

New York Works for Investment in Transportation Infrastructure
Submission to the New York Works Task Force
New York State Department of Transportation
Summer 2012

Introduction

From construction of the nation’s first railroads to the Erie Canal to the Brooklyn Bridge to the New York City elevated subway lines to the Interstate Highway System, New York State has been a world leader in the construction of multi-modal transportation infrastructure – transportation infrastructure that has transformed our State’s economy into the global centers for the financial, insurance, real-estate and technology sectors. New York’s transportation infrastructure, much of it built before or during the Eisenhower Interstate Era is among some of the oldest and most heavily utilized in the nation and is also subject to some of the harshest weather conditions. As a result, New York’s infrastructure conditions rank among the lowest in the nation. The ability of people and goods to move through the State is dependent on a well-functioning transportation system. The repair, rehabilitation, efficient operations and strategic replacement of existing transportation infrastructure are required for safety, mobility and for the State to remain economically competitive. To address this issue, Governor Cuomo has made historic investment in transportation infrastructure the cornerstone of the economic development blueprint for the State.

***“We have a great opportunity to rebuild New York
We need jobs
We need to be competitive
We need to be safe
We need to rebuild our infrastructure
We need a new approach to get it done...”***

**2012 State of the State Address
Governor Andrew M. Cuomo**

Governor Cuomo’s NY Works Task Force provides an unprecedented opportunity to restore New York’s position as the Empire State; to attract and create private sector jobs; to leverage State resources to generate billions in new construction and economic growth; to rebuild our infrastructure so that New York remains competitive and safe; and prepare and respond to emergencies that may impact New Yorkers and the State’s economy.

NYS DOT has reengineered its capital program – how it develops, programs and funds transportation infrastructure investments. Investments are focused on asset management and infrastructure preservation strategies. NYS DOT has implemented new strategies to select investments in projects that go beyond preservation, linking transportation with economic development. NYS DOT is also successfully employing new procurement methods to deliver projects, such as Design-Build, authorized by the State Legislature in December 2011.

NYS DOT's process changes positioned the Department, during SFY 2012-13, to implement the acceleration of \$1.2 billion in NY Works funding, delivering hundreds of additional bridge and

NYS DOT is being recognized as a national leader in implementing the principles of transportation asset management.

pavement projects statewide. This unprecedented acceleration in transportation projects is above and beyond the NYS DOT's 2012-13 \$3.3 billion multi-modal transportation program, including \$1.7 billion in core highway and bridge investments. The State will continue to support its

transportation infrastructure with sustained investment levels to build on the progress made with the Governor's NY Works investments and to make progress towards a sound future. As additional capacity for transportation infrastructure investment is identified, NYS DOT is prepared to fully utilize additional resources in ways that continue to support economic development and a stronger future for New York State.



Damage to Route 73 in Essex County as a result of Hurricane Irene and tropical Storm Lee



Reconstruction of Route 73 in Essex County

A New Way Forward

NYSDOT has developed for consideration a two-year multimodal transportation infrastructure preservation and strategic investment blueprint. The proposed strategic investment strategy focuses on safety, preservation and efficient operations of the State's transportation network; complements the level of transportation investment made by the Governor and the Legislature during SFY 2012-13; and is consistent with the goals and direction of the ten Regional Economic Development Councils (REDC), all of whom have recognized support for existing transportation infrastructure as an important priority for continued economic growth.

The Department's multimodal transportation infrastructure preservation and strategic investment blueprint:

- Fully integrates asset management based preservation strategies to guide the capital programming and project planning process for all modes.
- Ensures that the appropriate investments are made at the right time in the lifecycle of an asset to ensure the best use of available resources.
- Maximizes the amount of infrastructure in "good" condition that can be attained within available resources and readily identifies project choices for varying funding levels.
- Employs innovative program delivery and project procurement processes, such as Design-Build which was authorized by the State Legislature in 2011, to complete projects faster and more cost-effectively.
- Leverages traditional and new public-private partnerships to support infrastructure renewal, generate billions in new construction and create thousands of new jobs to facilitate economic growth.
- Provides flexibility to address emergencies and unforeseen circumstances.

Implementation of this blueprint will address the immediate and longer term infrastructure needs of the transportation system to move people and goods in support of the economy in a constantly changing global marketplace.

Preservation First!

A safe, reliable and multi-modal transportation system is essential to a sustainable society, addressing the needs of system users and facilitating the flow of commerce. During the past several years, New York State has made considerable investments in its multi-modal transportation infrastructure to address system conditions and state-of-good repair needs.

To sustain that progress, NYSDOT has implemented a "*Preservation First*" capital planning process. Under the *Preservation First* framework, NYSDOT will continue to focus investments in current infrastructure on preventive, corrective and demand maintenance. In doing so, the Department will emphasize proper management of assets, will undertake appropriate treatments, at appropriate times, and at the appropriate locations to maximize the life of its assets. Replacement of roadways and bridges and modal assets will occur only when an asset

has reached the end of its useful life and attempts to further extend the life of the asset are no longer cost-effective.

NYS DOT has not only shifted the way in which it develops transportation investments, the Department has also transformed the way in which it delivers capital projects. Governor Cuomo's NY Works has provided NYS DOT the opportunity to utilize newer procurement methods such as design-build, pre-qualification of contractors, and best value in addition to the traditional design-bid-build to deliver its capital program. Many NY Works projects have been consolidated under bundled regional contracts – a more efficient delivery method. As a result, NYS DOT has awarded more contracts in the first quarter of State Fiscal Year 2012-13 than in any previous year.

To ensure that NYS DOT's investments are consistent across regions of the State, the *Preservation First* capital planning process relies on four guiding principles (Figure 1) and associated strategies to address the needs of the traveling public and commerce:

- Preservation First;
- System Not Projects;
- Maximize Return on Investment; and
- Make It Sustainable.

