STUDY ADVISORY GROUP MEETING
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AGENDA

• INTRODUCTIONS
• STRATEGIC VISION
• RESULTS OF HIGH-SPEED RAIL STUDY
• PROJECT STATUS
• CORRIDOR STRATEGIC PLAN
• PHASE 2 IMPROVEMENT STUDIES
• NEXT STEPS
SUMMARY OF CORRIDOR STRATEGIC PLAN

GOAL OF STRATEGIC PLAN

The goals of the I-87 Multimodal Corridor Study were to:

- **Enhance Person and Goods Movement and Intermodal Operations**, including reliable traffic operations, expanded intermodal connections and more efficient border crossings.
- **Support Corridor-Wide and Regional Growth and Development**, including supporting anticipated growth and related regional and local plans; e.g. better connections to major business and recreational sites.
- **Promote Safety and Security** of both freight and passenger movements and networks.
- **Protect the Corridor’s Environment and Quality Of Life**, including minimizing impacts from transportation actions or facilities, protecting unique resources, and supporting sustainable Quality Communities.

By meeting these goals, the Study could identify those actions that would best prepare the corridor to meet the corridor’s economic development and mobility needs.

The Study’s first phase reviewed existing conditions and needs, and identified and initially assessed a broad range of actions to address them. The Study’s second phase has continued that assessment while further developing a number of these actions that were not already being handled by NYSDOT or other agencies. Finally, the Study would create an I-87 Corridor Strategic Plan to identify how these actions could help meet the overall goals of the Study.

CORRIDOR VISION: SMART CORRIDOR

The vision of the corridor that evolved from the first phase of the Study called for development of I-87 as a **“Smart Corridor”** to address these broad goals in an efficient and effective manner.

Corridors vary depending on the nature of the major travel markets – commuter, long-distance freight, recreational, etc. The I-87 Corridor is all of these, serving many of the State’s fastest growing economic concentrations, connecting the Greater New York City Area with key Upstate markets, the Catskill and Adirondack natural and recreational areas, and the second largest metropolitan area in Canada. Given this diversity, the Strategic Plan focuses on the corridor’s four principal travel markets:

- **Intercity Passenger** – longer distance trips made for a variety of personal and business trip functions. With longer distance comes a broader range of modal options (air, rail, auto, bus).
- **Commuter** – shorter daily journey-to-work trips, usually by car and compressed along routes leading to and from major employment centers.
- **Tourist** – trips to the Corridor’s important recreational and natural areas attracting travelers from throughout the Northeast and beyond.
- **Trade** – involves truck, rail and other freight trips, including those across the Champlain-Lacolle-Rouses Point crossings, within a heightened security environment.
The Strategic Plan’s array of proposed projects and initiatives to address the mobility needs of these four travel markets efficiently and innovatively are grouped around four major themes; these include

SMART HIGHWAYS
The methods available to address congestion and safety on highways have expanded significantly since the boom years of highway construction in the 1950s and 1960s. Rather than simply adding lanes, modern highway planning calls for managing highway capacity, responding systematically to problems that limit its use, and supporting modes that can more efficiently move people and goods at a minimum of public and private costs. Some changes are happening in the corridor, and more are planned:

- **Greater Agency Integration.** New York State, and the nation as a whole, has already been moving strongly in this direction, and numerous initiatives and technologies are starting to be implemented. It is clear that greater coordination among agencies, within the State and nationally, is needed to expedite the rollout of many of these programs. The historic strength of the United States’ economy and its transportation network was its lack of borders among states. As such, corridors and States cannot be isolated, with systems developed for one fully integrated with those around them.

- **Smart Networks.** Within New York State, projects to develop “Smart Networks” where conditions on alternate routes are known to both travelers and agencies before re-routing and system adjustments are made. One of the Study’s Phase 2 projects would demonstrate how this could be done in the Capital District.

- **Including Transit in “Smart Highways.”** Local roadways and highways carry the bulk of the public transit passengers in the corridor, and the ability to carry more in these modes is essential to the corridor’s long-term efficiency. Actions to make Smart Highways must include this as an important element.

- **Create “Smart Capacity.”** As the need to add capacity to the corridor’s highways is considered, any such increases should look to emphasize “Smart Capacity,” including preference for transit modes and highway “pricing” to control highway use. The on-going I-287 Corridor Project is an example of how these elements are being considered in present-day studies.

SMART/SAFE DRIVER
Drivers want advanced knowledge about roadway conditions, transit options to complete the same trip, and real-time information as conditions change so plans or routes can be effectively altered to avoid delay and improve trip reliability. For personal trips, this avoids hassles and inconvenience, while for freight shippers improved reliability translates to reduced costs. There are a variety of programs that agencies in New York State, and along the corridor, have already started, with many new areas and technologies to be tested:

- **Improved Pre- and In-Trip Information and Communications Systems.** New York State is making a variety of moves to insure that travelers are better informed about the trips they make. This includes methods to provide information before the trips are made, to pick the best mode, route and time of day, as well as during those trips, to best deal with unexpected problems that arise. The Strategic Plan

*Accident: Southbound Rt. 9*

*Tappan Zee Bridge/I-287 Corridor*
emphasizes the expanded use of available mechanisms to inform travelers (Variable Message Signs [VMS] and Highway Advisory Radio [HAR] messages for highway drivers), while also looking longer-term to more advanced methods of traveler communication.

- **Expanded Collection & Sharing of Data.** The Strategic Plan calls for further expansion in the collection, sharing and use of data, both among agencies and with travelers, along with systems to better distribute that information among agencies and provide it to travelers. On-going development of the Information Exchange Network (IEN) will help in this area.

- **Safety Detection and Information Systems.** Some of the Plan’s Safe Driver initiatives look to use combinations of ITS tools to both protect travelers and partially mitigate highway safety problems by detecting causes of those problems, warning travelers about them and providing information about how to avoid them. Several Phase 2 projects (e.g., US-Canada Border Queue Detection System) are examples of this approach.

