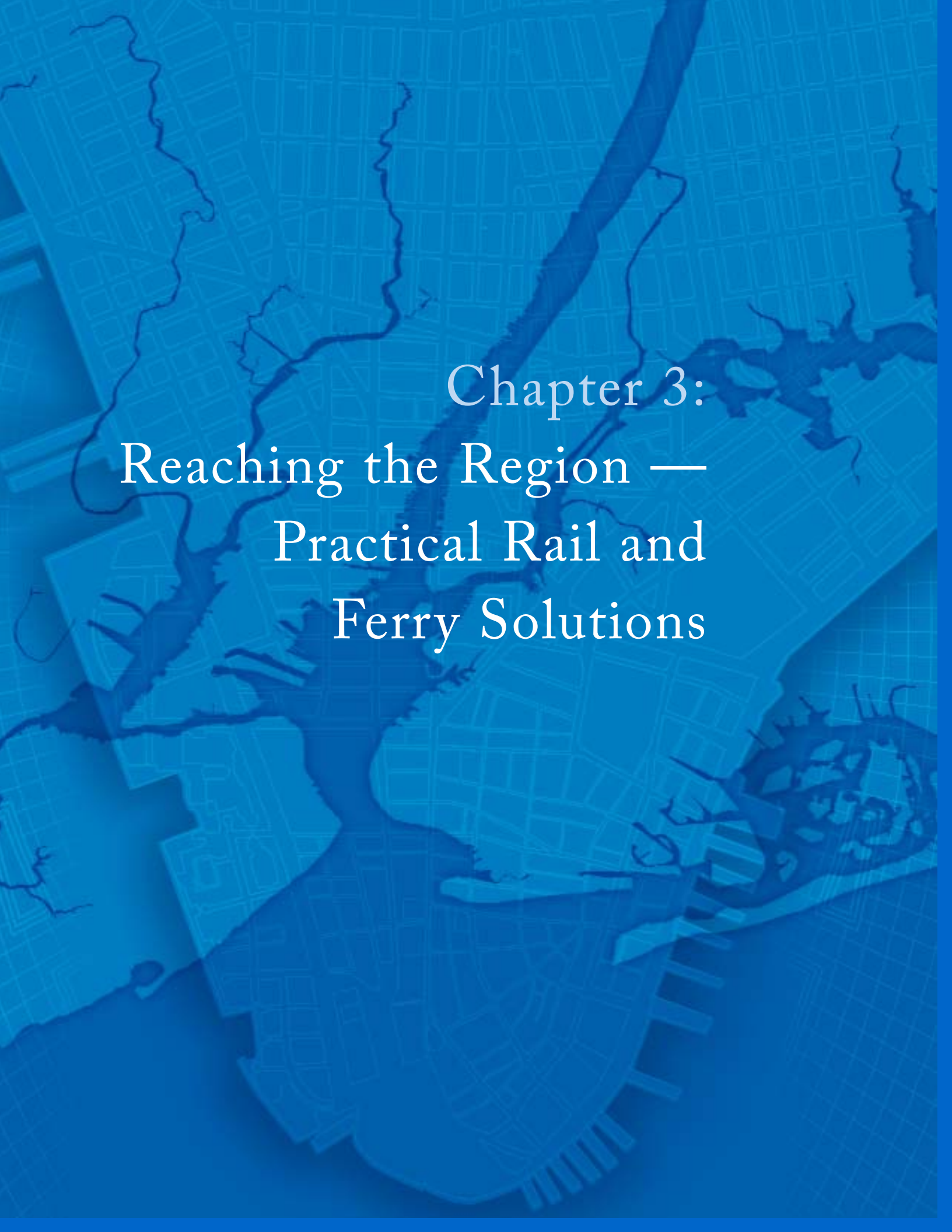


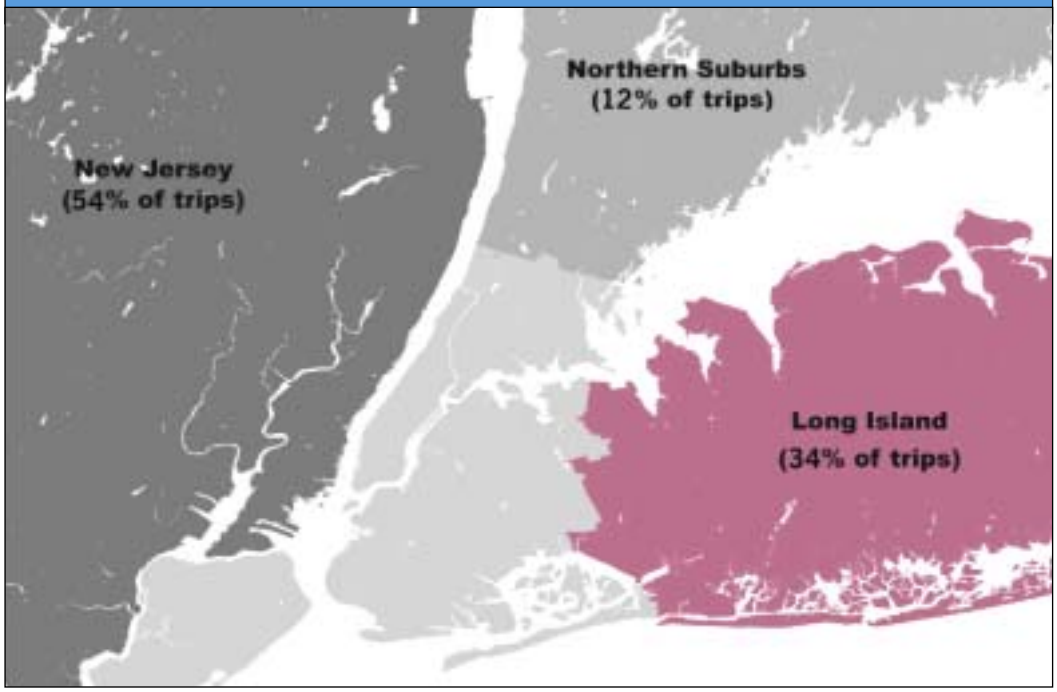
Chapter 3: Reaching the Region — Practical Rail and Ferry Solutions

It is important for Lower Manhattan to improve its access to the population growth centers of the metropolitan area - so as to expand its labor pool and sustain its vitality. To achieve such enhanced regional connectivity, it is important to balance major capital improvements with less expensive interventions that can have a substantial cumulative effect. Adopting this realistic perspective, the following chapter outlines small- and moderate-scale initiatives that will enhance transit service between Lower Manhattan and locations throughout the region.

In coming years, the New York metropolitan region's population is expected to grow at a pace that is faster than the city's. Long Island and New Jersey, in particular, are expected to generate the highest population increases in the area. According to the New York Metropolitan Transportation Council, Suffolk County on Long Island will experience the greatest gain of any county in the region between the years 2000 and 2025, while Ocean, Middlesex, and Monmouth Counties in New Jersey are projected to have the second, third and fourth highest rates of growth. Fairfield County in Connecticut follows closely behind them.

The map below illustrates the origins of Lower Manhattan suburban commuters traveling during the 6 to 10 a.m. on weekdays. The majority of these commuters originate from New Jersey communities, many of which are well-served by transit systems. The Long Island suburbs comprise fully 34% of these trips while the northern New York and Connecticut suburbs make up only 12%. Given both its rate of growth and its percentage of labor force contribution, Long Island is a logical focus for enhanced commuter service.

Origins of Suburban* Commuters to Lower Manhattan



* Tri-state area, non-New York City commuters.
Source: Parsons Brinckerhoff.

ACCESSING THE REGION: NORTHERN SUBURBS

Subway & Commuter Rail Expansion and Improvements

Methods of improving rail access to Lower Manhattan for commuters from northern New York and Connecticut have been in discussion for decades. While Metro-North Railroad provides excellent service from Westchester, Connecticut, and other northern suburbs to Grand Central Terminal, the connecting trip to Lower Manhattan adds time and increases unpredictability. In the evening, a five-minute delay in uptown subway service can result in missing the connection to a Metro-North train and become a half hour-long delay for regional commuters heading home.

