

Themes from the First Trans-Hudson Summit

On Thursday, May 7th, a summit of regional leaders in the transportation community convened in Manhattan to discuss the state of the infrastructure network linking New Jersey and New York. The event discussions highlighted: (i) the immediate and long-term crises, and the urgency to repair and expand this vital infrastructure to prevent major disruptions, and to meet future travel demand, (ii) the operational, financial, institutional and regulatory challenges that must be addressed, and (iii) new ideas for overcoming these obstacles.

The major issues affecting the trans-Hudson network are described in this report followed by a listing of the Summit's panel topics and participants.



Session II Panelists (left to right): Elliot G. Sander, RPA; Martin Robins, Rutgers University; Mary K. Murphy, NJTPA; Joel Ettinger, NYMTC; Peter Rogoff, U.S. DOT; Drew Galloway, Amtrak; Stephen Gardner, Amtrak; Anthony Coscia, Amtrak; Thomas K. Wright, RPA (moderator); John Degnan, PANY&NJ; Scott Rechler, PANY&NJ; Patrick Foye, PANY&NJ; Andrew Lynn, PANY&NJ; Polly Trottenberg, NYC DOT; Bill Wheeler, MTA; Veronique “Ronnie” Hakim, NJ TRANSIT; Rich Roberts, NJ TRANSIT

Expanding the capacity of the transit network across the Hudson River is a challenge of regional and national significance.

The trans-Hudson transportation network linking New Jersey and New York is vital to the economies of both states and the nation. However, these linkages, particularly the public transit systems, are at serious risk and the challenges they face are both near and long term.

Today, the network is aging, overburdened and in some cases requires urgent repair or replacement. Key pieces of infrastructure are reaching the end of their useful lives and operating at their maximum capacity, and are unable to handle current and anticipated future travel demand.

Each day, millions of trips are made into and out of the core of Manhattan, and 75 percent are on public transit. Between 1990 and 2013, total trans-Hudson travel grew 30 percent, adding nearly 250,000 daily trips. Manhattan-bound commuting is a large and growing segment, but is only one of many segments of the trans-Hudson travel market, which includes air travel, tourism, and suburb-to-suburb commutation, in addition to freight transport. The interstate transit network plays a key role in the regional economy and needs substantial investments in the near future to preserve and expand capacity for the region to remain competitive in a global economy.

The capacity of the network is fundamentally limited by its over-dependence on six Hudson River crossings: three for vehicles – the George Washington Bridge, and Lincoln and Holland Tunnels – and three for trains – the Uptown and Downtown PATH tubes, and Hudson River Tunnel.

Commuter and intercity rail transit depends on the century-old Hudson River Tunnel, which was severely damaged during Superstorm Sandy and requires long-term service outages for urgent repairs. In addition to the tunnel, the rail network is inhibited by Penn Station, which processes more than 200,000 rail riders each day. Bus travel is constrained by the obsolescence of the Port Authority Bus Terminal, which opened in 1950 and now handles more than 230,000 daily passengers. Together, these facilities handle 41 percent of trans-Hudson trips.

Given the major challenges they face and their criticality to the future of trans-Hudson travel, potential solutions to the Hudson River Tunnel and Port Authority Bus Terminal crises received considerable attention from the Summit participants. The discussions focused on potential near- and long-term infrastructure investments and service enhancements that help the system meet the changing needs and expectations of current and future users.

The threat to trans-Hudson rail capacity in Amtrak's Hudson River Tunnel is the most pressing crisis in the network, requiring construction of a new rail tunnel to augment the other existing crossings.

The most urgent crisis facing the trans-Hudson network is the threat to Amtrak's Hudson River Tunnel. Rail ridership in the tunnel has more than tripled over the last 20 years and is currently operating beyond its maximum practical capacity. Furthermore, its infrastructure is deteriorating due to old age, decades of heavy use and the lasting effects of the salt water inundation caused by Superstorm Sandy in October 2012.

To keep it in safe, working condition, Amtrak currently removes one of the tunnel's tubes from service every weekend and many evenings for repairs, and operates service in only the one remaining tube, but there is not enough time during these short-term outages to do all of the required maintenance and rehabilitation work. Amtrak has said the tunnel has fewer than 20 years of service left before the tubes must be closed for repairs one at a time, which will take several years. If a new tunnel is not built to handle trains diverted from the existing tunnel while it is being repaired, major service reductions and disruptions will ensue.

