

Strategies for a New Age: New York State's Transportation Master Plan for 2030



New York State Department of Transportation
Summer 2006
Commissioner Thomas J. Madison, Jr.





State of New York
Department of Transportation
Albany, N.Y. 12232
<https://www.nysdot.gov>

Thomas J. Madison, Jr.
Commissioner

George E. Pataki
Governor

Summer 2006

Dear Governor Pataki:

I am proud to submit to you New York State's transportation plan, *Strategies for a New Age: New York' State's Transportation Master Plan for 2030*. This Plan articulates a vision for New York's future transportation system as a seamless system in which travelers can conveniently shift between modes and operators to complete trips that meet their individual and business needs. The Plan outlines policy guidance and strategies to reach this vision. The Plan is not just for the Department of Transportation, but for the entire State transportation system.

The Plan stresses our continuing commitment to the State's extensive transportation infrastructure and the importance of a customer focus that recognizes the varying needs and priorities of different transportation customers. The Plan recognizes the significance of the global economy to New York State and the impact it has on the transportation system. It advocates focusing on the State's most critical multi-modal corridors. It strongly supports increased cooperation and coordination by all of New York's transportation providers, emphasizes the need to be sensitive to the environment, suggests solutions to mobility problems to improve the existing transportation network's efficiency, reliability, and cost effectiveness, and urges actions contributing to the State's prosperity and well-being. It advocates increased participation in transportation decision making by regional and local officials, travelers, businesses, and the general public, and encourages public/private partnerships that can help to meet the travel needs of the future.

The Plan is the product of an extensive public outreach effort conducted in an open and cooperative environment. Nine public forums were conducted across the State in 2004 under the auspices of the New York State Advisory Panel on Transportation Policy for 2025. The Panel's findings also served as valuable input in determining issues to address in the Plan. The draft Plan was released in December 2005 and again we reached out to the public, sending out more than 1500 letters and holding various forums informing citizens of the availability of the draft Plan, in paper and electronic formats, and invited comment. Comments received were considered and incorporated as appropriate in preparation of the final Plan.

Strategies for a New Age: New York' State's Transportation Master Plan for 2030 serves as the State's official transportation plan, fulfilling the requirements of Chapter 717 of the Laws of 1967 of the State of New York and the federal Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users of 2005.

The final Plan presents a comprehensive package of strategies to respond to New York's transportation needs. Implementation of these strategies will help create the integrated, multimodal, transportation system that will serve New York's economy and its residents now and into the future.

Sincerely,

A handwritten signature in black ink, appearing to read 'George E. Pataki', written over a horizontal line.

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INTRODUCTION

Strategies for a New Age: New York State's Transportation Master Plan for 2030 is the State's comprehensive statewide transportation master plan and serves as the Federally recognized, long range transportation plan for the State of New York pursuant to Federal law and in accordance with State Transportation Law. Federal regulations require each State to prepare and periodically update a statewide, intermodal transportation plan that addresses specified factors, is developed involving extensive public outreach and covers a period of at least 20 years as a condition of receiving Federal transportation funds. This long-range comprehensive statewide transportation master plan covers the period through 2030 and updates the State's 1996 Plan.

Strategies for a New Age: New York State's Transportation Master Plan for 2030 articulates a long-term, intermodal vision of the State's future transportation system and provides policy level guidance to achieve that vision. The Plan presents key transportation issues that must be addressed in the coming decades and identifies transportation strategies to efficiently serve the mobility needs of people and for the movement of freight. The Plan will serve as a framework for preparing future more project-specific transportation plans and programs including the Federally required State Transportation Improvement Program (STIP). In addition, this Plan will guide the State's coordination of transportation plans, programs, and planning activities with related planning activities being undertaken within and outside of the 13 designated metropolitan planning areas within New York.

The Plan is centered on our transportation customers' expectations of the State's transportation system. These expectations are summarized in five distinct but interrelated themes: Mobility and Reliability, Safety, Security, Environmental Sustainability and Economic Competitiveness. Performance will be measured with respect to each of the five themes in order to effectively manage performance of the statewide transportation system. The Plan is organized around the five themes, the "Priority Results Areas", and contains the following chapters:

NEW YORK STATE'S VISION FOR TRANSPORTATION, describes the State's future vision for the transportation system as a seamless system in which travelers can conveniently shift between modes and operators to complete trips that meet their individual and business needs.

PLANNING FOR NEW YORK'S TRANSPORTATION FUTURE, describes the transportation planning process, discusses the roles of the NYSDOT and the Metropolitan Planning Organizations (MPOs), and identifies the primary transportation planning products. The Plan for 2030 foresees a far more collaborative approach to planning and investment decision making among local governments, MPOs, transportation operators, and the State.

DEMOGRAPHIC, ECONOMIC, TRAVEL, AND ENERGY TRENDS AND FUTURE TRANSPORTATION IMPLICATIONS, discusses the trends, factors, and other relevant information considered by transportation planners to forecast and address travel demands. Key trends include: modest population increases, continued population growth in the downstate region, a shift in new job locations from cities to established and newer suburbs, and significant increases in freight goods movement.

CORRIDOR-BASED TRANSPORTATION MANAGEMENT, presents the concept that future transportation planning and investments are focused on the State's most critical multimodal corridors. Designation of these transportation corridors as well as future planning and investment decisions will be accomplished in collaboration with local and regional transportation partners and stakeholders.

MOBILITY AND RELIABILITY, discusses the need for the State and its many diverse trans-

portation providers to integrate transportation systems effectively, manage system congestion to adequately maintain predictable, efficient, and safe travel. The focus will be on managing transportation assets with the goal of achieving a state of good repair for all modes. Improvements will emphasize operational and demand management strategies, wherever they are appropriate. System capacity expansions will be limited, carefully targeted and will address both freight and passenger needs.

SAFETY, discusses one of the primary goals of this statewide transportation master plan: to provide safe travel and reduce system safety deficiencies across all modes of travel for people and goods movement. An emphasis is on improving vehicle operator performance utilizing enforcement and educational tools.

SECURITY, summarizes the changes that have occurred in the national dialogue regarding vulnerabilities to transportation infrastructure, users, customers, cargo, and transportation related employees. This discussion includes planning for the prevention and protection of the transportation system and the need for emergency plans to mitigate the effects and speed recovery from natural disasters or malicious activities. A key factor will be to attain improved security without unreasonably sacrificing mobility and reliability while being aware of the public's safety.

ENVIRONMENTAL SUSTAINABILITY, presents a broad understanding and commitment that environmental and energy use considerations must be fully integrated with sound transportation planning and investment strategies while in alignment with the goals of the State Energy Plan and Federal clean air requirements. One focus of the Plan will be to implement an enhanced environmental program by going beyond mitigation and supporting integration of environmental betterments concurrent with transportation improvements.

ECONOMIC COMPETITIVENESS, examines how transportation investments can both strengthen the State's competitive economic position and support a sustainable economy and desired quality of life for citizens and communities. One targeted strategy will be to more closely integrate transportation planning with local land use planning.

TRANSPORTATION FINANCING: 2005-2030, explains the current funding sources which support New York's vast array of transportation services, projects and programs. It discusses the Federal and State funding process, identifies the amounts of Federal and State funding available to New York for transportation projects and services over the 2005-2010 period, and highlights the need to establish substantial, sustainable, and predictable funding dedicated to transportation investments. The Plan for 2030 does not presume a specific level of financial support for the period 2005-2030, but instead identifies the broad investment priorities upon which progress within the State's Priority Result Areas (PRAs) depends. In order to compete in the global economy, Transportation Development Partnerships offer an innovative and promising financing mechanism.

Transportation is paramount to the quality of life and economic well being of New York and the Plan focuses on the ability of New York's transportation system to safely and efficiently meet the current and future mobility needs of residents, visitors, and businesses. The changing global economy, travel demands, and the needs of our customers require new and innovative ways to provide transportation to its users--now and in the future. The New York State Department of Transportation is committed to meeting these challenges by implementing the strategies and recommendations of this Plan in partnership with local governments, Metropolitan Planning Organizations, and other transportation operators statewide.

New York State's transportation system – its statewide network of highways, and local roads, rail lines, public transit systems, pedestrian and bicycle facilities, airports, ports and waterways and intermodal terminals – provides mobility to its travelers and also supports the State and national economies. This system has been developed over the past two centuries and has served the State well. But the changing global economy, travel demands and customers' needs require new and innovative ways to provide transportation services to its users – now and in the future.

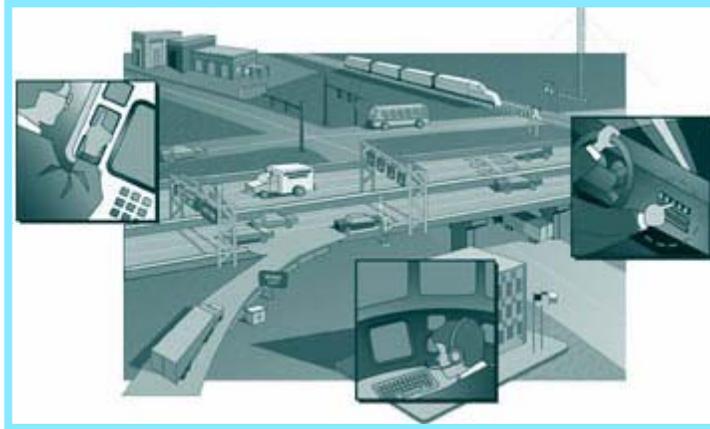
To meet these challenges, New York has modernized its approach to providing and overseeing transportation investments.

This approach recognizes that transportation customers – those who use the transportation system for travel or to ship goods-- do not care who owns or operates individual transportation facilities. These customers do care that transportation is seamless and that it effectively responds to their needs in the ever changing global economy. They care that transportation operators can appropriately prioritize among potential investments, can successfully measure the success or failure of their efforts to improve the system's operation, and can, therefore, be held accountable for their investment of public funds.

New York State's vision for transportation in 2030 is of a seamless system in which travelers can conveniently shift between modes and operators to complete trips that meet their individual and business

needs. Future transportation investments will be customer driven. A system to measure how well the investment performs will help ensure accountability. Priorities will be determined within major transportation corridors which serve the predominant customers of the system.

Accomplishing this vision is essential if New York is to preserve and enhance its future freedom of mobility, quality of life, and economic vitality. This Plan, which looks out



Future Transportation

to the year 2030, provides a broad policy road map that will underlie the State's efforts to achieve these broad goals. The new vision, which underpins this transformation, builds upon the historical leadership that New York has demonstrated

beginning with construction of the Erie Canal and through the State's long-standing success at building and maintaining complex systems for every mode of transportation. Throughout the decades of the 1980s and 1990s the State concentrated its transportation resources on rebuilding the basic transportation infrastructure that had been allowed to deteriorate during the 1970s.

More recently, the State has implemented a number of major initiatives that have expanded and improved the transportation system. The introduction of MTA's Metrorcard system has dramatically increased transit usage in New York City. Both JFK Airport and the seaports in New York and New Jersey have been modernized and expanded, including the construction of the Airtrain rail link to JFK. A High Occupancy Ve-

hicle lane was added to the Long Island Expressway. Route 17 in the Southern Tier is being upgraded to become a new Interstate 86. A modern, efficient border crossing on Interstate 87 at the border with Quebec is under construction to speed travel. Heavily used transportation facilities in Lower Manhattan destroyed in the September 11, 2001 attacks are being rebuilt to modern, world-

distinct yet related regional, national and international economies. The State serves as a gateway from the south and west to all of New England and is a major trading partner with Canada. New York City serves as an international financial center and as the critical link in the tristate economy (Connecticut, New York, and New Jersey). Future transportation policies and investments must



Travel Information Gateway Web Page

class standards. Up to date traveler information is provided on the Travel Information Gateway website (www.travelinfony.com). Investments in public transit service and rail freight infrastructure, two areas where New York leads the nation, have continued and improved these services.

Much progress has been achieved by these and other past efforts and, while infrastructure preservation will continue as a major priority, it is time for New York State to develop new strategies and programs to meet the demands of the 21st century. Successful strategies for serving New York must recognize that the State is an integral part of

strengthen New York's role in those economies while serving the diverse needs for New Yorkers from all walks of life. In first identifying and then addressing the State's transportation needs, it is essential that we begin by recognizing the variety of transportation customers that use the State's facilities, including shippers and carriers, intercity passengers, commuters, tourists, and other travelers with a myriad of trip purposes. While this customer focus represents an ongoing effort to understand varying needs and priorities, it is evident that those needs are evolving and in some cases conflicting with one another.

This Plan further recognizes that the global economy has become far more com-

plex with continuing changes in technology, production, employment, and international trade. All of these changes have placed an enormous burden on New York State's existing transportation systems, as evidenced by increasing travel and congestion, especially on the State's metropolitan highway systems, certain rail corridors, and New York City's public transportation system. Further, these changes will require that New York State's international ports, airports, rail, and highway facilities, many of which are aging and overburdened, be appropriately modernized and operated more efficiently if the State is to be competitive during the 21st century.

Chapter 3 elaborates upon some of the trends and future projections which will require new approaches to planning for and managing the State's transportation system. New York State's Plan for 2030 acknowledges that both recent and projected trends require new approaches to planning for and managing the State's transportation system. Providing for the State's mobility and safety needs in the future will continue to be the highest transportation priority, but these needs must be met within a larger effort to preserve and enhance the quality of life for all New Yorkers. This Plan, therefore, will also serve as a guide for better integration between transportation investments and efforts to promote a better quality of life for all of the State's citizens.

Ever increasing traffic on the State's highways, especially truck traffic, and ongoing changes in personal and work related travel indicate that solutions to transportation problems will require multimodal innovation and experimentation. In order to focus the State's investment strategies on addressing the most critical needs of customers, New York State will identify and designate major multimodal transportation corridors that provide important linkages for the traveling pub-

lic. These corridors are to be defined by the customers they serve and include: trade corridors, intercity passenger corridors, commuter corridors, and tourism corridors. A more detailed discussion of corridors can be found in Chapter 4. Future transportation planning and investment strategies will be directed at supporting these critical corridors in their roles of moving people and goods to their destinations both within and outside New York State.

New York State's vision for transportation also recognizes the existence of a broad public interest in transportation's priorities. Chief among these is the commitment to protect and enhance the overall environment, economy, and quality of life for our citizens as we invest in our transportation system. The post September 11th world highlights vulnerabilities in the transportation system, forcing the State to be more vigilant in protecting our transportation system against acts of violence. Security for the traveling public, security at all of the State's international entry points, and security of all cargoes entering, or exiting New York State will receive priority treatment in the future.

New York State's vision for transportation's future promises a seamless system that supports its customers' desire to move easily between the various modes on any given trip, regardless of who owns individual facilities. While multimodal corridor planning and management will directly serve this objective, the State also acknowledges the importance of overcoming the adverse impacts of governmental and other institutional fragmentation that defines the transportation sector in New York State today. These impacts include insufficient comprehensive planning, difficulty in attaining consensus on the major investments to be advanced, traffic tie-ups resulting from simultaneous construction on two or more highways within the same travel

corridor, missed connections between train and bus, or commuter rail and subway, and other operational issues that prevent a seamless trip from origin to destination or a seamless transfer of goods between highway, rail, air and water transport modes.

The State's myriad of transportation systems are operated by State and local governments, public authorities, and by the private sector. This fragmentation, developed over time and reflected in much of State law, will never be entirely eliminated, but the Plan for 2030 foresees a far more collaborative approach to planning and investment decision making. The Commissioner of the New York State Department of Transportation, utilizing existing statutory and executive authority, will integrate transportation policy development among operators throughout the State to ensure greater policy coherence and consistency. The creation of the Transportation Federation in 2004, comprised of the State Department of Transportation, the New York State Thruway Authority and the New York State Bridge Authority, under the overall direction of the State Transportation Commissioner, will promote improved policy and programmatic coordination upstate and represents only the first step in this effort. Similarly, the Chairman of the Metropolitan Transportation Authority will play a leading role in the downstate region promoting improved integration and coordination between the transportation operators.

As the New York State Department of Transportation (NYSDOT) continues to reorganize to meet the challenges of the 21st century, it is anticipated that the Commissioner's transportation integrating role will be

strengthened in order to achieve the policy objectives identified in this Plan. Many of the recommended strategies will require the various operating agencies in New York State to conduct future operations in a way that is compatible with and complementary to other operations in the State. Intensified cooperation and information sharing among operating agencies will help all agencies identify and implement effective and efficient multi-modal solutions. The intent is to build an integrated customer responsive system utilizing the latest technologies, that is truly seamless.

The Priority Result Areas

In order to pursue this vision and to meet the expectations of the State's transportation system's customers, transportation planning and investment strategies will be measured by a performance management system centered on transportation customers' expectations. The expectations identified by the State's transportation customers as important have been summarized into five distinct but interrelated themes: Mobility and Reliability, Safety, Security, Environmental Sustainability and Economic Competitiveness. These five themes, called the Priority Result Areas (PRAs), encompass what transportation customers today expect of the State's transportation system.

NYSDOT will use a PRA-based performance management system to monitor progress and goals, objectives and performance measures are being developed for each of the five PRAs. The following describes each PRA and lists the initial goal statement developed for each.

Mobility and Reliability



Intermodal Transportation

Goal Statement: To improve the multimodal transportation system by addressing customers' expectations for dependability, travel time, efficient and effective transportation choices, accessibility, travel information, and quality of service.

Current surveys and other evidence indicate that transportation customers place high priority upon travel time predictability for both personal travel and the movement of goods. While certain levels of delay are acceptable, customers expect that people and goods can be moved reliably, over a predictable duration, and at a reasonable cost. Customers place a premium on the ability of transportation operators to manage congestion effectively and to operate systems so as to inform travelers of unusual delays and to provide alternatives where practicable. Reliable transportation requires that all systems must be adequately maintained to support predictable, efficient and safe travel.

Safety

Goal Statement: To prevent transportation system related fatalities and injuries through cost effective management of risks.

Transportation customers as a whole identify safe travel as their highest priority. Specifically, they expect that the number of travel related deaths and injuries will be reduced through a variety of strategies that address system safety deficiencies as well as operator errors and effective enforcement.

Security

Goal Statement: To develop, maintain, and implement effective incident/emergency management practices which address preparedness, mitigation, re-

sponse, and recovery for both natural and human-caused threats and disasters.

Recent tragic events have substantially elevated the general public's and transportation customers' concerns about security. It is expected that prevention and protection planning takes place to mitigate the vulnerabilities to transportation infrastructure, users, cargo, and transportation related employees. In the event of such acts, it is expected that transportation operators will have in place emergency plans to mitigate the effects and to promote a speedy recovery. It is expected that there will be coordination among transportation operators and the State Office of Cyber Security and Critical Infrastructure Coordination (CSCIC) on cyber readiness and resilience efforts. It is now expected that all reasonable actions will be taken to protect critical data, information systems, and communication networks from potentially malicious activities. It is also expected that disaster recovery and continuity of operations plans are developed in case an unforeseen event still does take place.

Environmental Sustainability

Goal Statement: Ensure the transportation system enhances and protects the human, natural, and built environment in order to sustain and improve New York State's quality of life.

Transportation customers as well as the general public expect that transportation investments will address environmental and energy concerns associated with meeting specific transportation goals. They demand that transportation investments also protect and enhance the human, natural, and built environment. Importantly, these investments must help conserve New York State's use of non-renewable energy resources and reduce fuel emissions and greenhouse gases.

Transportation and environmental protection cannot be viewed as separate and distinct from one another.

Economic Competitiveness

Goal Statement: To provide cost competitive transportation for goods and travelers.

Transportation customers expect that the transportation system will contribute to New York State's substantial role in the local, regional, national and global economies. Transportation services must be cost effective and provide the necessary intermodal connectivity to support the State's competitive position in each of these related economies. Transportation's role in strengthening economic competitiveness of the State means that future investments should protect and even improve the quality of life for New Yorkers and their local communities. There-



Quality Communities Logo

fore, this transportation Plan identifies specific strategies intended to play an integral role in the State's Quality Communities Program (www.qualitycommunities.com). Specifically, the State's transportation operators, at the direction of the Commissioner of Transportation, will actively support local and

regional land use planning and development to help achieve the vibrant communities supported by this program.

Chapters 5, 6, 7, 8 and 9 of this Plan identify the issues which New York State anticipates confronting in each of the PRAs over the next 25 years and suggest state-wide policy strategies which respond to these issues. Progress in these areas will be monitored routinely, and measurable goals will be established for each. These elements of the State's performance management system represent a fundamental part of the overall vision for managing transportation investments in the future.

Strategies to Achieve Desired Outcomes within the Priority Result Areas

In order to achieve the desired outcomes within these Priority Result Areas, the State will pursue nine important strategies which will underpin future transportation investments and which are discussed in greater detail throughout this Plan. The nine strategies are:

- To implement effective integrating mechanisms for improving coordination among the State's transportation operators;
- To focus investments on meeting customer needs within the designated travel corridors;
- To promote improved safety through altering the travel behaviors of vehicle operators posing the highest risk to transportation safety;
- To increase the compatibility between existing and desired land uses and transportation;

- To use state-of-the-art transportation asset management principles to make future investment decisions;
- To emphasize state-of-the-art operational techniques, including advanced technologies, to meet customer expectations for mobility and reliability;
- To adopt comprehensive performance management practices to ensure progress within the Priority Result Areas;
- To place the State's transportation customers in the "driver's seat" in determining investment priorities, and;
- To play a leadership role in promoting sound environmental and energy policies in all transportation investments.

Conclusion

The goal of this Master Plan is to lay the foundation for substantive and demonstrable progress in each of the Priority Result Areas. Future transportation planning and investment strategies will be directed at supporting the State's critical corridors in their roles of moving people and goods to their destinations both within and outside New York State. The highest priorities in the State will be largely determined by examining the needs of designated corridors and their component facilities. Success will be defined by our ability to measurably achieve improvements, within the Priority Result Areas, that are sought by our customers.



