



www.VirginiaDOT.org

Public Information Meeting

I-395 Shirlington Interchange Improvements Study Arlington County and City of Alexandria

Wednesday, June 12, 2019

7 p.m. to 9 p.m.

Presentation starts at 7:30 p.m.

Drew Model Elementary School
500 23rd Street South
Arlington, VA 22206

Public Information Meeting

Welcome to the Virginia Department of Transportation's (VDOT) public information meeting on plans to study safety and operational improvements at the I-395 Shirlington interchange (Exit 6) in Arlington County. We look forward to your active participation.

This meeting is being held to provide another opportunity for citizens and organizations to give VDOT comments and/or suggestions on the proposed project. VDOT strives to ensure that all members of the community have the opportunity

to participate in public decisions on transportation projects and programs affecting them.

VDOT representatives are here to discuss the project and answer your questions. We've included a comment sheet in this brochure and encourage your input. All written comments received on this study will be reviewed by the design team, summarized and made available on the VDOT project website.

Study at a Glance



Purpose: Assess operations and safety for the I-395 Shirlington interchange and identify potential alternatives

Lengths and Limits: Shirlington interchange to Glebe Road

Phase: Study

Begin Date: Summer 2015

Completion Date: Fall 2019

Cost: \$1 million

Study Overview

This study is evaluating the I-395 (Henry G. Shirley Memorial Highway) and South Shirlington Road interchange, the I-395 southbound ramp from Glebe Road (Route 120) and the intersections adjacent to the interchange to improve safety and operations.

Based on data collected, eight alternative concepts were considered, evaluated in more detail and presented to the public at the last public information meeting held in May 2018.

Since then, the project team has identified and recommends a Hybrid Alternative, which consists of the following improvements:

- Signalize Rotary at North Quaker Lane
- Signalize I-395 southbound off-ramp at Campbell Avenue
- Signalize I-395 southbound off-ramp at Campbell Avenue
- Widen exit to Arlington Mill Drive

Over the past several years, data was collected on traffic volumes and vehicle movements. The recommended alternative has been identified to reduce congestion, crashes, and boost the interchange's overall performance.

The final report will be available later this fall. Any potential projects resulting from this study are pending additional funding and continued coordination with local partners.

Civil Rights

VDOT ensures nondiscrimination and equal employment in all programs and activities in accordance with Title VI and Title VII of the Civil Rights Act of 1964. If you need more information or special assistance for persons with disabilities or limited English proficiency, contact VDOT's Civil Rights Division at 703-259-1775 or TTY/TDD 711.

Get Involved

VDOT will review and evaluate any information received as a result of the public information meeting. The comment sheet and brochure is provided to assist in making your comments. You may leave the sheet or any other written comments in the comment box, or mail/email your comments.

Comments must be postmarked, emailed or delivered to VDOT by **June 24, 2019**. Mail comments to Olivia Daniszewski, EIT at the address below or email meetingcomments@vdot.virginia.gov.

Environmental Review

Pursuant to the National Environmental Policy Act (NEPA) and 23 CFR 771, this study will result in no significant impacts on the human or natural environment and qualifies for a Programmatic Categorical Exclusion (PCE) under the 2017 Programmatic Agreement between VDOT and the Federal Highway Administration (FHWA).

Right of Way

Preliminary alternatives presented on the displays are conceptual and may change as the study and concepts are refined. Property owners would be informed of the exact location of any easements during the right of way acquisition process and prior to construction.

Information about right of way purchase is discussed in VDOT's brochure, "Right of Way and Utilities: Guide for Property Owners and Tenants." Copies of this brochure are available here from VDOT personnel.

After this meeting, information regarding right of way may be obtained from the right of way contact listed on the back of this brochure.

Please include "I-395 Shirlington Interchange Improvements Study" in the subject line.

Project information shared here, including a summary of comments received during the comment period, will be available at a www.virginiadot.org/projects and at VDOT's Northern Virginia District Office.

Contact Information

Primary Contact:
Olivia Daniszewski, EIT

Preliminary Engineering

4975 Alliance Drive
Fairfax, VA 22030

703-259-2318



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COMMENT SHEET

State: 0395-100-842, P101, UPC: 107831, Federal: OC-395-4 (187)

All comments are subject to public disclosure.

