

## The Gateway Program: The Hudson Tunnel Project AMTRAK

**Location:** New Jersey – New York

**Date:** Ongoing

**Structure:** Railway Tunnels, Shafts, Bridges,  
Viaduct, Service Buildings

**Length:** Total: 4.5 mi (7.2 km);  
Tunnels: 2.5 mi (4 km)

**Cross-Section:** 25 ft (7.6 m) finished ID

**Geology:** Palisades Diabase, Soft Soil, Manhattan  
Schist

**Cost:** \$10 Billion (estimate)

**Client:** Hill International

**Owner:** AMTRAK

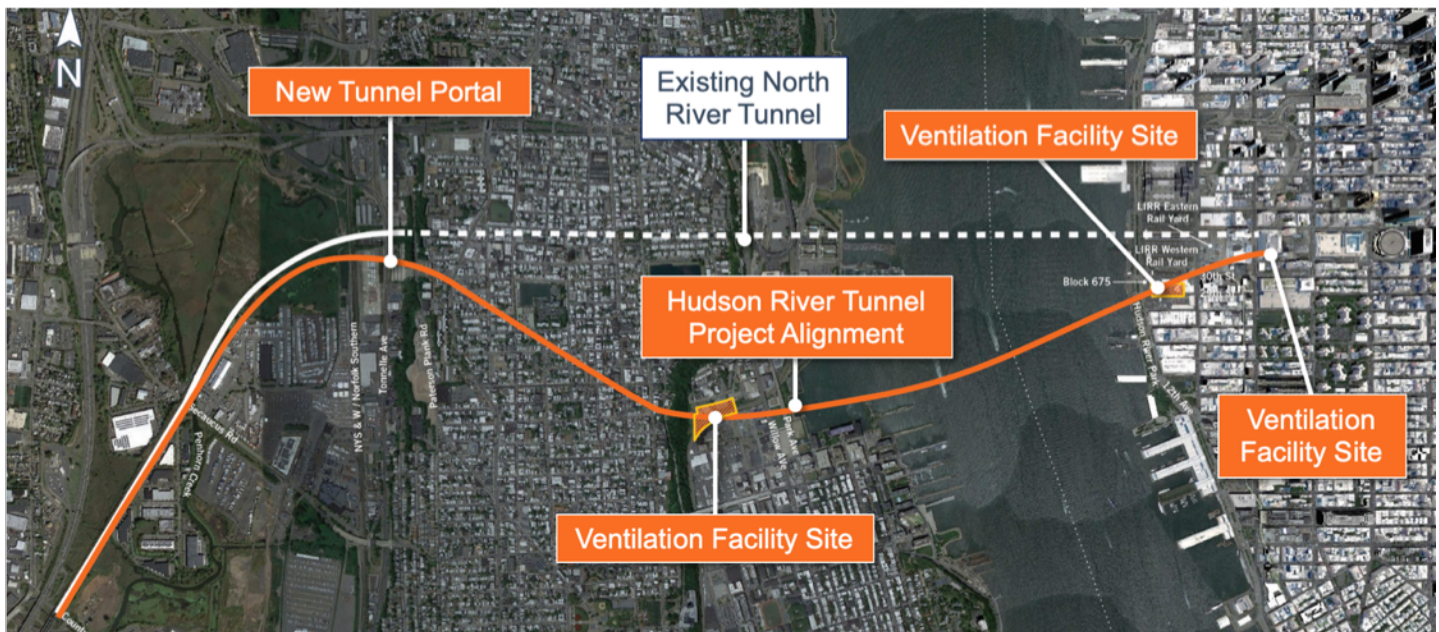
the existing rail complex at Penn Station New York (PSNY), and the rehabilitation of the century-old existing North River Tunnel, which incurred serious damage during Superstorm Sandy in 2012. The two new tunnels will consist of twin hard rock TBM tunnels driven through the Palisades, twin shallow soft ground TBM tunnels under the Hudson River, and shallow SEM tunnels on the New York side of the alignment. The Hudson River and Manhattan Tunnels provide challenging design issues as a result of the shallow cover and poor ground conditions along the Hudson River and the dense urban environment on the Manhattan side of the alignment.

The HTP forms a primary component of the Gateway Program, which includes a series of infrastructure enhancements to AMTRAK's NEC between Newark, NJ and PSNY. The Gateway Program is currently being overseen by the Gateway Program Development Corporation and funding for the HTP is being provided by the Federal Railway Administration (FRA), AMTRAK, New Jersey Transit (NJT) and the Port Authority of New York and New Jersey (PANYNJ).

Gall Zeidler Consultants (GZ) is providing technical expertise, mainly related to underground works, to support the Program Management Support Services (PMSS) which Hill International is performing for AMTRAK. The PMSS that GZ provides include, but are not limited to reviewing, commenting, and providing advice on: Contract Packaging and Procurement Strategies, Cost Estimates, Construction Schedules, the Preliminary Engineering Design, Constructability issues, the Geotechnical Investigation Program, the Instrumentation and Monitoring Program, Ground Improvement Techniques, and on the preparation of Bid Documents.

### Program Management Support Services:

The Hudson Tunnel Project (HTP) includes two main components: the construction of a new two-track Hudson River rail tunnel connecting the National Railroad Passenger Corporation's (AMTRAK) existing Northeast Corridor (NEC) tracks east of Frank R. Lautenberg Station in Secaucus, New Jersey, to



**Figure 1.** Proposed alignment of the new Hudson River Tunnel and approach structures as well as the location of the Existing Tunnel.