

New Jersey Department of Transportation (NJDOT)
Route 4 Hackensack River Bridge
Final Design (FD) Phase

Local Officials Meeting

City of Hackensack and Township of Teaneck
Bergen County, New Jersey



December 02, 2024

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Presentation Agenda

1. Welcome & Introductions
 - a. Project Overview and Background
 - b. Project Status & Schedule – Final Design (FD) Phase
2. Final Design
 - a. Proposed improvements
 - b. Proposed Design near FDU Property
 - c. Accommodate proposed Bergen County Hackensack Pathway
 - d. Environmental Resources
3. Construction Staging and Access
4. Discussion & Next Steps
 - a. Local Officials Input and Q&A
 - b. Virtual Public Information Center Meeting – *online, Early 2025*
 - c. Action Items and Closing Remarks



Project Team

NJDOT

Shivon Harris	Regional Coordinator, Office of Government & Community Relations
Alexis Devre	Program Specialist, Office of Government & Community Relations
Charles Henry	Project Manager
Aimee Hurst	Assistant Project Manager

Michael Baker Team

Joe Romano	Project Manager
Justin Worek	Deputy Project Manager
Sly Fryc	Deputy Project Manager/Civil-Highway
Martine Culbertson	Public Outreach Facilitator (Subconsultant)
Ebony Washington	Environmental Specialist
Matthew Ullestad	Traffic Lead

MEETING PURPOSE

- To present the background, status, scope, and schedule of the project. The project will replace the Route 4 bridge over the Hackensack River, widen the approaches, and add sidewalks throughout the project limits while maintaining traffic and the existing bus stops.
- Project Background – prior PE Phase
- Project Information – Proposed Final Design (FD) Plans
- Community Outreach Meetings held in CD & PE Phases and anticipated in FD Phase





Project Status and Schedule

- CD Phase *Completed 2017*
- PE Phase *Completed 2022*
- FD Phase *Started Winter 2023*
- Secure Permits *February 2025*
- PS&E Submission *July 2025*
- ROW Availability *August 2025*
- Start of Construction *January 2026**
- **Construction Duration: 38 – 40 months (approx.)**

** Construction funding is programmed for federal fiscal year 2025*

Route 4 Hackensack River Bridge FD

PROJECT STATUS



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New Jersey Department of Transportation Project Delivery Process



	Problem Screening	Concept Development	Preliminary Engineering	Final Design	Construction
Funding	Planning Funds	Planning Funds	Preliminary Engineering Authorization	Final Design Authorization ROW/Utility Authorizations	Construction Authorization
Key Tasks	<ul style="list-style-type: none"> Review Problem Statement Subject Matter Expert Review Check NJDOT Management Systems Prioritize Problem Statements Conduct Field Investigation Validate Problem Recommend Preliminary Project Scope CPC Approval and Assignment 	<ul style="list-style-type: none"> Conduct Data Collection Evaluate Deficiencies and Identify Fatal Flaws Evaluate Planning Alternatives Coordinate with Stakeholders Complete Environmental Screening Assess Right of Way (ROW) and Access Impacts Determine Preliminary Preferred Alternative (PPA) Identify Substandard Design Elements Determine Environmental Document Prepare Construction Cost Estimate Select Designer 	<ul style="list-style-type: none"> Coordinate with Stakeholders Conduct Environmental Analysis for PPA Initiate Roadway Engineering Initiate Structural Engineering Initiate ROW and Access Initiate Utility Engineering Prepare Final Design and Construction Cost Estimates Manage Project Contracts 	<ul style="list-style-type: none"> Manage Project Communications Complete Roadway Engineering Complete Structural Engineering Complete ROW and Access Complete Utility Engineering Complete Environmental Process Prepare Final Design Submission Certify Construction Contract Documents Manage Project Contracts 	<ul style="list-style-type: none"> Advertise for Bids Award Project Conduct Construction Startup Conduct Mobilization Manage Construction Changes Conduct Construction Operations Complete Construction Closeout Project
Public Involvement	Obtain MPO Approval and Public Input	Execute Public Involvement Action Plan	Execute Public Involvement Action Plan	Execute Public Involvement Action Plan	Keep Public Informed Maintain Community Support
Key Products	<ul style="list-style-type: none"> Problem Statement Validation Problem Screening Report Charter Proposed Project Assignment 	<ul style="list-style-type: none"> Design Communications Report Concept Development Report: <ul style="list-style-type: none"> Purpose and Need Statement Preliminary Preferred Alternative Environmental Document Classification Preliminary Engineering Scope Statement 	<ul style="list-style-type: none"> Design Communications Report Preliminary Engineering Report: <ul style="list-style-type: none"> Approved Environmental Document Approved Design Exception Report Cost Estimates (Final Design & Construction) Approved Project Plan Final Design Scope Statement 	<ul style="list-style-type: none"> Design Communications Report Environmental Reevaluations and Permits Access Permits Acquisition of ROW Construction Contract Documents Supporting Agreements 	<ul style="list-style-type: none"> Design Communications Report Completed Project As-Builts Closeout Documentation
	Division of Capital Investment Strategies & Division of Project Management	Division of Project Management	Division of Project Management	Division of Project Management	Division of Project Management and Division of Construction Services and Materials or Operations

Completed 2017

Completed 2022

**Started Winter 2023
Complete Summer 2025**

**Start Date Winter 2026
Finish Date Fall 2031**

Route 4 Hackensack River Bridge FD PROJECT STATUS – Community Involvement



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Community & Public Outreach Meetings

Meetings during Concept Development (CD) Phase:

- Local Officials Meetings (LOMtg)
 - LOMtg No.1 – *conducted September 12, 2013*
 - LOMtg No. 2 – *conducted June 28, 2016*
- Local and Regional Community Stakeholders
 - Stakeholders Meeting – *conducted October 24, 2013*
 - Community Input Survey (mail-in) – *completed October 7, 2013*
- Public Information Center (PIC)
 - PIC Mtg No. 1 – *conducted October 24, 2013*
 - PIC Mtg No. 2 – *conducted June 28, 2016*

Meetings during Preliminary Engineering (PE) Phase:

- Local Officials Meetings (LOMtg)
 - LOMtg No.1 – *conducted August 18, 2021*
- Coordination Meetings with Stakeholders:
 - FDU Representatives – *conducted August 19, 2020*
 - FDU and Teaneck Township – *conducted March 22, 2021*
 - Bergen County Parks Department – *conducted March 31, 2021*
 - NJDEP Inter-agency – *conducted July 13, 2021*
- Virtual PIC Meeting – *conducted online November 29 through December 10, 2021*

Meetings anticipated for Final Design (FD) Phase:

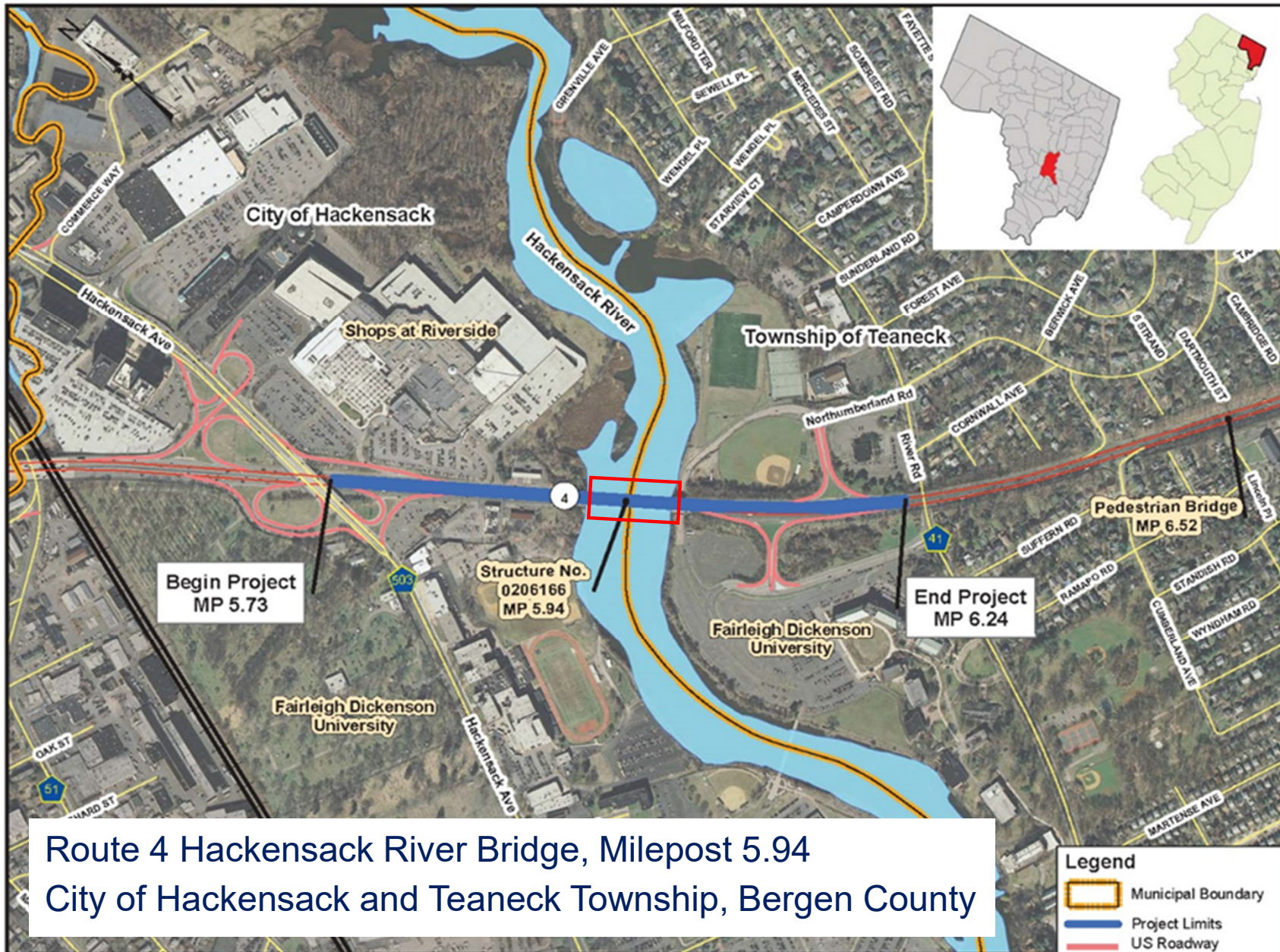
- Local Officials Meeting (LOMtg No. 2) – December 02, 2024
- Virtual PIC Meeting – TBD

Route 4 Hackensack River Bridge FD PROJECT LIMITS



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Project Location



Bridge – Existing Conditions

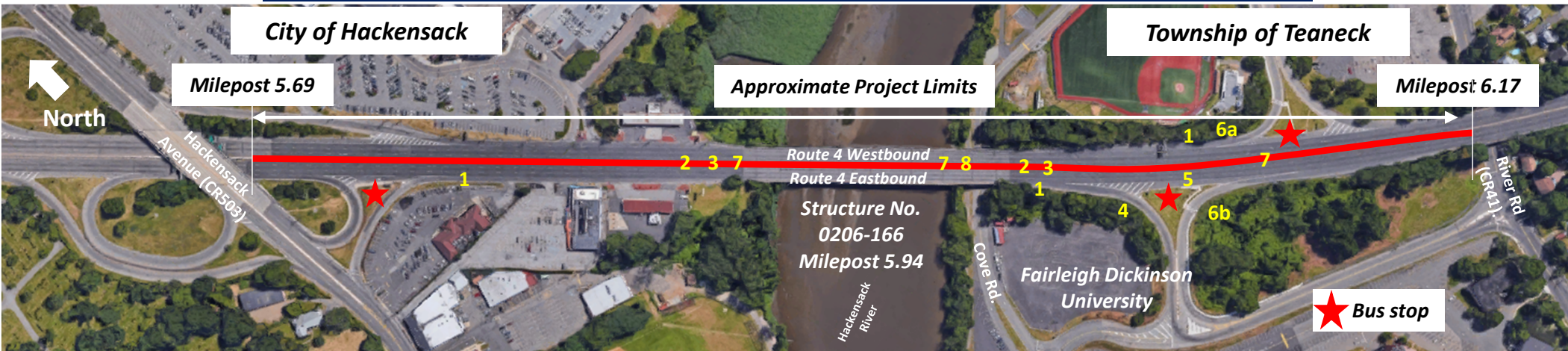
- Route 4 Hackensack River Bridge (Structure No. 0206-166)
- Bridge is 90 years old; built in 1931
- Structurally Deficient
- 2019 (20th Cycle) Bridge Inspection Report Ratings:
 - Sufficiency Rating 55.1 out of 100
 - Deck: Poor (Rating 4, on a scale of 1 to 9)
 - Superstructure and Substructure: Fair (Rating 5, on a scale of 1 to 9)
- Divided six-lane Urban Principal Arterial Freeway/Expressway
- Posted speed limit of 50 MPH
- AADT (2020) 138,368
- Two sidewalks, 1' right shoulder, no left shoulder, 72.5' curb-to-curb, 546' long

Route 4 Hackensack River Bridge FD PROJECT INFORMATION



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Existing Conditions - Current Deficiencies



Bridge Deficiencies

- Structurally deficient
- Poor deck condition
- Substandard lane width and shoulders
- Scour critical & seismic vulnerable: founded on timber piles
- Substandard bridge rail
- Substandard sidewalk width due to obstruction
- Substandard pedestrian railing/parapet
- Substandard lateral clearance (bet. pier & Cove Rd.)