### SMART FREIGHT

I-87 is a critical international trade route, and the events of September 11th have substantially complicated the handling of international freight, with increased delays and public and private costs. A variety of Federal programs have identified better ways to facilitate the processing of rail and truck freight at borders, often involving increased public-private partnership to collectively address these problems. Similar methods are needed to expedite truck inspection, weighing and credentialing activities by the State, and NYSDOT and other agencies are already moving in these areas:

- **Expanded Truck Inspection Technology & Facilities.** New York has been one of the leaders in the development and initial implementation of programs to use technology to expedite truck freight inspection and credentialing activities. The Plan includes the near-term development of a full truck inspection station on the Northway, applying the full range of Commercial Vehicle Operation (CVO) ITS tools, while a permanent facility is planned and constructed at the border.

- **Greater Public-Private Partnership.** A key to efficient CVO management by State and Federal agencies is expanded public-private partnership agreements to allow firms and agencies to develop coordinated data collection and tracking systems, matching the anti-theft and inventory control needs of firms with the driver, vehicle safety, and homeland security demands of government agencies. Many agency efforts (e.g., One-Stop Credentialing and Registration [OSCAR], Free and Secure Trade [FAST]) are built on this type of cooperation, and several of the Phase 2 projects (E-Seal tracking and “Safe and Secure” Transportation System) aim to test and develop these further.

- **Expanded Rail Freight and Intermodal Services.** It is clear that expanded use of rail freight in the corridor is important to reduce dependence on truck freight and to take advantage of the cost-efficiencies that rail and intermodal operations can provide for businesses. The Plan includes a number of near-term projects to upgrade existing rail corridor infrastructure and improve the capacity and efficiency of intermodal operations.

### SMART PUBLIC TRANSPORTATION

Smaller urban, suburban and rural areas such as those located along the I-87 corridor, with their “many-to-many” travel patterns, are difficult environments for public transit operations. They require providing travelers with better information about available transit services, using a wide variety of available media. Public transportation needs to be more fully integrated into highway planning efforts, both managing existing highways and planning new ones.
• **Build on Strong Intercity Rail Markets.** The area in which public transportation has been strongest in the corridor is in the intercity passenger market, with the continued success of Empire Corridor service, especially between New York City and Albany. Upgrades in trackage, rolling stock and key stations are in place or underway, and the Plan calls on Amtrak and others to continue to build on those successes.

• **Expand Rail Market Coverage.** The Capital District is the corridor’s central hub. While service to Albany/Rensselaer has been good, direct connections to Saratoga County – the fastest growing portion of the District -- are very limited. The Plan includes a number of moderate-cost actions that could improve service to that area, while also enhancing overall passenger and freight service in the corridor.

• **Improve Rail Infrastructure.** The Study’s *High Speed Rail Pre-Feasibility Study* identified a number of incremental actions to improve the reliability and travel times of both passenger and freight service in the Albany-Montreal corridor. The Plan supports these actions, which when combined with similar modest-cost proposals in Quebec could provide significant near-term travel time savings. Further improvements in the future will provide further benefits for both the freight and passenger markets.
STAGE 2 PROJECT SUMMARY: NEAR-TERM VEHICLE INSPECTION STATION ON SOUTHBOUND NORTHWAY NEAR US/CANADA BORDER

PROJECT GOAL
The goal of this project, which involves the deployment of New York's first comprehensive Commercial Vehicle Information System and Networks (CVISN) electronic screening system, is to improve the inspection of commercial vehicles traveling southbound along the I-87 corridor from the US/Canada border. Quick implementation of this type of facility would provide the State with advanced inspection services at a fixed location while a permanent, more strategically located truck inspection station is developed just south of the Canadian border, adjacent to the Port of Excellence.

EXISTING PROGRAMS
New York State completed implementation of CVISN Level 1 in 2004 and introduced the One-Stop Credentialing and Registration (OSCAR) system at the Schodack Rest Area on I-90 westbound.

PROPOSED PROJECT COMPONENTS
• Implementation of the CVISN electronic screening system at the High Peaks Rest Area between Exits 31 and 30 in Essex County
• Implementation of Weight-in-Motion (WIM), roadside transponders-readers, and database technology to evaluate driver credentials or commercial vehicle information
• Variable Message Signs (VMS) to instruct drivers of an active inspection ahead, including bilingual text messaging
• “Virtual WIM” system located along southbound Route 9 in proximity to the High Peaks Rest Area to detect commercial vehicle potentially bypassing the inspection station.

RELATION TO SHORT-/LONG-TERM PLAN
This enhanced freight management systems is consistent with the Smart Freight, Smart/Safe Traveler, and Smart Highway goals of the corridor's overall Strategic Plan.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
Electronic screening utilizes Dedicated Short Range Communications (DSRC) technology, which currently shares its frequency with other devices such as wireless telephones, electronic toll payment systems, and military radio-location systems. Federal law requires that DSRC applications do not interfere with military uses, and DSRC systems require a Federal Communications Commission (FCC) license to operate. Because the site is located within the Adirondack Park, the specification and placement of VMS would need to be coordinated with the Adirondack Park Agency (APA).

ESTIMATED COST
Capital costs would be approximately $600,000. Various Federal ITS, Motor Carrier Safety and Trade Corridor programs could provide the necessary funding for this project, which is fully consistent with Federal CVO initiatives.
STAGE 2 PROJECT SUMMARY:
TRUCK PARKING SUPPLY MONITORING

PROJECT GOAL
Project goals are to (1) inform truck drivers about parking availability in existing I-87 Corridor rest areas, (2) reduce truck overcrowding and spillback onto the highway, and (3) identify trucks entering the parking area to check for possible outstanding violations. If successful, this system could be extended to other sites. NYSDOT and NY State Police recommended two prototype installation sites: (1) High Peaks Rest Area on southbound I-87 between Exits 29 and 30, and (2) the New Baltimore Rest Area on the southbound NYS Thruway near Exit 21A, adjacent to the CSX tracks.

