TECHNICAL MEMO

NYMTC Regional Freight Plan Update 2015-2040 Interim Plan

Task 2.1.5
Intermodal Network and Infrastructure

NYMTC
NEW YORK METROPOLITAN TRANSPORTATION COUNCIL

REVISED, JANUARY 2014

technical memorandum

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Revised, January 30, 2014

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1.0 Introduction

This memorandum provides an overview of the intermodal freight infrastructure assets in the region covered by New York Metropolitan Transportation Council (NYMTC). Intermodal freight infrastructure includes the terminal facilities at which freight is transferred or transloaded from one transportation mode to another. Examples of intermodal facilities include:

- Truck-to-rail terminals;
- Truck-to-water terminals;
- Rail-to-water terminals; and
- Air-to-truck terminals.

Although the region covered by NYMTC includes ten counties located in the state of New York, intermodal service to these counties also relies heavily on infrastructure located in the New Jersey portion of the New York metropolitan region. Indeed, most intermodal freight that is associated with the NYMTC region arrives or departs via a rail or marine terminal that is located in northern New Jersey. Thus, by necessity, this memorandum provides an overview of the infrastructure located in northern New Jersey in addition to the NYMTC counties.

2.0 NYMTC Intermodal Network

2.1 INTERMODAL SERVICES DESCRIPTION

The types of intermodal service available in the region are described below:

Rail/Highway – Intermodal Containers and Trailers

In a multimodal supply chain, trains carrying containers and trailers represent one link in the intermodal chain that connects shippers with receivers, together with container ships and trucks. In order for the connections to occur, intermodal rail terminals are established to facilitate the transfer of containers and trailers between modes (ship to rail, truck to rail, and vice versa). At present, there are no rail/highway intermodal terminals located in the NYMTC region. Instead, intermodal rail trips begin or end at several terminals in New Jersey, with trucks hauling ("draying") the trailers or containers between the terminals and the NYMTC member counties. With terminal and network infrastructure that is critical to NYMTC, intermodal facilities located in the North Jersey region are covered in this memorandum as well.

Intermodal service is typically described as either Container-On-Flat Car (COFC) or Trailer-On-Flat Car (TOFC). Containers can generally be stacked 2-high onto container carrying railcars (subject to certain limitations based on container length), with the determinant usually being the vertical clearances along the train's route. Around New York, vertical and horizontal clearance constraints limit the use of double stack service to three routes out of the West of Hudson region. Double stacking is not possible with TOFC.

In discussing intermodal traffic, it is useful to draw some distinctions between the different types of equipment that are commonly used in this service:

- International containers come in three standard sizes based on the length of the container: 20-foot, 40-foot, and 45-foot long containers. These sizes are standardized by international convention to ensure that the containers can be efficiently utilized throughout the globe, across the full spectrum of surface transportation modes.
- Domestic containers are, as the name implies, only used in the North American Free Trade Agreement (NAFTA) region. They are designed to take advantage of the longer lengths that are permitted on the North American highways and are most commonly 53' in length. For reasons of supply chain efficiency and transportation cost advantages

international shipments are often transloaded between international and domestic containers at or near the major seaports.

- Trailers, with their permanently attached wheels and kingpin, once were the most common type of rail intermodal equipment. Starting in the 1980s, the logistical advantage of not having to manage a chassis pool at every intermodal terminal has been overwhelmed by the cost advantages from double stack operation, with the result that the proportion of intermodal traffic handled in this type of equipment has steadily declined. Trailers are now only used in specialty applications, such as by UPS and other TL and LTL trucking companies with very stringent service requirements.

Intermodal facilities are often dedicated to particular types of traffic, such as international or domestic, or by equipment type, e.g. container or trailer. High volumes have made this specialization more operationally and economically attractive. For example, containers can be loaded directly onto railcars from a ship at an on-dock terminal, or containers can be drayed by truck to near-dock or off-dock facilities for loading onto railcars.

Rail/Highway – Transload of Bulk Goods

Bulk commodities are often transloaded between railroads and trucks at rail yards and other facilities throughout the region. These bulk transload terminals provide access to the rail network for shippers that do not have a rail siding next to their facility(ies). The design of these terminals can range from simple to elaborate, depending on the types of commodities and volumes handled through them. The typical commodities being transloaded in the NYMTC region are waste and scrap materials, food, coal, lumber, building products, stone, and fuel.

