

APPENDIX

Statement by John D. Porcari
Interim Executive Director, Gateway Development Corporation
New Jersey Senate Legislative Oversight Committee and the Assembly Judiciary Committee
September 25, 2017

Good morning Chairman Gordon, Chairman McKeon and Members of the Joint Committee... thank you for the opportunity to testify today about the Gateway Program and its importance to mass transit in New Jersey. I'm John D. Porcari, interim Executive Director of the Gateway Program Development Corporation, a New Jersey-based non-profit created to effectuate the engineering, financing and construction of the Gateway Program.

We refer to Gateway as the most urgent infrastructure program in America because no other project seeks to address multiple single-points-of-failure that put 10% of America's Gross Domestic Product at risk every day. Where most of the Northeast Corridor consists of three or four tracks, here, at its busiest point – the 10-mile stretch between Newark, New Jersey and New York City – the Corridor necks down to just two tracks, reliant on aging infrastructure and supporting tremendous demand.

In a nutshell, Gateway is about taking that two-track railroad and making it four – preserving existing levels of service in the near-term, enabling much more operational flexibility, and ultimately creating the capacity needed to support the region's projected growth. Gateway is a well-engineered, realistic plan designed to be modular in its approach to take advantage of funding opportunities as they become available while not sacrificing the principles of the long-term vision.

As Members of the Committee well know, the 106 year-old North River Tunnel was severely damaged by Super Storm Sandy and requires comprehensive reconstruction – essentially rebuilding the tunnel and its associated infrastructure from the inside out. No engineer can say with certainty when the tunnel may become so unreliable that it cannot sustain the level of service we enjoy today. It is literally a race against time.

What we do know is that work to rebuild the tunnel will require taking each tube out of service for roughly 2 years. Without an alternate route into Manhattan that would create a nightmare scenario where instead of the 24 trains per hour that currently operate, the system could support only 6 – a 75% reduction in capacity. The implications for the region's economy – and New Jersey's economy in particular – would be devastating. It's a situation we cannot allow to happen.

It's important to note the tunnel is safe for operations – a comprehensive analysis conducted after Sandy concluded that the structural integrity of the crossing was not compromised.

It's not a safety issue we're talking about as much as it is a question of reliability and resiliency. As Hurricanes Harvey, Irma and Maria have reminded us – our climate is changing and it's just a

matter of time before another 100-year storm like Sandy makes its way up the East Coast. If and when that happens our transportation network must have the resiliency to bounce back and keep the region's people and its economy moving. That's what Gateway is designed to do.

Work is well underway on Phase I. Phase I of the program includes the Portal North Bridge Project to replace the aging swing bridge over the Hackensack River and the Hudson Tunnel Project to build a new, two-track tunnel under the Hudson River and rehabilitate the existing tubes. Led by New Jersey Transit and the Federal Railroad Administration, an accelerated environmental review on the tunnel is quickly nearing completion in roughly half the time typically required for projects of this magnitude.

The Draft Environmental Impact Statement released this summer kicked off a public comment period that included 3 public hearings – one of which we were pleased to see Chairman Gordon attend! Public input is a crucial component of the EIS process and the comments received are now being analyzed by the project team. Responses will be incorporated into the Final EIS which is on schedule for completion by March of 2018, when we anticipate receiving a simultaneous Record-of-Decision and Army Corps of Engineers Section 404 permit. This will be a major milestone for the project that clears the way for construction to begin. With funding in place, early construction activities on the tunnel could begin in calendar year 2018 with major construction to follow in 2019.

The expedited environmental review is precisely the kind of innovative approach the federal government has advocated for. The project's concurrent reviews and other reforms helped shorten the process and can serve as models for other projects going forward. We appreciate the strong technical assistance we have received from the U.S. Department of Transportation, without which such expedited review would not be possible.

While the environmental review advances, Amtrak, New Jersey Transit and the Port Authority of New York and New Jersey are working together under the framework of the Gateway Program Development Corporation to solidify the financial plan for the project. As outlined in DEIS, the estimated cost of the Hudson Tunnel Project is \$12.9 billion - \$11.1 billion for the new tunnel and \$1.8 billion for rehab of the existing. I would note this estimate is based on 10% design and is nearly certain to change as the project advances and more is known.

The financial plan envisions a combination of Amtrak and Federal Railroad Administration grants, RRIF loans, private capital and a New Starts Capital Improvement Grant through the Federal Transit Administration. In 2016, the project was accepted into the FTA's Project Development pipeline and last month, the partners submitted a rating package that seeks inclusion in the U.S. Department of Transportation's Fiscal 2019 budget.

In support of this plan, the GDC is engaging private sector and industry experts with a Request for Information. Published in August, the RFI seeks input on project delivery, risk allocation and funding and financing. The responses will inform the GDC's thinking about alternate delivery opportunities and help shape the procurement and financing approach to the Hudson Tunnel

Project with the goal of driving innovation, containing cost and mitigating risk. With the RFI, the partners are seeking the best and brightest ideas from around the world. We are pleased to have received a robust response and will next set up one-on-one meetings to gather additional information and refine the financial plan as needed to strengthen our case for federal funding for this crucial project.

The other Phase I project in the CIG project development pipeline is the Portal North Bridge project. By replacing the existing century-old swing bridge over the Hackensack River with a higher-clearance fixed-span, the project will eliminate what some refer to as the Achilles heel of the Northeast Corridor. With 53 feet of clearance above the river, a new Portal North Bridge won't have to open for marine traffic. The new bridge will permit higher speeds, allowing New Jersey Transit to increase some train consists, delivering new capacity and a more reliable, more resilient Northeast Corridor system that no longer relies upon technology dating to the Civil War.

This project is fully designed, fully permitted and quite literally the definition of shovel-ready. With funding commitments already in place from New Jersey Transit, the Port Authority, Amtrak and the FRA, the only remaining piece of the puzzle is federal funding to make up the remaining 50% of the \$1.5 billion estimated project cost. Earlier this month the partners submitted an updated financial plan that we believe further strengthens the original rating application that resulted in a "medium-high" rating. Not only is the project shovel ready, it's shovel worthy.

In the coming weeks early construction activity will begin at Portal Bridge. Funded by a \$16 million TIGER grant and \$4 million local match by New Jersey Transit, this work includes utility relocation and other necessary site preparations that precede the start of full construction.

Much has been done and great progress has been made, but we have only just begun. The project partners are doing all they can to advance the Gateway Program so that when funding is available we're ready to move to construction as quickly as possible. We appreciate the support of this committee and all the regional stakeholders who recognize the urgency behind this work.

Thank you Chairman Gordon and Chairman McKeon for the opportunity to testify before you today. I look forward to answering any questions you may have.



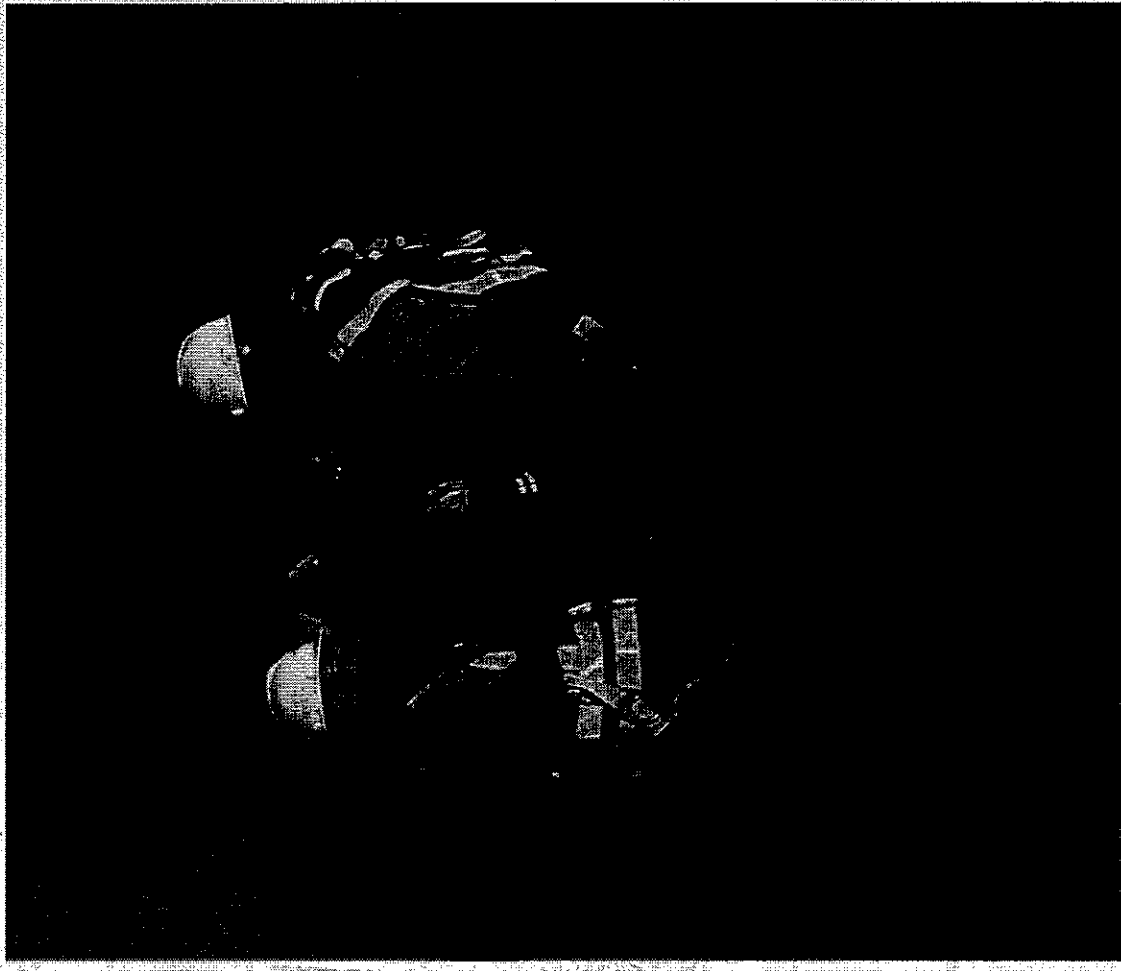
August 10, 2017

GATEWAY PROGRAM UPDATE

John D. Porcari, Interim Executive Director

GATEWAY PROGRAM: RECENT ACTIVITY

- » Hudson Tunnel Project
Draft EIS & Public Hearings
- » Hudson Tunnel Project RFI
- » Portal North Bridge FTA
Record-of-Decision
- » CEO search progressing
- » Outside counsel RFP

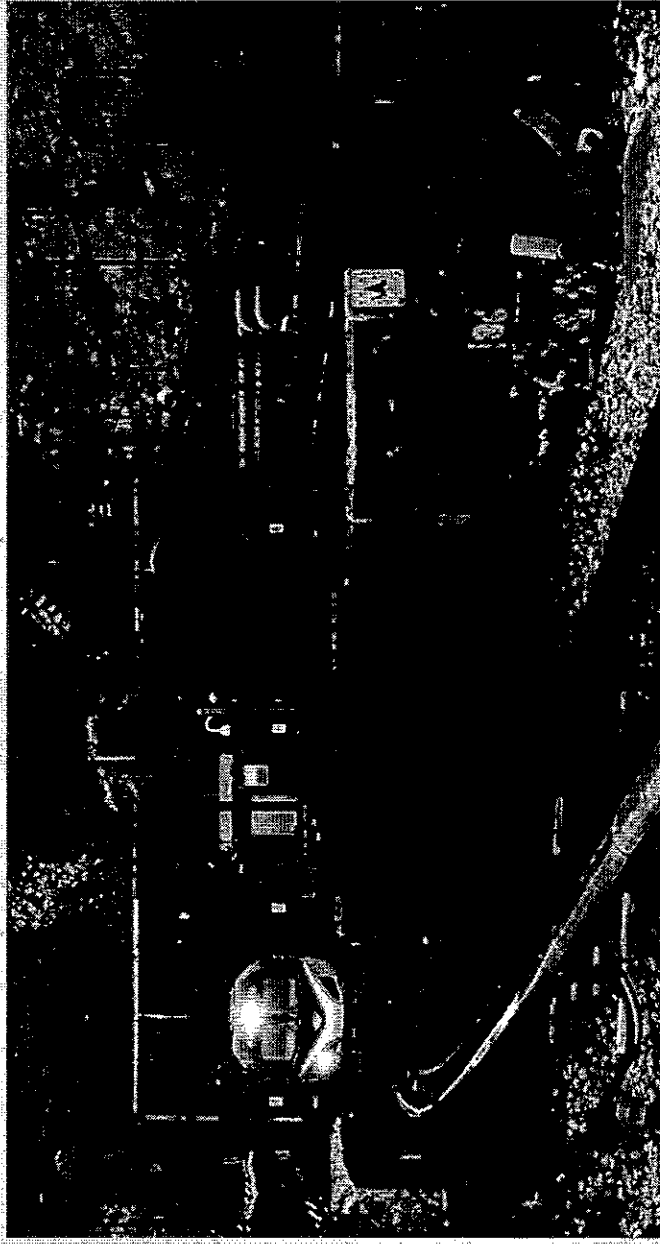


GATEWAY PROGRAM: PHASE I PROJECT UPDATE



- » Portal North Bridge Project
 - » Fully designed and permitted
 - » FTA Record-of-Decision issued in July 2017
 - » FRA Record-of-Decision issued in 2008/2011
 - » Letter of No Prejudice expected soon
 - » Early construction to begin in next few weeks
 - » Bids received & fully funded with TIGER grant + local match

GATEWAY PROGRAM: PHASE I PROJECT UPDATE




- » Hudson Tunnel Project
 - » Draft EIS published 7/7/17, available at www.hudsonstunnelproject.com
 - » Extensive outreach to community organizations and other stakeholders
 - » Public comment period through 8/21/17
 - » On schedule for Joint FEIS/ROD in March 2018

DRAFT EIS: OUTREACH SUMMARY

PUBLIC HEARINGS	
August 1, 2017	New York City Hotel Pennsylvania
August 3, 2017	Secaucus, NJ Secaucus Junction
August 10, 2017	Union City, NJ Union City HS

STATEMENTS OF SUPPORT	
<p>"The New York business community considers Gateway our top priority infrastructure project. It will provide essential connectivity between the global financial and commercial center in New York City with the rest of America west of the Hudson River."</p> <p>--Kathy Wylde, Partnership for New York City</p>	


SOCIAL MEDIA




Hudson Tunnel
@hudsontunnel

Following

We are pleased to release the Hudson Tunnel Project Draft Environmental Impact Statement! Take a look on our website hudsontunnelproject.com/deis.html






Hudson Tunnel
@hudsontunnel

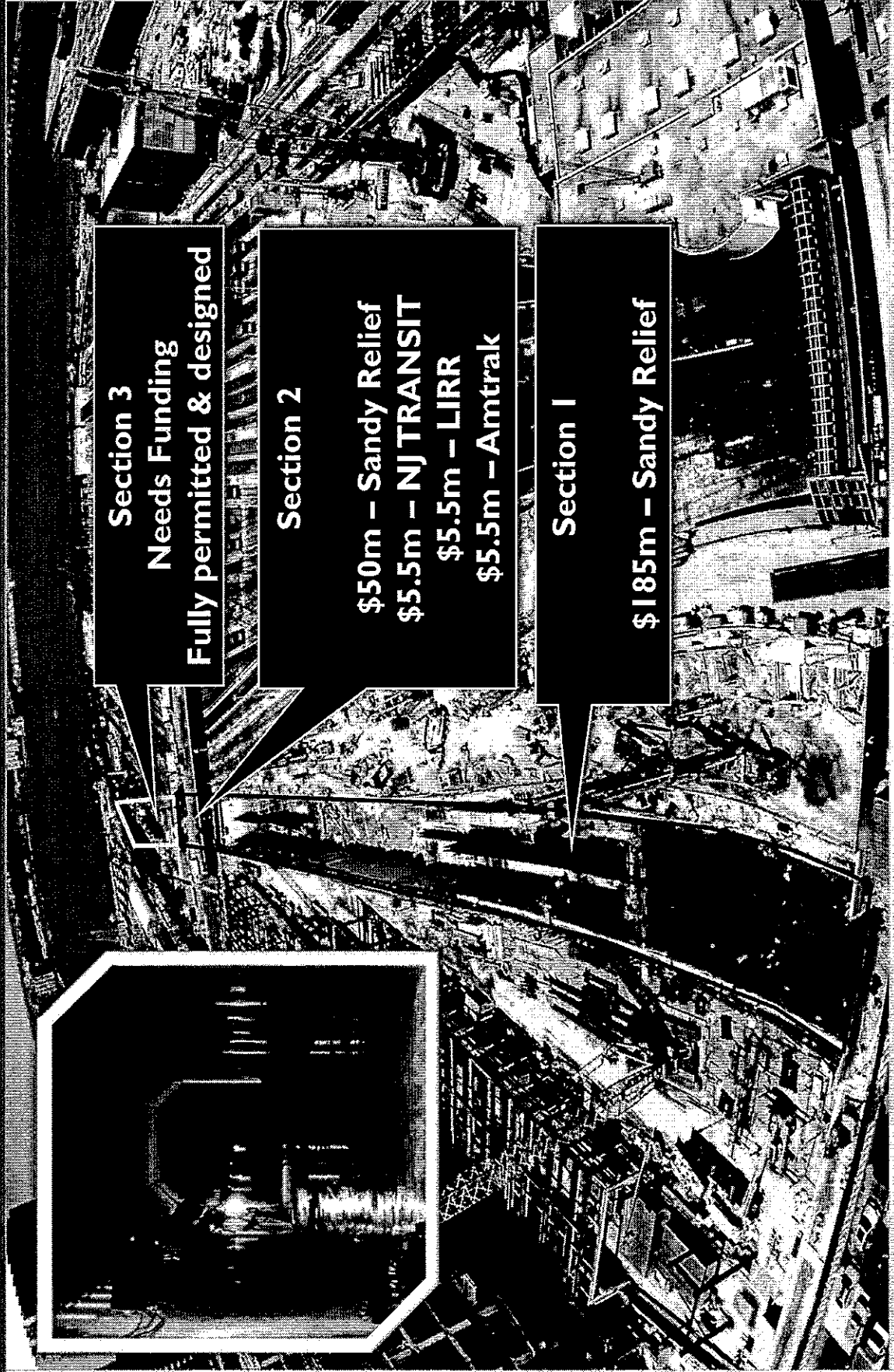
Following

It's #TransitTuesday! If you would like to comment on the Hudson Tunnel Project Draft EIS, submit here: ow.ly/CBTj30dH6mn



11:30 AM - 18 Jul 2017

CRITICAL PATH: HUDSON YARDS CONCRETE CASING



Section 3
Needs Funding
Fully permitted & designed

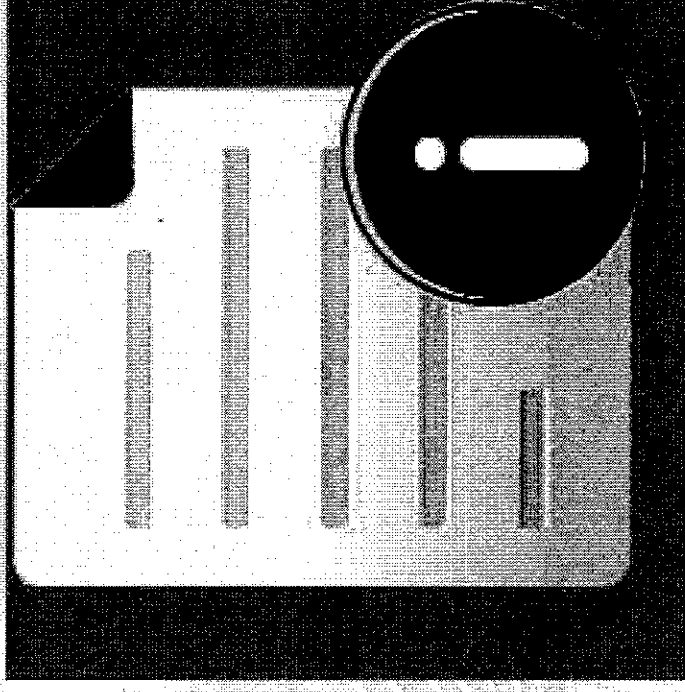
Section 2
\$50m – Sandy Relief
\$5.5m – NJ TRANSIT
\$5.5m – LIRR
\$5.5m – Amtrak

Section 1
\$185m – Sandy Relief

INDUSTRY ENGAGEMENT: RFI PROCESS

» In coordination with partner agencies, GDC today begins new phase of private sector engagement with Request for Information on Hudson Tunnel Project

- » Questions seek input on project delivery, risk allocation, funding/financing, etc.
- » Will inform GDC about alternate delivery opportunities and shape procurement & financing approach
- » Goal is to drive innovation, contain cost, mitigate risk

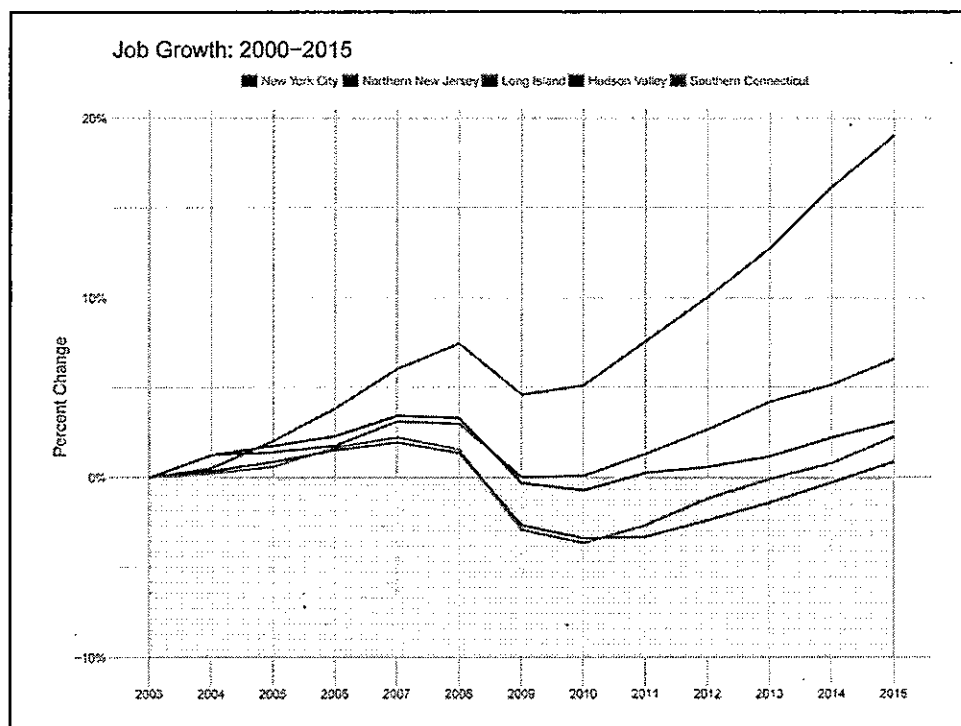
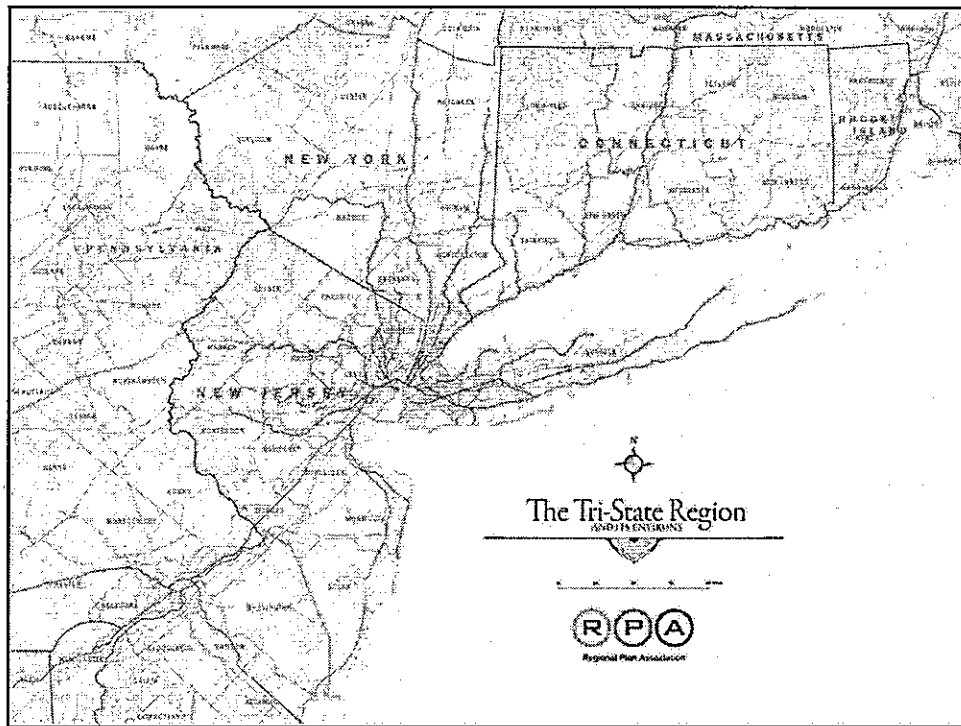


GOING FORWARD: MAINTAIN MOMENTUM

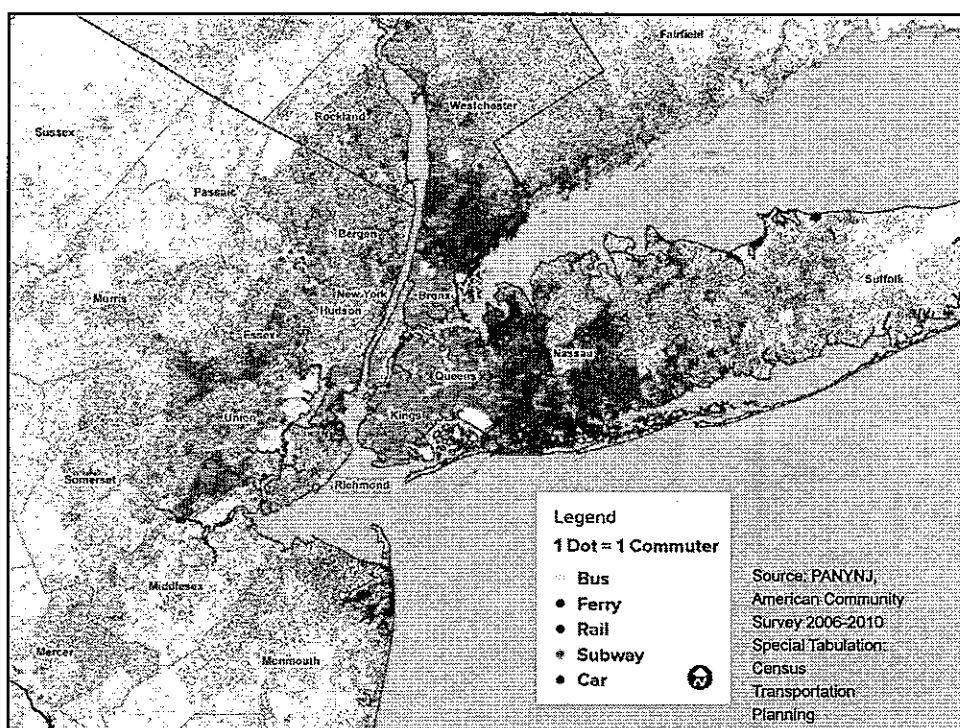
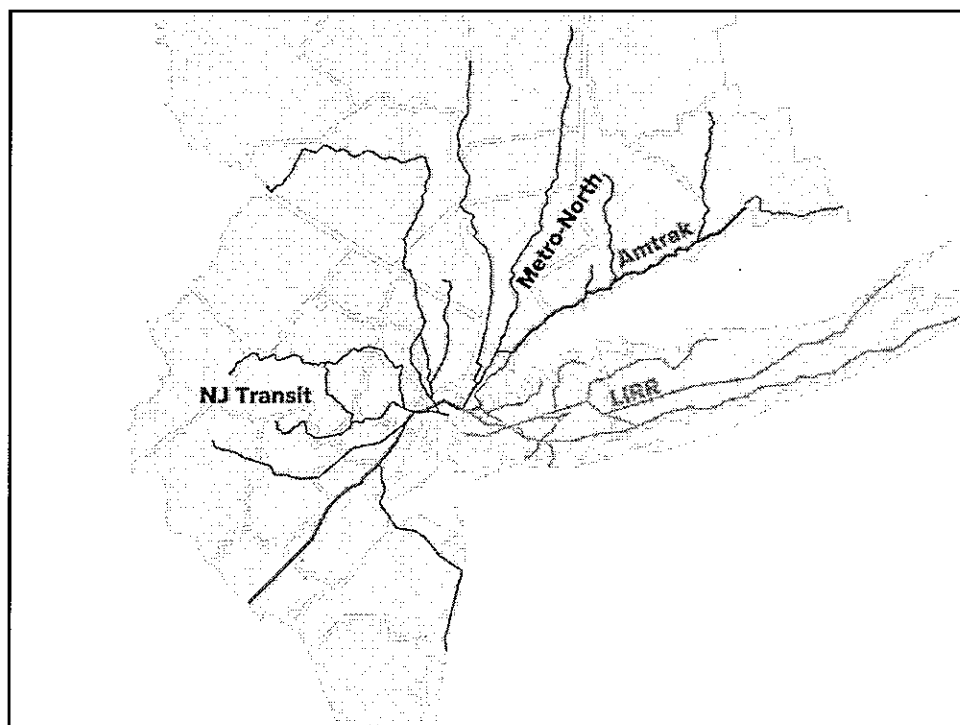
- » Continue EIS progress
 - » Final public hearing tonight
 - » On schedule for joint FEIS/ROD by March 2018, if not sooner
- » Portal North Bridge early construction to begin in coming weeks
- » PNB major construction procurement under development
- » TIFIA/RRIF Letter of Interest submittal expected this month
- » Outside counsel RFP issued July 14; Proposals due August 11
- » CEO search