Existing Bicycle / Pedestrian Facilities

- Lack of connectivity / sidewalk gaps
- Substandard sidewalk width
- ADA non-compliant curb ramps

Roadway Deficiencies

- Pavement in poor condition
- Substandard guide rail and connections
- Substandard geometry:
 1. Substandard accel. and decel. lane lengths
 2. Substandard right shoulders
 3. Substandard left shoulders*
 4. Substandard stopping sight distance on horizontal curve
 5. Substandard superelevation**
 6. Substandard minimum radius (ramps)
 - a. Cove Rd to Route 4 WB*
 - b. River Rd to Route 4 EB
 7. Substandard lane width
 8. Substandard minimum profile grade

* Will be improved. For Design Exception approval.

** Will be maintained. For Design Exception approval.

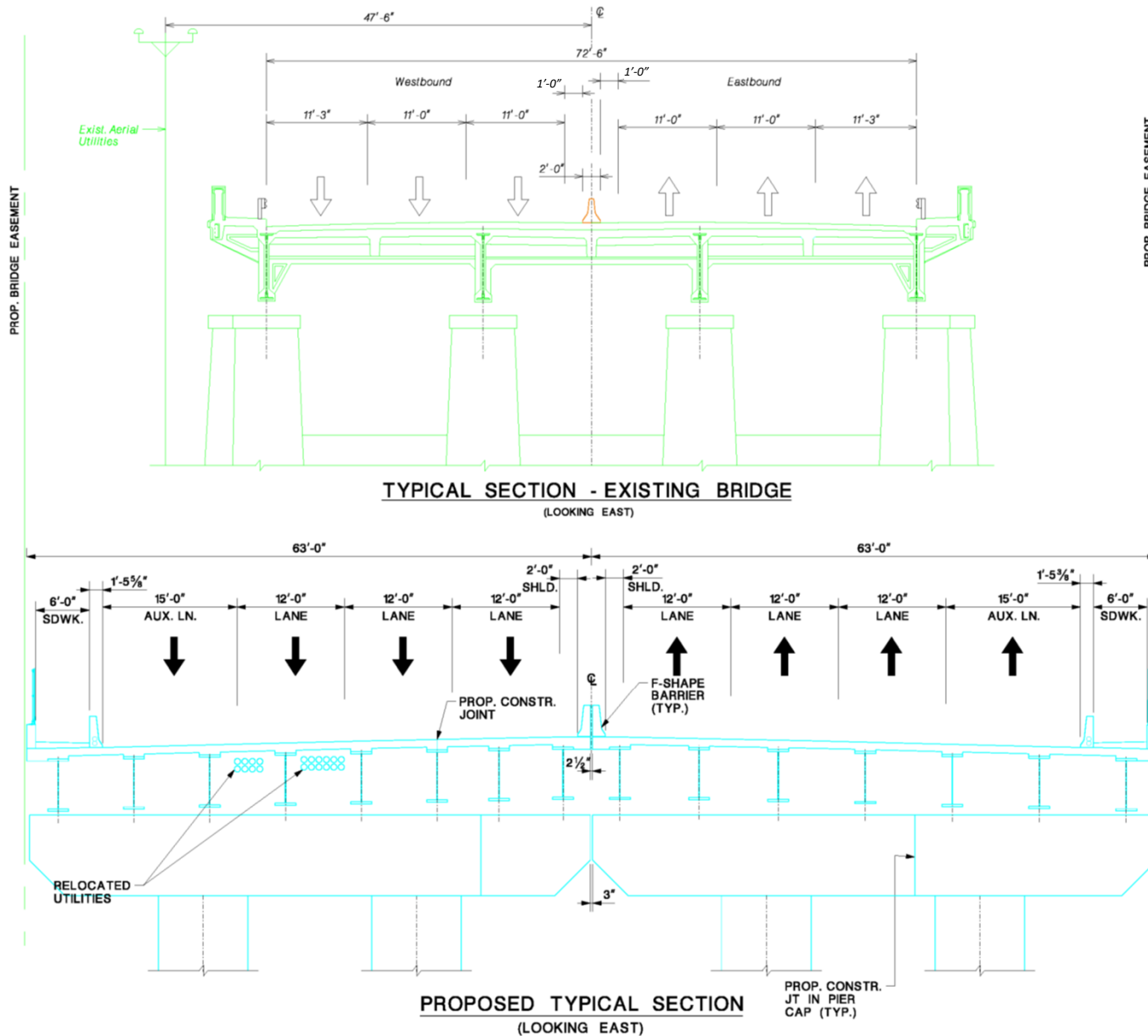


FINAL DESIGN



Rendering of future bridge replacement.

Existing & Proposed Bridge Cross Sections



- Existing bridge:
 - Three (3) – 11’ lanes
 - No Auxiliary Lane
 - 1’ Left Shoulder
 - No Right Shoulder
 - 3’ Sidewalk (unobstructed)

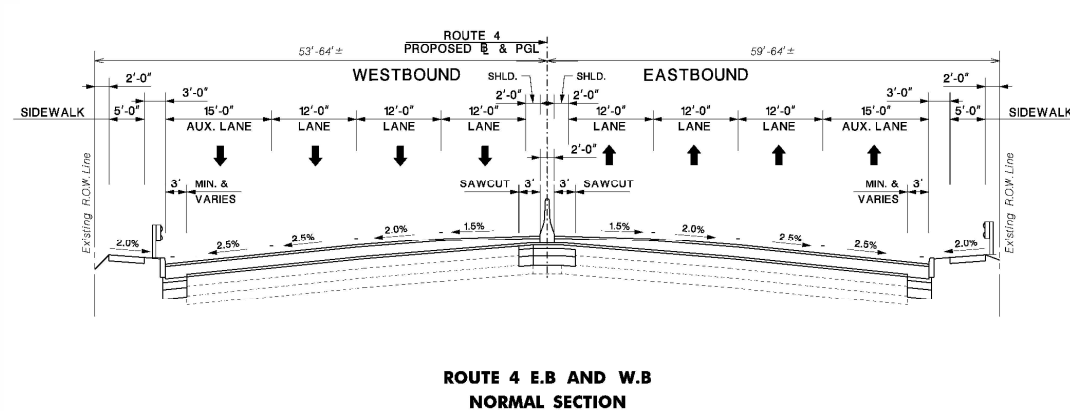
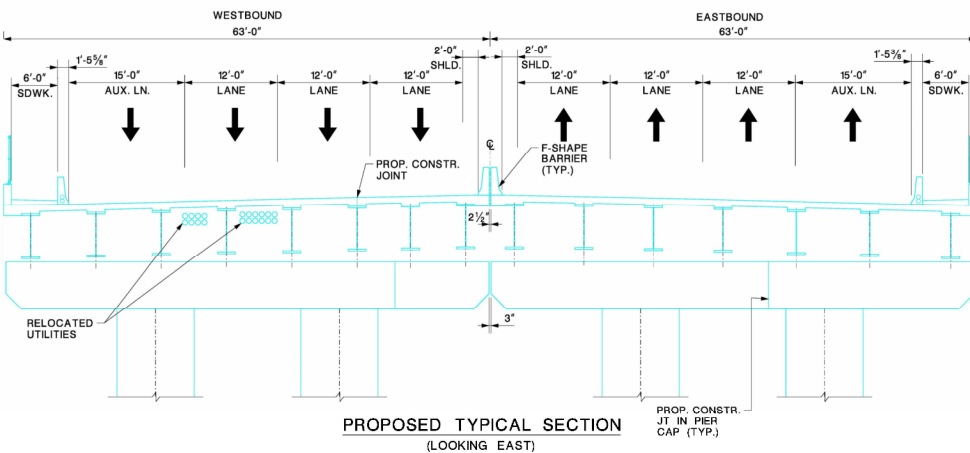
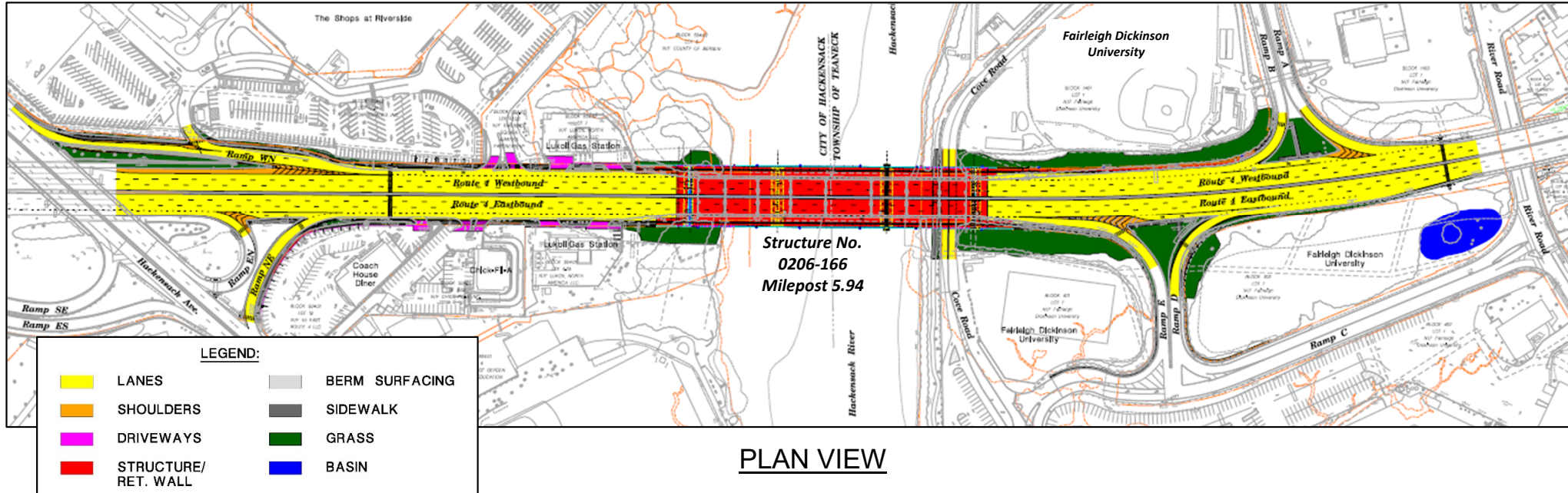
- Proposed bridge:
 - Three (3) – 12’ lanes
 - 15’ Auxiliary Lanes
 - 2’ Left Shoulder
 - 6’ Sidewalk with separation barrier