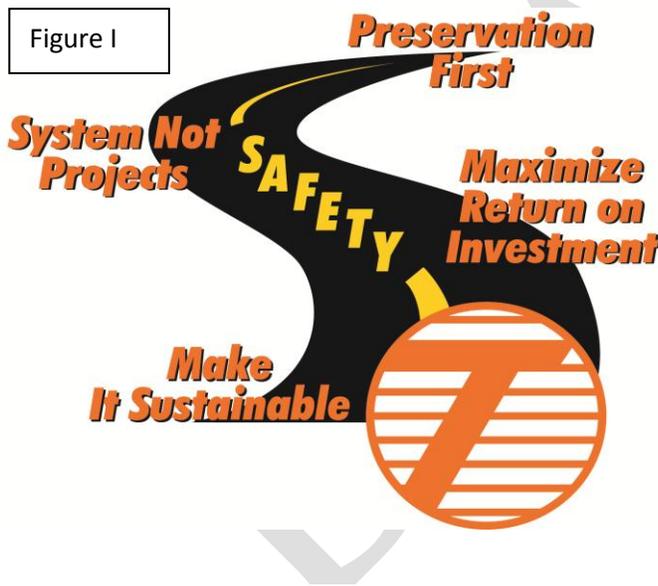


Figure 1

The safety of the traveling public is a priority that is woven into each of these principles, and into all infrastructure projects.

By adhering to these guiding principles, NYS DOT will maximize the life of our existing infrastructure, improve livability, consider environmental protection and improvement in the development and implementation of our projects and will promote economic development. Collectively, our investments will support a sustainable society.

The *Forward Four*, in the context of the Department's multimodal investment blueprint are more fully defined below:

- (1) Preservation First - To ensure the State's transportation system can continue to support future commerce, personal travel demands and address emergencies and unforeseen circumstances, NYS DOT will focus first on preserving the existing infrastructure. This includes focused investment in current infrastructure on preventive, corrective and demand

maintenance. The highest priority of infrastructure investment will be to preserve the functionality of the existing transportation system.

- (2) System not Projects – While NYSDOT’s annual investments in transportation infrastructure are composed of many individual projects, each project must contribute to an efficient multi-modal transportation system. Critical transportation corridors in the State (including both long-distance and local corridors and encompassing all transportation assets) must remain functional, and provide uninterrupted connectivity for system users. System-wide conditions require a system and program-driven, rather than a project-driven, solution. Where warranted, NYSDOT will consider strategically advancing a limited number of system replacement and expansion projects. NYSDOT will leverage technology will that support economic development and users of all modes.
- (3) Maximize Return on Investments - Age, utilization and the harsh freeze-thaw cycle of the Northeast all serve to accelerate the deterioration of the State’s transportation infrastructure. Given the backlog of investments needed to bring the system to a state-of good-repair (SGR), it is essential that a strategy be implemented that optimizes the benefits to the system for the investment made. To facilitate this principal, NYSDOT emphasizes proper management of assets with appropriate treatments, at appropriate times, and at the appropriate locations to maximize the life of the existing assets.

To support this strategy, the Department performs condition assessments of its roads and bridges and then models those conditions and subsequent deterioration to determine the lowest cost treatment that can be applied. It then applies that treatment just before conditions fall to a lower level, thus getting the most life out of these low cost treatments. To maximize the service life of the transportation infrastructure, NYSDOT will perform focused rehabilitation work, fixing only those elements in need of repair, when determined that the service life of the asset can be extended with limited investment.

- (4) Make It Sustainable – Sustainability - balancing economic, social and environmental considerations - is an overarching principal. NYSDOT will incorporate sustainability considerations into all of its actions and investments. A sustainable approach to transportation investment considers the relative and cumulative value of the assets as they benefit the public, economy and environment.

Strategies for Investment - Guided by the *Forward Four* principles defined above – include:

- i. Utilize asset management strategies, and expand the deployment of these strategies to off-state system multi-modal facilities.*

Asset management is a decision-making process that uses sound engineering practices that covers an extended time horizon (from five to 20 years or more), considers existing and estimated funding levels, and encompasses a range of assets. An asset management approach incorporates the assessment of trade-offs among alternative investment options and uses this information to allocate resources among different types of investments, such as the maintenance, preservation, reconstruction, or replacement of existing assets. NYSDOT's overall strategy is to invest in the infrastructure with the right treatment, at the right time in the life of the investment, and in a location that considers the overall system travel. Recognizing the age, condition and utilization of the transportation infrastructure as a whole, this will require consideration of and investment in all modes of transportation, including facilities owned by entities other than NYSDOT. Users of the system do not view transportation infrastructure from an ownership perspective, but rather from their ability to get from Point A to Point B seamlessly. NYSDOT is responsible for the transportation system - all modes - so it is important that we make investments that best meet the overall needs of this integrated system to address the needs of our users and to move people and goods in support of the economy.

Strategies for investment in the transportation system include:

- i. Use of Asset Management strategies.*
- ii. Investment in Maintenance and operations.*
- iii. Leverage State Resources to Generate Private Investment.*
- iv. Optimize investments to the overall multi-modal network.*



ii. Invest in the maintenance and operation of a safe and efficient transportation system.

A critical emphasis of the State's transportation investments must be to assure the safe and efficient operations of the existing system. Such investments include not only those that preserve the infrastructure, but also operational investments such as Transportation Management Centers (TMC's), transportation demand management programs, support for Emergency Transportation Operations and Traffic Incident Management initiatives, including the Highway Emergency Local Patrol (HELP) program, 511NY system investments, integrated corridor management, managed use lane strategies, and other

initiatives that maximize transportation options and optimize the overall mobility of the system. Efficient movement of people and goods supports a healthy economy and vibrant communities, and minimizes impacts to the environment.

