



The Case for Penn South

On January 6th, Governor Cuomo announced the start of an ambitious plan to acquire the block directly south of Penn Station to expand the station complex with new tracks and platforms.

This expansion of Penn Station would include six street-level access points and is projected to increase capacity to serve 175,000 additional passengers and 40 percent more trains. Commonly known as Penn Station South, this idea has been around for at least a decade and is fundamental to the success of the Gateway Program. The Governor's plan accelerates the timeline for its construction.

This paper aims to demonstrate three things:

- ▶ why this new capacity is needed;
- ▶ why it makes sense to move Penn Station South forward while simultaneously pushing to build a new trans-Hudson tunnel as quickly as possible;
- ▶ and how Penn Station South can be built as a through-running station that is integrated into a unified station complex.

Amtrak, Long Island Rail Road (LIRR), and NJTransit (NJT) currently operate in Penn Station and Metro-North is set to begin operations a few years from now. Add on to that the various government agencies, advocacy groups, developers, landlords, and other entities that all have a stake in making Penn Station and the surrounding area a safer and more dignified part of the

public realm, and it's clear why action on Penn Station has been so difficult to come by over the years, and why the Governor's plan is so important.

The capacity that would be added by Penn Station South is desperately needed, both to relieve overcrowding at Penn Station and to accommodate the future demand for rail transportation in the region.

Built to accommodate 200,000 passengers per day, Penn Station now operates at more than twice its intended capacity. With approximately 450,000 intercity and commuter trips made daily to the station and 330,000 subway riders using the A/C/E and 1/2/3 stations at 34th Street, Penn Station can get dangerously congested. With its narrow and crowded platforms, low ceilings, poor heating and cooling systems, abysmal ADA accessibility, lack of cleanliness, and sub-par public amenities, Penn Station lacks the efficiency, safety, and dignity the busiest public transit hub in the Western Hemisphere should offer. And expected growth in the region's economy and new services that are slated for Penn Station will create even more crowded and unsafe conditions in the near future.

In the short term, Penn Station passengers will see some congestion relief as the opening of Moynihan Train Hall will add needed waiting areas and East Side Access will significantly reduce the number of LIRR riders at Penn Station. The short dip in ridership to just under 400,000 riders will not take long to once again rise with the addition of Metro-North riders through

the Penn Access Project and an expansion of Trans-Hudson capacity and reliability via the Gateway Program. Once the full Gateway Program is completed around 2040, RPA projects that rail ridership into Penn Station could grow to over 600,000.

The details of the expansion must be debated through a robust planning and public engagement process that carefully considers historic preservation, urban design, and neighborhood concerns, but it is clear that Penn Station needs the extra capacity provided by Penn Station South.

Penn Station South is the best way to create through-running service that would provide even more capacity.

In addition to creating new tracks and platforms, the plans for Penn Station South are being developed with an eye toward an eventual future extension to the east that would enable through-running service, greatly expanding travel options for NJT and LIRR riders and increasing the number of trains and passengers that Penn Station can handle. Instead of having trains linger for 15-20 minutes at the Penn Station platform, as they currently do, through-running trains could make shorter stops to unload and then board new passengers and then continue service in the same direction. Through-running would improve capacity by providing travelers with direct crosstown service between New Jersey and Long Island and reduce the amount of time trains spend boarding at Penn Station.