Route 4 Hackensack River Bridge FD FINAL DESIGN



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Proposed Improvements



Proposed Improvements




New widened bridge and approach roadways

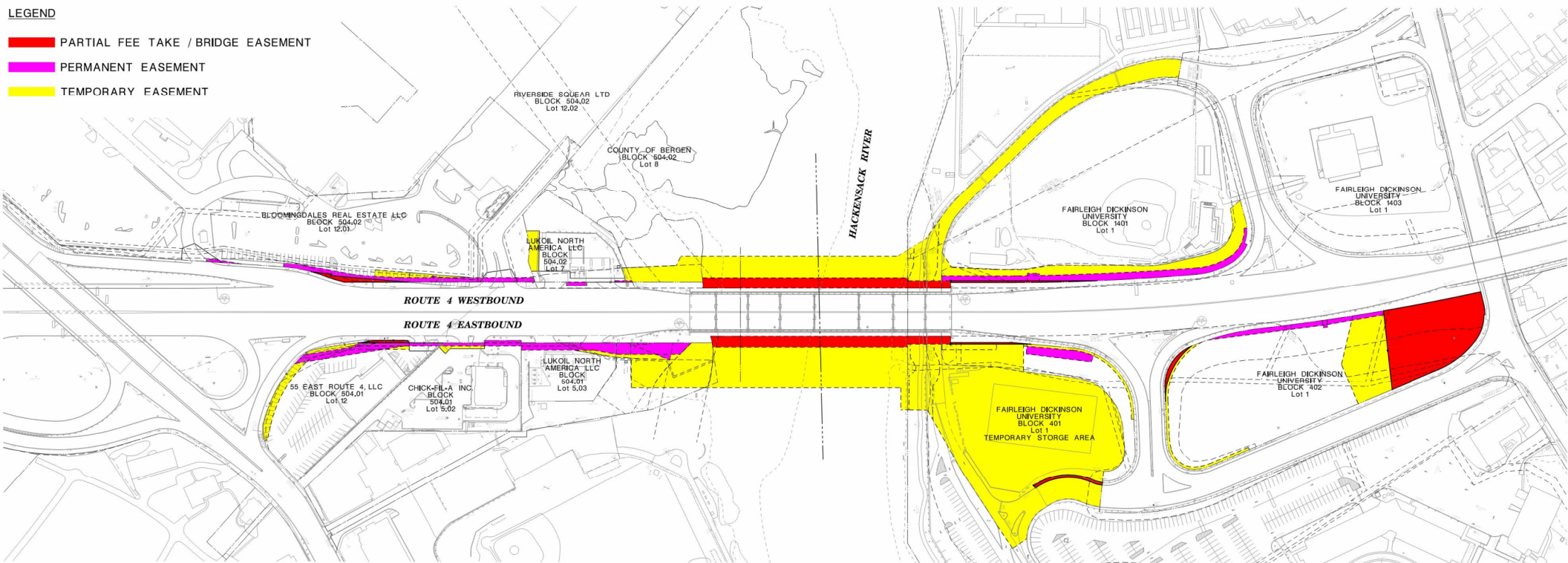
- Eliminates deficiencies
- Meets current design standards
- New 15' Auxiliary Lane on both directions
- Improves roadway geometry and safety
- Improves Ramp WN geometry (Rt.4 WB ramp to Hackensack Ave.)
- Eliminates CSDEs
 - Design exception needed for substandard Left Shoulder width, Superelevation, and Minimum Ramp Radius
- Improves pavement condition
- New standard guiderail
- Provides 6' wide sidewalks with separation barrier on structure
- Eliminates sidewalk gaps / provides connectivity
- Improves access to existing bus stops
- New emergency boat access to the Hackensack River – along Cove Rd.
- New overhead sign structures

Managing Temporary Impacts to Properties

- **Maintain access to local businesses.**
- **Maintain access to Hackensack Avenue and FDU ramps.**
- Right-of-Way (ROW) impacts:
 - Partial Fee Take (7 parcels)
 - Permanent easements (23 parcels total)
 - Bridge (2 parcels)
 - Construction and Maintenance (5 parcels)
 - Aerial Utility (5 parcels)
 - Utility (7 parcels)
 - Roadway (1 parcel)
 - Sidewalk (3 parcels)
 - Temporary easements (19 parcels)
 - Construction (13 parcels)
 - Use Right (4 parcels)
 - Denial of Access (2 parcels)
 - Riparian License or Grant (Hackensack River)

LEGEND

-  PARTIAL FEE TAKE / BRIDGE EASEMENT
-  PERMANENT EASEMENT
-  TEMPORARY EASEMENT





Fairleigh Dickinson University (FDU)

- Coordination with FDU’s Campus Development Plan
- Maintain the Hackensack River Greenway Through Teaneck
- Manage potential impacts to FDU property:

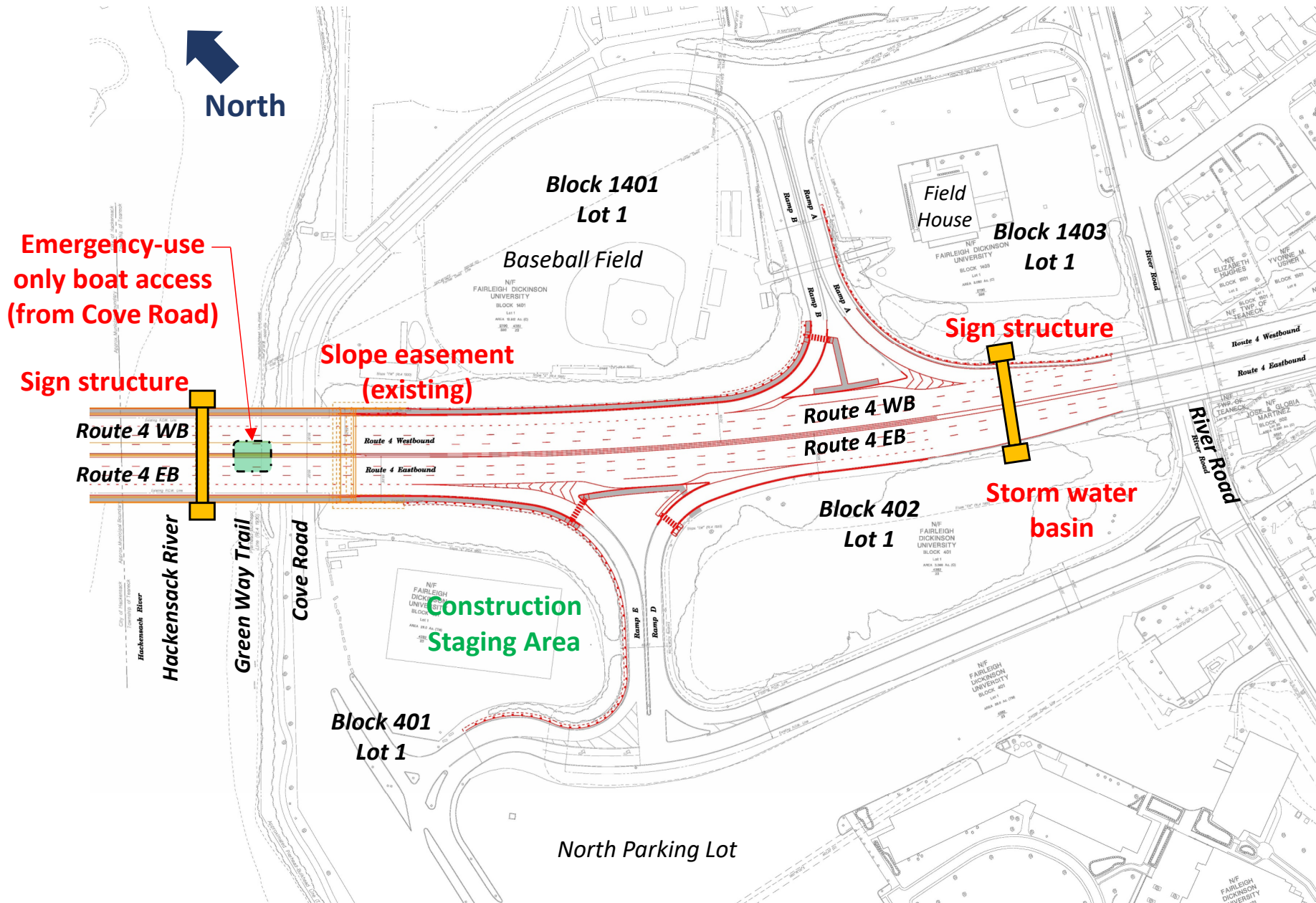
Temporary Impacts	Permanent Impacts
Construction staging and laydown areas	Maintenance easements
Construction easements	Slope easements – existing/available
Cove Road: <ul style="list-style-type: none"> • Maintain Traffic and allow Construction Access • Short-term closures 	Right-of-Way (ROW) <ul style="list-style-type: none"> • Storm Water Management [retention basin] • Sign structures • Emergency Access to Hackensack River
Noise impacts during construction	

Route 4 Hackensack River Bridge FD FINAL DESIGN



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Proposed Design near FDU Property



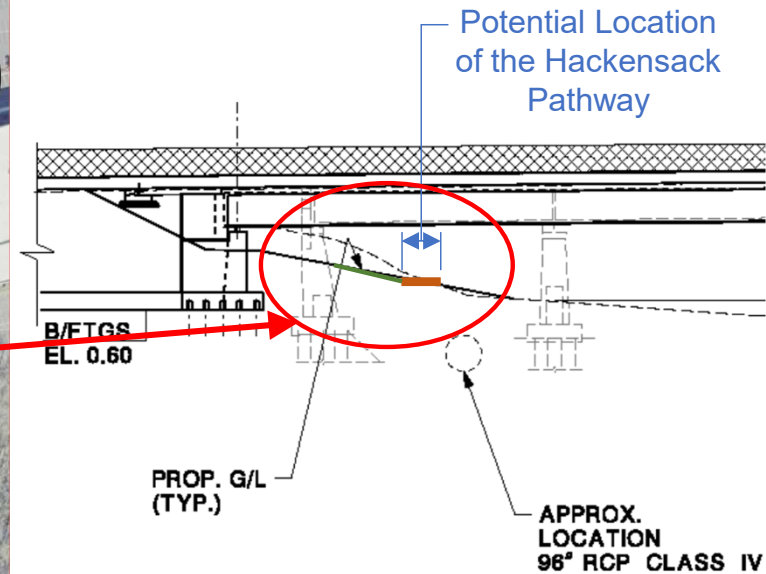
Route 4 Hackensack River Bridge FD FINAL DESIGN



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Accommodate the Proposed Hackensack Pathway

- Coordinated with Bergen County Parks and Engineering. Pathway is not being actively advanced at this time and is a long-term goal.



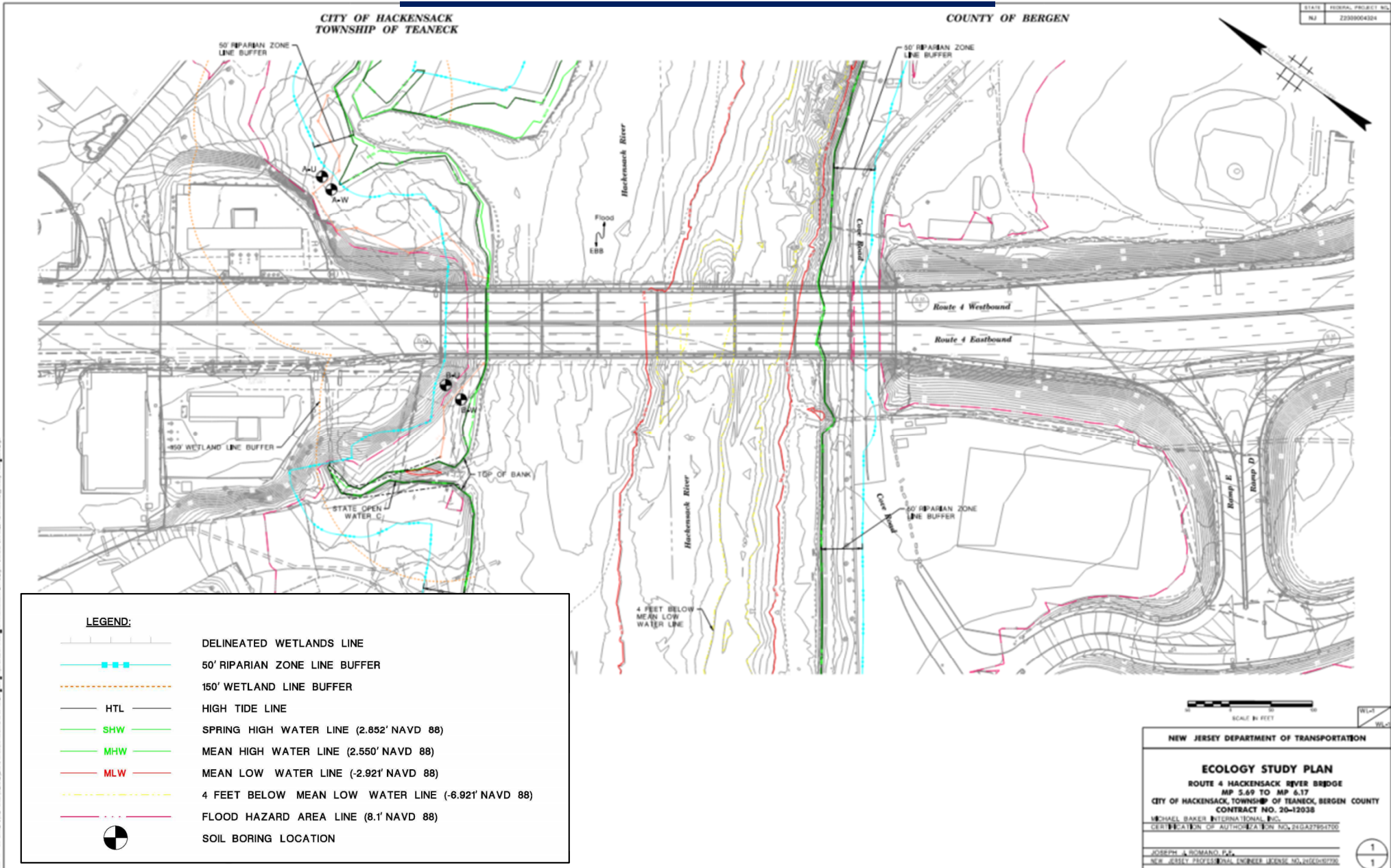
**ELEVATION VIEW AT WEST ABUTMENT
Not to Scale**

