

## **Appendix F**

### **NYMTC Freight Plan Summary**

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# Freight Plan

## Executive Summary

### ■ Project Purpose, Goals, and Objectives

The purpose of the New York Metropolitan Transportation Council (NYMTC) Regional Freight Plan Project is to develop a roadmap for the improvement of freight transportation in the NYMTC region. The plan presents a wide range of strategies and actions that include capital projects, operational improvements, and policy changes. These strategies are multimodal, targeting highway, rail, and marine transport, and can be implemented in the short term (one to three years), mid term (three to 10 years), or long term (more than 10 years). Some of the recommendations in the plan call for short-term actions around which a regional consensus for action already exists. In the case of the most capital-intensive projects, the plan recommends that agency owners continue the planning process. NYMTC has used this planning process to develop a consensus on the problems facing the region and the goals and objectives of a regional freight program.

The Regional Freight Plan Project also emphasizes the importance of individual agency initiatives, and the need for coordination across these agencies. This is an appropriate function for a metropolitan planning organization (MPO), which typically looks beyond the operational and geographic responsibilities of individual agencies.

Due to the complexity of this effort, many issues remain unresolved. However, it is hoped that the plan points the way for further resolution and action by project proponents and other stakeholders. In particular, this plan does not address “inside the gate” issues involving the operation of specific facilities such as airports, ports, and intermodal yards; this is a topic best left to the owners and operators. The NYMTC region also is part of a larger interdependent tri-state metropolitan area that includes parts of New Jersey and Connecticut. While NYMTC can only directly address projects originating within its own jurisdiction, the movement of freight does not recognize arbitrary political boundaries. Therefore, many of the issues and proposed actions discussed in this report have resonance in the larger region and will require a coordinated approach to their solution.

The Regional Freight Plan Project was intended to achieve the following goals for the improvement of freight transportation, as originally defined in the Regional Transportation Plan. It is intended that these goals be achieved in ways that protect the interests of communities throughout the region:

- To improve the transportation of freight by removing burdensome government regulations and restrictions;
- To improve the physical infrastructure of the transportation system for freight-related transport among shipping and receiving points, and major terminals and ports;
- To improve the reliability and overall movement of freight in the region by encouraging expedient and cooperative multimodal shipment of freight;
- To improve the reliability and overall movement of freight in the region by expanding alternatives for trucks and other commercial vehicles; and
- To improve the freight system's strategic redundancy (NYMTC and other agencies currently are addressing this goal in other studies).

In pursuit of these goals, the following objectives were established for the Freight Plan:

- Develop a timely descriptive narrative of the current freight delivery system (Tasks 1, 2, and 4);
- Provide recommendations for capital and operating projects, policies, and programs (Tasks 5 and 6 and this report);
- Suggest initiatives for further freight transportation planning and incorporate freight needs into the regional transportation planning process (this report); and
- Educate the public on freight transportation characteristics and issues from the point of view of shippers, carriers, and other affected stakeholders (ongoing Freight Transportation Working Group process).

## ■ Problem Statement

Forecast economic growth in the 10-county NYMTC region is expected to significantly increase the volume of freight moved in the region. The 10-county NYMTC region already experiences the highest volume of freight movement of any metropolitan area in the nation. Regional commodity flows are expected to grow from 333 million annual tons in 1998 to 490.5 million annual tons in 2025, a 47 percent increase. Nationally, it is anticipated that the volume of freight will increase by 68 percent between 1998 and 2020. Thus, the growth of freight movement in the region is forecast to be slightly lower than in the nation as a whole.

The commodities, modes, and origins and destinations of freight movement in the region are expected to change little. Highway-based modes are expected to continue to dominate other modes. Trucks carry over 80 percent of regional freight

(measured in tons), while rail and air each carry less than one percent. Nationally, 16 percent of freight moves by rail. Among the 25 largest metropolitan areas in the country as measured by the Bureau of Economic Analysis (BEA), the New York region (even including the New Jersey portion) ranks second to last in terms of rail mode share, just ahead of Boston.

In general, the NYMTC region's freight system serves admirably to move the large volume of goods needed to keep the nation's largest regional economic engine running. However, those who reside and do business in the region face high levels of traffic congestion. This congestion impacts the predominant mode of freight travel in the region – trucks. As residents, this increases their cost of living. As businesspeople, this forces them to pay more for freight services. There are a number of specific issues that, in aggregate, create less than efficient conditions to move freight. The five deficiencies identified below relate to broad regional issues, specific bottlenecks, or detailed terminal interconnections at particular facilities.

