

# Gateway Development Commission

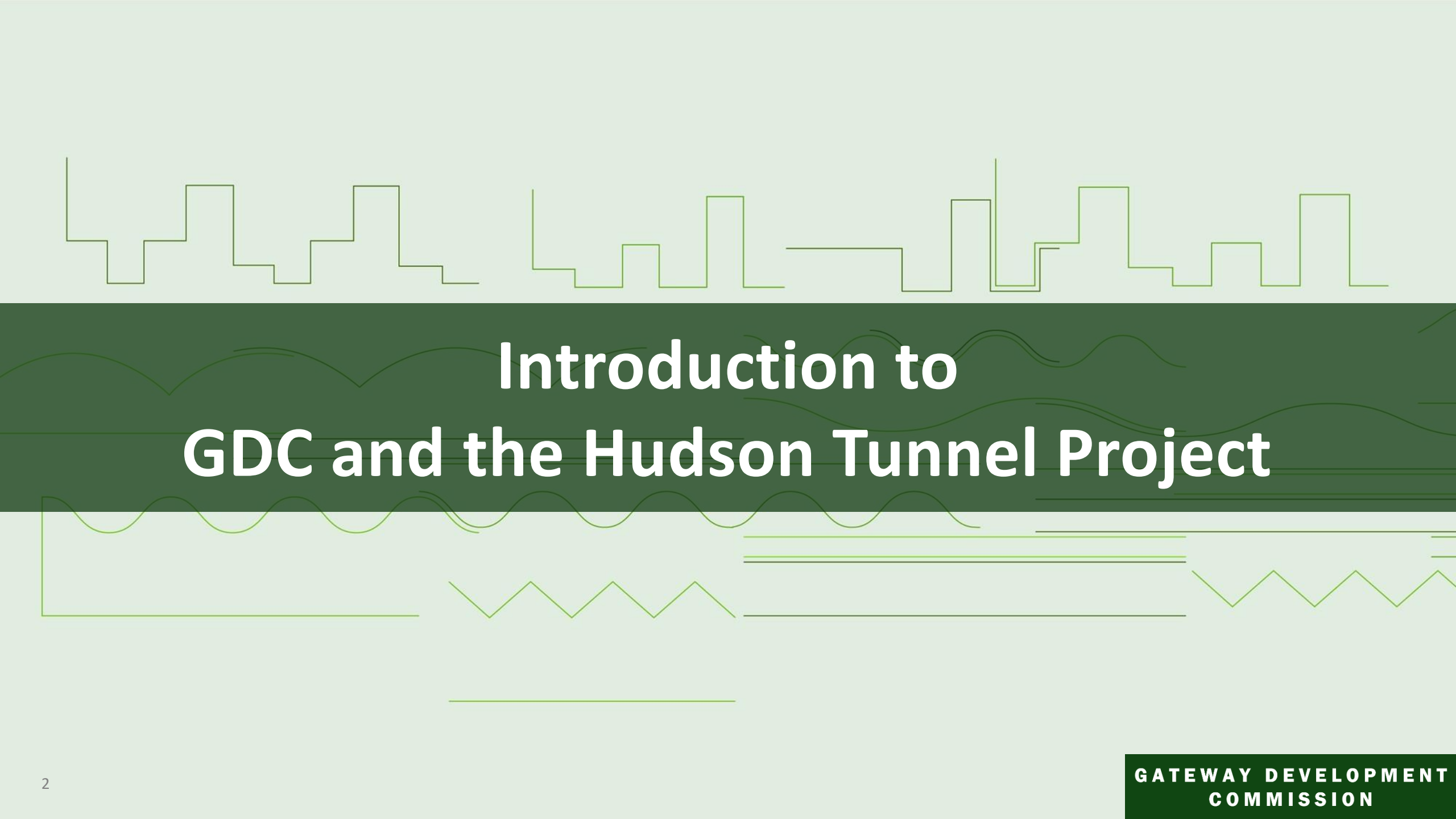
*American Concrete  
Institute – NJ Chapter*

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Deputy Chief Technical Officer

November 14, 2024

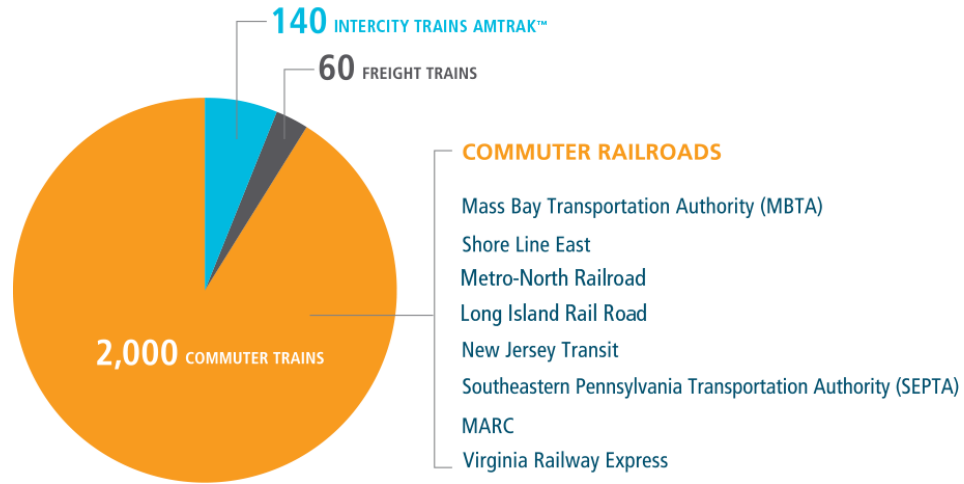
*For Indicative, Illustrative, Contemplative  
Purposes Only*