The impact of these tunnel closures would be felt nationwide as the region's already-congested vehicle crossings become even more gridlocked, delaying passengers and freight. The airports in the New York region, already some of the most congested and unreliable in the nation would also become choked with passengers that would have otherwise ridden Amtrak trains.

The Gateway Program is a proposal by Amtrak to make a series of capital investments in the Northeast Corridor between Newark, NJ and Penn Station over the coming years. The program would construct a new tunnel under the Hudson River connected into Penn Station. The new tunnel would initially connect to the existing tracks and platforms at Penn Station, and eventually to a new station facility immediately to the south with direct access to the existing concourses. Amtrak's current plans for this new facility, call for eight new tracks and four new platforms. The program would also add two new tracks, and rebuild and expand several 100 year-old bridges on the Northeast Corridor in the Meadowlands.

Once completed, full implementation of the Gateway Program would double rail capacity under the Hudson, enabling substantial increases in commuter and intercity rail service in the future. This expansion would allow for more direct service from all of the NJ Transit lines that operate into and out of Penn Station today and, with a new rail connection in the Meadowlands, direct service for the lines that do not have it today. Amtrak could also operate more service into and out of Penn Station on its Northeast Corridor, Keystone, and other routes.

This complex, multi-faceted program is still in a conceptual design phase, including some elements that have yet to be resolved with key transportation agency stakeholders and other actors in the region. In addition, the Federal Railroad Administration is conducting NEC Future, a comprehensive environmental review and planning study for the entire Northeast Corridor from Boston to Washington. However, Amtrak has recently taken steps to not preclude Gateway's ultimate implementation and advance its most critical first phase – a new tunnel into Penn Station.

While this new tunnel is only one part of the Gateway Program, it is by far the most important and urgent part, and action is needed to fast-track its construction. Other elements of the program, including the expansion of Penn Station, have unresolved issues that must be worked out and challenges that need to be overcome before moving forward. However, the planning, permitting, design and engineering for this first phase – a new tunnel to Penn Station – should be expedited to reduce the probability that the existing tunnel must be shuttered before the new one opens. The initial phase of work should move forward and must not be slowed by unresolved issues associated with future phases of the larger Gateway Program, which are also important, but less urgent.

The Port Authority Bus Terminal must be replaced. The Authority's board is leading an assessment of regional options, but all are expensive and disruptive. A preferred alternative has not been determined.

The Port Authority Bus Terminal is the workhorse of the regional transit network, handling more passengers on a daily basis than any other single facility. Bus travel plays a key role in the network by providing service to areas that lack access to rail and buses are the fastest-growing form of transit in the region due to their flexibility. However, the 65 year-old bus facility now operates above its maximum practical capacity and unable to handle expected growth in ridership over the coming decades. With its infrastructure crumbling after six and a half decades of heavy and growing traffic, the end of its useful life is on the horizon.

The terminal is facing major structural challenges. Its bus level floor slabs and ramps to and from the Lincoln Tunnel are deteriorating and must be replaced in the next 15–25 years before the facility becomes unsafe to operate and must be shut down. The terminal was also not designed for the larger, heavier buses that are common today.

The terminal has major operational challenges as well. The parking, staging and circulation space available for buses and passengers is woefully inadequate for the volume of bus service and ridership that depend on it today, let alone the future travel demand. In the morning peak, 2,500 buses travel through the Lincoln Tunnel, but cannot all fit in the terminal at once, so backups and delays occur at the tunnel's entrances. Once in the terminal, the buses

can drop passengers and clear out relatively quickly, but many empty buses then leave Manhattan back through the tunnel because of the terminal's lack of parking capacity to store empty buses during the day.

In the evening, thousands of buses flood back through the tunnel to pick up their passengers. However, there are not enough gates, or ramp and slab space to handle all of the buses at once, so they overflow onto surrounding streets. This bus queue impacts the neighborhoods air quality and creates traffic congestion on local streets. The long lines in the terminal's waiting areas also lead to severe overcrowding and make it difficult to navigate. All of these operational deficiencies mean that passengers are losing time and travel reliability suffers.

