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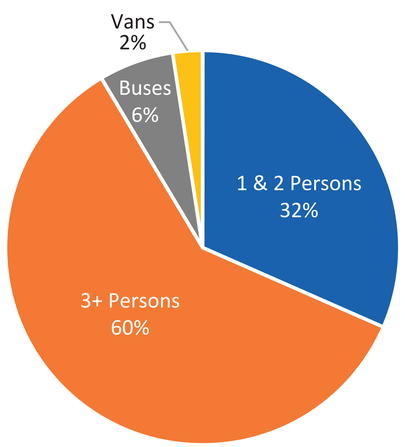
I-395 EXPRESS LANES
NORTHERN EXTENSION

WHO IS TRAVELING ALONG I-395?

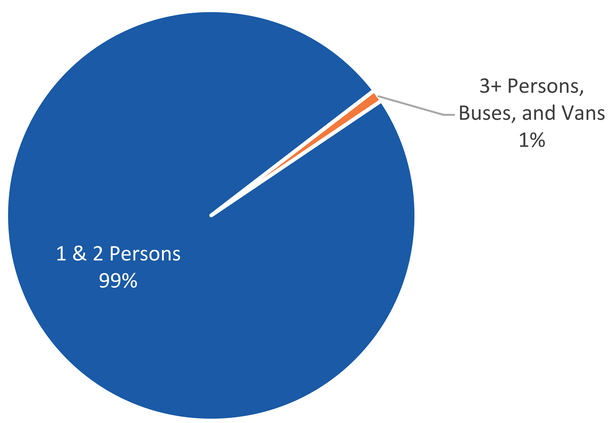
HOW ARE THEY TRAVELING?

NORTHBOUND I-395 - NORTH OF GLEBE ROAD
AM PEAK PERIOD (6 AM - 9 AM)

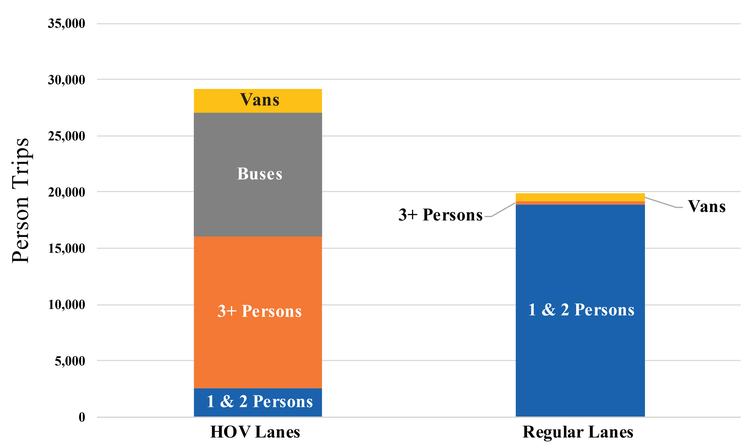
HOV LANE VEHICLES



REGULAR LANE VEHICLES



PERSON TRIPS

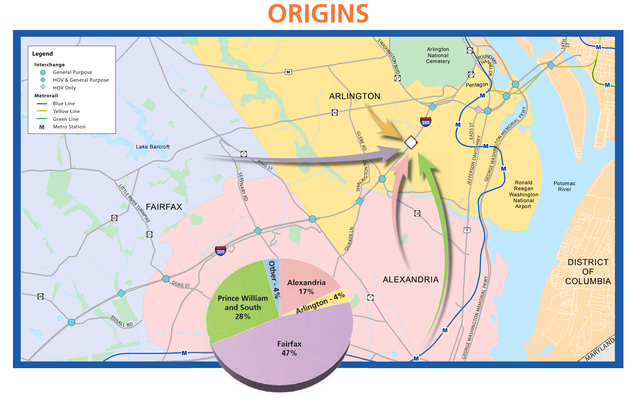


Source: 2016 Performance of High-Occupancy Vehicle Facilities on Freeways in the Washington Region (DRAFT)

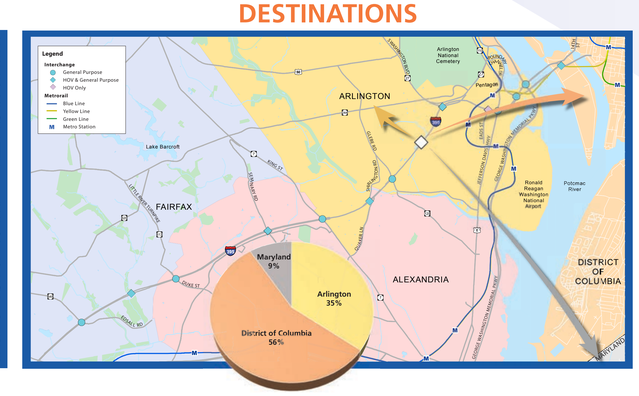
WHERE ARE THEY TRAVELING TO AND FROM?

