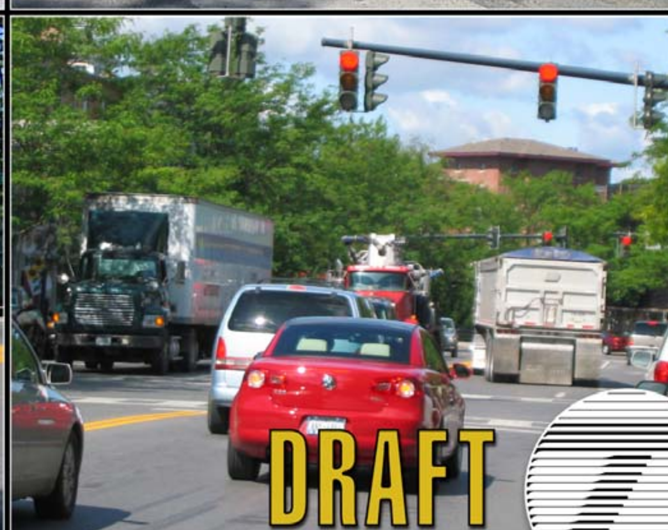
TRANSPORTATION REPORT

FINAL ENVIRONMENTAL ASSESSMENT

REDUCING LARGE TRUCK TRAFFIC IN LOCAL COMMUNITIES IN NEW YORK STATE - NOVEMBER 2008





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NEW YORK STATE DEPARTMENT OF TRANSPORTATION

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1. CHAPTER 1 - EXECUTIVE SUMMARY

Certain state highways in community settings, state tourism areas, school areas, historical areas, scenic byways, and designated bike routes are used by large trucks to delivering inter and intra state freight. In some cases, this large truck traffic conflicts with established community character. How these communities describe their character or setting is provided in Exhibit 1.11.a Community Self Descriptions from Readily Available Sources additional characteristics, such as: historical districts, environmental justice areas, State and Federal Parklands, school districts, places of worship, and recreational areas are described in Chapter 4 of this report.

Many of the effected communities are frequently visited tourist areas, known for their natural, historic, and serene settings. This has resulted in residents and other highway users along the identified routes citing a decrease in their overall quality of life which they attribute to the presence of large truck traffic.

Large trucks cause noise and visual disruptions. These types of disruptions have evoked feelings of anxiety and concern for safety in some communities.

This assessment will examine the impacts of excluding *large through trucks*[1&2] from certain State Highways and having them remain on the National Network. The National Network includes most of the Interstate System in New York State and other Qualifying Highways (*Appendix J – Highway Designations, Allowable Vehicle Dimensions* provides Official Descriptions of Designated Qualifying and Access Highways).

This assessment will determine the impact of an increased quantity of trucks remaining on the National Network and a decreased quantity of trucks using state highways located in village or community settings along *identified routes*[3] for large through trucks. This assessment focuses on the impacts which can be brought about through regulatory changes, and limits these changes to specific locations where this solution is an appropriate measure for reducing large truck traffic.

Chapter 1 summarizes report findings. Chapter 2 discusses history, existing conditions and needs; Chapter 3 provides discussion of alternatives, proposed conditions, and engineering considerations; and Chapter 4 discusses the social, economic and environmental considerations for this action. Detailed technical appendices are also included in this assessment.

[1] large truck - A "truck," as used in the assessment, is defined as any combination of vehicles consisting of a tractor-trailer or truck-trailer combination with a trailer length of 45 feet or more, and vehicles authorized by the Federal Surface Transportation Assistance Act (STAA) of 1982 (as amended), which include, but are not limited to: tractor-semi-trailer combinations with either a semitrailer of 48 feet or twin 28 (or 28 ½) feet semitrailers, and Specialized Equipment vehicles, as described in Title 23 of the Code of Federal Regulations (CFR), Part 658.13(e).

[2] large through trucks – "through trucks" are defined as trucks not seeking locations where freight either originates or terminates, is handled in the transportation process, or locations where a commercial motor carrier maintains operating facilities, or locations that are used to provide fuel or service for a truck or food or rest for a truck driver.

[3] identified routes/short cut routes – state highways used by large through trucks as short cut routes, toll avoidance routes, or enforcement avoidance routes known to NYSDOT either by staff observation or through expressed public concern. Also referred to as 'short cut routes' throughout this report.

1.1 Introduction

This assessment was prepared in accordance with the NYSDOT Project Development Manual and the State Environmental Quality Review Act (SEQRA, 17 NYCRR Part 15). The SEQR "lead agency" is the New York State Department of Transportation.

1.2 Purpose and Need

1.2.1 Where is the Action Located?

This is a statewide action affecting the National Network (primarily Interstate facilities) and certain State highways along identified routes. To determine specific locations, sixty-four routes were analyzed. Some could be initially eliminated from study, and thirty-two others required more analysis, prior to being included as one of the seven recommended *Reasonable Access Highways* in the preferred alternative.

Exhibit 1.2.1.a lists highways and locations for highways specified in Alternative 3: Reasonable Access Highway Regulation. Exhibit 1.2.1.b provides a map of recommended *Reasonable Access Highways*. Exhibit 1.2.1.c is a map showing the thirty-two identified short cut routes evaluated during the course of this action. Routes which were initially eliminated from further study are provided in *Appendix I - Evaluation of Identified Short Cut Routes and Reasonable Access Highways*. Exhibit 1.2.1.d is a map illustrating the Interstate System, National Network System, and State Highways located in New York State.

Exhibit 1.2.1.a
Where is the Action Located? – Alternative 3 –Reasonable Access Highways

Route Number	Short Cut Reference #[1]	Limits of Exclusion
NY Route 41	15,16	Between U.S. Route 11 and US Route 20 in Cortland and Onondaga Counties
NY Route 41A	16,17	Between NY Route 41 and US Route 20 in Cortland, Cayuga, and Onondaga Counties
NY Route 90	5, 6, 7, 8, 13 & 17	Between U.S. Route 11 and US Route 20 in Cortland and Cayuga Counties
NY Route 38	7, 13, 17	Between NY Route 90 and the southern Auburn City line in Cayuga County
NY Route 79	9, 10, 11	Between U.S. Route 11 and the eastern Ithaca City line in Broome, Tioga and Tompkins Counties
NY Route 89	9	Between the western Ithaca City line and US Route 20 in Tompkins and Seneca Counties
NY Route 96	10, 11	Between the western Ithaca City line and NY Route 414 and between NY Route 414 and US Route 20 in Tompkins and Seneca Counties

[1]Short Cut Reference (SCR) used throughout this report to aid the reader in comparing information specific to each route. A complete listing of all Short Cut References is provided in Exhibit 3.1.a.

Exhibit 1.2.1.a - Where is the Action Located? – Alternative 3 - Identified Reasonable Access Highway Locations

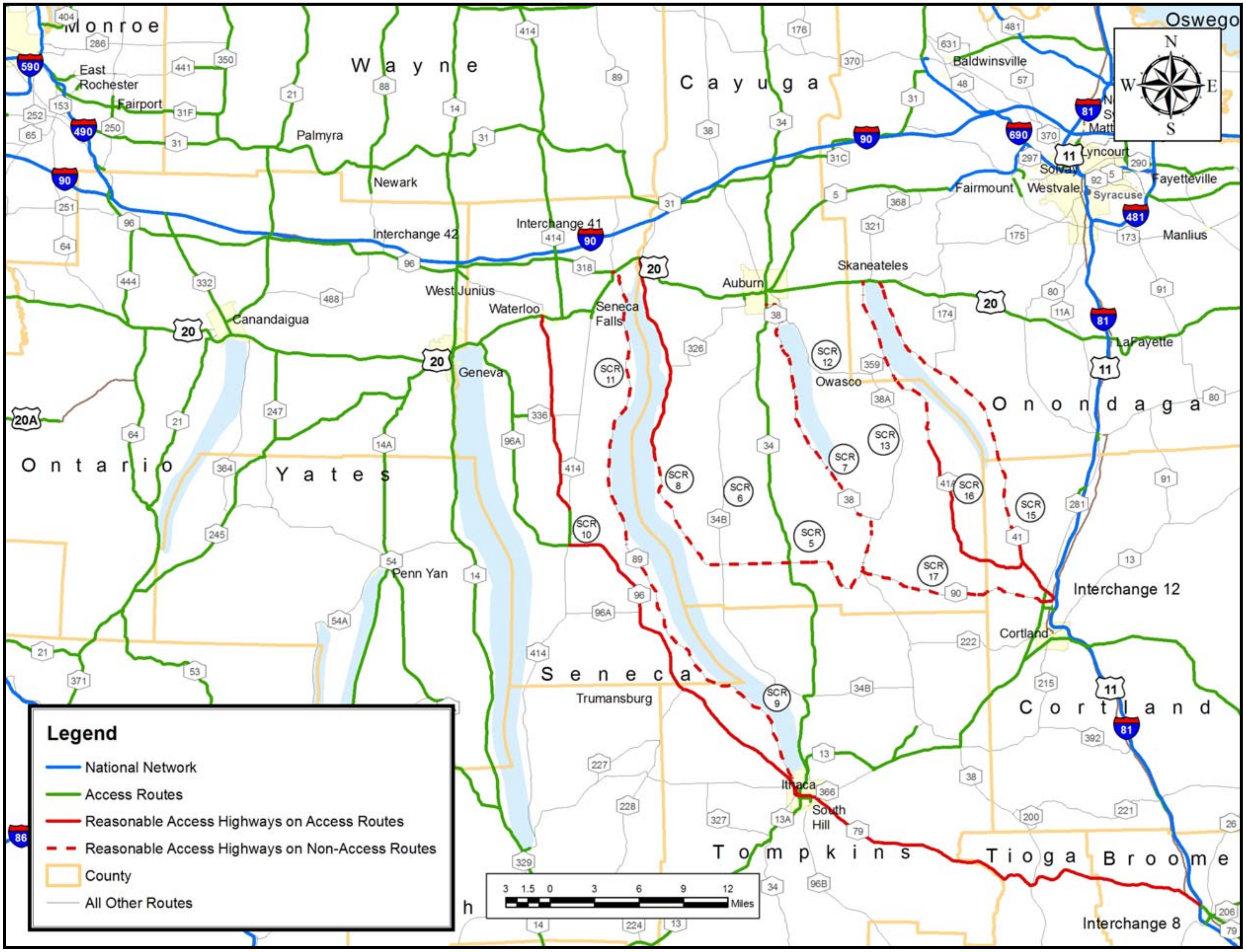


Exhibit 1.2.1.b - Where is the Action Located?
New York State Highway Facilities
Identified Short Cut Locations

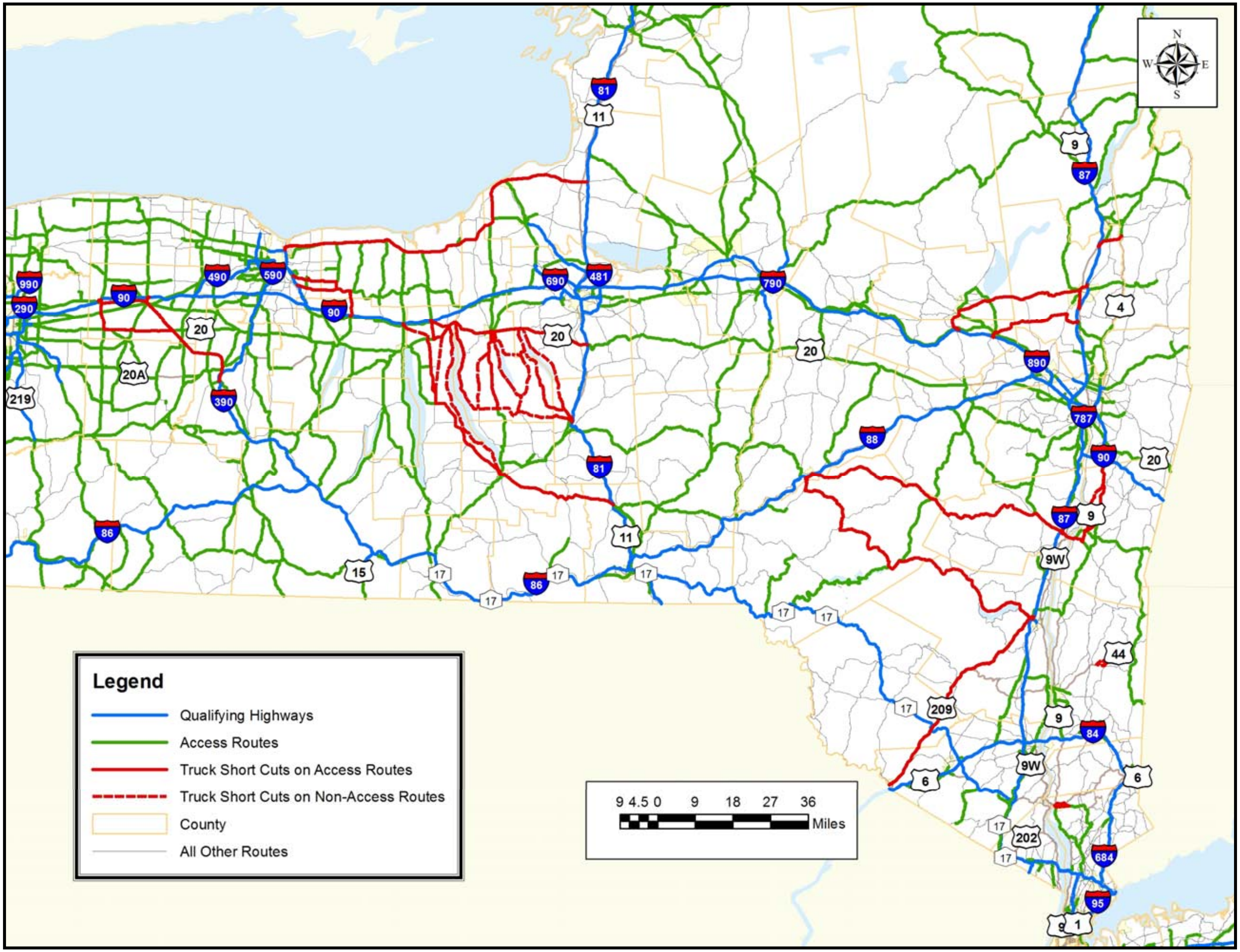
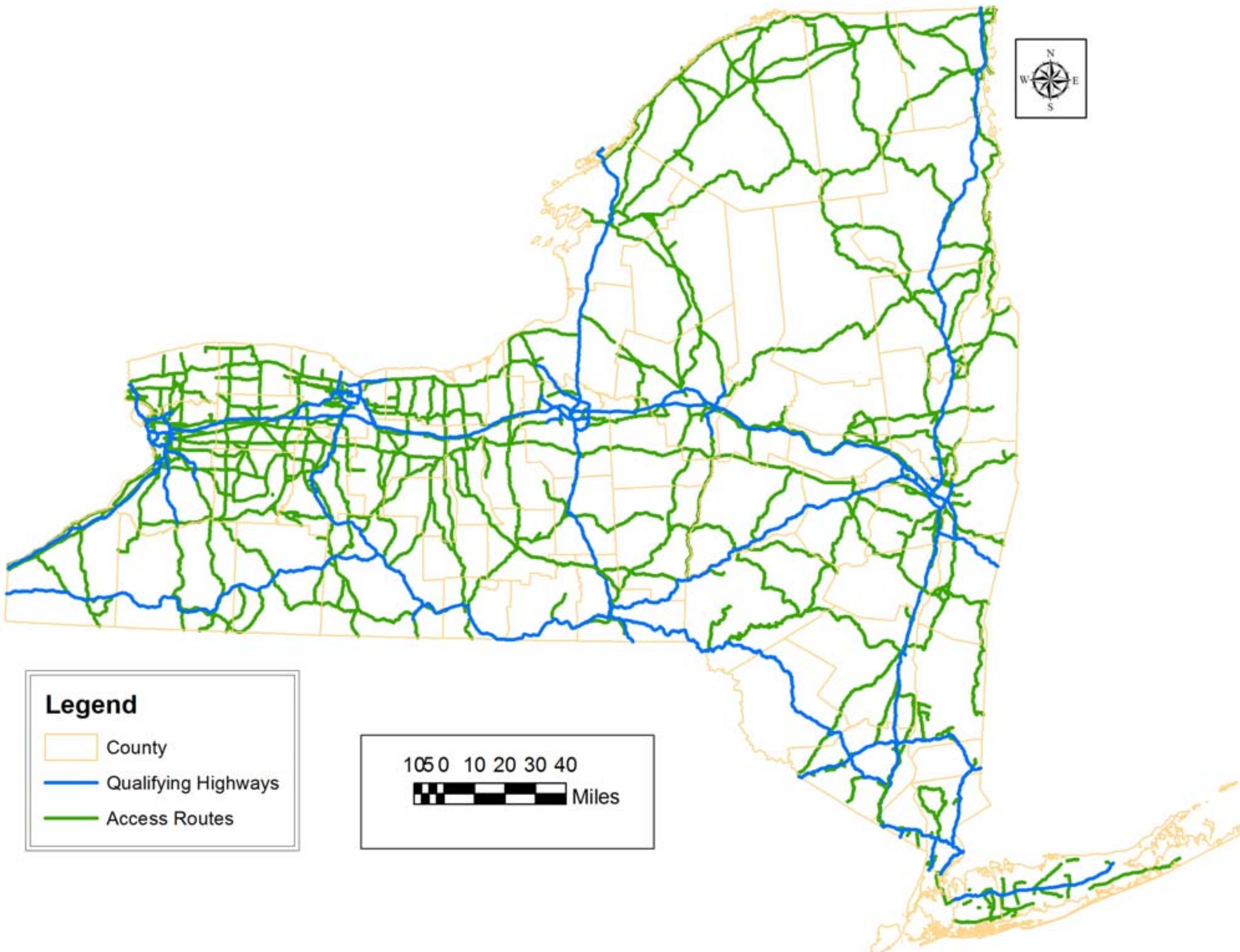


Exhibit 1.2.1.c - Where is the Action Located?

New York State Highway Facilities
National Network (Qualifying Highways) and other Access Routes



This Exhibit illustrates most of the National Network and Designated Access Highways in New York State, a complete listing is available at https://www.nysdot.gov/portal/page/portal/transportation-partners/nys-transportation-federation/permits/ny-permits/repository/odod.pdf

1.2.2 <u>Why is the Action Needed?</u>

Certain state highways in community settings, state tourism areas, school areas, historical areas, scenic byways, and designated bike routes are used by large trucks to deliver inter and intra state freight. In some cases, this large truck traffic conflicts with established community character. This has resulted in residents and other highway users along the identified routes citing a decrease in their overall quality of life which they attribute to the presence of large truck traffic. Select excerpts from comments received are provided in Exhibit 1.2.2 to illustrate the feelings and anxiety brought about by large truck traffic in these communities.

Exhibit 1.2.2 Comments to Illustrate Feelings, Anxiety, and Impact to Quality of Life Caused by Large Trucks	
"Please try to imagine your lives in our town with this disruption and try to figure out some other way to re-traffic these monstrous trucks from traveling through our beautiful community and return Owasco to a peaceful community again."	
"The quality of life in the village changed significantly when the truck traffic became heavy in recent years. Noise, fumes, and vibrations became overwhelming. The trucks can barely squeeze by each other in the center of the village where cars park on either side of the road. And it is impossible not to be concerned when one sees children crossing Main Street to go to the dock for swimming lessons or to buy something at the grocery store and trucks are coming from one or both directions."	
"The truck traffic that has been going through Owasco for the past few years has now made this beautiful community a noisy, busy, unsafe area. The trucks can be heard coming down the road at all hours of the night and day."	
"I live on Route 90 in Aurora, one of the most beautiful villages in the Finger Lakes Region. My driveway, at the north end of the village, is not visible to vehicles coming in from the north. Fortunately (?) the trucks make enough noise that I can hear them barreling into the village before they get here. Along the 1 mile sidewalk stretch I run, it is normal to have 3 or 4 trucks sharing their diesel exhaust. Even sitting in the back of our house, we hear trucks as they pass through. Route 90 is designated a scenic highway. I have no problem with the cars that enjoy its beauty, but the trucks are noisy, smelly, and dangerous. Please send them back to the Interstate."	
"Move trucks away from our village roads, please! They seriously mar our quality of life here in the Finger Lakes. In addition, their vibrations cause serious harm to the fieldstone foundations of those of us who own old, historic properties. They are loud, damaging and hazardous. Please insist they go on the interstate highways, where they belong."	
"Many times I have watched from my front porch as the truckers in their high cabs drove within inches of legally parked roadside cars, pedestrians on marked crosswalks, and children obeying biking rules. Repeatedly we have heard from within our home the horn blast, the squealing brakes, and prayed not to hear a subsequent thud or crash."	
"Above all, the reason to get these trucks off the local roads in the Finger Lakes is the safety of our schoolchildren. For good reason, we do not have children standing by the side of route 81 or the Thruway waiting for a school bus to stop. However, we do have many children standing all up and down local roads like route 79 every morning. And these children are just a few feet from the multiple waste hauling semis that pass by, sometimes in small convoys because there are so many of them. This is a tragedy waiting to happen, and it almost seems like criminal negligence to allow this situation to persist."	
"Just last week in Skaneateles, I saw a garbage truck slam on his brakes as the driver was unprepared for a stopping school bus. He barely missed hitting the back of the bus. It is a matter of time before one of these trucks hits a school kid."	
"The fumes from the diesel fuel enter everyone's home. The trucks are very heavy making the road shake. People on this road can't even get out of their driveways. The elderly have had several close calls just trying to leave their driveways."	
"NYS State Route 90, our Main Street is a designated 'Scenic Byway' and as such is supposed to be remarkable for both its unique beauty and it's designation for tourism. It can't be either as long as this roadway is essentially a Trash Truck Driveway for Seneca Meadows Landfill."	

Large truck traffic results in an increased potential for severe accidents, increased noise and visual disruptions, and increased emission levels, and increased wear on highway infrastructure. While it is not practical to remove all large truck traffic from these communities, as there is a need to accommodate local pick-ups and deliveries and to provide the reasonable access to terminals and services required by federal law, through truck traffic should utilize more appropriate routes where available.

Highways identified in the Finger Lakes Area:

- service through trucks shipping freight from origins/destinations south and south east to destinations/origins west;
- provide economic incentive for use by through trucks;
- have a high level of expressed public concern regarding the amount of large trucks using these routes.

This differs from other highways identified and evaluated throughout the State, many of the other highways evaluated throughout the State:

- are parallel to the National Network,
- reasons for route selection included enforcement or toll avoidance;
- have limited to no economic advantage gained through the truck's use of the route.
- have limited indication of affected stakeholders who would benefit from reducing the number of large trucks.

1.3 What are the Objectives/Purposes of the Action?

The action objectives are as follows:

1. Reduce large truck traffic where highways travel through community or village settings.
2. Improve the quality of life of communities affected by large trucks by: lowering noise and visual disruptions, reducing emission levels, and improving motorist, pedestrian and bicycle mobility and safety.
3. Encourage large through trucks to remain on the National Network (primarily the Interstate system) for all travel except for trucks seeking: locations where freight either originates or terminates, is handled in the transportation process; locations where a commercial motor carrier maintains operating facilities; or locations that are used to provide fuel or service for a truck or food or rest for a truck driver.
4. Reduce risks to communities, tourism areas, school areas, scenic byways, and designated bike routes on affected highways.
5. Reduce the rate of deterioration to the useful pavement life and ride-ability of affected highways.

1.4 What Alternative(s) Are Being Considered?

The following alternatives are being considered:

- Alterative 1 - The "Null" or No Action Alternative.
- Alternative 3 – Reasonable Access Highway Regulation.

<u>Alternative 1: The "Null" or No Action Alternative</u>

This alternative would continue addressing concerns regarding truck traffic for individual locations, typically by examining truck accident history and operational characteristics, undertaking specific origin destination studies, or truck counts; or undertaking short duration increases in truck inspections. Although all of these methods are sound from an engineering perspective, they have not adequately addressed the concerns of stakeholders, which include adjacent property owners, and multimodal users, such as pedestrians and bicyclists. The concerns expressed by these stakeholders relate to quality of life and are not quantified using engineering data. This alternative has proven insufficient in reducing large truck traffic in local communities and has been eliminated from further consideration.

<u>Alternative 3: Reasonable Access Highway Regulation (October 2008 Draft Regulation)</u>

Alternative 3 consists of a proposed draft regulation to limit the use of specific highways by large through trucks. The highways were identified on the basis of engineering analysis presented in Chapter 3 and *Appendix I Evaluation of Identified Short Cut Routes and Reasonable Access Highways* of this report. Each of the specified highways would be signed and enforcement would be governed by Section 1110 of Vehicle & Traffic Law. This alternative recommends a series of highway priorities to encourage large trucks to remain on the National Network by recommending that large trucks first use Qualifying highways, then State access highways, and finally non-designated highways as a guide in considering route selection for large through trucks traveling throughout the State. The proposed draft Reasonable Access Highway Regulation is provided in *Appendix E – Draft Regulations, Comment Resolution Discussion, Comments Sorted by Topic.*

A draft regulation would need to go through the formal rule-making process, which requires thorough analysis of the proposal's potential costs and benefits, environmental and economic impacts, approval by the Governor's Office of Regulatory Reform, a 45-day public comment period and an evaluation of comments received. Alternative 3 is summarized in Chapter 3, and an evaluation of how it would apply to known short cut routes identified in this report is included in *Appendix I - Evaluation of Identified Short Cut Routes and Reasonable Access Highways*.

Other Alternatives Considered and Eliminated from Further Study

Alternative 2 Large Truck Routing Regulation (June 10, 2008 Draft Regulation) is described in Chapter 3 of this report along with reasons for elimination. Other alternatives considered, along with reasons for elimination, are provided in *Appendix H - Alternatives Considered and Eliminated from Further Study*.

1.5 Which Alternative is Preferred?

There is only one feasible alternative, Alternative 3 – Reasonable Access Highway Regulation, and this is the recommended preferred alternative. This alternative achieves the objectives while minimizing to the extent practical the social, economic, and environmental impacts.

1.6 How Was the Number of Affected Large Trucks Estimated?

One component of estimating the affect of regulatory alternatives consisted of identifying known routes used by large through trucks. The identified routes in this report are known to NYSDOT either through observations of regional staff, who have extensive experience operating and maintaining State Highways; or through a history of known public concern, including correspondence, meetings with the public, and meetings with elected officials.

In order to establish the potential affect of an increased number of large trucks remaining on the National Network and a decreased number of large trucks along identified short cut routes, the percentage of large trucks using short cuts that are considered through trucks (and not local trucks) was estimated. This estimate was based on reviews of other truck studies (where through truck estimates ranged from 6% to over 43% of the overall truck volume, and studies of a single town or location without an acceptable alternate route identified even higher percentages of through trucks), survey responses from the abbreviated origin/destination study in the Finger Lakes region, and professional engineering judgment (Refer to *Appendix CB – Traffic Analysis*). From a review of this material an estimate of:

- ***50% of the large trucks along a short cut route were assumed to be through trucks.***

NYSDOT's Highway Data Viewer contains classification counts (truck volumes) along each of the identified short cut routes, which were used to calculate the estimated number of trucks impacted statewide. Since classification counts are not capable of determining trailer length, all 5 axle (F9) and larger (i.e., 18 wheelers) were used to estimate 45 ft and longer trailers, large trucks.

1.7 What Are the Constraints in Developing Regulatory Alternatives?

Regulatory alternatives must demonstrate that: 1) a regulation would not, if implemented, have a greater effect on interstate commerce than on intrastate commerce; and 2) the health, safety and welfare benefits of the regulation outweigh the burden of the regulation on interstate commerce.

Regulatory alternatives are limited to measures NYSDOT has the legal authority to regulate. Paragraph 9 of Subdivision (a) of Section 1621 of the New York State Vehicle and Traffic Law authorizes the Commissioner of Transportation to: "Exclude trucks, commercial vehicles, tractors, tractor-trailer combinations, tractor-semitrailer combinations, or tractor-trailer-semitrailer combinations from highways specified by the commissioner. Such exclusion shall not be construed to prevent the delivery or pickup of merchandise or other property along the highways from which such vehicles and combinations are otherwise excluded." Therefore, any regulatory alternative must not prevent the delivery or pickup of property and could only apply to "through" trucks and can not affect local trips to businesses and consumers. New York State law does not give the Commissioner the express power to exclude trucks based on cargo type.

Federal Law (23 CFR 658) requires “reasonable access” to terminals and facilities, which does not mean unlimited access. States must preserve appropriate and reliable access for trucks 102 inch wide with 48-foot trailers and any limitations must be based on engineering considerations. According to Constitutional Law, Commerce Clause, State regulations can not “discriminate against interstate commerce”, any restrictions must be necessary to preserve public health, safety or welfare; and the impact can not be greater on interstate commerce than on local commerce.

1.8 How will the Alternative(s) Affect the Environment?

NYSDOT has determined that this action is a SEQR Non-Type II Action in accordance with 17 NYCRR, Part 15, and “Procedures for Implementation of State Environmental Quality Review Act”. Non-Type II actions include actions for which the environmental impacts are not clearly established and require an Environmental Assessment. The action is being progressed as Non-Type II because of the potential to alter traffic patterns. Type II actions under 17NYCRR Part 15.14(d) (2) require that; “no significant changes in passenger or vehicle traffic volume, vehicle mix, local travel patterns or access (other than changes that would occur without the action)”. This action therefore does not meet the Type II criteria, and therefore is classified as a Non-Type II action.

Exhibit 1.8.a Environmental Summary					
SEQR Type:	Non Type II EA	BY:	NYSDOT	Date:	Pending

1.9 Anticipated Permits/Certifications/Coordination

Permits

- None.

Coordination

- Coordination with other State Agencies including New York State Thruway Authority and New York State Bridge Authority, New York State Police, New York State Department of Agriculture and Markets, New York State Department of Environmental Conservation
- Coordination with Federal Highway Administration (FHWA)
- Coordination with Local Municipalities and Elected Officials
- Coordination with Community Groups
- Coordination with Trucking Industry and Organizations
- Coordination with the Public

Certifications

- The adoption of a regulation requires a certification by the Commissioner of Transportation, or Commissioner's designee, that the regulation is duly adopted pursuant to the Commissioner's authority under State law.

Other

- Regulatory Approval Process.

1.10 Social, Economic and Environmental Impacts

Social, Economic and Environmental Impacts are summarized in Exhibit 1.10.a.

Exhibit 1.10.a Social, Economic and Environmental Impacts	
Category	**Alternative 3 - Reasonable Access Highway Regulation**
Effectiveness	Alternative 3 identifies where through truck traffic is present and can be regulated by NYSDOT. By specifying highways, and identifying these highways with signs, compliance is more likely. Alternative 3 is also more readily enforced because of clearer definitions for reasonable usage. There are communities identified in this report which will not be addressed by Alternative 3. However, a regulatory option is not considered feasible for these locations and they would need to be addressed through routine actions such as permit restrictions, traffic calming, targeted safety inspections, industry outreach, and local restrictions.
Quality of Life	Improves Quality of Life for highway users and adjacent property owners along specific highways where through truck traffic is present and can be regulated, by reducing the number of large trucks.
Safety Benefits	**$0.4 M (2008$) Accident Savings Annually.** Alternative 3 is limited to specified *Reasonable Access Highways* that all have truck accident rates more than twice the National Network Route accident rate.
Pedestrian and Bicycle Safety	Alternative 3 is expected to reduce pedestrian and bicycle accidents along specified highways, some of which have higher than the statewide average accident rate for pedestrians and bicyclists; and many of which have narrow shoulders, steep grades and pass through areas where bicyclist and pedestrian generators are prevalent.
Pavement Service Life	**$1.2 M (2008$) Pavement Maintenance Savings Annually.** Reduces pavement maintenance costs on specified *Reasonable Access Highways* and some connecting routes, portions of some are maintained by Municipalities. Targets highways with less durable pavement sections and higher pavement benefits.
Noise	Alternative 3 is expected to reduce noise disruptions along specified *Reasonable Access Highways*. No discernable impact is expected to measured noise levels.
Air Quality	**Statewide there would be an estimated increase of 3,600 tons of CO_2 emissions, increases in Particulate Matter and NOx.)** Reduces emissions near sensitive receptors. Overall there will be an increase in emissions due to the expected increased fuel consumption by trucks rerouted onto the National Network. The increase in fuel consumption is not considered to be significant.
Visual/ Aesthetics	Alternative 3 improves visual quality/aesthetics of specified highways, which include designated scenic byways (NY89 and NY 90), and several historical districts by reducing visual disruptions caused by large trucks.
Energy	**There would be an estimated increase of 0.3 Million gallons of diesel fuel usage annually for large trucks.** Alternative 3 minimizes energy impacts by limiting specified highways to routes where the National Network alternate route is less than 25 miles longer than the *Reasonable Access Highway*.
Specific Business Impacts	Alternative 3 benefits businesses associated with outdoor recreation, tourism, shopping, dining, and lodging along specified *Reasonable Access Highways*, by contributing to an environment conducive to recreational activities.
	The estimated annual increase in fuel, toll, and operating expenses is $4.2 M.(2008$)[1] Freight shippers who rely on trucks as a shipping mechanism are impacted by increased fuel costs associated with longer routes. Independent truck drivers and small trucking firms which operate on tighter profit margins are most impacted by increased costs associated with longer routes. Alternative 3 does, however, minimize industry impacts by limiting through truck exclusions to specific predetermined, signed highways, where through trucks are present, and where the difference in length from the National Network route is less than 25 miles.

Exhibit 1.10.a
Social, Economic and Environmental Impacts

Category	Alternative 3 - Reasonable Access Highway Regulation
Indirect Effects	Although NY 38A is not included in the recommended designated *Reasonable Access Highways*, it starts and ends at NY 38, which would be designated, it is therefore expected that large truck traffic will also be reduced on this highway. By designating NY 90 as a *Reasonable Access Highway*, through truck traffic short cutting to and from I81 to I90 would be discouraged on NY 34 and NY 34B. By not designated NY 34 or NY 34B, some of the large truck trips between Ithaca and Seneca Falls would be required to take NY 34 or NY 34B, instead of using NY 89 or NY 96. Alternative 3 limits indirect effects by limiting *Reasonable Access Highways* to specific predetermined, signed highways, where through trucks are present, and where the difference in length from the National Network route is less than 25 miles. This approach provides predictability of truck access which is more likely to be absorbed into the shipping process. Larger shipping companies may be more able to pass an increase in cost on to their customers than independent operators, and the expected increase in costs with this alternative have been minimized to the extent practical. Consumers will not likely see an effect on goods where transportation costs are not a significant cost percentage in overall production costs. Consumers may experience an increase in the price of goods where transportation costs are a higher percentage of overall production, such as agricultural products. Local pick ups and deliveries are not effected.

[1] The estimated annual increase in fuel expenses is dependant on the price of diesel fuel, $5.25/gallon was used for calculations in this report, refer to *Appendix F – Route Fuel and Toll cost Analysis* for complete estimate calculations.

1.11 What are the Costs & Schedules?

Alternative 3: Reasonable Access Highway Regulation

Direct Costs to NYSDOT:

Estimated construction costs to sign each of the recommended *Reasonable Access Highways* is $0.45M (2008 $). A detailed estimate for this work and possible sign faces which could be used is included in *Appendix K - Signs*.

Benefits Summary:

Some of the benefits associated with this action can be readily quantified. These benefits include safety and pavement savings. Other benefits associated with this action are much more difficult to quantify. Emission levels will be reduced in these communities, where more sensitive receptors are located. Large trucks cause noise and visual disruptions. This action will reduce these disruptions. Many of these concerns have to do with conducting regular day-to-day routine activities. The people who will benefit from these reductions in disruptions believe concerns will be alleviated, providing for intangibles like the opportunity for kids to play in the front yard without fear of large trucks running past their homes at 55 mph only a few feet away; or to wait outside for the school bus; the chance to sleep at night without the rumble and noise of these large trucks; the ability to cross the highway to get the mail without fear of large trucks motoring through; or to go and ride their bike to the park; and the ability to enjoy the quiet of a small village setting without the disruptive presence of large trucks.

The exact number of people who will derive benefits from noise and air quality improvements, visual aesthetics improvements, and quality of life improvements associated with the preferred alternative is not known. However, there are an estimated 6300 residential properties, 12 schools with about 6000 students, 12 state or federal parks, 9 historic districts in 15 communities on these specified highways. Parks and recreational areas are an important characteristic of these communities, residents and tourists select these locations, in part, for their safety, tranquility, aesthetics, recreational opportunities and clean air. Exhibit 1.11.a describes parks located in these communities.

Exhibit 1.11.a Federal and State Park Descriptions

Location	Description	Photo
Allan Treman State Marine Park – Route 89	Allan H. Treman State Park is one of the largest inland marinas in New York State. It boasts 370 seasonal, 30 transient and 30 dry boat slips. The park has picnic areas and playing fields and provides access to the Barge Canal and Seneca Lake. MARINA ONLY - No Camping. The duration for seasonal slips is from May 1 through the 3rd Monday in October.	
Bear Swamp State Forest – Route 41A	This 3,316-acre forest offers trout fishing, hunting for deer, rabbit, squirrel & ruffled grouse, wild turkey season in the spring. 13-mile trails, snowshoeing, snowmobiling, cross-country skiing and wilderness camping.	
Canoga Marsh Wildlife Management Area – Route 89	This natural wetland area is one of the few freshwater marshes on Cayuga Lake. The marsh provides valuable habitats for fish spawning, marsh birds, waterfowl and songbirds. Deer, raccoons, and other mammals are commonly seen on the area. The area allows hunting, fishing, picnicking, trapping, nature study, hiking, birding, boating, cross-country skiing, and photography. This area is open from sunrise to sunset.	
Deans Cove Marine Park – Route 89	Dean's Cove Boat Launch on Cayuga Lake is a boat launch site, including power boats, with fishing access. No other facilities. The facility is open year round.	
Long Point State Park – Finger Lakes – Route 90	The park provides boat launch facilities, a beach with swimming area, picnic areas, and fishing access.	

Exhibit 1.11.a Federal and State Park Descriptions		
Location	**Description**	**Photo**
Northern Montezuma Wetland Management Area – Route 90	Emergent marshes and impoundments, forested wetlands, old fields, meadows, farm fields and woodlands provide a diversity of habitats and wildlife. Resident wildlife and fall migrations of shore birds, raptors, waterfowl and songbirds offer opportunities for many kinds of wildlife recreational activities. Public hunting, trapping and fishing are encouraged in accordance with State Fish and Wildlife Laws and Regulations. Hiking biking and canoeing are allowed. Prohibited activities include motorized vehicles beyond barrier gates, use of off-road vehicles, motorized boating, overnight mooring of boats, swimming, camping, removal or destruction of vegetation, and littering.	
Fillmore Glen State Park – Route 38	Named in 2007 as one of the Top 100 Campgrounds in the Nation. Fillmore Glen State Park is an oasis of cool, dense woods crowding into a long, narrow gorge. Its hiking trails offer spectacular views, unique geological formations, including five waterfalls, and a botanically rich glen. The park has 60 campsites, a stream-fed swimming pool and fishing in the Owasco Lake inlet. In the winter, hiking, cross-country skiing and snowmobiling are permitted on unplowed roads.	
Potato Hill State Forest – Route 79	915 acres of recreational activities such as hunting, hiking, snowmobiling, camping, bird watching, mountain biking, informal horseback riding, and snowshoeing. Nature observation and hunting are easy and exciting with over 53 species of mammals predicted or confirmed in the area.	
Summerhill State Reforestation Area – Route 90	4,355 acres of dense forest land. Recreational activities include snowmobiling, cross country skiing, hiking, hunting, trapping, wildlife viewing, and informal horseback riding. No camping within 150 feet of open water, roads, or trails. Almost completely forested, the area provides protection and solace for an estimated 51 mammal species, 126 bird species, 20 species of reptiles, and 23 species of amphibians.	

Exhibit 1.11.a Federal and State Park Descriptions		
Location	**Description**	**Photo**
Taughannock Falls State Park – Route 79	Taughannock State Park also features hiking and nature trails, tent and trailer sites, cabins, picnic areas, beach swimming, fishing, playground areas, a marina launching site, ice-skating, sledding, cross-country skiing and an annual summer concert series. The falls cataract has an incredible drop of 215 feet (66 meters), and is one of the highest east of the Rocky Mountains The Park is open all year Mon-Fri, 8:00 AM to 4:30 PM; nights and weekends during summer with camping from March to mid October. The Rim trail closes in winter.	
Turkey Hill State Forest – Route 79	1,108 acres of recreational activities such as hunting, trapping, snowmobiling, bird watching, and nature viewing. Aside from the turkey, which is so common here that the forest was named for the bird, many other birds, mammals, reptiles and amphibians are confirmed or predicted in the area.	

With the many adjacent park areas, these highways are located in a frequently visited tourism area, which includes 36 area Bed and Breakfasts and 119 restaurants. How each of these communities describe their character and amenities are provided in Exhibit 1.11.b. (Excerpts are from readily available sources including Chamber of Commerce, Visitor and Local Government Web sites.)

Exhibit 1.11.b Community Self Descriptions from Readily Available Sources	
Community	**Description**
Auburn	“Auburn boasts all the trappings of a bustling, progressive city mixed with all the allure of a charming college town – a quaint, quirky downtown, award-winning restaurants and fantastic shopping, scenic parks, quiet neighborhoods and top-rated schools. These qualities alone, however, do not make a community. Newcomers and natives alike sense a spirit in Auburn that’s difficult to articulate, but impossible to ignore. That spirit is what makes Auburn “home” to so many – students who decided to stay and raise families here, natives who would never think of leaving and newcomers who happened upon our town and fell in love. Even residents not directly associated with Auburn University as a student or employee enjoy the benefits of living in a college town. Plays and concerts, continuing education courses, excitement filled football seasons and year-round sporting events are just a few of the perks! With ample employment opportunities, an excellent education system, high quality of life and countless leisure activities, the city of Auburn is ideal for anyone – students, young families, professionals, retirees – to call home.”
Aurora	“The picturesque village of Aurora is nestled on the eastern shore of Cayuga Lake, in the heart of the Finger Lakes region of New York State.”…”Whether you enjoy bird watching or fishing; boating or cross country skiing; wine tasting or simply relaxing in a peaceful and serene setting, come visit our village by the lake. While you're here visit the many members of the Aurora Arts and Merchants Association. From antiques to fine gifts and clothing; hardware to homemade jams; flowers to fine dining, you'll be amazed at the treasures you'll find. Aurora has been known as an educational center since the 1790's when its first school was built. Wells College was founded in 1868 by Henry Wells, pioneer of Wells Fargo Stagecoach and American Express. Wells is one of the oldest liberal arts colleges for woman in the nation and enjoys a long-established reputation for excellence in leadership and rigorous academic standards.”

Exhibit 1.11.a Community Self Descriptions from Readily Available Sources	
Community	**Description**
Moravia	"Moravia is located at the south end of Owasco Lake. At the village edge is Fillmore Glen State Park with nature trails, campsites, picnic pavilions and a replica of the log cabin in which US President Millard Fillmore was born nearby. The village boasts a variety of examples of 19th and 20th century architecture, many of which are listed on the National Register of Historic Places. The Powers Library, erected in 1880 and located on Church Street, remains the oldest building in continuous use as a library in New York State. The Cayuga-Owasco Lakes Historical Society maintains the History House at 14 West Cayuga Street, specializing in the history of southern Cayuga County. Come visit Fillmore Glen State Park, an oasis of cool, dense woods crowding into a long, narrow gorge. Its hiking trails offer spectacular views, unique geological formations, including five waterfalls, and a botanically rich glen. The park has 70 campsites, a stream-fed swimming pool and fishing in the Owasco Lake inlet. In winter, hiking, cross-country skiing and snowmobiling are permitted on unplowed roads."
Tompkins County/ Ithaca	"Ithaca and Tompkins County are more than just great places to live and work, they're exciting travel destinations to visitors nationwide. Nearly 500,000 people visit the area annually and their choices for entertainment and recreation have never been greater. Here, small-town charm meets Ivy League sophistication amid a backdrop of breathtaking gorges, towering waterfalls, outstanding recreation and world-class thinking. Home to Cornell University and Ithaca College, the area's rich culture, fine lodging and abundance of top-quality restaurants make it an ideal base for any Finger Lakes getaway. Downtown shopping and restaurants provide a unique and exciting variety for all tastes and ages. The State parks and many lakes offer the best in fishing, hunting, swimming and boating. Local wineries, art galleries and museums provide something for everyone – which is why so many people return to Tompkins County year after year."…"Ithaca sits at the southern tip of Cayuga Lake, the longest of the 11 Finger Lakes. Home to Cornell University and Ithaca College, Tompkins County and Ithaca exemplify the small-town atmosphere, while showcasing the qualities of a larger metropolitan city. Moreover, the climate of Tompkins County provides for a variety of outdoor activities ranging from boating, swimming and hiking in summer, to cross-country skiing and ice-skating in winter. "Ithaca is gorges" has become the indelible adage that aptly describes the Ithaca area, which has been blessed with deep cut gorges and spectacular waterfalls. • Tompkins County is home to three gorge parks (there are only six in the entire state of New York). • Ithaca is host to over 150 waterfalls, all of which lie within a 10-mile radius of downtown. • Taughannock Falls is 215 feet high, a greater vertical drop than Niagara Falls. • An avid boater can sail from the open ocean through the locks of the New York State Erie Canal, down Cayuga Lake to Ithaca. • With over 128 species of fish in the Finger Lakes Region, it's not surprising that Cayuga Lake was selected one of the top 10 bass-fishing lakes by Sports Afield Magazine. • The Sagan Planet Walk, built to honor the memory of Ithaca resident and Cornell University astronomer, Carl Sagan, is a true-to-scale model of our solar system. It is one of the only walkable "planet walks" in the world. The Sciencenter, Ithaca's hands-on museum and outdoor science playground, is the sponsor of the Sagan Planet Walk, and is one of eight museums involved in the partnership of educational attractions called the Discovery Trail. Some others include the Museum of the Earth and Cornell's Laboratory of Ornithology. • Ithaca ranked 17 nationwide among the "Best Places for Business and Careers," Forbes magazine, April 2006. • Ithaca offers more restaurants per capita than New York City. The famous Moosewood Restaurant is located in Ithaca, and two of its famous cookbooks that present recipes for scrumptious vegetarian meals have won James Beard Awards in the healthy focus and vegetarian categories. • The downtown Ithaca Commons was named one of New York's top design projects of the century by the state chapter of the American Institute of Architects. • Ithaca Hours, our local paper currency, has been featured in over 400 media venues nationally and internationally. The currency exchange has set standards worldwide and brings important visitors to Ithaca, such as Madame Mitterand (former First Lady of France) and community development specialists from every continent.