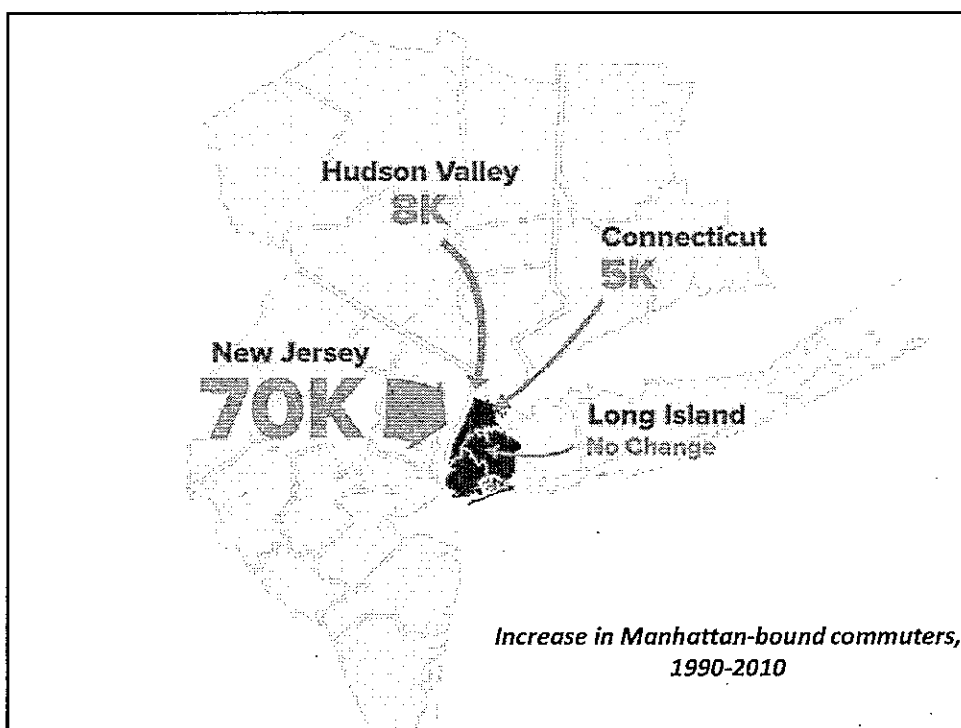
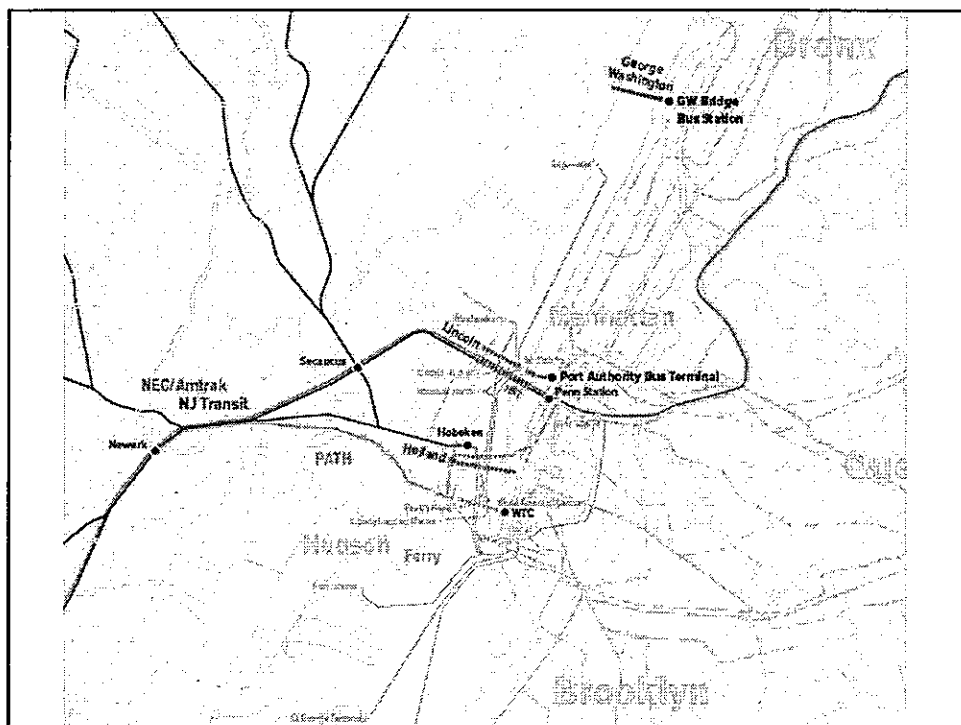
MOVING GATEWAY *FORWARD*

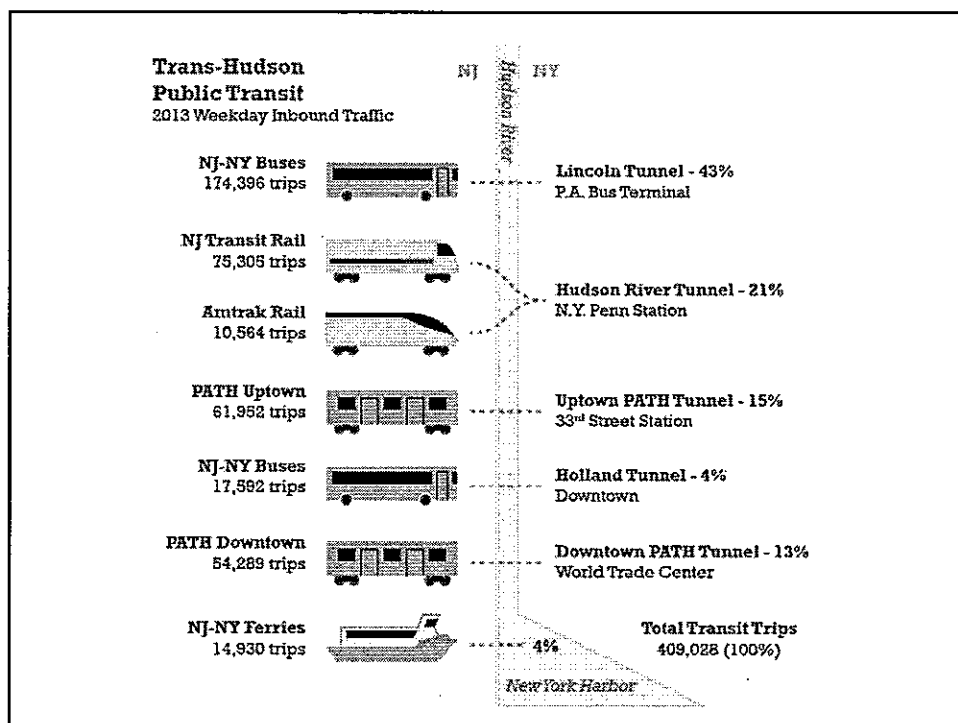
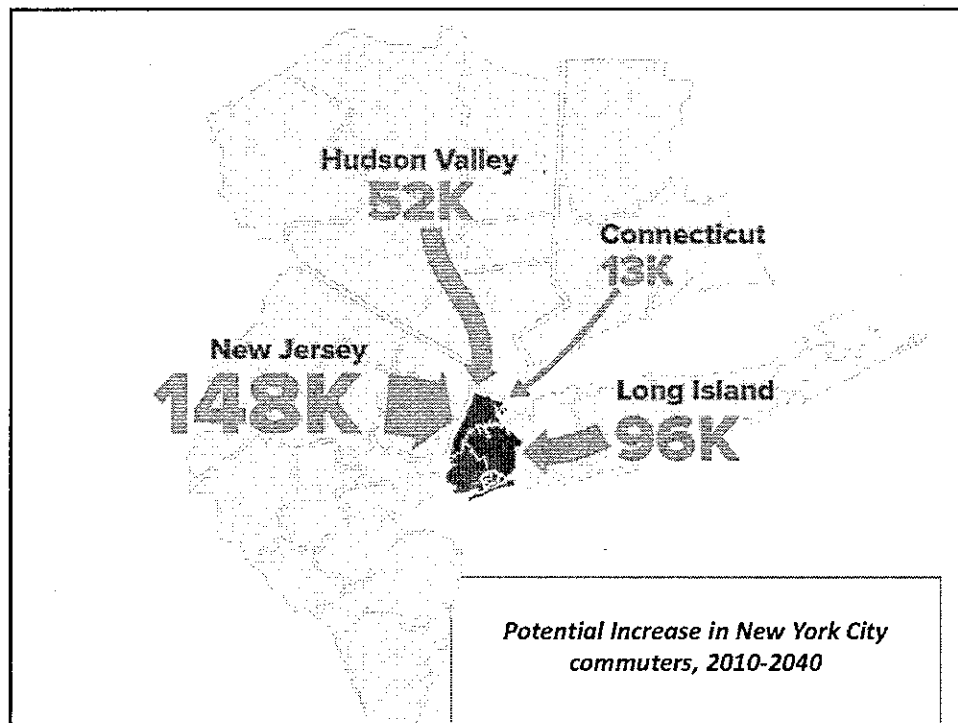


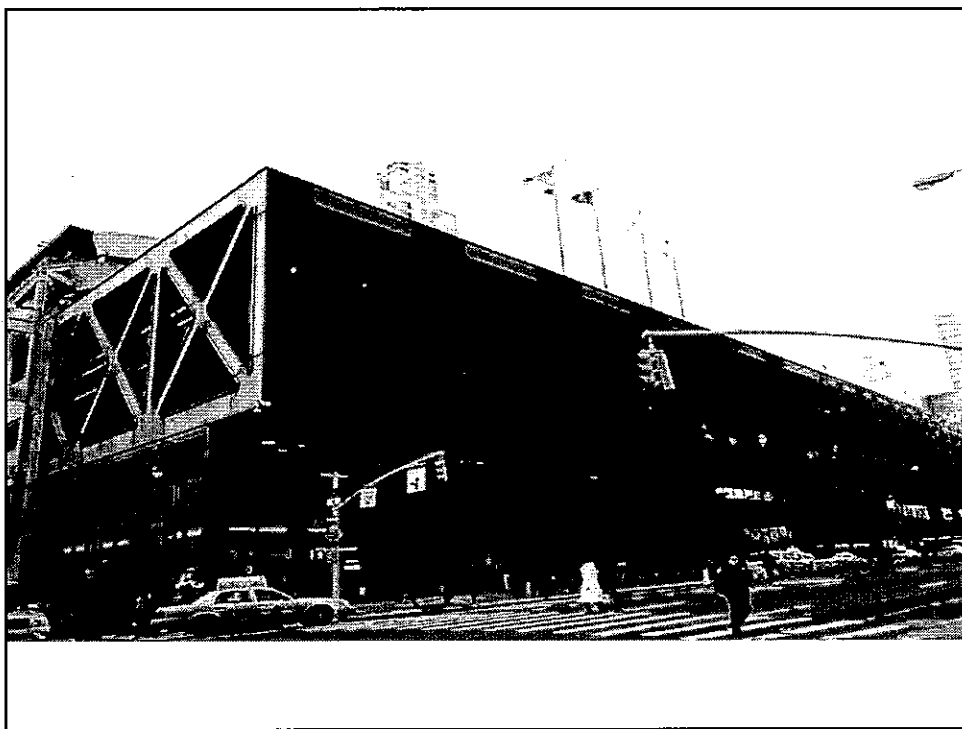


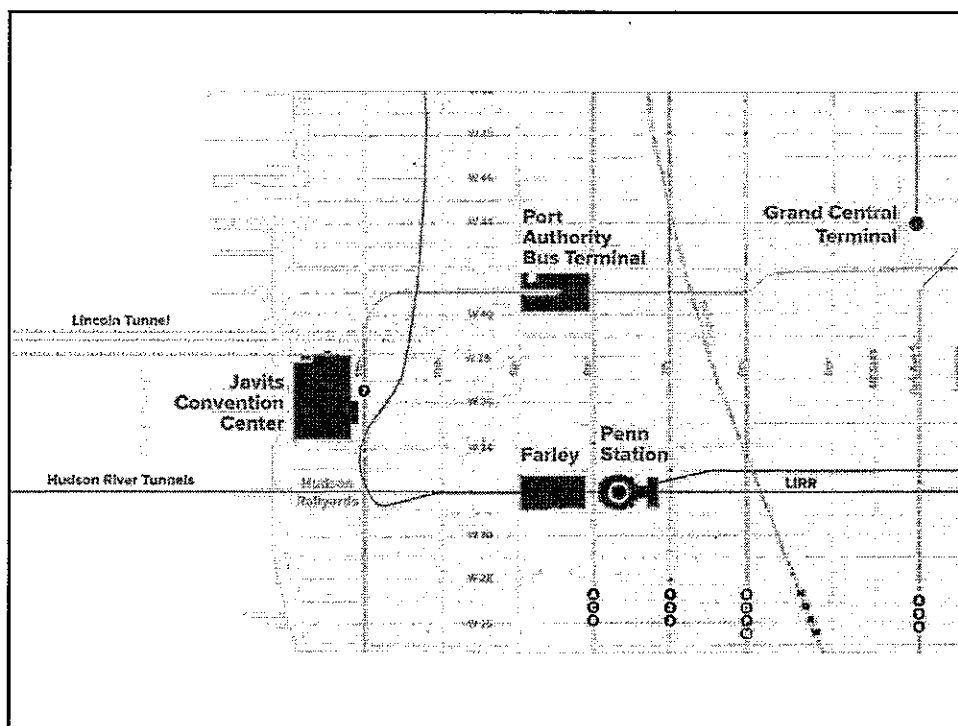
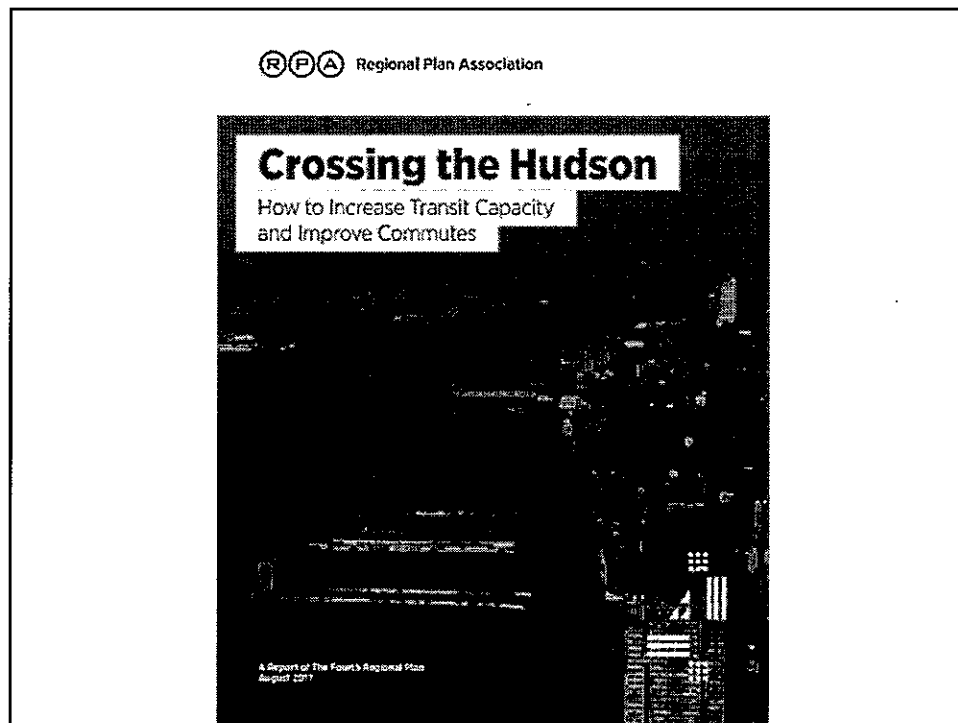
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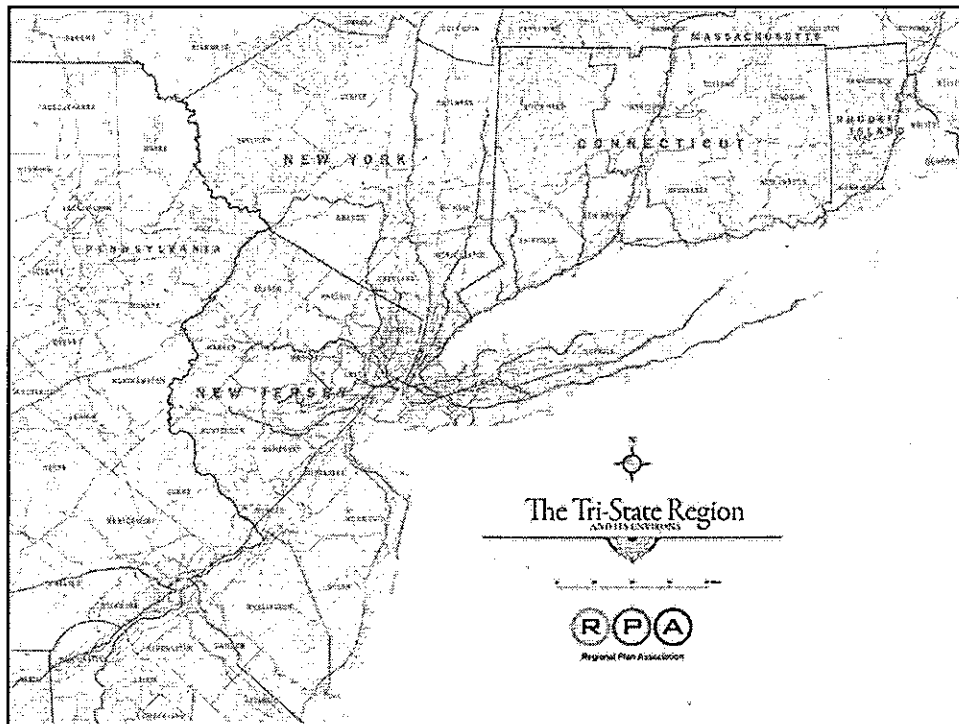












Crossing the Hudson

How to Increase Transit Capacity
and Improve Commutes

A Report of The Fourth Regional Plan
August 2017

Acknowledgments

This report highlights key recommendations from *A Region Transformed*, RPA's fourth regional plan for the New York-New Jersey-Connecticut metropolitan area. The full plan will be released in November 2017.



A Region Transformed

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Executive Summary

We are living on borrowed time.

The links between New York and New Jersey face a growing crisis of capacity, connectivity, and potential collapse. Each of the three primary trans-Hudson facilities—the Northeast Corridor rail tunnel that serves all Amtrak and New Jersey Transit trains into Manhattan; Penn Station; and the Port Authority Bus Terminal—suffer frequent service failures, serve far more people than they were designed to handle, and need major repairs to prevent a catastrophe. The derailments, delays and emergency repairs at Penn Station this summer are mild compared to what will happen if one of the tunnels under the Hudson River fails before replacement tunnels can be built. Losing such a vital part of the regional network would have ripple effects across the entire metropolitan region, affecting everyone who commutes by any mode across the Hudson River, businesses on both sides that rely on these connections, and communities that thrive because of our robust metropolitan economy.

Each day over 1.6 million people commute into Manhattan, the 21st century's leading global city. For the last 25 years, more and more of those people have been coming from west of the Hudson River. Over that time, the number of jobs in Manhattan has only increased by about 75,000, and the number of daily commuters traveling from New Jersey grew by 70,000, from 250,000 to 320,000.

As a result, rail trips in and out of Penn Station have nearly tripled in the last 25 years, bus trips have grown by 83%, and PATH ridership is up by 27%. RPA's research projects that this trend will continue over the next two decades, requiring far more capacity than the existing facilities can provide. Work trips to Manhattan could increase by 72,000, or 24%, by 2040, while trips to all of New York City could increase by 148,000, a 38% increase, as job growth in the other New York City boroughs rises even faster.

Our current system of trains, buses, subways, ferries and roads does not have enough capacity to serve another 72,000 — let alone another 150,000 — commuters every day. Without that capacity, overcrowding and delays will get even worse and jobs will depart to other regions.

Furthermore, the rail network fails to serve many communities in New Jersey, forcing commuters to rely on buses to a much greater degree than other parts of the metropolitan region. And commuter rail services from all directions terminate in Manhattan, rather than directly connecting the suburbs to each other, which limits the destinations that passengers can get to without transferring and reduces the number of trains that operate in peak periods.

To date, only piecemeal solutions have been proposed to address these problems. Amtrak has proposed the Gateway project: two new tracks under the Hudson River connecting New Jersey to Penn station. Gateway solves the immediate maintenance needs of the tunnels and doubles capacity in the Northeast Corridor, but will not meet long-term demand and limits service options by maintaining Penn Station as a terminus, rather than allowing through running between New Jersey and Long Island. The Port Authority's proposal for a much larger Midtown bus terminal would accommodate projected bus passengers, but at a very high cost with unacceptable impacts on the neighboring community. And it locks in bus service for many areas of New Jersey, rather than providing more direct, reliable and efficient rail service. And current plans to improve Penn Station and build Moynihan Station would make some improvements in circulation and the passenger experience, but would not be able to handle the additional riders brought in by Gateway.

Each of these projects has been planned and studied in isolation of the others. Rather than looking holistically at the links across the Hudson River, and where people are coming from and going to, the agencies have been focused on solving their individual problems. It shouldn't surprise anyone that they haven't been able to come up with a comprehensive solution.

A much better outcome could be achieved through a series of complementary investments that address the problems of the system as a whole. These investments can address the inadequacies of the current facilities; create capacity for much more robust economic growth; and greatly improve service and reduce travel times on both sides of the Hudson River. The investments would be phased in to address the most urgent problems first and provide flexibility for the timing and type of future investments.

- The first priority is to immediately begin construction of Gateway. The new tunnels must be in place before the existing tunnels fail. Simply put, this is the highest infrastructure priority for the nation. The entire Northeast Corridor relies on that connection. The federal government must honor its commitment to provide half the funding for this nationally-significant project that serves one-fifth of the nation's economy, and the Gateway Development Corporation needs to move ahead as quickly as possible with environmental permitting and engineering to begin construction.
- At the same time, the Port Authority should partner with New York State and New York City to build a second bus terminal in the basement of the Javits Convention Center with underground connections to the #7 subway station at Hudson Yards. A new facility in the basement of the Javits Convention Center would have many advantages over other proposals. It can be built very quickly — an important consideration since both Penn Station and the existing bus terminal are at risk of failing. It would be much less expensive than building a new bus terminal. It does not require the demolition of the existing PABT, but would complement it with better service to the Hudson Yards and other destinations that would reduce the demand on the PABT, which would be renovated to extend its useful life another 20 to 30 years. And the additional capacity the Javits bus terminal provides could also be used to serve both new commuters and existing intercity buses — many of which now park on city streets.

This plan also provides many benefits to the Javits Convention Center. The Javits Center is currently expanding to the north, but even with this expansion, there is still unmet demand for Class A conference facilities — as opposed to the Class B exhibition space on the basement floor. Building a bus terminal in the Javits basement would be part of a comprehensive plan to expand and modernize the Javits Center, including increased accessibility; expanding premium meeting and ballroom space onto Pier 76; and improving truck marshalling, loading and parking.

- Once the Gateway tunnels and Javits bus terminal are both complete, the next priority is to expand capacity under the Hudson River by converting Gateway to a higher-capacity, through-running service. Instead of terminating at 7th Avenue, Gateway should extend east, underneath Manhattan and the East River with two new tunnels, to connect to Sunnyside Yards in Queens. Instead of simply doubling commuter rail capacity under the Hudson River, “Gateway East” would increase capacity by 138%. It would also have much broader regional benefits, including through service between NJTransit and the Long Island Railroad and MetroNorth.
- To serve all these additional riders, Penn Station needs to once again become a gateway for New York and the region. We should construct a grand Penn Station complex — including Moynihan Station and a “Penn South” expansion — to create a unified 31st to 34th street station. Eventually, Madison Square Garden should move to a nearby site and a new, open Penn Station would be built to serve as a true regional hub, with direct and more frequent service to New Jersey, Long Island, the Hudson Valley and Connecticut.

These actions can be phased in, and each step builds on the previous investment. This plan would provide enough capacity until mid-century, when trans-Hudson demand will once again begin to surpass combined rail and bus capacity and the existing PABT will have surpassed its useful life. At that point, another phase can add more capacity, either by rebuilding the bus terminal or planning for the fifth and sixth tunnels under the Hudson River.

Both sides of the Hudson River benefit from their proximity to each other — to the extraordinary jobs and vitality of New York City and the workforce and communities in New Jersey. We are cheating the clock by relying on connections that are more than a hundred years old. To prosper in this century, we need to make bold plans once again. Here is the way — now all we need is the will to do it.

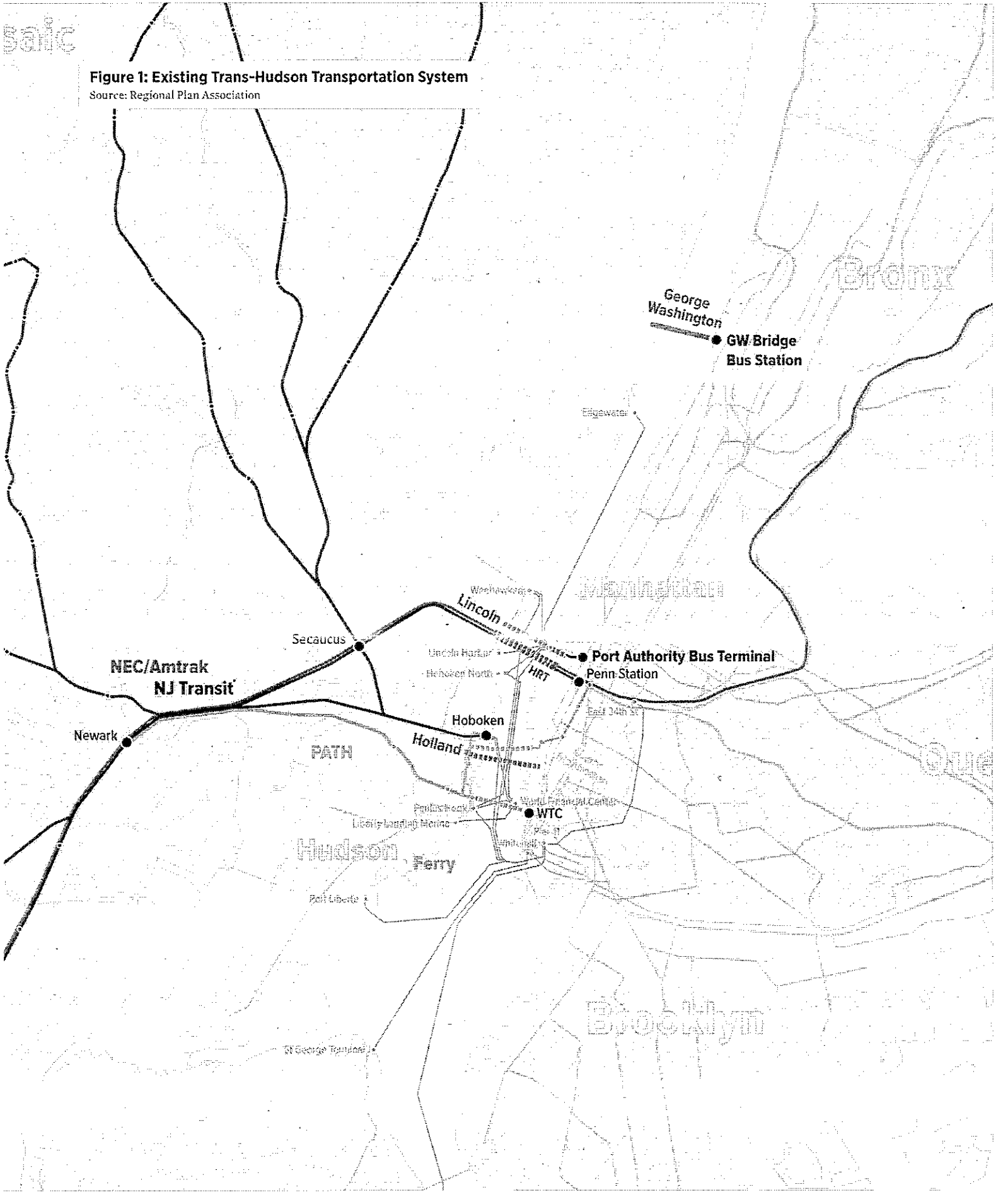


Figure 1: Existing Trans-Hudson Transportation System

Source: Regional Plan Association

A Growing Crisis

The transportation networks that cross the Hudson River and link New Jersey and New York are critical to the economy of both states. The transit connections, which carry nearly 400,000 people a day, are at serious risk. They are old, deteriorating, and unable to handle current and anticipated demands.

Two of the key elements of this network are especially at risk: the rail tunnel under the Hudson River that leads into Penn Station, and the Port Authority Bus Terminal (PABT). Each weekday the Hudson River Tunnel (HRT) carries some 330 NJ Transit commuter trains and 150,000 people — triple the number of passengers since 1990. Amtrak's Northeast Corridor, which is the heart of Amtrak's national network and its only profitable market, runs another 100, intercity trains carrying 21,000 people a day.

Superstorm Sandy badly damaged both tubes of this aging tunnel, which is threatened by a shutdown if conditions worsen. Each year it becomes more likely that one of these tubes will need to be closed for significant repairs, forcing tens of thousands of workers and visitors to find alternative means of travel in a system that is already over capacity. Huge disruptions to all who travel across the Hudson would follow, with disastrous affects to the economies of both states and the entire Northeast Megaregion.

Meanwhile, the PABT is succumbing to years of heavy bus traffic in the terminal and on the ramps leading to it. It was not designed for today's larger and wider buses. Many of the 14,000 buses traveling through the Lincoln Tunnel each weekday overflow onto the city streets surrounding the terminal. The capacity limitations affect the 350,000 passengers daily, up from 233,000 in 1990. Each morning, long lines of buses try to enter the overtaxed Exclusive Bus Lane (XBL) leading to the Lincoln Tunnel, and long lines of passengers wait impatiently to board buses in the evening.

The New York Metropolitan Transportation Council (NYMTC) and the North Jersey Transportation Planning Authority (NJTPA) produce long-range forecasts for the city and region. They both project that population and job growth will result in an increase in work trips of 26% from communities west of the Hudson to New York City by 2040, adding 103,000 trips each way on an average weekday. RPA's more ambitious growth forecasts estimate that

demand could grow by 38%, or 148,000 trips. But the current system does not have spare capacity to handle either of these projections.

Many possible solutions have been suggested, generally starting with new rail capacity under the Hudson River. Amtrak's proposed Gateway project would enable transit agencies to divert trains from the existing rail tunnels to make repairs and eventually double trans-Hudson rail capacity. Most business, civic and political leaders agree that Gateway should proceed, but funds for the project — which will cost in excess of \$20 billion — are not in place.

At the same time, the search for a replacement to the PABT is hampered because the existing facility has two critical features that are difficult to duplicate: direct connections via ramps to the Lincoln Tunnel and the close proximity to ten subway lines. Any replacement not at the current site would forfeit either or both of those advantages. Moreover, the high cost and local impacts raise issues as to whether other solutions might be preferable. For example, the New York City subway #7 or L trains could be extended to add trans-Hudson capacity and relieve bus and rail demand on existing facilities.

All these solutions require consensus among the affected parties — the State of New Jersey and NJ Transit (NJT); Amtrak; the Port Authority of New York and New Jersey; the City and State of New York; the ferry operators; and even the MTA and federal government. All of these alternatives are expensive and require close examination, including agreement on how the solutions will be paid for.

Trans-Hudson Travel Today

Trans-Hudson travel includes many markets — commuters to Manhattan by train, bus, auto and ferry; commuters to other destinations in both directions; through traffic on autos, buses and trains traveling on the Northeast Corridor; and freight moving across bridges, tunnels and barges.

The New York metropolitan area is central to the economy of its three states and to the economy of the nation. Its 23 million people generate \$1.8 trillion in gross domestic product, one-fifth of the nation's economy. At the center of that economy is the Manhattan central business district (CBD), the nine square miles south of 60th Street, where over two million people work.

