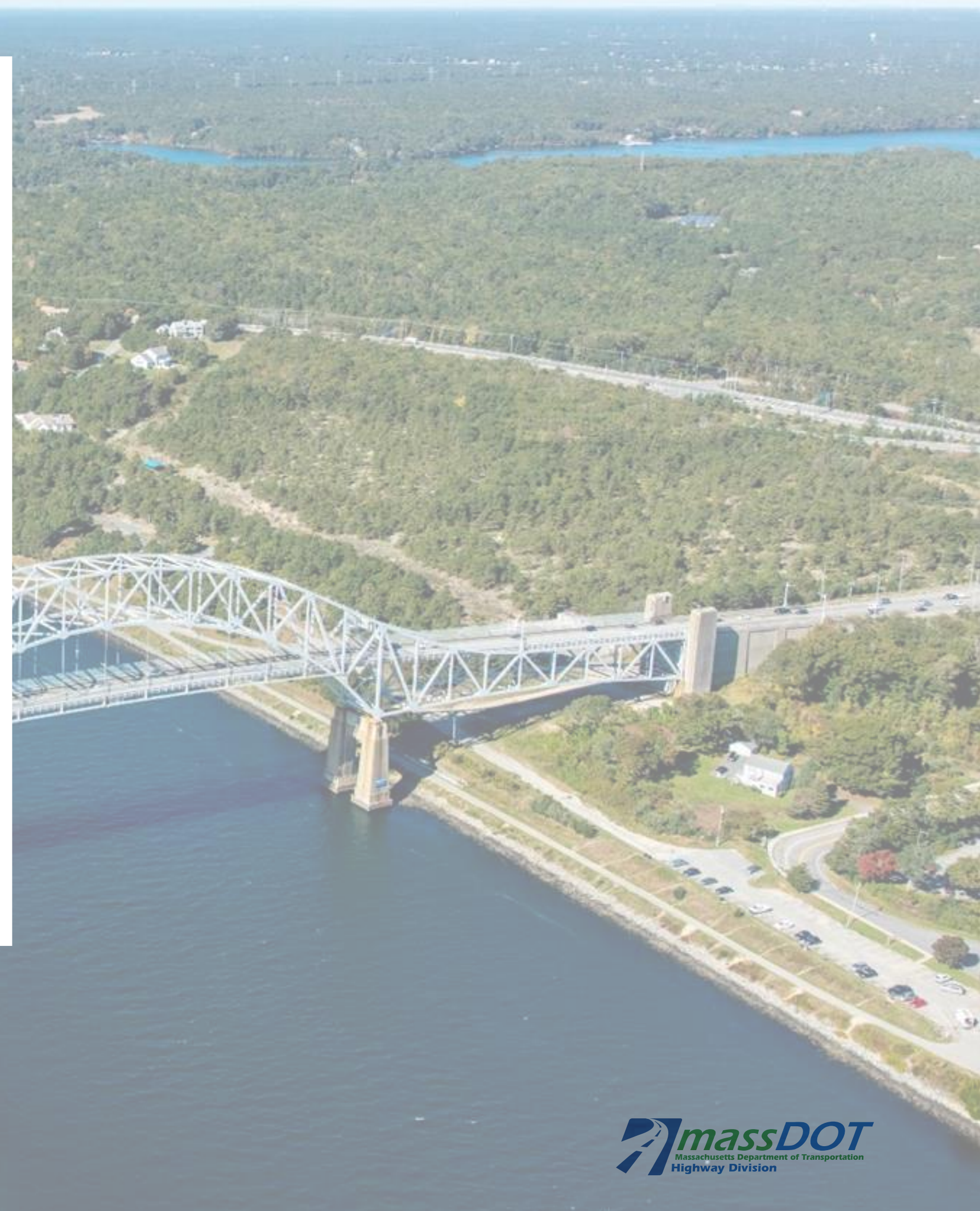




# Cape Cod Bridges Program

*Presentation to Cape & Islands  
Municipal Leaders Group*

March 14, 2025



# Overview

## Cape Cod Bridges



### Program Purpose

- The purpose of the Cape Cod Bridges Program is to improve cross-canal mobility and accessibility between Cape Cod and mainland Massachusetts for all road users and to address the increasing maintenance needs and functional obsolescence of the aging Cape Cod Canal highway bridges.

