

Jermantown Road Corridor Improvement Project

Public Outreach Meeting
May 7, 2018

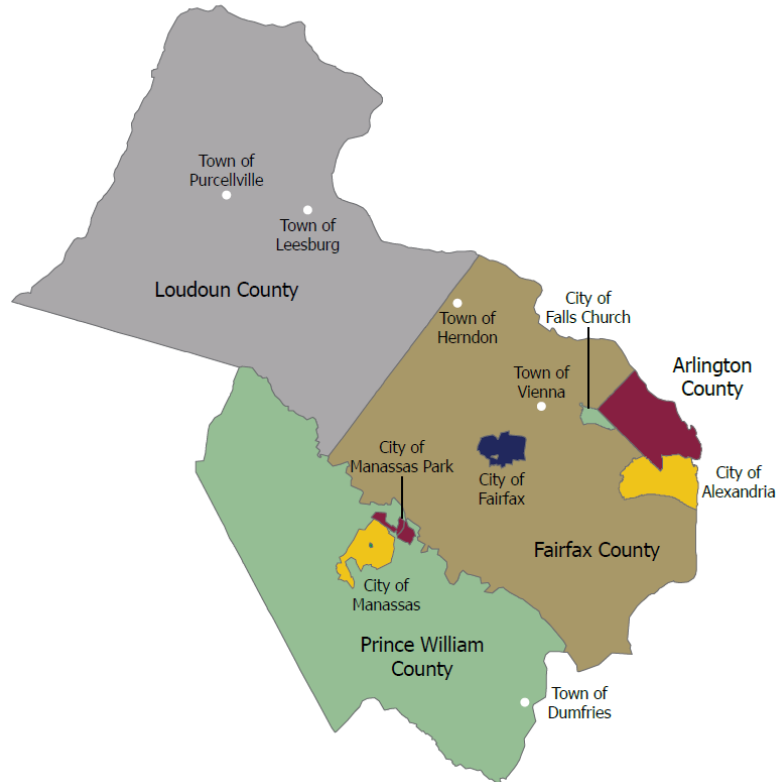
Tonight's Agenda

- ▶ Project Overview
 - Existing conditions
 - Improvement options
- ▶ Question and answers
- ▶ Obtain input from citizens and stakeholders

Project Purpose and Need

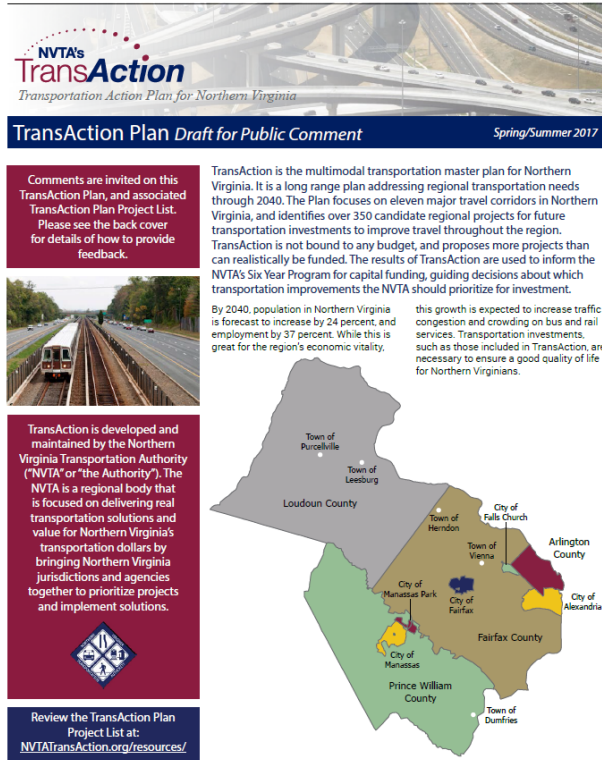
- ▶ Jermantown Road provides key local access (residential, school, & commercial locations) and connections to the county
- ▶ Current conditions are challenging for some users, and accommodating future growth and changes will require improvements to help us:
 - Improve current roadway operations for all travelers
 - Plan for future demand and travel needs
 - Maintain connections to the county
 - Maintain and improve transit operations
 - Increase pedestrian and bicycle safety and connectivity

Regional Context



- The City of Fairfax is well positioned in the regional transportation system
- The City is a member of the Northern Virginia Transportation Authority, which engages in regional transportation planning

Regional Context



NVTA's TransAction
Transportation Action Plan for Northern Virginia

TransAction Plan Draft for Public Comment Spring/Summer 2017

Comments are invited on this TransAction Plan, and associated TransAction Plan Project List. Please see the back cover for details of how to provide feedback.

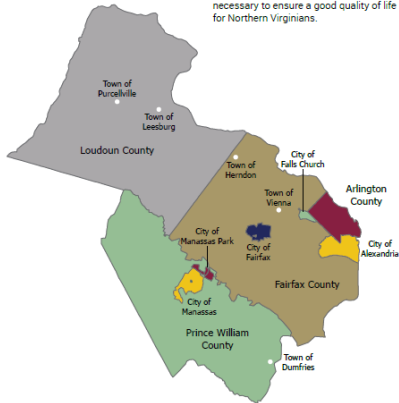
TransAction is the multimodal transportation master plan for Northern Virginia. It is a long range plan addressing regional transportation needs through 2040. The Plan focuses on eleven major travel corridors in Northern Virginia, and identifies over 350 candidate regional projects for future transportation investments to improve travel throughout the region. TransAction is not bound to any budget, and proposes more projects than can realistically be funded. The results of TransAction are used to inform the NVTA's Six Year Program for capital funding, guiding decisions about which transportation improvements the NVTA should prioritize for investment.