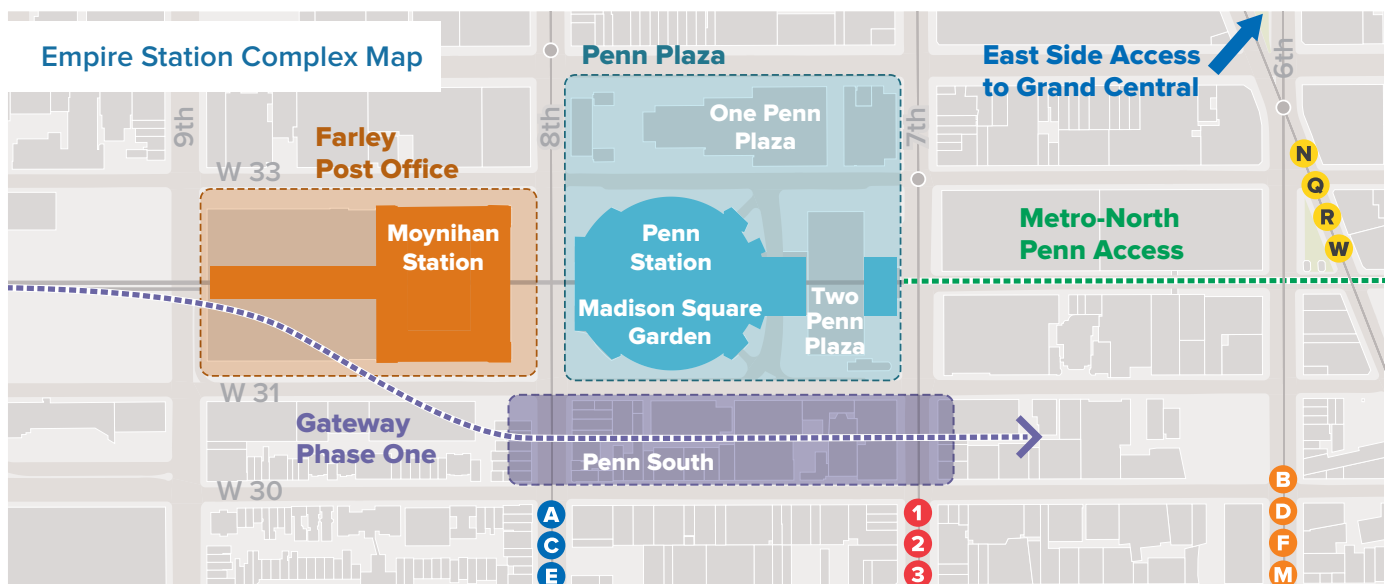
Some critics have argued that Penn Station doesn't need to be expanded, and could handle the increase of 200,000 or more additional daily commuters by redesigning the tracks and platforms and providing more through-running service. This vastly underestimates how extraordinarily disruptive and expensive converting Penn Station to through-running would be without Penn Station South. In fact, Tracks 5-21 technically support through-running today – Amtrak trains through-run to Boston or D.C. with a long wait, LIRR trains through-run to end their trip at Hudson Yards, and some NJT trains through-run under the

East River to Sunnyside Yard. Still, efficient through-running of revenue service is unworkable at the existing Penn Station because the platforms aren't large enough to accommodate both outgoing and incoming passengers at the same time and there is not enough vertical circulation (stairs, elevators, and escalators) to move passengers up from the platform to the lower level of Penn Station efficiently. Grade and track alignments would also require extensive reconstruction. These changes would require closing platforms and reducing service for an extended period. Beyond the tracks and platforms, rolling stock, electrical systems, labor contracts, and other essential systems of LIRR, NJT, and Metro-North would need to be compatible.

By contrast, Penn Station South could be built with much wider platforms than those at Penn Station to allow for faster passenger movements. The platforms should also be built with greater vertical circulation to improve safety and comfort while also speeding up boarding and alighting to decrease dwell times. Through-running service at Penn Station South would require extending the Gateway tunnel underneath the East River to a new rail yard in Queens or the Bronx or a connection to the Northeast Corridor. While this would cost several billion dollars, it would likely cost less than converting the existing Penn Station with none of the disruption, and add needed capacity under the East River.

As proposed by RPA¹, extending a new two-track tunnel to Queens would allow for a 38 percent increase in trains through the new tunnel and would increase track capacity under the East River by 50 percent. Through-running service would serve a similar function to Crossrail in London or RER service in Paris to get commuters into or through the city center with speed and efficiency. Through-running would also open the possibility for freight trains to use the station in off-hours, connecting to the Lower Montauk line in Queens. This could be extremely helpful for freight movement and take a considerable number of trucks off of New York City's overburdened streets.

¹ See the RPA report, [Crossing the Hudson](#)



Now is the Time to Take Action on Penn Station

Planned commuter rail projects offer a once-in-a-generation opportunity to create a unified and interconnected Penn Station complex that meets regional demand.