NORTHBOUND I-395 - NORTH OF GLEBE ROAD - AM PEAK

ORIGINS

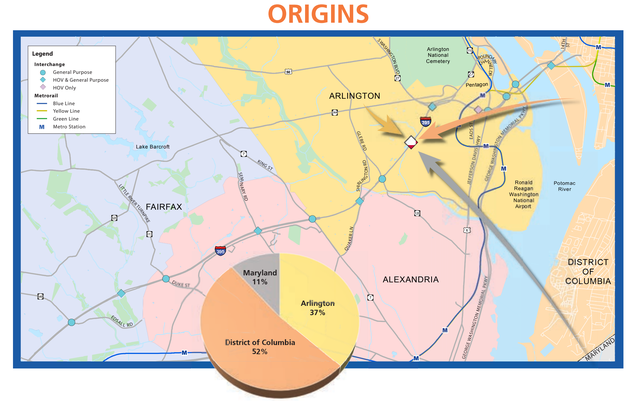


DESTINATIONS

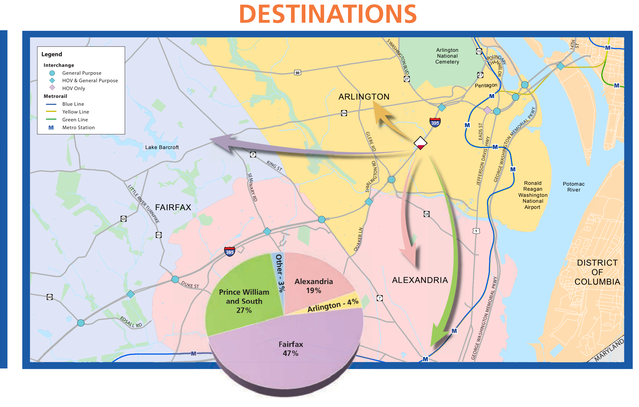


SOUTHBOUND I-395 - NORTH OF GLEBE ROAD - PM PEAK

ORIGINS



DESTINATIONS



Source: MWCOG Transportation Planning Board Travel Model

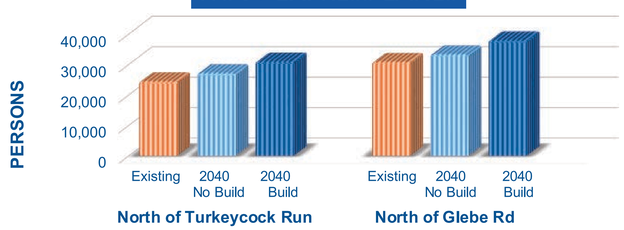
PROJECT BENEFITS

MOVING MORE PEOPLE

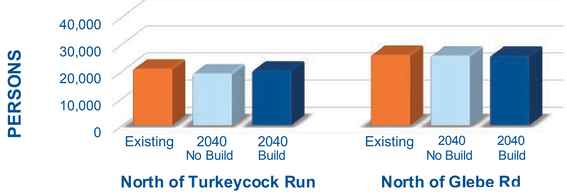
NORTHBOUND I-395

AM PEAK (6 AM - 9 AM)

HOV / EXPRESS LANES



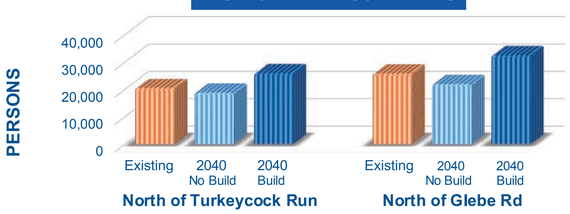
REGULAR LANES



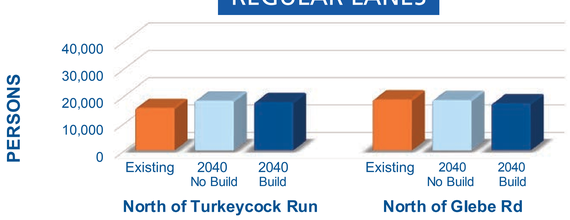
SOUTHBOUND I-395

PM PEAK (3 PM - 6 PM)

HOV / EXPRESS LANES



REGULAR LANES



Move More People

- Move more than 10,000 additional people during PM peak period (north of Glebe Rd)
- Increase traffic in HOV lanes (future Express Lanes) by 35-50% during the PM peak period

Reduce Congestion

- Reduce travel times in the regular lanes by an average of 6 to 8 minutes

Expand Travel Choices

- Promote HOV throughout the day (currently no incentive to HOV during off-peak hours)
- Expand the regional Express Lanes network

Increase Reliability

- Provide reliable travel times for transit service to and from Pentagon
- Reduce congestion in HOV lanes (future Express Lanes) before and after current HOV restricted periods

