

FORMAL PUBLIC MEETING

Ohio Street over I-95 Bridge Replacement

Bridge No. 5790



Presenters

Maine DOT

- **Mark Parlin** - Project Manager

McFarland Johnson, Inc.

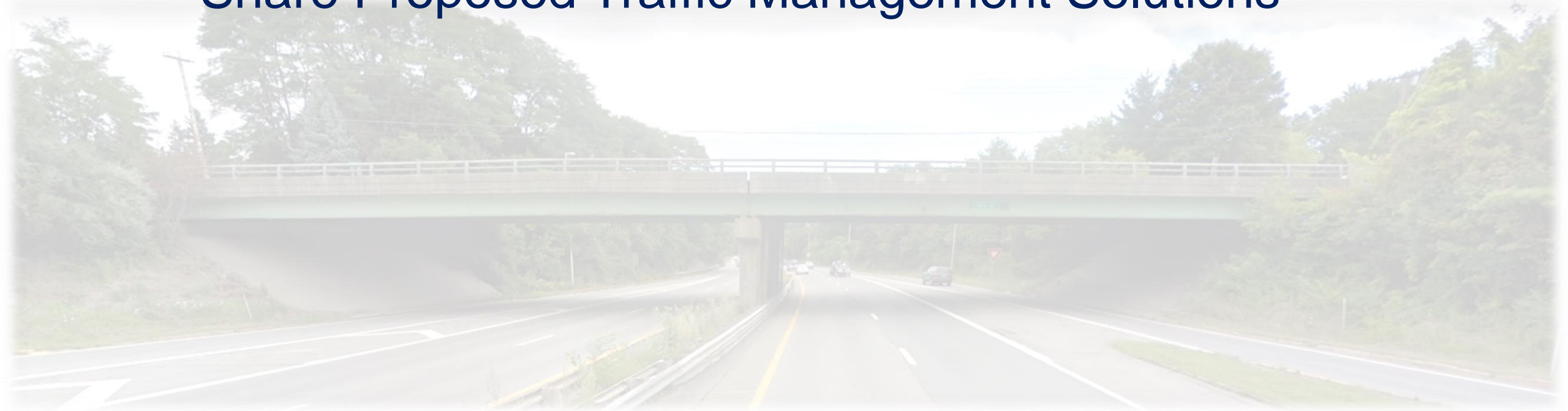
- **Theresa McAuliffe, PE** - Senior Bridge Engineer
- **Tom Kendrick, PE** - Project Manager

Agenda

- Introductions
- Purpose of Meeting
- Project Overview
- Existing Bridge Recap
- Proposed Solution
- Questions/Comments

Purpose of Meeting

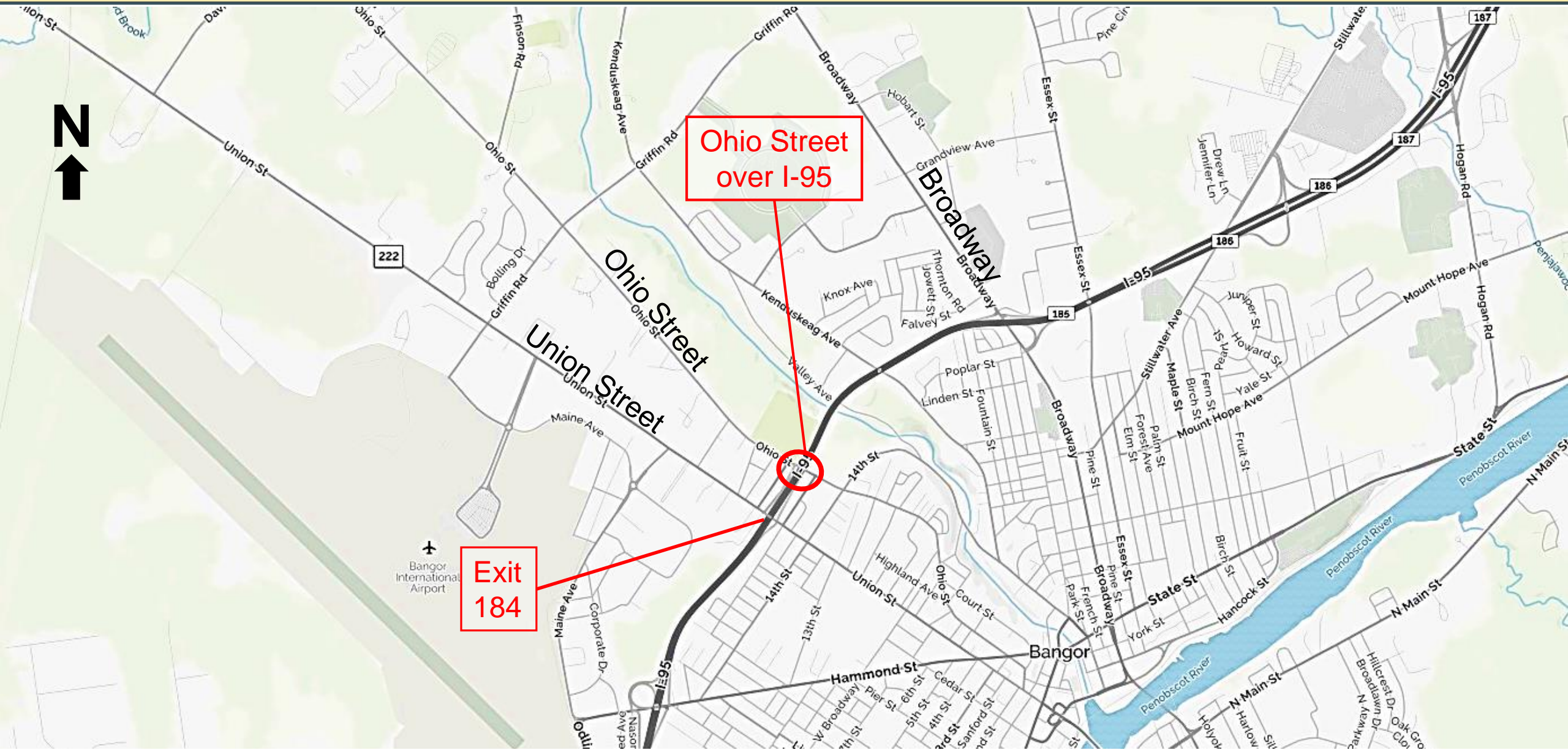
- Share results of Preliminary Design Effort
- Share Proposed Traffic Management Solutions