The directness and speed of the Lexington Avenue Express (the 4 and 5 lines) will continue to be highly important for Lower Manhattan. However, the level of crowding at rush hour — both on-board the trains as well as on the platform — is a drawback for commuters destined for Lower Manhattan. Passengers sometimes must wait on densely crowded platforms for one or more fully loaded trains to pass by before there is room to board. Once inside the subway car, they are often unable to secure a seat as trains come into the station near or at capacity.

Several steps must be taken in order to remedy the challenges of the Metro-North/Lexington Avenue commute:

Lower-Level Lexington Line Connection at Grand Central Terminal

According to the MTA, approximately 1.3 million passengers use the Lexington Avenue subway on a daily basis, making it the busiest subway line in the entire United States. Of the approximately 13,000 Metro-North morning peak period riders who transfer at Grand Central Terminal to the southbound Lexington Avenue subway, about two-thirds, or over 8,000, are destined for Lower Manhattan south of Houston Street. During a typical morning rush hour, it can take upwards of seven minutes for a Metro-North commuter to walk from the commuter train platform to the downtown platform of the Lexington Avenue subway. Much of this time can be spent in queues at narrow stairs, escalator banks and turnstiles. These factors nearly double the length of time it should take to get downtown.

Tangible improvement of the crowding and queuing conditions along pedestrian routes within Grand Central Terminal can be achieved in the immediate term by building the lower level Lexington Connection, a new pedestrian link within Grand Central Terminal for Metro-North customers going to and from the subway. Addressing the peak crowding conditions within the subway station at Grand Central and on the subway trains themselves requires a more comprehensive and longer-term solution — namely, the construction of a new subway line — the Second Avenue Subway — to relieve conditions on the crowded Lexington Avenue line. (See more on the Second Avenue Subway below.)

Lower-Level Lexington Line Connection at Grand Central Terminal

The Lower Level Lexington Connection will provide a new pedestrian route linking the lower platform levels of the Metro-North terminal with the mezzanine of the Lexington Avenue subway station. The existing routes, particularly the escalators, become overcrowded at rush hour and queues build up. The new connection adds a third route, which will be much more direct for those Metro-North passengers arriving at the lower level. These riders could save upwards of five minutes on their trip downtown. Diverting a share of the Metro-North traffic to the new connection also will make the existing routes less crowded and will shorten walk times through the terminal for all Metro-North customers heading downtown.

A passageway leading southward from the end of the lower level Metro-North platforms at Grand Central will be constructed to provide direct access to the underside of the Lexington Avenue Line platforms and tie into one of the existing vertical pedestrian connections between the Lexington Line and the #7 Flushing Line, providing a new direct route to both subway lines. Additional vertical movement capacity will be provided to and from the subway platforms, and options exist for providing escalator connections at the Metro-North end of the passageway to both the upper and lower concourses of Grand Central Terminal, as well as to the proposed new terminal for the Long Island Rail Road at Grand Central.

The Lower Level Lexington connection is estimated to cost in the range of $50 to $75 million and can be completed within 3-4 years, depending upon the complexity and scope of improvements undertaken, which will be determined once engineering studies by NYC Transit have been completed.

The new Lower Level Lexington Line pedestrian connection will save commuters up to 5 minutes in their trip to Lower Manhattan.

Lexington Avenue Subway Throughput Improvements

The MTA, as a result of its study of Lower Manhattan access options and in the course of its continual program to modernize and upgrade the subway system, will be developing ways to maximize service on the existing Lexington Avenue Line. Among the ideas that are on the table for incrementally increasing the throughput capacity and reliability of the service are:

- Stationing conductors on the platforms of heavily-used stations to expedite the boarding and discharging of passengers,
- Modernizing and upgrading certain elements of the signal system and devices such as the "gap-fillers" at 14th Street which today cause short delays to every train on the line,
- Accelerating the deployment on the Lexington Avenue Express of new R143 cars, whose doors and vestibules are designed to discharge and board passengers slightly more quickly than the older cars, and
- Stationing medical assist personnel at key stations to enable them to treat passengers who become ill on the platform, thereby keeping the trains moving.