Trans-Hudson travel is accommodated by several vehicular and rail crossings, as shown in Figure 1. The three rail crossings were built more than 100 years ago during a three-year period from 1907 to 1910, the two PATH tubes in 1908 and 1909 and the Pennsylvania Railroad's Hudson River tunnel (HRT) in 1910, now used by New Jersey Transit and Amtrak. These were followed by a series of motor vehicle crossings — the Holland Tunnel (1922), George Washington Bridge (1931 and 1962), and the Lincoln Tunnel (three tubes constructed in 1937, 1945 and 1957). The PABT was built in 1950 and expanded in 1979.

New Jersey has only handful of crossings when compared to the numerous bridges and tunnels that connect Manhattan to communities to the north and east, as shown in Figure 2. A few ferry routes, ubiquitous before 1910 still remain to complement these facilities, connecting Manhattan with waterfront communities, with PATH in Hudson County and with NJT in Hoboken.

Figure 2: Tunnel and Bridge Crossings into Manhattan Island

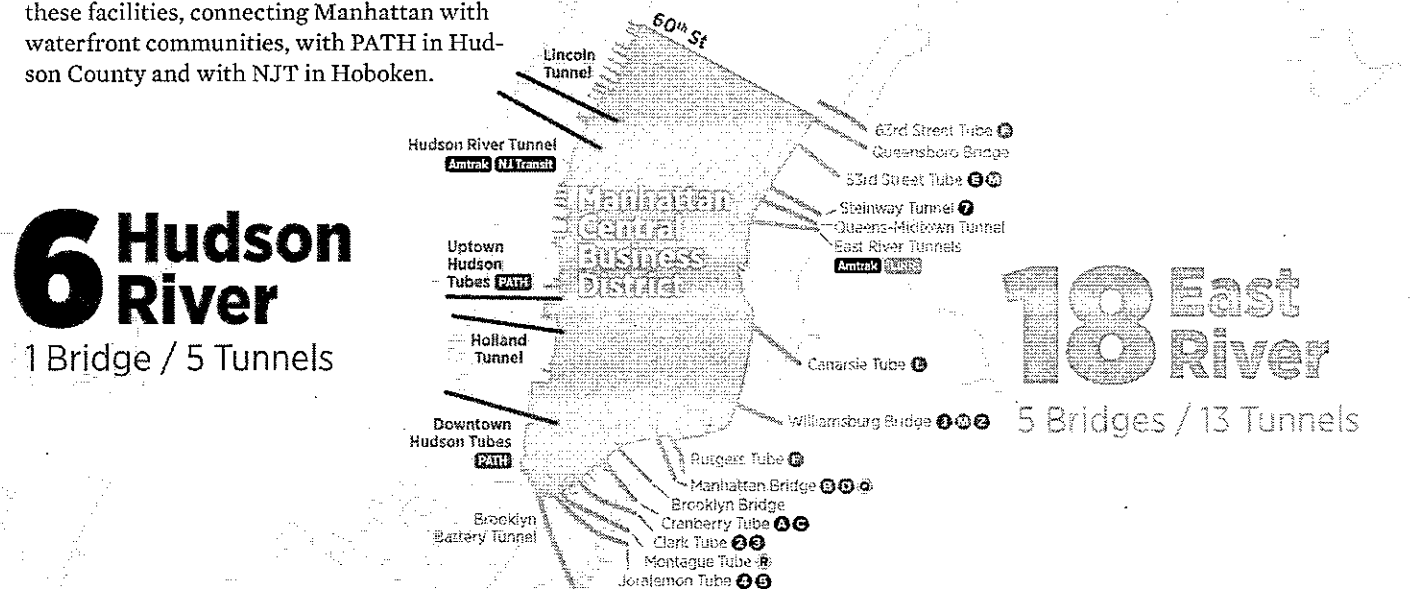


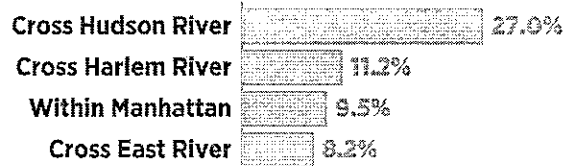
Table 1: Changes in Trans-Hudson Travel: 1990 to 2015
Daily Trips (Both Ways)

	Crossing/Facility	1990	% Share	2015	% Share	Absolute Change	Percent Change
Auto	Holland Tunnel	121,982	14.9	106,165	9.0	-15,817	-12.97
	Lincoln Tunnel	167,383	20.5	142,484	12.1	-24,899	-14.88
	Total	289,365	35.4	248,649	21.1	-40,716	-14.07
Bus	Holland Tunnel Bus	15,162	1.9	29,243	2.5	14,081	92.87
	Lincoln Tunnel Bus	233,777	28.6	426,931	36.2	193,154	82.62
	Total	248,939	30.4	456,174	38.7	207,235	83.25
Hudson Rail Tunnel	NJT	52,698	6.4	172,419	14.6	119,721	227.18
	Amtrak	19,196	2.3	21,958	1.9	2,762	14.39
	Total	71,894	8.8	194,377	16.5	122,483	170.37
PATH	Downtown	118,205	14.4	109,785	9.3	-8,420	-7.12
	Uptown	75,778	9.3	135,752	11.5	59,974	79.14
	Total	193,983	23.7	245,537	20.8	51,554	26.58
Ferry	Total	14,109	1.7	34,887	3.0	20,778	147.27
Total Transit		528,925	64.6	930,975	78.9	402,050	76.01
Total Trips		818,290	100.0	1,179,624	100.0	361,334	44.16

Source: New York Metropolitan Transportation Council. Hub Bound Travel Data. 1990 and 2015.

Each day 7.9 million trips are made into and out of this core from all directions. Three-quarters of these trips use public transit, which makes the enormous concentration known as the Manhattan CBD possible. Any loss of transit capacity threatens its survival.

Figure 3: Growth of Manhattan-Bound Workers, by Place of Residence, 1990-2010



Source: 2010 U.S. Census

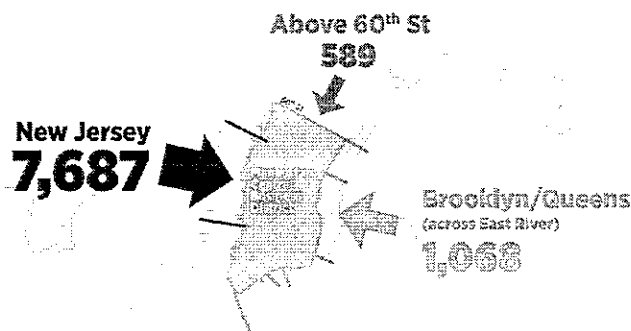
The sector west of the Hudson, which includes the northern two-thirds of New Jersey and a number of counties in New York State west of the Hudson, is the fastest growing commuting sector to the CBD. As shown in Figure 3, since 1990 this sector has grown three times faster than the all other sectors that feed workers to Manhattan – growing by 27% versus an average of 9% – and now accounts for 323,000 work trips each day, or about one in seven workers in Manhattan. Seventy thousand more people cross the Hudson to reach jobs in Manhattan today than did in 1990.

Commuters to Manhattan are not the only markets served by trans-Hudson crossings. People travel for other purposes and to other places. All these markets are growing as indicated by Table 1, which shows that the total trans-Hudson growth in the 1990 to 2015 period has been just under 45%, adding slightly over 360,000 daily (two-way) trips in that 25-year period.

This growth includes a striking shift away from the automobile and toward public transit, reversing earlier trends. Auto riders are down 14%; transit trips are up 76%. Rail trips in and out of Penn Station have almost tripled, adding just about 120,000 trips. Bus trips have grown rapidly too, up by 207,235 daily, or 83% since 1990. PATH is up 27%, especially on the uptown branch that serves a growing commercial market on Manhattan's west side south of 34th Street. Meanwhile, ridership on the World Trade Center branch dropped as lower Manhattan's land uses have become more residential. Ferry travel is up by 147%, but on a much smaller base.

Commuter buses make up a disproportionately large amount of the trips entering the CBD from west of the Hudson relative to travel from Lower Hudson Valley and Long Island. As shown in Figure 4, the bus volumes are over six times greater from New Jersey than other parts of the region.

Figure 4: Commuter Buses Entering the CBD from All Sectors



Source: New York Metropolitan Transportation Council. Hub Bound Travel Data. 1990 and 2015.

What Drove the Growth in Trans-Hudson Travel?

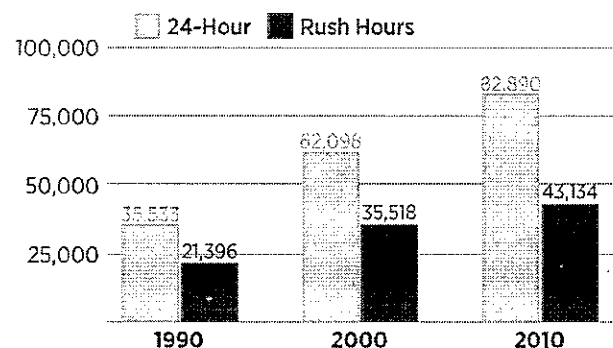
Several developments can explain the growth in bus travel at the Lincoln Tunnel and rail travel in the HRT Tunnel. In 1970, the Port Authority initiated the innovative and highly successful Exclusive Bus Lane (XBL), which converted an underused outbound lane in the morning for the exclusive use of buses destined for the PABT. Today this 2.5-mile lane carries 30,000 people in the peak hour, more than three times the number of passengers in automobiles in the parallel three inbound lanes. New Jersey Transit constructed the Kearny Connection (now Midtown Direct) in 1996, the Montclair Connection (now Montclair Direct) in 2002, and the Secaucus Transfer (now Secaucus Junction) in 2003. The purpose of these projects was to provide either a one- or two-seat ride to Penn Station in Midtown Manhattan for all NJT rail riders. Each project accomplished the goal of reducing travel times and improving the convenience for tens of thousands of riders and elevating the property values through much of northern New Jersey. It also dramatically increased the number of NJT trips through the Hudson River tunnel each day, from 53,000 in 1990 to 172,000 today. Now over 350 NJT trains use the Hudson River tunnel, more than double the 1990 level.

Figure 5 highlights the growth at Penn Station during peak periods when its inadequacies are most acute. In the 20-year period, ridership has doubled in the peak period, adding more than 21,000 riders.

Figure 6 traces the inexorable climb in number of buses traveling through the Lincoln Tunnel in the morning peak hour, up from 700 to 1,000, adding five more buses on average for each minute in the peak hour.

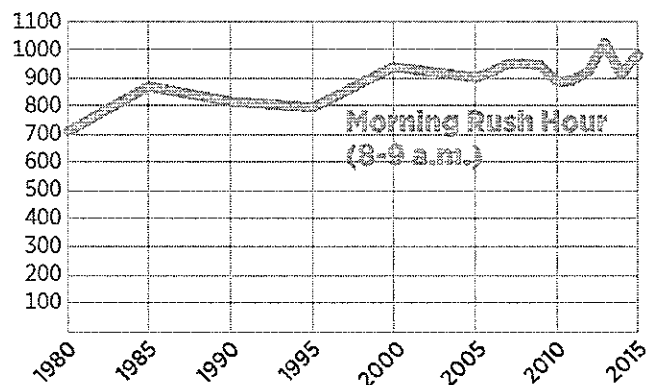
The growth of service and use of Penn Station and the PABT have pushed them to and beyond their limits. At Penn Station, reliability has suffered with delays a daily occurrence and crowding at the station reaching intolerable and dangerous levels. At the Port Authority Bus Terminal crowding conditions take many forms during both morning and evening commuter periods. In the morning peak, the XBL has reached its maximum capacity and leaves little margin for error. In the evening the difficulty of deploying buses in an outmoded terminal leads to long lines each day as commuters wait to board buses. Making matters even worse, much of the physical infrastructure at both facili-

Figure 5: Trans-Hudson Rail Ridership to Penn Station, Inbound Only: 1990 to 2010



New York Metropolitan Transportation Council. Hub Bound Travel Data, 1990-2010.

Figure 6: Lincoln Tunnel Bus Movements, 8-9 a.m., inbound only



Source: New York Metropolitan Transportation Council. Hub Bound Travel Data, 1980-2015.

ties has reached the end of its life and must be replaced or extensively rehabilitated, as demonstrated by failures in and near Penn Station in the summer of 2017.

The distribution of current users of Penn Station is shown in Figure 7. The largest concentrations of these Penn Station bound commuters are in Union, Middlesex, Mercer and Monmouth counties, and to a lesser extent in Morris and Essex (influenced by Midtown Direct) and in Bergen County (influenced by Secaucus Junction).

The transportation facilities across the Hudson River are used to their maximum. Any loss of transit capacity represents a profound crisis and would put intolerable pressure on the remaining facilities used by nearly half million people each day. Such a loss is quite possible and would require one of the two Hudson River Tunnel (HRT) tubes to be closed for extensive multi-year repairs.

Future Demand Will Exacerbate the Crisis

These critical transit facilities are operating above their capacity today. The picture will only become bleaker with the likely increase in demand for trans-Hudson travel and the impact that demand will have in the absence of action. Both the Port Authority and NJT have spent considerable effort in trying to project how much trans-Hudson travel will occur in the next 30 to 40 years, by what mode, on which facilities and during what time of day. New population, labor force and employment projections have been adopted by both New York and New Jersey metropolitan planning agencies and RPA has developed its own projections.

The projection of travel requires making assumptions to address several questions, including:

- ▶ How much will we grow? The rate of population and employment growth depends on long-term national and international changes in productivity, migration and relative competitiveness.
- ▶ Will people and business continue to choose cities? The recent shift to more recentralized growth patterns, including both job and residential growth in New York City, may or may not continue.
- ▶ What about technology? New technologies are changing the frequency and timing of work trips, but how much this will continue is uncertain. More people are working from home or traveling during the off-peak hours.
- ▶ Is congestion pushing people away? Recent historical data suggests that some people have shifted their time of travel because of congested conditions at peak times. If congestion is relieved, will these travelers convert to their old habits?
- ▶ Will the transit service be provided to meet the growth patterns? If the problems persist in crossing the Hudson by transit, will potential riders choose to locate their homes and businesses elsewhere, to the detriment of both states?
- ▶ Where will people live? The relative growth of the labor force living on the two sides of the Hudson is affected by the extent to which housing can be expanded in both urban and suburban areas. The less housing is built in New York City, Long Island and other areas east of the Hudson relative to New Jersey and west of Hudson locations, the greater the growth of trans-Hudson travel is likely to be.

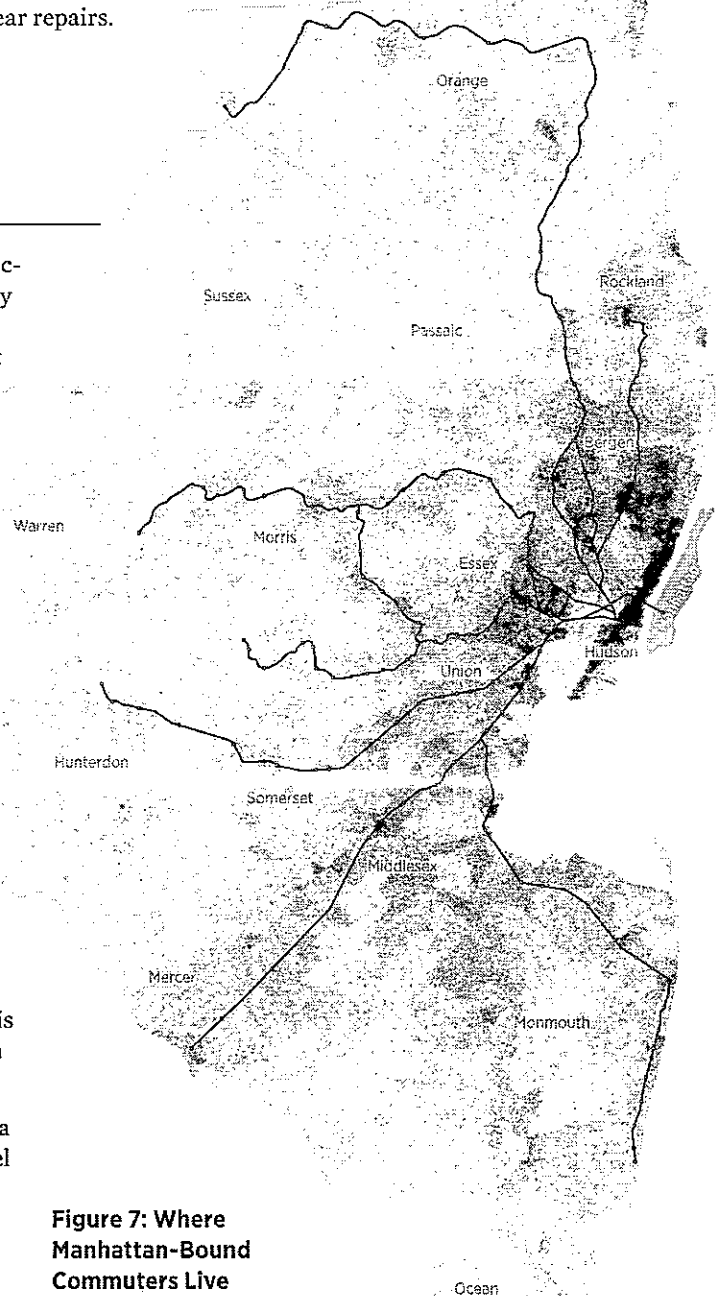


Figure 7: Where Manhattan-Bound Commuters Live

Penn Station Commuter

 Bus Commuter

 1 dot = 1 commuter

Source: New York Metropolitan Transportation Council. Hub Bound Travel Data, 1990, 2000 and 2010.; Source: U.S. Census Bureau, 1990, 2000 Decennial Census, and 2006-2010 American Community Survey.

Past Agency Demand Projections

An examination of past projections shows a range of possible results, but under any scenario, transit trips across the Hudson River will grow considerably.

The Access to the Region's Core (ARC) forecasts made in 2007 with a horizon year of 2030 indicated that even without a new rail tunnel there would be 38% more people crossing the Hudson on transit each weekday than there were in 2005. These forecasts also projected 29% more people using (or trying to use) the existing HRT tunnel and 20% trying to use buses through the Lincoln Tunnel. Remarkably, the growth from 2005 to 2015 has already met this projection to 2030. Penn Station volumes since 2005 are up by 37%, most of it in the last two years. The ARC project forecast that the growth in Penn Station if the ARC tunnel were built would have been 88% more in the course of the day and 133% more in a four hour morning peak period in the 2005-2030 period.

The Port Authority has estimated that the four-hour peak will see between 38% and 50% growth on transit from 2010 to 2040. It also estimated that by 2050 there will be demand for 50% more bus riders in the evening peak hour.

These data are presented in Table 2 with the annual rate of growth for easier comparisons. The overriding message is clear: substantial growth in travel across the Hudson River into Penn Station, into the PABT, on PATH and during all time periods, peak and off peak. This growth, when added to the highly congested current conditions, cannot be met without new capacity. The limited number of crossings and finite roadway capacity in Manhattan inhibit potential surface transportation options, such as on-demand car services and autonomous vehicles. Corridors for public transit that could include these technologies could be designated in the future but a wall of buses or autonomous vehicles would conflict with pedestrian mobility, add to congestion and detract from the city's environment.

RPA Projections

RPA developed its own trans-Hudson models as described in the Appendix. The mode choice model was applied for the trips from west of the Hudson, including the 14 counties in New Jersey and four in New York State west of the Hudson and the census tracts in Manhattan as far north as 125th Street on the west side and 96th Street in the east side. This area was chosen to be representative of the impacts of various proposals on modal use. Because of this limitation and because the model only considers work trips, the data presented here should not be used to estimate the total number of trips or to evaluate specific transit capacity options, but rather to be illustrative of the direction and magnitude that would result from changes in land uses and transportation services during the peak period.

Table 2: Trans Hudson Projections Comparison

Agency	Circumstance	Range	Time Period	Mode	Annual Rate of Growth
NJT	Without ARC	2005 to 2030	Daily	All Transit	1.5
NJT	Without ARC	2005 to 2030	Daily	HRT	1.1
NJT	Without ARC	2005 to 2030	Daily	Bus/LT	0.8
NJT	Actual	2005 to 2015	Daily	HRT	3.2
NJT	With ARC	2005 to 2030	Daily	HRT	2.6
NJT	With ARC	2005 to 2030	4 hour pm peak	HRT	3.5
PA	Unconstrained	2010 to 2040	4 hour pm peak	All Transit	1.1 to 1.4
PA	Unconstrained	2010 to 2040	1 hour pm peak	Bus/LT	1.02

Sources: New Jersey Transit, Access to the Region's Core (ARC) Final Environmental Impact Statement, 2008. Port Authority of New York and New Jersey, Midtown Bus Master Planning Update Presentation, 2015.

Table 3: Work Trips from West of the Hudson River to Manhattan and New York City, 2015 & 2040

	2015	2040	Change	% Change
Manhattan	301,869	374,526	72,657	24%
New York City	394,165	542,004	147,839	38%

Source: Regional Plan Association Vision Scenario

Inputs to these models were developed from population and employment projections described in *Charting a New Course: A Vision for a Successful Region*. Two socioeconomic scenarios were developed in this report. A Current Trends scenario concluded that future job and population growth will slow to half its rate of the last 25 years without significant increases in the rate of housing production and infrastructure capacity. By contrast, RPA's Vision scenario projected growth at approximately the same rate as the last 25 years — 16% for both jobs and population — if the right housing, commercial space and transportation infrastructure were built to support sustainable and equitable economic growth. Using the RPA Vision scenario, but without including specific transportation improvements, the travel demand model predicts a 24% increase in work trips to Manhattan (south of Harlem) across the Hudson by 2040. Trips would grow even faster to all of New York City, by 38% over 2015, primarily because of rapid job growth in the other New York City boroughs. As described below, including improvements to rail and bus capacity make significant differences in both the level and modal distribution of trans-Hudson travel. This reinforces agency projections for both substantial increases in Trans-Hudson travel and impact of proposed solutions.

Known Deficiencies and Planned Improvements

Table 4: Trans-Hudson Crossings and Facilities

Name	Mode	Built	Daily Trips (Both Ways) 2015	Inbound 8am to 9am 2015	Daily Trips Inbound 2015	Daily Trips Outbound 2015
Penn Station/HRT	Rail	1910	194,377	24,662	97,090	97,287
PATH — Uptown	Rail	1908	135,752	16,712	67,274	68,478
PATH — Downtown	Rail	1909	109,785	14,230	54,908	54,877
Lincoln Tunnel/PABT	Bus	1937-1957	426,931	38,275	198,279	228,652
Ferry	Ferry	NA	34,887	5,005	16,997	17,890

Source: New York Metropolitan Transportation Council. Hub Bound Travel Data. 2015.

In addition to sheer lack of capacity to handle demand, the aging trans-Hudson facilities have significant deficiencies that affect service and reliability. Table 5 shows the age and ridership for these facilities. In the following sections, their individual problems are described, current plans discussed and some suggestions are made as to how to address remaining deficiencies.



**Port Authority
Bus Terminal**
Photo: Nancy Borowick



Hudson River Tunnel
Photo: Amtrak

Hudson River Tunnel

The tunnels are comprised of two parallel single-track tubes¹. The New Jersey portals are west of the Palisades, where the tracks emerge and travel along an elevated embankment through the Meadowlands, called the “High-line.”

All these facilities have insufficient capacity for current use and future growth. The tunnels suffer from over 100 years of heavy use, and more recently from damage caused by Superstorm Sandy. To keep the tunnels in safe working condition, Amtrak currently takes one tube out of service every weekend and many evenings for repairs and operates train service in only one tube. However, there is no longer enough time on nights and weekends for all of the maintenance work that needs to be done. In 2014 Amtrak stated that the tunnels had less than 20 years left before they must be closed for rehabilitation, which will take several years. If new tunnel capacity is not built to accommodate the trains that will have to be diverted from the existing tunnel, major service disruptions will ensue.

Major Deficiencies

- ▶ The Tunnels and Highline (a series of structures that elevate the NEC over the Meadowlands from Secaucus Junction to Newark Penn Station) reached their maximum rush hour capacity years ago and cannot accommodate more trains and passengers. Until new capacity is built to supplement trans-Hudson train travel, the region’s economic growth will be artificially capped.
- ▶ Several bridges on the Highline are long past the end of their useful life and must be replaced.

¹ Each tube has one track supported by a trough of loose-rock ballast with concrete bench walls alongside it containing electrical and communications conduits. The tubes are built with a 1.5-inch thick cast iron outer ring and a two-foot thick reinforced concrete inner lining.

- ▶ The weight of the Hudson River fluctuates with the tides and as a result, the tunnels compress at high tide and expand at low tide. More than 100 years of this daily abuse has taken a significant toll on the tunnels’ engineering.
- ▶ In 2012, the tunnels were flooded with water from the Hudson River for the first time ever by the 14-foot storm surge from Superstorm Sandy. The brackish saltwater was quickly pumped out, but left a coating of chlorides and sulfates which cause long-term corrosion to reinforcing steel and concrete. In 2014, an engineering study found that more than \$350 million is needed to fix the damage. Fortunately, the study also found “negligible, if any chemical impact” to the tunnel’s outer cast iron ring, so they can continue to safely support operations for the time being.

Potential Solutions

There have been many actions and plans put forth to address capacity and reliability issues at Penn Station and the Hudson River Tunnels. In 1996, RPA’s Third Regional Plan, “A Region at Risk,” identified a new set of tunnels under the Hudson River as one of the most important priorities for the metropolitan region. Beginning around that time, NJTransit and Amtrak began collaborating on Access to the Region’s Core (ARC). This project was intended to add capacity by building two new deep tunnels into Manhattan with a terminus at 34th Street and 7th Avenue. However, ARC was cancelled by New Jersey Governor Chris Christie in 2010 citing the potential for cost overruns.

Since then, Amtrak has proposed the Gateway Program, a proposal to build new trans-Hudson rail capacity that connects into Penn Station. The complete Gateway program is still in a conceptual design phase. The planning, design and engineering for the tunnel must proceed rapidly to reduce the probability that the existing tunnels will fail before the new ones tunnels are built. The unresolved issues for Gateway that remain between NJT and Amtrak and funding for the over \$20 billion project must be addressed soon. Meanwhile, the replacement of the Portal Bridge in the New Jersey Meadowlands, a necessary part of the Gateway project and critical to the reliability of the existing corridor, is designed and ready to be constructed once \$1.5 billion in funds is identified.



Penn Station
Photo: Nancy Borowick

Penn Station

The original Pennsylvania Station was an architectural landmark that deteriorated over time during the decline of passenger rail service after World War II. To the dismay of many, it was demolished in the 1960s and the Penn Station we know now opened in 1965. Today, it shares space below grade with the foundation columns and structural elements that support Madison Square Garden and an office building.

Penn Station has also reached its maximum practical capacity. The number of daily Amtrak, Long Island Rail Road and NJT passengers that use the station every week-day exceeds 400,000. Countless others pass through the station on foot on their way to one of the four subway lines nearby. The existing Penn Station was only designed for 200,000 daily riders.

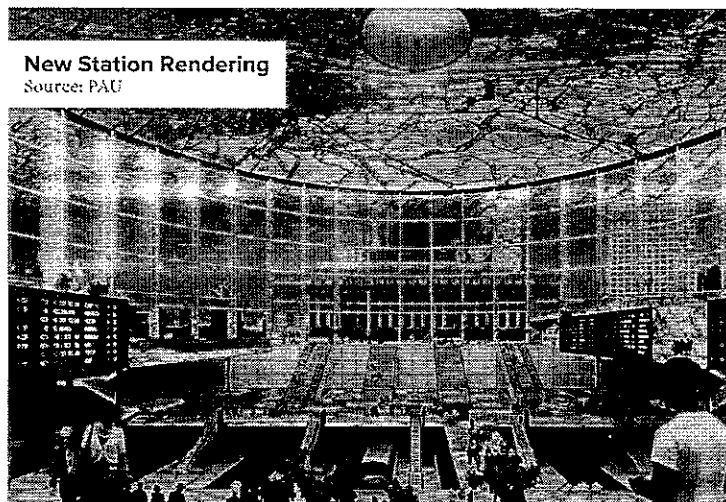
Major Deficiencies

- ▶ The capacity constraints and complex layout of Penn Station make commuting and intercity rail travel an anxious and overall unpleasant experience for travelers.
- ▶ Pedestrians typically back up at stairways and escalators to reach the street level, and preventing trains to leave the station quickly, limiting train operations and capacity.
- ▶ Increasing congestion in station and on platforms has raised alarms over safety of passengers; if emergency evacuation was required during the peak, the outcome could be catastrophic.

Potential Solutions

Penn Station must be redesigned. The railroads are engaged in a joint planning study to improve Penn Station, called the New York Penn Station Visioning Study. In a parallel effort, RPA has also been working with the Municipal Art Society in an ambitious collaboration called the

Alliance for a New Penn Station, which has recommended that Madison Square Garden be moved to a nearby site to open up Penn Station to a redesign so that many solutions to its circulation problems that are now precluded by the arena and the adjoining office building can be implemented. The New York City Council has required MSG to have a plan for relocation by 2024. RPA has developed a series of recommendations to improve Penn Station that are further detailed in this report.



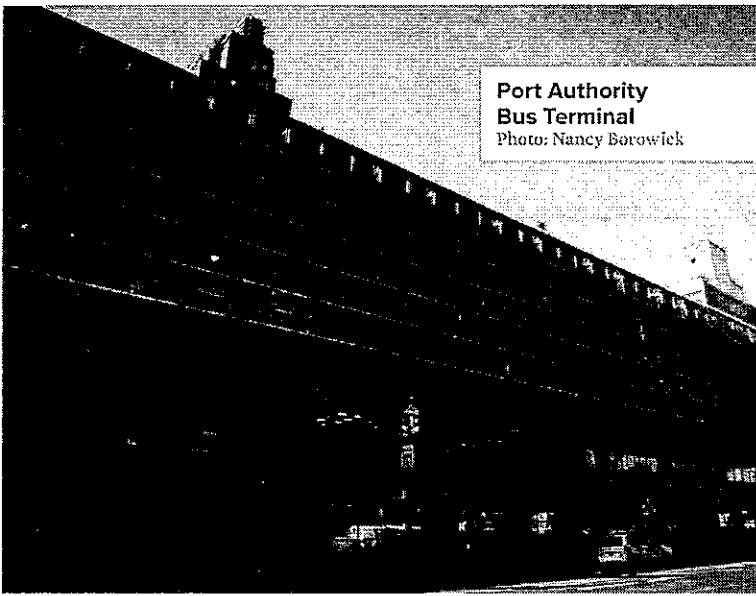
New Station Rendering
Source: PAU

In 2016, the New York Times editorial page featured a brilliant proposal by Vishaan Chakrabarti and PAU to move MSG to an adjacent site, strip the Garden structure down to its structural elements, and create a beautiful train station within the existing footprint of the Garden. This provocative and elegant design demonstrated the importance of architecture to solving our transit crisis.