The terminal's lack of capacity also forces many of the bus carriers, such as intercity, and less formal jitney bus and van services to operate on neighboring streets, causing congestion on the local streets and sidewalks, air and noise pollution, and huge inconvenience for their passengers who have to wait outside in the snow and rain.

Addressing these issues will require full replacement of the bus terminal as it would be nearly impossible to operate bus service during the rehabilitation of the floor slabs. Construction of a temporary facility is also necessary to allow bus service to operate during reconstruction. The temporary facility will also need to be connected to the Lincoln Tunnel and its ramps. Eventually, replacement of the main terminal would create a new, modern facility to meet the city and region's current and future demand.

The Port Authority of New York & New Jersey Board of Directors is considering a range of terminal replacement options. All of the options face the immutable fact that any replacement in Manhattan, temporary or permanent, large or small, is tethered to the ramps to and from the Lincoln Tunnel. Any reconfiguration of these ramps to serve some other site would be prohibitively expensive and impactful on surrounding areas. It would also move the bus terminal farther away from the robust subway network that most of its passengers ultimately want to access.

The options to replace the existing bus terminal with a new facility in Manhattan that is large enough to handle projected growth in travel demand are estimated to cost \$9–\$10 billion and take 13–15 years to design, approve, finance and build. Other potential options, including the construction of bus facilities at rail stations in New Jersey to intercept and divert some bus passengers to rail or the introduction of rail service in dense bus corridors in New Jersey, also deserve consideration. Other options could prove to serve existing and future trans-Hudson travel demand more efficiently and reduce demand for large numbers of buses in Midtown Manhattan.

Other rail, bus and ferry expansion projects are part of the solution and should be considered. None are substitutes for a new rail tunnel or bus terminal.

In addition to Gateway, which will double rail capacity between New Jersey and Manhattan, will more capacity for existing or new commuter or intercity rail services be needed in the future? In addition to a new bus terminal, should interstate express bus and bus rapid transit lines be expanded where they exist or added where they do not? Should a New York City subway line be extended into New Jersey? Should interstate ferry service be expanded or new ferry services added?

Many of these projects have independent utility, strong merits, and should be considered, but ultimately none of them are substitutes for a new rail tunnel or bus terminal. If the existing tunnel shut downs without a new rail tunnel in place, the entire NJ Transit rail network and Northeast Corridor would be severely crippled for years. Without a new bus terminal, the existing facility will also eventually be shut down, severely disrupting thousands of commuters every day. Both of these futures are unacceptable. Other complimentary projects should be considered as part of the regional, multi-modal network, but must not increase the possibility of these futures coming to pass.

Immediate action is needed to advance the most urgent, initial phases of a new rail tunnel and bus terminal as the longer-term vision of the regional transportation network continues to develop.

Some aspects of the multi-modal solution to the trans-Hudson crises have come into clear focus in recent years. Early action items for which a strong regional consensus already exists have been identified, and can and should move forward as the longer-term vision of the regional transportation network continues to take shape.

The early action items that would help prevent the catastrophic loss of rail capacity under the Hudson River into Penn Station are a new rail tunnel that connects into the existing tracks and platforms at Penn Station and the Northeast Corridor in New Jersey, and other projects that preserve the region's options to further expand trans-Hudson transportation capacity in the future.

For example, Amtrak's Hudson Yard Right-of-Way Preservation Project protects a path for the future rail tunnel through Hudson Yards. Replacement of the Portal Bridge, which malfunctions often causing massive delays, is designed and permitted; it only needs funding to move ahead. The Moynihan Station project does not add tracks or platforms to relieve rail capacity issues at Penn Station, but does create new space for passenger processing and amenities west of Eighth Avenue, especially for Amtrak. It also will not lock the region into an exact, long-term solution for Penn Station, but will provide critical new access points and circulation space for once the future station capacity expansion project is underway.

Early action items at the bus terminal are continued near-term improvements, including projects to reduce crowding and delays, and improve passenger communications and the condition of waiting areas and bathrooms. These are all important projects that improve the quality of existing passenger's commutes as the Port Authority continues to develop its comprehensive plan and then selects a preferred alternative to replace the terminal.