Route 4 Hackensack River Bridge FD FINAL DESIGN



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Environmental Resources



LEGEND:

- DELINEATED WETLANDS LINE
- 50' RIPARIAN ZONE LINE BUFFER
- 150' WETLAND LINE BUFFER
- HTL HIGH TIDE LINE
- SHW SPRING HIGH WATER LINE (2.852' NAVD 88)
- MHW MEAN HIGH WATER LINE (2.550' NAVD 88)
- MLW MEAN LOW WATER LINE (-2.921' NAVD 88)
- 4 FEET BELOW MEAN LOW WATER LINE (-6.921' NAVD 88)
- FLOOD HAZARD AREA LINE (8.1' NAVD 88)
- SOIL BORING LOCATION



Environmental Impacts

Anticipated Federal Permits/Approvals/Coordination

- National Environmental Policy Act of 1969
- US Coast Guard Bridge Environmental Clearance
- Section 106 of the National Historic Preservation Act of 1966
- Section 4(f) of the US Department of Transportation Act
- Endangered Species Act Section 7 consultation for NOAA Fisheries for marine species
- United States Army Corps of Engineer Nationwide Permit under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act

Environmental Impacts

Anticipated State Permits/Approvals/Coordination

- Compliance with the **Flood Hazard Area Control Act Rules through the Coastal Zone Management Permit**
- Compliance with the **NJDEP Stormwater Management Rules (N.J.A.C. 7:8)**
- **NJDEP Freshwater Wetlands Protection Act Permit**
- **NJDEP Waterfront Development In-Water Permit** for regulated activities below mean high water and Upland Permit for up to 500 feet landward
- **NJDEP Tidelands License** for occupying areas currently or formerly flowed by the mean high tide
- **NJDEP Water Quality Certification**
- **NJDEP New Jersey Pollution Discharge Elimination System Construction Activity Stormwater GP** (Request for Authorization) for projects that disturb 1 acre or more of land
- **Soil Erosion and Sediment Control Certification**
- **NJDEP Green Acres** 2-year lease agreement for temporary construction area within the **Bergen County Hackensack River County Park**
- **NJDEP Green Acres** 2-year lease agreement for construction for bridge easement within the FDU Hackensack River Greenway



CONSTRUCTION STAGING **& ACCESS**



Construction Staging & Access Objectives

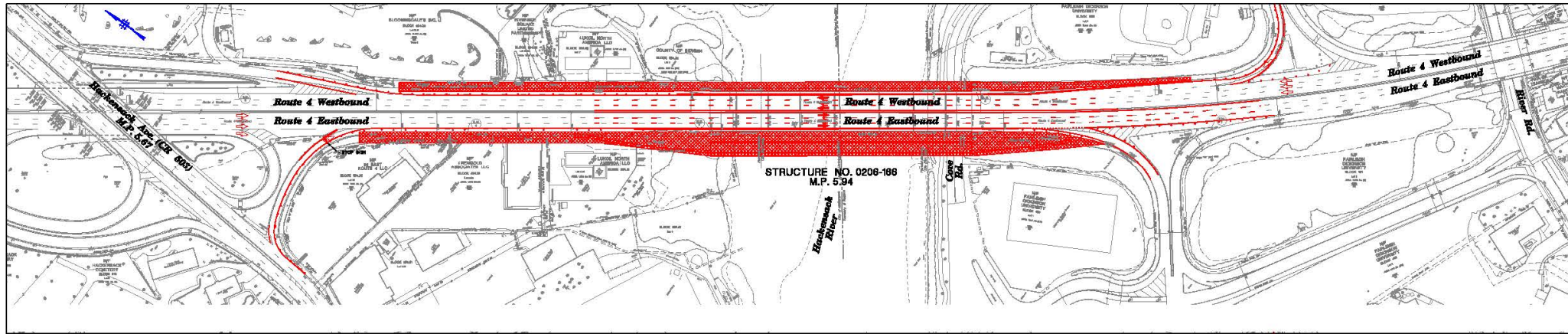
- Provide Construction Access Schemes that promote safety to motorists, pedestrians, and construction personnel.
- Maintain 3 lanes in each direction.
- Maintain access to local businesses, nearby residential areas and FDU.
- Maintain the existing bus stops located within the project limits.
- Maintain pedestrian walkway across structure during construction.
- No long-term detours.
- Reduce Construction Duration.

