
- East Haven Road and Sidewalk Improvement - \$150,000
- Operating Subsidy for Tweed-New Haven Airport - \$600,000
- RPA Grant / Support – for FY2003 and FY2004 - \$2.3 million
- Administration/TSB Support – for FY2002-FY2004. - \$1.2 million

Coastal Corridor Transportation Investment Area (Coastal Corridor TIA)

To assist the TSB, Public Act 01-5 also created Transportation Investment Areas (TIAs) for 5 major corridors to provide local and regional input to the TSB. The South Western Region is part of the Coastal Corridor TIA which encompasses the I-95 corridor from Greenwich to Branford, Route 7 corridor, Route 8 and Route 25 corridors. Both SWRPA and the SWMPO have representation on the Coastal Corridor TIA.

In 2002, the TIAs provided the TSB with “top 5 priorities” and also Initial Corridor Plans. The Coastal Corridor TIA’s top 2002 priorities were:

1. To relieve congestion on major arterials in the CCTIA, increase the number of trips using alternative modes of transportation (including rail, bus, ferry, telecommuting, bicycle, and pedestrian modes) and provide incentives for employers and users by, among other things:
ordering new rail cars immediately, developing additional storage and maintenance facilities, as needed for a larger fleet, and improving rail station access; providing more frequent commuter rail service to more destinations; and, evaluating institution of value pricing on limited access highways.
2. Develop cost-effective, efficient alternatives to trucks for the movement of goods by, among other things: supporting a new rail freight connection across the Hudson River at New York City; creating container barge feeder port and service in Bridgeport and New Haven; and, supporting rail freight operations through Penn Station during off-peak hours and additional track and tunnel capacity at Penn Station.
3. Identify new, stable sources of funding, beyond federal and state sources, to support a multi-modal transportation system, including: seeking renewal of TEA-21 with funding of special regional projects; and, developing state and local revenue sources including user fees, fuel taxes, and market pricing programs.
4. Study the best practices in managing public transportation to determine how best to enhance focus on, accountability for, marketing of, and commitment to, public transportation in Connecticut. Specifically, consider: establishment of a separate and independent transit authority for bus, rail, and ferry services; establishment of a separate funding source for public transportation; and cooperate regionally to improve public transportation in Connecticut.

5. Integrate land use and transportation planning by, among other things: encouraging “Smart Growth” and “Transit-Oriented” development; encouraging development of affordable housing stock in proximity to places of employment and transit services; and, re-establishment of a Statewide Planning Division within the Office of Policy and Management.

The Coastal Corridor TIA initial corridor plan, Twenty-Year Strategic Plan for Transportation in the Coastal Corridor Transportation Investment Area (November 15, 2002) set forth a vision to “a transportation system that offers people and goods a choice of safe, convenient and integrated modes of transportation including (a) roads, (b) waterborne, (c) airborne, (d) rail and other modes of public transit and (e) facilities that make walking and bicycling viable transportation options so as:

- to stimulate sustainable economic growth by ensuring mobility of people and goods within the CCTIA and connectivity of the CCTIA’s economy to the state, regional, national and global economies; and
- to enhance quality of life by ensuring mobility of all residents of the CCTIA, including those unable to drive, while protecting the CCTIA’s environmental, cultural and community resources.”

The Coastal Corridor TIA’s recommended core strategies were to:

1. Increase number of trips using alternative modes of transportation
2. Study the best practices in managing public transportation to determine how best to enhance focus on, accountability for, marketing of, and commitment to, public transportation in Connecticut.
3. Develop cost-effective, efficient alternatives to trucks for the movement of goods.
4. Integrate land use and transportation planning.
5. Identify new, stable sources of funding to support a multi-modal transportation system.

The Coastal Corridor TIA plan’s top five initiatives were to:

1. Mitigate congestion on I-95 by increasing the number of trips by rail by ordering new rail cars immediately, developing additional storage and maintenance facilities as needed for a larger commuter rail fleet and improving rail station access.
2. Mitigate congestion on I-95 by providing alternatives to trucks for the movement of goods by creating a container barge feeder port(s) and service.
3. Mitigate congestion on I-95 by providing alternatives to trucks for the movement of goods by supporting and participating in activities advocating a new rail freight connection across the Hudson River at New York City.
4. Mitigate congestion on Route 7 by implementing the recommendations of the route 7 Travel Options Study.
5. Mitigate congestion on major arterial highways by increasing use of TDM strategies through the marketing of the benefits of alternative modes of transportation and offering employee and employer incentives.

To facilitate the movement of people, an increased commitment to transit was recommended. Initiatives and recommendations included:

- Roadway improvements (7) – evaluations of operation improvement to I-95 and Route 15 to relieve congestion and improve access in the corridor; and, improve capacity and

safety of existing Routes 7 and 25 between I-95 and I-84.