New York's Transportation Landscape

New York State's transportation landscape encompasses a vast network of local, state and private transportation facilities and services.

Consider these parameters:

- 11 million licensed drivers utilize 10.5 million motor vehicles, riding over 113,000 miles of local, State and interstate roads and 17,000 local and State highway bridges.
- 2.6 billion transit passenger trips are made annually, including a daily average of 4.8 million subway riders.
- 488 communities are linked by intercity bus service, which serve approximately 2.6 million passengers annually.
- 4,800 miles of railroads that serve or connect to 31 passenger rail stations and carry 78 million tons of freight annually.
- 18 commercial service airports that serve over 78 million passengers annually, and an additional 495 public use and private use airports.
- There are 5 major water ports, numerous private ports and a 524 mile state canal system.
- Hundreds of pedestrian, bicycle and trail facilities exist statewide.



Intermodal Transportation

Travelers and shippers who use this vast transportation network do not care who operates or owns the facilities they are using, but are concerned about the quality, safety and reliability of the trip and the facilities they utilize. Achieving such customer expectations for the State's transportation network requires broad policy guidance, sound transportation planning and deliberate action.

A Statewide Transportation Plan 2005 - 2030

Strategies for a New Age: New York State's Transportation Master Plan for 2030 is the State's comprehensive statewide transportation plan and will serve as the Federally recognized long range transportation plan for the State of New York pursuant to

Section 450.214 of the Code of Federal Regulations and in accordance with Section 15 of State Transportation Law. As a condition of receiving Federal transportation funds, state's must prepare and periodically update a statewide, intermodal transportation plan that addresses specified factors, covers a period of at least 20 years and is developed involving certain interested parties and transportation stakeholders. This long range Plan was developed by New York State Department of Transportation (NYSDOT) in consultation with a wide range of transportation stakeholders, transportation operators and other interested parties, covers the period through 2030 and addresses in detail the required factors.

Strategies for a New Age: New York State's Transportation Master Plan for 2030 articulates a long-term, intermodal vision of the State's future transportation system and provides policy level guidance to achieve that vision. This Plan presents key transportation issues that must be addressed in the coming decades and identifies transportation strategies to efficiently serve the mobility needs of people and for the movement of freight. It recommends transportation planning strategies at the statewide and corridor levels and is designed to complement and integrate, not supplant local and regional decision making.

At the broadest level the Plan will serve to guide development of the State's future transportation investment programs. In and of itself, it is not a listing of projects, but it will help guide the selection of local and regional transportation projects. In addition, this Plan will guide the State's coordination of transportation plans, programs, and planning activities with related planning activities being undertaken within and outside of the thirteen designated metropolitan planning areas within New York. This Plan is not just a plan for NYSDOT, but for the state's transporta-

tion system and as such, includes other State transportation entities and authorities as well. It will impact future activities of Metropolitan Planning Organizations (MPOs), local governments, businesses and other transportation stakeholders.

This Plan is intended to be a "living document". It defines some problems and suggests possible solutions but attaining the future transportation vision will be an ongoing effort with cooperation and input from the public, other transportation providers, local governments and other stakeholders. The Plan, by presenting issues and strategies to deal with them, provides information to our transportation customers, those who live, transport goods and travel in our state.

As noted previously, the State's transportation systems are operated by a large variety of organizations including State and local governments, public authorities, the private sector, and not-for profit groups in such areas as the provision and coordination of services. It is hoped that this Plan will support and encourage greater policy coordination, consistency, cooperation and coherence. The draft Plan was widely distributed and comments submitted by stakeholders, transportation providers and others will help to encourage a future of greater cooperation and consistency.

The Transportation Planning Process in New York State

Transportation planning and decision making in New York State is driven by the Federal planning process, the framework mandated for state's receiving Federal transportation funds. In New York State, NYSDOT has umbrella responsibility for coordinated, balanced statewide transportation planning which is carried out in collaboration with the State's thirteen (MPOs) in urban areas, and

the many various local officials with responsibility for transportation in rural or non-urbanized areas. In regard to the State's long range transportation plan, the Federal planning process requires that it be developed in cooperation with the State's MPOs and in consultation with local officials in non-metropolitan areas.

MPOs are Federally required planning entities, designated by the Governor, for every urban area with a population of more than 50,000. MPOs are charged with making decisions on the specific transportation plans and programs that would best serve their metropolitan area and are comprised of local elected officials or their representatives, representatives from transportation agencies including providers of transit and appropriate state officials including the State Department of Transportation.

Each MPO is required to develop, according to Federal guidelines on content, timing, and public involvement, a long range plan for their area as well as a program of projects, the Transportation Improvement Program (TIP). In the words of the Adirondack Glens Falls Transportation Council, "The TIP projects represent the best solutions to the highest priority problems within the constraints of money and time." In general, MPO plans are similar and consistent with the State's long range transportation plan but are much more specific regarding funding needs and resources, programs, and projects. The MPOs' and State's long range plans are each an important part of the overall Federal planning process and as such they each are developed using the same standards and addressing the same planning factors.

A link to the web sites of the New York State's MPOs and their long range plans can be found at the following:

<http://www.nysmpos.org>. The table on page 15 lists the names, addresses and website of each of the state's thirteen MPOs.

Outside of metropolitan areas, Federal requirements note that the statewide long range plan be developed in consultation with affected local officials with responsibility for transportation. In such rural and small urban areas, the NYSDOT works closely with elected officials from counties, municipalities, towns, village and organizations such as Regional Planning Development Boards to share information, discuss issues of mutual concerns, and consider alternative approaches and projects. The recently updated 2006 Procedures for Consultation with Public Officials in Rural Areas is the State's documented process for involving and consulting with non-metropolitan public officials with responsibility for transportation.

Involvement of elected officials at all levels of government in both rural and urban areas is of great value. As representatives of their communities they provide valuable input and an important influence on decision making. In addition, there is communication between the State and Native American Tribal Governments on issues of mutual concern. Early drafts of this Plan were provided to Native American tribal Governments in the State for their input.

Developing the 2005-2030 Statewide Transportation Plan: Outreach and Collaboration

Many resources were consulted to develop the Plan including the public at large, transportation interests groups, providers of transportation services such as transit operators, members of the state transportation federation, other states, other state agencies, the MPO long range plans, relevant state and Federal plans and requirements and other studies.

Metropolitan Planning Organizations in New York State



NYSDOT Policy & Strategy, May 2004

New York State Metropolitan Planning Organizations

Public Hearings

Much of the input to the Plan was provided at the public hearings of the New York State Advisory Panel on Transportation Policy for 2025. The Advisory Panel consisted of a group of transportation and other professionals representing many perspectives. Panel members included corporate leaders, representatives from citizens groups and environmental organizations, representatives from State government and private organizations such as the AAA, consultants in a variety of specialties, and other informed and interested individuals.

Over 300 citizens, interest groups, representatives of the MPOs, legislators and other stakeholders testified at one or more of nine public hearings held at various locations throughout the state. Others submitted written testimony or supplemented their presen-

tations with additional written documentation.

In November 2004, the Panel issued their findings and recommendations. The Panel's report, *Transportation-Trouble Ahead*, is available on NYSDOT's web site at <http://www.nysdot.gov/portal/page/portal/main/transportation-plan>. This report served as valuable input as did the original testimony and submissions. In addition, the speakers, by raising concerns about certain issues encouraged the writers of the plan to more closely examine these issues.



Advisory Panel Hearing

New York State's MPO Directory

Adirondack/Glens Fall Transportation Council

Washington County Municipal Center
Room A-204, Fort Edward, NY 12828
www.agftc.org or (518) 746-2199

Capital District Transportation Committee

One Park Place, Albany, NY 12205
www.cdcmpo.org or (518) 458-2161

Genesee Transportation Council

50 West Main Street, Suite 8112, Rochester, NY 14614
www.gtcmpo.org or (585) 232-6240

Herkimer-Oneida Counties Transportation Study

Union Station, 321 Main Street, Utica, NY 13501
www.ocgov.net/HOCTSMPO/transportation.html
(315) 798-5710

Orange County Transportation Council

124 Main Street, Goshen, NY 10924
www.co.orange.ny.us/planning/ or (845) 291-2318

Poughkeepsie-Dutchess County Transportation Council

27 High Street, 2nd Floor, Poughkeepsie, NY 12601
www.dutchessny.gov/pdctc.htm or (845) 486-3600

Ulster County Transportation Council

244 Fair Street, Kingston, NY 12402
www.co.ulster.ny.us/planning or (845) 340-3340

Binghamton Metropolitan Transportation Study

44 Hawley St, 5th Floor
Binghamton, NY 13902
www.bmtsonline.com or (607) 778-2443

Elmira-Chemung Transportation Council

400 East Church Street, Elmira, NY 14901
www.elmirampo.org or (607) 735-5510

Greater Buffalo-Niagara Regional Transportation Council

438 Main Street, 5th Floor, Buffalo, NY 14202
www.gbnrtc.org or (716) 856-2026

Ithaca-Tompkins County Transportation Council

121 East Court Street, Ithaca, NY 14850
www.tompkins-co.org/itctc/ or (607) 274-5570

New York Metropolitan Transportation Council

199 Water Street 22nd Floor, New York, NY 10038
www.nymtc.org or (212) 383-7200

Syracuse Metropolitan Transportation Council

126 North Salina Street, Suite 100, Syracuse, NY 13202
www.smtcmpo.org (315) 422-5716

Ulster County Transportation Council

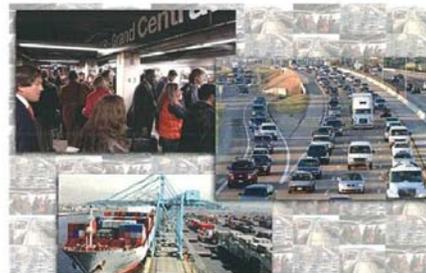
244 Fair Street, PO Box 1800
Kingston, NY 12402
www.co.ulster.ny.us/planning (845) 340-3340

MPO Directory and Contact Information (www.nysmpos.org)

Stakeholder Outreach and Alignment with Other Plans

As noted, this Plan is not just a plan for the New York State Department of Transportation but for the state transportation system, and thus for other State transportation entities and authorities as well. During development of the Plan there were meetings, discussions and other contacts with representatives of the members of the Federation including staff from the Thruway Authority, the Metropolitan Transportation Authority and the Bridge Authority. Federation members in some cases provided written input and also had an opportunity to review early drafts.

Transportation-Trouble Ahead



Report from the New York State Advisory Panel on Transportation Policy for 2025

Dennis Fitzgerald, Richard Garman, Patricia Gilchrist, James McGowan,
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November 2004

Advisory Panel Report

To help describe the issues impacting transportation across the state and develop consistent policies in the Plan, NYSDOT considered the issues and emphasis areas discussed in all of the State's MPO long range plans. MPO long range plans are important policy and strategy tools that address the respective, varied MPO agendas across the state. Many of the issues and emphasis areas were cited in nearly all the MPO plans and were appropriate to examine as part of this Plan. In general, transportation planning

issues that are important to one MPO are important to many and are thus of significance and will be addressed in this Plan. It is interesting to note that the long range plan of the Elmira-Chemung Transportation Council has a chart showing the linkage between that MPO Plan's planning goals and this Plan's emphasis areas.

The focus of this Plan is the five Priority Result Areas (PRAs): Mobility and Reliability, Safety, Security, Environmental Sustainability and Economic Competitiveness. These are the areas that customers think are important and which the Department will be monitoring for progress and for which goals have been established. The MPO Plans present Goals, Objectives, and Principles that generally apply to the PRAs and to other issues addressed in this Plan. Whether individual MPOs describe their future visions and current actions as goals, visions, principles or objectives, in all cases, the areas of emphasis in the State's MPO long range plans are similar and consistent to those of this statewide Plan. Common MPO Plan themes applicable to the various regions include: increase the mobility options for residents and visitors, enhance the safety and security of people using the transportation system, improve the quality of life in the region, provide for a sustainable transportation system, emphasize the land-use transportation connection, ensure regional planning compatibility and meet the needs of customers.

Another important part of the State's planning process for developing the long range plan is the public comment period on the draft plan. The purpose is to include the public in the statewide planning process by making the plan widely available and encouraging input. This was accomplished by direct mail outreach to over 1500 individuals and groups, by outreach through various transportation partners such as MPOs, and Coun-

ties, by posting the draft Plan on the Department's website with a e-comment form, and through numerous presentations at meetings of governments, associations and interest groups. A 75 day public comment period was offered, more than twice the Federal requirement for public comments.

A wide range of comments were received including suggestions for additional strategies and implementation activities, suggestions to place greater or lesser emphasis on certain transportation modes, requests for more detail on the intent, development process and planning context of the Plan, and many requests to include specific transportation projects in the Plan. Each comment was considered and incorporated as appropriate given the intent of the Plan. Comments that pertained to transportation matters outside of the Plan's intent may be considered in various other planning venues. A synopsis of the Public comments will be available as a companion document to the Plan.

Overview of Plan Implementation

An implementation strategy for the statewide Plan is being developed and will involve the joint efforts of the MPOs, members of the state Transportation Federation, other transportation providers, local governments and the general public. An early effort involves the designation and classification of corridors as discussed in the chapter entitled, "Corridor-Based Transportation Management". Decisions on the best way to move forward will occur in discussions with other transportation providers, the MPOs, and other stakeholder groups.

Other efforts will involve the development of projects and activities that will implement some of the strategies discussed in the Plan. For example, the Department's Program Update Guidance and Instructions for

2007 through 2019 emphasizes the PRAs and provide goal statements for each.

Federal regulations require that the State Transportation Improvement Program (STIP), the 5 year program of all the State's transportation projects, be consistent with the State's long range transportation Plan. That means that projects selected for inclusion in the STIP must address the issues and concerns that the Plan indicates are important. Most transportation projects support more than one of the Priority Result Areas and the Plan may help to suggest the types of projects that will help lead to our vision for the future.

The 2005 Transportation Memorandum of Understanding (MOU) between the Governor, the New York State Legislature and the Department of Transportation requires the Department to issue a report once a year to the other parties describing progress on the PRAs and the strategies outlined in the Plan. Performance will be measured in the five PRAs using the performance measures that NYSDOT has adopted for the New York State Transportation System. By the end of 2009, NYSDOT's annual report will contain the performance measures to be used for the subsequent five year period. The initial Report in 2006, cited the goals as well as objectives for each PRA and preliminary performance measures. Research is still underway to develop new measures of performance. Future annual reports will present the results of measurement and new performance measures considered and utilized.

Conclusion

The State's transportation landscape encompasses a vast network. The statewide long range transportation plan articulates an intermodal vision for the future of this system and provides a policy framework to achieve

that vision. The Plan was developed as a part of the State's ongoing transportation planning process, in cooperation with the metropolitan planning process, using a broad range of inputs and enhanced by valuable contributions of many groups and individuals. While the implementation process has not been finalized it is intended that the Plan will prove a valuable contribution to transportation planning activities at all levels throughout the State.

Successful implementation will require:

- Being able to monitor performance and measure progress
- Ensuring that agencies/operators know and understand what customers need by utilizing appropriate public involvement tools
- Having good mechanisms for collaborating with all parties
- Considering all modes when determining solutions and selecting alternatives



Demographic, economic, travel and energy trends provide a picture of the factors that impact the State’s transportation system. These trends and projected changes to them will help shape transportation planning and investment strategies during the first quarter of the 21st century.

Population

The population of New York State, as of the 2000 census, is just under 19 million, an increase of almost 1 million people since 1990. All of this growth occurred in the downstate area and is attributable almost exclusively to increased immigration. Nearly 1.1 million immigrants entered New York State since 1990. Immigration to the State along with the net plus of births minus deaths also helped offset the outward migration of approximately 2 million people during the same 10 year period.

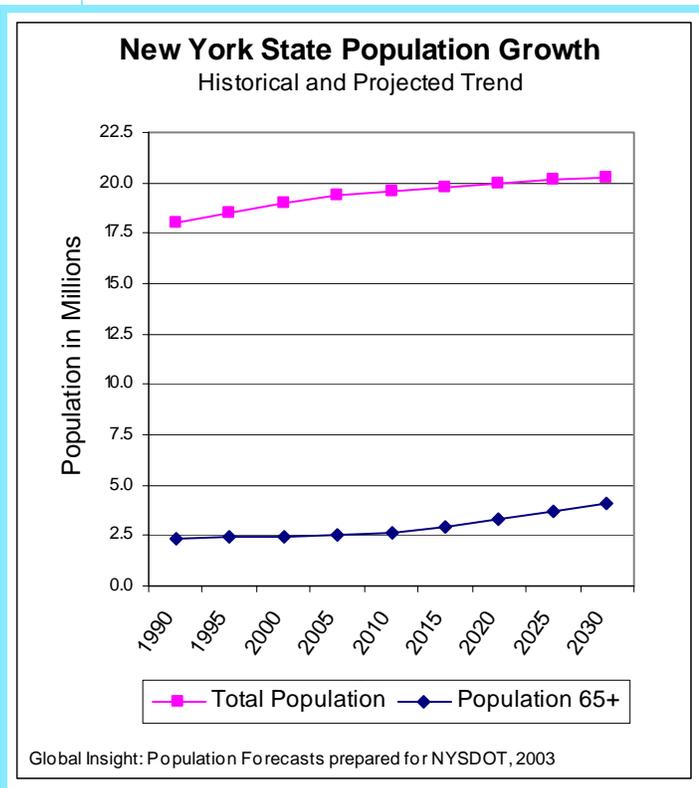
While population growth since 1990 has been moderate overall, the growth in the over age 65 population has been steady and is expected to accelerate as the baby boom generation begins to turn 65 in 2011. New York State’s over age 65 population is projected to grow from just under 2.5 million in 2000, to over 4 million in 2030.

Population Distribution

Population distribution varies throughout the State, requiring unique transportation strategies in different regions. The following are key trends which will impact transportation.

- New York City experienced the greatest population gain of any large city in the State, over 9 percent since 1990, primarily in the outer boroughs.

- Parts of the Hudson Valley experienced a nearly 7 percent population increase in the same period.
- The Long Island counties of Nassau and Suffolk combined had a population increase of nearly 6 percent.
- Outside the Hudson Valley, population in the Counties in the upstate region has remained static or decreased. Additionally, the upstate region has experienced population shifts from cities to both older and newer suburbs. Population growth in the new “outer suburbs” exceeds that of the older suburbs.
- Rural population has remained relatively stable as population has shifted from urbanized areas to those still classified as rural but non-agricultural.



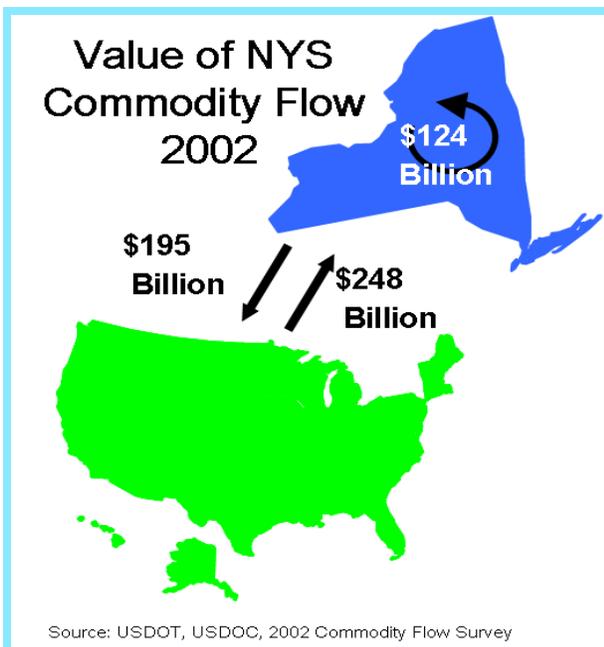
Population Growth Chart

The Economy

New York State rose to economic prominence during the 19th century. Today, New York plays a major role in the regional, national, and international economies and is expected to continue to do so.

New York State, the other northeastern States, and the neighboring Canadian provinces of Ontario, Quebec, and New Brunswick constitute the third largest economy in the world. This region, because of its total population, will continue to be one of the primary markets for domestic and international trade.

New York City continues to serve as the financial capital of the world, and upstate shows promise as a future center for high tech economic development. The Niagara Frontier is the second busiest trade gateway between Canada and the United States. As an indicator of economic growth, the total value of all of the State's commodity movements - - that is shipping movements to, from and within the State - - increased 14% between 1997 and 2002.



Commodity Flow Chart

Total employment in the State has increased by about 4 percent since 1990, with nearly 9 million people employed in 2000. Employment gains overall are attributable to a sharp increase in service sector employment -- approximately 25 percent -- and smaller growth in the wholesale/retail sectors. These sectors are expected to continue growing at modest rates.

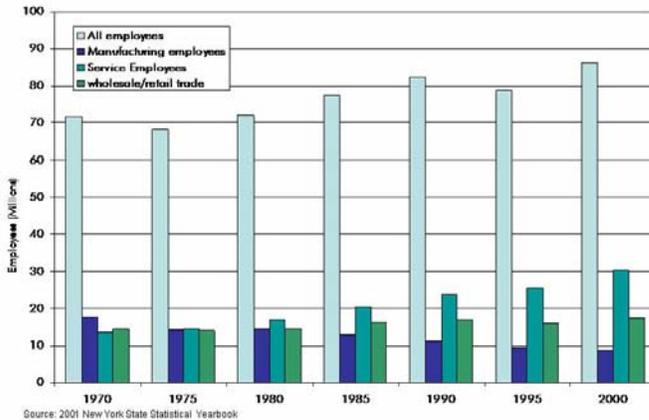
The change in the location of new jobs in the State represents one of the most important trends in employment since 1990. As the general population has shifted away from the cities to the suburbs, so too have new job opportunities.