The timing of new facilities and services will reduce the number of passengers in the existing Penn Station in the short-term and create a window to undertake work to prepare the station complex for building Penn Station South. The alignment and sequencing of these project make a compelling case for accelerating Penn Station South in the timeline proposed by New York State.

The Moynihan Train Hall and Farley Complex

In late 2020, Moynihan Train Hall will open across 8th Avenue and the majority of Amtrak operations will relocate out of Penn Station. Phase one of Moynihan, a new westside concourse, opened in 2017, providing a new western egress for riders headed to the A/C/E or points west.² Phase two of Moynihan includes the new train hall with a grand 92-foot skylight held up by massive original Farley Post Office sorting room beams, several new egresses for Amtrak boarding on the middle tracks, and a direct access point to 9th Avenue. In addition to being the primary boarding area for all Amtrak trains, Moynihan will also house LIRR services and access points. When complete, redevelopment of the block will add more than 700,000 square feet of new restaurants and retail in addition to new office space.

RPA estimates that Moynihan Train Hall will reduce trips departing from or arriving at Penn Station concourses by approximately 12 percent or 54,000 per weekday. That includes nearly all of Amtrak departures, a third of Amtrak arrivals (22,000 trips), and 10 percent of LIRR trips (23,000) initially.³ Eventually, 20-25 percent of LIRR trips will use Moynihan especially as more commercial and residential development takes hold on the west side of Manhattan. Since NJT has virtually no presence at Moynihan and many of their usual platforms do not extend far enough west to access the Train Hall—or even the West End Concourse—the benefits of Moynihan for NJT rider will be minor. Only about 9,000 NJT trips per day are expected to transfer to Moynihan—about 5 percent of those trips.

As such, Moynihan is not a panacea for the majority of the problems with Penn Station. Rather, it will provide a greatly improved space for intercity travelers who have time to spare and relieve congestion somewhat at Penn Station.

Concurrent with Moynihan's opening at the end of 2020, a number of other helpful but smaller projects will near completion. While they do not have direct impacts on ridership, they

"This expansion in the block south of Penn — combined with the soon-to-be-completed Moynihan Train Hall and the transformation of the existing Penn facility — will create an interconnected, world-class Empire Station Complex that will expand capacity by 40 percent. This will improve how more than half a million New Yorkers commute, travel and work every day, while transforming Penn into the world-class facility the Empire State deserves."

— Governor Andrew Cuomo

will improve passenger flow and improve amenities. They include a large indoor-outdoor space centered on 33rd Street, closing the eastern half of that street, and creating a new plaza with an entrance directly down to an enlarged LIRR concourse. The LIRR concourse will nearly double in width with higher ceilings and more natural light, including some light down to the northern half of the platform level, which will improve wayfinding.

East Side Access

In 2022, East Side Access service to Grand Central Terminal will open, leading to a significant drop in ridership at Penn Station. East Side Access features an eight-track terminal 182 feet underground and a new concourse stretching underneath Madison Avenue from 43rd Street on the south end (where it connects directly to Grand Central Station and the 42nd St. 4/5/6, 7, and S trains) up to 48th Street to the north. The massive project has been over a decade in the making at a cost of over \$11 billion. It will bring up to 24 trains per hour into Grand Central during peak hours and should free up considerable space for other trains at Penn Station.