# Introduction to GDC and the Hudson Tunnel Project

# The Northeast Corridor: An Economic Engine With 800,000 Daily Riders



2,200 DAILY TRAINS

- The main line of the Northeast Corridor (NEC) is 457 miles long traversing major cities in the northeast region including Washington, DC, Baltimore, Philadelphia, New York and Boston
- Pre-COVID, more than 260 million passenger trips were made on the NEC per year



**7M**

Number of jobs located within 5 miles of a NEC station



**\$50B**

Annual contribution to the US economy by workers riding NEC



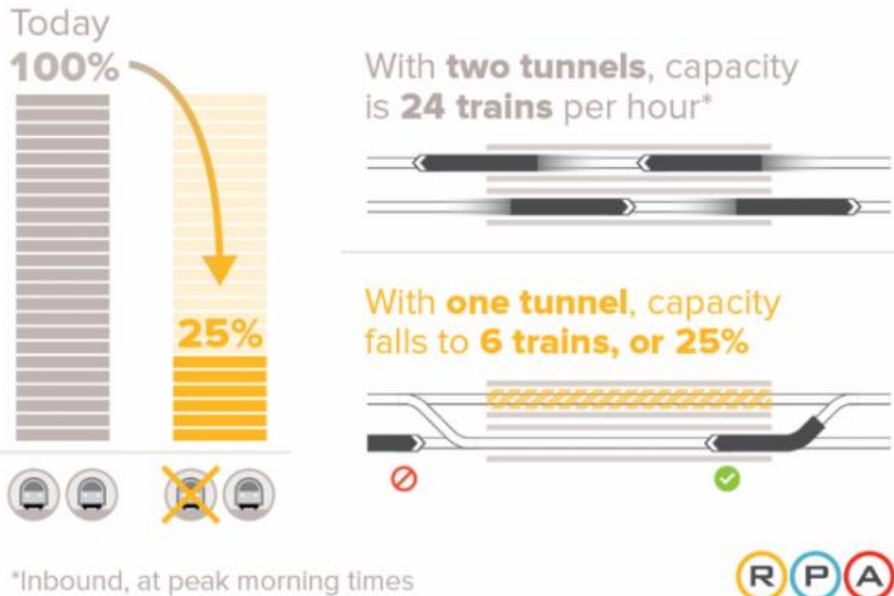
**\$100M**

Cost to the US of a single day of loss of NEC

# Why is the Hudson Tunnel Project the Most Urgent Infrastructure Program in America?

## A Vital Link at Risk

The Impact of a Hudson Rail Tunnel Closure



Source: **Regional Plan Association**, “A Preventable Crisis” (<https://rpa.org/work/reports/a-preventable-crisis>)

*A 4-year shutdown of **just one tube** would cause...*

- **\$16 billion** loss to GDP.
- **\$22 billion** loss to regional property values.
- **2 million additional tons of Co2** from car congestion released in the atmosphere.



# The HTP's Economic, Social, and Environmental Benefits

- **200,000 daily passengers** will finally have 21<sup>st</sup> century reliability at the NEC's busiest point.
- **The Hudson Tunnel Project will create 95,000 job** according to new research – 20,000 more than previously estimated.
- Construction will generate **\$19.6 billion in economic activity** and stimulate the economy with **\$87 million/month** spent on materials and labor.
- **U.S. suppliers and manufacturers** from around the country will benefit from Buy America/Build America requirements.
- Robust **DBE participation** will flow from federal provisions.