Real-time Passenger Information Systems

When the current MTA capital project is completed, which includes the creation of a centralized control facility for the Lexington Avenue and Seventh Avenue Lines, a wealth of real-time information on the status and performance of the system will be available for dissemination to passengers. A goal for the future of the subways is to provide better information to riders for use in making decisions about how to get to their destination. The portion of the Lexington Avenue subway between Grand Central and Lower Manhattan should be used as an early prototype for developing and implementing new information systems that would post the arrival times and destinations of the next several trains, inform passengers of delays or problems on the line before they enter the system, and possibly offer suggestions as to alternate routes. Understanding which lines are experiencing delays will allow riders to make better choices in getting to their destination. Information displays could be placed within both the Metro-North and subway areas of the Grand Central complex, and at the Lower Manhattan stations of the Lexington Avenue Line. Specifically, a major passenger information center could be created within the high-ceilinged space of the new Fulton Transit Center, which adjoins the uptown Lexington Avenue Line platform. The information displays also could show real-time information about the commuter railroads. Capital costs would be modest relative to those associated with major construction projects and elements of these systems could begin to come on-line within a 2-3 year period.

Second Avenue Subway

Improvements to the Lexington Avenue subway are important in improving the commute to Lower Manhattan, yet these changes are inadequate to truly address the severe capacity burdens

on this service. The Lexington Avenue line serves all residents east of Central Park, whereas, the residents west of Central Park have multiple subway options. South of 59th Street in Manhattan, the residential population is overwhelmingly located on the east side and, for many, the Lexington Avenue line is the only subway within walking distance from their homes. The construction of the Second Avenue Subway will relieve crowding on board Lexington Avenue trains and provide needed service to the East Side. The Second Avenue line was identified by the MTA in its *Lower Manhattan Access Alternatives* study as the best solution for improving travel between Metro-North at Midtown and Lower Manhattan — precisely because it will attract some East Side passengers from the Lexington Avenue line. The Second Avenue Subway is slated for funding by the MTA, independent of Lower Manhattan transportation funds.

While the long-range goal is for new subway construction and a less crowded Lexington Avenue line, substantial benefits can be realized in the near-term as a result of the above-described initiatives —improving the pedestrian connections at Grand Central, building the Fulton Transit Center, equipping commuters with real-time information on the status of subway line and commuter railroad operations, and implementing operational improvements to maximize the capacity and reliability of the line. These short-term initiatives will combine to make the subway trip between Grand Central and Lower Manhattan much more convenient and appealing).

ACCESSING THE REGION: NEW JERSEY

Restoring PATH Service and Facilitating Access from New Jersey

Access to Lower Manhattan from New Jersey is accomplished in large measure by the PATH system. PATH, which served 67,000 riders a day to Lower Manhattan before September 11th, provides easy connections in Hoboken to New Jersey Transit trains serving many of the more populated communities.

When PATH service is restored in late 2003, Lower Manhattan will again have direct connections to suburban areas in New Jersey. The Port Authority and New Jersey Transit have been implementing a strategy to provide service for the long-term growth forecast for New Jersey. Most important in accommodating future growth is the project to increase capacity on PATH trains from eight to ten cars. As of June 29, 2003, the Exchange Place PATH Station will operate as a terminal station with expanded ferry service to Lower Manhattan until WTC PATH service is restored in late 2003. Finally, improvements to the rail network that facilitate connections to Lower Manhattan PATH service — such as expansion of NJ Transit rail service to Hoboken, introduction of the Hudson-Bergen Light Rail Service, and the Secaucus Transfer — will continue to provide more options for Lower Manhattan-bound commuters.