Project Overview

- Ohio Street Bridge Replacement
- Located just north of Exit 184 (Union Street)
- Ohio Street – 10,500 vehicles per day
- Construction – 2019/2020

Ohio Street over I-95, Bridge Replacement



Ohio Street over I-95, Bridge Replacement



Ohio Street
over I-95

Exit
184

NB off-ramp removed previously

Ohio Street over I-95, Bridge Replacement



Ohio Street over I-95, Bridge Replacement





Ohio Street Looking West
(Towards Bridge)



Ohio Street Looking West
(Away from Bridge)



Ohio Street Looking East
(Towards Bridge)



Ohio Street Looking East
(Away from Bridge)

Ohio Street over I-95, Bridge Replacement



Project Overview

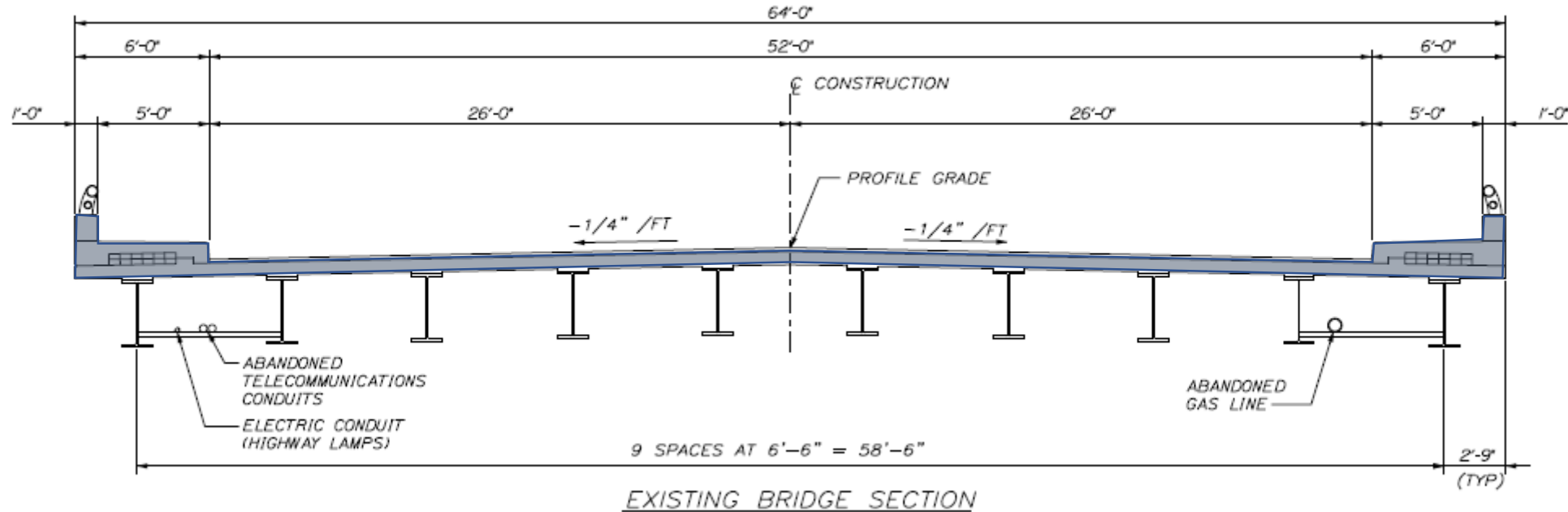
- Constructed in 1960
- Structural Condition and Deterioration
- Replacement Bridge to accommodate future needs on I-95
- Evaluate construction delivery alternatives

Existing Bridge



2-spans
(93-ft – 93-ft)

Existing Bridge



52-ft curb-to-curb
(+ 5-ft sidewalks both sides)