Meanwhile, across Eighth Avenue the first phase of Moynihan Station is complete, improving circulation for users of the western end of Penn Station. The second phase would build a new, grand train hall and shift Amtrak's ticketing and back-end operations from Penn Station, opening up new retail and commercial development opportunities.

Hudson River Tunnel & New York Penn Station

The Pennsylvania Railroad built the Hudson River Tunnels, the original New York Pennsylvania Station and the four East River Tunnels and other connecting infrastructure in Queens. This entire complex opened for service in 1910. The tunnels eliminated the transfer in New Jersey with a direct ride to Midtown and established attractive intercity rail service from points west and south. Today, these tunnels and Penn Station are at the heart of NJT's rail network and the Northeast Corridor, Amtrak's busiest rail line operating between Boston and Washington, D.C.



**Port Authority
Bus Terminal**
Photo: Nancy Borowiek

Lincoln Tunnel and Port Authority Bus Terminal

The PABT is the largest bus terminal in the United States. It inhabits prime real estate in Midtown Manhattan, occupying nearly one entire block and half of another bound by 40th and 42nd streets and 8th and 9th avenues. The building is directly connected to ten subway services underground between 8th Avenue and Times Square, the busiest station in the New York City subway system.

This bus service complex includes of a 2.5-mile Exclusive Bus Lane that allows morning peak period buses to bypass auto and truck queues at the Lincoln Tunnel, a helix-shaped roadway at the western portals of the tunnel, the six-lane tunnel, a series of ramps connected to the PABT that is separated for the street grid, and the multi-level Port Authority Bus Terminal with 223 bus gates and an auto parking garage.

The XBL opened in 1970. Each morning it carries more than 1,600 buses, 730 in the peak hour in what is normally a westbound lane. A lane in the tunnel extends the XBL for exclusive bus use. It is managed by the Port Authority of New York & New Jersey.

The bus terminal's main deficiencies are both structural and operational. Many of the terminal's elements were built more than 60 years ago; they have reached the end of their useful life, and will need to be replaced soon.

Major Deficiencies

- Recent Port Authority studies have identified several major weaknesses in some of the bus terminal's structural elements, including the foundation slab and ramps to and from the Lincoln Tunnels.

- The lack of PABT capacity causes overflow operations, including NJT and other bus carriers, plus less formal ("jitney") bus and van services to operate on the neighboring streets. This exposes passengers to the elements, creates congestion on sidewalks and local streets, air and noise pollution and is an eyesore for neighborhood residents.
- Peak hour bus traffic through the Lincoln Tunnel has grown rapidly and is projected to grow from 730 buses to 1,000 by 2040. This leads to backups and delays at its entrance in the Meadowlands. Passengers are losing time and travel reliability suffers.
- There is not enough storage and layover space for buses in Manhattan. The result is that many buses must be stored in New Jersey during the day and then battle rush-hour traffic in the evening using only the two east-bound lanes available to access the PABT. This leads to countless delays for buses and for evening peak period passengers.
- The terminal's operating deficiencies affect the customer experience. Long lines are the result of unreliable deployment of buses and inefficient design of boarding areas. Waiting areas are insufficient and unpleasant, and expose commuters to bus fumes.

Potential Solutions

Currently ongoing, the Port Authority's Midtown Bus Master Plan is evaluating long-term solutions to the infrastructure, operational and capacity issues at the PABT. All the alternatives suggested to date are very costly, estimated on the order of \$10-\$15 billion. In the spring of 2016 the agency launched an international design competition for the bus terminal and five final designs were selected as finalists later that year. Three designs proposed constructing a new 4-5 story terminal on the surface between 9th and 11th Avenues one block from the current site and two suggested subterranean solutions. The most promising scheme proposed repurposing the lower level of the Javits Convention Center as a new terminal and directly tying it directly into the Lincoln tunnel tubes. None of the designs were accepted by the Port Authority Board of Commissioners which has asked staff to explore further less costly options, including revisiting the existing 8th Avenue site. The search for other options is hampered by three realities: the ramps connecting the Lincoln Tunnel and the PABT are immovable and any solutions must keep them in place; any other building site large enough for existing and expanded PABT operations will be enormously expensive; and any relocation will put the PABT passengers further from their destinations and the extraordinary subway connections they now enjoy.



PATH Station
Photo: Nancy Borowick

Port Authority Trans-Hudson (PATH)

The Port Authority Trans Hudson (PATH) rapid transit system connects urban areas of Hudson and Essex counties with each other and with Manhattan. It accomplishes the Manhattan connections by providing transfers to the NJT rail system in Newark and Hoboken. The two tunnels under the Hudson take riders to the World Trade Center and to 33rd Street and Sixth Avenue via the Uptown branch stopping at five intervening stations in the West Village and Chelsea.

The recent growth in Hudson County is putting pressure on PATH, particularly on the Uptown branch, which will require additional capacity to serve a growing population. In anticipation of this growth and to improve service, the Port Authority is currently replacing the PATH's antiquated and unreliable fixed-block signal system with a more advanced system using Communications-Based Train Control (CBTC) and has purchased 350 new, modern railcars with advanced features to operate the new signal system. These two improvements will reduce headways and increase the overall capacity of the system. The first contract for the procurement of the railcars was awarded in 2005 and most of these new cars are now in service. A new Harrison station is currently under construction and the agency is planning a major expansion at Grove Street to improve passenger circulation and surface access. These improvements, combined with CBTC will substantially increase capacity on downtown PATH but they will do little to address the needs of those destined for midtown on the uptown PATH line. The Port Authority was planning to extend platforms at Grove Street, Harrison and Exchange Place stations to accommodate 10 car trains (up from 8) on downtown PATH, but these plans have been delayed.

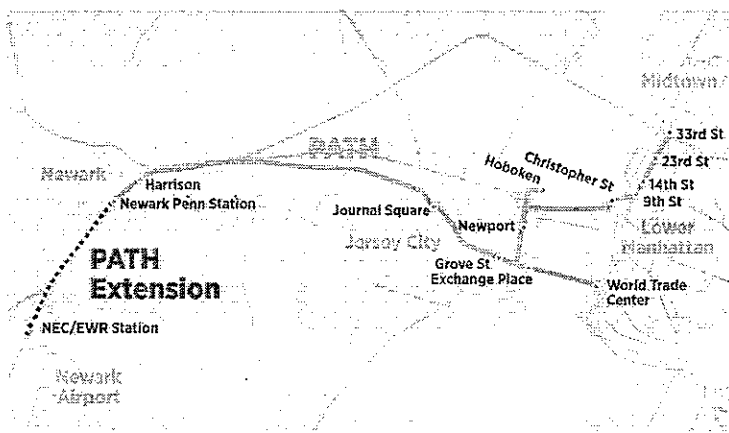
Major Deficiencies

- ▶ Many platforms, especially on uptown PATH, are short and/or narrow reducing the ability to expand to longer trains to add passenger capacity.
- ▶ The track configuration (geometry) and interlockings in Jersey City slow trains down and limit throughput.
- ▶ Lack of peak hour storage at the Newark Penn Station terminal and inability of inefficient terminal to turn trains quickly limits capacity too.
- ▶ PATH is not well integrated with the rest of the region's urban transit network, especially the NYC subway system. In Manhattan, two Uptown PATH stations lack direct underground connections to nearby NYC subway stations.
- ▶ The two systems have different railcars (even though PATH is compatible with NYCT Division A or the "numbered" line cars) and fares are administered separately.

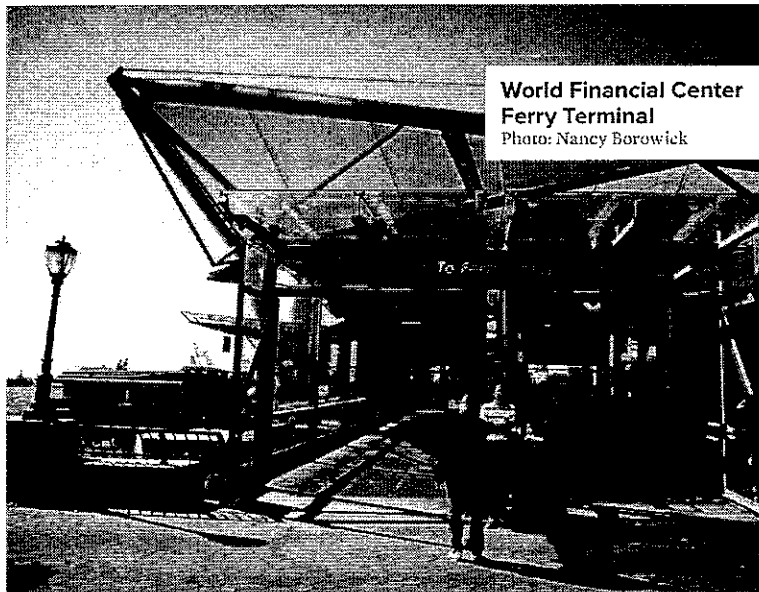
Potential Solutions

For years, various extensions in New Jersey of PATH have been considered. Most prominent is the extension of service from Newark Penn Station to the Newark Airport station on the Northeast Corridor, recommended by Regional Plan Association. The intent is to provide a one-seat ride from lower Manhattan to the airport. The project would include the construction of a new train yard to expand train storage capacity and permit more frequent PATH service. In December 2014, the Port Authority awarded a contract to study the project's technical feasibility, costs and benefits. To date there has been little progress on the project with just preliminary planning underway. However, other extensions have been suggested including options to physically connect PATH to the NYC subway system.

Figure 8: PATH Extension to NEC Rail Link Station



Source: Regional Plan Association



World Financial Center
Ferry Terminal
Photo: Nancy Borowick

- ▶ Serve a market that conveniently reaches each end of their trip by using ferries and limited last mile connections either by walking or having a ready-made delivery system.
- ▶ Serve a market with poor transit options.
- ▶ Serve a market willing to pay a premium fare.

These conditions are not often met but where they have been, ferries have thrived. In particular, the growth in development in Hudson County provides reason to believe that ferries can have an expanded trans-Hudson role. However, many situations where ferries can meet these conditions already have ferries in place. Therefore, a larger role for trans-Hudson ferries lies with either new or expanded transportation access to the water's edge, with increased development near the water's edge that will expand the market and with public subsidies of ferry operations to keep fares down. In particular, new mobility technologies, such as ride hailing and autonomous vehicles, may provide more convenient access to and from the water's edge, which could promote more ferry ridership in the future.

Hudson River Ferries

Today, there are 16 trans-Hudson ferry routes that serve almost 30,000 two-way passengers on an average day, serving less than 3% of the daily trans-Hudson transit traffic.

Most prominent are:

- ▶ The services from Hoboken where local residents and arriving rail passengers board ferries at the rehabilitated ferry terminal.
- ▶ The Weehawken service to west 38th Street in Manhattan.
- ▶ The services from the Atlantic Highlands that cross Raritan Bay and terminate at the East River near the financial district.

One major advantage of ferries is their ability to serve additional demand in a short period of time. After the 9/11 attacks, the destruction of the World Trade Center and the PATH station below it, and the subsequent suspension of PATH service, ferry ridership nearly doubled. But once PATH service was restored in 2003, ferry ridership returned to earlier levels.

Major Deficiencies

Ferries operate in a private sector environment, at least as far as operations go, but the Port Authority has subsidized the construction of docking facilities. To cover operating costs, ferries have had to raise their fares faster than the PATH system, which has reduced ferry ridership.

Potential Solutions

Ferries have inherent limitations which constrain their ability to take on a more significant role in the trans-Hudson market. To be most successful they should have the following features:

What Would Happen if the Hudson River Tunnel Is Closed for Repairs?

The Northeast Corridor tubes under the Hudson River have the capacity to serve 24 trains per hour in each direction. If one tube is lost and only the remaining one is usable, its capacity would be reduced to just six trains in the peak hour, due to the logistics of operating trains in and out of a single tunnel. Operating the current system with two tunnels is already quite complex; operating it with one tunnel is nearly impossible. In this six-trains-per-hour closure scenario, difficult choices will be necessary as to which services are allotted this limited capacity.

One scenario would be to assign all six of those slots to NJT; they carry far more people per train than Amtrak does. In the 6am to 11am inbound trains could be configured with a maximum length and as double-deckers they would carry 1,300 people while Amtrak holds only 300 on Acela trains and 400 on the Northeast Regional.

The ramifications of this scenario for Amtrak would be grave. The Northeast Corridor is by far the most successful intercity rail service in the nation. Today, over 100 trains a day carry over 21,000 people through the Hudson River tunnel to and from Penn Station. In addition to Boston to Washington Acela service, more local regional services are provided by Amtrak as well as trains on eight other long-distance routes, most of which rely on the HRT. The disruption to its schedule and to riders would essentially render it useless as a convenient option throughout the

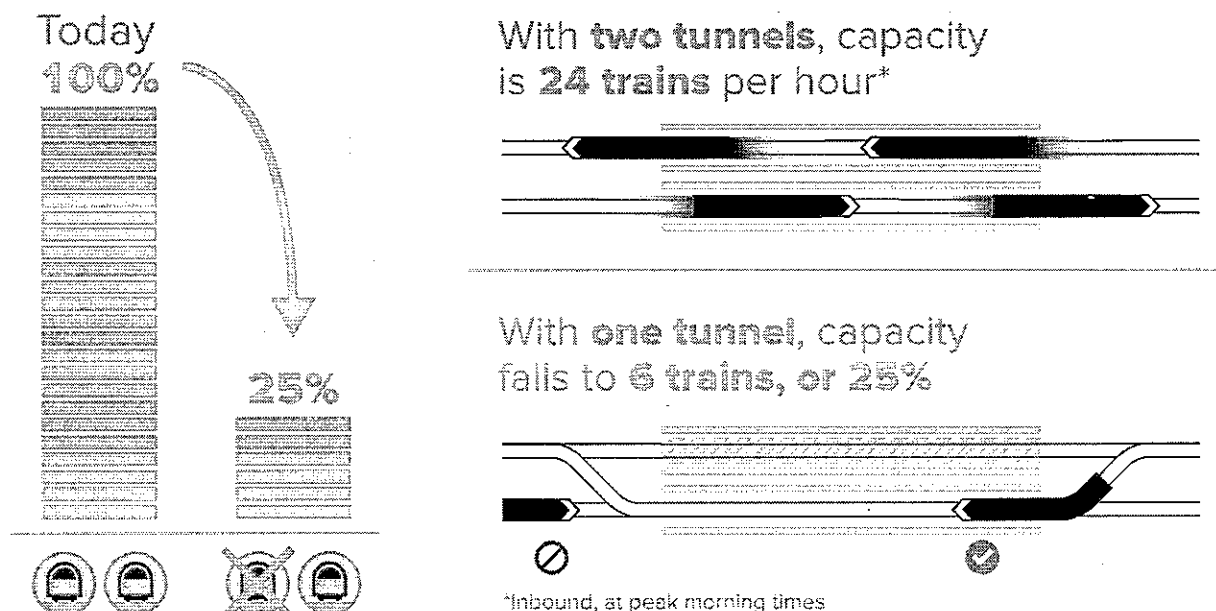
corridor from all points south and west of New York. The loss would add more people at our crowded airports or on highways in the corridor.

How might the NJT riders cope with the loss of service? Some might consider traveling at other times of the day. If all of the 22,640 people that travel into Penn Station between 7:00 and 10:00 a.m. today (2013) were to continue to ride a train to Penn Station in the morning with one tunnel in operation, 22% would have to shift their commutes by one hour, 18% would have to shift by two hours, and 60%, almost 14,000 people, would have to shift three or more hours to find a space available. All of these people would have their daily schedules substantially changed, leading to major individual disruptions at home and in the work place and for the businesses they work for.

Alternatively, some riders might consider working at home, at least some days in the week. The number of people who are able to do this is likely to be small since many of those that can work at home are probably doing it today. Only 3.8% of NJ workers work at home as of 2010, and others do work at home at least some of the time.

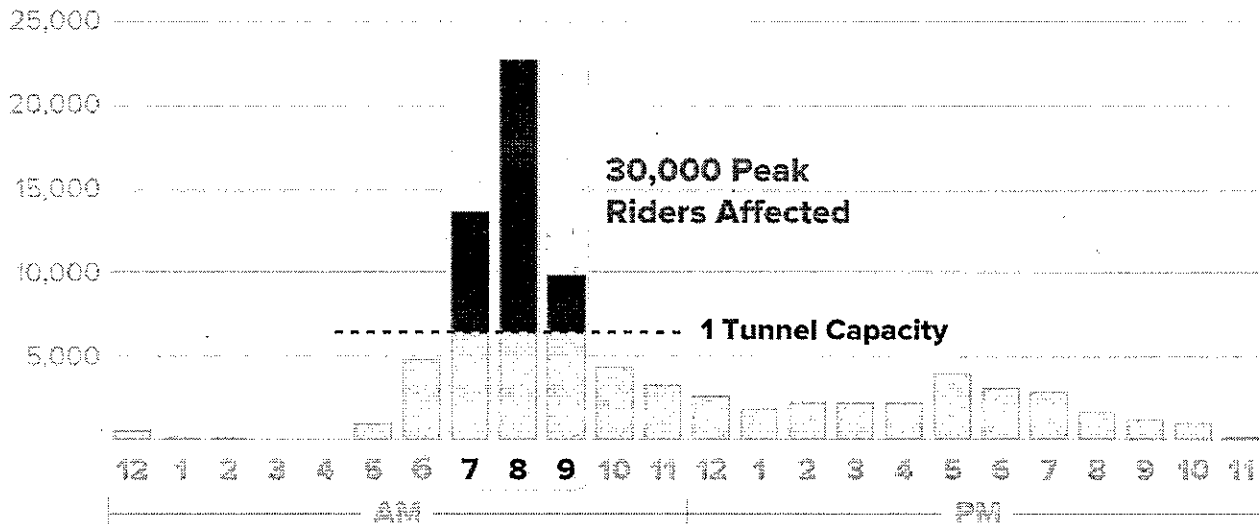
But what about the vast majority who cannot move their times or work at home? Their first choice might be to make use of the six trains if these trains were to operate on the lines they use today. They would have to compete with their fellow passengers for the limited seating. If not, they could seek other transit options including existing or new trains to Newark or Hoboken, where they could transfer to PATH, or in the case of Hoboken, to ferries. They could travel by bus to the already overcrowded PABT or they could drive.

Figure 9: The Impact of a Hudson Rail Tunnel Closure



Source: Amtrak; Regional Plan Association

Figure 10: Impact of One Tunnel Capacity on Manhattan Bound Rail Passengers



Source: New York Metropolitan Transportation Council. Hub Bound Travel Data 2012; Regional Plan Association

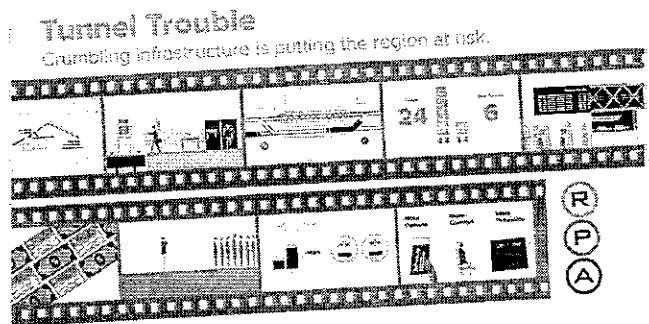
Any of these choices would result in a much poorer trip for the half million people who travel each way across the Hudson each day. For the portion of the 150,000 people traveling to Penn Station each day who are deprived of rail service or who cannot fit on the limited service provided, they would face a more circuitous and time consuming multi-transit trip, resulting in time losses of an hour or more each day. If they chose to drive, their trip would be more unreliable and more expensive. For those who are currently using trains to Hoboken, their trains would be more crowded. If they currently use buses, they will be joined by diverted passengers, worsening the already poor Lincoln Tunnel and PABT experience. And for those now using PATH, crowding would also intensify.

Although this analysis is and should not be definitive as to which rail lines are assigned the precious six trains an hour, a case can be made that the Northeast Corridor trains and possibly the North Jersey Coast line would be the least disruptive choices. But these premium services could be the scene of chaos as passengers swarm to occupy the limited space on trains. The operations on the other lines would revert back to the service they had before the implementation of the three projects that improved their access to Penn Station. In essence, this would be turning the clock back, at least for the duration of the HRT tube closing, to the rail system that existed when NJT took over in 1979. Because ridership has expanded so much, by turning the clock back, the system would no longer accommodate today's riders, and would be particularly ironic and sad for the tens of thousands of people who benefitted from these investments, and disruptive for the many of whom purchased homes to take advantage of these commuting improvements.

Faced with any of these choices, many would choose to no longer work or live in their current locations. Those who continue to work in Manhattan would be on overcrowded trains, switch to a one hour or more a day addition to their commute or shift travel times by two or more hours. Faced with these options, some may change jobs (probably for lower pay) and go to work in New Jersey, with a net loss in income for New Jersey residents

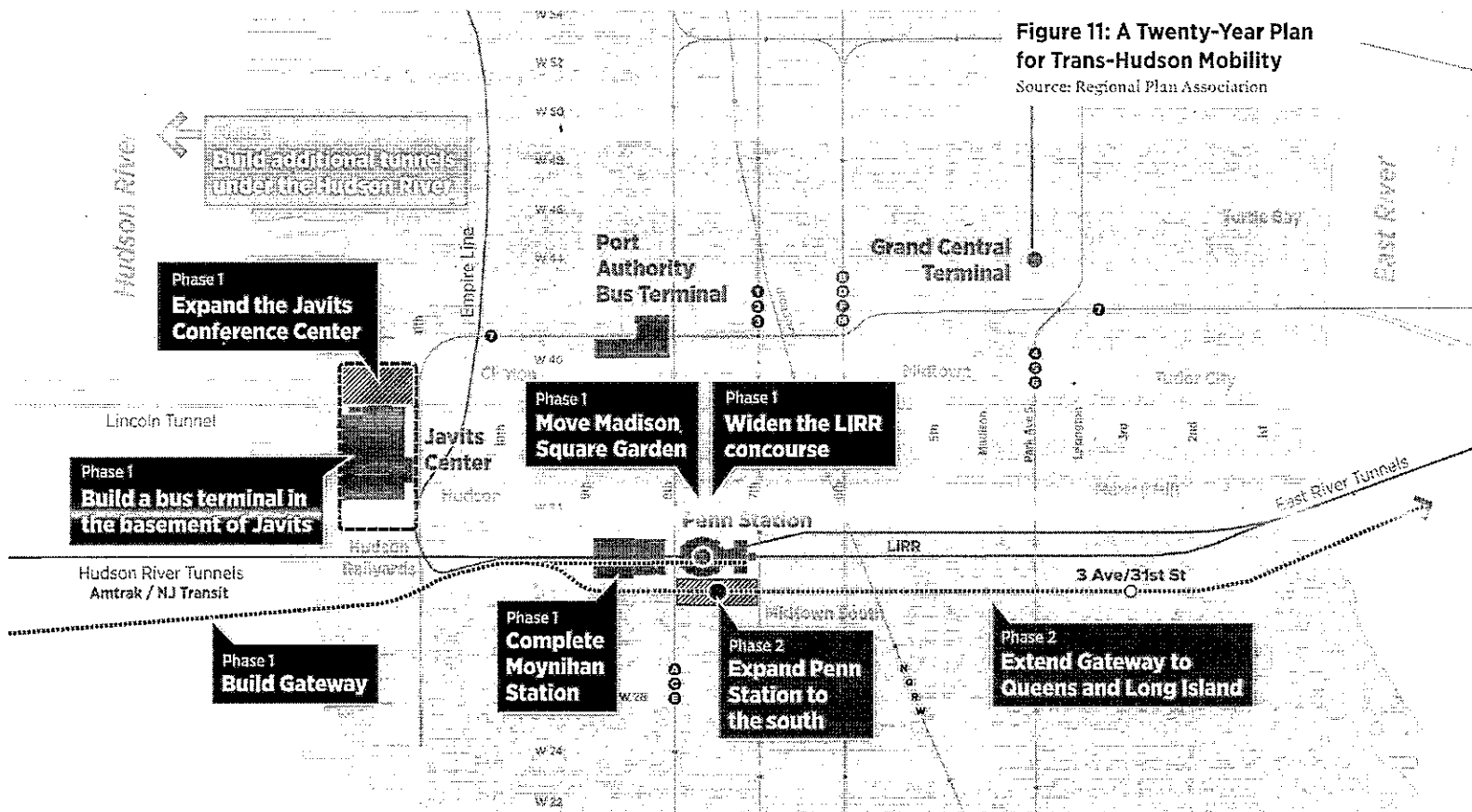
For those visiting New York for the day, they may cancel that visit, robbing them of advantages of living in New Jersey and visiting the City. For those who live in New York and work in New Jersey, they may be without a transit option to reach their job. And employers in New York, faced with loss of access to the New Jersey work force, may move out of the region. In the long run, the loss of trans-Hudson capacity for an extended period would be a profound economic loss for both states.

Watch "Tunnel Trouble: Crumbling infrastructure is putting the region at risk." (October 2015)



<https://vimeo.com/143811940>

A Twenty-Year Plan for Trans-Hudson Mobility



Transportation across the Hudson River into New York City faces a crisis with several interrelated causes — facilities that are already crowded and over capacity, increasing demand and lack of access and resiliency. Each of the three main trans-Hudson facilities—the rail tunnels that serve all Amtrak and New Jersey Transit trains into Manhattan, Penn Station, and the Port Authority Bus Terminal—are over capacity, experience frequent service failures, and much of their physical structure is reaching the end of its useful life. The most urgent need is to repair the two rail tunnels, which can only be done once new tunnels are built without causing massive service disruptions.

Trans-Hudson travel is expected to increase substantially over the next two decades, creating the need for new capacity well beyond what the existing facilities can offer. Work

trips alone could increase by about 25% without needed transit investment, and could grow by as much as 80% by 2040 with improved transit and land use changes. In addition, the existing network fails to serve many parts of the region, and could be transformed into a much more robust and efficient system. Two problems stand out. Train service from both the west and the east terminates in Manhattan, limiting the destinations that passengers can get to without changing to another train system and constraining the number of trains that operate in periods of peak demand. In many densely-developed parts of New Jersey there is no rail service at all and where it exists service frequencies are often limited. Travel times are slow, resulting in much larger volumes of bus trips than exists from other parts of the region.

Piecemeal solutions have been proposed to address individual problems. The Gateway project would solve the immediate maintenance needs of the rail tunnels and add additional capacity, but would still be insufficient to accommodate long-term transit demand and limit service options by maintaining Penn Station's position as a terminus for New Jersey Transit and Long Island Rail Road trains. The Port Authority's proposals for a much larger Midtown bus terminal would accommodate projected bus passengers, but at a very high cost with major negative impacts in the west midtown neighborhood and without making any improvements in service options. New York State's current plans for improvements at Penn Station and a new Moynihan Station would improve circulation, amenities and the passenger experience within the stations, but would not be transformative nor provide additional capacity for more service.

Each of these proposals — Gateway, a new bus terminal in Midtown Manhattan, and Moynihan Station — serves a specific purpose, but they fail to address the larger capacity and connectivity challenges facing the region. They haven't been planned in concert with each other, and they fall short of the region's long-term needs.

A much better outcome could be achieved through a series of complementary investments that addresses the problems of the system as a whole. These investments can address the inadequacies of the current facilities, create capacity for the economy to grow well beyond existing projections and greatly improve service on both sides of the Hudson River. The investments would be phased to address the most urgent problems first and provide flexibility for the timing and type of future investments.

Phase One: Build Gateway Tunnels and a Bus Terminal in the Basement of the Jacob Javits Convention Center

Construction of two new rail tunnels should begin immediately. At the same time, a second bus terminal in Manhattan can be built in the lowest level of the Jacob Javits Convention Center at a significantly lower cost than replacing the existing Port Authority Bus Terminal. The new Javits terminal could consolidate all intercity buses, taking buses off the streets and freeing up 63 gates at the existing PABT, resulting in an almost 30% increase in gate capacity for commuter buses. This combined with the demand reduction strategies recommended by the Port Authority (see Table 6) would allow the existing PABT to accommodate projected passenger demand to 2040 — the estimated end

of its useful life. Some buses could also be diverted to the new Javits terminal, which would provide another option for destinations that could be reached more easily from its location, especially the Hudson Yards. It also creates flexibility and keeps the option of having one or two facilities in Manhattan in the future. This phase could also include a more ambitious overhaul of Penn Station, potentially moving Madison Square Garden and expanding the LIRR concourse.

Table 6: Summary of Potential PABT Bus Demand Reduction Actions (# of peak hour buses)

Strategy	Buses
Increased Use of Higher-Capacity Buses	15
Holland Tunnel/Lincoln Tunnel Bus Loop	10
Expanded Bus Services to Port Imperial Ferry Terminal	10
Expanded Trans-Hudson Ferry Services	10-20
Expanded Bus Services to the GWBBS	10-30
Increased Use of the Holland Tunnel for Direct Downtown Service	20

Source: Trans-Hudson Commuting Capacity Study. PANYNJ, 2016

Phase Two: Build Gateway East with Through Service at Penn South

Instead of terminating Gateway at 7th Avenue, the project should continue across Manhattan, under the East River, and connect into Sunnyside Yards in Queens. Constructing Penn South with fewer, wider platforms and two new East River tunnels would increase throughput at Penn Station by 30% and greatly expand rail service for New Jersey Transit, Long Island Rail Road and Metro North riders. New direct rail service into Penn Station for Bergen and Monmouth counties would reduce travel times and shift bus riders to rail in these under-served counties, relieving highway congestion and pressure on the bus terminals.

Table 7 indicates the impact of phases 1 and 2, including Gateway East, the Bergen loop and the Monmouth/Ocean/Middlesex rail line. It is assumed that these can be in place halfway to the 2040 horizon for the RPA plan, or 2027. For each of the modes (combining commuter rail and PATH), the number of work trips is shown — 2015, 2027 without any transportation improvements and with the RPA proposed improvements in place. The 2027 conditions were based on the interpolated values derived from the RPA land use Vision for 2040. The “no build” condition in 2027 shows the auto trips growing or “unconstrained.” In reality, auto trips across the Hudson (Lincoln and Holland Tunnels) and auto trips down the Henry Hudson Parkway (many from west of the Hudson) have declined in the peak period over the 2005 to 2015 period and capacity constraints make the

Table 7: Work Trips to Manhattan (south of Harlem) Across the Hudson River by Mode — 2015 2027 and 2040, RPA Plan

	Year	Description	Total	Rail	Bus	Ferry	Auto
Ridership	2015	Base	301,869	115,487	100,801	8,667	76,914
	2027	No Action	335,791	124,351	97,704	9,641	104,095
	2027	RPA Plan (Phases 1 & 2)	345,476	170,082	87,618	10,862	76,914
	2040	No Action	373,526	139,360	110,178	10,724	113,264
	2040	RPA Plan (Phases 1 & 2)	395,383	202,924	104,193	11,352	76,914
Modal Shares	2015	Base	100.0	38.3	33.4	2.9	25.5
	2040	No Action	100.0	37.3	29.5	2.9	30.3
	2040	RPA Plan (Phases 1 & 2)	100.0	51.3	26.4	2.9	19.5
Percent Growth from 2015 to 2040	2040	No Action	23.7	20.7	9.3	23.7	47.3
	2040	RPA Plan (Phases 1 & 2)	31.0	75.7	3.4	31.0	0.0

Source: RPA Regional Demand Model

unconstrained growth unrealistic. Accordingly, the RPA plan alternative distributes the auto trips proportionately across the other modes.