Exhibit 1.11.a Community Self Descriptions from Readily Available Sources

Community	Description
Seneca County	Embraced by Seneca and Cayuga lakes, Seneca County is at the very heart of the picturesque Finger Lakes Region. Overlooking both lakes are acres of vineyards, used in the creation of world-class Finger Lakes wines at over two dozen wineries located within the county. There's something to suit everyone's taste. Plentiful open space also creates abundant recreational opportunities. Several state parks, Montezuma National Wildlife Refuge, and Finger Lakes National Forest provide easy access to boating, fishing, hunting, biking, camping, nature watching, cross-country skiing, or simply enjoying the outdoors. Waterloo Premium Outlets, as well as antique and boutique shopping, offer exploration in their own right. While recreational opportunities abound, Seneca County is also steeped in history. As the Birthplace of Memorial Day and the site of the first Women's Rights Convention, Waterloo and Seneca Falls have long been gathering places for advocacy of human rights. The Women's Rights National Historic Park, National Women's Hall of Fame, National Memorial Day Museum, and other museums and historical societies celebrate this history. Whether you come to relax, play, or learn, Seneca County is a special place. In the spirit of genuine hospitality, we invite you to feel the embrace of the Finger Lakes in discovering all it has to offer...
Cortland County	Located in the heart of New York State, Cortland is a scenic, rural county featuring historic downtowns, two SUNY campuses, a vibrant business community and a high quality of life. If you like to experience the outdoors, we have 22 miles of warm-water rivers and over 25 lakes and ponds which provide an abundance of fishing opportunities. 30,000 acres of state forest land are available for hiking, biking and enjoying. You might also want to take a side trip to Lime Hollow Nature Center featuring educational exhibits and hiking trails. If you enjoy a round of golf we have five public courses waiting to test your skills. The Finger Lakes Trail is a premier footpath for hikers that stretches 560+ miles from the PA/NY border in Allegany State Park to the Long Path in the Catskill Forest Preserve, crossing beautiful and remote areas of the Finger Lakes Region and Southern Tier, with 55 miles through Cortland County.
Skaneateles	 Set on a jewel-clear lake in central New York State, the Skaneateles area is home to a thriving residential and business community, and host to thousands of visitors and vacationers each year. In the historic downtown district, shops and galleries are housed in restored buildings dating back to 1796. Browse for unique foods, distinctive fashions, original art, home accessories, or a special antique. Relax at a restaurant or tavern; the atmosphere may be casual and lively or quietly gracious, but the menu is always tempting. Visitor accommodations include inns, bed-and-breakfasts, motels and cottages. Skaneateles (Skan-ee-atlas) is an Iroquois word meaning long lake and it's just that, a 16 mile stretch of one of the cleanest lakes in the country. You feel a sense of belonging here - whether it's to raise a family, build a business, escape for a weekend or stay for the season. And there's so much more. Parks with playgrounds, jogging paths, basketball and tennis courts - even ice skating. Sidewalks festooned with flowers and dotted with park benches. A scenic pier for strolling, fishing and people-watching. A fascinating historical museum. A cozy public library with a walk-in gallery of works by the late Skaneateles artist John Barrow.

Estimated Identified Annual Benefits and Costs:

Welfare/Quality of Life Benefits - Many people cited the presence of large trucks as directly diminishing their quality of life. With the reduction of the number of large through trucks along specified highways, there is expected to be an improvement to the quality of life for highway users and adjacent property owners. This benefit is typically not quantified in terms of dollars (because no standard method could be found to monetize this benefit).

Health Benefits (Noise and Air Quality) – Along specified highways, noise disruptions will be reduced and air quality improved where more sensitive receptors (people: including a highly visited tourism area, 12 schools, 6300 residential properties, 12 state or federal parks, 9 historic districts in 15 communities) are located, these benefits are typically not quantified in terms of dollars (because no standard method could be found to monetize this benefit).

Health Benefits (Visual/Aesthetics) – Along specified highways, which include designated scenic byways (NY 89 and NY 90), and several historical districts visual quality/aesthetics will be improved, by reducing visual disruptions caused by large trucks. This benefit is typically not quantified in terms of dollars (because no standard method could be found to monetize this benefit).

Safety Benefits (Accident Reduction) – The estimated annual accident cost savings of large through trucks remaining on the National Network instead of using specified highways is **$0.4M** (2008$). (Refer to *Appendix CA – Accident Analysis* for detailed calculations).

Reduction Pavement Wear Savings – The estimated annual pavement maintenance savings of large through trucks using remaining on the National Network instead of using specified highways is **$1.2M** (2008$). Some of this savings will be realized by municipalities responsible for maintenance of segments of specified highways. (Refer to *Appendix D – Pavement Information* for detailed calculations).

Impact Summary:

Fuel, Toll and Operating Costs – The estimated expected annual increase in fuel, toll, and operating costs for large through trucks to remain on the National Network instead of using specified highways is **$4.2M**(2008$). There would be an estimated increase of *323,000 gallons* of diesel fuel usage annually for large trucks. (Refer to *Appendix F – Route Fuel and Toll Cost Analysis* for detailed estimates of fuel and toll costs.)

Air Quality - Overall there will be an increase in emissions of *3,600 tons* of CO_2 due to the expected increased fuel consumption of large through trucks remaining on the National Network instead of using specified highways. This cost is typically not quantified in terms of dollars (because no standard method could be found to monetize this benefit).

Benefit/Cost Summary:

The use of State highways by large truck traffic delivering freight has been identified as having increased impacts to community settings, state tourism areas, school areas, environmentally and historically unique areas, scenic byways, and designated bike routes, as illustrated in *Appendix G Stakeholders and Public Input*. Further, this large truck traffic has resulted in residents and other highway users along the identified highways to cite a decrease in their overall quality of life which they attribute to the presence of large truck traffic. The Department has identified that large truck traffic has resulted in potential for severe accidents, noise and visual disruptions, increased emission levels in these communities, and increased wear on highway infrastructure. For these specified highways safer, better suited routes are available on the Interstate. Therefore, to correct this problem, the Department has concluded that large through truck traffic should remain on the National Network instead of using specified *Reasonable Access Highways*.

The sum of all of the benefits should be greater than the sum of all of the costs associated with the action. In this action, however, many of the benefits to health, safety, and welfare are not measurable in terms of dollar amounts. The annual costs associated with this action are much more readily calculated. In reviewing the available data, and after careful review of all stakeholder comments, the Department has concluded that these benefits to the public improving health, safety, and welfare, which cannot be quantified, exceed the sum of all the costs.

Cost Effectiveness Analysis:

Through this action an annual estimated 71,000 large truck trips will remain on an Interstate route which is safer and better equipped to accommodate this type of traffic, rather then using collector highways through community settings. Other statistics associated with this action include:

- 71,000 - # of large truck trips will remain on safer and better equipped highways as a result of this action.
- $37 - per truck trip cost for each trip reduced in a community setting
- ¢0.23 - the estimated cost per resident of these communities for each daily truck trip reduction

Schedule - Revisions to regulations must go through the formal rule-making process, which require thorough analysis, approval by the Governor's Office of Regulatory Reform (GORR), a 45-day public comment period and an evaluation of comments received. The rule-making process could take six months or more. The action implementation is planned for Early 2009.

1.12 Who Will Decide Which Alternative Will Be Selected And How Can I Be Involved In This Decision?

A public meeting was held on September 24, 2008. In June of 2008 NYSDOT launched a public web site to provide information and an email address to collect feedback on the draft regulation.

Exhibit 1.12.a Public Involvement Plan Schedule of Milestone Dates	
Activity	**Date Occurred/Tentative**
In-house DOT scoping meeting	June 10, 2008
Stake holder Meeting	August 12, 2008
Focus Group Meetings	July and August 2008
Meeting with Town Reps.	June and July 2008
Public Informational Meeting	September 24, 2008
Industry Outreach Meeting	October 10, 2008
Submit Draft Regulation to GORR	November 2008
Action Implementation	Early 2009

NYSDOT has received 64 letters and 281 e-mails providing comments and feedback on the draft regulation. NYSDOT also received verbal comments during the Public Information Meeting held on September 24, 2008, which included 28 speakers. These comments can be classified as "pro" regulation, "anti" regulation, and neutral.

"Pro" Regulation

- 97 emails (54 of which are specifically concerned with MSW Trucks)
- 37 letters from stakeholders (16 of which is specifically concerned with MSW Trucks)
- 22 letters from Local Government (2 of which is specifically concerned with MSW Trucks)
- 20 verbal comments from the public meeting (9 of which specifically mention MSW)

"Anti" Regulation

- 246 emails (134 of which were a mass emailing entitled "DOT Truck Regulations Hurt Farmers" citing concern the agricultural industry would be adversely affected by the proposed regulation)
- 3 letters from stakeholders
- 10 verbal comments at the public meeting

Neutral

- 5 letters from other agencies

Appendix E Draft Regulations, Comment Resolution Discussion, Comments Sorted by Topic provides a discussion on how comments specific to the content of Alternative 2 Draft Regulation for Large Truck Routing were resolved in context of the development of Alternative 3 Reasonable Access Highway Regulation. All identified related correspondence along with a transcript of verbal comments from the September 24th meeting, is included in *Appendix G Stakeholders and Public Interest*, which subdivides comments into Industry Concerns and other stakeholder comments. Exhibit 1.12.b summarizes stakeholder interest ("pro" regulation) by location.

Exhibit 1.12.b
Summary of Stakeholder Interest - Identified Routes

Short Cut Reference (SCR)	Route Number	Emails to Website	Letters from Local Government	Letters from other Agencies	Letters from Stakeholders
2	US 9 NY 197 US 4 NY 32		2		1
3	NY 29 NY 30A NY 920P		1		1
5	NY 90 NY 34 US 20 NY 318 NY 414			1	
6	NY 90 NY 34B NY 34 US 20 NY 318 NY 414			1	
7	NY 90 NY 38 NY 34 US 20 NY 318 NY 414			1	1
8	NY 90 US 20/5 NY 318 NY 414			1	
9	NY 79 NY 89 US 20 NY 318 NY 414	5	2	4	1

Exhibit 1.12.b Summary of Stakeholder Interest - Identified Routes					
Short Cut Reference (SCR)	**Route Number**	**Emails to Website**	**Letters from Local Government**	**Letters from other Agencies**	**Letters from Stakeholders**
10	NY 79, NY 96 US 20/5 NY 14	4	2	4	1
11	NY 79 NY 96 NY 414 US 20	4	2	4	1
12	NY 41 NY 41A NY 359 NY 38A US 20 US 11			1	3
13	NY 90 NY 38 NY 38A US 20 NY 318 NY 414		1	2	2
14	US 20 NY 318 NY 414		2	2	1
15	NY 41/US11 US 20/5 NY 318 NY 414		2	2	3
16	NY 41 NY 41A US 20/5 NY 414		2	2	3
17	NY 90 NY 38 NY 38A NY 359 NY 41A US 20 NY 318 NY 414		3	2	2
18	NY 21 NY 31	4	7	5	8

Exhibit 1.12.b Summary of Stakeholder Interest - Identified Routes					
Short Cut Reference (SCR)	**Route Number**	**Emails to Website**	**Letters from Local Government**	**Letters from other Agencies**	**Letters from Stakeholders**
20	NY 63 US 20 NY 77 NY 408				2
24A	US 9 NY 23 CR 23B			0	1
24B	NY 66 NY9H US 9 NY 23 CR 23B			0	1

After careful consideration, meeting with community, industry, and other stakeholders, and reviewing comments received, NYSDOT has made the determination of the preferred alternative. With questions or comments you can contact:

Astrid C. Glynn, Commissioner
New York State Department of Transportation
50 Wolf Road
Albany, New York 12232

email: TruckRegComment@dot.state.ny.us

- You can visit this Action's website:
  https://www.nysdot.gov/portal/page/portal/programs/truckpolicy

The remainder of this assessment is a detailed technical evaluation of the existing conditions, the proposed alternatives, the impacts of the alternatives, plans and other supporting information.

CHAPTER 2 - ACTION CONTEXT: HISTORY, TRANSPORTATION PLANS, CONDITIONS AND NEEDS

This chapter addresses the history and existing context of locations affected by this action, including the existing conditions, deficiencies, and needs.

2.1 Action History

The Surface Transportation Assistance Act (STAA) of 1982 designated a **National Network.** The **National Network** consists of the Interstate System and designated highways on which States must allow vehicles subject to Federal size limits to operate, as shown in Appendix A to 23 CFR 658. The **National Network** is different from the **National Highway System**. The **National Highway System** is the Federal-aid system on which States may spend Federal Highway funds. It was designated by the States in consultation with the FHWA and includes the Interstate System. It is designed to serve major population centers, international border crossings, ports, airports, public transportation facilities and other major travel destinations. This action relates to the **National Network**.

While the term ‘STAA vehicles’ has never been defined (according to the FHWA), it is used to denote vehicles for which the Surface Transportation Assistance Act (STAA) provided width and length requirements. These are principally truck tractor-semitrailer combinations with 48 ft or longer grandfathered length semitrailers and twin trailer combinations where neither exceeds 28 ft in length, plus specialized equipment such as automobile and boat transporters. STAA vehicles are illustrated in Exhibit 2.1.b. STAA vehicles must be accorded reasonable access between the **National Network** and terminals and facilities for food, fuel, repairs, and rest. These STAA vehicles are allowed to use the **National Network** and any other highway within one linear mile of the **National Network** as illustrated in Exhibit 2.1.a. **Qualifying Highways** are the same as **National Network** in New York State.

Exhibit 2.1.a. Vehicles Allowed on the National Network (Qualifying Highways in New York State)

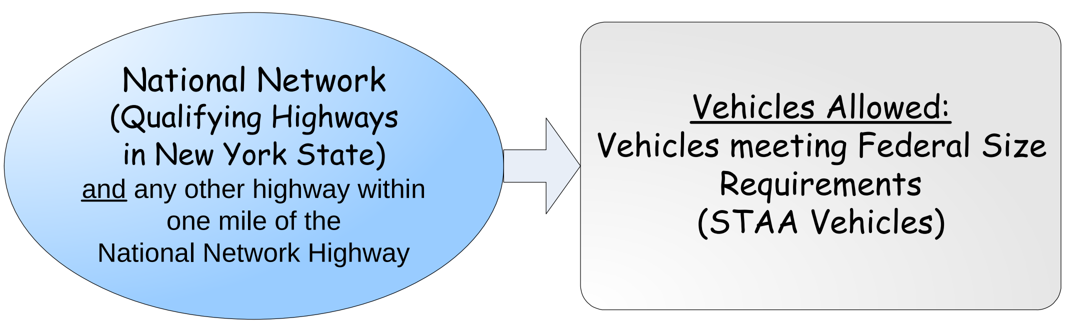
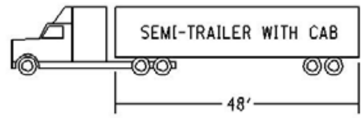
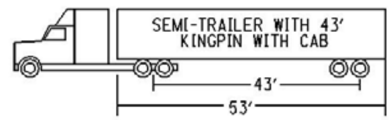
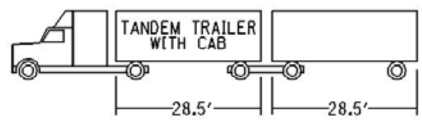
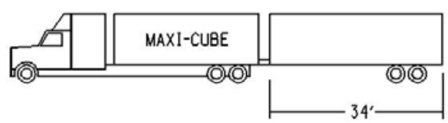
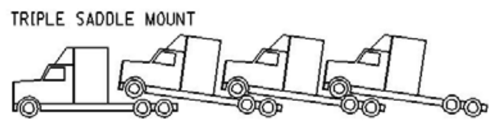
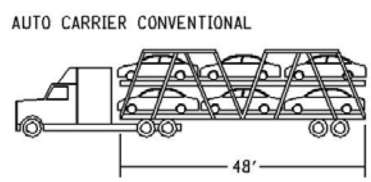
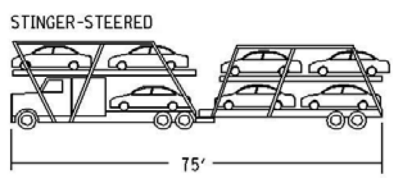
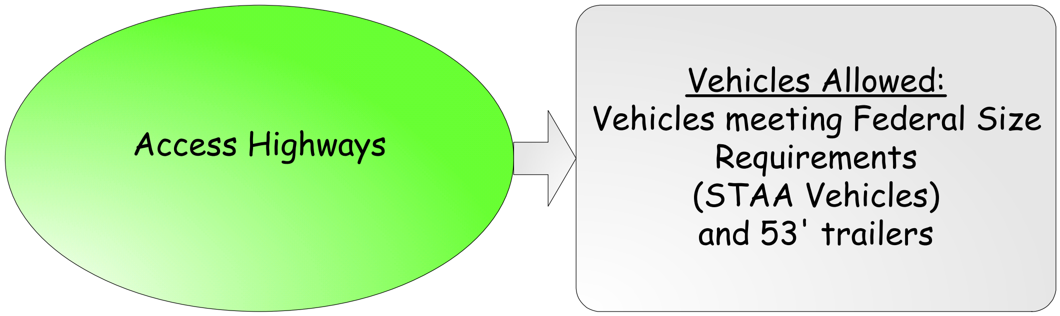


Exhibit 2.1.b provides diagrams of STAA vehicles.

Exhibit 2.1.b STAA Vehicle Dimension Diagram	
Vehicle	**Diagram**
Semi-Trailer with Cab	
Semi-Trailer with 43' Kingpin with Cab	
Tandem Trailer with Cab	
Maxi Cube	
Triple Saddle Mount	
Auto Carrier Conventional	
Auto Carrier Stinger Steered	

An **Access Highway** is a highway designated for use by STAA vehicles as illustrated in Exhibit 2.1.c. Unlike a **National Network (Qualifying Highways)**, these vehicle combinations may not travel off the **Access Highway** for any distance.

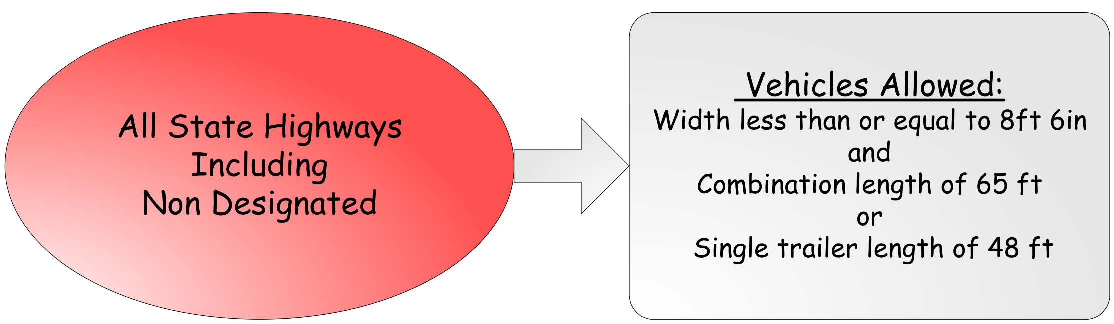
Exhibit 2.1.c. Vehicles Allowed on Access Highways



Under the 1990 Omnibus Truck Safety Bill, New York authorized the use of 53 ft trailer combinations effective November 1990. According to §385(3)(e) of the Vehicle & Traffic Law, 53 ft trailer combinations are restricted to the **National Network (Qualifying Highways)** and **Access Highway** Systems. A provision was included in the legislation that prohibited these vehicles within New York City, and a specific corridor was approved to provide service to Long Island. An **Access Highway** is designated by NYSDOT, once a request is received, provided the travel lane width is greater than or equal to 10 ft and there is no pre-designation large truck accident history. Most State Highways and local roads meet these criteria.

For highways that are not on the **National Network (Qualifying Highways)** or **Access Highways**, vehicles with widths less than or equal to 8 ft 6 in, and either combination length of 65 ft, or a single trailer length of 48 ft are allowed on **all state highways** regardless of destination or appropriateness of route as illustrated in Exhibit 2.1.d.

Exhibit 2.1.d. Vehicles Allowed on All State Highways (including not designated)



Large trucks delivering inter and intra state freight is of particular concern on highways classified as Access highways and non-designated highways. These highways are known to NYSDOT either through observation of regional staff, who have extensive experience operating and maintaining State Highways; or through a history of known public concern, including correspondence, meetings with the public, and meetings with elected officials. Over the years, NYSDOT has received correspondence on large truck traffic, from several interested stakeholders, specifically expressing concern over large truck traffic adversely affecting quality of life. This correspondence is included in *Appendix G – Stakeholders and Public Input*.

2.2 Transportation Plans and Land Use

2.2.1 Local Plans for the Action Area

2.2.1.1 Local Master Plan

Some communities in identified short cut areas cite truck traffic affecting the quality of life of residents. Excerpts from these local master plans are listed in Exhibit 2.2.1.1.

Exhibit 2.2.1.1 Local Master Plan References

Short Cut Reference SCR[1]	Municipality	Cited Truck Traffic/Quality of Life Concerns in Master Plan
8, 9	Town and Village of Seneca Falls	"Strategy 10.2. A proposal to re-route truck traffic away from the Village. While there may be benefits to this, the Town and Village should coordinate and work together with New York State DOT and ensure that mistakes common to other by-passes are not duplicated in Seneca Falls. Typical by-passes common in the 1960's resulted in routing of all traffic away from downtown or other business locations and caused serious negative impacts on economies. This situation must be avoided should re-routing take place. The National Park Service, Women's Rights National Historical Park has also expressed concern about additional truck traffic on Fall Street and its negative impacts on visitor's experiences."
12, 13	Town of Oswaco	"A significant increase in the amount of commercial traffic along Route 38A has been realized in recent years. The number of tractor-trailer trucks, in particular, have recently increased. Although tractor-trailers and other commercial vehicles are an essential part of our economy, their presence is a direct contrast to the desired character of the Town. These large vehicles increase the level of noise and air pollution, and can also accelerate the rate at which road surfaces wear. The overall number and speed of all types of vehicles has been noticeably on the increase as well. This increased pressure has, in turn, decreased the ease and safety of pedestrian, bicycle and residential vehicular transportation."
14-17	Town of Skaneateles	"The Village of Skaneateles and Routes 41 and 41A have become centers of highway traffic movement through this part of the County. North-south and east-west traffic crisscrosses in the built up part of the Village where narrow residential streets are often inadequate to handle the traffic they must carry. While recognizing that the trucking industry is essential to our economy, there are increasing safety and quality of life concerns related to heavy truck as well as automobile traffic. This problem is compounded during summer months when the village experiences an increase in resident and tourist traffic. Opportunities for rerouting through truck traffic to the NYS Thruway and the Interstate Highway System should be continued to be explored and studies should be conducted by County and State level agencies to determine the feasibility of developing or constructing truck bypass routes."
21, 22, 23	Town of Alexander	"Route 20 Corridor - Route 20 carries a significant amount of truck traffic through the Town of Alexander. The speed and volume of truck traffic affects the quality of life of residents who reside along the corridor."
21, 22, 23	Town of Darien	"Two specific issues the Route 63 Corridor Study is addressing relate directly to Darien residents' quality of life and the community's ability to attract future economic development. These traffic problems relate to seasonal automobile traffic on Route 77 to Six Flags Darien Lake and relatively high volumes of truck traffic using Route 77 as a link between I-90 and Route 390 in Livingston County."

[1]Short Cut Reference (SCR) - used throughout this report to aid the reader in comparing information specific to each route. A complete listing of all Short Cut References is provided in Exhibit 3.1.a.

2.2.1.2 Local Private Development Plans

Local private development plans that require trucks over 48 ft access their facilities would need to apply to have a truck access route designated.

2.2.2 Transportation Corridor

2.2.2.1 Importance of Routes

One of the primary reasons for building the Interstate System was to improve the safety of the highway users: drivers, passengers, and pedestrians. Relative safety is measured by the "fatality rate" (fatalities per 100 million miles traveled, a measure used so data can be compared as traffic volumes change). The Interstate System is the safest road system in the country, with a fatality rate of 0.38—compared with 1.00 for all roads in 2005 (New York State data). When the Interstate Construction Program began in 1956, the national fatality rate was 6.05. The national rate in 2005 was 1.46. This improvement in safety has been the result of many factors working together: the shifting of traffic onto the safer Interstate highways and technological advances in safety, such as wider shoulders; skid-resistant pavements; better guiderail, signing, and markings; clearer sight distances; and breakaway sign posts. The Interstate System has **full access control**. This means only interchanges designed for safe, efficient operation provide access (no at grade intersections or driveways are allowed). The Interstate System is a vital and important component of New York State's and the Nation's highway network.

The highways in the identified route areas that travel through village settings, state tourism areas, school areas, environmentally and historically unique areas, scenic byways, and designated bike routes also play a vital role in New York State. These routes connect local communities, and have a variety of users and modes, which include not only motor vehicles, but bicyclists and pedestrians.

2.2.2.2 Alternate Routes

Alternate routes available on the Interstate System and other Qualifying Highways for large through truck traffic provide safer routes, with wider travel lanes and shoulders, and less steep grades, which allow for operation at higher speeds. These routes also provide thicker pavement which can better accommodate loading from large trucks.

2.2.2.3 Corridor Deficiencies and Needs

The identified routes, while in most cases provide routes that are shorter in distance, have narrower travel lanes and shoulders, steeper grades, and sharper horizontal curvature than the National Network alternate route. These routes may also have pavement thicknesses which may experience a shorter service life due to repeated loading associated with large truck traffic. These routes also have many at grade intersections, driveways, and pedestrian crossings which may be incompatible with high volumes of through traffic or large truck traffic.

2.2.2.4 Transportation Plans

NYSDOT's policy regarding large truck traffic is "Large trucks should utilize the national network (primarily the Interstate highway system) for all travel except to access terminals or to reach food, fuel, rest or repair locations. When traveling off the national network, large trucks should utilize the most direct route when accessing terminals and services." (https://www.nysdot.gov/portal/page/portal/programs/truckpolicy) Alternative 3: Reasonable Access Regulation is consistent with NYSDOT's transportation plans. This policy has evolved to incorporate the concept of *Context Sensitive Solutions*[1] in a cohesive approach to managing large truck access to highways.

[1] Context Sensitive Solutions (CSS) - a philosophy which includes safe transportation solutions designed in harmony with the community. CSS strives to balance environmental, scenic, aesthetic, cultural and natural resources, as well as, community and transportation service needs, recognizing community goals.

NYSDOT's process for designating Access Highways has used travel lane width and pre-designation large truck accident history to determine whether or not a route is designated as an Access Highway. Correspondence from interested stakeholder regarding truck traffic concerns has been addressed for individual locations, typically by examining truck accident history and operational characteristics, some origin destination studies, truck counts, or short duration increases in truck inspections. Although all of these methods are sound from an engineering perspective, they have not adequately addressed the concerns of stakeholders, which include adjacent property owners, and multimodal users, like pedestrians and bicyclists. The concerns expressed by these stakeholders relate to quality of life and are not quantified using engineering data.

2.2.2.5 Abutting Highway Segments and Future Plans for Abutting Highway Segments

NYSDOT routinely has projects on the National Network (Qualifying Highways) which involve 1R, 2R and 3R projects. A key series of projects along the National Network include the designation of NY Route 17 to Interstate 86. More than half (195 miles) of Route 17 has been upgraded to federal Interstate standards. The remaining 186 miles of Route 17 are in various stages of project development from preliminary design to construction.

Traffic calming measures which enhance safety may be included in projects along the highways in the identified short cut route areas. NYSDOT could add guide signs in specific locations to encourage large trucks to remain on the National Network. Since June, NYSDOT has begun to conduct inspections off the Interstate, targeting known short cut locations throughout the State. Inspection staff from NYSDOT and New York State Police are identifying suitable sites to safety inspect commercial vehicles in the Finger Lakes Region.

2.3 Transportation Conditions, Deficiencies and Engineering Considerations

2.3.1 Operations (Traffic and Safety) & Maintenance

2.3.1.1 Functional Classification and National Highway System (NHS)

Exhibit - 2.3.1.1
Classification Data for Highways in New York State

National Network in New York State (length)	2149	miles
Interstate System* in New York State (length)	1756	miles
Qualifying Highways - Non Interstate (length)	394	miles
Percent of the National Network that is on the Interstate System	82%	
Percent of the National Network that is Non Interstate	18%	

*Soon to be designated NYS Route 17 is included in the Interstate System

Exhibit - 2.3.1.2
Classification Data for Identified Routes

Short Cut Reference (SCR)	Route Number	Functional Classification	Highway Truck Access Type
1	NY 23	Rural Minor Arterial	Access
2	US 9 NY 197	Urban Minor Arterial(197) Urban Principal Arterial Expressway (US 9, 197) Rural Major Collector (197) Urban Principal Arterial Other (US 9, 197)	Access (US 9, 197)
3	NY 29	Urban Minor Arterial Rural Minor Arterial Rural Major Collector	Access
4	NY 67 NY 30	Urban Minor Arterial (67) Rural Minor Arterial (67) Rural Major Collector (67) Rural Principal Arterial Other (67) Urban Principal Arterial Other (30)	Access (67, 30)
5	NY 90 NY 34 US 20 NY 318 NY 414	Rural Minor Arterial (34, 414) Rural Major Collector (90) Rural Minor Collector (90, 318) Urban Principal Arterial Interstate (90) Urban Minor Arterial (34) Rural Principal Arterial Other (20) Urban Principal Arterial Other (20)	Access (NY 34, US 20, NY318, NY414) Not Designated (90)
6	NY 90 NY 34B NY 34 US 20 NY 318 NY 414	Rural Minor Arterial (34, 414) Rural Major Collector (90) Rural Minor Collector (90, 34B, 318) Urban Principal Arterial Interstate (90) Urban Minor Arterial (34) Rural Principal Arterial Other (US 20) Urban Principal Arterial Other (US 20)	Access (NY 34, US 20, NY318, NY414) Not Designated (NY90, NY 34B)
7	NY 90 NY 38 NY 34 US 20 NY 318 NY 414	Rural Minor Arterial (34, 414) Rural Major Collector (90) Rural Minor Collector (90, 318) Urban Principal Arterial Interstate (90) Urban Minor Arterial (34, 38) Rural Principal Arterial Other (US 20/NY 5) Urban Principal Arterial Other (US 20/NY 5, 38) Urban Collector (38)	Access (NY 34, US 20, NY 5) Not Designated (NY 90, NY 38)
8	NY 90 US 20/ NY 5 NY 318 NY 414	Rural Major Collector (90) Rural Minor Collector (90) Urban Principal Arterial Interstate (90) Rural Principal Arterial Other (US 20) Urban Principal Arterial Other (US 20)	Access (90, 414, 318) Access (US20/NY5) Not Designated (NY 90)
9	NY 79 NY 89 US 20 NY 318 NY 414	Urban Minor Arterial (89) Rural Principal Arterial Other (US 20) Urban Principal Arterial Other (US 20) Rural Minor Arterial (79, 89, 318) Rural Major Collector (79) Urban Collector (414) Urban Minor Arterial (414)	Access (79) Not Designated (89) Access (20, 414, 318)

Exhibit - 2.3.1.2 Classification Data for Identified Routes			
Short Cut Reference (SCR)	**Route Number**	**Functional Classification**	**Highway Truck Access Type**
10	NY 79 NY 96 US 20 NY 14	Rural Principal Arterial Other (US 20/NY 5) Urban Principal Arterial Other (US 20/NY 5) Rural Minor Arterial (79, 96) Rural Major Collector (79) Urban Minor Arterial (14)	Access (NY 79, NY 96) Access (US 20, NY14)
11	NY 79 NY 96 NY 414	Urban Principal Arterial Other (414) Rural Minor Arterial (79, 96) Rural Major Collector (79) Urban Collector (414) Urban Minor Arterial (414)	Access (NY 79, NY 96) Not Designated (414)
12	NY 41 NY 41A NY 359 NY 38A US 20 US 11	Urban Minor Arterial (359, US11) Rural Principal Arterial Other (US 20) Urban Principal Arterial Other (US 20) Urban Collector (38A) Rural Minor Arterial (359) Rural Major Collector (41, 41A, 38A)	Access (41, 41A) Not Designated (38A, 359, US11, 41A) Access (20)
13	NY 90 NY 38 NY 38A US 20 NY 318 NY 414	Rural Major Collector (90, 38A) Rural Minor Collector (90, 318) Urban Principal Arterial Interstate (90) Urban Minor Arterial (38) Rural Minor Arterial (4114) Rural Principal Arterial Other (US 20) Urban Principal Arterial Other (38, US 20) Urban Collector (38, 38A)	Not Designated (38A, 38,90) Access (20, 318, 414)
14	US 20/ NY 5 NY 318 NY 414	Urban Principal Arterial Other (20, 5) Rural Principal Arterial Other (20) Rural Minor Arterial (318) Urban Minor Collector (414)	Access
15	NY 41/ US 11 US 20/ NY 5 NY 318 NY 414	Urban Principal Arterial Other (20, 5) Rural Principal Arterial Other (US 20) Rural Major Collector (41, 11) Urban Minor Collector (414) Rural Minor Arterial (318)	Access (20/5, 318, 414, 11) Not Designated (41)
16	NY 41 NY 41A US 20/ NY 5 NY 414	Urban Principal Arterial Other (US 20/5) Rural Principal Arterial Other (US 20/5) Rural Major Collector (41, 41A, 414)	Access (41, 41A) Access (20/5, 414)
17	NY 90 NY 38 NY 38A NY 359 NY 41A US 20 NY 318 NY 414	Rural Major Collector (90, 38A, 41A) Rural Minor Collector (90, 318) Urban Principal Arterial Interstate (90) Urban Principal Arterial Other (38, US 20) Rural Principal Arterial Other (US 20) Urban Collector (38, 38A) Urban Minor Arterial (359) Rural Minor Arterial (359, 414)	Not Designated (38A, 38, 90, 359, 41A) Access (20, 414, 318)

Exhibit - 2.3.1.2 Classification Data for Identified Routes			
Short Cut Reference (SCR)	**Route Number**	**Functional Classification**	**Highway Truck Access Type**
18	NY 21 NY 31	Rural Minor Arterial (21) Rural Principal Arterial Other (31)	Access (21, 31)
19	NY 21 NY 31 NY 31F	Rural Minor Arterial (21) Rural Principal Arterial Other (31) Rural Major Collector (31F) Urban Minor Arterial (31F) Urban Major Collector (31F) Urban Local (31F)	Access (21, 31, 31F)
20	NY 63 US 20 NY 77 NY 408	Rural Major Collector (77, US 20, 408) Rural Principal Arterial Other (63, 77) Rural Minor Arterial (408)	Access (63, 77, 408) Access (20)
21	NY 63 NY 98 NY 408	Rural Principal Arterial Other (63) Rural Minor Arterial (98) Urban Principal Arterial Other (98) Urban Minor Arterial (98) Rural Major Collector (408)	Access (63, 98, 408)
22	NY 63 NY 5 NY 77 NY 408	Urban Minor Arterial (5, 63) Urban Principal Arterial Other (5, 63) Rural Principal Arterial Other (63, 5, 77) Rural Minor Arterial (5, 408) Rural Major Collector (408, 77)	Access (408, 77, 63, 5)
23	NY 104	Rural Major Collector Urban Principal Arterial Interstate Rural Principal Arterial Other Urban Principal Arterial Other	Qualifying - Monroe / Wayne Co line in City of Rochester & Towns of Irondequoit & Webster Access - Wayne Monroe Co Line to I81
24A	US 9 NY 23 CR 23B	Rural Minor Arterial Rural Principal Arterial Other Rural Major Collector	Access
24B	NY 66 NY9H US 9 NY 23 CR 23B	Rural Minor Arterial (9, 66, CR 23B) Rural Principal Arterial Other (23, 66, 9H)	Access (66, 23,9H, 9, CR 23B) Not Designated (66, 9)
25	NY 28	Urban Principal Arterial Interstate Urban Principal Arterial Other Rural Minor Arterial	Access
26	NY 6 NY 209 NY 28	Urban Minor Arterial (209) Rural Principal Arterial Other (209) Urban Principal Arterial Other (6, 28)	Access (28, 6, 209)
27A	US 44	Urban Principal Other Rural Principal Other	Access

Exhibit - 2.3.1.2 Classification Data for Identified Routes			
Short Cut Reference (SCR)	**Route Number**	**Functional Classification**	**Highway Truck Access Type**
27B	US 44 NY 44A	Rural Minor Collector (44A) Urban Principal Arterial Other (44) Rural Principal Arterial Other (44)	Access (44) Not Designated (44A)
28A	NY 35 US 202	Urban Minor Arterial (202, 35) Urban Principal Arterial Other (202, 35)	Access (202, 35)
28B	US 6	Urban Principal Arterial Other Urban Minor Arterial	Access
28C	987H	Urban Minor Arterial	Access
29	NY 59	Urban Principal Arterial Other	Access

2.3.1.2 Control of Access

The Interstate System which comprises the majority of the National Network (Qualifying Highways) has full access control. The highways in the identified short cut areas have no control of access.

2.3.1.3 Traffic Control Devices

The Interstate System has grade separated interchanges with no signalized or stop controlled intersections along the mainline. Identified short cut routes have a variety of traffic control devices including signalized intersections and stop controlled intersections.

2.3.1.4 Intelligent Transportation Systems (ITS)

The use of GPS and on-line routing has made large through truck drivers more aware of alternative routes. This technology does not, however, take into account weight or height restrictions along these routes, or the physical characteristics of identified short cut routes.

2.3.1.5 Speeds and Delay

The posted speed limit on the Interstate is typically 55 mph to 65 mph. The posted speed of identified short cut routes is typically 30 mph in residential areas and could vary from 30 mph to 55 mph in more rural locations. Posted speed limits of identified shortcut routes, and National Network alternative routes are included in *Appendix F – Route Fuel and Toll Costs*.

2.3.1.6 Traffic Volumes

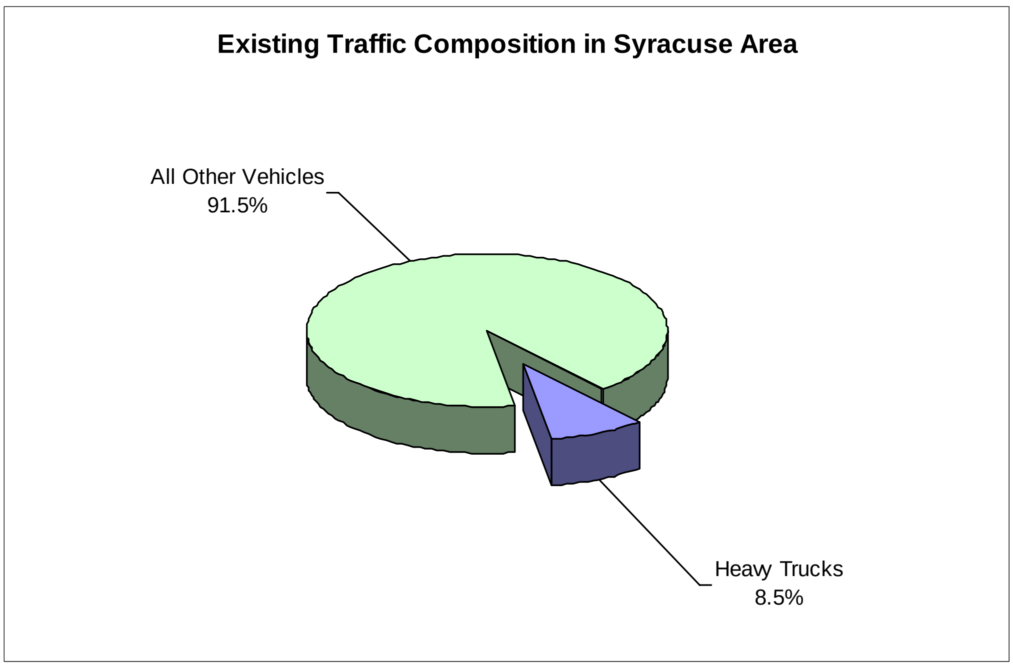
A comprehensive statewide study of all large truck movements is not feasible with the data and technologies available to NYSDOT. Instead, the Finger Lakes area (Refer to *Appendix C – Traffic Information*, Exhibit CB.7) was chosen as an example area based on readily available data, other traffic studies in the area, and numerous concerns from local municipalities regarding large through trucks using the area as a short cut. This traffic study area used to illustrate the existing truck movements includes the Interstate System (National Network) from I-81 at Interchange 8, north to I-690 in Syracuse at Interchange 13, and west on I-90 (Thruway) to Interchange 42. The best available data was collected to determine the number of large trucks taking the identified short cuts. This data includes:

- Statewide traffic data from the NYSDOT's Highway Data Viewer. This system has truck classification counts at spot locations.
- May 13, 2008 mainline data with vehicle lengths from Interchanges 39 to 43 along the New York State Thruway.
- A May 20, 2008 survey by NYSDOT of USDOT numbers on northbound trucks at I-81 Interchanges 8, 12 and 15.

- 2004 through 2006 NYSDOT traffic classification counts were used for I-81, I-690 and I-90.
- Traffic data from a July 22nd and 23rd, 2008 manual truck counts in Skaneateles (Refer to Exhibits CB.11.2.a and b at the end of this appendix).
- 24 hour automatic counter stations placed on State Highways in Skaneateles during the week of July 21st, 2008.
- NYSDEC data with county/state/country of origin and landfill destination data in tons/year for 2007.
- November, 2008 large truck volume information from the Cargill Salt Mine in Lansing, NY.

Since the classification counts are not capable of determining the trailer length, all 5 axle (F9) and above trucks (i.e., 18 wheelers) were used to estimate the 45 ft and longer trailers. These trucks are referred to as large trucks throughout this report.

Exhibit 2.3.1.6.a Existing Traffic Composition



2.3.1.6.(a) Existing Volume of Trucks Using Short Cut Routes

The percentage of large trucks using identified short cut routes through the Finger Lakes area was determined based on reviews of other truck studies (Refer to *Appendix CB – Traffic Analysis*, Section 10.0), the survey responses from a May 20, 2008 abbreviated origin/destination study (Refer to *Appendix CB – Traffic Analysis*, Section 7.2), and professional engineering judgment. The number of through trucks versus local deliveries based on previous studies, report through trucks ranging from 25% to over 43% of the overall truck volume on some of the identified short cut routes. Studies of a single town or location without an acceptable alternate route identified even higher percentages. The May 2008 origin/destination study concluded that 40% of the large trucks were through trucks.

However, the study included a large number of no responses (171 out of 259) and a disproportionate number of the no responses may be short cutting. Additionally, the results are from a single 10 hour period. Therefore, a very conservative estimate is 50% of the large trucks along a short cut route may be impacted by the proposed action for the analysis in this report. The estimated volume of trucks using the identified short cut routes is also included in *Appendix CB – Traffic Analysis*. The volume is based on the statewide vehicle classification counts multiplied by 50%.

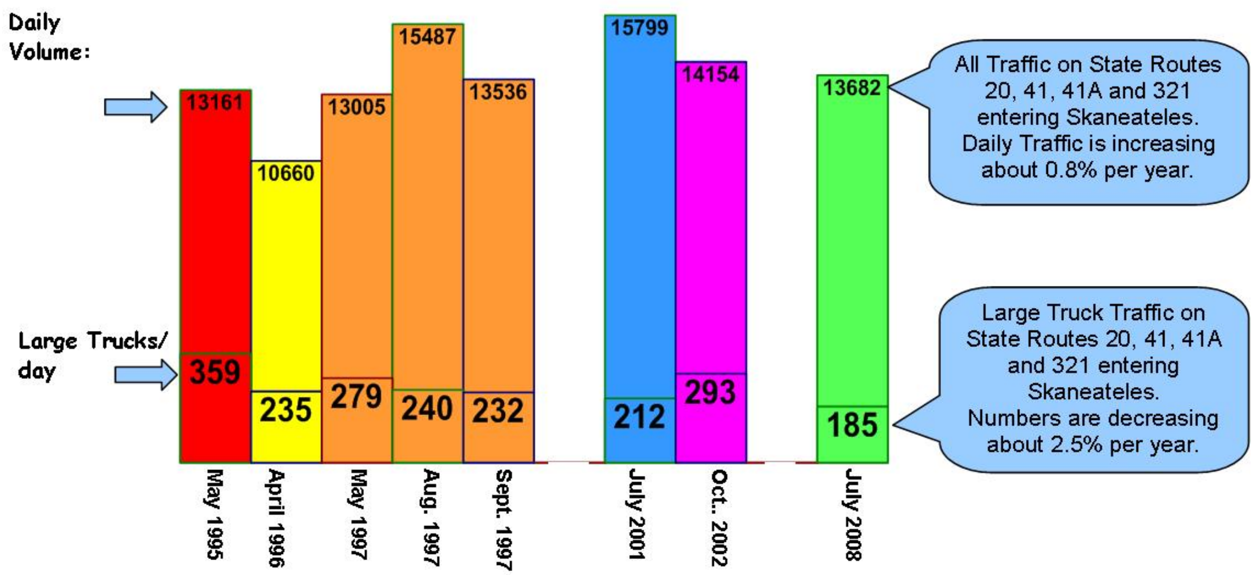
2.3.1.6.(b) Existing traffic volumes

Traffic flow diagrams with Directional AADT (average annual daily traffic), DDHV (directional design hourly volume), and LOS (level of service) along with the % large trucks are included in *Appendix CB – Traffic Analysis,* Section 11.0. The statewide traffic data for the identified short cuts is also included in *Appendix CB – Traffic Analysis*, Section 11.5.

2.3.1.6.(c) Historical Data

There have been 8 traffic studies performed in the Village of Skaneateles over the past 14 years. The results of these studies have shown that while the total volume of traffic passing through the Village has increased by 0.8%, the volume of large trucks has declined by 2.5%.