### Program Scope

- Phased replacement of the Sagamore Bridge and the Bourne Bridge
- Improvements to the bridge approach roadways
- Multimodal improvements including Shared Use Paths

### Estimated Program Cost

- \$2.4 Billion for the Sagamore Bridge

# Environmental Permitting Update



- **Interagency Coordination**
- **Required Permits and Approvals**
- **Impact Assessments**

# Inter-Agency Coordination

- US DOT
- Army Corps of Engineers
- Coast Guard
- US Environmental Protection Agency
- National Marine Fisheries Service
- US Fish and Wildlife Service
  - Historical Commission (State Historic Preservation Office)
  - Massachusetts Department of Environmental Protection
  - Massachusetts Executive Office of Energy and Environmental Affairs
  - Massachusetts Environmental Policy Act Office (MEPA)
  - Massachusetts Department of Fish and Game
  - Massachusetts Office of Coastal Zone Management

# Required Permits and Approvals

MassDOT anticipates obtaining the following environmental authorizations and permits.

## **Federal**

NEPA Review

US Fish and Wildlife Service

National Marine Fisheries Service

Section 4(f) of the US DOT Act

Section 106 of the National Historic Preservation Act

Section 404 of the Clean Water Act

US Coast Guard Bridge Permit

## **State and Local**

MEPA Review

MA Endangered Species Act

Section 401 Water Quality Certificate

Chapter 91 Waterways License

Coastal Zone Management Act

Wetlands Protection Act

State Archaeologist Permit

# Federal and State Permitting: Impact Assessment

## *Environmental Permitting*

## *Documents Will Address a*

## *Broad Array of Potential*

## *Impacts*

Transportation, Traffic, and Safety  
Pedestrian and Bicycle Facilities  
Navigation  
Socioeconomics  
Land Use, Zoning, and Community  
Cohesion  
Community Facilities  
Property Acquisition, Displacement and  
Relocation  
Wetlands and Floodplains  
Water Quality and Stormwater  
Threatened, Endangered, and Protected  
Species  
Coastal Resources  
Air Quality  
Noise  
Resiliency  
Visual Resources  
Cultural Resources  
Public Parks and Recreation Facilities  
Solid and Hazardous Material and Waste  
Management  
Public Utilities and Services  
Public Health  
Indirect and Cumulative Effects

## Minimizing Environmental Impact

All details will continue to be evaluated and expanded upon the DEIS/DEIR.

- Less than 5000 square feet of wetland impacts
- Substantial safety and multimodal improvement
- Connectivity improvements for all users
- Navigability improvements
- Adverse Effect for the demolition of the National Register-Listed bridges mitigated by the replacement bridge type
- No unanticipated impacts to sensitive archaeological resources



## Public Involvement

Multiple public meetings and open house events

November 2024 open house event attended by over 450 residents

Strong support for the replacement of the Bourne and Sagamore Bridges

Continued work with Advisory Group comprised of local and regional residents and elected officials





# Public Input and Interchange Design



- The Interchange Options were presented to the Advisory Group in October 2024 and at the November Open House.
- General public consensus on the recommended Interchange Options.
- The preliminary design will reflect public and Advisory Group recommendations.

# Public Input and Bridge Type – Twin Network Tied Arch



## Bridge Construction Impacts: Early Property Acquisitions

- MassDOT has received approval from FHWA to proceed with early property acquisitions (prior to NEPA completion).
- Without this early approval, contact with property owners would not occur until the spring of 2026.
- Initiating this process early, reduces the period of uncertainty for property owners concerned about the disposition of their property.
- Initiating the process early also provides additional time for MassDOT to work with property owners on their relocation.



