King St. (Route 7) over I-395 Bridge Rehabilitation Design Public Information Meeting

July 23, 2015

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Purpose & Agenda

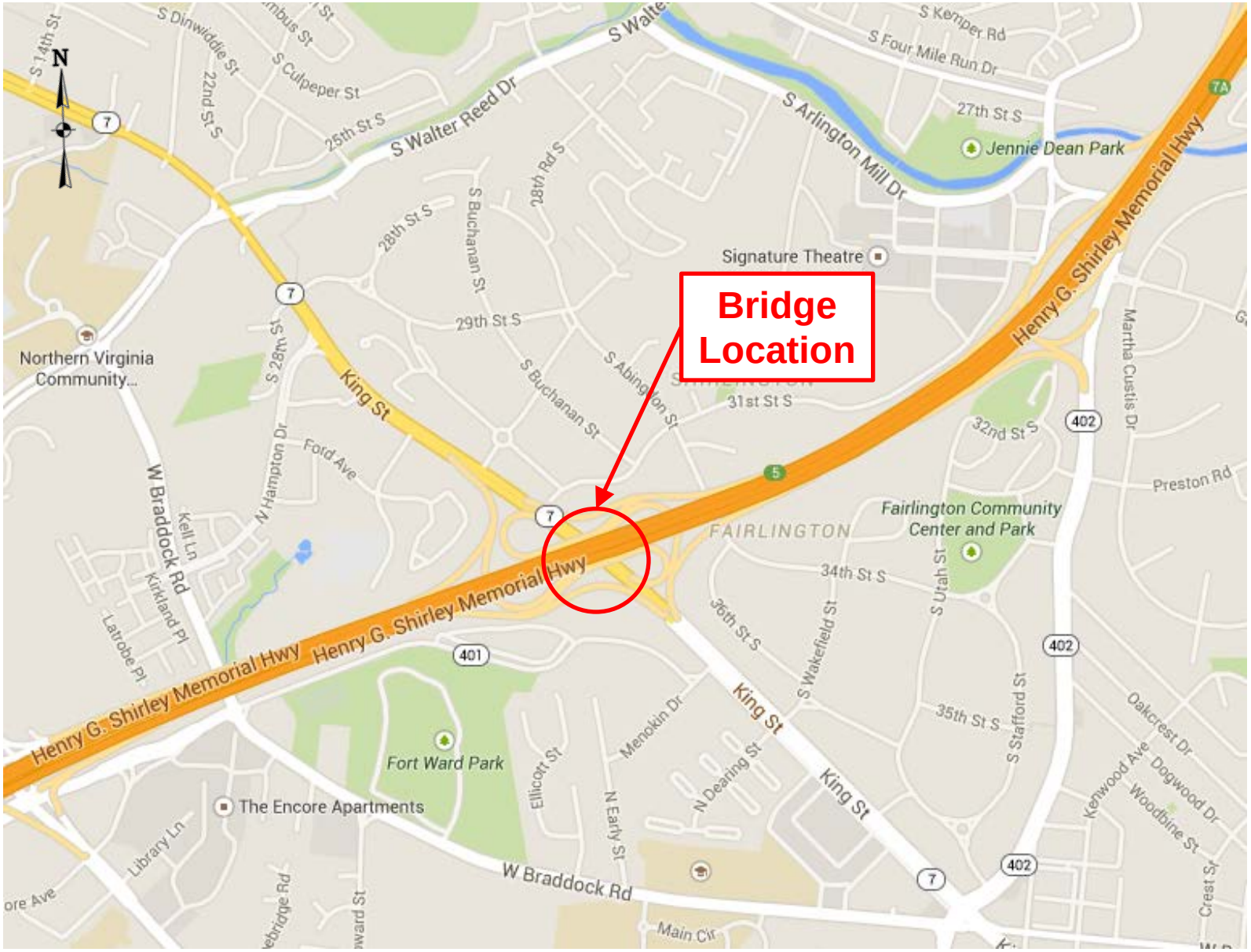
Purpose

Review the project with community stakeholders & obtain feedback for preparing the final design