Exhibit 2.3.1.6.b Past Traffic in Skaneateles



The most recent data collected showed that large trucks comprised 1% of the total traffic passing through the Village of Skaneateles. Exhibit 2.3.1.6.c shows the distribution of trucks by type.

2.3.1.6.(d) Other Studies

Many other studies have been created to examine truck traffic in the Finger Lakes Region. The following are brief synopses of these studies in context of local vs. through trucks and truck numbers. For more detailed analysis see *Appendix CB – Other Studies.*

Seneca Meadows Landfill Study (2008):

Although the site is only one of hundreds of large truck destinations in the Finger Lakes Region, the study concluded 30 large trucks carrying municipal solid waste traveled through Finger Lakes area.

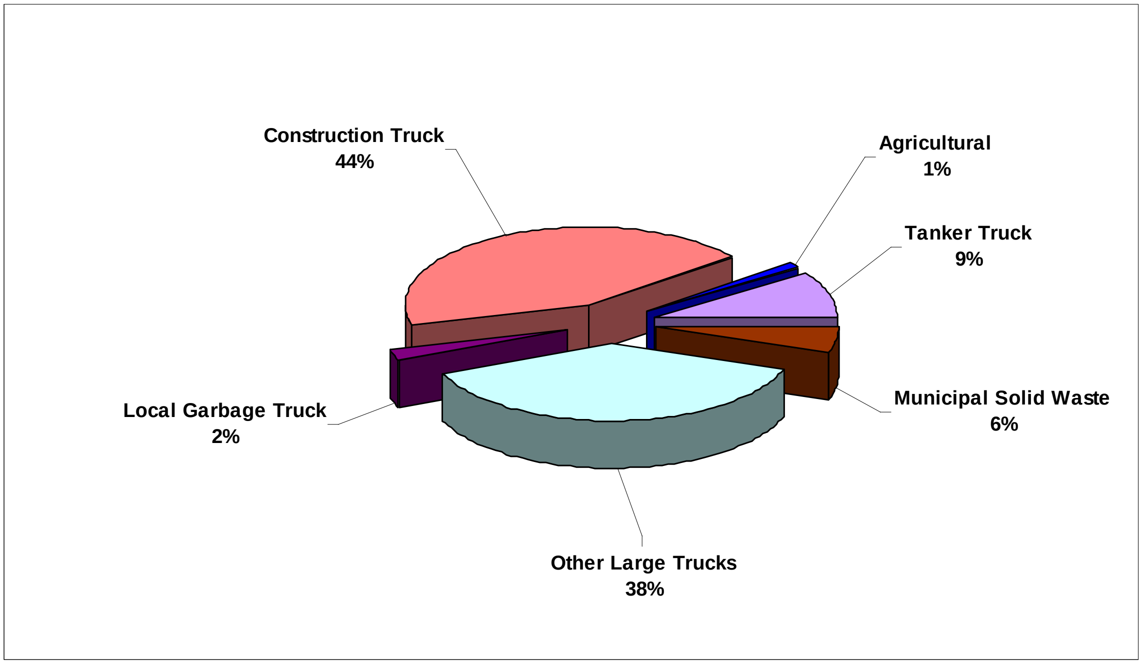
Cornell Institute for Public Affairs – Garbage Truck Traffic Study (May, 2008):

The study is largely based on survey results from local residents and focuses primarily on the municipal solid waste trucks.

Route 96 Corridor Management Study, Tompkins County (2008):

This study is on-going and the number of large trucks taking short cuts has not been identified.

Exhibit 2.3.1.6.c Distribution of Large Truck Traffic in Skaneateles (2008)



The Aurora Truck Study (2006):

87% of the waste haulers were traveling southbound. This supports the information from the trucking industry that MSW trucks pick up salt and other loads on their return trip. Lansing, just north of Ithaca, has a large salt mine.

Tompkins County Freight Transportation Study (2002):

The report included a detailed origin and destination study. 434 trucks were surveyed and 6% were through trucks. 94% of the trucks conducted business within the county.

Skaneateles Truck Traffic (1998):

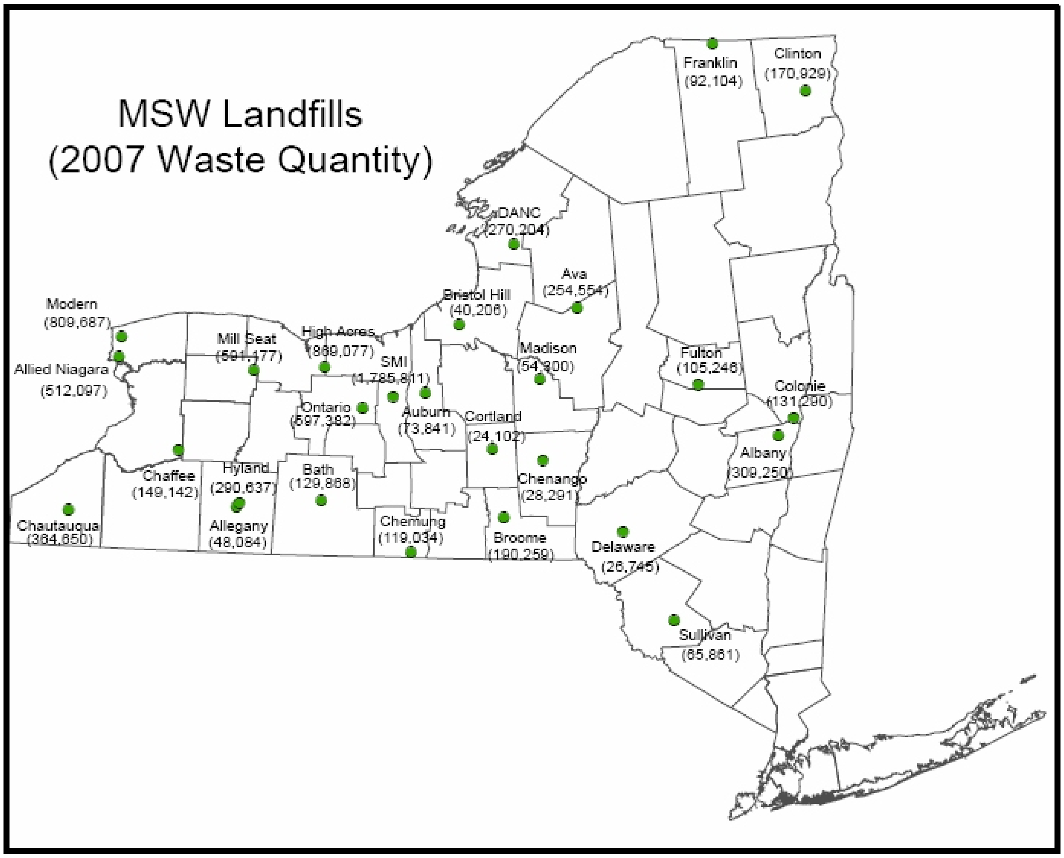
75% of all of the trucks are from within 25 miles of the village.

2.3.1.6.(e) Origin/Destination of Large Trucks

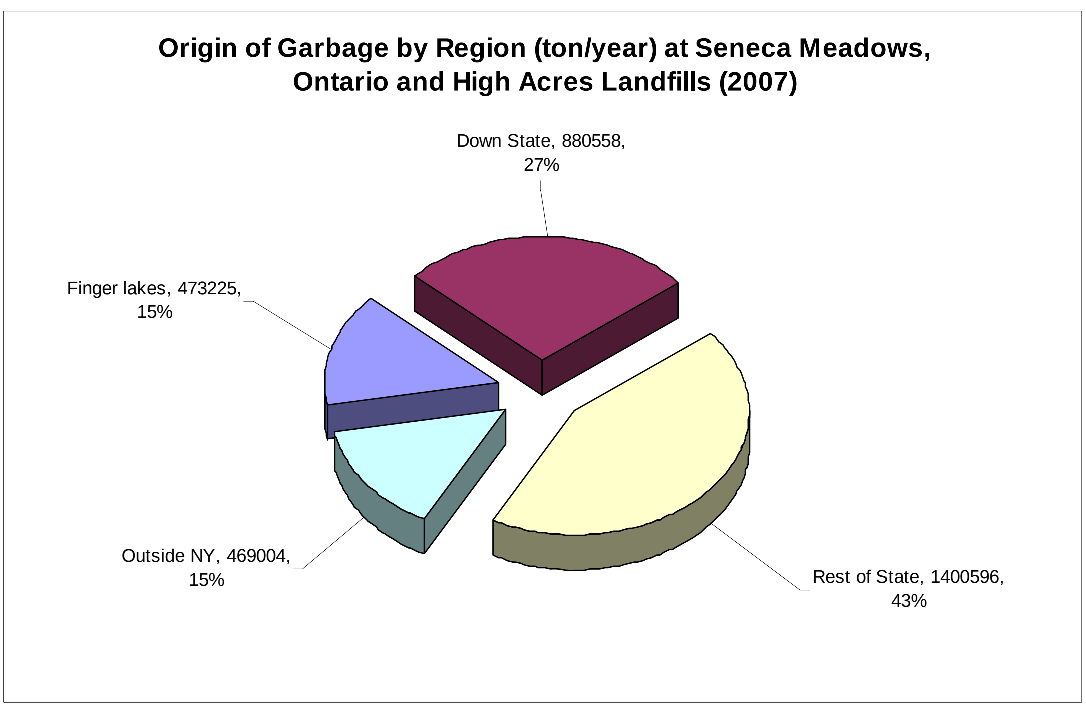
Some of the largest trip generators in the Finger Lakes area are landfills. Exhibit 2.3.1.6.d shows the locations of the landfills throughout New York State. Three of the largest landfills in the state are located within or near the Finger Lakes area. These are Seneca Meadows, Ontario and High Acres land fills. These facilities can generate up to 536 one way truck trips per day. As shown in Exhibit 2.3.1.6.e, 15% of the Municipal Solid Waste hauled to these sites originates from within the Finger Lakes area while 27% is from downstate New York. This information is included in *Appendix CB – Origin/Destination Study.*

Other large truck traffic generators include salt mines. While rail car and smaller trucks carry a majority of the salt, some of the large trucks returning empty from the municipal solid waste landfills transport salt. For example, the Cargill Salt Mine in Lansing, NY generates approximately 40 large truck trips per day. Most of the trips are estimated to travel from the landfills and use NY Routes 414, 318, 20, 90 and 34B to reach the salt mine and depart using NY Route 13 to I-81.

Exhibit 2.3.1.6.d Locations of Upstate New York Landfills



2.3.1.6.e Distribution of MSW Origins



2.3.1.7 Level of Service and Mobility

A capacity analysis was performed since increasing volumes of trucks could cause or exacerbate traffic congestion; as trucks use more highway space than automobiles and have slower rates of acceleration and deceleration. Truck related congestion is also more likely to occur in areas with large truck volumes or where trucks constitute a high percentage of the traffic stream.

The level of service (LOS) calculations for the freeway segments were computed using HCS+ computer software. Level of service (LOS) is presented as a letter from A to F with a LOS A representing free flowing, unimpeded traffic with little or no delay and a LOS F representing highly congested traffic flow with long delays.

To illustrate the potential impacts of large through trucks remaining on the National Network, the Finger Lakes area was selected as an example area to conduct capacity analysis, because analysis shows there would be an economic savings for through trucks to utilize these routes (*Refer to Appendix I – Evaluation of Identified Short Cut Routes and Reasonable Access Highways).* The capacity analysis scenario assumes that 50% of all large trucks traveling on the identified short cut routes would instead remain on the Interstate System through Syracuse on I-81, I-690 and I-90.

Summaries of the Levels of Service for the existing conditions in the Finger Lakes Area are presented in *Appendix CB – Traffic Analysis*, Exhibit CB.7.11. A level of service analysis along the short cut routes was determined to be LOS D or better. Refer to Appendix CB section 7.9.

I-81 Mainline

The existing I-81 mainline LOS is C or better for the Interstate 81 mainline until north of Interchange 17 where the road nears the intersection of I-81 with I-690. The final evaluated segment of I-81 has a peak hour level of service of F in both directions.

I-690 Mainline

The existing I-690 mainline has a LOS of C or better for segments west of Interchange 6. With the exception of the segment between Interchanges 9 and 10, the rest of I-690 operates at a LOS of D or E during the peak hour.

I-90 (Thruway) Mainline

The existing I-90 (Thruway) mainline operates at LOS C between Interchanges 39 and 40 and a LOS D from Interchange 40 to interchange 42 during the peak hour.

2.3.1.8 Safety Considerations, Accident History and Analysis

An accident analysis was performed in accordance with NYS Highway Design Manual Chapter 5 in 2008 and is included in *Appendix C - Traffic Information*. The accident analysis was performed to compare the National Network to other non-National Network state highways. National and statewide truck accident data and reports were reviewed and are summarized in *Appendix CA – Accident Analysis*. A detailed analysis was performed along highways specified in *Alternative 3 – Reasonable Access Highways* and the corresponding National Network Route (I-81, I-690 and I-90). Using the “willingness to pay” methodology used for capital project improvements, the cost for a truck to travel a mile of National Network versus the non-Interstate system was determined.

2.3.1.8.(a) Overall Accident Rates

Exhibit 2.3.1.8.a. includes the overall accident rates (both cars and trucks) based on statewide data and the data obtained.

Exhibit 2.3.1.8.a – All Motor Vehicle Accident Rate NY 90&38, NY 90, NY 41, NY 41A and National Network

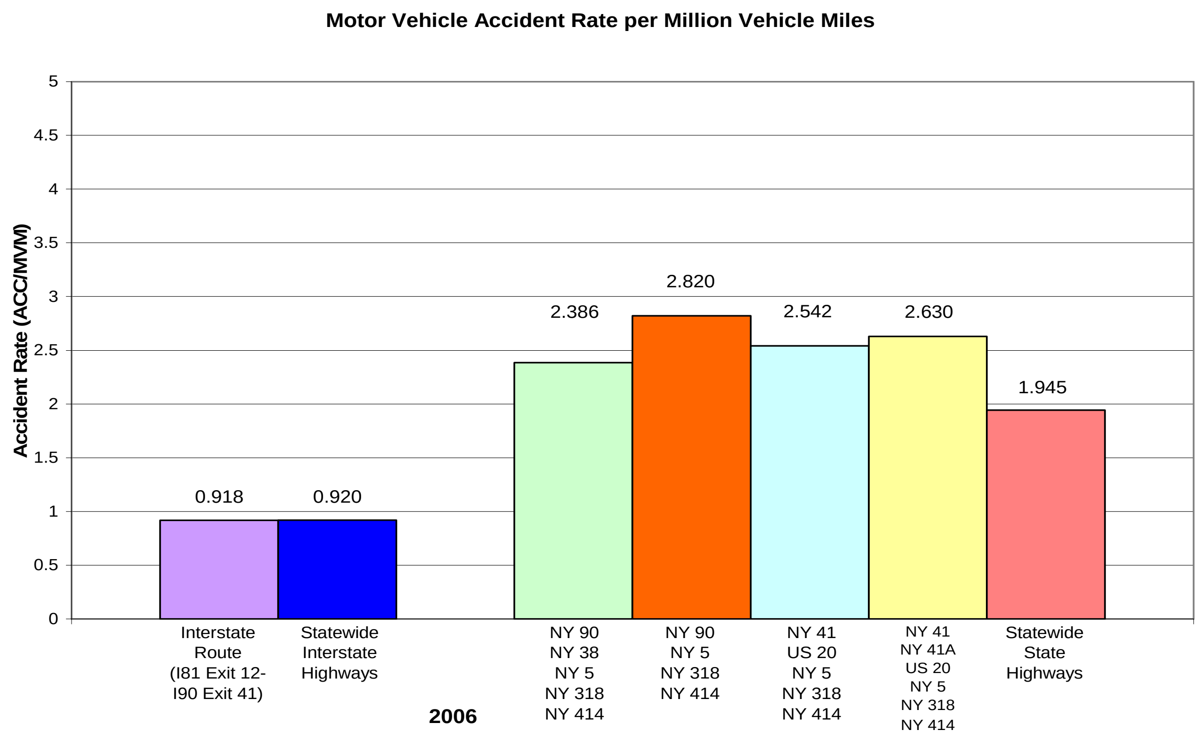
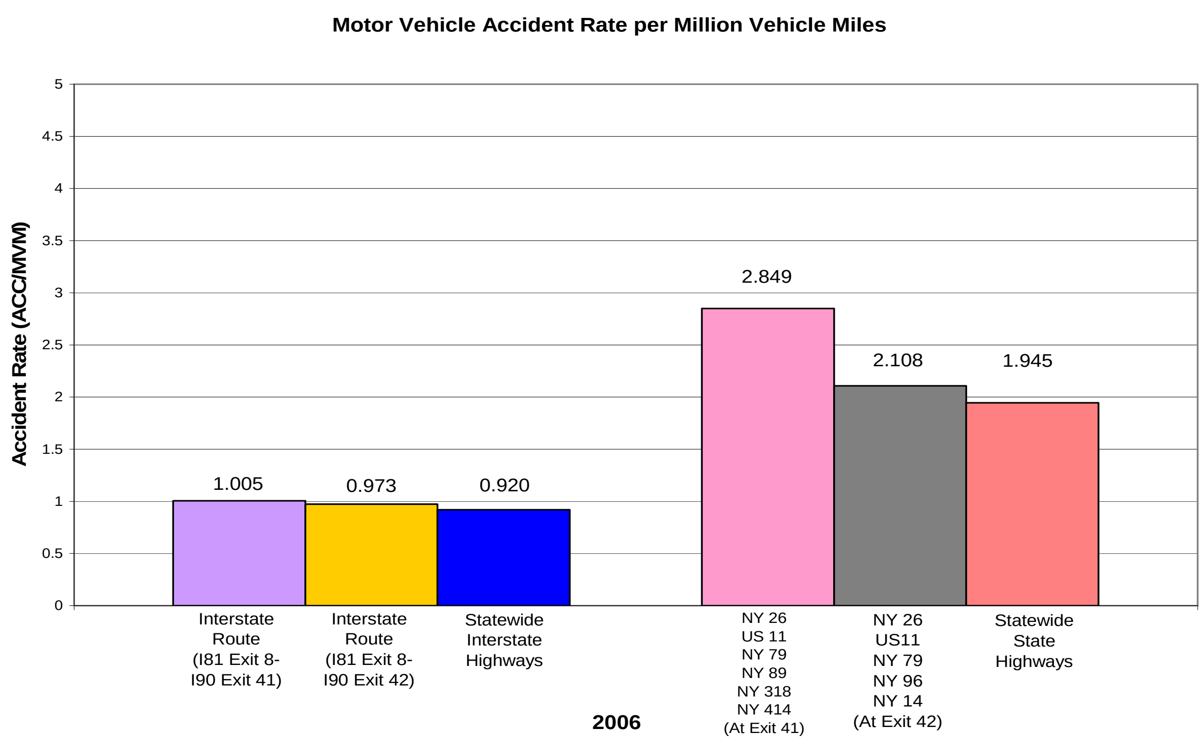


Exhibit 2.3.1.8.a – All Motor Vehicle Accident Rate NY 79&89, NY 79&96 and National Network



2.3.1.8.(b) Truck Accident Rates

Exhibit 2.3.1.8.b includes the truck accident rates based on statewide data and the data obtained.

Exhibit 2.3.1.8.b - Truck Accident Rate NY 90&38, NY 90, NY 41, NY 41A and National Network

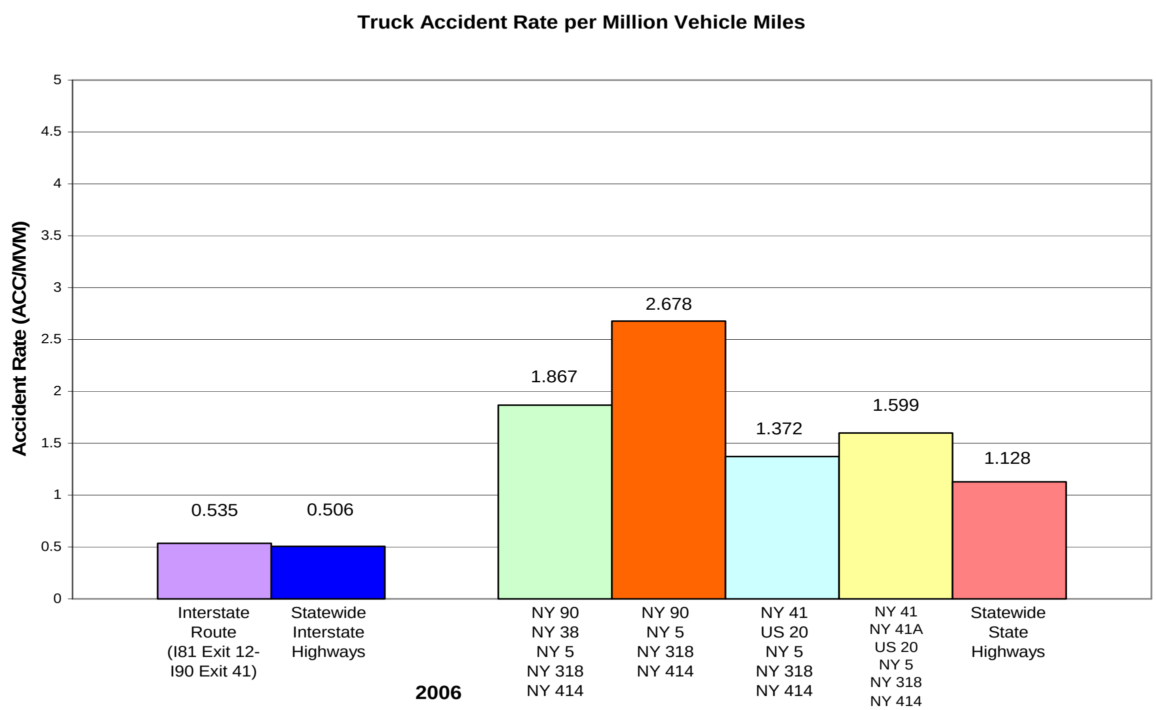
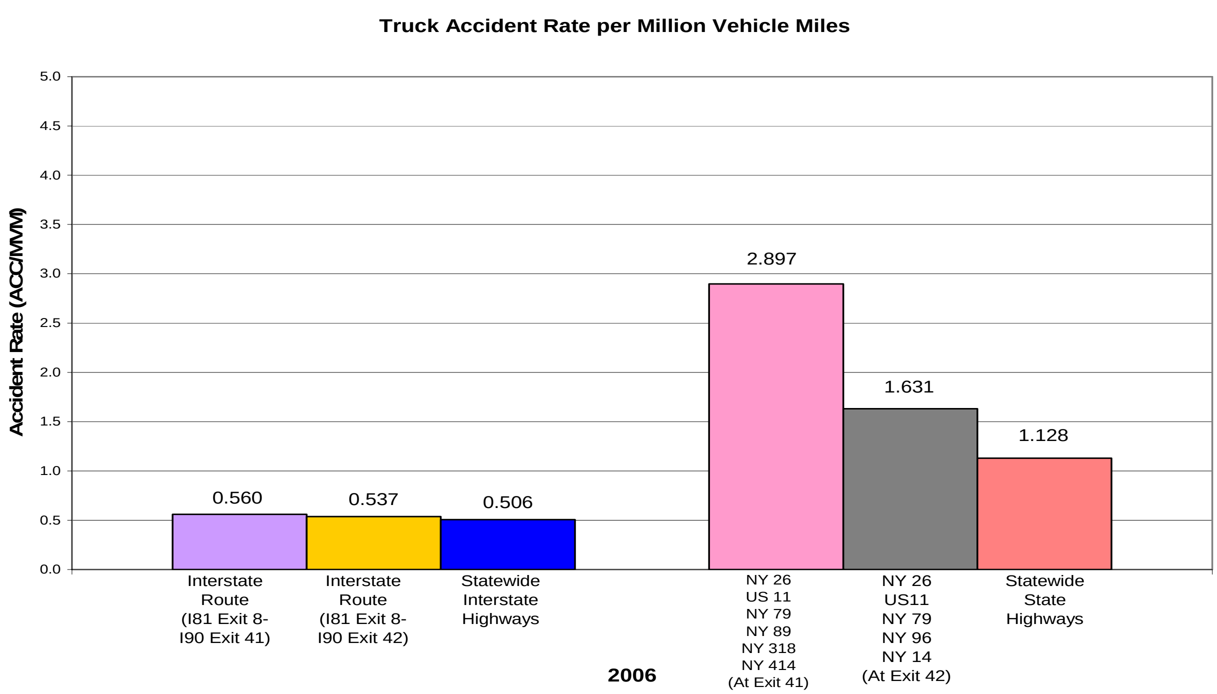


Exhibit 2.3.1.8.b – Truck Accident Rate NY 79&89, NY 79&96 and National Network



2.3.1.8.(c) Fatal Collisions with Trucks

Exhibit 2.3.1.8.c includes the truck accident rates based on statewide data and the data obtained.

Exhibit 2.3.1.8.c - Truck Fatality Accident Rate NY 90&38, NY 90, NY 41, NY 41A and Nat. Network

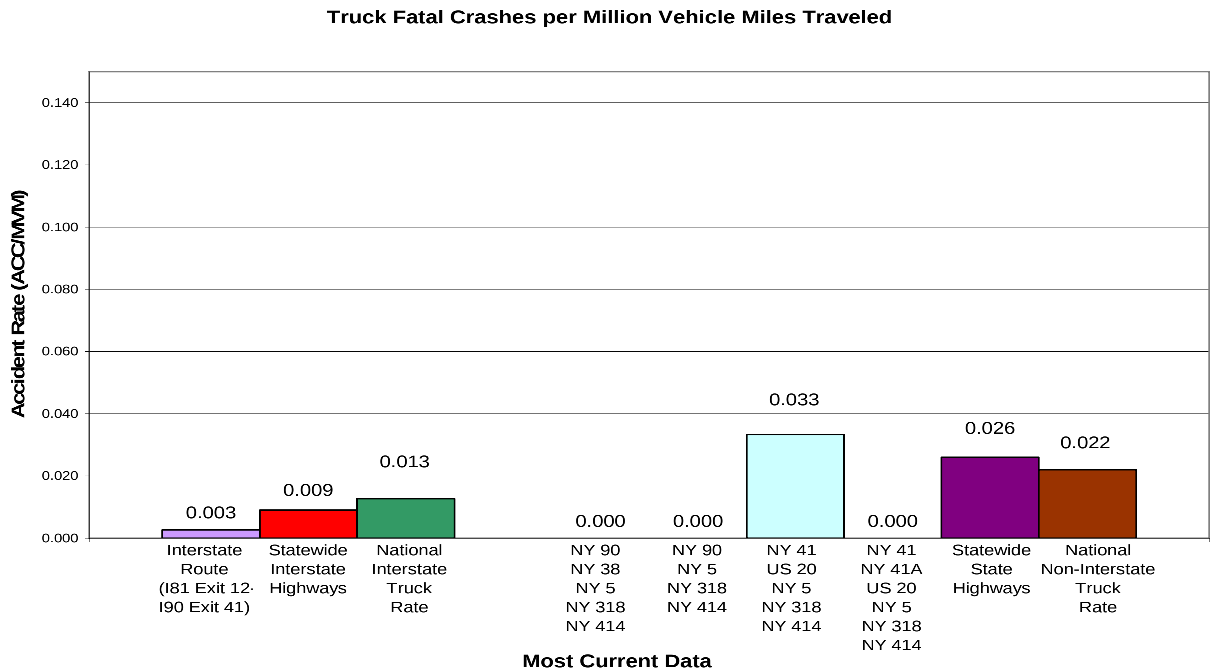
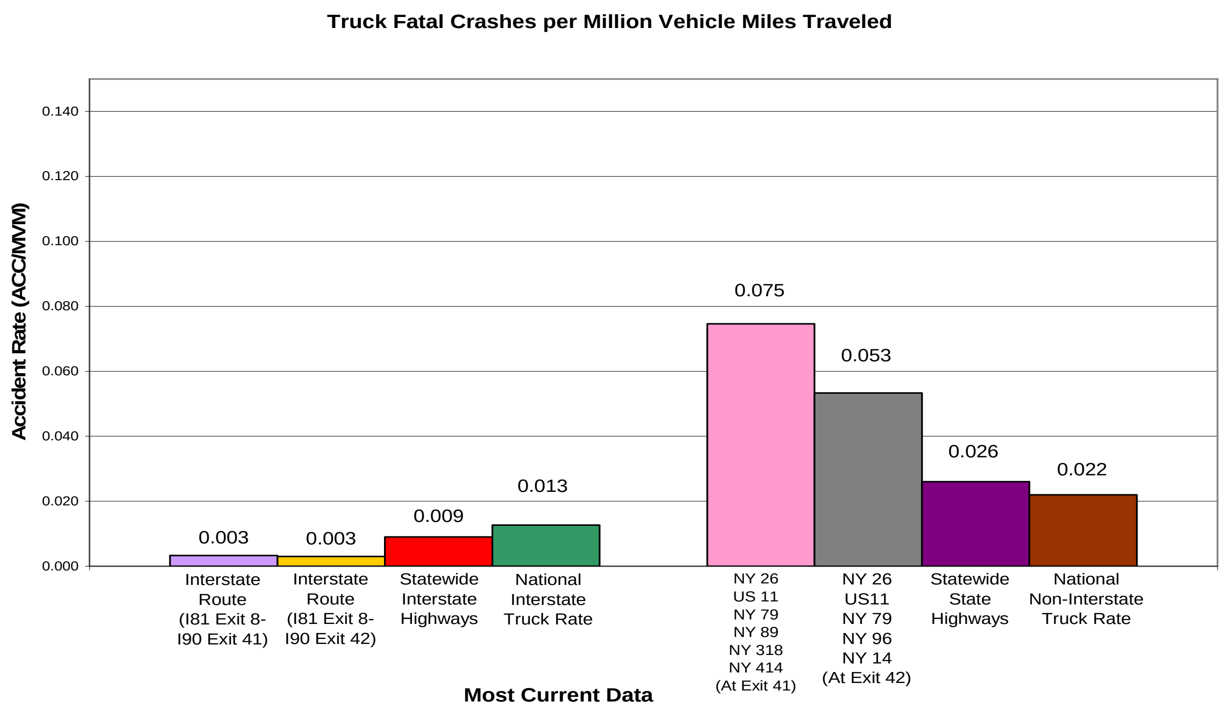


Exhibit 2.3.1.8.c - Truck Fatality Accident Rate NY 79&89, NY 79&96 and National Network



2.3.1.8.(d) Pedestrian and Bicycle Collisions with Trucks

Due to the tall frontal geometry and stiffness, research has demonstrated that pedestrians have a substantially greater likelihood of serious injury or fatality when struck by trucks versus cars. Other research has demonstrated that the likelihood of a pedestrian fatality is not statistically different between cars and trucks. The National Fatality Analysis Reporting System (FARS) data indicates that drivers of large trucks are much less likely to be intoxicated in fatal crashes than are drivers of either cars or light trucks. This may suggest that large trucks are less likely to be driven in areas congested with pedestrians and/or that these drivers are less likely to be intoxicated.

Exhibit 2.3.1.8.d contains the large truck accidents with bikes and pedestrians based on statewide data and the data obtained.

Exhibit 2.3.1.8.d Truck Ped/Bike Crashes NY 90&38, NY 90, NY 41, NY 41A and National Network

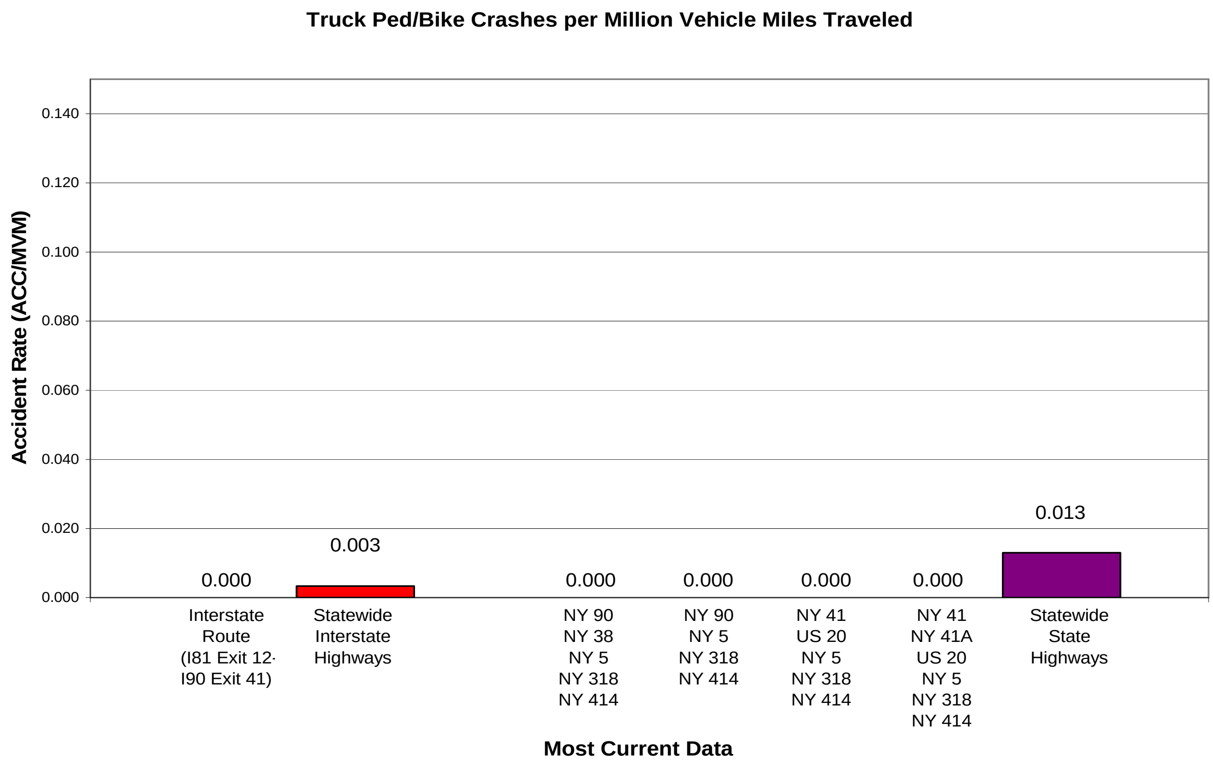
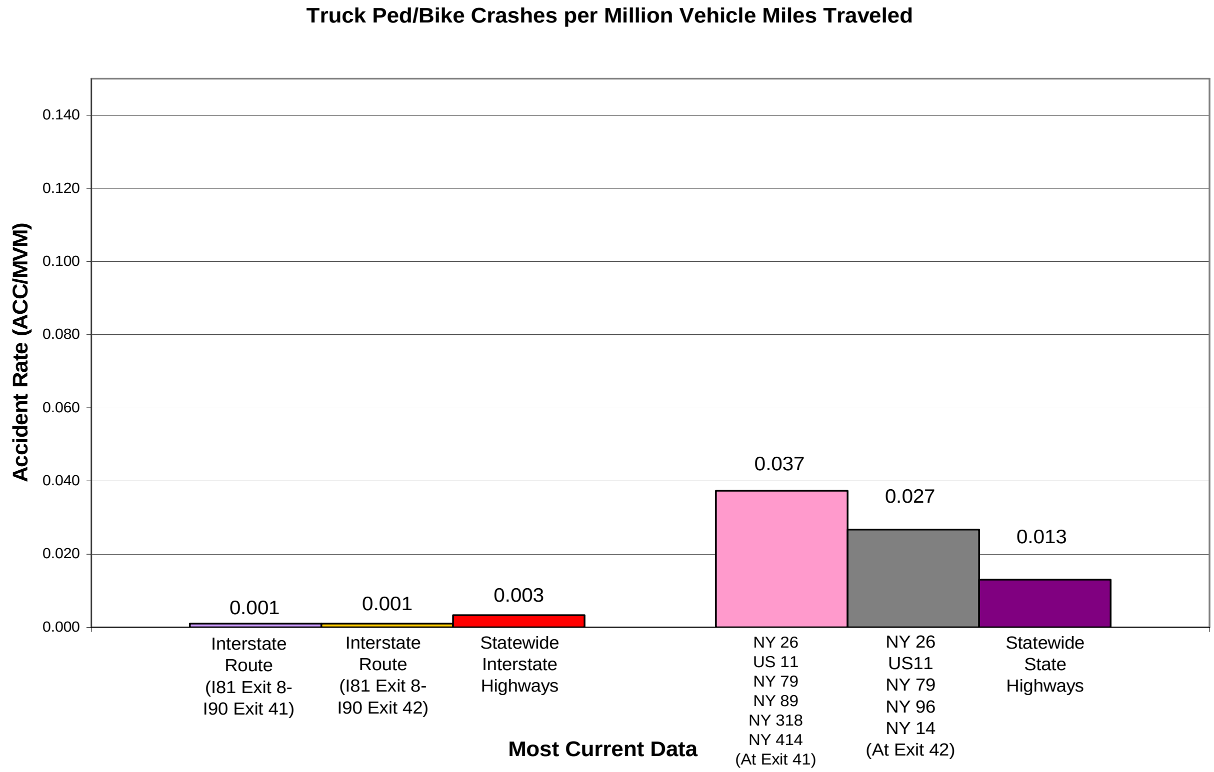


Exhibit 2.3.1.8.d Truck Ped/Bike Crashes NY 79&89, NY 79&96 and National Network



2.3.1.8.(e) Summary

Trucks have an accident rate that is less than that of all motor vehicles. During the study period, the short cut routes had much higher than average overall crash rates, truck crash rates, and truck with fatal (except for NY 90&38, NY90, NY41A) and truck with pedestrian/bicycle crash rates. The Interstate routes have a rate of less than half that of non-Interstate highways, and much less than half for specified highways. Using the statewide accident rates, the accident cost per truck operating on one mile of Interstate versus one mile of non-Interstate was calculated and is summarized in Exhibit 2.3.1.8.d.

<table>
<tr><th colspan="6">Exhibit 2.3.1.8.d
Average Accident Cost per Vehicle (truck) Mile Traveled Statewide</th></tr>
<tr><th></th><th>Average Truck[1] Accident Cost
(in 2005 dollars)</th><th>Average Truck Accident Cost
(in 2008 dollars)</th><th>Large Truck Accident[2]
2006</th><th>Yearly Truck VMT[3]</th><th>Accident Cost/VMT
(truck)</th></tr>
<tr><td>INTERSTATE HIGHWAYS</td><td rowspan="2">$91,112.00</td><td rowspan="2">$104,778.80</td><td>2162</td><td>4,272,435,230</td><td>$0.053</td></tr>
<tr><td>STATE ROUTES (Non Interstate)</td><td>2874</td><td>2,547,255,430</td><td>$0.118</td></tr>
</table>

1. "Unit Costs of Medium and Heavy Truck Crashes", Final Report for Federal Motor Carrier Safety Administration, Federal Highway Administration by Eduard Zaloshnja, Ph.D. and Ted Miller, Ph.D.
2. Published in 2006 NYSDMV Summary of Large Truck Accidents by ITSMR.
3. Truck VMT is provided by NYSDOT Highway Data Services Bureau. VMT data for State Highways includes US and NY routes, but excludes reference routes and parkways. VMT data for Interstate includes the NYS Thruway. Traffic counts varied from current to 10+ year old data, depending on availability. Highway sections without valid traffic counts (about 50 miles) were excluded.

The Interstate routes have an accident rate of less than half that of non-interstate highways. Based on this accident analysis, the safety recommendations are as follows:

- Reduce large truck traffic on non-Interstate state highways where pedestrians and bicyclists are present. The effect of reducing large truck traffic from villages and rural towns should result in a net reduction in fatal pedestrian and bicycle accidents.
- Where practical, large trucks should remain on to the Interstate System provided the trip length is not more than twice the distance of the route along a non-Interstate State Highway.

2.3.1.9 Existing Police, Fire Protection and Ambulance

2.3.1.9.(a) Access

Police, Fire and Ambulance access is available on both the National Network (Qualifying Highways) and the identified short cut routes. There are no patterns or available data to show the response times on the National Network compared to response times on identified short cut routes.

2.3.1.9.(b) Enforcement

The Motor Carrier Safety Assistance Program (MCSAP) is a federal grant program that provides States with approximately $160 million annually to promote highway safety and reduces commercial vehicle related crashes and hazardous materials incidents by removing unsafe commercial vehicles and drivers from the nation’s highways. Safe trucks and buses driven by competent drivers are cost-effective investments that reduce operating and accident costs. For New York State, the Department of Transportation is the MCSAP lead agency. The New York State Police is the primary participating police agency. A number of local police agencies also participate on a periodic basis.

NYS Police Commercial Vehicle Enforcement Unit (CVEU) and NYSDOT inspection staff work together to conduct safety inspections daily at road checks throughout the state. Typically 300 inspections are conducted each day and on average an inspection lasts thirty minutes. New York’s MCSAP agencies conduct approximately 100,000 roadside safety inspections each year.

Inspectors follow inspection procedures established by the Commercial Vehicle Safety Alliance (CVSA) to check driver credentials and inspect the vehicle. CVSA is an organization of government, law enforcement and industry representatives that sets the inspection criteria used throughout North America to foster consistency for the motor carrier industry. If serious defects are discovered, the vehicle is placed out-of-service and repairs must be completed before the vehicle can be driven again. Additionally, if the driver’s license is not valid, or critical hours of service violations are uncovered the driver is placed out-of-service and may not drive until such time as all deficiencies are rectified. Operation of a commercial vehicle after either the driver or vehicle has been placed out-of-service before the necessary repairs have been made or driver credentialing issues have been resolved, shall result in a penalty of $1,000 - $5,000 being assessed. All non out-of-service violations must be repaired prior to the vehicle being re-dispatched.

Inspections are typically conducted on the Interstate System because, in general, on the Interstates, large trucks are a greater percent of the overall traffic volume (ranging from about from 6% to 26% of the overall traffic) and there are locations such as rest areas which can accommodate safely directing large trucks to paved coned-off inspection areas where the inspection can be performed safely. Inspection locations on the Interstate System also provide for locations where the driver can find shelter, food and rest should the driver and/or vehicle be placed out-of-service.

As part of New York’s overall commercial vehicle safety program approximately 100,000 trucks are weighed with portable scales at these roadside safety inspection sites. The New York State Police performs nearly 90% of these random weighs.

NYSDOT investigative staff issue approximately 700 Notices of Violations annually returnable before the Department either through these roadside activities or through safety audits and compliance reviews. Motor carrier audits focus on an examination of driver records, which include medical qualifications, drug and alcohol testing, hours of service records and driver qualification files. Vehicle maintenance records are also part of the review as well as ensuring proper registration and insurance levels.

2.3.1.10 Parking Regulations and Parking Related Conditions

Parking on Interstate highways is restricted by law. Parking is typically permitted on the identified short cut routes.

2.3.1.11 Lighting

Lighting is present in urban areas on Interstate facilities. Lighting is prevalent in village and urban areas on identified short cut routes.

2.3.1.12 Ownership and Maintenance Jurisdiction

New York State owns and maintains Interstate facilities and other Qualifying Highways except within the New York City area. Maintenance on some of the highways in identified short cut areas is the responsibility of the municipality. Municipalities, like Ithaca and Palmyra, have expressed concern over the economic burden of maintaining pavement frequently damaged by large truck traffic. Refer to *Appendix D – Pavement Information* for further information on the affects of large trucks on pavement.

Exhibit 2.3.1.12a Ownership and Maintenance Jurisdiction

Short Cut Reference (SCR)	Region	Location Municipality	Route Number	Jurisdiction
1	1 & 9	Greene, Schoharie, & Delaware Counties	NY 23	NYSDOT, City of Oneonta
2	1	Saratoga & Washington County	US 9 NY 197	NYSDOT
3	1 & 2	Montgomery, Fulton & Saratoga Co.	NY 29 NY 30A NY 920p	NYSDOT
4	1 & 2	Montgomery & Saratoga County	NY 67 NY 30	NYSDOT
5	3	Auburn	NY 90 NY 34 US 20 NY 318 NY 414	NYSDOT, NY34 City of Auburn

Exhibit 2.3.1.12a Ownership and Maintenance Jurisdiction				
Short Cut Reference (SCR)	**Region**	**Location Municipality**	**Route Number**	**Jurisdiction**
6	3	Auburn	NY 90 NY 34B NY 34 US 20 NY 318 NY 414	NYSDOT, NY34 City of Auburn
7	3	Auburn	NY 90 NY 38 NY 34 US 20 NY 318 NY 414	NYSDOT, NY34 and NY38 City of Auburn
8	3	Aurora, Seneca Falls	NY 90 US 20/5 NY 318 NY 414	NYSDOT
9	3	Ithaca, Seneca Falls	NY 79 NY 89 US 20 NY 318 NY 414	NYSDOT, NY89 and NY79 City of Ithaca *
10	3	Ithaca, Trumansburg	NY 79 NY 96 US 20 NY 14	NYSDOT, NY 79 City of Ithaca *
11	3	Ithaca, Trumansburg	NY 79 NY 96 NY 414 US 20	NYSDOT, NY 79 City of Ithaca *
12	3	Owasco, Auburn	NY 41 NY 41A NY 359 NY 38A US 20 US 11	NYSDOT, City of Auburn, US 20 (Genesee st. East) in the City of Auburn
13	3	Owasco, Auburn	NY 90 NY 38 NY 38A US 20 NY 318 NY 414	NYSDOT, City of Auburn, NY38 and NY 38 A (Owasco Street) in the City of Auburn
14	3	Skaneateles	US 20/5 NY 318 NY 414	NYSDOT

Exhibit 2.3.1.12a Ownership and Maintenance Jurisdiction				
Short Cut Reference (SCR)	**Region**	**Location Municipality**	**Route Number**	**Jurisdiction**
15	3	Skaneateles	NY 41 US 20/5 US 11 NY 414 NY 318	NYSDOT
16	3	Skaneateles	NY 41 NY 41A US 20/5 NY 414	NYSDOT
17	3	Skaneateles	NY 90 NY 38 NY 38A NY 359 NY 41A US 20 NY 318 NY 414	NYSDOT, City of Auburn, NY38 and NY 38 A (Owasco Street) in the City of Auburn
18	4	Palmyra	NY 21 NY 31	NYSDOT, NY 21(Canandaigua Street) Village of Palmyra
19	4	Palmyra	NY 21 NY 31 NY 31F	NYSDOT, NY 21(Canandaigua Street) Village of Palmyra, and NY 31F in the Village of Fairport
20	4	Bethany, Genesee County	NY 63 US 20 NY 77 NY 408	NYSDOT
21	4	Geneseo to Batavia	NY 63 NY 98 NY 408	NYSDOT, NY 98 City of Batavia
22	4	Geneseo to Pembroke	NY 63 NY 5 NY 77 NY 408	NYSDOT
23	4	Williamson	NY 104	NYSDOT
24A	8	Hudson, Kinderhook	US 9 NY 23 CR 23B	NYSDOT, City of Hudson

Note: * See Exhibit 2.3.1.12b for the ownerships within the City of Ithaca.

