

Transportation Commission

May 17, 2023

7PM

City Council Workroom and Electronic



Notice

The May 17, 2023, meeting of the Transportation Commission is being held in City Council Workroom at City Hall and electronically. Members of Transportation Commission and staff are participating either in-person or from a remote location through video conference call on Zoom. The meeting can be accessed by the public or via Zoom.



Commission Members

- **Oleksandr Faryga** – Environmental Policy Commission
- **Oscar Gonzalez** – Resident East, High School Project
- **Casey Kane** – Traffic and Parking Board, Eisenhower West/Landmark/Van Dorn Advisory Group, Ad Hoc Duke Street Transitway Committee
- **Jody Manor**- Planning Commission
- **Bruce Marsh** –Resident East, Potomac Yard Metro Implementation Working Group
- **Jim Maslanka**– Resident West
- **Melissa McMahon** – Planning Commission
- **Matthew McManus** – Resident West, DASH Advisory Committee
- **Murat Omay** – DASH Board
- **John Chapman** – Council (non-voting)
- **Kirk McPike** – Council (non-voting)



Public Comment Period

Agenda Item #1



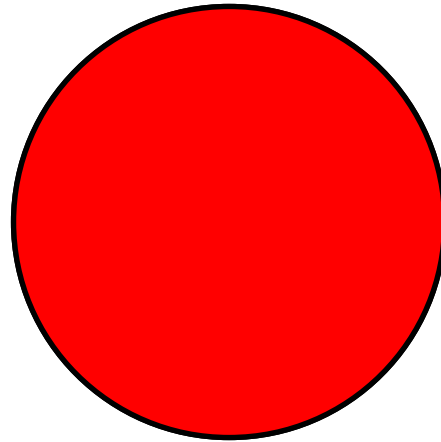
Public Comment

- For speakers not discussing items related to the public hearings.
- For virtual attendees:
 - Raise hand or press *9
 - Mute or unmute press *6
 - 3 minutes per speaker



3 Minute Timer

Announcement will sound automatically when time is up



Transportation Commission Minutes: April 19, 2023

Agenda Item #2



PUBLIC HEARING: Duke Street in Motion

Agenda Item #3



DUKE STREET *IN MOTION*

Transportation Commission

May 17, 2023

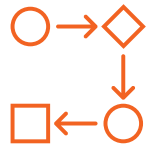


alexandriava.gov/DukeInMotion

This project is funded with Northern Virginia Transportation Authority (NVTA) regional revenues.



Agenda



Duke Street *in Motion* overview



Concept Overview & Comparison



Consideration of a recommendation





Project Overview

Key Stats



14
buses per hour



~2,700 daily bus
boardings (July 2022)



5
Equity Emphasis Areas

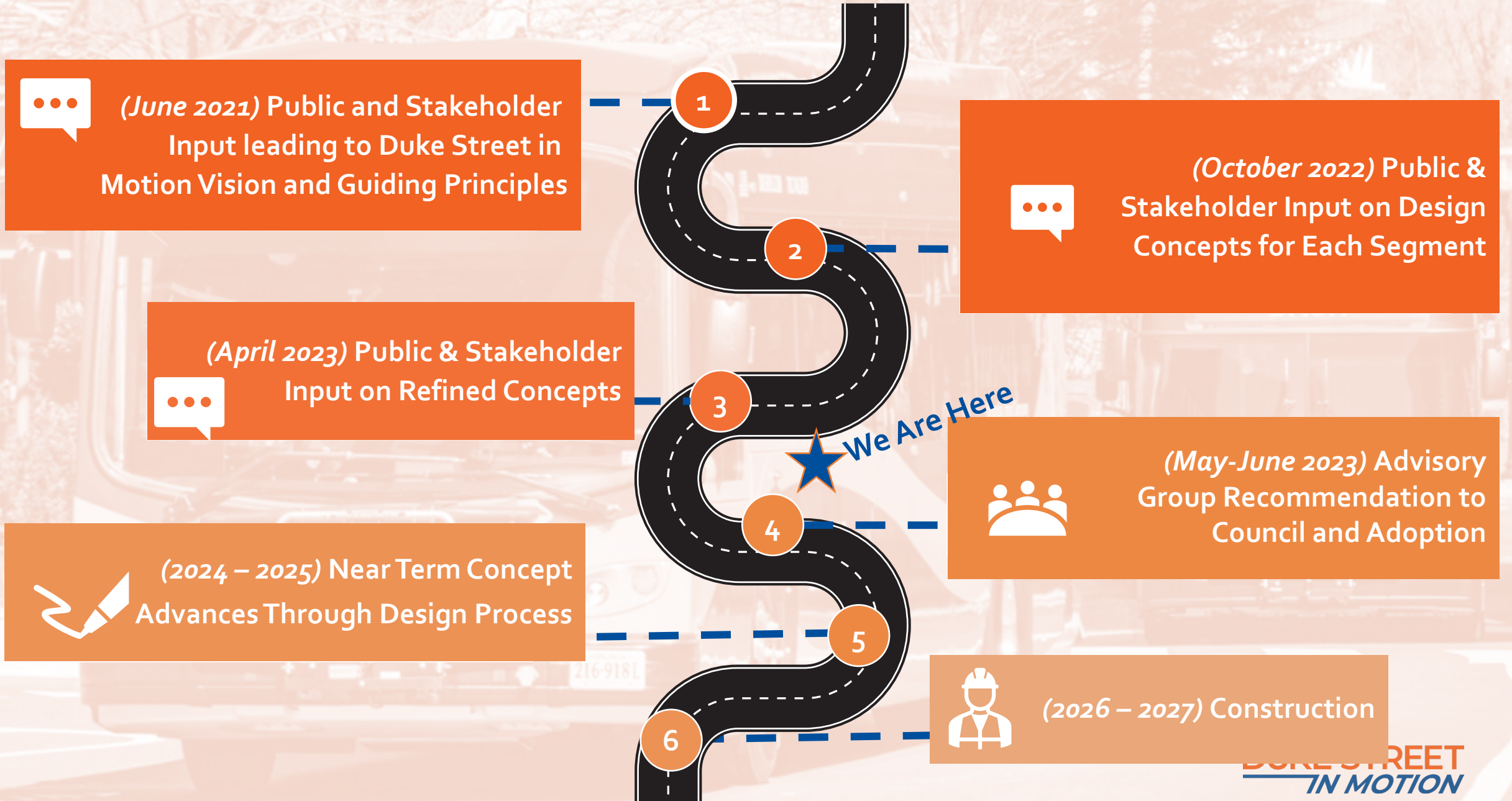


22,600 – 36,300
cars per day (May 2022)



67% DASH 30 Bus peak
period on-time
performance

CONCEPT DEVELOPMENT & FINALIZATION PROCESS



Project Vision

This project will provide an **efficient and desirable bus rapid transit (BRT) option** along Duke Street **by improving the transit experience** for current and potential riders.

