NORTHERN VIRGINIA TRANSPORTATION AUTHORITY

M E M O R A N D U M

TO: Chairman Martin E. Nohe and Members Northern Virginia Transportation Authority

FROM: Monica Backmon, Executive Director

DATE: November 2, 2018

SUBJECT: FY2018-2023 Six Year Program Report

1. Purpose. To provide and inform the Northern Virginia Transportation Authority (NVTA) of the FY2018-2023 Six Year Program (SYP) Report.

2. Background and Features of the FY2018-2023 Six Year Program Report.

- The Authority adopted its inaugural FY2018-2023 Six Year Program on June 14, 2018.
- NVTA staff compiled and published an FY2018-2023 Six Year Program Report that is truly transparent, as it outlines, step-by-step, the methodology and process that led to the adoption of the first-of-its-kind program at NVTA.
- The SYP Report details the pathway to Program adoption, documentation and project selection processes, funding strategy, and looking ahead to subsequent Six Year Program updates and continuation projects.
 - The Report includes the following:
 - Process statement, as well as a SYP candidate project map and list of candidate projects in the order of Congestion Reduction Relative Cost to Ranking.
 - Timeline of key milestones throughout the pathway to adoption, including the public comment period during which the Authority received more than 1,200 comments from April 13 – May 20 and more than 115 in attendance during our Open House and Public Hearing held at NVTA this past spring.
 - Project selection recommendations and why the 44 projects were selected for SYP funding.
 - Map of the adopted projects and each project's primary modal component is provided as well.
 - Authority funding strategy;
 - list the appropriations over the Program's duration for each SYP project,
 - address the repealed funds pursuant to the General Assembly's adoption of Virginia House Bill 1539 and how the loss of two revenue streams impacted the SYP.
 - Look ahead to subsequent Six Year Program Updates to occur every two years and the continuation projects. One-third of SYP funding (\$435M) was allocated to projects that have previously been allocated regional revenues by the

Authority. 13 of the 44 approved projects in the SYP are continuation projects and demand for regional revenues is expected to become increasingly intense.

- Two Appendices.
 - Appendix A looks at previous funding programs and includes a FY2014-2017 Funding Programs Map, as well as FY2014-2017 Projects List ordered by jurisdiction/agency. The Project List also includes project title, NVTA funding, project cost, NVTA funding programs and the phase funded.
 - Lastly, Appendix B includes all 44 SYP project description forms, complete with details about each project, reference and SPA numbers, requested NVTA funds and NVTA funds received, project location, project milestones, project analysis highlights, and regional impacts.
- The 131-page document offers a detailed look into the FY2018-2023 Program and demonstrates NVTA's focus on improving mobility in Northern Virginia through multimodal regional planning leading to investments which reduce congestion and deliver sound transportation solutions.

FY2018-2023 Six Year Program Report:



SIX YEAR PROGRAM

FY2018-2023

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I. INTRODUCTION

About the Northern Virginia Transportation Authority

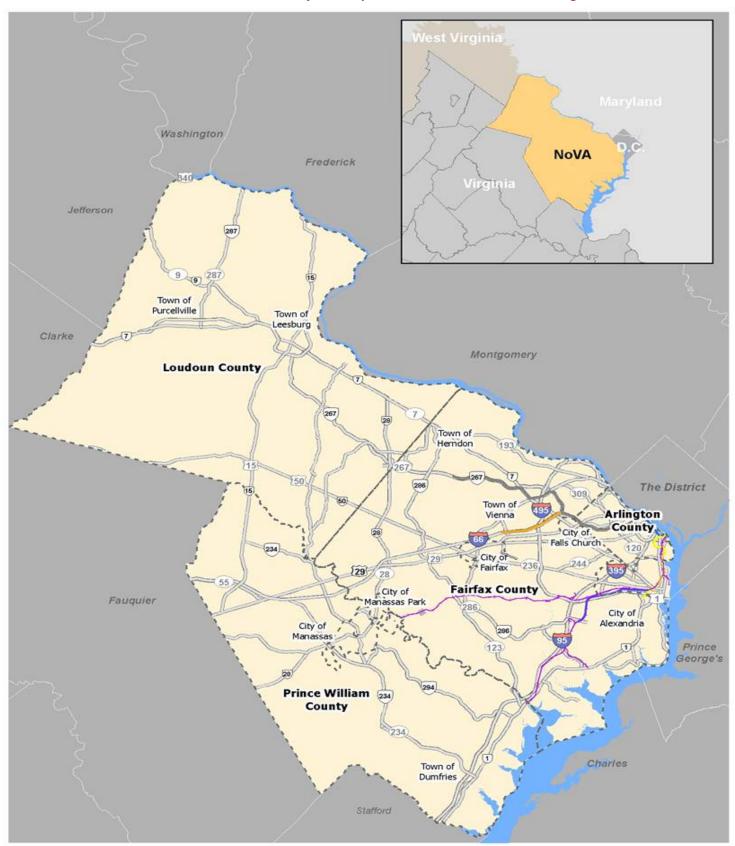
The Northern Virginia Transportation Authority (NVTA) is focused on improving mobility in the Northern Virginia region through multimodal regional planning leading to investments which reduce congestion and deliver sound transportation solutions. It is with that focus and dedication that Authority members and staff have delivered – and continue to deliver – results that improve the region's transportation network, with projects ranging from increased capacity for major transit projects to mega-projects that involve the expansion of roadway facilities and heavy rail transit lines.

Northern Virginia's updated long-range transportation plan, TransAction, guides current and future decisions and investments for additional transportation projects. In the fall of 2017, the Authority completed its most recent update to this regional, fiscally and geographically unconstrained, multimodal long-range transportation plan. The process of updating TransAction included regional collaboration with the Authority's nine member jurisdictions, regional agencies, stakeholders and citizens alike.

The Authority's member jurisdictions include the counties of Arlington, Fairfax, Loudoun and Prince William and the cities of Alexandria, Fairfax, Falls Church, Manassas and Manassas Park. The Authority uniquely consists of each governing body's chief elected officer or his or her designee. The NVTA functions as the regional planning body for these jurisdictions and transit agencies. Regional collaboration contributed to the Authority's adoption of the TransAction Update.

> "IN THE 21st Century, Northern Virginia will develop and sustain a multimodal transportation system that enhances quality of life and supports economic growth. Investments in the system will provide effective transportation benefits, promote areas of concentrated growth, manage both demand and capacity, and employ the best technology, joining rail, roadway, bus, air, water, pedestrian, and bicycle facilities into an interconnected network that is fiscally sustainable."

> > VISION OF TRANSACTION



NVTA Jurisdictions and Major Transportation Facilities in Northern Virginia

About the NVTA's Six Year Program

Following the adoption of TransAction on October 12, 2017, the Authority issued the Call for Regional Transportation Projects to be funded through the Authority's Six Year Program. **The Authority adopted the inaugural FY2018–2023 Six Year Program on June 14, 2018.** The Program includes **44 regionally significant, multimodal transportation projects totaling \$1.285 billion**. The Authority's milestone action marks the first



time the regional transportation planning, programming and funding body has funded a six-year program. The Six Year Program also marks the first time the jurisdictions of Northern Virginia were able to forward-commit resources (FY2020 through FY2023) for significant transportation projects using funds solely raised in Northern Virginia.

The Six Year Program is designed to deliver major improvements throughout the Northern Virginia



NVTA provided \$3.2M in funding to NOVA Parks/ Falls Church for the enhanced bike routes on the W&OD Trail through the SYP.

region that will not only relieve congestion but also improve the quality of life for all Northern Virginians.

Through three previously adopted funding programs, the Authority has funded 78 transportation projects, valued at more than \$690 million. Now, with the newly adopted FY2018–2023 Six Year Program, **the Authority is advancing** through its regional revenues, **122 regionally significant**, **multimodal transportation projects, totaling more than \$1.975 billion** in transportation investments for Northern Virginia's transportation network.