Moving Ahead for Progress in the 21st Century (MAP-21), the recently enacted federal surface transportation program, identifies safety as one of the program's primary investment goals. MAP-21 requires the United States Department of Transportation (USDOT) to establish performance measures in the area of safety in consultation with states. NYSDOT will

make investments to improve the safety for all transportation modes, to save lives and reduce the number of crashes, especially severe crashes on the system. Projects will include those to address site specific safety concerns and broadly applied low-cost measures to reduce specific types of crashes. These programs will use a data-driven approach and target emphasis areas outlined in NYSDOT's Strategic Highway Safety Plan (<https://www.dot.ny.gov/divisions/operating/osss/highway/strategic-plan>).

iii. Leverage strategic capital program investments to support economic and community development while respecting the environment.

Transportation investments provide critical connections to markets, businesses, jobs and amenities, and can help shape a community. NYSDOT will consider investments in projects beyond preservation that leverage other public and private resources, support existing and emerging economic opportunities, support sustainable community planning, and respect the environment. NYSDOT has, to a limited degree, creatively utilized “public/private” partnerships to advance strategic economic development projects. Examples of these projects include the new pedestrian underpass under Route 9 at Marist College in Poughkeepsie; Fuller Road improvements in Albany, in partnership with the SUNY College of Nanoscale Science and Engineering (Figure II); and the Kendrick Road over I-390 project in the City of Rochester, in partnership with the university of Rochester (Figure III).

DRAFT

Figure II

Fuller Road improvements in Albany, NY, in partnership with the City of Albany and the SUNY College of Nanoscale Science and Engineering, underscore transportation's contribution toward economic development.

This public-private partnership investment in infrastructure is serving to enable the current and future expansion and investment of private sector resources in the Nanotech campus. The current infrastructure investment includes constructing a roundabout with a fly-over over bridge for through traffic on Washington Avenue.

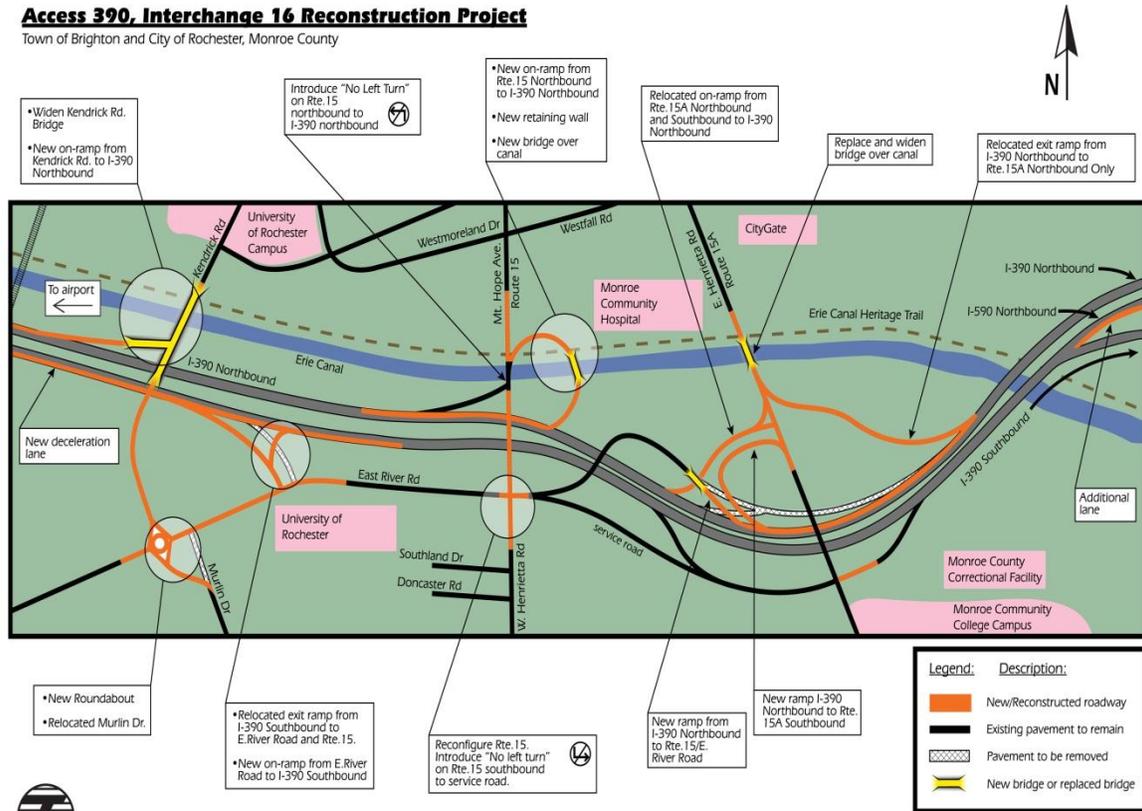
The project includes financing from the Fuller Road Management Group (Nanotech), Albany County, and New York State. The Fuller Road Management Corporation (FRMC) is investing \$10 million; NYSDOT and Albany County are jointly funding the remainder. The project will be open to traffic in November 2012 and was substantially completed within one season.



Figure III

Access 390, Interchange 16 Reconstruction Project

Town of Brighton and City of Rochester, Monroe County



New York State Department of Transportation
September 2011

Rochester, NY - The I-390 Corridor Improvement Project (Kendrick Road) is another example of how State investment in transportation infrastructure leverages private sector resources and supports current and future expansion opportunities. The \$68 million I-390/Kendrick Road investments will improve safety, mobility, access and egress to the University of Rochester; construct a new on-ramp that will directly benefit the expansion of the University's medical center; and create a gateway entrance to the University's campus.

4. Make Investments that will optimize the benefits to the overall multi-modal transportation system.

Investments will be considered based on their relative importance to the transportation system as a whole. Such investments should occur along “corridors” (regional or local) that provide access to critical destinations. Corridor size and scope will be varied and be considered within the context of the region/area. Corridors will include the multi-modal assets that support access to identified destinations of importance (e.g., markets for goods, communities, tourist destinations, etc). Such investments could encompass a range of activities including but not limited to integrated corridor management, bus rapid transit, managed use lanes, operations innovations, habitat connectivity, and advanced mitigation planning.