By 2040, population in Northern Virginia is forecast to increase by 24 percent, and employment by 37 percent. While this is great for the region's economic vitality, this growth is expected to increase traffic congestion and crowding on bus and rail services. Transportation investments, such as those included in TransAction, are necessary to ensure a good quality of life for Northern Virginians.

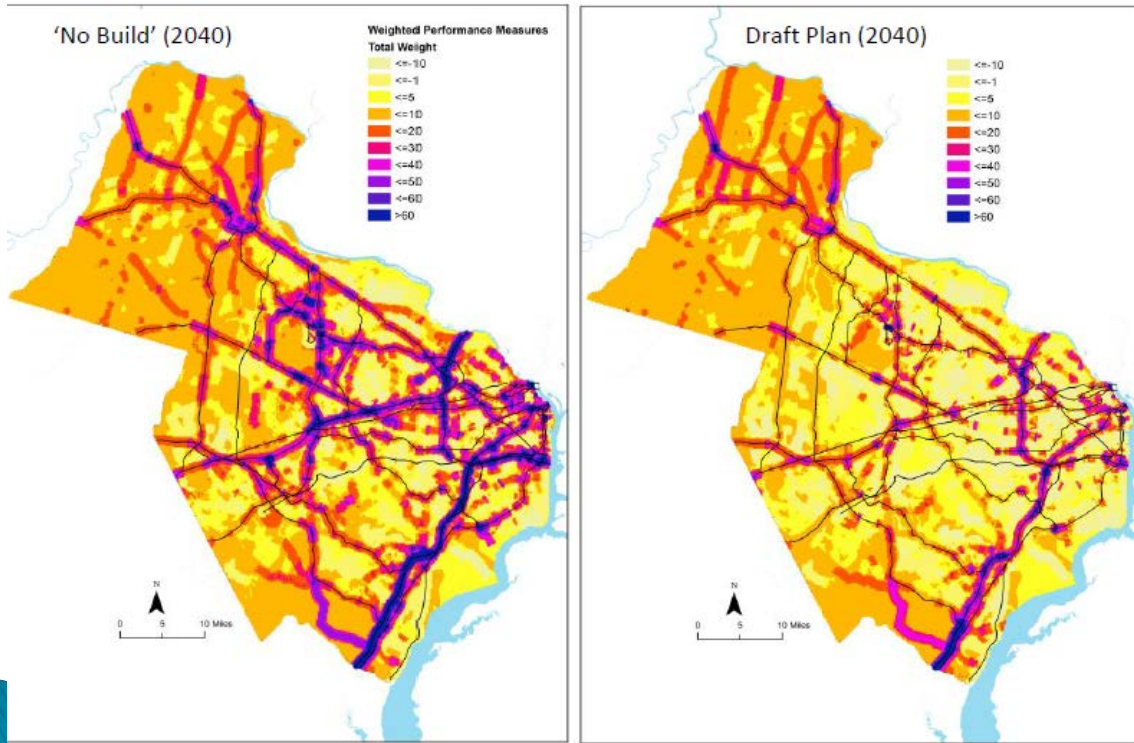
TransAction is developed and maintained by the Northern Virginia Transportation Authority ("NVTA" or "the Authority"). The NVTA is a regional body that is focused on delivering real transportation solutions and value for Northern Virginia's transportation dollars by bringing Northern Virginia jurisdictions and agencies together to prioritize projects and implement solutions.

Review the TransAction Plan Project List at:
NVTATransAction.org/resources/

- NVTA recently updated the long range Transportation Plan, TransAction
- This plan identifies over 350 regional projects to improve travel throughout the region
- Some of the 350 projects are located in the City of Fairfax



Draft Plan compared to No Build



Even if the region were to construct all 358 projects proposed in the regional long range plan, we will still have congestion in the region

City of Fairfax Multimodal Plan



Vision for Transportation

In 2035, Fairfax is a city with options for residents to easily, safely, and efficiently move within and between neighborhoods either by walking, bicycling, taking public transportation, or driving.



66%

Of residents surveyed would prefer to travel by a means **other than driving alone** to work or errands

1/3 of all household trips



are less than one mile in distance

1/2 Of these short distance trips are driven





TWO-YEAR TRANSPORTATION PROGRAM POTENTIAL PROJECTS:



Additional Roadway Network In Northfax West of Chain Bridge Road

Eaton Place/Chain Bridge Road Intersection Improvements

George T. Snyder Trail Completion

Jermantown Road Widening (Between Fairfax Blvd & Route 1-66)



66%

Of residents surveyed would prefer to travel by a means other than driving alone to work or errands