Highway/Rail and Barge – MSW Transload

Trucks collect municipal solid waste (MSW) across the region and transport it to MSW transload facilities in sealed containers. The containerized MSW is transferred from truck to rail or truck to barge and shipped out of the region.

Water/Highway – Long Island Sound Ferries

Car ferries operating on Long Island Sound also accommodate trucks, but the volumes are relatively low. The Long Island Sound ferry market was around 1.9 million annual cars and 30,633 trucks in 2000[1]. Currently, the existing year round ferry services carrying trucks in the NYMTC region include the Bridgeport–Port Jefferson Ferry, the New London–Orient Point Ferry, and the North Ferry serving Shelter Island.

[1] NYMTC Long Island Sound Waterborne Transportation Plan.

Water/Rail

Marine terminals and ports with on-dock rail access in northern New Jersey and the NYMTC region move containers, railcars, and bulk commodities between New Jersey and New York by rail and barge.

Air/Highway

As described in greater detail in Technical Memorandum 2.1.5, the main purpose of air cargo facilities is to move cargo to and from landside to airside, from truck to aircraft efficiently. The types of air cargo facilities present in the region include:

- **Integrator Operations,** which are highly automated, customized facilities with dedicated loading and aircraft positions for parcel delivery companies such as UPS and FedEx. These facilities are located in the vicinity of JFK and Newark Liberty International airports.
- **General Cargo Facilities,** whether single tenant use or multitenant, are generally large warehouse facilities, located on or adjacent to the region's air cargo-handling airports.
- **Freight Forwarders** are combinations of cargo warehouse functions and office space for cargo brokers.
- **Logistics Centers and Value Added Facilities** accommodate additional logistics and supply chain functions, sometimes including other cargo modes. Value added operations make improvements to the product or packaging at the facility beyond just preparation for shipping such as installing a customer-specific part.
- **Mail Centers** can be stand alone or operations within cargo facilities and involve sortation equipment on various levels.