Beyond Preservation

While the Department’s multimodal transportation infrastructure preservation and strategic investment blueprint detailed above describes the general priority for project investments, the need for strategic investments beyond preservation will also be addressed within the context of NYSDOT’s capital programming and development processes. In light of our new *Preservation First* capital planning process, NYSDOT has developed a centralized process for evaluating Beyond Preservation projects. All major rehabilitation, reconstruction, modernization and replacement projects - including capacity improvement projects – will require detailed engineering analysis and justification if preservation needs within a region are not fully addressed. This centralized review process ensures consistency across NYSDOT regions for these major infrastructure investments.

The Kosciuszko Bridge, which spans Newtown Creek between the New York City boroughs of Brooklyn and Queens, is an example of strategic investment in a beyond preservation project. Replacement of this facility, included in Governor Cuomo’s NY Works program, will be accelerated utilizing Design-Build procurement to minimize project-related disruptions to the community and ensure the best value is provided to the public.



Kosciuszko Bridge

Investment Alternatives

NYSDOT's multimodal transportation infrastructure preservation and strategic investment blueprint assumes a realistic outlook for federal transportation aid in the near future. To facilitate discussion on the future level of transportation infrastructure investment, NYSDOT has provided a range of potential investment alternatives (Table I) and estimated accomplishments (Table II). The three investment alternative scenarios include:

- (1) **Strategic I Investment Level** – The *Strategic I* investment level is equivalent to \$6.468 billion, the amount assumed in the State's most recent Five-Year Capital Finance Plan for SFYs 2013-2015. In addition, NYSDOT is proposing to add an additional \$52 million above the finance plan to address emerging needs. Emerging needs include, but are not limited to providing new support for engineering design, environmental reviews and matching grant funds to secure potential additional federal support for High-Speed Rail investments.
- (2) **Strategic II Investment Level** – The *Strategic II* investment level represents the annual infrastructure investment required to sustain current investments and to achieve NYSDOT's preservation goals.
- (3) **Strategic III Investment Level** – The *Strategic III* investment level represents the annual infrastructure investment required to achieve NYSDOT's preservation goals *and* to make strategic investments in the replacement of the most critical assets from a statewide perspective.

The State's current Five-Year Capital Finance Plan includes funding to support a new \$6.5 billion two-year transportation infrastructure preservation and investment plan program. The Strategic I level supports investment in highways and bridges; preserves funding for local highway and bridge projects under the Consolidated Local Street and Highway Improvement Program (CHIPS); maintains the Marchiselli Program at prior-year levels; and contains the necessary funding for engineering, administration and other costs related to implementation of this new two-year program. This investment alternative focuses investments on preservation of the most heavily used core system assets first, including bridges and highways on the federal aid system.

The Strategic II and Strategic III investment alternatives increase the level of preservation needs addressed and the capacity for strategic investments.

The spectrum of potential investment alternatives are detailed in the Table below:

Table I
Potential Investment Alternatives
SFY 2013-14 – SFY 2014-15
Incremental Investment Levels
 (\$ Millions)

	Strategic I Investment Level	Strategic II Investment Level	Strategic III Investment Level
Construction and Program Support ^(1&2)	\$4,763	\$1,828	\$3,354
System Maintenance & Operations	\$718	\$276	\$567
Local Roads and Bridges	\$806	\$310	\$568
Modal Infrastructure ⁽³⁾	\$233	\$170	\$170
Subtotal Incremental Investment	-	\$2,584	\$4,659
Plan Total ⁽⁴⁾	\$6,520	\$9,104	\$11,179

- (1) Includes state and local construction and program support costs (including engineering, administration, right-of-way and other capital costs) required to deliver the highway and bridge program.
- (2) The highway and bridge program accomplishments detailed below apply to the State Highway system. This includes 7,644 bridges (44 percent of all bridges in the State) and more than 38,000 lane miles of highways (16 percent of all roads in the State).
- (3) Includes Public Transportation, Aviation, Rail and Port program investments.
- (4) Includes \$52 million above the amount in the State's most recent Five-Year Capital Finance Plan for SFYs 2013-2015 to address emerging issues.

Table II
Estimated Accomplishments

	Strategic I Investment Level	Strategic II Investment Level	Strategic III Investment Level
Jobs Created ⁽¹⁾	35,020	60,500	83,100
Number of Bridges Improved	1,794	3,763	3,950
Miles of Pavement Improved	5,923	12,464	13,459
Severe Accidents Reduced (Annually)	450	505	520
Total Accidents Reduced (Annually)	1,275	1,450	1,500

- (1) Methodology for jobs created is based on a figure of 13.6 full-time equivalents (FTE) per million dollars of construction.