Judical Drive Trail Completion

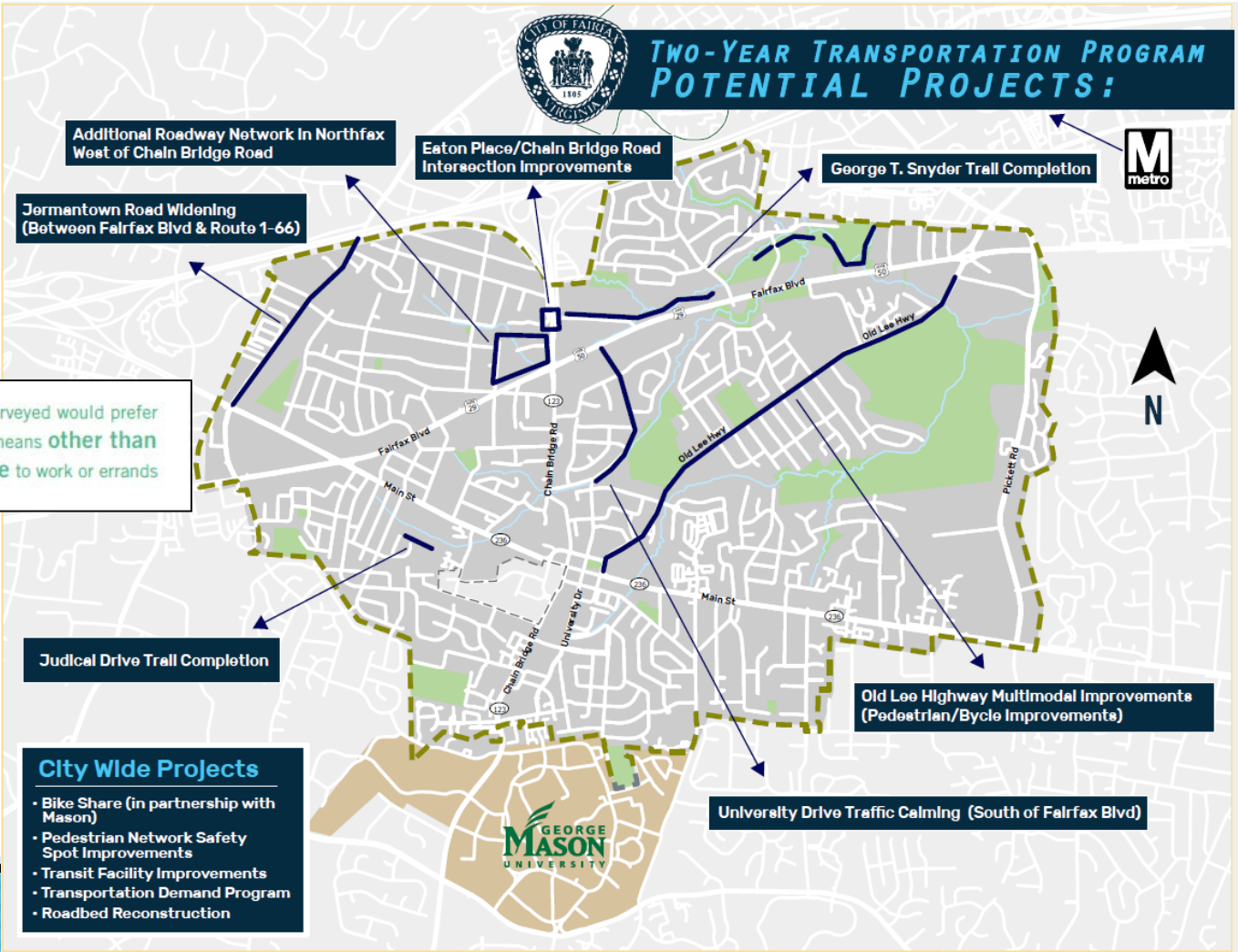
Old Lee Highway Multimodal Improvements (Pedestrian/Bicycle Improvements)

City Wide Projects

- Bike Share (in partnership with Mason)
- Pedestrian Network Safety Spot Improvements
- Transit Facility Improvements
- Transportation Demand Program
- Roadbed Reconstruction



University Drive Traffic Calming (South of Fairfax Blvd)



Project Purpose and Need

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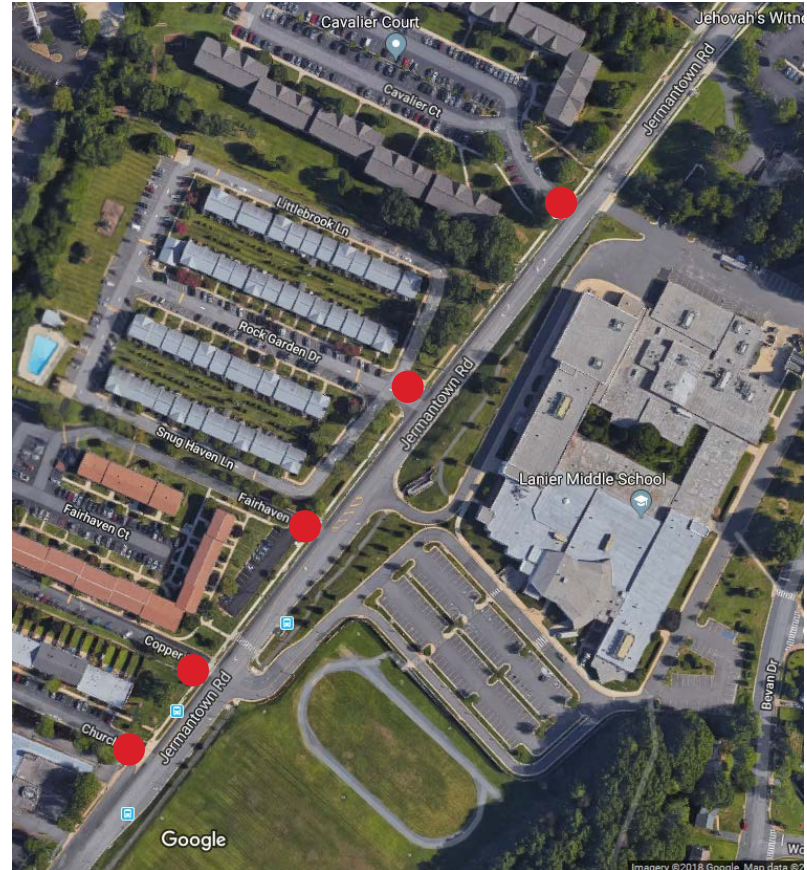
Jermantown Road Existing Conditions



- ▶ Two lane road with center two-way left-turn lane
- ▶ Sidewalk on both sides
- ▶ Southern End: Jermantown Road and Route 50 recently redesigned and constructed
- ▶ Northern End: VDOT reconstructing bridge with four lanes