- Transportation Systems Management (TSM) (9)
- Transportation Demand Management (TDM) (10)
- Commuter and Intercity Rail: Infrastructure (5); Stations (1); Expanded Service (7); and, MetroNorth Operating Agreement (1).
- Bus Transit: Consolidation of bus services (1); Expanded services (6); Job Access (1); Marketing (2); Miscellaneous (1).
- Waterborne (1)
- Airborne (4)
- Pedestrian and bicycle facilities (5)
- Recommendations that apply to both the movement of people and goods: Travel Forecasting (1); Enhance North-South Connectivity (3).

To facilitate the movement of goods, the recommendations included:

- Rail (11)
- Trucks – 5 strategies and policies
- Waterborne – (6)

To integrate transportation with economic, land use, environmental and quality of life issues 15 initiatives and recommendations were outlined. Integration of the Coastal Corridor economy with the state, regional, national and global economies, generated 8 recommendations.

Under funding, the goal was to identify policies and sources that provide an adequate and reliable flow of funding necessary for a quality multi-modal transportation system, covering recommendations for federal funding (3), new financing sources (6), public transportation (6), and other financial strategies (4).

South Western Region Metropolitan Planning Organization (SWRMPO) Interactions with the TSB and Coastal Corridor TIA

The South Western Region MPO has participated in the TSB and TIA process in a number of ways, including: MPO-designated representatives to the Coastal Corridor TIA; MPO members and SWRPA staff participation in TSB working groups; and, ongoing review and communication of SWRMPO recommendations, policies, and priorities and recommendations to both the TSB and TIA.

To guide the Coastal Corridor's development of the TIA plan, the SWRMPO developed the South Western Region Metropolitan Planning Organization Transportation Investment Area Plan for the Coastal Corridor (October 2001). The SWRMPO supported many of the preliminary draft Coastal Corridor TIA plan recommendations, policies and projects. The SWRMPO's October 30, 2001 letter to the Coastal Corridor TIA made the following points.

The SWRMPO supported **policy recommendations** that appeared in the draft CCTIA Plan and urged the State of Connecticut and the Transportation Strategy Board to do the following:

1. Establish a Statewide Planning Division within the Connecticut Office of Policy Management for the comprehensive coordination and monitoring of various short and

long-range plans, including but not limited to regional plans of conservation and development, long-range transportation plans, the Statewide Transportation Improvement Program, regional transportation plans, and town/city plans of development.

2. Advocate for the creation of a seat for the State of Connecticut on the Metropolitan Transportation Authority board.
3. Evaluate policies regarding overhead and side clearances on rail lines to identify changes necessary to increase opportunities for use of the state's rail infrastructure for interstate freight movement.
4. Streamline existing environmental review and approvals process to eliminate duplication of efforts and enhance coordination among local, state and federal agencies.
5. Create incentives to encourage transit-oriented development.
6. Expand the use of federal provisions shielding state agencies, municipalities and political subdivisions from liability associated with the clean-up, redevelopment or reuse of brownfields and other contaminated sites.
7. Institute a program through which the Connecticut Department of Transportation and other state agencies will acquire the skills and capacity to consider and model the impact of various transportation policies on the natural environment, land use, community character and quality of life.
8. ConnDOT should take full advantage of the flexible nature of many federal funding streams and allow municipalities and others to fund the construction of sidewalks and bicycle and pedestrian facilities where eligible.
9. Explore public/private partnerships that may lead to the private financing and operation of facilities in the public interest, such as truck stops and highway rest areas.

The SWRMPO recommended additional **policy recommendations** for the final Coastal Corridor TIA Plan, including:

1. Consistent with the principles of the Gallis report and Sections 4(b)(5) and 4(b)(13) of the Act, Connecticut state agencies need to reinforce collaboration both within the state and with appropriate agencies in neighboring states to ensure coordinated and compatible development of transportation and other infrastructure.
2. Examine procurement policies and practices to ensure that competitive bidding is used as a tool for containing costs and maximizing level and quality of service, particularly with long-term service contracts.

The SWRMPO supported a many of the **funding recommendations** in the draft Coastal Corridor TIA Plan, including:

1. Implement ConnDOT's intelligent transportation systems initiatives for highway and transit including, but not limited to, adequate diversion route signage and advisories, functional highway advisory radio broadcasts, route markers and other real time traffic information.
2. Purchase commuter rail equipment identified by ConnDOT and MTA as necessary to maintain existing and enhanced levels of service and reliability for interstate and intrastate commuters.
3. Conduct a corridor freight planning study to identify origin and destination movements; current and programmed freight delivery systems; recommended capital projects, policies and programs; additional freight planning initiatives to augment initiatives currently

underway in the tri-state area; and opportunities for public outreach and education about freight movement in the corridor.