System Condition

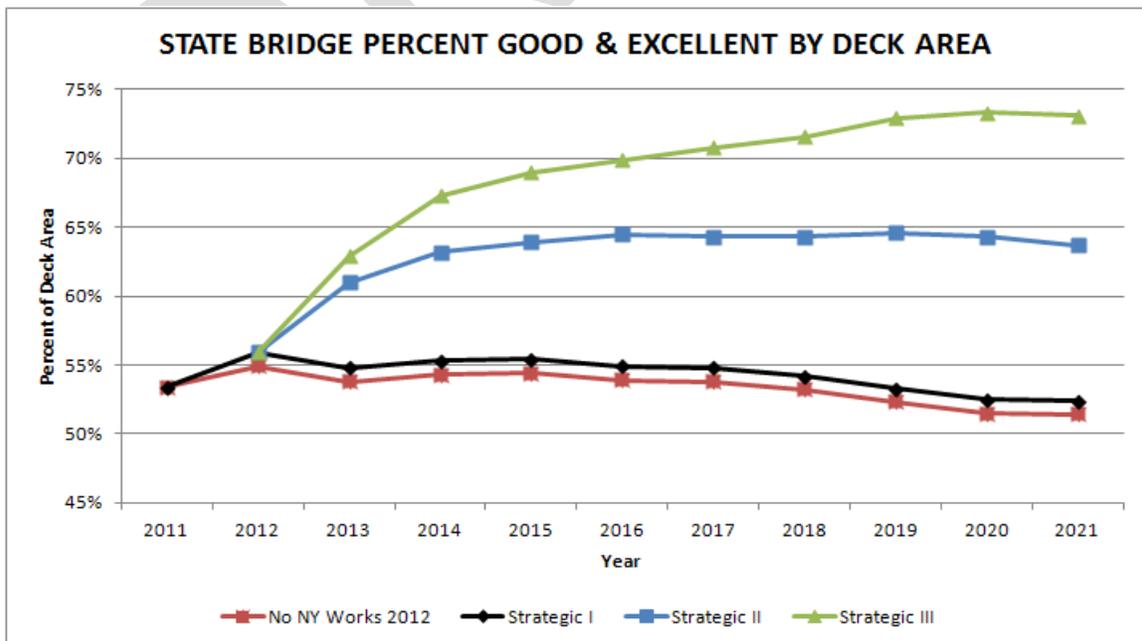
Performance-Based Approach

NYSDOT uses performance outcome simulation models to forecast bridge and pavement conditions. The models used for the highlighted investment scenarios have been reengineered to support the Department's *Preservation First* strategy and simulate the most cost-effective asset treatment, during the limited window of opportunity, before distress becomes too severe and requires more expensive repairs/rehabilitation. The models take into consideration asset deterioration attributable to age and use by asset class and region; business rules regarding project scope and prioritization of investment candidates; and estimated investment levels by asset class by region. Simulated results include work locations and scopes by fiscal period, asset conditions by fiscal period, and estimates of work backlog at the start of the simulation and at the end of each fiscal period of the simulation. By modeling multiple investment scenarios, the Department is able to assess the trade-offs associated with specific strategies and levels of investment.

Bridges

As previously noted, the focus of the investment blueprint is to preserve bridges in good and excellent condition. As shown in Figure IV, this is generally achieved during the period of the two-year proposal, however as bridges age, conditions will worsen longer-term at Strategic I Investment Levels. The Strategic II investment alternative assumes resource levels to meet preservation needs. The Strategic III investment alternative provides additional resources to address system renewal and strategic enhancement projects, resulting in a significant increase in the bridge deck area in good and excellent condition. The deficient bridge deck area would be greatly reduced.

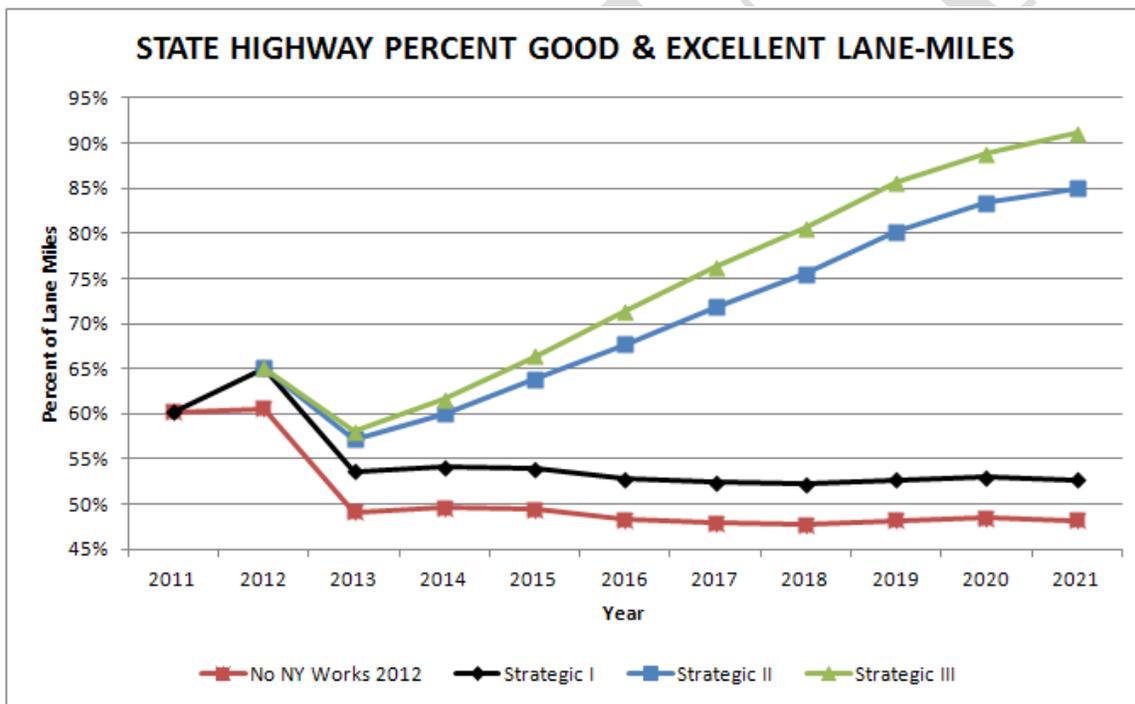
Figure IV



Pavement

In terms of State pavement conditions, implementation of NYSDOT's preservation first strategy, at Strategic I investment levels, has slowed the projected rate of decline and will stabilize the percentage of State lane miles in good and excellent condition during the short-term capital program period (2013-2015). Investments through NY Works allowed NYSDOT to meet the preservation gap for a single year, thereby improving system conditions. Notwithstanding, the current investment levels do not meet preservation needs, and as time passes, it is increasingly difficult to hold the current conditions (Figure V). As investment levels increase with the Strategic II and Strategic III investment alternatives, the lane miles of pavement in good and excellent condition would increase and the lane miles of pavement in Poor condition would be greatly reduced from the Strategic I alternative.