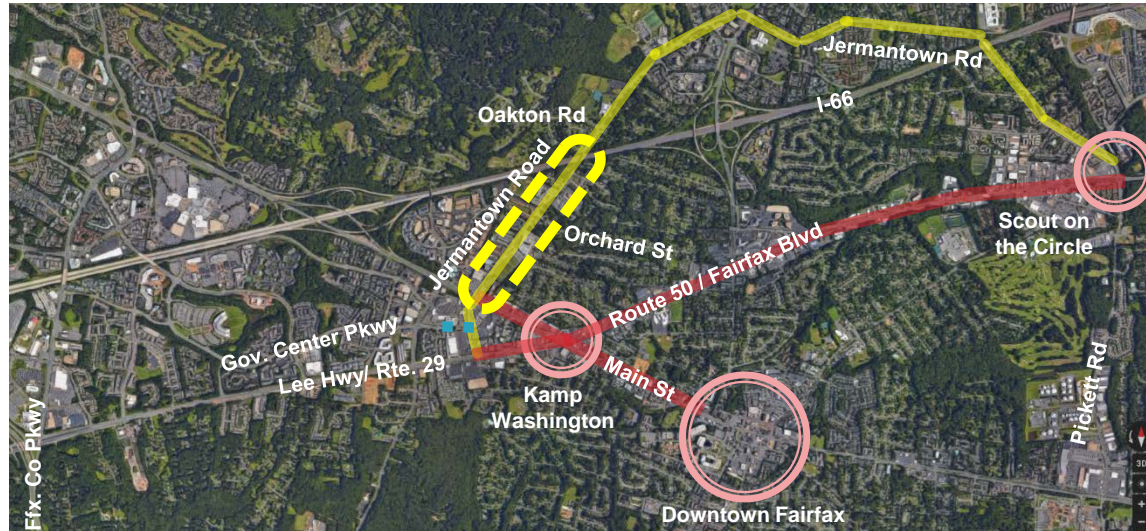
Jermantown Road Existing Conditions

- ▶ Directional peak traffic: Northbound in AM, Southbound in PM
 - School traffic in the AM, delays along northbound Jermantown Road in AM
- ▶ Numerous ingress/egress points in southbound direction (shown as ●)
- ▶ Metro and CUE bus routes
- ▶ Minor Arterial 30 MPH Posted Speed



Jermantown Road Regional Context

- ▶ Redevelopment will increase traffic demand in the regional network
- ▶ Corridor can capture diverted traffic from over-saturated roads in the vicinity and provide additional capacity and connectivity



- ■ ■ ■ Government Center Pkwy Extension
- ■ ■ ■ Study Limit (Rte. 50 to I-66 Bridge)
- ■ ■ ■ Alternate Route
- ■ ■ ■ Existing Saturated Roadway

Traffic Analysis

- ▶ Traffic study based on 2040 traffic volume forecasts
 - Baseline condition
 - Future conditions with improvements
- ▶ Forecasts based on existing traffic patterns and I-66 Outside The Beltway AM/PM peak hour traffic data
- ▶ Congestion on adjacent roadways will influence future traffic patterns and corresponding demand on Jermantown Road

Traffic Volumes

Peak Hour Traffic Volumes on Jermantown Road, north of Fairfax Boulevard (vehicles per hour)

Direction	2018 Existing Conditions		2040 Projected Traffic Conditions		Traffic Volume Increase (% per year)	
	Weekday AM Peak	Weekday PM Peak	Weekday AM Peak	Weekday PM Peak	Weekday AM Peak	Weekday PM Peak
Northbound	946	565	1375	640	2.1%	.6%
Southbound	386	894	665	1175	3.3%	1.4%
Total	1332	1459	2040	1815	2.4%	1.1%

- ▶ 2018 ADT: 17,000 vehicles per day
- ▶ 2040 ADT: 22,000 vehicles per day
- ▶ Increased future demand 2.4% growth
- ▶ Traffic diversion
- ▶ No Build – Heavy congestion 2040

Traffic Study

- ▶ Vehicle Delay, LOS, and Queueing information provided below

Jermantown Road @ Orchard Street	Delay and LOS							
	2018 Existing		2040 No-Build		2040 Build (Spot Improvement)		2040 Build (Boulevard)	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Approach	Delay LOS	Delay LOS	Delay LOS	Delay LOS	Delay LOS	Delay LOS	Delay LOS	Delay LOS
Northbound	18.6 s B	12.0 s B	34.3 s F	13.6 s B	15.7 s B	11.4 s B	17.8 s B	9.9 s A
Southbound	9.4 s A	9.8 s A	19.3 s B	18.5 s B	10.1 s B	24.3 s C	7.9 s A	6.6 s A
Westbound	60.8 s E	42.8 s D	60.8 s E	42.8 s D	43.7 s D	37.5 s D	42.6 s D	42.8 s D
Overall Intersection	20.6 s C	13.4 s B	60.1 s E	18.9 s B	16.0 s B	21.5 s C	16.4 s B	10.2 s B

- ▶ 2040 No Build – Failing condition LOS E
- ▶ 2040 Build – Improves traffic operations (Two options studied)
- ▶ Boulevard Option – LOS B (Less corridor delay)
- ▶ Spot Improvement Option – LOS C (similar to current)