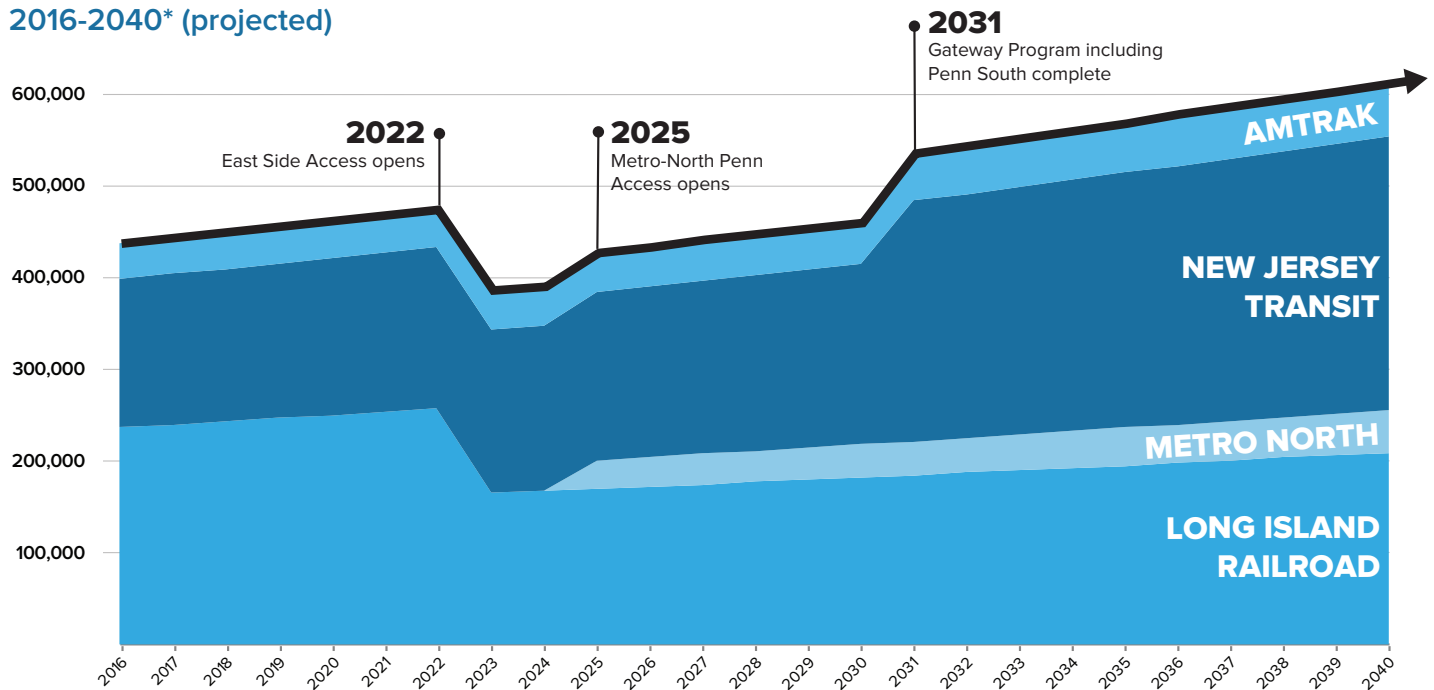
The MTA estimates that East Side Access will result in just less than half of Long Island Railroad commuters transferring to the new service, reducing demand on Penn Station by approximately 98,000 trips daily or 42 percent of the total current LIRR trips at Penn Station.⁴ This significant dip in ridership represents an important opportunity to make renovations to the existing portions of Penn Station, as there will be more free capacity than any time in the past decade and in the next decade. It should also allow for some restoration of the tunnels under the East River that feed Penn Station, which still are in considerable need of repairs following Hurricane Sandy. To encourage new ridership on the LIRR following the opening of East Side Access, the MTA should launch an equitable fares program to encourage ridership from eastern Queens to Penn Station and Grand Central.

⁴ Source: LIRR East Side Access EIS

² The West End Concourse does not serve Tracks 1-4, only Tracks 5-21

³ Source: Moynihan Station FEIS

Daily Ridership by Agency at Empire Station Complex 2016-2040* (projected)



*Excludes subway ridership

Madison Square Garden Operating Permit

Another important inflection point will occur in the summer of 2023 when the special operating permit for Madison Square Garden (MSG) is set to expire. While MSG owns the land above Penn Station, it must go through a full Uniform Land Use Review Procedure (ULURP) process in order to continue to operate via their special permit. The public discussion that is a key part of that process presents another opportunity to help determine the right course of action for the area. MSG's location directly over the core of Penn Station has long been a point of contention, as it was in 2013 when the New York City Council decided to limit their operating permit to only 10 years instead of the lifetime permit MSG was seeking.

