

# Executive Summary

## Tompkins County Freight Transportation Study



Prepared For:  
Ithaca-Tompkins County Transportation Council  
June, 2002

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## **Purpose of Study/ Study Goals**

The general goal of this Freight Transportation Study is to obtain new data on freight movements in and through the County, from which a freight transportation plan can be developed. This plan would provide for efficient movement of goods into, out of, and through Tompkins County, while minimizing impacts on truckers, local businesses, shippers, and residents. The study area for this project includes all of Tompkins County.

To meet the study goals, the following objectives were identified:

- collect and analyze new data on freight movements throughout Tompkins County;
- assess the suitability of existing travel routes to handle freight movements;
- determine significant areas of concern;
- identify alternative truck travel routes and strategies;
- assess impacts of these alternative routes; and
- develop mitigation strategies

## **Study Outline**

This is an Executive Summary of the full Tompkins County Freight Transportation Study report. The main report is divided into five chapters. For reference, the following is an outline of the full report:

### ***CHAPTER 1 – Introduction***

- 1.1 Purpose of Study/ Study Goals**
- 1.2 Study Process**
- 1.3 Study Area Boundary**

### ***CHAPTER 2 – Freight Traffic Volumes / Problem Identification***

- 2.1 Introduction**
- 2.2 Vehicle Classification Counts**
- 2.3 Special Hauling Permits**
- 2.4 Bridges**
- 2.5 Truck Origin and Destination Survey**
- 2.6 Major Shipper/Receiver and Carrier Interviews**
- 2.7 Hazardous Material Hauling**
- 2.8 Area Resident Survey**
- 2.9 Town Highway Superintendent Questionnaire**
- 2.10 Areas of Concern**
- 2.11 First Public Meeting**

### ***CHAPTER 3 – Alternative Strategies***

- 3.1 Introduction**
- 3.2 Existing Functional Road Classification**
- 3.3 Alternative Truck Travel Routes and Strategies**
- 3.4 Impacts of Railroad Movements through the County**
- 3.5 Second Public Meeting**

## ***CHAPTER 4 – Impacts of Truck Movements and Alternatives***

- 4.1 Introduction**
- 4.2 Cost to of Alternatives to Truckers**
- 4.3 Impacts of Alternatives on Local Businesses and Shippers**
- 4.4 Identification of Significant Truck Impacts on Residential Areas**
- 4.5 Impacts of Alternatives on Residential Areas**
- 4.6 Third Public Meeting**
- 4.7 Road Maintenance Impacts**

## ***CHAPTER 5 – Recommendations and Mitigation Strategies***

- 5.1 Introduction**
- 5.2 Study Recommendations**
- 5.3 Mitigation Strategies for Residential Areas**
- 5.4 Future Action Steps**

## **Data Collection**

Data was collected from primary and secondary sources, including machine counters, an origin/destination survey, and through interviews and contacts with government agencies. The information gathered was used to generate the recommendations in this study. The various types of data collected is described below.

- *Vehicle Classification* - Vehicle classification counts were conducted at twenty-seven locations throughout the county. Classification counts were collected using machines and road tubes, which can differentiate between various types of vehicles, and record the numbers of vehicles by hour.
- *Special Hauling Permits* - The NYSDOT special hauling permit applications from the year 2000 were reviewed to determine what routes are being used in Tompkins County by overweight and oversized trucks.
- *Bridges* - Data on bridges with posted weight limits and bridges with low vertical clearances was obtained from the NYSDOT for Tompkins County.
- *Truck Origin and Destination Survey* - A truck origin and destination survey was conducted. The purpose of the origin and destination survey was to determine the percentage of truck traffic stopping in Tompkins County to conduct business, the percentage going straight through the county, and what routes the trucks take.
- *Major Shipper/Receiver and Carrier Interviews* - Telephone interviews were conducted with representatives from a sample of shipping/receiving and carrier firms in Tompkins County. The representatives stated their views on the problems and issues with truck transportation within Tompkins County that they encounter.
- *Railroad/Airport* - In addition to the trucking firms, the Tompkins County Airport (US Airways) and the Norfolk Southern Railroad were interviewed.
- *Hazardous Material Hauling* - Existing information was gathered concerning hauling of hazardous wastes and hazardous materials.