## Jobs, labor income, and output from early work projects

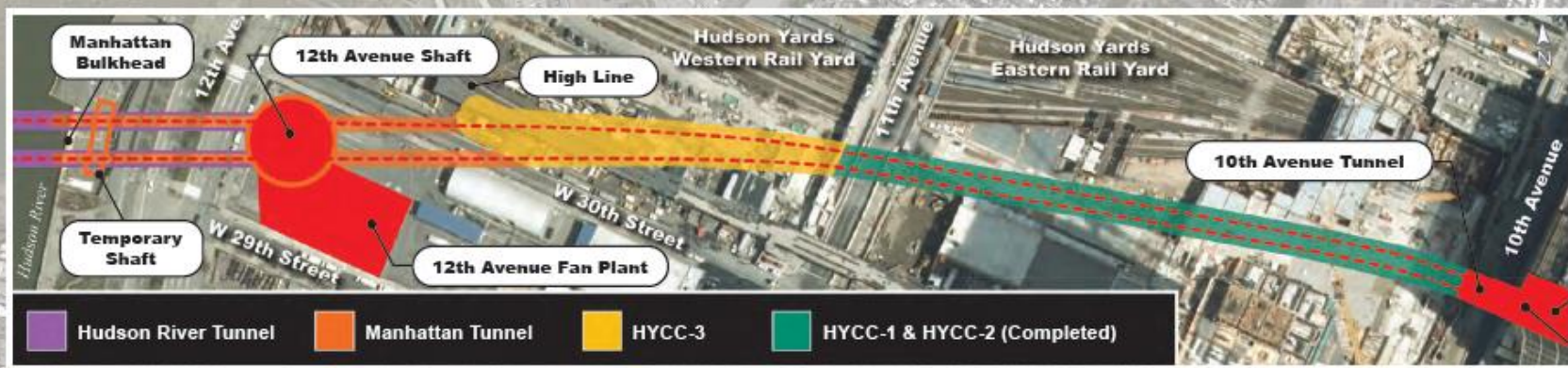
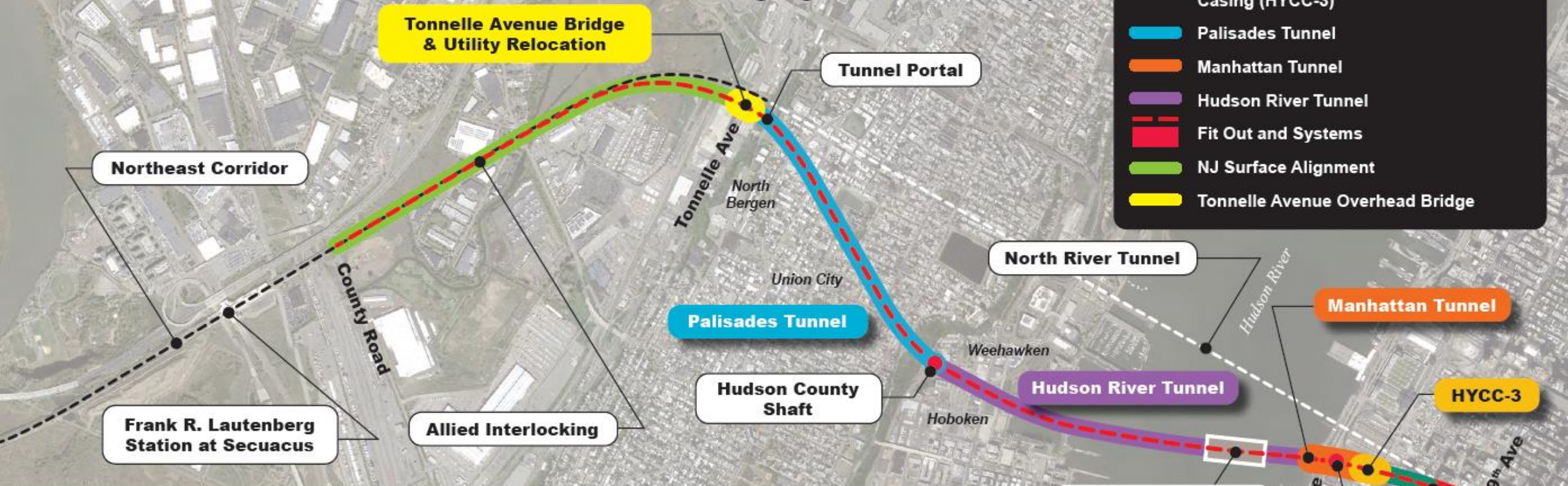
| Project                                    | Jobs         | Labor income         | Output                 |
|--------------------------------------------|--------------|----------------------|------------------------|
| Hudson Yards Concrete Casing               | 4,820        | \$400,000,000        | \$986,000,000          |
| Hudson River Ground Stabilization          | 2,270        | \$190,000,000        | \$466,000,000          |
| Tonelle Ave. Bridge and Utility Relocation | 420          | \$35,000,000         | \$86,000,000           |
| <b>Total</b>                               | <b>7,510</b> | <b>\$625,000,000</b> | <b>\$1,538,000,000</b> |



# Hudson Tunnel Project

## Contract Packaging Overview Map

- Hudson River Ground Stabilization
- HYCC-1 & HYCC-2 (Completed)
- Hudson Yards Concrete Casing (HYCC-3)
- Palisades Tunnel
- Manhattan Tunnel
- Hudson River Tunnel
- Fit Out and Systems
- NJ Surface Alignment
- Tonnelle Avenue Overhead Bridge