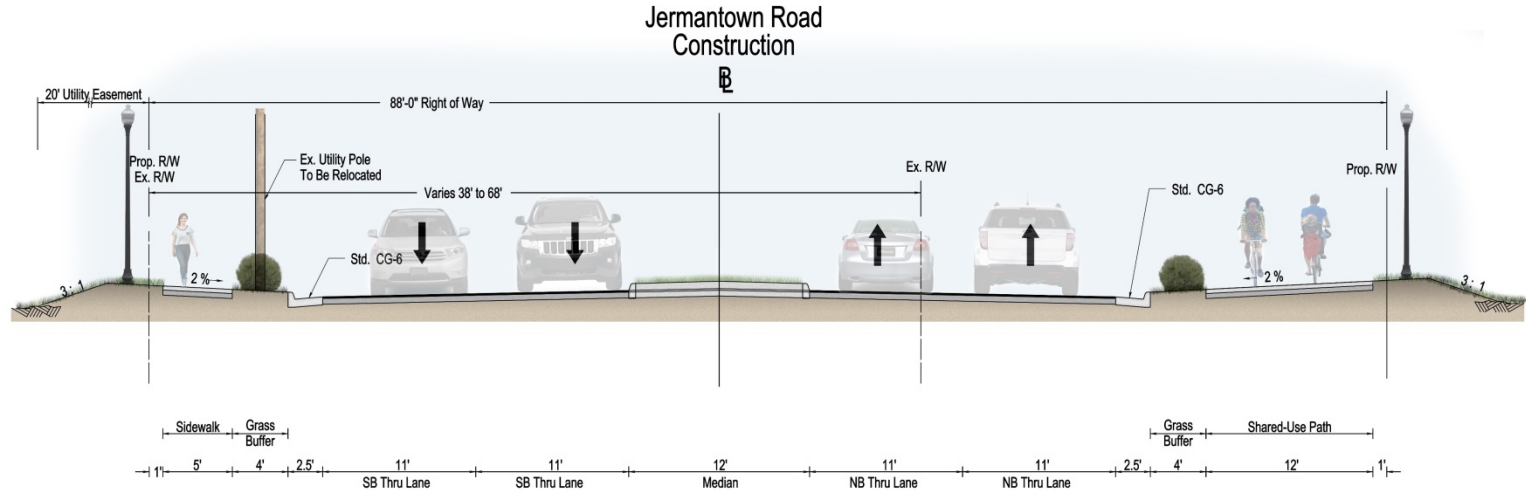
Two Concepts Developed

- ▶ Considerations:
 - Pedestrian and bicyclist safety and connectivity
 - Roadway operations and future demand
 - Utility and right-of-way impacts
- ▶ Boulevard Option
 - Widens Jermantown Road to 4 lanes with median
- ▶ Spot Improvement Option
 - Adds southbound right turn lane south of Orchard St
 - Adds northbound thru lane north of Orchard St
 - Potential for traffic circle at Orchard St with signals at schools

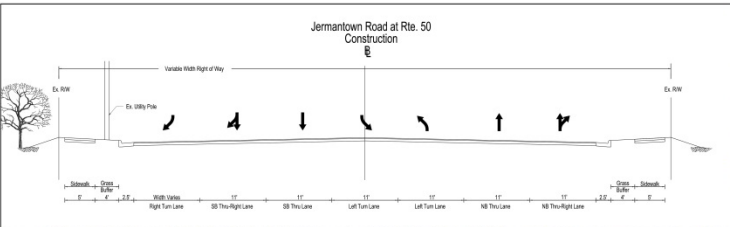
Boulevard Option

- ▶ Widens Jermantown Road to 4 lanes with median
- ▶ Increases capacity, improves traffic operation
- ▶ Improves bike and pedestrian movement
 - Median can serve as pedestrian refuge
 - Two way shared use path provides connectivity into county
- ▶ Improves transit operation along the corridor
- ▶ High impacts to right-of-way and utilities
 - Wider 65-foot section
 - Requires utility relocation
- ▶ Higher relative cost

Boulevard Option



- Widens Jermantown Road to 4 lanes with median and turn lane pockets
- Adds shared use path on east side
- Widens on both sides of the roadway



JERMANTOWN ROAD CORRIDOR IMPROVEMENT PROJECT

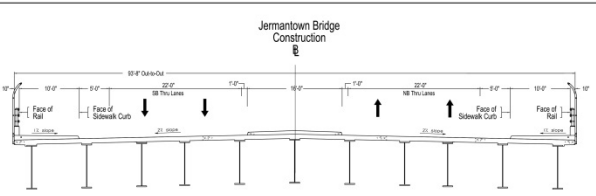
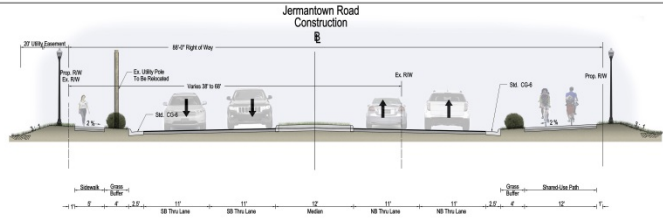
BOULEVARD OPTION

SCALE 1" : 50'

LEGEND

- PROPOSED SIDEWALK
- PROPOSED GRASS
- PROPOSED MEDIAN
- PROPOSED SHARED-USE PATH
- PROP. RIGHT-OF-WAY
- EX. RIGHT-OF-WAY
- EX. OVERHEAD LINES
- ★ PED. CROSSING

★ Current ped crossings: opportunities for improvement (options to be discussed)