Implications of Population and Economic Trends

While it is clear that the State continues to grow at a slower pace than was the case prior to 1970, changes in land use, in distribution of the State's population, in the nature and location of centers of employment result in significant changes to travel patterns and traffic volumes on existing transportation facilities. These changes accentuate the need for better coordination of land use planning and transportation planning in order to provide a transportation system that effectively serves changing needs.

The impact of immigration, particularly into downstate, is substantial and likely to continue in the future which will result in significant changes to travel patterns and traffic volumes on existing transportation facilities. The continued population shift from urban areas and older suburbs to outlying newer suburbs will continue to be a challenge for traditional public transportation services. Other than for the few cities that are growing, the movement of population away from urban centers to the suburbs and thence to newer and farther out suburbs,

Employment in New York State



Employment Chart

highlights the troubling and ongoing trend of population sprawl. In less dense areas such as suburban areas, public transportation is utilized less than in urban centers.

Suburbanites are less likely to walk to work or school, or to the local store than urban dwellers where stores, schools and places of employment generally are located in closer proximity to residences. Job dispersal is certain to continue as are the accompanying commute shifts from the traditional suburb to center city to the newer suburb to suburb. All of these demographic trends are occurring in an economic environment that reflects slow to moderate growth.

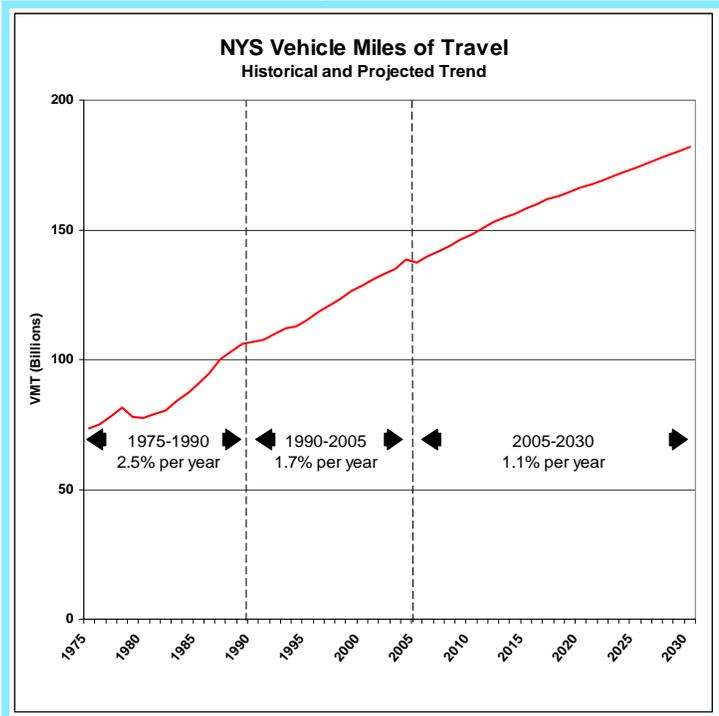
If New York State is to continue to play a major role in the national and international economies, the State's transportation policies will need to confront growing and changing demands over the next 25 years. The specific trends that are expected to impact the State's transportation systems are discussed below.

Travel Trends and Implications

Highway Travel

Historically, highway travel has continued to increase every year (as measured by the number of vehicle miles traveled by all drivers on all highways within the State), although not as rapidly as in other similarly populated States due to the heavy usage of public transportation, particularly downstate. While the number of vehicle miles of travel (VMT) has continued to increase each year, during the

1990s the rate of this growth began to slow significantly. Between 1990 and 2005, the rate of VMT growth was 1.7% compared to the 2.5% rate of growth for the previous 15 year period, 1975 and 1990. Based on this trend and the expected impact of numerous factors that impact VMT, the rate of VMT is estimated to grow at a rate of 1.1% between 2005 and 2030. Overall, this Plan projects that highway travel will continue to



NYS Vehicle Miles of Travel Chart

increase during the planning period, albeit, at a slower pace than during the last quarter of the 20th century.

There are numerous factors that help to explain the steady historical growth in highway travel.

- The entry of the baby boom generation into the work force after 1965 and, starting in the 1970's, the entry of more women, have expanded the work force.
- Partly as a result of the population and job shifts to old and new suburbs, journey to work trips by 2000 increased in duration while becoming a smaller percentage of total automobile trips. The traditional A.M. and P.M. peak travel periods have substantially broadened as personal travel expanded and adopted "trip chaining" characteristics.
- Despite the fact that New York State's population grew at a 5.5 percent rate between 1990 and 2000, the number of households, a better indicator of automobile ownership, grew at a 6.4 percent rate. Hence, vehicle ownership and registrations have continued to grow more rapidly than the growth in population would seem to indicate.

These factors that help explain the steady historic growth in highway travel are expected to continue to affect an increase in highway travel, though at a slower rate than previously. The following outlines how these factors and others are expected to impact highway travel in the next 25 years.

- The baby boom generation is beginning to retire. Though the peak years for automobile travel are under age 65, with expected improvements in the health of citizens over age 65 and longer life expect-

tancy, it is possible that senior citizens will be driving in greater numbers and for longer and later in life than heretofore.

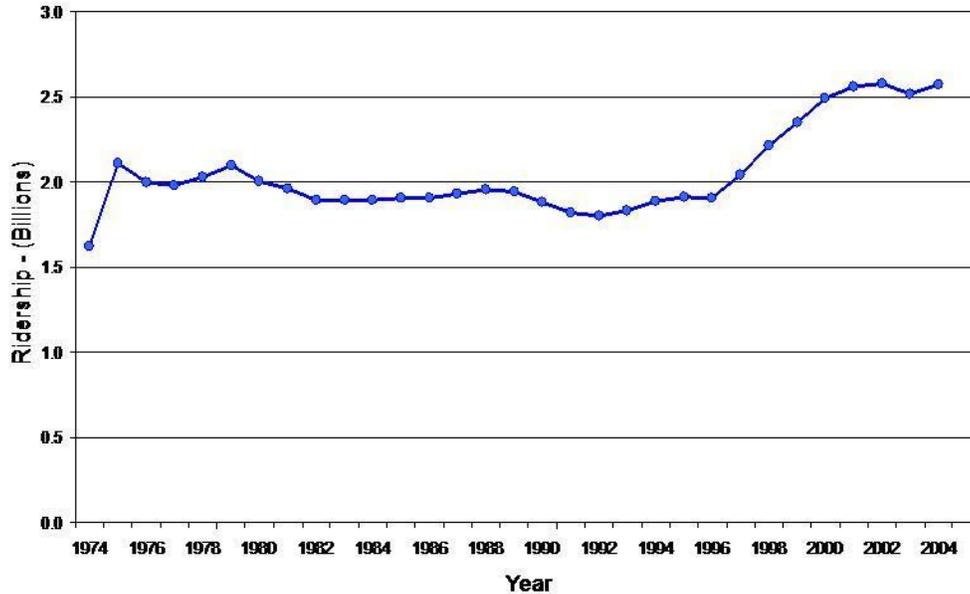
- The dramatic rate of increase of women in the work force, which the State experienced in the late 20th century, will slow because they are already accounted for in the current work force and VMT figures.
- Automobile travel has historically been suppressed in New York State because of the heavy reliance on public transportation and lower rates of vehicle ownership in the downstate region. While that situation is likely to continue to suppress growth in auto travel, the immigration into New York City, which accounts for most of the State's population increase since 1990, is largely over the age of 16 and eligible to obtain drivers licenses. Much of this population is also already moving to older suburbs where autos are more likely to be obtained. It is, therefore, possible that vehicle ownership and VMT could rise in this region.

In sum, the amount of highway travel, as measured by Vehicle Miles of Travel, is projected to increase, if at a lower rate, during this Plan's life. Consequently, congestion on the State's highways is also expected to increase through 2030.

Public Transportation Usage

Annual ridership on New York State's buses, subways and commuter rail facilities is more than 2.5 billion. New York State has continued to be the nation's heaviest user of public transportation. Approximately one third of the nation's total public transportation trips occur in the State. More than 50 percent of New York City's residents regularly use public transportation, the highest figure for any city in the nation. Ridership for the Metropoli-

NY Statewide Public Transit Ridership 1974-2004



Source: Assistance Program Delivery Bureau - Office of Program Development and Management
New York State Department of Transportation October 2005, Mass Transportation Operating
Assistance Program Ridership 1974-2004

Public Transit Ridership Chart

tan Transportation Authority, which serves New York City, Long Island and the northern suburbs, has experienced a substantial upswing since the early 1990s. Much of this increase resulted from both introduction of fare discount cards, which supported free transfers within the transit system, and system improvements from the heavy capital investment in the subway system starting in the early 1980s. The other public transit systems serving the downstate region also experienced ridership growth since the early 1990s.

While public transportation plays an important role upstate, its small share of total personal travel mirrors that in much of the nation, 3.7 percent in 1995. Of concern, upstate transit ridership has generally declined since the mid 1980s. The four upstate transportation authorities serving the Buffalo, Rochester, Syracuse and Albany areas have

suffered ridership losses ranging from 27 to 37 percent since 1985. The decline in city populations and the dispersal of employment from urban centers to the suburbs provides part of the explanation for this loss.

Encouragingly, since the mid 1990's, these declines seem to have been arrested; and certain systems have even experienced some modest increases in ridership. It is worth noting that in this same time frame, State Transportation Operating Assistance funding has increased significantly.

Public transportation will continue to play a major role in New York State's overall transportation system and a major role in the strategies which this Plan identifies. With highway travel expected to continue growing, the State's metropolitan areas will require improved public transportation services to satisfy customer travel requirements and help mitigate congestion resulting from in-

creased vehicular travel. Many of the customers in urban settings are public transportation dependent. As noted earlier, the statewide population of those aged 65 and above is expected to increase over the 25 year period covered by the Plan. This growing elderly population, much of it rural, will need public transit services as well, especially as older individuals give up their drivers licenses. Para-transit services provided by various groups and agencies will benefit from recent programs encouraging improved coordination of services that are intended to reduce duplication and lead to better service. In addition, encouraging people who are able to make the transition from para-transit service to less costly fixed route service, utilizing both incentives (e.g. reduced fare) and public education, is desirable.

Pedestrian and Bicycle Travel

Both the pedestrian and bicycling modes continued to provide important personal transportation alternatives for New Yorkers during the 1990s. While pedestrian “walk to work” in the State has declined over the decade from nearly 7 percent of total journey to work trips to only 5 percent, due largely to the greater dispersal of employment sites, the figure is still the highest nationally. In 2000, New York experienced approximately 100,000 more walk to work trips on a typical day than any other State in the nation. Walking also represents an important mode for connecting people to public transportation services in their communities. The safety record for pedestrians has improved since 1990, in part due to increased investment in pedestrian safety. Again, however, an aging population that walks will continue to present safety challenges well into the future.

Bicycling as an alternative transportation mode has remained generally stable dur-



Bike/Walking Trail

ing the 1990s. Approximately 25,000 people use a bicycle for their journey to work on a typical work day. In 2000, New York had the 3rd largest number of bike work trips. While overall, the number of bicycling trips increased during 1990s, most of them are for recreation and purposes other than as an alternative mode for commuting. The National Personal Transportation Study (NPTS) indicates that only about 7% of all bike trips are for work or school. This indicates that considering only the work and school component of all bike trips underestimates the importance of this mode. Bicycling and walking are healthy travel alternatives, and their use may grow from increased awareness and higher fuel prices.

Pedestrians, cyclists, and other users of non-motorized transportation (skaters, scooter operators, etc.) are some of New York’s most vulnerable roadway users. Only about 7% of all reportable crashes involve these users but they account for about 25% of all fatal crashes. Between 2001 and 2004 both the number of pedestrians killed and the share of all crashes dropped as several programs, law changes and educational efforts were implemented in New York. A smaller drop in bicycle deaths occurred during the same period.

Intercity Passenger Travel

Since 1995, ridership on the State's intercity passenger air, rail and bus services has increased. Intercity passenger travel encompasses business and personal travel between urban centers within the State and outside the State. Intercity passenger bus travel in New York State reflects the State's trend in population distribution: ridership in the downstate area has increased while it has declined upstate, particularly in the most rural areas where service has been reduced. Intercity air passenger travel is a significant contributor to the mobility of passengers – for intra-state, inter-state, and international travel – and has a substantial economic impact in the State. After many years of growth, intercity air passenger enplanements decreased markedly immediately following the September 11, 2001 terrorist attacks. Since that time, total enplanements have been increasing, including a 13% increase from 2003 to 2004. Enplanements have now surpassed their pre-September 11, 2001 levels. Intercity rail passenger ridership along the Empire Corridor (New York City-Albany-Buffalo) where 90 percent of the State's intercity rail ridership is concentrated, has increased almost 26% since 1995 with annual boardings totaling 1.2 million in 2003. Of this amount, about 500,000 boarded at Pennsylvania Station in New York City. Total boardings at Pennsylvania Station, which is the most utilized station on the Northeast Corridor (Boston-New York City-Washington), totaled approximately 4.4 million.

Intercity passenger ridership increases reflect greater travel flexibility and pricing options offered by intercity services. Since all of these intercity modes depend upon stability in operating costs, recent upward trends for fuel costs present both opportunities and challenges. Another chal-

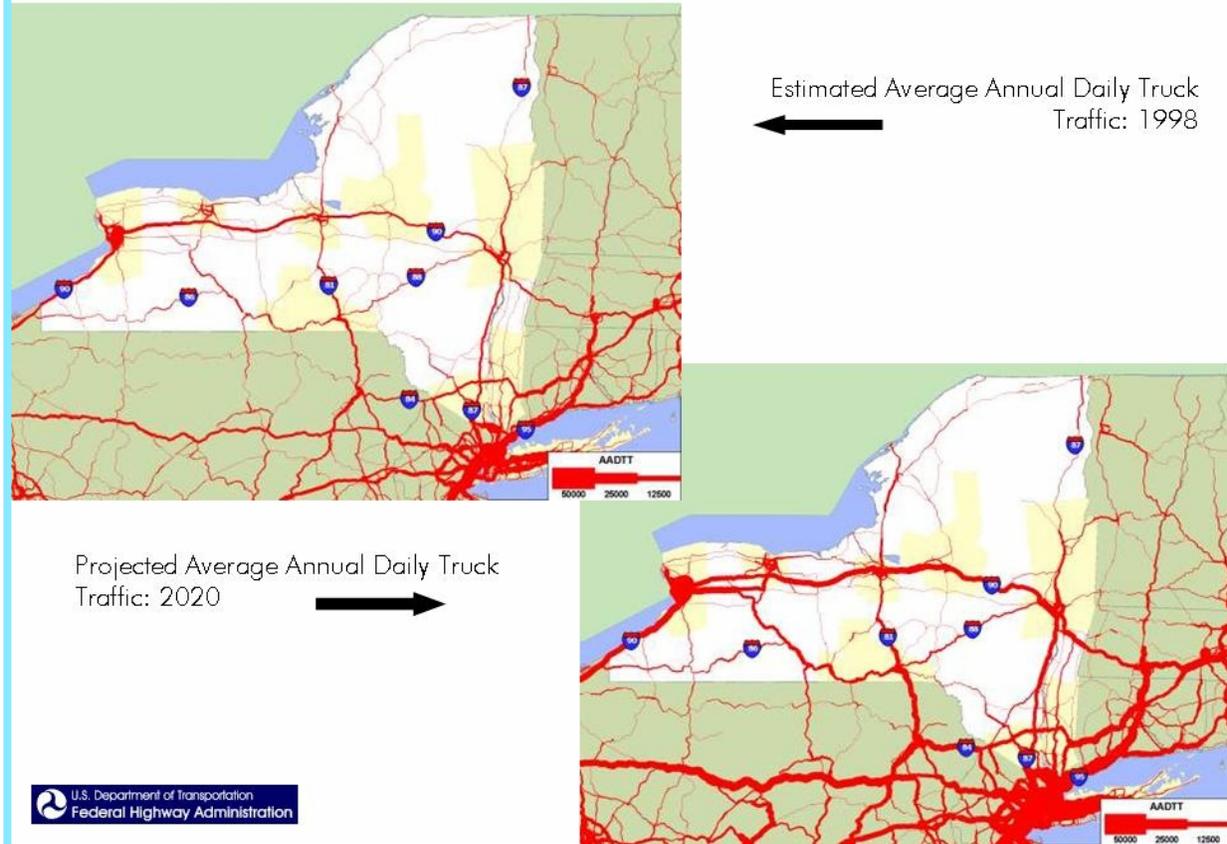
lenge is the uncertainty surrounding the financing and operation of the nation's intercity rail passenger network. Intercity passenger rail service has long been an important component of New York State's transportation system and the State will continue to work with Federal officials to help address this essential service.

Goods Movement

While the growth rate of travel on the highways has shown moderating signs recently and is expected to grow more slowly in the future, the same cannot be said for goods movement on the State's highways. In fact, growth in goods movement on New York State transportation facilities is expected to grow substantially throughout the first quarter of the 21st century. While the amount of goods moved by rail and air is expected to increase in the future, projections also indicate that far more goods will be moved by truck. The growth of truck usage results in the need for expanded facilities such as truck parking. When truckers are required to stop and rest to be in compliance with Federal law, they will park at the side of the road if adequate and convenient parking areas are unavailable, thereby creating a hazard for other motorists. The Thruway Authority provides an example of an effort to address this issue in its current Capital Plan which increases commercial parking by 70 percent .

Addressing congestion through efforts that attempt to increase the modal share of non truck modes face challenges. For example, a problem downstate is the significant lack of major rail yards and other destination rail facilities, such as intermodal or bulk freight yards, which have an impact in the New York City and Long Island region. The downstate Metropolitan Planning Or-

Increased Truck Traffic – 1998 vs. 2020



Average Truck Traffic Chart

ganization, NYMTC, is studying alternatives to address that problem.

Current data sources substantiate the existing considerable imbalance of goods movement through truck use compared to all other modes. According to the 2002 Commodity Flow Survey, nationally 67 percent of commodities by weight are moved by truck, 16 percent by rail, 6 percent pipeline and the remaining percent by water and multiple modes. In New York State, 90 percent of commodities by weight are moved by truck while only 3 percent are moved by rail, 2.5 percent by pipeline, and the remaining percent by water and multiple modes. By contrast, in New York City 80 percent of freight by weight is moved by truck and when combined with water the total is 99 percent, but less than 1 percent of freight by weight is

transported by rail according to New York Metropolitan Transportation Council data.

In the downstate region, while population is expected to increase by just 5 percent over the next 20 years, freight traffic is projected to grow by 47%. This growth, combined with a projected 15 percent increase in vehicle miles of travel, promises major congestion problems for this region during the period of this Plan.

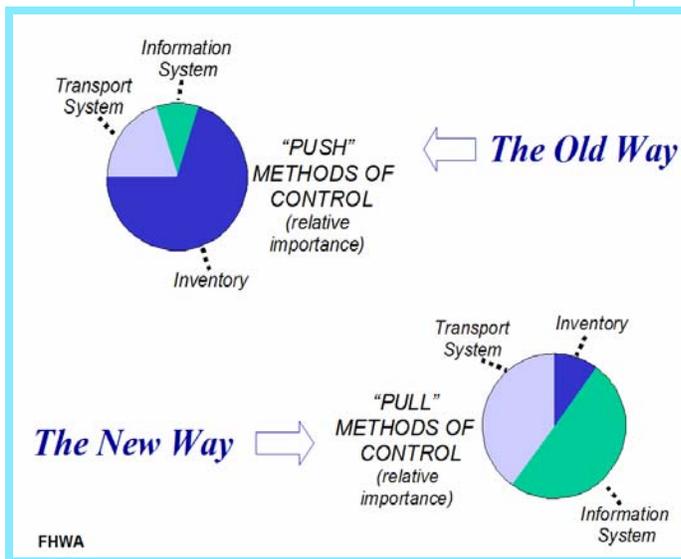
World trade opportunities will continue to be a driver of change on the transportation system. Therefore, understanding freight transportation--its geography and economics, in particular--is key to adjusting New York's approach to improving and managing the transportation system. The reliability and predictability of the freight transportation system is essential to the health of the State's

and the nation's economy. Below are some of the most important trends that reflect the impact on transportation in recent years and the importance of the transportation sector to the movement of goods.

- New approaches have been developed to manage goods movement during the past decade. Due largely to the changing requirements of competition within the global economy and new technologies, recent logistics management strategies have come to rely far less on building and maintaining adequate inventories of products to be “pushed” to manufacturers for production and subsequent shipment to distributors, and ultimately to customers. Instead, suppliers have come to rely on “pull” strategies which rely less on inventories and more on using technology, information, and efficient transportation to better match supply with the demand for goods.
- “Just in time” delivery approaches now emphasize the importance of delivering goods where they are needed at the time they are needed. Because the economy relies less upon managed inventories and far more on timely delivery to meet de-

mand, the importance of the transportation sector is greater than ever in supporting a competitive and efficient economy. Adverse impacts to the shipment of goods can result from traffic congestion, natural disasters, labor-management disputes, terrorist attacks, and other man made activities.

- The dramatic and increasing integration of Information Technology into daily modern life has had profound effects. For example, with the advent of online commerce by consumers and business, significant increases have occurred in long distance express freight goods movement by truck and railroads, as well as local truck deliveries to homes and individual businesses of both overnight and other expedited deliveries.
- There has been an increased use of container shipments coming into U.S. ports, largely as a result of the manufacturing explosion in Asia. Worldwide, containerization has doubled between 1990 and 1998 to reach 175 million twenty feet equivalent units (TEUs). That figure is projected to grow to 270 million TEUs by the end of 2005, a 55 percent increase;
- Container ships have steadily increased in size and in the percentage of total freighters operating in the world.
- As a result, in part, of the growth in container traffic and the increased size and capacity of ocean freighters, port facilities, including the Port of New York and New Jersey, have begun to address needs for deeper channels up to 50 ft. and improved facilities such as wider berths, more landside container storage, and modern cranes to handle the containers efficiently.



