Performance Parking Initiative Phases 2 and 3

Date Submitted:
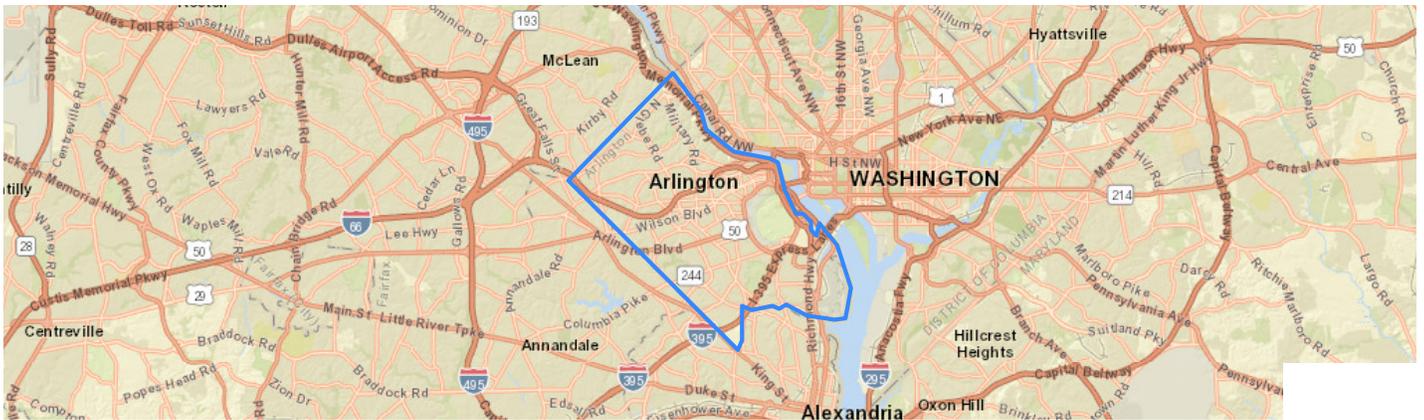08/01/2025

APPLICATION #: ARL-035

Street parking & curbside management optimization. User info and AI-based predictive decision support system

Project Description

The Performance Parking initiative optimizes street parking and curbside management with dynamic pricing that responds to demand, lowering prices at low demand locations and raising prices at high demand locations. The program communicates cost and space availability to drivers. Phase 1 was a pilot project that tested the feasibility of the concept. This project expands the program with additional phases: Phase 2: Occupancy sensor and user infrastructure expansion: Deploys approximately 1200 parking occupancy sensors and real time availability displays to new areas including commercial corridors, loading zones, and short-term parking spaces. Phase 3: AI-based predictive decision support system. Implements a sophisticated AI model to power deep data insights and predictive analytics. The system will identify patterns and forecast demand, seasonality, and turnover activity, and forecast how all of these are influenced by price sensitivity and enforcement activity. It'll sift through historical trends, real-time APIs, sensor data, transaction data, and other data to enable more efficient pricing and curb management recommendations, allowing us to adjust regulations to better align with parking behavior and need.

Primary Mode(s)	Secondary Mode(s)
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Application Number	ARL-035
Primary TransAction ID Number	460
Submitting Jurisdiction/Agency	Arlington County
Location	The sensor expansion will be strategically implemented countywide with the focus encompassing the Rosslyn-Ballston (R-B) corridor, the Richmond Highway corridor, the Columbia Pike corridor, and the Shirlington activity center. It may also extend into Residential Permit Parking (RPP) zones. Arlington County currently manages over 5,700 on-street metered parking spaces. Building upon the success of the existing Performance Parking Pilot project which features sensors in approximately 4,500 on-street metered parking spaces in the I-66 and I-395 corridors, this initiative will significantly expand the sensor infrastructure. This expansion will target the short-term parking and loading on-street spaces within these corridors, as well as integrate new sensor deployments within other commercial areas with many competing demands.
Requested NVTA Funds	$4,587,747.00
NVTA Funds Approved	N/A
Previous NVTA Funds Received	$0.00
Total Cost to Complete Project	$4,587,747.00

Project Location

Project Milestones

	Study	Design / Engineering / Environmental	ROW and Utilities	Construction	Asset Acquisition
Earlier					
FY29					
FY30					X
FY31				X	X
Beyond				X	X

Year of expected project completion: FY2035

Project Funding

Source	Study	Design / Engineering / Environmental	ROW and Utilities	Construction	Asset Acquisition	Total
Total Cost	$0	$0	$0	$541,632	$4,046,115	$4,587,747
NVTA Funds Applied	$0	$0	$0	$541,632	$4,046,115	$4,587,747
Total Other	$0	$0	$0	$0	$0	$0
Gap	$0	$0	$0	$0	$0	$0

Project Analysis Highlights

Congestion Reduction Relative to Cost (CRRC) Rating	19.76
Congestion Reduction Relative to Cost (CRRC) Rank	2
TransAction Project Rating	12.22
TransAction Project Rank	12
Project's Past Performance (Percentage of expected funds that was reimbursed by 12/31/2025)	N/A
Jurisdiction/Agency's Past Performance on All Projects (Percentage of expected funds that was reimbursed by 12/31/2025)	75.69%
Percentage of Total Project Cost Covered by Funds from Sources Other than NVTA	0.00%
Local Priority	13
Number of Supporting Resolutions (does not include resolution from applicant's own Board/Council)	0
Number of NVTA-Funded Project(s) Nearby	11
Regional Funds allocated to NVTA-Funded Project(s) Nearby	$205,350,000