



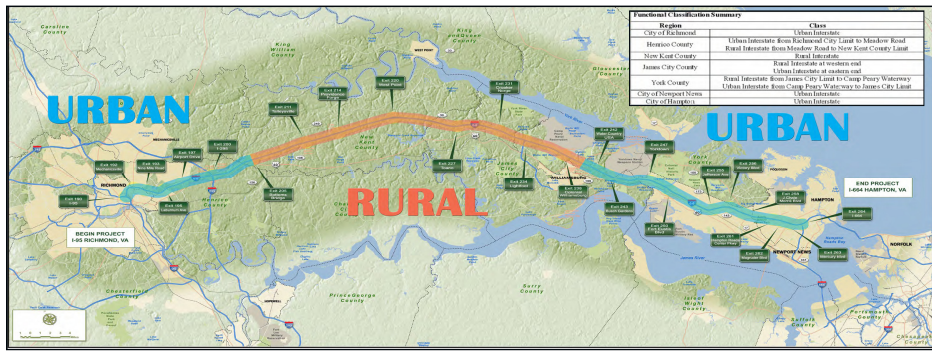
I-64 Peninsula Widening Path Forward Discussion

May 16, 2013
Michael A Estes, PE



DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS)

- Purpose and Need Analysis
 - Capacity
 - Roadway deficiencies
 - Safety
- Alternatives Analysis
 - Existing conditions
 - ❖ Existing limited access ROW
 - ❖ Distinct regions/sections



EIS Next Steps

Final EIS

- Alternative 1 as Preferred (CTB endorsed April 2013)
- TPO Board remains valuable / active participant
- Submission/Approval of Final EIS in Nov/Dec 2013

Implementation Strategies

- Phasing for operationally independent sections & fiscal constraints
- Record of Decision dependent on CLRP(s)
- Reevaluation of Final EIS as future segments move into plans

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Goal = Develop strategies to effectively utilize funding from HB2313

- **Parallel efforts underway with current EIS**
- **Provide intermediate relief as soon as possible**
- **Ensure cost effective & efficient implementation plan**
- **Understand TPO expectations**
 - Concerns with tolls
 - Context Sensitive Solutions (CSS)
 - Phased implementation
- **Analysis included:**
 - Cost
 - Traffic operations
 - Safety
 - Complexity
 - Risks (including environmental impacts)
 - Time to deliver



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Focused Attention on 4-Lane Segments

Rural reach, lower congestion

Lightfoot
VA 199 - Exit 234
Camp Peary/Colonial
Williamsburg
VA 143 - Exit 238

4 miles,
2 interchanges

Camp Peary/Colonial
Williamsburg
VA 143 - Exit 238
Humelsine Pkwy
VA 199 - Exit 242

6 miles,
1 interchange

Urban reach, higher congestion

Humelsine Pkwy
VA 199 – Exit 242
Busch Gardens
US 60 – Exit 243
Lee Hall / Yorktown
VA 238 – Exit 247

8 miles,
2 interchanges

Fort Eustis
VA 105 – Exit 250
Jefferson Ave
VA 143 – Exit 255

6 miles,
1 interchange

Potential options to maximize funding
Segment I – Jefferson Ave. through Fort Eustis

Option #1: 6-Lane Widening in Median

Advantages

- 6-lane section, 12 additional lane miles
- Simple design / construction
- Nominal unexpected risks / avoids RW impacts
- Expandable for managed lanes during peak hours / emergencies

Approximate planning level estimate \$100 million

- PE = \$5 m
- RW = \$7 m
- CN = \$88 m
- Project Development = 12 – 24 mos.
- Construction = 12 – 24 mos.





Potential options to maximize funding Segment I – Jefferson Ave. through Fort Eustis

Option #2: 8-Lane Widening in Median / Outside

Advantages

- 8-lane section, 24 additional lane miles
- Rebuilds intelligent transportation systems / signing
- Minor modifications at Jefferson Avenue interchange
- Fort Eustis interchange modification

Approximate planning level estimate \$220 million

- PE = \$8m
- RW = \$7 m
- CN = \$205 m
- Project Development = 24 – 36 mos.
- Construction = 24 – 36 mos.



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Potential options to maximize funding Segment I – Jefferson Ave. through Fort Eustis

Option #3: Managed Shoulders w/Emergency Pull Offs

Advantages

- Shoulder reconstruction, 12 additional peak hour lane miles
- Lowest total cost
- Rebuilt shoulders / intelligent transportation systems / signing
- Limited geometric modifications at interchanges

Approximate planning level estimate \$60 million

- PE = \$5 m
- RW = \$9 m
- CN = \$46 m
- Project Development = 12 mos.
- Construction = 12 mos.



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Potential options to maximize funding Segment II – Fort Eustis to Humelsine Pkwy.

Option #1: 6-Lane Widening in Median

Advantages

- 6-lane section, 16 additional lane miles
- Simple design / construction
- Nominal unexpected risks / avoids RW impacts
- Expandable for managed lanes during peak hours / emergencies

Approximate planning level estimate \$160 million

- PE = \$6 m
- RW = \$7 m
- CN = \$147 m
- Project Development = 12 – 24 mos.
- Construction = 12 – 24 mos.



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Potential options to maximize funding Segment II – Fort Eustis to Humelsine Pkwy.

Option #2: 6 and 8-Lane Widening in Median / Outside

Advantages

- 8-lane section, 20 additional lane miles
- Rebuilt intelligent transportation systems / signing
- Geometric modifications at interchanges
- Transitions from 8-Lane section to 6-Lane section at Yorktown

Approximate planning level estimate \$190 million

- PE = \$7 m
- RW = \$7 m
- CN = \$176 m
- Project Development = 24 – 36 mos.
- Construction = 24 – 36 mos.



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Potential Options to maximize funding Segment II – Fort Eustis to Humelsine

Option #3: Managed Shoulders w/Emergency Pull Offs

Advantages

- Shoulder reconstruction, 16 additional peak hour lane miles
- Lowest total cost
- Rebuilt shoulders / intelligent transportation systems / signing
- Limited geometric modifications at interchanges

Approximate planning level estimate \$65 million

- PE = \$6 m
- RW = \$11 m
- CN = \$48 m
- Project Development = 12 mos.
- Construction = 12 mos.



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Other Issues to Consider

Design Considerations:

- Widening alternatives do not include:
 - Existing concrete pavement reconstruction
 - Major interchange modifications (except where noted)
 - Existing mainline bridge replacements
- Consider Potential use of design build contracting
- Evaluate hardening inside shoulders with 6-lane widening option
- Refine engineering approach to reduce project costs (design exceptions, stormwater management, etc.)

Potential Funding: Draft SYIP

- \$100 million in allocations (PE, RW and CN)
- FY16 – first “significant” allocation

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Options summary to maximize funding Segments I & II - Jefferson to Humelsine

Planning Option	Segment 1	Segment 2	Total
6 Lane	\$ 100 m	\$160 m	\$ 260 m
8 Lane	\$ 180 m / \$ 40 m*	\$190 m**	\$ 410 m
Managed Shoulders	\$ 60 m	\$ 65 m	\$ 125 m
Interim Ft. Eustis Interchange			\$ 40 m

* 8 Lane option on segment 1 must include Ft. Eustis interchange reconstruction

** 8 lanes only from Ft. Eustis Blvd. to Lee Hall/Yorktown (Exit 247)

Recommended Approach :

- Move aggressively with 6-lane segment 1 (funded via HB2313)
- Develop strategy to fund 6-lane segment 2
- Develop strategy to fund interim improvements at Ft. Eustis interchange

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