Name (optional): _____

Address (optional): _____

Email (optional): _____

1. Do you support the Hybrid Alternative, please explain why or why not?

2. Please provide us with any additional information or suggestions that will assist VDOT in the completion of this study.

3. How did you hear about this meeting?

_____ Newspaper _____ Social Media _____ Website _____ Other _____

Please leave this comment sheet at the designated location, mail your comments (postmarked by June 24, 2019) to the addressee on the reverse side, or email them to meetingcomments@vdot.virginia.gov. Please include "I-395 Shirlington Interchange Improvements Study" in the email subject line.

Fold Line

Postal Service
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Virginia Department of Transportation
Northern Virginia District
Ms. Olivia Daniszewski, EIT
4975 Alliance Drive
Fairfax, VA 22030

Fold Line



I-395 SHIRLINGTON INTERCHANGE IMPROVEMENTS STUDY

Public Information Meeting

 Project Team

June 12, 2019

Agenda

- **Introductions**
 - Nicholas Roper, P.E.
- **Study Purpose & Status**
 - Olivia Daniszewski, E.I.T.
- **Original Alternatives & New Recommended Hybrid Alternative**
 - Tim Ramey, P.E. WSP
 - Jeff Kuttesch, P.E. RK&K
- **Project Estimate, Funding & Next Steps**
 - Olivia Daniszewski, E.I.T.
- **Questions & Answers**

Study Status

- **Previous**
 - Collected data, identified safety and operational issues
 - Prepared detailed analysis and conceptual plans of the alternatives
- **Updates**
 - Completed traffic modeling
 - Refined alternatives and developed new Hybrid Alternative based on traffic modeling and public input
 - Locality Coordination Meetings with City of Alexandria and Arlington County
 - Developed draft Final Report



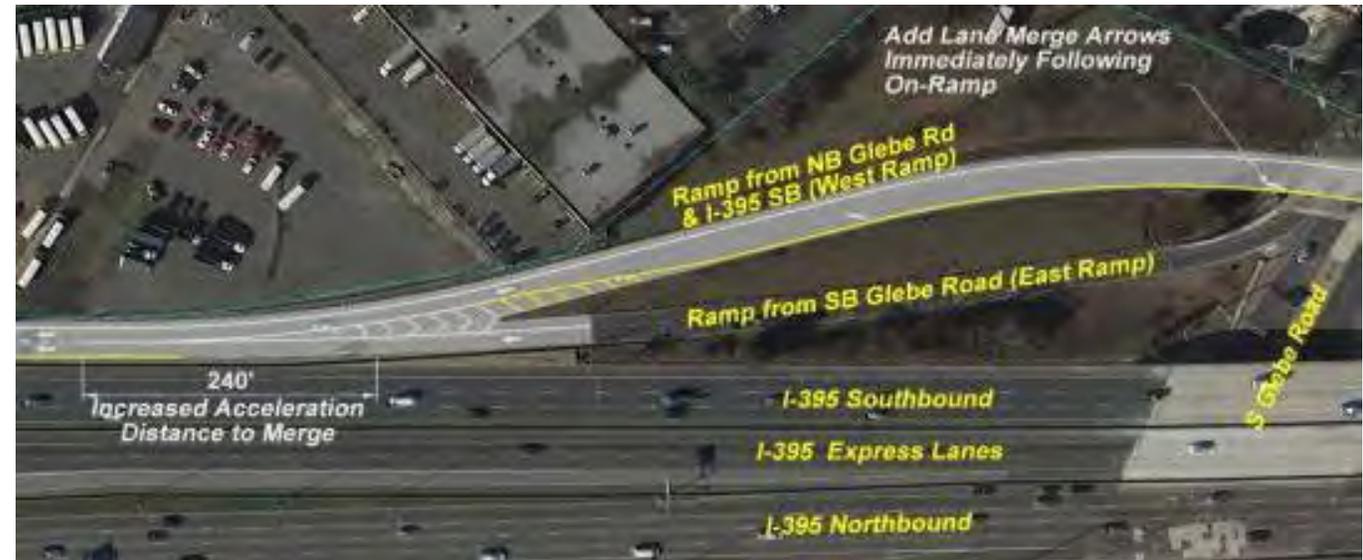
I-395 Shirlington Interchange – Traffic Modeling Results