Providence Elementary School



Marilla Ct



Carol St

Maintenance Facility

Phoenix Dr

Interstate 66
 Fairfax City Limits

Proposed Bridge

Oakton Rd

Pine St

LEGEND

- █ PROPOSED SIDEWALK
- █ PROPOSED GRASS
- █ PROPOSED MEDIAN
- █ PROPOSED SHARED-USE PATH
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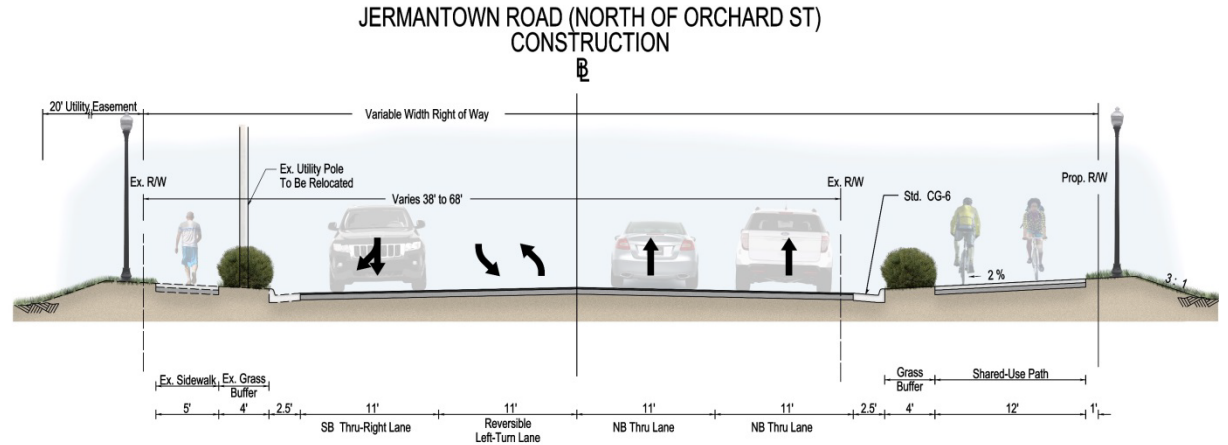
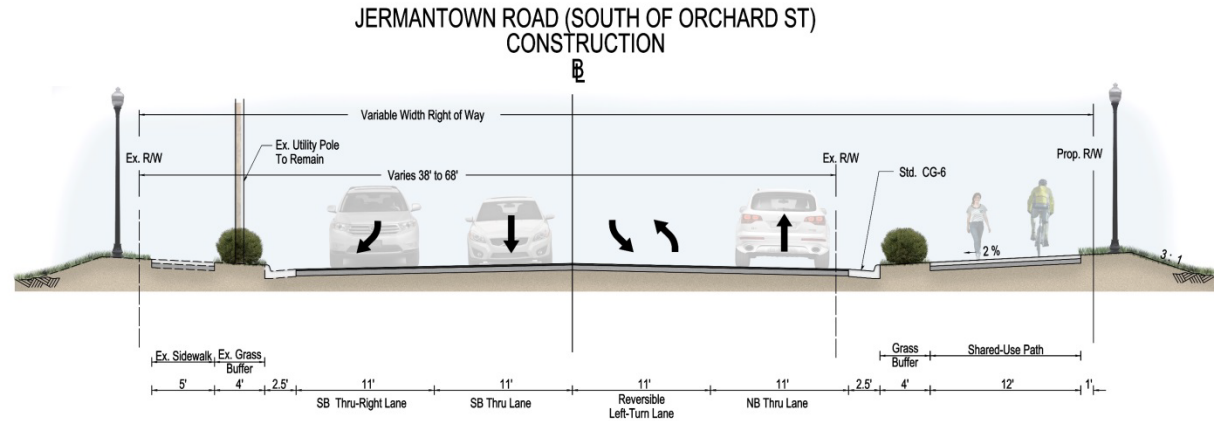
Spot Improvement Option

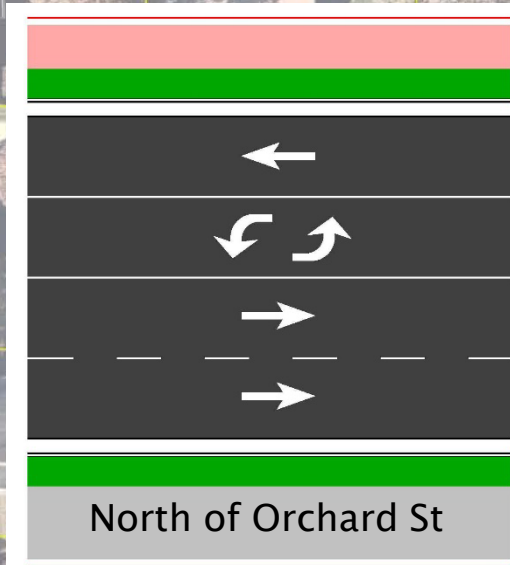
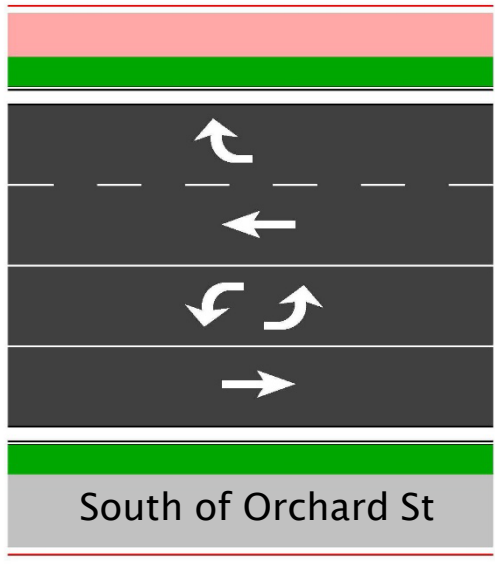
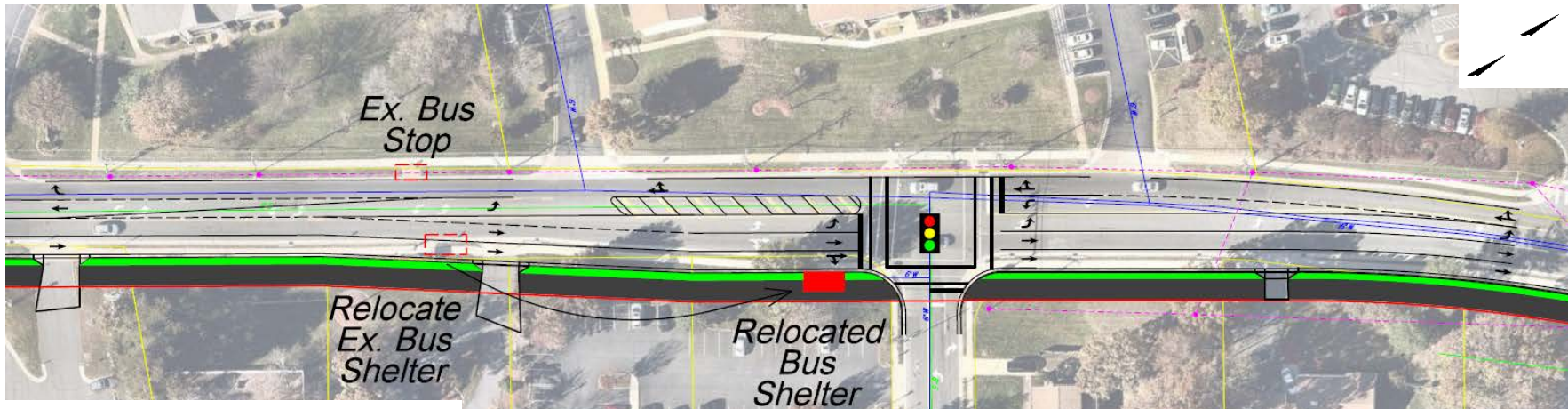
- ▶ Adds southbound right turn lane south of Orchard St
- ▶ Adds northbound thru lane north of Orchard St
- ▶ Improves traffic operations, especially during the AM
- ▶ Improves ingress/egress for residential and commercial driveways
- ▶ Improves transit operation and conflicts along corridor
- ▶ Minimizes impact to right-of-way and utilities
 - 44-foot widening on east side of roadway
- ▶ Improves bike and pedestrian movement
- ▶ Lower relative cost