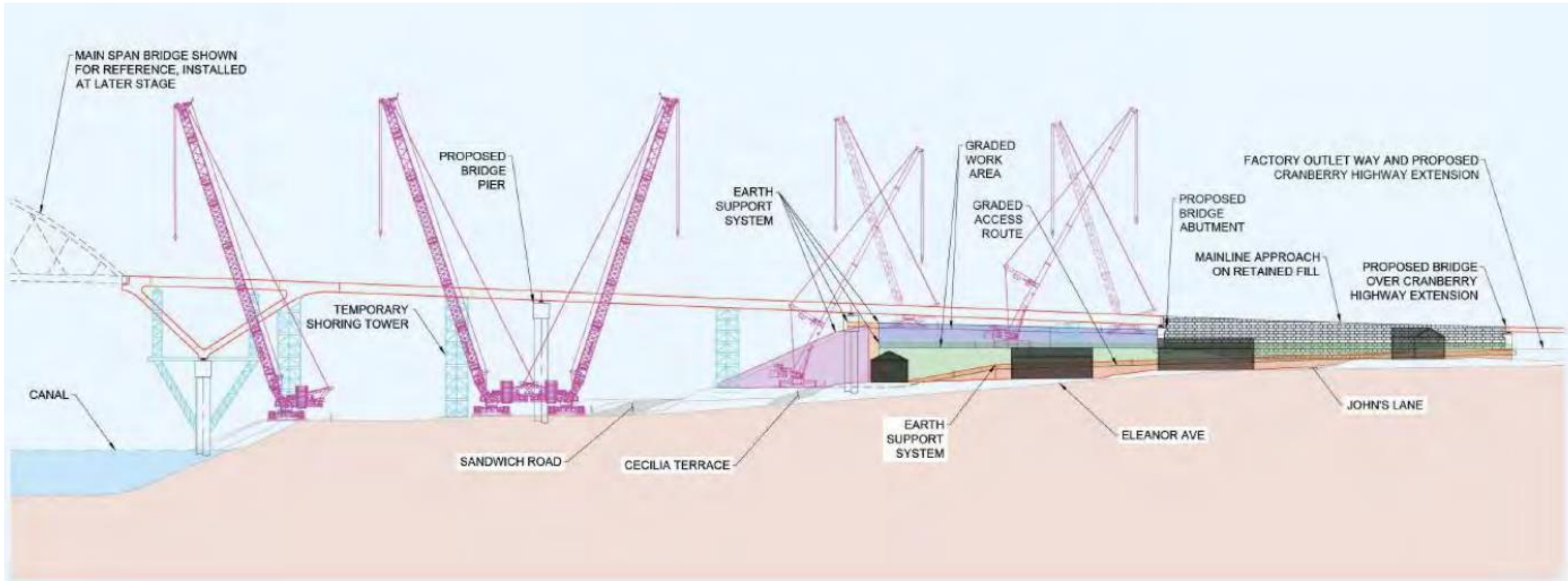
## Bridge Construction Impacts: Early Property Acquisitions

- These early acquisitions are necessary for the construction of the new Sagamore Bridge.
- Sufficient room must be made available for the contractor to safely assemble, position and operate cranes.
- Heavy earthworks and temporary retaining walls will be needed in this area to provide working platforms and access.
- In the final build condition, the disturbed area will accommodate storm water management basins, shared use paths, and access ways to the bridge for future maintenance and inspection.