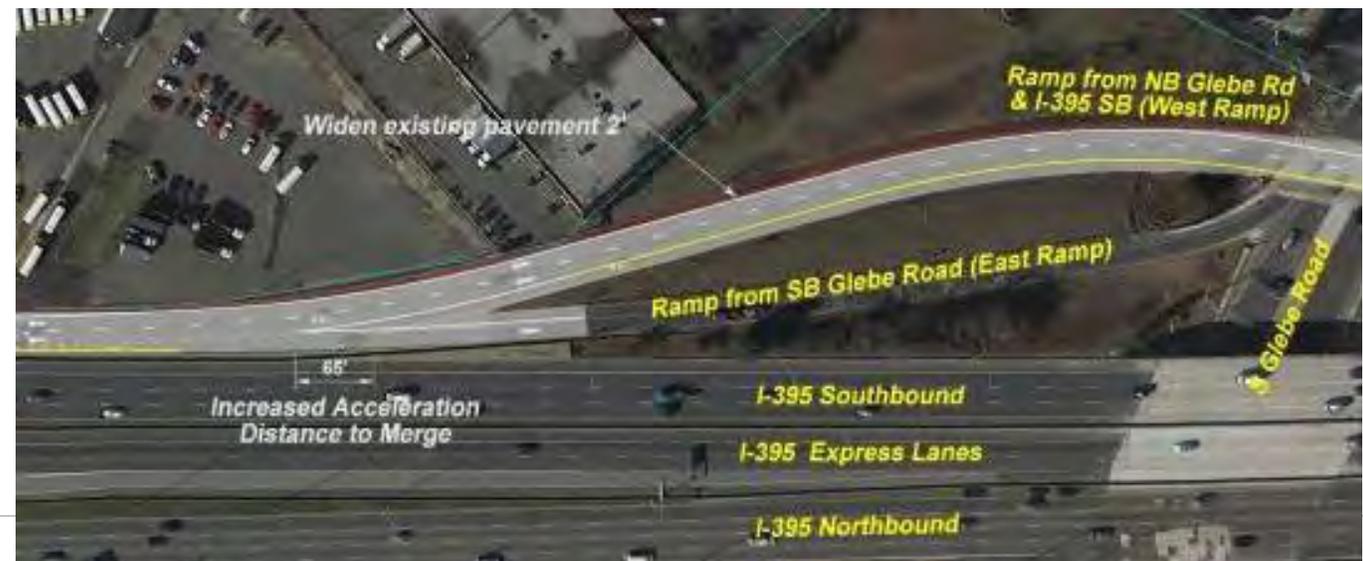
Glebe Rd – SB Ramp

- These two alternatives were presented last Spring
- Alternative G-1: improved safety but resulted in extensive queue spillback further into the Glebe Road Interchange
- Alternative G-2: did not negatively impact operations but also did not provide much safety benefit because acceleration length/sight lines were not significantly improved