Existing Bridge

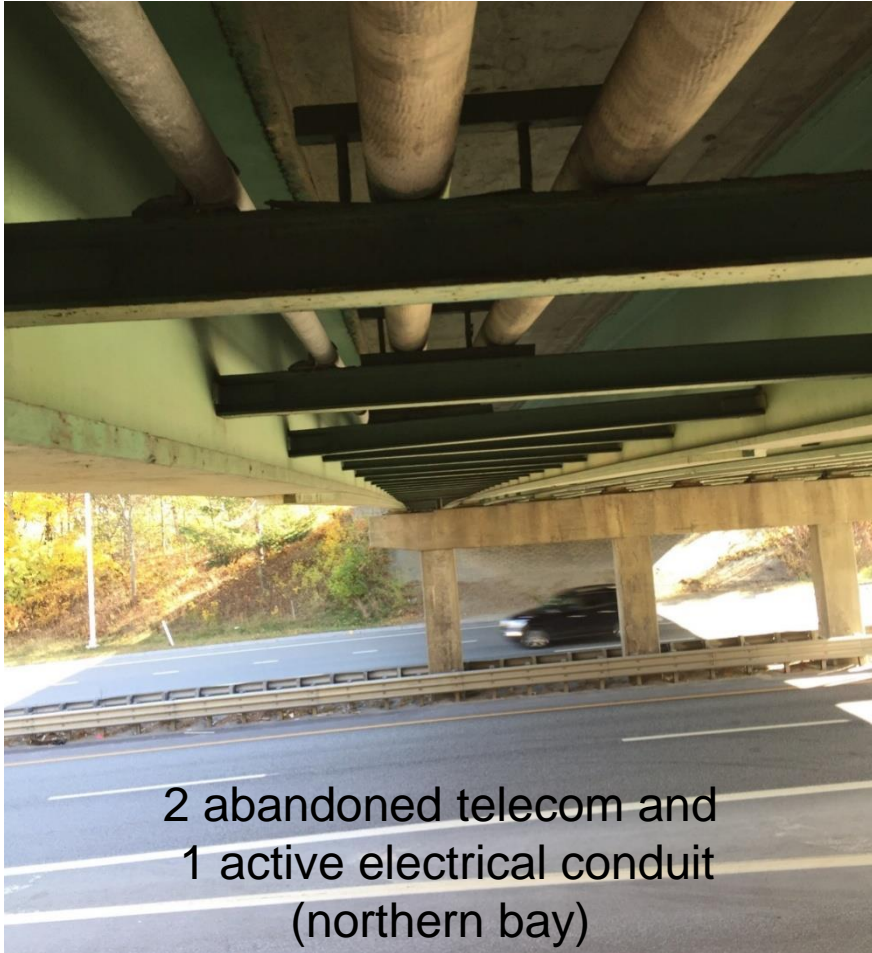


Center Pier



Underside of Deck over Travel Lanes

Existing Bridge - Utilities



2 abandoned telecom and
1 active electrical conduit
(northern bay)



Abandoned gas line
(southern bay)

Existing Bridge - Utilities



Sewer and Water



Overhead



Interstate Lighting

Right-of-Way Impacts



Purpose and Need

Purpose

Provide a safe and low maintenance bridge with vertical and horizontal clearances consistent with the corridor.

Need

Address the deteriorated condition of the deck and piers and correct the vertical clearance constraint.

