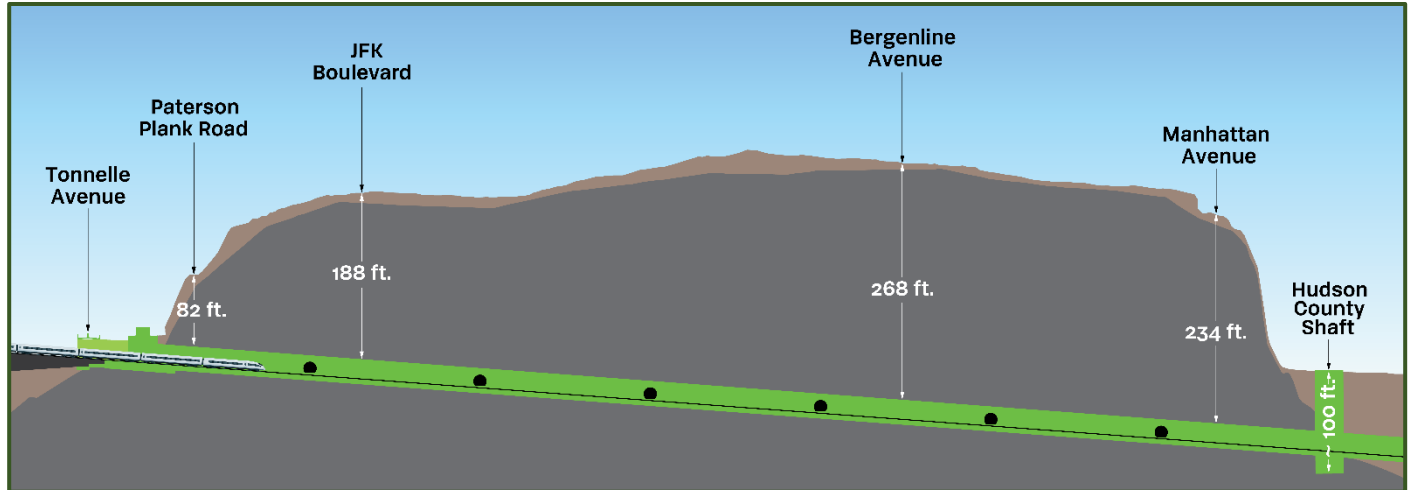


PALISADES TUNNEL PROJECT

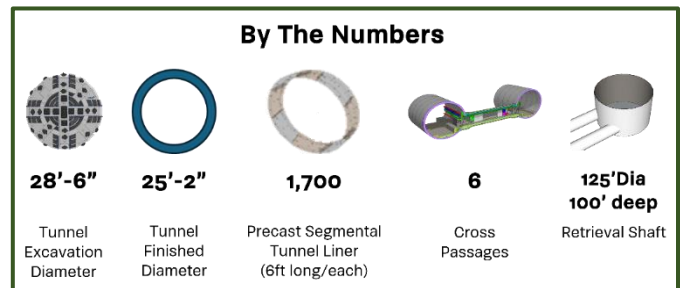
OVERVIEW

The Palisades Tunnel Project will construct the first mile of twin-tunnels on the New Jersey side of the Hudson River. **It is the first tunnel boring project of the Hudson Tunnel Project (HTP).**



The Project includes boring **two parallel tunnels approximately 5,100-feet long** with an inside diameter of 25 feet 2 inches and **six cross passages**, as well as furnishing and installing a concrete tunnel lining with waterproofing membrane.

It also involves building the new **Hudson County Shaft**, which will be used to remove the Tunnel Boring Machines when digging is complete.



TUNNEL BORING MACHINES

Two Tunnel Boring Machines (TBMs) will excavate the tunnels through the rock formations of the Palisades.

Each TBM measures nearly **30 feet tall and 350 feet long**. They will use rotating cutterheads to dig through approximately **1,230 cubic yards** of rock



CURRENT ACTIVITIES & NEXT STEPS

Construction of the Palisades Tunnel Project will begin in 2024 and is expected to be complete in 2027.

This is the fourth active construction project of the HTP, along with the **Tonnelle Avenue Bridge and Utility Relocation Project**, the **Hudson Yards Concrete Casing – Section 3 (HYCC-3) Project**, and the **Hudson River Ground Stabilization (HRGS) Project** – the first heavy construction project of the HTP.

THE HUDSON TUNNEL PROJECT

OVERVIEW

The Hudson Tunnel Project (HTP) 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 New York Penn Station (NYP):

- 1 Construction of a **new two-track Hudson River rail tunnel** from the Bergen Palisades in New Jersey to Manhattan.
- 2 Construction of the **third and final concrete casing at Hudson Yards**, which will preserve the right-of-way for the new tunnel to connect to NYP.
- 3 **Rehabilitation of the existing North River Tunnel**, which 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 caused by Superstorm Sandy in 2012.

When an incident takes one tube out of service, traffic in and out of NYP must use the one remaining NRT tube, reducing capacity by up to 75% and leading to significant delays. The 24 trains per hour that use the NRT in the peak period could drop to as few as 6 when just one tube is closed.

The HTP 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.

BENEFITS

The planned improvements to this vital part of the 457-mile NEC between Boston and Washington, DC – America's busiest passenger railroad – will result in substantial social, economic, and environmental benefits, including:

- **Eliminating 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 NEC megaregion contribute 10% and 20%, respectively, of the nation's GDP.
- Creating over **95,000 direct, indirect, and induced jobs** and generating **\$19.6 billion in economic activity** over the project's construction period.
- Stimulating the economy by directly spending an average of **more than \$87 million/month on materials and labor** over the project's construction period.
- Utilizing **U.S. suppliers and manufacturers from around the country** through the Build America, 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.