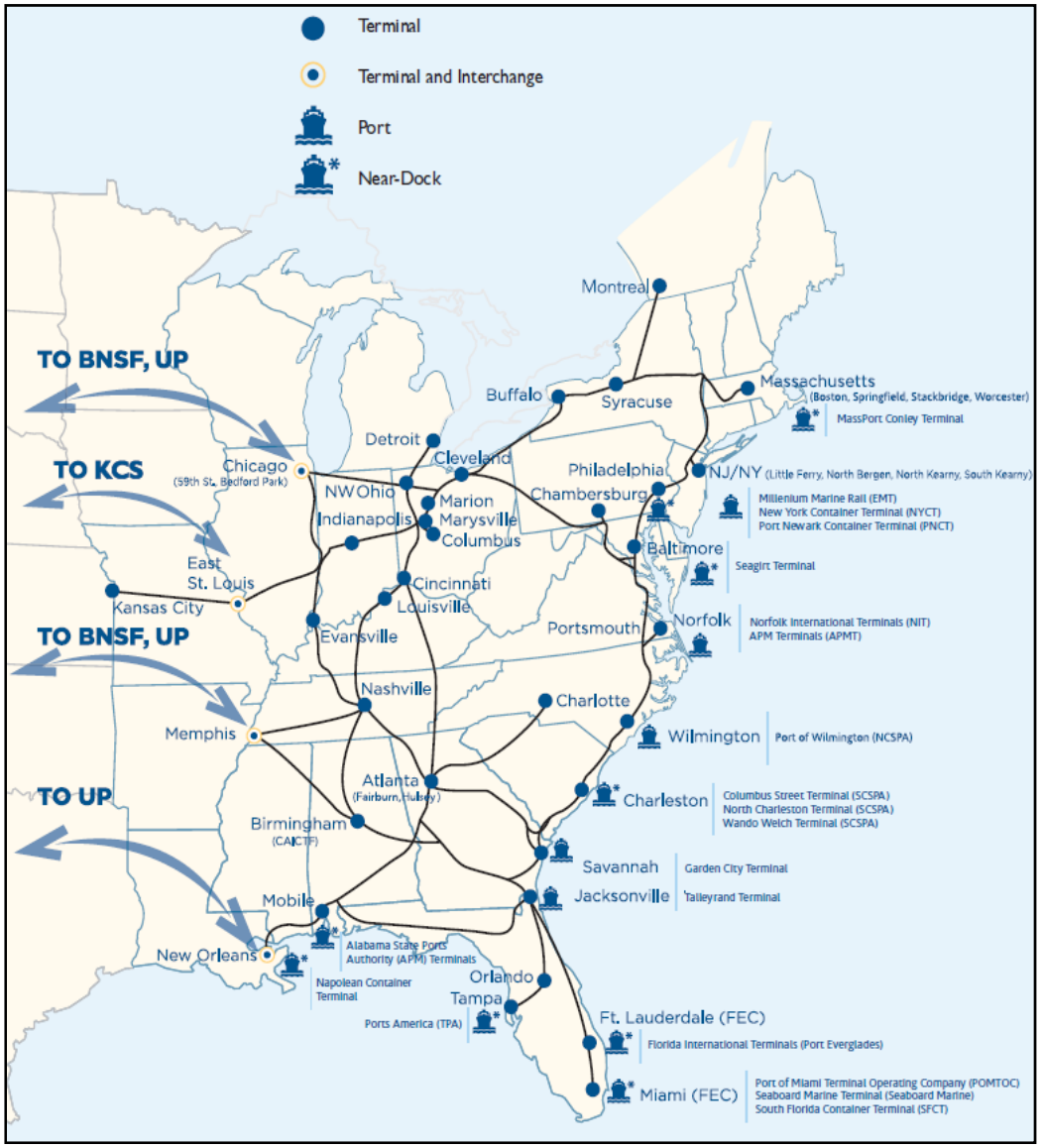
2.2 NATURE OF PROVIDERS

Rail Carriers

The primary rail carriers that serve the region are CSX and Norfolk Southern (NS). Both carriers operate an extensive network of intermodal service in the eastern U.S., and provide connections to the entirety of the North American rail network. Figures 2.2 and 2.3 illustrate the existing CSX and NS intermodal networks, respectively. A detailed discussion of their rail operations are presented in the Task 2.1.2 Rail Network and Infrastructure Technical Memorandum. In addition to CSX and NS, CP provides limited intermodal service between North Jersey and Montreal for international containers. In addition to container and trailer intermodal service, regional and short line railroads in the region, including New York and Atlantic Railway and New York New Jersey Rail, provide service to several rail bulk

transload facilities, where bulk commodities are transloaded from rail to truck, or vice versa.

Figure 2.1 CSX Intermodal Network



Source: Retrieved from CSX website http://www.csxi.com/?fuseaction=customers.map. Accessed March 20, 2013.

Figure 2.2 NS Intermodal Network

Source: Retrieved from NS website http://www.nscorp.com/nscintermodal/Intermodal/System_Info/. Accessed March 20, 2013.

Drayage

Drayage describes the transport of all kinds of freight between a rail, marine, air terminal or warehouse and a shipper or consignee by highway. Most commonly associated with the handling of intermodal containers and trailers, a drayage move is typically a day's drive or less, such as between the terminals and wharves of North Jersey and the NYMTC counties. Most trucking firms that provide drayage services are small, ranging in size from single vehicle owner operators to fleets of perhaps 100-200 tractors.

Barge Lines

There are numerous barge lines that serve the NYMTC region and North Jersey region. Barge lines move millions of tons of petroleum products, chemicals, construction and demolition (C&D) material, and municipal solid waste (MSW), as well as containers and railcars in the region. They also provide ocean vessels with fuel, water, waste removal, and "lightering" (offloading of cargo away from shore) services.

Ferry Operators

The ferry operators that serve the NYMTC region include Bridgeport & Port Jefferson Steamboat Company, the Cross Sound Ferry (New London–Orient Point), and the North Ferry Company serving Shelter Island. The South Ferry to and from Shelter Island does not carry commercial vehicles.

