

THE HUDSON TUNNEL PROJECT

OVERVIEW

The Hudson Tunnel Project includes three major elements to create **resiliency**, **redundancy**, and **reliability** for Amtrak's Northeast Corridor (NEC) service and NJ TRANSIT's commuter rail service between New Jersey and Penn Station New York (PSNY):

- *New, Two-Track Hudson River Tunnel (HTP)*: The construction of a new two-track Hudson River rail tunnel from the Bergen Palisades in New Jersey to Manhattan.
- *Hudson Yards Concrete Casing – Section 3 (HYCC-3)*: The construction of the third and final rail right-of-way preservation section beneath Hudson Yards in NY.
- *North River Tunnel Rehabilitation*: The rehabilitation of the existing North River Tunnel that was severely damaged during Superstorm Sandy.



BACKGROUND

The existing North River Tunnel (NRT) opened in 1910 by the Pennsylvania Railroad was designed to early 20th-century standards and consists of two tracks. This “one-track-in, one-track-out” rail system between New York and New Jersey results in significant delays up and down the NEC when service incidents occur. Service reliability through the NRT, already suboptimal because of the tunnel’s age and antiquated design, has been further compromised because of the damage to tunnel components caused by Superstorm Sandy in 2012.

Superstorm Sandy inundated both tubes of the NRT with millions of gallons of seawater, causing ongoing damage to the NRT’s structural, mechanical, and electrical infrastructure. This results in disabled trains, signal malfunctions, and significant delays. When an incident takes one tube out of service, traffic in and out of PSNY must use the one remaining NRT tube, resulting in significant delays and reducing capacity by up to 75%. The 24 trains per hour that use the NRT in the peak period could drop to as few as 6 during the closure of one tube.

The Hudson Tunnel Project will build two additional tracks and rehabilitate the existing two tracks, resulting in four modern tracks between New York and New Jersey that create operational flexibility, rail network redundancy, and resiliency against future impacts to the Hudson River rail crossing. The North River Tunnel/Hudson River rail connection is a vital part of the 457-mile NEC between Boston, MA, and Washington, DC, America’s busiest passenger railroad.

BENEFITS

The Project will provide long-term resiliency, reliability, and redundancy to the regional and national rail network customers who rely on these rail services. In doing so, there are substantial social, economic, and environmental benefits. The Project would:

- Eliminate a single point-of-failure for a regional economy that drives a sizable portion of America’s Gross Domestic Product (GDP). The New York regional economy and the Northeast corridor megaregion contribute 10% and 20%, respectively, of the nation’s GDP.

North River Tunnel (Existing)

Opened: 1910

Tracks: 2 (1 track in separate tubes)

Weekday Revenue Trains

450+ NJT & Amtrak Trains

Weekday Passenger Trips

200,000+ NJT & Amtrak Trips

Major Failure Days (2014-2018)

65 days, each causing more than **5 hours** of total train delays, resulting in **2,500 delayed trains & 65,000 train delay minutes**



- Create over 72,000 direct, indirect, and induced jobs over the Project's construction period.
- Stimulate the economy by directly spending more than \$87 million/month on average on materials & labor over the Project's construction period.
- Utilize U.S. suppliers and manufacturers through the Buy America requirement that applies to federally funded purchases, as well as the provisions regarding participation by minority and women-owned, small, and disadvantaged businesses.

CURRENT ACTIVITIES

START OF CONSTRUCTION. In 2023, work began on both sides of the Hudson River. In October, the contractor on the Tonnelles Avenue Bridge and Utility Relocation Project – a new roadway bridge above the future railroad right-of-way that allows for a connection to the new tunnel portal – received its "Notice to Proceed." In November, work began in New York on HYCC-3.

PROCUREMENT. Five out of the nine packages that make up the Hudson Tunnel Project will either be under construction or in procurement by the end of this year. The RFP for the Hudson River Ground Stabilization (HRGS) contract, which involves work to fortify and stabilize the New York side of the Hudson River bottom, was released to shortlisted firms in August 2023, with proposals due at the end of the year. Contracts for the Palisades Tunnel and Manhattan Tunnel are also currently in procurement. In addition, GDC is in the RFP stage of securing a Delivery Partner, which will significantly increase its capacity to manage and deliver the project by accelerating project planning, programming, design management, and construction management.

FUNDING & FINANCING. GDC has made significant advancements toward developing the technical, financial, and legal capacity to become eligible for federal funding and to receive local support for the remaining share of the project. In July 2023, the agency received approval for Entry into Engineering from the FTA, which qualifies the project to receive up to \$6.88 billion from the Federal Transit Administration's Capital Investment Grants (CIG) Program. In addition, GDC was selected for a \$25 million US Department of Transportation's (USDOT) RAISE Grant for the Tonnelles Avenue Project, and the HTP was also selected for a \$292 million award from the MEGA Grant Program for HYCC-3.

In November 2023, GDC was officially notified that the Hudson Tunnel Project will receive a \$3.8 billion grant from USDOT's Federal-State Partnership for Intercity Passenger Rail (FSP) Program and is currently working toward securing both a Full Funding Grant Agreement and Railroad Rehabilitation and Improvement Financing (RRIF) loans to finalize funding for the project.

Taken together, the federal commitment to the HTP represents the largest-ever investment in a mass transit project.

NEXT STEPS

As GDC moves toward a Full Funding Grant Agreement, it will continue to work closely with FTA to meet critical milestones. These include an updated FTA CIG Evaluation and Rating and Project Management Oversight Contractor FFGA Readiness Review. In October, GDC began advancing in the Build America Bureau federal loan process by undertaking a complete creditworthiness review, credit diligence activities, and will enter into negotiations on loan documents and terms. Together with federal funding, the securing of these loans will guarantee that the HTP is fully funded.

Meanwhile, GDC continues to make progress on early work packages that will bolster reliability, reduce costs, and mitigate risks to successful delivery.

Hudson River Tunnel & HYCC-3

Tracks: 2 (1 track in separate tubes)

Environmental Review (New HRT)

Complete from FRA & FTA

Environmental Review (HYCC-3)

Complete from FRA & FTA

Est. Construction Duration (New HRT)

12 years

Project Lengths (approx.)

New Track: 9 mi. (4.5 mi each direction)

New Tunneling: 4.5mi. (2.4 mi each direction)

Tunnel Diameters (approx.)

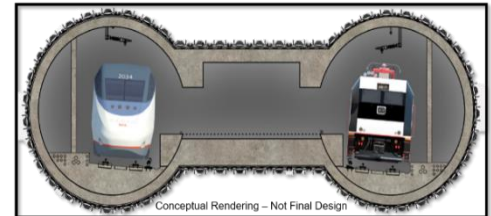
Internal: 25 feet, 2 inches

Outside: 28 feet

Tunnel Depths Below Surface (approx.)

Min: 20 feet (Manhattan, NY)

Max: 275 feet (Palisades, NJ)



North River Tunnel Rehabilitation

Environmental Review

Complete from FRA & FTA

Est. Construction Duration

3 years (1.5 years per tube)

Elements to be Improved

- Signals & Emergency Cables
- Track and Trackbed
- Internal Concrete
- Leaks & Water Resiliency