Exhibit 2.3.1.12a Ownership and Maintenance Jurisdiction				
Short Cut Reference (SCR)	**Region**	**Location Municipality**	**Route Number**	**Jurisdiction**
24B	8	Hudson, Kinderhook	NY 66 NY9H US 9 NY 23 CR 23B	NYSDOT, US9 in the City of Hudson
25	9	Oneonta to Kingston	NY 28	NYSDOT
26	8, 9	Ulster Sullivan	NY 209 NY 28	NYSDOT, City of Port Jervis
27A	8	Village of Millbrook, Dutchess County	US 44	NYSDOT
27B	8	Village of Millbrook, Dutchess County	US 44 NY 44A	NYSDOT
28A	8	City of Peekskill	NY 35 US 202	NYSDOT, NY35 and US 202(Main Street) City of Peekskill (County Highway Department)
28B	8	City of Peekskill	US 6	NYSDOT, Us 6 (Main Street) City of Peekskill (County Highway Department)
28C	8	Bear Mountain Parkway State (Route 987H)	NY 987H	NYSDOT

2.3.2 Multimodal

As the population ages, an increasingly larger proportion of the State's population relies on pedestrian accommodation and public transit as their primary means of transportation.

2.3.2.1 Pedestrians and Bicyclists

Pedestrians and bicyclist are prohibited on Interstate Highways by state law. Pedestrians, bicyclists and pedestrian generators are prevalent along identified short cut routes. Pedestrian facilities located along identified short cut routes generally include crossings, refuge islands, pedestrian signs and signals, sidewalks, other walkways, and curb ramps. Pedestrians should be afforded the ability to safely travel between pedestrian traffic generators such as homes, places of work, stores, schools, post offices, libraries, parks, etc. Pedestrians are permitted to use the shoulders of most State highways, with the exception of Interstates, parkways, and other similar controlled-access highways where they are specifically prohibited. Pedestrians using sidewalks, crossings, and shoulders should not feel threatened by vehicle traffic. Concerns about the safety of crossing highways, walking, and bicycling on highways used by large trucks, can negatively impact pedestrians and cyclists.

Identified short cut routes consist of state designated bike routes and shared roadways. Bicycle routes are distinguished by their designation and signing as preferred routes through high demand corridors. Bicycling is a reasonable and legitimate mode of transportation in New York State. Bicyclists of all ages and capabilities use State Highways. State Highways where bicyclists are permitted should provide for safe and convenient bicycling. Safety of bicyclists is of particular concern on routes that are being used by large trucks. (Refer to *Appendix CA – Accident Analysis* Section 5.1.3 Pedestrian and Bicycle Collisions with Trucks and *Appendix B – Environmental Information* for regional maps showing the location of Designated Bike Routes.)

2.3.2.2 Transit

Transit is present on both the National Network (Qualifying Highways) and State Highways. Transit stops are present along identified short cut routes. Bus stops and transit stations are pedestrian traffic generators, because all transit riders are pedestrians at one end of their trip and frequently at both ends.

2.3.2.3 Airports, Railroad Stations, and Ports

The National Network (Qualifying Highways) and State Highways provide access to Airports, Railroad Stations, and Ports.

2.3.2.4 Access to Recreation Areas (Parks, Trails, Waterways, State Lands)

There are recreational areas adjacent to both the National Network (Qualifying Highways) and State Highways. The highways in identified short cut areas provide access to many recreational routes. The Interstate system is also full access control, so it does not provide direct access to the recreational areas adjacent to it. The presence of large trucks has created concerns for the safety of people accessing recreational areas along identified short cut routes.

2.3.3 Infrastructure

2.3.3.1 Existing Highway Section

Typical Sections are included in Appendix A. Exhibit 2.3.3.1.a lists by Short Cut Reference (SCR #) routes where the travel lane width is less than 11 ft and Exhibit 2.3.3.1.b lists identified short cut routes where the travel lane width is 11 ft and greater.

Exhibit 2.3.3.1.a
Existing Highway Sections – Identified Routes with Travel Lane Widths less than 11ft

Short Cut Reference (SCR)	Route	Length of Route where Travel Lane Width 11' or greater (miles)	Length of Route where Travel Lane Width is less than 11' (miles)
2	197 (Saratoga Co, I-87 Exit 17 to U.S. Highway 4)	9.1	1.7
3	29 (Fulton Co, Johnstown to Saratoga Co, Saratoga Springs) 30A, 920p	39.9	0.03
4	67 (Montgomery Co, Amsterdam to Saratoga Co, Malta)	25.8	0.1
5, 6, 7	34 (Cayuga)	31.0	15.1
5-8, 13, 17	90 (Cayuga)	30.0	18.4
6	34B (Cayuga Co, Route 90 to Route 34)	4.7	12.9
7, 13, 17	38 (Cayuga Co, Auburn)	3.7	0.1
9	89 (Seneca)	7.3	29.2

Exhibit 2.3.3.1.a Existing Highway Sections – Identified Routes with Travel Lane Widths less than 11ft			
Short Cut Reference (SCR)	**Route**	**Length of Route where Travel Lane Width 11' or greater (miles)**	**Length of Route where Travel Lane Width is less than 11' (miles)**
9, 10, 11	79 (Tompkins Co, Ithaca)	2.3	1.3
12, 15, 16	41 (Cortland Co, Route 90 to Onondaga Co, Route 20)	9.1	17.5
12, 16	41A	15.8	9.7
12, 17	359 (Onondaga)	0	1.7
19, 20	21(Wayne Co, Palmyra)	12.1	2.7
24A, 24B	9 (Columbia Co, Hudson to Kinderhook)	16.3	0.1
25	28 (Ulster Co, Kingston to Otsego Co, Oneonta)	50.6	3.0
26	209 (Orange Co, Rt 6 Overlap to Ulster Co, Rt 28)	55.2	2.3
28B	6 (Orange Co Route 32 to End Route 9W Overlap)	13.4	0.4

Exhibit 2.3.3.1.b Existing Highway Sections – Identified Routes with Travel Lane Widths 11ft and Wider	
Short Cut Reference (SCR)	**Route**
2	US 9 (Saratoga Co, Saratoga Springs I87 Exit 13 to NY 50)
5-17	US 20 (Seneca Co, Seneca Falls - Onondaga Co, Skaneateles
10, 11	NY 96 (Tompkins Co, Ithaca - Trumansburg)
12-17	NY 414 (Seneca Co, Rt 20 - I90)
12, 13, 17	NNY 38A (Cayuga Co, Owasco)
20	US 20 (Genesee Co, Rt 77 to Rt 63)
20, 21	NY 63 (Livingston Co, Greigsville to Genesee Co, Rt 20)
20, 22	NY 77 (Genesee Co, Rt 20 to I90)

2.3.3.2 Geometric Design Elements Not Meeting 2R/3R or Bridge Rehabilitation Standards

Geometric design elements not meeting 2R/3R or bridge rehabilitation standards are assessed as projects are developed along both the National Network (Qualifying Highways) and other State Highways.

2.3.3.3 Critical Design Elements

Nearly all segments of the Interstate System meet 2R/3R standards. The travel lane width on the Interstate System is typically 12'. For non Interstate Qualifying Highways the travel lane width typically varies from 10' to 12'. The highways in identified short cut areas have numerous nonstandard features that would not meet 2R/3R standards including horizontal curvatures, superelevation, vertical sight distance, and vertical grades.

2.3.3.4 Other Controlling Parameters

For Interstate highways, and designated Qualifying and Access Highways and their interchanges, the minimum design vehicle is the WB-20 (a truck with a 53' trailer). For most other non-Interstate highways, the minimum design vehicle is the single unit truck (SU), which will also accommodate a large school bus (S-BUS-12). Some locations may require the larger city transit bus (CITY-BUS), articulated bus (A-BUS), WB-15, WB-19, WB-20, or larger design vehicle.

2.3.3.5 Pavement Condition

NYSDOT, highway authority organizations, and local governmental agencies construct and maintain the overall highway system to support anticipated traffic loadings using pavement systems that are economically optimized for the use at each highway. To evaluate how this existing highway system is performing in terms of condition and physical structure, a pavement condition analysis was completed and incorporated into this report in *Appendix DA – Pavement Condition*. Data for this study was obtained from the 2007 Highway Sufficiency file.

For comparison purposes, highways were analyzed based upon functional classification which separated all streets and highways into classes, or systems based upon the transportation purpose that each route is intended to serve. Each functional class of highway was then evaluated on the pavement attributes of surface condition, pavement structural attributes, and the pavement smoothness ride-ability index. Using this process of grouping and the attributes of each functional class of highway, the overall condition and physical structure of pavement systems are summarized as follows:

- Surface condition ratings indicate that a corollary relationship exists between highway functional class and pavement surface condition. These findings show that pavement surface condition increases in quality as highway class changes from the localized and identified shortcut routes as functional highway classification hierarchy increases. National Network routes were found to have the highest overall scores.
- Statewide pavement data indicates that pavement structural attributes improve in terms of uniformity of pavement section and usage of improved construction materials as highway functional class changes from the localized shortcut routes to the National Network routes. Additionally, sufficiency file data illustrates that pavement thickness, the primary factor in a pavement's structural capability to carry truck loadings, increases for highway pavement systems as highway functional class changes from localized and shortcut routes to the National Network system. Overall, the National Network routes are found to contain the most uniform and superior composition of pavement structure and pavement thickness of the study routes which make them most capable of performance under truck traffic.
- Corridor ride quality is best observed through measurement of pavement smoothness using the International Roughness Index (IRI). The IRI quantifies the elevational change (bumps) of a pavement system over a one mile distance. This measurement is the best single indicator that relates perceived quality of a roadway by users. Overall, analysis of smoothness data indicates that vehicle ride improves directly as functional class changes from localized and shortcut routes towards higher use classification roadways. The rural interstate system has the highest overall rating of any class of highway.

By combining the two surface pavement characteristics of pavement smoothness and pavement surface score, an assessment of existing highway condition in terms of overall surface condition is found (refer to Exhibit 2.3.3.5). This combined dataset indicates that the New York State highway system is smoothest and contains the least pavement deterioration on the urban and rural interstate/expressway system. From the Interstate System, pavement roughness and deterioration increase as functional class changes from the National Network system towards the local highway system.

Exhibit 2.3.3.5

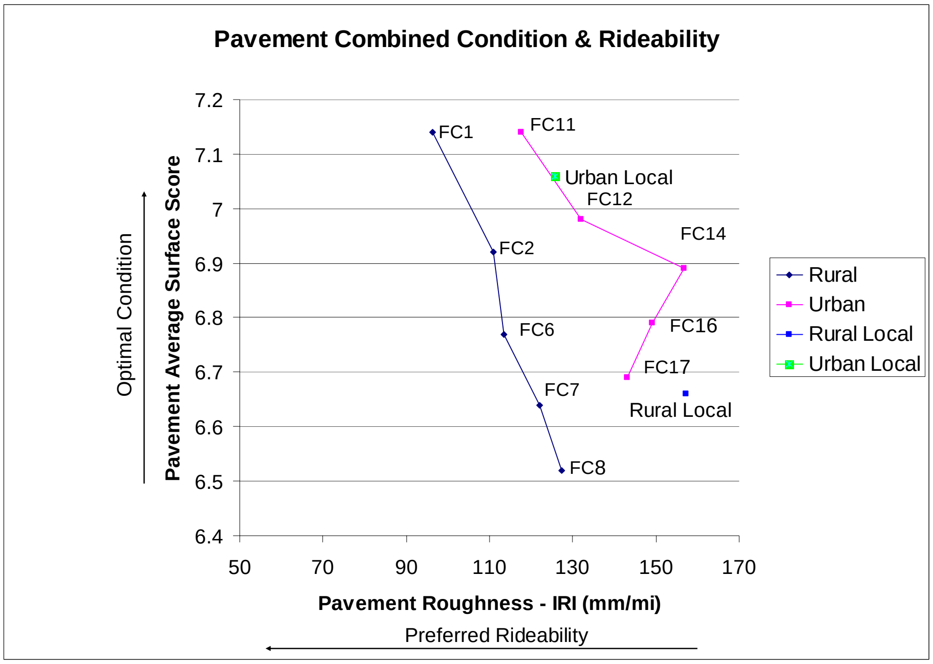


Exhibit 2.3.3.3.b Functional Classification Codes		
Urban or Rural	**Functional Classification Number (FC)**	**Classification**
Rural	1	Principal Arterial Interstate
	2	Principal Arterial Other
	6	Minor Arterial
	7	Major Collector
	8	Minor Collector
	9	Local
Urban	11	Principal Arterial Interstate
	12	Principal Arterial Other
	14	Minor Arterial
	16	Major Collector
	17	Minor Collector
	19	Local

Additional information for the overall pavement condition and physical attributes, inclusive of a detailed analysis of the highways included in Alternative 3 – Reasonable Access Highways pavement conditions are provided in *Appendix DA – Pavement Condition*.

2.3.3.6 Drainage Systems

Drainage systems in urban areas typically consist of gutters and closed drainage, while in rural areas the drainage system typically consists of open ditches and culverts.

2.3.3.7 Geotechnical

There are no special geotechnical concerns associated with the proposed action.

2.3.3.8 Structures

Exhibit 2.3.3.6 lists the number and percentage of deficient bridges by functional classification. On the Interstate System there are a total of 2167 structures of which there are 712 bridges rated deficient. By comparison for Rural and Urban Major and Minor Collectors, there are 4353 structures of which 1404 are rated deficient. A deficient rating means the condition rating is less than 5 according to the NYSDOT rating scale, where:

- 7 is new condition with no deterioration
- 5 is minor deterioration, but functioning as originally designed
- 3 serious deterioration, or not functioning as originally designed
- 1 is total deteriorated, or failed condition

Exhibit - 2.3.3.6
Deficient Bridges by Functional Classification

Functional Classification	Count Of Functional Classification	Deficient by Functional Class*	% deficient
01 - Rural - Principal Arterial - Interstate	654	199	30.43%
02 - Rural - Principal Arterial - Other	538	164	30.48%
06 - Rural - Minor Arterial	949	279	29.40%
07 - Rural - Major Collector	1431	427	29.84%
08 - Rural - Minor Collector	1845	576	31.22%
09 - Rural-Local (Including Unclassified)	4308	1636	37.98%
11 - Urban - Principal Arterial - Interstate	1513	513	33.91%
12 - Urban Principal Arterial - Other Freeways or Expressway	1015	309	30.44%
14 - Urban - Other Principal Arterial	1114	427	38.33%
16 - Urban - Minor Arterial	1560	564	36.15%
17 - Urban - Collector	1078	401	37.20%
19 - Urban - Local	1395	581	41.65%
Total	17400	6076	34.92%

2.3.3.9 Guide Railing, Median Barriers and Impact Attenuators

Guiderail systems on all facilities are generally designed for passenger cars and small trucks.

2.3.3.10 Utilities

Federal and State regulations and laws generally prohibit overhead utilities on the Interstate System. There are numerous overhead utilities present on highways in identified short cut routes.

2.3.3.11 Railroad Facilities

Movers of freight presently explore what rail options, if any, are available to them. According to the "*2002 Commodity Flow Survey*", 90% of the freight moving to, from and within New York State is carried by truck and only 3% is carried by rail. Existing rail capacity, along with the locations of inter-modal connections, and train congestion problems hinder significant statewide diversion from trucks to rail.

There are no at grade railroad crossings on the Interstate System. There are at grade railroad crossings on some of the known short cut routes. Exhibit 2.3.3.10 provides the number of at grade railroad crossings along identified short cut routes.

Exhibit 2.3.3.10
Railroad Facilities – At Grade Crossings - Identified Routes

Short Cut Reference Number (SCR)	Region	Location/Municipality	Route Number	Number of At Grade Railroad Crossings
2	1	Saratoga & Washington Co.	9, 197	1
3	1 & 2	Montgomery, Fulton & Saratoga Co.	29, 30A, 920p	0
4	1 & 2	Montgomery & Saratoga Co.	67	1
5	3	Auburn	90, 34, 20	2
6	3	Auburn	90, 34B, 34, 20	2
7	3	Auburn	90, 38, 34, 20	2
8	3	Aurora, Seneca Falls	90, 20	2
9	3	Ithaca, Seneca Falls	79, 89, 20	4
10	3	Ithaca, Trumansburg	79, 96, 20	4
11	3	Ithaca, Trumansburg	79, 96, 414	4
12	3	Owasco, Auburn	41, 41A, 359, 38A, 20	2
13	3	Owasco, Auburn	90, 38, 38A, 20	2
14	3	Skaneateles	20	1
15	3	Skaneateles	41 to 20	2
16	3	Skaneateles	41, 41A, 20	2
17	3	Skaneateles	90, 38, 38A, 359, 41A, 20	2
20	4	Bethany, Genesee County	63, 20, 77	1
18, 19	4	Palmyra	21	0
24A, 24B	8	Hudson, Kinderhook	9	0
25	9	Oneonta to Kingston	28	2
26	9	Sullivan	209	1

2.3.4 Landscape and Environmental Enhancement Opportunities

2.3.4.1 Landscape

2.3.4.1.(a) Terrain

The type of terrain (level, rolling or mountainous) is included in Appendix F for identified short cut routes and alternate National Network routes.

2.3.4.1.(b) Unusual Weather Conditions

Traffic could be re-routed should unusual weather conditions or other factors render a particular route inaccessible or unavailable.

2.3.4.1.(c) Visual Resource Inventory

Large trucks have temporary visual impacts in small village and city settings due to their height and length. Large trucks temporarily block the line of sight of pedestrians and residences. Where large trucks pass through scenic overlooks or historic districts, they are more visually disruptive.

2.3.4.2 Opportunities for Environmental Improvements

Environmental enhancements are discussed in Chapter 4.

2.3.5 Miscellaneous – Regulatory Constraints

Regulatory alternatives must demonstrate that: 1) a regulation would not, if implemented, have a greater effect on interstate commerce than on intrastate commerce; and 2) the health, safety and welfare benefits of the regulation outweigh the burden of the regulation on interstate commerce.

Regulatory alternatives are limited to measures NYSDOT has the legal authority to regulate. Paragraph 9 of subdivision (a) of section 1621 of the New York State Vehicle and Traffic Law authorizes the Commissioner of Transportation to: "Exclude trucks, commercial vehicles, tractors, tractor-trailer combinations, tractor-semitrailer combinations, or tractor-trailer-semitrailer combinations from highways specified by the commissioner. Such exclusion shall not be construed to prevent the delivery or pickup of merchandise or other property along the highways from which such vehicles and combinations are otherwise excluded." Therefore, any regulatory alternative must not prevent the delivery or pickup of property and could only apply to "through" trucks and can not affect local trips to businesses and consumers. New York State law does not give the Commissioner the express power to exclude trucks based on cargo type.

Federal Law (23 CFR 658.5) requires “reasonable access” to terminals and facilities, which does not mean unlimited access. States must preserve appropriate and reliable access for trucks 102 inch wide with 48-foot trailers and any limitations must be based on engineering considerations. According to Constitutional Law, Commerce Clause, State regulations can not “discriminate against interstate commerce”, any restrictions must be necessary to preserve public health, safety or welfare; and the impact can not be greater on interstate commerce than on local commerce.

CHAPTER 3 - ALTERNATIVES

This chapter discusses the alternatives considered and examines the engineering aspects for all feasible alternatives to address the objectives in Chapter 1 of this report. The following alternatives have been considered:

1. The "Null" or No Action Alternative.
2. Regulation for Large Truck Routing.
3. Reasonable Access Regulation.

The determination of affected routes is an important component of both regulatory alternatives, <u>Alternative 2 Draft Regulation for Large Truck Routing</u> and <u>Alternative 3 Draft Reasonable Access Highway Regulation</u> in order to analyze potential impacts. Both regulatory alternatives are limited to measures NYSDOT has the legal authority to regulate, and these constraints were a part of the evaluation process. This process eliminated locations where NYSDOT does not have the authority to regulate, such as County Highways and routes where large truck traffic is primarily local, from consideration in evaluating the impacts of these regulatory alternatives.

The evaluation of identified routes allows NYSDOT to ascertain reasonably necessary routes for Alternative 2; and to determine which highways to specify as *Reasonable Access Highways*, for Alternative 3. This evaluation is included in *Appendix I – Evaluation of Identified Short Cut Routes and Reasonable Access Highways*.

3.1 Alternatives Considered and Eliminated from Further Study

<u>Alternative 1: The "Null" or No Action Alternative</u>

This alternative would continue addressing concerns regarding truck traffic for individual locations, typically by examining truck accident history and operational characteristics, some origin destination studies, truck counts, or short duration increases in truck inspections. Although all of these methods are sound from an engineering perspective, they have not adequately addressed the concerns of stakeholders, which include adjacent property owners, and multimodal users, like pedestrians and bicyclists. The concerns expressed by these stakeholders relate to quality of life and are not quantified using engineering data. This alternative has proven insufficient in reducing large truck traffic in local communities and has been eliminated from further consideration. A complete summary of why this alternative was eliminated and other alternatives considered and eliminated from further study are included in *Appendix H – Alternatives Considered and Eliminated from Further Study* of this report.

<u>Alternative 2: Regulation for Large Truck Routing</u>

Alternative 2 consists of a proposed draft regulation, <u>Regulation for Large Truck Routing</u>, which would establish a series of highway priorities – large trucks must first use Qualifying highways, and then State access highways, and finally non-designated highways, which large through trucks shall use, as summarized in Exhibit 3.2.1.a Draft Regulation – Recommended Highway Usage. This alternative mandates, rather than recommending highways priorities.

The proposed draft <u>Regulation for Large Truck Routing</u> is provided in *Appendix E – Draft Regulations, Comment Resolution Discussion, Comments Sorted by Topic*. <u>Alternative 2: Regulation for Large Truck Routing</u> would apply to all highways in New York State, with the burden on the individual driver/carrier to make the appropriate route selection based on fourteen identified criteria, such as travel lane width, the presence of pedestrians and bicyclists, and schools, and their destination.

The Commissioner of Transportation would make a determination on individual route's necessity upon a written request from a municipality, truck owner or operator, law enforcement agency, shipper of property or an owner or operator of a terminal or facility. This determination would consist of an opinion on the "reasonableness" of a route. NYSDOT could potentially need to evaluate hundreds of unique requests for route determinations and would need to develop a process for and resource this activity. This component of the draft regulation proposed for Alternative 2 adds complexity to shipping logistics, since each trip could need to be evaluated based on origin, destination, and reasonableness of route based on 14 criteria, some of which the information is not readily available. In some cases the shipper would have to wait for NYSDOT to render a decision on the 'reasonableness' of a particular route.

Key elements of Alternative 2 Regulations for Large Truck Routing include:

- **Geometry –** The geometric elements of the Interstate System, (horizontal and vertical curvature, superelevation, grades, grade separated interchanges) all contribute to making it the best suited route for large through truck travel.
- **Operational** – Using 50% of the large truck volumes in the Finger Lakes Region example area resulted in a less than 1% increase to the large truck volumes along the I81, I690, I90 Interstate corridor, it is estimated that the increase of truck volumes to other Interstate locations throughout the state would be on the same order of magnitude. However, since this version of the regulation is vague, it would be difficult to enforce and may not be effective at diverting large trucks.
- **Safety** – Motorist, pedestrians, and bicyclists should benefit from improved safety and this alternative is expected to reduce pedestrian and bicycle fatalities along identified short cut routes. There is an estimated **$1.4M** (2008$) safety benefit annually. Lower overall accident rates along the Interstate system provide a safety benefit to large trucks that are rerouted, provided the National Network route trip length is not more than twice the short cut route distance.
- **Pavement** – Highway pavements are constructed thicker as anticipated truck usage increases. Pavement systems are the single most costly element of the highway system to construct and maintain. This alternative is not limited to highways with thinner pavement thickness and includes some Principal Arterials, which have thicker pavements. By altering travel patterns of trucks from using shortcut routes with lesser pavement thicknesses to remain on the National Network, with thicker existing pavement sections, pavement service life of identified shortcut routes would be extended. Compared to the additional pavement management cost added to the National Network, a net annualized savings of **$3.67M** would be realized. Detailed analyses of pavement cost savings are provided in *Appendix DB - Pavement Management Cost*.
- **Social -** Residents and businesses along the identified routes and other users of highway facilities including pedestrians, bicyclists, and passenger cars benefit from the reduction of large truck traffic.
- **Economic -** The estimated annual increase in fuel expenses is **$28.1M** (2008$). Freight shippers who rely on trucks as a shipping mechanism are impacted by increased fuel usage costs associated with longer routes. Independent truck drivers and small trucking firms which operate on tighter profit margins are most impacted by increased fuel, toll, and operating costs associated with longer routes.

  Larger shipping companies may be more able to pass an increase in cost on to their customers than independent operators. Consumers will not likely observe an effect on goods where transportation costs are not a significant cost percentage in overall production costs. Consumers may experience an increase in the price of goods where transportation costs are a higher percentage of overall production, such as agricultural products. Companies whose production operates on a lower profit margin, that have shipping options, may look for alternative locations to ship their commodities, this is suspected to be the case for the land fill companies. Another indirect effect may be for companies to review the benefits of just in time shipping and relocate facilities closer to markets, increasing local large truck traffic.

The Agricultural Industry has commented that they will be severely impacted by this alternative, and specifically the Dairy Industry, who cannot raise cost of product due to Federal Pricing Mandates.

This alternative also adds complexity to shipping logistics, since each trip would need to be evaluated based on origin, destination, and reasonableness of route based on 14 criteria for which some of the information is not readily available, and in some cases the shipper would have to wait for NYSDOT to render a decision on the 'reasonableness' of a particular route. Without a specific route with a specific set of rules applied, this alternative makes it very difficult for an enforcement officer to determine if they have "reasonable cause" to pull a driver over (as route choice could vary by route and by driver). This alternative has no clear criteria for evaluating route choices.

Environmental – This alternative improves noise and air quality along identified short cut routes where sensitive receptors, such as homes and schools are located. This alternative would address quality of life concerns identified by adjacent residents and other stakeholder along identified short cut routes. This alternative does result in additional fuel consumption for large through trucks to remain on the National Network, which consists of longer routes than identified short cuts. The additional fuel consumption associated with this alternative result in increased CO_2 emissions.

Exhibit 3.1.a lists routes affected by Alternative 2 Draft Regulation for Large Truck Routing.

Exhibit 3.1.a
Where is the Action Located? – Alternative 2 - Identified Short Cut Routes

Short Cut Reference Number (SCR)	Region	Location	Route Number	Length (mi)	National Network Route	Length (mi)
1	1 & 9	Greene, Schoharie, & Delaware Counties	NY 23	69.3	I87 Exit 21 to I88 Exit 15	106
2	1	Saratoga & Washington Co.	US 9 NY 197	6.8	Northway I-87 Exit 17 to Exit 19 to NY Route 254 to NY Route 32	12.8
3	1 & 2	Montgomery, Fulton & Saratoga Co.	NY 29 NY 30A NY 920p	39.9	Thruway I-90 Exit 28 to Northway I-87 Exit 14	65.3
4	1 & 2	Montgomery & Saratoga Co.	NY 67 NY 30	23.6	Thruway I-90 Exit 27 to Northway I-87 Exit 12	47.3
5	3	Auburn	NY 90 NY 34 US 20 NY 318 NY 414	56.1	From I81 Exit 12 to I90 Exit 41	72.2
6	3	Auburn	NY 90 NY 34B NY 34 US 20 NY 318 NY 414	61.5	From I81 Exit 12 to I90 Exit 41	72.2
7	3	Auburn	NY 90 NY 38 NY 34 US 20 NY 318 NY 414	51.6	From I81 Exit 12 to I90 Exit 41	72.2

Exhibit 3.1.a
Where is the Action Located? – Alternative 2 - Identified Short Cut Routes

Short Cut Reference Number (SCR)	Region	Location	Route Number	Length (mi)	National Network Route	Length (mi)
8	3	Aurora, Seneca Falls	NY 90 US 20 NY 318 NY 414	55.5	From I81 Exit 12 to I90 Exit 41	72.2
9	3	Ithaca, Seneca Falls	NY 79 NY 89 US 20 NY 318 NY 414	76.8	From I81 Exit 8 to I90 Exit 41	98.2
10	3	Ithaca, Trumansburg	NY 79 NY 96 US 20 NY 14	78.2	From I81 Exit 8 to I90 Exit 42	97.4
11	3	Ithaca, Trumansburg	NY 79 NY 96 NY 414	78.4	From I81 Exit 8 to I90 Exit 41	97.4
12	3	Owasco, Auburn	NY 41 NY 41A NY 359 NY 38A US 20 US 11	52.2	From I81 Exit 12 to I90 Exit 41	72.2
13	3	Owasco, Auburn	NY 90 NY 38 NY 38A US 20 NY 318 NY 414	57.9	From I81 Exit 12 to I90 Exit 41	72.2
14	3	Skaneateles	US 20 NY 318 NY 414	40.4	From I81 Exit 15 to I90 Exit 41	52.53
15	3	Skaneateles	NY 41 US 20 US 11 NY 414 NY 318	54.8	From I81 Exit 12 to I90 Exit 41	72.2
16	3	Skaneateles	NY 41 NY 41A US 20/5 NY 414	59.2	From I81 Exit 12 to I90 Exit 41	72.2
17	3	Skaneateles	NY 90 NY 38 NY 38A NY 359 NY 41A US 20 NY 318 NY 414	59.6	From I81 Exit 12 to I90 Exit 41	75.76

Exhibit 3.1.a Where is the Action Located? – Alternative 2 - Identified Short Cut Routes						
Short Cut Reference Number (SCR)	**Region**	**Location**	**Route Number**	**Length (mi)**	**National Network Route**	**Length (mi)**
18	4	Palmyra	NY 21 NY 31	14.5	I90 Exit 43 to I490 Exit 26 to Rte 31	22.5
19	4	Palmyra	NY 21 NY 31F	15.6	I90 Exit 43 to I490 Exit 25 to Rte 31F	28.4
20	4	Bethany, Genesee County	NY 63 US 20 NY 77 NY 408	40	I390 Exit 7 to I90 Exit 48A Mt. Morris to Pembroke	66.2
21	4	Geneseo to Batavia	NY 63 NY 98 NY 408	30.8	I390 Exit 7 to I90 Exit 48	58.76
22	4	Geneseo to Pembroke	NY 63 NY 5 NY 77 NY 408	45	I390 Exit 7 to Exit 12 to I90 Exit 48A	66.8
23	4	Williamson	NY 104	85.5	NY 590 Exit 10 to End of I490 to I90 Exit 36 to I81 Exit 34	117.7
24A	8	Hudson, Kinderhook	US 9 NY 23 CR 23B	30.6	Berkshire Spur to I87 Exit 21A to Exit 21A to Exit 21	21.16
24B	8	Hudson, Kinderhook	NY 66 NY9H US 9 NY 23 CR 23B	44	Berkshire Spur to I87 Exit 21A to Exit 21A to Exit 21	21.16
25	9	Oneonta to Kingston	NY 28	90.3	I90 Exit 19 to I88 Exit 17	126.6
26	8, 9	Ulster Sullivan	NY 209 NY 28 NY6	62.9	I84 Exit 1 to I87 Exit 19	74.3
27A	8	Village of Millbrook, Dutchess County	US 44	23.9	None	N/A
27B	8	Village of Millbrook, Dutchess County	US 44 NY 44A	23.9	None	N/A
28A	8	City of Peekskill	NY 35 US 202	4.4	None	N/A
28B	8	City of Peekskill	US 6	4.1	None	N/A
28C	8	Bear Mountain Parkway State (Route 987H)	987H	3.9	None	N/A

<u>Alternative 2: Regulation for Large Truck Routing</u> potentially impacts more geographical locations than <u>Alternative 3: Reasonable Access Highway Regulation</u>. This is due to the vagueness in the language included in the regulation and the specified fourteen criteria, many of which would be difficult for an individual or carrier to assess, and some of which are difficult for NYSDOT to use to distinguish on highway from another as illustrated in Exhibit 3.1.b.

Exhibit 3.1.c provides an overview of the evaluation process to ensure all highways affected fall within the regulatory authority of NYSDOT and should be considered impacted by this alternative. *Appendix I – Evaluation of Identified Short Cut Routes and Reasonable Access Highways,* Sections A through F provide preliminary evaluation of routes that were considered and have been eliminated from further study in the context of <u>Alternative 2</u>, and the rationale for elimination.

The Federal Highway Administration (FHWA) has strong objections to Alternative 2 as stated in a S*eptember 19, 2008* Letter to the Commissioner (included in *Appendix G – Stakeholders and Public Input*). Alternative 2 also received substantial comments from the Trucking and Agricultural Industries regarding the negative economic impacts that could result. Alternative 2 also has the potential to have limited effectiveness at reducing large truck traffic due to the broad definitions used to define reasonable usage resulting in a lack of ability to enforce these broad terms, which would limit the benefits realized from this alternative.

Further detail on this alternatives was eliminated is included in *Appendix H - Alternatives Considered and Eliminated from Further Study*.

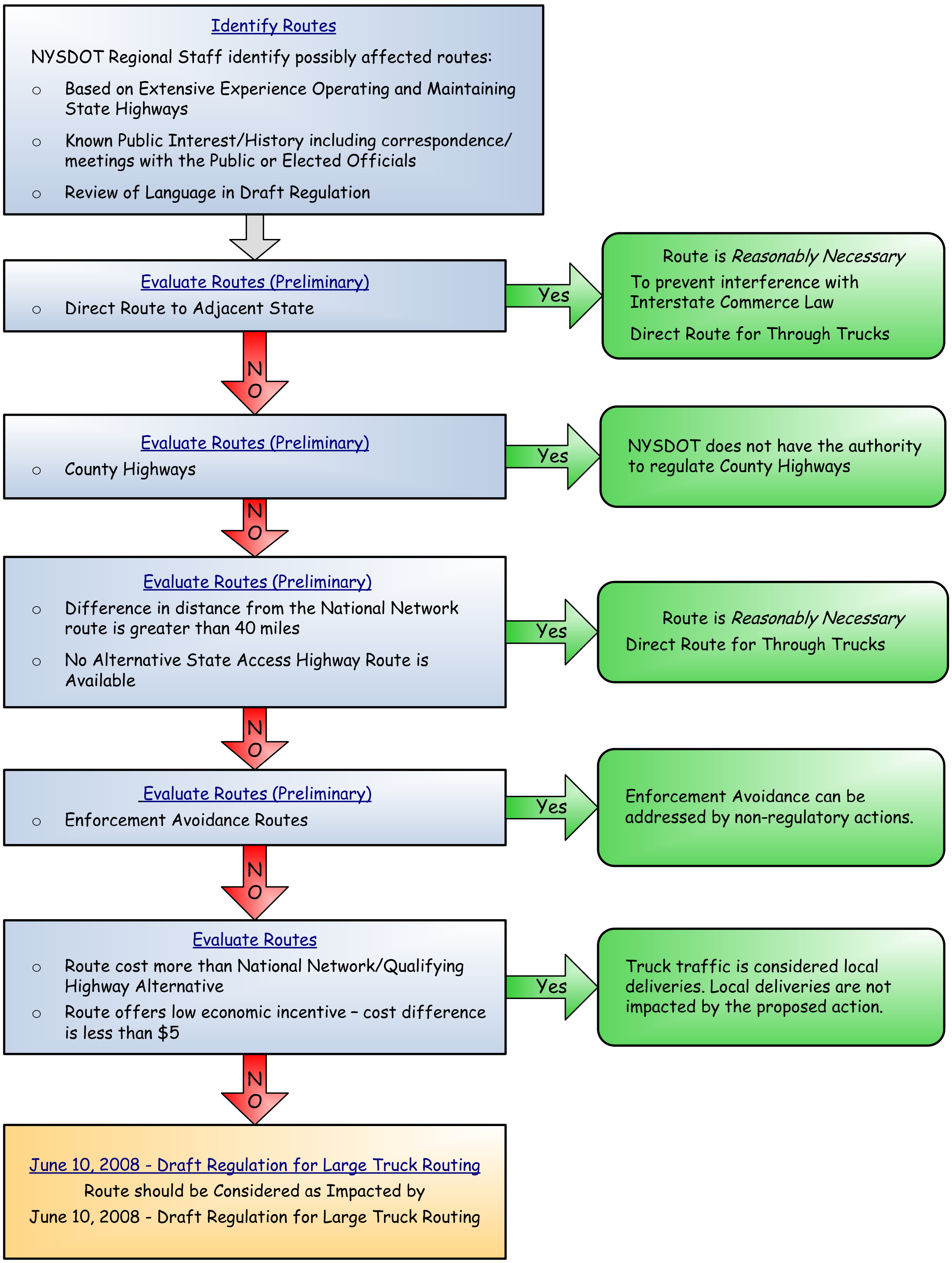
Exhibit 3.1.b Fourteen Criteria – Alternative 2 – Regulation for Large Truck Routing			
14 Criteria from the Draft Regulation		Description of Use	Implementation Considerations
1	**Qualifying Highway Route**	Shall be used as a 1st choice because these routes are best suited for truck travel	Does not provide flexibility in route selection.
2	**State Access Highway Route**	Shall be used as a 2nd choice only where the use of a Qualifying Highway is not reasonably available, these routes are the next best suited for truck travel	Does not provide flexibility in route selection.
3	Location(s) of the truck's other destination(s) while off the **Qualifying Highways**	Makes truck a "local" and non "through" truck	
4	Location(s) of facilities that the truck or its driver may require as the truck travels to and from its various destinations	Makes truck a "local" and non "through" truck	
5	Highway travel lanes are an 11 ft minimum	Route should be avoided, but can be used by through trucks if reasonably necessary	Wider travel lanes typically better accommodate truck traffic and truck turning movements, limits truck traffic on narrower roads. Information is not readily available to truck drivers/carriers. Information is available to NYSDOT.
6	Highways with at grade intersections	Route should be avoided, but can be used by through trucks if reasonably necessary	Pedestrians and bicyclists are typically found at at-grade intersections, typically at-grade intersections have higher accident rates than grade separated interchanges, truck accidents typically have higher severity than passenger car accidents. Information is not readily available to truck drivers/carriers. Information is available to NYSDOT, but would be impractical to obtain due to the large number of intersections found on the miles of highways identified, and could not be used to distinguish one route from another.
7	Highways in close proximity to residential areas	Route should be avoided, but can be used by through trucks if reasonably necessary	Pedestrians and bicyclists are typically found in residential areas, truck accidents typically have higher severity than passenger car accidents, residential areas are receptors for noise and air quality impacts. Information would be cumbersome for truck drivers/ carriers to obtain. Information is available to NYSDOT.

Exhibit 3.1.b Fourteen Criteria – Alternative 2 – Regulation for Large Truck Routing			
14 Criteria from the Draft Regulation		Description of Use	Implementation Considerations
8	Highway closures, weather conditions or other factors render alternative routes inaccessible or unavailable for truck travel	Route can be used by through trucks	
9	Highway has marked or unmarked pedestrian crossing, highway is used by pedestrians	Route should be avoided, but can be used by through trucks if reasonably necessary	Pedestrians and bicyclists are typically found in pedestrian crossings, truck accidents typically have higher severity than passenger car accidents, residential areas are receptors for noise and air quality impacts. Information is not readily available to truck drivers/carriers. Information is available to NYSDOT, but would be impractical to obtain due to the large number of pedestrian crossings found on the miles of highways identified, and could not be used to distinguish one route from another.
10	Highway is used by bicyclists	Route should be avoided, but can be used by through trucks if reasonably necessary	Bicyclists are receptors for noise and air quality impacts. Information would be cumbersome for truck drivers/ carriers to obtain. Information is available to NYSDOT.
11	Highway has at grade access to school buildings	Route should be avoided, but can be used by through trucks if reasonably necessary	Truck accidents involving pedestrians typically have higher severity than passenger car accidents, pedestrians and schools are receptors for noise and air quality impacts. Information would be cumbersome for truck drivers/ carriers to obtain. Information is available to NYSDOT.

Exhibit 3.1.b Fourteen Criteria – Alternative 2 – Regulation for Large Truck Routing			
14 Criteria from the Draft Regulation		Description of Use	Implementation Considerations
12	Highway traverses a watershed, river front, lake front or other area that is environmentally sensitive	Route should be avoided, but can be used by through trucks if reasonably necessary	Environmentally sensitive areas can be receptors for noise and air quality impacts and are vulnerable to any type of contamination. Information would be cumbersome for truck drivers/ carriers to obtain. Information is available to NYSDOT. There are similar concerned resources located along identified short cuts and National Network routes. While Interstates have lower accident rates, the number of trucks carrying hazardous materials has not been documented, so any potential for decreased risk cannot be substantiated.
13	Use of highway by trucks presents noise impacts that could be avoided by the use of an alternative route	Route should be avoided, but can be used by through trucks if reasonably necessary	Although receptors for noise and air quality impacts should be avoided, this criterion provides no real guidance on how this would be accomplished.
14	Other factors that have a bearing upon the use of the highway by trucks and other highway users or persons in close proximity to the highway.	Route should be avoided, but can be used by through trucks if reasonably necessary	This criterion is vague and does not provide any guidance on how this would be accomplished.

Exhibit 3.1.c – Alternative 2 Draft Regulation for Large Truck Routing

Process for Evaluating Highways Affected
June 10, 2008 - Draft Regulation for Large Truck Routing



3.2 Feasible Alternatives

3.2.1 Description of Feasible Alternatives

Alternative 3: Reasonable Access Highway Regulation

Alternative 3 consists of a proposed draft regulation to provide only reasonable access and exclude large through trucks from specific highways based on engineering analysis presented in *Appendix I – Evaluation of Identified Short Cut Routes and Reasonable Access Highways* and this chapter. The proposed draft Reasonable Access Highway Regulation is provided in *Appendix E – Draft Regulations, Comment Resolution Discussion, Comments Sorted by Topic*. Alternative 3 differs from Alternative 2 in that for this alternative, NYSDOT has evaluated specific highways where through trucks are present, considering community interest in reducing large truck traffic, economic impacts of large trucks remaining on the National Network, and considering engineering features which make a particular highway more or less suitable for large truck traffic, such as capacity, accident potential, accident history, and pavement considerations.

For Alternative 3, each of the specified highways would be signed and penalties would be governed by Section 1110 of Vehicle & Traffic Law, aiding in enforcement and compliance. Estimated construction costs to sign each of the recommended *Reasonable Access Highways* is **$0.45M** (2008 $). A detailed estimate for this work and possible sign faces which would be used is included in *Appendix K - Signs*.

In order to encourage large trucks to utilized the National Network as much as practical, this alternative recommends a series of highway priorities – large trucks should first use Qualifying highways, and then State access highways, and finally non-designated highways as a guide in considering route selection as summarized in Exhibit 3.2.1.a.

Exhibit 3.2.1.a Draft Regulation – Recommended Highway Usage	
All combination of vehicles consisting of a tractor-trailer or truck-trailer combination with a trailer length of 45 feet or more, and vehicles authorized by the Federal STAA of 1982 (as amended), which include, but are not limited to: tractor-semi-trailer combinations with either a semitrailer of 48 feet or twin 28 (or 28 ½) feet semitrailers, and Specialized Equipment vehicles, as described in Title 23 of the Code of Federal Regulations (CFR), Part 658.13(e).	
Qualifying (National Network)	Should be used as the primary means for reaching terminals, facilities and sites for the delivery or pickup of merchandise or other property.
Access	Use when the access highway exclusively provides access to the specific terminal, facility or site for the pickup or delivery of merchandise or other property or use is reasonably necessary to access the specific terminal, facility or sites for the pickup or delivery of merchandise or other property or to return to the network of Qualifying Highways.
Other	Use when the highway exclusively provides access to the specific terminal, facility or site for the pickup or delivery of merchandise or other property or when use is reasonably necessary to access the specific terminal, facility or sites for the pickup or delivery of merchandise or other property or to return to the network of Qualifying Highways.

An important component of each of the regulatory alternatives is the determination of reasonable usage for large through trucks on certain routes. Alternative 3 builds on the analysis conducted for Alternative 2, in *Appendix I – Evaluation of Identified Short Cut Routes and Reasonable Access Highways* and removes the burden from the carrier/individual driver for each unique trip to determine if a route is 'reasonably necessary'. This alternative, instead, lists routes that have been carefully selected through detailed engineering evaluation as *Reasonable Access Highways.* This detailed evaluation relies on engineering and safety analysis, and readily available data that relates to specific impacts of large trucks and can be used to differentiate between short cut routes and the National Network route.

Exhibit 3.2.1.b – Alternative 3 Draft Reasonable Access Highway Regulation

Process for Evaluating Highways
Reasonable Access Highways

June 10, 2008 - Draft Regulation for Large Truck Routing
Route Considered Impacted by
June 10, 2008 - Draft Regulation for Large Truck Routing

Evaluate Routes
- o Low Stakeholder Interest/Limited Benefits

Yes → Eliminated from Consideration
Possibly:
- o Not utilized by through trucks or
- o Limited receptors adversely affected

NO ↓

Evaluate Routes
- o Alternate National Network Route Not Available and
- o Comparison of non-Interstate State Highways

Yes → Eliminated from Consideration
- o A State Highway alternate route does not provide the same clear benefits (pavement, safety, quality of life) as an alternate Interstate route

NO ↓

Evaluate Routes (Highway Type)
- o Highways with Higher Functional Classifications (Rural and Urban Arterials) and
- o Highways with travel lane widths 11ft and wider

Yes → Eliminated from Consideration
- o Higher Functional Classifications have thicker pavement, wider travel lanes and shoulders, less of an engineering difference when compared to Interstate

NO ↓

Evaluate Routes (Minimize Industry Impacts)
- o Difference in distance from the National Network route is greater than 25 miles

Yes → Eliminated from Consideration
- o Considers Cost Factors
- o Removes longer routes from consideration
- o Provides predictability for access determinations

NO ↓

Evaluate Routes (Minimize Adjacent Community Impacts)
- o Consider if Alternate Routes Increase Large Truck Traffic in Adjacent Communities

Yes → Eliminated from Consideration
- o Minimizes adverse community impacts

NO ↓

Possible Reasonable Access Highways
Highway would be considered for
Assessing Engineering and Safety Factors

↓

Evaluate Routes - Engineering and Safety Considerations

Capacity – Level of Service > or = LOS D

Accident Potential
- o Frequency of Driveways
- o Villages/Communities
- o Shoulder width less than 4 ft
- o Steep grades/lack of truck climbing lanes
- o Horizontal Curvature

Accident History
- o Truck Fatality Rate greater than Statewide Average
- o Truck Accident rate greater than Statewide Average
- o Truck/Pedestrian Accident rate greater than Statewide Average

Infrastructure Benefits

The process outlined in Exhibit 3.2.1.b begins with the short cut routes identified using the process shown in Exhibit 3.1.c and further evaluates routes based on available data in order to ensure that the highways ultimately selected as *Reasonable Access Highways* will provide the greatest overall benefit while reducing adverse impacts.