Air Carriers

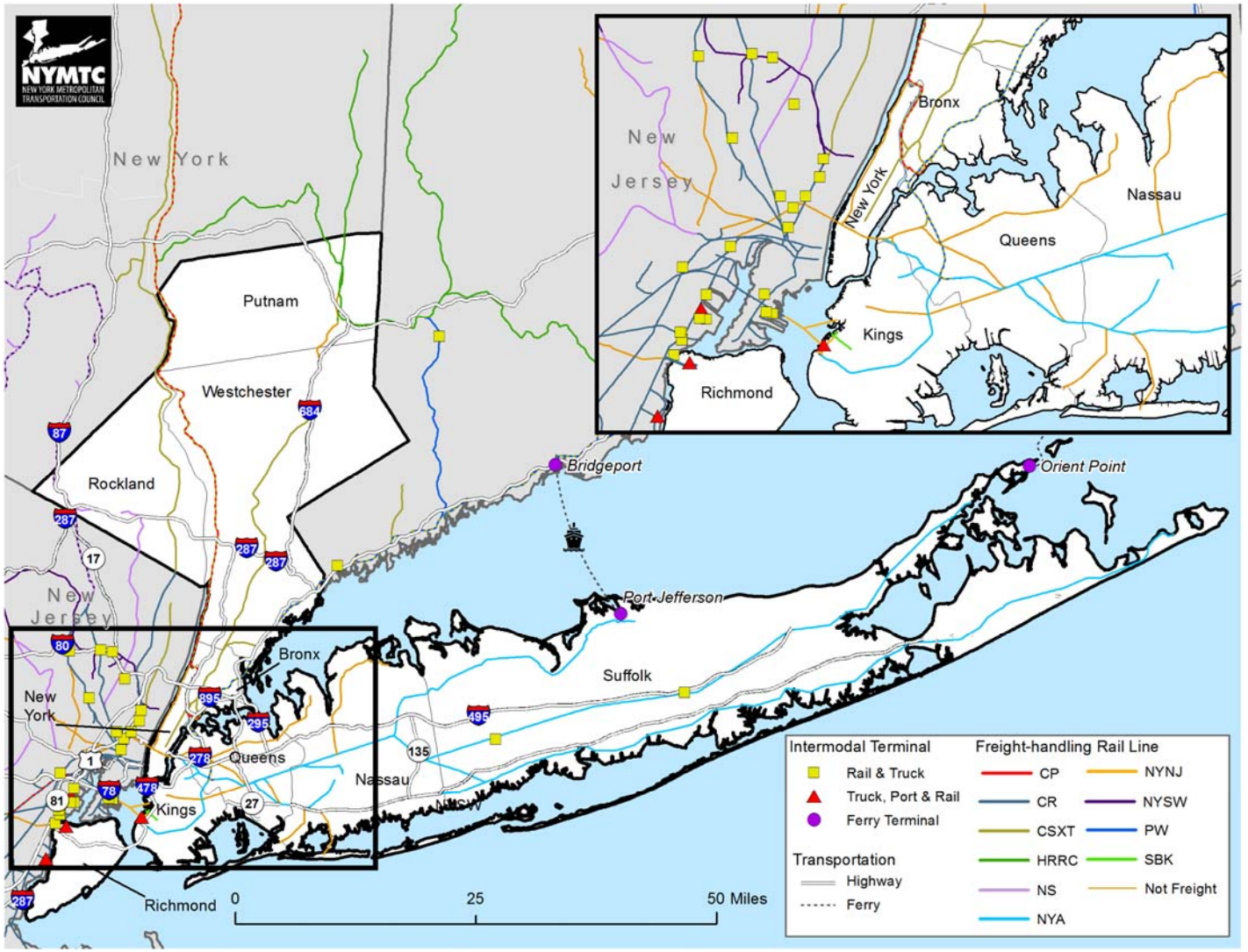
Operators for air cargo include integrators such as FedEx and UPS, air cargo aircraft operators, including Polar Express and CargoLux, airline-cargo-specific operators with dedicated aircraft service, such as Lufthansa Cargo and Emirates Cargo, passenger airline cargo operations for all passenger airlines operating in the region, and freight forwarders (Kuehne + Nagel and DB Schenker).

Air cargo aircraft operators and airline-cargo-specific operators with dedicated aircraft typically provide scheduled air-transport service for consistency but they also can provide charters for humanitarian, military, or heavy lift cargo operations. Heavy-lift operators who might transport aircraft wings, military vehicles, or light rail cars are a special class of airline-cargo-specific operators using very large aircraft or customized freighter aircraft. Freight forwarders consolidate air freight and broker the cargo demand to aircraft operators at competitive pricing but operate no aircraft.

