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

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Brian Morrison, P.E.
NOVA District Project Manager
(703) 259–2606
Brian.Morrison@vdot.virginia.gov
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
Aerial Map

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

Bridge Location
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

Pier 1

Pier 2

Pier 4

Before

After
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)
Bridge Railing Replacement

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

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

Full traffic capacity (pedestrian and vehicles) will be maintained for Stages I through IV during peak hours.
• **Stage III** - Replace WBL railing by shifting traffic lanes to right.  
  (Estimated Duration: 6 weeks)

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

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

- 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)
Construction Detour
(King St. WBL Roadway Closure)

Closure of WB King Street lanes & I-395 ramp to WB King Street
Bridge Deck Repairs
Deck Joint Closure/Reconstruction, Mill & Overlay with ICCP System

- 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)
Construction Detour
(King St. EBL Roadway Closure)

Closure of EB King Street lanes & I-395 ramp to EB King Street
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
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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Brian.Morrison@vdot.virginia.gov

Project website:

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