# GDC Governance

## Gateway Development Commission Members



### New York

Funding/Financing;  
Program Delivery



### New Jersey

Funding/Financing;  
Program Delivery



### Amtrak

Funding/Financing; Program Delivery;  
Operations; SEP

## Partners



### USDOT

Funding/Financing



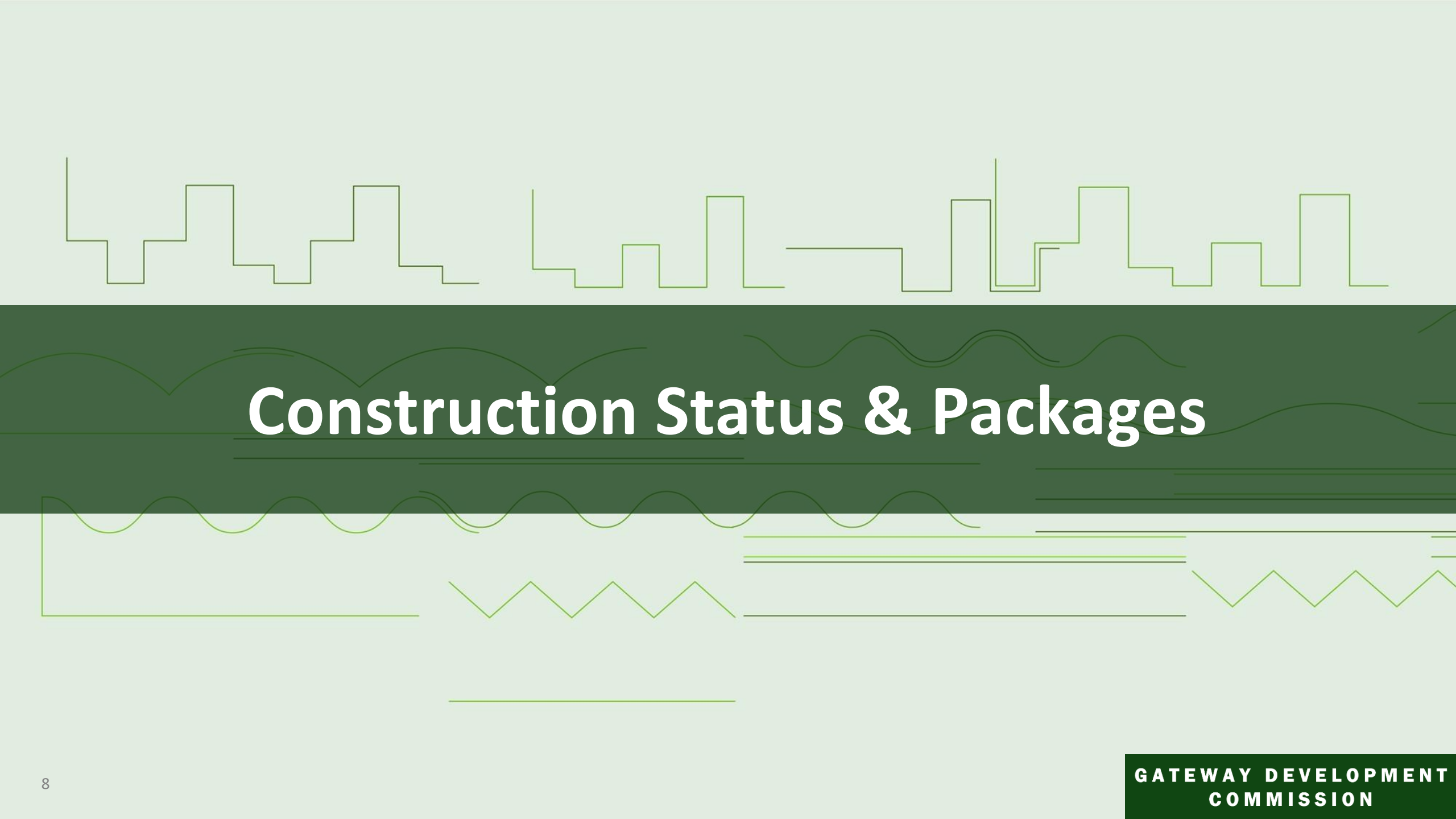
### PANYNJ

Funding/Financing;  
Program Delivery;  
SEP



### NJ TRANSIT

Funding/Financing;  
Program Delivery;  
Operations; SEP



# Construction Status & Packages

# Active Construction

## Tonnelle Avenue Bridge and Utility Relocation Project



New roadway bridge carrying Tonnelle Ave. over the future tunnel's right-of-way

*Expected duration: 2023 through 2025*

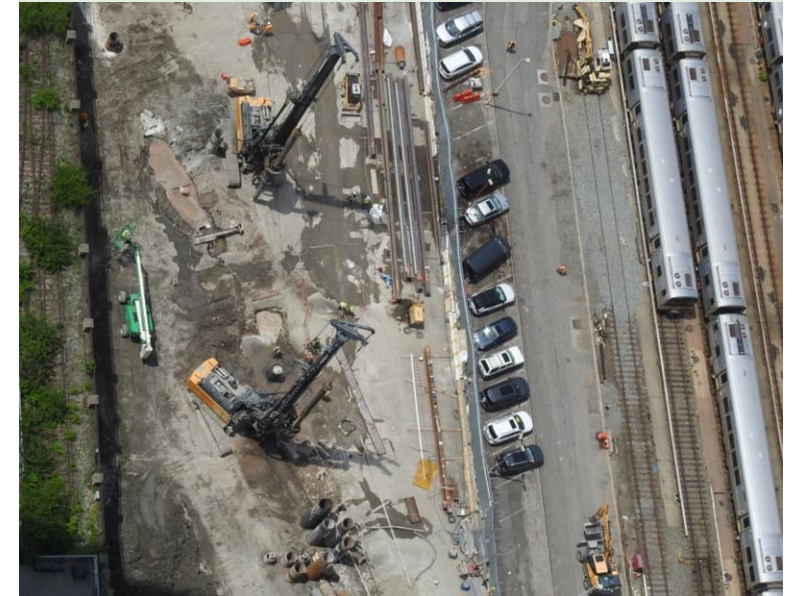
## Hudson River Ground Stabilization Project



First heavy construction contract to stabilize the riverbed for excavation

*Expected duration: 2024 through 2027*

## Hudson Yards Concrete Casing – Section 3



Right-of-Way preservation project linking the new tunnel into NY Penn Station

*Expected duration: 2023 through 2027*

# Active Construction: Tonnelle Avenue Project



## Overview

The Tonnelle Avenue Project has three primary purposes:

1. Establish the new Right-of-Way;
2. Create an access point for the TBMs to dig through the Palisades; and
3. Bridge the eastern and western side of the highway to create the primary staging site for the entire project.

Six out of the 9 packages will at some point intersect with the Tonnelle Avenue staging site.

## Status

Tonnelle had its first concrete pour to build the abutments and piers.

Work to form, reinforce and pour the abutment and piers will continue over several weeks. Meanwhile, rock excavation, soldier pile installation, and lagging is ongoing.

# Active Construction: Hudson River Ground Stabilization Project

## Overview

The Hudson River Ground Stabilization Project is the first heavy construction contract for the HTP.

From floating construction barges, grout will be injected into the silt on the Manhattan side of the Hudson Riverbed, creating columns of reinforced soil suitable for TBM excavation.