Alternative G-1: Merge 2-lane West Ramp to 1-lane



Alternative G-2: Shift West Ramp to Shoulder



Shirlington Interchange – Traffic Modeling Results

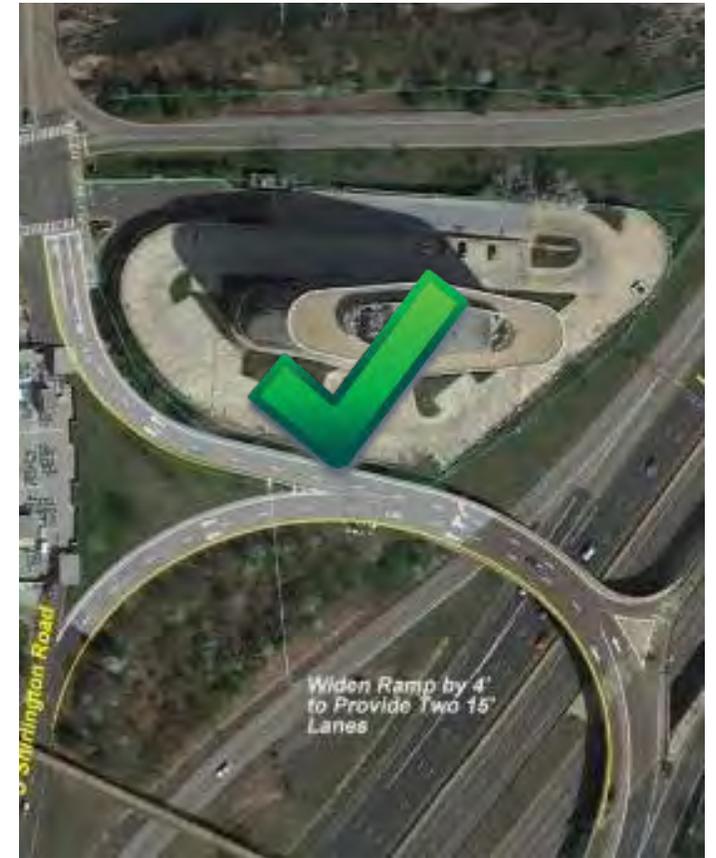
Alternative S-1: Reduce & Repurpose Existing Lanes



Alternative S-2: Realign Quaker Lane Ramp



Alternative S-3: Add Lane to Arlington Mill Drive Exit



Shirlington Interchange – Traffic Modeling Results

Alternative S-4: Create Signalized T-Intersection at North Quaker Lane



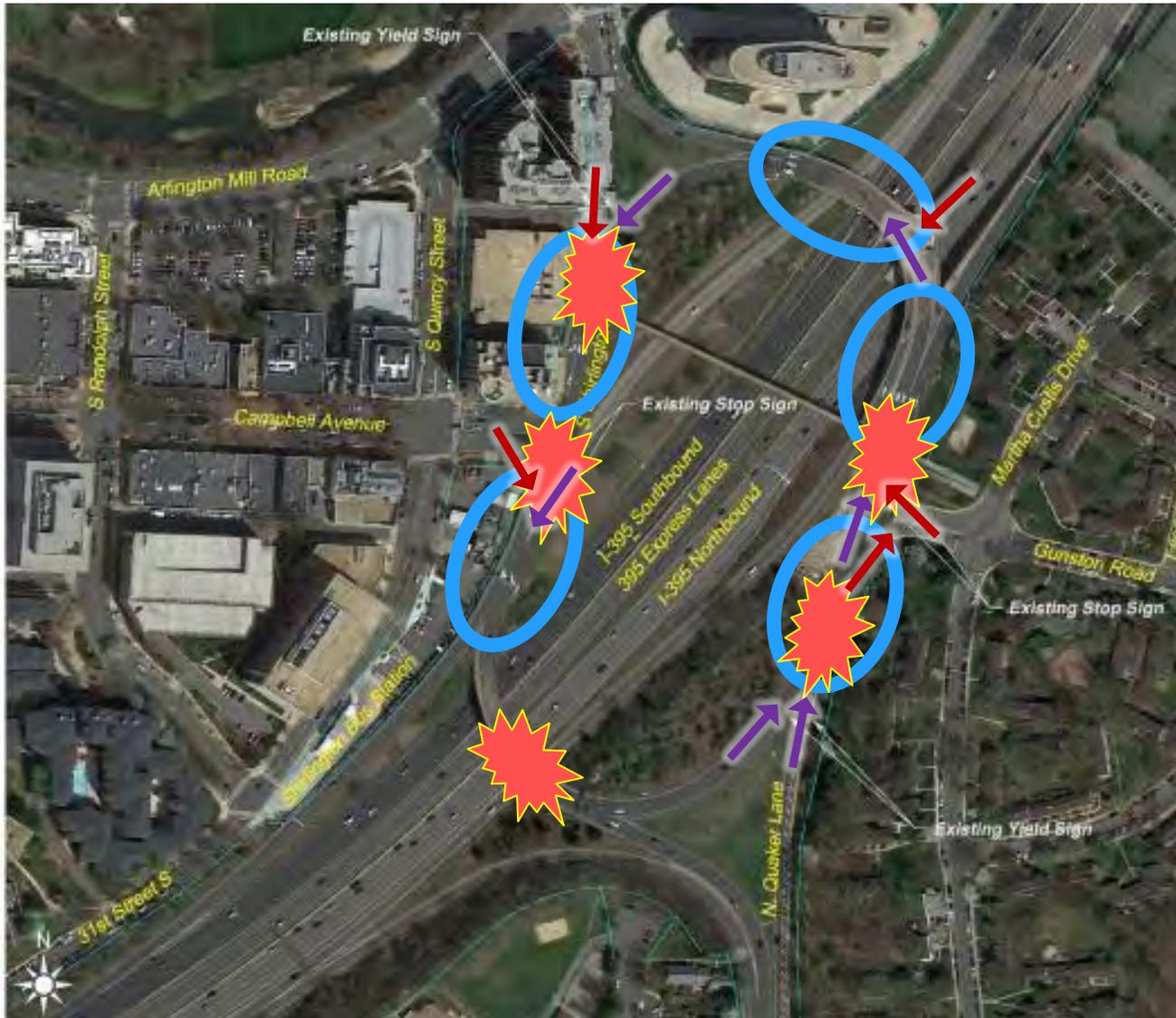
Alternative S-5: Create Signalized Intersection with I-395 NB Off-Ramp & Gunston Rd