NVTA funded \$39M towards a new ART operations and maintenance facility in Arlington through the SYP.

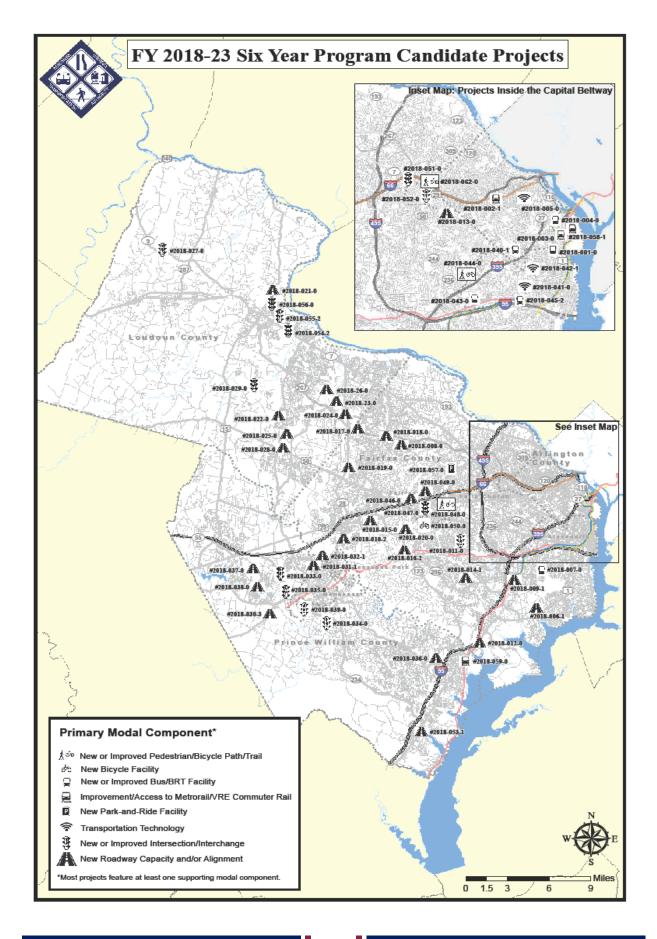
II. PROJECT PLANNING

Six Year Program Process: The Pathway to Adoption

The Six Year Program is a first of its kind at the Northern Virginia Transportation Authority, but it did not happen overnight. The Authority allocated its FY2014-2017 Regional Revenues through three separate funding programs, referred to as the FY2014, FY2015-16, and FY2017 Programs. Projects included in each of these funding programs were selected from TransAction 2040, the Authority's long-range transportation plan, adopted in November 2012. TransAction 2040 was updated and replaced by a new long-range transportation plan, referred to simply as TransAction, in October 2017. Following adoption of this updated version of TransAction, NVTA issued a Call for Regional Transportation Projects and consequently developed its inaugural Six Year Program for FY2018–2023. Subsequently, the Six Year Program will be updated every two years.

The Authority evaluated **60 candidate regional projects under consideration for its inaugural FY2018– 2023 Six Year Program**. Using information from the submissions for project funding, Authority staff created project description forms for all the candidate projects. Additionally, the Authority accepted public comments on all candidate projects, from April 13, 2018 through midnight on May 20, 2018. **The average funding request** associated with each candidate project was **more than \$41 million**.

Please see the FY2018-2023 Six Year Program Candidate Projects Map on the following page and pages 15 - 19 for the full list of Candidate Projects.



The Project Selection Process:

The Authority's project selection process was comprised of five components.

- Project Eligibility: There are several pass/fail eligibility criteria that must be satisfied for a
 project to be funded using NVTA's regional (70%) revenues. Candidate projects must be
 included in the current version of TransAction. They must also be wholly or substantially located
 in Northern Virginia, unless appropriate revenue sharing arrangements with neighboring
 jurisdictions are in place.
- 2. **TransAction Project Ratings:** Previously referred to as HB 599 ratings, these are project level ratings derived from post-processing analyses using the 15 weighted performance measures incorporated into TransAction, the long-range transportation plan for Northern Virginia.
- 3. **Congestion Reduction Relative to Cost (CRRC) ratios:** These are project level ratios derived from an analysis of the reduction in person hours of delay (in 2025 and 2040) divided by estimated total project cost.
- 4. Qualitative Considerations: These include multiple factors that cannot be meaningfully evaluated under the previous two components. Factors may include modal and geographic balance, past performance and leveraging of non-NVTA regional revenues.
- 5. Public Comment: Leading up to the adoption of the Six Year Program, the Authority held a public comment period and outreach events from April 13, 2018 through May 20, 2018. The comment period and outreach efforts included a Public Hearing and various meetings and events across the region designed to gather feedback from Northern Virginians on the 60 candidate projects under consideration. With more than 115 in attendance and 60 registered speakers at an Open House and Public Hearing held at NVTA, the Authority received input on various aspects of the projects, including congestion reduction benefits, safety and overall enhancements to the quality of life and business environment that the projects will provide. The Authority received more than 1,200 comments during the public comment period. Public input plays an integral role in the project selection process.



Once the Six Year Program's public comment ended at midnight on May 20, 2018, Authority staff completed the project evaluation process and developed staff recommendations for the Six Year Program. Subsequently, staff recommendations were then shared with three of the Authority's committees: first, with the Planning Coordination Advisory Committee (PCAC), second with the Technical Advisory Committee (TAC) and lastly with the Planning and Programming Committee (PPC). The PPC recommended to the Authority four changes to the staff recommendations.

During the June 14, 2018 Authority meeting, with the PPC's recommendations, the NVTA unanimously adopted its inaugural Six Year Program totaling more than \$1.285 billion. Members and meeting attendees celebrated the major milestone.

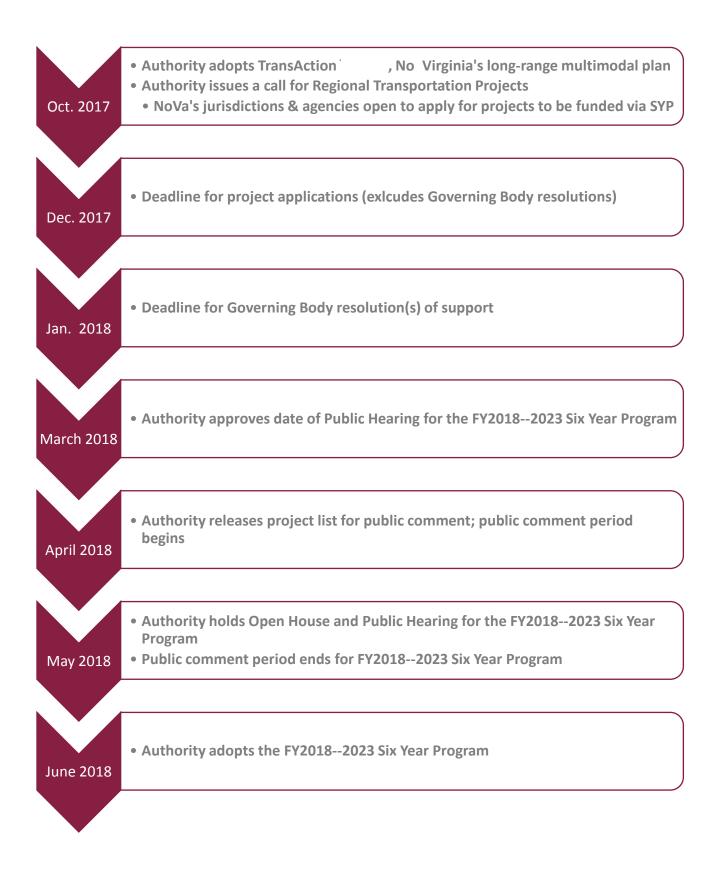


The 44 Six Year Program projects chosen are designed to deliver congestion relief throughout Northern Virginia and include a broad range of modal components, such as pedestrian, bicycle, transit, rail, intersection improvements, highway improvements, park and ride, and transportation technologies.

