1.0. INTRODUCTION

1.1. Overview

This report is part of a comprehensive study initiated by the New York State Department of Transportation (NYSDOT) to identify improvements to the transportation network in the New York City to Montreal travel corridor, which includes Interstate Route 87 (I-87) and Autoroute 15. The purpose of this Technical Memorandum is to present the results of work completed by the I-87 Multimodal Corridor Study Team on a number of “Smart Corridor Projects” - concepts that, if implemented, would help the corridor meet those needs using the most current and emerging technologies and in the most cost-effective manner. The projects described in this report represent the near-term element of an overall long-term vision for the corridor, which will be presented in detail in the Final Study Report. These projects are complimentary to other ongoing studies and improvements and should not be considered to have a higher priority than parallel efforts such as the New York State Thruway Authority's Albany Corridor Study or the Port of Excellence project at the Champlain/Lacolle border crossing.

Phase I of the study assessed conditions in the corridor, defining its most critical transportation limitations, identifying emerging opportunities and compiling a “long list” of possible improvement concepts to address the demands in four travel markets: Intercity, Tourism, Commuter and Freight. These possible improvement concepts fell into nine areas:

- Highways
- Rail Infrastructure
- Airport Services
- Border Crossing Facilities
- Waterborne
- Intermodal Facilities
- Intelligent Transportation Systems (ITS)
- Inter- and Intra-city Public
- Rest Areas

These concepts were then screened based on the following factors:

- Was a particular concept already being handled sufficiently by NYSDOT or other agencies in the corridor?
- How consistent was each concept with the Study’s Goals & Objectives?
- Would the concept address specific problems identified in the four corridor travel markets?
- Would it be consistent with the “Smart Corridor” themes of Smart Freight, Smart/Safe Traveler, Smart Highways, and Smart Public Transportation?
- Did it have the support of the Study Advisory Group (SAG), comprised of representatives from local, state and federal transportation and economic development agencies, passenger and freight operators, elected officials, and other corridor stakeholders?

The selected Phase II projects summarized below and presented in Section 2 of this Technical Memorandum represent only a portion of the activities recommended as part of the Corridor Strategic Plan to be presented in the Final Study Report.

1.2. Selected Phase II Smart Concepts

Based on the factors listed above, a number of improvement concepts were initially identified and discussed with the SAG. Based on feedback from the SAG, from continued discussion with

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1 See I-87 Multimodal Corridor Study. Technical Memorandum #3: Development of Improvement Concepts and Short-/Long Term Corridor Improvement Strategy. NYSDOT (December 2003).
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public and private sector transportation sector organizations, and from a series of Technical Workshops about these concepts, the list was further refined and a final list of Phase II Smart Concepts was established. The following Smart Concepts, each of which is analyzed further in this report, were selected:

- **Near-Term Vehicle Inspection Station on Southbound Northway.** NYSDOT’s long-term goal is to establish a permanent truck inspection station on the Northway portion of I-87, directly south of the US/Canada border crossing. Since this project will take a number of years to design and construct, the proposed concept would use an existing rest area on the Northway as an interim truck inspection site, and in the process field test the latest Commercial Vehicle Operations (CVO) technologies and programs for weighing and inspecting trucks and even tracking trucks attempting to by-pass the inspection station on adjacent roadways.

- **Truck Parking Supply Monitoring.** NYSDOT has a long-term plan to address the issue of truck parking and rest area requirements along the State’s major highways. The proposed project would test a system for monitoring the number of truck spaces remaining at a truck parking area, and informing truckers and agencies in real-time about parking conditions. Trucks entering the parking areas would also be automatically identified through license plate readers, enabling agencies to screen for out-of-compliance vehicles.

- **Safe and Secure Transportation Program Demonstration.** There are a wide variety of on-going programs to help agencies and private shippers deals with the post-September 11th increase in shipment inspections. The proposed project would use existing and emerging technologies as part of a demonstration program for the I-87 corridor that would meet the “supply chain” tracking needs of major shippers, the shipment security needs of US and Canadian Customs, and the truck and driver inspection needs of NYSDOT and the NYS Police.