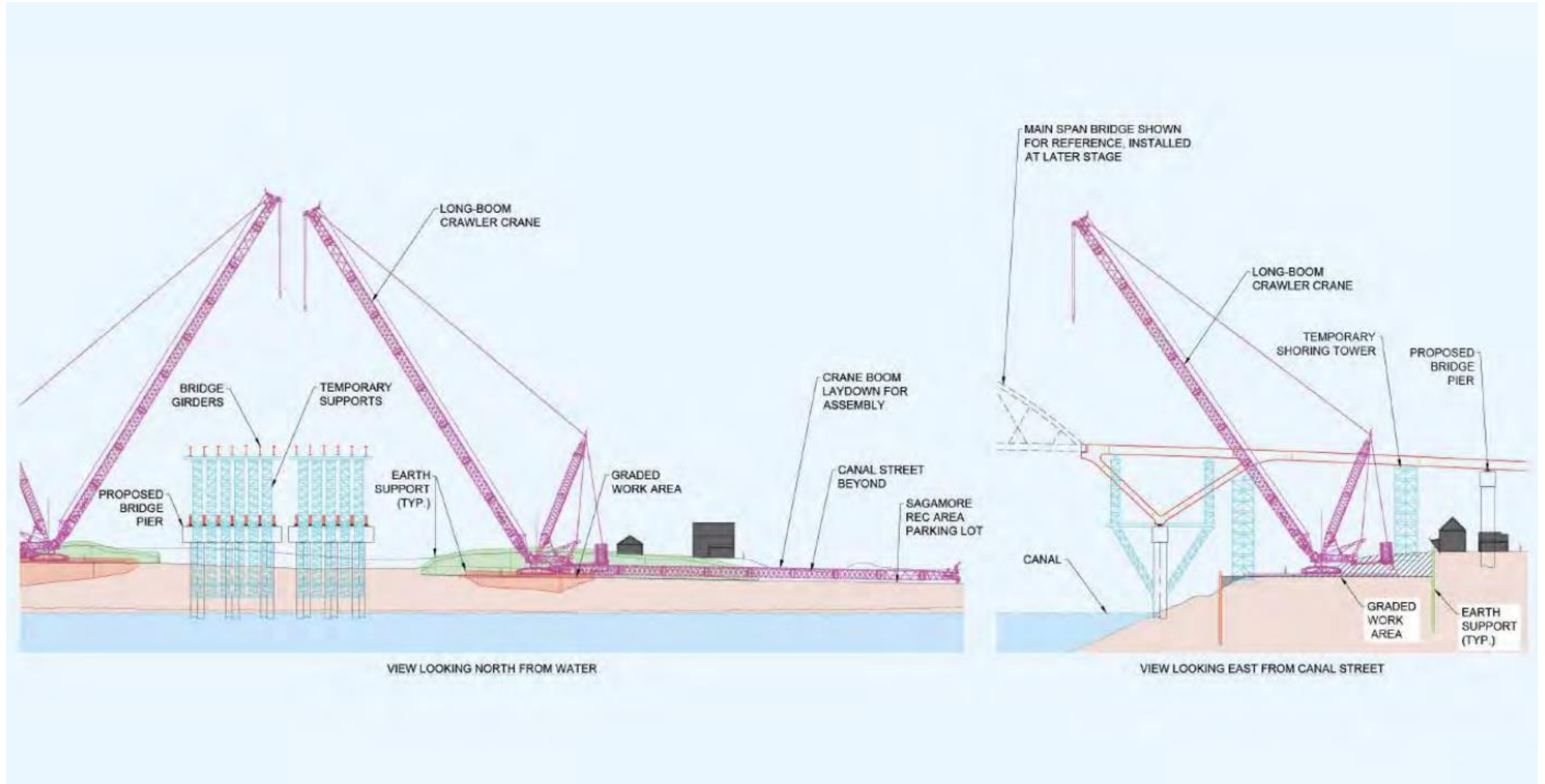


*Illustrative photo of bridge construction*

# Planned Construction Activities – Sagamore South



# Planned Construction Activities – Sagamore North



# Subsurface Explorations

- Borings provide information about the subsurface conditions, such as the composition and strength of the soil.
- Required at proposed bridge abutments, piers, walls, detention ponds, travel lanes etc.
- The borings will be located on MassDOT, USACE, United States Government, Town of Bourne, and private property



## Subsurface Explorations



- An engineer will mark boring locations with spray paint.
- A drill rig is required to obtain ground samples at various depths.
- Depending on the location of the boring, tree trimming and clearing may be required.
- May require signs, cones, and barriers; and traffic may be affected.
- Borings will be taken in phases over several years. Property owners will be notified prior to commencement of work.