With the RPA plan in place by 2027, the share of trips by rail will grow from 38% today to almost 50%, while bus shares would decline from 33% to 25%. The absolute volume of bus trips would decline by 13% going from 100,000 work trips to Manhattan (south of Harlem) to 88,000. Meanwhile rail trips increase by 47%, which can be accommodated by Gateway. The total trips would grow by 14%, spurred a combination of population expansion assumed for the west of Hudson communities and by the improved transit which encourages travel to Manhattan. With these investments, trans-Hudson travel would increase by 31% by 2040. The demand for rail service would grow by an estimated 76%.

Bus riders would be a far smaller share of the total, and anyone using the existing facility would have much better rail options.

Future phases of the RPA plan for regional rail improvements will be described in *A Region Transformed*, RPA's fourth plan for the New York-New Jersey-Connecticut metropolitan area. These improvements will not only expand trans-Hudson capacity. They will also dramatically improve rail service throughout the tri-state region, creating the circulation system to support a growing economy, greater access to transit and jobs for low-income and underserved communities, and sustainable development patterns for the next century.

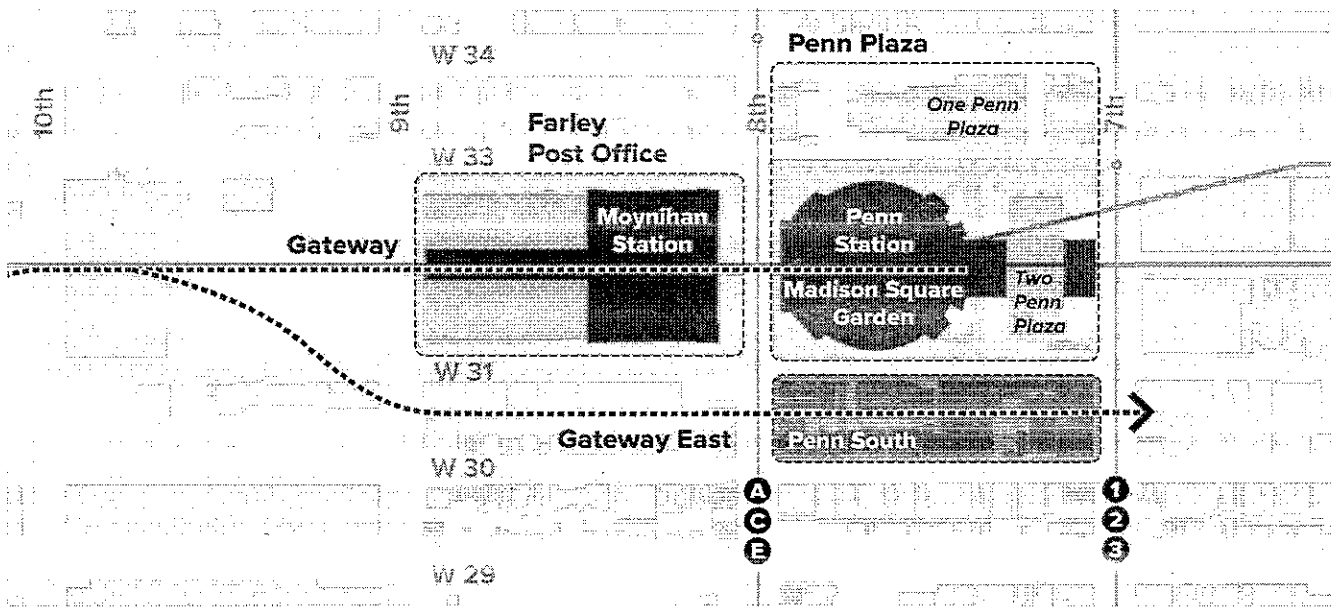
Phase Three: Build New Rail Tunnels to Expand Service and Meet Future Capacity Needs

Phases one and two would likely meet capacity needs for the next 20 years. Beyond then, trans-Hudson demand will begin to surpass combined rail and bus capacity, and the existing PABT will have surpassed its useful life, requiring replacement. While a decision does not need to be made at this time, a better option than replacing the bus terminal would be to construct new rail tunnels between New Jersey and Manhattan. This would provide sufficient trans-Hudson capacity for the foreseeable future, divert more passengers from buses, and eliminate the need to rebuild the 42nd Street bus terminal, since the Javits bus terminal would be able to handle the bus demand from New Jersey.

Case Study

What to Do About Penn Station

Figure 12: Penn Station Focus Areas



Source: Regional Plan Association

Note: Penn Station consists of four levels: the C-level/street-level, the B-level/Amtrak waiting room, A-level/LIRR concourse and platform, track level. There are four main east-west concourses, 7th Avenue/Main Gate, Central, Exit and West End.

Penn Station New York is overcrowded and a dysfunctional collection of fragmented spaces. The concourses and platforms are too narrow; access to the platforms and vertical circulation elements are inadequate. The station lacks basic amenities like legible uniform signage and sufficient space for waiting passengers. There is little to no presence at the street-level and poor pedestrian circulation on surrounding streets and sidewalks. RPA's projected increase of an additional 72,000 trans-Hudson work trips to Manhattan by 2040 (much higher when non-work added) would only further compound these problems and push the existing PSNY complex well beyond its ability to serve these commuters and intercity passengers.

The Plan

The New York Penn Station is not a single structure but instead a vast complex encompassing a super-block that extends from 34th Street to 31st Street and 7th to 8th Avenues. This is the core of the station, from where all the tracks are accessible. Over the past several years many plans have been proposed to address these deficiencies and

also to expand Penn Station's footprint. Much of the work underway or that has been completed targets improvements to passenger concourse area and street level, with some limited improvements to the track/platform level. RPA further builds on these proposals, including additional capacity improvement and interventions at the track level. The map below highlights the four areas that are covered in this proposal.

The Penn Station Complex: Four Focus Areas

7th Avenue — Penn Station

A substantial intervention on 7th Avenue is critical to creating a new "front door" for the Penn Station complex. The scheme would create a large indoor-outdoor space centered on 33rd Street, closing part of the street and creating a new plaza that has entrances directly down to a reconfigured A-level LIRR east-west concourse. The reimagined LIRR concourse would be widened and shifted to the north and relocated under the building line allowing for higher

ceilings and more light. The new entrance on 7th Avenue would include design cues found in traditional train sheds and create a uniform frontage that extends from 31st Street to 34th Street. The current cramped main entrance at 32nd Street would also be widened along with the Hilton passageway (which is only 12 feet in wide in some places). This intervention envisions keeping 2 Penn Plaza, a 50-story office building and its many columns that impact circulation on the eastern side of the station. The central concourse would also be extended to track one (and later to Penn South) and widened and the B-level removed on 2 Penn Plaza, reconfiguring the existing NJT concourse to conform with the elevation at A-level.

8th Avenue — Madison Square Garden

Removal of the sports arena and theatre above the central part of Penn Station has been a long-standing position of RPA. There are many reasons that justify this course of action, ranging from security concerns to bringing much needed natural light and air to the lower levels of the complex. Many of the proposals in the past have suggested relocating Madison Square Garden, demolishing the existing structure and building a new head house with retail and office space (tower).

A proposal by Vishaan Chakrabarti and PAU envisions gutting MSG, removing the floors and exterior curtain wall, and keeping just the structural skeleton of the building clad in glass. This intervention, combined with the complete removal of the B-level concourse beneath MSG, would eliminate over 200 columns from the platforms — freeing up more space for vertical access and passenger queuing. This would open up and remove all of the barriers between the tracks and platforms, retaining only the three north/south transverse concourses (7th Ave, exit and central) and two or eventually three east/west corridors (LIRR concourse and Hilton passageway). The transverse concourses would be completely extended across all tracks. The glass curtain wall would be open at street level to provide 360° access to the station, similar to many traditional stations. The 33rd Street plaza would be extended to 8th Avenue.

RPA also envisions extending the elimination of B-level concourse elimination to 7th Avenue to better distribute passengers. The transverse concourses and Hilton passageway would be widened to open up this congested corridor. Additional vertical circulation drops to the platform to reduce queues and long waits in leaving the platform and the impact of reducing distance from upper concourse must also be evaluated. These schemes must be integrated with Penn South to create a unified experience.

West — Moynihan Station

The plans to convert the Farley post-office building to a new waiting area for intercity passengers were proposed by Senator Daniel Patrick Moynihan in 1993. To date, Phase 1 of the project, which extended and widened the existing LIRR western concourse and add new street-level

entrances at the corners of the Farley building is complete. Phase 2, which recently celebrated a groundbreaking, will include conversion of the Farley courtyard into the new waiting room with drops to some of the platforms. Its location at the western end of the complex limits the number of platforms that will be accessible from the waiting room. However, the future Moynihan station will play a critical role in freeing up space at the existing Penn Station by becoming a receiving site for many of Amtrak's back-office functions and the main space for those waiting to board intercity trains. It must also include a passageway to 9th Avenue, even if this improvement occurs before the redevelopment of the Farley Annex on the western half of the block.

South — Penn South Expansion

Amtrak has been studying extending Penn Station south to block 780, between 31st and 30th Streets. The most recent proposal would be a station with approximately 8 tracks and 5 platforms of varying widths (there are several configurations). It would be designed initially as a stub-end terminal with 4 out of 8 of its tracks able to run-through to Queens if two tunnels were constructed further to the east at some point in the future. This hybrid approach will limit the capacity benefits of through-running, which could be as high as 33 trains per hour (similar to other systems such as London's planned CrossRail), and makes it even more unlikely that the tunnels to the east would ever be built. While it is critical that something is done to expand Penn Station's capacity to take full advantage of the two new tubes that will be constructed, the current approach and segmentation of the project makes it unlikely that the tunnels will ever provide their full potential.

RPA Alterations to Penn South Expansion

- ▶ Penn South should be designed with fewer tracks and platforms, which would be much wider than the current proposal. RPA evaluated two configurations, one with 6 track and 3 to 4 platforms and another with two very wide platforms (+60ft) and 4 tracks.
- ▶ The two new East River tubes to Sunnyside Yards and connecting tunnels through 31st Street should be constructed as part of the Penn South project to enable through-running from day one.
- ▶ A station shell should be constructed at 31st Street and 3rd Avenue
- ▶ Penn South should integrate into the revised PSNY configuration at the A-level concourse.
- ▶ These improvements would increase throughput to as much as 30 to 33 trains per hour rather than 22 to 24 — a 30% increase in capacity.

- ▶ A new southern east-west concourse should be constructed running the length of the extension — book-ending the enlarged existing LIRR/northern east-west concourse.
- ▶ Penn South should be constructed to accommodate higher F-plate and H-plate rail cars, with a height clearance of up to 21 feet to enable the operation of freight in off hours. This might require just one track (the most southern) to reach this vertical clearance, but these dimensions should be extended through at least one of the new eastern tube to Queens. This tube should also include a spur that would allow freight trains to access the Lower Montauk line in Queens.

Platform/Track Level Improvements

RPA believes that the following additional improvements should also be taken to increase station capacity, reduce congestion at the platform level and enable through-running regional rail:

- ▶ Widen select existing PSNY platforms (central and southern platforms, eastern LIRR platforms remain the same). This would result in the removal of a number of tracks.
- ▶ Replace escalators with stairs and elevators on the narrowest platforms to allow for greater vertical capacity. Elevators are also better and safer for passengers with luggage and strollers.
- ▶ Maximize vertical circulation, remove B-level and create a uniform A-level across the entire station complex.
- ▶ Remove as much structural artifacts as possible to increase existing platform capacity.
- ▶ Install high-density signaling system in East River tunnels.
- ▶ Create a unified station complex with modern amenities.

The result of these series of investments would be a unified Penn Station complex with modern amenities and the capacity to serve a growing region. New York City and the region would finally have a station that would reflect its status as the economic engine of the nation and gateway to the world. Commuters and intercity riders would finally be treated in a humane fashion, with plenty of space to move around with light and air that will transform Penn Station from a dreary and unpleasant experience to a place to linger and enjoy.

Appendix

RPA Regional Demand and Trans-Hudson Mode Choice Models

RPA calibrated a regional travel demand model for the purpose of examining the impacts of the RPA projections on travel demand and to test the effects of various transportation solutions. This model was supplemented with a mode choice model for trans-Hudson trips that further subdivides trips by mode of travel—rail, bus, PATH, ferry and auto.

The trans-Hudson model uses as inputs the total number of zone to zone trips from the trip distribution portion of the regional demand model. The distribution model is a gravity model that estimates the number of trips based on the work trips generated in the residential zone, the number of jobs attracted to the work zone, and the weighted transit and auto travel times. The model was calibrated to determine the propensity to travel between two points based on these travel times.

The trans-Hudson mode choice model is based on the principle that people in markets (zonal pairs) faced with similar transit choices will make similar choices in the future. If their choices change they will move to a different cohort that reflects the new choices and will behave accordingly. A simple example might be as follows. If the only transit choice today for a particular trip is a walk to a nearby rail station and then a train ride to Penn Station followed by a short walk to the work site, and there is no bus service from that zone, and if 90% of those with that choice take the train, none use a bus, and the remaining 10% drive, then if a new zonal pair¹ is given a similar set of choices they will behave similarly. Of course, there are many combinations of characteristics for the various modes to be considered in the model.

In the trans-Hudson travel environment the choices are many and more complex. To simulate that complexity, the trans-Hudson zonal combinations for each census tract to census tract pair were evaluated to construct many cohorts. The factors used were a) distance to each transit mode west of the Hudson, b) number of transit transfers necessary on the east side of the river, and c) the ability to ride by train directly to Manhattan without a transfer.

The options for each zone west of the river were evaluated as follows:

¹ The zonal pairs for the trans-Hudson model was based on US Census Tract zones

		Station/Stop	Details
PATH	Very near	less than ½-mile	
	Near	½ mile to 5 miles	
	Far from	beyond 5 miles	
Rail	Very near	less than ½-mile	direct ride to Penn Station
		less than ½-mile	transfer to PATH to reach Manhattan
	Near	½-mile to 5 miles	direct ride to Penn Station
		½-mile to 5 miles	transfer to PATH to reach Manhattan
	Far from	beyond 5 miles	direct ride to Penn Station
		beyond 5 miles	transfer to PATH to reach Manhattan
Bus	Very near	less than ½-mile	
	Near	½-mile to 5 miles	
	Far from	beyond 5 miles	

With 3 PATH options, 6 rail options, and 3 bus options there are theoretically 54 combinations possible for the west of the Hudson transit choices.

A similar process was used for the transfer count east of the Hudson.² With three transit modes — bus, rail and PATH and three transfer possibilities — none, one, or two (three is never required for any trip to Manhattan) a total of 27 possibilities exist. When combined with the 54 west of the Hudson, 1,458 cohort possibilities exist. Of course, not all need be represented. In reality, 309 separate unique “splits” were identified.

Once the modal distribution of each cohort was determined it was assigned the values appropriate to the proposal to be tested. For example, if a rail proposal created a rapid transit service within walking distance west of the Hudson, the zonal pairs affected moved from a split with rapid transit (PATH) beyond walking distance to a split within walking distance. Similarly, if the proposal established a walk to destination in Manhattan, eliminating a subway ride, the split moved from a “one transfer” in Manhattan to a “no transfer” modal split. The assigned splits were done at a census tract to census tract level and the growth rates assigned to the zones were done on an aggregated basis using the 273 zone system from the regional travel demand model.

² Only trips destined to Manhattan below 125th Street on the west side and below 96th Street on the east side were included in this process.



Regional Plan Association

Regional Plan Association is an independent, not-for-profit civic organization that develops and promotes ideas to improve the economic health, environmental resiliency and quality of life of the New York metropolitan area. We conduct research on transportation, land use, housing, good governance and the environment. We advise cities, communities and public agencies. And we advocate for change that will contribute to the prosperity of all residents of the region. Since the 1920s, RPA has produced three landmark plans for the region and is working on a fourth plan due out in 2017. For more information, please visit, www.rpa.org.

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Secretary of the Corporation

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*Member of Executive Committee

Testimony by Joseph M. Clift* Concerning the Gateway Program to the
Joint Senate Legislative Oversight Committee & Assembly Judiciary Committee on NJ Transit
Monday, September 25, 2017, 10:00 AM, State House Annex, Trenton, New Jersey

Good morning Messrs. Chairmen and Committee members. I am speaking today solely for myself, as a long-time advocate for regional rail service and as a past Long Island Railroad (LIRR) Director of Planning, and before that LIRR Director of Strategic Planning. I am a 36-year resident of Manhattan and a frequent user of NJ Transit rail services. A brief description of my past work in the rail transportation industry is provided at the bottom of this page.

I. My "Asks"- I come before you today with four very specific "Asks":

1. Allow me to take three of you from the Senate and three of you from the Assembly together on my tour of NY Penn Station and the Northeast Corridor from Newark via Secaucus Junction to New York to show you the reason for my following three Asks. An onsite visit is worth many more than a thousand words, or to put it another way, seeing is understanding what is possible and affordable. You've seen Steve Gardner's Amtrak tour, so come see it from an advocate's perspective!

2. Challenge NJ Transit management to change the proposed Hudson Tunnel Project alignment to one that ties the two tunnel tubes directly into the Northeast Corridor (NEC) as planned in the ARC DEIS (with an objective look at building the two under-Hudson tubes in two phases), instead of the current plan that ties the new tunnel tubes into a separate right-of-way south of the NEC.

3. Challenge NJ Transit management to change the bridge design and approach tracks that will replace the existing 23'-clearance two-track movable Portal Bridge over the Hackensack River from the proposed 52'-clearance two-track fixed North bridge -- the first of two new two-track bridges -- to a 30'-to 35'-clearance four-track fixed bridge that doubles trans-Hackensack River train capacity in one shot.

4. Challenge NJ Transit management to immediately begin design of the 2004-proposed extension of the two NY Penn Station (NYP) platforms that serve NYP Tracks 1-4 west to the newly expanded and extended West End Concourse and, in three short years, to the \$1.6B Moynihan Train Hall in the converted Farley Post Office on the west side of Eighth Avenue.

II. Why these potentially presumptive Asks- To get what most current and future NJ Transit customers actually need yesterday, not by some distant future "tomorrow": more peak-hour train capacity into and out of NY Penn in less than 10 years at a price tag of less than \$10B, which will not break the State's financial back, instead of Amtrak's 20+ years at a back-breaking price tag now approaching \$30B. \$30B is more than 80% of the State's entire FY 2018 \$36B budget and at least equal to the price tag of all other proposed transit projects nationwide!

I have been to NJ Transit management with the last three of my Asks and have been turned down cold on all three, with the suggestion that I go elsewhere with my requests. I now come to you thirteen members of this joint committee, representing all 120 members of the legislature who are the elected representatives of the citizens of New Jersey, in this case especially the taxpayers who foot NJT's bills and NJT rail customers. You appropriate the funds NJT requires to both operate and expand its rail services, and you have the fiduciary and moral obligation to see that the money you appropriate is carefully spent on the right projects.

III. Why I am qualified to make these Asks- I learned and applied an important lesson long ago during the time I was privileged to work at the LIRR: plan a complete project, then select the elements of the

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project that provide the maximum customer benefit and build them with the first tranche of funding, the elements with the next best benefits with the second tranche and so on, until the entire project is completed. That's exactly the opposite way the original LIRR planners set up major capital improvement projects. Their approach: build the least customer beneficial elements first so that the rest of the project – the part with most of the customer benefits – is more likely to be built in the future.

And that is exactly how Amtrak, with the acquiescence of NJ Transit management, has planned the elements of Gateway: build the elements in such an order that what NJT customers and the entire Tri-State area really want and need – more peak-hour train capacity from New Jersey into and out of NY Penn – isn't available until all the almost \$30B project has been completed.

My similar experience at the LIRR was with the Ronkonkoma Branch. As LIRR Director of Strategic Planning, I conducted the alternatives analysis, planning and preliminary design that led to funding and total reconstruction of the previously diesel-served pokey Ronkonkoma Branch – a 25-mile extension of electric train service deep into mid-Suffolk County providing first-time one-seat ride rapid service from as far as 50 miles away directly into NY Penn within a fixed budget. The branch's ridership has grown from almost nothing to now the second busiest branch line on the entire LIRR.

What most people do not know is that the original LIRR plan for the Ronkonkoma Branch called for double-tracking and modern signaling of the line first, with electrification to come at a future date when more funding became available, thereby denying riders the faster single-seat ride electric service into NY Penn until future funding became available. Instead of accepting a plan that would have delayed the customer-oriented service improvements of electrification in favor of the operational flexibility of fully double-tracking a single-track line, we reversed the plan, building the minimum necessary double-track to operate reliable 30-minute two-way service and accepted the loss of any reverse peak service when peak-direction trains were operating every 10-15 minutes on the line. We then used the savings to finish funding electrification of the branch.

It is only now, 30 years later – yes, 30 years later – that the LIRR is finally fully double-tracking the line, leading me to be able to claim that the do-the-most-import-to-the-customer-elements-first philosophy has provided 30 years – more than a human generation – of great rail service that would have otherwise have not been available.

I want you to make the same thing happen with Gateway!

IV. How to accomplish the same with Gateway- The last three of my Asks are the only elements of Gateway required to operate a three-track railroad – two in the peak direction (inbound in the morning, outbound in the evening) – between Swift Interlocking and NY Penn. Swift (poorly named!) is half way between Newark and Secaucus where Midtown Direct M&E and Montclair trains enter the NEC, thus filling up the one track of train capacity into NY Penn.

The current 24-25 peak hour trains operating from New Jersey into NY Penn can then be increased immediately to 30 trains per hour (tph), and up to at least 36tph with additional improvements in NY Penn (lengthened platforms and increased vertical and concourse passenger circulation). That would mean an Amtrak or NJT train would arrive every 20 minutes on a NY Penn platform track, down from the current 29 minutes, but still far below the LIRR's current 15 minutes.

While 36tph is not the 48tph that is Gateway's goal, 36tph provides enough additional capacity to add the myriad of services into NY Penn needed immediately and within the next 10 years: peak-hour dual-

power Raritan Valley Line trains (requires Hunter flyover, not part of Gateway), Montclair-Boonton/M&E diesel territory dual-power trains, more North Jersey Coast Line peak-hour Bay Head dual-power trains and additional electric territory trains for the anticipated growth in peak-hour ridership.

But, and it's a BIG BUT, this scenario that produces 36 trains per hour requires making the changes in the current Gateway plan outlined in my Asks NOW! Absent those changes, it will simply be impossible to create an interim three-track railroad that makes all these service improvements possible in the next 10 years. Instead, all the other elements of \$30B Gateway will come first according to the current Amtrak plan: four tracks (up from two) between Newark Penn and Swift Interlocking; a separate right of way and a fourth track between Swift and the New Jersey tunnel portal; a new Secaucus south annex station and the huge 1-1/2 city block Penn South annex.

V. Cost makes a \$10B first-phase three-track railroad Gateway plan absolutely critical- Look at Gateway's cost escalation: \$13.5B in 2011, \$23.9B in 2016 and recently \$29.5B in 2017 (includes \$1.8B to rehab the two existing tunnel tubes) – a 119% increase in six years! Who is minding the cost store? Possibly the entities that live off transit infrastructure work and certainly not the taxpayers of New Jersey!

Then compare that current \$29.5B cost estimate to the 10-year forecast of local funds: \$2.7B Port Authority and \$0.2B NJ Transit – yes, a mere \$200M from New Jersey! – for a total of only \$2.9B. Plus: the federal handshake agreement reached in 2015 to pay for 50% of Gateway with a variety of grants & loans to be paid for by Amtrak occurred when the price tag was half of what it is today. And a second plus: there's a new administration in Washington to boot. **Does anyone really believe there's a rational way to pay for a \$30B Gateway project in less than 20 years with these funding realities? The answer has to be NO! One is essentially gambling with most NJT rail riders' futures if the \$30B build-it-all-before there's more peak-hour capacity is followed! Remember the scale of a \$30B Gateway: more than 80% of New Jersey's entire FY 2018 \$36B budget and at least equal to the price tag of all other proposed transit projects nationwide!**

VI. Sunk costs are irrelevant- When I pressed NJT E.D. Steve Santoro that the current two-track Portal North Bridge design (which makes the existing Portal Bridge a Coast Guard menace to navigation & requires its removal) must be changed to a four-track bridge ASAP to provide more than two tracks across the Hackensack without the need to build Portal South Bridge at some future date, he questioned abandoning the \$100M+ dollars already spent on the Portal North design, which is now ready to bid, and I understand John Porcari has raised the same issue. In business school, you learn well the term, "Sunk costs are irrelevant," and it absolutely applies here. One must ignore money spent and look ahead, because that's all that actually matters; it makes no sense to protect the \$100M+ investment in the past and move ahead with bidding a design, if that design and the direction you're heading is the direction that doesn't give you the result absolutely needed: three tracks at least over the Hackensack River ASAP!

VII. Conclusion- No matter how confident Mr. Porcari has been this morning and Mr. Santoro will be later today about Gateway's outlook, the financial realities I've presented should compel you, the people of New Jersey's elected representatives, to want to learn more about my proposal by coming on my tour. Please do so!

Thank you for this opportunity to share my thoughts, and I look forward to your questions.

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STATEMENT FOR SENATE LEGISLATIVE OVERSIGHT COMMITTEE AND ASSEMBLY
JUDICIARY COMMITTEES, 9-25-17

I am David Peter Alan, Chair of the Lackawanna Coalition. We advocate for improved transit for riders on the Morris & Essex, Montclair-Boonton and Gladstone Lines and all connecting services, including other lines on New Jersey Transit. We represent the riders and their communities, and have done so since 1979. Personally, I live and practice law in South Orange.

We are deeply concerned about continued access to Penn Station, New York, since it was our constituents who had to live without it for forty weekdays this past summer. Things went better than we feared they would. NJ Transit had a reasonably-good plan, and they implemented it well. If they had been willing to listen to our suggestions, the summer would have gone even better than it did. We hope that they will establish a dialog with us in the future, if there should be more service changes.

The issue before you today is access to Penn Station, New York generally, and the Gateway Project in particular. As I will explain, we are not convinced that the Gateway Project in its entirety is the most cost-effective way to give our constituents the access to New York City that they want and should have. We are also not convinced that the political reality now in effect will allow sufficient funding for all of the Gateway Project, so it is time to consider more affordable means to produce the desired result. Several years ago, my colleague Joe Clift appeared at a Budget Committee hearing and said: "I'm here to save you money." Today, I'm here to save you money by suggesting an affordable means for providing rail access to New York's Penn Station for the riders who want it.

It is not possible to understand the present situation fully without some historical background. Everyone concerned has been talking about new tunnels under the Hudson River for more than twenty years. The Access to the Region's Core, or "ARC" Project was first proposed in 1995. I was on the original Regional Citizens Liaison Committee for that project and the companion Portal Bridge Project, so I remember the efforts to expand capacity into Penn Station. One of the proposals, Alternative "G", called for new tunnels into Penn Station, and expansion of the line to Grand Central Terminal on the East Side of Midtown Manhattan. Everyone in the advocacy community pushed for that project to be built, instead of a deep-cavern alternative near Penn Station (Alternative "P") or a non-revenue track to Sunnyside Yards in Queens (Alternative "S"). Paul Wyckoff, who is now with NJ Transit, reported in the *Star-Ledger* at the time that it was expected that new tunnels would be completed by 2008 or 2009.

It did not happen that way. In 2003, to everyone's surprise, New York's MTA killed Alternative "G". There were further downgrades over the ensuing years. The track connection to Amtrak's Northeast Corridor (NEC) was removed from the project, and the final design called for a dead-end deep-cavern terminal nearly twenty stories below 34th Street. To make matters worse, NJ Transit planned to evict our trains and our constituents who ride them from the existing Penn Station and force us into the deep-cavern. Our concerns about life-safety issues, the length of time it would take to get from the deep-cavern to street level and about connectivity at Penn Station ran even deeper than the terminal itself. We vowed to fight against the proposal, and to push for the original plan to go to Penn Station and later to Grand Central instead.

We led the effort to build an alliance that fought relentlessly against the dead-end deep-cavern. The New Jersey Association of Railroad Passengers, the Empire State Passengers' Association and

other advocates in the region joined us. So did the Rail Users' Network and the National Association of Railroad Passengers at the national level, along with state and local organizations in other states. Eventually, we won the struggle when Gov. Christie killed the final version on the project in October, 2010. The governor said that the project had become too expensive, and he was correct about that. In addition, it had other flaws: it would not go to the East Side, it would not even go to Penn Station, and it would not be useful to Amtrak. Gateway perpetuates some of those flaws.

We continued to push the Christie Administration to support a project that would bring tunnels into Penn Station, without the undesirable deep-cavern terminal. That effort continued until February, 2011, when Sen. Frank Lautenberg and Amtrak officials proposed the Gateway Project. Christie then considered himself "off the hook" about rail access to New York and spent the money on highway projects instead. Today we are no closer to new tunnels than we were then, except that we are now facing a deadline for repairing the existing tunnels in the wake of Hurricane Sandy five years ago.

The Lackawanna Coalition is a non-partisan civic organization, but that does not prevent us from noticing events taking place in the world of politics. Mr. Pocari and other proponents of the Gateway Project are still saying essentially what they said before the election last year. We see a political reality that has changed. The Trump Administration has not been supportive of public transportation. It has already cut projects like electrification of the Caltrain line in the San Francisco Bay area and a light-rail line in Minnesota. The fiscally-conservative Republicans are very strong in the House, where all funding bills originate. It is extremely difficult to believe that Washington will authorize half of the currently-estimated \$27 billion cost of Gateway, even if that includes loans, for a project that would benefit the Democratic strongholds of New York City and northern New Jersey.

To make matters worse, there is no plan proposed that would raise enough money for the "local" match. The Port Authority has pledged some money toward debt service, but New York and New Jersey at the state level have not made the pledges needed to come anywhere near funding their share of the cost of Gateway in its entirety. For its part, NJ Transit has not pledged any of its capital funding toward new tunnels. Instead, that money is allocated for projects like Delco Lead and County Line, which do nothing to improve mobility for New Jersey's rail riders and do not even appear to be necessary. Instead, they wait for Amtrak, which is also financially strapped, to come up with the money. Frankly, Amtrak does not need new tunnels into Penn Station for itself. Without NJ Transit, Amtrak could operate all of its current schedule with only a single track and tunnel, while the existing tunnels are taken out of service for repairs, one at a time. It is NJ Transit that needs new capacity into Penn Station, and it needs that level of capacity only during peak-commuting hours on weekdays.

