

Extending

PATH

to

Newark Airport



Executive Summary

September 2013



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LOWER
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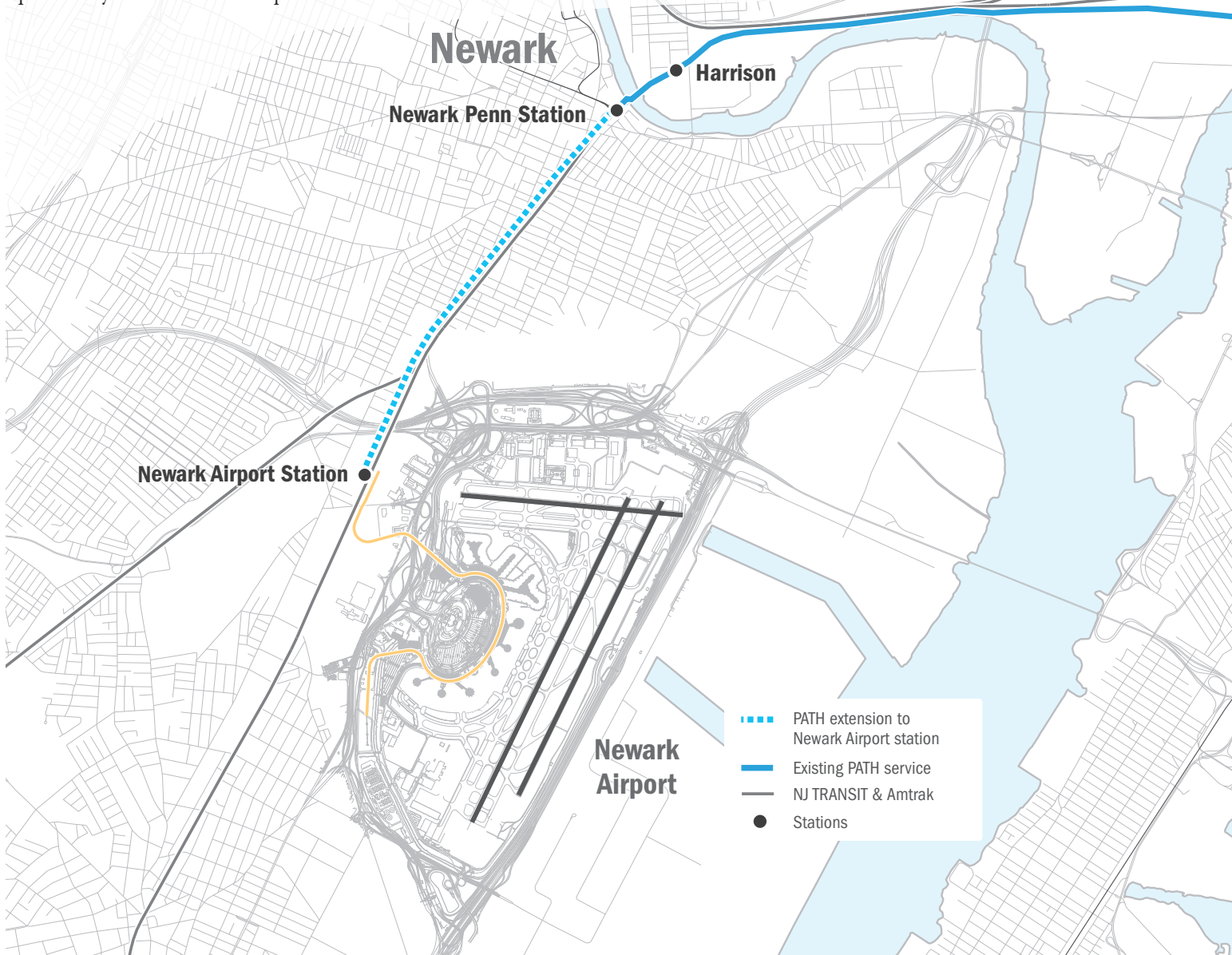
Executive Summary