4. Evaluate *value pricing* opportunities for highway and public transportation in the state.
5. Implement the recommendations of the *Statewide Bus Study*.
6. Conduct a site selection study for the expansion of the New Haven Line rail maintenance facilities and purchase land for a new rail service maintenance facility, as proposed in Section 16(a)(5).
7. Work in partnership with Amtrak, MTA Metro-North and rail labor unions to allow Shore Line East trains to run through New Haven to Bridgeport, Stamford and Greenwich for a two-year trial period, as proposed in Section 16(a)(9).
8. Expand bus services connecting with rail services in the Coastal Corridor TIA, as proposed in Section 16(a)(6).
9. Provide operating funding to expand bus services for existing and new western Connecticut commuters to utilize Metro-North's Upper Harlem Line for commuting to New York City and White Plains, as proposed in Section 16(a)(12).
10. Where the demand exists, provide for more inter-district, inter-town, inter-regional and interstate bus service like the Coastal Link, including routes linking rural communities.
11. Implementation of a demonstration project for a freight feeder barge service on Long Island Sound between the port facilities of New York and New Jersey and those in Bridgeport and New Haven, as proposed in Section 16(a)(21).
12. Fund a high-speed ferry from Bridgeport to Stamford to New York, as proposed in Section 16(a)(20).
13. Market the *Deduct-A-Ride* program and expand support for existing commuter incentive programs, including but not limited to *Deduct-A-Ride* and *TransitChek*, as proposed in Section 16(a)(3).*
14. Provide annual operating support to replace expiring *Access to Jobs* grants for the Coastal Link, later evening bus service route extensions and customized paratransit services for residents in the cities of Bridgeport, New Haven, Norwalk, Stamford and Waterbury, as proposed in Section 16(a)(1).*

* *Underlined text represents SWRMPO modification to projects as stated in the Act.*

Additional **funding recommendations** were recommended by the SWRMPO, including:

1. Evaluate operational and construction improvements to I-95 to relieve congestion and improve access in the corridor. Improvements to consider may include operational lanes between critical interchanges, “zipper lanes” to increase capacity in peak directions and strategic exit closures to discourage “local” traffic on I-95.
2. Develop and implement a universal fare card and collection system for all transit services statewide.
3. Partner with Amtrak to provide an additional peak period train from Connecticut to Penn Station for a two year trial period and promote monthly tickets from Connecticut to Penn Station, as proposed in Section 16(a)(10).
4. Study, and where appropriate, fund parking improvements at MTA Metro-North and Shore Line East stations in the Coastal Corridor TIA.
5. Develop “commuter connections” between transportation hubs, residential areas and employment centers.

6. Implement the recommendations from the *Route 7 Travel Options Implementation Plan*, prepared by the South Western Regional Planning Agency and the Housatonic Valley Council of Elected Officials. (Note: Although the draft CCTIA Plan supports the Danbury Branch Line improvements proposed in the *Route 7 Travel Options Implementation Plan*, the SWRMPO would like all elements of that plan to be funded.)
7. Enhance public transportation access to metropolitan area airports including Bradley, Kennedy, LaGuardia, Newark and Westchester County airports.

In December 2001, the SWRMPO recommended that the TSB use Section 16 funding for 3 eligible Section 16 projects that contribute to reducing congestion and/or improving mobility along the I-95 and Merritt Parkway corridors and that were in the Region's long range transportation plan. The projects were:

- Incident Management Clearance Pilot.
- Commuter train service to New York's Penn Station via Amtrak.
- Passenger ferry service between Bridgeport, Stamford and New York City.

In response to the TSB's 2002 request for five priorities for the TSB plan, the SWRMPO³¹ identified the top 5 priorities as:

1. **Order new rail cars.** Increased commuter rail capacity is needed in order to attract and retain new riders, particularly to intrastate services. One hundred (100) new rail cars should be ordered by 2006, as recommended in the Connecticut Department of Transportation's fleet configuration study. Adequate maintenance and repair facilities also must be developed to ensure that Connecticut's commuter rail fleet remains safe and reliable.
2. **Increase rail parking at New Haven Line stations.** Additional parking capacity is needed within the South Western Region to meet existing demand. Additional parking capacity is also needed east of Westport in order to encourage drivers to commute to intrastate locations by rail, thereby reducing congestion on the Region's highways and arterials.
3. **Expand intrastate commuter rail service.** Access to "subway-style" service along the New Haven, Danbury and New Canaan branch lines will facilitate intrastate commuting and reduce traffic congestion on the Region's roadways.
4. **Fund the Stamford Urban Transitway project.** The Urban Transitway will provide a single point of access to local and regional bus service, commuter rail, Amtrak and ferry services within downtown Stamford. Easy access to a variety of transportation services will promote use of mass transit and decrease reliance on personal vehicles.
5. **Improve transportation connections serving the South Western Region.** Rail service, local and inter-regional bus services, waterborne transit, bicycle facilities and pedestrian connections should be used in combination to link housing, employment, retail and transportation centers to encourage use of mass transit.

³¹ SWRMPO letter dated April 26, 2002 to TSB.