Figure V



Modal Investments

The State's transportation infrastructure, when viewed as a system, supports the efficient movement of people and goods which allows our economy to flourish. Each mode of transportation – highways, transit, rail, ports and aviation - has an important role to play in this support, and investment to improve this infrastructure is essential for economic growth. New York's future economic competitiveness requires investment in all modes of the State's transportation system, creating a balance where transportation can support a sustainable future. Similar to the State's highways and bridges, the State's extensive modal assets -

including its public transportation, aviation, rail and port transportation systems - also require significant preservation and renewal investments. The proposed strategic investments for these non-highway modes are detailed below (Table III). The alternative investment scenarios include:

- (1) **Strategic I Investment Level** - The Strategic I investment level is equivalent to \$6.468 billion, the amount assumed in the State’s most recent Five-Year Capital Finance Plan for SFYs 2013-2015. In addition, NYSDOT is proposing to add an additional \$52 million above the finance plan to address emerging needs. Emerging needs include, but are not limited to providing new support for engineering design, environmental reviews and matching grant funds to secure potential additional federal support for High-Speed Rail investments.
- (2) **Strategic II Investment Level** – The annual levels of infrastructure investment required to sustain current investments and to achieve NYSDOT’s modal preservation goals.

In developing alternatives for modal investments, NYSDOT did not consider Strategic III investments levels. Investment in modal assets must also take into consideration the capacity of local sponsors to provide the annual operating support to increase modal service levels (e.g., labor, fringe benefits, fuel) and that analysis has not yet been completed.

Table III
Potential Investment Alternatives
SFY 2013-14 – SFY 2014-15
Incremental Investment Levels
(\$ Millions)

	Strategic I Investment Level	Strategic II Investment Level
Municipally Sponsored Public Transportation Services ⁽¹⁾	\$74	\$41
Aviation	\$16	\$14
Passenger and Freight Rail/Ports	\$20	\$95
Federal High-Speed Rail Matching Funds	\$20	--
Passenger Rail Investment and Improvement Act (PRIIA) Requirements	\$88	\$20
Design/Engineering to support future federal High-Speed Rail funds	\$15	--
Subtotal Incremental Investment		\$170
Total ⁽²⁾	\$233	\$403

(1) Investment requirements for the Metropolitan Transportation Authority (MTA) are addressed outside of NYSDOT’s capital investment plan.
(2) Includes funding assumptions above the amount authorized in the State’s most recent Five-Year Capital Finance Plan for SFYs 2013-2015 to address emerging issues.

Municipally Sponsored Public Transportation Services

Public transportation provides mobility that significantly contributes to the State's policies in support of global economic competitiveness, energy independence, environmental sustainability, congestion mitigation and emergency preparedness. As demographics change, sustained investment in public transportation is an essential component for supporting economic and population growth in metropolitan and non-metropolitan areas. Public transportation ridership has increased substantially over the last decade, by approximately 20%, to more than 314 million trips annually (excluding services provided by the MTA).

Investments in public transportation infrastructure are supported through a strong federal, State and local partnership. Under current federal law, the share of federally-aided public transportation investments is 80%. New York State provides 50% of the non-federal share and municipal project sponsors are responsible for the remaining federal share. New York State also provides limited 100% State funding to address core system preservation needs that exceed available federal and local resources.

As noted, investments to preserve public transportation services provided by municipally sponsored systems statewide are essential to address increased service demands. Investment levels for these systems under the Strategic I investment alternative will allow the State to continue to leverage FTA formula program and discretionary program opportunities by continuing to provide State matching funds to federally-aided system preservation projects.

Incremental investment levels proposed under the Strategic II investment alternative would support infrastructure improvements necessary to maintain and modernize transit assets. Critical infrastructure needs of public transportation systems will require investments in bus replacement, facility rehabilitation and modernization and related transit equipment. Funding will support investments in existing infrastructure that has exceeded federally designated design-life, and will be used to acquire cleaner-fueled, ADA-accessible transit buses; related support equipment; paratransit vehicles; passenger shelters; and improved pedestrian-transit access. Funds would be used to construct and rehabilitate bus maintenance facilities and other eligible transit projects. The State will also play a stronger role in modal investments by utilizing innovative procurement and business center strategies.



Syracuse, NY - The William F. Walsh Regional Transportation Center (RTC) is Central New York's one-stop transportation center providing service to other cities. The RTC is home to train & bus services provided by Amtrak, Greyhound, MegaBus and Trailways. All are under one roof and the RTC provides customers a safe, clean & friendly environment while they travel.

Passenger/Freight Rail and Port

Although the State's rail network is largely owned and operated by private railroads, the State invests in facilities that have a public benefit. This rail system transports both freight and passengers, supporting the national and State economy. Rail travel is energy efficient, environmentally sound and reduces truck and automobile travel on the highways.

Rail can move one ton of freight over 450 miles on a single gallon of fuel.

Approximately 70 million tons of freight move over the State's 4,100 miles of rail annually, and an estimated 1.5 million passengers travel using the Amtrak Empire and Adirondack services each year. The demand for rail is growing. While carloads and tons of rail freight dropped significantly between 2007 and 2008, the volumes of carloads that originated or terminated in New York showed increases

recently, returning to the 2007 pre-recession levels, and showing increases of nearly three percent over the last three years for which data is available.