- *Area Resident Survey* - An area resident survey was conducted in order to determine the public's perception of where trucks travel and what impacts/concerns residents may have with trucks in the area. The surveys were distributed at locations throughout the county, as well as posted on the internet.
- *Town Highway Superintendent Questionnaire* – A questionnaire was distributed to Town Highway Superintendents to obtain input regarding trucks in their Towns.
- *Public Input* - Three public meetings were held during the study. The purposes of these meetings were to present the existing data concerning truck transportation data within the county, provide the public with the opportunity to voice any concerns they had with existing freight travel patterns and other perceived problem areas, discuss potential alternatives to handle the truck traffic, and to provide feedback regarding the potential study recommendations.

## **Areas of Concern**

After examining all of the data and input received, specific and general areas of concerns with truck traffic were identified. Only the areas where problems with truck traffic that can be solved or partially mitigated are listed in the report. There were many roads that were listed as having truck concerns, some of which are designed to handle trucks. Most residents would prefer to have no trucks at all, while the shippers/receivers and carriers would prefer as straight of a line as possible to their destinations. Neither of these is feasible, so the most manageable problems with truck traffic are identified in the report.

While the state highways are classified and designed to handle truck traffic (in general), trucks generally also use non-state highways. This study identified corridors with heavy truck traffic, corridors not well suited for trucks, and other areas of concern related to truck traffic. These are specifically identified and described in the study Final Report.

## **Alternative Truck Travel Routes and Strategies**

Alternative truck travel routes and/or alternative strategies that could help to alleviate some of the concerns voiced about truck traffic were developed. Potential alternatives were identified based on the information gathered through public meetings, meetings with the Highway Superintendents, interviews, and surveys. The potential alternatives are described in Chapter 3.

## **Impacts of Railroad Movements through the County**

The average number of trains running in Tompkins County is less than two per day from Sunday through Thursday, thus has minimal delay impacts on the current roadway system. The railroad activities in Tompkins County should continue to be monitored and any opportunities to increase rail usage should be pursued to enhance the current multi-modal freight system. However, it is not anticipated that rail shipping in Tompkins County will appreciably increase in the near future.

## **Impacts of Truck Movements and Alternatives**

Chapter 4 focuses on the impact of truck traffic throughout the County, and qualitatively assesses the potential impacts of the alternatives described in Chapter 3. It is important to note that alternatives discussed and analyzed in Chapters 3 and 4 are not recommendations, but rather alternatives for comparison. Recommendations are not made until Chapter 5.

## **Cost of Alternatives to Truckers**

Costs incurred or saved by truckers traveling over alternate routes were assessed using a per-mile cost factor. The FHWA's Comprehensive Truck Size and Weight (TS & W) Study was used as a reference to find a per-mile cost factor.

## **Impacts of Alternatives on Local Businesses and Shippers**

A qualitative assessment as to the impacts to local businesses, shippers and truckers was conducted and summarized in an Evaluation Matrix. Trucks can not be prohibited from using N.Y.S. Highways; therefore local businesses and shippers will only be impacted on the non-state roads where alternatives have been considered. There may be increased trip lengths associated with the proposed changes.

## **Identification of Significant Truck Impacts on Residential Areas**

The identification of areas of significant truck impacts on residential areas is difficult and subjective. It was not possible to count all residential streets that potentially are significant impacted by trucks, and the concerns expressed by residents may be based on fact, or perception. Also, the threshold as to what is "tolerable" changes based on the functional classification of the road, the residential density, the overall "feel" of the neighborhood, and so on. With the data available, two sources were tapped to assess these significant impact areas: surveys/input of residents and town highway superintendents, and an engineering assessment of where trucks are likely to be traveling. The following residential areas were identified as currently being significant impacted by trucks:

Valley Road/Brooktondale Road (Caroline)	Mitchell Street
Route 366 through Etna and Varna	Ithaca Road
Route 366 and 38 through Freeville	Quarry Road
Route 13 and 38 through Dryden	Seneca Street
Routes 38 and 222 through Groton	Buffalo Street
East State Street (S.R. 79)	S. Albany Street
Route 34 (E. Shore Drive)	Pine Tree Road
Ellis Hollow Road	
Roads in Cayuga Heights and Northeast Town of Ithaca (esp. Warren Road)	

The alternative truck routes tended to have the same amount or fewer residences adjacent to the roadway than the roads currently being used by trucks.

## **Road Maintenance Impacts**

Concern was expressed regarding road maintenance costs on designated truck routes. It is reasonable to expect that, with designated truck routes, overall road maintenance costs are likely to be less than if no designated truck route system existed. The number of trucks is the same with or without truck routes, but with a truck route system, there is a higher concentration of trucks on a smaller number of roads that would require upgraded pavement to handle truck traffic. The smaller number of roads designated as truck routes would make it easier for key highway supervisors to plan and manage road maintenance.