Key elements of <u>Alternative 3 Reasonable Access Highway Regulation</u> include:

- **Geometry –** The geometric elements of the Interstate System, (horizontal and vertical curvature, superelevation, grades, grade separated interchanges) all contribute to making it the best suited route for large through truck travel. Alternative 3 considers geometric elements which contribute to accident potential along specific routes, including steep grades, and nonstandard horizontal curvature. These geometric elements are identified in *Appendix I – Evaluation of Identified Short Cut Routes and Reasonable Access Highways,* Section I3*.*
- **Operational** – Using 50% of the large truck volumes in the Finger Lakes Region area resulted in a less than 1% increase to the large truck volumes along the I81, I690, I90 Interstate corridor.
- **Safety** – Motorist, pedestrians, and bicyclists should benefit from improved safety and this alternative is expected to reduce pedestrian and bicycle fatalities along specified highways. There is an estimated **$0.42M** (2008$) safety benefit annually.
- **Pavement** – Highway pavements are constructed thicker as anticipated truck usage increases. By far, pavement systems are the single most costly element of the highway system to construct and maintain. This alternative includes specific highways with lesser pavement thicknesses. By altering travel patterns of trucks from using these specific highways to instead use National Network with thicker existing pavement sections, pavement service life of specified highways will be extended. Compared to the additional pavement management cost added to the National Network, a net annualized savings of **$ 1.24M** (2008$) will be realized. Detailed analyses of pavement cost are provided in *Appendix - DB Pavement Management Cost*.
- **Social** - Residents and businesses along the identified highways and other users of these highway facilities including pedestrians, bicyclists, and passenger cars benefit from the reduction large truck traffic.
- **Economic** – By limiting the locations to specified highways, the economic impact is limited to companies and shippers who have been utilizing these highways. Freight shippers who rely on trucks as a shipping mechanism are impacted by increased fuel usage costs associated with longer routes. Independent truck drivers and small trucking firms which operate on tighter profit margins are most impacted by increased fuel, toll, and operating costs associated with longer routes. The estimated annual increase in fuel, toll, and operating expenses is **$4.2M** (2008$).

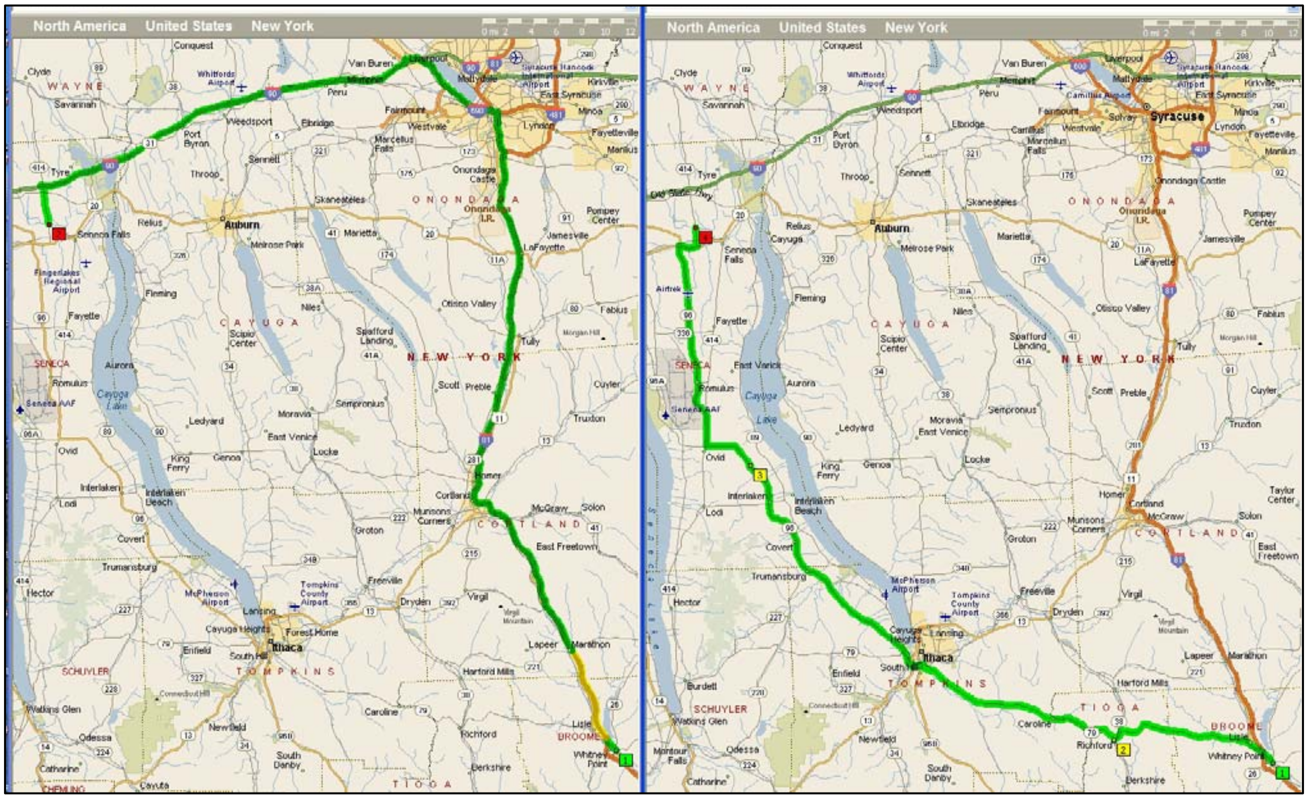
  Larger shipping companies may be more able to pass an increase in cost on to their customers than independent operators. Consumers will not likely observe an effect on goods where transportation costs are not a significant cost percentage in overall production costs. Consumers may experience an increase in the price of goods where transportation costs are a higher percentage of overall production, such as agricultural products.

  Companies whose production operates on a lower profit margin, that have shipping options, may look for alternative locations to ship their commodities, this is suspected to be the case for the land fill companies.
- **Environmental** – This alternative improves noise and air quality along specified highways where sensitive receptors, such as homes and schools are located. This alternative would address quality of life concerns identified by adjacent residents and other stakeholder along specified highways and some intersecting highways. This alternative does result in additional fuel consumption due to large through trucks remaining on National Network routes, which are longer in distance than identified short cuts. The additional fuel consumption associated with this alternative result in increased CO_2 emissions. The increased emissions are not considered significant. Refer to Chapter 4 for a detailed discussion.

Alternative 3 Reasonable Access Highway Regulation removes the necessity for the carrier/driver/shipper to contact NYSDOT and wait for a decision regarding specific routes, by using a clear definition of a reasonable alternative route as "a route that (a) uses State highways that are not Qualifying highways and (b) is at least 25 miles shorter than the shortest alternative route over Qualifying highways. To compare alternative routes, the length of each route shall be measured from the beginning location to the ending location of the route." This definition provides and objective definition, where the meaning is the same for a driver/carrier as for an enforcement official. For example if a highway would save 30 miles from a one way trip, it is reasonable to use, but if a specified highway only saves 10 miles from a one way trip, than its usage would not be considered reasonable. Using a "25 mile" definition provides a clear basis for dispatchers, drivers, or enforcement officers, or others, to determine if a route choice is a "reasonable alternative route". This definition clarifies the context of the regulation, and minimizes the potential impacts to the trucking industry by removing longer routes from consideration.

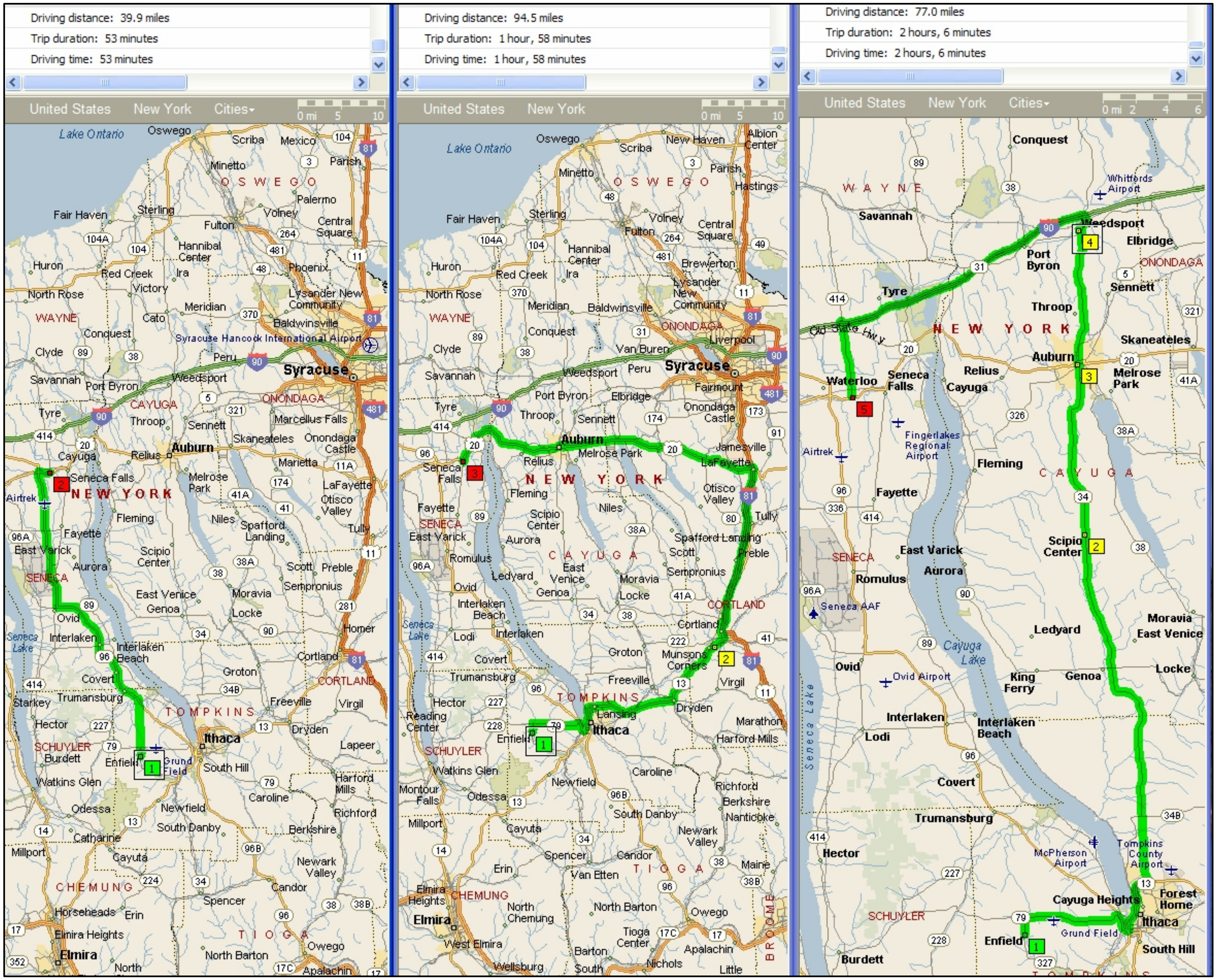
Exhibit 3.2.1.c and 3.2.1.d show examples of comparing routes using this "25 mile" definition. Using a well known large truck generator as an example, the following compares a route that uses parts of NY Route 79 and NY Route 96 from Whitney Point to Seneca Meadows Land Fill. The one way difference in length between this short cut route and the route along Qualifying highways (I81, I690, I90) is 22.5 miles, which is less than 25 miles. Therefore large trucks traveling along I81 would not be able to use NY 79 or 96 to reach Seneca Meadows Land Fill under the proposed draft regulation.

Exhibit 3.2.1.c Example Route Comparison Map – Whitney Point to Seneca Meadows Land Fill



Showing another example, from Enfield to Seneca Falls, large trucks from within the Finger Lakes Region would be allowed to travel on Route 96 since the Qualifying Highway alternatives (I81 to US Route 20 or I90 to NY 34) are more than 25 miles longer than the route along NY Route 96.

Exhibit 3.2.1.d Example Route Comparison Map – Enfield to Seneca Falls



3.2.2 Preferred Alternative

There is only one feasible alternative, Alternative 3 – Reasonable Access Highway Regulation, and this is the recommended preferred alternative. This alternative achieves the objectives while minimizing to the extent practical the social, economic, and environmental impacts.

3.2.2.1 Design Criteria

Design Standards and Critical Design Elements

State highways in New York State (which include all functional classifications, Interstates, Arterials, Collectors, etc.) are designed according to the NYSDOT's Highway Design Manual. Exhibits 3.2.2.1.a through 3.2.2.1.f provide design criteria for specified *Reasonable Access Highways* and denote certain nonstandard elements found along these highways. Design criterion is used to establish the physical features of the roadway and is assessed when a specific project is developed along a particular highway.

Exhibit 3.2.2.1.a – Design Criteria NY 41

DESIGN ELEMENT	RURAL MAJOR COLLECTOR (O7)		URBAN PRINCIPAL ARTERIAL OTHER (14)		URBAN MINOR ARTERIAL (16)	
COLOR DENOTES A NON-STANDARD FEATURE	Actual	Standard	Actual	Standard	Actual	Standard
DESIGN SPEED	30 - 55 MPH	20 MPH - 60 MPH	30 - 55 MPH	30 - 60 MPH	30 - 55 MPH	30 - 60 MPH
LANE WIDTH	10', 11' AND 12'	11' 400 - 1500 AADT 12' 1500 - 2000 AADT 12' > 2000 AADT	10', 11' AND 12'	11' LOW SPEED 12' HIGH SPEED	10' and 12'	11' LOW SPEED 12' HIGH SPEED
SHOULDER WIDTH		5' 400 -1500 AADT	VARIES 0' - 6'	0' W/O BIKES	VARIES 0' - 6'	0' W/O BIKES
	6'	6' 1500 -2000 AADT		5' W/BIKES		5' W/BIKES
	6'	8' > 2000 AADT		6' W/BIKES AND BREAKDOWN		6' W/BIKES AND BREAKDOWN
BRIDGE ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH
GRADE	FLAT 0% - 3% ROLLING 4% - 6% MOUNTAIN 7% - 9%	FOR 60 MPH 5% LEVEL 6% ROLLING 8% MOUNTAIN	FLAT/ROLLING	FOR 60 MPH 5% LEVEL 6% ROLLING 8% MOUNTAIN	FLAT/ROLLING	FOR 60 MPH 5% LEVEL 6% ROLLING 8% MOUNTAIN
HORIZONTAL CURVATURE	Not known	FOR 60 MPH 1,434' @ 6% 1,293' @ 8%	Not known	Emax = 4% 282' @ 30MPH 1,614' @ 60MPH	Not known	Emax = 4% 282' @ 30MPH 1,614' @ 60MPH
SUPERELEVATION	Not known	8% MAX. OR 6% MAX SUBURBAN AREAS	Not known	4% MAXIMUM	Not known	4% Maximum
STOPPING SIGHT DISTANCE	Not known	115' 20 MPH 607' @ 60 MPH	Not known	214' 30 MPH 607' @ 60 MPH	Not known	214' 30 MPH 607' @ 60 MPH
HORIZONTAL CLEARANCE	WITHIN STANDARD	10' W/O BARRIER	WITHIN STANDARD	0' WITH CURB	WITHIN STANDARD	0' WITH CURB
	WITHIN STANDARD	WITH BARRIER = SHOULDER WIDTH BUT NOT < 4'	WITHIN STANDARD	18" W/O CURB	WITHIN STANDARD	18" W/O CURB

Exhibit 3.2.2.1.a – Design Criteria NY 41

ROUTE 41	RURAL MAJOR COLLECTOR (O7)		URBAN PRINCIPAL ARTERIAL OTHER (14)		URBAN MINOR ARTERIAL (16)	
COLOR DENOTES A NON-STANDARD FEATURE	**Actual**	**Standard**	**Actual**	**Standard**	**Actual**	**Standard**
VERTICAL CLEARANCE	NO POSTED BRIDGES	14'-6"	VARIES	3' @ INTERSECTIONS	VARIES	3' @ INTERSECTIONS
			NO POSTED BRIDGES	14'-6"	NO POSTED BRIDGES	14'-6"
TRAVEL LANE CROSS SLOPE	WITHIN STANDARD	1.5% - 2%	WITHIN STANDARD	1.5% - 2%	WITHIN STANDARD	1.5% - 2%
ROLLOVER	WITHIN STANDARD	4% MAX.BETWEEN LANES	WITHIN STANDARD	4% MAX.BETWEEN LANES	WITHIN STANDARD	4% MAX.BETWEEN LANES
	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE
STRUCTURAL CAPACITY	H20 & HS25	AASHTO MS23	H20 & HS25	AASHTO MS23	H20 & HS25	AASHTO MS23
LEVEL OF SERVICE	N/A	N/A	N/A	N/A	N/A	N/A
CONTROL OF ACCESS	Uncontrolled	N/A	Uncontrolled	N/A	Uncontrolled	N/A
PEDESTRIAN ACCOMMODATION	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18

Exhibit 3.2.2.1.b – Design Criteria NY 41A

DESIGN ELEMENT	RURAL MAJOR COLLECTOR (O7)		URBAN PRINCIPAL ARTERIAL OTHER (14)		URBAN MINOR ARTERIAL (16)	
COLOR DENOTES A NON-STANDARD FEATURE	**Actual**	**Standard**	**Actual**	**Standard**	**Actual**	**Standard**
DESIGN SPEED	30 - 55 MPH	20 MPH - 60 MPH	30 - 55 MPH	30 - 60 MPH	30 - 55MPH	30 - 60 MPH
LANE WIDTH	10' AND 11'	11' 400 - 1500 AADT 12' 1500 - 2000 AADT 12' > 2000 AADT	11' and 12'	11' LOW SPEED 12' HIGH SPEED	10' and 12'	11' LOW SPEED 12' HIGH SPEED
SHOULDER WIDTH	4	5' 400 -1500 AADT	VARIES 0' - 6'	0' W/O BIKES	VARIES 0' - 6'	0' W/O BIKES
	6'	6' 1500 -2000 AADT		5' W/BIKES		5' W/BIKES
	6'	8' > 2000 AADT		6' W/BIKES AND BREAKDOWN		6' W/BIKES AND BREAKDOWN
BRIDGE ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH

Exhibit 3.2.2.1.b – Design Criteria NY 41A						
DESIGN ELEMENT	**RURAL MAJOR COLLECTOR (O7)**		**URBAN PRINCIPAL ARTERIAL OTHER (14)**		**URBAN MINOR ARTERIAL (16)**	
COLOR DENOTES A NON-STANDARD FEATURE	**Actual**	**Standard**	**Actual**	**Standard**	**Actual**	**Standard**
GRADE	FLAT 0% - 3% ROLLING 4% - 6%	FOR 60 MPH 5% LEVEL, 6% ROLLING, 8% MOUNTANOUS	FLAT 0% - 3% ROLLING 4% - 6%	FOR 60 MPH 5% LEVEL, 6% ROLLING, 8% MOUNTANOUS	FLAT 0% - 3% ROLLING 4% - 6%	FOR 60 MPH 5% LEVEL, 6% ROLLING, 8% MOUNTANOUS
HORIZONTAL CURVATURE	Not known	FOR 60 MPH 1,434' @ 6% 1,293' @ 8%	Not known	Emax = 4% 282' @ 30MPH 1,614' @ 60MPH	Not known	Emax = 4% 282' @ 30MPH 1,614' @ 60MPH
SUPERELEVATION	Not known	8% MAX. OR 6% MAX SUBURBAN AREAS	Not known	4% MAXIMUM	Not known	4% Maximum
STOPPING SIGHT DISTANCE	Not known	115' 20 MPH 607' @ 60 MPH	Not known	214' 30 MPH 607' @ 60 MPH	Not known	214' 30 MPH 607' @ 60 MPH
HORIZONTAL CLEARANCE	WITHIN STANDARD	10' W/O BARRIER	WITHIN STANDARD	0' WITH CURB	WITHIN STANDARD	0' WITH CURB
	WITHIN STANDARD	WITH BARRIER = SHOULDER WIDTH BUT NOT < 4'	WITHIN STANDARD	18" W/O CURB	WITHIN STANDARD	18" W/O CURB
			VARIES	3' @ INTERSECTIONS	VARIES	3' @ INTERSECTION S
VERTICAL CLEARANCE	NO POSTED BRIDGES	14'-6"	NO POSTED BRIDGES	14'-6"	NO POSTED BRIDGES	14'-6"
TRAVEL LANE CROSS SLOPE	WITHIN STANDARD	1.5% - 2%	WITHIN STANDARD	1.5% - 2%	WITHIN STANDARD	1.5% - 2%
ROLLOVER	WITHIN STANDARD	4% MAX.BETWEEN LANES	WITHIN STANDARD	4% MAX.BETWEEN LANES	WITHIN STANDARD	4% MAX.BETWEEN LANES
	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE
STRUCTURAL CAPACITY	H20 & HS25	AASHTO MS23	H20 & HS25	AASHTO MS23	H20 & HS25	AASHTO MS23
LEVEL OF SERVICE	N/A	N/A	N/A	N/A	N/A	N/A
CONTROL OF ACCESS	Uncontrolled	N/A	Uncontrolled	N/A	Uncontrolled	N/A
PEDESTRIAN ACCOMMODATION	ACTUAL CONDITION S VARY	PROVISIONS OF HDM CHAPTER 18	ACTUAL CONDITION S VARY	PROVISIONS OF HDM CHAPTER 18	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18

Exhibit 3.2.2.1.b – Design Criteria NY 90				
DESIGN ELEMENT	**RURAL MAJOR COLLECTOR (O7)**		**RURAL MINOR COLLECTOR (O8)**	
COLOR DENOTES A NON-STANDARD FEATURE	**ACTUAL**	**REQUIRED**	**ACTUAL**	**REQUIRED**
DESIGN SPEED	30 - 55 MPH	20 MPH - 60 MPH	30 - 55 MPH	20 MPH - 60 MPH
LANE WIDTH	10', 11' AND 12'	11' 400 - 1500 AADT 12' 1500 - 2000 AADT 12' > 2000 AADT	11'	11' 400 - 1500 AADT 12' 1500 - 2000 AADT 12' > 2000 AADT
SHOULDER WIDTH	4	5' 400 -1500 AADT	Not known	5' 400 -1500 AADT
	6'	6' 1500 -2000 AADT		6' 1500 -2000 AADT
	6'	8' > 2000 AADT		8' > 2000 AADT
BRIDGE ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH
GRADE	FLAT 0% - 3% ROLLING 4% - 6% MOUNTAIN 7% - 9%	FOR 60 MPH 5% LEVEL, 6% ROLLING, 8% MOUNTANOUS	FLAT 0% - 3% ROLLING 4% - 6% MOUNTAIN 7% - 9%	FOR 60 MPH 5% LEVEL, 6% ROLLING, 8% MOUNTANOUS
HORIZONTAL CURVATURE	Not known	FOR 60 MPH 1,434' @ 6% 1,293' @ 8%	Not known	FOR 60 MPH 1,434' @ 6% 1,293' @ 8%
SUPERELEVATION	Not known	8% MAX. OR 6% MAX SUBURBAN AREAS	Not known	8% MAX. OR 6% MAX SUBURBAN AREAS
STOPPING SIGHT DISTANCE	Not known	115' 20 MPH 607' @ 60 MPH	Not known	115' 20 MPH 607' @ 60 MPH
HORIZONTAL CLEARANCE	WITHIN STANDARD	10' W/O BARRIER	WITHIN STANDARD	10' W/O BARRIER
	WITHIN STANDARD	WITH BARRIER = SHOULDER WIDTH BUT NOT < 4'	WITHIN STANDARD	WITH BARRIER = SHOULDER WIDTH BUT NOT < 4'
VERTICAL CLEARANCE	NO POSTED BRIDGES	14'-6"	NO POSTED BRIDGES	14'-6"
TRAVEL LANE CROSS SLOPE	WITHIN STANDARD	1.5% - 2%	WITHIN STANDARD	1.5% - 2%
ROLLOVER	WITHIN STANDARD	4% MAX.BETWEEN LANES	WITHIN STANDARD	4% MAX.BETWEEN LANES
	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE
STRUCTURAL CAPACITY	H20 & HS25	AASHTO MS23	H20 & HS25	AASHTO MS23
LEVEL OF SERVICE	N/A	N/A	N/A	N/A
CONTROL OF ACCESS	Uncontrolled	N/A	Uncontrolled	N/A
PEDESTRIAN ACCOMMODATION	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18

Exhibit 3.2.2.1.c – Design Criteria NY 38

DESIGN ELEMENT	RURAL MINOR ARTERIAL (O6)		URBAN MINOR ARTERIAL (16)		URBAN COLLECTOR (17)	
COLOR DENOTES A NON-STANDARD FEATURE	Actual	Standard	Actual	Standard	Actual	Standard
DESIGN SPEED	30 MPH - 55 MPH	40 MPH - 70 MPH	30 MPH	30 - 60 MPH	30 MPH	30 - 60 MPH
LANE WIDTH	10' AND 11'	12' > 2000 AADT	14' and 16'	11' LOW SPEED 12' HIGH SPEED	14' and 16'	10' - 12'
SHOULDER WIDTH	Varies 4' - 8'	8 > 2000 AADT	VARIES 0' - 6'	0' W/O BIKES	VARIES 0' - 6'	0' W/O BIKES
				5' W/BIKES		5' W/BIKES
				6' W/BIKES AND BREAKDOWN		6' W/BIKES AND BREAKDOWN
BRIDGE ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH
GRADE	FLAT 0% - 3% ROLLING 4% - 6%	3% - 4% MAX.	FLAT 0% - 3% ROLLING 4% - 6%	FOR 60 MPH 5% LEVEL, 6% ROLLING, 8% MOUNTANOUS	FLAT 0% - 3% ROLLING 4% - 6%	FOR 60 MPH 6% LEVEL, 7% ROLLING, 9% MOUNTANOUS
HORIZONTAL CURVATURE	Not known	1,434' @ 6%, 1,2963' @ 8%	Not known	Emax = 4% 282' @ 30MPH 1,614' @ 60MPH	Not known	Emax = 4% 282' @ 30MPH 1,614' @ 60MPH
SUPERELEVATION	Not known	8% MAX.	Not known	4% MAXimum	Not known	4% MAXIMUM
STOPPING SIGHT DISTANCE	Not known	214' 30 MPH 607' @ 55 MPH	Not known	214' 30 MPH 607' @ 60 MPH	Not known	214' 30 MPH 607' @ 60 MPH
HORIZONTAL CLEARANCE	WITHIN STANDARD	NO BARRIER 10'	WITHIN STANDARD	0' WITH CURB	WITHIN STANDARD	0' WITH CURB
	WITHIN STANDARD	WITH BARRIER = SHOULDER WIDTH	WITHIN STANDARD	18" W/O CURB	WITHIN STANDARD	18" W/O CURB
			VARIES	3' @ INTERSECTIONS	VARIES	3' @ INTERSECTIONS
VERTICAL CLEARANCE	NO POSTED BRIDGES	14'-6"	N/A	14'-6"	N/A	14'-6"
TRAVEL LANE CROSS SLOPE	WITHIN STANDARD	1.5% - 2%	WITHIN STANDARD	1.5% - 2%	WITHIN STANDARD	1.5% - 2%
ROLLOVER	WITHIN STANDARD	4% MAX.BETWEEN LANES	WITHIN STANDARD	4% MAX.BETWEEN LANES	WITHIN STANDARD	4% MAX.BETWEEN LANES
	WITHIN STANDARD	8% MAXIMUM	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE
STRUCTURAL CAPACITY	H20 & HS25	AASHTO MS23	H20 & HS25	AASHTO MS23	N/A	AASHTO MS23
LEVEL OF SERVICE	N/A	N/A	N/A	N/A	N/A	N/A
CONTROL OF ACCESS	Uncontrolled	N/A	Uncontrolled	N/A	Uncontrolled	N/A
PEDESTRIAN ACCOMMODATION	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18

Exhibit 3.2.2.1.d – Design Criteria NY 79				
DESIGN ELEMENT	**RURAL MINOR ARTERIAL (O6)**		**URBAN MINOR ARTERIAL (16)**	
COLOR DENOTES A NON-STANDARD FEATURE	**Actual**	**Standard**	**Actual**	**Standard**
DESIGN SPEED	30 MPH - 55 MPH	40 MPH - 70 MPH	30 MPH - 55 MPH	30 - 60 MPH
LANE WIDTH	10' 11' and 12'	11' 1500 - 2000 AADT 12' > 2000 AADT	10' 11' and 12'	11' LOW SPEED 12' HIGH SPEED
SHOULDER WIDTH	VARIES 4' - 10'	6' 400 -1500 AADT	VARIES 4' - 10'	0' W/O BIKES
		6' 1500 -2000 AADT		5' W/BIKES
		8' > 2000 AADT		6' W/BIKES AND BREAKDOWN
BRIDGE ROADWAY WIDTH	MATCH APPROACH ROADWAY WIDTH	MATCH APPROACH ROADWAY WIDTH	MATCH APPROACH ROADWAY WIDTH	MATCH APPROACH ROADWAY WIDTH
GRADE	FLAT 0% - 3% ROLLING 4% - 6% MOUNTAIN 7% - 9%	FOR 60 MPH 3% LEVEL, 4% ROLLING, 5% MOUNTANOUS	FLAT 0% - 3% ROLLING 4% - 6% MOUNTAIN 7% - 9%	FOR 60 MPH 5% LEVEL, 6% ROLLING, 8% MOUNTANOUS
HORIZONTAL CURVATURE	Not known	FOR 60 MPH 1,434' @ 6% 1,293' @ 8%	Not known	Emax = 4% 282' @ 30MPH 1,614' @ 60MPH
SUPERELEVATION	Not known	8% MAX. OR 6% MAX SUBURBAN AREAS	Not known	4% Maximum
STOPPING SIGHT DISTANCE	Not known	344' 40 MPH 607' @ 60 MPH	Not known	214' 30 MPH 607' @ 60 MPH
HORIZONTAL CLEARANCE	VARIES 2' - 10'	10' W/O BARRIER	VARIES 2' - 10'	0' WITH CURB
		WITH BARRIER = SHOULDER WIDTH BUT NOT < 4'		18" W/O CURB
				3' @ INTERSECTIONS
VERTICAL CLEARANCE	NO POSTED BRIDGES	14'-6"	NO POSTED BRIDGES	14'-6"
TRAVEL LANE CROSS SLOPE	WITHIN STANDARD	1.5% - 2%	WITHIN STANDARD	1.5% - 2%
ROLLOVER	WITHIN STANDARD	4% MAX.BETWEEN LANES	WITHIN STANDARD	4% MAX.BETWEEN LANES
	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE
STRUCTURAL CAPACITY	H20 & HS25 BIN 3335230 POSTED FOR 9 TONS	AASHTO MS23		AASHTO MS23
LEVEL OF SERVICE	N/A	N/A	N/A	N/A
CONTROL OF ACCESS	Uncontrolled	N/A	Uncontrolled	N/A
PEDESTRIAN ACCOMMODATION	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18

Exhibit 3.2.2.1.e – Design Criteria NY 89				
DESIGN ELEMENT	**RURAL MAJOR COLLECTOR (O7)**		**URBAN MINOR ARTERIAL (16)**	
COLOR DENOTES A NON-STANDARD FEATURE	**Actual**	**Standard**	**Actual**	**Standard**
DESIGN SPEED	30 MPH - 55 MPH	20 MPH - 60 MPH	30 MPH	30 - 60 MPH
LANE WIDTH	10' AND 11'	11' 400 - 1500 AADT 12' 1500 - 2000 AADT 12' > 2000 AADT	12'	11' LOW SPEED 12' HIGH SPEED
SHOULDER WIDTH	VARIES 4' - 8'	5' 400 -1500 AADT	VARIES 0' - 6'	0' W/O BIKES
		6' 1500 -2000 AADT		5' W/BIKES
	VARIES 6' - 8'	8' > 2000 AADT		6' W/BIKES AND BREAKDOWN
BRIDGE ROADWAY WIDTH	MATCH APPROACH ROADWAY WIDTH	MATCH APPROACH ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH
GRADE	FLAT 0% - 3% ROLLING 4% - 6%	FOR 60 MPH 5% LEVEL, 6% ROLLING, 8% MOUNTANOUS	FLAT 0% - 3% ROLLING 4% - 6%	FOR 60 MPH 5% LEVEL, 6% ROLLING, 8% MOUNTANOUS
HORIZONTAL CURVATURE	Not known	FOR 60 MPH 1,434' @ 6% 1,293' @ 8%	282' @ 30 MPH	Emax = 4% 282' @ 30MPH 1,614' @ 60MPH
SUPERELEVATION	Not known	8% MAX. OR 6% MAX SUBURBAN AREAS	N/A	4% Maximum
STOPPING SIGHT DISTANCE	Not known	115' 20 MPH 607' @ 60 MPH	N/A	214' 30 MPH 607' @ 60 MPH
HORIZONTAL CLEARANCE	WITHIN STANDARD	10' W/O BARRIER	WITHIN STANDARD	0' WITH CURB
	WITHIN STANDARD	WITH BARRIER = SHOULDER WIDTH BUT NOT < 4'	WITHIN STANDARD	18" W/O CURB
				3' @ INTERSECTIONS
VERTICAL CLEARANCE	NO POSTED BRIDGES	14'-6"	N/A	14'-6"
TRAVEL LANE CROSS SLOPE	WITHIN STANDARD	1.5% - 2%	WITHIN STANDARD	1.5% - 2%
ROLLOVER	WITHIN STANDARD	4% MAX.BETWEEN LANES	WITHIN STANDARD	4% MAX.BETWEEN LANES
	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE
STRUCTURAL CAPACITY	H20 & HS25	AASHTO MS23	H20 & HS25	AASHTO MS23
LEVEL OF SERVICE	N/A	N/A	N/A	N/A
CONTROL OF ACCESS	Uncontrolled	N/A	Uncontrolled	N/A
PEDESTRIAN ACCOMMODATION	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18

Exhibit 3.2.2.1.f – Design Criteria NY 96						
DESIGN ELEMENT	**RURAL MINOR ARTERIAL (O6)**		**RURAL MAJOR COLLECTOR (O7)**		**URBAN MINOR ARTERIAL (16)**	
COLOR DENOTES A NON-STANDARD FEATURE	**Actual**	**Standard**	**Actual**	**Standard**	**Actual**	**Standard**
DESIGN SPEED	30 MPH - 55 MPH	40 MPH - 70 MPH	30 MPH - 55 MPH	20 MPH - 60 MPH	30	30 - 60 MPH
LANE WIDTH	12'	11' 1500 - 2000 AADT 12' > 2000 AADT	12'	12'	12'	11' LOW SPEED 12' HIGH SPEED
SHOULDER WIDTH	VARIES 4' - 10'	6' 400 -1500 AADT	VARIES 4' - 10'	6'<2000 AADT		0' W/O BIKES
		6' 1500 -200 AADT		8'>2000 AADT	0' WITH CURB	6' W/BIKES
		8' > 2000 AADT				
BRIDGE ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH	N/A	MATCH APPROACH ROADWAY WIDTH
GRADE	FLAT 0% - 3% ROLLING 4% - 6%	FOR 60 MPH 3% LEVEL, 4% ROLLING, 5% MOUNTANOUS	FLAT 0% - 3% ROLLING 4% - 6%	6% - 7% MAX.	FLAT 0% - 3% ROLLING 4% - 6%	6% - 7% MAX.
HORIZONTAL CURVATURE	WITHIN STANDARD	FOR 60 MPH 1,434' @ 6% 1,293' @ 8%	WITHIN STANDARD	1,102' @ 6% 997' @ 8%	WITHIN STANDARD	282' @ 30MPH 855' @ 55MPH
SUPERELEVATION	WITHIN STANDARD	8% MAX. OR 6% MAX SUBURBAN AREAS	WITHIN STANDARD	8% MAX.	WITHIN STANDARD	4% MAX.
STOPPING SIGHT DISTANCE	WITHIN STANDARD	344' 40 MPH 607' @ 60 MPH	WITHIN STANDARD	214' 30 MPH 525' @ 55 MPH	WITHIN STANDARD	214' 30 MPH 525' @ 55 MPH
HORIZONTAL CLEARANCE	WITHIN STANDARD	10' W/O BARRIER	WITHIN STANDARD	NO BARRIER 10'	WITHIN STANDARD	0' WITH CURB
		WITH BARRIER = SHOULDER WIDTH BUT NOT < 4'		WITH BARRIER = SHOULDER WIDTH		18" W/O CURB
		3' @ INTERSECTIONS		3' @ INTERSECTIONS		3' @ INTERSECTIONS
VERTICAL CLEARANCE	NO POSTED BRIDGES	14'-6"	NO POSTED BRIDGES	14'-6"	NO POSTED BRIDGES	14'-6"
TRAVEL LANE CROSS SLOPE	WITHIN STANDARD	1.5% - 2%	WITHIN STANDARD	1.5% - 2%	WITHIN STANDARD	1.5% - 2%
ROLLOVER	WITHIN STANDARD	4% MAX.BETWEEN LANES	WITHIN STANDARD	4% MAX.BETWEEN LANES	WITHIN STANDARD	4% MAX.BETWEEN LANES
	WITHIN STANDARD	8% MAX. EDGE OF TRAVEL LANE	WITHIN STANDARD	8% MAXIMUM	WITHIN STANDARD	8% MAXIMUM
STRUCTURAL CAPACITY	HS20 & HS25	AASHTO MS23	H20 & HS25	AASHTO MS23	H20 & HS25	AASHTO MS23
LEVEL OF SERVICE	N/A	N/A	N/A	N/A	N/A	N/A
CONTROL OF ACCESS	Uncontrolled	N/A	Uncontrolled	N/A	Uncontrolled	N/A
PEDESTRIAN ACCOMMODATION	PROVISIONS OF HDM CHAPTER 18	PROVISIONS OF HDM CHAPTER 18	PROVISIONS OF HDM CHAPTER 18	PROVISIONS OF HDM CHAPTER 18	ACTUAL CONDITIONS VARY	PROVISIONS OF HDM CHAPTER 18

3.3 Engineering Considerations

3.3.1 <u>Operations (Traffic and Safety) & Maintenance</u>

3.3.1.1 Functional Classification and National Highway System

This action will not change the functional classification of the highway, it will however, result in large through truck traffic remaining on highways with higher functional classifications. The engineering analysis to exclude through trucks from the highways selected included identifying routes with lower functional classification, narrow lane widths, narrow shoulders, and thin pavement sections. Some highways along identified short cut routes, with higher functional classification and wider travel lanes were eliminated from consideration as *Reasonable Access Highways*. These higher functional classification highways are generally built to accommodate more large trucks, since their pavement is thicker; and lane widths and shoulder widths are typically wider. Exhibit 3.3.1.1.a shows functional classification facility level and example highways for each functional class.

Exhibit 3.3.1.1.a
Functional Classifications

Higher Level Facilities

Functional Classifications	Example Routes
Principal Arterial Interstate	National Network, I81, I690, I90
Principal Arterial Other	US Route 20
Minor Arterial	NY 79, NY 89
Major Collector	NY 41, NY 41A
Minor Collector	NY 90
Local	Fennel St., Elizabeth St., East St.

Lower Level Facilities

3.3.1.2 Control of Access

The Interstate System has full access control. The specified highways have uncontrolled access. *Appendix I – Evaluation of Identified Short Cut Routes and Reasonable Access Highways* Exhibit I3B1-2 shows the number of driveways/mile for each of these specified highways.

3.3.1.3 Traffic Control Devices

The Interstate System has grade separated interchanges with no stop signs or signalized intersections along the mainline. The specified highways have a variety of traffic control devices including signalized and stop controlled intersections.

3.3.1.4 Intelligent Transportation Systems (ITS)

Weigh in motion and other automated inspection technologies could reduce the delay and add consistency to travel times along the National Network (Qualifying Highways).

3.3.1.5 Speeds and Delay

<u>Proposed Speed Limit</u>

There are no changes to posted speed limits associated with the proposed action. Posted speed limits for identified short cut routes and National Network routes are included in *Appendix F – Route Fuel and Toll Cost Analysis.*

<u>Travel Time Estimates</u>

Travel time estimates are included in *Appendix CB – Traffic Analysis*. In the Finger Lakes Region, the average additional trip length of 17 miles (one way) will not add or reduce a substantial amount of time from the trip due to the higher travel speeds on the National Network and fewer stops. Overall there will be an increase in large truck Vehicle Mile Traveled (VMT) of approximately 1.3 million miles per year.

3.3.1.6 Traffic Volumes

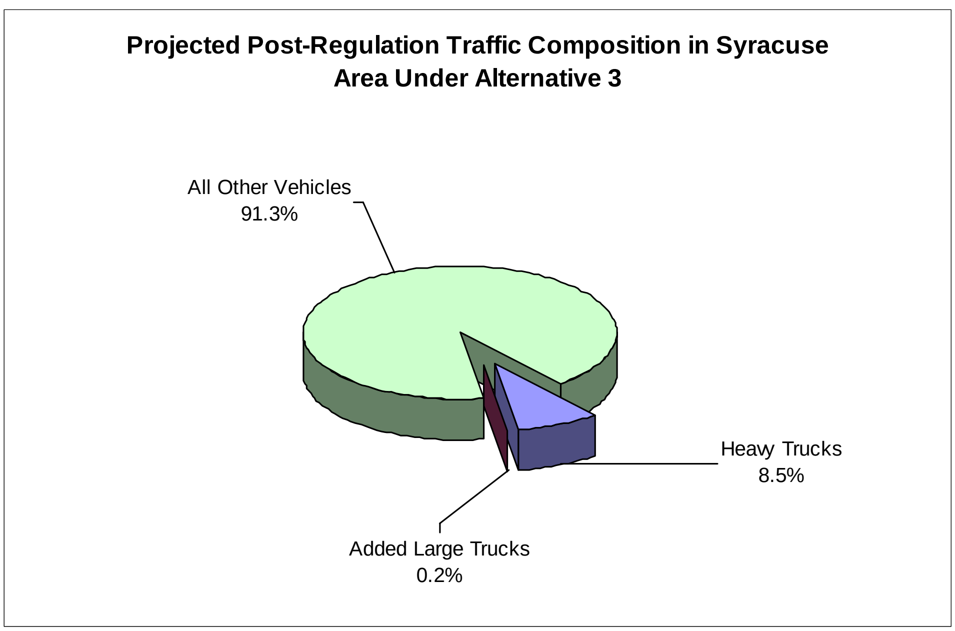
Refer to Section 2.3.1.6 and *Appendix CB – Traffic Analysis* for estimated large truck traffic volumes in the Finger Lakes Area and the estimated statewide large truck volumes on the identified short cut routes and the adjacent state highways. Exhibit 3.3.1.6.b presents the estimated changes in the large truck traffic.

The identified short cut routes were analyzed to determine the number of large trucks (5 axle F9 and above) at spot locations along each short cut route using the NYSDOT Traffic Data Viewer. The results were corrected for the design year using a 2% per year growth rate as discussed in Section 4 of *Appendix CB – Traffic Analysis*.

The short cut distance, travel speeds, and travel time were determined using Map Quest and selected field verification. It is estimated 50% of the large trucks are through trucks, as discussed in *Appendix CB – Traffic Analysis*, Section 7.2. The results are presented in *Appendix CB – Traffic Analysis*, Exhibit C.8 and were used to determine the social, economic, and environmental consequences in Chapter 4 of this report and to calculate:

- The annual additional fuel, toll, and operating costs (*Appendix F - Route Fuel and Toll Cost Analysis* of this report).
- The annual accident savings (*Appendix CA - Accident Analysis* of this report).
- The annual pavement savings (*Appendix D – Pavement Information* of this report).

Exhibit 3.3.1.6.a Projected Interstate Post-Regulation Composition



3.3.1.7 Level of Service and Mobility

The additional large trucks remaining on the National Network as a result of the proposed action are not anticipated to have a discernable impact on the level of service since the number of additional trucks represents a low percentage of the overall traffic on the National Network.