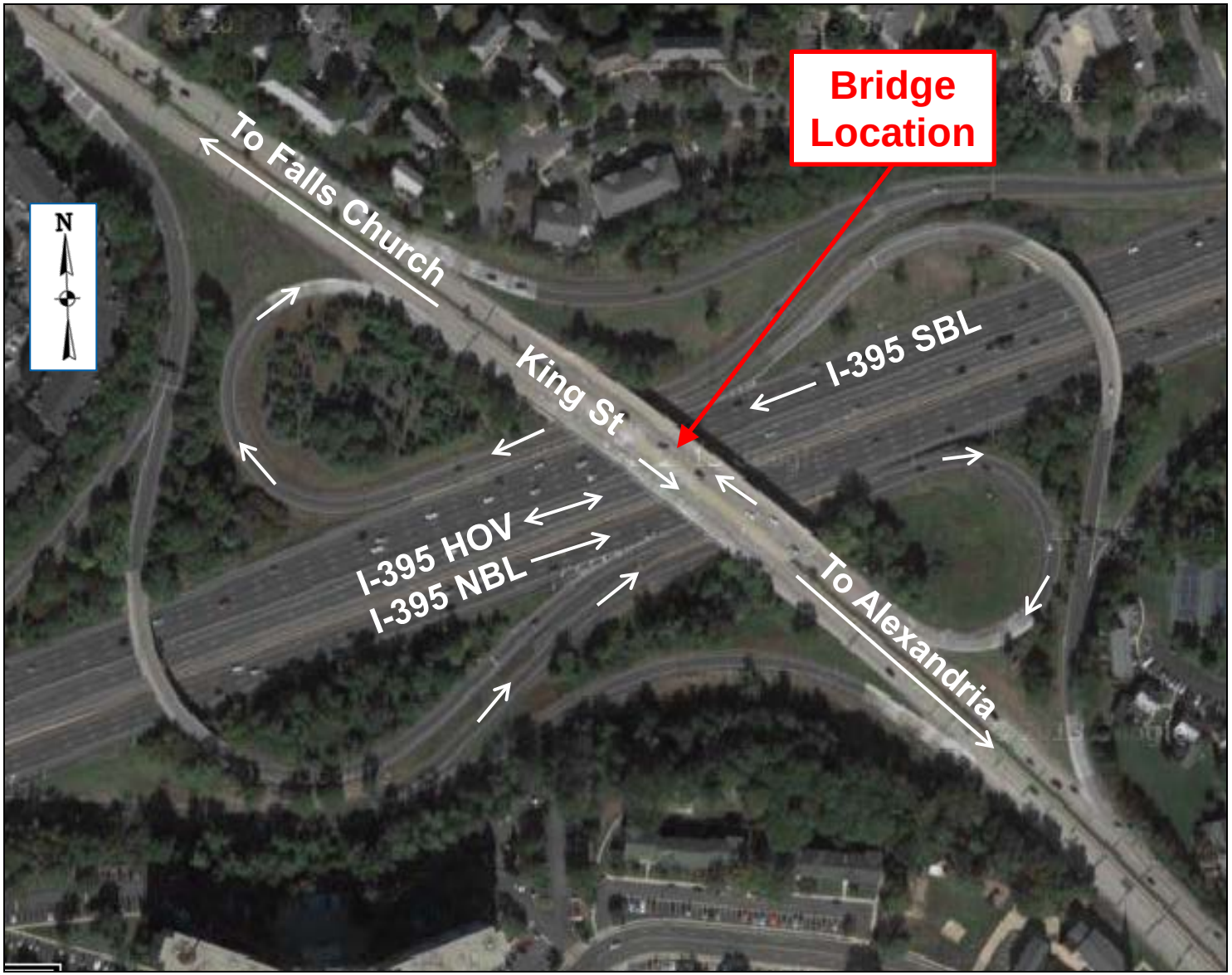
Agenda

- **Existing Condition Summary**
- **Scope of Repair Work**
- **Stages of Construction for Superstructure Work**
- **Stages of Construction for Substructure Repair Work**
- **Cost and Schedule**

Location Map

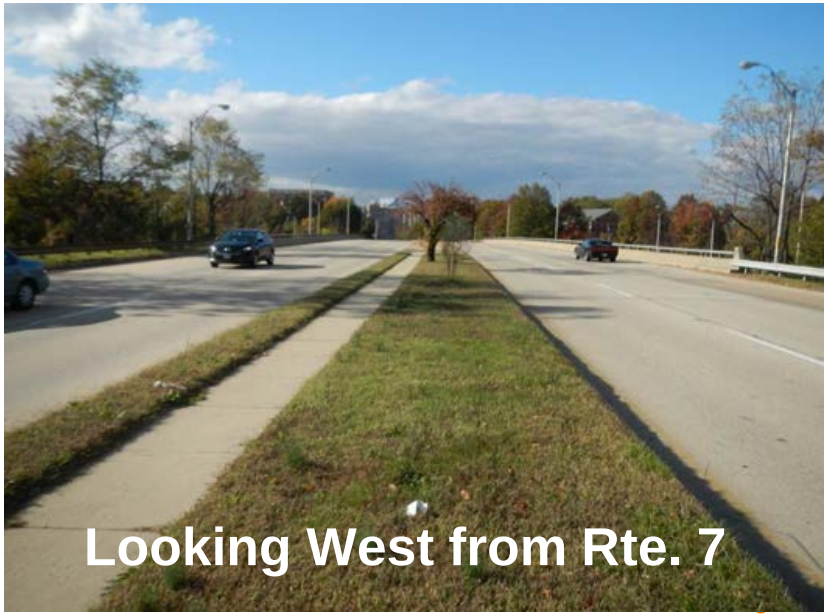


Aerial Map


Bridge Location
To Falls Church
N
King St
I-395 SBL
I-395 HOV
I-395 NBL
To Alexandria