“Push” (store in advance) and “Pull” (respond to demand) Approaches

- The North American Free Trade Agreement which became effective in 1994 has resulted in an increase in the number of incoming trucks from Canada to New York by approximately 26 percent between 1995 and 2005. Likewise, the value of imports from Canada by all surface modes increased by approximately 74 percent between 1995 and 2005. Canada is New York State's largest international trading partner, and the New York-Canadian border has four of this nation's busiest crossings to Canada.
- The size and weights of both trucks and rail cars have substantially increased. This has resulted in access problems for both rail and truck traffic due to clearance problems with overhead bridges and inadequate carrying capacities of some of the State's older bridges. In New York City, for example, the longer trucks are banned on many streets where the narrow streets cannot readily accommodate them. Similarly, rail access to the New York City/Long Island area is restricted to railcars weighing 263,000 pounds or less due to the condition of the existing track and bridge structure. Most modern railcars serving this area cannot be loaded to their maximum design weight.
- Part of the growth in truck travel has been parcel service, including United Parcel Service (UPS), Federal Express, and U.S. postal service. These services rely upon large numbers of smaller trucks to deliver goods to their customers. Another part of this growth is an increased reliance on less-than-truckload (LTL) deliveries, leading to further increases in the number of trucks on the highways. Truck travel will also increase as consumer E-commerce purchasing puts a premium on speed, flexibility and reliability.
- Due to the growth in U.S. trade with Asia, rail shipments from west coast ports to the east have greatly increased within the last few years. This increase in the volume of goods has placed significant strains upon the nation's rail system. In addition, delays at the Ports of Long Beach and Los Angeles, insufficient truck capacity, and increased overland transportation costs have caused shippers to move goods from China directly to East Coast ports by all-water routes. This has placed tremendous pressure on the capacity of the Port of New York and New Jersey and added significantly to the number of trucks moving goods out of the Port to other parts of New York State and the northeast region. Non-truck modes have seen significant increases as well. In response, as part of the Port Authority of New York and New Jersey's Comprehensive Port Improvement Program, which addresses the costs and benefits of improvements, over \$50 million in rail related infrastructure investments are currently underway. Freight volumes at the Port are expected to almost double during the next 25 years.
- A major national trend of the 1990s, that has only begun to scratch the surface in New York State, is the growth in intermodalism, which is the movement of freight from point of origin to destination relying upon a number of different modes (rail to trucks, ports to rail, air cargo to truck, etc.) without intercession of the shipper. Intermodalism relies upon modern technology to speed transfers of bulk commodities as well as providing more efficient and cost effective transfers of container traffic. Most intermodal freight movements cross multiple jurisdictional boundaries and involve both public and private sectors.

The modes used, and the routing selected to move intermodal freight are becoming of less concern than is the cost to move goods and level of service. As New York cannot control the movement of freight in and through the State, it must help guide the private sector to make transportation and logistics decisions that are consistent with Statewide safety, congestion reduction, environmental and economic development goals. Congestion and capacity constraints are problems that must be addressed to keep NYS freight terminals cost and service competitive with surrounding States.

- The significant growth in North American goods movement involving long distance intermodal freight trains has been mirrored by growth in general freight railroad economic activity. Much of this steady growth reflects cost savings due to long distance railroad fuel efficiency which has increased by 74% since 1980. These savings result from the use of modern lighter weight, increased capacity rail cars, higher-powered more fuel efficient and environmentally clean locomotives, and implementation of optimized train control strategies. The overall effect on freight railroading has been significant improvement to fuel efficiency.



Cargo Plane

- Air freight has been one of the fastest growing means for moving goods in the nation, showing a 90 percent increase by value and a 20 percent increase in tons between 1993 and 2002. Most of this growth is attributable to air freight's advantage in shipping high value and lower weight cargo. Of New York State's 14 airports handling air freight, John F. Kennedy International Airport (JFK) handles about 92% of the State's total air cargo tonnage. JFK is currently ranked 3rd in the nation for total air freight measured by weight and is the leading gateway for international air freight in the United States, with about \$113 billion in annual activity. JFK has shown a 15 percent increase in air cargo tonnage carried between 1993 and 2002, somewhat less than the national average. This lower rate is attributable largely to existing limitations on airport capacity at JFK, serious airport access issues in the New York metropolitan region due to highway congestion on major access routes, and limitations on truck size and travel within New York City. To address these issues, New York City, in conjunction with NYS-DOT, area public authorities and others is exploring a full range of short and long term actions for improving truck and commercial vehicle access to JFK airport.

Energy Related Trends

New York State is one of the most fuel efficient States in the country because of its heavy investment in and utilization of mass transportation in the New York City metropolitan area. In other parts of the State, however, the primary mode of personal travel is the automobile. The supply of gasoline, and, to a lesser extent its cost, could impact future travel, transit usage, and goods movement. The substantial growth in goods

movement will come with increases in fuel consumption and emissions.

Price changes, unless large and sustained over a period of time, will have little impact on travel behavior. However, rising fuel prices do significantly impact the cost of public transportation over time. Significant long-term changes in travel patterns are only likely in the event of a severe and sustained dislocation in fuel price or supply. In addition, any future shift to more fuel efficient vehicles will only impact travel patterns once fleet turnover occurs over a 7 to 10 year period.

There are analysts who believe that during the period covered by the Plan, the amount of known oil will reach a peak resulting in reduced availability and potentially higher prices. When this Plan is updated in the future, travel forecasts for the outer years covered by the Plan may have to be modified in the light of future developments.

Conclusion: Implications for the future of transportation

These major demographic, economic, and travel trends as well as projections regarding likely future trends provide transportation planners and operators with essential base line information. As more trend data becomes available, projections will be revised as appropriate during the life of this transportation Plan. Several larger issues facing transportation emerge from the available trends data.

- New York State's population is growing at modest and uneven rates, and the distribution of population is shifting, particularly as more people move to "outer suburbs." The downstate region -- New York City, the Hudson Valley, and Long Island

-- is where most population growth in the State occurred.

- The State's economy has changed dramatically during the last half of the 20th century with a large shift from manufacturing to service and retail. The location of new jobs has shifted from cities to established and newer suburbs. New York State's ability to meet future travel demands will prove critical to the State's future economic vitality.
- The growth in personal travel and freight volumes in conjunction with population redistribution, changing commuting patterns, the growing role of non journey to work travel, and dramatically increasing truck traffic will overwhelm the State's transportation system unless effective and affordable strategies are implemented.

This transportation Plan identifies the specific issues to be addressed and policy level strategies which, irrespective of future funding levels, are needed if the State is to retain its status as the Empire State and is to adapt to 21st century realities. Successful strategies within each of the Priority Result Areas are interdependent and equally essential for the future well being of New Yorkers.

In order to more effectively serve the needs of its major transportation customers, New York State is committed to the notion that future transportation planning and investments should be focused on the State's most critical multimodal corridors. The future vitality of the State's economy and overall quality of life depend upon the ability of major corridors to provide the essential connections to local, regional, national, and international economic centers and gateways, as well as within the State itself. Consequently, during the period covered by this Plan, New York State will identify and designate major multimodal corridors that provide these connections.

Designated corridors should meet the preliminary criteria described below and provide service on multiple modes, including existing service or that which is planned for the future. In order to meet customer needs, the State will identify the transportation expectations of customers within the following corridor types.

- **Trade** – A trade corridor supports the flow of high volume/high value commodities and services to, from and within the State, making connections to international, interstate, and intrastate economic centers.
- **Intercity passenger** – An intercity passenger corridor supports non-commuting business and personal travel between major urban centers both within the State and outside of the State.
- **Commuter** – A commuter corridor supports a high volume of travel of varying lengths and durations from centers of residency to centers of employment and the return trips. A commuter corridor may support both intrastate and interstate travel, and is characterized by heavy de-

mand at peak travel times and the availability of alternative modes of travel.

- **Tourism** – A tourism corridor supports the movement of a high volume of tourists, originating inside and outside New York State, to major tourist destinations within New York State. Such a corridor is generally in excess of 50 miles in length and is distinguished from routes that support local recreational travel. It is important to note that routes supporting recreational travel are also essential to the State's economy.

Two primary criteria will be utilized to designate corridors in this effort:

- The current and projected levels and the economic value of travel demand in the corridor, and;
- The criticality of connections between centers of population, economic activity, or major cultural or tourism centers served by each corridor type, including interstate, intrastate, and international connections.

In addition to travel demand and connectivity, designated corridors will generally:

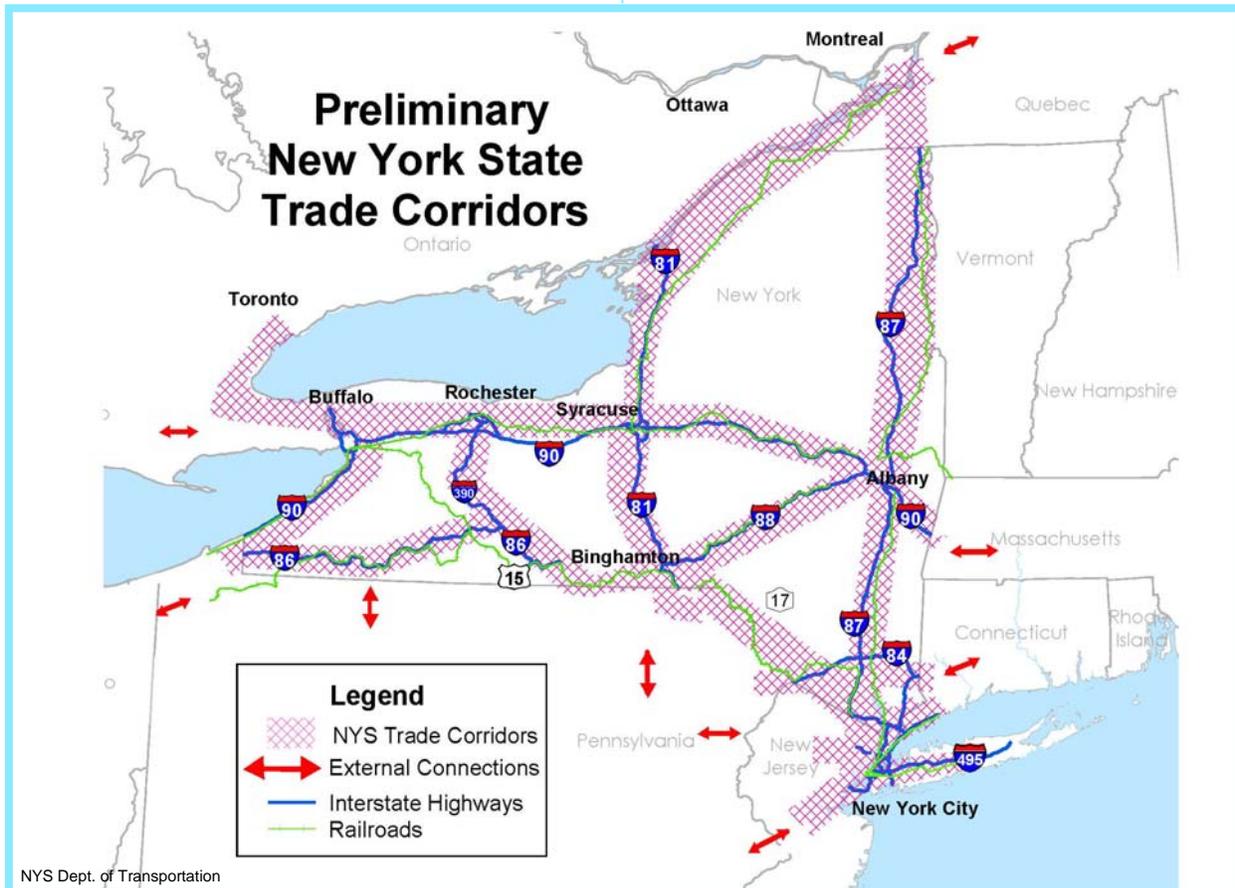
- Provide modal choice, either when designated or at some future time to be determined;
- Include primary and secondary facilities; Examples of transportation facilities to be considered for inclusion in such corridors include interstate highways, other principal arterial highways, parkways, intercity passenger and freight rail lines and terminals, commuter rail lines and bus routes, waterways and ports, as well as intercity bus and air service.

- Be classified by level of importance within the State's overall transportation system, with varying operating standards and designation criteria applied to the different levels.

Beyond the major multi-modal, state-wide corridors and their primary and secondary facilities, is the rest of the transportation system. These facilities, including locally-defined corridors, do not meet the threshold for statewide significance. However, they are essential to the movement of people and goods and support local goods distribution, local travel and access to residences and businesses. They also have the important role of providing access to the major corridors. They will be appropriately operated and maintained.

The Commissioner of Transportation as part of the larger effort to integrate trans-

portation will direct and coordinate the corridor designation process. Collaborative efforts will be needed if we are to serve our customers well. This process ensures that all appropriate entities responsible for transportation including Metropolitan Planning Organizations, local governments, transportation operators as well as other major corridor customers and stakeholders are able to participate in the corridor designation process. This work will result in the development of realistic capital and operating and maintenance performance standards for individual corridors which will be routinely measured and evaluated as future investments are planned. Where different corridor types overlap on the same facilities, the competing demands of customers will be balanced under the Commissioner's leadership role.



Trade Corridors Map

Preliminary Designation of Trade Corridors

The first priority for corridor designation will be to identify the most important trade corridors in New York State that connect major centers of commerce within and beyond New York State borders both with other States and Canada. The New York State Department of Transportation has begun work to refine designation criteria for trade corridors. The map on page 32 depicts the preliminary trade corridors identified by the Department. This initial set of trade corridors will be refined through continuing discussions with transportation operators, stakeholders, and customers. Additional corridors may be added in the future.

These corridors provide critical north-south and east-west connections within the State and beyond its borders. They connect major urban areas and centers of economic activity in the State. Importantly, they provide connectivity with New England, the mid-Atlantic region and points to the west as well as with the major urban centers in the Canadian provinces of Ontario and Quebec. These corridors include New York State's major interstate highways, passenger and rail freight lines, and air passenger and cargo facilities. Subsequent designation efforts will also specifically identify any other transportation facilities that are integral to individual trade corridors. In addition, transportation investments made outside of New York State may contribute to improved goods movement within the State. Such opportunities will be explored with other States where appropriate.



One of New York State's highest priorities during the next 25 years is to meet its customers' expectations for mobility and reliability in all of its transportation systems. With consistent projections that freight traffic in the State will increase dramatically and clear indications that overall congestion on the State's highways is certain to increase in many areas, both the quality of life and the economic competitiveness of New York will be threatened if effective remediation efforts are unsuccessful. In addition, it is clear that all passenger and freight system users are looking for appropriate modal choices, depending upon the specific purpose of a given trip, and for an overall transportation system in which modal connections are reliable and independently owned systems are operated seamlessly.

As evidenced by recent trends, the challenges to mobility and reliability are greatest in the downstate or New York City metropolitan area where many of the highways, streets, transit lines, airports and even sidewalks are severely congested. Although there is congestion within some corridors in upstate New York, the challenge to mobility and reliability in upstate New York is different in that various travel options are much more limited so that the issue of mobility becomes more an issue of accessibility particularly for those who do not drive. Effective strategies to meet upstate mobility issues are also necessary if this region's economy and quality of life are to be enhanced.

It is widely acknowledged that fiscal constraints and environmental and social concerns as well as other factors severely limit opportunities for New York State to accommodate increased travel demands and accessibility issues solely by means of major capacity expansions such as new highways. Operational strategies that better manage traffic are needed if our transportation sys-

tem is to meet its customers' expectations for mobility and reliability in the future. Implementation of a system of effective operational strategies, including travel demand management, system operational techniques and incident management, will be the focus of this Transportation Plan. Any capacity expansions must be cost effective and targeted to the highest priority corridors and facilities if they are to receive public support and funding. Expansion also must be accomplished in combination with operational strategies to ensure that the added capacity will not become congested upon completion.

At the same time the above strategies are being implemented, the State will continue to give funding priority to asset preservation in order to maintain the existing transportation system in a state of good repair.

Principles to Guide the Future of Mobility and Reliability

The following represent the fundamental principles which will guide future transportation investments in New York State.

- **Asset Management:** State-of-the-art asset management principles will be applied to New York State's aging transportation infrastructure. Customer surveys and other sources indicate conclusively that maintenance of the State's existing transportation assets in a state of good repair, regardless of ownership, is a high priority of the traveling public and a major factor in determining selection of mode and route.
- **Operational Focus:** The primary focus for future congestion relief investments will be on strategies to more effectively operate the existing transportation system particularly incorporating the use of tech-

nology. In certain corridors, some selected system capacity expansions may be appropriate and always in conjunction with strategies that better manage or reduce travel demand.

- **Public/Private Cooperation:** Unprecedented levels of public/private cooperation, planning and funding will be required because a number of crucial transportation facilities and services in the State, such as rail, air, intercity bus, and trucking, are privately owned and operated.
- **Determine Customer Expectations:** Customer expectations regarding mobility and reliability of the transportation system will be regularly determined through the use of customer surveys and other means and used to help direct specific transportation investments to respond to customer needs.
- **Integrate Priority Results Areas:** Mobility and reliability investments must promote the goals within the other priority result areas to the fullest extent possible.

These principles represent an important change in transportation planning and management in the State. In a systematic way, they place a premium on the State's ability to integrate at both the planning and operational levels while continuing to rely upon independent operators to implement authorized and coordinated strategies. Given the varying transportation needs of different regions and corridors statewide, all of the State's transportation operators will need to contribute their experience and knowledge to effect improved integration and coordination among operators and to implement the best solutions for different areas. The following identification of major issues and strategies provides a comprehensive policy roadmap to support these principles.

Issue: How Best Can the State Preserve New York State's Aging Transportation Assets?

Like all of the States in the northeast, New York faces challenges to restoring its extensive transportation infrastructure to a state of good repair and then maintaining it at that level. Aging infrastructure, harsh weather conditions and heavy utilization are ongoing problems for transportation operators. The State has made steady and substantial progress in restoring and maintaining its multimodal transportation system since the late 1980's. The cost to continue this progress will be high as major pieces of the State's overall system will require reconstruction over the next 25 years. For example, the entire New York State Thruway will require reconstruction in this period, including replacements for the very expensive Tappan Zee Bridge and the two Grand Island bridges. Despite demands for restored transportation facilities and anticipated funding constraints, New York's competitive position in the broader economy cannot afford a repetition of past under-investment in basic infrastructure.

Strategy: Managing to Achieve a State of Good Repair

During the life of this Plan, New York State will continue to give the highest priority



Bridge Inspection

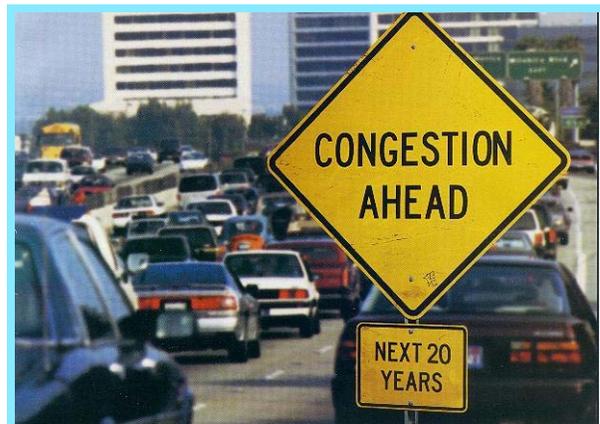
for funding to asset preservation in support of system-wide improved mobility and reliability. Irrespective of ownership, the State's transportation operators will be encouraged to restore deficient parts of the transportation system to a good condition and to continually maintain their assets to a state of good repair. The State will work in conjunction with towns, counties, and smaller municipalities where appropriate to coordinate efforts, such as maintenance activities, in support of asset preservation. All operators will develop a multiyear plan for making progress toward achieving a state of good repair on their facilities. Priority will be given to those facilities within designated corridors, based upon importance to the overall corridor, while ensuring that general use routes are addressed as necessary. The priority facilities will be addressed regardless of ownership. The following specific examples of infrastructure strategies are designed to achieve and maintain a state of good repair on all important facilities.

- Preventive Maintenance or “maintenance first” programs must be funded as the first priority by all transportation operators to ensure that more costly and disruptive treatments and premature asset replacement are avoided.
- Infrastructure asset management practices will be guided by comprehensive, automated decision support systems that identify priority treatment locations and facilities and the appropriate treatment strategy.

Issue: How Can Congestion Be Alleviated Without Adding Capacity to the System?

Alleviating congestion without adding capacity is one of the greatest challenges facing transportation policy makers today. This Plan recommends implementing a sys-

tem of operational strategies with the overall intent of maximizing the movement of people within the transportation system to reduce congestion. Such operational strategies include travel demand management strategies which are designed to encourage passenger and freight customers to rethink their travel options by using a different mode of travel, a different route of travel or to travel at a different time of day. Operational techniques include the use of both state-of-the-art technology and other management techniques to increase the throughput on a particular facility. For example, increasing the length of a commuter rail platform could enable a railroad to use more cars and thereby increase the number of people accommodated. Another strategy is to better manage traffic incidents to allow the flow of traffic to resume as quickly as possible. The success or failure of this effort will largely determine whether New York State will be able to meet future expectations for mobility and reliability and strengthen its ability to compete in the larger economy.