ACCESSING THE REGION: LONG ISLAND

Long Island Rail Road and AirTrain

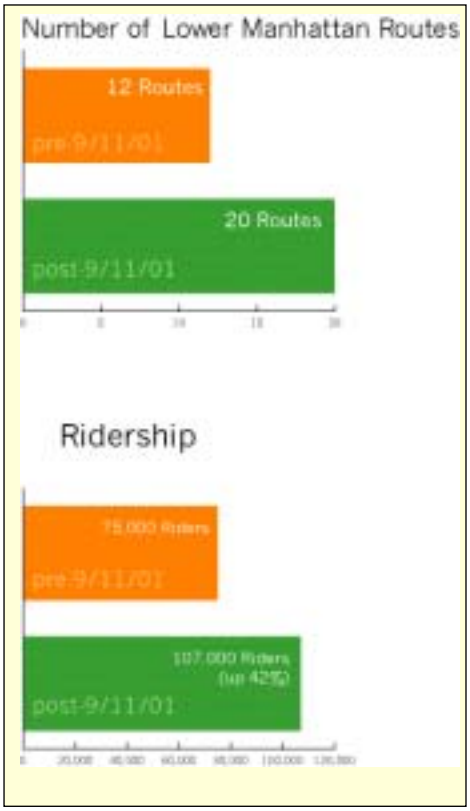
Long Island is served by one of the most extensive networks of commuter rail in the world. The Long Island Rail Road system includes 124 stations serving 290,000 people each weekday. To reach Lower Manhattan, however, Long Island commuters are faced with a set of equally inconvenient options. The first is through Atlantic Terminal in Brooklyn to a Lower Manhattan bound subway. Some commuters have direct service from Long Island to Atlantic Terminal, though a significant number do not. Those riders must switch at Jamaica for Atlantic Terminal-bound LIRR trains, and switch again for the subway to downtown. The subway connection at Atlantic Terminal is difficult to navigate, and the subway ride to Lower Manhattan is crowded during rush hours.

The other alternative is to take LIRR directly to Penn Station in Midtown and switch for a downtown subway line. This is a less direct route but does not require a second transfer. On the other hand, it contributes to crowding at Penn Station, which is already the most heavily used train station in the country.

New transportation infrastructure that would improve access to Lower Manhattan from Long Island would significantly bolster Lower Manhattan's competitiveness as a business center. See Chapter 2 for a description of potential Long Island service enhancements (coupled with JFK Airport access).

ACCESSING THE REGION: FERRY SERVICE

Over the past year and a half, ferries have proven invaluable in accommodating the needs of commuters from New Jersey who previously relied on PATH service. Ferries' role in the recovery from September 11th augmented their already important role in the Lower Manhattan transportation network. Enhancing and expanding ferry service is a key means of linking Lower Manhattan to the region. They are a sensible and viable option for a number of reasons: ferries require minimal capital investment relative to other forms of mass transit, new service can be implemented relatively quickly, and they are particularly suited to Lower Manhattan, where the shoreline is within convenient walking distance of a significant portion of the business district. Already, the private ferry fleet operating in New York Harbor is the largest in the United States, with Lower Manhattan being the prime destination. While the majority of ferry routes serve the



Note: Information compiled by Parsons Brinckerhoff from transportation agencies and private operators.

New Jersey market, locations in the northern suburbs and the outer boroughs are being explored and strategic investment should occur in cases where ferries can provide a shorter, more comfortable commute.

Creating A Regional Ferry Strategy to Benefit Lower Manhattan — Next Steps

Identifying precisely how to expand ferry service to Lower Manhattan from throughout the region will require a focused, formal study. Ferry service falls under the jurisdiction of multiple transportation agencies and is privately operated. Therefore, a coordinated effort needs to be undertaken to analyze possibilities and craft a strategy to maximize the benefit ferries can provide Lower Manhattan. The goal of the study will be to:

- Recommend locations for long-haul, high speed service originating in Westchester, Fairfield and Rockland counties, southern New Jersey, Staten Island and other locations.
- Identify ferry lines that were instituted after September 11th that are priorities for preservation.

Pier 11 on the east side of Lower Manhattan.

- Identify potential catchment points, e.g. at major vehicular river crossings (tunnel or bridge), where commuters would transfer to a Lower Manhattan-bound ferry.
- Assess the ferry infrastructure (terminals, slips, other facilities, and vehicle fleets) in Lower Manhattan and potential regional destinations and recommend areas of investment.