2.3 TERMINALS

Figure 2.4 presents the region's intermodal freight infrastructure assets, including the rail lines, major highways, intermodal terminals, and rail yards. Table 2.1 summarizes the intermodal facilities, including rail yards and ferry terminals that are relevant to the region's intermodal system. For each facility, the table details the operating railroad when applicable, the intermodal connections available, and whether it is located in the NYMTC region or in New Jersey. These facilities are described in detail below.

Figure 2.3 NYMTC Intermodal Network



Sources: I-95 Corridor Coalition ICAT Rail Network, Bureau of Transportation Statistics National Transportation Atlas Database, 2012; US Census Bureau; Cambridge Systematics, Inc.

Table 2.1 Regional Yards and Terminals Intermodal Connections

Terminal Name	Operating Railroad	Location	Rail/ Highway	Rail/ Water	Water/ Highway	Bulk Transload	MSW Transload
65th Street Yard	NYNJ	NYMTC		✓		✓	
Bridgeport & Port Jefferson Steamboat Co.	N/A	NYMTC			✓		
Brookhaven Rail Terminal	U.S. Rail	NYMTC				✓	
Bush Terminal Yard (51st Street Yard)	NYNJ	NYMTC		✓		✓	
Harlem River Yard	CSX	NYMTC					✓
Hunts Point	CSX	NYMTC				✓	
New London to Orient Point Ferry	N/A	NYMTC			✓		
New York Container Terminal and Arlington Yard	Conrail	NYMTC		✓			
South Brooklyn Marine Terminal	NYA	NYMTC		✓			
Croxton	NS	NJ	✓				
Doremus Avenue Auto Terminal	Conrail	NJ	✓	✓	✓		
E-Rail	NS	NJ	✓				
ExpressRail Newark	Conrail	NJ		✓			
ExpressRail Elizabeth	Conrail	NJ		✓			
Greenville Yard	Conrail	NJ		✓			
Little Ferry	CSX	NJ	✓				
North and South Kearny	CSX	NJ	✓				
North Bergen	CSX	NJ	✓				
Oak Island Yard	Conrail	NJ				✓	

Terminals in the NYMTC Region

65th Street Yard

This yard is located on the Brooklyn waterfront between 65th and 63rd Streets. Formerly the Long Island Rail Road's (LIRR) Bay Ridge Yard, it was renovated by the New York City Economic Development Corporation (NYCEDC) in 2000. It consists of nine body tracks and two float bridges and is intended for use as a railcar float facility. This yard was included in the acquisition by the Port Authority of New York and New Jersey (PANYNJ) of the remaining cross harbor carfloat services in 2008, and is now maintained and operated by the New York New Jersey Railroad (NYNJ). The area to the north of the team track can be suitable for transloading bulk cargo after rehabilitation of tracks and ties.

Bridgeport & Port Jefferson Steamboat Co.

This ferry crosses the Long Island Sound between Bridgeport, Connecticut and Port Jefferson, New York. The ferries can accommodate passengers on foot, bicycle, motorcycle, car, truck, and bus, including those over 55 feet in length. Service is year-round, and begins from both Bridgeport and Port Jefferson at 6.30AM and continues throughout the day at an hourly basis until 10PM with some exceptions. The ferry company also ships freight under 100 lbs once a day on the 12 PM ferry.

Brookhaven Rail Terminal (U.S. Rail)

The U.S. Rail facility, a.k.a. Brookhaven Rail Terminal (BRT), is located along the LIRR Main Line in Yaphank, Suffolk County. Opened in August 2011, BRT functions as a transloading facility for construction aggregates and building materials traveling between quarries in the Capital District of New York and central and eastern Long Island, which had previously been transported primarily by truck. U.S. Rail Corporation, a stand-alone Class III railroad, provides service over 3.4 miles of track on the property.

Bush Terminal Yard (51st Street Yard).

This lightly used facility formerly served the complex known as Bush Terminal. It is located on the Brooklyn waterfront at First Avenue between 43rd and 51st Streets. It is switched by the New York New Jersey Railroad (NYNJ) and consists of several body tracks.

Harlem River Yard

Harlem River Yard is located at 132nd Street in the Bronx. The yard can be accessed from the west by CSX via the Oak Point Link and on the east from CSX's Oak Point Yard. In August 1991, the Galesi Group, acting through Harlem River Yard Ventures, Inc., signed a 99-year lease agreement with NYSDOT to develop a state-of-the-art transportation and industrial park at the 96-acre

Harlem River Yard. To date, three rail-served facilities have been developed on the site, including a 16-acre New York Post printing facility, a 13-acre Waste Management transfer facility, and a 10-acre Federal Express distribution facility. About 28 acres have been reserved for future development of a trailer-on-flatcar (TOFC) transfer facility. More than 12 acres remain available for future rail-served development.