Inaugural Six Year Program by the Numbers

60 candidate regional projects considered
\$41 million per project average funding request
1,200 plus public comments submitted to the Authority
44 Six Year Program projects chosen
\$29 million average funding for approved projects
\$1.285 billion project funding total

Path to the Inaugural FY2018–2023 Six Year Program Adoption



III. FY2018–2023 SIX YEAR PROGRAM PROJECTS

Process Statement

As mentioned previously, the NVTA's project selection process comprises five components:

- Project Eligibility;
- TransAction Project Ratings;
- Congestion Reduction Relative to Cost (CRRC) ratios;
- Qualitative Considerations; and
- Public Comment.

At the conclusion of the application period on December 15, 2017, 71 project applications had been received. Of these, eight projects were among those recommended by the Authority at its July 2017 meeting, for funding using the I-66 Outside the Beltway Concessionaire payment. The Commonwealth Transportation Board (CTB) subsequently approved these eight projects for funding and they were not considered as part of the Authority's SYP project selection process.

Of the remaining 63 projects, one Virginia Railway Express project was determined to be ineligible because it was physically located outside of Northern Virginia in the District of Columbia. **The remaining 62 project applications** were determined to be **eligible**, **fulfilling the dual requirements** to be included in the updated TransAction and be wholly/substantially located in Northern Virginia. Although, as will be noted later, two projects were subsequently withdrawn prior to the start of the public comment period.

The 62 eligible project applications then advanced to the quantitative and qualitative evaluation phases of the Authority's SYP project selection process. The quantitative evaluation utilized the TransAction Project Ratings and Congestion Reduction Relative to Cost (CRRC) ratios. The qualitative evaluation utilized other factors that were more subjective in nature.

The **TransAction Project Ratings**, previously referred to as HB599 ratings, utilized the 15 weighted performance measures used to evaluate the TransAction Plan. The 15 performance measures included the seven original measures used for the HB599 process (with a combined weighting of 45 percent) applied during evaluation of projects for the Authority's FY2015-16 and FY2017 Programs. (The HB599 process was not required for the Authority's FY2014 Program.) Individual TransAction Project Ratings for each of the 62 eligible projects were calculated using the TransAction simulation model for horizon year 2040. Two versions of the 2040 multimodal transportation network were modeled:

- The 2040 'No Build' network, including projects under construction or fully funded;
- The 2040 'Build' network, which additionally included the 62 eligible projects.

The rating for each project was based on a comparison of the two model runs. The Authority cannot fund any project using regional revenues for which an HB599-compliant evaluation has not been conducted. In conformance with the Code of Virginia requirements, the detailed TransAction Project Ratings are posted on VDOT's website, <u>www.virginiadot.org</u>, under the Projects & Studies tab/Northern Virginia/Evaluating Significant Transportation Projects.

The **Congestion Reduction Relative to Cost (CRRC) ratios** were calculated using a similar method as for the FY2017 Program, utilizing one of the fifteen performance measures - person hours of delay – in combination with total project cost (not just the requested NVTA share). Individual CRRC ratios for each of the 62 eligible projects were calculated individually using the TransAction simulation model for horizon years 2025 and 2040. Two versions of the 2025 and 2040 multimodal transportation network were modeled for each project:

- The 2025 and 2040 'No Build' networks, including projects under construction or fully funded;
- The 2025 and 2040 'Build' networks, which additionally included each eligible project in turn.

The ratio for each project was based on a comparison of the two model runs for 2025 and 2040 to determine the impact of each project on person hours of delay in each horizon year. A straight-line extrapolation was used between 2025 and 2040 to calculate the total annual change in person hours of delay. This extrapolation enabled annual person hours of delay to be aggregated between the project opening year and 2040. This aggregate value was divided by total project cost for each project, as provided in the project application form.

The **qualitative considerations** portion of the evaluation addressed factors that are relevant to the Authority's SYP project selection process but do not readily lend themselves to quantitative analysis, and include:

- Past performance advancing projects previously funded using NVTA's regional revenues. Past
 performance was evaluated at the jurisdiction/agency level, and at the project level for
 continuing projects requesting new funding, i.e. 'continuation' projects;
- Leveraging funding from external (non-NVTA regional revenues) sources;
- Local priority;
- First fiscal year of expected drawdown;
- Year of opening; and
- Other relevant factors not included above.

For each of these factors, excluding other relevant factors, a rating of high, medium, low, or not applicable was determined.

It is noted that the Authority takes into account a **further qualitative consideration**, referred to as **geographic/modal balance**, when adopting each funding program. Geographic/modal balance is intended **to ensure that approved projects are not concentrated in one part of the region** to the exclusion of others and that approved projects reflect the Authority's multimodal approach to project selection. The process for determining whether geographic/modal balance has been achieved is intuitive in nature, and it can only be applied towards the end of the project selection process.

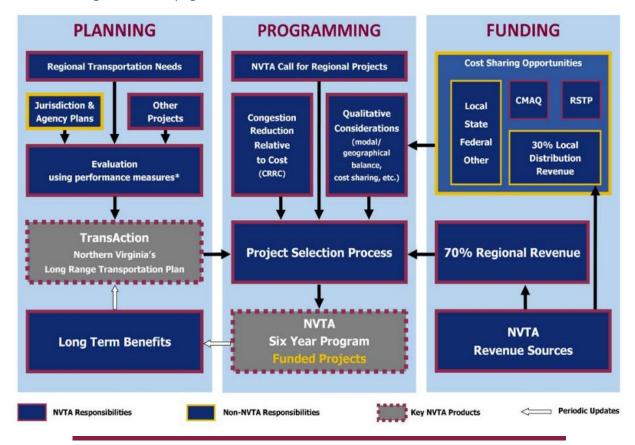
The quantitative and qualitative evaluations were combined and summarized into a single tabulation to simplify project comparisons. Projects were listed in order of their CRRC ratio (highest to lowest), reflecting the Virginia House Bill 2313 language that requires the Authority to **give priority to projects that achieve the greatest congestion reduction relative to cost**.

Just prior to the start of the public comment period, WMATA withdrew both of its project applications following the approval of the WMATA Funding Bill (HB 1539) by the Virginia General Assembly.

This action was determined not to necessitate revaluation of the <u>remaining 60 candidate projects</u>, which were subsequently released for public comment on April 13, 2018. No project recommendations were made prior to or during the public comment period.

Following the **conclusion of the public comment period on May 20, 2018**, NVTA staff summarized public comments, the fifth component of NVTA's project selection process. **Nine projects received strong public support and none received strong opposition**. As with most other components of NVTA's project selection process, it is important to note that strong public support for, or opposition to, a project is not the sole basis for a project recommendation. However, it is important for Authority members to be aware of public sentiment as part of a holistic approach to project selection.

The Authority must complete **three critical steps to develop a Six Year Program**. 1) TransAction must be approved and updated. 2) Projects must be evaluated and selected. 3) Funding availability and budget appropriation action must be completed. The chart below shows the many interrelated sub-processes that go into completing these phases. See a Candidate Projects List with Congestion Reduction Relative to Cost Ranking on the next page.