Improve Safety

- Reduce the potential for congestion-related crashes

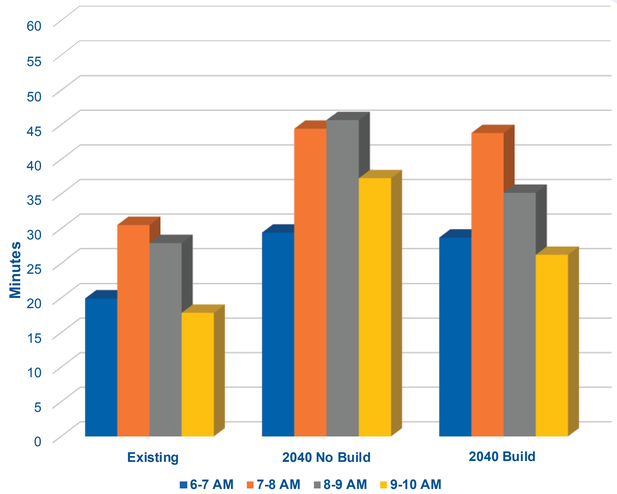
TRAVEL TIME SAVINGS

NORTHBOUND I-395

AM PEAK

REGULAR LANES

Travel times decrease 11 minutes from 8 AM to 10 AM

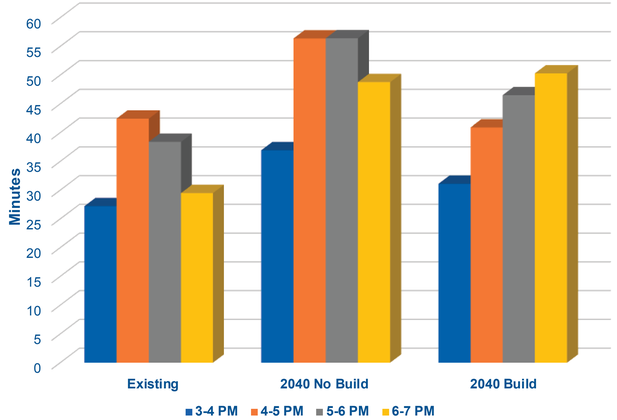


SOUTHBOUND I-395

PM PEAK

REGULAR LANES

Travel times decrease 10 – 16 minutes from 4 PM to 6 PM



ENVIRONMENTAL ANALYSIS

Environmental Resource	Resource Summary
Property Impacts	No relocations or displacements; up to 5.30 acres of potential right of way acquisition and/or easements
Environmental Justice	No disproportionate impacts
Land Use, Community Facilities, and Recreational Resources	No substantial impacts
Cultural Resources	No adverse effect; 5.91 acres of property may be impacted
Air Quality	No adverse impacts to ambient air quality and no violations of National Ambient Air Quality Standards
Noise	Impact to 2,857 noise-sensitive receptors; 8.1 miles of barriers have preliminarily been identified as being feasible and reasonable
Wetlands and Streams	Impact to 0.004 acres of wetland
Floodplains	Impacts to 0.09 acres of 100-year floodplains and 0.01 acres of 500-year floodplains
Wildlife and Habitat	Minimal impact
Threatened, Endangered, and Special Status Species	No adverse effects to the northern long eared bat and the dwarf wedgemussel; anadromous fish use areas downstream of the study area may require time-of-year restrictions
Hazardous Materials	8 sites of elevated environmental concern; sites will be managed and handled in accordance with federal, state, and local procedures
Indirect and Cumulative Effects	Minimal impacts since the proposed improvements are to an existing facility in an environment that is highly developed
Section 4(f)	Not anticipated, if right of way impacts occur to 4(f) properties, impacts would likely be considered *de minimis*

WELCOME

I-395 Express Lanes Northern Extension Project

The goals of tonight's meeting are:

- To provide updated project information on the proposed improvements
- To present the preliminary design
- To present the environmental analysis completed for this project
- To discuss findings and seek your formal comments on the project design, Environmental Assessment, and supporting documentation

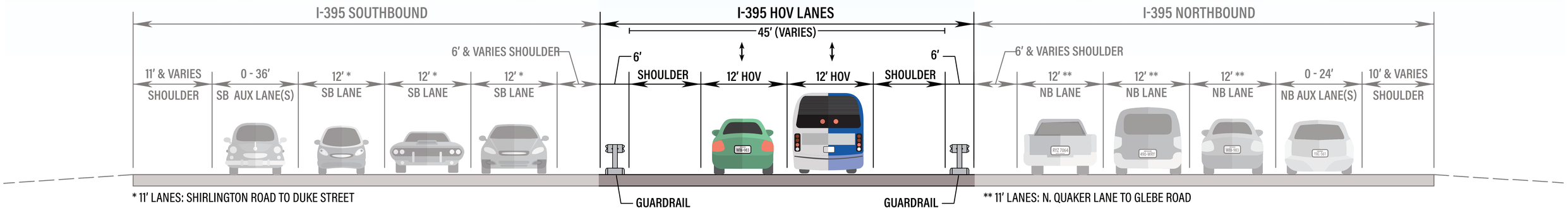
Project Purpose and Need

Develop a transportation solution that improves roadway conditions throughout the corridor by:

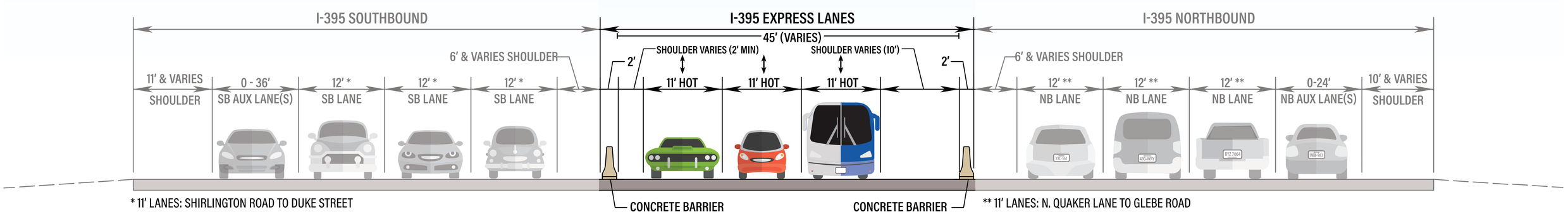
- Reducing congestion
- Providing additional travel choices
- Improving travel reliability
- Improving roadway safety

TYPICAL SECTION

Existing Condition



Proposed Condition



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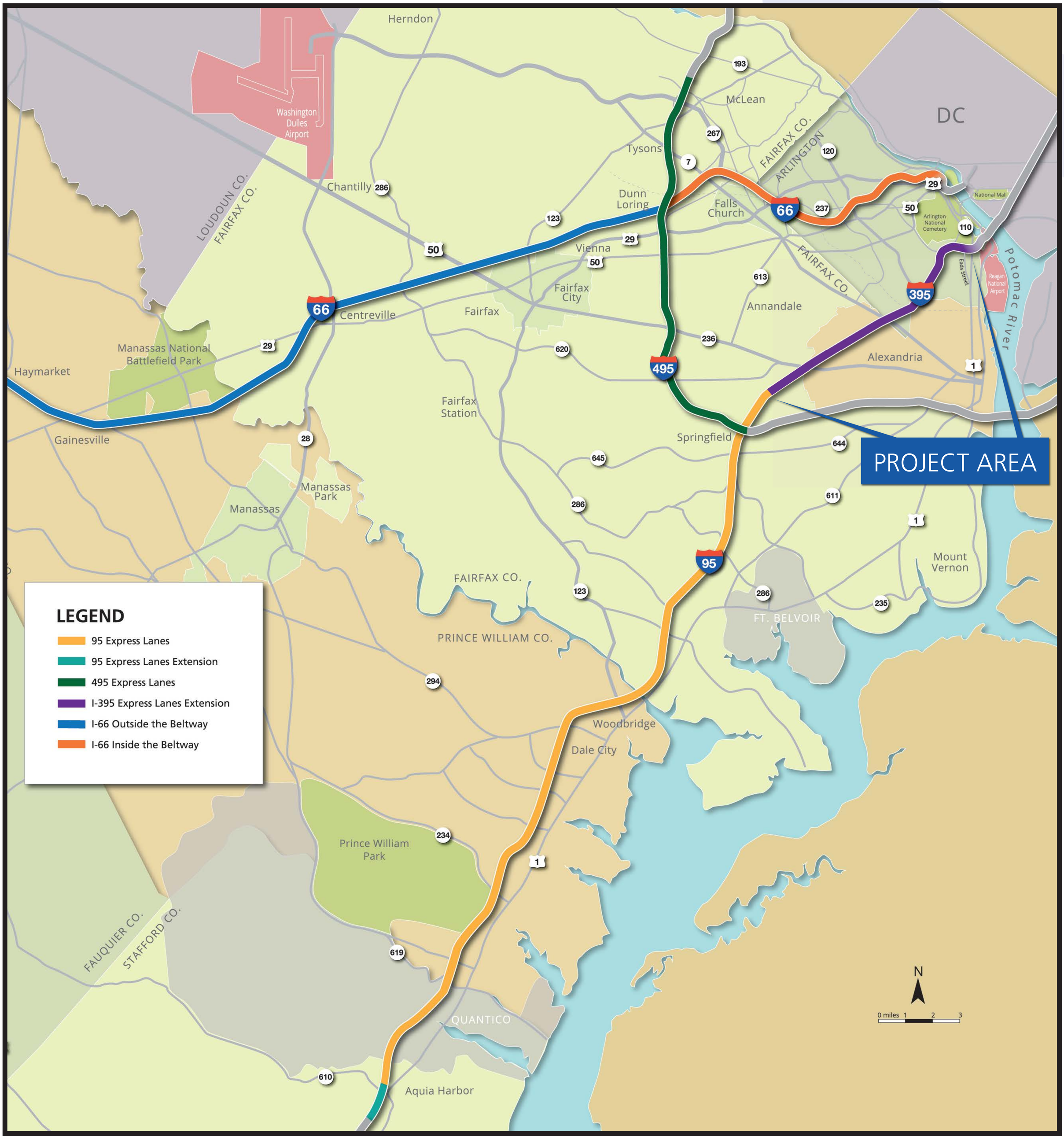
I-395 EXPRESS LANES
NORTHERN EXTENSION