Alternative S-6: Create Signalized Intersection with I-395 SB Off-Ramp & Campbell Ave



Existing Conditions at Shirlington Interchange



- **Mix of high and low speed entrances into the rotary**
- **Several multi-lane weaving movements within rotary**
- **Crash hotspots along the rotary**
 - **Rear-end collisions correspond to where queuing is most common**
 - **Sideswipe crashes occur where weaving is required**

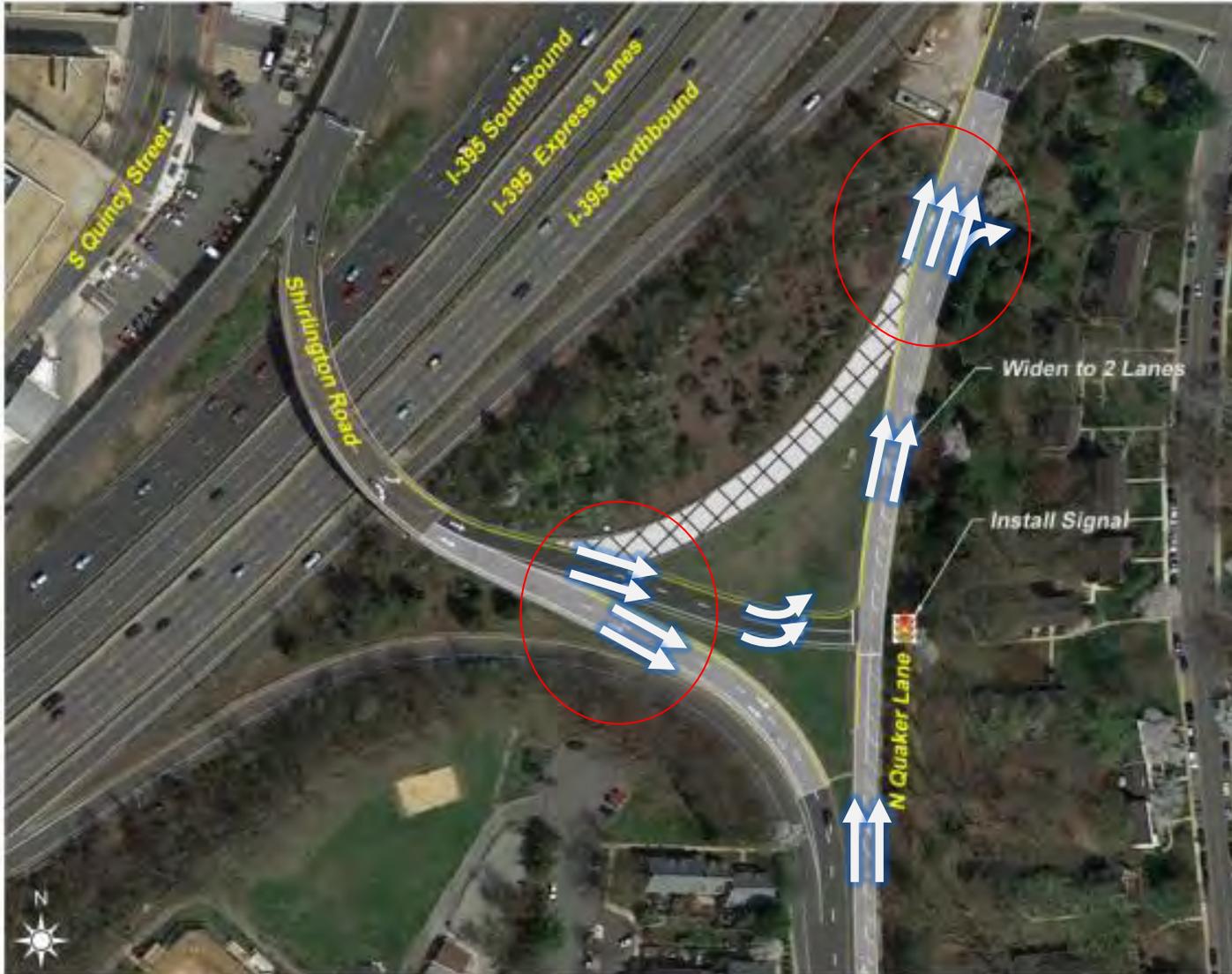
New Recommended Hybrid Alternative



Proposed Improvements:

- Signalize Rotary at N. Quaker Lane
- Signalize I-395 SB off-ramp at Campbell Ave
- Signalize I-395 NB off-ramp at Gunston Rd
- Widen Exit to Arlington Mill Drive

New Recommended Hybrid Alternative



Signalize Rotary & N. Quaker Lane

- Identified as primary safety and operational concern within the interchange
- Improvements would separate conflicting movements and reduce weaving within the rotary
- Queuing along Quaker Lane would be reduced

New Recommended Hybrid Alternative



Signalize I-395 SB Off-ramp & Campbell Ave

- Existing intersection includes two signal-controlled approaches and a stop-controlled approach
- Signalizes all movements and provides additional lane capacity
- Improves overall safety and operations at this intersection

New Recommended Hybrid Alternative



Signalize I-395 NB off-ramp & Gunston Rd

- Northbound I-395 off ramp currently has a very short weaving distance across two lanes to get to the Arlington Mill Dr exit