After recommendations from this study are finalized, and a truck route system is determined, current levels of maintenance, and existing cross sections of roads can be examined, and future maintenance costs can be estimated.

## **Recommendations and Mitigation Strategies**

The recommendations developed and presented in Chapter 5 result from completing the study objectives. The primary recommendations revolve around the development of a system of preferred truck routes. Typically, truck routes are defined as regional roads which trucks must take until they get as close as possible to their intended destination. At that point, trucks may use the local system. Exceptions may occur where local roads are not desired truck travel roads, so local restrictions, or alternate desired local routes can be posted. Truck routes are not meant to remove trucks from the local system, but rather keep trucks on the regional road system as long as possible. A county-wide coordinated truck route system offers many benefits, including minimization of impacts on adjacent land uses, better allocations of resources for road maintenance, and ease in facilitating enforcement.

The issue of truck movements through a community is always an extremely sensitive one - there is never one right answer. Restriction of trucks from certain roads merely relocates the impacts to other roads, with other residents. It is also important to note that restricting trucks from routes is not always the best solution, as doing so risks losing federal aid eligibility for those roads. Construction of new roads to accommodate trucks is often infeasible due to high costs, and a lack of right-of-way. Even if they are built, trucks still need to use local roads to get to their ultimate destinations. While this study identifies some solutions, which can help reduce truck impacts on certain roads, the most effective solutions may be the policy ones, which concentrate on education, enforcement, and cooperation. Trucks are necessary to the economic health of the area.

Based on the data and analysis and the input received during the public involvement process, the most appropriate locations for truck routes were identified. In some areas, there are no roadways that lend themselves to truck route designation. At other locations, more than one alternative is recommended for further consideration. Where more than one alternative was presented (discussed in Chapters 3 and 4), our recommendation may be one of the remaining alternatives, or a combination of them. In all cases, strategies should be pursued to reduce truck travel through impacted areas. These may include coordinating with trucking firms to use preferred routes, and enticing firms to relocate distribution centers to locations that are more convenient to proper truck routes.

The following presents the areas, identified during this study, as having issues with truck traffic. Recommendations for each of these areas are listed below.

- *Pine Tree Road/Ellis Hollow Road/Mitchell Street/Ithaca Road/Route 366 area*

This is a residential area, with long-standing issues with truck traffic. Based on input received throughout the public involvement process, none of the roads in the area are recommended to be designated as truck routes. Designation of any road as a truck route would result in unacceptable impacts to residential areas. Restricting trucks from routes would relocate impacts to adjacent routes.

There are three alternatives recommended for this area to help minimize truck impacts – two short-term and one long-term. In the short-term, it is recommended that major shippers and receivers continue to be encouraged to coordinate with all of the trucking firms to use preferred routes. Trucks should use the state highways as much as possible, and avoid sensitive cut-through routes. This would require cooperation, as the state routes often are not the shortest paths to key destinations. While trucks would still travel on Pine Tree Road, Ellis Hollow Road and the others, the result should be a reduction of heavy trucks on these key residential roadways.

The second short-term alternative is to erect signs to encourage trucks to use the preferred truck routes. Post signs for Ithaca-bound trucks, from the north (from Cortland and Syracuse areas) to stay on Route 13, rather than use Route 366, to downtown Ithaca. Sign trucks, heading westbound for Ithaca on Route 79, from Tioga County, to use Route 38 at Richford, to Route 13 to downtown Ithaca. This route is outside of Tompkins County, so NYSDOT would need to consider and promote this solution. This route reduces the number of trucks through residential areas near Ithaca, and provides a safer route into the city (the city approach on Route 79 is narrow and steep, while Route 13 is a four lane, divided, Principal Arterial).

The long-term alternative is to conduct more detailed studies to find a long-term solution to trucks in this area, which could involve consideration of new road links between Route 79, Route 366 and Route 13. A bypass road on the east side of Ithaca has been talked about, but it would involve high costs and land acquisitions. Should a bypass route still be considered viable, consideration of right-of-way preservation should begin soon.

- *North Triphammer Road/Route 34 area*

The grades, narrow width, and recreational and scenic nature of Route 34 make it undesirable for handling high numbers of heavy trucks. North Triphammer Road, which travels through one of the main commercial/retail areas of Tompkins County, has a full interchange with Route 13, and parallels Route 34, makes sense as an alternative travel route, as it offers safety advantages by being flatter, with wider clear zones. It is recommended that N. Triphammer Road, between Route 34B and Route 13, be designated, signed and promoted as a truck route. This should reduce the truck impacts on Route 34. Improvements to N. Triphammer Road may be needed to accommodate the increase in truck traffic.