## Progress

Test Cofferdam completed. Test injection grout work in progress for soil mixing

Acoustic Core – high resolution scan below riverbed in progress

Obstruction removal in progress

Cofferdam installation for Phase 1 in progress



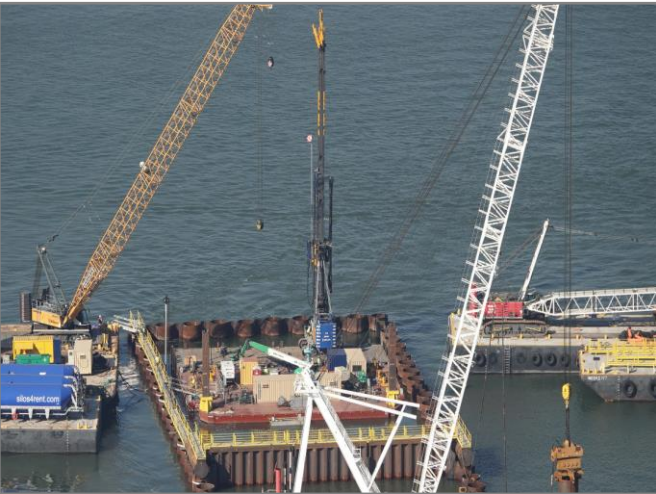
# Hudson River Ground Stabilization: Construction Progress Pictures



Batching and Dry Binder Storage (Pig) Barges  
Oct 22<sup>nd</sup>, 2024  
(looking West)



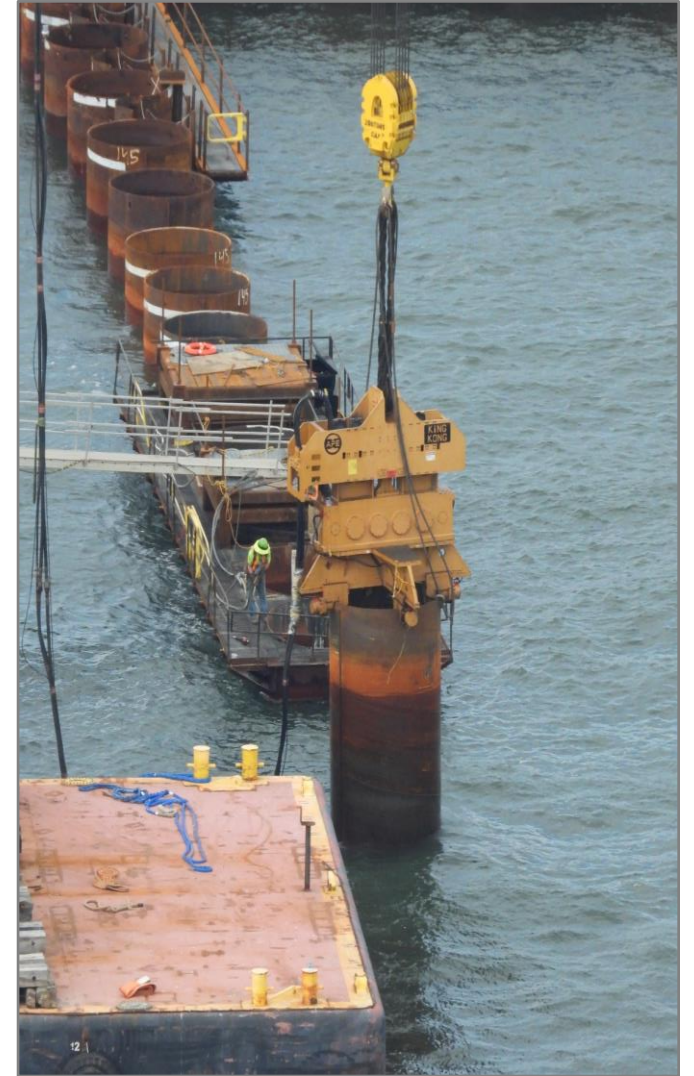
Aerial view of work area location  
Oct 22<sup>nd</sup>, 2024  
(looking West)



Mixing Barge with BG45V Mixing Rig  
Oct 22<sup>nd</sup>, 2024  
(looking West)