With multimodal enhancements to the corridor, Duke Street will become a **safe, efficient, and desirable community connector** for people riding the **bus, walking, biking, and driving.**

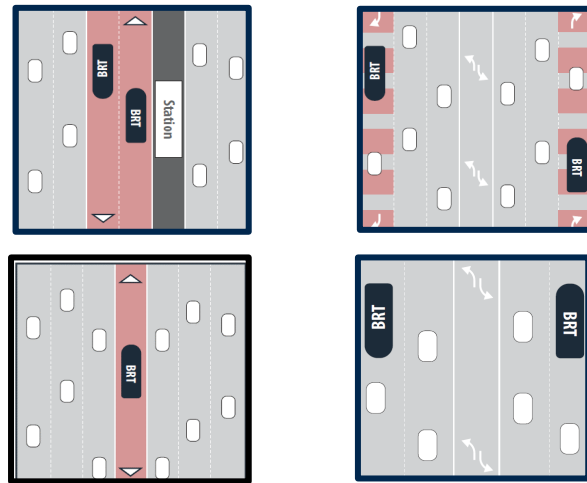


Concept Overview & Comparison

Street Design Concepts

Busway and Curb Features

Step 1: Busway



Step 2: Curb features



Corridor Concept A

Mostly Center-running & Mixed Traffic



•Segment 1:

- Center bus lanes in both directions
- Available space for busway

•Segment 2A:

- Mixed traffic in both directions
- Avoid residential service roads

•Segment 2B:

- Eastbound center bus lane
- Westbound mixed traffic
- Avoid Telegraph Road congestion

•Segment 3:

- Eastbound mixed traffic through Telegraph
 - Balances traffic and bus operations
- Westbound center bus lane

Corridor Concept B

Mostly Curb-running & Mixed Traffic



•Segment 1:

- Curb bus lanes
- Available roadway for busway

•Segment 2A:

- Mixed traffic bus operations

•Segment 2B:

- Mixed traffic bus operations
- Avoid significant impacts at Alexandria Commons

•Segment 3:

- Eastbound mixed traffic
- Westbound curb lane through Telegraph interchange
- Center bus lanes east of Telegraph to Diagonal