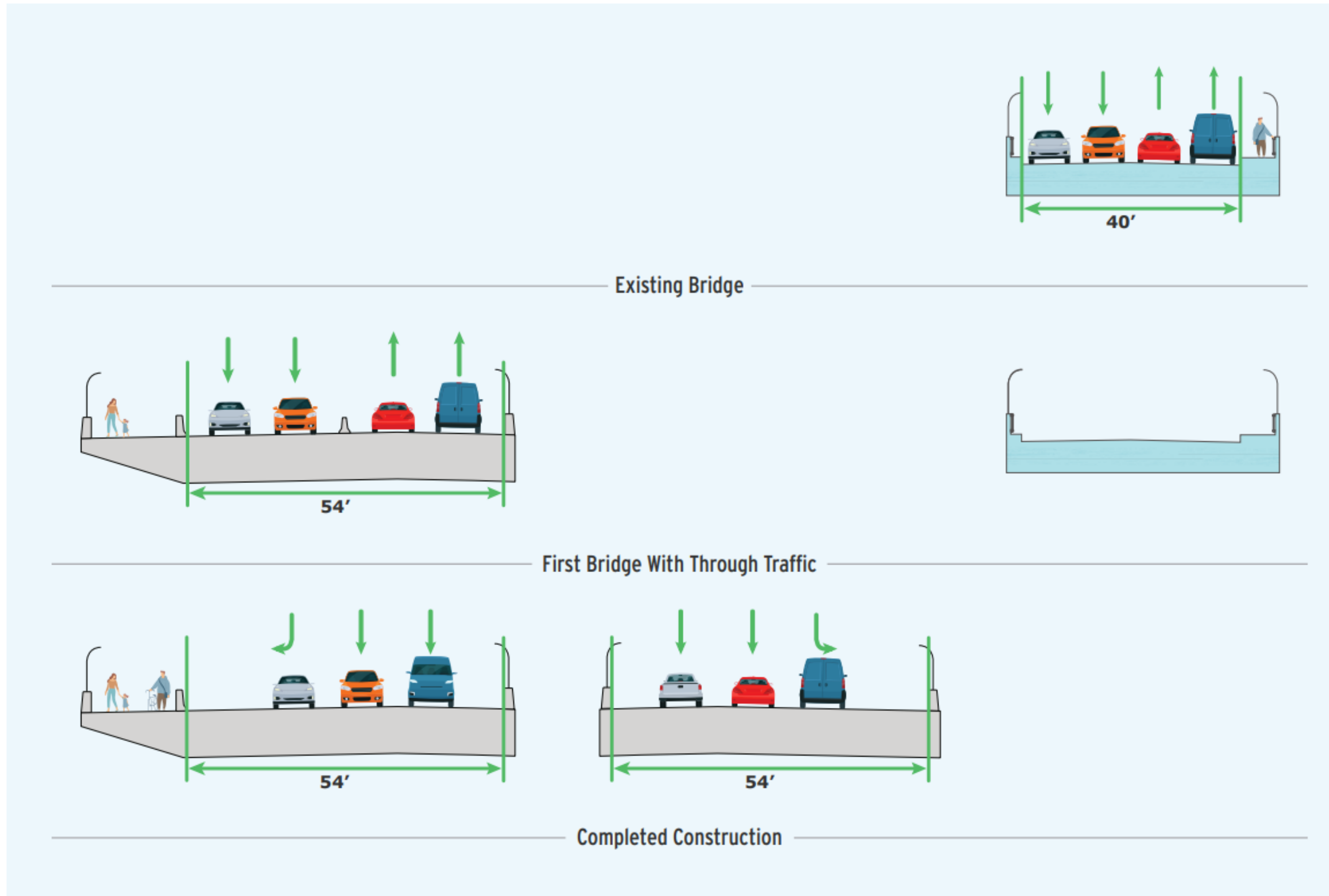
# Construction Phase



## Construction phase goals:

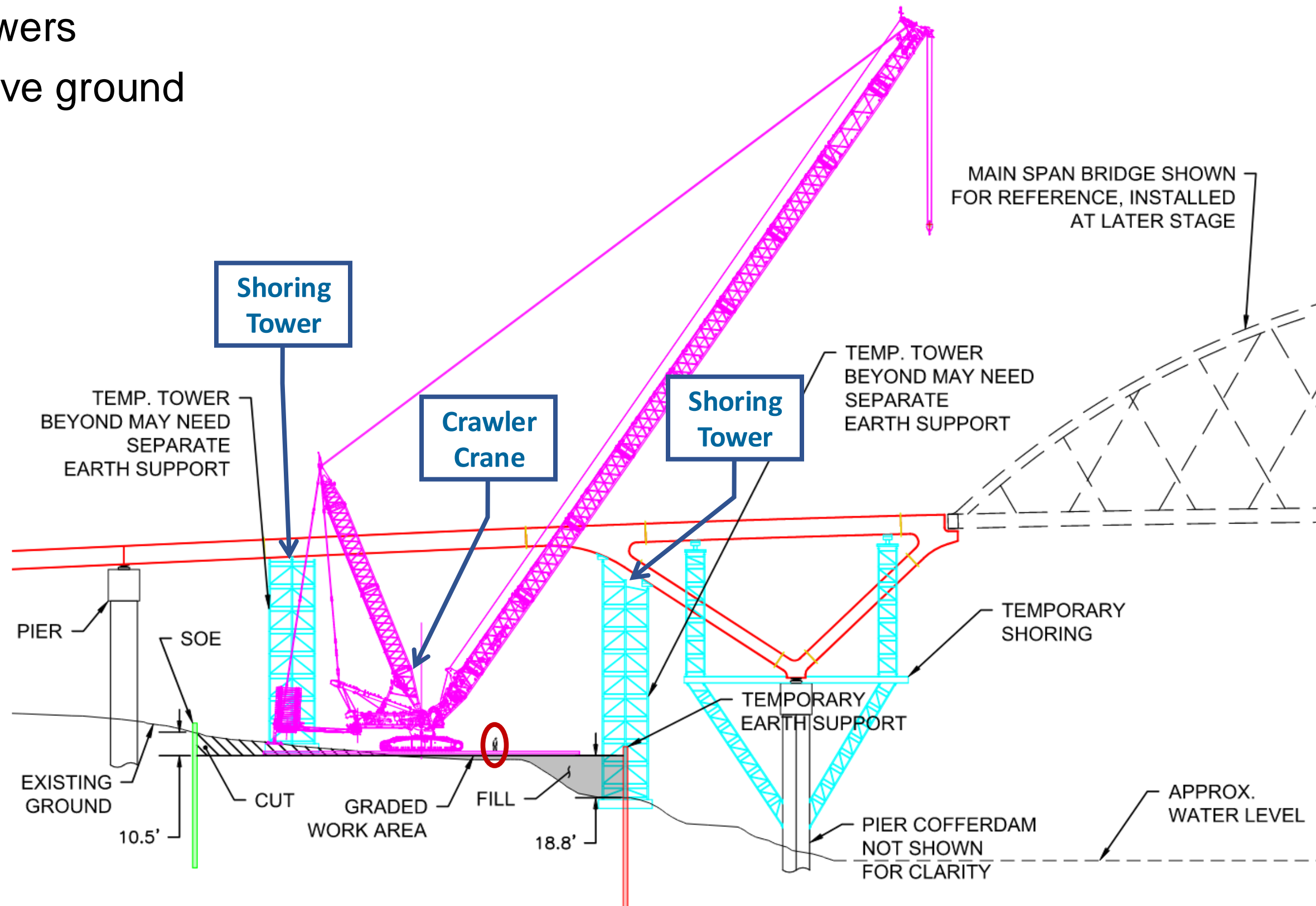
- Maintain two lanes of travel in each direction across the canal at all times
- Maintain ramp connections with limited disruptions
- Remove traffic from the existing bridges as soon as practical
- Work will take place on a year-round basis