So we need to take a hard look at what our goals actually are, and how they can be achieved. In a nutshell, the overarching object is to create enough capacity at Penn Station to provide access for the peak-hour commuters and other riders who want to go there. The Gateway Project in its current form will not provide additional capacity until all of it is completed. That is absolutely unacceptable. The current plan calls for Gateway to be completed in 2030, but Amtrak says that the existing tunnels must be taken out of service for repairs by 2034. That timetable is far too close for comfort, especially since the original ARC Project was proposed 22 years ago, and nobody has any idea who would pay for all of Gateway or how. It took 73 years from the time the Montclair Connection was proposed until it opened for service in 2002. We need capacity now, and we cannot afford to wait for all of Gateway to be built.

So what is actually necessary to provide the access that our riders need? We need two new tunnels, each with a single track, into Penn Station, on a useful alignment. We need a new bridge across the Hackensack River that can support all the trains that will run over it. That could include a three-track bridge with room for a fourth track, or it can include a new two-track bridge and rehabilitation of the existing Portal Bridge for use during peak-commuting hours and track outages.

We also need improvements at Penn Station, notably extending Tracks 1 through 4 and the two platforms that support them westward to the West End Concourse, and eventually to the Moynihan Train Hall now under construction. This could all be accomplished for roughly one third of the cost of the entire Gateway Project; an amount that it might be feasible to raise from federal and local sources.

Some features of Gateway, like the separate "Penn South" Station for NJ Transit and "Secaucus South" are expensive and unnecessary, and even undesirable. They do not cure the flaws that plagued the old dead-end, deep-cavern that ARC had become in its later days. There is no plan to extend our railroad from Penn Station to Grand Central Terminal, so there will still be no "East Side Access" for New Jersey riders. The Penn South proposal is not as bad as the former deep-cavern proposal, but it would still leave most New Jersey riders south of 30th Street; further from their offices and the subways that take them to their offices, than where they now get off the trains at Penn Station. Penn South would also be a dead-end station; a relic of 19th-Century railroad design. The great cities of the world – London, Paris, Berlin, and even Philadelphia – run trains through central stations instead. New York riders, including those from New Jersey, deserve similarly-upgraded infrastructure and operations.

In the meantime, there are ways to improve capacity at Penn Station without spending a dime of capital money. Until 2010, NJ Transit offered reduced fares for travel outside peak-commuting hours. They should offer those fares again, discounted at least 25% off one-way "peak-hour" fares. That policy will encourage price-sensitive riders to take the train at other times, when there is plenty of capacity for them. Last summer was as successful as it was in part because of the low Hoboken fares. Today it costs more to commute to Hoboken and then to New York on PATH than to go directly to Penn Station. If there were lower fares for Hoboken trips, some riders would be enticed to go there and free up capacity at Penn Station. The more riders who ride outside peak-commuting hours to Penn Station or go to Hoboken, the more capacity Penn Station will have for other riders. We urge this Committee to push NJ Transit to look seriously at these proposals, which require no capital costs. To make matters worse, NJ Transit continues to discourage people from riding trains at "off-peak" hours by cutting service. They should spend their money on restoring service, and not on unnecessary projects.

It now takes 28 minutes to free up a track at Penn Station on Amtrak or NJ Transit. The Long Island Rail Road does it much more quickly, which effectively enhances the station's train capacity. If Amtrak and NJ Transit could improve their operation to the point where they could re-use a track every twenty minutes, there would be room for at least 40% more trains. That means seven or eight more trains in a 60-minute period. That would accommodate three trains on the Raritan Valley Line, as well as one on each of the other lines that currently go to Penn Station; all for only a nominal capital cost.

Gov. Christie's primary reason for terminating the former ARC Project was its escalating cost, which was between \$12 and \$15 billion by 2010. Nearly seven years later, the estimated cost of the entire Gateway Project is \$27 billion. That is an increase of anywhere from 80% to 125%. By contrast, the Producer Price Index has only increased by 13%, so Gateway is much more expensive than the ARC Project was when Gov. Christie terminated it, primarily because of its excessive cost.

Our constituents need more capacity at Penn Station. They do not need Penn South, Secaucus South, or other projects that do not improve their mobility, including their access to New York City. We and they cannot afford to wait for the Gateway that may never open, because there will probably not be enough money available to build all of it. We need tunnels and a bridge on correct alignments, as well as Penn Station improvements. In short, we do not need overpriced projects with questionable cost-effectiveness. Instead, we need an affordable project, coupled with innovative thinking, before it is too late and the existing tunnels must be taken out of service. Time is truly of the essence.

DAVID PETER ALAN, Chair

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Lackawanna
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RAILGRAM

Feared "Summer from Hell" Was Not As Bad As Expected, But It Could Have Been Better

By DAVID PETER ALAN

It was supposed to be the "Summer from Hell" for commuters into Penn Station, New York, due to a large-scale track work effort by Amtrak at the 21-track station. Amtrak owns the station, even though the riders on New Jersey Transit (NJT) and the Long Island Rail Road (LIRR) who use it greatly outnumber Amtrak's.

Nobody disputed that the track work was needed. Weather-related incidents, derailments, and a host of other problems plagued the station and its riders all spring and into the summer, beginning with a particularly rough March, which we called "March Madness on the Railroad" in the April-May issue of the *Railgram*.

The madness continued, and NJT planned to reduce train capacity at Penn Station by 25% to accommodate the work. As far as NJT was concerned, their solution was simple. Riders on the Morris & Essex (M&E) Line and its Gladstone Branch were sent to Hoboken Terminal for 40 weekdays. It resembled commuting as it was before 1996, when Midtown Direct service from the M&E to Penn Station began; except the new riders that direct service to Penn Station had attracted were commuting to Hoboken, too. NJT ran four early-morning trains into Penn Station; all arriving before 7:00. For the rest of the day, all inbound trains went to Hoboken. For the entire day, all outbound trains left from Hoboken. Other lines kept their full access to Penn Station, a situation about which this writer and other advocates complained. Weekend service was not affected.

It was not as bad as many had feared. Based on expected ridership numbers, we did not expect that the planned PATH service could handle the additional Hoboken commuters at the peak arrival time in the morning. While the PATH trains were very crowded, they managed to move all the regular Hoboken riders, along with the temporary ones. The ferries provided extra capacity, and many riders said they enjoyed the ferry ride as part of a "civilized" commute. Whether they will continue to enjoy it when the weather gets cold and they have to pay a fare is another question.

Even though the M&E Line was the most profoundly affected, there were residual effects that stretched to Long Island. Because several tracks at Penn Station were out of service, NJT and Amtrak needed to use some (high-numbered) tracks normally reserved for the LIRR, which forced some Long Island commuters to go to Brooklyn or Hunterspoint Avenue in Queens, instead. New York's Metropolitan Transportation Authority (MTA), which owns the LIRR, prepared for the changes.

Mark Epstein, a lawyer who commutes from Long Island to his Manhattan office, is the Chair of the Long Island Rail Road Commuters' Council. He sounded a cautionary note, telling this writer: "Our tracks, signals and switches haven't been worked on, so we expect the same commute in September that we had in May." At this writing, Amtrak definitely plans to complete the work by Sept. 1 and return to normal operation. New Jersey riders also wonder if their commute will be any better after Labor Day, when the track work is completed, at least for this year. There have been unofficial reports that there will be another service disruption next summer, too, as more track work will be needed.

If anyone drew praise, it was the riders, who had to endure the service changes through much of July and all of August. Epstein said: "I give the tip of the hat to the riders" of Long Island. NJT Executive Director Steven H. Santoro praised NJT's riders for being "very, very patient" during the summer. The advocates who were present agreed.

It was a difficult summer for riders, especially on the Morris & Essex Line. It could have been better for the riders if NJT had brought the riders' advocates into the planning process, but the feared "Summer from Hell" did not materialize. Perhaps Dante would have placed it in Purgatory, instead.

First "Coffee and Commuting" Outreach Efforts A Success

By WILLIAM D. RUSSIELLO

The Lackawanna Coalition held its first "Coffee & Commuting" outreach to the riders at the Short Hills station on Thursday morning, August 17, between 6:00 and 8:45. Under clear skies, hundreds of commuters were introduced to the rail advocacy organization as six members handed out literature explaining the activities and goals of the group. The Short Hills riders are sophisticated business people, often working in high tech industries, and they seemed genuinely interested in the information that was offered.

The goal is to introduce the Lackawanna Coalition to the public in a friendly, neighborly way by offering a cup of coffee. There were a dozen new sign-ups for the group's e-mail notifications, three membership renewals and two new members who signed up on the spot. There are plans for other coffee & commuting outreaches at other rail stations soon. We thank the dedicated members who organized the event: David Peter Alan (LC Chair) Sally Gellert, Simon Drake, Tim Sevenser, Gary Kazin and this writer. A second session at South Orange on August 29 also brought two new members and about 30 e-mail notification sign-ups.

A more detailed account of the Short Hills session by Sally Gellert is posted on the Coalition's website, www.lackawannacoalition.org. Also, be sure to check the website for announcements of future "Coffee and Commuting" sessions. *(Newsletter continues on reverse)*

HELP MAKE A DIFFERENCE!

Come to a Lackawanna Coalition meeting!

Fourth Monday of the month (except holidays), 7:00 p.m., Millburn Town Hall. Next meetings: Sept. 25 and Oct. 23.

Report From The Chair

By DAVID PETER ALAN, Chair

It was a difficult summer for our riders on the Morris & Essex Line and Gladstone Branch, but it could have been worse. NJ Transit had a good plan, and they implemented it well. We praised them for that, but things could have been better if they had allowed us, as the representatives of the displaced riders, to participate in the planning and implementation of the summer service plan.

Before the plan was implemented, advocates and elected leaders complained that they were not fully informed about it. This writer made that complaint at the May 31 Legislative hearing. So did the mayors of seven towns along the M&E Line, as well as several state legislators. Nonetheless, NJT maintained strict secrecy until the plan was actually implemented; an action that prompted this writer and other commentators to say that we expected a chaotic scene when the summer schedule went into effect.

We expected a more-difficult summer than we had, mainly because of NJT's total secrecy about their plan. Had we known the specifics of that plan before it was implemented, we could have been reassured that they had a good plan, and we could have suggested changes that would have made the summer even better (or, at least, less difficult) for our constituents.

We had specific suggestions, and we proposed them to NJ Transit managers. Unfortunately, because of the secrecy with which the plans were formulated and implemented, those managers considered it too late to implement those suggestions, so they ended up falling on deaf ears.

The secrecy with which NJT operates is strongly adversarial to the interests of its riders. It would not have been difficult or expensive for management to trust us or the area's elected representatives enough to consult us while they planned for the summer. Had they been more trusting and less secretive, the summer would have been less onerous for our riders, and management would have drawn extra praise for caring enough about the representatives of the riders to include us in its decision-making process.

We will continue to fight the culture of secrecy at NJ Transit in our statements, in our legislative efforts, and every other way we can. We ask you to join us in this campaign. Until managers at NJ Transit start caring about your representatives, including us, they will not start caring about you, either.

NJT Has No Plans To Give Customers Access to Moynihan Train Hall

By JOSEPH M. CLIFT

If you enter NY Penn Station's (NYP) newly expanded and extended West End Concourse (WEC), built under the steps of the Farley Post Office building on the west side of Eighth Avenue, you will see not a single clue that most NJT trains—those on Tracks 5-16—can be reached from this wonderful facility, which provides excellent 8th Avenue subway and Far West Midtown access. Nor is there even a single clue planned regarding NJT train service in New York State's grand \$1.6 billion Moynihan Train Hall, located just west of the WEC in the re-purposed Farley mail-sorting room (scheduled to open in late 2020, it is designed for "celebrating arrivals" with its high glass ceiling).

That's because NJT management has steadfastly refused to undertake a project proposed repeatedly by advocates (including a May 22d resolution by the Coalition) that was a 2004 Early Action item of the Access to the Region's Core (ARC) project and is a critical element of the Gateway project. That project is the extension of NYP Platforms 1 and 2 (which serve Tracks 1 through 4) to the newly extended WEC and related track switching improvements. Without these improvements, trains on these four tracks cannot be reached from the WEC. To solve the problem of an NJT customer waiting for a train that ends up departing from one of these inaccessible tracks, the

Empire State Development Corporation (ESDC), New York State's economic development agency and WEC and Train Hall developer, elected never to mention NJT or its trains on the WEC train departure boards and way-finding signage, and plans to do the same in the Train Hall.

In fact, ESDC renderings of the Hall depict Amtrak and LIRR waiting rooms, ticketing and information facilities, way-finding signage and departing train information on large digital displays, but without a single mention of NJT in the entire facility. The lack of access from the Hall to Tracks 1-4 will also deny NJT customers use of the 50% increase in NYP waiting space provided by the Hall, a huge benefit during evening rush hour service disruptions.

In his August 25 *nj.com* and *Star-Ledger* article headlined "Official: NJ Needs a Voice in Plans to Revamp Penn Station," Larry Higgs quoted Coalition Chair David Peter Alan: "Extending tracks gives commuters access to the full [Moynihan] facility. For commuters, it means getting into Penn Station faster and getting on and off [trains] faster. NJ Transit could run any train to any platform." He also referenced this writer, who is also a Coalition member: "NJ Transit board members were asked by Joe Clift in July to allocate \$10 million to design the track and platform extension. It would be a huge increase in waiting space. There is a benefit to having all tracks accessible."

No design funds were allocated, which constitutes the most recent refusal by NJT. Higgs reported NJT officials instead are working on a different plan that would extend the LIRR's Central Corridor in NYP, which would not solve the problem of Tracks 1-4 not having access to the WEC or the Train Hall. He referred to Nancy Snyder, NJT spokeswoman: "The agency investigated extending the four tracks and platforms in 2007 and found it would have cost around \$200 million, was too complex and provided little benefit to riders" Snyder said. Higgs' article continued: "That proposal 'posed significant engineering and design challenges and requires extensive and difficult modifications to the railroad's infrastructure,' she said."

The platform extensions and related track switching improvements will have to be undertaken at some point, as they are a necessary element of the Gateway project. Why not undertake them immediately, in time to demand full Hall access and facilities for NJT customers? We hope NJT management will change their minds quickly & get on board the Moynihan Train Hall train, before it leaves the station.

Railgram

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Coming Attractions for Meeting Presentations

We invite you to come to our meetings, which take place on the fourth Monday of the month at 7:00 at Millburn Town Hall. On Sept. 25, our presenter will be Robert Lavell, Vice-President and General Manager for Rail Operations at NJ Transit. He will give us an update on NJT Rail and answer your questions. On Oct. 23, we will feature a presentation by Samuel Turvey, Chair of the Steering Committee to Reconstruct Penn Station. He means the beautiful, original 1910-vintage Penn Station, which he believes is a feasible project. There is always something interesting at the Coalition!

RUN to New York on Oct. 14

The Rail Users' Network (RUN) will hold its annual Fall meeting on Saturday afternoon, Oct. 14 from 1:30 to 4:30 next door to MTA Headquarters in Lower Manhattan. The event will include a Customer Forum with an opportunity for you to make comments to and ask question of regional transit leaders, including from NJ Transit. Admission is free. To learn more, check the RUN website, www.railusers.net.

"HOBOKEN SUMMER" SURVIVAL GUIDE

We know this will be a difficult summer for many of you who ride the Morris & Essex Line, especially if you ride "Midtown Direct" trains to New York Penn Station. You will need to get used to riding to and from Hoboken, as everybody did until 1996. If you normally ride to Hoboken, you and your fellow Hoboken "regulars" will be joined by thousands of temporary riders who normally go to New York.

So we have prepared this guide with some tips to make your summer travel as painless as possible.

The service changes will occur only on weekdays. Weekend service will NOT be affected. If you have a monthly or weekly ticket to Hoboken, it will be honored to New York on weekend trains. If you are an occasional rider with a single-trip ticket, you must pay the regular New York fare. Seniors and persons with disabilities will be entitled to ride for reduced fares, as always.

The rest of the information in this document applies to weekday service only.

Four trains that arrive before 7:00 in the morning will still go to Penn Station, but no trains on the Morris & Essex Line will leave New York directly. All inbound trains arriving after 7:00 will go to Hoboken, and all outbound trains will leave from Hoboken.

If you are not familiar with Hoboken Terminal, you should know where to find the various transit services offered there. The terminal itself is a historic structure, built by the Lackawanna Railroad in 1907. It is a stub-end terminal, so when trains come to a stop, you will be facing the terminal building. To the right as you exit the train are the higher-numbered tracks and the light-rail line that goes to Jersey City, Bayonne and other places in Hudson County. To the left are the lower-numbered tracks. If you walk toward the left on the concourse between the building and the tracks, you will find a stairway down to the PATH trains. We expect that an attendant will be positioned at the bottom of the stairs to let you into the PATH system when you show your ticket. The terminal building itself (known in railroad parlance as the "head house") contains the historic waiting room, where you can wait until your train is ready for boarding. There are rest rooms located off the waiting room. Beyond the waiting room are the ferry slips. Be prepared to show the attendant your ticket as you board the ferry. If you are taking the #126 bus to Port Authority Bus Terminal, walk to the left from the train and turn left at the end of the concourse. You will pass some food stands on your right and come to an exit to the outside. Go through that exit and turn left. The bus terminal will be ahead of you.

PATH trains may be extremely crowded, especially during the busiest part of the morning peak commuting time, between 7:30 and 8:30. If you can use a ferry or a bus to get to New York during that time, you may wish to consider those alternatives. There will be more PATH trains at peak commuting times than under normal operation, but we are not sure that the proposed service will have enough capacity to accommodate the regular riders and the additional riders, too.

Be sure to allow plenty of time for your trip. You may not get onto the first PATH train from Hoboken. The bus from Hoboken to the Port Authority Bus Terminal (the #126) takes longer than PATH, and the ferries may take even longer. PATH is scheduled to take 14 minutes from Hoboken to 33d Street, and the #126 bus is scheduled to take 26 minutes to get to the Port Authority Bus Terminal. If the Lincoln Tunnel is crowded with buses, it could take longer. There will be a special ferry route between Hoboken and West 39th Street during peak commuting times, but that trip also requires a shuttle bus from the dock. Ferries are scheduled to take eight minutes to cross the river, but you will need a shuttle bus to reach your destination. Your total time will depend on where you need to go in Manhattan, and whether you need to use a bus, ferry-bus connection, or subway to reach your goal.

If you take PATH, you will probably enter the platform at the back of the train. We suggest that you walk as far forward as you can before you board the train. The south exit of the 33rd Street station is closed for long-term renovations, so you will have to walk to the front of the train to exit the station. The same advice holds when you get on at 33d Street. You will show your ticket to an attendant and enter the station at the back of the train. The closer you get to the front, the closer you will be to the station in Hoboken when you get off.

Be careful about fares. Some Montclair trains can take you between Broad Street Station in Newark and Penn Station New York, but not during

commuting hours. You will also need to pay a New York fare. Single-trip riders to or from New York on weekends will, also.

Hoboken fares are discounted approximately 50% during the service change, which includes monthly passes for July. These tickets will be honored on the early-morning trains into Penn Station and, monthly tickets will be valid to Penn Station for the first week of July. If you have a Hoboken ticket, you can ride into New York on the #126 bus from Hoboken, PATH or the ferries going to 39th Street or the World Financial Center. Returning to Hoboken, PATH will only honor Hoboken tickets for riders who board at 33d Street or the World Trade Center stations; not Newark Penn Station or intermediate stops on the "uptown" PATH line to 33d Street.

There will be extra buses during morning peak travel hours from Newark Penn Station, South Orange, Maplewood and Summit into New York. The #107 from South Orange and #108 from Newark Penn Station are operated by NJ Transit. Buses from Maplewood, Summit and Broad Street Station in Newark are contracted commercial buses that will run into New York between 7:00 and 9:00 in the morning, but there will be no "return" service. NJ Transit tickets will also be honored on DeCamp buses in the Montclair area, Lakeland buses in Morris County, and Community Coach in Morristown. NJ Transit also says that Hoboken tickets will be honored. Some towns have discussed chartering buses for their residents, but those buses would require a separate fare. We suggest that you check with your town to find out if they have one.

If you are expecting your ticket to be honored on a bus, ferry or PATH train, you may choose to purchase a "paper" ticket, which can be easily displayed to the bus driver or fare-checker. Commuters normally keep their tickets with them. If you are a single-trip riders, make sure that the conductor gives it back to you. You will need it for PATH, the #126 bus, or the ferry. We suggest that you purchase a round-trip ticket in advance, so you will have it to for the Manhattan link to Hoboken, whichever mode you choose to take. If you use PATH, there will be an attendant at the turnstile near the back of the train to inspect your ticket and let you in. We have not been informed that any other entrances will be covered that way, so we suggest that you go down the stairs from the concourse.

If you are riding during midday or in the evening, be sure to check the PATH connecting times, which are shown on the other side of the paper schedule from the weekday trains, to the right of the fare chart. PATH does not run very frequently, especially in the late evening, so you may have to leave Manhattan earlier than usual to catch your train at Hoboken. The worst case is the last train on the M&E Line, which previously left Penn Station at 12:56. It will leave Hoboken at 12:59, but you must leave the PATH 33rd Street station no later than 12:10; 49 minutes earlier. You can also take the last Montclair train, leaving at 12:34 and have a 22-minute wait at Newark for the M&E train. That alternative is slated to require a New York fare, however.

For more information from NJ Transit, go to [www.njtransit-theupdate.com/morris-essex-line-rider-guide](http://www.njtransit-theup-date.com/morris-essex-line-rider-guide) to find links to the PATH and NY Waterway ferry websites, along with information about extra bus service during the period. Schedules and operations are always subject to change, though. There is also a place to click on the front page of the NJT web site, www.njtransit.com, for this information.

If you can take some extra vacation time or work from home more often this summer, that might be a good idea. The Morris & Essex Line has many more riders today than when everybody rode to Hoboken, before June 1996.

We urge you to check our website, www.lackawannacoalition.org. We will do the best we can to keep you informed of any changes, and to advise you about how to make the summer as painless as possible.

We also urge you to join the Lackawanna Coalition and help us advocate for better transit in our region. We meet on the fourth Monday of every month (unless a holiday forces us to change the meeting date) at 7:00 at Millburn Town Hall. To learn more, check our website, www.lackawannacoalition.org. You do not need to be an expert on rail operations or on transit. We can help you to learn what you need to know. We are civic-minded volunteers who are familiar with our railroad and New Jersey Transit, and we have advocated for better rail transit on our lines since 1979. We hope you will come to a meeting and meet us, and we hope you will join us.

Good luck this summer, from the Lackawanna Coalition!

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Lackawanna Coalition

July/August 2017

*...An independent organization
advocating for better transit*

RAILGRAM

The Hoboken Commute Returns This Summer for Everyone: What You Need to Know

By JOHN BOBSIN and DAVID PETER ALAN

When NJ Transit began "Midtown Direct" service on the Morris & Essex, Montclair and Gladstone lines in 1996, it was enormously popular from the start, and it remains so. While some riders on our lines still ride to Hoboken, many grabbed the opportunity to ride directly to Penn Station, New York. This summer, those riders will again ride to Hoboken as the old service pattern returns for eight weeks. For the past 21 years, we have strongly supported our riders having the choice of going to Penn Station, or going to Hoboken and taking advantage of the transit options there. This summer, though, many of our riders will not have the option of their regular trip to Penn Station and back.

From July 10 to August 31, Amtrak will be working on the tracks at New York Penn Station, and has required NJ Transit to reduce peak-hour trains by more than 25%. The burden of service changes will fall on riders on the Morris & Essex lines: almost all weekday trains running to and from New York will be diverted to Hoboken. Temporary schedules are available at stations in paper form, and can be downloaded from NJT's website, www.njtransit.com; click on Schedules & Fares, then Train, then scroll down to Upcoming PDF Schedules. NJT has announced a number of alternatives for affected riders to reach their destinations, but skepticism abounds about how well this will work out.

The changes apply only on weekdays. Weekend service will NOT be affected. Neither will fare for single-trip riders those days. NJT will still run the regular M&E "Midtown Direct" schedules on weekends, and New York fares will apply for single-trip riders.

In the temporary schedules, all weekday Morristown and Gladstone Line trains to and from New York Penn will be rerouted to Hoboken, with the exception of four very early inbound trains, arriving in New York before 7:00 a.m. Montclair-Boonton Line trains to New York will continue to run there, but during extended peak hours (including until 9:30 p.m.) they will not stop at Newark Broad Street, so they will be unavailable to M&E riders seeking to transfer. The remaining New York trains may, however, be the most convenient way to travel at certain times; particularly outbound late at night.

A number of connecting and alternative services have been announced; on most of them, NJT riders holding valid tickets (passes and single-trip) can use the other services at no extra cost. These include PATH at Hoboken, 33rd St., and World Trade Center; NJT's #126 bus at Hoboken, #108 from Newark Broad St., and #107 from South Orange; and DeCamp (Montclair area), Lakeland (Dover area),

and Community Coach (Morristown) bus lines. The extra buses from Newark and South Orange will run during morning-peak only, and there will be temporary bus service during those hours from Summit, Maplewood and Broad Street Station in Newark to Port Authority Bus Terminal in New York. NJT tickets will also be honored on the regular New York Waterways weekday ferry services between Hoboken and World Financial Center and Wall St./Pier 11, and a special service will operate between Hoboken and West 39th St. from 7 to 10 a.m. and 4 to 8 p.m. All these ferries will be free for Hoboken NJT ticketholders. Weekly and monthly passes will also be honored on the Light Rail between Newark Broad Street and Newark Penn stations, although it appears that single-trip tickets may not be valid. In any case, riders continuing to New York Penn from Newark Penn will need New York tickets.

As you probably know, PATH is increasing service on the line between Hoboken and 33rd Street in Manhattan during peak commuting hours. Trains normally run every seven minutes, but they will run every five minutes "for the duration." We have calculated that PATH can only hold about half of the additional Hoboken riders during the busiest part of the morning peak-commuting time, so you may wish to use an alternate means to get to Manhattan. There will be extra ferries, including a temporary route to West 39th Street. That also requires a shuttle bus in Midtown. There will also be more service on the #126 bus between Hoboken and Port Authority Bus Terminal, but the bus will also be slower than PATH. However you go to Manhattan, be sure to allow plenty of extra time for the trip.

If you do take PATH, there may not be room for you if you arrive at Hoboken between 7:30 and 8:30 in the morning. So you might want to adjust your commuting schedule. If you get on at the back of the PATH train at Hoboken, you should know that the exit at the back of the train at 30th Street is closed for renovations. So you will need to walk to the front of the train to exit the PATH system.

You will need to allow extra time for PATH, as well. NJ Transit lists connecting times on M&E schedules, but it is difficult to read them in the timetable format. So be careful to get to PATH early enough to make your connection. This is especially important outside peak commuting hours, when PATH does not run frequently. If you plan on taking the last train that normally leaves Penn Station at 12:56, you will need to leave the 33rd Street PATH station no later than 12:10; 46 minutes earlier!

You probably know that PATH (at Hoboken, 33rd Street and the World Trade Center stations), ferries and some buses (NJT from Summit, Maplewood, South Orange and Newark, as well as some buses operated by private companies) are honoring NJ Transit tickets reading to and from Hoboken. You will need to show a ticket to an attendant or a bus driver, though. We suggest that you buy and keep a "paper" ticket, rather than using your smart phone. Many commuters buy tangible tickets, and we suggest that "single-trip riders" do the same.

(Article continues on reverse side)

HELP MAKE A DIFFERENCE!

Come to a Lackawanna Coalition meeting!

Fourth Monday of the month (except holidays), 7:00 p.m., Millburn Town Hall. Next meetings: July 24 and August 28.

Hoboken Commute Returns *(Continued from reverse side)*

If you normally travel to Newark from points west of Summit (mostly Morris County points), the Hoboken fare will be lower than the Newark fare this summer. Go ahead and ride to and from Newark on a Hoboken ticket. NJ Transit has told us that they expect some Hoboken tickets will be used for rides to and from Newark.

Your town may charter a special bus for commuters who are displaced by the changes this summer. Morristown has done that. Check your town's website to see if there is one. You will probably be required to pay a separate fare, though. NJT will add peak-hour buses on the #107 route from South Orange and the #108 route from Penn Station, Newark; both to the Port Authority. There will be temporary routes from Summit and Maplewood, too. NJT has also announced special buses from Broad Street Station in Newark to the Port Authority Bus Terminal as well.

To compensate riders for the inconvenience and extended travel times, NJT is cutting fares to Hoboken from M&E points by approximately 50% in July and August. Monthly and weekly pass users should buy their passes to Hoboken for this period. On weekends, regular service will operate; weekly and monthly passholders can use their Hoboken passes to reach New York on weekdays, but single-trip riders (regular and reduced fares) will have to buy New York tickets to travel to New York Penn. On weekdays outside of peak hours, it will often be possible to reach New York Penn by connecting at Newark Broad St. to Montclair-Boonton line New York trains, but tickets reading "New York" will be required.

Be sure to check our website, www.lackawannacoalition.org, regularly. That is where we will do what we can to bring you up-to-date information about what you can do to reduce your transit-riding pain this summer as much as possible. We will also feature a Survival Guide for the summer on the site, and we will update it as best we can.

Report From The Chair

By DAVID PETER ALAN, Chair

This will be a difficult summer for many of you, the riders of the Morris & Essex and Gladstone Lines. It is not just that New Jersey Transit is turning back the clock and forcing us to settle for the "Midtown Indirect" service we all had before 1996, but the secrecy that management observed and their "take-it-or-leave-it" approach constitutes a deliberate blow to our efforts to represent you and campaign effectively for better transit in our region.

We understand why NJT management specifically selected our trains as the ones that will be forced to vacate Penn Station in New York for 40 weekdays. We have Hoboken while other lines, except Montclair, do not. Having Hoboken for the people who want it and as a back-up terminal for riders who would prefer to go to Penn Station sets our railroad apart from others in the NJT system. We have a choice, and we have a back-up. We also understand that the track work that Amtrak will be doing at Penn Station is necessary. Amtrak has neglected Penn Station for too long, and it is falling apart.

Still, the way that NJ Transit management decided how most of the riders on our line will be forced to change their riding routine is indefensible. Their attitude was one of "we will let you know when we want you to know" and that is exactly what they did. There was no effort to adjust schedules to make the trip easier for the riders, except that there will still be a few trains arriving at Penn Station before 7:00 in the morning, although all riders must return home through Hoboken. We are also not convinced that the additional service on PATH and other carriers will be sufficient to accommodate all of the temporary Hoboken commuters who will join the "regular" Hoboken riders this summer.

It is not only traditional commuters who will suffer. The last train will leave Hoboken at 12:59 a.m.; three minutes later than its normal departure time from Penn Station. However, because of the PATH schedule in effect at night, riders must leave the 33rd Street PATH station

by 12:10, 49 MINUTES EARLIER! Forcing riders to leave the City that much earlier is outrageous, and demonstrates reckless disregard for our constituents. We have asked management to reschedule that train to leave Hoboken at 1:06, so riders can catch PATH at 12:45, and to have the last Montclair train leave Penn Station later.