- Relocation of the off-ramp would eliminate that condition
- Signalization would also provide gaps for traffic from Gunston Rd to more easily enter the rotary

New Recommended Hybrid Alternative



Widen Exit to Arlington Mill Drive

- Existing conditions require two lane changes and can have queue spillback into the rotary
- Additional lane provides additional capacity
- Reduces required lane changes in this area and would provide improved safety and operations

Recommended Hybrid Alternative



Overall Safety Enhancements:

- Provides safer environment by eliminating unsignalized weaving/merging at crash hotspots
- Reduces number of Non-Signal Controlled Entry Lanes to the Rotary
 - Existing / No Build: 7
 - Hybrid Alternative: 3

Recommended Hybrid Alternative



Overall Safety Enhancements:

- Reduces number of weaving areas within Rotary
 - Existing / No Build: 5
 - Hybrid Alternative: 2
- Reduces queuing along I-395 SB off-ramp and along Quaker Lane expected to reduce rear-end crash risk
- Provides a more predictable driving environment for users

Recommended Hybrid Alternative



Overall Operational Analysis Summary:

- Reduces queuing along I-395 SB off-ramp (from 1/2-mile to 650 feet)
- Reduces queuing along Quaker Lane
- Reduces how often vehicles stop during peak period
- Increases travel times for specific movements due to addition of traffic signals:
 - Increases typically range from 10 to 30 seconds (10 to 15% increase)