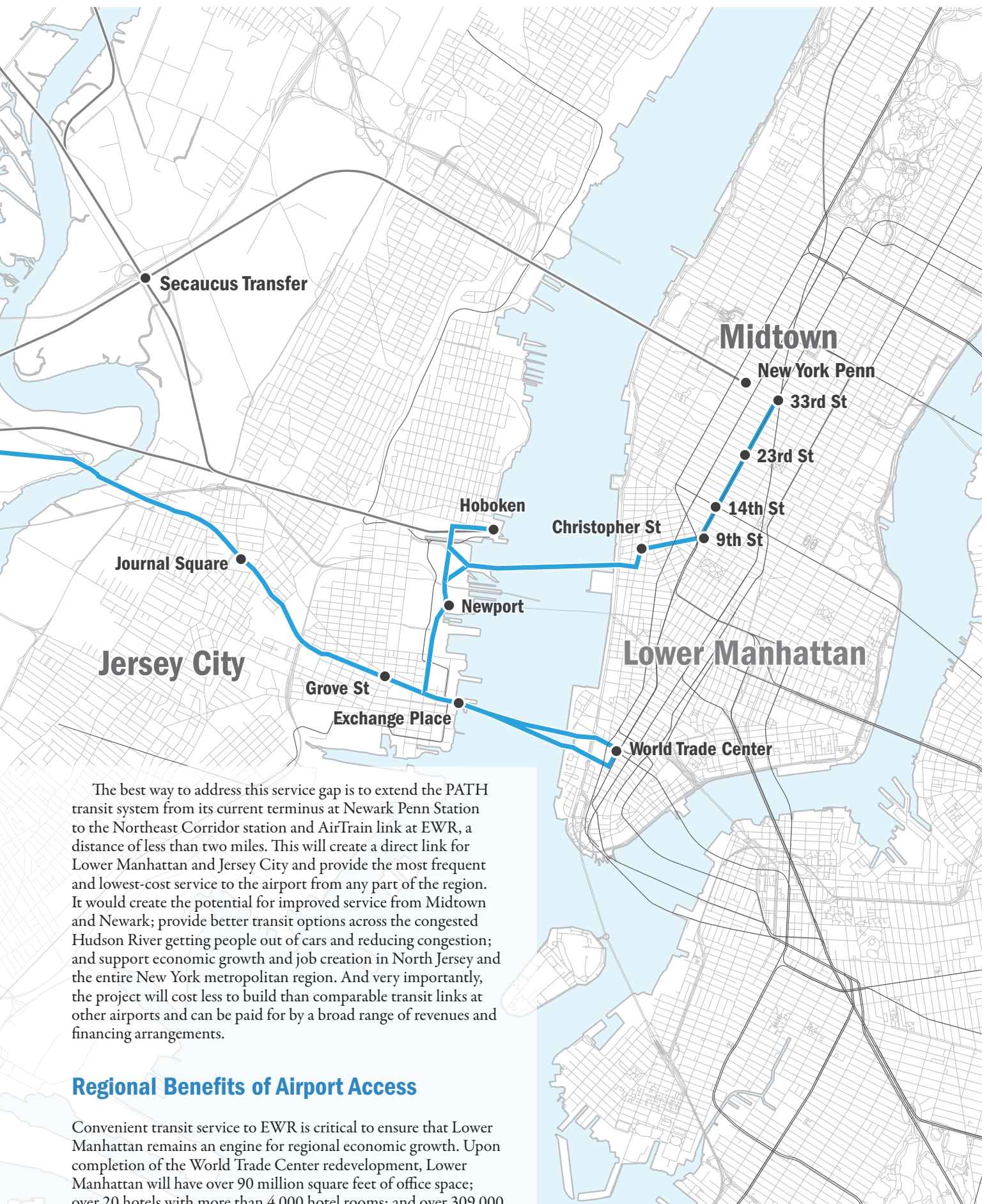
World cities across the globe are physically connected to each other by their airports. To remain economically competitive and support continued economic growth, they need to sustain and improve these connections. Nowhere is this as true as it is in the New York-New Jersey-Connecticut region, where the leading economic sectors—financial and business services, tourism, media and communications, higher education, pharmaceuticals, research and development—all rely on frequent air travel to multiple destinations. In the global competition for these high-value economic activities, the experience of business travelers, tourists and other frequent fliers makes a difference in where firms choose to concentrate employees and how much business they attract.

A key part of the air travel experience is how fast and easy it is to get to and from the airport. Ironically, the transit-rich New York metropolitan region lags behind many of its global competitors in offering convenient transit connections to its airports. This is particularly true relative to European and Asian cities. The share

of air passengers using transit to get to the airport ranged from 22 to 64 percent in 19 international regions studied for this report, compared with just 15 percent for the New York region and only 12 percent at Newark. While Europe and Asia benefit from a greater tendency to use transit of all kinds, the higher quality of the air transit services is also a contributing factor. In New York, existing transit systems offer a two-seat ride from Midtown Manhattan to Newark Liberty (EWR) and John F. Kennedy (JFK) airports, while getting to EWR from Lower Manhattan or Jersey City by rail requires a three-seat ride.