Existing Bridge

- Built in 1970
- 5 spans totaling 410-feet in length
- Rolled steel girders on a curved alignment
- 6 lanes of traffic with raised median
- Deck CR 6 (Good)
- Superstructure CR 5 (Fair)
- Substructure CR 4 (Poor)
- Classified as Structurally Deficient



Existing Bridge Deck Condition

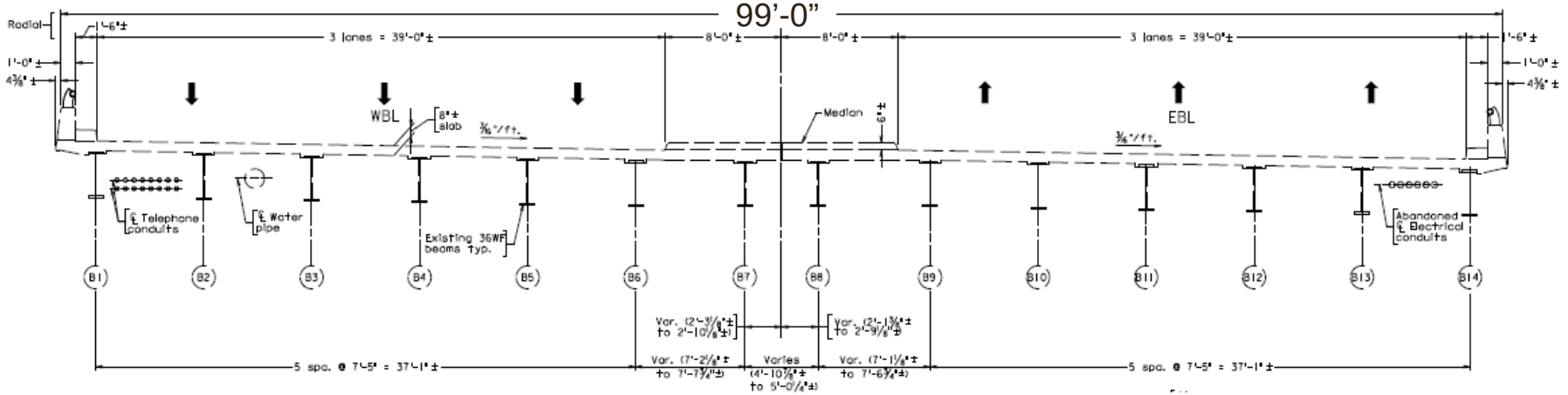
Existing Superstructure Condition

Existing Substructure Condition

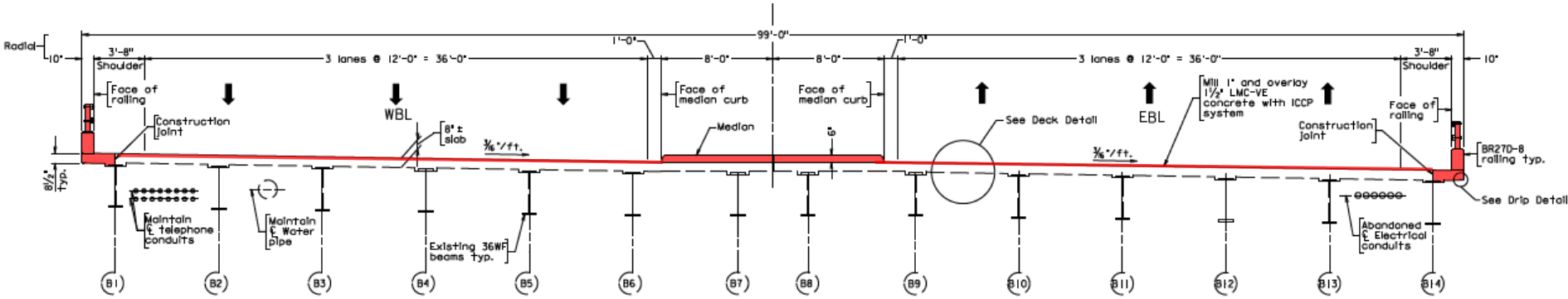
Scope of Repair Work

- Replace the existing bridge railings.
- Repair Bridge Deck including closing of the Bridge deck expansion joints at all piers and reconstructing deck expansion joints at the abutments.
- Mill Bridge deck and install Impressed Current Cathodic Protection (ICCP) System with concrete overlay.
- Clean and paint Steel beams. Replace all bearing assemblies.
- Repair deteriorated concrete in pier caps, bearing pedestals, pier columns and abutments.
- Install Impressed Current Cathodic Protection (ICCP) System in all pier caps.
- Treat all pier columns and abutments with Electrochemical Chloride Extraction (ECE).