Penn Access

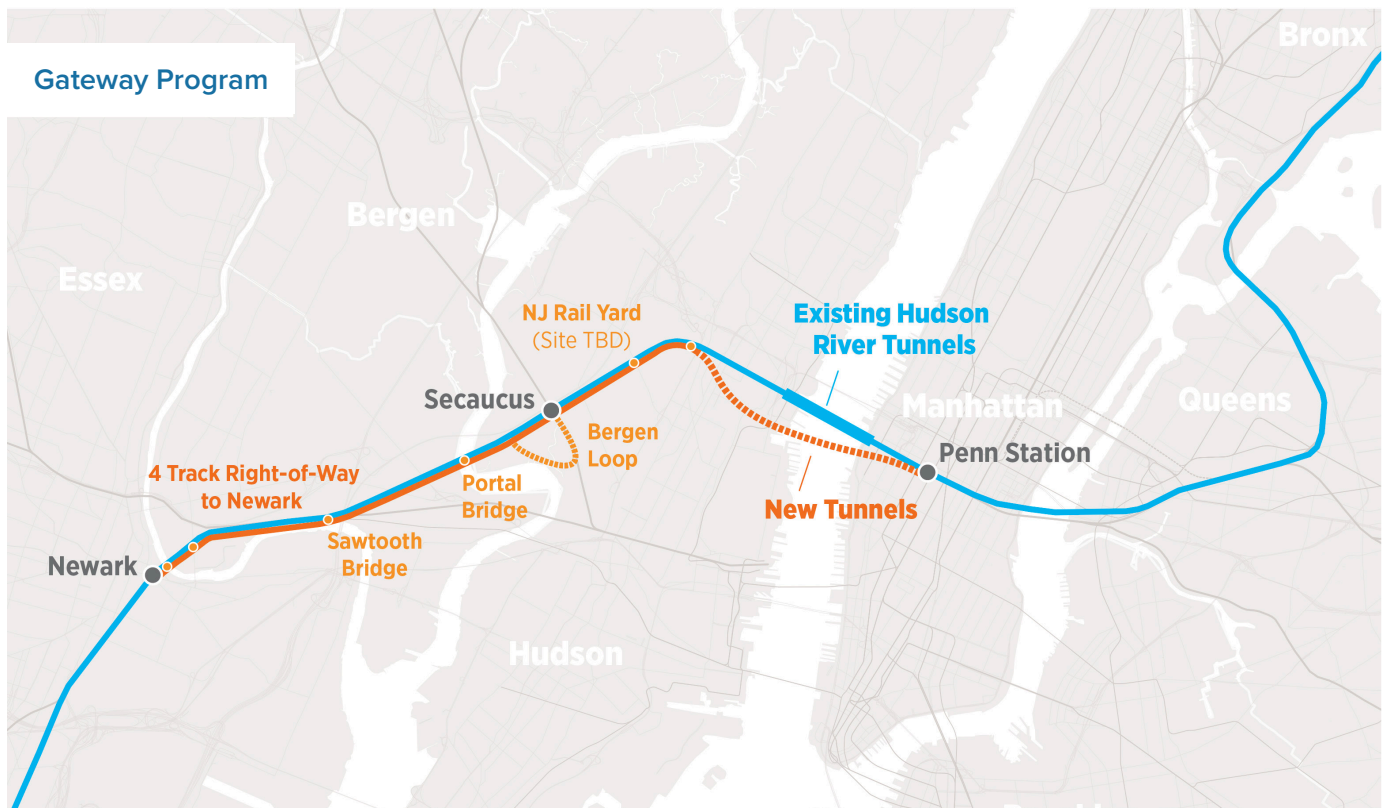
Sometime around 2025, Metro-North Penn Access will begin service to Penn Station, which will begin to close the window for less disruptive work at Penn Station that is made possible by the opening of Moynihan Station and East Side Access. The Penn Access Project, which includes four new stations in the Bronx, will bring riders on the New Haven line from Connecticut, Westchester, and the Bronx over the

Hell Gate Bridge, and through Sunnyside Yard into Penn Station in addition to existing service into Grand Central.

The increase in ridership at Penn Station that will accompany the service has yet to be released publicly by the MTA, but given the current ridership on the New Haven Line and the addition of the four new stations in the Bronx, a conservative estimate could begin at approximately 35,000 daily rides to and from Penn Station, about a third of total New Haven line ridership.⁵ If the MTA were to include an equitable fare program in conjunction with the new Bronx stations, however, this number could be significantly higher.