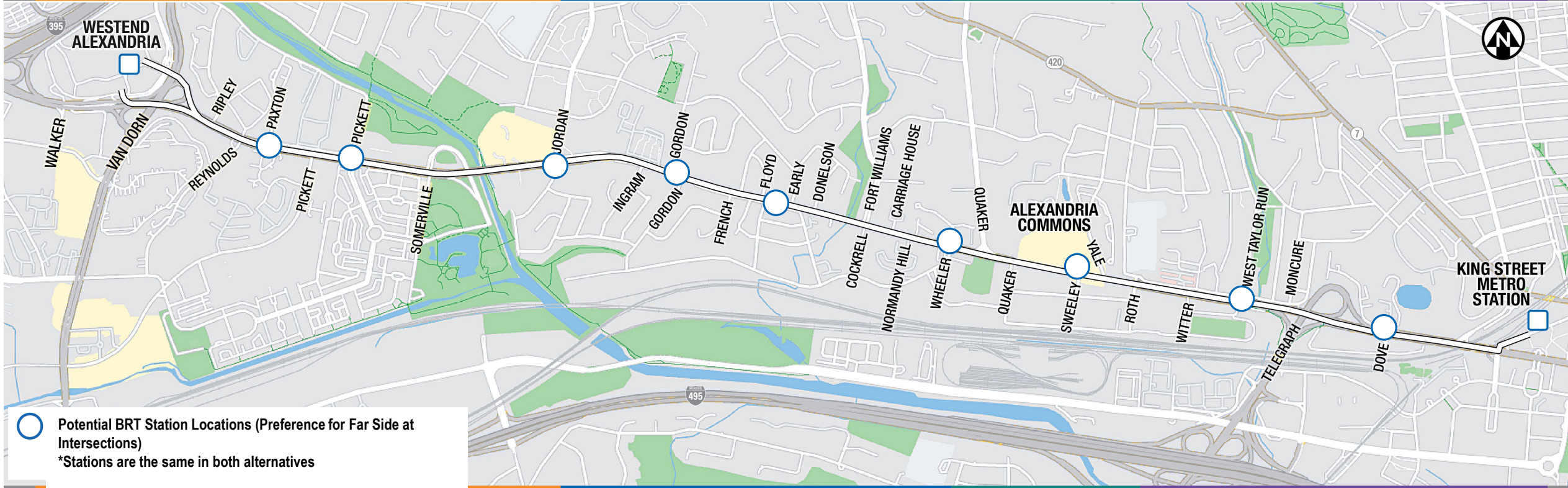
Corridor Stations

SEGMENT 1 - Landmark Mall to Jordan

SEGMENT 2A - Jordan to Wheeler

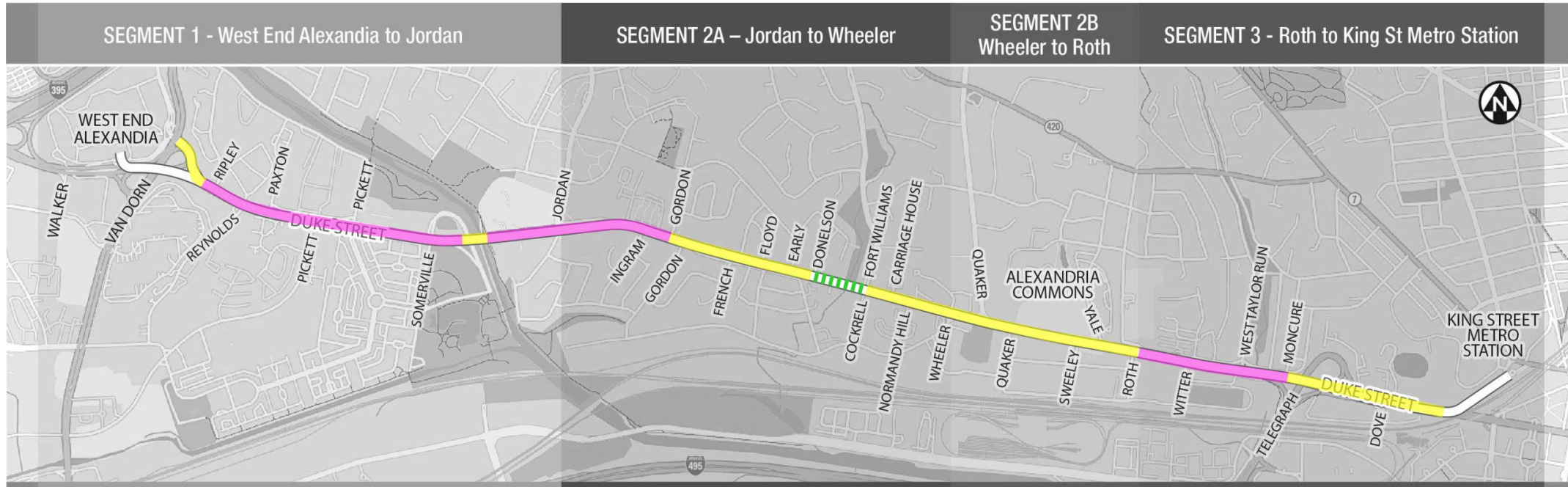
SEGMENT 2B
Wheeler to Roth

SEGMENT 3 - Roth to King St Metro Station



- Balance space constraints, activity centers, and convenient spacing
- Maximum spacing 0.5 miles, minimum spacing 0.25 miles, average spacing 0.4 miles
- .4 miles ~ 4 min maximum walk time to a stop if already on Duke Street

Proposed Curb Concept Y (North Side of Duke Street)



KEY

- Shared Use Path
- Cycle Track + Sidewalk
- Potential Woonerf (shared street) Location on Service Road

Shared Use Path



Two-Way Cycle Track



Woonerf



Cycle track locations reduce conflicts between pedestrians and cyclists

Proposed Curb Concept Z (North Side of Duke Street)



KEY

- Shared Use Path
- Cycle Track + Sidewalk
- Potential Woonerf (shared street) Location on Service Road



More shared use path provides a greater opportunity to add green space

2030 Business as Usual Scenario

Includes:

- **Transportation Improvements:**
 - Adaptive signals
 - West Taylor Run
 - Landmark redevelopment roadway improvements
 - West End Transitway
- **Currently planned development** (West End Alexandria, Land Rover dealership)

Daily volumes are projected to increase by 10%

Duke Street peak delay is projected to increase by 20-30%

Guiding Principles Comparative Metrics



Convenient

- ✓ Transit Reliability
- ✓ Station Experience
- ✓ Transit Frequency



Equitable

- ✓ Serving needs
- ✓ ADA Access
- ✓ Access time



Vibrant

- ✓ Access to Services /
Jobs / Recreation /
Future Development



Sustainable

- ✓ Alternative Modes /
Travel options



Efficient

- ✓ Bus Travel Time
- ✓ Car Travel Time



Safe

- ✓ Pedestrian Safety
- ✓ Bicycle Safety
- ✓ Intersection Safety



Impacts

- Impact to ROW
- Project Costs

Round Trip Travel Time Examples

If you travel during the AM peak and return during the PM peak, you save...

West End to Old Town



2 min (Concept A)
0 min (Concept B)



11 min (Concept A)
10 min (Concept B)

Old Town to West End



1.5 min (Concept A)
3.5 min (Concept B)



16 min (Concept A)
15 min (Concept B)

Jordan/Fox Chase to Old Town



2.5 min (Concept A)
0.5 min (Concept B)



9 min (Concept A)
6 min (Concept B)

Old Town to Jordan/Fox Chase



- 3.5 min (Concept A)
1.5 min (Concept B)



8 min (Concept A)
6.5 min (Concept B)

Left-Turn Crash Reduction



74 left-turn angle crashes at signalized intersections from 2016 -2020



- Where a protected left-turn signal replaces a permitted-protected left turn signal, a 99% reduction in left-turn angle crashes is expected.
- Based on the number of protected left turn signals, this means:
 - **70%** reduction in left-turn angle crashes in Concept A
 - **10%** reduction in left-turn angle crashes in Concept B

Vehicle-Pedestrian Crash Reduction



20 vehicle-pedestrian crashes between Ripley and Callahan from 2016 - 2020



Refuge islands remove about 50% of vehicle-pedestrian crashes

- 28 in Concept A - 85% of intersections where crashes occurred
- 10 in Concept B – 5% of intersections where crashes occurred

Corridor Concept Comparison



Bus User Benefits

	A	B
Overall travel time savings	++	+
Overall improved bus reliability	++	+
Pedestrian refuges improve safety and comfort	+++	+
Improved shelters, waiting areas, and station amenities	++	++
Improved access to key destinations and jobs	+	+



Driver Benefits

Reduced left turn crashes	+++	+
Travel time savings in PM	++	+
Travel time savings in AM Eastbound	+	+
Reduced conflict and weaving with buses	++	+

Corridor Concept Comparison

Pedestrian/Biker Benefits

Both concepts provide an **end-to-end low stress bicycle facility** and in many places a **wider, buffered space for pedestrians**



Concept Y has more **separate space** for bikes, peds, and green space



Concept Z has combined space for bikes and peds with **more green space**



Both concepts **improve safety at intersections**

Concept A has **more safer crossings** and refuge areas due to center stations and protected left turns.