EXISTING PROGRAMS
Existing truck parking supply at these two facilities consists of 21 spaces at the High Peaks Rest Area and 44 spaces at the New Baltimore facility. Both are heavily utilized, and truck volumes along these sections of I-87 continue to increase. The Corridor presently has no method to inform drivers about utilization levels in lots at rest stops, which are often overcrowded. Regulatory agencies have no real-time method of directing truck movements, monitoring volumes or checking for possible violators.

PROPOSED PROJECT COMPONENTS
• A non-invasive microwave detector at each rest area to count the number of trucks entering the truck parking area.
• A License Plate Recognition (LPR) system at each rest area to capture and record the vehicle license plates.
• A wireless transmission medium at each rest area to transmit license plate and detector information to a local hub and to transmit the status of the truck parking area one mile upstream of the rest area.
• A Variable Message Sign (VMS) on I-87 upstream of each rest area to alert truck drivers of parking availability at that rest area. Additional VMSs further upstream could be added to further aid drivers’ decision-making.
• Tie in to Information Exchange Network (IEN), to allow drivers to check parking status at kiosks or on-line.

RELATION TO SHORT-/LONG-TERM PLAN
This type of traveler assistance is consistent with the Smart/Safe Traveler and Smart Freight goals of the corridor’s overall Short-/Long-Term Strategic Plan. A discussion of the network implications related to this issue included in the Plan.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
With construction entirely within I-87 right-of-way, minimal environmental or other regulatory review would be required. VMS signs must comply with Federal guidelines, and High Peaks site signs would require review by the Adirondack Park Agency. Coordination among stakeholders (i.e., NYSDOT, NYS Police, trucking groups) would help ensure the functionality of the system and that appropriate response protocols are in place and defined.

ESTIMATED COST
Capital costs would be approximately $580,000 for permanent installation ($260,000 for temporary installation). Various FHWA Commercial Vehicle Operations (CVO) ITS programs, similar to those used on other State CVO initiatives, would be likely funding sources.
STAGE 2 PROJECT:
SAFE AND SECURE TRANSPORTATION PROGRAM SYSTEM DEMONSTRATION

PROJECT GOAL
The project goal is to create systems and institutional arrangements that would allow the joint use of public and private systems used for “supply chain” inventory control and theft prevention, Customs and Border Protection (CBP) tracking of shipments, and States’ inspections of commercial vehicles and drivers. Through collective use of data and technology, public and private sector costs for security would be reduced, consistent with the Department of Homeland Security’s (DHS) Operation Safe Commerce. The goal would be a Safe and Secure Transportation (SST) program.

EXISTING PROGRAMS
Starting with public/private partnership efforts under Customs Trade Partnership Against Terrorism (C-TPAT), and the Free and Secure Trade (FAST) program for trade with Canada and Mexico, national efforts have focused on internalizing security requirements within private shippers, using expedited Customs processing to offset costs. New York and other states, under FHWA’s Commercial Vehicle Information Systems and Networks (CVISN), are applying ITS technologies with commercial vehicle operators to increase effectiveness and reduce delays from driver and vehicle inspections. Major companies are simultaneously moving into tighter “supply chain” systems using similar technologies to track their goods. Efforts to tie all of these activities together have been limited.

PROPOSED PROJECT COMPONENTS
The proposed demonstration program would include the following:
- Integrate CBP programs for expedited border crossing (C-TPAT, FAST) and Advanced Container Security or “Smart Box” technology.
- Petition supply chain owners and carriers using the corridor to participate in the demonstration.
- Install Smart Box systems in a number of containers and/or trailers.
- Integrate with State’s NORPASS for vehicle and driver tracking.
- Coordinate with CBP and NYSDOT on data and data transfer format.
- Install intrusion and tracking equipment at the destination facility.
- Set up CBP and NYSDOT hardware at border crossing and inspection station(s).
- Setup SST Network Operation Center (scaleable prototype).
- Conduct demonstration for a select period and number of vehicles & prepare report.

RELATION TO SHORT-/LONG-TERM PLAN
Fully consistent with Smart Freight initiatives, which are central to overall Smart Corridor vision.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
Substantial State and Federal Agency coordination would be required, along with participating private firms and shippers.

ESTIMATED COST
Cost (to be determined), would likely be moderate and fundable under a number of DHS programs.
STAGE 2 PROJECT: ELECTRONIC SEAL SCREENING AND TRACKING

PROJECT GOAL
The goal of the proposed program is to increase the efficiency and security of bonded goods traveling through New York State, using advanced ITS tracking systems. The particular shipments targeted by this project would be agricultural in-bond shipments that cannot legally be opened in the United States. The shipments would enter the United States at the Port of Newark and enter Canada at either the Champlain (I-87) or Buffalo area (I-90) border crossings.

EXISTING PROGRAMS
NYSDOT has an existing screening system that uses solar powered transponder readers and antennas mounted on trailers for container tracking. The Federal Highway Administration Intermodal Freight Technology Working Group (IFTWG) operates a separate program that utilizes reusable electronic door seals to detect when the container is opened. The seal is read at the border by Customs. However, there is no program in place to track such shipments within the State or detect whether they’ve been opened.

PROPOSED PROJECT COMPONENTS
The program, sponsored by the US Departments of Agriculture and Defense, tests the ability to track in-bond shipments (in this case, agricultural goods) traveling along pre-set routes within the US. New York is one of the test locations. The program will involve the following:

• Modify Commercial Vehicle Information and Screening Networks (CVISN) equipment from NYSDOT’s existing screening system to incorporate container tracking component of the IFTWG program
• Enable communications between the screening readers (at 2 locations: (1) between Albany and Buffalo on I-90, and (2) on I-87 between Albany and Champlain) and a central project server.
• Coordinated with similar effort by NYS Thruway, with a screening reader on I-87 between Suffern and Albany.

RELATION TO SHORT-/LONG-TERM PLAN
Testing of this type of freight tracking system is consistent with the Smart Freight goals of the corridor’s overall Strategic Plan, as well as the State and Federal goals of improving the efficiency of the nation’s handling of agricultural and other imports requiring tracking.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
Electronic screening utilizes Dedicated Short Range Communications (DSRC) technology, which currently shares its frequency with other devices such as wireless telephones, electronic toll payment systems, and military radio-location systems. Federal law requires that DSRC applications do not interfere with military uses, and DSRC systems require a Federal Communications Commission (FCC) license to operate.