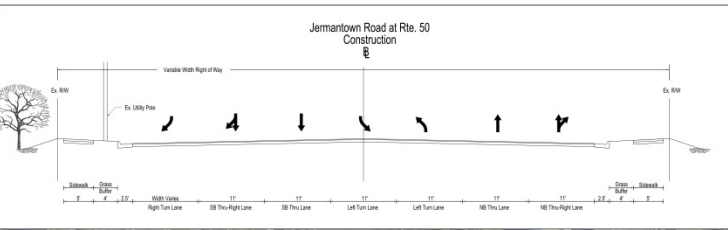
Spot Improvement Option

Adds southbound right turn lane south of Orchard St

Adds northbound thru lane north of Orchard St





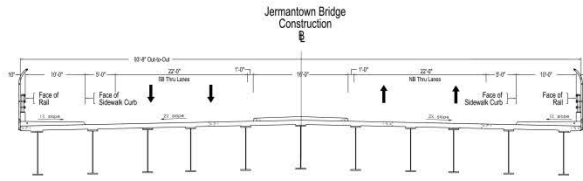
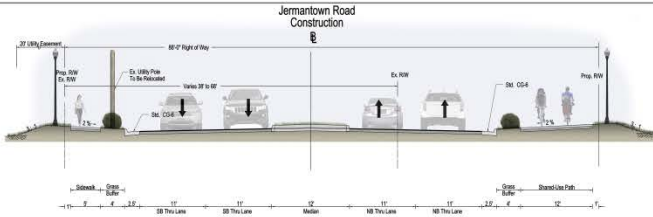


JERMANTOWN ROAD CORRIDOR IMPROVEMENT PROJECT SPOT IMPROVEMENTS OPTION - PREFERRED

SCALE 1" : 50'

- LEGEND**
- PROPOSED SIDEWALK
 - PROPOSED GRASS
 - PROPOSED MEDIAN
 - PROPOSED SHARED-USE PATH
 - PROP. RIGHT-OF-WAY
 - EX. RIGHT-OF-WAY
 - EX. OVERHEAD LINES
 - ★ PED. CROSSING

★ Current ped crossings:
opportunities for improvement
(options to be discussed)