Meanwhile, demand for air travel in this region continues to grow. RPA estimates that the number of passengers traveling through EWR will grow from 34 million annual passengers in 2012 to a projected 37 million in 2018; 41 million in 2026; and 48 million in 2037.





The best way to address this service gap is to extend the PATH transit system from its current terminus at Newark Penn Station to the Northeast Corridor station and AirTrain link at EWR, a distance of less than two miles. This will create a direct link for Lower Manhattan and Jersey City and provide the most frequent and lowest-cost service to the airport from any part of the region. It would create the potential for improved service from Midtown and Newark; provide better transit options across the congested Hudson River getting people out of cars and reducing congestion; and support economic growth and job creation in North Jersey and the entire New York metropolitan region. And very importantly, the project will cost less to build than comparable transit links at other airports and can be paid for by a broad range of revenues and financing arrangements.

Regional Benefits of Airport Access

Convenient transit service to EWR is critical to ensure that Lower Manhattan remains an engine for regional economic growth. Upon completion of the World Trade Center redevelopment, Lower Manhattan will have over 90 million square feet of office space; over 20 hotels with more than 4,000 hotel rooms; and over 309,000

daily workers. The district's traditional core of finance, law and business services is diversifying to include media, information services, technology and tourism—all of which are heavily reliant on air travel. International firms will be central to the district's identity and future growth. Investment in PATH service to EWR will bring a larger economic return on the billions of dollars of public investments that have been made in Lower Manhattan and give the region a competitive asset that it currently lacks.

This link will also benefit New Jersey communities. PATH stations in New Jersey have strong potential for redevelopment—especially if they have a quick transit connection to the airport. These communities have the capacity to accommodate approximately 70,000 new jobs and 40,000 new housing units in close proximity to PATH. A direct link to EWR will help catalyze these development opportunities.

Benefits to Air Travelers

RPA estimates that the extension of PATH to the NEC station would generate 2.5 million riders annually if it is built by the late 2010s. This represents nearly 40 percent of the air passengers to Newark Liberty Airport from the area served by PATH and almost 20 percent of airport employees who live in the service area. Many of these riders will be high-income business and residential passengers who have a disproportionate impact on the regional economy. This traffic volume would grow to as many as 3.6 or 4.3 million riders over the next 30 years as the number of air passengers grows and businesses and residents respond to the benefits provided by the new service.

The new service is well positioned to attract riders for many reasons:

- It will create a direct ride to the Newark AirTrain from the iconic new Calatrava PATH terminal built at the site of the reconstructed World Trade Center.
- Airport travelers from Manhattan, both those living and working there, will be able to reach the airport without the need to use an expensive and unreliable taxi or auto trip to get through congested Trans-Hudson tunnels. Companies with high volumes of business travelers may require their employees to take advantage of a fast, inexpensive and high-quality transit option instead of hiring expensive taxis and car services.
- Some travelers who currently use other airports, but have options in their flight choices, will shift to EWR and the PATH service to take advantage of the better ground connections.
- Lower Manhattan cultural destinations, including the 9/11 Memorial, which opened September 2011, attract over 9 million visitors annually, some of whom will be entering the region from EWR and will ride the new service.
- Residents and business travelers in New Jersey, especially in Hudson County and Newark, will have a fast and reliable transit option to the airport.
- The possible emergence of new low-cost service at EWR, either from a new carrier or more discounted flights from existing carriers, would generate fliers who would be attracted to a low-cost way to reach the airport.

In addition, ridership on the PATH connection may come from a number of other sources that have not been included in RPA's ridership projections because there is less confidence in the accuracy of the estimates. These include:

- A Park-and-Ride facility at the PATH terminus could result in still more use of PATH by non-airport travelers. RPA estimates that a Park-and-Ride could generate 32,000 new riders annually and attract an estimated 700,000 current PATH riders who would switch from other stations to take advantage of the improved service.
- New development near PATH stations and a shift in location decisions by residents and business to take advantage of the PATH service to the airport would lead to more ridership along the entire system.

The timing and magnitude of these factors are difficult to predict. Over time, however, use of the new transit service should see steady growth. Air travel from the region's three major airports is expected to increase from 109 million annual passengers in 2012 to 150 million annual passengers by the mid-2030's. An improved transit link to EWR will support this growth and generate more demand for air travel in and out of the airport.