A review of existing Lower Manhattan ferry service, on-going improvement projects, as well as potential projects suitable for further study, are discussed below.

Post-September 11th Ferry Services

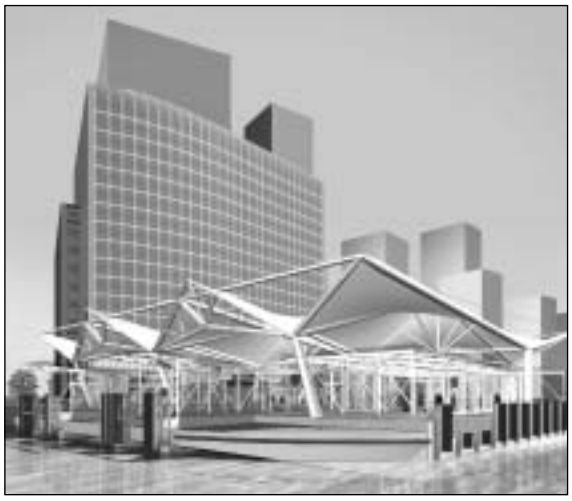
In the aftermath of September 11th, ferry ridership surged due to cessation of the Lower Manhattan PATH service and some subway services near the World Trade Center site, and the restrictions placed on access to the area by automobiles and commuter buses. Spearheaded by the Mayor's Office and the Port Authority, and funded by FEMA, eight new routes were implemented to accommodate commuters whose previous means of commuting had been disrupted.

By spring 2002, these routes had an average weekday ridership of nearly 107,000 passengers, a 42 percent increase over their pre-September 11th levels. Pier 11, near the foot of Wall Street, experienced the largest increase (nearly 300 percent), with the New Jersey Transit Hoboken Terminal operation contributing the greatest share of this increase. Ridership on the longer-haul Monmouth County runs also showed marked increases.

Continuing Growth in Lower Manhattan Ferry Service

The Port Authority, New York City Economic Development Corporation (EDC), and City Department of Transportation coordinate and monitor ferry operations in the city and region, working with a growing number of public partners in New Jersey and in New York's northern suburbs. These agencies have been accelerating efforts to advance various long-term service enhancements to expand the role of ferries in Lower Manhattan's transportation network.

Five main components should be considered to ensure the continued improvement and growth of Lower Manhattan ferry service. Four will be described in brief and the fifth, ferry service for the northern suburbs, will be explored more thoroughly:



A Port Authority rendering of the proposed World Financial Center ferry terminal.

(1) Identifying existing FEMA-subsidized lines that are important to sustain.

For certain commuters, ferries provide the best possible means of traveling to work. An example is the service to Pier 11 from New Jersey that was implemented after September 11th. For some New Jersey commuters who work in the "Water Street Corridor" on the east side of Lower Manhattan, taking a ferry to Pier 11 is more convenient than was their previous commute via PATH to the World Trade Center. Many of the ferry lines established after September 11th currently receive operating subsidies from the Federal Emergency Management Agency. These subsidies will most likely diminish and eventually cease when PATH is fully restored. Without such support, some routes will discontinue for lack of ridership and revenue. Others may be sustainable based on their ongoing convenience and utility to a significant number of commuters.

Careful analysis of ferry customer trends — on both Pier 11 routes and others established after September 11th — should be conducted once WTC PATH service resumes to determine whether further public agency intervention is appropriate.

(2) New ferry terminals and landings

Plans are in place to upgrade certain facilities that serve ferries in Lower Manhattan — to increase vessel berthing and passenger handling capacity and provide a comfortable, attractive environment. An advantage of ferries is that they have the potential to provide a level and quality of service that equals or exceeds what the rail transit system offers. The locations in Lower Manhattan where ferry infrastructure investment is planned or possible include:

Ferry service to the east side of Lower Manhattan grew substantially after September 11th.