Transverse Section



Existing Bridge

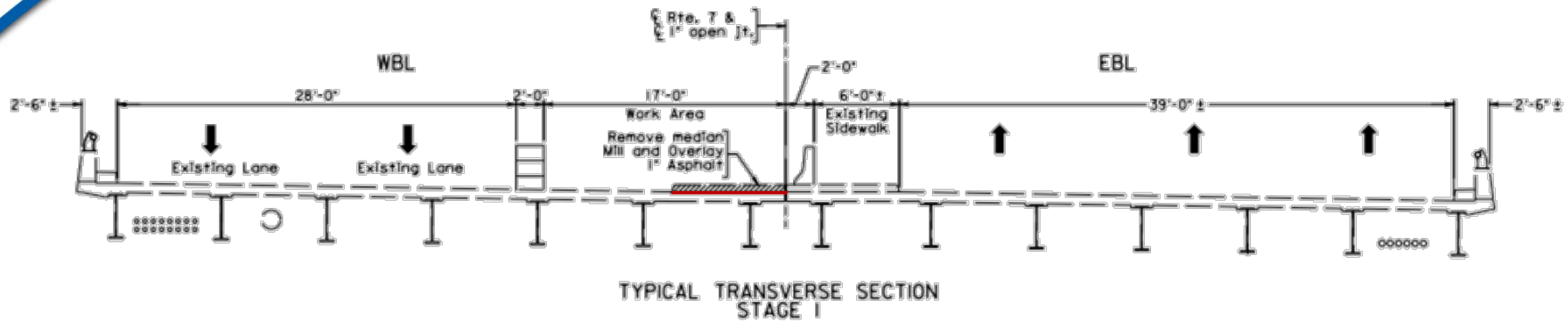


Proposed Bridge (1'-8" increase in shoulder width on each side)

Legend:

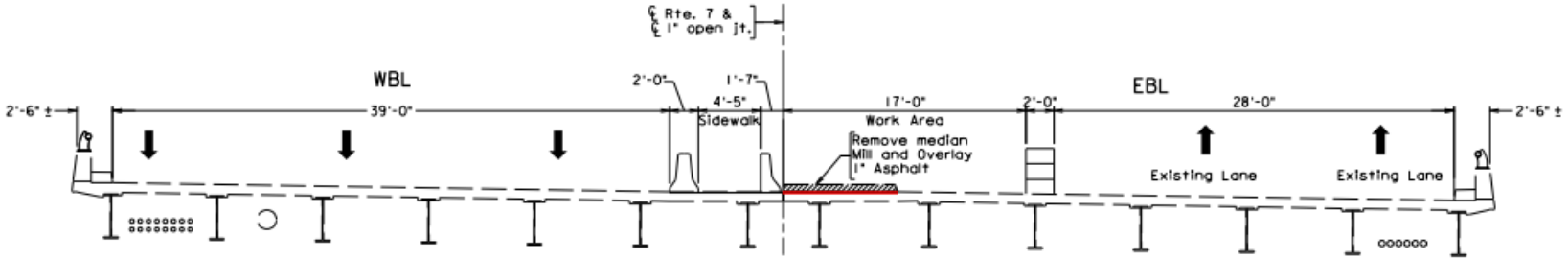
- Existing Structure
- Proposed Structure

Bridge Railing Replacement



TYPICAL TRANSVERSE SECTION
STAGE I

- **Stage I - Remove raised median (WBL) during night time closures.**
(Estimated Duration: 4 nights)



TYPICAL TRANSVERSE SECTION
STAGE II

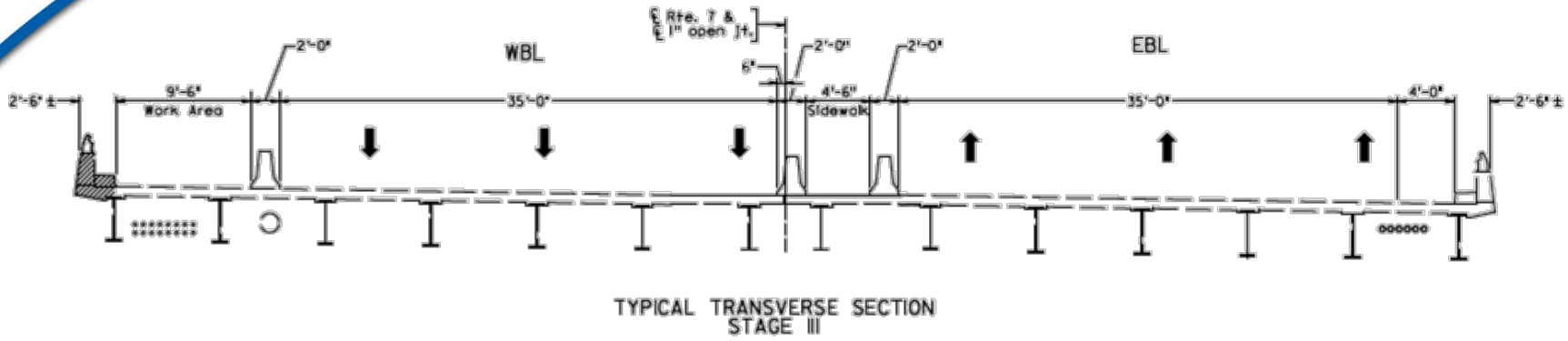
- **Stage II - Remove raised median (EBL) during night time closures.**
(Estimated Duration: 4 nights)