ESTIMATED COST
The $100,000 cost of this demonstration project is already funded.
STAGE 2 PROJECT SUMMARY: IMPROVED TRUCK ACCESS to “BUILD NOW NY” SITE

PROJECT GOAL
The goal of this project is to provide more direct access from I-87 at Exit 18 to several “Build Now NY” sites in Queensbury that are targeted for the biomedical and pharmaceutical industries. The project would also relieve congestion along County Route 28, the primary connector to the Glens Falls business district.

EXISTING PROGRAMS
Based on the recommendations of its 1999 Corridor Management Plan for the Exit 18–Warren County Route 28 corridor, the Adirondack/Glens Falls Transportation Council (A/GFTC) included a project to address capacity deficiencies along Corinth Road in its 2000 Transportation Improvement Plan (TIP). This project, targeted for completion in late 2006, addresses geometric and capacity-related issues through the construction of a three-lane cross-section (one lane in each direction with a center turning lane) from Exit 18 to Glens Falls. Modest interim capital-cost solutions to improve operational deficiencies at the interchange, including minor ramp widening and intersection improvements, were also evaluated but were deferred due to financial constraints. The connector road proposed here was also considered and dismissed for financial reasons.

PROPOSED PROJECT COMPONENTS
- A two-lane access road connecting Route 28 east of the I-87 NB exit to Luzerne Road near the 40-acre “Build Now NY” site. Also improve access to two other parcels between Corinth and Luzerne Roads targeted for high-tech or biomedical light industrial uses that are important for the region’s development.
- Larger scale improvements at the interchange will be needed to address long-term capacity and operational deficiencies.

RELATION TO SHORT-/LONG-TERM PLAN
This type of improved freight and commercial access is consistent with the corridor’s overall Strategic Plan, providing key transportation improvements to support the long-term economic development goals of communities along the corridor.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
This project has been developed previously through a conceptual design stage to identify a preferred alignment. In order for the project to advance to construction it must be processed through an environmental review procedure, which satisfies State (SEQRA) and Federal (NEPA) requirements.

ESTIMATED COST
Capital costs would be approximately $750,000.
PROJECT GOAL
The goal is to improve safety at the US-Canada border on I-87, where queues of 1.5 miles can develop, posing a safety threat for northbound travelers approaching the border. The ability to inform travelers in advance about queue duration is also a key at this location.

EXISTING PROGRAMS
NYSDOT and the NYS Police have installed a temporary system to deal with this safety concern, caused by northbound motorists, after long stretches of uninterrupted high-speed driving, coming unexpectedly to stopped traffic in both northbound lanes. The existing rudimentary queue detection and variable message warning system uses portable queue detectors at two locations to “trigger” activation of one or both of two trailer-mounted, relatively small variable message signs (VMSs) adjacent to the northbound lanes. The VMS use very basic, pre-programmed text messages to travelers, and the system does not notify NYSDOT when the signs are activated.

PROPOSED PROJECT COMPONENTS
The proposed solution involves construction of a queue detection system combining proven ITS technology with an advanced VMS system, replacing the current limited system. The system would provide drivers with traffic and driver information reflecting “real-time” queuing conditions. The system would include:

- **Queue Detectors** to determine queues in highway lanes.
- **TRANSMIT Detectors**, which use the travel time of detected EZPass vehicles between the beginning and end of the “queuing zone” to estimate the duration of the queue. During preliminary design, the potential of using license plate reader technology will be considered as well.
- **Flashing Beacons**, with wireless communication capability, to warn motorists of impending queues.
- **Variable Message Sign(s)** to inform drivers about queue duration, using bilingual (English-French) messages. The VMS would be “full matrix” signs that would span across all northbound travel lanes.
- **Central System**, to control VMS content and flashing beacons, record queuing histories and communicate with the IEN (Information Exchange Network) for wider dissemination of queuing information.

RELATION TO SHORT-/LONG-TERM PLAN
Project is fully consistent with Strategic Plan’s Smart/Safe Driver and Smart Highway goals, and with overall State/Federal effort to make Champlain’s Port of Excellence crossing a state-of-the-art facility. This project would be coordinated with a similar effort being undertaken by the Ministère des Transports du Québec (MTQ) to inform southbound travelers.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
Minimal environmental review requirements. Coordination between NYSDOT, NYS Police, and US and Canadian border officials to maximize benefit of system information and agencies’ use of it.

ESTIMATED COST
Capital cost of $1.4 - $1.7 million, fundable under FHWA trade corridor or border crossing programs.
STAGE 2 PROJECT:
3-TIERED TOURIST KIOSK SYSTEM

PROJECT GOAL
The project involves the deployment of a system of information kiosks along the corridor to assist travelers in advance with trip planning and provide real-time information regarding specific destinations to help them make decisions during their trips to and stays in the Adirondack region. The program would help promote the recreation and tourism industries that are vital to the region’s economy.

EXISTING PROGRAMS
Several organizations promote tourism and economic development activities in the region, including the Adirondack North Country Association, the Lake Placid/Essex County Convention and Visitors Bureau, the Adirondack Regional Tourism Council, the Warren County Tourism Department, and Lakes to Locks Passage, Inc. In addition, Route 73 has been designated a State Scenic Byway and a National Scenic Byway.

PROPOSED PROJECT COMPONENTS
- A 3-tiered system of information kiosks. Tier 1 Kiosks would be located at rest areas along I-87 to allow travelers to receive real-time information regarding destinations in all tourism promotion areas accessible from the I-87 corridor. Tier 2 Kiosks would be located at gateways to tourism promotion areas and provide information on destinations within the tourism promotion area that the kiosk services. Tier 3 Kiosks would be located at tourism and recreational destinations and would be used both as the primary source of user-level information received at Tier 1 and Tier 2 Kiosks and to provide travelers with real-time information regarding other destinations within that tourism promotion area.