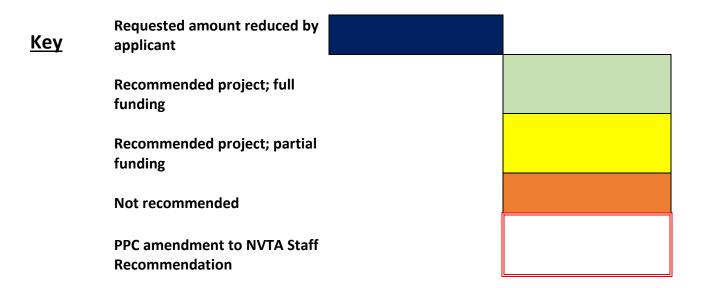
Projects funded through the Six Year Program:

- Enhance quality of life and support economic growth
 - Reduce congestion and increase capacity
 - Improve travel time reliability and safety

Candidate Projects List with Congestion Reduction Relative to Cost Ranking

Northern Virginia Transportation Authority

FY2018–2023 Six Year Program Candidate Projects: PPC Recommendations (06/06/18)



Project ID#	Jurisdiction / Agency	Project	Fund request (most recent)		Project Fur		Recommended Approval Amount	CRRC rank
2018-041-0	City of Alexandria	Alexandria ITS Projects	\$	1,195,491	\$ 1,195,491	1		
2018-042-1	City of Alexandria	Alexandria Bus Network ITS	\$	150,000	\$ 150,000	2		
2018-005-0	Arlington County	Intelligent Transportation System Improvements	\$	10,000,000	\$ 10,000,000	3		
2018-019-0	Fairfax County	Route 28 Widening (Northbound from Route 50 to McLearen Road)	\$		\$ -	4		
2018-024-0	Loudoun County	Route 28 Northbound Widening – between the Dulles Toll Road and Sterling Boulevard	\$	20,000,000	\$ 20,000,000	5		
2018-046-0	City of Fairfax	Jermantown Road Corridor Improvements Project	\$	21,000,000	\$ 21,000,000	6		
2018-021-0	Loudoun County	Route 15 Bypass Widening: Battlefield Parkway to Montresor Road	\$	54,000,000	\$ 54,000,000	7		

Project ID#	Jurisdiction / Agency	Project	Fund request (most recent)	Recommended Approval Amount	CRRC rank
2018-015-0	Fairfax County	Route 29 Widening Project, Phase II (Union Mill Road to Buckley's Gate Drive)	\$	- \$ -	8
2018-023-0	Loudoun County	Extend Shellhorn Road: Loudoun County Parkway (Route 607) to Randolph Drive (Route 1072)	\$ 16,000,00	0 \$ 16,000,000	9
2018-014-1	Fairfax County	Rolling Road Widening: Hunter Village Drive to Old Keene Mill Road	\$ 11,111,00	0 \$ 11,111,000	10
2018-010-2	Fairfax County	Route 28 Widening: Route 29 to Prince William County Line	\$ 16,000,00	0 \$ 16,000,000	11
2018-016-2	Fairfax County	Fairfax County Parkway Widening from Ox Road to Lee Highway includes a grade separated interchange at the intersection of Popes Head Road	\$ 67,000,00	0 \$ 67,000,000	12
2018-039-0	Prince William County	Construct Interchange at Prince William Parkway and Clover Hill Road	\$ 1,900,00	0 \$ 1,900,000	13
2018-030-3	Prince William County	RT28 corridor improvements (Fitzwater Dr to Pennsylvania Ave)	\$ 15,000,00	0 \$ 15,000,000	14
2018-017-0	Fairfax County	Rock Hill Road Bridge	\$ 100,000,00	0 <mark>\$ 20,604,670</mark>	15
2018-022-0	Loudoun County	Northstar Boulevard - Shreveport Drive to Tall Cedars Parkway	\$ 89,805,00	0 \$ 64,805,000	16
2018-053-1	Town of Dumfries	Widen Route 1 (Fraley Blvd) to six lanes between Brady's Hill Rd and Dumfries Rd (RT234)	\$ 116,554,00	0 \$ 44,860,000	17
2018-026-0	Loudoun County	Prentice Drive Extension: Lockridge Road (Route 789) to Shellhorn Road (Route 643)	\$ 76,230,00	0 \$ 76,230,000	18
2018-062-0	NOVA Parks	Falls Church Enhanced Regional Bike Routes (W&OD)	\$ 3,793,20	9 <mark>\$ 3,244,959</mark>	19
2018-043-0	City of Alexandria	DASH Transit Service Enhancements and Expansion	\$ 11,933,16	1 \$ 11,933,161	20
2018-054-2	Town of Leesburg	Construct Interchange at Route 7 and Battlefield Parkway	\$ 25,000,00	0 \$ 25,000,000	21
2018-028-0	Loudoun County	Dulles West Boulevard Widening: Loudoun County Parkway to Northstar Boulevard	\$ 47,800,00	0 \$ 47,800,000	22
2018-007-0	Fairfax County	Richmond Highway Bus Rapid Transit - Phases I & II	\$ 250,000,00	0 \$ 250,000,000	23

Project ID#	Jurisdiction / Agency	Project	Fun	d request (most recent)	Recommended pproval Amount	CRRC rank
2018-006-1	Fairfax County	Route 1 Widening (Mount Vernon Memorial Highway to Napper Road)	\$	127,000,000	\$ 127,000,000	24
2018-040-1	City of Alexandria	West End Transitway: Northern Segment (Phase 1)	\$	60,750,000	\$ 2,200,000	25
2018-020-0	Fairfax County	Shirley Gate Road Extension: Braddock Road to Fairfax County Parkway	\$	42,000,000	\$ -	26
2018-031-1	Prince William County	Route 28 Corridor Feasibility Study - Environmental Impact Statement (City of Manassas to Fairfax County)	\$	3,500,000	\$ 3,500,000	27
2018-032-1	Prince William County	Construct Route 28 Corridor Roadway Improvements	\$	145,000,000	\$ 89,000,000	28
2018-047-0	City of Fairfax	Intersection Improvements at Eaton Place/Chain Bridge Road	\$	10,750,000	\$ 10,750,000	29
2018-035-0	Prince William County	Construct Interchange at Prince William Parkway and University Blvd	\$	24,200,000	\$ 24,200,000	30
2018-045-2	City of Alexandria	Alexandria Duke St Transitway	\$	12,000,000	\$ 12,000,000	31
2018-052-0	City of Falls Church	North Washington Street Multimodal Transportation Project	\$	14,500,000	\$ -	32
2018-027-0	Loudoun County	Route 9 Traffic Calming	\$	12,112,000	\$ 12,112,000	33
2018-012-0	Fairfax County	Richmond Highway (Route 1)/CSX Underpass Widening	\$	12,000,000	\$ 12,000,000	34
2018-057-0	Town of Vienna	Mill St NE Parking Garage	\$	2,300,000	\$ 2,300,000	35
2018-034-0	Prince William County	Construct Interchange at Route 234 and Brentsville Road	\$	54,900,000	\$ 54,900,000	36
2018-050-0	City of Fairfax	City of Fairfax Bike Share Implementation	\$	1,159,000	\$ -	37
2018-049-0	City of Fairfax	Roadway Network Northfax West	\$	2,500,000	\$ 2,500,000	38
2018-056-0	Town of Leesburg	Construct Interchange at Route 15 Bypass and Battlefield Parkway	\$	2,000,000	\$ 2,000,000	39
2018-004-0	Arlington County	Pentagon City Multimodal Connections and Transitway Extension	\$	28,850,000	\$ 28,850,000	40
2018-008-0	Fairfax County	Soapstone Drive Extension: Extend Soapstone Drive over Route 267 (DTR) to Sunset Hills Road	\$	132,060,000	\$ -	41