Exhibit 3.3.1.6.b Large Trucks Removed From Highways

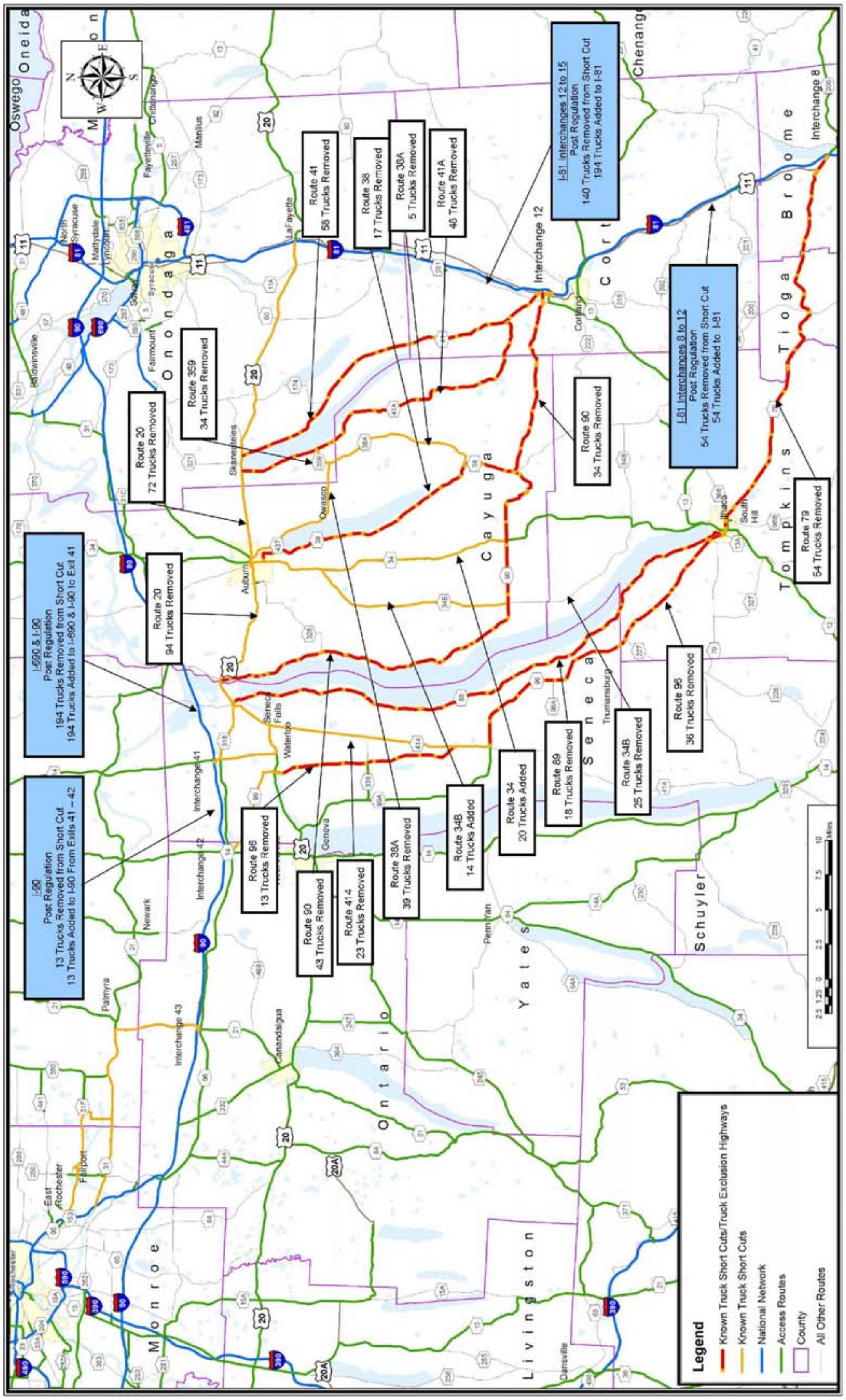


Exhibit 3.3.1.7 Level of Service for I-81					
(2008)					
Highway Segments		Northbound		Southbound	
FROM	TO	Existing LOS(DENSITY) (pc/ln/mi)	Proposed LOS(DENSITY) (pc/ln/mi)	Existing LOS(DENSITY) (pc/ln/mi)	Proposed LOS(DENSITY) (pc/ln/mi)
8S	8N	A (11.0)	B (11.0)	A (9.8)	A (10.0)
8N	9	A (8.3)	A (8.4)	A (8.9)	A (8.9)
9	10	B (12.0)	B (12.0)	A (10.6)	A (10.6)
10	11	B (14.2)	B (14.4)	B (14.2)	B (14.4)
11	12	B (14.5)	B (14.5)	B (15.2)	B (15.3)
12	13	B (15.7)	B (16.1)	B (14.7)	B (15.0)
13	14	B (11.6)	B (11.9)	B (11.4)	B (11.7)
14	15	B (14.0)	B (14.2)	B (13.7)	B (14.0)
15	16	B (17.5)	B (17.9)	B (17.4)	B (17.7)
16	16A	C (19.0)	C (19.4)	C (19.3)	C (19.7)
16A	17	B (14.3)	B (14.6)	B (14.5)	B (14.8)
17	18	C (24.7)	C (25.1)	D (26.4)	D (26.9)
18	19	F (>45)	F (>45)	F (>45)	F (>45)
Proposed Traffic Volumes for I-690					
(2008)					
Highway Segments		Eastbound		Westbound	
FROM	TO	Existing	Proposed	Existing	Proposed
2	4	B (14.8)	B (15.0)	B (13.3)	B (13.4)
4	5	C (21.2)	C (21.4)	C (19.0)	C (19.1)
5	6	C (21.3)	C (21.5)	C (19.0)	C (19.1)
6	8	E (37.2)	E (37.5)	E (37.9)	E (38.2)
8	9	D (32.3)	D (32.4)	D (31.8)	D (32.0)
9	10	C (25.2)	C (25.4)	C (24.9)	C (25.2)
10	12	D (29.1)	D (29.3)	D (28.4)	D (28.6)
12	13	D (33.8)	D (34.0)	D (32.8)	D (33.0)
Proposed Traffic Volumes for I-90 (NYS Thruway)					
(2008)					
Highway Segments		Eastbound		Westbound	
FROM	TO	Existing	Proposed	Existing	Proposed
39	40	C (26.0)	D (26.1)	C (26.0)	D (26.1)
40	41	D (28.7)	D (28.9)	D (28.7)	D (28.9)
41	42	D (32.8)	D (32.9)	D (26.9)	D (27.2)

[1]pc/ln/mi – passenger cars/lane/mile, generally a truck is equivalent to 1.5 -4.5 passenger cars.

Level of Service Within the Finger Lakes Area

Summaries of the Levels of Service for the existing conditions and conditions with the proposed regulation are presented in Exhibit 3.3.1.7. The estimated number of large through trucks on specified highways was added to the volume of traffic on the National Network of I-81, I-690 and I-90 to determine the impacts of the added traffic.

I-81 Mainline

There would be no discernable difference in the level of service of this segment of the Interstate System from pre-regulation traffic to post-regulation traffic.

I-690 Mainline

There would be no discernable difference in the level of service of this segment of the Interstate System from pre-regulation traffic to post-regulation traffic.

I-90 (Thruway) Mainline

There would be no discernable difference in the level of service of this segment of the Interstate System from pre-regulation traffic to post-regulation traffic.

State Highways

Significant numbers of large trucks will not be diverted from one state highway to another. With the exception of NY Routes 414, 34 and 34B, the preferred alternative would decrease the volume of large trucks and have negligible impacts on the volume to capacity ratio or level of service on these highways. Non-Interstate State Highways where an increase in traffic may be expected (NY 34, 34B, and 414) were also analyzed for capacity. This analysis showed large truck increases on NY Routes 34, 34B and 414 had no significant impacts, resulting in no change to the vehicle/capacity ratio on NY 414 (0.31, LOS D) and NY 34B (0.08, LOS C), and a small change on NY 34 from 0.17 (LOS D) to 0.18 (LOS D).

Intersections and interchanges were not analyzed since relatively low cost improvements (e.g., turn lanes and signal retiming) could be made to improve operations at intersections and interchanges that operate at low levels of service.

3.3.1.8 Safety Considerations, Accident History and Analysis

The Interstate routes have an accident rate of less than half that of the non-Interstate highways (Refer to Section 2.3.1.8 and *Appendix CA – Accident Analysis* of this report). The effect of reducing large truck traffic from villages and rural towns should result in a net reduction in fatal pedestrian and bicycle accidents. The statewide accident costs for large trucks traveling the short cut routes and alternate National Network routes are summarized in *Appendix CA – Accident Analysis*, Exhibit CA7.3. If 50% of the large trucks traveling the specified *Reasonable Access Highways* remained on the National Network instead, the annual savings would be $0.4M (2008$).

3.3.1.9 Impacts on Police, Fire Protection and Ambulance

Access

The proposed action does not involve construction that would affect local police, fire protection or ambulance access.

Enforcement

NYSDOT has met with NYS Police to discuss the proposed draft regulation and additional meetings are planned. It is expected the majority of enforcement of the proposed draft regulation would be performed by the New York State Police Commercial Vehicle Enforcement Unit (CVEU) and NYSDOT inspection staff. Fining for the Alternative 3 Reasonable Access Highway Regulation would include:

- Enforce current sections of the Vehicle and Traffic Law concerning violations of signing provisions.

Specifying highways in the regulation aids enforcement by predetermining which highways are considered reasonably necessary for use and signing specific highways for which access would be limited to reasonable access and through trucks would be excluded.

Existing records maintained by each carrier included maintenance and work schedules are safety related. New York's MCSAP relies heavily on federal funds and it is suspected requiring carriers to maintain additional documentation of routes (or any other non-safety specific documentation) would raise Interstate Commerce Clause concerns.

NYSDOT Operations is considering using cameras to aid in enforcement activities for Weigh in Motion (WIM). These types of cameras could also be used at locations along specified highways, to establish probable cause for enforcement of the proposed draft regulation. Safe locations to pull over vehicles suspected of violating the regulation would also be needed along specified highways.

3.3.1.10 Parking Regulations and Parking Related Issues

Parking on Interstate highways is restricted by law. Parking is typically permitted on the highways in the identified short cut routes and specified highways. On specified highways potential large truck and parked car/ passengers of parked cars interaction would be reduced.

3.3.1.11 Lighting

The proposed action does not involve any changes to lighting.

3.3.1.12 Ownership and Maintenance Jurisdiction

New York State owns and maintains Interstate facilities and other Qualifying Highways except within the New York City area. Maintenance on some of the highways in identified short cut areas is the responsibility of the municipality, and these are provided in Exhibit 2.3.1.12 Ownership and Maintenance Jurisdiction. Ownership and Maintenance Jurisdiction would be unaffected by the draft regulation, however, some municipalities along specified highways will experience a pavement cost savings as a result of large through truck traffic remaining on the National Network.

3.3.2 Multimodal

3.3.2.1 Pedestrians and Bicyclists

Pedestrians and Bicyclists are prohibited on Interstate Highways by state law. Pedestrians and pedestrian generators are prevalent along the highways in identified short cut routes. The draft regulation limits large through trucks on specific highways with pedestrians or bicyclists. The engineering analysis to exclude through trucks from the highways selected included selecting highways that pass through community settings, with narrow shoulders, and steep grades. Large Truck Pedestrian/Bicyclist Accident History was also evaluated. (Refer to *Appendix I Evaluation of Identified Short Cut Routes and Reasonable Access Highways.)* The draft regulation will improve safety for pedestrians and bicyclists on specified highways, and reduce the potential for pedestrian and bicyclists/large truck crashes.

3.3.2.2 Transit

Alternative 3 would reduce transit and large truck interaction for transit operators and riders on specified highways.

3.3.2.3 Airports, Railroad Stations, and Ports

The proposed action does not involve any changes to airport, railroad stations or ports.

3.3.2.4 Access to Recreation Areas (Parks, Trails, Waterways, and State Lands)

Alternative 3 would reduce large truck interaction with users of parks, trails, waterways, and state lands. Exhibit 4.2.4c in Chapter 4 of this report identifies State and Federal Parklands adjacent to specified highways and to Interstate route alternatives.

3.3.3 Infrastructure

3.3.3.1 Proposed Highway Section

Refer to *Appendix A – Maps and Typical Sections* for typical sections illustrating cross sectional features usually found on the Interstate System and on identified short cut routes.

3.3.3.2 Special Geometric Design Elements

None.

3.3.3.3 Pavement and Shoulder

The proposed action does not include any immediate construction or maintenance actions nor does it require future changes to pavement and shoulder widths separate from standard design procedure. Instead, this report uses methodology contained within the NYSDOT Comprehensive Pavement Design Manual to determine optimized pavement sections and life cycle pavement costs changes that are anticipated to occur with anticipated truck usage changes of the affected highways. Using this approach, comparison of the existing highway system affected by this action is evaluated with a system operating under the draft truck regulation. Findings are attached in *Appendix DB – Pavement Management Costs*. Exhibit 3.3.3.3.a summarizes the expected net annualized savings for Alternative 3 – Reasonable Access Highway Regulation.

Exhibit 3.3.3.3.a

Expected Pavement Management Cost Savings

Highway	Alternative 3 – Reasonable Access Regulation Change in Total Annualized Pavement Management Cost
Estimated Pavement Management Cost Increase for the National Network	$84,000
Estimated Pavement Management Cost Savings to specified Highways	$1,265,000
Expected Savings in Pavement Management Cost	$1,181,000

3.3.3.4 Drainage Systems

The proposed action does not involve any changes to drainage systems.

3.3.3.5 Geotechnical

The proposed action does not involve any changes of a geotechnical nature. Since National Network routes typically are constructed on improved sub-grade surfaces, an extended service life of the pavement system on specified highways is expected.

3.3.3.6 Structures

The proposed action would not adversely impact bridges on the National Network. Exhibit 3.3.3.6.a lists design load, class, and posted load status for bridges located on specified highways.

Exhibit 3.3.3.6.a
Structure Information

	BIN	DESIGN LOAD	CLASS	POSTED LOAD
ROUTE 41	1024930	50	HS20	NOT POSTED
	1024920	90	HS25	NOT POSTED
	1093730	50	HS20	NOT POSTED
ROUTE 41A	**BIN**	**DESIGN LOAD**	**CLASS**	**POSTED LOAD**
	NO BRIDGES			
ROUTE 90	**BIN**	**DESIGN LOAD**	**CLASS**	**POSTED LOAD**
	1034400	90	HS25	NOT POSTED
	1034410	90	HS25	NOT POSTED
	1074290	40	H20	NOT POSTED
	1034390	40	H20	NOT POSTED
	1034420	N/N	N/N	NOT POSTED
	1034430	40	H20	NOT POSTED
	1304440	90	HS25	NOT POSTED
ROUTE 38	**BIN**	**DESIGN LOAD**	**CLASS**	**POSTED LOAD**
	1024260	50	HS20	NOT POSTED
	1024270	40	H20	NOT POSTED
	1024280	90	HS25	NOT POSTED
	1024290	90	HS25	NOT POSTED
	2207090	N/N	N/N	NOT POSTED
	1068921	50	HS20	NOT POSTED
	1068922	50	HS20	NOT POSTED
	2207080	90	HS25	NOT POSTED
	1021830	90	HS25	NOT POSTED
ROUTE 79	**BIN**	**DESIGN LOAD**	**CLASS**	**POSTED LOAD**
	1030530	90	HS25	NOT POSTED
	3335230	20	H15	9 TONS
	1030580	50	HS20	NOT POSTED
	1030570	50	HS20	NOT POSTED
	1030560	70	H20	NOT POSTED
	1030550	50	HS20	NOT POSTED
	3314040	N/N	N/N	NOT POSTED
	1064700	50	HS20	NOT POSTED
	3209760	90	HS25	NOT POSTED
	1030590	50	HS20	NOT POSTED

Exhibit 3.3.3.6-a Structure Information				
	BIN	**DESIGN LOAD**	**CLASS**	**POSTED LOAD**
ROUTE 89	1034300	50	HS20	NOT POSTED
	4034310	40	H20	NOT POSTED
	1034290	N/N	N/N	NOT POSTED
	1034280	90	HS25	NOT POSTED
	BIN	**DESIGN LOAD**	**CLASS**	**POSTED LOAD**
ROUTE 96	1035050	40	H20	NOT POSTED
	1035070	90	HS25	NOT POSTED
	4035060	90	HS25	NOT POSTED
	1035080	90	HS25	NOT POSTED
	1035020	90	HS25	NOT POSTED
	1035030	90	HS25	NOT POSTED
	1035040	N/N	N/N	NOT POSTED
	1077230	90	HS25	NOT POSTED

3.3.3.7 Hydraulics of Bridges and Culverts

The proposed action would not affect the hydraulics of bridges and culverts on the National Network.

3.3.3.8 Guide Railing, Median Barriers and Impact Attenuators

The proposed action would not affect guide railing, median barriers or impact attenuators on the National Network.

3.3.3.9 Utilities

The proposed action does not involve any changes to utilities, however, large through trucks remaining on the National Network instead of specified highways could reduce the likelihood of large truck interaction with overhead utilities.

3.3.3.10 Railroad Facilities

The vision for the freight rail system in New York State is an energy efficient transporter of long distance cargo with inter-modal connections for local deliveries. According to the "*2002 Commodity Flow Survey*" 90% of the freight moving to, from and within New York State is carried by truck and only 3% by rail. Any significant diversion of freight from truck to rail could not occur without rail capacity, inter-modal connections, and congestion improvements. A significant statewide diversion from trucks to rail does not appear feasible for the near future. The location of any future freight terminals, inter-modal facilities, yards, etc. may affect future trucking patterns.[1]

3.3.4 Landscape and Environmental Enhancements

Refer to Chapter 4 for discussion.

[1] Reference: 2008 New York State Rail Plan (Working Draft – June 2008)

3.3.4.1 Landscape Development and Other Aesthetics Improvements

Large trucks have temporary visual impacts in small village and city settings due to their height and length. These large trucks temporarily block the line of sight of pedestrians and residences. Where large trucks pass through scenic overlooks or historic districts, they are more visually disruptive. Alternative 3 Reasonable Access Highway Regulation would reduce the number of temporary visual impacts, improving the visual quality of sensitive visual areas which are located on specified highways. Exhibit 4.2.4-f shows the miles of scenic byways improved by Alternative 3, which include sections of NY 89 and NY 96.

3.3.4.2 Environmental Enhancements

Environmental enhancements are discussed in detail in Chapter 4.

3.3.5 Miscellaneous – Regulatory Constraints

The Alternative 3 – Reasonable Access Highway Regulation complies with State and Federal requirements. This alternative does not have a greater effect on interstate commerce than on intrastate commerce since through trucks from locations outside the state are treated the same as through trucks from within the state. The October Draft Regulation in *Appendix E* of this report does not differentiate between interstate and intrastate trips.

The health, safety and welfare benefits of the regulation outweigh the burden of the regulation on interstate commerce as documented in Chapter 1, Section 1.11 of this report. While the quality of life benefits are not monetized, they are important and outweigh the costs. The inability to monetize all of the benefits is common with social and environmental issues such as wetlands, water quality, historic properties, parklands, and endangered species.

Alternative 3 provides a clear definition of reasonable access that allows for access to local terminals and facilities. Reasonable access as defined in the October draft regulation in Appendix E of this report includes:

1. if the highway constitutes a reasonable alternative route. A "reasonable alternative route" is a route that (a) uses State highways that are not Qualifying highways and (b) is at least 25 miles shorter than the shortest alternative route over Qualifying highways. To compare alternative routes, the length of each route shall be measured from the beginning location to the ending location of the route.
2. if use of one of the highway is necessary because it provides exclusive access to a specific freight terminal, facility for food, fuel, service or rest, or site for the pickup or delivery of merchandise or other property; or
3. if from a specific freight terminal, facility for food, fuel, service or rest, or site for the pickup or delivery of merchandise or other property, the excluded highways provide the shortest trip to the truck's next freight terminal destination or the shortest trip to the network of Qualifying highways; or
4. if use of the highway is necessary because highway closures, weather conditions, or other factors render alternative routes inaccessible or unavailable for truck travel.

Consistent with Paragraph 9 of Subdivision (a) of Section 1621 of the New York State Vehicle and Traffic Law, Alternative 3 does not prevent the delivery or pickup of merchandise or other property along the highways from which such vehicles and combinations are otherwise excluded. Alternative 3 does not affect local trips to businesses and consumers due to the above definition of reasonable access. Additionally, the regulation does not discriminate trucks based on cargo type. Therefore, NYSDOT has the legal authority to implement the regulation in Alternative 3.

Federal Law (23 CFR 658.5) requires "reasonable access" to terminals and facilities, which does not mean unlimited access. Reasonable access as defined in Alternative 3 includes terminals and facilities, which are defined in Sections 8000.9 and 8000.10 of the October Draft Regulation in Appendix E of this report.

Section 8000.12 of the October draft regulation does not change the truck access highway network. Alternative 3 preserves appropriate and reliable access for STAA vehicles and trucks with 102" wide 53' trailers by allowing reasonable access as described in Section 8000.13 of the regulation.

The specified *Reasonable Access Highways* have been selected based on safety and engineering considerations (Refer to Appendix I and Section 3.3.18 of this report).

CHAPTER 4 SOCIAL, ECONOMIC & ENVIRONMENTAL CONDITIONS and CONSEQUENCES

4.1 Introduction

The purpose of this chapter is to present NYSDOT's efforts to satisfy applicable social, economic, and environmental obligations, regulatory requirements and commitments. The information presented identifies:

- The social, economic and environmental issues that need to be considered when selecting the preferred alternative.
- The environmental consequences and mitigation measures.
- NYSDOT's efforts to coordinate with applicable agencies.
- Required permits and approvals.

State Environmental Quality Review (SEQR)

The SEQR "lead agency" is the New York State Department of Transportation.

The Department has determined that this action is a SEQR Non-Type II Action in accordance with 17 NYCRR, Part 15, and "Procedures for Implementation of State Environmental Quality Review Act". Non-Type II actions include actions for which the environmental impacts are not clearly established and require an Environmental Assessment.

The action is being progressed as Non-Type II because of the potential to alter traffic patterns. Type II actions under 17NYCRR Part 15.14(d) (2) require that; "no significant changes in passenger or vehicle traffic volume, vehicle mix, local travel patterns or access (other than changes that would occur without the action)". This action does not meet the Type II criteria, and is therefore classified as a Non-Type II action.

4.1.1 Cooperating, Participating, and Involved Agencies

SEQR Involved and Interested Agencies

The SEQR involved and interested agencies are:

- NYS Department of Environmental Conservation
- NYS Thruway Authority
- NYS Bridge Authority
- NYS Police
- NYS Department of Agriculture and Markets

4.2 Social

4.2.1 Land Use

Demographics and Affected Population

The action area includes the ministerial boundaries of New York State. The affected population essentially includes all citizens of New York State, as well as visitors using *Reasonable Access Highways* and the National Network, and those doing business in the state.

Populations most directly affected include: residents of communities on *Reasonable Access Highways*, owners of properties adjacent to these highways, truck operators and drivers, businesses and individuals depending on large truck services, and local and state highway users sharing the right-of-way with large trucks.

Comprehensive Plan(s) and Zoning

The presence of large truck traffic has affected communities' comprehensive planning activities and zoning along *Reasonable Access Highways*. Chapter 2 of this report, Exhibit 2.2.1.1 - Local Master Plan References, furnishes references to large truck traffic that some local communities have included in their Master Plans. Some communities along these highways have developed studies and are seeking solutions to reduce large truck traffic, in an effort to improve their residents' quality of life. Large truck traffic along these highways may influence land use for properties adjacent to these routes. Due to truck traffic volumes, parcels previously designated for residential use may become better suited for commercial or industrial use. Truck traffic in some areas could lead to a demand for development of land for freight-related uses, such as distribution centers and terminal facilities, as well as the development of facilities to support trucking and truck operators, such as service centers and truck stops.

The preferred alternative would reduce large truck traffic along specific highways. This alternative would assist these communities in addressing the impacts to quality of life attributed to the presence of large trucks, identified in their comprehensive plans or zoning.

4.2.2 Neighborhoods and Community Cohesion

Neighborhoods and Community Cohesion

Large truck traffic subjects neighborhoods along the proposed *Reasonable Access Highways* to direct effects, such as noise and visual disruptions, pedestrian and bicycle safety concerns, and emissions. Safety concerns while engaging in crossing roads, walking, or bicycling on highways where large trucks are present can adversely affect the connectivity within neighborhoods.

There are approximately 43 cities, towns, villages and hamlets located along the *Reasonable Access Highways*. Increasing truck traffic impacts the cohesiveness, character and quality of life of these communities.

The specified highways often go through the center and core of neighborhoods. Maintaining connectivity through pedestrian and bicycle traffic is integral to upholding the cohesiveness of a neighborhood. If these highways are perceived to be dangerous places to cross for residents, including children and the elderly, normal social interactions within neighborhoods are reduced. Additionally, many of these neighborhoods have small stores and businesses with curbside parking. Large truck traffic may elevate the safety concerns of curbside parking, and result in less patronage of these stores and businesses. This, in turn, could reduce the economic viability of these businesses, which often contribute to the cohesiveness of these neighborhoods.

The preferred alternative would decrease large truck traffic on the proposed *Reasonable Access Highways* that pass through urban, village and community settings. Connectivity and mobility within neighborhoods would be enhanced due to an improved sense of safety for business patrons and people crossing these highways, or walking or cycling on or near these routes.

Exhibit **4.2.2a – Cities Villages and Hamlets along Reasonable Access Highways** describes the characteristics of neighborhoods along the proposed *Reasonable Access Highways*.

Exhibit 4.2.2.a - Cities, Villages and Hamlets along Reasonable Access Highways

Image	Locale	Along Route	Description	Source
	Waterloo (town and village)	96	"Waterloo, situated in the heart of the Finger Lakes area, is a community with a rich historic heritage. The Village has carved its niche in American history by being nationally recognized as the Birthplace of Memorial Day. Today the Village of Waterloo retains much of its historic past because so much of the architecture, infrastructure, and commitment to preserving its history have remained intact"	http://www.waterloony.com/
	Romulus	96, 89	"Seneca Army Depot opened here during World War II. The base...began a gradual closing in 1995 and has been redeveloped as a maximum-security prison and a facility for troubled youth. The fenced land of the former base houses is the habitat of one of the world's largest herd of white tail deer." [The Depot is partially bordered by Rt. 96]	http://www.epodunk.com/cgi-bin/genInfo.php?locIndex=1549
			The Hamlet of Romulus straddles the Towns of Varick and Romulus. The portion in the Town of Varick consists of approximately 61 single family homes and a 12-unit manufactured home park. A small number of businesses are located in the central part of the Hamlet. A Presbyterian Church and a post office are located within the Hamlet. Farmland adjoins the Hamlet. The bed of a former railroad that connected Romulus with MacDougal is visible to the west of houses along Route 96A. A large wetland is located northeast of the Hamlet. The former Seneca Army Depot is located immediately west of the Hamlet.	http://www.varickny.com/varick.html - comp. plan
	Fayette (town)	96, 89	"...most of the land area is agricultural. Houses are scattered along roads, with small concentrations in the hamlets and along the lakeshore. Several trends are evident in the subdivision and uses of land in Fayette and Varick...many new residences have been constructed in the countryside during the past 20 years."	http://www.varickny.com/varick.html - comp. plan
			The west town line is Seneca Lake, and the east town line is Cayuga Lake...The Church of Jesus Christ of Latter-day Saints was organized in the log cabin of Peter Whitmer, Sr., approximately 4.7 miles northwest of the village of Fayette.	http://www.nationmaster.com/encyclopedia/Fayette%2C-New-York

Exhibit 4.2.2.a - Cities, Villages and Hamlets along Reasonable Access Highways				
Image	**Locale**	**Along Route**	**Description**	**Source**
	Varick	96, 90	"Approximately three miles of Seneca Lake shoreline and three miles of Cayuga Lake shoreline are in the Town of Varick. Three wineries are located near the shoreline. Route 89, a designated Scenic Byway, is located near the shoreline and provides direct access to the residences on the lakeshore. Several trends are evident in the subdivision and uses of land in Fayette and Varick...many new residences have been constructed in the countryside during the past 20 years. Residential development in agricultural areas changes the character of the rural countryside... Additional traffic on rural roads may be impatient with farm vehicles that use the same roads."	http://www.varickny.com/varick.html - comp. plan
	Ovid (town and village)	96	"The Town of Ovid has diverse residential development, ranging form high density in the village and some areas of the shoreline to more scattered development in the remainder of the town. It is the intention of the Town to plan orderly growth, keeping in mind the protection of environmentally sensitive areas, the local economy, and the overall quality of life for area residents. Historically, agriculture has played a vital role in preserving the integrity of our town by maintaining quality agricultural land, providing jobs, maintaining open spaces, and expanding tourism."	http://townofovid.com/Comprehensive%20Plan.htm
			"Nestled between Seneca and Cayuga Lakes in the center of New York's Wine Country"	http://townofovid.com/index.htm
	Sheldrake Springs	96		
	Interlaken	96		

Exhibit 4.2.2.a - Cities, Villages and Hamlets along Reasonable Access Highways				
Image	**Locale**	**Along Route**	**Description**	**Source**
	Covert (town)	96, 89		
	Trumansburg	96	"The Village of Trumansburg has a small town, upbeat atmosphere that welcomes locals and visitors alike to stop by for a day or to stay for awhile. Main Street (Route 96) is a unique blend of historical and contemporary architecture, with its diversity of shops and services. The Village provides an assortment of restaurants, a weekly Farmers Market featuring local produce and crafts, and a vibrant nightlife with plenty of live music, all within walking distance of each other. Walking through the Village will give you a glimpse of homes and businesses in architectural styles such as Gothic, Italianate, and Federal. Historical markers note places of interest such as the Camp House, Abner Treman's initial settlement site, and the path of Sullivan's Army during the Revolutionary War."	http://www.trumansburgchmaber.com
			"Trumansburg is a unique village with an active community... wine trails to hiking trails....Taughannock Falls (215 feet tall Taughannock Falls is the highest single-stage waterfall in the northeastern U.S. The scenic trails to the falls are open year round); Smith Woods (small, quiet woods on the edge of the village, excellent for short nature walks); Historic Camp House (Trumansburg's grandest home, built by Col. Hermon Camp.)"	http://www.trumansburg.ny.us/

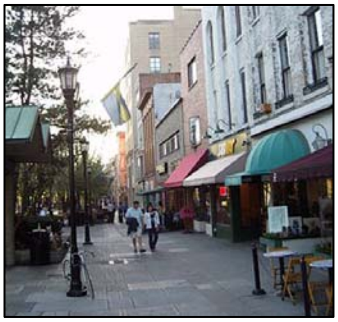
Exhibit 4.2.2.a - Cities, Villages and Hamlets along Reasonable Access Highways				
Image	**Locale**	**Along Route**	**Description**	**Source**
	Ulysses	96	"Ulysses is a unique area of central New York located in Tompkins County and part of the Finger Lakes Region. Ulysses is a vast country town just minutes away from the city of Ithaca, Cornell University and Ithaca College. The area is well known for its spectacular beauty and peaceful surroundings. The Finger Lakes Region attracts people from all over the world and is famous for it's long narrow lakes and also for the waterfalls and streams that feed them. One of the most popular attractions of Ulysses is Taughannock Falls. The falls is the tallest in northeast America, plummeting from a height of 215 ft."	http://www.ulysses.ny.us/
	Jacksonville	96	"Jacksonville is a small community...in Tompkins County, central New York. Some folks refer to Jacksonville as a hamlet. This area of the state is part of what is known as the Finger Lakes region of New York, an area abundant with beautiful parks, lakes, and waterfalls. Of the eleven finger lakes, Cayuga Lake is the closest, just a few miles east. In a mixture of farm fields, forest, historic homes, and some newer neighborhoods, Jacksonville is a close-knit community with a village-like atmosphere where some farming still takes place. The township of Ulysses is both spectacular in beauty and interesting with it's rich historical heritage. This community of Jacksonville was named in honor of President Andrew Jackson in 1815."	http://www.jacksonvilleny.com/
	Ithaca	96, 89, 79	"Nestled in the beautiful Finger Lakes region of upstate New York - a quality of life that is nationally recognized - a community of artists, writers, and performers. Ithaca is home to some of the world's leading scientists and researchers, and boasts a business environment that values intellect, achievement, and success. Theatre and the arts abound in the region, and our local eateries are guaranteed to serve up your ethnic cuisine of choice. Ithaca is a very active and energetic community; we have outdoor recreation and sport choices for each of the four seasons. Residents of the City of Ithaca enjoy a safe and healthy small town neighborhood environment."	http://www.ci.ithaca.ny.us/

Exhibit 4.2.2.a - Cities, Villages and Hamlets along Reasonable Access Highways				
Image	**Locale**	**Along Route**	**Description**	**Source**
	Dryden (Town)	79		http://dryden.ny.us
	Caroline	79	"Caroline is a small town with a unique character and strong sense of community... located just southeast of the Town of Ithaca. The area is made up of beautiful rolling hills, farms, and several small communities. We have more State forest land in Caroline than any other town in Tompkins County."	http://townofcaroline.org/
	Slaterville Springs	79		
	Richford	79	"The center of town is the intersection of NYS Routes 38 and 79 in the hamlet of Richford. The Michigan Hill State Forest encompasses 25% of the Town and is great for hiking and cross-country skiing. The old Richford Schoolhouse is being restored ... The Town hosts an annual potato festival and boasts about being the birthplace of John D. Rockefeller."	http://www.tiogacountyny.com/towns_villages/richford.php
	Lisle (town and village)	79		

Exhibit 4.2.2.a - Cities, Villages and Hamlets along Reasonable Access Highways				
Image	**Locale**	**Along Route**	**Description**	**Source**
	Seneca Falls (town)	89	"Cayuga Lake State Park's [Rt. 89 runs through it] terrain is flat at lakeshore, where the beach and sun lawns are, then slopes gently uphill to campsites and cabins. The scenic highlight of the park is its expansive view of Cayuga Lake. In the shallow water near the park, largemouth bass, bullheads and carp thrive. In deeper water, anglers can catch northern pike, small mouth bass, lake trout, landlocked salmon and many other varieties of fish. The park has a boat launch, playground, playing field and recreation building."	http://www.senecafalls.com
			"Seneca and Cayuga Lakes are seconds away, offering recreation water sports and tremendous fishing. Transportation - Seneca Falls offers excellent cargo rail service, and major thoroughfare for trucking."	http://www.senecafalls.com
	East Varick	89		
	Cayuga	90		http://co.cayuga.ny.us/cayugavil/index.html
	Aurelius	90		http://co.cayuga.ny.us/aurelius/index.html
	Union Springs	90	"Union Springs is beautifully located on a bay of the east shore of Cayuga Lake, longest of the Finger Lakes. ...the name is derived from the many springs within its boundaries. Two of the largest, dammed to form ponds, were the source of power for the earliest industries. Other springs have a strong taste of sulfur and contain various minerals of interest to the geologist. Union Springs at one time had a considerable reputation as a health resort. The extensive and valuable minerals, gypsum and limestone found in this section played an important part in the industrial development of the town."	http://co.cayuga.ny.us/unionsprings/our_village/index.htm
	Springport	90		http://co.cayuga.ny.us/springport/

Exhibit 4.2.2.a - Cities, Villages and Hamlets along Reasonable Access Highways				
Image	**Locale**	**Along Route**	**Description**	**Source**
	Ledyard	90	"The Town of Ledyard lies upon the east shore of Cayuga Lake, which forms its western boundary...The surface of the land is beautifully diversified, its landscapes, however, present less of the grand and sublime nature, than of its quiet beauty. The land inclines towards the lake, from which it slopes upward, generally by gentle, but occasionally by steep gradations, until it attains an elevation of 500-600 feet above the lakes level, a little east of the east border."	http://www.cayugacounty.us/ledyard/our_town/index.htm
	Aurora	90	"Public access to the lake by parks and docks allows residents and visitors to experience serenity and stunning sunsets. Situated along scenic byway Route 90, Aurora is 20 minutes south of Auburn and 40 minutes north of Ithaca. MacKenzie-Childs to the north and Wells College to the south bookend Main Street. Along this street there are great places to shop, dine and stay the night."	http://www.auroranewyork.us/Government.html
	Genoa (town)	90	"Agriculturally based enterprises have been the mainstays of the town's economy. In its early history various grist mills and saw mills sprang up but exist now only in photographs or in scanty remains at their sites. Both threshing machines and steam tractors were once manufactured at Genoa village and King Ferry briefly had a glove factory. Currently, both hamlets have hotel accommodations and restaurants. In the western part of town there is a winery and a marina. In the eastern hamlet there is Smith's IGA, established in 1890, which still serves the community today. A golf course to the south in Lansing borders on the town line. Hand-crafting includes upholstering, furniture, pottery, and ceramics production."	http://www.cayugacounty.us/genoa/ourtown/history/index.htm
	King Ferry	90	"Both threshing machines and steam tractors were once manufactured at Genoa village and King Ferry briefly had a glove factory. Currently, both hamlets have hotel accommodations and restaurants. Last but not least, the famous Ithaca gun is manufactured at King Ferry."	http://www.cayugacounty.us/genoa/ourtown/history/index.htm
	Locke	90		http://co.cayuga.ny.us/locke/

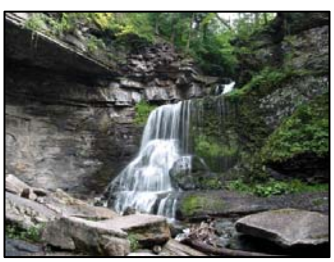
Exhibit 4.2.2.a - Cities, Villages and Hamlets along Reasonable Access Highways				
Image	**Locale**	**Along Route**	**Description**	**Source**
	Summerhill (town)	90		
	Auburn	38	"...Auburn, a community of comfortable, quiet neighborhoods, historic homes and a wide variety of cultural institutions."	http://auburnny.virtualtownhall.net/Public_Documents/index
			"The City of Auburn Comprehensive Plan views Auburn as a complete city with a small town quality of life. A complete city provides its citizens with a wide range of housing types, opportunities for employment and recreation, public facilities of all kinds, and a vital downtown. A small town quality of life means a sense of friendliness, safety, and the ability of citizens to personally influence their city's civic, social and cultural life."	1991 Auburn Comprehensive Plan Summary
	Fleming	38	"The Town of Fleming is comprised of a mix of rural, suburban and lakefront uses that provide a unique quality of life for residents. The Town of Fleming desires a balance between future development and protection of rural and lakeside character."	2008 Addendum to Town of Fleming Comprehensive Plan
	Scipio	38		
	Cascade	38		
	Moravia (town and village)	38	"Moravia is located at the south end of Owasco Lake. At the village edge is Fillmore Glen State Park with nature trails, campsites, picnic pavilions and a replica of the log cabin in which US President Millard Fillmore was born nearby. The village boasts a variety of examples of 19th and 20th century architecture, many of which are listed on the National Register of Historic Places."	http://co.cayuga.ny.us/villageofmoravia/ourvillage/history/index.htm

Exhibit 4.2.2.a - Cities, Villages and Hamlets along Reasonable Access Highways				
Image	**Locale**	**Along Route**	**Description**	**Source**
	Skaneateles (town and village)	41, 41A	"The high quality of life that Skaneateles enjoys is one factor that has helped to attract and keep local businesses. Because of the dramatic appeal of its beautiful lake, central portions of Skaneateles have achieved the widespread image of a charming, desirable residential community and tourist destination. Clearly, the most important natural feature of the Skaneateles area is the lake. Because of its extreme attractiveness, the lake has become a major target for economic, recreational and residential development."	2005 Skaneateles Town and Village Joint Comprehensive Plan
			Set on a jewel-clear lake in central New York State, the Skaneateles area is home to a thriving residential and business community, and host to thousands of visitors and vacationers each year. In the historic downtown district, shops and galleries are housed in restored buildings dating back to 1796. Browse for unique foods, distinctive fashions, original art, home accessories, or a special antique. Relax at a restaurant or tavern; the atmosphere may be casual and lively or quietly gracious, but the menu is always tempting. Visitor accommodations include inns, bed-and-breakfasts, motels and cottages.	www.skaneateles.com
	Owasco	41A	"More than one half of the Town's land area is used for agricultural production. A residential neighborhood in the northwestern portion of the Town, adjoining the City of Auburn, contains a majority of the Town's housing and consists primarily of dwellings constructed in the 1920's and 1930's. Newer subdivisions have been constructed south of Melrose Road and east of Owasco Road during the 1980's and 1990's. Seasonal dwellings and an increasing number of year-round homes are located along the lakeshore. Business development in the Town is limited to a small number of sites that had been developed for business . These include a plaza, florist, liquor store, restaurants, and other small businesses. Public parks and recreational facilities include Cayuga Counties Emerson Park, located at the north end of Owasco Lake, and Town playgrounds. Private recreational facilities include the Owasco Yacht Club, Cayuga County Sportsman's Club, Camp Columbus, and three golf courses."	Town of Owasco Comprehensive Plan

Exhibit 4.2.2.a - Cities, Villages and Hamlets along Reasonable Access Highways				
Image	**Locale**	**Along Route**	**Description**	**Source**
	Niles (town and village)	41A		
	New Hope	41A		
	Sempronius (town and village)	41A		
	Spafford (town and village)	41	"Spafford's high terrain, between two of the Finger Lakes, provides spectacular scenery. Spafford is largely rural, with only small hamlets, and retains many forested areas, some protected as public preserves...Part of the town lies between Skaneateles Lake and Otisco Lake, two of the Finger Lakes."	www.NationMaster.com
	Borodino	41		
	Scott (town and village)	41	"The Town of Scott is at the southern end of Skaneateles Lake. State Route 41, Grout and Factory Brooks run through the Town. The principal population center is in the Hamlet of Scott. The Town consists of rolling hills. The climate is typical of the latitude with some tempering because of the proximity to Skaneateles Lake and the other Finger Lakes."	http://www.cortlandbusiness.com/county/profiles/scott.html
	Homer (town and village)	41	"The Town of Homer consists of rolling hills, a number of small lakes, and two large fertile valleys. The Village of Homer [has a] central Green surrounded by churches and schools, reflect[ing] the New England heritage of the first settlers. Throughout the large historic district of the Village, which is on the National Register, are dozens of elegant, well-maintained homes built in an array of 19th Century styles. There are also several handsome public and commercial buildings at the center of the Village."	http://www.cortlandbusiness.com/county/profiles/homer.html

Home and Business Relocation

This action would not require relocations of homes or businesses.

Effects Assessment

Residents along the proposed *Reasonable Access Highways* have asserted that large truck traffic negatively impacts their quality of life. Negative impacts include noise and visual disruptions, emissions, and concerns about safety on state highways in village and community settings, state tourism areas, school areas, environmentally and historically unique areas, scenic byways and designated bike routes. There is also concern about increased wear on pavement surfaces in some communities that are responsible for maintenance of these highways.

The preferred alternative would improve quality of life, enhancing neighborhood and community cohesion by reducing the number of large trucks, and lessening negative impacts attributed to large truck traffic, along *Reasonable Access Highways*.

4.2.3 Social Groups Benefited or Harmed

Elderly and Disabled

According to the 2000 U.S. Census, 19% of the State's population, over age 5, has a disability, and 13% of the State's population is over age 65. It is assumed that populations along affected routes approximately reflect these percentages.

The presence of large truck traffic may have more of an impact on the quality of life of elderly and disabled residents adjacent to the proposed *Reasonable Access Highways*. These residents may have less opportunity to leave their homes due to decreased mobility, and would be continuously exposed to more of the emissions from truck traffic. These residents may also experience increased noise and visual disruptions. Their decreased mobility at street crossing raises concerns for their safety in an environment with large truck traffic.

The preferred alternative would reduce the volume of large truck traffic on the proposed *Reasonable Access Highways*, and improve quality of life for these residents by reducing noise and visual disruptions and improving air quality. Reducing large truck traffic could also contribute to an improved sense of safety and an improved comfort level for elderly and disabled individuals and motorists.

While elderly and disabled motorists also utilize the National Network where large through truck traffic would increase slightly, the affect of slightly more large truck traffic on the National Network is much less than its effect in a community setting which is centered on a Reasonable Access Highway.

Transit Dependent, Pedestrians, and Bicyclists

Concerns about the safety of crossing highways, or walking and bicycling on highways used by large trucks, can negatively impact pedestrians and cyclists. Safety of bicyclists is of particular concern on designated bike routes that are being used by large trucks. (Refer to *Appendix CA – Accident Analysis* Section 5.1.3 Pedestrian and Bicycle Collisions with Trucks and *Appendix B – Environmental Information* for regional maps showing the location of Designated Bike Routes.) Large truck pedestrian and bicycle accident rates were evaluated while selecting the recommended *Reasonable Access Highways*. (Refer to *Appendix I – Evaluation of Identified Short Cut Routes and Reasonable Access Highways*.) The preferred alternative would improve safety for pedestrians and bicyclists on specific highways by reducing the potential for conflict between pedestrians/bicyclists and large trucks.

Low Income, Minority and Ethnic Groups/Environmental Justice – Title VI

Title VI - Environmental Justice, as defined by the U.S. Environmental Protection Agency, is "the fair treatment and meaningful involvement of all people regardless of race, color, natural origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of Federal, state, local, and tribal programs and policies."

Title VI - Environmental Justice requires a review of projects for disproportionately high and adverse effects on Minority and Low-Income Populations. Possible adverse impacts to consider include; air, noise, destruction or disruption of community cohesion or economic vitality, destruction or disruption of the availability of both public and private facilities and services, displacement of persons, businesses, farms, or nonprofit organizations; and increased traffic congestion.

Environmental Justice Areas located on the proposed *Reasonable Access Highways* are generally in small cities and villages, where the homes are close to the roadway. With large truck traffic on these highways, there are resultant air emissions, noise disruptions/annoyances, and concerns for the safety of pedestrians and bicyclists. The close proximity of these residences to large truck traffic exacerbates these negative impacts.

Low income residents are more dependent on pedestrian and bicycle modes of travel, and these modes are important in maintaining community cohesion. Large truck traffic compromises the ease and safety of pedestrians and bicyclists, creating a barrier that pedestrians and bicyclists tend to avoid, resulting in disruptions to community cohesion.

The preferred alternative would reduce the number of large trucks passing through Environmental Justice Areas on the proposed *Reasonable Access Highways* and some intersecting highways. This would benefit these neighborhoods with reduced noise levels, reduced air emissions, fewer noise disruptions, and improved community cohesion resulting from an improved sense of safety for pedestrians and bicyclists.

NY Route 38A is one of the intersecting highways that will be positively impacted by the preferred alternative. While it is not specified as a *Reasonable Access Highway*, it begins and terminates on NY Route 38, a *Reasonable Access Highway* where large trucks will be limited to reasonable access. Exhibit 4.2.3.a shows the character of the roadway in an Environmental Justice Area.

Exhibit 4.2.3.a Route 38A Environmental Justice Area

The National Network routes, where large trucks will remain, also pass through Environmental Justice Areas. However, additional truck traffic on National Network routes will not impact pedestrians and cyclists, since they are limited access highways and do not allow pedestrians or bicyclists. The preferred alternative is expected to result in a negligible increase in truck traffic on these National Network, resulting in negligible increases of noise and impacts to air quality (refer to sections 4.4.15 and 4.4.17).

Exhibit 4.2.3.b shows an Environmental Justice Area along the typical four-lane divided highway area of a National Network route.