NORTHERN VIRGINIA EXPRESS LANES NETWORK



I-395 HOV & EXPRESS LANES ACCESS POINTS

Access Points		Existing Access	Future Access
1	Eads Street Ramps	See Eads Street Interchange Display Boards	
2	Washington Boulevard – South Facing Ramp	AM: NB from HOV lanes PM: SB to HOV lanes	AM: NB from HOT lanes PM: SB to HOT lanes
3	Shirlington Road – North Facing Ramp	AM: NB to HOV lanes PM: SB from HOV lanes	AM: NB to HOT Lanes PM: SB from HOT lanes
4	Seminary Road – North Facing Ramp	AM: NB to HOV lanes PM: SB from HOV lanes	AM: NB to HOT lanes PM: SB from HOT lanes
4	Seminary Road – South Facing Ramp	AM: NB from HOV lanes PM: SB to HOV lanes	No change
		HOV only at all times	
5	Turkeycock Run (north of Edsall Road)	AM: NB access to and from HOV lanes PM: SB access to and from HOV lanes	AM: NB access to and from HOT lanes PM: SB access to and from HOT lanes

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EXPRESS LANES

How They Work

- Carpools (HOV-3), buses and motorcycles travel toll-free
- Drivers traveling alone or with one passenger have an option to pay a toll for a faster trip, even during rush hours
- Dynamic tolls adjust based on real-time traffic to keep drivers moving – tolls maintain highway speeds
- Current toll prices are displayed on signs before entry points
- E-ZPass is required for all drivers – HOV-3 travels free with E-ZPass Flex
- Rules of the road and tolls are in effect at all times
- Regular lanes remain free of charge at all times

EXPRESS LANES OPERATIONS CENTER

- Real-time data is collected
- Information is analyzed and a toll is calculated and displayed on the pricing signs
- The pricing ensures free-flowing travel speeds

MANAGING TRAFFIC

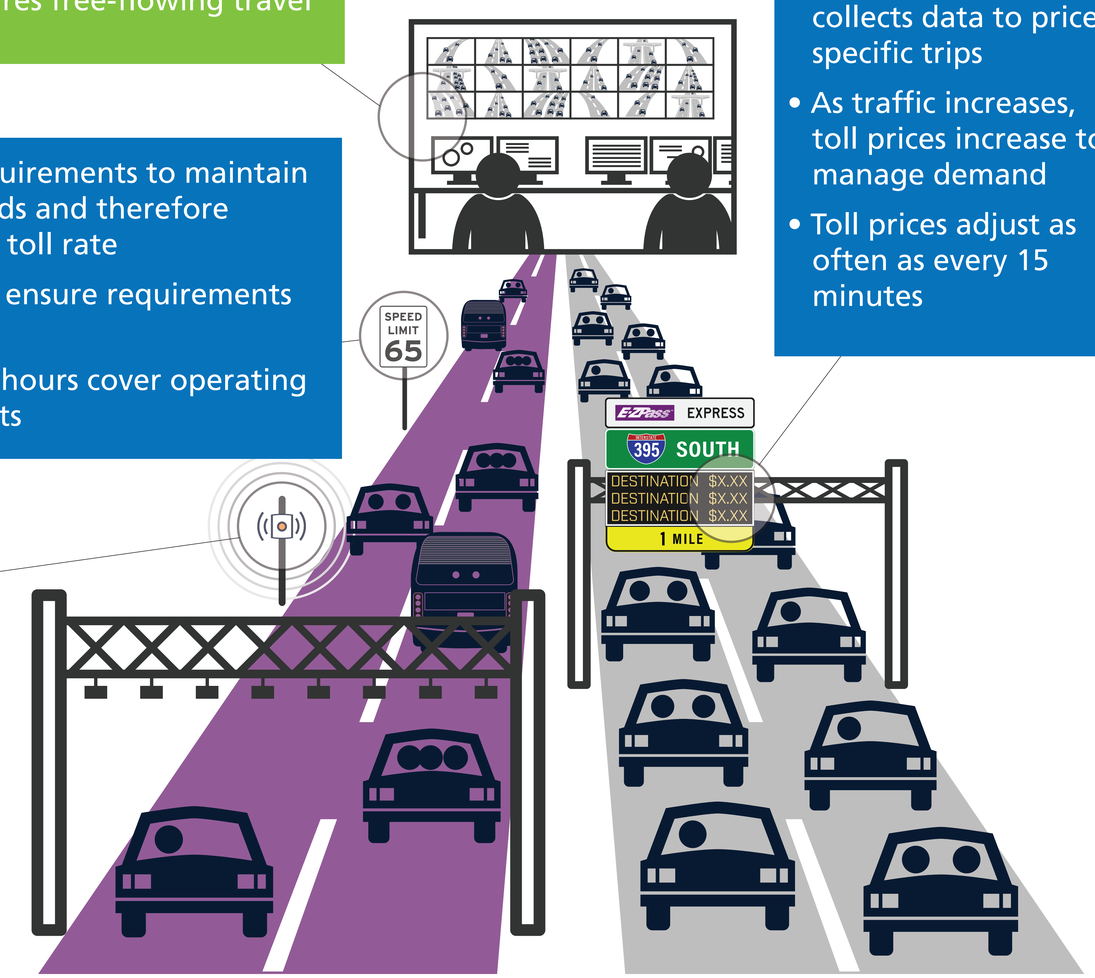
- There are federal requirements to maintain minimum travel speeds and therefore there is no maximum toll rate
- Dynamic tolls help to ensure requirements are met
- Tolls during off-peak hours cover operating and maintenance costs