LEGEND

- Existing Structure
- Part of Existing Structure to be Removed
- Structure under construction
- Completed Structure

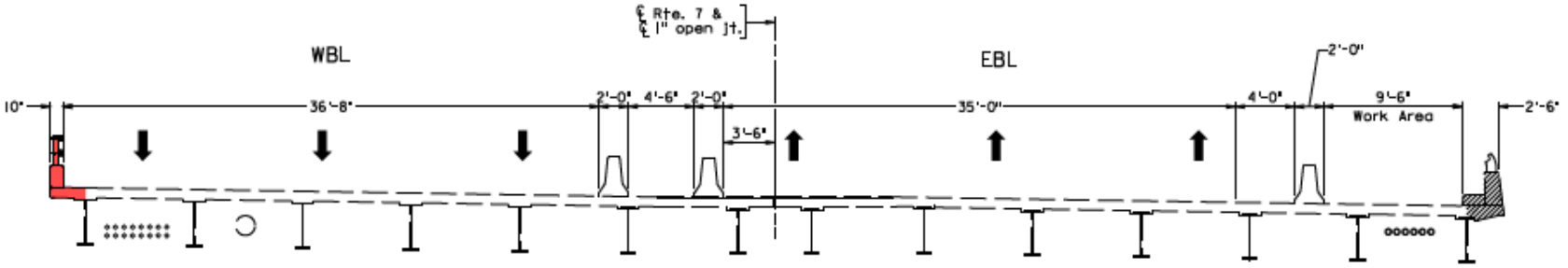
Full traffic capacity (pedestrian and vehicles) will be maintained for Stages I through IV during peak hours

Bridge Railing Replacement



TYPICAL TRANSVERSE SECTION
STAGE III

- **Stage III - Replace WBL railing by shifting traffic lanes to right.**
(Estimated Duration: 6 weeks)



TYPICAL TRANSVERSE SECTION
STAGE IV

- **Stage IV - Replace EBL railing by shifting traffic lanes to left.**
(Estimated Duration: 6 weeks)

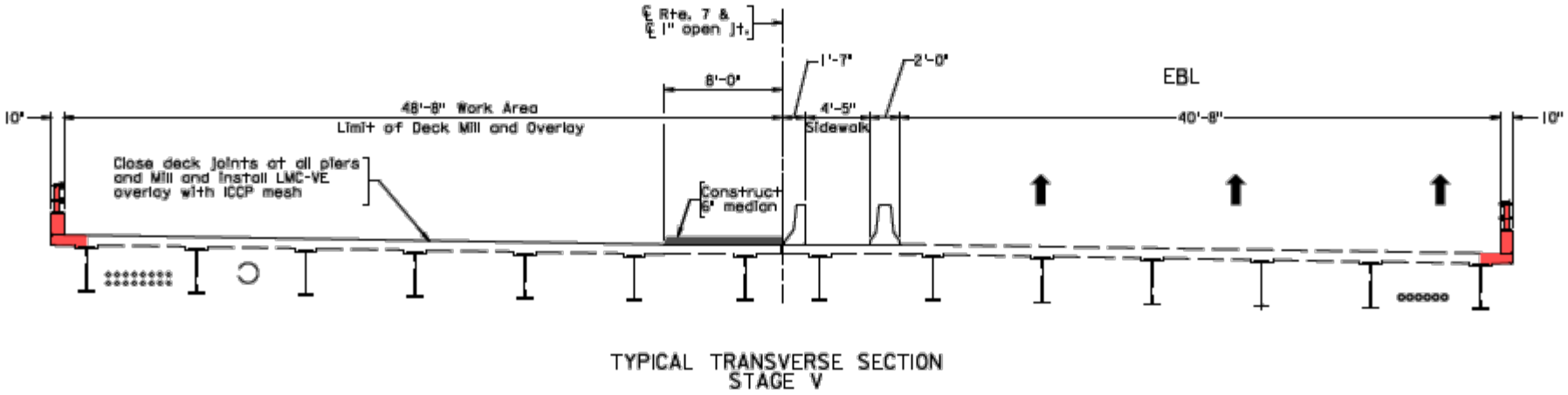
LEGEND

- Existing Structure
- Part of Existing Structure to be Removed
- Structure under construction
- Completed Structure

Full traffic capacity (pedestrian and vehicles) will be maintained for Stages I through IV during peak hours