Corridor Concept Comparison



Considerations

	A / Y	B / Z
Current Cost Estimate	++	+
Right-of-way area	++	+
Changes to turns/access	++	+
Vehicle travel time increase westbound in AM	++	+
Side street delays	+	+
Commercial Parking Spaces Impacted	++	+
Conversion of service roads	++	+



Engagement

Engagement Period Activities



Website

- Meeting Materials
- FAQs
- Feedback form



Pop-up Events & On-bus Chats

- Throughout April



Hello Duke Street

- Gathering input via text message
- Signage along Duke Street at bus stops and other community hubs



In-Person Meeting

- Bishop Ireton (Cafeteria)
- 5-7:30 pm: Open House
- 7:30 pm: Open Comment period
- Open house continues until 8:30 pm

In-Person Meeting

April 20

Event @
Bishop Ireton School

5-8:30 PM

Phase III General Takeaways



Concepts

- About 60% of feedback form responses favored Concept A, while 60% of “Hello Duke Street” responses and quick poll from pop-ups support curb bus lanes (Concept B).
- 25% of feedback form respondents did not favor either proposal.



Station Spacing

- About 3/4 of both feedback form and pop-up responses **supported the proposed stop spacing.**



Curb Features

- Strong majority of pop up responses favored **separated facilities** along with a slight majority of feedback form responses.

Upcoming Engagement & Key Meetings

May 25:
Presentation of feedback
AG endorses a preferred concept

June 27:
Public hearing &
Council vote on the
near and long term
concept



April - June:
Boards &
Commissions

Ongoing
Engagement during
design

Recommendation

That the Transportation Commission weigh the information and consider submitting a letter to the Advisory Group and Council regarding a preferred busway and curb concept for the Duke Street transitway.

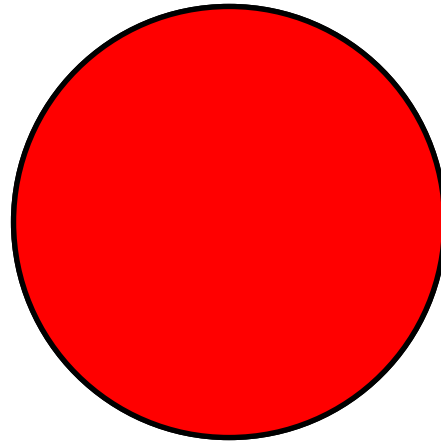
The image shows three DASH buses on a city street. The bus in the foreground is white with 'DASH' written on the front. The bus in the middle is also white with 'DASH' on the side. The bus in the background is white with 'DASH' on the front. The text 'Thank you!' is overlaid in the center in a large, bold, orange font. Below it is the URL 'alexandriava.gov/DukeInMotion' in a smaller, blue font with a blue underline. The background is a city street with trees and buildings, all in a light orange tint.

Thank you!

alexandriava.gov/DukeInMotion

3 Minute Timer

Announcement will sound automatically when time is up



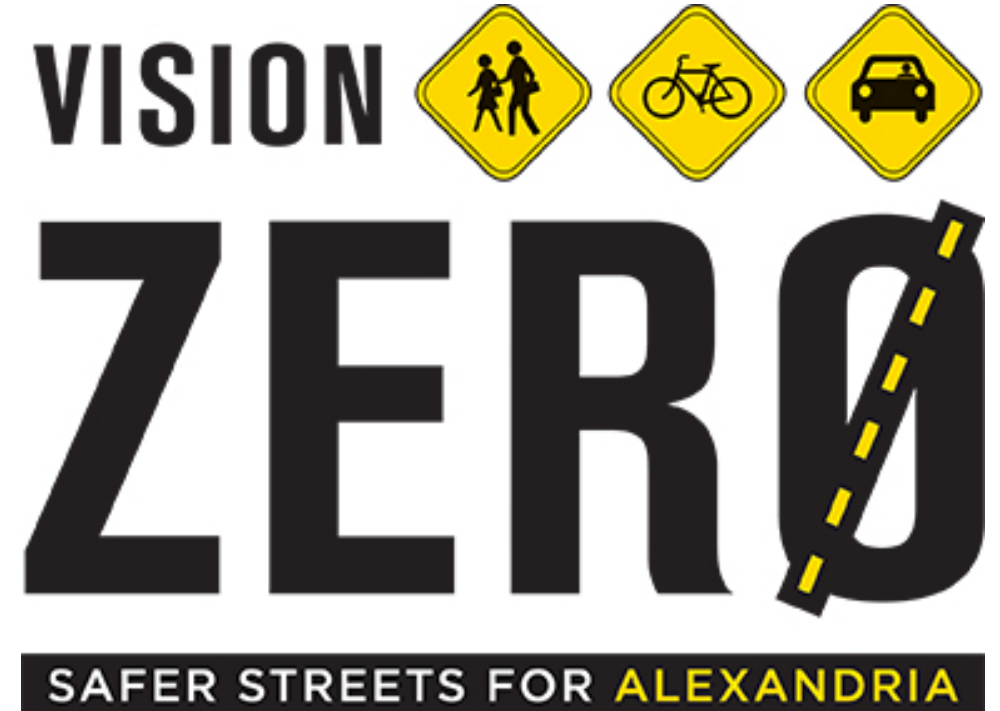
Consideration of Endorsement of an Application for the Safe Streets and Roads for All Grant

Agenda Item #4



Background

- **Vision Zero Policy & Action Plan** adopted by City Council in 2017
- Goal to **eliminate fatal and severe crashes** by 2028
- **Updated citywide crash analysis** completed in 2022



Safe Streets and Roads for All Grant

Safe Streets and Roads for All

- Discretionary grant program created by Bipartisan Infrastructure Law
- \$1B available in FY 2023
- Funding supports initiatives that **prevent roadway deaths and serious injuries**