SENSORS

- Sensors will be located approximately every 1/3 mile
- Sensors measure traffic volumes, speeds and how crowded the lanes are

TOLL PRICES

- On-road technology collects data to price specific trips
- As traffic increases, toll prices increase to manage demand
- Toll prices adjust as often as every 15 minutes



EXPRESS LANES

REGULAR LANES

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I-395 EXPRESS LANES
NORTHERN EXTENSION

NOISE ANALYSIS PROCESS

NEPA and Preliminary Design

Identify noise receptors
- Identify Common Noise Environments (CNE) (typically within 500 feet of the highway)
- Identify noise sensitive receptors within each CNE

April / May 2016

Perform noise measurements at representative receptors along the corridor

Perform noise modeling
- Develop noise models of existing and future roadway conditions using computer modeling (incorporates roadway design, traffic volumes and speed, receptors, topography, and ground type)
- Validate model with noise measurements data
- Compute existing, no-build and build design-year sound levels

June / July 2016

Identify impacts (is noise mitigation warranted?)
- Approach or exceed Federal Highway Administration (FHWA) noise abatement criteria (i.e., 67 decibel (dB) for residences, parks, schools) or,
- 10 dB increase above existing year sound levels

Design and assess mitigation (typically noise walls)

Is the wall feasible?
- Does it work acoustically (do 50% or more of the impacted receptors receive a 5 dB or more noise reduction)
- Can it be constructed (e.g. are there safety, drainage, utilities, maintenance issues)

Is the wall reasonable?
- Cost-effectiveness (1,600 maximum square feet or less per benefited receptor)
- Design goal (Provide at least 7 dB or more of noise reduction for at least one impacted receptor)

August 2016

Present noise study results and preliminary noise wall locations at public meetings

Oct./Nov. 2016

Final Design

Complete final design noise analysis once the project has received design approval

Obtain VDOT Chief Engineer approval

Obtain FHWA concurrence

Solicit public input from benefited property owners and renters (voting process)