Bridge Deck Repairs

Deck Joint Closure/Reconstruction, Mill & Overlay with ICCP System



TYPICAL TRANSVERSE SECTION
STAGE V

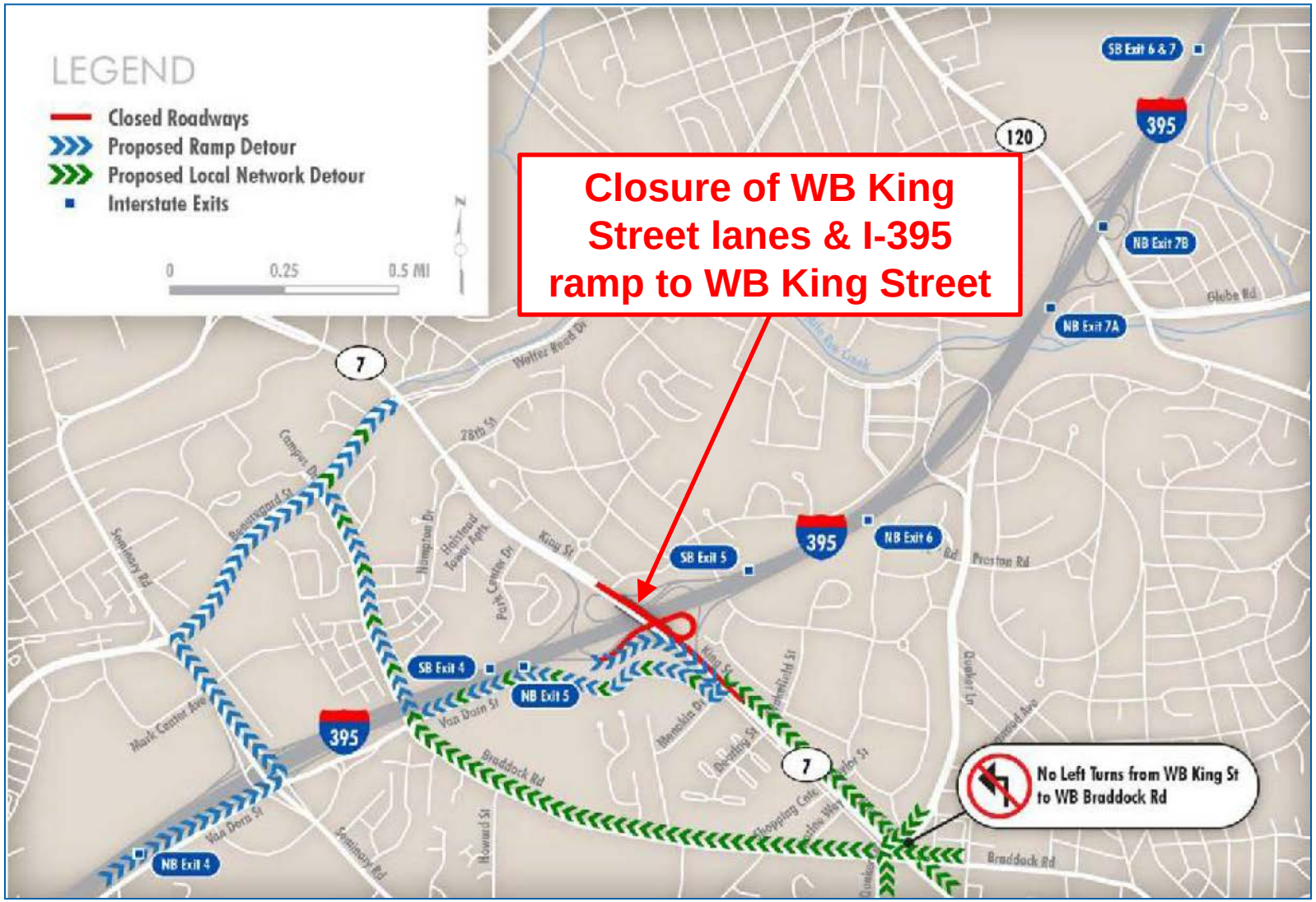
- **Stage V – Close King Street westbound lanes & I-395 ramp to westbound King Street to traffic for multiple weekends for deck joint closure/reconstruction, and deck Mill & Overlay with ICCP System.**

  (Estimated Duration: 5 weekends)

LEGEND

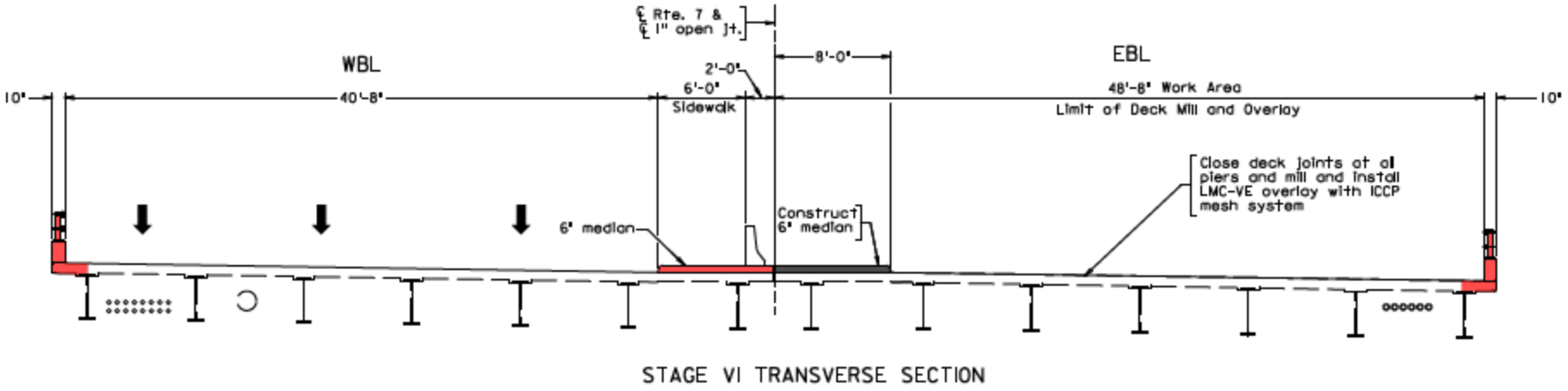
- Existing Structure
- Part of Existing Structure to be Removed
- Structure under construction
- Completed Structure