·*World Financial Center*: The Port Authority is building a new, glass enclosed, five-slip (four end loading and one side loading), floating ferry terminal at the World Financial Center. This new terminal will replace the existing two-slip Port Authority facility by the end of 2005. This project, planned before September 11th, incorporates a modular design that could be duplicated (in varying sizes) at coastline locations elsewhere.

·*Lower East River/Wall Street Area:* The existing terminal facility at Pier 11 has seen a huge increase in demand since September 11th, but its mostly outdoor environment offers relatively limited amenities for passengers. Pier 11 has recently been improved, but its popularity as a destination suggests that more investment is needed on the lower East River. Enhancing the landside infrastructure along Lower Manhattan's eastern waterfront, whether at Pier 11 or a nearby location, would be a logical investment to improve the quality of ferry service downtown.

·*The East River ferry network:* New York City's EDC is instituting an East River service with terminals at East 90th, East 75th, East 67th, East 34th, East 23rd Streets, and Slip 5 of the Battery Maritime Building. The primary operations at these locations are envisioned as commuter services between Lower Manhattan and the Upper East Side with the ferry operations potentially extended to and from LaGuardia Airport (see below and Chapter 2). Service at these terminals will be operational in July 2004.

·*Whitehall Ferry Terminal:* Reconstruction of the Whitehall Ferry Terminal to improve operations for the Staten Island ferry is currently underway with its completion scheduled for summer 2004.

·*Potential new terminal:* Bay Ridge, Brooklyn Presently, ferry service from Brooklyn departs from points in Bay Ridge and the Brooklyn Bridge waterfront area. These locations have limited ridership due to the fact that they only serve the residential areas adjacent to the terminals. By locating the terminals more strategically, a greater number of commuters could benefit. In the case of Bay Ridge, utilizing the 65th street yard as a ferry stop, the market can be expanded to include commuters driving the Belt Parkway/Gowanus Expressway route to Manhattan. The 65th Street location can be expanded to include a weather protected parking structure with direct highway links to the Belt Parkway and Gowanus Expressway. This structure would provide a protected access to the ferries and allow customers to exit the highway system before reaching bottleneck locations. This ferry service would be direct to the Lower Manhattan terminals and a convenient way to reduce driving time. (Further study required.)

(3) Providing ferry service between Lower Manhattan and the Marine Air Terminal at LaGuardia Airport.

This service could be operated in conjunction with other planned East River services, or as a single purpose service between Lower Manhattan and the airport. Such an operation would be an improved version of the Delta Water Shuttle that provided service between Pier 11 and the Marine Air Terminal prior to September 11th. The details of this potential service are explored in Chapter 2.

(4) Establishing high speed ferries to New Jersey and Staten Island

In 1996, the Port Authority studied the possibility of new, high-speed ferry services to Lower Manhattan from various waterfront sites in Middlesex County, New Jersey, and on the southeastern shore of Staten Island. As a result, private providers have initiated ferry services from Belford, Highlands/Atlantic Highlands, and Highlands (Monmouth County, New Jersey), respectively, to Pier 11 in Lower Manhattan and other landings in Manhattan. The success of these long distance, high speed services can serve as a model for the implementation of additional lines.

The Port Authority is working with local officials on Staten Island to explore the possibility of initiating similar high-speed ferry service to Lower Manhattan from Midland Beach. Service at this mid-island location could provide an attractive commuting alternative.

(5) Establishing high speed ferries to Northern New York and Connecticut

Ferry service, which has grown by leaps and bounds between Lower Manhattan and New Jersey, has been slow to expand to the north. A convenient and comfortable one-seat ride from the northern suburbs is possible via high-speed ferry and is a commuting option that should be seriously explored. Already, a coalition of planning organizations is developing a Long Island Sound Waterborne Transportation Plan, including potential ferry links to Manhattan. Several specific initiatives, discussed below, are in development along the Hudson River.

Northern suburban service would yield substantial benefits. It would:

·Provide greater connectivity between northern suburban areas and Lower Manhattan, thereby enhancing the attractiveness of the downtown area as a place to work and to do business.

·Offer transportation options for Lower Manhattan commuters who use the Metro-North Railroad, replacing the need for a rail transfer with service directly from suburban ferry terminal locations to Lower Manhattan, and providing an alternative mode in the event of railroad service disruptions.