- *Freeville/Etna area*

A significant percentage of trucks traveling between Ithaca and Cortland/Syracuse travel on the Route 366 /Fall Creek Road/ McLean Road corridor through Freeville, instead of Route 13. Route 13 is much better able to handle trucks than Fall Creek Road, especially heading northeast from Freeville, where it is no longer State Route 366. It is recommended that Route 13 be signed and promoted as a truck route between Ithaca and Cortland, rather than Route 366. Signs should be erected in both directions on Route 13 prior to the turn-off for McLean/Freeville, encouraging trucks to stay on Route 13. In the long-term, it is recommended that more detailed studies be conducted to further address truck movements in this area.

- *Route 96/Route 89 area*

The grades, narrow width, and recreational/scenic nature of Route 89 make it undesirable for handling high numbers of heavy trucks. Route 96 already handles more trucks than Route 89 and is a parallel route. It is recommended that Route 96 be signed and promoted as a truck route through the northwest part of Tompkins County. Signs directing trucks to use Route 96 should also be placed on Route 89 in the City of Ithaca. A more detailed study should be conducted to determine an appropriate route to direct trucks from Route 89 to Route 96 north of Tompkins County. The best route may be outside of Tompkins County, and as far away as the NYS Thruway. As a result, NYSDOT may need to pursue this, or area officials may need to coordinate with other transportation agencies or governments to implement this.

- *Groton area*

The intersection of Route 222 and Route 38 in Groton has been identified as a problem location for trucks and truck impacts. Concerns include truck turning radii, pedestrians and residential impacts. It is recommended that truck bypasses be created around Groton to connect Route 222 and Route 38. The northern bypass would use Old Stage Road and the southern bypass would use Peruville Road, which is a minor arterial, and Salt Road to Route 222. Old Stage Road and Salt Road would need to be reclassified as rural major collectors in order to be eligible for federal funding. Since local, county and state roads are involved in the recommendations, the corresponding agencies must coordinate the implementation.

- *Downtown/Route 96B area*

Many downtown streets are residential in nature. As much as possible, recommendations were made to try to keep trucks on the downtown one-way street pair of Seneca Street and Green Street (Route 79). These roads function as the main thoroughfares in the downtown area (along with Route 13). Aurora Street is included to provide the connection from Route 96B (Clinton Street) to and between the one-way pair.

It is recommended that the Route 96B designation be removed from Clinton Street. Aurora Street should be designated as Route 96B up to Seneca Street. The one-way pair of Seneca Street and Green Street should also be designated jointly as Routes 79 and 96B. Aurora Street, Seneca and Green Streets, in this area, should be designated as truck routes.

- *Downtown/Hudson Street*

There is a concern with truck impacts on Hudson Street, between Coddington Road and downtown. For vehicles approaching the city on Coddington Road, Hudson Street provides the shortest access to downtown Ithaca, rather than taking Coddington Road to Route 96B. Placing signs, which direct trucks to use Coddington to Route 96B, at the intersection with Hudson Street, would help reduce trucks on Hudson Street. Making intersection improvements at Hudson and Coddington, to prioritize the traffic movement to stay on Coddington, should help the situation.

- *Route 327*

Route 327 has grades, which make it less desirable and less safe for trucks. Routes 79 and 13 offer viable alternatives to Route 327. Sign trucks to stay on Route 79 and Route 13, as alternatives to Route 327.

- *Route 13A*

Route 13 should be signed as an alternative to Route 13A, which is more residential in nature.

### **Policy/Strategy/Enforcement Alternatives**

The recommendations above center around the development of a truck route system. In order to be successful, the truck route system must be interconnected, effectively signed, and adequately enforced. In addition to the previous recommendations, the following policy/strategy/enforcement initiatives must be implemented:

- **Develop a County-Wide Truck Route System**

An official County-Wide Truck Route System must be developed. The system should take the final recommendations of this report into account, as well as any more detailed follow-up studies. The system must be interconnected within the county, logically connected to routes in adjacent counties and must support any truck initiatives of adjacent counties.

- **Ordinances**

Consistent ordinances must be developed by each municipality. The ordinances must define what the various routes and restrictions mean, what the penalties will be for violations, and must be enforceable. These ordinances could also address hazardous materials transport. Any changes in the designation of roadway must be coordinated between municipalities.