We are not the only people who have complained about the secrecy during this process. So have a number of legislators, as well as the mayors of seven of the towns along the M&E Line. Transit management heard all these complaints, including ours, at a legislative hearing on May 31. This process has not become any more transparent since then.

The Long Island Rail Road has made service adjustments to accommodate the track work, too. In contrast to NJ Transit, the LIRR discussed possibilities with several stakeholders before announcing the changes the railroad would make. NJ Transit would have been wise to do the same. We could have helped, too. Maybe we could even have persuaded NJ Transit to run more trains into Penn Station!

Railgram

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A Historic Moment at New Jersey Transit As Board Member Votes "NO" on Two Issues

By DAVID PETER ALAN

Since April, 2003, no member of New Jersey Transit's Board of Directors has ever voted "NO" on an "agenda item" before the Board. This perfect record of the Board as a body that unanimously approved everything before it lasted for over 14 years, except for Commissioner Richard Hammer's objection to a personal injury settlement when he first took the post late in 2015. That unbroken streak of unanimity prompted the Coalition and other advocates to criticize the NJT Board as a "rubber stamp" and call for reform.

Veteran Board member Flora Castillo broke that streak at the Board's regularly scheduled meeting on June 14. She voted against two items. One would have authorized over \$10 million for boiler and terminal repairs at Hoboken, and the other was an increase in spending of \$2,750,000 on a contract concerning power substations. Castillo abstained on a third item. Coalition member Joseph M. Clift told the *Railgram* that he stated at a Board committee meeting that the items in question should have been sent out for competitive bidding, and speculated that Castillo's actions might have been related to his expression of that concern.

We strongly commend Flora Castillo for exercising independent judgment by breaking the 14-year streak of unanimous approval of every agenda item. For many years, we have called for robust discussion of issues that concern us as riders on NJ Transit, and for transparency by the NJ Transit Board and management, so we will be recognized as having a stake in the mobility that NJ Transit offers us. We sincerely hope that these two dissenting votes will be the first step toward that transparency and that recognition.

Coming Attractions for Meeting Presentations

Commuting will be different for many of our constituents this summer, but we will still have our presentations at Lackawanna Coalition meetings. On July 24, member William D. Russiello will propose an idea for reaching out to commuters on a personal level, which he calls "Coffee and Commuting." Our presenter on August 28 will be James Greller, a veteran transportation planner, who will explain his proposal for extending the "L" subway line west from 14th Street in Manhattan to Secaucus, for connections with NJ Transit. Our meetings take place on the fourth Monday of the month at 7:00 at Millburn Town Hall. We look forward to seeing you and hope you will join us.

Testimony of Steven Santoro
Executive Director, NJ TRANSIT
Joint Legislative Oversight Committee

September 25, 2017

- Good afternoon, Chairmen and members of the Committees.
- I am pleased to be with you today to update you and answer your questions about NJ Transit's participation in the Gateway Program.
- At the Committee's request, I will also discuss our progress developing the Northern Branch extension of the Hudson Bergen Light Rail Line, and the West Side/Route 440 extension of the HBLR in Jersey City, and the 24-hour track outage on the Morris and Essex line that occurred last week for the repair of a damaged retaining wall in Summit, NJ.
- And I will also update you on the report published last week by the National Transportation Safety Board, the "NTSB", regarding the accident that occurred in Hoboken last September.

The Gateway Program

- As you heard this morning, the Gateway Program is a series of projects to modernize and improve a vital section of the Northeast Corridor between Newark and New York.
- What's known as Phase One of the Program includes the construction of two new rail tunnels beneath the Hudson River, the rehabilitation of the existing rail tunnels that were badly damaged during Superstorm Sandy, and the replacement of the Portal Bridge that carries the Northeast Corridor over the Hackensack River.
- These projects are intended to maintain the existing rail capacity from Penn Station Newark to Penn Station New York.
- Phase Two includes projects that are intended to increase rail capacity, and include the expansion of Penn Station New York, the construction of a second Portal Bridge, known as the Portal *South* Bridge, and the expansion of the Northeast Corridor between Newark and Secaucus to four tracks.
- NJ Transit has been working closely with its partner agencies, Amtrak, the Port Authority of New York and New Jersey and the Gateway Development Corporation, in the development of these projects.

The Portal North Bridge Replacement Project

- The Portal North Bridge Replacement Project is fully designed and fully permitted. The FTA issued the Record of Decision, completing the NEPA process in June. Initial construction known

as "Early Action" will commence next month, and the beginning of full construction coming in 2018.

- The Portal Bridge has been a frequent cause of delays for NJ TRANSIT customers on the Corridor, and next month we will begin Early Action, which will set the foundation for the replacement of this outmoded 107-year-old structure.
- This Early Action work includes moving high-voltage utility lines, fiber optic line relocation, and building a finger pier and retaining wall to support construction.

The Hudson Tunnel Project

- With respect to the Hudson Tunnel Project, NJ TRANSIT and the Federal Railroad Administration are developing the Environmental Impact Statement, the "EIS", and we anticipate finalizing the EIS by early 2018, or even a bit sooner.
- This schedule will mean the Hudson Tunnel EIS will have been completed in just 24 months. That is about HALF the typical time for such an extensive effort. NJ TRANSIT is working collaboratively with the Federal Railroad Administration on this important project.
- As part of the development of the EIS, last month three public hearings on the Tunnel Project were held to ensure the public is informed about and had an opportunity to comment upon the project and its impacts.
- The comments received during those hearings are being reviewed and addressed in the development of the Final EIS.
- While this effort is taking place, NJ Transit and its partner agencies, have submitted applications to the USDOT for federal funding for both the Hudson Tunnel Project and the Portal North Bridge Replacement Project.
- Simultaneously, as Mr. Porcari mentioned, the Gateway Development Corporation is pursuing private sector input on innovative approaches to project construction and financing.

Light Rail Expansion Projects

- As requested by the Committees, let me turn now to other important projects.
- An environmental hearing on the Northern Branch extension for the Hudson Bergen Light Rail was held earlier this year in Englewood, and we expect that the Federal Transit Administration may issue a Final Environmental Impact Statement for the project before the end of this year.

- In the meantime, we are moving ahead with preliminary design, work that has been funded by the Transportation Trust Fund.
- In Jersey City, the West Side Extension of the HBLR to Route 440 has already obtained environmental approval, so we are progressing design and engineering there, too. This project will facilitate the extensive redevelopment taking place in that part of the city.
- We are assisting the Delaware River Port Authority, as it progresses the environmental review for the Glassboro-Camden Light Rail line.
- The northern terminus of this line will be in downtown Camden, enabling customers to transfer to our River Line light rail service, as well as PATCO and numerous bus lines, and furthering the economic development that is taking place in Camden's downtown.
- And one final initiative is revisiting the feasibility of the Passaic-Bergen system that could eventually connect to the HBLR Northern Branch extension.
- The Capital Plan includes funding for engineering work for the Northern Branch and West Side/Route 440 extensions of the HBLR. And next month the NJ TRANSIT Board of Directors will consider an additional \$3.5 million to continue the environmental work FOR the Gloucester Camden Line.

National Transportation Safety Board

- At this point, let me brief you as best I can on the factual report issued by the National Transportation Safety Board last week regarding the accident that occurred at Hoboken Terminal last September.
- The NTSB investigation continues and under NTSB rules NJ TRANSIT is strictly prohibited from commenting on any aspect of the investigation, including the cause or potential cause of the accident.
- The NTSB has advised us that it anticipates addressing the probable cause of the accident at its Board meeting in February 2018.
- NJ Transit is not prohibited from talking about the steps it's taken since the accident to advance safety on the rails.
- Please allow me to briefly note the steps we've taken with respect to sleep apnea screening, Positive Train Control implementation, bumper block replacement and other safety measures.

Sleep Apnea Screening

- In October 2016, we immediately removed from service any rail employee in a safety sensitive position who meets screening criteria for symptoms of obstructive sleep apnea (OSA) during their federally-mandated physical exam, pending a doctor's diagnosis.

- Employees are not returned to work until either they receive a negative finding for OSA from their doctor or, if they are diagnosed with OSA, proof of compliance with a treatment plan. This measure was formalized as policy in April 2017.
- To date, 350 of 370 engineers have been screened for sleep apnea. By the end of this month, ALL active locomotive engineers will have been tested for sleep apnea.
- We believe this protocol that immediately removes from service employees in safety sensitive positions following a positive screening for OSA is the most stringent in the region and perhaps in the nation.

Bumper Blocks

- Following the accident, we retained a consultant with expertise in bumper blocks to conduct a detailed inspection of all of the bumper blocks in Hoboken Terminal and provide a recommendation for the type of bumper block to replace the damaged block on Track 5.
- Based on the consultant's advice, we are replacing, not only the damaged block, but all of the bumper blocks at Hoboken Terminal, the Atlantic City Rail Terminal and the Meadowlands Rail Station – all stub end stations – with a sliding friction bumper block that more effectively absorbs energy.
- In addition, NJ TRANSIT is advancing the concept of implementing a speed enforcement system for trains approaching the platforms at Hoboken Terminal.

Positive Train Control

- I've previously testified about our implementation of Positive Train Control or "PTC" systems on the railroad. Let me assure you, we remain laser-focused on PTC.
- First, we continue to have every expectation that we will meet the federal implementation deadline, as I have previously testified.
- The Committees should know that we are holding our prime contractor, Parsons Transportation Group, accountable. At our insistence, Parsons provided us a letter outlining a PTC recovery plan on August 31, 2017.
- That recovery plan – showing how it will accelerate work to make up time - followed a critical meeting in August attended by me, Commissioner Hammer, the president of Parsons North America and others.
- NJ TRANSIT continues to meet regularly with Parsons regarding its recovery efforts, and we are closely monitoring Parsons' steps to implement its recovery efforts, reviewing and analyzing the information submitted by Parsons regarding its recovery plan, and seeking additional information and details where necessary.

- Let me assure the Committees that we will continue this close scrutiny of the contractor to get PTC on track and keep it that way through completion.
- June 30 just closed the most recent FRA reporting period and we were able to report the following progress:
 - We had targeted the installation of 12 radio towers, but were able to complete installation of 19 radio towers (of 124 total).
 - The new PTC system is complex and will require comprehensive employee training. We have trained to date 69 employees (our target for this period was 22 employees) (of 1,100 total).
 - We have installed substantial lengths of fiber optic cable necessary to support PTC operations, and designs of transponder networks continue at an accelerated pace.
 - And we worked with the Federal Communications Commission to and have completed the acquisition of radio spectrum necessary to implement the project.
- I want to be perfectly clear: this project has my Board's attention, my attention and the attention of my senior management team. I have directed that all the resources of NJ TRANSIT be brought to bear to ensure the project is successful.

Cameras and Other Safety Measures

- As additional safety measures, NJ TRANSIT has advanced the installation of forward and inward facing cameras on rail locomotives and cab control cars. To date, nearly 84 percent of trains now have forward facing cameras and more than 73 percent of the rail fleet has inward facing cameras, which are focused on the engineer's actions.
- NJ TRANSIT will complete installation of both types of cameras in the entire rail locomotive and cab car fleet by the end of this year.
- On the bus side, NJ TRANSIT will be equipping approximately 2,500 new and existing buses with a 360-degree camera system on the exterior of each bus to help eliminate blind spots and enhance pedestrian safety.
- Also, as an added safety measure, we now require the conductor to ride in the front cab of trains, along with the engineer, when entering stub-end terminals - this includes Hoboken, Penn Station New York, Atlantic City, Princeton, Gladstone and the Meadowlands.
- Also this past year, the New Jersey Transit Police Department worked with a number of federal, state and local law enforcement agencies and emergency responders, providing emergency response training for 750 first responders, and rail safety training for an additional 550 first responders.

- On the cyber front, we are proactively protecting our technology assets against hacking and unauthorized use with an established centralized security program.
- In fact, we created a dedicated cyber security team that implemented state-of-the-art procedures and technology to protect our information assets – and protect customer credit card information.
- The IT department has installed advanced firewall technology, intrusion detection and next-generation malware detection tools and systems to protect our network from external threats.
- By the end of this year NJ TRANSIT will complete the development of a Security Operations Center, providing a single point of contact for Incident Management and Cyber Security Monitoring and Operations.
- Beginning this fall all NJ TRANSIT network users will begin security awareness training, educating them about how to use technology in safe and secure ways – not only at work but in their personal lives as well.
- The cyber security team is also performing risk assessments of NJ TRANSIT technology vendors. Based on the outcome of this assessment, our technology vendors and suppliers will be audited against cyber-security standards on a regular interval.

Summit Retaining Wall

- Now, I would like to provide the Committees information on last week's Gladstone Branch service disruption.
- On two occasions, once on Tuesday evening and once on Wednesday morning, passengers reported hearing bangs on the sides of their trains as they passed through an area of Summit where the right-of-way is adjacent to a retaining wall.
- In both cases, train crews stopped the trains and inspected them. They found marks on the sides of some cars, and damage to a few rubber window gaskets. In both cases, crews reported the incidents to the dispatcher. The crews then determined the trains were safe to continue on their trips, which they did.
- Inspections of the area were immediately undertaken. The first inspection, on Tuesday evening, did not immediately indicate anything that would interfere with a train, and no other trains passing through the area that night reported any issues.
- Further inspections by both NJ TRANSIT and by an outside engineering consultant Wednesday morning revealed areas of loose concrete on the retaining wall. Service was then suspended on the track next to the wall, the Gladstone Branch track, and crews worked to remove loose material.
- When that removal work was done, the wall was inspected again, and then service on the Gladstone Branch resumed shortly after noon.
- The wall dates to 1902 and has been gradually deteriorating with age. A plan to repair the wall, without suspending Gladstone service for an extended period, has been in development. Design

for the first phase, which consists of moving a major track switch, is expected to be complete by the end of October.

- In the meantime, temporary work will continue to stabilize the concrete to prevent additional incidents.

Subpoenas and Document Productions

- Finally, let me very briefly update you on our response to the Committees' multiple requests for information. In the 11 months since I was appointed Executive Director, I have appeared before these Committees seven times, and we have responded in writing to more than 500 questions posed by the Committees.
- In addition, since November we have produced 26,825 pages of documents requested by the Committees, including over 2,400 pages we produced this past Friday.
- We are not done. NJ Transit continues to respond to additional questions posed by the Committees as recently as last week.
- And legal counsel is currently reviewing additional responsive documents requested in recent subpoenas. We anticipate being able to finalize our responses within the next few weeks.
- That demanding effort has occurred simultaneously as the men and women of NJ TRANSIT have provided more than 270 MILLION rail, bus, light rail and Access Link para-transit trips since last October.
- This has been accomplished while maintaining the best level of service possible during Amtrak's emergency summer repairs at Penn Station New York, in addition to meeting the daily challenges of providing service in the nation's most densely-populated state and region.
- NJ TRANSIT's top priority is to provide our customers with safe, reliable service every day.
- What has impressed me the most over these months and what has been the foundation of our success this past summer has been the dedication and loyalty our employees have shown our customers.
- We are a corporation of more than 11,000 dedicated and diverse men and women who pour their hearts and souls into their work each day.
- What I want the Committees to know is that each and every person wearing the NJ TRANSIT colors is counted on and contributes, whether serving as frontline employees who work directly with customers or whether posted in important behind-the-scenes roles to support the organization and our customers.
- This is a company that, by the very public nature of its 24/7 business, cannot and should not hide from its imperfections. I have always said that like any organization there are always ways that we can improve.

- Improvements to the way we operate don't occur overnight and I have also been open about that. Work needed to be done and that work continues.
- But we also must not lose sight of this: There is also so much for us to be proud of.
- Let me close by stressing that as we continue to adapt the transportation system to meet the needs of New Jersey, the one constant in all of the changes and all that we do is the effort and commitment of the hard working men and women of NJ TRANSIT.
- It's what keeps New Jersey moving now and well into the future, and I applaud them for what they do each and every day.
- Thank you. I'd be pleased to take your questions.



New Jersey Chamber of Commerce
216 West State Street, Trenton, NJ 08608
njchamber.com | (609) 989-7888
#NJChamberNow

July 31, 2017

Mr. RJ Palladino, AICP, PP
Senior Program Manager
NJ TRANSIT Capital Planning
One Penn Plaza East – 8th Floor
Newark, NJ 07105

Ms. Amishi Castelli, Ph.D.
Environmental Protection Specialist
Office of Railroad Policy & Development
USDOT Federal Railroad Administration
One Bowling Green, Suite 429
New York, NY 10004

Re: New Jersey Chamber of Commerce Supports the Hudson Tunnel Project

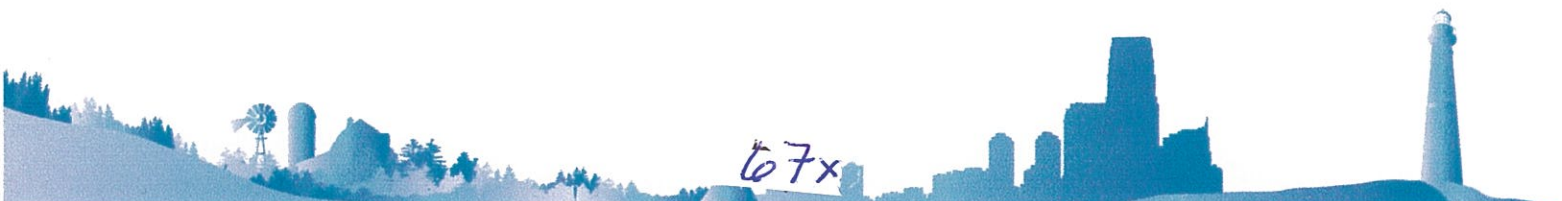
Dear Mr. Palladino & Ms. Castelli:

The New Jersey State Chamber of Commerce (State Chamber) supports the proposed Hudson Tunnel Project. Upon completion, the Hudson Tunnel Project will strengthen the vital Northeast Corridor rail line by providing commuters with a more reliable service from Amtrak and the NJ Transit Northeast Corridor Trains between New Jersey and New York Penn Station. Highlighted by the reconstruction of the damaged North River Tunnel, this project will improve the Northeast Corridor's efficiency and safety.

The Hudson Tunnel Project will have a positive impact on the New Jersey's business community and overall economic competitiveness. First, the project's construction will create new jobs that are vital to New Jersey's growth. Further, an improved rail system will improve the efficiency of NJ Transit and Amtrak Services, allowing workers to commute to and from work with greater ease. A more modern, efficient, and effective transportation system will give the region an edge in attracting talent, creating jobs, bringing in new businesses, and overall economic growth.

Together, these factors make New Jersey and the region as a whole a better place to do business.

Additionally, by building two new rail tubes to accommodate for the North River Tunnel's closure, the existing level of service will be maintained, relieving Amtrak and NJ Transit riders from being inconvenienced further during construction.



The State Chamber recognizes the need for this project and the value to come with its completion. The region's economic growth depends on a viable mass transit system and its ability to effectively transport commuters to their place of work.

For these reasons, the State Chamber strongly supports the construction of the Hudson Tunnel Project.

Thank you for considering our views regarding this important project.

Sincerely,

A handwritten signature in blue ink, appearing to read 'T. Bracken', written in a cursive style.

Thomas Bracken
President and Chief Executive Officer
New Jersey Chamber of Commerce

HBLR Funding

Project	MPO	Phase	Fund	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY18-22	FY23-27	Total
Delco Lead Safe Haven Storage and Re-inspection Facility Project (DBNUM: T907)											
	NJTPA	ERC	STATE				\$30.273		\$30.273	\$0.000	\$30.273
Environmental Compliance (DBNUM: T16)											
	DVRPC	ERC	STATE	\$0.805	\$1.092	\$0.690	\$0.690	\$0.690	\$3.967	\$3.450	\$7.417
	NJTPA	ERC	STATE	\$2.450	\$3.322	\$2.100	\$2.100	\$2.100	\$12.072	\$10.500	\$22.572
	SJTPO	ERC	STATE	\$0.245	\$0.332	\$0.210	\$0.210	\$0.210	\$1.207	\$1.050	\$2.257
High Speed Track Program (DBNUM: T43)											
	DVRPC	ERC	STATE	\$0.059	\$0.059	\$0.059	\$0.059	\$0.059	\$0.293	\$0.762	\$1.055
	NJTPA	ERC	STATE	\$0.929	\$0.929	\$0.929	\$0.929	\$0.929	\$4.645	\$12.077	\$16.722
	SJTPO	ERC	STATE	\$0.012	\$0.012	\$0.012	\$0.012	\$0.012	\$0.062	\$0.161	\$0.223
Hoboken Ferry Service Improvements (DBNUM: T702)											
	NJTPA	ERC	STATE	\$12.000					\$12.000	\$0.000	\$12.000
Hoboken Long Slip Flood Protection Project (DBNUM: T908)											
	NJTPA	ERC	OTHER	\$3.750	\$11.250				\$15.000	\$0.000	\$15.000
	NJTPA	ERC	STATE		\$1.225		\$13.701		\$14.926	\$0.000	\$14.926
Hudson-Bergen and Newark LRT System (DBNUM: T87) (440 ext)											
	NJTPA	ERC	DEMO	\$4.000	\$2.000				\$6.000	\$0.000	\$6.000
	NJTPA	ERC	STATE	\$7.005	\$7.005	\$7.005	\$7.005	\$7.005	\$35.025	\$35.025	\$70.050
Hudson-Bergen LRT Northern Extension (DBNUM: T301)											
	NJTPA	ERC	STATE	\$28.500	\$33.500	\$33.000			\$95.000	\$0.000	\$95.000
Immediate Action Program (DBNUM: T20)											
	DVRPC	ERC	STATE	\$3.609	\$3.056	\$3.495	\$2.853	\$2.760	\$15.773	\$27.362	\$43.135
	NJTPA	ERC	STATE	\$12.486	\$10.801	\$12.138	\$10.185	\$9.901	\$55.510	\$90.783	\$146.294
	SJTPO	ERC	STATE	\$1.088	\$0.919	\$1.053	\$0.857	\$0.829	\$4.746	\$8.273	\$13.019
Job Access and Reverse Commute Program (DBNUM: T199)											
	DVRPC	SWI	OPER	\$1.219	\$1.219	\$1.219	\$1.219	\$1.219	\$6.095	\$6.095	\$12.190
	NJTPA	SWI	OPER	\$3.710	\$3.710	\$3.710	\$3.710	\$3.710	\$18.550	\$18.550	\$37.100
	SJTPO	SWI	OPER	\$0.371	\$0.371	\$0.371	\$0.371	\$0.371	\$1.855	\$1.855	\$3.710
Lackawanna Cutoff MOS Project (DBNUM: T535)											
	NJTPA	ERC	SECT 5307	\$3.045	\$10.000	\$8.844			\$21.889	\$0.000	\$21.889
Light Rail Infrastructure Improvements (DBNUM: T95)											
	DVRPC	ERC	STATE	\$2.000	\$2.000	\$2.000	\$2.690	\$2.690	\$11.380	\$24.950	\$36.330
	NJTPA	ERC	STATE	\$4.225	\$2.275	\$2.275	\$4.375	\$4.375	\$17.525	\$56.875	\$74.400
	SJTPO	ERC	STATE				\$0.210	\$0.210	\$0.420	\$4.550	\$4.970
Locomotive Overhaul (DBNUM: T53E)											
	DVRPC	CAP	SECT 5337	\$0.993					\$0.993	\$0.000	\$0.993
	DVRPC	CAP	STATE	\$0.297	\$0.297	\$0.446	\$0.297	\$0.297	\$1.632	\$1.483	\$3.114
	NJTPA	CAP	SECT 5337	\$15.749					\$15.749	\$0.000	\$15.749
	NJTPA	CAP	STATE	\$4.701	\$4.701	\$7.063	\$4.701	\$4.701	\$25.866	\$23.504	\$49.370
	SJTPO	CAP	SECT 5337	\$0.210					\$0.210	\$0.000	\$0.210
	SJTPO	CAP	STATE	\$0.063	\$0.063	\$0.094	\$0.063	\$0.063	\$0.345	\$0.314	\$0.659
Lyndhurst Intermodal ADA Improvements (DBNUM: T610)											
	NJTPA	ERC	SECT 5307	\$5.883					\$5.883	\$0.000	\$5.883
Miscellaneous (DBNUM: T122)											
	DVRPC	ERC	STATE	\$1.791	\$1.265	\$1.035	\$0.713	\$0.115	\$4.919	\$0.575	\$5.494
	NJTPA	ERC	STATE	\$5.451	\$3.850	\$3.150	\$2.170	\$0.350	\$14.971	\$1.750	\$16.721
	SJTPO	ERC	STATE	\$0.545	\$0.385	\$0.315	\$0.217	\$0.035	\$1.497	\$0.175	\$1.672
NEC Elizabeth Intermodal Station Improvements (DBNUM: T600)											
	NJTPA	ERC	SECT 5307		\$2.448				\$2.448	\$0.000	\$2.448
	NJTPA	ERC	SECT 5339	\$9.088	\$6.333	\$0.082			\$15.503	\$0.000	\$15.503

1.0x

HLR to Englewood

Transit Operations and Projected Ridership



Light Rail to Englewood Hospital and Medical Center

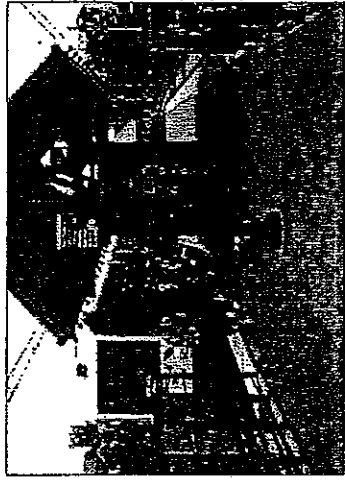
(Revised Preferred Alternative)

- Hours of Light Rail Operation: 5:00 a.m. to 1:00 a.m.
- Hours of Freight Rail Operation: 1:30 a.m. to 4:30 a.m.

Frequency:

PEAK PERIOD

- Service between Englewood Hospital and Medical Center and Hoboken: Every 10 Minutes
- Service between Englewood Hospital and Medical Center and Jersey City: Every 20 Minutes



OFF-PEAK PERIOD

- Service between Englewood Hospital and Medical Center and both Hoboken & Jersey City: Every 30 Minutes

Travel Time:

From	To Port Imperial, Weehawken	To Hoboken
Englewood Hospital and Medical Center Station	21 minutes	33 minutes
Englewood Town Center Station	20 minutes	32 minutes
Englewood Route 4 Station	17 minutes	29 minutes
Leonla Station	15 minutes	27 minutes
Pallades Park Station	13 minutes	25 minutes
Ridgefield Station	11 minutes	23 minutes
91st Street Station	8 minutes	20 minutes
Tonnelle Avenue Station	4 minutes	16 minutes

Ridership:

Station	Daily Riders
Englewood Hospital and Medical Center Station	1,640
Englewood Town Center Station	3,190
Englewood Route 4 Station	2,160
Leonla Station	1,670
Pallades Park Station	660
Ridgefield Station	1,650
91st Street Station	1,400
TOTAL Riders	12,370
TOTAL Trips	24,740

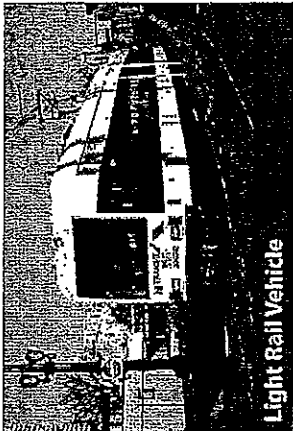
WBLR to Englewood

Infrastructure Improvements

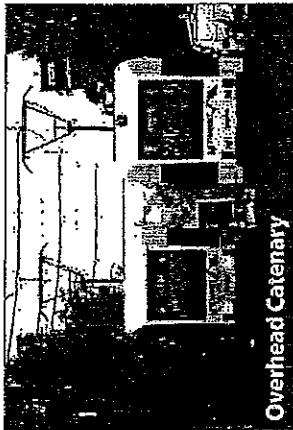


Northern Branch Corridor

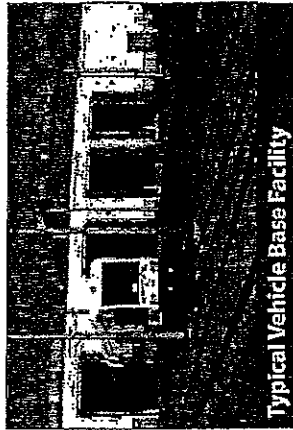
Typical Light Rail Vehicle Infrastructure



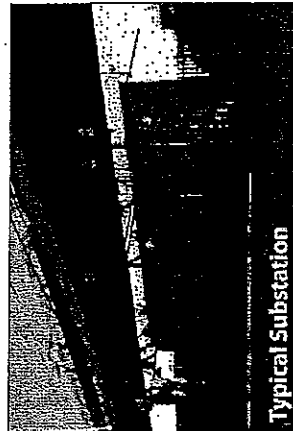
Light Rail Vehicle



Overhead Catenary

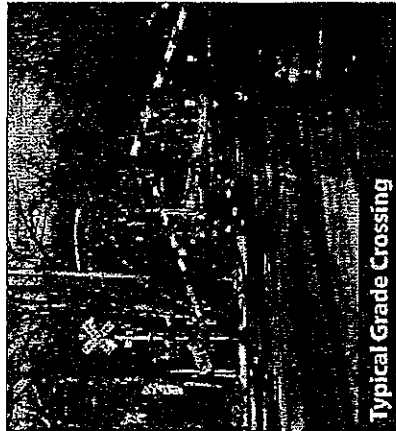


Typical Vehicle Base Facility

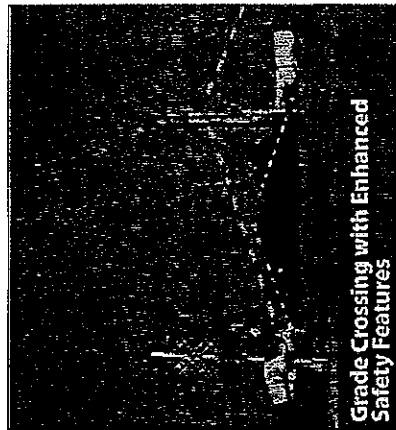


Typical Substation

Typical Grade Crossing

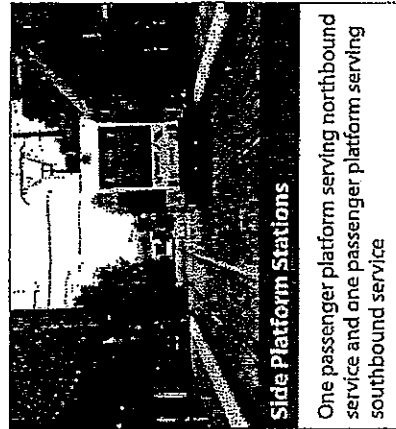


Typical Grade Crossing



Grade Crossing with Enhanced Safety Features

Typical Station



Side Platform Stations

One passenger platform serving northbound service and one passenger platform serving southbound service



Center Island Stations

One passenger platform in the middle, serving both directions

FACT SHEET

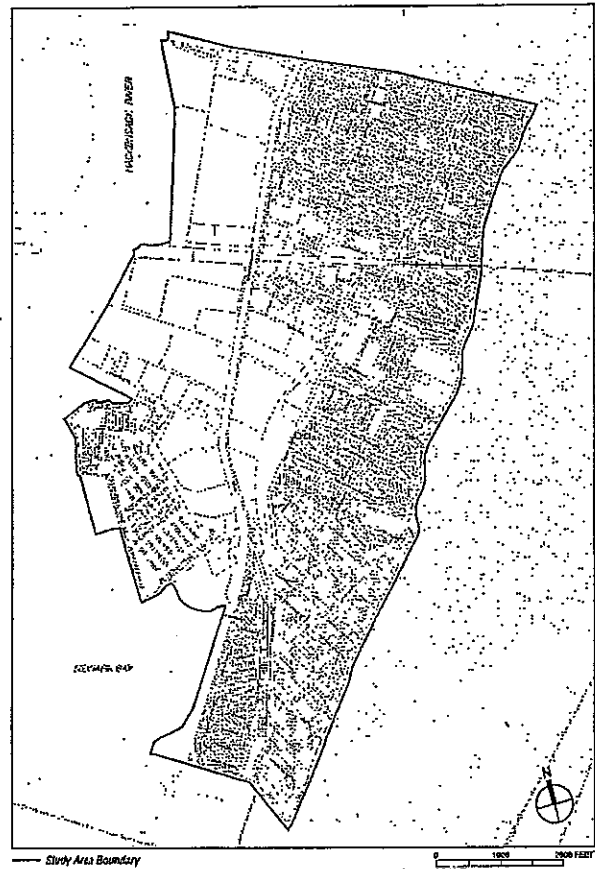
Hudson-Bergen Light Rail Route 440 Extension Alternatives Analysis

About the Project

The City of Jersey City is planning for significant growth along its Western Waterfront with a mix of new residential and commercial uses on former industrial sites. Major projects will include the new development at Bayfront, the new West Campus at New Jersey City University, and proposed improvements to Route 440. The success of this growth development depends on new or enhanced transit service that creates a convenient connection between the Hackensack River waterfront and existing transit, including the Hudson-Bergen Light Rail (HBLR) system. Planning efforts undertaken to date have identified extension of the existing HBLR system to serve the redeveloping neighborhood on the west side of Route 440 as a critical component of future plans for the area.