Benefits of the Western Alignment

There are several possible track alignments to consider for the PATH extension from Newark Penn Station to the NEC station. Of these, the western alignment is the most feasible and cost-effective. This alignment would extend PATH's World Trade Center (WTC) service from Newark's Penn Station along the western side of the Northeast Corridor (NEC) to the NEC station that is currently served by the AirTrain connection to EWR's terminals. The western alignment is compatible with future redevelopment options for EWR and provides the greatest flexibility for an expanded second phase.

This connection would have several advantages over other alternatives:

- **High frequency of service:** All WTC trains could terminate at the station, allowing trains to run as often as once every 2.5 minutes during peak periods, compared to once every 12-15 minutes if PATH were extended to the airport terminals.
- **Lower cost:** With an estimated cost of \$1 billion, the alignment would be less expensive than an alignment along the eastern side of the NEC and as little as one-third the cost of extending PATH directly to the airport terminals.
- **Better service for existing PATH riders:** The new PATH terminal and yard at the NEC station would allow for quicker train turn-around and greater flexibility to place additional trains in service when needed.
- **Greater long-term flexibility:** There would be fewer conflicts with existing or future airport operations, and it would be compatible with various options for further improvements in connecting PATH onto the airport.
- **Fewer negative impacts:** Neighborhood and environmental impacts will be substantially lower than with alternative alignments.

As shown in the chart on the right, connecting PATH to the airport at the NEC station would provide more reliable and less expensive service than a taxi ride, which can vary greatly in length depending on congestion at the Holland Tunnel, on Manhattan streets and New Jersey highways. Assuming that PATH charges a \$7.25 for airport-bound passengers (equivalent to the cost of the subway and AirTrain to JFK), it would be faster, easier and less expensive than rail service from Midtown to the airport.

Project Costs & Funding Options

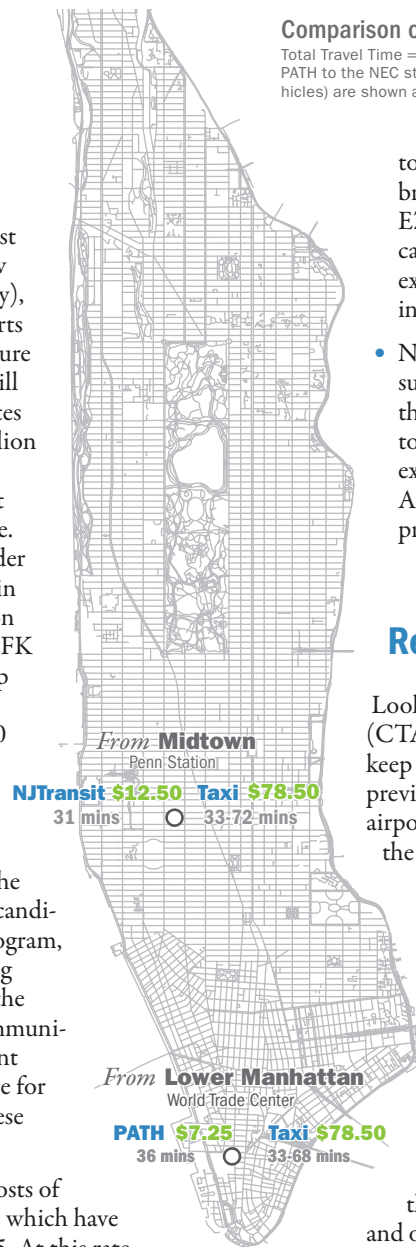
One important benchmark of any transportation investment's cost effectiveness is the ratio of capital cost per rider. The Port Authority of New York and New Jersey (Port Authority), which operates all three major airports and many other port and infrastructure systems, estimates that the project will cost \$1 billion to build. RPA estimates that the system will generate 2.5 million annual riders if it opens in 2018 and a cost per rider of \$353 within about eight years after the service is in place. This is comparable to the cost per rider ratio for the existing Newark AirTrain and the Heathrow Express in London and less than the \$407 ratio for the JFK AirTrain, which has seen its ridership double in the past seven years while overall air travel only increased by 20 percent.