Project ID#	Jurisdiction / Agency	Project	Fund request (most recent)		Recommended pproval Amount	CRRC rank
2018-009-1	Fairfax County	Frontier Drive Extension and Intersection Improvements	\$	79,500,000	\$ 25,000,000	42
2018-058-1	VRE	VRE Crystal City Station Improvements	\$	4,000,000	\$ 4,000,000	43
2018-044-0	City of Alexandria	Alexandria Bike and Pedestrian Trails and Reconstruction	\$	2,200,000	\$ -	44
2018-029-0	Loudoun County	Evergreen Mills Road Intersection Realignments – Watson Road and Reservoir Road	\$	14,000,000	\$ 14,000,000	45
2018-002-1	Arlington County	Ballston-MU Metrorail Station West Entrance	\$	72,316,000	\$ -	46
2018-018-0	Fairfax County	Dulles Toll Road - Town Center Parkway Underpass	\$	17,000,000	\$ -	47
2018-051-0	City of Falls Church	West Falls Church & Joint Campus Revitalization District Multimodal Transportation Project	\$	15,700,000	\$ 15,700,000	48
2018-037-0	Prince William County	Construct University Boulevard (Progress Court to Devlin Road) – Phase I	\$	24,600,000	\$ -	49
2018-038-0	Prince William County	Devlin Road Widening: Wellington Road to Linton Hall Road	\$	23,650,000	\$ -	50
2018-036-0	Prince William County	Summit School Rd Extension and Telegraph Rd Widening	\$	38,700,000	\$ 11,000,000	51
2018-011-0	Fairfax County	Braddock Road Intersection Improvements: Guinea Road to Ravensworth Road	\$	52,400,000	\$ -	52
2018-025-0	Loudoun County	Evergreen Mills Road Widening: Loudoun County Parkway to Northstar Boulevard	\$	46,092,000	\$ -	53
2018-033-0	Prince William County	Construct Interchange at Route 234 and Sudley Manor Drive	\$	80,600,000	\$ -	54
2018-048-0	City of Fairfax	Old Lee Highway Multimodal Improvements Phase 1	\$	5,000,000	\$ 5,000,000	55
2018-001-0	Arlington County	ART Operations and Maintenance Facilities	\$	39,027,000	\$ 39,027,000	56
2018-055-2	Town of Leesburg	Interchange Improvements at Route 15 Leesburg Bypass and Edwards Ferry Road	\$	105,700,000	\$ 5,400,000	57
2018-003-0	Arlington County	Crystal City Metrorail Station East Entrance and Intermodal Connections	\$	87,000,000	\$ 5,000,000	58

Project ID#	Jurisdiction / Agency	Project	Fui	nd request (most recent)	A	Recommended Approval Amount	CRRC rank
2018-059-0	VRE	VRE Woodbridge Station and Occoquan Third Track Improvements	\$	27,500,000	\$	-	59
2018-013-0	Fairfax County	Seven Corners Ring Road Improvements Phase 1 A, Segment A	\$	5,500,000	\$	-	60
		Estimated available PayGo Unallocated PayGo	\$	2,382,537,861	\$ \$ \$	1,285,273,281 1,285,273,281 -	

Jurisdictional Totals	Projects		Rec Amount	Funding Share	
Arlington	4	\$	82,877,000	6.45%	
Fairfax	8	\$	528,715,670	41.32%	
>>Vienna	1	\$	2,300,000	41.32%	
Loudoun	8	\$	304,947,000		
>>Leesburg	3	\$	32,400,000	26.25%	
Prince William	7	\$	199,500,000	10.01%	
>>Dumfries	1	\$	44,860,000	19.01%	
Alexandria	5	\$	27,478,652	2.14%	
Fairfax City	4	\$	39,250,000	3.05%	
Falls Church	1	\$	15,700,000	1 4 70/	
>>NOVA Parks	1	\$	3,244,959	1.47%	
VRE	1	\$	4,000,000	0.31%	
Total recommended	44	\$	1,285,273,281	100.00%	

Documentation of Project Selection Recommendations

The project selection process followed a similar process to what was used for previous funding programs:

- NVTA staff considered all five components outlined above and developed project selection recommendations, taking into account estimated available funding. In some cases, NVTA staff project recommendations were less than the requested funding amount;
- NVTA staff recommendations were presented to the Authority's relevant committees listed below, each of which had the option to concur with, or modify, the NVTA staff recommendations:
 - o Technical Advisory Committee (Statutory Committee)
 - o Planning Coordination Advisory Committee (Statutory Committee)
 - Planning and Programming Committee (Standing Committee)

- Taking into account the NVTA staff recommendations and inputs from the Statutory Committees, the Planning and Programming Committee made a consolidated modified recommendation to the Authority;
- The Authority approved the Planning and Programming Committee's recommendations and adopted the FY2018–2023 Six Year Program.

NVTA Staff Recommendations – 42 Projects

The starting point for developing NVTA staff recommendations was the list of 60 candidate projects mentioned above, ranked by their CRRC ratios. CRRC ratios played a pivotal role, as the Authority is effectively required to give priority to projects with the strongest performance on this scale. Starting at the top of this list and using an available regional revenue funding amount of \$1,285,273,281, the top 27 CRRC-ranked projects could be funded before the available funding was exhausted. However, NVTA staff did not recommend all of these projects, and recommended that other projects receive only a portion of the requested funding. As a result, NVTA staff recommendations included 42 projects.

With the following five exceptions, NVTA staff recommended that most of the top 40 ranked projects on the CRRC scale (in full or partially) be included in the FY2018–2023 SYP:

- 1. Route 28 Widening (Northbound from Route 50 to McLearen Road) alternative funding source was identified (CRRC rank #4);
- 2. Route 29 Widening Project, Phase II (Union Mill Road to Buckley's Gate Drive) alternative funding source was identified (CRRC rank #8);
- 3. Shirley Gate Road Extension: Braddock Road to Fairfax County Parkway project dependent on substantial advancement of another recommended top 40 CRRC project (CRRC rank #26);
- 4. North Washington Street Multimodal Transportation Project applicant (City of Falls Church) noted that this project is the City's second priority project and requested that the Authority instead approve the City's first priority project, in order to support urgently needed transportation infrastructure ahead of a major redevelopment in the City (CRRC rank #32);
- 5. City of Fairfax Bike Share Implementation project advancement dependent on completion of ongoing study (CRRC rank #37).

In addition, NVTA staff recommended the following seven lower ranked projects, for the reasons stated:

- 1. Frontier Drive Extension and Intersection Improvements continuation project (CRRC rank #42);
- 2. VRE Crystal City Station Improvements continuation project (CRRC rank #43);
- 3. Evergreen Mills Road Intersection Realignments Watson Road and Reservoir Road project addresses a critical safety issue (CRRC rank #45);
- 4. West Falls Church & Joint Campus Revitalization District Multimodal Transportation Project applicant (City of Falls Church) noted that this project is the City's first priority project and requested that the Authority approve this project rather than the City's higher ranked second priority project, in order to support urgently needed transportation infrastructure ahead of a major redevelopment in the City (CRRC rank #48);
- 5. ART Operations and Maintenance Facilities geographic/modal balance (CRRC rank #56);
- 6. Interchange Improvements at Route 15 Leesburg Bypass and Edwards Ferry Road continuation project (CRRC rank #57); and

7. Crystal City Metrorail Station East Entrance and Intermodal Connections – geographic/modal balance (CRRC rank #58).

Seven of the nine projects that received strong public support were included in the top 40 CRRCranked projects, and all nine of these projects were included in the 42 NVTA staff project recommendations.

NVTA Staff Recommendations – Nine Partially Funded Projects

NVTA staff recommended partial funding for nine of the 42 projects due to the following reasons:

- Rock Hill Road Bridge project received initial funding allocations from Fairfax and Loudoun Counties; sufficient funding recommended to maintain project advancement;
- Northstar Boulevard Shreveport Drive to Tall Cedars Parkway project received a federal TIGER grant;
- Widen Route 1 (Fraley Blvd) to six lanes between Brady's Hill Rd and Dumfries Rd (RT234) sufficient funding recommended to maintain project advancement;
- Falls Church Enhanced Regional Bike Routes (W&OD) project received a regional grant;
- West End Transitway: Northern Segment (Phase 1) sufficient funding recommended to maintain project advancement;
- Construct Route 28 Corridor Roadway Improvements sufficient funding recommended to maintain project advancement;
- Frontier Drive Extension and Intersection Improvements sufficient funding recommended to maintain project advancement;
- Interchange Improvements at Route 15 Leesburg Bypass and Edwards Ferry Road sufficient funding recommended to maintain project advancement; and
- Crystal City Metrorail Station East Entrance and Intermodal Connections sufficient funding recommended to maintain project advancement.