Congested Highway Sign Indicating Long Term Problem

Strategy: Managing Travel Demand

This strategy includes programs designed to influence travelers' behavior both to reduce overall demand on the overcrowded portions of the transportation system and to shift traffic away from peak travel

periods. One major goal is to increase average occupancy of all passenger vehicles, including automobiles, buses, rail cars, etc., in the State. This strategy can also be applied to goods movements by maximizing the amount of freight transported in each vehicle or rail car within allowable limits. Increasing occupancy is essential to meet future expectations for mobility and reliability.

Good public transportation is essential for managing travel demand and New York State will continue to place public transportation at the center of its transportation mission. Public transportation planning will be better integrated within a comprehensive transportation planning program that includes all levels of government and all appropriate operators in the State. While public transportation plays an especially large role throughout the downstate region, it is also vital for upstate urbanized areas and, increasingly, to the State's suburban and rural areas. The State's increasing numbers of elderly and disabled citizens are expected to continue to rely upon public transportation. Public transportation also plays a critical role for college students and young professionals who generally have abilities and employment skills the State strives to attract and retain. The State will also focus upon improving public transportation operations to make it more responsive to demand and to increase its travel share. While success in this endeavor will require some expansion in service, maintaining current ridership and increasing future ridership will depend more upon efficient operations of the entire public transportation system. The following actions will be key to the success of this strategy.



Public Transportation



- Continued implementation of the Governor's recent initiative for a statewide "smart card" will provide common fare media for different public transportation systems and encourage increased ridership and improve regional connectivity.
- Improved connections to airports and rail stations will enhance intermodal connections and better serve intercity passenger travel and tourism.
- In designated commuter and trade corridors, major highway improvements will seek to enhance the use of transit within the corridor. Measures ranging from adequate bus turnouts to priority treatments such as express bus lanes during peak hours will receive priority.
- Consideration of cost effective hub or satellite services to replace or complement fixed bus routes in order to promote greater suburban commuter use is vital to meet the growing challenge of congestion in the suburbs, caused in part by the shift of population and employment to these 'outer suburbs.'
- Better coordination between public transportation operators and various human service agencies is to be pursued in order to improve access for the elderly and disabled who are a large and important customer base for public transportation.
- Realistic and achievable standards for

frequency of service, particularly at peak travel periods, will be established by transportation operators. Ridership will be a key determinant for the maintenance of all routes with the exception of those identified as serving human services needs.

- In cooperation with localities, operators will provide adequate parking at public transportation access points and reasonable intervals between stops to make the service more convenient for its riders.
- Wherever cost effective, express services will be considered in order to complement necessary local services.
- Readily available schedule and route information will be provided in a variety of venues and formats to encourage public transportation use and facilitate access.
- Services will be adequately coordinated to reduce transfer wait times and missed connections.
- Improved access for bicyclists and pedestrians will be provided in response to demand.
- Improved connections between rail and highway will enhance freight intermodalism, help address the imbalance of goods movement by truck compared to rail, and better utilize existing resources.

There are no silver bullets for managing travel demand. In some cases, solutions may depend upon politically difficult actions or upon technologies that are not yet fully developed or tested. Some steps may need to be studied further and piloted before broader application. Many of the strategies only contribute when implemented in tandem with other demand management initiatives

and, in certain cases, with limited capacity expansions. Implemented strategies will be tailored to meet the specific challenges of a given region, and the primary test for any strategy will be its relative cost effectiveness compared to the alternatives. In addition to the strategies for improving transit services across the State, the following approaches will be pursued, tested and implemented where appropriate to respond to anticipated demands for both passenger travel and goods movement.

- Demands on the transportation system are influenced a great deal by land use decisions. The Department will work with local governments to address transportation and land use issues. This issue is addressed in greater detail in Chapter 9 – Economic Competitiveness.
- Improvements to passenger rail service in the upstate region will continue to be explored, including development of rail stations into intermodal terminals and potentially new stations in certain localities. Improvements in the quality and quantity of intercity rail passenger service including reductions in travel time will be pursued.
- New York State's strategy for future toll policies will be comprehensively reviewed by a committee comprised of the State's toll authorities under the direction of the Commissioner of Transportation. The committee will seek guidance and assistance from transportation stakeholders including environmental, automobile safety and motor carrier groups. While the goal of obtaining additional revenue to support transportation investments is a major consideration, toll strategies also offer the promise of congestion relief and effective demand management on key corridors and facilities. As part of the

comprehensive review, the toll committee will be directed to recommend ways in which toll strategies can influence traveler behavior both as to routes selected for travel and the time of day in which a trip is taken. These potential toll strategies would also increase the compatibility of toll policies between agencies. The relief of travel conflicts between trucks, commuters and tourists will be a major goal of this effort. The toll committee will also make recommendations regarding the full implementation of high speed tolling technologies, including open road tolling which is an electronic system that allows vehicles to travel at normal speeds when passing through toll collection points.

- The New York State Thruway Authority, the major statewide toll facility in the State, uses toll revenues to support and finance the ongoing operations and services of the I-87 and I-90 corridors. Since existing toll revenues will not support the cost of large infrastructure repairs or replacements, such as bridge replacements for the Tappan Zee and the Grand Island Bridges, future revenue enhancements or alternative revenue sources will be explored for these projects. Whenever appropriate, tolls will be structured to provide incentives for multiple occupant vehicles on those segments heavily relied upon by commuters and for keeping through traffic, especially trucks, off other State and local highways.
- General Aviation (GA) airports can serve as relievers for busy commercial airports. The State will continue to assess the needs of GA airports to accommodate business aircraft and will work with the FAA to coordinate addressing those needs through the use of Federal funds.
- To encourage increased pedestrian travel, the State will pursue low cost

strategies, including construction of sidewalks, sidewalk ramps and operational improvements to signs and traffic signals. Pedestrian travel makes up a critical part of the State's overall travel demand, provides access to transit facilities and reduces automobile use.



Pedestrian Crosswalk

- Designs for safe biking will be integrated into roadway projects to encourage greater bicycle use. The State has made great strides in improving bicyclist safety and encouraging bicycle use by adding signed, on-road bicycle routes, improving access to public transportation and constructing thousands of miles of off-road biking facilities.
- The Department will continue to work with the State's public transit community to coordinate information exchange and opportunities for management and operational improvement.

Strategy: Managing the System Through Improved Operational Techniques

Efficient operation of the transportation network through the use of Intelligent Transportation Systems (ITS) and other operational techniques will help improve vehicle throughput – be it a vehicle on a highway or a vehicle on a rail system. NYSDOT will work with the operators of the transportation system in the State to promote increased co-

operation and coordination of these systems. This will help achieve a seamless travel experience for our customers.

In some cases, solutions may depend upon technologies that need to be more fully developed, studied and piloted before broader application. The following approaches will be pursued, tested and implemented where they can provide a benefit for personal travel and goods movement.

- “Managed lanes” which seek to leverage existing highway capacity and move both people and goods in the most efficient manner possible will be used more extensively throughout the State. A managed lane facility is one that increases freeway efficiency by packaging various operational and design actions to provide peak period free flow travel to certain user groups. For example, a number of the State’s bridges, like the Peace Bridge in Buffalo and the Tappan Zee, routinely change the direction of lanes to meet directional differences in demand.
- The designation of truck routes and possible provision of exclusive truck lanes to minimize conflicts with other vehicles within designated trade corridors will facilitate the movement of goods, particularly in the downstate region.
- There will be an increased use of ITS during the life of this Plan. The utilization of “real time” technology, which is one application of Intelligent Transportation Systems, is essential to enable transportation operators to respond to changing conditions on their systems. Additionally, transportation customers, but especially those moving freight on trade corridors, require both real time and static information in order to make appropriate route selections.
- A comprehensive statewide ITS Plan is being developed which includes short, medium and long range strategies. The ITS Plan will identify common system architecture and standards necessary for a seamless transportation system while at the same time allowing for flexibility for new technologies in the future. In addition, a technical standardization ITS Plan and a companion ITS project scoping manual will guide common system architecture and standards. This is intended to lead to an improved, seamless ITS approach throughout the State.
- The State will expand the use of E-ZPasssm to lessen congestion of the transportation system.
- Expanded use of strategies such as dynamic variable message signs, roadside radio advisory and other emerging technologies will provide improved operation at heavily traveled intersections and allow greater free flow on the State’s highways while at the same time enhancing pedestrian safety and mobility.
- Modern signal technology to make traffic lights more flexible and responsive to actual travel demand will provide improved operation of heavily traveled intersections and allow greater free flow on the State’s highways. The State will continue statewide efforts to ensure traffic signal systems are standardized to enhance compatibility, coordination, and/or integration among all traffic signals in New York.
- New York State’s ports will continue to progress technology solutions for improved management and tracking of cargoes.
- Construction management practices will be implemented which will minimize de-

lays at peak hours. Recent strategies such as night time construction and incentive/disincentive contracts will be applied, particularly in designated corridors. Adverse impacts of construction along the length of designated corridors will be mitigated to promote mobility and reliability.

- All operators with snow and ice control operations will be encouraged to reexamine their standards for snow and ice operations and to ensure that designated corridors receive the highest levels of service and that adequate coverage and appropriate consistency for the State's highways is provided.



Snow and Ice Control

Efficient operation of the New York-Canadian border crossings is essential to the economies of both countries and to the acceptable flow of goods on the State's trade corridors. Likewise, undue delays at the borders interfere with the tourism and commuter travel between New York and Canada. Security demands, discussed in this Plan, have added to the border challenges. The charge for the future is to balance the competing requirements for security with the least restrictive traffic flows possible. New York State has recently undertaken several initiatives with the Provinces of Ontario and Quebec to address border crossing issues.

- The inaugural Ontario-New York Economic Summit in 2001 established the Bi-National Transportation Working Group to identify a comprehensive strategy for cross border transportation. Strategies based upon ITS technologies will receive priority attention, including the potential for both countries' use of a compatible E-ZPasssm transponder.
- The State will also work with Canada to develop an early alert system for motorists to inform them of increased delays at specific border crossings. Such systems will also assist customs officials in determining needed staffing levels to better meet demand.
- Joint New York-Canadian efforts will reduce processing time for trucks by improving the ability to track credentialing data on commercial vehicles. Increasing reliance on electronic processing of trade information, such as the recently implemented Automated Export System (AES) which allows pre-approved exporters to file required paper work up to 10 days after goods have been sent, will expedite commercial movements. Future technologies, still under development, will better serve both security and traffic flow objectives without requiring additional capacity at border crossings.
- The Port of Excellence Program, at the Champlain-Lacolle crossing in Clinton County, in addition to providing capacity improvements, will also include ITS upgrades such as closed-circuit cameras and electronic variable message signs to warn travelers of bottlenecks.
- The State, in cooperation with the Federal government, will continue to support and work to expand a risk-based approach to alleviating delays at the bor-

ders. One evolving approach is moving railroad inspections to locations away from the borders, utilizing means such as sealed trains, rolling inspections, and pre-clearance.

Strategy: Managing the System Through Improved Incident Detection and Response

Unplanned incidents such as accidents or breakdowns on the transportation system often result in a significant amount of congestion which is referred to as non-recurring delay. It is important to detect these incidents quickly so that help can be available, traffic can be diverted if necessary, and traffic flow can resume to normal conditions as soon as possible. It is equally important to detect an incident on a subway or rail line where delays may impact greater numbers of people or greater volumes of freight. The following are some of the approaches being pursued within the State to improve incident management.

- The State will increase the geographic area covered by transportation management centers (TMCs) and increase coordination of services and information sharing among TMCs. The New York State Police and NYSDOT operate regional TMCs that use a high-tech system to monitor, assess and respond to roadway emergencies.



Transportation Management Center

- Transit systems in the downstate region will improve the ability of commuters to make alternate route choices. Information about specific incidents and their impacts will increasingly appear on system web sites and on the Trips123 website (www.trips123.com) which provides traffic and transit information for travelers planning trips in the tri-state metropolitan region. In addition to web based information, New York City Transit is developing Automated Train Supervision which NYCT has begun installing on the 'A' division and plans to install on 'B' division. Similarly, NYCT buses will be equipped with an Automatic Vehicle Locator system which will allow information to be shared with customers.
- Incident management and emergency response programs will play an expanded role in responding quickly to non-recurring incidents anywhere on the transportation system, as well as promote greater safety and security. The Highway Emergency Local Patrol (HELP), one of the nation's largest incident management programs, will be expanded beyond the 21 miles of limited access highway currently covered.
- The New York State and New York City departments of transportation have joined forces to deploy an Integrated Incident Management System. This system al-



NYSDOT HELP Truck

lows first responders to an incident to communicate quickly and accurately to a network of agencies, providing data on location, status, and support needs.

- The Interagency Remote Video Network, operated by TRANSCOM provides more extensive geographic coverage for incident detection in the New York Metropolitan Region by enabling transportation operators to share video feed of incidents within the region to facilitate appropriate responses. The TRANSCOM program coordinates and collects highway and transit facility traffic data and information between transportation management centers running the TRANSCOM regional architecture.

Issue: How Can the State Accommodate Increasing Travel Demand at a Time when Opportunities to Physically Expand the System Are Limited?

Whether or not it is practicable to pursue investments which expand the system's capacity in order to accommodate projected future travel demand is another great challenge facing transportation policy makers today. If the answer is even a qualified yes, recognizing that transportation cannot build its way out of congestion, then the next question is how most effectively to provide the appropriate system capacity, given the often enormous financial, social, environmental, and political constraints. This Plan overtly recognizes that any commitment to rely solely upon the construction of new infrastructure to accommodate future demand is not feasible. Nonetheless, carefully planned and selected system expansions to accommodate increased demand, in combination with the other strategies identified in this Plan, comprise an essential component of transportation's arsenal for the future. The development of the precise strategies to be

utilized must start with a clear understanding of the expectations of transportation's diverse customer pool as well as the general public.

Strategy: Developing Approaches for Managing Shared Transportation Corridors

Most if not all of the designated corridors in New York State will serve a variety of competing transportation customer types. A Trade Corridor may also be a Commuter Corridor and a Tourism Corridor. The Department will use the following approaches to meet the competing demands of those customers.

- The Department in its role of integrating transportation in the State, will work with other operators to better manage the operations of corridor facilities and specifically, to identify alternate facilities within a corridor and to provide incentives for customers to use those facilities. The Department will continue to participate with other transportation operators in joint studies, such as the Hudson Line Railroad Corridor Transportation Plan, to determine future capacity needs and define projects and operational improvements to meet those needs.
- The State will develop means for supporting the appropriate customer by time of day, week, or year on specific corridor facilities that are shared by multiple customers such as, intercity rail passenger/ rail freight on a rail line or truckers/ tourists/commuters on a highway.
- Work will continue with existing multi state and international coalitions to promote coordinated approaches to managing all modes of travel within a specific travel corridor. A key example of this

multi-state, multi-agency effort is the I-95 coalition which has been formed to manage traffic within this heavily traveled corridor along the east coast.

- Initiatives such as the Information Exchange Network and the Transportation Information Gateway (www.travelinfony.com), which share real time operational information amongst different transportation operators, will be expanded to provide comprehensive information about traveling conditions to operators and the general public, to enhance functioning of existing multimodal systems.
- Transportation improvements can have an impact that is far reaching, particularly along major corridors. The State will work to improve and develop passenger and freight intermodal facilities to better utilize existing resources and improve travel along entire corridors.

Strategy: Providing Targeted Capacity Expansions and Additional Services

Because there are constraints to capacity expansion including funding limitations and environmental and community-based concerns, any expansion to the transportation system will proceed only with the utmost scrutiny. Expansion which attains consensus support and funding will be advanced in ways to mitigate any negative impacts and always in conjunction with strategies that will better manage travel demand and improve the integration of systems.

The constraints on potential capacity expansion in the downstate region, encompassing New York City and the counties of Nassau, Suffolk, Westchester, Rockland, and Putnam, including critical connections with New Jersey and Connecticut, are greater than in the remainder of the State. In the more densely developed and populated

downstate region, providing adequate capacity to meet demand for personnel travel and goods movement is an issue for every transportation mode. Upstate, overall there is generally adequate capacity but travel options are more limited. Therefore, it is prudent to tailor strategies best suited to downstate and upstate regions respectively, recognizing that improvements in either region can have an impact beyond the immediate geographic location.

Capacity and Service Improvements for Goods Movement in the Downstate Region

Several major planning efforts underway will identify longer term transportation investments critical to the downstate region and its ability to accommodate future transportation demand. Goods movement in this region has been of long-standing concern and is a high priority. The investment strategies required to improve goods movement in the region, such as those listed below, are varied, complex, and must involve the use of multiple modes and operators, including both public and private entities, in order to achieve success.

- The Port Authority of New York and New Jersey (PANYNJ), is currently studying the future needs of the entire Port District-- which is essential to New York



Port of New York and New Jersey

State's and the Nation's economy-- and its connections in the region. In addition to these studies, there are numerous initiatives underway including; the Comprehensive Port Improvement Program, which will assess the costs and benefits of planned improvements, the Port Inland Distribution Network, an effort to develop a network of inland distributions hubs at key customer locations in the Northeast. The Department is assisting the PANYNJ's Port Inland Distribution Network program by providing financial assistance to CSX railroad to construct an intermodal yard in Buffalo that will serve as an inland port.

- Programs designed to redress the serious imbalance of goods movement by trucks over rail through enhancements to rail capacity, rail yard facilities and operations will be a priority for the region. However, even with the projected increase in the amount of rail traffic, future programs must account for the anticipated growth in truck traffic during the first quarter of the 21st century and for the increased local truck distribution trips which will serve potential new rail yard capacity. Therefore, goods movement strategies must balance between improvements to accommodate growing truck traffic while attempting to increase the rail share within this region.
- In support of rail freight access to New York City and Long Island, current efforts will continue to explore cost effectiveness of improved rail freight connections across the Hudson River. System expansions and improvements in New York City and on Long Island will also be assessed, including additional intermodal yards, infrastructure improvements to support expanded float operations, track improvements to handle the accepted standards for rail car weight, appropriate increases for rail clearances, and remediation for certain at grade rail crossings.

Geometric and track weight limitations constitute two of the most serious challenges to improved rail freight access downstate. The Long Island Rail Road is unable to accommodate modern rail cars built to a 286,000 pound Gross Rail Load. Furthermore, clearance restrictions also currently limit rail access on Long Island and greater participation in intermodal goods movement that require clearances that would allow use of containers on rail cars. The State will support cost effective investments to eliminate these limitations.

- Ways to improve truck access to the region's intermodal yards and to the many entrances to and exits from limited access highways are essential if rail freight is to assume a larger share of freight traffic. Such improvements to truck flows and access will depend more upon demand management and operations management strategies (discussed previously) than on system expansion. Examples of added capacity might include consideration of allowing trucks to use new high occupancy vehicle lanes (HOV lanes) or dedicated bus lanes at night or, possibly, construction of truck only lanes on select bridges and tunnels most heavily used by trucks when they are upgraded.
- Air freight in the downstate region will play an increasing role during the Plan period, especially for high value cargoes



Loading Freight Cargo on a Plane

which rely upon express truck services for distribution. For New York State, it will remain vitally important for John F. Kennedy International (JFK) Airport to expand its on-site freight cargo capability and for truck access to and from the airport to be improved. The current New York City ban on the longer 53' trucks will continue to be reviewed in order to help ensure that JFK remains competitive for air cargo. NYSDOT, in conjunction with New York City, area public authorities and others is exploring a full range of short and long term actions for improving truck and commercial vehicle access to JFK airport. These include operational improvements such as freight oriented traveler information systems, capital improvements such as ramp modifications, and the relaxation of highway restrictions for a variety of commercial vehicle types, such as reviewing the current New York City ban on the longer 53' trailer trucks.

Capacity and Service Improvements for Passenger Travel in the Downstate Region

Personal travel demand in the downstate region is also expected to grow and, in combination with goods movement growth, threatens to choke the region during the first quarter of the 21st century. Public transportation's capacity for relieving much of this growth in travel in the region is constrained at present. Commuter rail service to New York from Long Island, Rockland and Orange Counties (as well as New Jersey) all are in need of system expansion as are the alternatives that serve the outer boroughs. Subway service, which carries more passengers annually than any other service, is not easily accessible from all parts of New York City and many lines are at capacity. Bus service, which represents a significant segment of overall mass transit services, suffers in large part because of the congestion that it encounters on the region's roadways. The abil-

ity to absorb more passengers will depend upon certain capacity and service improvements that provide additional capacity or services or improved access and connections to meet customers travel needs.

In addition to struggling to meet the increased travel demands, public transportation continues to face the enormous task, successful to date, of restoring an old system to "state of good repair" and maintaining acceptable asset conditions.

A number of major efforts are well underway to address some of these challenges, and while specific investment decisions in some cases have not yet been determined, these efforts represent important strategies to enhance passenger travel in the region during the first quarter of the 21st century.

- Strategies to improve access from Staten Island and the other outer boroughs, Long Island, the northern suburbs and New Jersey will continue to receive priority attention. These include better access to mid-town and lower Manhattan, Long Island Rail Road access to the east side (Grand Central Terminal) and lower Manhattan, improved rail and bus service for growth areas such as Orange and Rockland over the Hudson River, and for Westchester, Putnam and Dutchess Counties east of the Hudson River, and improved connections to JFK Airport from Manhattan.
- The use of Bus Rapid Transit, which combines various operational strategies to enhance transit reliability and convenience, offers a promising and competitive mode of personal travel in congested areas. Implementation of Bus Rapid Transit in those corridors where it can provide significant benefit will require collabora-

tion among transportation system and facility operators and communities.