Route 4 Hackensack River Bridge FD CONSTRUCTION STAGING & ACCESS

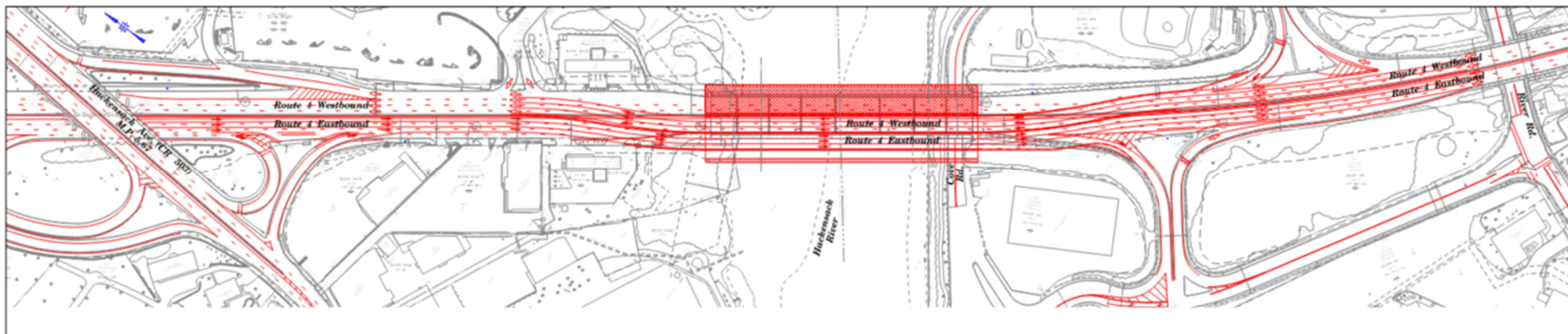


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MPT – Bridge Slide



Pre-Stage 1



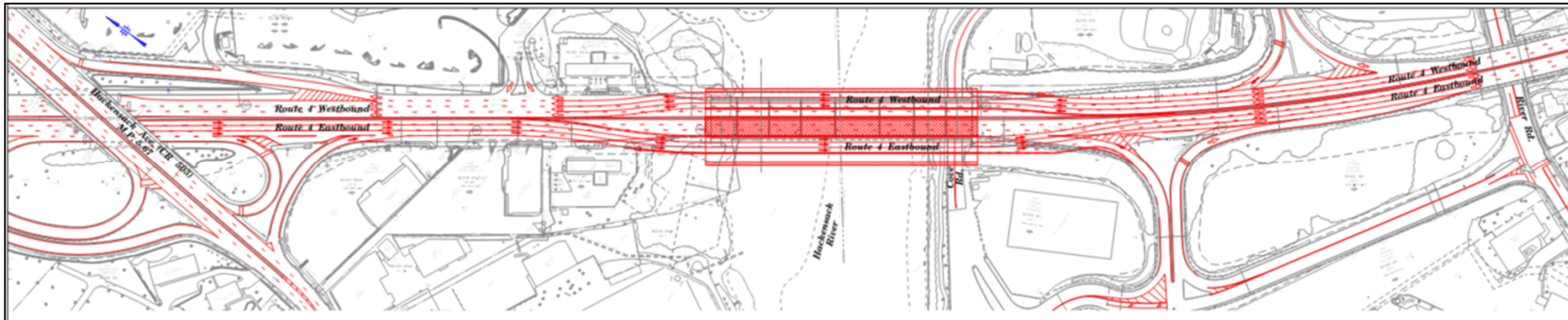
Stage 1

Route 4 Hackensack River Bridge FD CONSTRUCTION STAGING & ACCESS

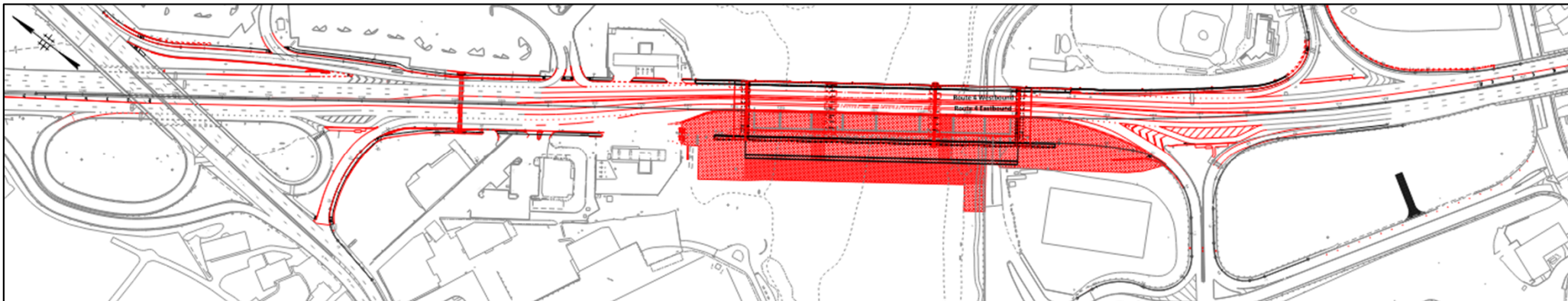


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MPT – Bridge Slide



Stage 2



Stage 3

Route 4 Hackensack River Bridge FD RENDERING & ANIMATION VIDEO



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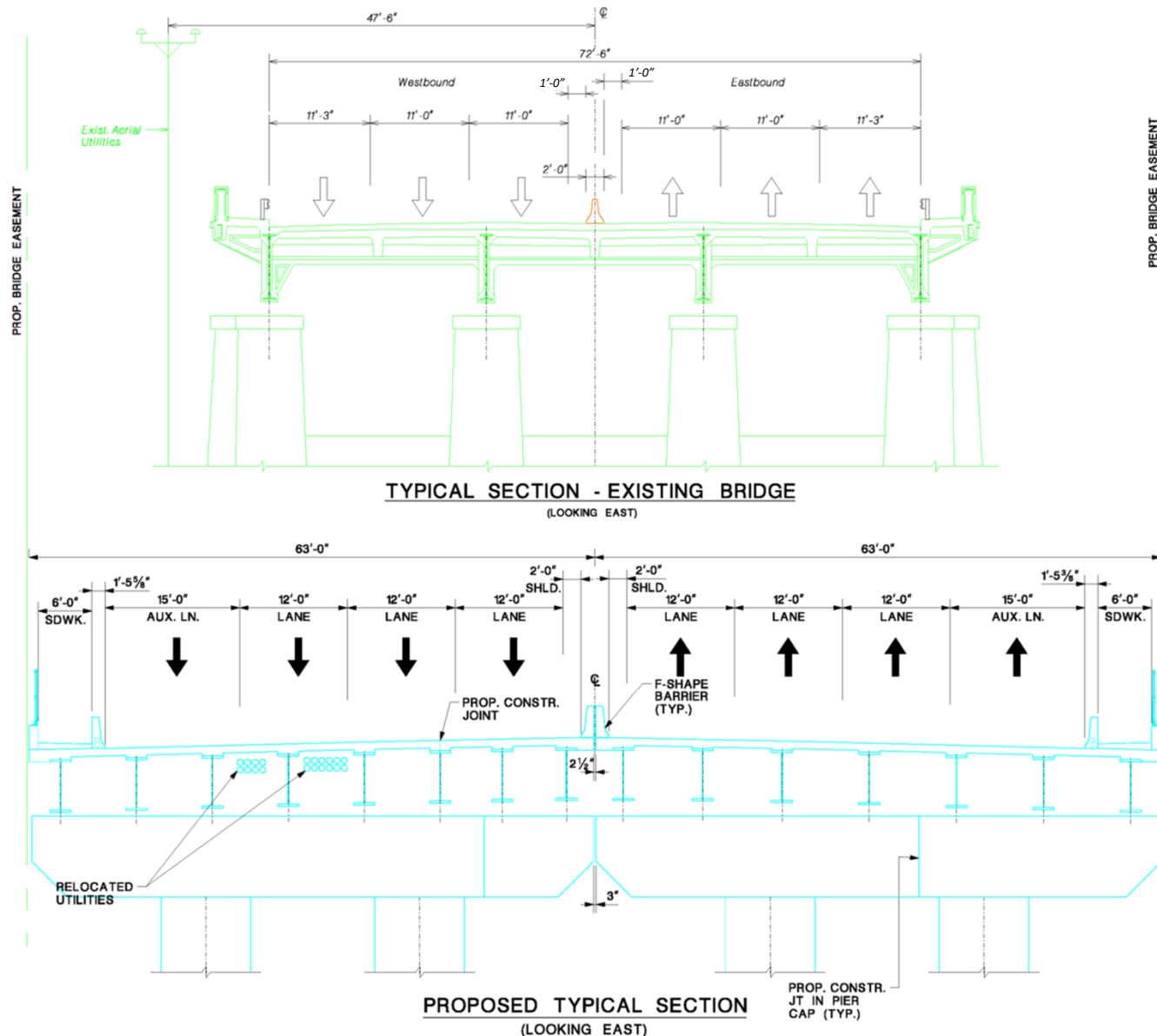
ACCELERATED BRIDGE CONSTRUCTION (ABC)

Bridge Slide

Route 4 Hackensack River Bridge FD CONSTRUCTION STAGING



Bridge Slide Existing and Proposed Bridge Typical Sections

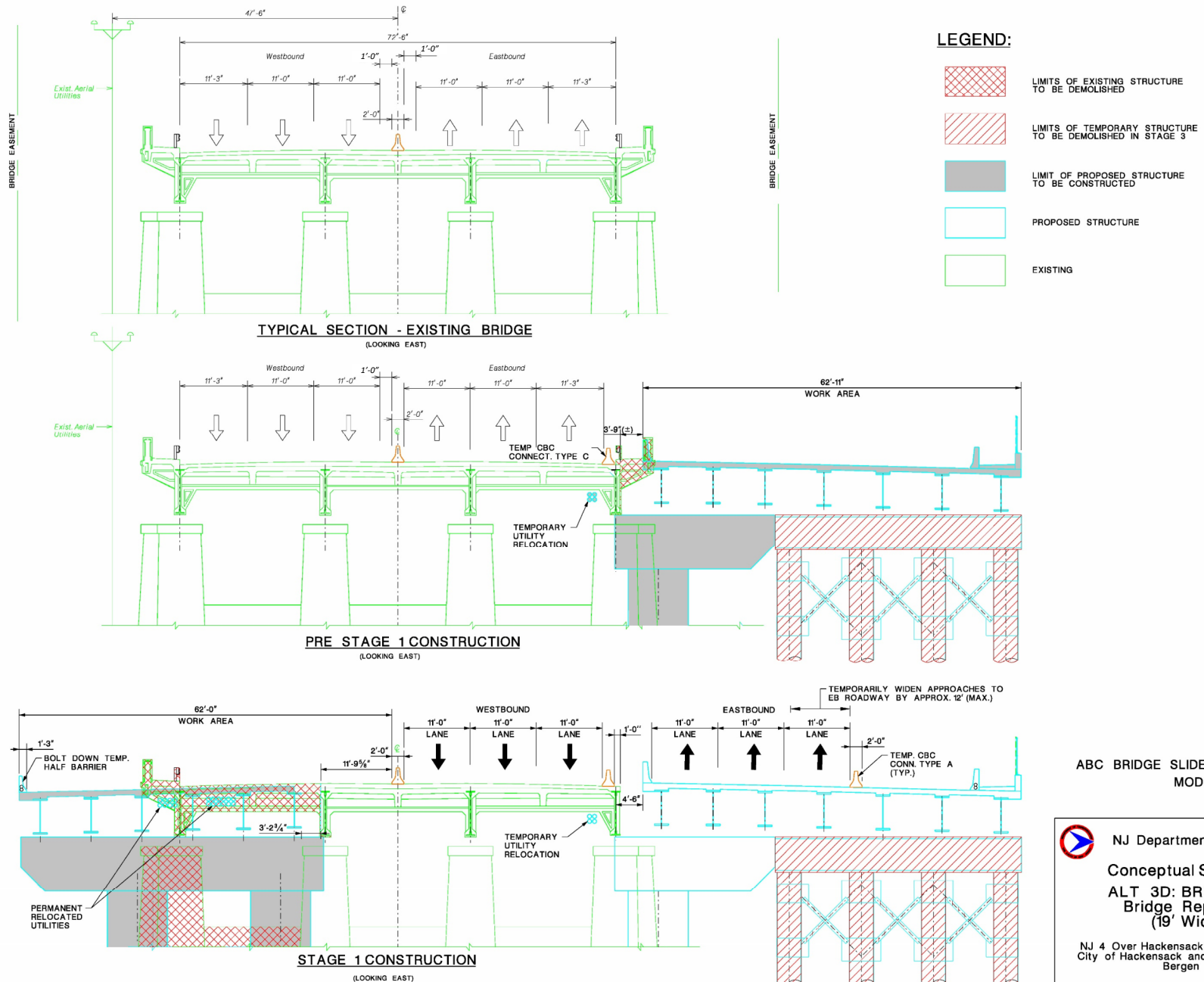


- Existing and proposed superstructures are centered within the State's ROW.
- Proposed section maximizes the use of State's ROW with standard features.

Route 4 Hackensack River Bridge FD CONSTRUCTION STAGING – 1 of 2



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ABC BRIDGE SLIDE + CONVENTIONAL
MODIFIED

1 OF 2



NJ Department of Transportation
Conceptual Staging Plan
ALT 3D: BRIDGE SLIDE
Bridge Replacement
(19' Widening)

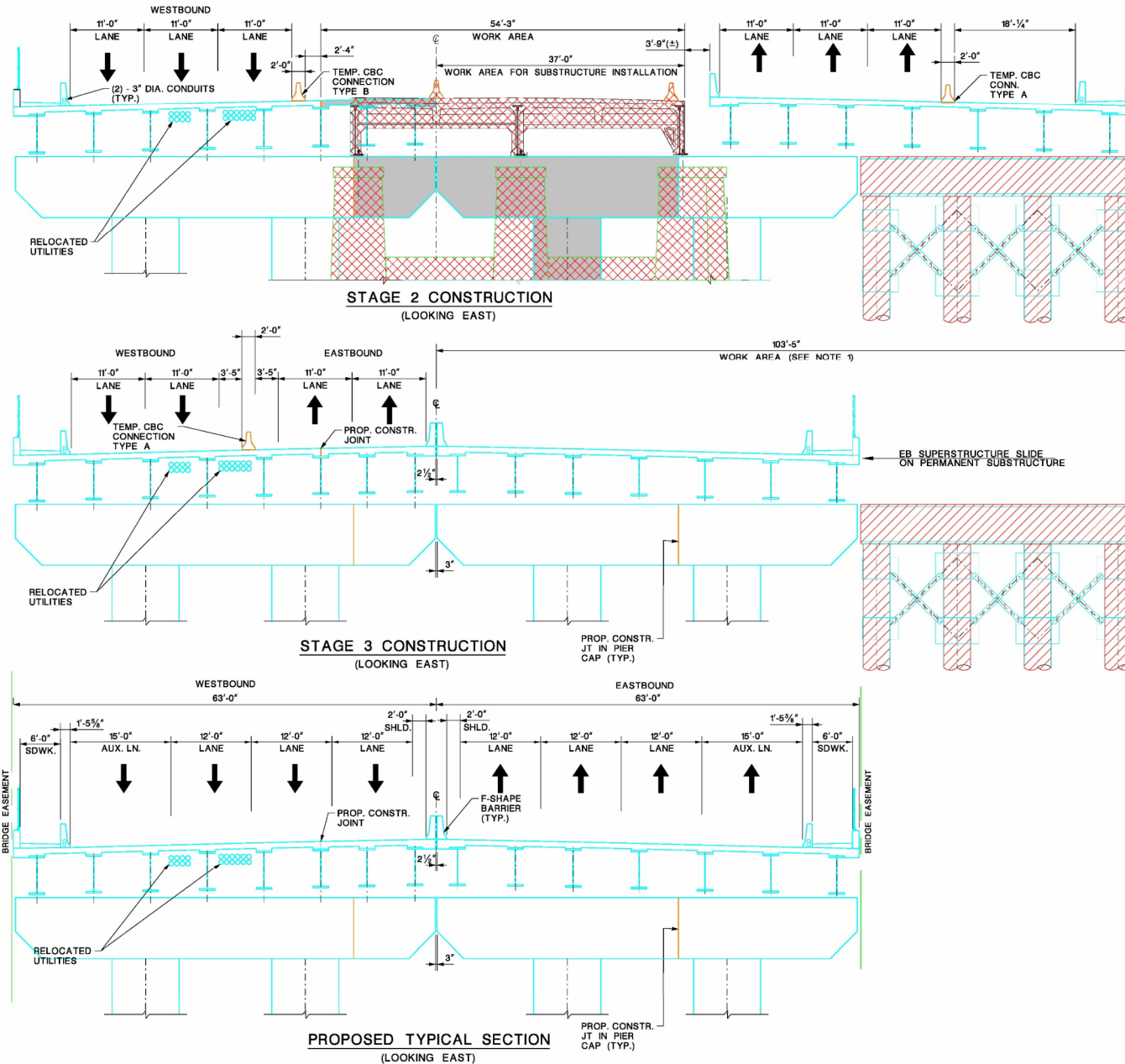
NJ 4 Over Hackensack River and Cove Road
City of Hackensack and Township of Teaneck
Bergen County

June 2021

Route 4 Hackensack River Bridge FD CONSTRUCTION STAGING – 2 of 2



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NOTES:

- EASTBOUND TRAFFIC IS MOVED ON THE WESTBOUND SUPERSTRUCTURE. THREE WESTBOUND LANES ARE MAINTAINED DURING SLIDING OPERATION. EASTBOUND TRAFFIC IS REDUCED TO TWO 11' LANES DURING SLIDING OPERATION AND COMPLETING APPROACH ROADWAY/BRIDGE WORK IN STAGE 3 (APPROX. 2 WEEKS MAX. DURATION).
- THREE WESTBOUND LANES AND THREE EASTBOUND LANES MAINTAINED DURING CONSTRUCTION STAGES 1 & 2.