Hunts Point

Located on the south Bronx Waterfront, Hunts Point hosts one of the largest food distribution facilities in the world. A major rail corridor, serving both Amtrak and CSX, runs parallel to Bruckner Boulevard. This rail corridor provides the opportunity for increased freight rail service into and out of Hunts Point. The one existing rail link to Hunts Point services approximately 3,100 carloads a year. Hunts Point Rail Terminal handles bulk transfers of flour and other bulk food ingredients between rail and truck, primarily serving the Produce Market. The Whitlock Avenue pedestrian bridge creates a 17-foot, 6-inch (Plate F) clearance limitation for rail access to and from the Hunts Point Yard.

New London to Orient Point Ferry

Cross Sound Ferry provides daily, year-round service between New London, Connecticut and Orient Point, Long Island, New York for passengers, autos, and trucks. Crossing Long Island Sound, the ferry service bridges New England and Long Island. This saves a truck driver up to 200 miles of driving with up to 56 arrivals and departures daily. In New London, the ferry is located off I-95 and I-395. On Long Island, the ferry is located at the end of State Route 25 via the Long Island Expressway (I-495).

New York Container Terminal and Arlington Yard

The on-dock rail facility at New York Container Terminal (NYCT) on Staten Island is an Intermodal rail transfer facility owned by the Port Authority and operated by New York Container Terminal, Inc. Arlington Yard, adjacent to NYCT, is owned by the City of New York, with service provided by Conrail. Intermodal unit trains are built at NYCT and interchanged with Conrail at Arlington Yard. Carloads of outbound solid waste are assembled and dispatched from Arlington Yard by Conrail. NYCT and Arlington Yard are connected to the North American class I railroad network by the Arthur Kill Lift Bridge and the Chemical Coast Secondary.

South Brooklyn Marine Terminal

Located along the East River Waterfront between 29th and 39th streets, South Brooklyn Marine Terminal (SBMT) is connected to the First Avenue Line. The terminal contains several newly-constructed (2011) rail infrastructure features, including a rail spur for break-bulk along the 39th Street shed, two new rail sidings for auto rack loading and unloading, and a rail connection to the Sims

recycling facility at the 29th Street Pier. Recent rehabilitations to the maritime infrastructure include:

- Axis[2] site improvements, including reconstruction of the north face of the 39th Street Pier, dredging of the main berth at the 39th Street Pier to 33 feet, and creation of a work area for stevedoring; and
- Sims[3] site improvements, including construction of an enclosed barge unloading facility on the south face of the 29th Street Pier, reconstruction of the north and west faces of the 29th Street Pier, dredging of the main berth at the 29th Street Pier to 12 feet, and regarding of the 29th Street Pier.

Terminals in New Jersey

Croxton

Located in Jersey City, New Jersey, this yard is served by NS for container-on-flatcar and trailer-on-flatcar (COFC/TOFC) trains. It consists of three loading tracks on 135 acres. It has doublestack capability and storage for reefers. It is the origin and destination yard for traffic along the Southern Tier route to Buffalo.

Doremus Avenue Auto Terminal

Automobiles are handled between rail and ship or truck. The terminal is owned by Conrail and serves CSX and NS trains made up of multilevel auto rack cars. The yard occupies 87 acres in Newark, New Jersey and consists of ten unloading tracks and ten holding tracks.

E-Rail

Located in Elizabeth, New Jersey, E-Rail is used for the transfer of doublestack transcontinental and international containers. The terminal is operated by Rail-Bridge Terminals and exclusively serves NS. Roadway traffic congestion has been cited as a limitation to the efficient use of this facility.

ExpressRail Newark

Located at Port Newark Container Terminal in Newark, New Jersey, ExpressRail Newark is owned by the Port Authority and serves both CSX and NS. Port

[2] Axis Group is a logistics company specializing in the automotive industry that will utilize the terminal for automobile processing and import/export via ocean-going vessels.

[3] Sims Metal Management is the processor of all plastic, metal, and glass collected by the Department of Sanitation. The City selected Sims to be the operator of the new city-owned recycling facility.