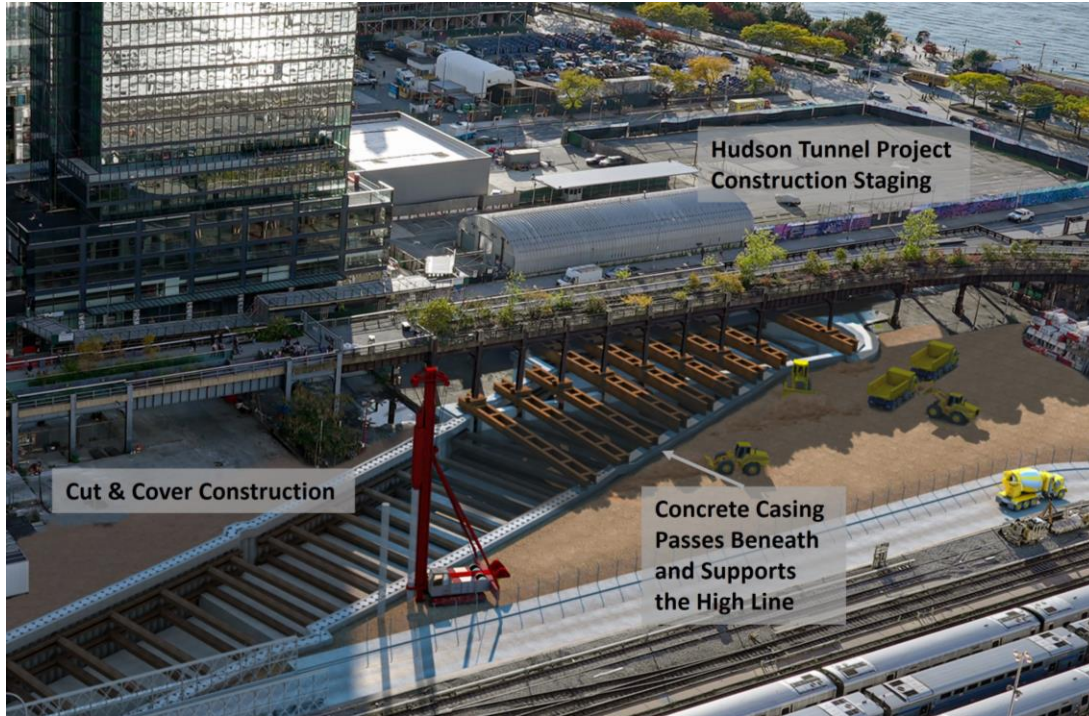


King (Production) Piles being lifted into place  
Sep 30<sup>th</sup>, 2024  
(looking East)



King (Production) Pile Driving  
Oct 1<sup>st</sup>, 2024  
(looking West)

# Active Construction: Hudson Yards Concrete Casing – Section 3 (HYCC-3)



## Overview

HYCC-3 is a critical right-of-way preservation project. Once complete, HYCC-3 will extend the existing concrete casings on Manhattan's west side, completing the new tunnel's link from the Hudson River into New York Penn Station.

## Status

Underpinning work below the High Line recently launched, with soldier pile installation, jet grouting, and underground utility exploration work in progress. Soil and rock excavation began.

# Active Construction: Palisades Tunnel Project

## Palisades Tunnel Project

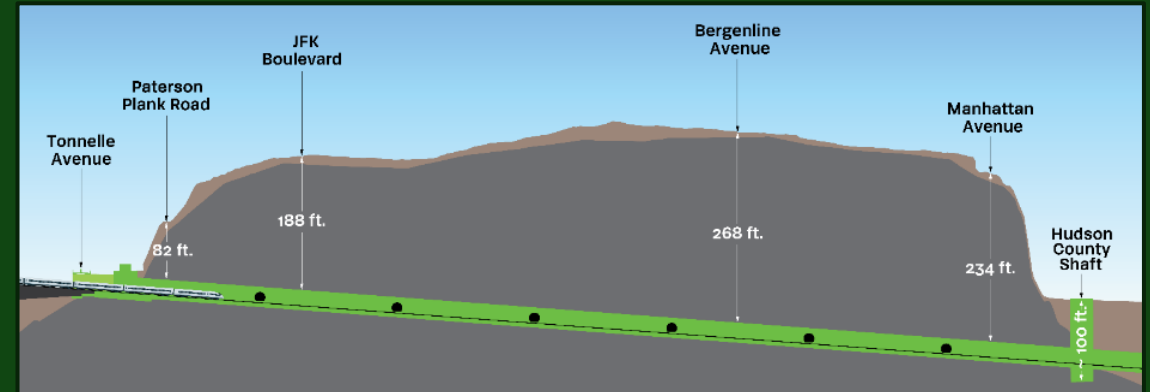


*Expected Completion Date: 2027*

The Palisades Tunnel Project will construct the first mile of twin tunnels on the NJ side of the Hudson River.

This is the most complex construction contract awarded to date and marks **the start of tunnel boring activity** on the HTP.

GDC issued a Notice to Proceed in August.