ABC BRIDGE SLIDE + CONVENTIONAL
MODIFIED

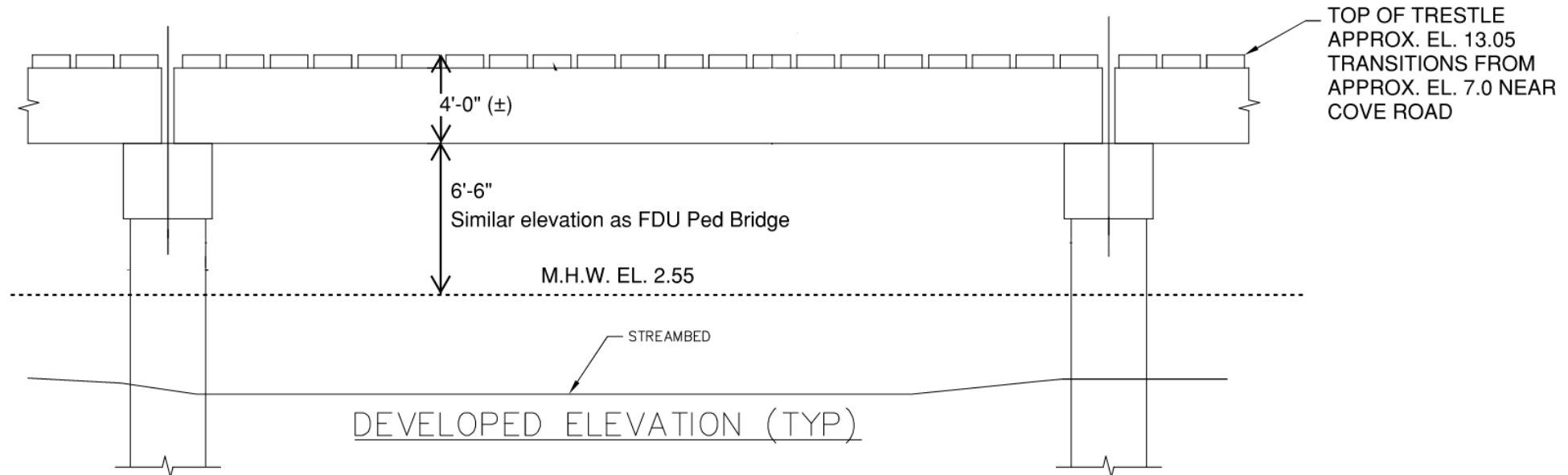
2 OF 2



NJ Department of Transportation
Conceptual Staging Plan
ALT 3D: BRIDGE SLIDE
Bridge Replacement
(19' Widening)

NJ 4 Over Hackensack River and Cove Road
City of Hackensack and Township of Teaneck
Bergen County

Temporary Trestle



- Construction access from Cove Rd.
- Top of temp. trestle above 200 YR. flood elevation.
- Top of Cove Rd. at EL. 7.0 (±).

FLOOD EVENT	ELEV. (NAVD 88)
10 - Year	5.0
50 - Year	7.0
200 - Year	8.3
500 - Year	8.7

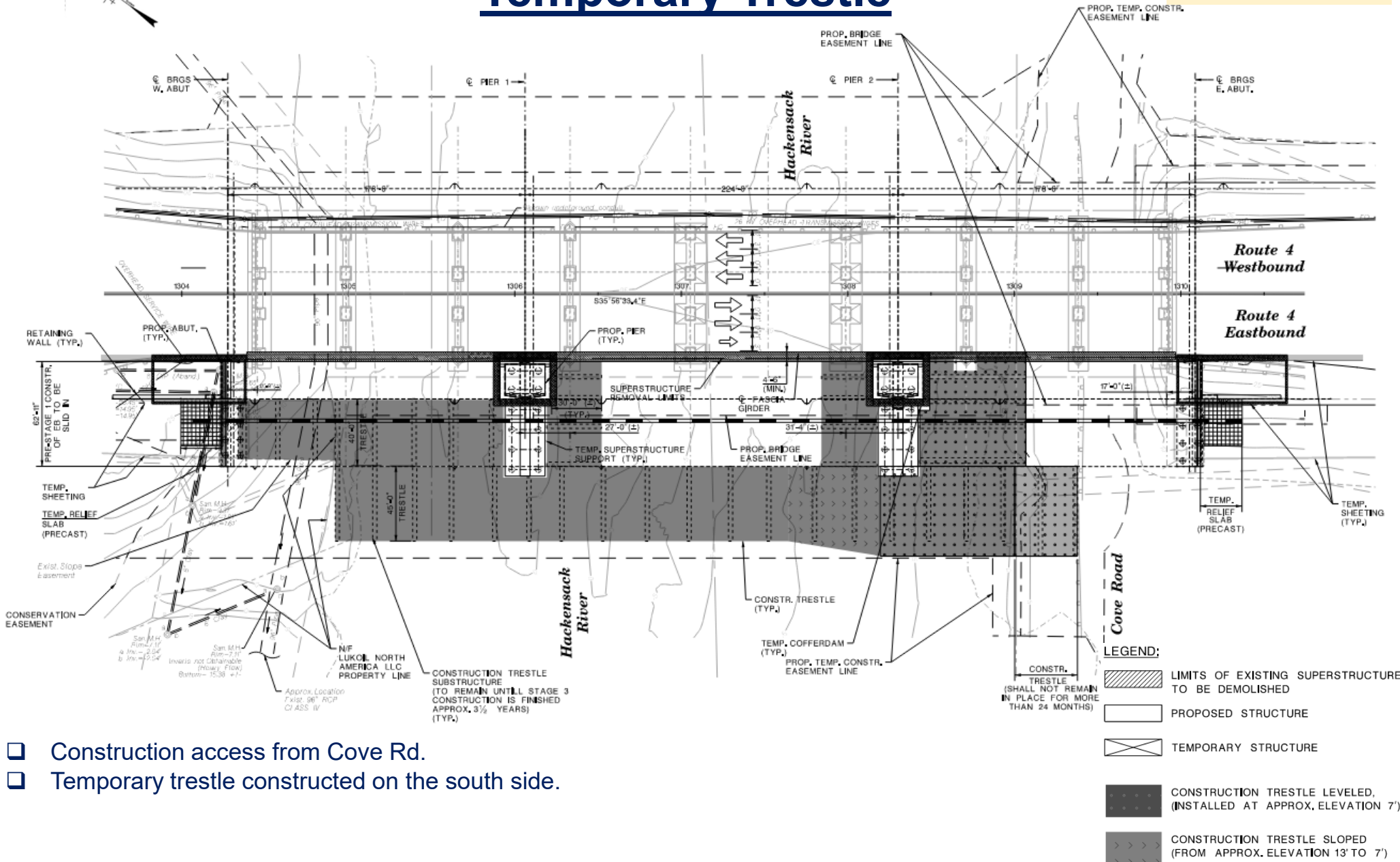
Route 4 Hackensack River Bridge FD CONSTRUCTION ACCESS – Pre-Stage 1



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Construction duration:
approx. 16 months

Temporary Trestle



- Construction access from Cove Rd.
- Temporary trestle constructed on the south side.

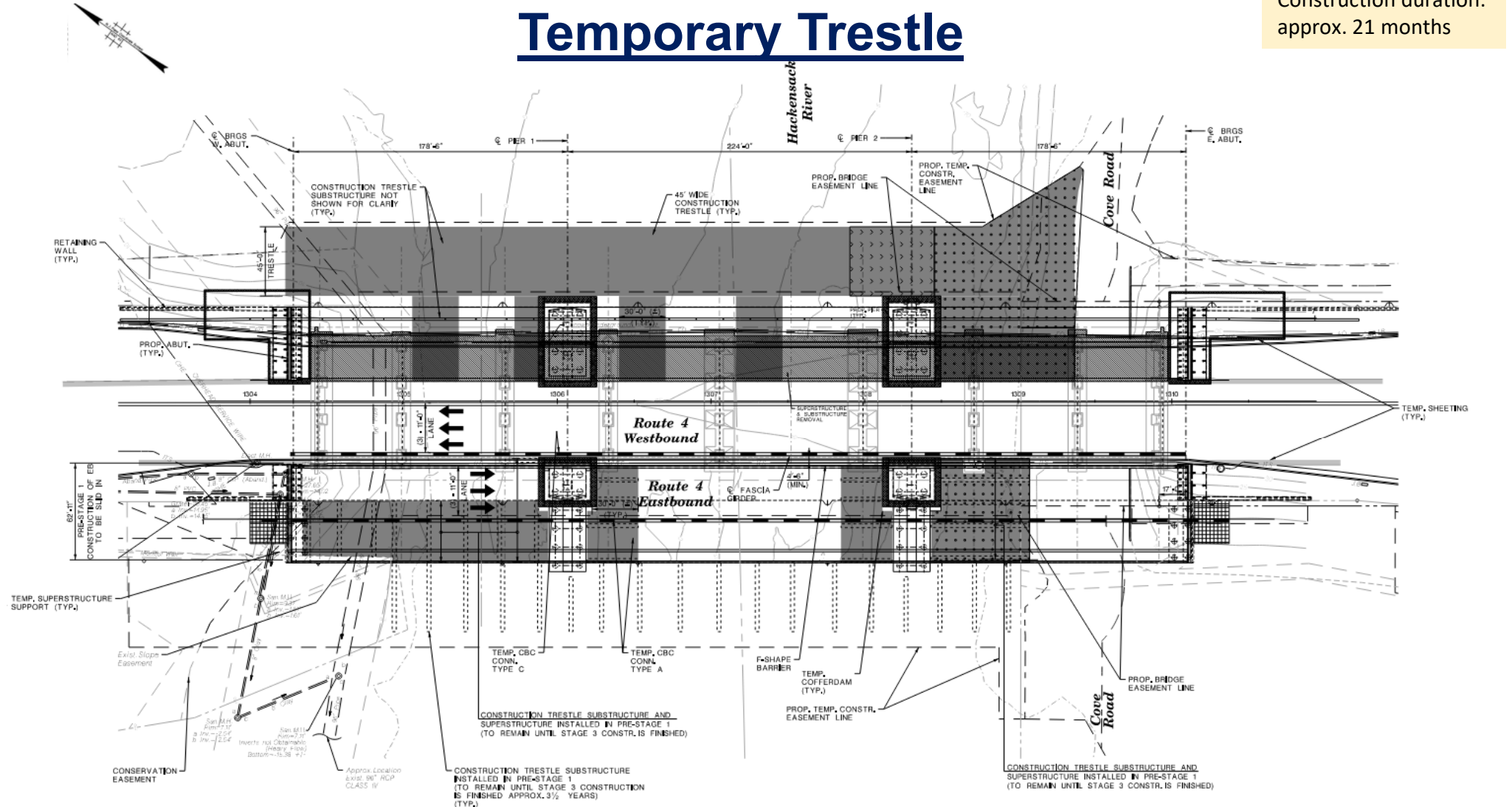
Route 4 Hackensack River Bridge FD CONSTRUCTION ACCESS – Stage 1



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Construction duration:
approx. 21 months

Temporary Trestle



- Construction access from Cove Rd.
- Temporary trestle constructed on the north side.
- Construction trestle substructure and portion of trestle installed in Pre-Stage 1 – to remain until Stage 3 construction is finished (approx. 3.5 years after Pre-Stage 1)

LEGEND:

	LIMITS OF EXISTING STRUCTURE TO BE DEMOLISHED		CONSTRUCTION TRESTLE LEVELED, (INSTALLED AT APPROX. ELEVATION 7')
	LIMIT OF PROPOSED STRUCTURE		CONSTRUCTION TRESTLE SLOPED (FROM APPROX. ELEVATION 13' TO 7')
	LIMIT OF PROPOSED STRUCTURE CONSTRUCTED IN PREVIOUS STAGE		TEMPORARY STRUCTURE