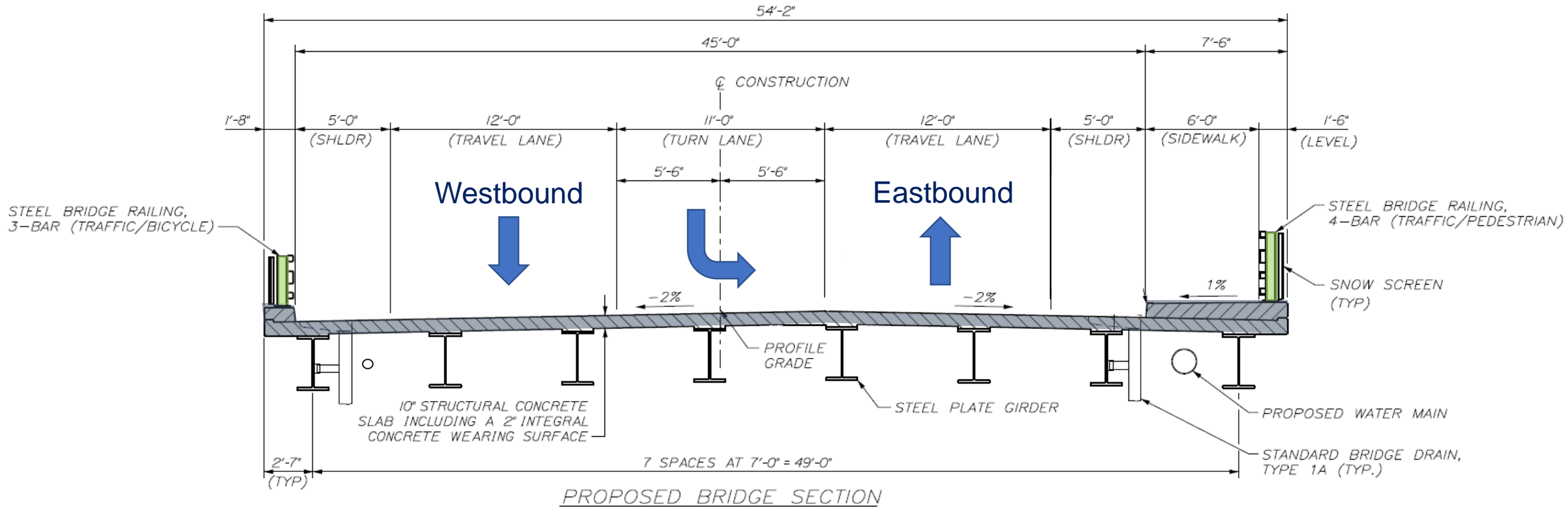
Alternatives Overview

- Rehabilitation – eliminated
- Full replacement
 - Alternative A: Fast Conventional / Full closure
 - Alternative B: Conventional / Phased Construction

Criteria Evaluated

- Closure Durations (Ohio St and I-95 NB/SB)
- Traffic Impacts / User Costs
- Total Construction Costs
- Durability / Maintenance

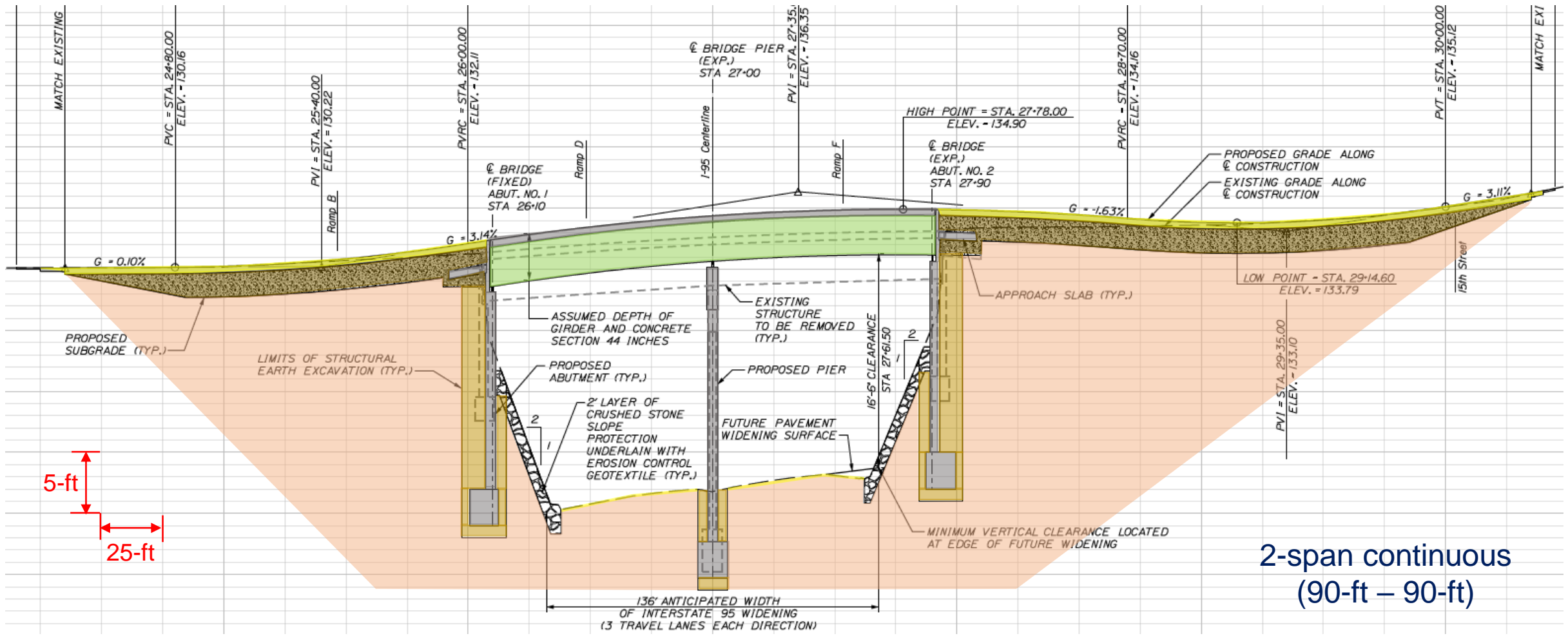
Proposed Bridge



45-ft curb-to-curb
(+ 6-ft sidewalk on south side)