Planning and Programming Committee Recommendations – 44 Projects

Both of the Authority's Statutory Committees – the PCAC and the TAC – endorsed the NVTA staff recommendations. The Planning and Programming Committee also endorsed the NVTA staff recommendations, with funding adjustments to four projects, effectively increasing the number of recommended projects from 42 to 44. These funding adjustments were made within the limits of the available regional revenue funding amount of \$1,285,273,281. The four projects that the Committee recommended funding adjustments for are:

- 1. Jermantown Road Corridor Improvements Project (CRRC rank #6)
 - a. Reduce funding request from \$26,000,000 to \$21,000,000
 - b. Based on preliminary recommendations from the alternatives analysis that is currently underway, the cost for the recommended components will be closer to \$21M.
- 2. Construct Interchange at Prince William Parkway and Clover Hill Road (CRRC rank #13)
 - a. Reduce funding request from \$12,900,000 to \$1,900,000
 - Remaining funds are sufficient to fund the Design/Engineering/Environmental Phase (currently estimated at \$1,500,000) and the Right of Way Phase (currently estimated at \$200,000).

- 3. Summit School Rd Extension and Telegraph Rd Widening (CRRC rank #51)
 - a. Increase funding from zero to \$11,000,000
 - b. Covers the Design/Engineering/Environmental Phase (currently estimated at \$2,400,000) and the Right of Way Phase (currently estimated at \$7,200,000)
 - c. The project provides improved multimodal access to the Horner Road Commuter Lot (Largest commuter lot in Virginia, with direct access to the I-95 Express Lanes).
 - d. The project supports the increase in transit use as a result of the I-95/I-395 Express Lanes Project.
 - e. Telegraph Road currently provides direct access to the lot and the project encourages transit and carpool use by providing additional capacity to Telegraph Road.
 - f. The project facilitates additional express bus service use as PRTC/OmniRide plans to expand operations at this location.
- 4. Old Lee Highway Multimodal Improvements Phase 1 (CRRC rank #55)
 - a. Increase funding from zero to \$5,000,000
 - b. Covers the Preliminary Engineering, Right of Way and Construction Phases of the first phase of the project
 - c. Old Lee Highway provides an important pedestrian, bicycle, transit and vehicular connection between Fairfax County and the Vienna Metrorail station, George Mason University and the City of Fairfax.
 - d. The roadway is an important commuter thoroughfare, but is also home to a number of important local and regional destinations: three schools, a large park, a community center, historic site, commercial destinations and residential neighborhoods.
 - e. CUE bus and George Mason University shuttles operate routes along Old Lee Highway.

It is noted that the 44 projects recommended by the Planning and Programming Committee included 26 of the top 30 ranked projects on the TransAction Project Ratings (HB599) scale and 18 of the lower 30 ranked projects on this scale. The four projects in the top 30 ranked projects on the TransAction Project Ratings scale that were not recommended for funding were:

- 1. Route 28 Widening (Northbound from Route 50 to McLearen Road) alternative funding source was identified (CRRC rank #4, TransAction rank #5);
- 2. Route 29 Widening Project, Phase II (Union Mill Road to Buckley's Gate Drive) alternative funding source was identified (CRRC rank #8, TransAction rank #24);
- Dulles Toll Road Town Center Parkway Underpass (CRRC rank #47, TransAction rank #14); and
- 4. Construct Interchange at Route 234 and Sudley Manor Drive (CRRC rank #54, TransAction rank #19).

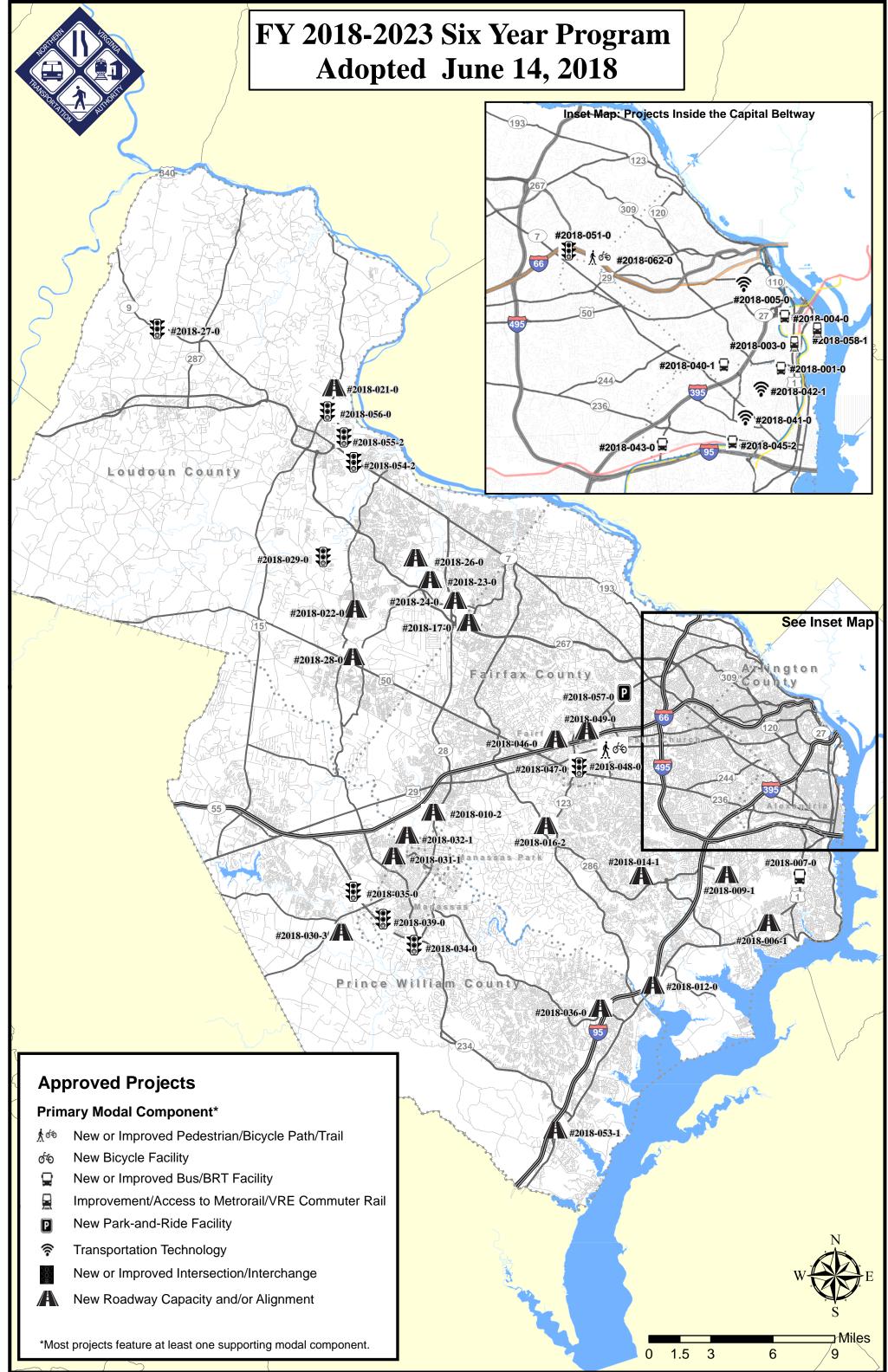
At its meeting on June 14, 2018, the Authority approved the Planning and Programming Committee's recommendations and adopted the FY2018--2023 Six Year Program.

"OUR FIRST SIX YEAR PROGRAM ADOPTION SIGNIFIES THE CULMINATION OF MANY YEARS OF HARD WORK AND DEDICATION TO SOLVING THE REGION'S TRANSPORTATION PROBLEMS."

- Marty Nohe, Chairman, Northern Virginia Transportation Authority

Map of the Adopted Six Year Program

The following map and chart illustrate the FY2018–2023 Six Year Program categorized by mode of transportation, as well as a breakdown of each project and mode. The multimodal transportation projects total \$1.285 billion.