Incorporate approved noise wall(s) into the final road design construction plans

2017

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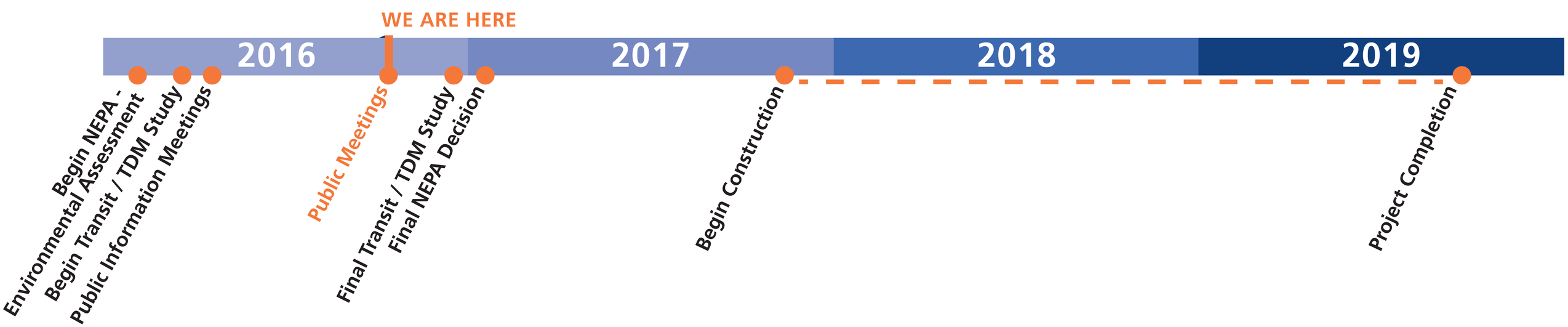
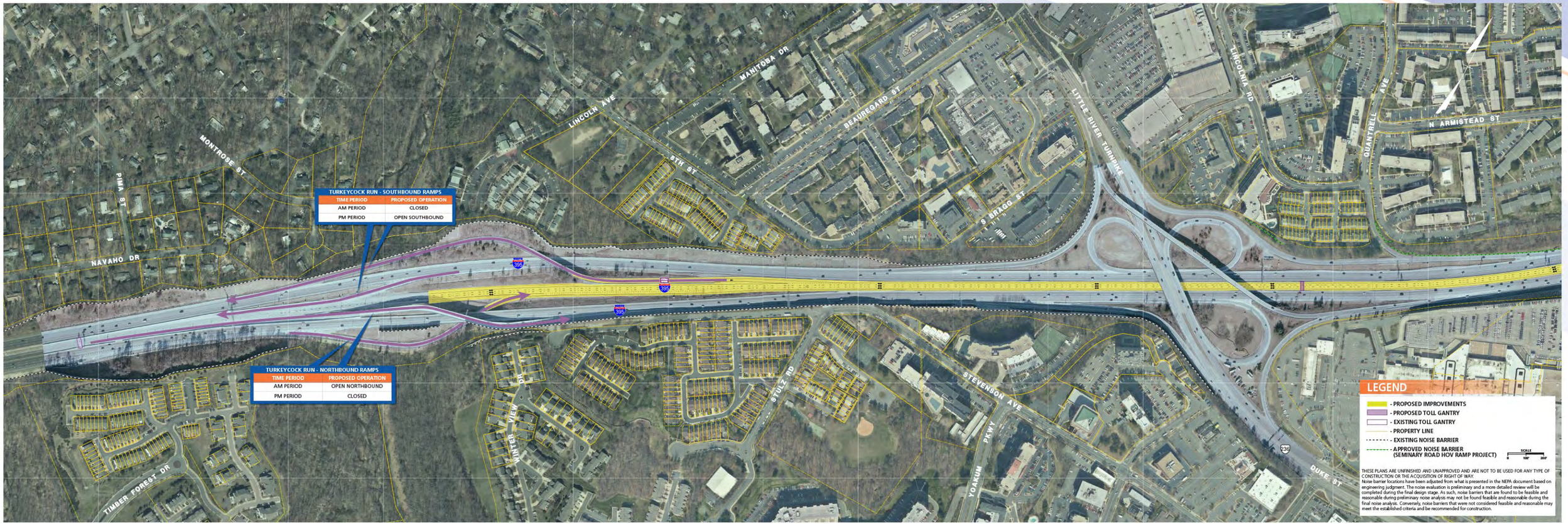
I-395 EXPRESS LANES
NORTHERN EXTENSION

SCHEDULE

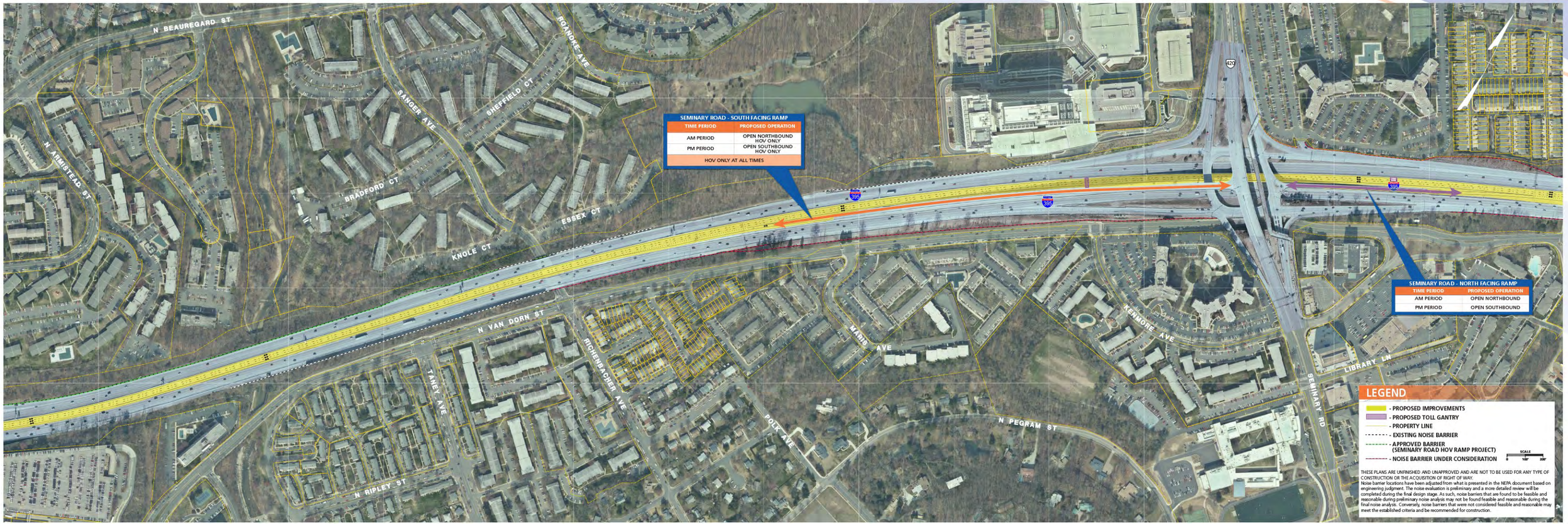
TASKS	2016	2017	2018	2019
Begin NEPA - Environmental Assessment	January			
Begin Transit / TDM Study	April			
Public Information Meetings	April 11 & 13			
Public Meetings	October 24 & 26 & November 30			
Final Transit / TDM Study	December			
Final NEPA Decision		January		
Construction		Fall		Fall