- Continuation of efforts to expand the City's subway system particularly on the east side, by constructing the 2nd Avenue Subway, and to improve east-west access to both midtown and lower Manhattan will relieve overcrowding.
- An addition of the third track to the main line of the Long Island Rail Road (LIRR) from Bellerose Queens to Hicksville is currently under study. This project would improve access for Long Islanders and help address the needs of reverse commuters to Long Island from New York City. It is anticipated that LIRR's total capacity will increase from 735 trains per day to 1,065 trains by 2020.
- Reducing travel time on the passenger rail service between Albany and New York City will continue as a priority in one of the busiest passenger rail corridors in the Nation. This service, in conjunction with the replacement of the current Penn Station by the new Moynihan Station, is essential to ensure that the large volumes of business, government and tourist travel needs between the two cities are adequately met.
- Improved access to both JFK and La Guardia airports will remain a priority, particularly improvements in connections with Manhattan. Stewart Airport will also continue to provide passenger air service for the region, especially the northern suburbs, and improvements in ground access will be pursued.
- Ferry service has emerged during the last decade as an important alternative to travel on the region's highways and rail service. Current operations serve over



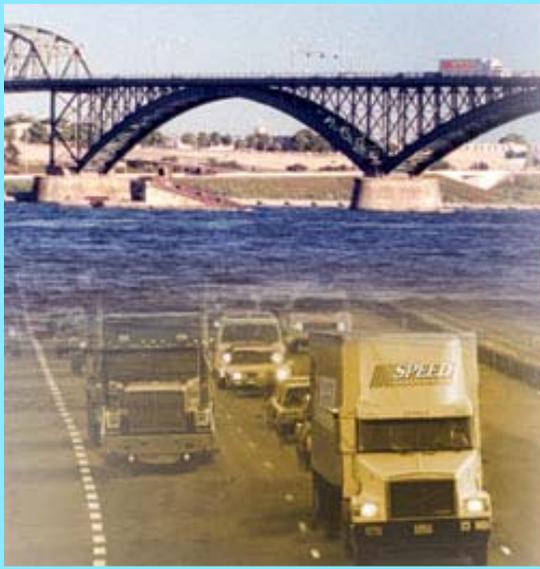
New York Waterways Ferry

100,000 daily passengers and the potential for increased service will be assessed throughout the region's planning efforts. Through a combination of public and private funding and operations, ferries hold great potential for serving commuters, including those traveling interstate, and tourists visiting major attractions in and around New York City.

Capacity and Service Improvements for Passenger Travel and Goods Movement in the Upstate Region

With few exceptions, upstate has adequate capacity to meet its transportation needs well into the 21st century. However, for those who cannot or do not drive, travel options are very limited particularly in suburban and rural areas. Upstate regional planning and investment must focus on strategies that sustain and strengthen the region's diverse urban centers while meeting the changing transportation demands of its extensive rural areas and growing suburbs. Upstate's future vitality depends upon the State's success at bringing sustainable economic growth to the region and in achieving the ambitious goals of its Quality Communities initiative. While enhanced mobility and reliability upstate will require certain strategic capacity expansions, the focus will be primarily on solutions that support more effective operation of the existing system. The strategies to accomplish this objective are listed below.

- Designated trade corridors and major connections to them will receive priority attention to enhance goods movement throughout the region. Key bottlenecks and a few capacity constraints which exist in some metropolitan areas, such as Buffalo, Syracuse, and Albany, will be addressed to ensure the continued viability of these corridors. Importantly, critical highway corridor infrastructure including but not limited to the entire Thruway, I-86 in the Southern Tier, I-87 from Canada to New York City, US 219 connecting Buffalo to points south, and adequate connections in the Southern Tier to I-99, which Pennsylvania has made a priority will continue to receive appropriate support and additional funding as key elements of major trade and tourism corridors.
- Upstate's public transportation systems will continue their efforts to pilot and implement reconfigurations and realignments of existing services to meet travel demands that are changing as the population and jobs shift away from cities. These realignments would be designed to halt the declines in ridership and attract new riders. In addition to improvements to existing systems, alternate types of public transportation services or expansions should be considered where warranted.
- In rural areas of the upstate region, the State will continue efforts to preserve and expand intercity bus services and will continue to provide technical assistance to rural counties, through training and marketing programs, to support rural public transit.
- The upstate ports and the canal system will continue to pursue infrastructure modernization strategies to improve the efficiency of cargo loading and unloading. In addition, where analyses indicate a benefit to the State and the transportation system, the Department may support new facilities.
- The State will continue to work cooperatively with freight and passenger railroads to address capacity related improvements and condition deficiencies.
- More effective regional planning and reliance upon the Metropolitan Planning Organizations is needed to address the transportation needs within each of the upstate metropolitan areas. These organizations have the capability to make the decisions and trade-offs necessary to achieve an optimum multi-modal transportation system for their region. It is especially critical that the MPOs work closely with adjacent rural communities in their regions in order to ensure appropriate coordination between land use, economic development and transportation.
- Each border crossing with Canada will receive focused attention to ensure that the transportation facility, customs and access routes have adequate capacity for anticipated increases in trade, tourism and commuting traffic. These crossings represent strategically important facilities that support trade for the benefit of not only the State, but the entire Nation. For example, nearly 80 percent of the truck crossings in the Buffalo-Niagara region have destinations in or originate from other States.
- Plans to replace or add a new span to the Peace Bridge, connecting Buffalo to Fort Erie, Canada, currently are progressing. Decisions regarding construction, funding and international management of customs and border protection facilities at



Collage of Peace Bridge and Trucks Crossing Border

the Peace Bridge are expected early in the life of this Plan.

- The International Bridge Feasibility Study, a joint Canadian and New York State study, assessed both short and long-term needs for the Thousand Islands and Seaway International Bridges. Included among its recommendations are additional toll lanes, operational, signage, and security improvements and increased use of ITS.
- The recently undertaken Port of Excellence project at the LaColle-Champlain crossing supports infrastructure improvements including construction of new custom inspection facilities, wider entrance



LaColle-Champlain Border Crossing

lanes to these facilities, and better signage.

- The State will work cooperatively with the upstate airports to encourage cost effective and competitive commercial airline service at major urban airports, and will consider policies and programs aimed at improving and retaining commercial service at small airports to increase mobility and reliability.
- Inconvenient and expensive airline service in many smaller upstate communities can lead users to travel long distances to obtain adequate air service. Airlines will serve a community if they can identify untapped demand. Small upstate communities will need to work with local interest groups, chambers of commerce, and large employers to implement initiatives to identify and/or create demand for air service.

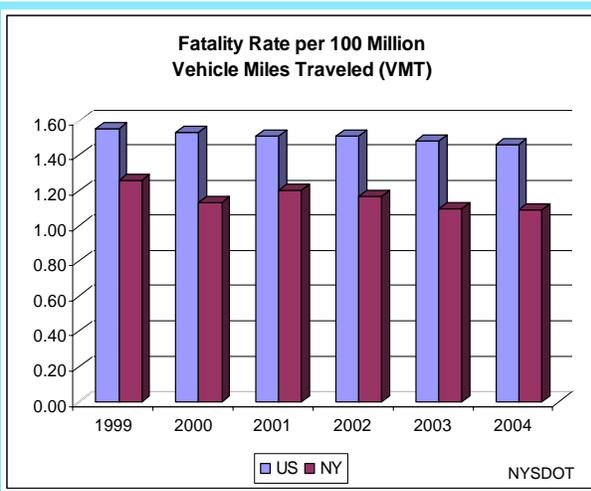
Conclusion

New York State's multimodal approach to improved mobility and reliability for freight and passenger transportation is at the core of its transportation Plan for 2030. Preservation of existing assets and improved management of the transportation system are the primary means of improving mobility and reliability for transportation customers. Transportation providers, both public and private, must form a strong partnership if customer expectations for moving quickly, safely and with relative ease are to be met. Specific regional mobility and reliability strategies, as discussed above, must be pursued, and customers should no longer experience differences in reliability based upon who owns a given facility. The investment focus upon major designated corridors will ensure that travelers can move between modes seamlessly and more efficiently. Success at

achieving these goals is dependent upon the effective integration of the State's transportation operators, as articulated in New York's transportation Plan. Nothing less will allow us to preserve the State's existing assets and to operate them so as to meet the ever increasing demand by the State's customers for improved mobility and reliability.

One of the primary goals of this Plan is to continue to substantially reduce travel related fatalities and serious injuries on all travel modes. New York State has long regarded transportation safety programs as a priority. Recent safety data and trends demonstrate the continuing importance of this Priority Result Area.

During the decade of the 1990's, the nation's highway vehicular accidents averaged well over 250,000 annually. Fatal and personal injury accidents stayed relatively level during the decade, at almost 190,000 per year. In New York State, highway fatalities declined from approximately 2,200 in 1990 to fewer than 1500 at the end of the decade, and pedestrian fatalities declined from about 600 to 335. New York's accident rates continue to be below the national average as shown in the table below. Despite this progress, accident rates are too high, and the State, therefore, is participating in a national effort to reduce all accidents, especially personal injury and fatal accidents.



New York State and National Fatality Rate Chart

The State has undertaken several recent initiatives to continually improve transportation safety. In 2005, the Commissioner of Transportation prepared a Comprehensive Highway Safety Plan (CHSP) which articulates the State's current highway safety em-

phasis areas and incorporates previously established, more specific strategic safety initiatives and plans. The 2005 CHSP encompasses the many relevant safety issues, details strategies that are addressing these issues and is available at (<http://www.dot.state.ny.us/safety/chspa.html>). With the advent of SAFETEA-LU, the 2005 Federal surface transportation authorizing legislation, the new Highway Safety Improvement Program provides funding for safety improvement projects. As a condition to receive funding and as a guide to direct future investments, the State must collaboratively develop a comprehensive Strategic Highway Safety Plan (SHSP). NYS DOT is currently developing the SHSP in consultation with numerous stakeholders such as the Governor's Traffic Safety Committee, the NYS Department of Motor Vehicles, the NYS Police, Metropolitan Planning Organizations, and others.

The most effective program to improve transportation safety must be comprehensive and rely upon a variety of complementary strategies. Such an approach will include traditional remediation efforts at high accident locations. If deaths and accidents are to be reduced significantly, however, more proactive measures are required to influence the behavior of vehicle operators. Thus, State and local governments must be committed to rigorous enforcement of all laws designed to promote transportation safety. Improved safety requires an ongoing and comprehensive dialogue within the public and private sectors and the close cooperation of all State agencies with a safety role, including the Departments of Transportation, Motor Vehicles, and the State Police. The State must also work effectively with all levels of local government and the traveling public.

Issue: How to Best Influence Vehicle Operator Behavior for Improved Safety?

It has become clear throughout the Nation that tangible improvements to transportation safety will require multifaceted programs and strategies to encourage vehicle operators to take safety seriously.

Strategy: Strengthening Enforcement and Safety Awareness Programs

New York State, over the past decade, has embarked on important initiatives to strengthen enforcement of safety laws and to promote greater operator awareness of legal and safe practices. These related strategies have shown success and will continue to be pursued and improved. Public information and education programs are needed to raise the safety awareness of all types of vehicle operators prior to licensing. In addition, Point and Insurance Reduction Programs will continue to educate operators with the intention of preventing future infractions and unsafe driving practices. In particular, these programs will be strengthened to promote use of seat belts and approved child car seats as well as using only hand free cell phones while driving. These programs will increasingly focus on the dangers of aggressive driving, driving while overtired, driving under the influence of drugs or alcohol and the importance of obeying speed limits in work zones. Understanding the implications of automobiles sharing the highways with larger vehicles such as buses and trucks, and with motorcycles, bicycles and pedestrians is critical for the motorist. More specialized awareness programs offer incentives to motorcyclists who can successfully complete the Motorcycle Safety Foundation's "Motorcycle Rider Course: Riding and Street Skills."

In conjunction with these public awareness and education programs, en-

forcement of existing operating laws will receive increasing attention during the life of this Plan. Improved enforcement examples are cited below.

- Enforcement will be focused on major facilities with high accident rates and evidence of aggressive driving.
- The State has reformed its Yield-to-Pedestrian Law to require that motorists yield to pedestrians on the entire crosswalk.
- Zero tolerance efforts, such as Buckle Up New York, a coordinated program of the State Police and the Governor's Traffic Safety Committee, and the STOP-DWI Program aimed at the leading cause of death on the State's highways will be continued.
- The anti-aggressive driving program -- Hazardous Violations Program -- initiated in 1995 to reduce incidents of aggressive driving which contribute significantly to current accident and fatality rates will be continued.
- Operation Hard Hat in which the State Police enforce work zone speed limits has reduced another leading cause of accidents.
- Increase the focus on work zone safety pursuant to the provisions of the recently enacted Work Zone Safety Act of 2005, which will include a mandatory surcharge for work zone speeding violations; a mandatory 60 day suspension of a driver's license upon a second conviction; and development of rules and regulation to increase work zone safety.
- Legislation to toughen penalties for motor vehicle operators convicted of killing or

seriously injuring others, as well as toughen penalties for hit and run and unlicensed drivers, many of whom are repeat offenders has been proposed by the Governor. This enforcement strategy would be coupled with educational requirements for convicted drivers, prior to having their license reissued.

- State laws will be strengthened to better enforce at-grade crossing statutes and to protect private rail property from trespassers.
- An extensive program to enforce truck safety requirements, funded largely through the Federal Motor Carrier Safety Assistance Program will continue to enable the State to aggressively conduct roadside safety enforcement for commercial vehicles.



Truck Inspection

- The State has also initiated a judicial outreach program to educate local magistrates on Federal commercial vehicle safety regulations in order to promote uniform treatment of violations throughout the State.
- Full automation of truck inspection programs through the use of laptop computers and wireless technology will enable real time upload of data so that it is available for roadside inspections.

- Strategies aimed at strengthening bicycle helmet laws and safety awareness programs directed at school age children for both pedestrian travel and the use of bicycles will continue to be emphasized.
- Public transportation operators will improve customer safety through the appropriate use of restraints for children and a thorough training of vehicle operators in how to use wheelchair restraint devices as well as other means to keep the disabled safer.

Strategy: Enforcing Safety for Public Transportation, School Buses, and Private Carriers

Improved safety on the State's public transportation systems, school buses, and other carriers, including taxis and livery service and others, is also essential for the traveling public. The following are examples of efforts underway or under consideration to improve safety of these vehicles.

- The State currently has authority, which it exercises routinely, to adequately enforce equipment safety standards and practices for municipally owned and operated transit systems as well as all regional public transportation authorities. This authority, as well as that of local governments, will be strengthened as needed during the life of this transportation plan to enforce safety standards for the following multi occupant vehicles: full-sized buses that are operated under contract to an employer to provide service to employees; locally licensed taxi and livery services utilizing vehicles seating 15 or fewer passengers; limousine-type services provided in stretched sport utility vehicles; and other related services currently unregulated.

- Raising liability insurance requirements on full-sized buses providing intrastate service to the more reasonable levels required for interstate service will be sought.
- Increases to fines for operators who violate State safety standards will be considered. These fines have not been increased beyond a maximum of \$5,000 in over 20 years.
- Efforts to ensure school bus safety will continue to receive priority, including the school bus inspection program. Seat belts are required equipment on all school buses manufactured for use in New York State. Decisions on mandatory seat belt usage in school buses have remained with individual school districts.



School Bus Inspection

- The State will continue to support enforcement and education directed at motorists who illegally pass stopped school buses.

Strategy: Improving Operator Performance

Existing statutory and regulatory requirements for obtaining various operator licenses constitute a critical part of accident reduction programs. While it is important that credentialing procedures be streamlined to make them more efficient, it is equally impor-

tant that credentialing serve as a means for ensuring that operators are adequately trained for their specific vehicle types. New York State will strengthen these requirements while avoiding discrimination against any one group of operators. These requirements will impact both individual and commercial operators. The following are efforts that will be retained and strengthened in the years ahead.

- Implementation of the State's modified graduated license system for new drivers under 18 years of age, which places certain restrictions on young drivers, who are at the highest risk of any age group to be involved in an accident will be continued.
- Commitment to ensure that automobile drivers are adequately trained in how to share the roadway with bicycles, motorcycles, pedestrians and trucks will continue.
- Commitment to ensure that operators of commercial vehicles are adequately trained and are fit to operate their specific vehicles safely and to share the roadway with automobiles will continue.
- Continuation of the Bus Accident Investigation Training for Identifying Safety Hazards Program for bus operators and the "New Entrant Program" for new truck operators will ensure that operators are well trained in the legal, safe, and proper operation of commercial vehicles. Future reliance on automated approaches to this training will make these efforts more effective.

Issue: How Can the State's Transportation Systems Improve Safety for Their Customers?

Programs to alter vehicle operator behavior are paramount to New York State's myriad of safety enhancement programs, but they alone are not sufficient. Most of the State's multimodal transportation system is old and was built and often rehabilitated to safety standards that have subsequently been upgraded. Therefore, as the system is rehabilitated and maintained, it is crucial that up-to-date safety features be appropriately considered so that the existing system can be operated safely.

Efforts to make our transportation system safer and more responsive for persons with disabilities and the elderly will become increasingly important. As the baby boom generation ages, this focus will become increasingly evident. Additionally, avoiding potential conflicts with various transportation customers, for example, pedestrians with motorized vehicles on the roadway, or automobiles with trains at rail crossings is of utmost importance and a priority of this plan.

Strategy: Making System Safety Related Improvements

Traditional approaches to determine where threats to safety on the transportation system exist and to provide remediation at these sites will continue to play an important role in ensuring that the transportation system is as safe as possible. New strategies for remediation including education and a strong commitment to investments in system safety that meet the needs of all customers will characterize the State's approach to safety. Some of the most important initiatives which will be pursued are included here.

- Safety treatments will be designed into all highway projects, including the simpler and smaller maintenance resurfacing pro-

jects. Safety treatments such as low cost signing, delineation, guiderail, drainage, and roadside obstacle protection or removal will have dramatic positive impacts in the future.

- The Department will continue to promote and incorporate traffic calming elements and measures into the design of transportation projects where applicable.
- Future applications of Intelligent Transportation Systems (ITS) will include compatibility with in-vehicle safety technology as it is deployed by vehicle manufacturers. An example of such technology is operator notification if the operator is following another vehicle too closely.



Variable Message Sign

- A number of diverse approaches aimed at reducing or eliminating accidents at specified locations will be pursued. Examples of these approaches include: automated accident data collection and distribution to help identify priority accident treatment locations; accident investigation systems to identify, design and monitor effectiveness of safety improvements; and queue warning systems to warn motorists that traffic has slowed or stopped ahead to help prevent rear end accidents. Queue warning systems will be used especially on approaches to the

State's international border crossings and at work zones.

- Continued investments to upgrade or eliminate, as appropriate, public railway-highway at-grade crossings, with those presenting the highest risk receiving priority. Intelligent Transportation Systems technology will be increasingly applied to certain crossings.
- Application of shoulder rumble strips to reduce the number of run-off-the-road accidents will be increased. This approach will also be studied to determine its effectiveness in reducing head-on collisions where vehicles cross the center-line of the roadway.
- Roadways with high numbers of wet road accidents will be investigated and those with low friction and potentially dangerous surfaces appropriately treated under the Skid Accident Reduction Program.
- Work zones will receive routine inspections to ensure that they are operating safely in conformance with work zone design standards.
- Reasonably spaced rest facilities are provided for travelers on major routes. More adequate truck parking and inspection facilities at rest areas will be a priority.
- Increased visibility and brightness of signs, wider pavement markings on freeways and expressways, and longer walk intervals at traffic signals where appropriate will promote greater safety for the elderly and people with mobility disabilities.
- The State's public transportation systems are pursuing measures, such as the use of low floor buses, wheelchair stations, and the announcement of stops on all

fixed route buses, that will encourage the elderly and persons with disabilities to avoid driving and to rely more upon public transportation.

- Commitment to ensure bicyclists and pedestrians are adequately trained in how to share the roadway with motorized vehicle operators will be a priority.
- Designs for sidewalks, pedestrian crossings, and wider shoulders will be integrated into the designs of many highway projects and, at key pedestrian intersections, signals and signs will be added or improved.
- Americans with Disabilities Act (ADA) compliant curb ramps and the use of the latest technology and other pedestrian features will be considered in pertinent project designs.



Public Bus to Accommodate Disabled Passengers

- State agencies with shared responsibility for bicycle safety will continue to partner to develop a public safety education program and to identify specific means for reducing bike accidents and fatalities.
- The Department will work in conjunction with towns, counties and smaller municipalities where appropriate to coordinate efforts and collaborate on activities related to system safety improvements.

- The Department will enable and encourage walking and bicycling to school through the new Safe Routes to School Program which provides Federal funding for infrastructure and non infrastructure projects that benefit elementary and middle school children in grades K-8.
- Support legislative efforts to increase enforcement of and penalties for trespassing on railroad owned property, facilities, infrastructure and rights-of-way.

Conclusion

Improving transportation safety requires ongoing dialogue and cooperation between transportation operators, the traveling public, the private transportation sector and State agencies with a safety role, to carry out a comprehensive transportation safety program that continues to reduce travel related deaths and accidents on all travel modes. New York State will routinely measure its progress in reducing accidents and fatalities on its multimodal transportation systems during the period of this plan. The Department of Transportation will work with all publicly operated systems to develop explicit and measurable safety targets for which the operator will be responsible for meeting or exceeding. The ethic for improved safety will be imparted to each transportation operator as well as the traveling public to ensure that the accident and fatality reduction goals are achieved.

In the wake of the September 11, 2001 terrorist attack, security concerns have moved to the forefront of transportation planning in New York State. The State Office of Homeland Security, created in response to the attack, is by law responsible for overseeing State resources applied to detection, prevention and, if necessary, response to a future attack. The New York State Emergency Management Office (SEMO) plans and coordinates the response of the State in times of emergency or disaster.



NYS Office of Homeland Security Logo

Transportation operators have a significant role to play in the larger State efforts directed at Homeland Security. Transportation facilities such as airports, ports, and border crossings serve as critical gateways into the State but could also be portals for potential terrorist actions. Other large transportation assets, including the State's major tunnels and bridges, subway systems and major rail and subway stations unfortunately are targets. Because the State's transportation system plays an essential role in emergency response, operators must also be prepared to respond in the event of a major incident.