Jurisdiction/Agency	Primary Mode	Project Title
Arlington		ART Operations and Maintenance Facilities
Arlington		Crystal City Metrorail Station East Entrance and Intermodal Connections
Arlington		Pentagon City Multimodal Connections and Transitway Extension
Arlington	((•	Intelligent Transportation System Improvements
Fairfax	A	Route 1 Widening (Mount Vernon Memorial Highway to Napper Road)
Fairfax		Richmond Highway Bus Rapid Transit - Phases I & II
Fairfax		Frontier Drive Extension and Intersection Improvements
Fairfax		Route 28 Widening: Route 29 to Prince William County Line
Fairfax		Richmond Highway (Route 1)/CSX Underpass Widening
Fairfax		Rolling Road Widening: Hunter Village Drive to Old Keene Mill Road
Fairfax	A	Fairfax County Parkway Widening from Ox Road to Lee Highway includes a grade separated interchange at the intersection of Popes Head Road
Fairfax		Rock Hill Road Bridge
Loudoun		Route 15 Bypass Widening: Battlefield Parkway to Montresor Road
Loudoun		Northstar Boulevard - Shreveport Drive to Tall Cedars Parkway
Loudoun		Extend Shellhorn Road: Loudoun County Parkway (Route 607) to Randolph Drive (Route 1072)
Loudoun		Route 28 Northbound Widening: between the Dulles Toll Road and Sterling Boulevard
Loudoun		Prentice Drive Extension: Lockridge Road (Route 789) to Shellhorn Road (Route 643)
Loudoun		Route 9 Traffic Calming
Loudoun	Ä	Dulles West Boulevard Widening: Loudoun County Parkway to Northstar Boulevard
Loudoun		Evergreen Mills Road Intersection Realignments – Watson Road and Reservoir Road

Jurisdiction/Agency	Primary Mode	Project Title
Prince William	A	Route 28 corridor improvements (Fitzwater Dr to Pennsylvania Ave)
Prince William	A	Route 28 Corridor Feasibility Study - Environmental Impact Statement (City of Manassas to Fairfax County)
Prince William		Construct Route 28 Corridor Roadway Improvements
Prince William		Construct Interchange at Route 234 and Brentsville Road
Prince William		Construct Interchange at Prince William Parkway and University Blvd
Prince William		Summit School Rd Extension and Telegraph Rd Widening
Prince William		Construct Interchange at Prince William Parkway and Clover Hill Road
Alexandria		West End Transitway: Northern Segment - Phase 1
Alexandria	(((•	Alexandria Intelligent Transportation System (ITS) Projects
Alexandria	(((•	Alexandria Bus Network Intelligent Transportation System (ITS)
Alexandria		DASH Transit Service Enhancements and Expansion
Alexandria		Alexandria Duke St Transitway
City of Fairfax		Jermantown Road Corridor Improvements Project
City of Fairfax		Intersection Improvements at Eaton Place/Chain Bridge Road
City of Fairfax	<u>గ</u> ్గే రాం	Old Lee Highway Multimodal Improvements - Phase 1
City of Fairfax		Roadway Network Northfax West
City of Falls Church		West Falls Church & Joint Campus Revitalization District Multimodal Transportation Project
Town of Dumfries	A	Widen Route 1 (Fraley Blvd) to six lanes between Brady's Hill Rd and Dumfries Rd (Route 234)
Leesburg		Construct Interchange at Route 7 and Battlefield Parkway
Leesburg		Interchange Improvements at Route 15 Leesburg Bypass and Edwards Ferry Road

Jurisdiction/Agency	Primary Mode	Project Title
Leesburg		Construct Interchange at Route 15 Bypass and Battlefield Parkway
Vienna	P	Mill St NE Parking Garage
VRE		VRE Crystal City Station Improvements
NOVA Parks	<u> 大</u> ざも	Falls Church Enhanced Regional Bike Routes (W&OD)

IV. FUNDING STRATEGY

Funding Narrative: Fiscal Planning

The Northern Virginia Transportation Authority's Finance Committee initiated development of a funding strategy for the Authority's inaugural FY2018–2023 Six Year Program in May of 2017. Over the course of 13 months, the Finance Committee received reports and analyses and provided feedback on numerous matters critical to determining the level of PayGo funding available for the SYP. These included:

- Regional Revenue Projections
- Investment Portfolio Interest Earnings
- Debt Service Commitments
- Future Technical Support Expenses for TransAction Updates, Long Term Benefits and Congestion Reduction Relative to Cost Analyses
- Out Year Taper
- Cash Flow (Liquidity) Analysis
- Appropriation Schedule Options
- Fiscal Impact Analysis of the 2018 General Assembly Action

On June 6, 2018, the Finance Committee made a \$1.285 billion PayGo funding recommendation to the Planning and Programming Committee for the SYP. On June 14, 2018 the NVTA adopted its inaugural SYP of 44 projects totaling \$1.285 billion. Over the summer of 2018, NVTA staff worked with individual jurisdictions and agencies in the development of the schedule of appropriations presented in the Table on pages 29 - 31.

While the SYP is designated as covering fiscal years 2018 through 2023, appropriations start in FY2019. The FY2019 start of appropriations is based on the SYP adoption in June 2018. Since the fiscal year ends on June 30th, there was no opportunity to make FY2018 appropriations before the end of the fiscal year. All of FY2018 revenue was carried forward into FY2019.

A significant feature of the SYP funding strategy developed by the Finance Committee is to appropriate the approved funding amount in the first fiscal year the project is projected to expend NVTA funds. This funding strategy for appropriations was put in place even though most projects will require more than one year to complete. The full appropriation in the first fiscal year strategy is consistent with NVTA Strategic Plan Goal IV; 'Cementing NVTA's reputation as a predictable long-term funding partner.' Other beneficial features of this strategy are:

- An accepted best financial practice, noted for being:
 - o Conservative
 - o Transparent
 - o Accountable
 - o Reliable
- Supports jurisdiction and agency efforts when applying for matching/additional funds;
- Protects jurisdictions and agencies from outside appropriation risks;
- Helps ensure started projects are completed;
- Consistent with many jurisdiction practices; and
- Understood by project sponsors, transportation industry and the financial community.

Financing Cost Savings

The Authority's Finance Committee invested significant time in the development of the **funding strategy for the Six Year Program**. **This funding strategy avoids the use of outside financing**, and instead, relies on the Authority's strong balance sheet to advance projects. The Finance Committee funding **strategy permitted the commitment of \$1.285 billion** mostly appropriated in the early years (FY2019 and FY2020) of the SYP **to get projects moving quickly** while also **saving \$194 million** that can be **programmed into future regional transportation projects** instead of interest payments to bondholders.

Appropriated Projects FY2018–2023

While the FY2018–2023 Six Year Program covers a six-year timespan, the Authority is expected to update the program every two years. The table on the following page lists appropriations for each of the SYP projects.