The demand for passenger services is also growing. Penn Station in New York City is the nation's busiest rail station, serving nearly 400,000 passengers daily, and serving about 8.4 million Amtrak passengers annually. Total New York Amtrak station usage for 2011 was nearly 11 million, up seven percent from the previous year, and all corridor services set records for ridership. In 2011, travel from New York City to Albany exceeded one million passengers for the first time. Rail is a key part of a balanced energy efficient future and New York State is preparing for this future. Currently, NYSDOT is completing an Environmental Impact Statement (EIS) for the Empire Corridor, and is implementing approximately \$750 million in corridor improvement projects. These investments will position the State to successfully compete for federal funding made available to states to support continued passenger rail improvements.

New York must continue to invest in its rail infrastructure. The 2009 New York State Rail Plan described more than \$10 billion of investment needs on the freight and passenger rail systems over a twenty year period to achieve a state-of-good-repair and provide for needed capacity expansion. More recently, the Regional Economic Development Council's 2011 Consolidated

Funding Application (CFA) process received project proposal applications for approximately \$100 million in needed investment in rail infrastructure. While a large portion of rail investment will be made by the railroads themselves, strategic State investments can help preserve essential rail services and facilitate expansion that supports economic growth.

The Strategic I investment alternative provides State resources in the passenger and freight rail system to support the preservation of existing rail infrastructure assets. The Strategic II investment level would also provide for increased freight movement through the elimination of 286,000-pound weight restrictions (which would allow access by industry standard rail cars), raise clearances, improve rail capacity (primarily “last mile” connections along the State’s rail infrastructure), provide improved access to rail for shippers, add capacity at selected locations and improve passenger rail facilities on key corridors (Figure VI).

CSX Rail Yard Selkirk, NY

Freight Carload Origin and Destination - According to the most recent statistics by the American Association of Railroads (AAR), 7 million carload tons originated in New York State in 2010. Major State exports include chemicals, waste and scrap, and nonmetallic minerals. Tons terminated in New York totaled almost 22 million, including coal, chemicals, and food products. Actual rail carloads originated and terminated within the State in 2010 totaled 195,000 and 360,000, respectively. Major freight rail facilities and yards in New York are located in Buffalo, Syracuse, Albany, Binghamton, and New York City. Smaller yards and facilities are located throughout the rest of the State.

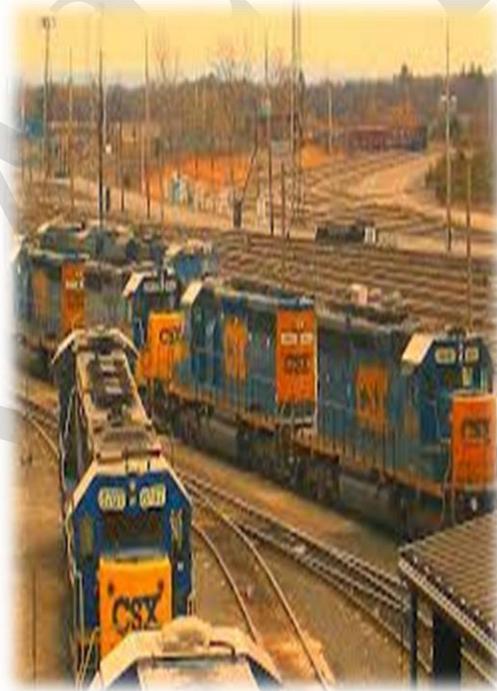




Figure VI

Barilla America, Inc. - maker of a top-selling brand of pasta - constructed a new 49-acre pasta-making and distribution facility in Avon, N.Y. Barilla invested approximately \$90 million to build this pasta-making and distribution facility, which will service the Northeastern United States (more than 50% of Barilla's U.S. sales). The Barilla pasta plant and its accompanying warehouse employ more than 100 New York State residents and contribute millions of dollars into the local economy.

Factors influencing Barilla America's decision to select New York over other contenders for its new facility include the areas skilled workforce, the region's excellent living conditions, and convenient access to both railroads and major highways. It was the State's foresight to previously invest more than \$5 million in strategic improvements in the freight rail system to accommodate modern 286,000-pound railcars that led Barilla to consider Western, NY for this facility.

Investments are also critical to making New York State's upstate port facilities more competitive. NYDOT investment in ports is currently limited to funding authorized in the 2005 Rebuild and Renew New York Bond Act funding. Funding under the Bond Act for Ports has been fully committed. As part of the capital program development process, appropriation language for the State's rail program will need to be revised to ensure continued eligibility for the investment in ports outside the Port Authority of New York and New Jersey. Port investments will include preservation of existing port facilities and projects to increase material handling and storage capacity, supporting the economic competitiveness of New York State's upstate ports and mitigating truck activity within congested corridors.

Aviation

Investment in the State's system of aviation facilities will support the preservation of existing airport assets, enhance mobility through maintaining air network connectivity, and will better assure the safety of the flying public. All commercial and most of the general aviation (GA) airports that are eligible for State funds are publicly owned. There are significant airport infrastructure needs across the State that can improve the system and support air travel, as recently documented by the approximately \$60 million in unmet needs submitted as project proposals through the 2011 Regional Economic Development Councils' Consolidated Funding Application (CFA) process.

Under the Strategic I investment alternative, the State would continue to provide matching funds for fifty-percent of the non-Federal share of Federal Aviation Administration (FAA) Airport Improvement Program (AIP) Grants to New York airports in the National Airport System, leveraging important Federal aid. In 2012, changes to the federal aviation authorization legislation increased the non-federal share from 5 percent to 10 percent of the total project cost for most airports, thus the proposed two year capital program doubles the match available for this program. During the two year period, if any of these allocated match funds are not required to support FAA Grants, they would be redirected to support aviation infrastructure investments.

The system of airports in the State provides benefits that go beyond airport boundaries. More than 18 million passengers annually travel through New York State airports – other than those operated by the Port Authority of New York and New Jersey (PANYNJ) - benefit from safe, efficient, and economic air travel, but users like corporations, small businesses, law enforcement, the military, and MedEvac forces rely on the availability of GA airports to provide their services. The availability of air service and GA airports makes it possible for communities to attract investment and visitors. Most medium and large corporations evaluate airport and air service options when making investment decisions.