1. **Lack of Coordination** - Historically, freight transportation has evolved around independent modal networks, each competing with others in a redundant and often destructive manner.
2. **Modal Dependence** - The region is overwhelmingly dependent on a highway infrastructure that is subject to tremendous congestion at all times of the day.
3. **State of Infrastructure** - Freight movements over both rail and highway systems are restricted by inadequate dimensional envelopes to prevent rail cars and trucks from moving in the most logical and expedient fashion.
4. **Operational Limitations** - Truck access is hampered by a highway system that is not always contiguous for commercial vehicle movement, while freight trains must share publicly owned and intensively used passenger rail lines.
5. **Economic Challenges** - These deficiencies inflate the price of goods and services, impacting business locational decisions, reducing the profitability of existing companies, and otherwise sapping the region's economic vitality.

These challenges result in the following specific deficiencies:

- Poor highway performance;
- Inadequate access to freight handling facilities;
- Inadequate infrastructure and underused modes;
- Transportation network constraints; and
- The need for higher security.

These problems will worsen as the region continues to grow and prosper if action is not taken to fix them. Despite the recent recession and the aftermath of the September 11, 2001 terrorist attacks, strong economic growth is still forecast for the region in the next 25 years. An efficient transportation system is essential to

achieve this growth, provide economic opportunity for the region's residents, encourage businesses to locate and expand in the region, and to enhance the region's preeminence in such fields as finance, technology and the arts.

## ■ Process

Strategies for the Regional Freight Plan were identified through the following process:

- A public forum was held to solicit a broad and varied list of improvements. Further input was obtained from NYMTC's Freight Transportation Working Group;
- NYMTC's member agencies, as represented by its Program, Finance and Administration Committee, generated a working list of candidate freight strategies and actions to test;
- Actions were separated into short-term solutions with an implementation timeframe roughly corresponding to the current Transportation Improvement Program and Statewide Transportation Improvement Program planning horizons (one to three years), mid-term solutions (three to 10 years), and long-term solutions (more than 10 years); and
- Actions were further separated into three distinct alternative packages for analysis purposes:
  - Policy package of short-term operational strategies,
  - Package of capital-intensive highway improvements, and
  - Package of capital-intensive rail improvements.

Projects were evaluated against both transportation and non-transportation measures. The transportation measures included a planning-level assessment of local vehicular operations disaggregated by subregion, vehicle type and time of day. Where an actual physical change in the roadway network was proposed and sufficiently defined by project proponents, the impact was assessed using the NYMTC Best Practices regional travel demand model (BPM). Non-transportation measures included qualitative assessments of impacts on the environment, economy, connectivity, communities, institutional and physical feasibility, and the use of new technologies. The analysis focused on the most significant freight corridors for the regional movement of freight, including the following:

- The *Northern Crossing* corridor (I-95), consisting of the George Washington Bridge, Cross Bronx Expressway, and Major Deegan Expressway;
- The *Southern Crossing* corridor (I-278), consisting of the Goethals Bridge, Outerbridge Crossing, Staten Island Expressway, and Verrazano Narrows Bridge;
- The *Eastern (I-278)* corridor, consisting of the Gowanus and Brooklyn/Queens Expressways;
- The *Eastern (I-678)* corridor, consisting of the Van Wyck and Clearview Expressways from the north to JFK International Airport and adjacent industrial areas; and
- The *Southern Brooklyn-Queens* corridor to JFK consisting of Atlantic Avenue, Linden Boulevard, the Belt Parkway, and the Bay Ridge Branch of the Long Island Railroad (with no current roadway).

For analytical purposes, the latter two corridors were combined into a single study corridor of access routes to JFK Airport and environs.

## ■ Recommendations

The Regional Freight Plan's recommendations are summarized in Table ES.1, organized by project goals, and in Table ES.2, organized by the regional deficiencies outlined above. Table ES.1 provides a complete outline of each recommendation, including benefits, corridor impacts, responsible agencies, timeframes, next steps, and capital costs (where an estimate is available). Table ES.2 links each action to a specific deficiency or deficiencies in the regional freight network. The narrative description of each project that follows in the body of the report is organized as follows:

- Project goal to be achieved;
- Strategy to support the goal; and
- Actions (specific projects) to implement the strategy.

These recommendations provide a framework for future actions. They complete the iterative process that began with the description of the freight system. This process continued with the formation of goals that help define a healthy system, the development of performance criteria, the identification of possible solutions, and the evaluation of the solution. The process concludes, with this material, in the elaboration of a program that builds upon the previous steps by identifying follow-up activities and responsible organizations, as well as the timeframe within which they are to be accomplished.

The actions identified in the roadmap were analyzed for this project by means of limited quantitative and qualitative methods as described in more detail in Section 3.0. More extensive analyses are being undertaken by project proponents. Based on the analyses conducted for this project or those analyses already conducted by project proponents, the identified actions could be expected to meet the following plan objectives:

- Reduce future truck volumes on some roadways;
- Improve traffic operations on some roadways;
- Increase rail mode share in the region;
- Improve environmental quality; and
- Create a more efficient and cost-effective freight delivery system.