The system would be implemented in two phases, with one site developed for each tier location during Phase 1, and additional sites developed during Phase 2. Proposed Phase 1 sites include the Glens Falls Rest Area (Tier 1), Northway Exit 30 to Route 73 (Tier 2), and the Adirondack Loj Trailhead or the Garden Trailhead in Keen Valley (Tier 3).

RELATION TO SHORT-/LONG-TERM PLAN
This type of traveler assistance is consistent with both the Smart/Safe Traveler and Smart Freight goals of the corridor’s overall Strategic Plan.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
The program would require coordination with the property owners and managing parties of locations where kiosks are placed, including various State agencies, counties, towns, tourism promotion agencies and chambers of commerce, and private vendors. New York State Department of Environmental Conservation permits may be required, and kiosks placed within the Adirondack Park would be subject to Adirondack Park Agency review.

ESTIMATED COST
Phase 1 of the system would cost approximately $750,000 to $1 million to implement.
STAGE 2 PROJECT: EXIT 20 IMPROVED ACCESS AND QUEUE DETECTION

PROJECT GOAL
The goal of the proposed project is to help address traffic queuing at Exit 20 on I-87, during periods of peak tourist and commercial traffic, which poses a mainline safety problem. These conditions also impede traffic flow to local sites, tourist destinations, special events, and commercial routes to and from Vermont.

EXISTING PROGRAMS
There are presently no programs to address this problem. Recent traffic studies completed for the expansion of the Great Escape park concluded that the expansion did not trigger the need to make any mitigative improvements at Exit 20. However, field investigations indicated a problem to a sufficient degree to warrant the safety remediation.

PROPOSED PROJECT COMPONENTS
The proposed project would involve installation of a permanent queue detection system at the northbound exit ramp of Exit 20. When queuing at the ramp backs up traffic onto the highway, the system would automatically advise motorists of the presence of stopped vehicles ahead, and provide information on expected delays and alternate routings to key destinations (e.g., Great Escape, Route 149). The queue detectors would communicate with flashing beacons south of Exit 20, and with variable message signs (VMSs) south of Exits 17 and 19. The VMSs could also direct motorists during special events. System components include:

- One queue detector placed immediately south of Exit 20.
- One flashing beacon assembly located along the northbound side of I-87, south of Exit 20.
- Two permanent VMSs, deployed as noted above.
- A Central Control to gather traffic information from the detector, analyze it for queuing, activate the flashing beacon and VMSs as appropriate, and communicate with the Information Exchange Network (IEN) for broader dissemination of this information.

RELATION TO SHORT-/LONG-TERM PLAN
This type of traveler assistance is consistent with both the Smart/Safe Traveler and Smart Highway goals of the corridor’s overall Strategic Plan.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
With construction entirely within the I-87 right-of-way, minimal environmental review would be needed. Inter-agency coordination between the stakeholders (i.e., NYSDOT, NY State Police, local transportation officials) would be necessary to ensure the appropriate design and use of the system.

ESTIMATED COST
Capital costs for the full system would be approximately $480,000 (the queue detection and flashing beacon portion alone could be done initially for $65,000 - $75,000). Funding could be sought under various Federal ITS or Trade Corridor programs.
STAGE 2 PROJECT:
ADIRONDACK TOURIST DESTINATION SIGNAGE PROGRAM

PROJECT GOAL
The project goal is to provide a system of unified signage designed to direct travelers along I-87 within the Adirondacks to motorist services, and to guide visitors to shopping, tourist, lodging and other attractions. The program would help promote the recreation and tourism industries that are vital to the economy of the Adirondack region.

EXISTING PROGRAMS
The New York State Manual of Uniform Traffic Control Devices (NYSMUTCD), Section 253.7, describes the application, design, and location of tourist-oriented business signs that can be used to guide traffic from State Highway routes to businesses not on that route. That system limits the ability to provide signs to fully assist travelers reaching service areas and key destinations within the Adirondack region. There are numerous natural and cultural attractions that are not located on major highways and are difficult to find because of the lack of signing.

PROPOSED PROJECT COMPONENTS
• Adirondack Signage Task Force, comprised of representatives from NYSDOT, NYSDEC, APA, Counties, Towns, and local business and regional tourism organizations, charged with investigating the issues, problems, and needs of travelers in the Adirondacks.
• General Service Sign Initiative, permitting the placement of “Distance to Service” signs at I-87 exit ramps, to direct travelers to services located outside the three-mile distance required under existing NYSMUTCD regulations.
• Route 73 Demonstration Signage Project, to create a unified Adirondack tourist signage system. The program would be expanded to encompass other facilities, pending the outcome of the Route 73 demonstration program.
• All information in English and French; distances expressed in miles and kilometers.

RELATION TO SHORT-/LONG-TERM PLAN
Consistent with the Smart/Safe Traveler, it supports the Recreational Travel market that is critical economically to the Adirondack region. The project is consistent with the Route 73 Scenic Corridor Management Plan.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
Program would require changes to, or regulatory relief from, certain NYSMUTCD guidelines, as well as concurrence with the Adirondack Park Sign Law (ECL Article 9 Title 3, 6NYCRR Part 195). The signing system would have to be reviewed and approved by NYSDEC.

ESTIMATED COST
Organization, design and capital costs would be approximately $50,000, using funds from New York State Scenic Byways Program and NYSDOT, with possible regional business organization support.
STAGE 2 PROJECT: I-87/ROUTE 9 CLOSED LOOP TRAFFIC CONTROL SYSTEM CAPITAL DISTRICT DEMONSTRATION

PROJECT GOAL
The project goal is to improve traffic conditions and safety along I-87, between Exits 5 and 10, and Route 9 in Albany and Saratoga counties by improving the State’s incident management system capabilities for diverting traffic between the two roadways in response to long-duration incidents. Real-time information about conditions along Route 9 and I-87, automatic signal controls along Route 9 during these diversion periods, and informing I-87 and Route 9 drivers about conditions and alternate routes would create a complete closed-loop system that, after testing, could then be extended to other routes.