The State's transportation customers as well as the public at large expect transportation operators to take every reasonable measure to ensure the safety of travelers and cargoes. Further, they expect that transportation will function effectively if there is an

emergency. At the very least, they expect that transportation services and facilities, disrupted by an attack, will be restored quickly and that other alternative transportation services and facilities will operate during a time of emergency.

Issue: How Will it Be Ensured that the Transportation Sector Conducts Emergency Preparedness and Develops Response Plans?

Transportation providers must find ways to coordinate emergency preparedness and response strategies without jeopardizing the ability of customers to efficiently use the State's transportation system. The State, with critical assistance from the Federal Government, will be for the first time, coordinating and implementing security strategies whose primary goal is above and beyond traditional transportation responsibilities.

Strategy: Coordinating Emergency Preparedness and Response

The Commissioner of Transportation, as integrator for statewide transportation, will actively promote effective coordination between the State's public and private transportation operators and other public entities with responsibility for security. The following areas will be the focus of coordination efforts.

- In consultation with State and Federal homeland security agencies, operating agencies will develop vulnerability and risk assessments for transportation facilities based upon the potential cost of an event (loss of life, property damage, projected cost of clean-up and recovery, projected cost of long-term health or economic consequences).
- Specific facilities which are most essential or critical to the functioning of trans-

portation or to other crucial infrastructure sectors will be identified.

- Mitigation efforts among and between all transportation operators will be undertaken to implement strategies to minimize the risk of damage to their at-risk facilities and vehicles.
- Federal and State agencies with security responsibility will ensure that all transportation operators and local governments coordinate in planning for the response to an event. This effort at emergency response will include the planning, training, and exercise. This effort will coordinate and identify transportation alternative strategies in the event of an attack.
- Transportation operators will coordinate and collaboratively work with the New York State Office of Cyber Security and Critical Infrastructure Coordination (CSCIC) to ensure cyber readiness, resilience, and response efforts. They will work closely to establish partnerships and ensure that there is facilitated communication and information sharing between both public and private sector transportation operators.
- Real-time information exchange and collaboration will be promoted between and among transportation operators and the public sector, including CSCIC for geographical information technologies and information on critical infrastructure assets, to quickly assess the situation, identify available assets, and effectively coordinate efforts both during and after an event.
- NYSDOT will continue to work with the Office of Homeland Security, Metropolitan Transportation Authority, Port Authority of New York and New Jersey, and

New York City Department of Transportation through Bi-weekly Agency Heads Meetings and their Transportation Security Subcommittee to collaborate on best security practices across all modes of transportation.

- Emergency management and evacuation planning is lead by the county, municipal and local governments who are responsible for preparing evacuation plans for their respective areas in the case of natural and man-made disasters. The Katrina hurricane and subsequent flooding showed the importance of having and effectively implementing such plans and for coordinating with all potentially affected parties. The State lead for these issues is the SEMO which will consider the need and support for inter-area and interagency cooperation. NYSDOT will coordinate and where appropriate work with the appropriate State and Federal partners to support efforts at all levels so that transportation considerations are addressed.

Issue: How Will Protection of Facilities Identified as Vulnerable Be Accomplished Cost Effectively So that Other Transportation Goals Can Continue to be Advanced?

Vulnerability assessments and sound planning are merely first steps in the State's comprehensive approach to protecting transportation facilities at risk. The critical question is how to reasonably protect transportation facilities that are spread throughout the State where in many cases, such as key bridges, there are no other alternative transportation facilities nearby. Redundancy within and among the transportation system ensures that continued freight and passenger services and facilities are available in the event that a critical transportation link in one mode becomes inoperable due to terrorism

or natural disaster. Where there is redundancy, individual transportation components are perceived as less vulnerable security risks. A second critical question is how can efforts to protect against attack be implemented without unduly undermining the goals for improved mobility and reliability and economic vitality?

Strategy: Balancing Security with Reliability

The effort to attain improved security, without unreasonably sacrificing mobility and reliability, requires a multifaceted approach. New York State will pursue security through close coordination with the Federal Department of Homeland Security, the New York State Office of Homeland Security and other officials with specific responsibility for security. Specific attention will be paid to the following approaches.



Truck X-ray Machine at Border Crossing

- The security of bridges and tunnels is an ongoing concern. When official security threat levels or intelligence necessitate extra security measures at these facilities, such as additional truck inspections, balancing and mitigating the adverse impacts to traffic flow must be coordinated with State and Federal homeland security and law enforcement agencies.
 - The major transportation facilities at the greatest risk, including the State's airports, ports, border crossings, bridges, railroads, subways and passenger rail and subway stations have been identified. While the State's security plans will consider all facilities, its border crossings with Canada, ports and waterways, and general aviation airports will receive continuous attention. Specific programs to protect these high risk facilities will be implemented, continuously monitored for their effectiveness, and improved as necessary.
 - The State Department of Transportation, in coordination with the State's Office of Homeland Security, will help to ensure that all transportation operators adopt appropriate security measures for each of their vulnerable facilities.
- The following are some examples of specific strategies that New York State will pursue to improve security at these priority facilities while continuing to meet the growing mobility demands of its customers. These efforts will remain flexible to respond to new potential threats and to incorporate emerging security expertise and technologies.
- Border Crossing security is a cooperative and coordinated strategy involving Canada, including the provinces of Ontario and Quebec, the Canadian and United States Federal Governments and the owners of the border facilities. Because truck traffic potentially poses a major threat to security, efforts will be directed at pre-clearance programs for freight which can ensure that cargoes are safe while expediting or eliminating processing delays for haulers who do not present a security threat. One current tool is the Free and Secure Trade Program (FAST), a joint Canada-US initiative. FAST en-

courages moving pre-approved eligible goods across the border quickly and verifying trade compliance away from the border. New technology, such as the Automated Commercial Environment and the Automated Export System and Electronic Data Interchange, will improve communication, consolidate and automate border processing to enhance security and foster our Nation's economic security, and modernize cargo pre-clearance and security procedures. Another joint Canadian-U.S. customs and immigration program (NEXUS) is intended to make border crossings simpler and easier for pre-approved low risk, frequent travelers.



Airfield Security Fencing

Installation of Vehicle And Container Inspection Systems (VACIS), a rail cargo screening system, at Buffalo and Rouses Point rail border crossings, is an example of bi-national and railroad partnering to improve railroad border security. All reasonable steps that can reduce or eliminate long delays at the crossings for most carriers and still enhance cargo security will be pursued.

- Major responsibility for ensuring the security of ports and waterways rests with the Federal Government. The Maritime Transportation Security Act of 2002 required high risk vessels and port facilities to conduct vulnerability assessments and develop security plans that include passenger, vehicle, and baggage screening procedures. In addition, the Act called for

security patrols, establishment of restricted areas, personnel identification procedures, access control measures, and installation of surveillance equipment. This Act mandated that affected vessels and facilities demonstrate compliance by July 1, 2004. The ports within New York State are in compliance with the Maritime Transportation Security Act and have developed compliance plans which will draw upon the latest surveillance, screening, and technology strategies to ensure the security of cargoes, vessels and other vulnerable facilities.

Additionally, New York State's port officials are working closely with U.S. Customs and U.S. Coast Guard officials to improve capability for inspecting and sealing containers at ports of origin, including the application of new

technologies for this purpose. The Port Authority of New York and New Jersey is already carrying



out a comprehensive effort to improve port security. Measures include improved perimeter control and testing for effective technology to detect radiological and nuclear threats. Much of the focus of improving security at the Ports in the upcoming years will be on improved coordination between multiple jurisdictions and ensuring that scarce resources are allocated to the port facilities facing the highest risk.

- While New York State's major commercial airports are providing enhanced se-

curity under the direction of the Federal Transportation Security Agency, the State's more than 508 public and private use airports (general aviation) also are initiating actions commensurate with their vulnerability to security threats. State law requires that general aviation airports document their security procedures in a written plan that generally follows guidance from the Transportation Security Administration and NYSDOT regarding "best practices." The 2005 Rebuild and Renew New York Transportation Bond Act has supplied a mechanism to these airports to fund necessary capital infrastructure security enhancements. NYSDOT will encourage initiatives that assist municipalities and airport owners in airport security assessments, and will continue facilitating the development of airport security plans that enhance airport security as an essential element of the Anti-Terrorism Preparedness Act law.

Conclusion

While much of the leadership and funding to promote secure transportation will be provided by the Federal Government, New York State is committed to working in partnership with Federal and local authorities to carry out the necessary security planning and to implement coordinated and prudent actions by all transportation operators. Because transportation is vital to the Nation's and the State's well being, it is essential that all transportation operators support these efforts while continuing to promote improved transportation services for all customers. Security will remain at the forefront of transportation management during the life of this Plan.

The New York State Department of Transportation’s environmental initiative is a pro-active commitment to promote an environmental ethic statewide and to strengthen relationships with environmental agencies and private environmental groups. While both Federal and State law require certain environmental improvements for different environmental areas such as air quality, water quality, energy consumption and noise, the State’s emphasis in these areas goes well beyond meeting statutory requirements.

New York State has the most energy efficient transportation sector in the United States. The State’s extensive support for public transportation and the unrivaled levels of transit ridership, coupled with the large walking population in New York City, contribute to the lowest per capita energy consumption in the nation. Energy consumption for transportation purposes in New York is roughly two-thirds that of the national average. Despite this impressive record, New York State is committed during this planning period to substantial improvements in transportation’s impact on the environment and its energy consumption.

The priorities and initiatives identified in this Plan reflect a broad understanding that environmental and energy considera-

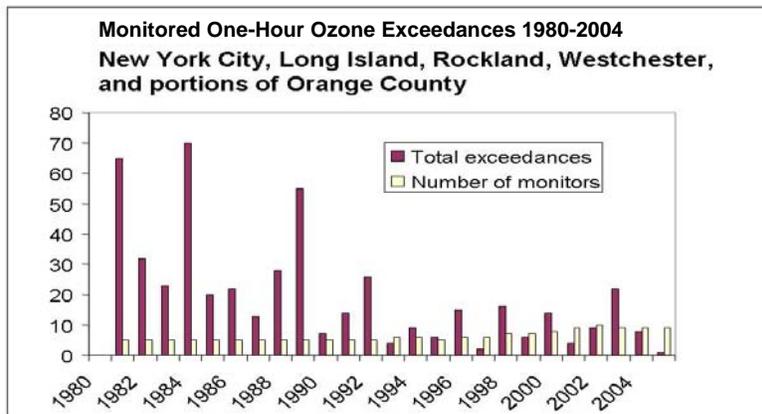
tions must be fully integrated with sound transportation planning and investments strategies. In addition, wherever appropriate and to the extent possible, this Plan recommends discrete transportation investments whose primary goal is to improve the environment and/or reduce energy consumption.

Issue: During a Period When Highway Travel is Expected to Grow, What Can the State Do to Meet Clean Air Requirements and Achieve Energy Savings?

While New York State has made significant strides in reducing air pollution, it continues to face a major challenge to comply with emissions requirements in non-attainment areas defined under requirements of the Federal Clean Air Act Amendments of 1990. This challenge is especially great in the downstate region where pollution levels are highest. Nonetheless, the non-attainment areas in the upstate region are required to meet the same air quality standards, and as such, should remain pro-active in deploying measures which reduce emissions.

The chart below shows improvement but exceedances of the maximum levels of pollutants continue to occur in the area encompassing New York City, Long Island and Westchester, Rockland and portions of Orange Counties.

Although the chart shows improvement, more work remains to be done. New York is preparing new State Implementation Plan (SIP) revisions to show how it will attain the 8-hr ozone and PM2.5 air quality standards. Given the need for improvements in emission reduction, it is important that development of transportation plans and programs be consistent with the air quality



NYS Dept of Environmental Conservation
Bureau of Air Quality Planning, 2004

Ozone Emission Standards Violations Chart

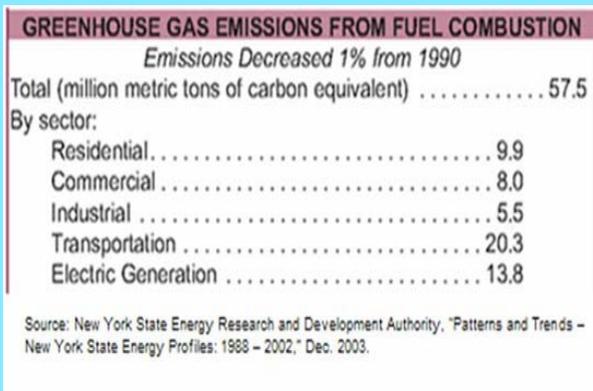
goals that will be contained in the new SIPs. Further, the State Energy Plan approved by the Governor in 2002 established ambitious reduction goals for air quality emissions, greenhouse gas emissions, and energy consumption during the first quarter of the 21st century. The State's response will be comprehensive and aggressive, requiring contributions from all transportation operators. The goal is to move New York State's transportation operators to the forefront in the Nation's efforts for clean air and energy efficiency. Greater use of zero and low emission vehicles, carpooling, walking, biking and transit, commuter rail options and long distance railroad freight will contribute to a reduction of pollution. Additionally, reducing congestion is another important way to reduce emissions arising from transportation.

Strategy: Implementing the State Energy Plan and Ensuring Air Quality Conformity with the State Implementation Plan

The State Energy Plan of 2002 is a vital and complementary policy document with this Statewide Transportation Master Plan and the State Implementation Plan for air quality. The State Energy Plan establishes measurable statewide goals for both 2010 and 2020. Chief among them are the following:

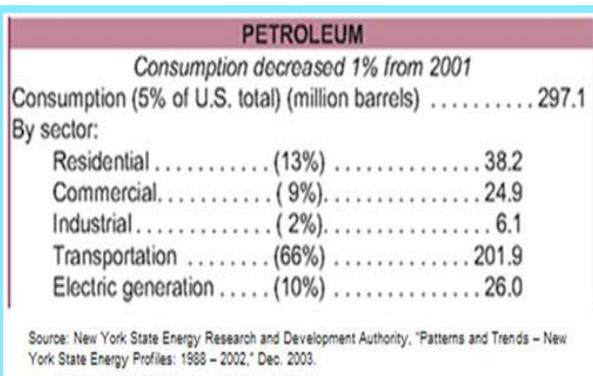
- Reduction of primary energy use per unit of Gross State Product (GSP) 25 percent below 1990 levels;
- A 50 percent increase in the use of renewable energy as a percentage of primary energy use, so that 15 percent of energy used in the State will be from renewable sources by 2020;
- Reduction in greenhouse gas emissions 5 percent below 1990 levels by 2010, and 10 percent by 2020.

In addition, many of the MPO transportation long range plans, programs and projects routinely and regularly demonstrate conformity to the State's overarching goal of meeting air quality standards for all pollutants. These requirements offer the opportunity to realize significant air quality improvements.



Greenhouse Gas Emission Chart

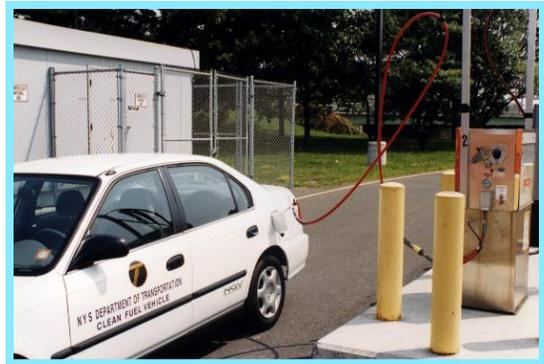
About one-third of greenhouse gas emissions are produced by transportation. The transportation sector consumes more petroleum than any other sector and will need to play a significant role in attaining the State's aggressive energy and air quality goals. The use and development of alternate fuel sources, including renewable energy sources, offers the potential for decreasing the demand for petroleum fuels used in the transportation sector. New York State will continue to promote the research, development, deployment and use of all alternative fuels and technologies (ex. Ethanol), in order to improve air quality and reduce the reliance



US Petroleum Consumption Chart

on conventional energy sources. A broad series of ongoing and soon-to-be implemented initiatives designed to help achieve air quality and State Energy Plan goals as well as to promote improved mobility for the State's transportation customers are noted below.

- All of the mobility initiatives discussed in Chapter 5 under the Issue: How Can Congestion Be Alleviated Without Adding Capacity to the System will contribute to achieving the goals of the State Energy Plan and goals of the State Implementation Plan for air quality. Support for public transportation and the development of strategies designed to increase ridership are fundamental to achieving the Energy Plan goals. In New York State, public transit systems are leaders in the use of alternate fuel vehicles.
- A significant effort to support increased use of commuting strategies will be encouraged statewide. An example is "commuter choice", whereby employers provide tax based incentives for employees to use public transportation. Other commuter benefits could include telecommuting, carpool incentives, and flexible hours.
- The State will ensure that transportation planning and construction is compatible with both current and planned local community development so as to promote energy efficiency and zero or low emissions.
- The Commissioner of Transportation will encourage all transportation operating agencies to institutionalize energy efficiency considerations into their plans, project designs, and construction and maintenance practices.
- The Commissioner will lead an outreach and educational initiative for all transportation operators, both State and local, public and private, which identifies and assesses strategies in support of the Energy Plan. The effectiveness of various strategies will be assessed as part of this effort which will also encourage a coordinated approach by diverse transportation operating agencies.
- The State has initiated new technology based programs to improve fuel efficiency such as the expansion of E-ZPasssm, increasing reliance on alternative fuel vehicles, and providing truck access to electricity outlets at truck stops.
- New York State will rely increasingly on compressed natural gas and bio-fuel (including bio-diesel and ethanol) vehicles to comprise its fleet, a practice which has already resulted in the use of less gasoline. The Governor has mandated that State agencies across the State increase their purchase of alternate fuel vehicles so that they comprise 100 percent of purchases by 2010.



NYS DOT Clean Fuel Vehicle

- The Metropolitan Transportation Authority has introduced a clean fuel bus fleet utilizing compressed natural gas (CNG), hybrid vehicles, and low sulfur diesel fuel and as a result has the cleanest bus fleet in the nation. Also, the majority of the Syracuse transit system fleet is CNG,

and to a lesser extent, the Binghamton, Rochester and Buffalo transit systems have operated CNG vehicles. All of these upstate public transportation systems are in the process of ordering new hybrid-electric vehicles.



MTA Hybrid Electric Bus

- The Diesel Emissions Reduction Act of 2006, requiring the use of ultra low sulfur diesel (ULSD) fuel and the best available technology in state-owned heavy duty diesel vehicles and heavy duty diesel vehicles under contract with the State, became law on August 16, 2006. Although the law includes a phase-in schedule for all vehicles to meet the new requirements by December 2010, all NYSDOT operations are committed to use ULSD and the best available emissions control technologies as expeditiously as possible.
- A major initiative in the New York Metropolitan area will support the introduction of natural gas, electric, and hybrid-electric vehicles, including heavy-duty trucks, delivery vehicles and taxis in New York City. Similar programs are also underway in other parts of the downstate area.
- The New York State Thruway Authority will work with The New York State Energy Research and Development Authority concerning the implementation of future hydrogen related fuel applications. The Thruway Authority is moving forward to make alternative fuels available at travel plazas.
- Improved bicycle and pedestrian access to public transportation stops will be promoted. Projects such as secure bike parking at strategic multi-modal transit stops is one such example.
- A traffic signal timing program, underway in the downstate region, will continue across operating agencies to promote reduced emissions as well as improved mobility.
- Utilization of clean fuels, clean equipment, and green building practices in the planned reconstruction of Rt. 9A in New York City will serve as a model for other agencies with building responsibilities in lower Manhattan. The application of these methods and new technologies will be used to the fullest extent possible by transportation operators in the future.
- The State, working closely with the environmental community, will identify and evaluate all potentially effective emission reduction strategies, including congestion pricing and land use strategies to discourage sprawl, a major factor in automobile use.
- The expanded use of “ozone action days” will contribute to lower emissions, especially volatile organic compounds (VOCs) which are a major contributor to ground level ozone. When poor air quality is anticipated, “ozone action day” advisories are issued to encourage people to take steps such as car pooling that reduce emissions.

Issue: How Will Transportation Proactively Improve the State’s Environment in Areas Other Than Clean Air and Energy Savings?

Energy efficiency and conservation and reduction of emissions constitute the most important environmental issues facing transportation operators. Nonetheless, the State faces additional challenges. The environment plays a fundamental role in determining quality of life and economic well-being for New Yorkers. Thus, the actions of governmental agencies must have a positive impact upon the environment. Federal and State laws require the transportation sector to mitigate adverse environmental impacts resulting from its projects. One such area for example is noise where transportation funds are used to reduce airport and highway generated noise in certain circumstances.

Strategy: Implementing A Positive Environmental Program by Going Beyond Mitigation

The Department of Transportation has undertaken a nationally recognized initiative to promote an environmental ethic throughout the transportation sector. Now, that initiative will be institutionalized within the other State operating agencies. NYS-DOT will strengthen its already solid working relationships with the State's Department of Environmental Conservation (DEC) and with environmental advocacy organizations. While transportation will remain the primary mission, this Plan recognizes that both traveling customers and the public at large demand that transportation become a steward for the environment. The Commissioner of Transportation will encourage all operators of the transportation system to support the types of positive initiatives discussed below.

- The Environmental Betterments Program identifies specific environmental projects, often carried out by local governments or private groups that can be advanced more efficiently and at lower cost, as part of the State's regular transportation con-



Water Management System

struction program. Examples of the type of work include landscaping, park amenities, historic preservation, construction of storm water basins, and plantings in support of wildlife habitat. New York State Department of Transportation will continue to work with localities to include such projects in its regular program and, wherever appropriate, to assume contracting and oversight responsibilities.