Recommended Hybrid Alternative – Traffic Simulation

I-395 & Shirlington Road Interchange Study
Comparison of No Build Vs Hybrid Conditions Simulations

— 10 — 200 — 400 — 600 — 800 — 1000 — 1200 — 1400 — 1600 — 1800 — 2000 — 2200 — 2400 — 2600 — 2800 — 3000 — 3200 — 3400 — 3600 — 3800 — 4000 — 4200 — 4400 — 4600 — 4800 — 5000 — 5200 — 5400 — 5600 — 5800 — 6000 — 6200 — 6400 — 6600 — 6800 — 7000 — 7200 — 7400 — 7600 — 7800 — 8000 — 8200 — 8400 — 8600 — 8800 — 9000 — 9200 — 9400 — 9600 — 9800 — 10000

Evaluation Matrix

Goal/Need	Metric	Hybrid Alternative	Signalize Rotary and N Quaker Ln	Signalize I-395 SB off-ramp & Campbell Ave	Signalize NB I-395 off ramp & Gunston Rd	Widen Exit to Arlington Mill Drive
Safety	Addresses crash hot spots	●	●	●	●	○
	Addresses weaving across lanes	●	●	◐	●	●
Operations	Adds capacity to the roadway	●	●	●	○	○
	No additional queuing	●	◐	●	○	●
	Does not significantly affect the travel time	●	◐	◐	◐	●
Public Opinion	Area of significant concern	●	●	◐	●	○
Rankings	Determined by above metrics	-	1	2	3	4



- Meets goal/need



- Partially meets goal/need



- Does not meet goal/need

Project Estimates

Alternatives		Preliminary Engineering	Right of Way/ Utilities	Construction	TOTAL
Single Construction Project					
Hybrid Alternative		\$1,240,000	\$400,000	\$8,050,000	\$9,690,000
<u>Ranking</u>	Phased Construction Projects				
1	Signalize Rotary and N. Quaker Ln	\$700,000	\$75,000	\$2,480,000	\$3,255,000
2	Signalize I-395 SB off-ramp and Campbell Ave	\$700,000	\$200,000	\$2,520,000	\$3,420,000
3	Signalize NB I-395 off-ramp and Gunston Rd	\$740,000	\$75,000	\$2,700,000	\$3,515,000
4	Widen Exit to Arlington Mill Drive	\$355,000	\$50,000	\$510,000	\$915,000
	Total	\$2,495,000	\$400,000	\$8,210,000	\$11,105,000

Project Estimates & Funding

Alternatives		Cost Estimate*		Available Funding	Existing Deficit	Funding Sources	
				\$ 2,500,000		Open Container Funds	
Single Construction Project							
Hybrid Alternative		Total	\$ 9,540,000		\$ 7,040,000	Additional Sources: SMARTSCALE, Local funds, NVTA funding and Other Unidentified Sources	
Ranking	Phased Construction Projects						
1	Signalize Rotary and N Quaker Ln	Total	\$ 3,255,000		\$ 755,000		
2	Signalize I-395 SB off-ramp and Campbell Ave	Total	\$ 3,420,000		\$ 920,000		
3	Signalize NB I-395 off ramp and Gunston Rd	Total	\$ 3,515,000		\$ 1,015,000		
4	Widen Exit to Arlington Mill Drive	Total	\$ 915,000		\$ -		

Next Steps for the Study

- Feedback from this meeting will be compiled and included in the Final Report
- Final Report will be completed over the course of the summer
- An Interchange Modification Report (IMR) will be developed for the Recommended Hybrid Alternative



Next Steps for a Project

- **Single Construction Project**
 - Localities must sponsor the project and provide additional funds
- **Phased Construction Project**
 - VDOT has sufficient funds to implement the Arlington Mill Dr alternative
 - Localities must sponsor other phases and provide additional funds



Questions?

- **Mail comments to Olivia Daniszewski at the address below or email meetingcomments@vdot.virginia.gov**
 - Please include “I 395 Shirlington Interchange Improvements Study” in the subject line
- **If you have any further questions, please contact:**

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Project Website: http://www.virginiadot.org/projects/northernvirginia/i-395_shirlington.asp