



Intelligent Transportation System Improvements

Arlington ITS Project



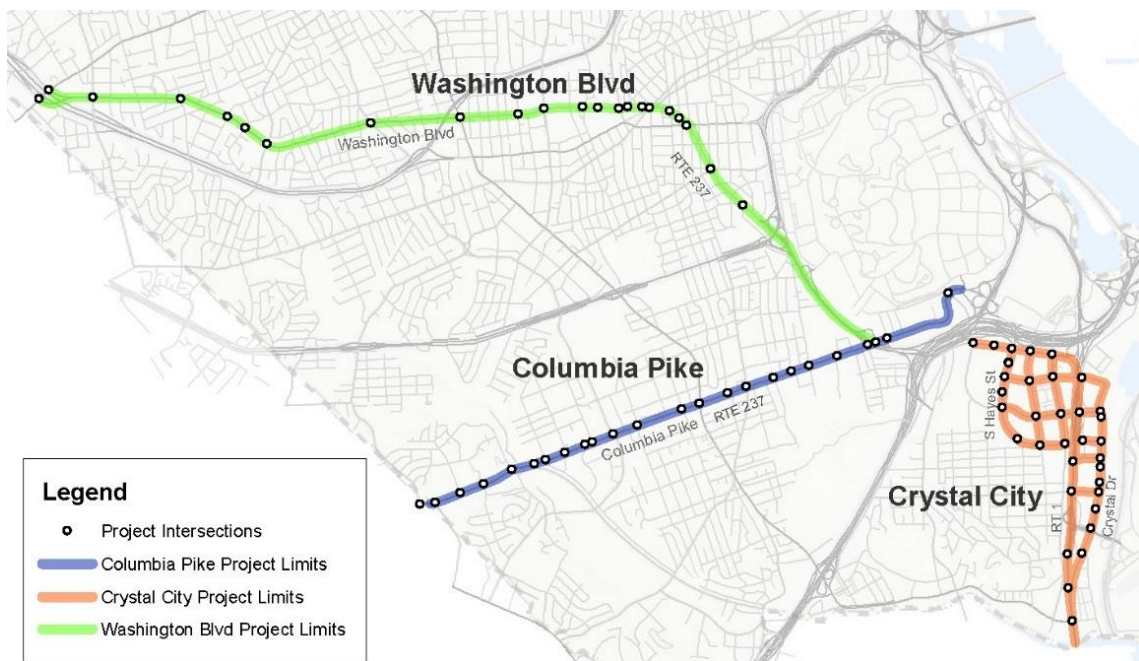
Project Description

This project will improve the traffic signal infrastructure along several corridors to upgrade the Intelligent Transportation Systems, implement congestion-reducing adaptive signal optimization, and enable future initiatives such as connected vehicles and transit signal priority. The County's Adaptive Traffic Control System (ATMS) reduces delay timings and facilitates safe crossing for pedestrians at intersections. Overall the project reduces congestion and emissions, improves safety, and enables future speed improvements to bus service. By investing in this infrastructure, the public will be able to fully realize the benefits of technologically advanced ITS capabilities.

Reference Number: 2018-005-0
TransAction ID: 104
Submitting Jurisdiction/Agency: Arlington County
Locations: Washington Blvd. from Glebe Rd. to Columbia Pike; Crystal City/Pentagon City; Columbia Pike from Carlin Springs Rd. to Southgate Rd.
Requested NVTA Funds: \$10,000,000
Total Cost to Complete Project: \$10,000,000

This project will implement responsive traffic control systems that will help monitor real time traffic conditions and enable traffic signal timing optimization based on real time traffic situations when necessary. The system will also adjust the operation of traffic signals during emergency situations, facilitating the smooth operation of traffic during special events including potentially emergency evacuation. At intersections, the system reduces delay timings and facilitates safe crossing of pedestrians. The project will install additional Bluetooth devices, Count Stations, CCTV cameras, FLIR detections in order to monitor the traffic and safety of all modes. The project will also upgrade existing traffic signals to provide the capabilities to install newer technologies such as connected vehicles and transit priority. As part of this project, the County anticipates installing the hardware required for transit signal priority which will facilitate enhanced bus service in the future.

Project Location



Project Milestones

	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work		X	X	X	X	X	X	
Right of Way Acquisition			X		X		X	
Construction				X		X		X
Capital Asset Acquisitions				X		X		X

Project Funding

	Requested NVTA Funds	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$900,000		\$900,000
Right of Way Acquisition	\$300,000		\$300,000
Construction	\$6,400,000		\$6,400,000
Capital Asset Acquisitions	\$2,400,000		\$2,400,000
TOTAL:	\$10,000,000		\$10,000,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	822.22
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	3
TransAction Project Rating:	69.39
TransAction Project Rating Rank:	23

Note: The project analysis above was completed by NVTA staff using data and information from the project application and analyses of the region's transportation network.

Regional Impacts

- Reduce congestion by moving more people efficiently and improving intersection and corridor levels of service.
- Real-time driver information including alerts to alternate routes, incidents, and detours.
- Enable improved person-throughput and tie to future planned enhanced bus service
- Infrastructure installed as part of this project can be utilized for future connected vehicle operations to improve travel times, reduce the number of stops, and reduce idling.

Note: The regional impacts listed above are a summary of what was submitted in the project application NVTA staff received from the jurisdiction or agency that has applied for funding.