·Reduce the volume of travel by automobile between Lower Manhattan and northern suburban communities.

Based on a review of past studies and considerations of ridership potential, costs, and feasibility, a representative set of eight ferry terminal locations in Westchester, Rockland, and Fairfield Counties has been identified (see chart). The operational parameters of such service assume use of the latest high-speed passenger ferry vessel technology currently in operation in the New York area (most likely a 300 - 400 passenger water-jet propelled catamaran with a cruising or long distance service speed of 40 knots, or 46 miles per hour), and an overall travel experience that is similar to an airline business class service. The specific sites considered are proximate to Metro-North stations or have waterfront locations that provide reasonable geographic coverage of important northern suburban travel markets. The ferry study will consider these locations and others as possibilities for service expansion.

High Speed Express Ferry to the Northern Suburbs: Possibilities for Expanded Service			
Town	Time to Lower Manhattan by Railroad & Subway	Potential Time by High Speed Express Ferry	Comments
Westchester County			
Yonkers (Note: The City of Yonkers is negotiating arrangements for the financial support needed to initiate planned commuter service to West Midtown and Lower Manhattan.)	56 Minutes (Fulton Street)	28 min. (WFC)	The ferry terminal would be located at the Yonkers City Pier, about 800 feet from the MTA/Metro-North Railroad (MNR) Hudson Line station. A new esplanade connects the train station and the City Pier. The general ferry landing location is an area of extensive new waterfront development including a 600-car parking garage near the train station. A limited number of Amtrak Empire Service trains also serve Yonkers.
Rye	1 hr. 2 min. (Wall Street)	34 min. (Pier 11)	Rye Playland is a centrally located place for ferry service to the City with parking areas and a large pier for docking vessels. Despite many years of effort by the City of New York, the Port Authority and private operators, no ferry service has yet been initiated from this location.
Ossining	1 hr. 6 min. (Fulton Street)	47 min. (WFC)	The Ossining rail station, located about 100 yards from the landing, serves the MNR. There is a high-speed ferry service between Haverstraw in Rockland County and Ossining with six trips in the AM peak period and nine trips in the PM peak timed to connect with MNR trains at Ossining.
Tarrytown	1 hr. 0 min. (Fulton Street)	39 min. (WFC)	Tarrytown is approximately 25 miles north of Grand Central Terminal (GCT) on the MNR Hudson Line. Tarrytown has been considered for ferry service in the past.
Connecticut			
Norwalk	1 hr. 21 min. (Wall Street)	54 min. (Pier 11)	Norwalk Harbor is a naturally protected inlet with a potential connection to the South Norwalk MNR station. The market at this location includes Bridgeport, Fairfield, Southport and Westport as well as inland towns of Fairfield County.
Stamford	1 hr. 8 min. (Wall Street)	46 min. (Pier 11)	Potentially all of the Fairfield County municipalities could contribute riders to a ferry service originating at Stamford. The harbor lies within a naturally sheltered area and has been considered a potential ferry location in prior studies. There is good roadway access and ample parking at this proposed ferry terminal location.
Rockland County (Service area of the NJ Transit Pascack Valley Line)			
Nyack	1 hr. 20 min. (Fulton Street)	38 min. (WFC)	Nyack as a potential ferry service location was the subject of a joint feasibility study by the New York Thruway Authority and the Port Authority in the mid-1990s that explored ferry service between Rockland County and Manhattan as a possible measure to mitigate traffic congestion on the Tappen Zee Bridge. Various routes were studied, including possible stops at Tarrytown and Yonkers to enhance the financial viability of the service. (The study involved an investigation of other locations in Rockland County including Haverstraw.)
Haverstraw	95 min. (Fulton Street)	49 min. (WFC)	The probable originating location is Haverstraw Village, the location of the current terminal for the Haverstraw-Ossining Ferry shuttle. The village has requested federal funds to initiate service to Manhattan via Yonkers.

Note: Information compiled by Parsons Brinckerhoff from transportation agencies and other sources.