EXISTING PROGRAMS
The Traffic Management Center (TMC) in Albany utilizes CCTV cameras, overhead and portable variable message signs (VMS), Highway Advisory Radio (HAR) transmitters, and the Highway Emergency Local Patrol (HELP) roadside assistance trucks to monitor, detect, and react to roadway incidents along I-87. Implementation of the TRANSMIT system to measure traffic speed and delays along I-87 is planned. A mixture of signal systems, from fully coordinated and traffic-actuated to isolated fixed signals, presently exists along Rt. 9.

PROPOSED PROJECT COMPONENTS
- **Traveler Information**
  - Enhanced VMS and HAR equipment along I-87
  - VMS at key locations along Route 9
  - TRANSMIT readers on I-87 and Route 9 to estimate travel times and length of delays
- **Closed Loop Signals**
  - Communications links to coordinated arterial signals and connecting links between I-87 and Route 9
  - Capabilities to support incident management timing plans

RELATION TO SHORT-/LONG-TERM PLAN
This type of ITS solution to traffic congestion and traveler assistance is consistent with the Smart Highway and Smart/Safe Traveler goals of the corridor’s overall Strategic Plan by improving traffic conditions despite the limited ability to expand the number of lanes along I-87 or Route 9 without major ramifications.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
Intergovernmental agreements to cover the system’s maintenance and operations responsibilities, and extensive coordination between the existing TMC and the NYSDOT Regional Office and local law enforcement would be needed.

ESTIMATED COST
Capital costs would be approximately $5.8 million.
STAGE 2 PROJECT: ADIRONDACK CORRIDOR
PASSENGER RAIL SERVICE IMPROVEMENTS

PROJECT GOAL
The goals of this project include: (1) improve intercity passenger rail operations serving the Capital District (Albany to Schenectady and Saratoga Springs), to strengthen economic connections to the rest of the corridor and reduce the demand on I-87; (2) expand rail service to Schenectady and Saratoga Springs, a key corridor growth area, and (3) provide better public transit service between the Albany/Rensselaer train station and key Capital District destinations.

EXISTING PROGRAMS
Existing rail service in the I-87 Corridor includes frequent Empire Service from New York City to Albany (and extending to Buffalo/Niagara Falls), and Adirondack Service (1 train daily in each direction) between Albany and Montreal. Private bus service runs from Saratoga County to the Empire State Plaza, and two Capital District Transportation Authority (CDTA) bus lines (#14 and #21) connect the station to points in downtown Albany. CP Rail’s capital program goal is to maintain existing infrastructure and improve tracks and signals to improve freight and passenger service reliability. No service changes are proposed by Amtrak.

PROPOSED PROJECT COMPONENTS
- Assumes completion of planned “reliability improvements” (signals, tracks) between Albany and Schenectady and Saratoga Springs.
- 2.5-mile by-pass of Saratoga Springs Yard (to allow Empire Service extension to Schenectady and Saratoga).
- Extend Ballston Spa controlled siding two miles to link with Saratoga Springs Yard bypass track.
- Construct new Wilton station north of Saratoga Springs to provide better access from points north of Capital District.
- Extend one Empire Service train daily to Schenectady and Saratoga Springs from Albany/Rensselaer.
- Add second Adirondack Service train in each direction (long-term).
- Implement “sealed train” procedure, moving all customs operations to Montreal eliminating need to stop at the border (recommendation of High Speed Rail Pre-Feasibility Study: New York to Montreal, recently completed by NYSDOT).
- Increase service frequency on #14 and #24 bus lines (depending on rail passenger volumes).

RELATION TO SHORT-/LONG-TERM PLAN
Consistent with goal to improve Intercity travel market service and expand efficient travel mode use.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
Approval by FRA and coordination among Amtrak, NYSDOT, and local transportation agencies required. Significant regulatory requirements and environmental processing could be required.

ESTIMATED COST
Capital costs of approximately $4 - $7 million for rail infrastructure improvements, and $3.7 million/year supplement from NYSDOT to Amtrak for additional and extended services.
STAGE 2 PROJECT: KENWOOD INTERMODAL YARD EXPANSION

PROJECT GOAL
The project goal is to support continued growth in the intermodal freight market by improving the capacity and productivity of existing intermodal facilities in the Capital District, focusing on the District’s largest intermodal freight rail terminal – CP Rail’s Kenwood Yard just north of the Port of Albany.

EXISTING PROGRAMS
The ongoing clearance improvement project on the Canadian Mainline will promote additional growth in intermodal freight traffic in the I-87 corridor. Other improvements to tracks and signal systems in that corridor will also improve rail freight reliability. Market studies performed by the I-87 Corridor Study Team indicate that the intermodal market in the Capital District, while somewhat limited, at this time warrants maintaining and improving existing intermodal facilities to enable them to respond to projected future increases in rail-based container freight traffic.

PROPOSED PROJECT COMPONENTS
The following improvements are recommended for the Kenwood Yards to enhance its efficiency and capacity:

- Create longer and paved unloading tracks.
- Relocate unused fuel tracks to create room for freight operations.
- Expand paved parking/storage areas for trucks and containers.
- Relocate yard maintenance and repair facilities.
- Improve access from adjacent roadways, yard security and lighting.
- Rehabilitate container loading/unloading equipment.

RELATION TO SHORT-/LONG-TERM PLAN
Support for greater use of more efficient intermodal freight is consistent with Smart Freight initiatives, including efforts to reduce dependence on trucks in the corridor and within the often-congested Capital District.

REGULATORY REQUIREMENTS, AGENCY COORDINATION
It is anticipated that this project would be subject to some environmental SEQRA and NEPA environmental review process prior to implementation. Coordination among CP Rail, NYSDOT, FRA, Albany Port District Commission and City of Albany would be required.