The analysis of these benefits is described in Section 6.0.

**Table ES.2 Actions by Deficiency**

	Existing Study or Project
<b>1. Poor Highway Performance</b>	
Highbridge Interchange improvements	✓
Cross Bronx Expressway Service Roads	✓
Goethals Bridge improvements	✓
Staten Island Expressway Service Roads	✓
“Freightways” (Gowanus HOV)	
<b>2. Inadequate Access to Freight Facilities</b>	
Port Inland Distribution Network	✓
Freight ferries	
Staten Island Railroad restoration	✓
South Brooklyn track improvements - 1 <sup>st</sup> Avenue	✓
Sheridan/Bruckner Interchange - Access to Hunts Point Market	✓
Freight villages	
JFK Airport corridor improvements	
Goethals Bridge improvements	✓
TOFC clearance	✓
Commercial vehicle loading zones	✓
<b>3. Inadequate Infrastructure and Underused Modes</b>	
Cross Harbor Tunnel	✓
TOFC clearance	✓
Reducing rail freight/passenger operational conflicts	✓
Improve existing floats	
Increase track loading to accommodate 286,000 rail cars	
<b>4. Transportation Network Constraints</b>	
Truck route management study	✓
Reduce limitations on 53-foot trailers	
Brooklyn-Queens Expressway clearance	
Automated truck permitting and credentialing	✓
Value pricing	✓
Integrated Incident Management System	✓
TOFC clearance	✓
<b>5. Need for Improved Security</b>	
“Inside the gate” projects to be addressed by others	

## ■ Financing

The NYMTC region faces a growing gap between the demand for transportation improvements and the likely supply of funding available from Federal, state, regional, and local sources. Choices will have to be made about which projects receive priority for advancement. Operational or capital improvements to roadways generally benefit the transportation of both people and goods. However, projects that mainly benefit freight will compete against those that benefit passengers. The Regional Transportation Plan identifies financially constrained needs of \$143 billion between 2000 and 2025 for state of good repair, normal replacement, and some capacity expansion projects. Few if any of the projects included in the NYMTC Regional Freight Plan are reflected in the Regional Transportation Plan's needs assessment.

Based on the limited estimates made available for this study, projects identified for advancement or further study in this report would cost approximately \$2.0 billion. The Cross Harbor tunnel and ancillary facilities would cost an additional \$4.4 to \$7.3 billion depending on whether a single or double tunnel system were to be constructed. These estimates do not include the costs of potential major highway projects that would benefit both passenger and freight movement, such as improvements to the Highbridge Interchange, construction of continuous service roads on the Cross Bronx Expressway, removal of the height clearance restriction on the Brooklyn-Queens Expressway, and as yet undefined improvements to the JFK Airport corridors. These projects, taken together, would comprise a multi-billion dollar program. They will be eligible to compete for Federal Highway Trust funds and matching state dollars.

Many of the highway actions described in this report can potentially draw on long-established state and Federal funding sources. Most of these actions would improve both freight and passenger transportation, and hence do not need to be justified as one or the other. The Federal Highway Administration distributes Highway Trust Fund revenue from the Federal gas tax to states on a formula basis, and states in turn distribute these funds to urban and rural areas. The Federal government will typically fund up to 80 percent of the cost of eligible projects. Future funding amounts will depend on any potential changes in the formula allocation that may emerge from the reauthorization of the TEA-21 legislation, as well as overall authorization levels.

In comparison, freight rail projects have historically received little Federal funding and the operators and owners of these facilities tend to have limited capital resources. For example, there is no Federal rail freight equivalent of the Federal Transit Administration's New Starts discretionary funding program. In the NYMTC region, many rail freight facilities are publicly owned but privately operated, complicating the task of public participation in funding rail freight projects. The best hope for funding such projects is either to develop a new dedicated Federal funding program specifically for this purpose under TEA-21

reauthorization, or to Congressionally earmark funds for specific projects under existing program categories.

The Administration's proposal for TEA-21 reauthorization the Safe, Accountable, Flexible and Efficient Transportation Equity Act of 2003 (SAFETEA), and a Congressional initiative called Transportation Equity Act Legacy for Users (TEALU) each contain several proposals that would broaden the Federal government's ability to participate in freight projects. Other potential strategies include user tolls and surcharges and public/private development partnerships. In order to compete for these potential new funding sources, it is essential that the region coalesce around a set of priority projects.

The NYMTC Regional Freight Plan has required a great deal of analytical work. This work is presented in a series of technical memoranda that can be viewed on the NYMTC web site, <http://www.nymtc.org>.