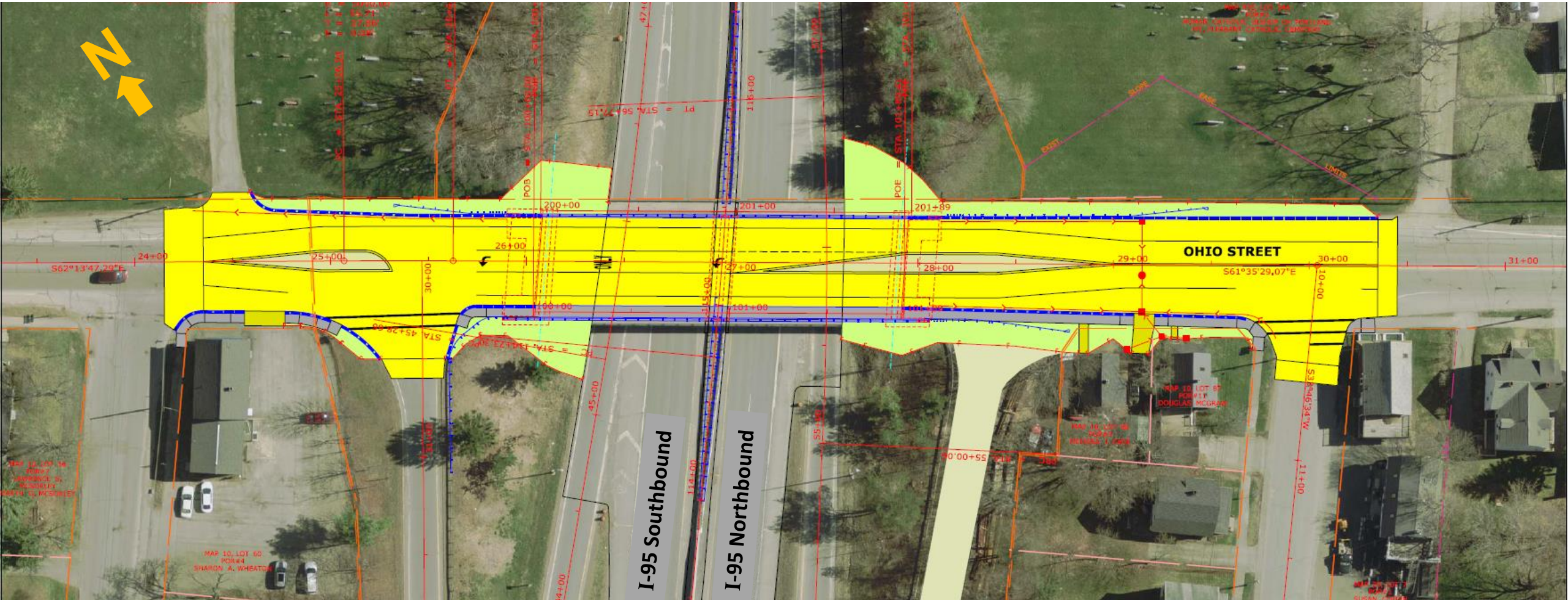
SECTION

Proposed Bridge



2-span continuous
(90-ft – 90-ft)

Proposed Bridge



Alternative A

- Short-term Full Closure of Ohio Street Bridge
- Shorter Construction Schedule
- Financial incentives/disincentives
- Detour all vehicular and pedestrian traffic around bridge site



Alternative B

- Phased Bridge Construction
- Multi-year Conventional Construction Schedule
- Maintain 1-lane on Ohio Street throughout construction
 - Maintain westbound traffic
 - Eastbound traffic uses full detour



Alternative Summary

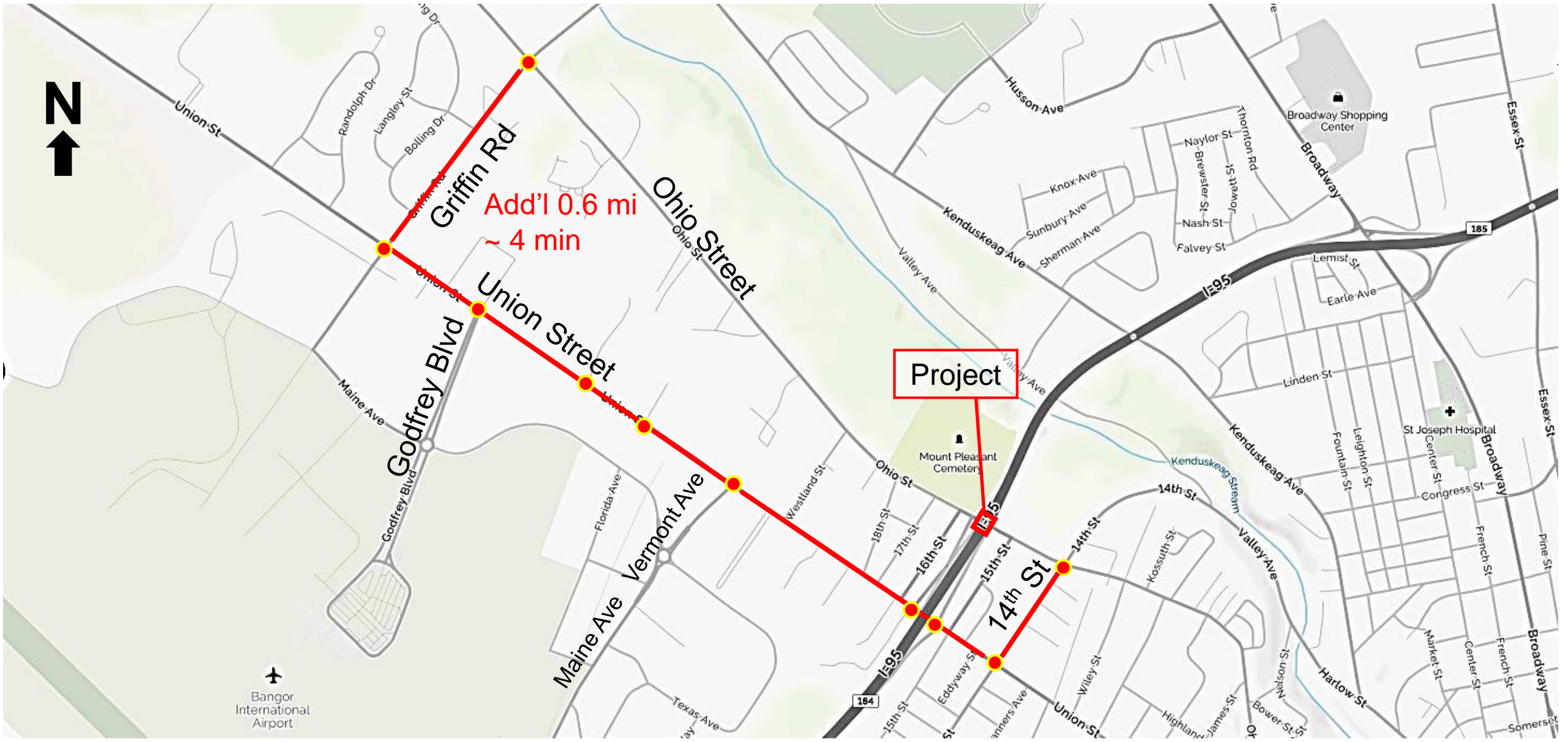
	Alternative A	Alternative B
Construction Method	Fast Conventional	Phased Conventional
Construction Duration	1-year	2-years
Ohio Street Bridge Closure	5 Months (Full Closure)	18 Months (E.B. Lane Closed)