The Port Authority has a \$3.7 billion capital budget for 2012 supported by fees generated at the airports and other facilities. While the PATH extension would be a strong candidate for funding from the capital program, there are several options for financing this investment. In particular, since the transit link will benefit multiple communities and types of riders, many different financing sources might be applicable for both capital and operating costs. These include:

- Riders will pay a portion of the costs of the service directly through fares, which have been projected at \$4.50 to \$11.75. At this rate, the project would generate approximately \$16 to \$22 million annually in additional revenues for the Port Authority. These fares may be set higher or lower, depending on whether the priority is to attract riders or cover a larger percentage of the costs.
- An increase in the Federally-legislated Passenger Finance Charge (PFC), a surcharge on airline tickets, from the current \$4.50 to \$7.00 would generate an additional \$112 million annually, some of which could be dedicated to financing the PATH extension.
- The PATH extension would be eligible for Federal capital assistance, such as the Federal Transit Administration's New Starts program or the Federal Railroad Administration's \$35 billion Railroad Rehabilitation and Improvement Financing (RRIF). Securing Federal funds would require strong, united advocacy from elected officials in New York and New Jersey.
- An airport access toll could be levied on the 56 percent of all passengers at EWR who are dropped off or picked up by private automobiles, taxis or liveries, similar to systems in place at Dallas-Fort Worth and Dulles International Airport. A \$1

Comparison of Cost & Travel Times to Newark Liberty Airport

Total Travel Time = the transit time estimates include in-vehicle travel times for NJT/PATH to the NEC station and EWR AirTrain to the terminals. Auto times (taxis and private vehicles) are shown as a range - from free flowing to congested roadway conditions.



toll would generate over \$12 million annually; a \$2 toll would bring in an estimated \$25 million. The Port Authority could use EZ-Pass transponders and/or License Plate Recognition (LPR) cameras to bill motorists at both the airport entrances and exits, which would not create chokepoints or slow traffic on the internal roadways.

- New development in the neighborhood of PATH stations could support a Tax Increment Financing (TIF) structure, similar to the sale of development rights on Manhattan's Far West Side to finance \$2 billion in construction costs for the #7 subway expansion. New Jersey has enabling legislation to create Revenue Allocation Districts (RADs) which dedicate a portion of new property taxes to finance critical infrastructure projects.

Redevelopment of Newark Liberty Airport

Looking forward, Newark Liberty Airport's Central Terminal Area (CTA) needs to be redeveloped to handle additional passengers and keep pace with the evolving needs of the aviation industry. RPA's previous research and other reports have concluded that the region's airports will experience robust growth in the future – if they have the capacity to handle this demand.

This redevelopment will probably take the form of additional runways and reconfiguration of the CTA. This provides an excellent opportunity to extend a second expansion of the PATH system, providing a seamless, convenient ride to a more efficient airport with expanded capacity. This could be accomplished in a number of ways, depending on the type of airport redevelopment that eventually takes place. Extending PATH to the airport terminals would provide a one-seat ride, but will be more expensive than other options.

Locating airport terminal functions at the NEC station would create the possibility for a world-class gateway to the airport, but would need to resolve a number of siting and operational constraints. An improved AirTrain service could reduce walking and travel time from PATH considerably, but also has complex implementation challenges at both the station and terminal ends. Whatever the eventual decision, the western alignment for extending PATH to the NEC is compatible with all of these options and provides the greatest flexibility for an expanded second phase as part of Newark Liberty Airport's CTA redevelopment.

Conclusion

Connecting PATH to the NEC station and Newark Liberty Airport is a cost effective way to promote connectivity, sustainability and economic development in the tri-state metropolitan region. This project should be a high priority for the business, civic and political leadership of New York and New Jersey.

A growing number of air passengers and the increasing importance of air service to the region's economy increase the overall benefits of this project. Experience with existing AirTrain service at both Kennedy and Newark airports demonstrates strong demand and the probability of rapid ridership growth once the service is in place. The redevelopment of the World Trade Center site, including the 9/11 Memorial and the Calatrava terminal, will provide an international gateway to one of the largest concentrations of commercial and civic activities in the nation. And the service will add to the momentum of redevelopment in Newark and Jersey City, reinforcing one of the nation's most important urban corridors extending from Lower Manhattan into northern New Jersey.

PATH Extension At a Glance

Project Description

Extend PATH 1.85 miles from Newark Penn Station to the Northeast Corridor Airport Station

Travel Time

36 minutes running time from World Trade Center to Newark Airport

Service

24 trains an hour

Annual Ridership

2.5 million, growing to
3.6 - 4.3 million over 20 years

Fare Options (one-way to airport)

\$7.25 (same as transit fare to JFK)
\$12.50 (same as NJT fare to EWR)
\$14.50 (double JFK fare)

Construction Cost

\$1 billion includes extension, trains, station expansion and new yard costs

Possible Funding Sources

Fare Revenues, Federal Transit Programs, Airport Roadway Tolls and Development Fees

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