An evaluation of the costs and benefits of all of the many alternative trans-Hudson expansion projects for both bus and rail only makes sense within the context of a broader, more forward-thinking vision of the regional transportation network.

Which vision of the entire regional network produces that best overall outcomes in terms of ridership benefits, speed and reliability improvements, greater quality of life, regional economic development, more equitable access to economic opportunities, and other wider community and economic benefits? These are all important questions the region must consider, and that Regional Plan Association is seeking to shed light on as part of its Fourth Regional Plan for New York.

A focused follow-up led by the Port Authority, and other co-sponsors of the Trans-Hudson Summit is needed with input from public, government, business and community stakeholders to develop and build consensus around this long-term vision for a once-in-a-lifetime expansion of the New York-New Jersey transportation network, which will help spur growth in housing and job markets, and underpin the regional economy for the next century.

No one agency or government entity has the role or responsibility to define a regional vision for the future of the trans-Hudson transportation network.

The region's political landscape is divided along state, county and municipal boundaries, and because most of the region's transit services are run by public agencies, the responsibilities for planning and operating this network are also fragmented. This makes the collaboration that is necessary to develop, finance and build solutions to regional issues like the trans-Hudson crises difficult.

For example, Amtrak owns and operates the Hudson River Tunnel, but NJ Transit uses the majority of its capacity. The Port Authority owns and operates the bus terminal, Lincoln Tunnel and Exclusive Bus Lane, but many bus carriers, including NJ Transit, use these assets. The Port Authority also owns and operates the PATH system and several companies operate trans-Hudson ferry service.

For the most part, these owners and operators do a laudable job keeping the system in safe, working order, but this fragmentation leads to no one agency, or state or municipal government being responsible for developing a regional vision for the entire network, including assets and components they are not responsible for.

The Port Authority of New York & New Jersey, in close conjunction with Regional Plan Association and its other regional partner agencies, historically took responsibility for leading the development of this transportation vision, but in recent years became distracted by other, important economic development projects and strayed away from its original core mission – facilitating the efficient movement of people and goods throughout the region.

A report, “Keeping the Region Moving”, by the Special Panel on the Future of the Port Authority commissioned by the Governors of New York and New Jersey, called for the Port Authority to refocus on its original transportation mission and reinstate its leadership role in developing a regional vision for expanding the capacity of the trans-Hudson network, among other things. Specifically, the report called for the Port Authority to convene all of the trans-Hudson stakeholders “to initiate a long-term planning process for the expansion of trans-Hudson transit capacity”, which they did on May 7th at this Summit. This effort along with other important reforms recommended in the special panel report will go a long way towards enabling collaborative development of the unified regional vision that is needed.

Ultimately, a complete reorganization of our existing institutions towards a regional governance framework may be needed because of the benefits this new model could provide. For example, unifying the region’s bus and rail services under a single operator could help ensure proper alignment of incentives to maximize the use of regional transportation facilities.

Funding sources have not been identified even for high-priority projects for which a regional consensus already exists.

An enormous capital investment program is needed – somewhere between a minimum of \$15 to \$20 billion to preserve existing service and up to \$35 to \$40 billion to significantly expand capacity – but the sources for these funds have not been identified and far exceed the current financial capacity of any single public agency. Partnership with the federal government, states, cities and operators, along with the private sector, is needed to finance these projects. A collective vision of the needs and priorities, and sequencing of these investments must be clearly communicated to elicit these contributions.

The Obama administration considers the Gateway Program to be the nation’s most important rail project and has demonstrated its eagerness to work with the two states and City of New York to develop a plan that advances Gateway and the other solutions to the trans-Hudson challenge. However, the states must begin and lead this conversation. After the cancellation of the ARC project in 2010, the region lost more than ten years of planning and negotiation with the federal government and there is no time left to spare.

The states must immediately come to agreement on the need to advance Gateway and solutions for the replacement of the Port Authority Bus Terminal, and invest the necessary time and resources to make it happen.

The private sector can play a larger role in financing, building and operating new trans-Hudson facilities.