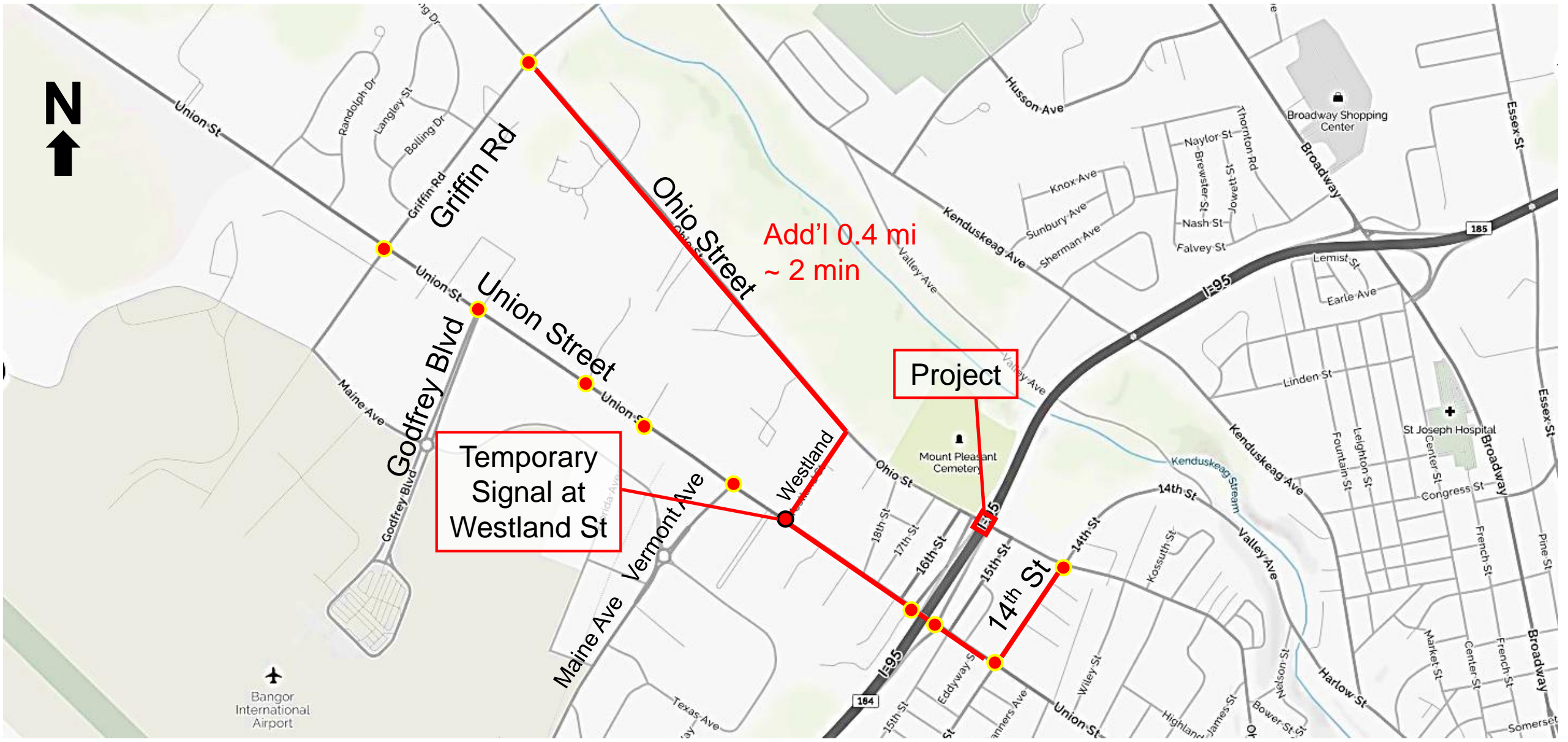
Traffic Management: Ohio St

- Full Bridge Closure
 - Vehicular Detour: Griffin Rd to Union
 - Pedestrian Detour: 15th and 16th Streets (0.4 mi / 8 min)
- Phased Bridge Option
 - Maintain one-lane of Ohio Street in westbound direction
 - Eastbound direction detoured: Griffin Rd to Union