Investments to preserve airport capital assets are needed to help address increased air service demands. Passenger boardings in the last two years show a recovery from the recent economic downturn, even as some upstate communities struggle with reduced aviation service availability. For non-commercial general aviation airports, investments are critical to making New York State airports more competitive, by addressing the needs of business and corporate aviation, and therefore sustaining and creating jobs and generating income for local economies. Examples of investments that would be made in airports under the Strategic II investment alternative include, but are not limited to the construction, reconstruction and preservation of runway pavement and facilities; purchase and installation of navigational aids and other airport-related equipment; obstruction removal; and perimeter control and other security-related projects.



Buffalo Niagara International Airport (BNIA) – NYSDOT, working with the Empire State Development Corporation (ESDC) and the Regional Economic Development Councils, provided \$6.9 million in State funds to Buffalo Niagara International Airport (BNIA) for the expansion of Long-Term Parking Lot B. This investment will add 988 parking spaces, an increase of more than 15 percent, needed to accommodate BNIA’s 5.2 million passengers annually. This expansion will allow the Airport to accommodate increased passenger demand and create the conditions for job growth in Western, NY. According to the NYS Economic Impacts of Aviation Report, BNIA contributes more than \$1 billion annually in economic output for the region.

Federal High-Speed Rail Matching Funds

The State will continue to provide a portion of the matching funds required for any potential Federal Railroad Administration High Speed Intercity Passenger Rail (HSIPR) Grant opportunities in the future. The Department assumes a modest federal high speed rail program over the next two years and includes appropriate matching funds. If the federal program grows, New York State could expect to qualify for additional federal funding requiring additional matching funding.

Development and Implementation of High-Speed Rail

In addition to the capital investment identified above to support the State’s High-Speed Rail initiative, there is a continuing need to support the engineering design and environmental review processes associated with this initiative. Continuing this work will position the State to secure additional federal support for future High-Speed Rail investments.

New Federal Mandates for Passenger Rail Service Operations

Section 209 of the Passenger Rail Investment and Improvement Act (PRIIA) of 2008 significantly changed the management, operational and oversight relationship between states and intercity passenger rail services provided by the National Railroad Passenger Corporation (Amtrak). PRIIA required the development and implementation of a single, nationwide standardized methodology for establishing and allocating the operating and capital costs of providing intercity rail passenger service among the States and Amtrak for the trains operated on designated routes of not more than 750 miles (i.e., “corridor services”) and services operated at the request of a State. For New York, this means that, beginning October 2013, the State will be required to fund the operating deficit in order for Amtrak to continue service on its Empire Corridor (New York City to Albany to Niagara Falls). This includes subsidizing 12 trains per day between NYC and Albany, and 3 trains that travel west to Niagara Falls. The Empire Service supports more than 1.3 million passenger trips annually; these trips are 85 percent of the State’s rail ridership, including more than one million trips between Albany and New York City. The State will need to identify additional resources for this new mandated annual operating subsidy or face the loss of existing service. This requirement previously only applied on a limited set of state-supported routes (in New York, only the Adirondack train to Montreal). The mandated State subsidy for intercity passenger rail services will increase from approximately \$6 million annually in 2012 (for the state-supported Adirondack train to Montreal) to \$44 million annually in 2013.

Empire Corridor Service Passenger Rail Service



Passenger Rail Investment and Improvement Act (PRIIA) of 2008 -
Beginning October 2013, pursuant to federal law, state are required to fund the net operating deficit for Amtrak corridor service of less than 750 miles. For New York, this new requirement applies to Amtrak service on the Empire Corridor (New York City to Albany to Niagara Falls).

Program Enhancements

To efficiently and effectively implement the investment in transportation infrastructure, NYSDOT recommends the following legislative and/or programmatic changes:

Public Private Partnerships: NYSDOT could benefit from additional opportunities to further explore public private partnerships (P3) that could leverage resources, support economic development and address transportation system congestion. For example, the Department is undertaking a study to look at managed use lane strategies in New York City, joining at least 23 U.S. metropolitan areas that are now operating or implementing managed lanes, considering managed lane proposals or studying their feasibility. Managed use lanes apply modern technology and real-time traffic information to efficiently manage the movement of traffic. In its more advanced forms, technologies can be used on specific lanes to vary the cost of using the lane based on the time of day or the number of vehicles in a lane. These are known as High Occupancy Toll or HOT lanes, and can be very effective in allowing reliable travel options in a highly congested area. These strategies could be used in conjunction with high occupancy vehicle (HOV) lanes, where those traveling with more passengers in the car could avoid a toll, but other drivers, valuing time could opt to pay a toll to use such lanes. Technologies can be applied that vary the cost of the toll depending on the amount of traffic using the lane.

Further, while P3s are often associated with projects larger than \$100 million, partnering opportunities could also be useful on smaller projects. Expanded P3 authority could allow NYSDOT to explore the potential for innovative partnerships and leveraging to deliver projects. For example, NYSDOT undertook the Washington Avenue project at the University of Albany with government funds because it lacked additional opportunities to leverage private funding.

Accelerating Project Delivery: To accelerate project delivery and facilitate job creation, NYSDOT recommends amending Section 112 of State Finance Law to exempt the Department's construction-related contracts from Office of State Comptroller (OSC) pre-approval process. This change would provide NYSDOT the opportunity to administer construction-related contracts in a manner similar to other large agencies delivering large construction programs, including State Dormitory; OGS; and SUNY Construction.

Rail and Port Program: State investment in ports is currently limited to funding authorized in the 2005 Rebuild and Renew New York Bond Act funding. This funding has been fully committed. To ensure continued eligibility to fund port-related projects, as part of the capital program development process, appropriation language for the State's rail program will need to be revised to ensure continued eligibility for the investment in ports outside the Port Authority of New York and New Jersey.