In addition to adding a significant number of new passengers into Penn Station, adding Metro-North to Penn Station may strain the operational space at Penn. Currently, Metro-North and LIRR contractually require separate operational teams and space despite being part of the MTA, although this could change with some advance planning.

⁵ RPA estimate using existing ridership figures



Gateway Program Phase 1

Assuming that the Environmental Impact Statement for the new tunnel is approved, and that Federal funding for the program is finally released, Phase 1 of the Gateway Program should be completed approximately a decade from now. Phase 1 includes a new Portal North Bridge over the Hackensack River, a new Hudson River Tunnel with two new tracks, and the rehabilitation of the existing 109-year-old North River Tunnel. As the nation's most urgent infrastructure project, the first phase of the Gateway Program will greatly improve reliability, resiliency, and redundancy on the Northeast Corridor's (NEC) two most vulnerable single points of failure. If either the tunnel or Portal Bridge fails, rail travel from Washington D.C. to Boston will be severely impacted with ripple effects felt throughout the national economy.

A conservative estimate of the impact of a planned partial shutdown of the NEC, from two tracks to one under the Hudson River, would cost the national economy \$16 billion over four years.⁶ Nearly half a million people would have longer, less reliable and more crowded commutes, including more than 100,000 commuters that would see their daily travel times rise by over an hour. Additionally, federal, state, and local governments would lose \$7 billion in tax revenue while homeowners would see their property values reduced by more than \$22 billion.

Phase 1 of the Gateway Program is absolutely essential for an expansion of Penn Station to be successful, but by having the two projects finish more-or-less concurrently, operators will gain a significant amount of flexibility to improve Penn Station for their passengers.

Gateway Program Phase 2

While the first phase of Gateway is crucially important and will help avoid an economic and human disaster for the NYC region, the completion of Gateway Phase 2 is where the transformational nature of Gateway is truly unleashed through the doubling of rail capacity under the Hudson River. Phase 2 contains a number of elements, including a replacement of the Sawtooth Bridge, Portal South Bridge, the Bergen Loop, a new New Jersey rail yard, and an expansion to at least four tracks at all points between Newark Penn Station and New York Penn Station. These various elements add up to one distinct goal: doubling the rail capacity between New York and New Jersey. Prior to Governor Cuomo's announcement, the Penn Station South project was the most expensive, difficult, and lengthiest part of Gateway Phase 2. With its timeline now accelerated, the capacity created by this series of projects can be realized sooner. This should greatly reduce the time needed for Phase 2 of the Gateway Program, which will greatly aid all trans-Hudson commuters and significantly improve the prospects for growth throughout the NYC region.

⁶ See the RPA report, [A Preventable Crisis](#)

Create a Unified Station Complex

When Penn Station South is built, the Penn Station complex will include three station sections with four operators. Simplifying and unifying the complex will be crucially important for an improved experience for passengers.

This includes combined signage, improved wayfinding, and widened concourses and corridors with better connections to the subways and street. Fare integration would be another important action to reduce lines, confusion, and congestion. Additional questions on how the Governor's plan for an "Empire Station Complex District" will be realized and how that vision can be used to improve the street-level experience for pedestrians, cyclists, and bus riders must also be considered in detail.

New Jersey Transit

New Jersey Transit ridership into Penn Station has seen explosive growth over the past three decades more than tripling from 52,000 trips per average weekday in 1990 to more than 170,000 in 2018. With more commuters than ever crossing the Hudson River on a daily basis, there has been increasing stress on the overburdened Penn Station and the existing two-track North River Tunnel. Determining how the tracks and platforms will be utilized most effectively after Penn Station South is built is crucial for meeting the demands of NJT as well as LIRR and Amtrak.