The private sector plays a role in financing, delivering, operating and maintaining major infrastructure projects around the world, but critical pros and cons need to be considered. The success of P3s tend to be judged on the details of how they are structured – how incentives are aligned, and risks and rewards distributed. An examination of best practices and the capacity of the region’s institutions to negotiate, structure and execute P3s effectively and successfully is needed.

New revenue would also be needed to pay back loans and/or private investments. Financial tools that efficiently capture the monetized value of transportation assets and services, such as user fees (e.g. fares or tolls) business or real estate value monetization strategies (e.g. community impact levies in Greater London or value capture in New York City), could be utilized. These tools create revenue streams that can supplement traditional funding sources to finance this massive investment program.

Process enhancements can speed project delivery and reduce costs, and restore the credibility and public support of the region’s institutions

A primary obstacle in the way of expediting trans-Hudson megaprojects is the multiple tiers of reviews and permits required by multiple agencies for approval, which take years to complete. For example, the Bayonne Bridge Navigational Clearance Project, which was granted a “fast-track” environmental review process, nevertheless needed 47 approvals from 19 different agencies, and took more than five years to complete. Project delivery delays caused by lengthy reviews generate enormous costs to the public as the realization of the benefits of the vital projects is delayed as well.

The solutions to the trans-Hudson crises will need to find their way through complex permitting and environmental review processes, which could significantly delay their implementation. Coordinated action among the states, operating agencies and federal government is essential to overcoming the challenges and ensuring the expeditious delivery of these projects.

Federal leadership to fast-track these projects through streamlined regulatory and environmental processes as well as funding and financing support will significantly bolster the region’s ability to deliver these projects.

The First Trans-Hudson Summit

Agenda & Participants

Session I: Understanding the Trans-Hudson Challenge & Developing Solutions

Port Authority Presentation

Andrew Lynn, Director, Planning & Regional Development

Amtrak Presentation

Drew Galloway, Chief of Planning & Performance, Northeast Corridor Infrastructure & Investment Development

NJ TRANSIT Presentation

Veronique Hakim, Executive Director

Rich Roberts, Chief, NEC Trans-Hudson Projects

Metropolitan Transportation Authority Presentation

Bill Wheeler, Director of Planning

Regional Plan Association Presentation

Thomas K. Wright, President

Session II: Building a Federal, Bi-State & Local Partnership

Moderator

Thomas K. Wright, President, RPA

Distinguished Panelists

Peter Rogoff, Under Secretary of Transportation for Policy, U.S. Department of Transportation

Joel Ettinger, Executive Director, New York Metropolitan Transportation Council

Mary K. Murphy, Executive Director, North Jersey Transportation Planning Authority

Martin Robins, Founding Director, Voorhees Transportation Center, Rutgers University

Amtrak Panelists

Anthony Coscia, Chairman of the Board

Stephen Gardner, Vice President, Northeast Corridor Infrastructure & Investment Development

Drew Galloway, Chief of Planning & Performance, Northeast Corridor Infrastructure & Investment Development

NJ TRANSIT Panelists

Veronique Hakim, Executive Director

Rich Roberts, Chief, NEC Trans-Hudson Projects

New York Panelists

Polly Trottenberg, Commissioner, New York City Department of Transportation

Bill Wheeler, Director of Planning, Metropolitan Transportation Authority

Port Authority Panelists

John Degnan, Chairman

Scott Rechler, Vice-Chairman

Patrick Foye, Executive Director

Andrew Lynn, Director, Planning & Regional Development

Regional Plan Association Panelist

Elliot G. Sander, Chairman

Session III: Financing the Solutions

Moderator

Rohit Aggarwala, Principal, Bloomberg Associates

Panelists

D.J. Gribbin, Managing Director, Macquarie Group

Chris Ireland, Director of Infrastructure Investments, Ontario Teachers' Pension Plan

Sam Schwartz, President, CEO & Founder, Sam Schwartz Engineering

Robert D. Yaro, President Emeritus & Senior Advisor, Regional Plan Association

Session IV: Getting Shovels in the Ground

Moderator

Joshua Schank, President & CEO, Eno Center for Transportation

Panelists

Mark Chertok, Principal, Sive, Paget & Riesel

Philip Howard, Chair, Common Good

Marilyn Jordan Taylor, Dean, School of Design, University of Pennsylvania