ESTIMATED COST
Program would cost approximately $6 to $8 million.
Corridor Strategic Plan

- Strategic Vision
  - Test & Apply Technologies
  - Develop Basis for Higher-Costs “Smart” Programs
  - Foster “Paradigm Shift”
  - Shape Further Required Study:
    - Land-Use & Economics
    - Transportation Planning
    - Environmental

High-Speed Rail (HSR) Study

- Key Findings:
  - Full 150 MPH High Speed Rail:
    - Technically Viable
    - Cost $4 Billion
  - Incremental Upgrade ($40 Million)
    - Track, Signal Improvements
    - 2 hour Time Savings
  - Shift Customs To Montreal – Another 1 hour savings
Meeting Agenda

- Project Status
- Strategic Plan Elements
- Related Phase 2 Improvement Studies
- Next Steps

Project Status

Stage 2 Projects:
- Technical Workshops
- Project Selection
- Project Development & Assessment
- Corridor Strategic Plan
  - Short-term Efforts
  - Long-term Strategic Vision
Corridor Strategic Plan

Strategic Vision for Corridor

- Selection of Phase 2 Concepts
- Review of Other Corridor Actions
- Develop & Assess Concepts
- Develop Corridor Strategic Plan

Original Phase 2 Concepts

1. ITS/CVO Programs .......... Ph. 2 Projects
2. I-87 Corridor TMC .......... Ph. 2 Project
3. Luther Forest Access ... Separate Project
4. Capital Region Intermodal... Ph. 2 Project
5. Northway Capital District .... Ph. 2 Project
6. Recreation Services ....... Ph. 2 Projects
7. HSR/Rail Commuter Shed ... Ph. 2 Project
Corridor Strategic Plan: Major Elements

SMART HIGHWAYS

SMART/SAFE TRAVELER

SMART FREIGHT

SMART PUBLIC TRANSIT

Corridor Strategic Plan

• Initial Recommended Actions
  • Immediate Pay-off Actions
  • Help Jump-Start Programs
  • Do In-Service Demonstrations
• Includes:
  • Tested Applications
  • Innovative Technologies
  • Consistent with Vision

FOCUS OF PHASE 2 PROJECTS
Corridor Strategic Plan: Major Elements

SMART HIGHWAYS

SMART/SAFE TRAVELER

SMART FREIGHT

SMART PUBLIC TRANSIT

Corridor Strategic Plan

SMART HIGHWAYS

- Strategic Goals:
  - Seamless Coordination Among Agencies
  - Use of Smart Networks
  - Support for Transit Modes
  - “Smart Capacity”:
    - Managing Existing
    - Planning New
Corridor Strategic Plan

SMART HIGHWAYS

• Other Current Activities:
  • NYSDOT ITS Programs:
    • TRANSMIT
    • VMS & HAR Systems
  • NYS Agency Integration
  • I-287 Corridor Planning
  • Interstate & International Coordination

Corridor Strategic Plan

SMART HIGHWAYS

• Phase 2 Project Examples
  • I-87/Route 9 Closed Loop Traffic System
  • Capital District Highway Upgrades
### Corridor Strategic Plan: Phase 2 Project

**I-87/Route 9 Closed Loop Traffic System**
- Address Congestion & Incident Response
- Builds on Existing Systems
- Real-Time Data & Control Capabilities
- More Efficient Road Usage
- Test Case for Broader Application

Cost: $5 - $6 Million

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**Corridor Strategic Plan: Phase 2 Project**

**Capital District Highway Upgrades**
- Minor Improvements Tested:
  - Ramp Metering
  - Minor Interchange Upgrades
- Short-Term Conclusion:
  - Minimal Payoff from Upgrades & Metering
  - Major Improvement = Major Changes
  - Rely on System Management
**Corridor Strategic Plan: Phase 2 Project**

**Capital District Highway Upgrades**

- Longer-Term Conclusion:
  - Continued Traffic Growth
  - Highways Facing Reconstruction
  - System has “choke points”
  - Major “Smart” Upgrades Likely
  - Decided through MPO process

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**Corridor Strategic Plan: Major Elements**

- **SMART HIGHWAYS**
- **SMART/SAFE TRAVELER**
- **SMART FREIGHT**
- **SMART PUBLIC TRANSIT**

Stopped Traffic Ahead
35 Minute Delay
**Corridor Strategic Plan**

**SMART/SAFE TRAVELER**

- **Strategic Goals:**
  - Pre-Trip & In-Trip Traveler Communication
  - Expanded Collection & Sharing of Data
  - Expanded Marketing & Education to Increase Usage
  - Use of Smart Networks

**Other Current Activities:**

- TRANSMIT System
- Albany TMC Incident Management
  - HELP
  - HAR & VMS
- Hudson Valley TMC
- TRANSCOM
Corridor Strategic Plan

SMART/SAFE TRAVELER
- Phase 2 Project Examples
  - Border Queue Detection
  - 3-Tiered Tourist Kiosk System
  - Exit 20 Improved Access and Queue Detection
  - Adirondack Tourist Destination Signage Plan

Corridor Strategic Plan: Phase 2 Project

US-Canada Border Queue Detection
- Provide Safety over 2-Mile Segment at Border
- Upgrades Existing System:
  - Queue Warning
  - Queue Duration Information
  - Tie-In with Corridor ITS
  - Coordinate with MTQ System

Costs: $1 - 1.5 Million
Corridor Strategic Plan: Phase 2 Project

3-Tiered Tourist Kiosk Program
- Support for Adirondack Tourist-Recreation Businesses
- Three-Tiers:
  - Rest Areas (Glens Falls)
  - I-87 Gateway Interchange (Exit 30 to Route 73)
  - Tourist Destination (Adirondack Loj)
- Cost: $0.5 - $1.0 Million

Corridor Strategic Plan: Phase 2 Project

Exit 20 Improved Access/Queue Detection
- Access to Commerce, Recreation & Truck Routes
- Safety Issue on Exit 20 NB Off-Ramp
- Queue Detection & Warning:
- Provide Driver Information:
  - Alternative Routes
  - Special Events Assistance
- Cost: Up to $500,000
Corridor Strategic Plan: Phase 2 Project

Adirondack Tourist Destination Signage

- Support for:
  - Travelers
  - Adirondack Tourist & Recreation Industries
- Joint Effort of NYSDOT, DEC, APA, local gov’t & Private Sector
  - Driver Services Sign Initiative
  - Unified Tourist Signage Plan