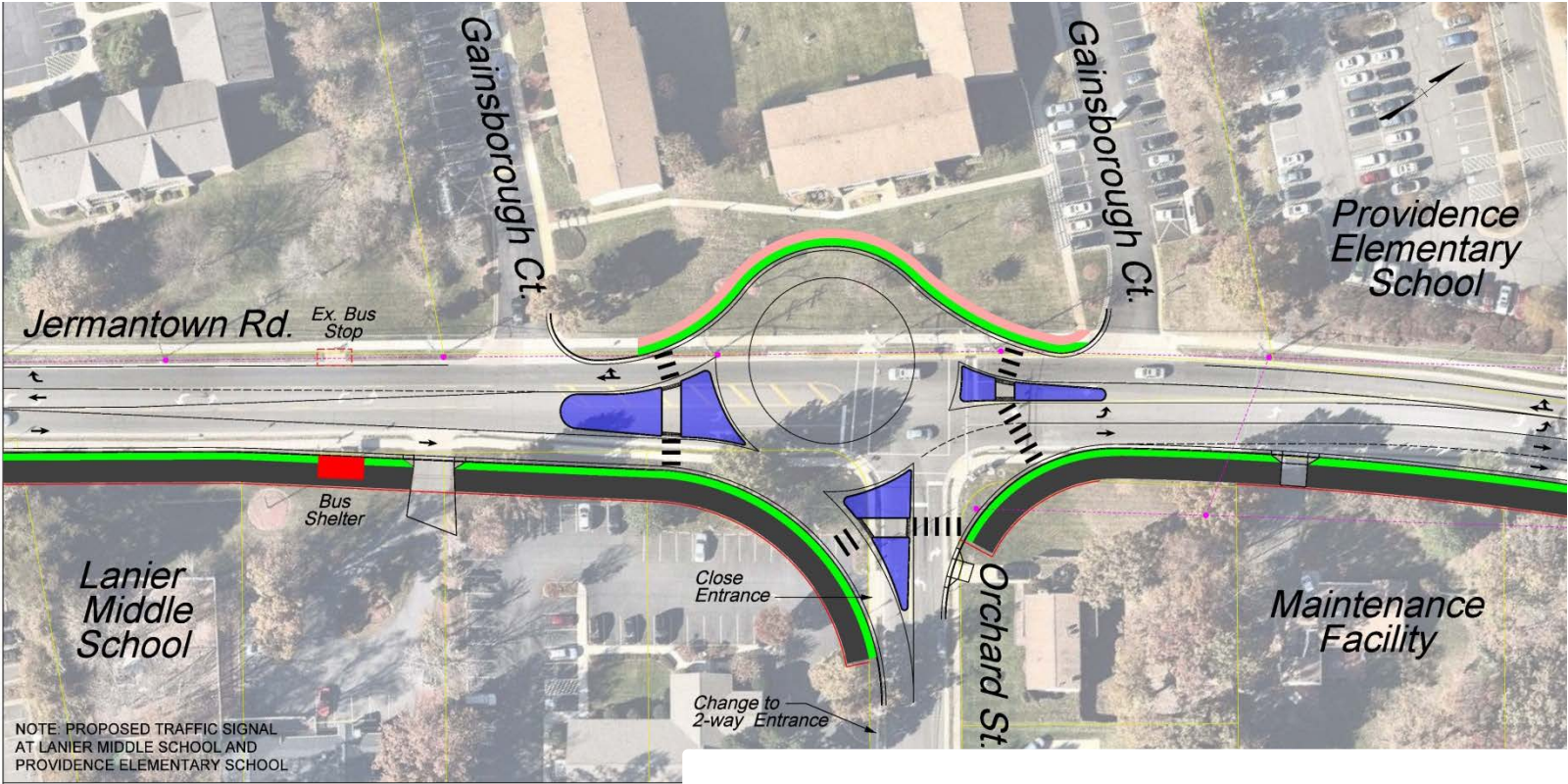


LEGEND

- PROPOSED SIDEWALK
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- PROP. RIGHT-OF-WAY
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- EX. OVERHEAD LINES
- ★ PED. CROSSING

★ Current ped crossings: opportunities for improvement (options to be discussed)

Option: Traffic Circle at Orchard Street



Comparison of Options

Criteria	No Build Option (2040)	Spot Improvement Option (Preferred)	Boulevard Option
Traffic Delay (Orchard St)	Approx. 61 sec	Approx. 22 sec	Approx. 16 sec
LOS (Orchard St)	LOS E	LOS C	LOS B
Transit Operations	Bus blockages	Similar improvements due to relocated bus stops and separate lane for autos to pass stopped buses	
Bike/Ped Movement	No connectivity No bike facilities	<ul style="list-style-type: none"> • Shared-use path from Fairfax Blvd to Oakton Rd (approx. 0.96 miles) • Shorter crossing distance 	Shared-use path from Fairfax Blvd to Oakton Rd (approx. 0.96 miles)
Utility & ROW Impacts	N/A	<ul style="list-style-type: none"> • Low- due to 1 lane widening • Impacts limited to west side 	<ul style="list-style-type: none"> • Severe - due to 2 lane widening • Impact to both sides • 20' utility easement required for relocation
Cost	N/A	TBD (less than Boulevard option)	TBD (higher than Spot Improvement option)

Improvements in Both Options

- ▶ Shared use path along east side of Jermantown Road
- ▶ Roadway crossing improvements

Roadway Crossing Options

- ▶ Signalized crosswalk at intersection
- ▶ Texturized crosswalk at signals
- ▶ HAWK Signal
- ▶ Potential intersections to improve
 - Lanier Middle School
 - Providence Elementary School
 - Carol Street

Signalized Crosswalk

- ▶ Full traffic signal with pedestrian phase
- ▶ Standard signal – similar to most signalized intersections



Texturized Crosswalk

- ▶ Use decorative patterns, color and paving materials to differentiate the crosswalk from the asphalt road
- ▶ Texture on crosswalk provides audible and visual signals to drivers



HAWK Signal?

- ▶ HAWK stands for High-Intensity Activated crossWalk beacon
- ▶ Signal stops traffic when pedestrians request to cross, then flashes to allow drivers to proceed after yielding to pedestrians (may allow for shorter wait time depending on pedestrian volume & speed)



Roadway Crossing Comparisons

Alternatives	Potential Locations *Refer to ped. Crossing on scrolls	Improves Traffic Operation / Capacity	Pedestrian/ Bicycle Connectivity	Safety for Pedestrians	Safety for Bicyclists	ROW Impacts	Utility Conflicts
Signalized Crossing	Lanier Middle School (B) Providence Elem. School (D) Carol St (E)	Poor	Good	Good	Good	Medium	High
Textured Crosswalk at Signals	Lanier Middle School (B) Providence Elem. School (D) Carol St (E)	Medium	Medium	Low	Low	Low	Low
HAWK (High-Intensity Activated crossWalk) Signal	Lanier Middle School (B) Providence Elem. School (D) Carol St (E)	Poor	Good	Good	Good	Low	Medium

More Favorable	
Neutral	
Less Favorable	

Questions / Comments?

- ▶ **Your feedback is important!**
 - Fill out comment cards
 - Review the information boards
 - Ask questions or provide feedback to any staff with nametags
- ▶ Feedback on project elements will help shape the direction of this project