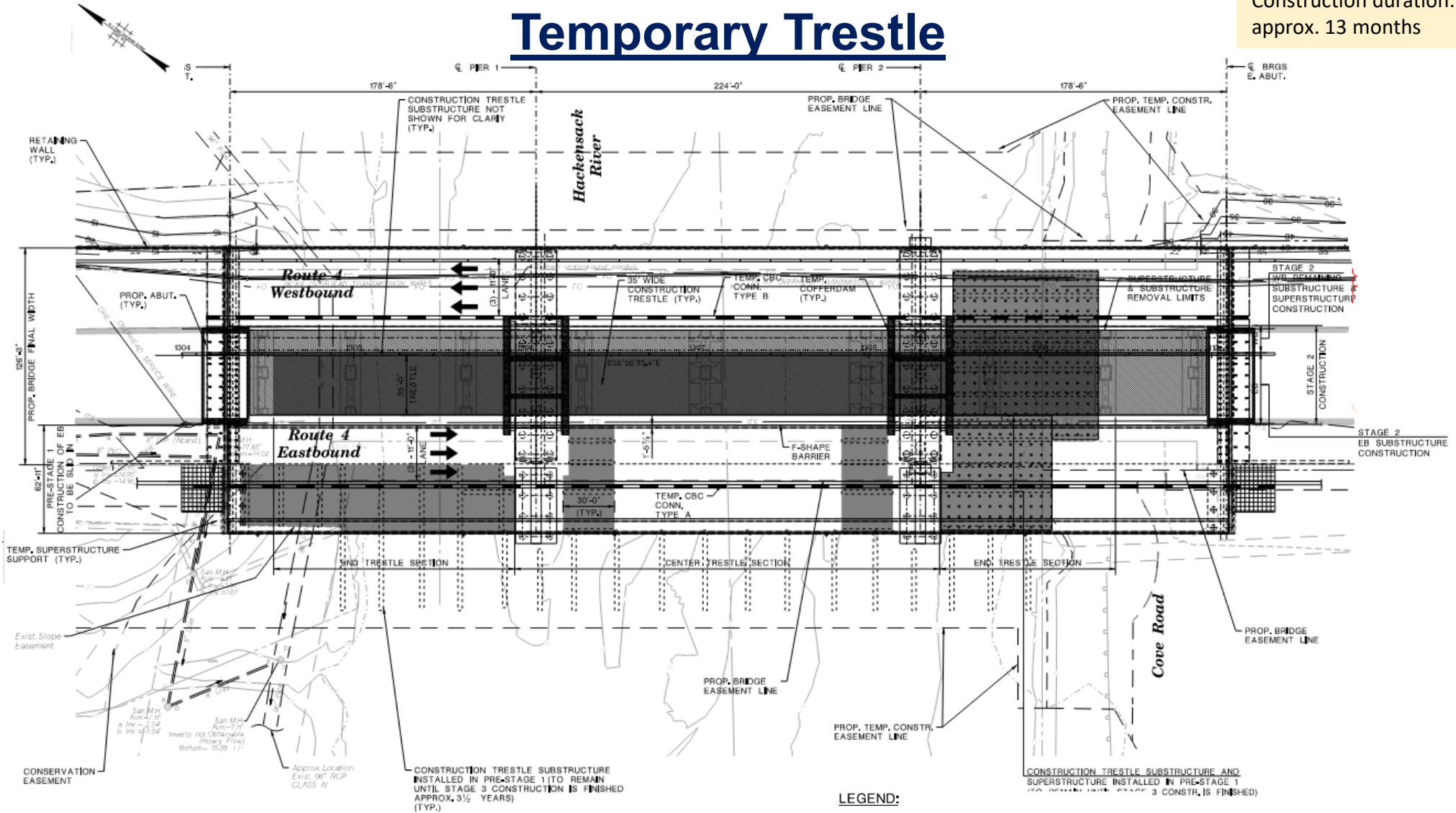
Route 4 Hackensack River Bridge FD CONSTRUCTION ACCESS – Stage 2









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Construction duration:
approx. 13 months

Temporary Trestle



LEGEND:

-  LIMITS OF EXISTING STRUCTURE TO BE DEMOLISHED
-  LIMIT OF PROPOSED STRUCTURE
-  LIMIT OF PROPOSED STRUCTURE CONSTRUCTED IN PREVIOUS STAGE
-  TEMPORARY STRUCTURE
-  CONSTRUCTION TRESTLE LEVELED, (INSTALLED AT APPROX. ELEVATION 7')
-  CONSTRUCTION TRESTLE SLOPED (FROM APPROX. ELEVATION 13' TO 7')

-  Construction access from Cove Rd.
-  Temporary trestle constructed in between newly constructed WB & EB bridge sections.

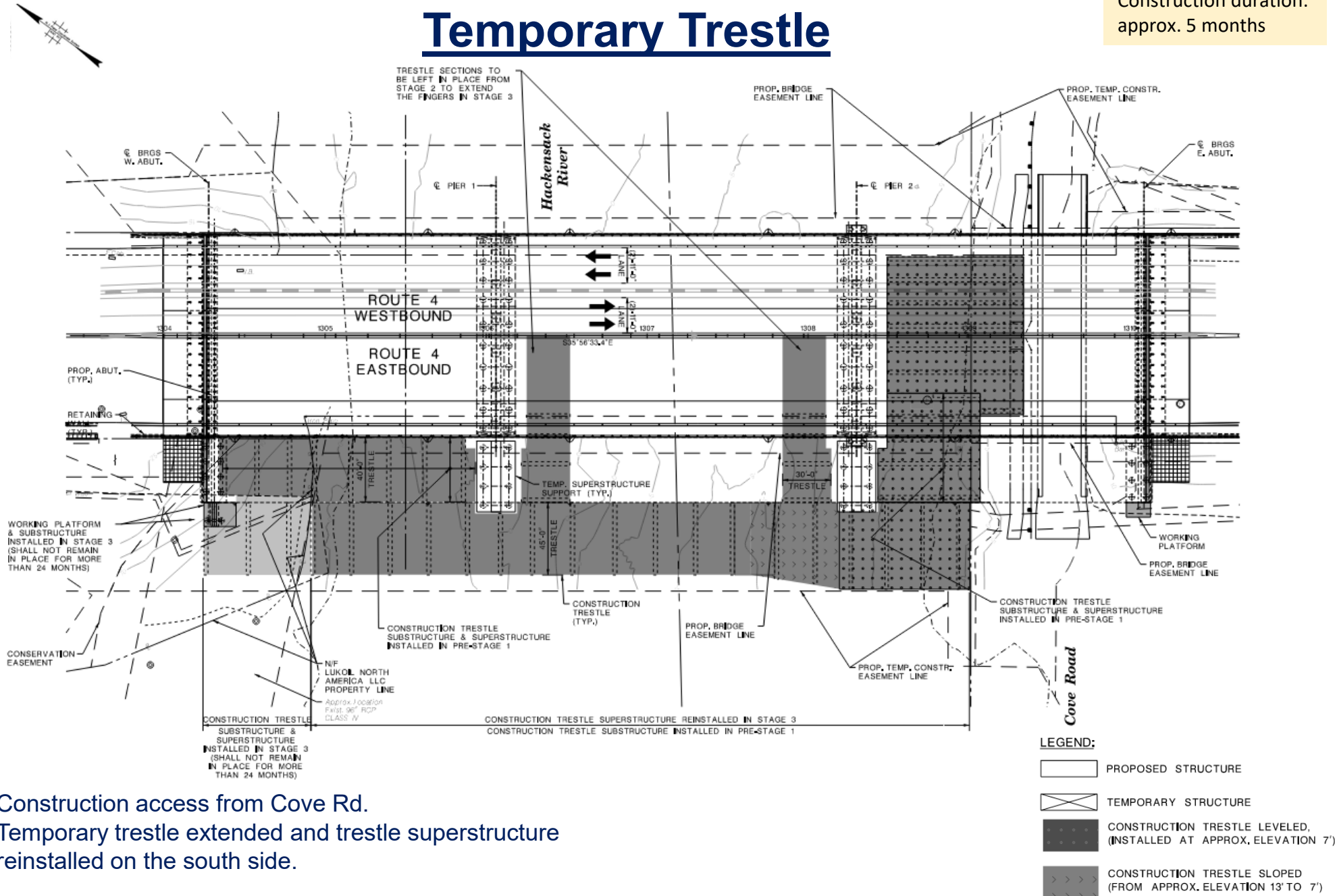
Route 4 Hackensack River Bridge FD CONSTRUCTION ACCESS – Stage 3



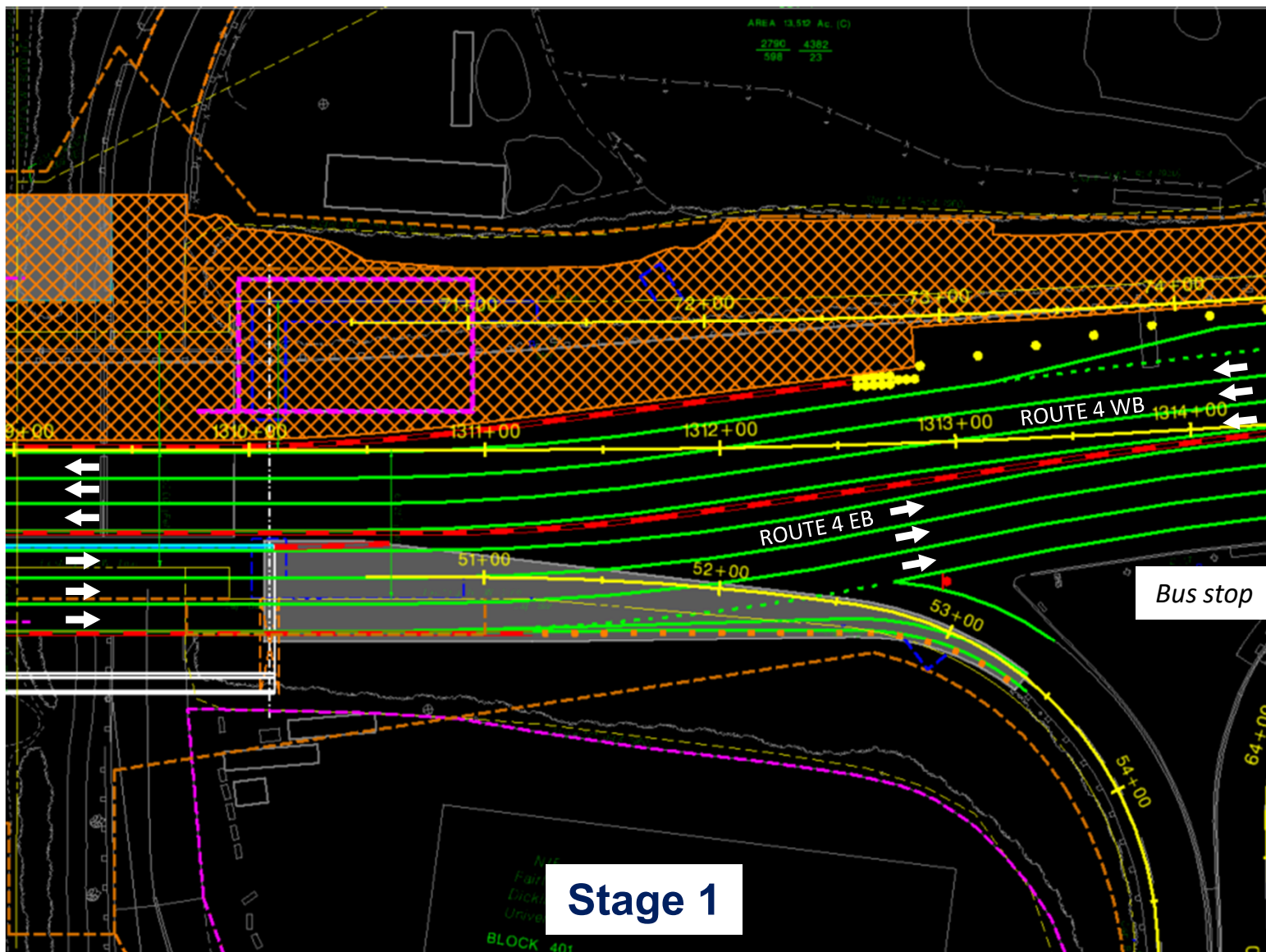
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Construction duration:
approx. 5 months