Eligible Grant Activities

- Planning & Demonstration Grants
 - Action Plans
 - Supplemental Action Plans
 - Demonstration Activities
- **Implementation Grants**

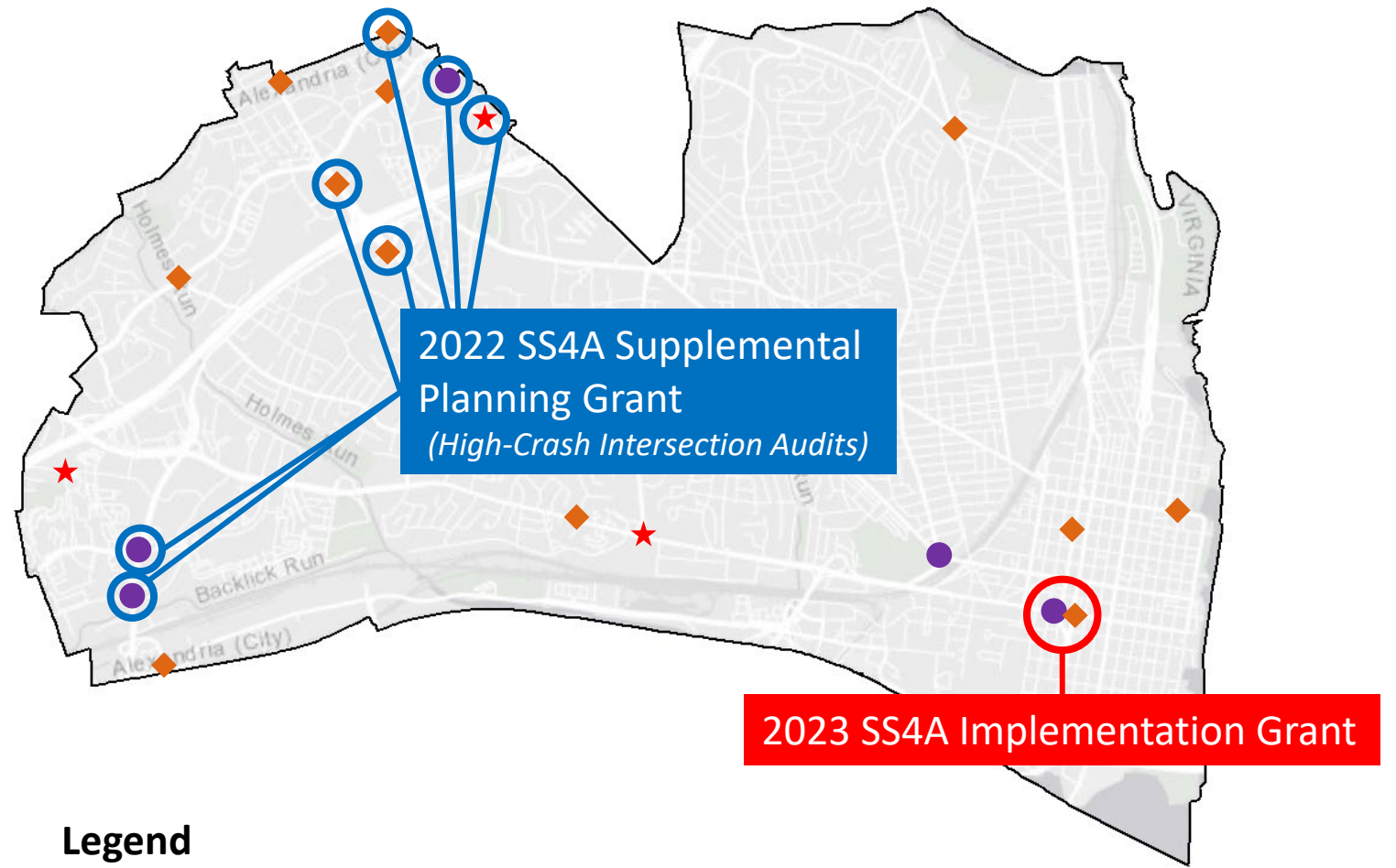
Additional Information

- \$2.5M minimum/\$25M maximum award for implementation grants
- 20% local match required
- Applications due July 10, 2023
- Award announcements expected by late 2023



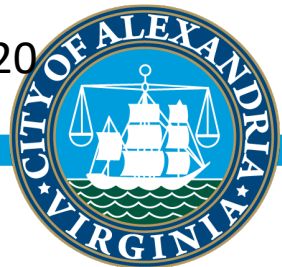
Recommended Project: Duke St/Route 1 Intersection Improvements

- Up to \$5M to implement safety improvements at two high-crash intersections
- Follow-up to planning, analysis, and conceptual design as part of 2022 MWCOG Regional Roadway Safety Grant
- Preferred concepts to be determined



Legend

- Top Fatal/Severe Crash Locations, 2011-2020
- ◆ Top Fatal/Severe Crash Locations, 2016-2020
- ★ Top Fatal/Severe Crash Locations, 2011-2020 & 2016-2020



Funding Request Summary

Cost	Funding Request
Total Project Cost	Up to \$5,000,000
Federal Request	Up to \$4,000,000
Local Match	Up to \$1,000,000
Local Match Source	FY23 NVTA 30%



Recommendation

That the Transportation Commission provide an endorsement to City Council for the proposed grant application to the FY23 Safe Streets and Roads for All Program.