Exhibit 4.2.3.b – I-81 Environmental Justice Area along the National Network

Environmental Justice Areas located along the proposed *Reasonable Access Highways* are shown in Exhibit 4.2.3.c, along with the Environmental Justice Areas located along the corresponding alternate National Network routes.

Exhibit 4.2.3.c Environmental Justice Locations in the Preferred Alternative Area	
Reasonable Access Highways	**Alternative National Network Routes**
Portions of City of Ithaca	Portions of City of Syracuse
Portions of City of Moravia	Onondaga Indian Nation
Portions of City of Auburn	Portions of City of Cortland

4.2.4 School Districts, Recreational Areas, Places of Worship

School Districts

The presence of large trucks has created concerns for the safety of people accessing schools, using pedestrian crossings, or using school bus stops along the proposed *Reasonable Access Highways*. Residents near these routes have expressed particular concern about student safety in and around school zones. Truck accidents involving pedestrians are typically more severe than pedestrian accidents with passenger cars. School age children are generally less visible, and less aware of their surroundings than adult pedestrians.

In addition, large truck traffic is a source of visual and noise disruptions, and emissions which are particularly undesirable near sensitive receptors like school age children. There are 31 schools, as shown in Exhibit 4.2.4.a, located along, or within ½ mile access, of the proposed *Reasonable Access Highways*. There are no schools located along the National Network route alternatives.

The preferred alternative would reduce the number of large trucks passing schools located on the proposed *Reasonable Access Highways*, improving the environmental quality of these schools. Reducing large truck traffic would reduce visual disruptions, noise disruptions, and emissions along specified highways. Additionally, a reduction in the number of large trucks could relieve some of the expressed concerns over the safety of accessing schools, particularly with regard to children walking to school. Schools within 1 mile of the *Reasonable Access Highways* will have children walking on these routes.

The preferred alternative is expected to result in a negligible increase in truck traffic on the National Network. Since access is full controlled on the National Network System, there is no potential for truck interaction with pedestrians and school buses picking up and dropping off students, as there is along *Reasonable Access Highways*.

Exhibit 4.2.4.a School Districts on the Reasonable Access Highways			
Route	**School District**	**Schools Directly on Highway**	**Schools within ½ mile of Highway**
NY 96	Waterloo		Main Street Elementary School (Grades K – 5 with approximately 117 students)
			St. Mary's School [private] (Grades Pre-K – 8, # of students not available)
			Waterloo Middle School (Grades 6 – 8 with approximately 546 students)
			Skoi-Yase School (Grades Pre-K – 2 with approximately 420 students)
	Romulus	Romulus Junior/Senior High School (Grades 7 – 12 with approximately 286 students)	
		Romulus Elementary School (Grades Pre-K – 6 with approximately 300 students)	
	Interlaken	Interlaken Christian School [private] (Grades K – 12, # of students is not available)	
		South Seneca Elementary School (Grades Pre-K – 5 with approximately 407 students)	
	Trumansburg		Trumansburg Elementary School (Grades K – 4 with approximately 418 students)
			Russell I. Doig Middle School (Grades 5 – 8 with approximately 466 students)
			Charles O. Dickerson High School (Grades 9 – 12 with approximately 471 students)
NY 79	Ithaca		Alternative Community School [private] (no information currently available)
			Beverly Martin Elementary School (Grades Pre-K – 5 with approximately 243 students)
			South Hill School (Grades Pre-K – 5 with approximately 375 students)
			Belle Sherman School (Grades Pre-K – 5 with approximately 357 students)
			Immaculate Conception School [private] (Grades Pre-K – 8 with approximately 180 students)
	Caroline	Caroline Elementary School (Grades Pre-K – 5 with approximately 304 students)	

Exhibit 4.2.4.a School Districts on the Reasonable Access Highways			
Route	**School District**	**Schools Directly on Highway**	**Schools within ½ mile of Highway**
NY 79	Whitney Point		Whitney Point Senior High (Grades 9 – 12 with approximately 603 students)
			Whitney Point Intermediate School (Grades 3 – 5 with approximately 285 students)
	Cayuga		Cayuga Elementary School (Grades K – 3 with approximately 263 students)
	Union Springs	Union Springs Middle/ High School (Grades 7 – 12 with approximately 557 students)	Union Springs Academy (Grades 9 – 12 with approximately 65 students)
			Andrew J. Smith Elementary School (Grades 4 – 6 with approximately 216 students)
NY 90	Homer	Homer Elementary School (Grades K – 5 with approximately 442 students)	Homer Senior High School (Grades 9 – 12 with approximately 746 students)
NY 38	Moravia	Moravia Junior Senior High (Grades 7 – 12 with approximately 547 students)	
		Millard Fillmore Elementary School (Grades K – 6 with approximately 569 students)	
	Auburn	Auburn High School (Grades 9 – 12 with approximately 1,511 students)	
			William H. Seward Elementary School (Grades K – 5 with approximately 439 students)
NY 41	Homer	Homer Intermediate School (Grades 3 – 6 with approximately 584 students)	
		Homer Junior High School (Grades 7 – 8 with approximately 390 students)	
Totals		**12 Schools (5,897+ Students)**	**19 Schools (6,210+ Students)**

There are also two institutions of higher learning which have facilities on two of the proposed *Reasonable Access Highways;* Wells College on Route 90, and Cornell University, which has off-campus facilities and off-campus housing on Route 79. A description of these facilities is shown in Exhibit 4.2.4.b - Colleges and Universities on the *Reasonable Access Highways*.

Exhibit 4.2.4.b - Colleges and Universities on the Reasonable Access Highways	
Cornell University – Route 79	
	"Widely admired as one of the world's most beautiful academic settings, the campus was once the family farm of the university's co-founder, Ezra Cornell… Founded in 1865 as both a private university and the land-grant institution of New York State, this distinctive blend of public and private colleges and programs continues to reflect a heritage of egalitarian excellence, making Cornell the most educationally diverse university in the Ivy League." Today, the Campus Enrollment totals 19,639 students who reside both on campus and in the surrounding area."
Wells College – Route 90	
	"Wells is located in the village of Aurora in the Finger Lakes region of central New York. Situated on more than 300 scenic acres overlooking Cayuga Lake, the College offers the simplicity and safety of village living and easy access to metropolitan and educational centers. Wells College was founded in 1868 and today its student body consists of 540 students."

Recreational Areas

The presence of large trucks has created concerns for the safety of people accessing recreational areas along the proposed *Reasonable Access Highways*. Additionally, large truck traffic causes visual and noise disruptions and emissions, which are undesirable near areas where passive and active outdoor recreational activities are pursued. Residents and tourists visit recreational areas, in part, for the area's safety, tranquility, aesthetics, and clean air. Outdoor recreational activities, including walking and bicycling, are less enjoyable in proximity to large trucks, due to perceived and actual safety issues, the intimidation factor of these large vehicles, and the presence of frequent noise and visual disruptions. This, in turn, can lessen the popularity of these areas.

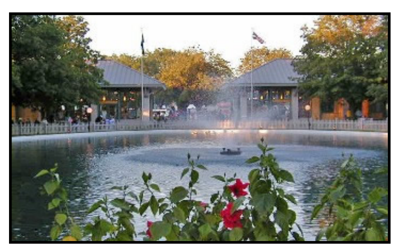
Exhibit 4.2.4.c is a listing of the larger State and Federal parks located along the proposed *Reasonable Access Highways* and those adjacent to the alternate National Network route. Exhibit 4.2.4.d provides descriptions of each of the parks.

Exhibit 4.2.4.c State and Federal Parklands (Large Parkland Areas)	
Adjacent to Specified Reasonable Access Highways	**Adjacent to National Network System**
Allan Treman State Marine Park – Route 89	Montezuma National Wildlife Refuge – I-90
Bear Swamp - Route 41A	Whitney Point Lake – I-81
Canoga Marsh WMA – Route 90	Junius Pond Unique Area – I-90
Cayuga Lake State Park – Route 89	Hoxie George State Forest – I-81
Deans Cove Marine Park – Route 89	State Park at the Fair – I-690
Long Point State Park – Route 90	
Fillmore Glen State Park – Route 38	
Northern Montezuma WMA – Route 90	
Potato Hill State Forest – Route 79	
Summerhill State Reforestation Area – Route 90	
Taughannock Falls State Park – Route 79	
Turkey Hill State Forest – Route 79	

Exhibit 4.2.4.d – Descriptions of State and Federal Parklands		
Location	**Description**	**Photo**
Allan Treman State Marine Park – Route 89	Allan H. Treman State Park is one of the largest inland marinas in New York State. It boasts 370 seasonal, 30 transient and 30 dry boat slips. The park has picnic areas and playing fields and provides access to the Barge Canal and Seneca Lake. MARINA ONLY - No Camping. The duration for seasonal slips is from May 1 through the 3rd Monday in October.	
Bear Swamp State Forest – Route 41A	This 3,316-acre forest offers trout fishing, hunting for deer, rabbit, squirrel & ruffled grouse, wild turkey season in the spring. 13-mile trails, snowshoeing, snowmobiling, cross-country skiing and wilderness camping.	
Canoga Marsh Wildlife Management Area – Route 89	This natural wetland area is one of the few freshwater marshes on Cayuga Lake. The marsh provides valuable habitats for fish spawning, marsh birds, waterfowl and songbirds. Deer, raccoons, and other mammals are commonly seen on the area. The area allows hunting, fishing, picnicking, trapping, nature study, hiking, birding, boating, cross-country skiing, and photography. This area is open from sunrise to sunset.	

Exhibit 4.2.4.d – Descriptions of State and Federal Parklands		
Location	**Description**	**Photo**
Deans Cove Marine Park – Route 89	Dean's Cove Boat Launch on Cayuga Lake is a boat launch site, including power boats, with fishing access. No other facilities. The facility is open year round.	
Long Point State Park – Finger Lakes – Route 90	The park provides boat launch facilities, a beach with swimming area, picnic areas, and fishing access.	
Northern Montezuma Wetland Management Area – Route 90	Emergent marshes and impoundments, forested wetlands, old fields, meadows, farm fields and woodlands provide a diversity of habitats and wildlife. Resident wildlife and fall migrations of shore birds, raptors, waterfowl and songbirds offer opportunities for many kinds of wildlife recreational activities. Public hunting, trapping and fishing are encouraged in accordance with State Fish and Wildlife Laws and Regulations. Hiking biking and canoeing are allowed. Prohibited activities include motorized vehicles beyond barrier gates, use of off-road vehicles, motorized boating, overnight mooring of boats, swimming, camping, removal or destruction of vegetation, and littering.	
Fillmore Glen State Park – Route 38	Named in 2007 as one of the Top 100 Campgrounds in the Nation. Fillmore Glen State Park is an oasis of cool, dense woods crowding into a long, narrow gorge. Its hiking trails offer spectacular views, unique geological formations, including five waterfalls, and a botanically rich glen. The park has 60 campsites, a stream-fed swimming pool and fishing in the Owasco Lake inlet. In the winter, hiking, cross-country skiing and snowmobiling are permitted on unplowed roads.	

Exhibit 4.2.4.d – Descriptions of State and Federal Parklands		
Location	**Description**	**Photo**
Potato Hill State Forest – Route 79	915 acres of recreational activities such as hunting, hiking, snowmobiling, camping, bird watching, mountain biking, informal horseback riding, and snowshoeing. Nature observation and hunting are easy and exciting with over 53 species of mammals predicted or confirmed in the area.	
Summerhill State Reforestation Area – Route 90	4,355 acres of dense forest land. Recreational activities include snowmobiling, cross country skiing, hiking, hunting, trapping, wildlife viewing, and informal horseback riding. No camping within 150 feet of open water, roads, or trails. Almost completely forested, the area provides protection and solace for an estimated 51 mammal species, 126 bird species, 20 species of reptiles, and 23 species of amphibians.	
Taughannock Falls State Park – Route 79	Taughannock State Park also features hiking and nature trails, tent and trailer sites, cabins, picnic areas, beach swimming, fishing, playground areas, a marina launching site, ice-skating, sledding, cross-country skiing and an annual summer concert series. The falls cataract has an incredible drop of 215 feet (66 meters), and is one of the highest east of the Rocky Mountains The Park is open all year Mon-Fri, 8:00 AM to 4:30 PM; nights and weekends during summer with camping from March to mid October. The Rim trail closes in winter.	
Turkey Hill State Forest – Route 79	1,108 acres of recreational activities such as hunting, trapping, snowmobiling, bird watching, and nature viewing. Aside from the turkey, which is so common here that the forest was named for the bird, many other birds, mammals, reptiles and amphibians are confirmed or predicted in the area.	

Exhibit 4.2.4.d – Descriptions of State and Federal Parklands		
Location	**Description**	**Photo**
Montezuma National Wildlife Refuge – Route I-90	"A refuge and breeding ground for migratory birds and other wildlife. The refuge provides resting, feeding, and nesting habitat for waterfowl and other migratory birds. The 7,068 acre refuge is used by 242 species of birds, 43 species of mammals, 15 species of reptiles and 16 species of amphibians throughout the year."	
Whitney Point Lake – I-81	"Primarily operated for flood control, but is also used for recreation and upland wildlife management. The park has picnic facilities, restrooms, water taps and fountains, two 100-person picnic shelters, and a swimming beach with certified lifeguards and changing areas. Boats are allowed on the lake but they are limited to a 25 hp motor and a maximum speed of 10 mph. Open for Recreation: Memorial Day to Labor Day - Beach/Boat Ramp: Open through October Campground: Open during hunting season"	
Junius Pond Unique Area – I-90	"Junius Ponds are considered meromictic lakes, which are natural lakes of glacial origin and are called "Kettle Ponds." The 172 acres provides access for a variety of activities including but not limited to hunting, fishing, trapping, hiking, canoeing, kayaking and camping."	
Hoxie Gorge State Forest - I-81	"Hoxie Gorge State Forest encompasses 2,064 acres of land. The Forest provides a wide variety of recreational, economic, and ecological services for the people of New York State."	
State Park at the Fair – I-690	"It is the smallest park within the New York State Office of Parks, Recreation and Historic Preservation agency. It highlights the many interpretive and recreational opportunities available throughout the 178 state parks and 35 state historic sites in New York."	

The preferred alternative improves the concerns of safety and comfort of accessing recreational areas located on or near the proposed *Reasonable Access Highways*, and benefits recreation areas by reducing noise disruptions caused by large trucks. The recreational areas listed in Exhibit 4.2.4.c, which are adjacent to the proposed *Reasonable Access Highways*, will experience reductions in visual and noise disruptions and emissions. The preferred alternative is expected to result in a negligible increase in truck traffic on the National Network. This would not adversely affect recreational areas located along National Network routes, which are generally located further away from the highway, due to the wider right-of-way widths associated with the National Network system. The National Network system is also access controlled, so it does not provide direct access to the recreational areas adjacent to it.

Places of Worship

The presence of large trucks can create concerns for the safety of people accessing places of worship. Places of worship often accommodate large gatherings of people for short periods of time, which generates and concentrates traffic, with people often utilizing state roads for parking. In these situations, there are a high number of pedestrian street crossings from parked vehicles, usually not at designated crossings.

Noise disruptions associated with large trucks are particularly undesirable near places of worship. There are approximately 49 Places of Worship located within 500 feet of the proposed *Reasonable Access Highways*, and none within the National Network (no access). A summary of the Places of Worship on *Reasonable Access Highways* and the alternative National Network route is shown in Exhibit 4.2.4.e.

Exhibit 4.2.4.e Places of Worship

Route Number	Adjacent to National Network System
NY 348	First Baptist Church of Moravia
	Christ United Church
	St. Matthews Church
	St. Patrick's Church
	Baptist Church
	Westminster Presbyterian Church
NY 90	St. Michael's Church
	Trinity United Church of Union Springs
	Church of St. Michael's
	Community Church of Levanna
	Presbyterian church of Aurora
	St. Paul's Church
	Chapel at Wells College
	St. Patrick's Church
	Covena Cornerstone Church
	Presbyterian Church of King Ferry
NY 90	Summerhill Church
	Congregational Church
	United Methodist Church
	St. Margaret's Church
NY 89	Fingerlakes Christadelph
NY 96	Methodist Episcopal Society
	St. Paul's Church
	Waterloo Memorial Day
	Presbyterian Society

Exhibit 4.2.4.e Places of Worship	
Route Number	**Adjacent to National Network System**
NY 96	Waterloo Baptist Church
	Romulus Presbyterian Church
	Seneca Mennonite Fellowship
	Interlaken Reformed Church
	First Baptist Church
	First Baptist Church of Christ
	First Presbyterian Church of Ulysses
	Trumansburg Episcopal Church
	Catholic Church
	Methodist Church and Parson
	Jacksonville Methodist Church
NY 79	Ithaca Community Recovery
	Immaculate Conception Church
	St. Johns Episcopal Church
	First Unitarian Society
	Bethel Grove Church
	St. Thomas Church
	Holcombville Church
	Methodist Episcopal Church
	Christian Fellowship Church
NY 41	Borodino Methodist Church
	Scott United Methodist Church
NY 41A	Sempronius Baptist Church
	Society of Friends

The preferred alternative would relieve concerns about safety, and improve the comfort level of people accessing places of worship located on the proposed *Reasonable Access Highways*. It would benefit people visiting these places by reducing the frequency of noise disruptions and decreasing emissions.

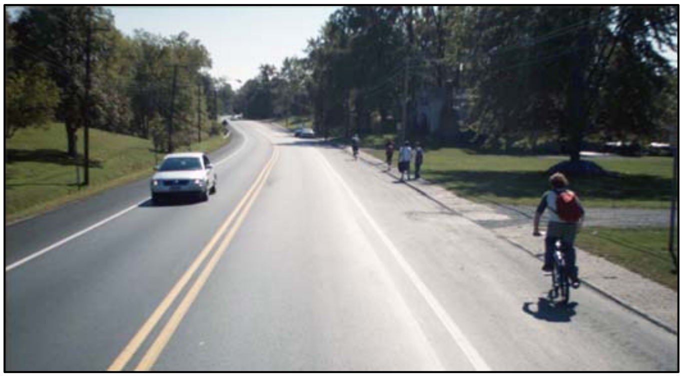
4.2.5 Quality of Life

Quality of life is subjective to the individual, and each person defines the factors that affect it differently. Many stakeholders have directed correspondence to NYSDOT indicating that the presence of large trucks genuinely impacts their quality of life in a negative way. Some local communities echo this sentiment within their Master Plans (Refer to *Appendix G – Stakeholders and Public Input* and Chapter 2. Exhibit 2.2.1.1). This was a recurrent opinion expressed at an August 12, 2008 Truck Outreach Stakeholder meeting, held in Syracuse by NYSDOT, and at a September 24, 2008 Public Information Meeting held by NYSDOT.

Large truck traffic can be a disruptive presence in the context of communities, especially those where schools, tourism or historic settings are present, where people engage in outdoor recreational activities, and where pedestrians and bicyclists are prevalent. Residents and tourists select these locations, in part, for their safety, tranquility, aesthetics, recreational opportunities and clean air. Large truck traffic degrades these qualities, creating visual and noise disruptions, and emissions.

Large trucks can create undesirable impacts on the environment, especially in terms of air pollution and noise. Diesel truck engines emit more nitrogen oxides, reactive hydrocarbons, and particulate matter per miles of travel than automobile internal combustion engines. As a result, trucks can affect public health by contributing to degraded air quality, both regionally and locally, where they pass close to sensitive receptors such as homes or schools. Large truck noise disruptions are particularly undesirable near residential neighborhoods, schools, parks and other locations where there are high levels of outdoor activity.

The distinctive quality of several of the proposed *Reasonable Access Highways* has been acknowledged in the past by the designation of the roadways as New York State Scenic Byways. These designations are meant to encourage tourism, car touring and bicycling, all activities associated with quiet and safe roadways. The presence of large truck traffic makes these roadways less desirable for bicycling and scenic touring activities.



The number of miles of designated State Scenic Byways located along *Reasonable Access Highways* is provided in Exhibit 4.2.4.f. There are no designated State Scenic Byways located along the corresponding alternate National Network routes.

Exhibit 4.2.4.f – Scenic Byways

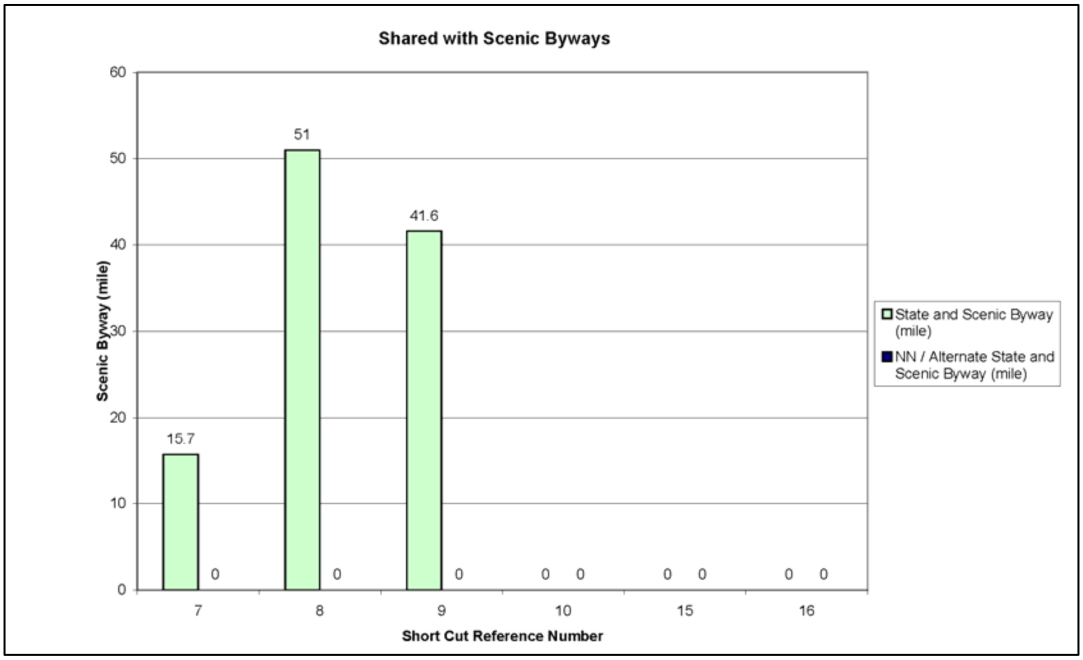


Exhibit 4.2.4.g – Views from Scenic Byways along Reasonable Access Highways

For nine of the communities along the proposed *Reasonable Access Highways*, the ‘downtown areas’ are designated Historic Districts by the National Register of Historic Places. These districts have become tourist destinations and have developed restaurants and specialty shopping, such as boutiques, antique stores and bookstores. They have cultivated a ‘strolling environment’, encouraging people to walk within the district, and during the summer tourist season, to dine outdoors in front of the buildings. Large truck traffic detracts from the qualities of these historic/business districts by generating noise and air emissions. This traffic also creates visual impacts and pedestrian safety concerns. Large trucks interrupt and block views for pedestrians and business patrons in Historic Districts.

The number of Historic Districts located along *Reasonable Access Highways* is shown in Exhibit 4.2.4.h, along with the number of Historic Districts along the corresponding alternate National Network routes.

Exhibit 4.2.4.h
National Register Historic Districts

Reasonable Access Highways	National Network Alternate Routes
East Hill Historic district – Ithaca – Route 79	Seneca River Crossing Canals Historic District (No buildings) - I-90
Dewitt Park Historic District – Ithaca – Route 79	
Aurora Village – Wells College Historic District - Route 90	
Covert Historic District – Route 96	
Old Homer Village Historic District – Route 41	
Church Street/Congress Street Historic District – Moravia – Route 38	

The preferred alternative would reduce the number of large trucks along specific highways. There is expected to be an improvement to the quality of life for the stakeholders who have raised their concerns to NYSDOT, and for highway users, especially pedestrians, bicyclists, and adjacent property owners along the identified routes. Since quality of life is subjective in nature, other factors may also contribute to the improvement.

Slightly increasing the large truck traffic on the National Network is not expected to adversely affect the quality of life of other users of this roadway system. Large trucks are typically expected to be encountered when using the National Network system. A description of the affected Historic Districts is shown in Exhibit 4.2.4.i.

Exhibit 4.2.4.i – Descriptions of Historic Districts along Reasonable Access Highways

East Hill Historic District – Ithaca – Route 79

The East Hill Historic District derives its greatest significance from the broad collection of architecturally and historically significant 19th and early 20th century residential, commercial and institutional buildings. The district includes many good and intact examples of popular American architectural styles and modes, including Greek Revival, Gothic Revival, Italianate, Second Empire, Shingle, Queen Anne, Renaissance Revival, Colonial Revival and Arts and Crafts. The architectural styles reflect the neighborhood's prestige and influence and the prominence Ithaca gained after the founding of Cornell University and the New York State College of Agriculture and Life Sciences.

Dewitt Park Historic District – Ithaca – Route 79

DeWitt Park was Ithaca's first local historic district, designated in 1971 and listed on the State and National Registers of Historic Places in the same year. The district is roughly centered on DeWitt Park and now, as in the early days of settlement, includes a concentration of the city's religious, education and governmental buildings and some of the city's earliest surviving residential structures. Fire, urban renewal and new construction have introduced some non-contributing buildings into the district and spurred the local movement to protect the city's historic character. In spite of losses the district contains a wealth of varied architectural styles, illustrating transitions in taste from the 1820 Federal-style Beebe-Halsey House just west of the park, to the 1930 Renaissance Revival style post office to the southeast.

Covert Historic District - Route 96

The Hamlet of Covert was designated a historic district in 1978. It's historically significant architecture is composed of Greek Revival, Federal, Gothic Revival styles constructed throughout the 19th and early 20th centuries.

Aurora Village – Wells College Historic District - Route 90

The historic village of Aurora, Cayuga County, New York rises on a hill above the eastern shore of Cayuga Lake. The village was named by Captain Benjamin Ledyard, who settled there in 1793. From that time until the mid-nineteenth century, Aurora played an important part in the history of Central New York. County seat for first Onondaga County and later Cayuga County, the village was also a leading market town in the region. A steam-powered flour mill was built in 1817, the first of its kind west of Albany, contributing to Aurora's importance as a commercial center. Aurora was an important shipping point for goods bound up the Lake and through the Erie Canal, until the canal's role was replaced by railroads in the mid-19th century. Aurora's second period of historic significance began in 1868, with the founding of Wells Seminary, later Wells College. In 1980, the Aurora Village-Wells College Historic District was entered on the National Register of Historic Places. The contributing architectural styles to the historic district include Early Republic, Late Victorian, Mid 19th Century Revival.

Homer Historic District

The Village of Homer was entered in the National Register of Historic Places in 1973. Founded in 1791 by Joseph and Rhoda Beebe and Mrs. Beebe's brother, Amos Todd, Homer was legally incorporated as a village in 1835. The village is the host of a variety of architectural styles including Federal, Greek Revival, Romanesque and Queen Anne as well as three lenticular truss bridges that have all been listed in the National Register of Historic Places

Church Street/Congress Street Historic District – Moravia – Route 38

The village of Moravia was in the Central New York Military Tract and is on the site of a former Native American village. Moravia village was founded in 1789 by John Stoyell, a veteran. It was then called "Owasco Flats." The Village of Moravia was incorporated in 1837 and re-incorporated in 1859 when enlarged. The Powers Library, erected in 1880, is the oldest continuously used library in New York. The historic district is host to examples of Italianate, Federal, and Greek Revival style architecture. It was added the National Register of Historic Places in 1994.

Seneca River Crossing Canals Historic District – I90

Listed on the State and National Registers of Historic Places in 2006, the 70-acre district on the Seneca River in the towns of Montezuma and Tyre illustrates 100 years of canal engineering. Contains intact portions of the original 1817-1825 Erie Canal, the Cayuga & Seneca Canal, the 1835-1862 enlarged Erie Canal, and the 1905-1918 New York State Barge Canal, as well as the archaeological remains of a lock tender's house and a commercial dry dock. The Richmond Aqueduct is the centerpiece of the district.

4.3 ECONOMIC

Regional and Local Economies

4.3.1 Business Districts

Established Business Districts:

The movement of goods utilizing trucks is an important part of the economic activity for established business districts. While some trucks serve these districts with deliveries, the districts receive little economic benefit from large through trucks, except for occasional purchases made during stops by truck operators (fuel, food, etc). Several established business districts are located along proposed *Reasonable Access Highways*. While local truck traffic must be maintained to keep Business Districts viable, large truck traffic impacts these districts negatively by contributing to noise, air and safety concerns that make these locations less desirable for shopping, dining, outdoor recreation and lodging.

The preferred alternative would benefit Established Business Districts along identified routes by improving conditions with regard to noise, air quality and perceived safety, and would make these districts more desirable places for shopping, dining, outdoor recreation and lodging, improving conditions for businesses and business districts associated with these activities.

There are approximately 119 restaurants located along the proposed *Reasonable Access Highways*. Large truck traffic may impact these restaurants several ways. The desirability of outdoor dining (where offered) will be diminished due to noise, diesel smells, and visual disruptions. The disruptive noise events may permeate into interior spaces. Where on-street parking is utilized (as an option or the only choice) there may be perceived safety issues. All of these factors may lead diners to select restaurants away from the specified highways, affecting the long term economic viability of the restaurants. Exhibit 4.3.a lists the restaurants along the proposed *Reasonable Access Highways*.

Exhibit 4.3.a – Restaurants Located Along Reasonable Access Highways			
Location	**State Highway**	**Restaurant**	**Address**
Whitney Point	Rt 11 & 79	Friend's Diner	2640 Main St
Whitney Point	Rt 11 & 79	Dominics Pizza Lucky Kitchen	7335 Collins St
Whitney Point	Rt 11 & 79	Aiello's Italian Restaurant	2677 Main St
Whitney Point	Rt 11 & 79	Pizza Joe Pizza III	2660 Main St
Whitney Point	Rt 79 / 11	Whitney Point Country Kitchen	2884 Route 11
Whitney Point	Rt 79 / 11	Sundae Shoppe	2908 Route 11
Whitney Point	Rt 79 / 11	Arby's	2946 Route 11
Whitney Point	Rt 79 / 11	McDonalds	2972 Route 11
Whitney Point	Rt 79 / 11	Subway	2969 Route 11
Lisle	Rt 79	Marty's Pizza & More	2086 River St
Center Lisle	Rt 79	Dudley Creek Diner	1453 Caldwell Hill Road
Richford	Rt 79	Country Folks Diner	13334 SR 38
Slaterville Springs	Rt 79	Dandy Mini Mart	2688 Slaterville Rd
West Slaterville	Rt 79	Celebrations Banquet Facility & Catering	2331 Slaterville Rd
Ithaca	Rt 79	Viva Cantina	101 N Aurora St
Ithaca	Rt 79	Just A Taste	116 N Aurora St
Ithaca	Rt 79	Sushi O Sake Japanese Restaurant	107 N Aurora St
Ithaca	Rt 79	Jade Garden Restaurants	113 N Aurora St
Ithaca	Rt 79	Simeon's On the Commons	224 E State ST
Ithaca	Rt 79	Sammy's Pizzeria & Restaurant	215 E State St
Ithaca	Rt 79	King David	171 E State St #109
Ithaca	Rt 79	Taste of Thai	216 E State St
Ithaca	Rt 79	Madeline's Restaurant	215 E State St #10
Ithaca	Rt 79	Mate Factor Café	143 E State St
Ithaca	Rt 79	Kilpatricks	118 N Tioga St
Ithaca	Rt 79	Banfi's Restaurant	130 E State St
Ithaca	Rt 79	Bella Pizza	171 E State St # 119
Ithaca	Rt 79	Benchwarmers	137 E State St # 139

Exhibit 4.3.a – Restaurants Located Along Reasonable Access Highways			
Location	**State Highway**	**Restaurant**	**Address**
Ithaca	Rt 79	Moonshadow Tavern	114 E State St
Ithaca	Rt 79	Samurai Japanese Restaurant	113 E State St
Ithaca	Rt 79	Mustard	113 S Cayuga St
Ithaca	Rt 79	Pizza Aroma	128 S Cayuga St
Ithaca	Rt 79	Lost Dog Café	106 S Cayuga St
Ithaca	Rt 79	Brotchen	128 E State St
Ithaca	Rt 79	Mahogany Grill Manhattan Bagel Co	112 N Aurora St
Ithaca	Rt 79	Jimmy John's Gourmet Sandwiches	122 N Aurora St
Ithaca	Rt 79	State Diner of Ithaca Inc	428 W State St
Ithaca	Rt 79	Subway	220 E State St
Ithaca	Rt 79	Ragmann's	108 N Aurora St
Ithaca	Rt 79	Café Dewitt	215 N Cayuga St # 76
Ithaca	Rt 79	Fine Line Bistro	404 W State St
Ithaca	Rt 79	Felicia's Atomic Lounge	508 W State St
Ithaca	Rt 79	Blue Stone Bar and Grill	110 N Aurora St
Ithaca	Rt 79	Ithaca Ale House Grill & Taproom	111 N Aurora St
Ithaca	Rt 79	Maxie's Supper Club & Oyster	635 W State St
Ithaca	Rt 79	Greenstar Cooperative Market	701 W Buffalo St
Ithaca	Rt 79	College Town Bagels	203 N Aurora St
Ithaca	Rt 79	Shortstop Deli	204 W Seneca St
Ithaca	Rt 79	Taste of Thai Express Thanh Restaurant	526 W State St
Ithaca	Rt 79	Abby Barbeque	171 E State St
Ithaca	Rt 79	Gimme Coffee	506 W State St
Ithaca	Rt 79	Felicia's Atomic Lounge	508 W State St
Ithaca	Rt 79	Kilpatricks	118 N Tioga St
Ithaca	Rt 79	Zaharis Enterprises	805 W Buffalo St
Ithaca	Rt 79	Sangam Indian Cuisine	171 E State St

Exhibit 4.3.a – Restaurants Located Along Reasonable Access Highways			
Location	**State Highway**	**Restaurant**	**Address**
Ithaca	Rt 79	Hal's Delicatessen & Sandwich Shoppe	115 N Aurora St
Ithaca	Rt 79	Asia Cuisine	126 N Aurora St
Ithaca	Rt 79	Hai Hong Restaurant	602 W State St
Ithaca	Rt 79	Letter's Café	109 S Cayuga St
Ithaca	Rt 79	Pete's Cayuga Bar	116 S Cayuga St
Ithaca	Rt 79	Juna's Café	146 E State St
Ithaca	Rt 79	Les Ducs	113 S Cayuga St
Ithaca	Rt 79	Max's Classic American Grill	222 S Cayuga St
Ithaca	Rt 79	A-1 Zone Best Calzones	215 E State St
Ithaca	Rt 79	Golden Rice Restaurant	308 E Seneca St
Ithaca	Rt 79	Micawber's Pub	118 N Aurora St
Ithaca	Rt 79	Gino's New York Pizzeria	106 N Aurora St
Ithaca	Rt 79	Gepetto's Pizzeria	404 W State St
Ithaca	Rt 79	Palace Exotic Submarine & Sandwich Shop	215 E State St
Ithaca	Rt 79	B & J Underground Café	114 N Cayuga
Ithaca	Rt 79	Harvest Deli	171 E State St
Ithaca	Rt 79	Capital Corner Restaurant	118 W State St
Ithaca	Rt 79	O'Leary's Irish Pub	632 W Seneca St
Ithaca	Rt 89	Boatyard Grill	525 Old Taughannock Blvd
Ithaca	Rt 89	Glenwood Pines Restaurant	1213 Taughannock Blvd
Interlaken	Rt 96	Jay's Sports Cards	8399 Main St
Ithaca	Rt 79	Moosewood Restaurant	215 N Cayuga St
Ithaca	Rt 79	Pancho Villa Mexican Restaurant	602 W State St
Ithaca	Rt 79	New Delhi Diamond's Restaurant	106 W Green St
Ithaca	Rt 79	Uncle Joe's Grill and Sports Bar	302 W Green St
Ithaca	Rt 79	DP Dough	114 W Green St
Ithaca	Rt 79	Sticky Rice Carry Out	401 E State St # G4

Exhibit 4.3.a – Restaurants Located Along Reasonable Access Highways			
Location	**State Highway**	**Restaurant**	**Address**
Ithaca	Rt 79	Napoli Pizzeria Domino's Pizza	401 E State St
Ithaca	Rt 79	Starbucks	130 E Seneca St
Ithaca	Rt 79	Shortstop Deli	204 W Seneca St
Ithaca	Rt 79	Royal Court Restaurant	529 S Meadow St
Ithaca	Rt 79	Joe's Restaurant	602 W Buffalo St
Ithaca	Rt 96	Ithaca Cheesecake Emporium	704 W Buffalo St
Ithaca	Rt 96	Lehigh Valley House Restaurant	801 W Buffalo St
Ithaca	Rt 96	Station Restaurant: Baggage Room Lounge	806 W Buffalo St
	Rt 89	Carpinero Café	310 Taughannock Blvd
Krum Corner	Rt 96	Spike's Bar-BQ	1654 Trumansburg Rd
Ithaca	Rt 96	Paradise Café	1601 Trumansburg Rd
Ithaca	Rt 96	Vegan Epicure	1251 Trumansburg Rd
Trumansburg	Rt 96	Subway	2078 SR 96
Trumansburg	Rt 96	Not My Dads Soft Serve	203 E Main St
Trumansburg	Rt 96	Falls Restaurant & Tavern	214 E Main St
Trumansburg	Rt 96	Hazelnut Kitchen Simply Red Village Bistro	53 E Main St
Trumansburg	Rt 96	Little Venice Ristorante	49 E Main St
Trumansburg	Rt 96	Dragon Village	21 E Main St
Trumansburg	Rt 96	Gimme! Coffee	7 E Main St
Trumansburg	Rt 96	New York Pizzeria	2 W Main St
Trumansburg	Rt 96	Ron Don's Village Pub	1 Old Main St
Trumansburg	Rt 96	Rongovian Embassy to the USA	1 W Main St
Trumansburg	Rt 96	Pourhouse	19 W main St
Trumansburg	Rt 96	Fox's Pizza Den	27 W Main St
Trumansburg	Rt 96	Trimmers Ice Cream Frosty G's	9833 SR 96
Trumansburg	Rt 96	Woodland Roadhouse	9632 SR 96
Trumansburg	Rt 96	Yesterday's Café	21 E Main St

Exhibit 4.3.a – Restaurants Located Along Reasonable Access Highways			
Location	**State Highway**	**Restaurant**	**Address**
Interlaken	Rt 96	The Glass Magnolia	8347 Main St
Trumansburg	Rt 96	Applewoods	21 E Main St
Trumansburg	Rt 96	Camel's Bar & Grill	19 W Main St
Trumansburg	Rt 96	Tortilla Flat	1 W Main St
Trumansburg	Rt 96	Crystal Lake Café	4367 E Covert Rd
Interlaken	Rt 96	O'Malley's Cabin on the Lake	7938 CR 153
Sheldrake Springs, Interlaken	Rt 96	Happy Landing Restaurant	7568 SR 96
Ovid	Rt 96	Mark's Pizzeria	2201 SR 96 & 96A
Ovid	Rt 96	Mc Donald's	2202 SR 96
Ovid	Rt 96A	Village Soft Serve	7103 N Main St
Waterloo	Rt 96	Dutchmen Family Restaurant	3605 SR 96
Waterloo	Rt 96	First Dragon	12 S Virginia St
Waterloo	Rt 20 / 5	Green Apple Café	19 W Main St
Waterloo	Rt 20 / 5	Ciccino's Pizzeria & Restaurant	22 E Main St
Ithaca	Rt 89	Glenwood Pines Restaurant	1213 Taughannock Blvd
Trumansburg	Rt 89	Taughannock Farms Inn	2030 Gorge Rd
Kidders, Interlaken	CR 153	Light House	7930 CR 153
East Varick, Romulus	CR 128	Knapp Winery & Restaurant	2770 Ernsberger Rd
Seneca Falls	SR 89	Route 89 Grill	2557 SR 89
Seneca Falls	CR 116	Deerhead Inn	2554 Lower Lake Rd
Homer	SR 11	Little Italy Pizzeria	125 S Main St
Homer	SR 281	A Pizza & More	6 S West St
Homer	SR 281	Hobeau's	10 S West St
Homer	SR 281	Super Cream Dairy Bar	13 S West St
Genoa	SR 34	Laurie's	1097 SR 34
King Ferry	SR 90	Triangle Restaurant	8432 SR 90
King Ferry	SR 90	King's Ferry Hotel	1847 SR 90 N

Exhibit 4.3.a – Restaurants Located Along Reasonable Access Highways			
Location	**State Highway**	**Restaurant**	**Address**
Aurora	SR 90	Pumpkin Hill	2051 SR 90
Aurora	SR 90	Happy Days Drive Inn	3220 Main St
Aurora	SR 90	Mack's	283 Main St
Aurora	SR 90	Fargo Bar & Grill	384 Main St
Aurora	SR 90	Aurora Inn Pizzaurora	391 Main St
Union Springs	SR 90	Be Happy Café	18 Cayuga St
Union Springs	SR 90	Legends Tavern	34 S Cayuga St
Union Springs	SR 90	New York Pizzeria	44 S Cayuga St
Union Springs	SR 90	A Vincenzo's Pizzeria	121 Cayuga St
Fleming, Union Springs	SR 90	Pelligrinos Pizzeria	123 Cayuga St
Fleming, Union Springs	SR 90	Meihua	177 Cayuga St
Union Springs	SR 90	Pete's Treats	295 Cayuga St
Cayuga	SR 90	Moe's Pit BBQ & Cowboy Cuisine	6270 Willard St
Locke	SR 38	Barb's Diner	893 Main St
Moravia	SR 38	Gathering Restaurant	1630 SR 38
Moravia	Rt 38	New York Pizzeria	82 S Main St
Moravia	Rt 38	Giuseppe's Pizzeria	115 Main St
Moravia	Rt 38	Great Garden Chinese Restaurant	118 Main St
Moravia	Rt 38	Coffe N Crème	165 Main St
Moravia	Rt 38	Betty Blue	1 W Cayuga St
Cascade, Moravia	Rt 38	Cascade Grill	2846 Firelane 1
Auburn	Rt 38	Springside Inn	6141 W Lake Rd
Cortland	SR 41	Subway	64 Main St Suite 101
Cortland	SR 41	Gilda's Restaurant	60 Main St
Cortland	SR 41	Community Restaurant	10 Main St
Cortland	SR 41	Hollywood Restaurant	27 Groton Ave

Exhibit 4.3.a – Restaurants Located Along Reasonable Access Highways			
Location	**State Highway**	**Restaurant**	**Address**
Cortland	SR 41	Fabio's Italian Restaurant	179 Homer Ave
Homer	SR 41	Little Italy Pizzeria	125 S Main St
Homer	SR 41	Friends Foods & Spirits	2 N Main St
Homer	SR 281	Cindy's	105 N West St
Ithaca	SR 96	Rascal's	1710 Trumansburg Rd
Skaneateles	SR 41	1820 House	1715 E Lake Road
Skaneateles	SR 41	Mandana Inn	1937 W Lake Rd

4.3.2 Specific Business Impacts

Transportation costs are important to freight shippers. Lower transportation costs per unit shipped are beneficial to shippers, and contribute to more efficient use of resources in production and distribution. Greater efficiency ultimately benefits consumers in lower prices for goods. Trucking operators use the routes they have selected as the shortest or most cost-effective. However, it has negative impacts (noise, emissions, congestion, safety concerns) on businesses along identified *Reasonable Access Highways*, with the exception of incidental services or purchases made during stops by truck operators (fuel, food, etc).

The preferred alternative would benefit businesses along the proposed *Reasonable Access Highways* by minimizing negative impacts (noise, emissions, congestion, safety concerns) making these locations more desirable for outdoor activities, tourism, shopping, dining, and lodging. Specific businesses associated with these types of activities could benefit from the preferred alternative.

An evaluation of the *Reasonable Access Highways* was completed to determine the difference in costs to the carriers to remain on the National Network route. The cost per trip increases when remaining on the National Network. Exhibit 4.3.2.a summarizes cost differences between routes, and further detail on cost calculations are provided in *Appendix F – Route Fuel and Toll Cost Analysis*.

As a part of a Route 63 Corridor Study, Focus Group meetings with Truck Drivers/Shippers were conducted in 2002. These Focus Group meetings determined that large for-hire trucking companies commonly directed their drivers to use specific routes and seem to generally prefer the Intestate System due to ease in getting to destinations, increased safety and the higher and more consistent travel speeds attainable. Toll expenses are generally reimbursable by the trucking company, so the toll cost of using the Thruway is not a significant factor to a large for-hire company driver.

Independent truck drivers and small trucking firms, however, who operate on much tighter profitability margins, often select routes based more on cost factors. In most cases, the drivers participating in the Focus Group meeting agreed that the load value, or revenue generated by hauling a particular commodity, plays a large part in determining the route chosen. If the load pays a marginal amount, the driver has little choice but to use the shortest/cheapest route. This discussion from the Route 63 Corridor Study is considered representative of concerns in the Finger Lakes Region. The preferred alternative would most likely negatively impact independent truck drivers and small trucking firms.