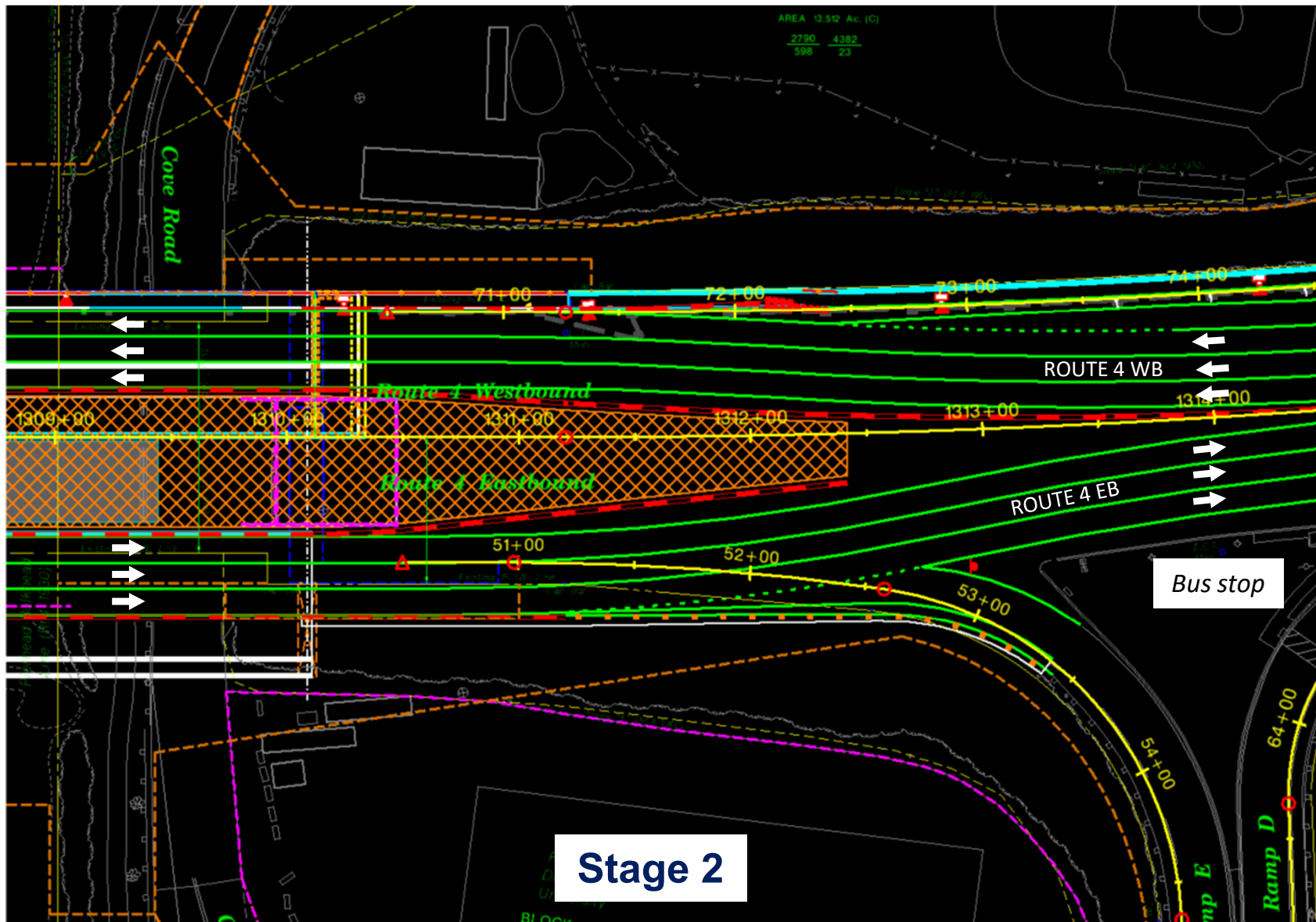
Temporary Trestle



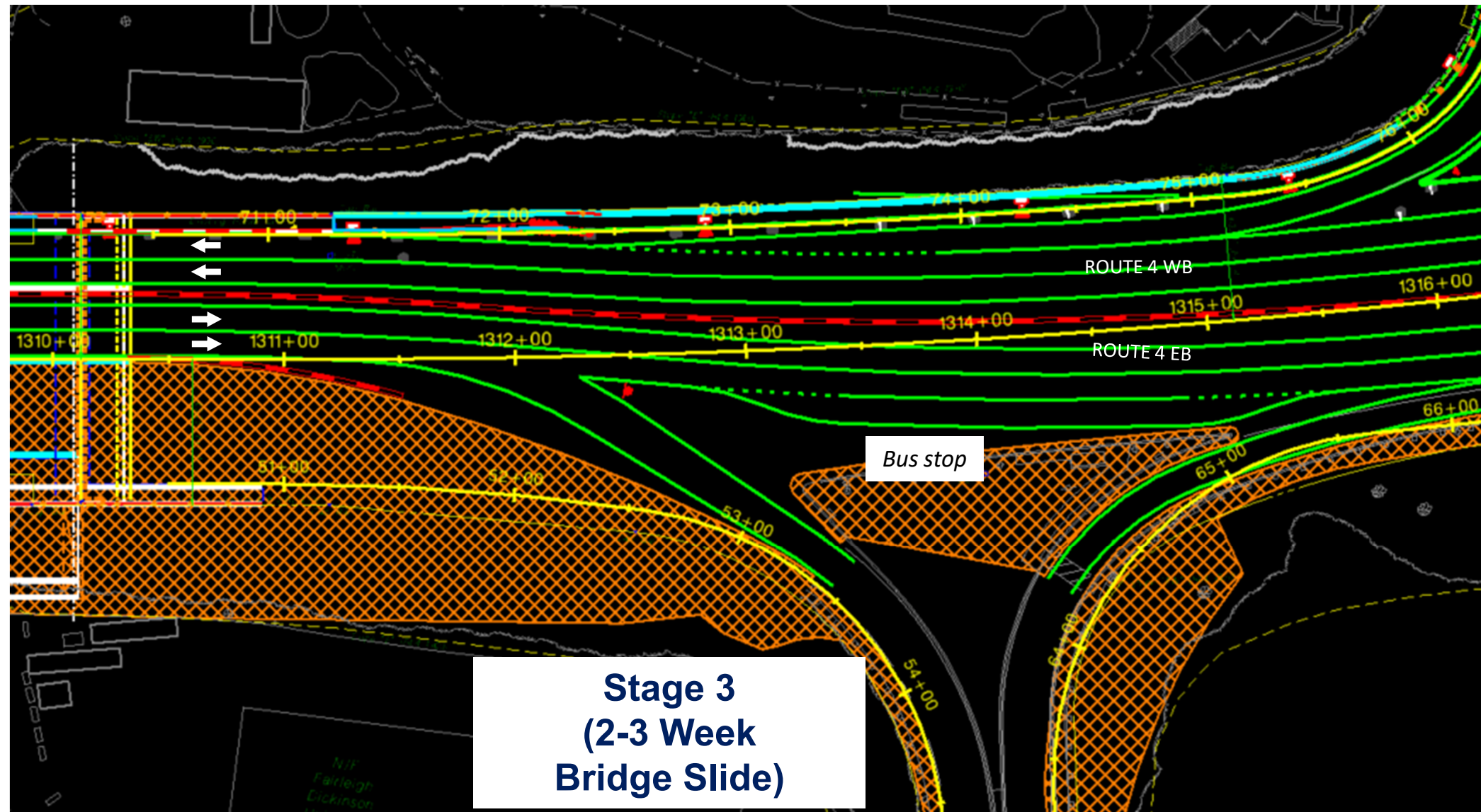
Staging Layout at East Side of the Bridge – FDU Ramps



Staging Layout at East Side of the Bridge – FDU Ramps



Staging Layout at East Side of the Bridge – FDU Ramps

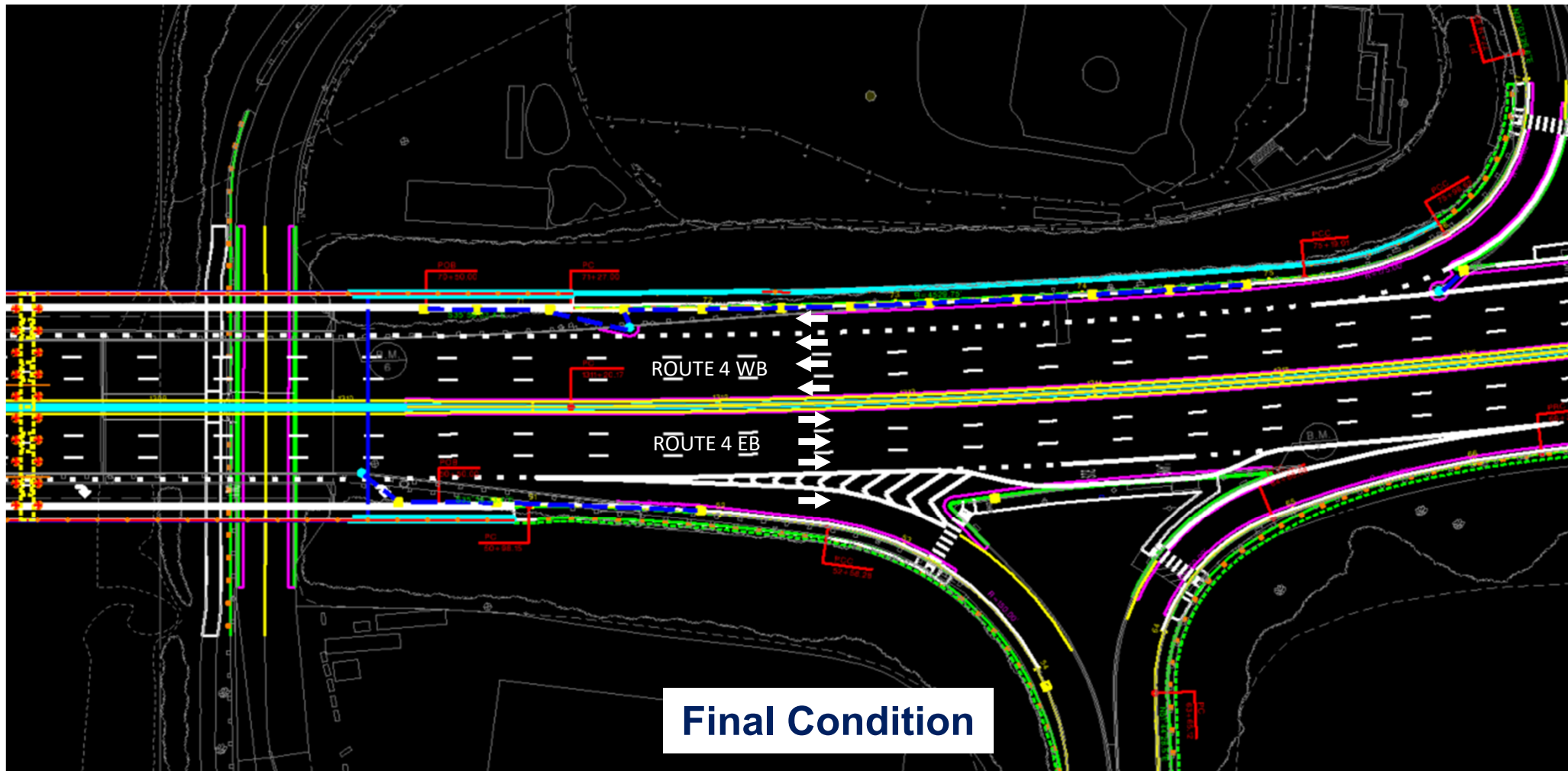


Route 4 Hackensack River Bridge FD CONSTRUCTION STAGING & ACCESS



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East Side of the Bridge – FDU Ramps





Next Steps and Project Schedule

Next Steps:

- Feedback from Local and County Officials
- Hold Public Information Center (PIC) Winter 2025

Schedule:

- Secure Permits February 2025
- PS&E Submission July 2025
- ROW Availability August 2025
- Start of Construction January 2026*
- **Construction duration: 38 – 40 months (approx.)**

Current Estimated Construction Cost* \$189.4M

**Construction funding is programmed
for federal fiscal year 2025*

Discussion and Feedback



- Local Officials Input
- Q&A
- Action Items



Route 4 Hackensack River Bridge FD Local Officials Meeting, 12/02/2024



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THANK YOU

Key Contact:

Shivon Harris, Regional Coordinator
NJDOT Office of Community Relations

Email: shivona.harris@dot.nj.gov

Phone: (609) 963-1982

Mailing Address:

New Jersey Department of Transportation
Office of Government & Community Relations
PO Box 600, Trenton, NJ 08625-0600