Ohio Street over I-95, Bridge Replacement



Ohio Street over I-95, Bridge Replacement



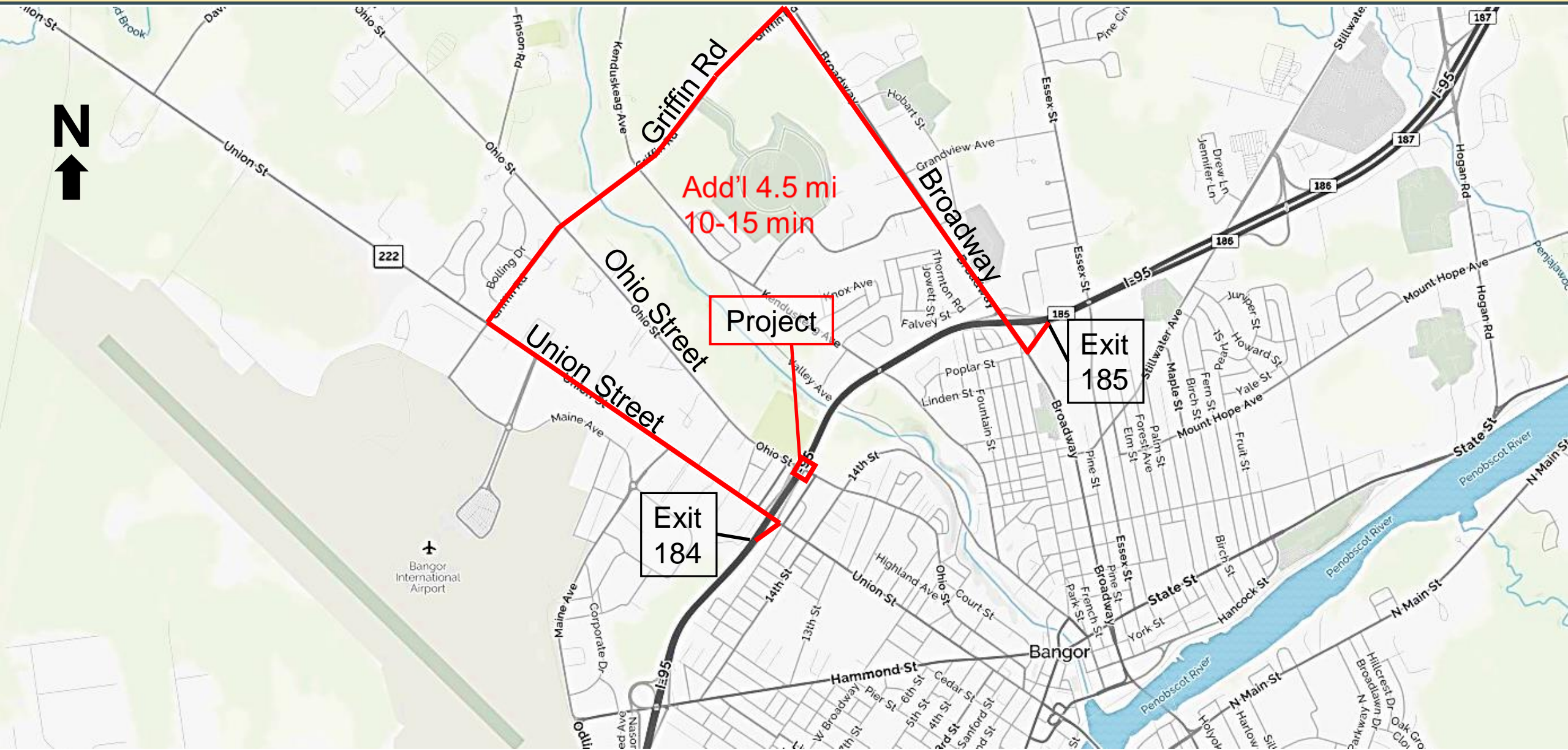
Traffic Management: I-95

(ALL ALTERNATIVES)

- I-95 Lane Shifts
- I-95 Lane Closures (8pm – 6am)
- I-95 Barrel Closures (11pm – 5am)
 - Only one barrel per night
 - DETOUR: Exit 184 to Exit 185
(Union Street - Griffin Road - Broadway)