Consideration of Endorsement of an Application To Northern Virginia Transportation Authority (NVTA) for Regional Transportation Funding for FY28-29 (NVTA 70% Funds)

Agenda Item #5





Background: NVTA 70% Funding

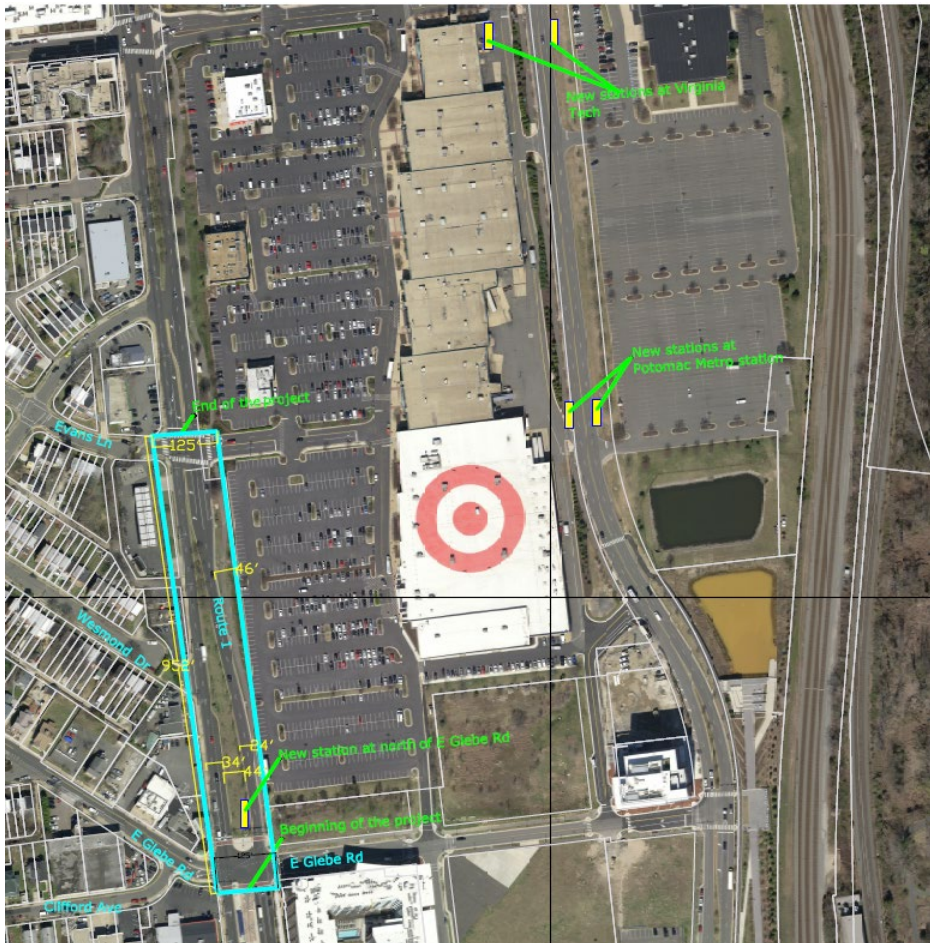
- Additional taxes and a fees levied in Northern Virginia per House Bill 2313 are deposited into a fund managed by NVTA
 - **Thirty percent (30%)** of the funds are distributed by formula directly to member localities to use on transportation projects
 - **Remaining percent (70%)** of the funds are distributed by NVTA for regional transportation projects and awarded through grants based on merit criteria
- NVTA has requested applications for **70% regional transportation funding** for FY 2028 and FY 2029 as part of the FY 2024 to FY 2029 Six-Year Program update

Summary of Projects

Project Description	Funding Request
Metroway Extension	Up to \$10M
Smart Mobility & Connected Vehicles	Up to \$5M
High Crash Location Design	Up to \$3M
Van Dorn Bridge Multimodal Enhancements	Up to \$10M
Total Cost	Up to \$28 Million



Project 1 – Metroway Extension (Up to \$10M)



PROJECT OVERVIEW

- Extend dedicated lanes on Metroway to Evans Lane
- 5 new stations, electric vehicle infrastructure, safety improvements

PROJECT BENEFITS

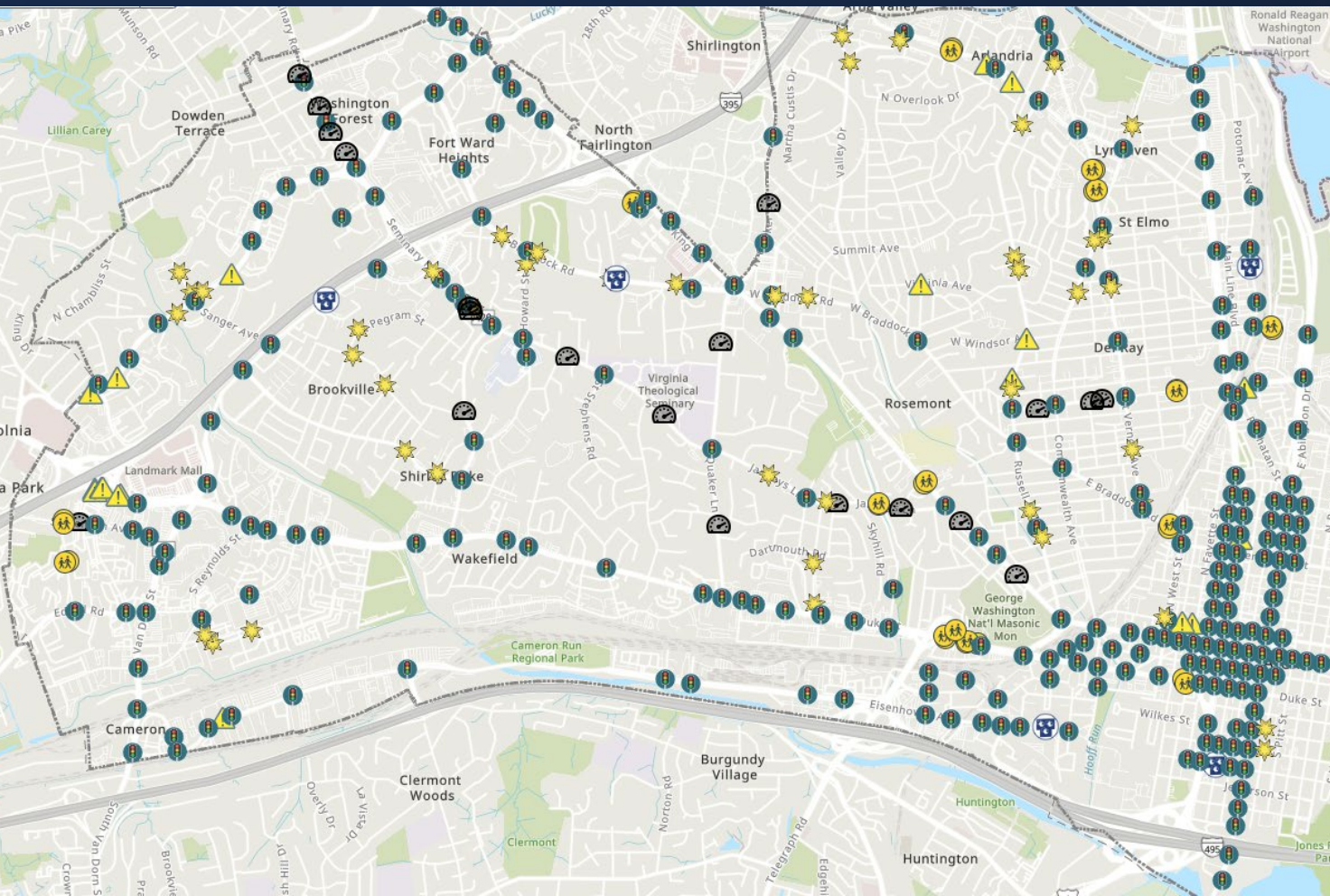
- Enhanced transit service
- Reduce single occupant vehicle trips
- Transportation options