Construction Detour
(King St. WBL Roadway Closure)



Bridge Deck Repairs

Deck Joint Closure/Reconstruction, Mill & Overlay with ICCP System



STAGE VI TRANSVERSE SECTION

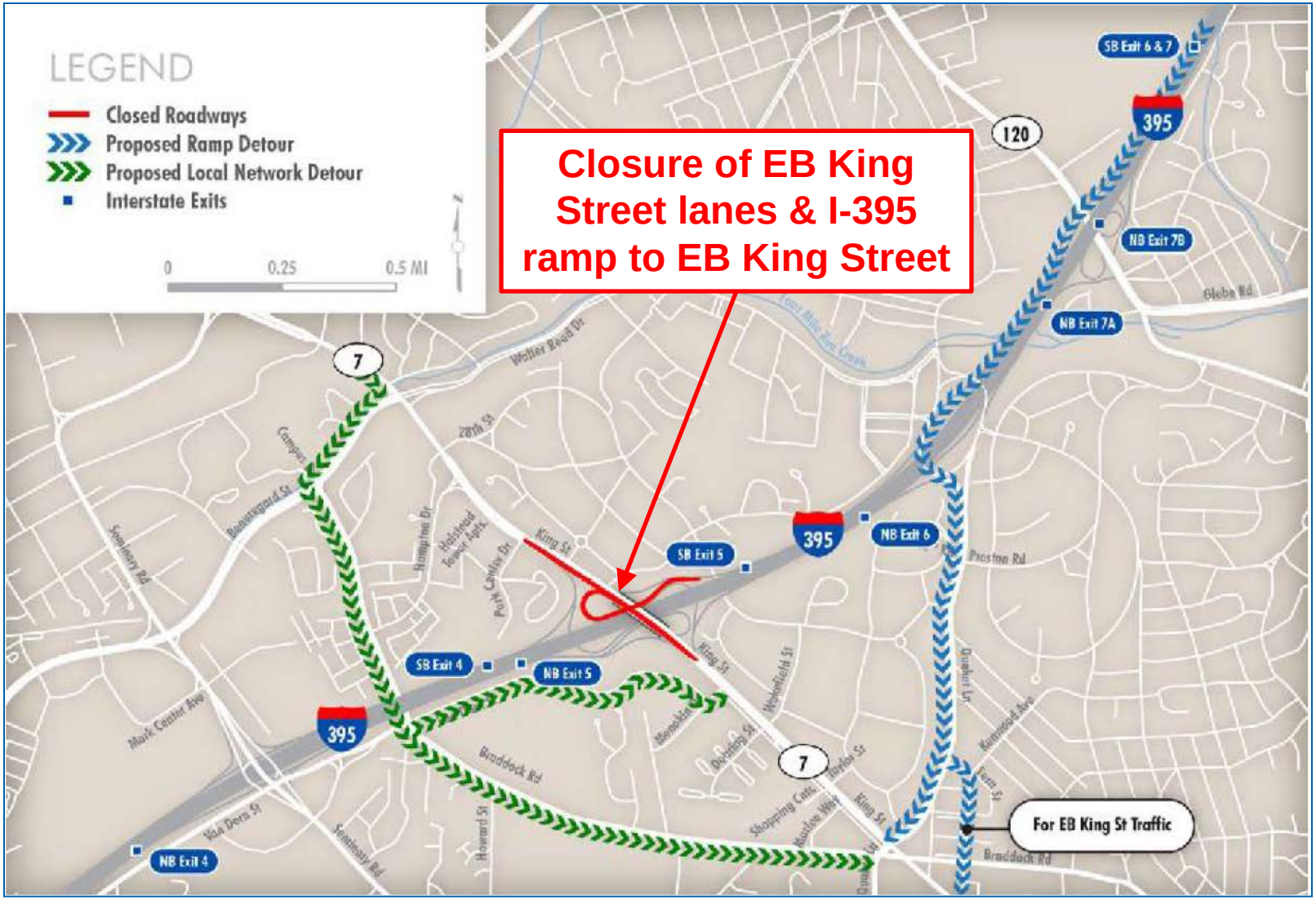
- **Stage VI – Close King Street eastbound lanes & I-395 ramp to eastbound King Street to traffic for multiple weekends for deck joint closure/reconstruction, and deck Mill & Overlay with ICCP System.**