# Construction Staging at Canal Crossing

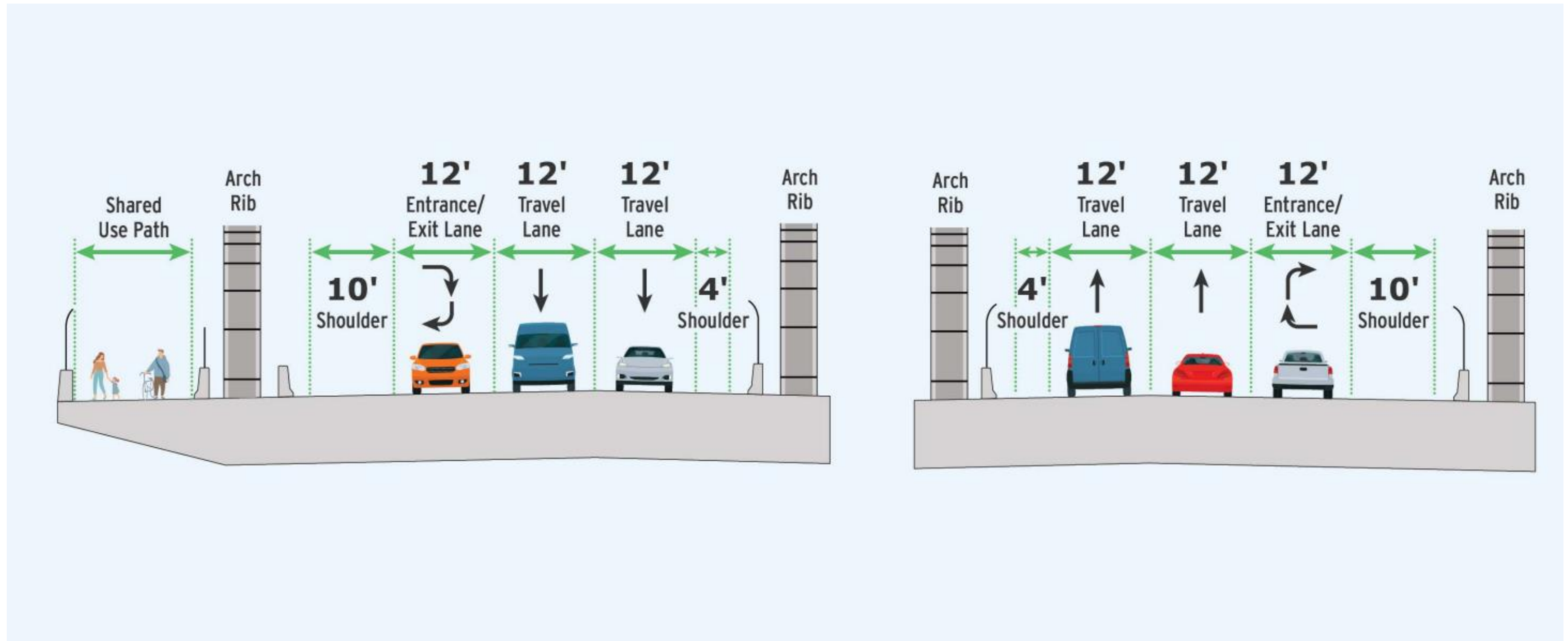


# Delta Frame and Approach Span Construction

- Large land-based cranes
- Tall shoring towers
- Work high above ground



# Bridge Type – Lane Configuration



# Schedule Update



- Major federal and state environmental documents to be filed July 2025
- Record of Decision September 2026
- Draft RFP Sept. 2026
- Notice to Proceed Jan. 2028

## Recent/Upcoming Outreach and Activities

Prepare and publish DEIS/DEIR, advance preliminary design

Recent and Upcoming meetings/presentations:

- **Sierra Club of Cape Cod**
- **Home Builders and Renovators Assoc of Cape Cod**
- **Cape & Islands Bridge Committee**
- **Cape Cod Bridges Advisory Group**
- **Cape & Islands Municipal Leaders Association**
- **Spring 2025** – Meetings with Town of Bourne, BRA
- **Spring 2025** – Section 4(f) public meeting
- **Summer 2025** – DEIS public meeting
- **ROW, Borings/Vegetation Management**



# *Thank You*

*Cape Cod Bridges Program*

[Luisa.Paiewonsky@dot.state.ma.us](mailto:Luisa.Paiewonsky@dot.state.ma.us)