PROJECT ALIGNMENT

- Alexandria Mobility Plan
- Transit Corridors Feasibility Study
- North Potomac Yard Small Area Plan



Project 2 – Smart Mobility & Connect Vehicles (Up to \$5M)



PROJECT OVERVIEW

- Upgrade traffic controllers citywide to connect remotely to Traffic Management Center
- New software to enable vehicle to infrastructure

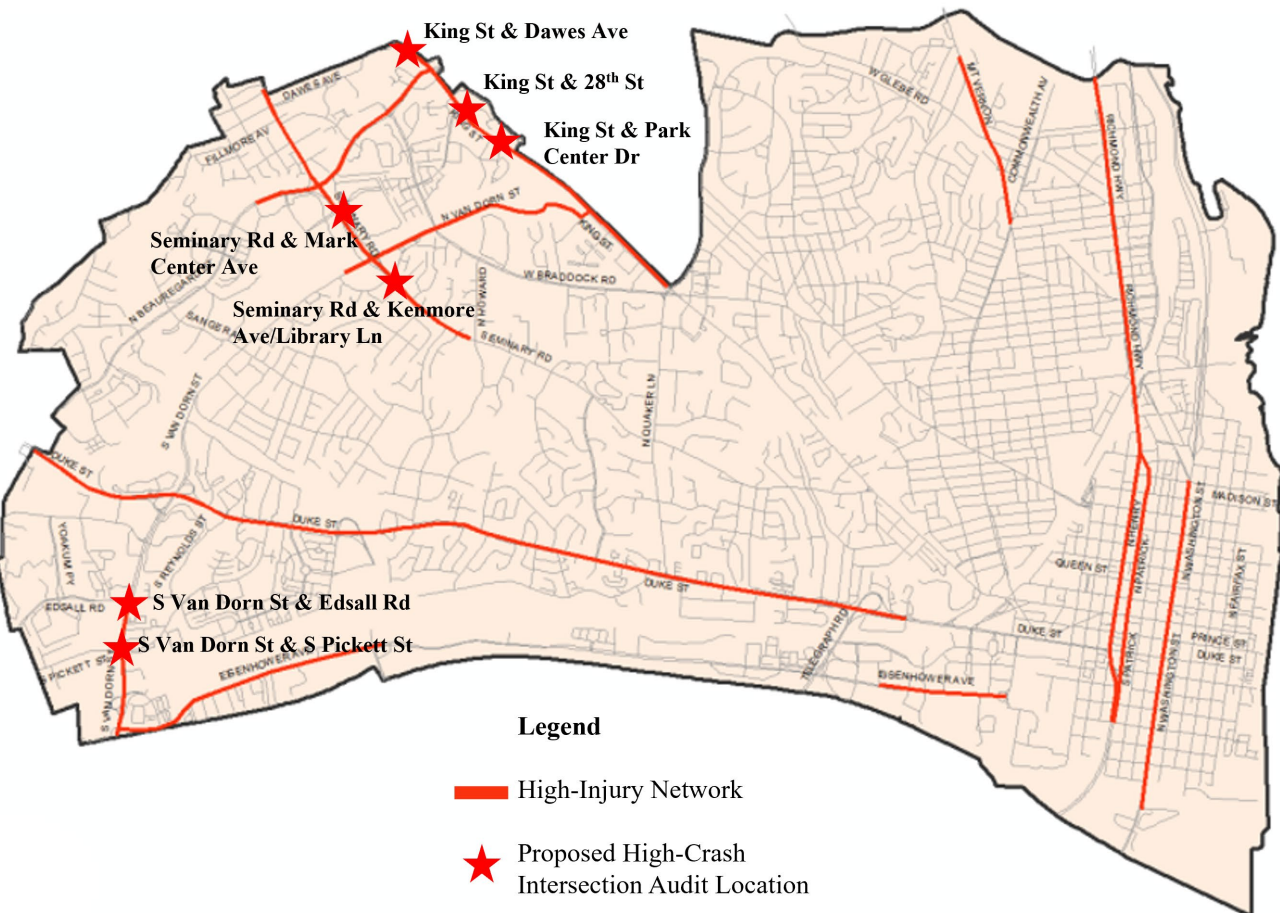
PROJECT BENEFITS

- Better manage traffic
- Prepare for future technology
- Improve safety

PROJECT ALIGNMENT

- Alexandria Mobility Plan
- Smart Mobility Framework

Project 3 – High Crash Location Design (Up to \$3M)