Cost: Up to $100,000

Corridor Strategic Plan: Major Elements

**SMART HIGHWAYS**

**SMART/SAFE TRAVELER**

**SMART FREIGHT**

**SMART PUBLIC TRANSIT**
Corridor Strategic Plan

SMART FREIGHT

Strategic Goals:
- Expand Public-Private Partnerships
- Continued State, Federal, International Coordination
- Incorporate Safety & Security in Freight Planning
- Improve CVO Facilities
- Expanded Use of Rail

Corridor Strategic Plan

SMART FREIGHT

- Other Current Activities:
  - NY State CVO Programs:
    - OSCAR
    - NORPASS
  - Federal CVO Programs:
    - CVISN
    - FAST
    - C-TPAT
  - Interstate & International Coordination
**Corridor Strategic Plan**

**SMART FREIGHT**
- Phase 2 Project Examples
  - Near-Term Inspection Site
  - Rest Area Parking System
  - Safe & Secure Security Demo
  - Truck Access to “Build Now-NY” Site
- “E-Seal” In-Bond Tracking
- Kenwood Yard Expansion

**Corridor Strategic Plan: Phase 2 Project**

**Near-Term CVO Inspection Station**
- Provide Site until New Facility is Implemented
- High Peaks Rest Area SB (between Exits 30-31)
- First Full CVISN Site
  - Weigh In Motion (WIM)
  - “E-Credentialing” Check
- By-Pass Detection on Route 9

Costs: $500,000 - $1 Million
**Corridor Strategic Plan: Phase 2 Project**

**Truck Parking Supply Monitoring**
- Parking Management + Safety
- Initial Test: Two Rest Areas
- Multiple Functions:
  - Detect Usage
  - Inform Drivers (VMS)
  - I.D. Trucks for Credential Check
- Tie-In to IEN

Cost: $600,000

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**Corridor Strategic Plan: Phase 2 Project**

**“Safe & Secure” Transportation Program**
- Coordinated Shipment Tracking:
  - Private Firms
  - Customs & State Agencies
- Multiple Functions:
  - Inventory & Anti-Theft
  - In-Bond Security & Tracking
  - Truck & Driver Inspection

Cost: To Be Determined
Corridor Strategic Plan: Phase 2 Project

Groups
- Port of Excellence
- Port of Montreal
- NYS DOT
- Private Sector

Functions
- Port of Entry Security
- Homeland and Border Security
- CVO Inspections
- Inventory Control (RFID)
- Port of Entry Security

Benefits
- Lower Cost
- Reduced Delays
- Better Capture Rate
- Improved Safety
- Reduced Losses
- Lower Inventory Costs
- Better Service

Electronic Seal Screening & Tracking

- Tracks In-Bond Shipments
- USDA & USDOD Program
- Uses Existing CVO Technology
- Test Case:
  - I-87 & I-90 Corridors
  - Agricultural Products
  - Expandable
- Tie to Safe & Secure Transportation Program

Cost: $100,000
Corridor Strategic Plan: Phase 2 Project

Truck Access to “Build Now-NY” Site
- Support for “Build Now-NY” Program in Queensbury at Exit 18
- Provide Direct Access to Sites
- Reduce Congestion on Key Commercial Corridor
- Improves Access to Glens Falls CBD & Major Employers

Cost: $500,000 - $1 Million

Corridor Strategic Plan: Phase 2 Project

Kenwood Intermodal Yard Expansion
- Support Corridor Intermodal Use
- Regional Market Limited
  - Industry Mix
  - Proximity to Major Ports
- Kenwood Yard Upgrade
  - More Capacity & Efficiency
  - Better Access

Cost: $6 - $8 Million
Corridor Strategic Plan: Major Elements

SMART HIGHWAYS

SMART/SAFE TRAVELER

SMART FREIGHT

SMART PUBLIC TRANSIT

Corridor Strategic Plan

SMART PUBLIC TRANSIT

• Strategic Goals:
  • Build on Empire Service Success
  • Smart Transit Corridors:
    • Enhance Existing Routes
    • “Smart Highway” Plans
  • Expand Transit Awareness
Corridor Strategic Plan

SMART PUBLIC TRANSIT

• Other Current Activities:
  • Empire and Adirondack Line Improvements
  • Commercial Air Service Expansion to Adirondacks
  • Bus Priority Corridors
  • Transit Information on Web
  • I-287 Corridor Planning

Corridor Strategic Plan

SMART PUBLIC TRANSIT

• Phase 2 Example Projects
  • Adirondack Rail Passenger Service Improvements
  • Adirondack Rail Corridor Network Upgrades
Corridor Strategic Plan: Phase 2 Project

Adirondack Passenger Service Improvements
- Improve Adirondack Service:
  - Greater Capital District
  - Service to Montreal
- Major Elements
  - Extend Service to Saratoga
  - System & Sidings Upgrades
Cost: $4 - $7 Million

Corridor Strategic Plan: Phase 2 Project

Adirondack Corridor Network Improvements
- Improve Passenger & Freight Service Reliability & Times
- Incremental Improvements:
  - Welded Rail
  - Signals
  - Sidings
Cost: ~$20 Million
Corridor Strategic Plan

Strategic Vision for I-87 Corridor

Selection of Phase 2 Concepts

Review of Other Corridor Actions

Develop & Assess Concepts

Develop Corridor Strategic Plan

Corridor Strategic Plan

SMART ELEMENTS

- HIGHWAYS
- TRAVELER
- FREIGHT
- PUBLIC TRANSIT

SMART MARKETS

- COMMUTER
- TOURISM
- INTERCITY PASSENGER
- TRADE

TEMPLATE FOR OTHER CORRIDORS
Next Steps

- Complete High Speed Rail Study
- Finalize Concept Selection
- Develop & Evaluate Alternatives
- Complete Corridor Strategy
- Prepare Final Report

Mar 04 | Apr 04 | May 04 | June 04 | July 04 | Aug 04 | Sept 04

*PROJECT REPORTS*  *FACT SHEETS*  *SAG MEETINGS*  *NEWSLETTER*