Newark Container Terminal operates the facility, and Conrail provides rail service.

ExpressRail Elizabeth

This On-dock intermodal rail transfer facility in Elizabeth, New Jersey, serves both CSX and NS. Unlike other yards in North Jersey, ExpressRail is owned by the Port Authority. Maher Terminal Inc. is the operator of the facility and Conrail is the rail service provider.

Greenville Yard

Located in Jersey City, the yard is owned by Conrail and serves CSX and NS. The yard is leased to the New York New Jersey Rail (NYNJ) for operation and serves as the New Jersey terminal for float operations to Brooklyn. The yard consists of several body tracks and one operable floatbridge. The floating operation is provided on an as-needed basis.

Little Ferry

Located in North Bergen, New Jersey, the Little Ferry terminal is owned and operated by CSX and serviced by New York, Susquehanna and Western (NYSW). It is the least used of CSX' principal northern New Jersey Intermodal facilities and is sometimes used for experimental marketing services.

North and South Kearny

Owned and operated by CSX the yard is primarily used for handling international doublestack container traffic. Situated on 120 acres in Kearney, New Jersey, the yard consists of six working and eight support tracks.

North Bergen

This terminal is owned and operated by CSX and is used for doublestack and TOFC trains. Premium and UPS traffic are handled at this yard, located in North Bergen, New Jersey. There is no warehouse/storage facility at this terminal. There are four tracks within the body of the yard for unloading trucks and/or containers.

Oak Island Yard

Largest (500 acres) rail facility in northern New Jersey, Oak Island is primarily a classification yard for carload traffic. It is owned by Conrail and serves trains operated by CSX, NS and Canadian Pacific Rail (CP). It consists of 30 classification tracks, 9 departure tracks and 10 receiving tracks. It also provides access to CP's transload terminal on the site.

MSW Transload Terminals

Table 2.2 summarizes the region's municipal solid waste (MSW) facilities. These include truck-to-rail and truck-to-rail/barge transfer stations, and Converted Marine Transfer Stations (MTS) or truck-to-barge transfer stations. For each facility, the table details the owner, address, average throughput capacity in tons per day (TPD), and the intermodal connections available. These facilities are described in detail in the MSW technical memorandum.

Table 2.2 MSW Facilities' Modal Connections

Terminal Name	Owner	Address	Capacity (TPD)	Truck -to- Rail	Truck -to- Barge
Harlem River Yard Transfer Station	Waste Management	98 Lincoln Ave., Bronx	4,000	✓	
East 132nd Street Transfer Station	Allied Waste Services	East 132nd St., Bronx and Oak Point Rail Yard, Oak Point Avenue and Barry St., Bronx	2,999	✓	
215 Varick Avenue Transfer Station	Waste Management	215 Varick Ave., Brooklyn	4,250	✓	
Staten Island Transfer Station	DSNY	West Service Road, Staten Island	N/A	✓	
Review Avenue Transfer Station	Waste Management	30-58 Review Ave., Queens and the LIRR Maspeth Rail Yard, Maspeth Ave. and Rust St., Queens	958	✓	✓
Scott Avenue/Scholes Street Transfer Station	Allied Waste Services	72 Scott Ave.-598 Scholes St., Brooklyn	220	✓	
Hamilton Avenue Converted MTS	DSNY	Hamilton Ave. at Gowanus Canal, Brooklyn	3,554		✓
Southwest Brooklyn Converted MTS	DSNY	Shore Pkwy at Bay 41st St., Brooklyn	1,968		✓
East 91st St. Converted MTS	DSNY	East 91st St., Manhattan	1,644		✓
North Shore Converted MTS	DSNY	31st Ave. at 122nd St., Queens	3,640		✓

3.0 Challenges of Intermodal Service

This chapter provides an overview of the challenges that intermodal services face in the NYMTC region. These issues have been classified into four categories: network capacity, infrastructure, network access and institutional. It is important to recognize that the performance and competitiveness of intermodal services are primarily affected by the performance of the individual modes. Thus, the specific challenges affecting particular modes, which are discussed in the modal profiles, are only briefly mentioned here. Issues that are unique to intermodal service – such as equipment size and terminal location –are addressed here specifically.