The HBLR Route 440 Extension Alternatives Analysis will consider alternatives to improve mobility for existing and future residents of the Western Waterfront area by providing convenient connections between the existing HBLR West Side Avenue Station and points west of Route 440.

Study Area



Purpose and Need

According to the 2000 U.S. Census data, more than 15,200 people live in and more than 9,400 employees work in the study area. In addition, almost 10,000 undergraduate students, graduate students, and faculty and staff come to the New Jersey City University campus. Most commute to classes from other parts of Jersey City, Hudson County, and surrounding areas. A 2008 Survey found that, in the study area, 58 percent use transit and 42 percent are non-transit commuters.

Planned new area development is expected to add approximately more than 18,000 residents and 6,000 workers – resulting in an estimated 5,500 new transit riders in the study area. A large increase in the number of students at NJCU is also expected.

To meet the needs of this evolving neighborhood, this study seeks to address the following problems:

- * The need for enhanced transit service near the Hackensack waterfront
- * Adequate transit capacity for the increasing population
- * The need for connections between the evolving and existing neighborhoods

FACT SHEET

Hudson-Bergen Light Rail Route 440 Extension Alternatives Analysis

Primary Project Goals

- 1) **Improve transit service and access to support existing and future development in the West Side community**
 - Improve access to existing destinations in the study area
 - Increase ridership on HBLR system
 - Support the Bayfront Redevelopment Plan
 - Support the New Jersey City University Master Plan
 - Support the planned redevelopment of Route 440
- 2) **Provide transit improvements that minimize adverse effects on HBLR operations**
 - Provide improved transit access continuing from the existing West Side Avenue terminal
 - Avoid substantial compromises to existing HBLR timetables
 - Minimize operating and maintenance costs
 - Implement within a reasonable time frame
 - Accommodate other planned systemwide HBLR capital improvements

At the same time, the selected alternative will strive to avoid or minimize impacts on the environment, which is a secondary goal of the Proposed Project.

Public Involvement

We encourage comments and questions about the project.

Please feel free to contact us at
feedback@hblr440aa.com

For more information and project updates, visit www.hblr440aa.com

Write to us at:

NJ TRANSIT
HBLR Route 440 Alternatives Analysis
Jeremy Colangelo-Bryan, Project Director
One Penn Plaza East
Newark, NJ 07105

Alternatives To Be Studied

No Build/Baseline

This alternative is the baseline condition for the study. With the No Build Alternative, no extension to HBLR service will occur.

Transportation Systems Management (TSM)

The TSM Alternative consists of a lower cost alternative that does not require major capital investments. The TSM Alternative will include enhancements to existing bus service or introduction of new bus service. These buses could include a circulator bus that provides shuttle service to the HBLR West Side Avenue station.

Bus Rapid Transit (BRT)

The BRT Alternative will examine new or improved bus service with technology that allows faster trips. This technology might include new vehicle types, new types of fare collection, traffic signal priority for buses, and stop/station types that would reduce delays.

Light Rail

The Light Rail Alternatives will all extend HBLR service westward from West Side Avenue Station. The initial phase of the study will evaluate whether an extension to HBLR should be in the existing streets or above the street on a viaduct. It will also consider whether an extension should cross Route 440 or possibly remain on the east side of Route 440 to avoid the complications associated with a crossing. In addition, three possible routes will be evaluated:

- An extension west to Bayfront
- An extension west to Bayfront and then south toward Society Hill
- An extension west to Bayfront and then north toward the Hudson Mall and Lincoln Park



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Alerts!

HBLR Route 440 Extension

This project would extend the Hudson-Bergen Light Rail West Side Avenue Branch from its current terminus at West Side Avenue, to a new terminus across Route 440. The approximately 3,700-foot route extension will include one new station west of Route 440 to support Jersey City's planned development on the Hackensack waterfront.

NJ TRANSIT has prepared an Environmental Assessment (EA) to evaluate potential environmental effects of this extension. To learn more about the project and to view the EA, please click on the links at the top of the page.

* Email

* = Required Field

Recent News

HBLR Finding of No Significant Impact (FONSI)
HBLR Environmental Assessment Notice of Availability
Environmental Assessment Public Meeting
Light Rail Extension to Jersey City's West Side Gets Push Forward from NJ Transit

Submit a
Comment

Recent
News

NJ TRANSIT
The Way Is On.



HBLR Finding of No Significant Impact (FONSI)

Posted on July 17, 2014

This notice is to announce the release of a Finding of No Significant Impact (FONSI) by the Federal Transit Administration (FTA) for the proposed extension of the NJ TRANSIT Hudson Bergen Light Rail (HBLR) system from the West Side Avenue Station to a new station to be located west of Route 440 near Culver Avenue at the planned Bayfront development in Jersey City, NJ. The FONSI marks the final step in the project's environmental review process.

NJ TRANSIT is conducting the Hudson-Bergen Light Rail Route 440 Extension Project in accordance with the FTA procedures for new transit projects. As part of those procedures, FTA must make a determination about the project's environmental impacts in accordance with the National Environmental Policy Act (NEPA). After the NEPA review, FTA can approve development of the final design for the project and potentially provide funding.

NJ TRANSIT prepared an Environmental Assessment (EA) for the project in accordance with NEPA that evaluated the project's potential to result in environmental impacts. The EA was completed in September 2013 and a 30-day public comment period was provided on the document. During the comment period, a public meeting was held on October 8, 2013, to solicit comments.

Following completion of the comment period, based on its review of the EA and comments received, FTA issued a FONSI for the project on June 27, 2014.

You can view the project documents by clicking on the links below:

- Environmental Assessment
- FONSI
- FTA Letter

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

FINDING OF NO SIGNIFICANT IMPACT

Project: Hudson-Bergen Light Rail Route 440 Extension

Applicant: New Jersey Transit

Project Location: Jersey City, Hudson County, New Jersey

1.0 INTRODUCTION

New Jersey Transit Corporation (NJ TRANSIT) proposes to construct the Hudson-Bergen Light Rail Route 440 Extension, a rail extension project in Jersey City, Hudson County, New Jersey. Based on the *Hudson-Bergen Light Rail Route 440 Extension Environmental Assessment* dated September 5, 2013 (the EA) prepared in compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. Section 4321 et seq.) and Federal Transit Administration's (FTA) implementing regulations (23 CFR Part 771), the FTA finds, in accordance with 23 CFR Section 771.121, that the *Hudson-Bergen Light Rail Route 440 Extension* (hereinafter referred to as the Project or Proposed Action), will result in no significant impact on the environment.

The project will extend the existing Hudson-Bergen Light Rail (HBLR) approximately 3,700 feet from its current terminus at West Side Avenue Station to a new station to be constructed west of NJ Route 440. The extension would be elevated on a concrete and steel viaduct and fully grade separated from all city streets. Other improvements will include alterations to the existing West Side Station, including demolition and replacement of the existing pedestrian bridge, removal of the stone railroad bridge abutment and associate stair, and construction of new pedestrian access stairs and ramps.

2.0 NATIONAL ENVIRONMENTAL POLICY ACT FINDING

FTA has reviewed the EA prepared for the Hudson-Bergen Light Rail (HBLR) Route 440 Extension Project, the analysis and the results of which are incorporated here by reference, and has found that there are no significant impacts to the environment that would result from the proposed action. The EA, dated September 5, 2013, has adequately addressed the environmental issues and impacts of the proposed project, which consists of construction and operation of a new, two-track, approximately 3,700-foot extension of the HBLR from its current terminus at West Side Avenue Station to a new Bayfront Station, which would be located west of Route 440 at the northern boundary of a new mixed-use development, called Bayfront.

NJ TRANSIT has made the EA publicly available in the project website (<http://hblr440.com/>) on September 21, 2013. After the EA was made publicly available, a public meeting was held on October 21, 2013, to solicit comments during the 30-day public comment period. Eleven people attended the public meeting, as indicated by the meeting sign-in sheets; some of those people provided comments and asked questions, which were responded to at the meeting. Comments raised included the following:

- **Hazardous Materials:** One meeting attendee noted that the EA should recognize that extensive investigation related to contamination has already occurred on the Bayfront site, and remediation is under way, so there is no need for further investigation on the Bayfront site related to the HBLR project.
- **Property Acquisition:** Commenters asked about the need to acquire private property, and how property owners would be notified if acquisition of their property is contemplated. A representative of NJ TRANSIT explained that the federal procedures for property acquisition (the federal Uniform Relocation Assistance and Real Property Acquisition Act of 1970) would be followed and that only two private properties are

needed to implement the project: 1) a portion of the property referred to in the EA as the Cookson Electronics property; and 2) a very small area of the car dealership (Hudson Nissan) property located north of Bayfront.

- **Traffic Management During Construction:** A commenter asked how traffic would be managed during construction. A representative of NJ TRANSIT explained that a traffic management plan would be implemented during construction and that two lanes of Route 440 would be kept open in each direction.
- **Noise During Construction:** A commenter asked about noise levels during construction. A representative of NJ TRANSIT acknowledged that construction noise can be disruptive, but that NJ TRANSIT is committed to implementing measures to reduce construction noise where possible.

NJ TRANSIT and the FTA did not receive any other written comments during the 30-day public comment period, which closed on October 13, 2013.

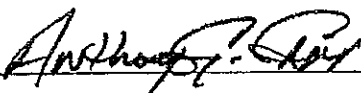
The EA included an analysis of Section 106 of the National Historic Preservation Act (Section 106) analysis and an evaluation pursuant to Section 4(f) of the Department of Transportation Act of 1966, codified at U.S.C. 303 (Section 4(f)). Pursuant to Section 106, a Programmatic Agreement was signed on August 20, 2013 to address potential adverse effects to historic resources, and pursuant to Section 4(f), FTA finds that there is no use or constructive use of a Section 4(f) resource at this time.

The EA includes an Environmental Justice analysis, and FTA finds that there will be no disproportionate adverse effects in EJ communities.

The EA is consistent with Environmental Impact and Related Procedures (23 CFR Part 771) and FTA guidelines for preparing EAs. As such, the FTA is issuing this Finding of No Significant Impact (FONSI) for the project. A Programmatic Agreement (PA) has been executed, which commits NJ TRANSIT (the project sponsor), in coordination with FTA, to carry out measures to mitigate potential adverse effects on historic properties, as disclosed in the EA, and to consult with the New Jersey Historic Preservation Office during the construction of the project. This FONSI is conditioned upon NJ TRANSIT complying with the mitigation measures described in the EA and the aforementioned PA.

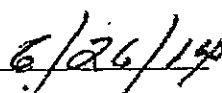
3.0 SECTION 4(F) FINDING

Based upon the Federal Transit Administration's (FTA) review of the project description and supporting documentation on the Proposed Action as described in the EA, it is FTA's determination that the Section 4(f) requirements set forth in 23 C.F.R. Section 774. 3(b) has been met and that sufficient documentation exists to demonstrate that there is no use or constructive use of a Section 4(f) resource at this time.



Anthony G. Carr
Deputy Regional Administrator, Region II
Federal Transit Administration

Date



THE GATEWAY PROGRAM

Critical Capacity Expansion to the Northeast Corridor

OVERVIEW

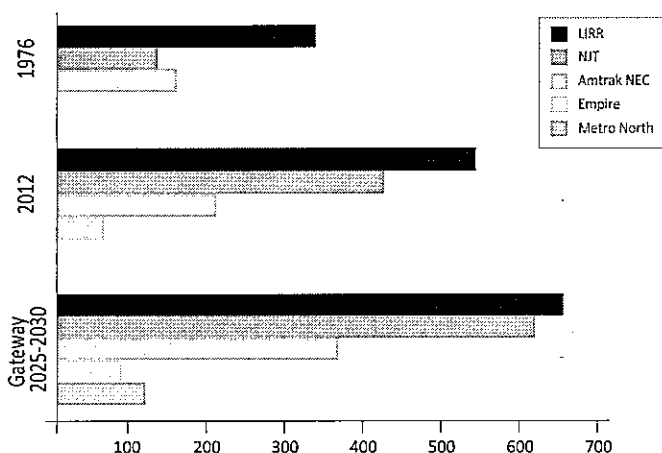
The Gateway Program is a comprehensive program of strategic rail infrastructure improvements designed to improve current services and create new capacity that will allow the doubling of passenger trains into Manhattan. The program will increase track, tunnel, bridge, and station capacity, eventually creating four mainline tracks between Newark, New Jersey, and Penn Station, New York, including a new Hudson River tunnel. The program will also strengthen system resiliency with the modernization of existing infrastructure, and updates to the electrical system that supplies power to the roughly 450 daily trains using this segment of Amtrak's Northeast Corridor.

WHY IS THE GATEWAY PROGRAM NEEDED?

The Northeast Corridor (NEC), connecting Washington, DC and Boston, MA, is at or near capacity at many locations, but nowhere is the demand on the existing rail system greater than in Penn Station, New York and its associated infrastructure. The existing, 105-year-old rail tunnel into midtown Manhattan – the only intercity passenger rail crossing into New York City from New Jersey – operates today at 95 percent capacity during rush hour, creating a severe bottleneck that limits NEC train volume across the entire rail corridor. Trains and stations are currently severely overcrowded at peak periods, and this will worsen as demand for service is projected to increase significantly by 2030. Additionally, much of the existing rail infrastructure in this portion of the NEC was damaged following Super Storm Sandy and now faces reliability challenges.

The vulnerability of access to Penn Station, New York was brought into national focus after Super Storm Sandy inundated the Hudson and East River tunnels, severing all rail service to New York. With the Gateway

Historic and Projected Growth in Daily Penn Station, New York Train Movements 1976, 2012, and with Gateway (Illustrative)



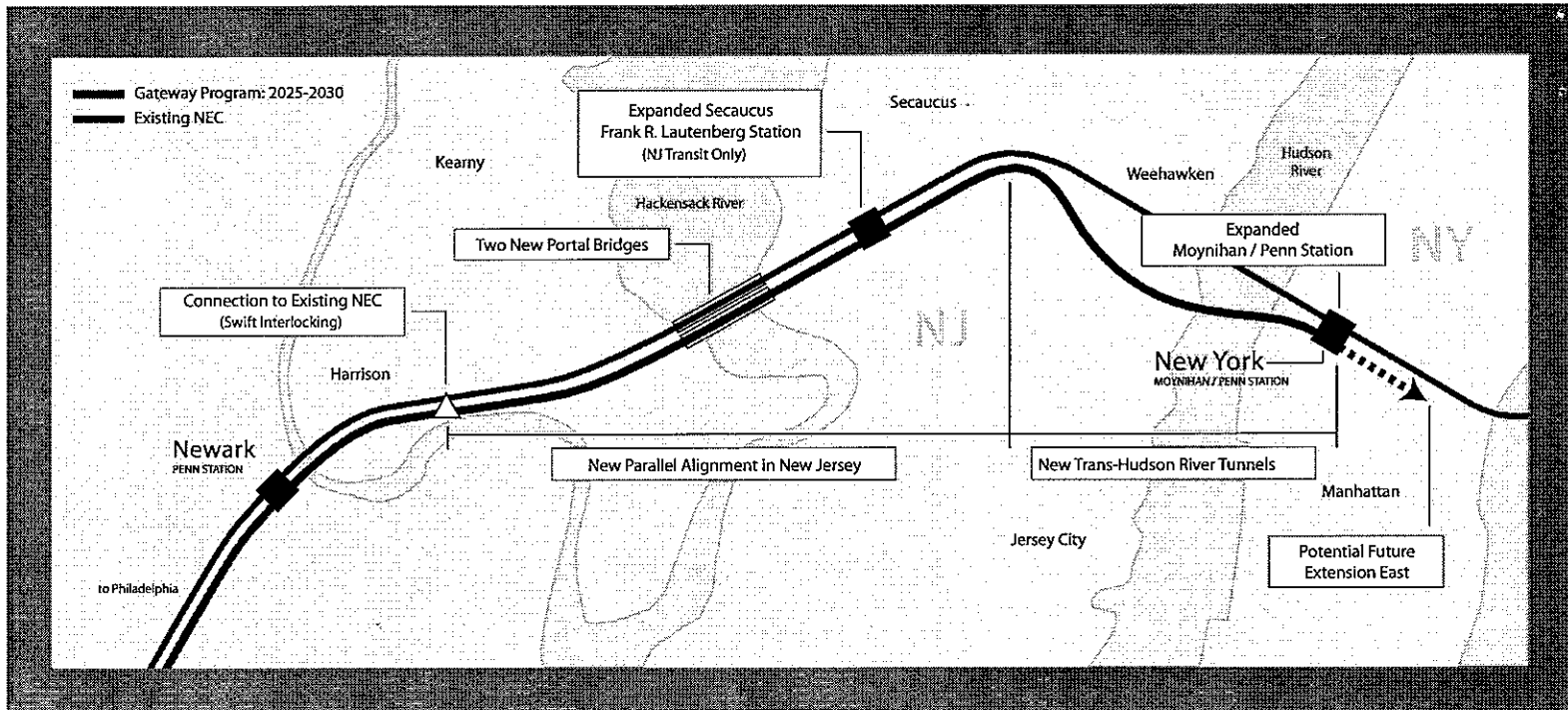
PROGRAM SUMMARY

Timeline	Target Completion: 2030
Funding	Amtrak has directed more than \$300 million, mostly from federal sources, to the Gateway Program since 2012. This includes approximately \$74 million for planning and pre-construction work and \$235 million to the Hudson Yards concrete casing from federal Sandy Resiliency funding under the Disaster Relief Appropriations Act of 2013.
Partners	Amtrak is seeking to collaborate with all potential users of the future capacity provided by Gateway, and will engage with local, regional, national, and private partners as the program develops.
Status	Construction is underway to preserve the future potential pathway of the Gateway tunnel through Hudson Yards, west of Penn Station. A System Level Design study was recently completed; Program Development is now underway. An environmental impact statement for the Gateway Tunnel Resiliency Project could begin as early as Fall 2015.

Program, the construction of a new Hudson River tunnel will permit the closing of the existing century-old tunnel for extended periods so that essential repair and replacement work can be done. The current volume of traffic through the tunnel is so dense that long-term closures are impossible to plan unless the new Gateway tunnel is in place. The disruption of the daily traffic into and out of Manhattan would be too great. Today, work is done during elaborately scheduled 55-hour weekend periods to avoid crippling weekday service reductions – but longer-term closures cannot be avoided due to the degree of damage that has been discovered following Super Storm Sandy.

In sum, the Gateway Program will create the new infrastructure essential to greater resiliency against future potential storms and disasters, while enabling repairs to damage and achieving capacity and reliability-related investments to meet the needs of the NEC's operators for the next 30-50 years.





KEY COMPONENTS

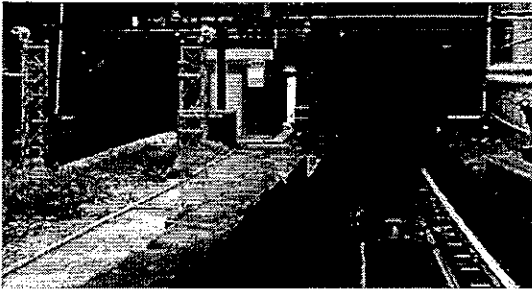
New Hudson River Tunnel: A new, two-tube trans-Hudson River rail tunnel from the Bergen Palisades in New Jersey to Manhattan will directly serve an expanded Penn Station. This new tunnel will provide operational benefits for the existing Penn Station and increased capacity for commuter and intercity rail operations including NJ Transit and Amtrak. Construction has been completed on an 800-foot concrete casing through the Hudson Yards site, west of Penn Station, to preserve the only viable right-of-way for the future tunnel into Penn Station. A second 105-foot section is now underway.

Expanded Moynihan/Penn Station, New York: An expansion of existing New York Penn Station tracks and platforms and the creation of new “Penn South” concourses will also provide direct connections to the future Moynihan Station. These improvements will support the long-term growth of commuter and intercity passenger rail service at both Penn Station and the historic Farley Post Office Building, which is being transformed into the new “Moynihan Station” by the Moynihan Station Development Corporation. The expanded Moynihan/Penn Station complex creates a consolidated Amtrak operation on Manhattan’s West Side and the high level of service and connectivity required for the growth of Amtrak’s Acela and future NextGen high-speed rail services.

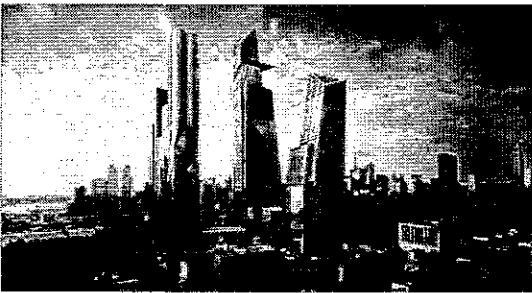
New Portal Bridges: Two new high-level, fixed bridges, known as North and South Portal Bridges, will replace the 100-year-old, moveable Portal Bridge over the Hackensack River between Kearny and Secaucus, New Jersey, doubling corridor capacity. Final design and federal environmental review for the North Bridge, the first to be constructed, has been completed. The new bridge is estimated to cost approximately \$1 billion over a 5-year construction period and will proceed with the cooperation of NJ Transit, Amtrak, and the federal government, as soon as funding can be secured.

Newark-to-Secaucus Improvements: The existing NEC will be greatly improved between Newark and Secaucus, New Jersey. The mainline will be expanded from two to four tracks between Newark and the Bergen Palisades tunnel portals, better connections will be built to link the NEC with the NJ Transit Morris and Essex Lines, and various bridges will be upgraded or replaced.

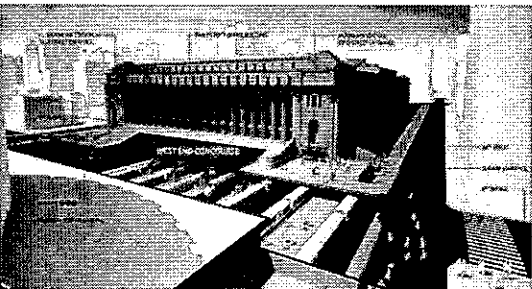
Reconstruction of Existing Hudson River Tunnel: It has long been Amtrak’s goal that the existing Hudson River tunnel, completed in 1910 by the Pennsylvania Railroad, be rebuilt and modernized. However, the damage to the tunnel following Super Storm Sandy has changed the situation entirely. Instead of work being a long term goal, it is now an urgent necessity. The Gateway Program resiliency components must be expedited for that work to proceed without causing acute disruptions to the NEC.



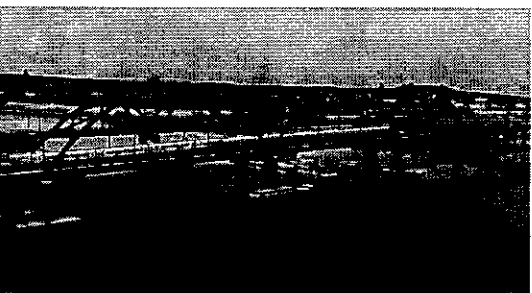
Hudson River Tunnel: The existing Hudson River tunnel is over 100 years old, was damaged by Super Storm Sandy, and requires service outages every weekend to perform maintenance and/or repairs.



Hudson Yards: The rapid advancement of the Hudson Yards mixed-use development project by Related Companies and Oxford Properties Group required early action to protect the Gateway tunnel alignment into Penn Station.



Moynihan Station: The first phase of construction is underway to turn the Farley Post Office into an expanded Moynihan/Penn Station complex, which will benefit from the connections provided by the Gateway Program.



Portal Bridge: Elements of the Gateway Program, such as the replacement of Portal Bridge, have completed final design and are ready to move forward as soon as funding is secured.

PROGRAM BENEFITS

By eliminating the bottleneck in New York and creating additional tunnel, track, and station capacity in the most congested segment on the NEC, the Gateway Program will provide greater levels of service, increased redundancy, added reliability for shared operations, and additional capacity for the future increases in commuter and intercity rail service.

- **Preservation:** The construction of a new Hudson River tunnel is necessary to preserve NJ Transit and Amtrak service to and from Penn Station while removing from service the existing Hudson River Tunnel for a continuous, extended outage. Without extensive repairs and rebuilding of the existing tunnel, service reliability is likely to continue to deteriorate due to ongoing damage from saltwater incursion during Super Sandy, eventually forcing a shutdown of one or both tubes of the Hudson River Tunnel.
- **Capacity:** The Gateway Program will benefit both intercity and commuter rail passengers, as well as communities and states along the entire NEC. When all components of the Gateway Program are put in place, it will double capacity for train operations under the Hudson River and expand tracks and platforms at Penn Station by nearly 40 percent.
- **Operational Reliability and Resiliency:** The Gateway Program will provide essential Hudson River system redundancy and operational flexibility critical to both managing and maintaining the system reliably day-in and day-out and in responding to emergencies. The new Hudson River tunnel will be built to provide enhanced resiliency against natural and man-made threats.
- **Commuter Rail Service Expansion:** The Gateway Program will enable the expansion of one-seat ride opportunities to New York City for NJ Transit and Metro-North West-of-Hudson commuters. It will also support the introduction of Metro-North Railroad New Haven and Hudson Line commuter services to Penn Station, New York and provide additional capacity to expand Amtrak high-speed, regional, and state-supported intercity services throughout the entire Northeast Region.
- **High-Speed Rail:** The Gateway Program improvements will enable expansion of existing Amtrak high-speed Acela Express and other intercity services, including Amtrak's proposed 220 mph, next generation high-speed rail trains. Without the infrastructure and capacity improvements contained in the Gateway Program, it will not be possible to achieve the proposed high-speed goals.
- **Economic Growth:** The Gateway Program will grow the economy by making business travel in the Northeast Region more convenient and reliable. The Program will also increase access to labor and job markets on both sides of the Hudson River for employers and employees, creating more comfortable and reliable commuting options. The expansion of high-speed Acela Express service and future introduction of 220 mph high-speed service will shrink travel times between major cities in the Northeast Region, forging new economic linkages critical in today's globally competitive market.

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PROGRESS TO DATE AND NEXT STEPS

Hudson Yards Right-of-Way Preservation

Early actions to preserve the future pathway of a new Hudson River tunnel connecting to Penn Station have already begun. Amtrak began construction in 2013 on a concrete casing to preserve an underground right-of-way that could serve as the future alignment for the Gateway tunnel into Penn Station, New York. Amtrak has determined that this alignment through the Hudson Yards provides the only viable route for new Hudson River tunnel to access Penn Station and serve existing tracks and platforms. In December 2014, construction began to extend the concrete casing another 100 feet under the 11th Avenue Viaduct. This effort has been supported by approximately \$235 million of federal Sandy Resiliency funding under Disaster Relief Appropriations Act of 2013 and a local match shared by Amtrak, NJ Transit and the Metropolitan Transportation Authority.

Design of Program Elements

Amtrak is advancing concept design for discrete elements of the Gateway Program, many of which offer independent utility as replacement or resiliency projects, until they are all activated to deliver the capacity benefits of the Gateway Program. These include projects such as Replacement of "Sawtooth" Bridges in New Jersey, Harrison Station Fourth Track, and Elizabeth Station Fifth Track, and Penn Station Expansion. The Gateway Program's modular design allows these individual elements to advance as funding becomes available. For example, final design and environmental review of Portal North Bridge, which will replace the existing Portal Bridge over the Hackensack River, is already complete, making the project "shovel ready."

Environmental Review and Preliminary Engineering of a new Hudson River Tunnel

A new tunnel under the Hudson River from the Bergen Palisades to Penn Station in Manhattan is likely to be the first major element of Gateway Program to advance. This new tunnel is needed in order to reroute rail traffic while the existing Hudson River Tunnel undergoes extensive repairs. Amtrak is now conducting outreach prior to launching the environmental review process required by the National Environmental Policy Act (NEPA), with an aim to begin the NEPA process for the new tunnel, in cooperation with its state and federal partners, in fall 2015. Amtrak has also partnered with NJ Transit to advance design and construction of a micro-grid supply within the Gateway Program area. When completed, this project will deliver electric power generated by independent sources and introduce new measures of a resilient power supply for this vitally important area.

Program Development

Amtrak has completed a system level design study that evaluated traction power, signalization, and operational concepts for a new pair of rail tubes under the Hudson River that connect to a new 8-track expansion of Penn Station New York south of 31st Street in Manhattan. The next phase of the study, Program Development, explores implementation and phasing, including initiating the NEPA process, organizational approach and program delivery, funding and financing, and further planning of the integrated Penn Station facility. The Program Development study is ongoing through early 2016.

Visit NEC.Amtrak.com for more information on the Gateway Program and other NEC infrastructure investments.