Exhibit 4.3.2.a Annual Cost Difference for National Network Route (Includes Fuel and Tolls)					
Region	**Location/ Municipality**	**Route Number**	**National Network Route**	**Cost Difference (Fuel, Toll, and Operational Cost)**	**Annual Cost Difference (Fuel, Toll, and Operational Cost)**
3	Auburn	**NY 90 NY 34**	From I81 Exit 12 to I90 Exit 41	$49	$88,640
3	Auburn	**NY 90 NY 34B NY 34**	From I81 Exit 12 to I90 Exit 41	$36	$13,074
3	Auburn	**NY 90 NY 38/NY 34**	From I81 Exit 12 to I90 Exit 41	$60	$369,880
3	Aurora, Seneca Falls	**NY 90**	From I81 Exit 12 to I90 Exit 41	$53	$115,807
3	Ithaca, Seneca Falls	**NY 79 NY 89**	From I81 Exit 12 to I90 Exit 41	$58	$379,089
3	Ithaca, Trumansburg	**NY 79 NY 96 NY 14**	From I81 Exit 12 to I90 Exit 42	$74	$353,123
3	Ithaca, Trumansburg	**NY 79 NY 96 NY 414**	From I81 Exit 12 to I90 Exit 41	$85	$713,071
3	Owasco, Auburn	**NY 41 NY 41A NY 359 NY 38A**	From I81 Exit 12 to I90 Exit 41	$60	$704,421
3	Owasco, Auburn	**NY 90 NY 38 NY 38A**	From I81 Exit 12 to I90 Exit 41	$41	$73,931
3	Skaneateles	**NY 41/US 11**	From I81 Exit 12 to I90 Exit 41	$54	$1,143,180
3	Skaneateles	**NY 41 NY 41A**	From I81 Exit 12 to I90 Exit 41	$40	$205,933
3	Skaneateles	**NY 90 NY 38 NY 38A NY 359 NY 41A**	From I81 Exit 12 to I90 Exit 41	$41	$29,718
Total					**$4,189,868**

4.4 ENVIRONMENTAL

4.4.1 Contaminated and Hazardous Materials

The USDOT regulations in 49 CFR Part 105.5 define "hazardous materials" as "a substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has designated as hazardous under section 5103 of Federal hazardous materials transportation law (49 U.S.C. 5103 et. seq.)" Requirements for transporting these hazardous materials by truck, air, rail, etc. are regulated by the Pipeline and Hazardous Materials Safety Administration (PHMSA) of the USDOT which sets standards for handling and packaging hazardous materials and for worker training for the shipper, carrier and the receiver. PHMSA also performs inspections and investigates incidents.

Transportation of hazardous materials can include shipments of fuels such as propane, chemicals such as cylinders of chlorine gas for water treatment and sanitation, oxygen in cylinders for health care facilities and home use, fire extinguishers, explosives and detonating materials, and materials that contain or are contaminated with infectious substances. All of these hazardous materials must be properly packaged, manifested, handled and stored subject to certain restrictions and conditions. Hazardous wastes cannot be accepted or disposed at any New York landfill except the one permitted facility located in Lewiston, in Niagara County.

Some large through trucks could be hauling hazardous materials which present a potential contamination risk to New York's waterbodies, coastal areas, water supplies, critical environmental areas, wildlife resources, floodplains, and wetlands in the event of an accident. These resources represent an important part of New York's economy, tourism, water supplies, recreation, and ecology. Contamination of these resources from a truck accident involving hazardous materials would have severe impacts. However, no data is available to indicate the number of large trucks that contain hazardous materials and travel along identified routes. A portion of these trucks would be fuel trucks making local deliveries, and they would not be not impacted by the preferred alternative.

The preferred alternative may provide some negligible, additional protection to the state resources (waterbodies, coastal areas, water supplies, critical environmental areas, wildlife resources, floodplains, and wetlands) that would be affected by a contaminated/hazardous truck spill. As documented in sections 4.4.1, 4.4.2, 4.4.5, 4.4.6, 4.4.7, 4.4.9, and 4.4.10, there are generally similar resources on both *Reasonable Access Highways* and the alternative National Network routes. The only exception to this generalization is that there are more reservoirs on the *Reasonable Access Highways* than the alternate National Network route. While the National Network System has a lower accident rate, the number of trucks containing hazardous materials on the *Reasonable Access Highways* has not been documented, so any potential for decreased risk cannot be substantiated.

Studies by the U.S. EPA have shown that household trash or municipal solid waste (MSW) is not especially hazardous or highly flammable. MSW is generally less of a public health threat than hazardous wastes. The U.S. EPA has published studies on the composition of MSW, which typically consists of 39.2% paper and paperboard products, 14.3% yard trimmings and "green wastes," 9.1% plastics, 7.6% metals, 7.1% wood, 6.7% food, 6.2% glass and 9.8% other, which includes rubber, leather and textiles, without significant recycling (Source: Characterization of Municipal Solid Waste in the United States: 1996 Update, EPA530-S-97-015, May 1997).

New York's environmental and transportation regulations require MSW haulers to secure their loads, and to prevent any accidental releases of cargo. Household wastes are typically shipped in containers, either as "roll offs" or "dumpsters," with lids that can be locked in place, or in trucks with heavy tarps that are tied down to the truck's bed. If a truck overturns and spills its cargo after a catastrophic accident, however, the waste could be readily retrieved and stockpiled on plastic sheeting along the right-of-way until it could be transferred to another vehicle to continue its journey to the landfill. Workers do not need any special protective clothing beyond that worn by construction contractors, which includes long-sleeved shirts, slacks (no shorts), work boots, and heavy work gloves to prevent punctures from broken materials. It would require a significant amount of this type of cargo (several trucks full) to spill into a lake, or other water body, and remain there for a few days before any real public health concern would be encountered. A health concern of this nature could cause the affected area to be cordoned off and swimming prohibited for a day or two until the bacteria levels in the water could be tested and verified as safe.

4.4.2 Wetlands

Protected wetlands of New York consist of Tidal and Freshwater Wetlands, under the jurisdiction of the both the US Corps of Engineers and NYS Department of Environmental Conservation. Most of the wetlands under the jurisdiction of New York State's Freshwater Wetlands Act are mapped, while the smaller freshwater wetlands (less than 12.4 acres) under the jurisdiction of the US Corps of Engineers often are not. Consequently, unmapped wetlands are not included in this evaluation.

Some large through trucks could be hauling hazardous materials which present a potential contamination risk to wetlands. Wetlands are often the headwaters and filters of storm water before the water enters New York's lakes, rivers and reservoirs. Hazardous materials contamination would directly affect the function and quality of a wetland, due to damage or destruction of plants and soils in the wetland. These effects, depending upon the extent and nature of the contamination, could be long-lasting and geographically extensive, as secondary impacts would occur when the hazardous materials disperse into the watershed. A summary of the amount of wetlands on *Reasonable Access Highways* vs. the National Network route is shown in Exhibit 4.4.2.a. Smaller wetlands, which are regulated by the U.S. Army Corps of Engineers, were not included in this evaluation.

Exhibit 4.4.2.a Miles of NYSDEC Wetlands along Reasonable Access Highways vs. National Network Route[12]	
Reasonable Access Highways – 10 miles	National Network System – 12 miles

The preferred alternative provides negligible or nonexistent additional protection to wetlands. While detouring hazardous/contaminated trucks from the *Reasonable Access Highways* provides safety benefits, due to the lower accident rate of the National Network system compared to the *Reasonable Access Highways,* there are more NYSDEC wetlands along the National Network System. The number of trucks containing hazardous materials on the *Reasonable Access Highways* has not been documented, so any potential for decreased risk cannot be substantiated.

4.4.3 Surface Water bodies and Watercourses

New York's lakes, rivers and other waterbodies are critical to New York's drinking water supply, industrial and agricultural water supply, and are a vital element of the state's tourism economy. Contamination of these waterbodies from an accidental hazardous materials spill could have severe impacts on public health and the local economies. A summary of the amount of Lakes and Rivers on *Reasonable Access Highways* vs. alternate National Network route is shown in Exhibit 4.4.2.b.

Exhibit 4.4.2.b Miles of Lakes, Rivers along Reasonable Access Highways vs. National Network Route[12]	
Reasonable Access Highways – 100 miles of Lakes & Rivers	National Network System – 28 miles of Lakes & Rivers

The preferred alternative provides minor additional protection to Lakes and Rivers. Detouring hazardous/contaminated trucks from *Reasonable Access Highways* provides safety benefits due to the lower accident rate of the National Network system compared to the *Reasonable Access Highways*. The number of trucks containing hazardous materials on the *Reasonable Access Highways* has not been documented, so any potential for decreased risk cannot be substantiated.

4.4.4 Wild, Scenic, and Recreational Rivers

New York State's only federally designated Wild and Scenic River is a portion of the Delaware River. No *Reasonable Access Highways* or National Network Highways are within the National Park Service's jurisdictional boundaries of this river.

4.4.5 Navigable Waters

As defined by the Federal government, Navigable Waters of the US, under 33 Code of Federal Regulations, are "… those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport National Network or foreign commerce."

Navigable Waters, which include the Great Lakes, some of the Finger Lakes, some rivers, and the Canal System, accommodate substantial commercial activities. Large truck traffic often originates or ends at designated Navigable Waters. Generally, the routes of through truck traffic are compatible with Navigable Waters, provided that the use of local roads is minimized.

4.4.6 Floodplains

A 100-year floodplain is the area that will be inundated by a 100-year flood. It is also the area that is referred to by FEMA (Federal Emergency Management Agency) as the Special Flood Hazard Area (SFHA). It is the area of a community where development must be regulated through a local ordinance conforming to the National Flood Insurance Program (NFIP).

Floodplains are often adjacent to major water bodies, rivers and reservoirs. Contamination of floodplains from an accident could result in direct negative impacts to adjacent waterbodies as the hazardous materials migrate away from floodplain. A summary of the amount of Floodplain on *Reasonable Access Highways* vs. using the alternate National Network routes is shown in Exhibit 4.4.6.a.

Exhibit 4.4.6.a Miles of 100 Year Floodplain along Reasonable Access Highways vs. National Network[12]	
Reasonable Access Highways – 40 miles	National Network System – 35 miles

The preferred alternative provides negligible, if any, additional protection to floodplains. While the National Network system has a lower accident rate than non-National Network state highways, there is a similar exposure of 100-year floodplains along the National Network and the *Reasonable Access Highways*.

4.4.7 Coastal Resources

The federal Coastal Zone Management Act and the New York State Waterfront Revitalization of Coastal Areas and Inland Waterways Act established direction for the appropriate use and protection of the nation's and the State's coasts and waterways. New York's Coastal Areas, within the exclusion area, as designated by the NYS Department of State's Division of Coastal Resources, include the Inland coastal areas of the Finger Lakes. These coastal resources include a variety of valuable natural resources, including water, fish and wildlife habitat, wetlands, and forest. The lakes and their watersheds are often used extensively for agriculture, recreation, and tourism, highlighting the link between resource protection and the regional economy.

These areas represent important ecological, economic, and aesthetic assets within the State. Contamination of these areas could affect the recreational harvesting of fish, close or restrict the use of recreation areas, and damage sensitive habitat for rare and endangered species. Some large through trucks could be hauling hazardous materials which present a potential contamination risk to Coastal Areas. A summary of Coastal Resources on *Reasonable Access Highways* vs. the National Network alternative route is shown in Exhibit 4.4.6.

Exhibit 4.4.6 Miles of Coastal Resources along Reasonable Access Highways vs. National Network[12]	
Reasonable Access Highways – 52 miles	National Network System – 0 miles

The preferred alternative provides some minor, additional protection to New York State's Coastal Areas. This determination was made by considering that there are substantially more miles of Coastal Area (along the Finger Lakes) associated with the *Reasonable Access Highways* than the National Network alternatives, and that trucks of hazardous materials would be detoured onto the National Network, which has a lower accident rate. The number of trucks containing hazardous materials on the *Reasonable Access Highways* has not been documented, so any potential for decreased risk cannot be substantiated.

Since the proposed regulations are a Non-Type II SEQR action, and the proposed regulations would affect traffic on roads through coastal areas, primarily the Finger Lakes area, a Coastal Assessment Form (CAF) has been completed and submitted to the NYS Department of State, Division of Coastal Resources. A copy of the CAF is included in the *Appendix B – Environmental Information*.

4.4.8 Groundwater Resources, Aquifers, and Reservoirs

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. (SDWA does not regulate private wells which serve fewer than 25 individuals.) To this end, the EPA and the NYS Department of Environmental Conservation have mapped the presence of important Groundwater Resources in the state. The EPA has mapped the 'Sole Source Aquifers' and NYSDEC has mapped the 'Primary Water Supply' and 'Principal Aquifer Areas'.

Some large through trucks could be hauling hazardous materials which present a potential contamination risk to groundwater resources, aquifers, and reservoirs. New York's aquifers and reservoirs provide drinking water for millions of people and clean water for industrial and agricultural purposes. An accident contaminating one these aquifers or reservoirs would have significant economic impact to New York's Municipal Water Supplies. A summary of the Aquifers and Reservoirs on *Reasonable Access Highways* vs. the National Network route is shown in Exhibit 4.4.8.a.

Exhibit 4.4.7.a Miles of Reservoirs and Aquifers along Reasonable Access Highways vs. National Network[12]	
Reasonable Access Highways – 54 miles along Reservoirs	National Network System – 9 miles along Reservoirs
Reasonable Access Highways – 50 miles along Aquifers	National Network System – 55 miles along Aquifers

The preferred alternative does not provide additional protection to groundwater resources or aquifers, since roughly equal amounts exist both along *Reasonable Access Highways* and the National Network. The preferred alternative does appear to provide some minor, additional protection to New York State's Reservoirs. This determination was made by considering that there are more miles of Reservoirs associated with the *Reasonable Access Highways* than the National Network alternatives, and that trucks of hazardous materials would be detoured onto the National Network, which has a lower accident rate. The number of trucks containing hazardous materials on the *Reasonable Access Highways* has not been documented, so any potential for decreased risk cannot be substantiated.

4.4.9 Stormwater Management

No Stormwater Management considerations are required for this action since the proposed alternatives are regulatory and involve no construction activities exceeding more than one acre.

4.4.10 General Ecology and Wildlife Resources

Some large through trucks could be hauling hazardous materials which present a potential contamination risk to ecological and wildlife resources by contaminating habitats, including coastal areas, waterbodies, wetlands and floodplains. The Finger Lakes area has been identified as having large concentrations of overwintering waterfowl[7]. A summary of wildlife refuges along *Reasonable Access Highways* vs. the National Network is shown in Exhibit 4.4.10.a.

Exhibit 4.4.10.a Federally and State Wild Life Refuges/Wildlife Management Areas along Reasonable Access Highways vs. Using National Network[12]	
Reasonable Access Highways	National Network System
Cayuga Lake State Wildlife Management Area Route 89	Montezuma National Wildlife Refuge (Federal) I-90
Montezuma National Wildlife Refuge (Federal) Route 89, Route 90	

The preferred alternative would provide negligible, if any, additional protection to Ecological and Wildlife Resources. This determination is made by considering that there are is a similar amount of Wildlife Refuge road frontage associated with the National Network system and the *Reasonable Access Highways*. Also, there is a similar number of species of concern (Federal and State Protected) on the National Network system vs. the *Reasonable Access Highways*. While there are benefits of detouring trucks of hazardous materials onto the National Network which has a lower accident rate, the number of trucks containing hazardous materials on the *Reasonable Access Highways* has not been documented, so any potential for decreased risk cannot be substantiated.

4.4.11 Critical Environmental Areas

Critical Environmental Areas are designated by state or local agencies and must have, according to NYSDEC, "an exceptional or unique character with respect to one or more of the following:

- A benefit or threat to human health.
- Natural setting (e.g., fish and wildlife habitat, forest and vegetation, open space and areas of important aesthetic or scenic quality).
- Agricultural, social cultural, historic, archaeological, recreational, or educational values.
- An inherent ecological or hydrological sensitivity to change that may be adversely affected by any change."

Specific Critical Environmental Areas that would be vulnerable to a hazardous waste accident include: Ground Water Protection Districts, Water Supplies, Water District Aquifers, Lakes, Wetlands, Coastal Areas and Reservoirs. A summary of Critical Environmental Areas on *Reasonable Access Highways* vs. using the National Network is shown in Exhibit 4.4.11.a.

Exhibit 4.4.11.a # of Critical Environmental Areas along Reasonable Access Highways vs. Using National Network System[12]	
Reasonable Access Highways	National Network System
0	0

The preferred alternative would not provide any additional protection to Critical Environmental Areas. There are no Critical Environmental Areas adjacent to either the National Network system or the *Reasonable Access Highways*.

4.4.12 Historic and Cultural Resources

The State and National Registers of Historic Places are the official lists of buildings, structures, districts, objects, and sites significant in the history, architecture, archeology, engineering, and culture of New York and the nation. The same eligibility criteria are used for both the State and National Registers. The National Historic Preservation Act of 1966 and the New York State Historic Preservation Act of 1980 established the National and State Registers programs. In New York, the Commissioner of the New York State Office of Parks, Recreation and Historic Preservation, who is also the State Historic Preservation Officer (SHPO), administers these programs. Items on the *National Register of Historic Places in New York State* that are located along *Reasonable Access Highways* and National Network alternate routes are shown in *Appendix B – Environmental Information*. The website on the National Register can be found at:

www.nationalregisterofhistoricplaces.com

Exhibit 4.2.4.i provides descriptions of Historic Districts located along the proposed *Reasonable Access Highways*.

There may be concerns about the possibility of adverse long-term effects of vibrations on historic buildings, especially those in close proximity to roads and built on vulnerable foundations. However, there does not appear to be data to support these concerns, as indicated by the following summary from the National Research Council of Canada; “House owners may complain about damage induced by traffic vibrations, such as cracks in walls and ceilings, separation of masonry blocks, and cracks in the foundation. However, vibration levels are rarely high enough to be the direct cause of this damage, though they could contribute to the process of deterioration from other causes. Building components usually have residual strains as a result of uneven soil movement, moisture and temperature cycles, poor maintenance or past renovations and repairs. Therefore small vibration levels induced by road traffic could trigger damage by "topping up" residual strains. Consequently it is difficult to establish a vibration level that may cause building damage and, therefore, controversy continues to surround the issue. In some cases, when a building is subjected to vibration for many years, fatigue damage (i.e., that caused by repeated loading) may occur if the induced stresses in the building are high enough. In addition to damage caused directly by vibration, indirect damage may result from differential movements caused by soil settlement due to densification. Loose sandy soils are particularly susceptible to densification when subjected to vibration.”[10] The preferred alternative may reduce the vibration near vulnerable historic buildings which are in close proximity to road by reducing the volume of large truck traffic.

Large truck traffic can adversely affect the quality of visiting areas with historic character by creating visual and noise disruptions, contributing emissions, and raising safety concerns.

The preferred alternative could improve the experience of visiting historic districts in identified short cut areas by reducing the number of large trucks and the visual and noise disruptions, emissions and safety concerns associated with these vehicles.

4.4.13 Parks and Recreational Resources

Parks and recreation areas are often utilized as refuges from vehicular traffic, noise and air pollution. These attributes are negatively impacted by large truck traffic on the roads in, near and adjacent to parks and recreation areas. Activities typically pursued in parks and recreation areas, such as picnicking, camping and wildlife viewing are particularly impacted by loud noise events. Exhibit 4.4.13 illustrates the state and federal parks, located along *Reasonable Access Highways* vs. the National Network System alternative. Exhibit 4.4.2.d provides descriptions of State and Federal Parklands located along the proposed *Reasonable Access Highways*. A map showing these parklands is included in *Appendix B – Environmental Information*.

Exhibit 4.4.13 State and Federal Parklands (Large Parkland Areas)	
Adjacent to Reasonable Access Highways	**Adjacent to National Network System**
Allen Treman State Marine Park – Route 89	Montezuma National Wildlife Refuge – I-90
Bear Swamp - Route 41A	Whitney Point Lake – I-81
Canoga Marsh WMA – Route 90	Junius Pond Unique Area – I-90
Cayuga Lake State Park – Route 89	Hoxie George State Forest – I-81
Deans Cove Marine Park – Route 89	State Park at the Fair – I-690
Long Point State Park – Route 90	
Fillmore Glen State Park – Route 38	
Northern Montezuma WMA – Route 90	
Potato Hill State Forest – Route 79	
Summerhill State Reforestation Area – Route 90	
Taughannock Falls State Park – Route 79	
Turkey Hill State Forest – Route 79	

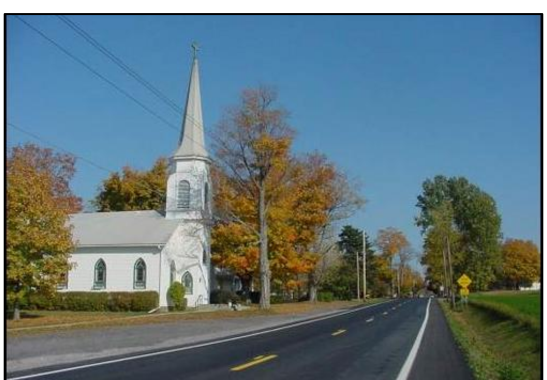
The preferred alternative would reduce of the volume of large trucks along highways in, near and adjacent to park and recreation areas. Reduction of large truck traffic would reduce the concerns for safety of persons accessing these areas, and it would improve and help sustain the values of the park associated with less commercial traffic, reduced noise and air pollution. While there are parks and recreational resources adjacent to the National Network System, it does not provide direct access to these resources.

4.4.14 Visual Resources

Large trucks have temporary visual impacts in small village and city settings due to their height and length. These large trucks temporarily block the line of sight of pedestrians and residences. Where large trucks pass through scenic overlooks or historic districts, or along Scenic Byways, they are visually disruptive. A New York State designated Scenic Byway is a road corridor with resources of regional significance. It offers a slower alternative travel route while telling a story about the region's natural beauty, heritage and recreational activities.

The preferred alternative would reduce the number of large trucks along *Reasonable Access Highways*, reducing the number of disruptions at scenic overlooks, villages, small cities and historic districts. Reducing the number of visual disruptions improves the visual quality of sensitive visual areas, such as historic districts and Scenic Byways. As shown in Section 4.2.5 - Quality of Life, there are Scenic Byways and historic districts adjacent to *Reasonable Access Highways*. Exhibit 4.4.14.a shows a Scenic Byway view along NY Route 90.

Exhibit 4.4.14.a - Route 90 Scenic Byway along Cayuga Lake



Although large truck traffic will increase slightly on the National Network System the increase is considered not significant enough to adversely affect the visual resources of the National Network, as large trucks are typically expected to be encountered when using the National Network System.

4.4.15 Farmlands

Farmland in New York State, through the creation of Agricultural Districts, is protected under Article 25-AA of the New York Agricultural and Markets Law. Farmland is also protected under Federal Regulations with the Federal Farmland Protection Policy Act.

Large truck traffic on rural roads can create additional safety concerns in proximity to farm operations. Large farm machinery may exceed the lane width of narrow two lane rural roads. If a large truck is passing in the opposite direction, or in the same direction, the width in conjunction with the width of the farm machinery, results in minimal clearance and compromised safety for operators of the farm equipment, trucks, and other motorists using these roads. In the Finger Lakes area, agricultural land use comprises at least 50% of the land use along the proposed *Reasonable Access Highways*. The farm economy is an important part of the Finger Lakes economy. A summary of the amount of Farmland on *Reasonable Access Highways* vs. the National Network alternate routes is shown in Exhibit 4.4.15.a.

Exhibit 4.2.15.a Farmland with Access to Highway	
Reasonable Access Highways	**Adjacent to National Network**
530 miles	None

Exhibit 4.4.15.b - Vineyard on Finger Lakes

The preferred alternative would reduce the number of large trucks along the proposed *Reasonable Access Highways*, which would reduce the potential for farm equipment/truck related accidents. Farms and large farm machinery do not have access to the National Network for field operations.

Farms may rely on large trucks to distribute their products. During the public comment period, 134 emails were received by NYSDOT, entitled “DOT Truck Regulations Hurt Farmers” and citing concern that the agricultural industry would be adversely affected by the proposed regulation. In order to address these concerns, and limit adverse economic impacts to the agricultural industry, NYSDOT eliminated routes with relatively long differences in distance to the National Network route (greater than 25 miles difference). Additionally, local deliveries and pickups are not impacted by the proposed regulation. As a result, most farm-related trucking in the immediate Finger Lakes Area would be considered local traffic.

The preferred alternative does not directly affect farmland through acquisition or through encouraging non farm development or conversion of farmland.

4.4.16 Air Quality

Large trucks can create significant impacts on the environment, especially in terms of air pollution and noise. Diesel truck engines emit more nitrogen oxides, reactive hydrocarbons, and particulate matter per mile of travel than automobile internal combustion engines.[7] A summary of non-attainment areas on *Reasonable Access Highways* vs. the National Network is provided in Exhibit 4.4.16.a.

Exhibit 4.4.16.a Non Attainment Areas	
Adjacent to Reasonable Access Highways	**Adjacent to National Network System**
Syracuse Metropolitan Area (CO) (Only for two Reasonable Access Highways)	Syracuse Metropolitan Area (CO)

The preferred alternative is expected to improve air quality where more sensitive receptors (schools, residences) are located along the proposed *Reasonable Access Highways*.

Overall there will be an increase in emissions due to the proposed regulations. This is due to the increased fuel consumption and vehicle miles traveled by large trucks using the National Network instead of using the proposed *Reasonable Access Highways*. The resultant annual increase in fuel consumption would be 323,000 gallons of fuel (primarily diesel), which will result in 3,500 tons of CO_2 emissions, a greenhouse gas.[1] This increase in large truck traffic along alternative National Network routes is expected to result in a minimal air quality impact.

Analysis of Impacts

The preferred alternative is expected to improve air quality where more sensitive receptors (schools, residences) are located. The National Network Highway system would be minimally impacted, due to the less than 1% estimated increase in truck volume on those facilities.

According to the U.S. Environmental Protection Agency, heavy-duty trucks account for about one-third of NOx emissions and one-quarter of particulate emissions from all highway cars and trucks, even though they only comprise 2% of the total number of vehicles on the roadways. As a result, a substantial increase in truck volumes can affect public health by contributing to degraded air quality either regionally or locally, particularly where trucks pass close to sensitive receptors such as homes or schools. As identified in Exhibit 4.2.4.b - School Districts, there are 12 schools adjacent to one of the proposed *Reasonable Access Highways*, and 19 schools within ½ mile of these highways.

Overall there will be an increase in emissions associated with this action. This is due to the increased fuel consumption and vehicle miles traveled by large trucks remaining on the National Network, instead of using the proposed *Reasonable Access Highways*. The proposed action is estimated to increase annual fuel consumption by 0.323M gallons of fuel (primarily diesel), which will result in an increase of 3,500 tons of CO_2 emissions.

Two types of air quality impacts can potentially occur: the microscale level impacts to specific sites at the local level, and mesoscale level impacts on a larger, regional basis.

Microscale Air Quality Analysis

Carbon Monoxide (CO) impacts are local. Elevated concentrations are generally limited to within a relatively short distance of heavily traveled roadways.

The proposed action would result in a decreased number of large trucks utilizing the proposed *Reasonable Access Highways*. As a result, the localized air quality along those highways would improve as large truck traffic will be reduced where sensitive receptors are located.

It is estimated the overall increase in the volume of large trucks using the National Network will be insignificant (less than one percent). As a result, it is not expected that the preferred alternative will affect the level of service at individual intersections, as outlined in Chapter 1.1 of the NYSDOT EPM. Therefore, a microscale analysis is not warranted and an air quality impact is not expected.

[1] Based on EPA's website (http://www.epa.gov/OTAQ/climate/420f05001.htm#calculating).

The impacts to the National Network, as it relates to the intersections analyzed in Carbon Monoxide SIP Attainment Demonstrations, were reviewed, since these intersections were analyzed as part of these Attainment Demonstrations to verify conformity to the NAAQS.

Particulate Matter (PM) is classified as $PM_{2.5}$ and PM_{10}. $PM_{2.5}$ is defined as particulates 2.5 microns in diameter or less. PM_{10} is defined as particulates 10 microns in diameter or less.

Given the nature of the proposed action, regarding CO levels, combined with project screening criteria provided in Chapter 1.2 of NYSDOT's *Project Level Particulate Matter Guidance*, 2004, quantified PM analyses were not required. The estimated volume at specific locations is not likely to substantially increase above the normal, projected rate of growth. It is expected that the increase of PM levels at specific locations will be negligible and will not result in an air quality impact.

Mesoscale Air Quality Analysis

If a proposed action would significantly affect traffic conditions over a large area, it is appropriate to consider regional air quality effects of the action by way of a mesoscale analysis.

Volatile organic compounds (VOC) and oxides of nitrogen (NOx) emissions from motor vehicles are of concern primarily because of their role as precursors in the formation of ozone, which results from a series of complex reactions in the presence of sunlight. The reactions are slow and occur as pollutants that are transported downwind from the source of the precursor pollutants. Since the high ozone concentrations can occur many miles from the source, the effects of VOC and NOx emissions are considered a regional issue. A regional or "mesoscale" analysis is the appropriate method of determining their impact. A mesoscale analysis considers the regional effects for all air pollutants (CO, VOC, NOx, PM2.5, and PM10).

The estimated increase in large truck VMT (vehicle miles traveled) for the proposed action, is 1,300,000 miles. The estimated large truck VMT of the preferred alternative, as a percentage of the total VMT for NYS of 140,000,000,000, is 0.001% and is insignificant. The impact to air quality regarding the pollutants CO, VOC, NOx, PM2.5, and PM10 would be negligible at the regional level, as well. This aggregate resultant increase in VMT is not expected to have an effect on air quality levels related to SIP Attainment Demonstrations or meeting the requirements of the CAA90.

Mobile Source Air Toxics (MSATs)

Mobile source air toxics (MSATs) are air pollutants emitted by mobile sources that can cause serious health effects. The Environmental Protection Agency (EPA) has classified a group of 21 air pollutants as MSATs. Of these 21 pollutants, EPA has identified the following six as priority MSATs:

- Acetaldehyde
- Acrolein
- Benzene
- Diesel particulate matter/diesel exhaust organic gases
- Formaldehyde
- 1,3-butadiene

Research regarding the health impacts of MSATs is ongoing. Epidemiological studies (frequently based on emissions levels found in occupational settings) have shown that emissions of some MSATs are statistically associated with adverse health outcomes, while animal studies have demonstrated adverse health outcomes associated with exposure to large doses of MSATs.

The EPA has assessed the risks associated with emissions of the priority MSATs. The EPA Integrated Risk Information System (IRIS) is a database of human health effects that may result from exposure to various substances found in the environment. Toxicity information for the priority MSATs is summarized below.

Acetaldehyde – Acetaldehyde is characterized as a probable human carcinogen based on an increased incidence of nasal tumors in male and female rats and laryngeal tumors in male and female hamsters after inhalation exposure.

Acrolein – The potential carcinogenicity of acrolein cannot be determined because the existing data are inadequate for an assessment of human carcinogenic potential for either the oral or inhalation route of exposure. There are no adequate human studies of the carcinogenic potential of acrolein. Collectively, experimental studies provide inadequate evidence that acrolein causes cancer in laboratory animals.

Benzene – Benzene is characterized as a known human carcinogen for all routes of exposure based on convincing human evidence and supporting evidence from animal studies.

1,3-Butadiene – 1,3-Butadiene is characterized as carcinogenic to humans by inhalation. This characterization is supported by the total weight of evidence provided by the following: (1) sufficient evidence from epidemiologic studies of the majority of U.S. workers occupationally exposed to 1,3-butadiene; (2) sufficient evidence in laboratory animal studies showing that 1,3-butadiene causes tumors at multiple sites in mice and rats by inhalation; and (3) numerous studies consistently demonstrating that 1,3-butadiene is metabolized into genotoxic metabolites by experimental animals and humans.

Diesel Exhaust – Diesel exhaust is likely to be carcinogenic to humans by inhalation from environmental exposures. Chronic respiratory effects are the principal non-cancer hazard to humans from long-term environmental exposure to diesel engine exhaust or emissions.

Formaldehyde – Formaldehyde is characterized as a probable human carcinogen based on limited evidence in humans and sufficient evidence in animals.

In February 2006, FHWA issued guidance entitled “Interim Guidance on Air Toxic Analysis in NEPA Documents.” This guidance provides an approach for addressing MSATs and was used for the analysis in this DEA document. Note that EPA has not established regulatory thresholds or air quality standards for MSATs. As the preferred alternative would not add substantial new capacity or create a facility that would likely meaningfully increase emissions, a qualitative MSATs analysis is appropriate.

The amount of MSATs emitted by a transportation action is proportional to the vehicle miles traveled (VMT). The preferred alternative would increase total VMT due to large truck traffic remaining on the National Network instead of *Reasonable Access Highways*. Therefore, this alternative has the potential to increase total MSAT emissions. However, it is anticipated that the emissions increases would be somewhat offset by an increase in travel speeds of the large trucks (the travel speeds on the National Network are higher than the travel speeds on the *Reasonable Access Highways*). According to EPA’s MOBILE6.2 emissions model, emissions of the priority MSATs decrease as speeds increase (except for diesel particulate matter, which does not change with speed in MOBILE6.2). In addition, the proposed action would reduce large truck traffic through the villages along these *Reasonable Access Highways*. As described in previous sections, numerous homes, schools, and tourism areas exist along the *Reasonable Access Highways*. The proposed action would reduce MSAT emissions in the vicinity of the sensitive land uses along these highways.

The EPA has issued a number of regulations that will dramatically decrease MSATs in the future through cleaner fuels and engines. According to the FHWA, even with a 64% increase in VMT nationally, the EPA’s national control programs are projected to reduce national MSAT emissions by 57 to 87% between 2000 and 2020. Thus, MSAT emissions are likely to be lower on a national-basis compared to present levels.

Ideally, a project-specific MSAT impact assessment would include emissions modeling, dispersion modeling, exposure modeling, and a final determination of health impacts based on the estimated exposure. However, technical shortcomings and uncertain science limit the ability to accurately predict project-specific impacts, as discussed below.

Dispersion – The EPA’s current regulatory dispersion models, CALINE3 and CAL3QHC, were developed and validated more than a decade ago for the purpose of predicting episodic concentrations of carbon monoxide. The models are most accurate for predicting maximum concentrations that can occur at some time at some location within a geographic area. Using the models to predict exposure patterns at specific times at specific highway project locations (to assess potential health risks) would produce questionable results. In addition, the monitoring data needed to establish project-specific MSAT background concentrations are not available. At the present time, FHWA does not recommend dispersion modeling of MSATs.

Exposure Levels and Health Effects – Shortcomings in current techniques for exposure assessment and risk analysis do not allow for meaningful conclusions regarding project-specific health effects. Exposure assessments are hindered by the difficulty to accurately calculate annual concentrations of MSATs near roadways and to determine the portion of the year that people are actually exposed to those concentrations at a specific location. These difficulties are magnified for 70-year cancer assessments, particularly because the assessment would require unsupportable assumptions regarding changes in travel patterns and vehicle technology over a 70-year period. Also, due to factors such as low-dose extrapolation2 and translation of occupational data to the general population, considerable uncertainties exist regarding the existing estimates of toxicity of the various MSATs.

Air Quality Conformity

Section 176(c) of the Clean Air Act prohibits federal agencies from taking actions in nonattainment or maintenance areas that do not "conform" to the applicable State Implementation Plan (SIP). The intent of this requirement is to ensure that federal activities do not interfere with meeting the emissions targets in the SIPs, do not cause or contribute to new violations of the National Ambient Air Quality Standards (NAAQS), and do not interfere with the ability of any area to attain or maintain the NAAQS. The United States Environmental Protection Agency (EPA) has issued two sets of regulations to implement Section 176(c) of the CAA.

The Transportation Conformity Rules (40 CFR 51 Subpart T) apply to transportation plans, programs, and projects funded under Title 23 USC or the Federal Transit Act. Highway and transit infrastructure projects funded by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA) are usually subject to transportation conformity. In addition, locally-funded or state-funded transportation infrastructure projects that are regionally significant as defined in 40 CFR 51 Subpart T are subject to transportation conformity.

The General Conformity Rules (40 CFR 51 Subpart W) apply to all other federal actions that are not covered under Transportation Conformity. The General Conformity Rules contain *de minimis* emissions thresholds to determine applicability to evaluate conformity. If the net emissions increases due to the project are less than these thresholds, it is presumed to conform and no further evaluation is required. When these emissions thresholds are exceeded, then a conformity determination is required. The conformity determination may utilize modeling, consultation with EPA and state and local air agencies, or commitments to mitigate the emissions increases.

The proposed action is not funded under Title 23 USC or the Federal Transit Act. In addition, basic traffic operation actions are not normally included in the regional travel demand modeling process or considered regionally significant in the New York State Transportation Conformity Regulation (6 NYCRR Part 240). Therefore, the proposed action is not subject to Transportation Conformity.

The General Conformity Rules contain several exemptions applicable to federal actions. Since "rulemaking and policy development and issuance" are exempt per 40 CFR 51.853(c)(2)(iii), general conformity does not apply to the proposed action.

4.4.17 Energy

An evaluation of the *Reasonable Access Highways* was completed to determine the difference in fuel consumption for the carrier for the adjusted National Network route. There would be an estimated 323,000 gallons annual increase in fuel usage by trucks affected by the proposed regulations. (Refer to *Appendix F – Fuel and Toll Cost Analysis*).

4.4.18 Noise

The level of highway traffic noise depends on the traffic volume, the traffic speed, and the traffic classification or number of trucks in the traffic flow. In general, the loudness level of highway traffic noise increases with increased traffic volumes, higher speeds and greater numbers of heavy trucks.

Heavy truck volumes can increase noise levels to adjacent receptors. High levels of highway traffic noise are particularly undesirable near residential neighborhoods, schools, parks and other locations where

[2] An estimate of the response at a point below the range of the experimental data, generally through the use of a mathematical model (EPA IRIS).

there are people engaged in activities. There are 31 schools within one half mile of the *Reasonable Access Highways*.

The preferred alternative would reduce the number of large trucks on the *Reasonable Access Highways* and slightly increase the number of large truck on the National Network. Due to the much larger traffic volumes already on the National Network, the net effect of this action would be in the order of a 1% increase in volume. A change of 25% in the heavy truck volume would result in a noise level change of 1 decibel. A change of 50% would result in a change of 3 decibels. A 1 decibel change is imperceptible, while a change of 3 decibels is barely perceptible to adjacent receptors. This means that the actual noise measurement difference due to large trucks remaining on the National Network would not likely be perceived on a long term, sound energy basis. Likewise, the increase for the National Network System would be a 0 decibel change with no effect. There will be no significant highway traffic noise impact as a result of the proposed action.

The removal of large through trucks from the proposed *Reasonable Access Highways*, however, will result in a reduction of annoyance noise. Even though the technical noise level will not be reduced by a generally perceptible level, the elimination of several dozen noise events per day, caused by objectionable large truck noise sources, should address concerns expressed by adjacent residents and other highway users, such as pedestrians and bicyclists.

4.4.19 Asbestos

No involvement with Asbestos Containing Materials is anticipated for this action since the proposed alternatives are regulatory and involve no construction activities which require asbestos removals and abatement.

4.5 CONSTRUCTION EFFECTS

No Construction Effects are anticipated for this action since the proposed alternatives are regulatory, and involve no construction activities.

4.6 INDIRECT (SECONDARY) EFFECTS

The preferred alternative would slightly increase the volume and percentage of large truck traffic on the National Network. The National Network system already has high volumes of large truck traffic, compared to other state highways. The increase would be minimal and would not alter its functionality. Businesses that rely on large truck services may experience an increase in transportation costs beyond normal incremental increases. Tourist destinations, along *Reasonable Access Highways*, should experience a reduction in large truck traffic.

Larger shipping companies may be more able to pass an increase in cost on to their customers than independent operators. Consumers will not likely see an effect on goods where transportation costs are not a significant cost percentage in overall production costs. Consumers may experience an increase in the price of goods where transportation costs are a higher percentage of overall production, such as agricultural products. Companies whose production operates on a lower profit margin, that have shipping options, may look for alternative locations to ship their commodities, this is suspected to be the case for municipal solid waste.

The preferred alternative could increase the volume of large truck traffic on certain State Highways, NY 34 and NY 34B (Potential Alternative Routes). The shifting of some large truck traffic onto Potential Alternative Routes has been analyzed and the anticipated increases in truck volumes is shown in *Appendix CB – Traffic Analysis*. The resulting truck volumes are low compared to the average truck volumes for other state highways. Route 34 and Route 34B have been analyzed for the environmental resources which could be most affected by increases to truck traffic. Summaries of schools, places of worship, and recreational areas located along these highways are shown in Exhibit 4.6. These topics are discussed in detail under Sections; 4.2.2 Neighborhoods and Community Cohesion, 4.2.4 School Districts, Recreational Areas, Places of Worship.

Five of the eight proposed *Reasonable Access Highways* have schools along them, the average number of schools along these highways is 2.4 and with an average of 1180 students/ highway. On NY 34 and 34B there is an average of 2 schools/ highway with 540 students/ highway.

Exhibit 4.6 Indirect (Secondary) Effects
Schools Potentially Affected by an Potential Alternative Route

Potential Alternative Route	Location	Schools Directly on Highway	Schools within ½ mile of Highway
NY 34 (From Rt. 20 to Rt. 34 B)	Auburn	Montissori School of Auburn - 73 Students	William H. Seward Elementary – 439 Students
	Auburn	Boces Cayuga-Onondaga Counties Campus 245 Students	Tyburn Acad-Mary Immaculate (Private) 90 Students (G 6-12)
NY 34B (from Rt. 34 to Rt. 90)	Poplar Ridge	Southern Cayuga Central School and High School 1,086 Students	
	Sherwood	Emily Howland Elementary School 301 Students	
Totals		**4 Schools (1,705 Students)**	**2 Schools (529 Students)**

Along selected *Reasonable Access Highways* there are 49 places of worship, averaging 7 per highway. Along NY 34 there are 4 places of worship. There are no places of worship located on NY 34B.

Exhibit 4.6 Indirect (Secondary) Effects
Places of Worship Potentially Affected by an Potential Alternative Route

Potential Alternative Route	Adjacent to National Network System
NY 34 (From Rt. 20 to Rt. 34 B)	First United Methodist Church – Auburn
	First Presbyterian Church - Auburn
	First Baptist Fellowship – North Lansing
	Kingdom Farms - Midway
NY 34B (from Rt. 34 to Rt. 90)	None

There are approximately 43 cities, towns, villages and hamlets located along the proposed *Reasonable Access Highways*. There are 8 cities, villages and hamlets located along NY 34 and 6 villages and hamlets located on NY 34B.

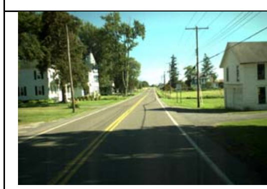
Exhibit 4.6 Indirect (Secondary) Effects
Communities Potentially Affected by an Potential Alternative Route

Image	Locale	Along Route	Description	Text Source
	Auburn	34	"...Auburn, a community of comfortable, quiet neighborhoods, historic homes and a wide variety of cultural institutions."	http://auburnny.virtualtownhall.net/Public_Documents/index
			"The City of Auburn Comprehensive Plan views Auburn as a complete city with a small town quality of life. A complete city provides its citizens with a wide range of housing types, opportunities for employment and recreation, public facilities of all kinds, and a vital downtown. A small town quality of life means a sense of friendliness, safety, and the ability of citizens to personally influence their city's civic, social and cultural life."	1991 Auburn Comprehensive Plan Summary

Exhibit 4.6 Indirect (Secondary) Effects
Communities Potentially Affected by an Potential Alternative Route

Image	Locale	Rout e	Description	Text Source
	Fleming (town and hamlet)	34/ 34B	"The Town of Fleming is comprised of a mix of rural, suburban and lakefront uses that provide a unique quality of life for residents. The Town of Fleming desires a balance between future development and protection of rural and lakeside character." "Fleming wants to be a place where people desire to live, work and play."	2001 Town of Fleming Comprehensive Plan, 2008 Addendum
	Scipio Center	34		
	Venice (Town)	34		
	Venice Center	34		
	Genoa (Town)	34	"Agriculturally based enterprises have been the mainstays of the town's economy. In its early history various grist mills and saw mills sprang up but exist now only in photographs or in scanty remains at their sites. Both threshing machines and steam tractors were once manufactured at Genoa village and King Ferry briefly had a glove factory. Currently, both hamlets have hotel accommodations and restaurants. In the western part of town there is a winery and a marina. In the eastern hamlet there is Smith's IGA, established in 1890, which still serves the community today. A golf course to the south in Lansing borders on the town line. Hand-crafting includes upholstering, furniture, pottery, and ceramics production."	http://www.cayugacounty.us/genoa/ourtown/history/index.htm
			"...King Ferry and Genoa form the agricultural heart of Cayuga County; their attractions include Rural Life Museum and award-winning King Ferry Winery."	http://tourcayuga.com/towns/cities_towns.php
	East Genoa	34		
	Lansing (Town)	34	"Lansing [has changed] from a town of many small, self sufficient villages to an area which depends on several large shopping districts in the incorporated Village of Lansing in the south of the town. The northern part of the town still has many prosperous farms, but many of the residents work in industries in and outside of the town, and at Cornell University, Ithaca College and Tompkins Cortland Community College."	http://www.lansingtown.com/

Exhibit 4.6 Indirect (Secondary) Effects
Communities Potentially Affected by an Potential Alternative Route

Image	Locale	Along Route	Description	Text Source
	N. Lansing	34		
	Scipio (Town)	34B		
	Scipio-ville	34B		
	Poplar Ridge	34B		
	Ledyard	34B	"The Town of Ledyard lies upon the east shore of Cayuga Lake, which forms its western boundary...The surface of the land is beautifully diversified, its landscapes, however, present less of the grand and sublime nature, than of its quiet beauty. The land inclines towards the lake, from which it slopes upward, generally by gentle, but occasionally by steep gradations, until it attains an elevation of 500-600 feet above the lakes level, a little east of the east border."	http://www.cayugacounty.us/ledyard/our_town/index.htm
	King Ferry	34B	"...King Ferry and Genoa form the agricultural heart of Cayuga County; their attractions include Rural Life Museum and award-winning King Ferry Winery."	http://tourcayuga.com/towns/cities_towns.php

4.7 CUMULATIVE EFFECTS

Cumulative effects on the environment can result from individually minor, but collectively significant actions taking place over a period of time. Cumulative effects resulting, in part, from the presence of large truck traffic may impact land use, historic resources and recreational areas. In conjunction with the general rise in traffic volumes along local and state highways, large truck traffic in some areas may influence appropriate land use and incremental property development for parcels near *Reasonable Access Highways*.

This action would reduce the number of large trucks on these highways which would result in an improvement to the regional quality of life and environment. Freight shippers who rely on trucks as a shipping mechanism are impacted by increased fuel and toll costs. Independent truck drivers and small trucking firms which operate on tighter profit margins are most impacted by increased fuel and toll costs. The estimated annual increase in fuel and toll expenses is $4.2 M (2008$).[1]

Businesses based upon tourism, similar to those found in the Finger Lakes area, such as wineries, lodging, resorts and small village shopping, will benefit by the reduction in large trucks. Reducing the large truck traffic helps maintain some of the desired qualities of a tourist area, which is needed to maintain the long term viability of the destination.

4.8 REFERENCES

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