Ohio Street over I-95, Bridge Replacement



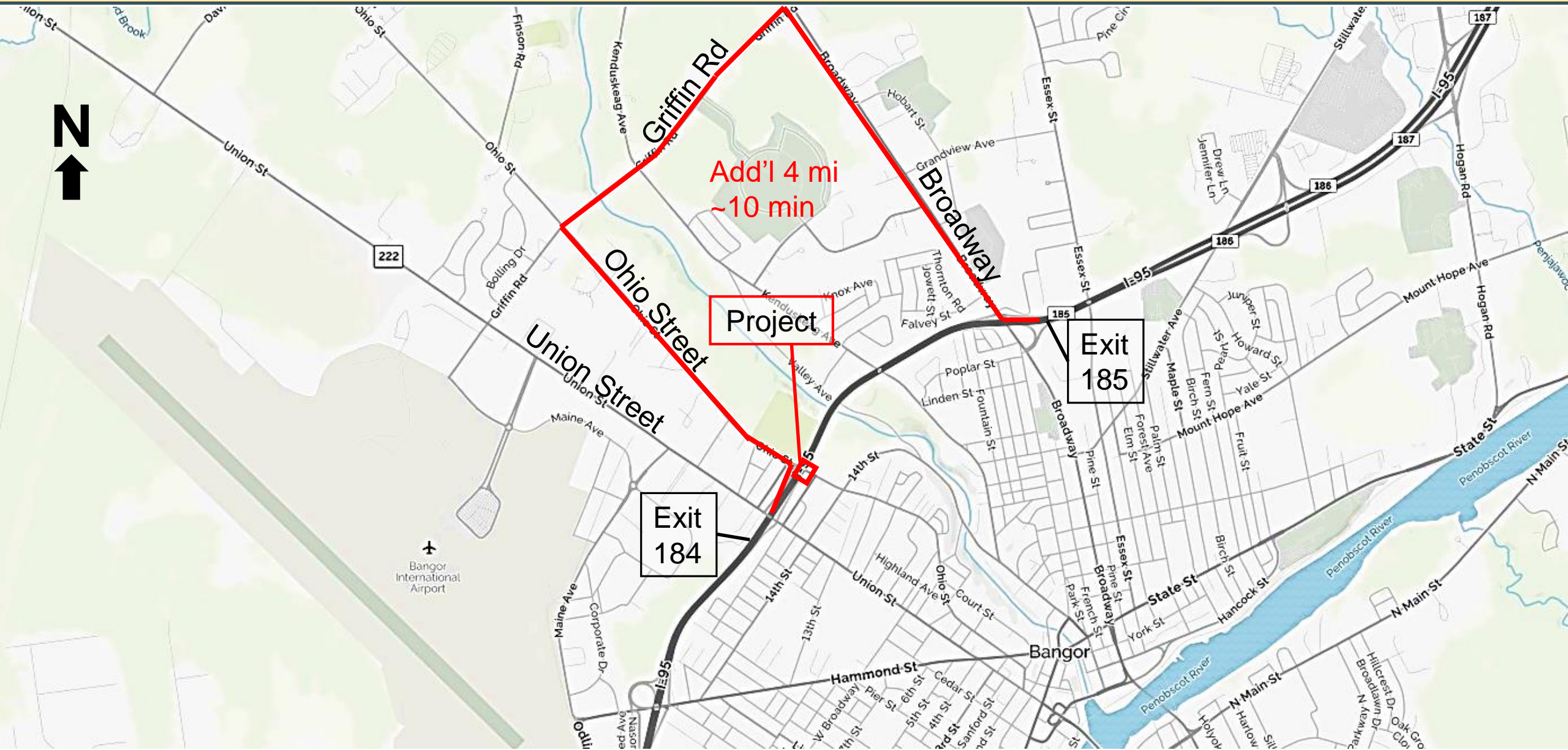
Add'l 4.5 mi
10-15 min

Project

Exit
185

Exit
184

Ohio Street over I-95, Bridge Replacement



Decision Matrix

	Alternative A	Alternative B
Construction Method	Fast Conventional	Phased Conventional
Superstructure	2-Span Continuous Steel Girders with CIP Deck	
Substructure	Cast-In-Place Abutments Precast Pier	Cast-In-Place
Construction Duration	1-year	2-years
Project Cost	\$ 5.7M	\$ 5.9M

Traffic Impacts:

	Alternative A	Alternative B
Ohio Street Bridge	5 Months (Full Closure)	18 Months (E.B. Lane Closed)
I-95 NB Barrel Night Work	2 Full Closures 16 Lane Closures	4 Full Closures 32 Lane Closures
I-95 SB Barrel Night Work	2 Full Closures 17 Lane Closures	4 Full Closures 34 Lane Closures
Roadway User Cost	\$ 560k	\$ 3.4M

Project Summary

- \$5.7 M - Federal & State Funds
- Final Design Phase: Now - Summer 2019
- Advertise: Fall 2019
- Construction: Fall 2019 – Fall 2020
- Construction Duration: ~ 1 year (5 month bridge closure)

Questions

Mark Parlin

Project Manager, Maine DOT

207-624-3449

Mark.Parlin@maine.gov

Ohio Street over I-95, Bridge Replacement