- Transportation operators will investigate ways to improve water quality in the State, and, where practicable, modify existing highway drainage systems to create permanent storm water management facilities and stabilized stream banks. Because non-point source runoff is a significant contributor to water pollution in New York, the State and local highways systems may be a major contributor to poor water quality unless such measures are undertaken.
- In addition to mitigating the impacts of transportation projects on wetlands, transportation operators will work cooperatively with DEC and the Nature Conservancy to preserve and enhance important wetland sites. The Commissioner of Transportation will actively promote the creation of regional wetland mitigation

banks to better support the State's rich endowment of wetlands.

- All transportation operators will be asked to incorporate proactive measures into their routine maintenance programs to prevent environmental degradation and support enhancements. Such measures include: context sensitive design strategies which consider measures to enhance the relationship between a transportation project and its immediate environment including making noise barriers more attractive, providing opportunities for scenic overlooks and improved bike-ways and pedestrian improvements; continuing to research and implement those snow and ice control chemicals and methods that are both effective and environmentally safe in maintaining wintertime public safety without harming groundwater resources; reuse and recycling of various maintenance materials, including used asphalt pavement; improving road-side appearances through a variety of programs such as adopt-a-highway and graffiti abatement; and direct investments such as better access to fishing sites, and installation of historic and scenic marker signs.
- In recognition of the role of the transportation system in the introduction, spread and management of invasive plant species, NYSDOT will continue to advance Federal and State invasive species initiatives in partnership with other State and local stakeholders. Presidential Order 13112 and the Governor's Invasive Species Task Force have identified key elements for invasive species management, e.g. education, early detection and rapid response, inventory and research. NYSDOT will continue to promote these activities in Department programs.
- NYSDOT recognizes that road mortality of wildlife, particularly amphibians and reptiles, is an important conservation concern. To address this concern, the Department initiated a research study to document the impacts of transportation infrastructure on amphibian and reptile populations, and identify where crossing structures would be most appropriate along the State's roadways. These study findings will enable NYSDOT to undertake an effective mitigation program addressing herptile mortality.
- The Department has long recognized the many recreational, scenic, cultural and natural values of the Adirondack Park. To ensure that transportation concerns in the Adirondack Park are addressed in context with surrounding land uses, the Adirondack Park State Land Master Plan recommends the development of State Land Unit-Management Plans for travel corridors and facilities. In addition, the Department developed "The NYSDOT Guidelines for the Adirondack Park", which sets forth standards for the design, construction and maintenance of transportation facilities within the Adirondack Park. These guidelines are currently being updated.

Issue: How Can Transportation Fulfill Environmental Justice Goals?

Under Title VI of the Federal Civil Rights Act of 1964, as amended, Environmental Justice Executive Order 12898, and transportation law, States are required to consider actions to ensure fair treatment and meaningful involvement of all people with respect to implementation of transportation programs. Specifically, transportation operators must focus on underserved communities and seek to address adverse impacts that fall

disproportionately on minority and low-income populations.

Strategy: Implementing A Statewide Policy to Ensure Environmental Justice in the Transportation Sector

In June 2003, the Commissioner of Transportation signed a policy document demonstrating the State's commitment to the principles and goals of environmental justice as defined under the Executive Order. The State's Metropolitan Planning Organizations have begun an assessment of related impacts on communities within their jurisdiction and have developed, in some cases, specific goals to meet the needs of these impacted communities. Improved public outreach and education will be a statewide priority. Examples of the kinds of efforts to be pursued include:

- Assessments of the impact which existing Transportation Improvement Programs will have on minority and low income communities;
- Use of Geographic Information Systems (GIS) mapping to identify projects in close proximity to minority and low-income communities; and
- Targeting of transportation enhancement projects to positively impact minority and low-income populations.

The overriding goal of this Master Plan is to ensure statewide compliance that meets both the letter and the spirit of Federal Environmental Justice Executive Order 12898. A New York State Department of Transportation task force has prepared guidance for all transportation operators to use in carrying out their legal responsibilities for Environmental Justice. This guidance calls for:

- Training programs for operators;
- Annual reports identifying accomplishments and outstanding issues;
- Environmental Justice compliance reviews, in cooperation with the Federal Highway Administration, of all Federal transportation fund recipients;
- Procedures to ensure the prompt processing of discrimination complaints and procedures to resolve determinations of noncompliance.

Conclusion

This Plan's articulated environmental improvement strategies reflect New York State's intention to institutionalize transportation's role as a steward for the environment. The State has embarked on this path in recent years. This Plan lends further support to the necessarily close relationship between transportation and the future protection of New York's rich environmental resources and fair treatment for its minority and low-income populations.



NYS Environmental Protection Logo



A modern and well maintained transportation system is an essential element of a healthy and growing economy. New York State's early history, with the Erie Canal, and later with the barge canal and the State's rail system, illustrates the important role that transportation has played in promoting economic growth. Recent trends in modest employment growth and the shift of employment from manufacturing to the service and retail sectors, makes it more critical than ever that transportation support existing and future employment centers in the State. This will require transportation agencies to work with the business community to identify their needs. Further, the cost of transporting goods and the cost of intercity business travel in the State must be competitive with other States. This is a major objective of the mobility and reliability strategies contained in this Plan.

New York State also understands that the support for existing employment levels and efforts to promote future job growth will require transportation investments that enhance the overall quality of life for New Yorkers and, therefore, improve the State's attractiveness for sustainable private investment. This Plan calls for investments designed to preserve the preeminence of the State's transportation system and to focus upon providing cost effective solutions to the many challenges addressed elsewhere in this Plan. Improvements to both the State's core infrastructure conditions and operation of all transportation systems, discussed earlier, are essential.

Future investments must aim to achieve additional goals, including improved local and regional planning, effective land use management, and the goals articulated in the Governor's Quality Communities Initiative. Transportation is a key player in the

broader State effort to encourage sustainable development.

Issue: How Can New York State Retain and Strengthen Its Competitive Economic Position through Transportation Investments?

Many of the strategies identified within the other Priority Result Areas are also essential for job retention and growth and strengthening New York State's competitive position in the larger economies. Chief among these are:

- Integrating transportation planning and management to support the State's priority investments, regardless of mode and ownership;
- Achieving a state of good repair for the State's multimodal transportation assets in order to support its vital economic functions;
- Mitigating the impacts of growing congestion in the metropolitan areas, particularly in downstate regions, in order to preserve the transportation related economic life-lines in the State;
- Providing competitive transportation choices for users by promoting a balanced multimodal and intermodal system in which public transportation, rail and air passenger and freight service, and highway and bridge facilities are well coordinated and cost competitive;
- Assuring safe and secure transportation facilities;
- Measuring the transportation system's performance and implementing timely improvements.

Each of these strategies, as reflected through the specific initiatives endorsed by this Plan, plays a vital role in supporting New York State's economic competitiveness, but more is required if New Yorkers are to preserve and enhance their overall quality of life.

Strategy: Targeted Transportation Investments to Promote Economic Vitality

Many initiatives targeted to specific regions of the State, in some cases already underway, are intended to provide the transportation investments needed to help promote economic vitality in these specific regions. The State will continue to work closely with local governments and the private sector to identify and carry out the highest priority investments. Important examples of this strategy include:

- Upgrade of Route 17- Southern Tier Expressway, now designated I-86, to interstate standards thereby substantially improving east-west connections through



Sign on I86/Route 17 Highway

the Southern Tier of the State and supporting much needed economic development in this important region;

- Improvements at New York State's borders with Canada, in part, to facilitate cross border travel for freight carriers, commuters, tourists, shoppers, and others;
- Corridor based planning, such as that currently occurring in the I-87 corridor from New York City to Montréal, to ensure that New York State is able to take full advantage of the growing trade opportunities afforded by the North American Free Trade Agreement;
- Improvements to the transportation system along the northern tier of New York State between I-81 and I-87 to address the access and mobility needs and economic development opportunities identified in the 2002 North Country Transportation Study by the Development Authority of the North Country. This northern tier corridor is an element of the Federally designated High Priority Corridor that extends from Calais, Maine to Watertown, New York and is being addressed in both state and multi-state studies;
- Creation of better access between the developing Buffalo harbor and waterfront and the southtowns area of Erie county in close coordination between the New York State Department of Transportation and officials in Erie County and Buffalo;
- Construction of the Fort Drum Connector to provide a faster, more efficient connection from Interstate 81 to this growing military base in Northern New York State;
- Support comprehensive, multimodal

transportation planning and management efforts to address areas in the State experiencing unprecedented and significant population growth which impacts the existing transportation network;

- Support for the State's over 140 General Aviation (non-airline, public-use airports) which contribute to the economy by providing essential business and recreational flight services statewide;
- Support for improved access to New York City's Central Business District (CBD) in order to preserve the City's essential role as both an employment and commercial center for the State's economy including new rail access from both Long Island and New Jersey, expanded subway service such as the 2nd Avenue Line, and ferry and express bus service;
- Continuation of the Business Airport Development program that directs capital investments to airports which have the capability of accommodating business aircraft and thereby enhancing the economy of the surrounding community;
- Support high technology industry expansion and related high technology industry initiatives through targeted transportation investments;
- Continuation of the State's Industrial Access Program which provides grants or loans to support transportation access to private economic development and job creation activities;

Issue: How Can New York State's Transportation Investments Support a Sustainable Economy and the Desired Quality of Life for Its Citizens?

Burdened with the need to plan, build, maintain, and operate the State's transportation system, how can operators also effectively serve what, may appear to some, as objectives outside the statutory purview of these operators? In fact, the future sustainability of the State's economy and well-being of its many communities will depend upon transportation's success at integrating its planning with other State agencies, local governments, and the private sector.

Strategy: Streamlining Statutory and Regulatory Requirements for Transportation Carriers

Statutory and regulatory reform will be considered on a broad spectrum of transportation governance. Among others, this effort will examine potential changes to State and public authorities' transportation and arterial law and regulation, including transportation enforcement laws, regulations, and policies, and permit requirements for truckers. The Transportation Federation's initiative to provide "one stop shopping" for truck permits will ultimately ease an existing administrative burden for truckers and, thereby, promote increased reliability.

Strategy: Integrating Transportation Planning with Local, Regional, and Private Planning with a Focus on Coordinating Land Use Planning and Transportation Investment Strategies

New York State recognizes that, in part, transportation represents a means to a larger end, a better quality of life for its citizens. To help achieve this end, the State Department of Transportation is committed to conducting transportation planning collaboratively with its planning partners at the regional and local levels and with neighboring States. Localities will be encouraged to adopt land use plans that adequately guide

future growth. All transportation operators will be encouraged to support community planning efforts that promote higher population densities, development that is more transit friendly, and the preservation of farm land. Well engineered solutions to specific transportation problems will only be carried out if they are also compatible with the affected community's land use plans.

While land use planning authority in New York State fundamentally resides with local governments, the transportation sector must play a proactive role in support of these efforts and must ensure that the transportation implications of specific local plans are appropriately considered. The Commissioner of Transportation will exercise authority over transportation investments to support the coordination of both land use planning and transportation. The State's focus upon sound planning in designated corridors, as illustrated by the examples below, will encourage this coordination.

- Technical assistance is being provided to localities that are updating the transportation elements of their comprehensive plans. The Rt. 202 and 303 sustainable development studies in the Hudson Valley are prime examples of applying new techniques to promote consensus community plans for their future. Context sensitive designs are an important tool for these efforts and will continue as a priority in the future. A pilot in Suffolk County, the Sustainable East End Development Strategy is working on a larger scale which includes 14 municipalities.
- A new community transportation planning grant program, developed through cooperation between the Departments of State and Transportation has recently selected 19 communities to receive grants up to \$50,000 each for technical

assistance in local transportation planning.

- Workshops and training seminars in context sensitive solutions principles and practices have been conducted for Department of Transportation staff as well as others. Context sensitive solutions is a philosophy wherein safe transportation solutions are designed in harmony with the community. Efforts to institutionalize context sensitive solutions will be expanded throughout the State.

One of NYSDOT's nine transportation strategies is to increase the compatibility of land use and transportation planning. On June 13, 2006, in conjunction with the Lt. Governor's Office, NYSDOT sponsored an interactive, collaborative forum, "Advancing the Transportation - Land Use Connection", bringing together over 150 local and State government representatives, regional planning organizations, academic experts and transportation professionals to gather information that will be used to develop New York's future approach for more effectively integrating transportation investments with community land use planning. Building on the findings of this effort and working closely with Metropolitan Planning Organizations and other key partners, the Department will develop and implement a more comprehensive approach to strengthen community and land use transportation planning.

Strategy: Providing a Proactive Transportation Role in the State's Quality Communities Initiative

New York State's Quality Communities Initiative is an important response to citizen concerns about the impacts of sprawl and poorly planned development in local communities that often occurred during the last half of the 20th century. Under the direc-

tion of The Quality Communities Interagency Task Force, the State has committed itself to work with local government leaders and community organizations to find smart, innovative solutions to strengthen the economy, environment, and to improve the overall quality of life for these communities.

Transportation's participation in this initiative, while only one component, is essential to its success. As important as improvements to mobility are to local communities, transportation planning and investments can and will serve the broader purposes for improvements in the quality of life, as defined by the citizens of these communities. The Department encourages community comprehensive visioning and planning that incorporates a transportation component to help shape transportation development and negate the impact of population sprawl. Clearly, transportation must play an active part in land use planning at the local level, but in addition, the following initiatives add to quality of life improvements:

- Coordination of State transportation improvements with related local public works projects, such as water, sewage and utility upgrades or the laying of fiber optic lines to minimize disruptions to the communities and to avoid the need to redo improvements;
- Collaboration between the State and local governments to promote sound access management practices on arterials and other roadways in commercial areas;
- Efforts to ensure that aesthetic and other environmental improvements such as sidewalks, period lighting, plantings, and other treatments designed to complement the local architecture are made at the same time that transportation improvements are being advanced;
- Promotion of the use of clean fuel vehicles at all levels of government;
- In both urban and rural areas, support all appropriate venues for implementation of public transportation including in transportation project development, community transportation planning, coordination of public and human service agency services, and initiatives that partner providers and businesses in need of employee transportation;



Scenic Outlook - Whiteface Mountain Parkway

- Continuation of the Scenic Byways Program with strong encouragement for localities and community groups to nominate corridors for inclusion in the program so as to promote tourism along the byways and to preserve the scenic character of these corridors;
- Continuation of active partnering by the State with local communities in "walkable community" programs which encourage greater reliance on walking and biking, for both recreation and routine travel. Ensuring that communities provide safe and attractive facilities for walking and bicycling contributes to community economic vitality as demonstrated in numerous case studies reviewed under Federal Highways Administration's PEDSAFE project.

Strategy: Coordinating With Indian Nations in New York State

This joint effort will continue a broad range of transportation related activities affecting the State's seven resident Federally recognized Indian nations, including highway and bridge maintenance programs, capital project development on or in close proximity to reservations, and historic preservation efforts. Prime examples of New York State's approach to this coordination are the recent partnership between the New York State Department of Transportation and the Mohawk Council of Akwesasne Nation as part of the long-range study of future needs at the Seaway International Bridge in Massena and the partnering efforts with the Oneida Nation in traffic improvements to Route 365 at Exit 33 of the Thruway. The State's commitment to such coordination will help to ensure that the interests of the Nations are appropriately considered in transportation planning efforts.

Conclusion

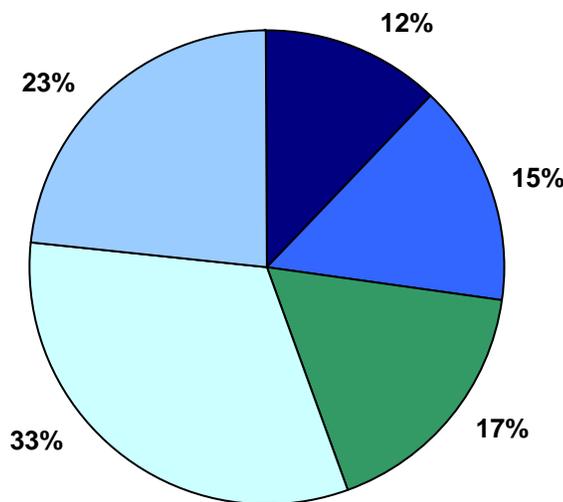
A cost effective, efficient, reliable transportation system is essential to a thriving and sustainable economy for New York State. It is important that the State's transportation operators promote transportation investments that represent the means to broader ends, economic growth, sustainability, and, especially, the overall quality of the communities in which New Yorkers reside. The State transportation sector will further strengthen its existing partnerships with local governments and private community groups to maximize the positive impact future transportation investments have on economic competitiveness.

New York State’s transportation system is funded through a variety of revenue sources. Approximately 88 percent of the funding is provided by the State, local governments, and transportation authorities. Only 12 percent of the State’s transportation programs are supported by Federal revenue sources. State revenues for transportation are collected from a variety of fees and taxes deposited in State Dedicated Highway and Bridge Trust Fund, the Dedicated Mass Transportation Trust Fund, the Mass Transportation Operating Assistance Trust Fund and the State’s General Fund. Local Government funds for transportation come largely from property, sales and mortgage tax revenues. In addition, parts of the transportation system are funded from private entities, such as railroads, aviation facilities and ports. The actual committed funding levels from State and Federal sources are determined by both the annual budget cycles and

the periodic short term program authorizations at both levels of government. This Plan, covering the period out to 2030, presumes that transportation funding decisions will continue to be determined by means of these well-established processes.

The Report from the New York State Advisory Panel on Transportation Policy for 2025 (www.utrc2.org/publications/troubleahead.php) concluded that New York State must provide substantial, sustainable, and predictable funding dedicated to transportation investments. The report also recommended that New York State examine all possible sources of revenue for transportation investments, including user fees, taxes, tolls and private investment. Achieving these objectives is important to the accomplishment of the investment strategies identified in this Plan. In addition, the transformation of the State’s oversight of transportation, cur-

Transportation Funding in NYS 2004 Budget by Fund Source



■ Federal ■ State ■ Local ■ User/Other ■ Bond

Transportation Funding Chart

rently underway, will help to accomplish other major objectives of this report, including effective cost controls on all transportation operations and capital investments, and integration of the State's multiple transportation operations to form a seamless system that delivers significantly improved results.

In the summer of 2005, a five year, \$35.9 billion capital investment program was approved for Statewide transportation facilities and New York Metropolitan Transportation Authority (MTA) facilities, the largest transportation program in the State's history. Also, Congress completed legislation authorizing Federal funding for highway and transit programs through 2009. The State's Capital Investment Plan, which covers the years 2005-2010, will be financed through a combination of the newly authorized Federal funds, State funds, local aid, transit fares, toll revenues, and \$2.9 billion in funding from the Rebuild and Renew New York Transportation Bond Act.

There are significant transportation needs beyond those funded from the above cited capital programs. Local governments fund the maintenance and repair of local highways and bridges. Private transportation providers invest in their facilities. State and local governments invest in the operations and maintenance of the State's public transportation systems. While the State Transportation Operating Assistance Program is financed through several statewide and regional dedicated taxes, these revenues do not always grow as fast as the needs. Increased funding will be needed to improve the condition of the State's diverse transportation facilities and keep them safe.

Revenues to fund transportation have traditionally come from Federal and State motor fuel taxes and motor vehicle fees. Although this revenue source has been suc-

cessful in funding the creation of the existing transportation system, it is not growing commensurate with needs. Federal and State motor fuel taxes are imposed on a per gallon basis and do not rise as the price of gasoline increases. Furthermore, although New York's Federal transportation funding is growing slowly, it is growing at a rate well below the national average. In 2005, New York State voters approved a \$2.9 billion transportation bond act. This one time infusion of revenue is not likely to be repeated often.

Existing and future constraints on all levels of government will make it increasingly difficult to continue to finance infrastructure from traditional governmental sources. New, innovative methods will need to be found and implemented to finance the transportation infrastructure investment needs of the future. Evolving technologies that measure the use of the transportation system, such as vehicle miles traveled by users, could provide an alternative to traditional funding mechanisms. But implementation of these technologies are many years away. In the near term, many States are already using innovative financing and public private partnerships to generate additional funding for needed transportation improvements and to build projects more quickly and efficiently. The Federal government is providing incentives and increased flexibility to States that partner with the private sector. New York State will need to consider implementation of these strategies in the future or risk falling behind other States on infrastructure investment and economic competitiveness.

In order to compete in the global economy, New York State must plan to maintain a leadership role in not only transportation innovation, but also innovation in how to finance transportation. As an early action of this Plan, the Department prepared a white paper researching the existing use and po-



Transportation Development Partnerships Conference
Commissioner Madison, Assemblyman Brodsky,
Senator Libous and Thruway Authority Executive Director Michael Fleischer

tential opportunities for innovative financing and contracting arrangements to assist New York in maintaining and improving its transportation infrastructure. In addition to the research, DOT co-sponsored a conference to discuss the latest developments in innovative financing and contracting strategies. The Department's white paper recommends that NYSDOT, the Thruway Authority and MTA be given the authority to enter into public/private partnerships, termed Transportation Development Partnerships, where the public can benefit from this type of arrangement. These partnerships are only appropriate for selected transportation investments, but given the constraint on future transportation resources, they are an important tool for the State's financial toolbox.

While the State recognizes the need to invest in infrastructure, this Plan does not presume a specific level of financial support for the period 2005-2030. Instead, it identifies the broad investment priorities upon which progress within the Priority Result Areas depends. Clearly, such progress requires substantial, sustainable, and predictable funding, irrespective of the specific sources of such funding. In recognition that future authorized funding levels will largely be determined by the cyclical processes referenced above, this Plan is intended to es-

tablish spending priorities, regardless of the precise levels of support provided.

The Department will work with the MTA and other transportation agencies and authorities to develop long term strategies to address the future finance needs of New York State's diverse, multimodal transportation system over the life of this Plan.



New York State Department of Transportation

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