  (Estimated Duration: 5 weekends)

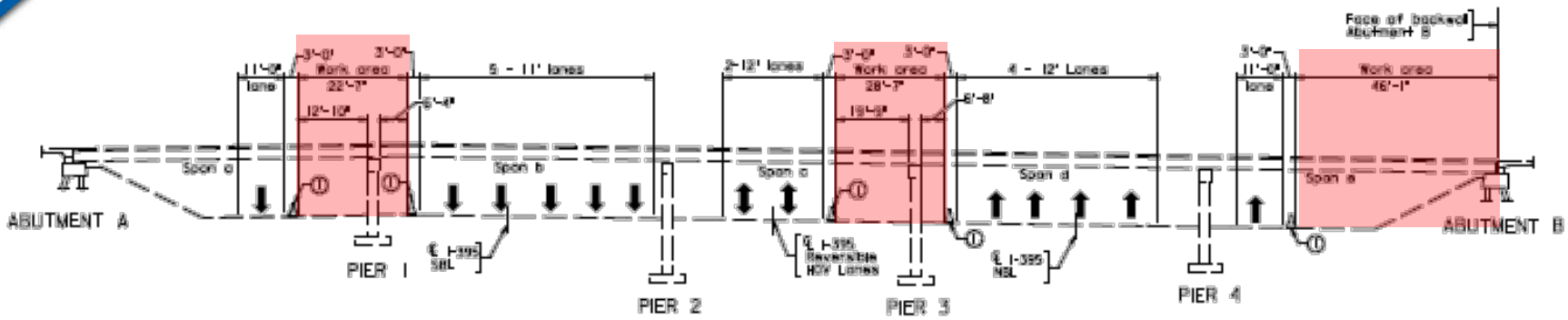
LEGEND

- Existing Structure
- Part of Existing Structure to be Removed
- Structure under construction
- Completed Structure

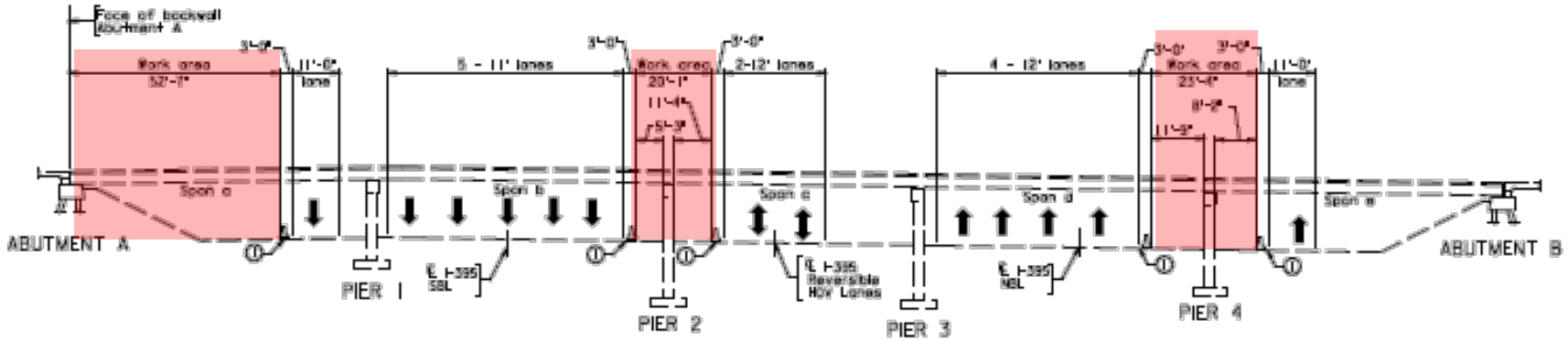
Construction Detour
(King St. EBL Roadway Closure)



Substructure Repair Work
(I-395 Lane Shifts and Shoulder Closures)



Work Areas at Piers 1, 3 and Abutment B



Work Areas at Abutment A, Pier 2 and Pier 4

Estimated Duration: 25 days for each Abutment
50 days for each Pier
120 days for ECE curing period (No MOT)
4 night time lane and shoulder closures for demobilization

Environmental and Cultural Resources Summary

- **Anticipate project will meet NEPA criteria for a Programmatic Categorical Exclusion in accordance with 23 CFR 771.117**

Center for Environmental Excellence

American Association of State Highway and Transportation Officials

AASHTO The Voice of Transportation

United States Environmental Protection Agency

Cost and Schedule

Costs

- Engineering $1.3 Million
- Construction $8.2 Million (unfunded)
- Total $9.5 Million

Schedule

- Final Design Summer 2015 to Fall 2016
- Public Hearing could occur in Summer 2016
- Advertise Project January 2018 (as early as September 2016 if construction funding becomes available)
- Construction: 20 to 24 months (8 to 9 months for top side King St. Work)

QUESTIONS & COMMENTS

Send comments via email or comment form until August 6th to:

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Project website:

http://www.virginiadot.org/projects/northernvirginia/rt_7_over_i-395.asp