For the sake of passengers, Penn Station South must also integrate directly and seamlessly into the lower-level concourse of Penn Station. In order for that to happen, a number of alterations to the NJT space on the southern end of the existing sections of Penn Station will need to be completed. Specifically,

when building Penn Station South, the following NJT improvements should happen either prior or immediately after the Penn Station South opening:

- ▶ Extend the Central Concourse to include the NJT tracks and extend all three concourses on the lower level of Penn Station to Penn Station South to create seamless and stairless pedestrian transition points.
- ▶ Add an additional exit/entrance point to the existing part of Penn Station mid-block down on 31st St.
- ▶ Decide how Penn Station South and Moynihan Station are connected underground with enough capacity for passengers.
- ▶ Expand the number of tracks and platforms for use by NJT.
- ▶ Consider replacing the NJT waiting area (aka "The Pit") with a Southern Penn Station Corridor under 31st St that is seamlessly integrated with the rest of the lower level of Penn Station and Penn Station South.
- ▶ Plan for future transit connections, such as direct access between Penn Station South and the 28th Street Subway Station on the 1 Train.

There are other important improvements that should happen to existing Penn Station space (such as widening the Hilton Corridor, expanding the connection to the 1/2/3 station and removing the bulk of the upper level of the existing Penn Station) to help improve safety and wayfinding in the existing station. Exactly when and how these improvements are eventually done and who pays for them have yet to be discussed. It's clear, however, that adding Penn Station South will create extra capacity to make needed improvements to the existing station.

Gateway

As the most important single infrastructure project in the country, the Gateway Program is necessary to create more transit capacity under the Hudson River and to allow for repairs of the 109-year old North River Tunnel. The tunnel is the biggest chokepoint in the Boston-to-Washington Northeast Corridor.



It's essential that the weakest link of the chain is fixed. Without the expanded rail capacity between New York City and Newark added by Gateway, the value added by Penn Station South is greatly diminished.

Gateway has never been a single rail project, but rather a combination of elements, including two new bridges over the Hackensack River, a new, two-track tunnel under the Hudson River, and new tracks and platforms in an expanded Penn Station complex. While each component provides benefits, without all the elements of the program, the full benefit of each individual investment cannot be realized.

Penn South

Building Penn Station South sooner will produce multiple benefits for the region, including:

- ▶ The cost of acquiring land adjacent to Penn Station for an expansion will likely increase over time; building now will save the public from higher future costs.
- ▶ Building Penn Station South as a through-running operation—including eventually building two new tunnels under the East River connecting the complex to Queens—will generate much more capacity and operational benefits, especially for LIRR and Metro-North riders. Penn Station South and Gateway must be planned and built to provide through-running in the future. To maximize this through-running potential, a station design with fewer tracks and wider platforms should be evaluated along with the current plan for eight tracks with four platforms.
- ▶ Penn Station South will make it easier to improve Penn Station. Once Penn Station South has been built, it will be easier to renovate and repair the existing Penn Station operations to further improve the commuter experience and provide easier mobility and connectivity.
- ▶ Planned new services will make Penn Station the undisputed hub of the region's rail network and create the possibility for an integrated system as described in RPA's Trans-Regional

Express proposal.⁷ Planning for the station and district should enable and anticipate future expansion and services to support the region's continued growth and development.

The Penn Station District

While New York State takes the lead on creating a district-wide plan for Penn Station and building Penn Station South, several key issues will factor into the eventual success of this project, including:

- ▶ A plan for the district must take advantage of the extraordinary transit capacity and connectivity provided by Penn Station and the railroads. This is an appropriate area for future growth—which can also be tapped to help finance the public investments necessary to secure our transit system.
- ▶ The major operators at Penn Station—including Amtrak and NJT, as well as the MTA—all need to be involved in discussions around future service improvements and how to allocate new system capacity.
- ▶ Any Penn Station District plan must seriously weigh historic preservation concerns and incorporate a robust urban design strategy
- ▶ All improvements for creating a great public amenity at the existing Penn Station should be considered, including removing the Hulu Theater and even moving Madison Square Garden to a new location to allow for a world-class facility and improved pedestrian flows throughout the complex. Madison Square Garden is an important part of the Penn Station district, and their long-term needs should be considered as part of this plan—including finding them a location to build a modern facility to serve for the rest of the 21st century.

Penn Station South presents a once-in-a-lifetime opportunity with wide-ranging benefits for the entire metropolitan region, the Northeast, and the nation. Now we need to make sure it happens in the best way possible.

⁷ See the RPA report, [Trans-Regional Express \(T-REX\)](#)



Acknowledgments

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