3.1 CAPACITY

The potential for freight to increase use of intermodal freight transportation services is limited in part due to capacity constraints on the highway and rail networks in and near the NYMTC Region. As the Task 2.1.1 Technical Memorandum shows, most of the interstate highway corridors that serve as the primary freight gateways to the NYMTC Region (I-95, I-87, I-287, I-78, I-80, etc.) are congested due to high volumes of passenger vehicles during peak commuting periods. Trucks have few route options due to the limited number of Hudson River, East River, and Long Island Sound crossings, and few streets and highways, especially in New York City have the appropriate width and height geometries to allow the national standard 53-foot trailers. There are few places for truck drivers to park overnight to meet hours of service regulations or stage for local deliveries. Curbside parking and loading is difficult, especially in New York City and urban city, village and hamlet centers throughout the region, due to competition for available curb space.

These congested conditions limit the amount of highway and parking/loading capacity available for freight, and make access to intermodal facilities throughout the region challenging, unreliable, and more expensive. Congestion limits the capacity of major rail, port, and air terminals that depend on trucks for final goods delivery, and (in combination with tolls, parking tickets, and labor) has an impact on drayage rates in the NYMTC region, which are among the highest in the nation.

There are also major capacity constraints for rail freight access east of the Hudson - the nearest Hudson crossing is 140 miles upstream from New York City. These capacity constraints lead to circuitous and inefficient freight rail service between the east and west Hudson regions. Additionally, freight trains

must share publicly owned and intensively used passenger rail tracks resulting in limited freight operating windows between passenger services.

There is a lack of sites available to develop intermodal terminals in the NYMTC region. This constraint limits efficient multimodal exchanges and fosters the dependence on trucks for freight mobility in the region. The Brookhaven Rail Terminal for example, which opened in 2011 on Long Island, has functioned as a transloading facility for construction aggregates and building materials which had previously been transported by truck.

Limited dock space, lack of support services (tie ups for tugboats, space for crew change), lack of vessel repair facilities, and high labor costs have contributed to the decline of the Cross Hudson barge operations through the second half of the 20th Century, and remain a significant issue today. Capacity limitations on the Newark Bay Bridge and National Docks Secondary between Oak Island and Greenville, and limited capacity at 65th Street Yard, in its current configuration, represent constraints to the capacity on the NYNJ float system to handle potential growth in volume in the future.

3.2 INFRASTRUCTURE

Intermodal freight mobility is restricted by limitations on the region's infrastructure and general functional obsolescence. These restrictions result in inefficiencies that add cost to freight transport in the NYMTC region. Most critically, freight movements over both rail and highway systems are restricted in locations where inadequate dimensional envelopes prevent the passage of modern rail cars or truck trailers (e.g., trucks above 55' length overall). Beyond the size limitations, deficiencies in infrastructure result in circuitous routes, and for trucks, a lack of available on-street parking and loading areas during peak delivery periods (daytime hours in most of the region), resulting in frequent and expensive parking tickets.

The rail freight infrastructure is constrained by four factors: the dominance of passenger trains; the lack of major rail freight crossings south of Albany; vertical/lateral clearance restrictions that limit the use of modern rail equipment; and limited land availability for major yards and warehousing facilities. As a result, only about 2.5 percent of goods (in tons) shipped in the NYMTC region arrive or depart by rail.

3.3 INSTITUTIONAL

Institutional challenges can hamper the freight planning efforts undertaken in the region. The NYMTC region is part of a larger interdependent tri-state metropolitan area that includes parts of New Jersey and Connecticut. Further, the mix of cooperative and competitive relationships between three Class I railroads (NS, CSX, CP), regional, short line, and passenger railroads add complexity to the planning process. While NYMTC can only directly address

projects originating within the region, the movement of freight does not recognize arbitrary political boundaries. In order for multimodal freight projects to have resonance in the larger region, numerous planning agencies (e.g., NYMTC, NYSDOT, PANYNJ, NJTPA, NJDOT, and CTDOT) are required to work together and coordinate the implementation.

Parallel to the institutional complexity of government in the tri-state region, is the institutional complexity of the private and public rail system and terminal operators in the region. Multiple operators and ownership – particularly for east of Hudson access - increase cost, complexity and degrade performance to levels that make intermodal services uncompetitive for many types of shipments. Institutional issues directly affecting the rail industry detailed in the Task 2.2.1 rail system memorandum directly affect the intermodal system.