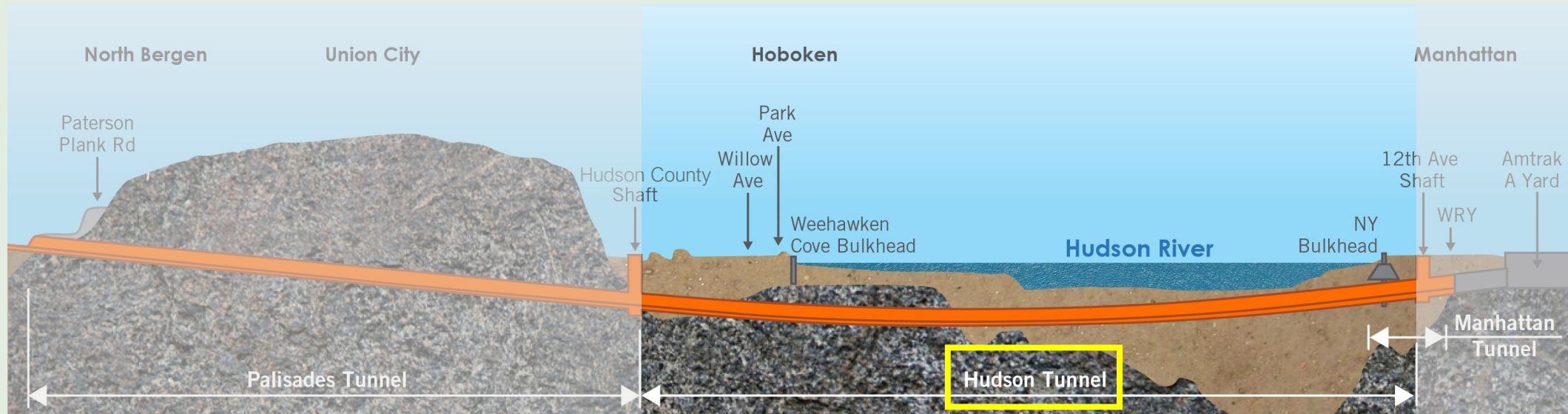


# Ongoing and Future Procurements

| Manhattan Tunnel<br>(Ongoing)                                                        | Hudson River Tunnel<br>(Ongoing)                                                                              | NJ Surface Alignment<br>(Ongoing)                                                        | Systems & Fit-Out<br>(Upcoming)                                                                                                                      | NRT Rehabilitation<br>(Future)                                                                                       |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <i>Tunnel section going through the Manhattan Bulkhead to 10<sup>th</sup> Avenue</i> | <i>Tunneling and heavy civil work for the new tunnel from the Hudson County Shaft to the Manhattan Shaft.</i> | <i>Retaining walls, embankments, and viaducts to support the track bed in New Jersey</i> | <i>Internal concrete, train systems, trackwork, train control, communications, fan plants, tunnel service building, and substation installation.</i> | <i>Rehabilitation to address the causes of chronic unreliability and to bring the NRT to a state of good repair.</i> |
| <i>Firms were shortlisted in Q1 2024.</i>                                            | <i>RFQ released Q4 2024</i>                                                                                   | <i>RFQ released Q4 2024</i>                                                              | <i>RFQ to be released Q3 2025</i>                                                                                                                    | <i>Rehab will commence once the new tunnel is in service.</i>                                                        |
| <i>Bids are due Q4 2024</i>                                                          |                                                                                                               |                                                                                          |                                                                                                                                                      |                                                                                                                      |

# Future NJ Construction: Hudson River Tunnel

## Hudson River Tunnel Project

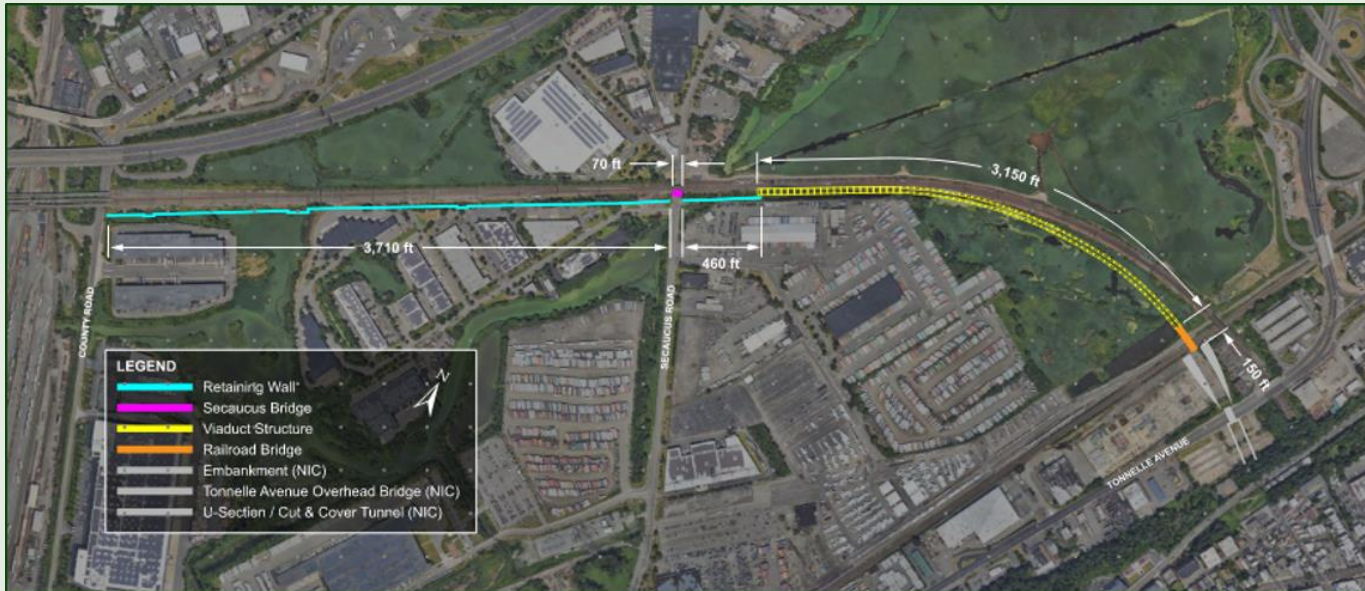


The Hudson River Tunnel Project is one of the HTP's most challenging construction packages.

It involves the construction and heavy civil work for the new tunnel stretching from the Hudson County Shaft to the Manhattan Shaft. **It will require boring through both hard rock and soft ground under the Hudson Riverbed.**

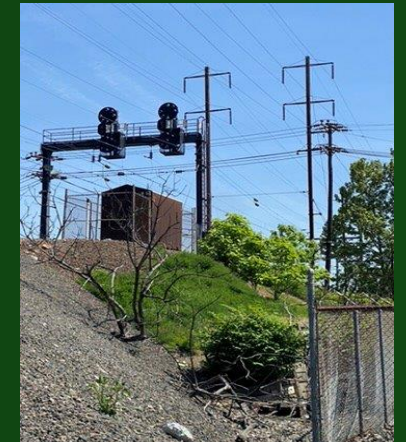
# Future NJ Construction: NJ Surface Alignment (NJSA)

## NJ Surface Alignment



The NJSA involves constructing about 7,540 feet of new trackway infrastructure adjacent to the NEC.