PROJECT OVERVIEW

- Design 7 locations on
 - King Street
 - Seminary Road
 - S Van Dorn Street

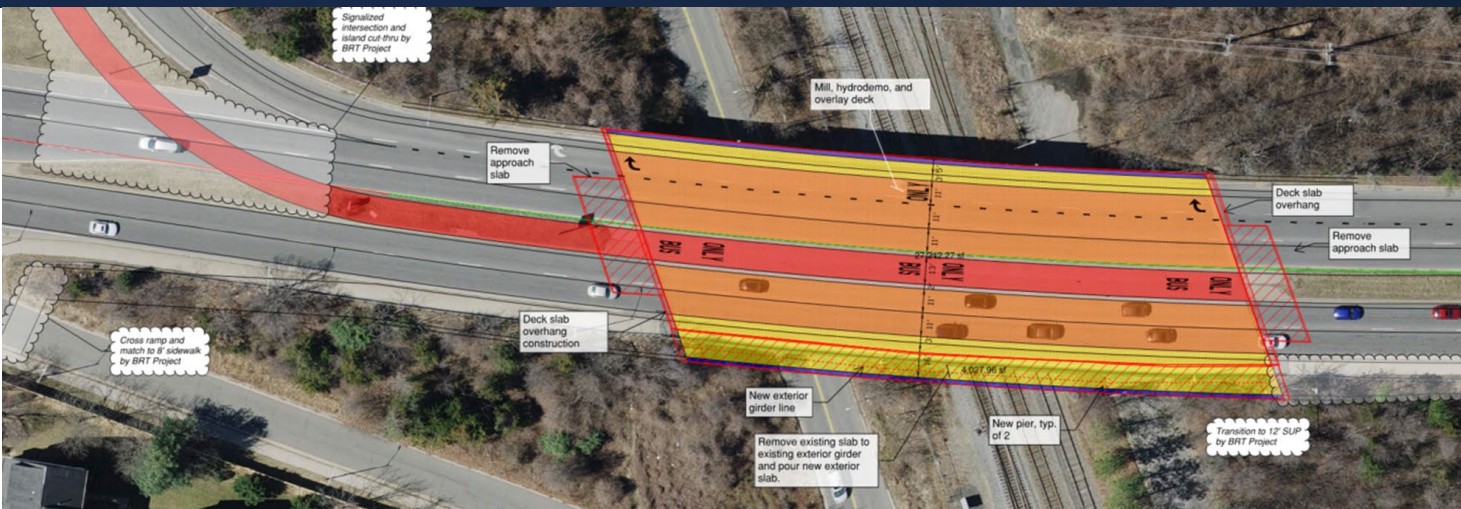
PROJECT BENEFITS

- Improve safety for all users
- Reduce fatal and severe crashes

PROJECT ALIGNMENT

- Vision Zero Action Plan
- Alexandria Mobility Plan

Project 4 – Van Dorn Bridge Multimodal Enhancements (\$10M)



PROJECT OVERVIEW

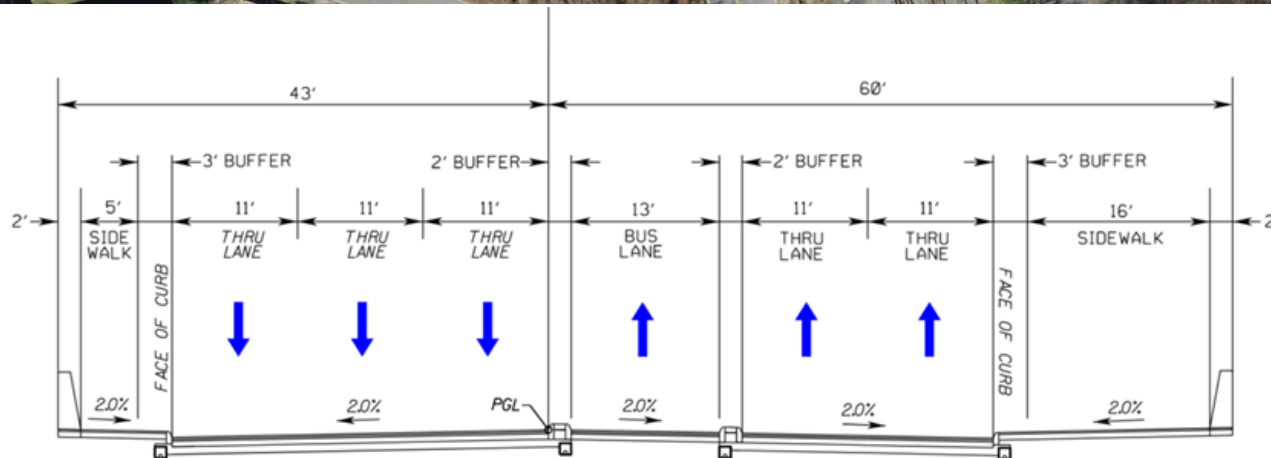
- Widen Van Dorn Street Bridge
 - Between Eisenhower Ave and Courtney Ave
 - Provide space for West End Transitway
 - Bicycle/pedestrian facilities

PROJECT BENEFITS

- Improve bicycle and pedestrian safety and comfort,
- Improve multimodal access to the Van Dorn Metro Station

PROJECT ALIGNMENT

- Eisenhower West Small Area Plan
- West End Transitway
- Alexandria Mobility Plan
- Vision Zero



Recommendation

That Transportation Commission make a motion to provide a letter of endorsement to City Council for the submission of applications for up to \$28 million for the NVT A 70% Program



Commissioner Updates

Agenda Item #6



Commission Members

- **Oleksandr Faryga** – Environmental Policy Commission
- **Oscar Gonzalez** – Citizen East, High School Project
- **Casey Kane** – Traffic and Parking Board, Eisenhower West/Landmark/Van Dorn Advisory Group, Ad Hoc Duke Street Transitway Committee
- **Jody Manor**- Planning Commission
- **Bruce Marsh** –Citizen East, Potomac Yard Metro Implementation Working Group
- **Jim Maslanka**– Citizen West
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- **Murat Omay** – DASH Board
- **John Chapman** – Council (non-voting)
- **Kirk McPike** – Council (non-voting)



Items for Consent

Agenda Item #7



Other Business

- Summer meetings



Adjourn Transportation Commission Meeting

Next meeting: Tentatively September 20, 2023