I-395 EXPRESS LANES NORTHERN EXTENSION



I-395 EXPRESS LANES NORTHERN EXTENSION



I-395 EXPRESS LANES NORTHERN EXTENSION

SHIRLINGTON ROAD - NORTH FACING RAMP

TIME PERIOD	PROPOSED OPERATION
AM PERIOD	OPEN NORTHBOUND
PM PERIOD	OPEN SOUTHBOUND

LEGEND

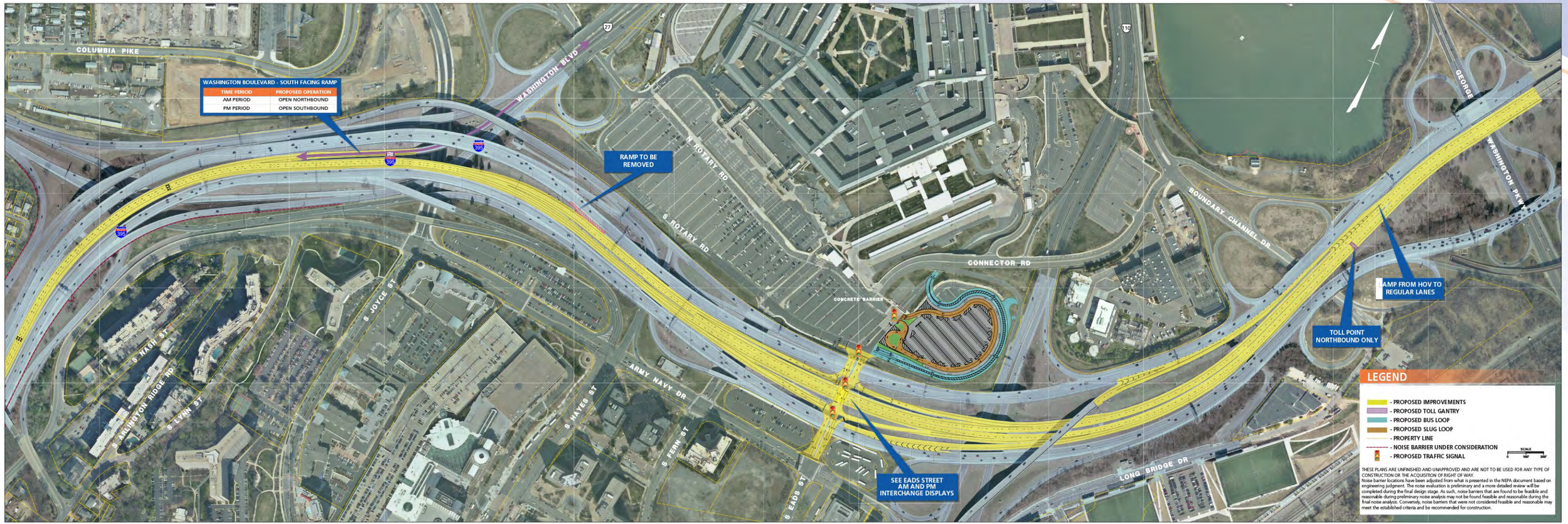
- PROPOSED IMPROVEMENTS
- PROPOSED TOLL GANTRY
- PROPERTY LINE
- NOISE BARRIER UNDER CONSIDERATION

SCALE 0 100' 200'

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
Noise barrier locations have been adjusted from what is presented in the NEPA document based on engineering judgment. The noise evaluation is preliminary and a more detailed review will be completed during the final design stage. As such, noise barriers that are found to be feasible and reasonable during preliminary noise analysis may not be found feasible and reasonable during the final noise analysis. Conversely, noise barriers that were not considered feasible and reasonable may meet the established criteria and be recommended for construction.

I-395 EXPRESS LANES NORTHERN EXTENSION

I-395 EXPRESS LANES NORTHERN EXTENSION



WASHINGTON BOULEVARD - SOUTH FACING RAMP

TIME PERIOD	PROPOSED OPERATION
AM PERIOD	OPEN NORTHBOUND
PM PERIOD	OPEN SOUTHBOUND

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EADS STREET INTERCHANGE AND PENTAGON IMPROVEMENTS

I-395 EXPRESS LANES
NORTHERN EXTENSION

AM OPERATION

VDOT DRPT

EADS STREET INTERCHANGE AND PENTAGON IMPROVEMENTS

I-395 EXPRESS LANES
NORTHERN EXTENSION

PM OPERATION