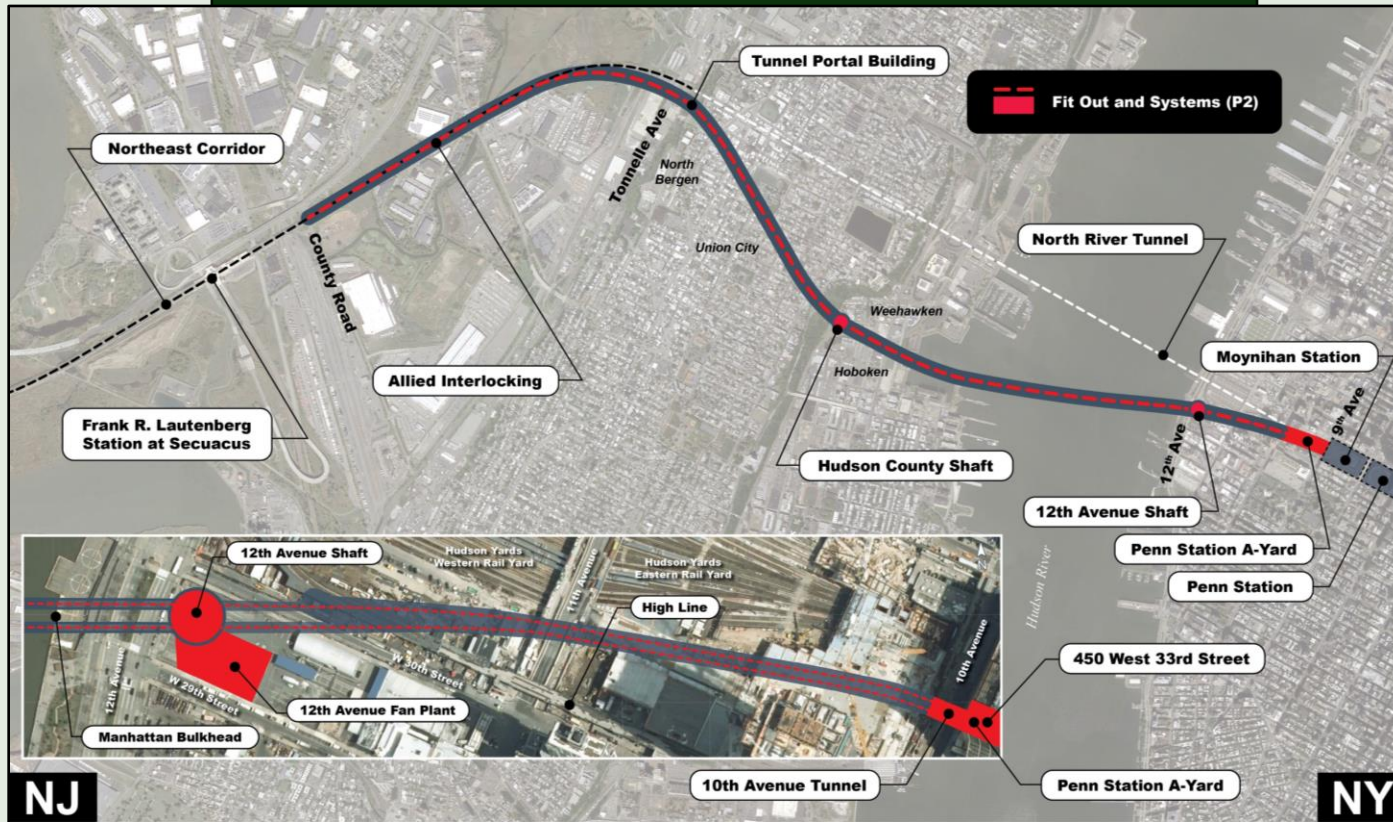
This package requires new earth retaining structures, a viaduct over the wetlands, rail bridges that will cross Secaucus Road and existing NYS&W and Conrail tracks, utility relocation, and more.



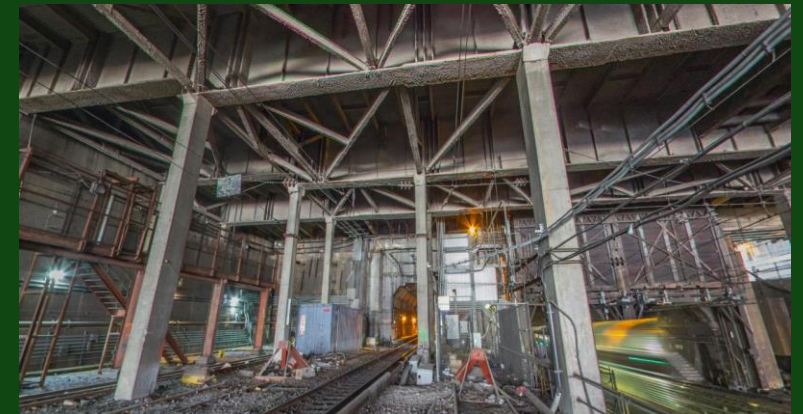
# Future NY/NJ Construction: Systems & Fit-Out

## Systems & Fit-Out

### *Limits of Contract P2 Overview Map*



Work involves internal concrete, track, all new tunnel systems, train control, communications, Fan Plants, Tunnel Service Building, and electrical substation installation.



This package includes heavy civil work at A-Yard Penn Station, pictured above.

The background is a dark gray color. It is decorated with various abstract shapes in two shades of green: a medium green and a darker forest green. These shapes include rectangles, wavy lines, and jagged, mountain-like silhouettes, creating a layered, architectural feel.

# Thank You