- **Signing System**

An effective, consistent truck route signing system throughout the county should be implemented to ensure and encourage trucks to use the recommended truck routes. Signs should be used to disseminate information to trucks and can also be employed to help truckers to recognize and remember changes in truck routes.

- **Enforcement**

- *Route Enforcement*

- Methods must be implemented to ensure that designated truck routes are being followed. Video enforcement could be used in selective areas where problems with violations occur. Where alternative routes to state highways will be promoted as truck routes, and

cooperation of the truckers is needed in order for the alternatives to be effective, variable message signs, and video can be used to determine if specific truckers or shipping/receiving firms are supporting the alternatives.

#### Speed Enforcement

One of several speed enforcement tools can be employed at specific locations where violation reports are made. The use of mobile camera systems to assist in speed enforcement should be explored, if New York State law permits the use in the future.

#### Weight Enforcement

Weigh in Motion (WIM) devices enable troopers to identify overweight vehicles. Increased use of this technology in Tompkins County is essential in enforcing this issue. Specific locations for implementation can be identified based on violation reports, and monitoring by the highway superintendents. This violation system may be automated.

#### Noise Enforcement

Increased enforcement of the existing law is needed countywide to ensure trucks using “jake” brakes are staying in the acceptable decibel range. Where complaints are registered, noise monitoring equipment could be temporarily installed, along with either video or officer monitoring to document the violators.

- **Trucker/Shipper/Carrier/Public Education Program**

Truckers and shippers/receivers may not be aware of truck routes and other restrictions, and must be informed of ordinances and threshold values for noise and weight. They must also be made aware of violation penalties, and consistently penalized for violations. Residents must equally be made aware of the laws and thresholds. Trucks are permitted to take certain routes, be certain weights, and generate a certain amount of noise. The program may take the form of brochures, direct meetings with companies and individuals, a web site, open forums, and others.

## **Mitigation Strategies for Residential Areas**

The policy/strategy/enforcement alternatives above should help a great deal to minimize impacts for residential areas by directing trucks along the proper paths, defining clear penalties if they don't follow the truck routes, and providing law enforcement with improved tools to catch violators. The education program will be key. Once the new systems are in place, it is important that everyone, including the truck drivers and the residents, know and understand what is and is not allowed under the new ordinances.

There are other mitigation strategies as well. Truck restriction signs can be posted on specific streets. If specific shippers or carriers are using a specific street of concern, agreements can be reached that provide incentives for the truckers to use alternate routes. This incentives can be in the form of tax breaks, economic assistance with facility relocations or upgrades, financial reimbursements to counter the lost travel time, etc. For streets where the impacts are excessive, traffic calming measures, such as speed humps, chicanes, or diverters can be installed. Finally, a neighborhood truck watch can be formed, where residents, working with law enforcement officials, can develop a system to monitor truck traffic.

## **Future Action Steps**

The following presents future action steps, leading towards implementation of the study recommendations. It is important that coordination occur with DOT, other counties or governments. It is equally important that recommendations of other regional or local studies be considered and supported, to assure an effective system that supports local and regional initiatives and goals.

- A “Truck Route Committee” should be formed, which includes representatives from each of the municipalities and from the City and County, to develop and finalize this Regional Truck Route System. The ITCTC Planning Committee would be a good “umbrella” group for this committee.
- The “Truck Route Committee” must review this report and determine if more detailed studies are needed to determine if any localized truck route additions, restrictions, modifications, and/or right-of-way preservations are needed. The studies can also look into detail on land acquisition, construction and maintenance costs.
- The “Truck Route Committee” should assist each municipality in drafting a new truck ordinance, to assure consistency throughout the Region. The ordinances must then be officially adopted.
- The “Truck Route Committee” should develop, perhaps with assistance from a consultant, an effective, consistent truck route signing system. This should include a short-term transition system, to assist truckers when the truck route system is initially implemented.
- The “Truck Route Committee” should, perhaps with assistance from a consultant, work with law enforcement to develop a new truck ordinance enforcement program and to determine the appropriate tools needed to successfully implement it.
- A “County-Wide Truck Route Advisory Council”, made up of representatives from the towns, villages, city, trucking firms, shippers, receivers and residents, should be formed to develop and implement an education program on the new truck ordinances and route system. The program should target shippers, receivers, truckers, law enforcement officers, and residents.
- The “County-Wide Truck Route Advisory Council” should monitor and fine-tune the truck route program, as needed.