- **Improved Truck Access to “Build Now-NY” Site.** A key goal of the I-87 Multimodal Corridor Study was to find ways to support the economic development goals of communities along this corridor. However, while existing business centers or proposed development sites may be near the highway, getting vehicles to and from those sites can be limited by insufficient local roadways, forcing trucks and other vehicles onto undersized local streets and causing congestion near highway interchanges. The proposed project provides a straightforward solution to such a problem for a key development site along the Northway.

- **US/Canada Border Queue Detection System.** Since September 11th, delays at the US/Canada border crossing at the northern end of I-87 have increased dramatically, leading to queues of vehicles up to 3 miles long. This has created safety problems, as northbound drivers traveling at high speeds suddenly are faced with stopped vehicles. The proposed project would replace a limited queue detection and warning system with a more sophisticated system that would identify queues and warn drivers. It would also inform...
drivers how long the delay was likely to be, providing information in time for them to change their travel plans (e.g., get off and have lunch).

- **3-Tiered Tourist Kiosk System.** Workshops held by the study team in the Adirondacks confirmed the need to provide better real-time information to travelers and tourists, both before they travel to the area and while they're there. This includes information about the availability of heavily used hiking trails and campgrounds, as well as the usual shopping, eating, lodging and other recreational needs. The proposed project would demonstrate the use of a web-based program that would offer this type of information to travelers while in their home, at kiosks in rest areas along the highway, at kiosks near key exits off the Northway, and at major destination points within the Adirondacks.

- **Exit 20 Improved Access and Queue Detection.** Exit 20 off the Northway is used by large numbers of travelers heading to major recreational and entertainment areas (e.g., Lake George), trucks and other travelers heading for Vermont, and people heading for major shopping areas near that exit. The exit’s limited storage capacity leads to vehicles queuing onto the highway, creating a safety problem. The proposed project would not only detect such queues and provide warning to travelers, but also provide travelers with information about possible alternative routes to their destinations in sufficient time to avoid the queue.

- **Adirondack Tourist Destination Signage Program.** As with the 3-Tiered Tourist Kiosk System also developed as a Smart Concept, this project would improve traveler information in the Adirondack region. It would develop (1) general service signs (e.g., location of gas stations) for the Adirondacks (starting with Route 73 as an initial demonstration) that provide more accurate information regarding available services; and (2) a standardized tourist destination signage system that provides travelers with a consistent set of signs to key tourist, recreational and commercial areas.

- **I-87/Route 9 Closed Loop Traffic Control System.** NYSDOT and other agencies, through the Albany Transportation Management Center (TMC), are already using ITS to better manage traffic conditions in the Capital District. The proposed project would build on those programs to create a closed-loop traffic management system that would provide travelers and agencies with real-time information about conditions along primary and secondary travel routes. Agencies could then make more informed decisions about when to divert traffic onto parallel routes due to an incident on the main highway, and drivers would receive better information and make better travel decisions.

- **Adirondack Corridor Passenger Rail Service Improvements.** The High-Speed Rail Pre-Feasibility Study already completed as part of the I-87 Multimodal Corridor Study identified a number of key projects to significantly improve travel times and reliability in the Adirondack Rail Corridor between Albany and Montreal. The proposed project looks at further ways to improve rail service, including more effective service within the Capital...
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District, and identifies initial steps to be taken toward the development of commuter rail service in that area.

- **Electronic Seal Screening and Tracking.** Some shipments into the United States but destined for other countries must pass through the USA without being opened. For example, containerized food products entering the Port of Newark and destined for Canada using New York State highways are not permitted to be opened while traveling to their border crossings. The proposed demonstration project, to be done in cooperation with the US Departments of Agriculture and Homeland Security, would electronically track these types of agricultural “in-bond” shipments along I-90 and I-87, using ITS tracking and “E-Seal” technologies.

- **Kenwood Intermodal Yard Expansion.** Previous phases of the study identified the possible need to expand intermodal rail freight capacity within the Capital District. The proposed project, based on preliminary market studies of the need for such a facility, proposes a number of improvements to the existing Kenwood Yards at the Port of Albany.