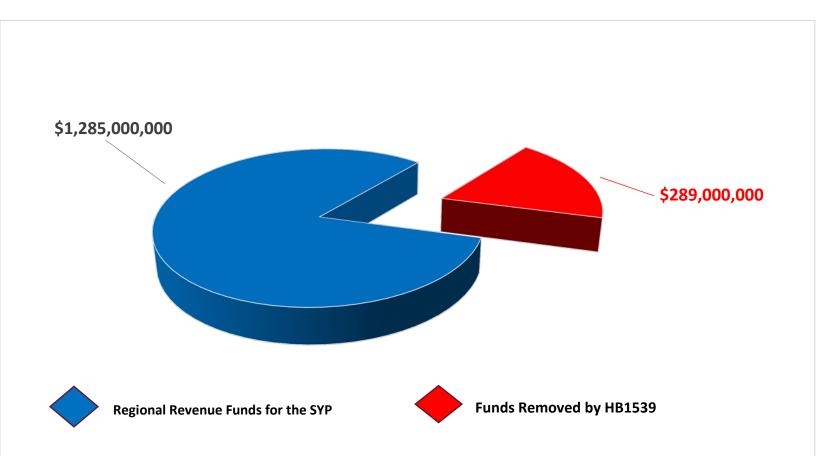
NVTA							
FY2018							
to							
FY2023							
Six Year							
Program	Jurisdiction	Project	FY2019	FY2020	FY2021	FY2022	FY2023
SPA	Jurisdiction /			FY2020	FY2021	FY2022	FY2023
Number	Agency	Project	FY2019				
	Arlington						
2018-005-1	County	Intelligent Transportation System Improvements	10,000,000				
2010 004 1	Arlington	Pentagon City Multimodal Connections and Transitway		20.050.000			
2018-004-1	County	Extension		28,850,000			
2018-001-1	Arlington County	ART Operations and Maintenance Facilities	39,027,000				
2018-003-1	Arlington	Crystal City Metrorail Station East Entrance & Intermodal	33,027,000				
2010 000 1	County	connections			5,000,000		
2018-041-1	City of						
	Alexandria	Alexandria ITS Projects		1,195,491			
2018-042-1	City of						
	Alexandria	Alexandria Bus Network ITS	150,000				
2018-043-1	City of						
	Alexandria	DASH Transit Service Enhancements and Expansion			11,933,161		
2018-040-2	City of						
2010 045 1	Alexandria	West End Transitway: Northern Segment (Phase 1)			2,200,000		
2018-045-1	City of Alexandria	Alexandria Duke St Transitway		12,000,000			
2018-046-1			21.000.000	12,000,000			
2018-049-1	City of Fairfax	Jermantown Road Corridor Improvements Project	21,000,000				
	City of Fairfax	Roadway Network Northfax West	2,500,000				
2018-047-1	City of Fairfax	Intersection Improvements at Eaton Place/Chain Bridge Road				10,750,000	
2018-048-1	City of Fairfax	Old Lee Highway Multimodal Improvements Phase 1		5,000,000			
2018-051-1	City of Falls	West Falls Church & Joint Campus Revitalization District					
	Church	Multimodal Transportation Project			15,700,000		
2018-017-1	Fairfax County	Rock Hill Road Bridge		20,604,670			
2018-014-2		Rolling Road Widening: Hunter Village Drive to Old Keene Mill					
	Fairfax County	Road		11,111,000			
2018-010-3	Fairfax County	Route 28 Widening: Route 29 to Prince William County Line			16,000,000		
2018-016-3		Fairfax County Pkwy Widen from Ox Rd to Lee Hwy w/					
	Fairfax County	separated interchange at Popes Head Rd		67,000,000			
2018-007-1	Fairfax County	Richmond Highway Bus Rapid Transit - Phases I & II	250,000,000				

NVTA FY2018							
to							
FY2023							
Six Year							
Program	Jurisdiction	Project	FY2019	FY2020	FY2021	FY2022	FY2023
2018-006-2		Route 1 Widening (Mount Vernon Memorial Highway to					
	Fairfax County	Napper Road)		127,000,000			
2018-012-1	Fairfax County	Richmond Highway (Route 1)/CSX Underpass Widening				12,000,000	
2018-009-2	Fairfax County	Frontier Drive Extension and Intersection Improvements#		25,000,000			
2018-024-1	Loudoun	Route 28 Northbound Widening –between the Dulles Toll Road					
	County	and Sterling Boulevard	20,000,000				
2018-021-1	Loudoun County	Route 15 Bypass Widening: Battlefield Parkway to Montresor Road			54,000,000		
2018-023-1	Loudoun	Extend Shellhorn Road: Loudoun County Parkway (Route 607)			54,000,000		
2010 025 1	County	to Randolph Drive (Route 1072)		16,000,000			
2018-022-1	Loudoun			, , ,			
	County	Northstar Boulevard - Shreveport Drive to Tall Cedars Parkway		64,805,000			
2018-026-1	Loudoun	Prentice Drive Extension: Lockridge Road (Route 789) to					
	County	Shellhorn Road (Route 643)		76,230,000			
2018-028-1	Loudoun	Dulles West Boulevard Widening: Loudoun County Parkway to					
2010 027 1	County	Northstar Boulevard	47,800,000				
2018-027-1	Loudoun	Route 9 Traffic Calming	12 112 000				
2018-029-1	County Loudoun	Evergreen Mills Road Intersection Realignments – Watson Road	12,112,000				
2010 025 1	County	and Reservoir Road	14,000,000				
2018-062-1	City of Falls		,				
	Church/NVRPA	Falls Church Enhanced Regional Bike Routes (W&OD)	3,244,959				
2018-030-4	Prince William						
	County	RT28 corridor improvements (Fitzwater Dr to Pennsylvania Ave)	15,000,000				
2018-039-1	Prince William	Construct Interchange at Prince William Parkway and Clover Hill					
2010 025 4	County	Road					1,900,000
2018-035-1	Prince William	Construct Interchange at Prince William Parkway and University	24,200,000				
2018-032-2	County Prince William	Boulevard Route 28 Corridor Feasibility Study - EIS (City of Manassas to	24,200,000				
2010-032-2	County	Fairfax County)		3,500,000			
2018-032-3	Prince William			2,300,000			
	County	Construct Route 28 Corridor Roadway Improvements			89,000,000		
2018-034-1	Prince William						
	County	Construct Interchange at Route 234 and Brentsville Road	54,900,000				

NVTA FY2018 to FY2023 Six Year Program	Jurisdiction	Project	FY2019	FY2020	FY2021	FY2022	FY2023
2018-036-1	Prince William County	Summit School Rd Extension and Telegraph Rd Widening	11,000,000				
2018-053-2	Town of Dumfries	Widen Route 1 (Fraley Blvd) to six lanes between Brady's Hill Rd and Dumfries Rd (RT234)	,,	44,860,000			
2018-054-3	Town of Leesburg	Construct Interchange at Route 7 and Battlefield Parkway		25,000,000			
2018-056-1	Town of Leesburg	Construct Interchange at Route 15 Bypass and Battlefield Parkway			2,000,000		
2018-055-3	Town of Leesburg	Interchange Improvements at Route 15 Leesburg Bypass and Edwards Ferry Road		5,400,000			
2018-057-1	Town of Vienna	Mill St NE Parking Garage	2,300,000				
2018-058-2	VRE	VRE Crystal City Station Improvements		4,000,000			
		Total By Fiscal Year	\$ 527,233,959	\$ 537,556,161	\$ 195,833,161	\$ 22,750,000	\$ 1,900,000
		Cumulative Total by Fiscal Year	\$ 527,233,959	\$ 1,064,790,120	\$ 1,260,623,281	\$ 1,283,373,281	\$ 1,285,273,281

Repealed Funds from the FY2018–2023 Six Year Program

Pursuant to Virginia House Bill 1539 adopted in 2018 by the General Assembly, the Grantor's and Transient Occupancy Taxes provided previously through HB2313 (2013) are no longer available to the Authority. Effective with FY2019 (start date July 1, 2018), those taxes are re-imposed within the Member Localities, but directed to fund the capital needs of WMATA and other transportation purposes in the case of Member Localities who are not members of WMATA.



When the Authority issued the Call for Regional Transportation Projects, or CfRTP, for the Six Year Program in October 2017, the three revenue sources provided via HB 2313 generated approximately \$335 million annually. However, the repeal of the two revenue streams resulted in the net loss of \$289 million, over the life of the Authority's FY2018–2023 Six Year Program. When development of the SYP was initiated, it was anticipated NVTA would have approximately \$1.5 billion to program for the life of the plan, but the loss of two revenue streams meant the need to revise estimates to reflect the reduction of revenues. Ultimately, having reduced revenues means that some projects may be delayed and take longer to complete than originally scoped, and other projects may not be funded at all. Although funding sources have decreased, the region's transportation needs have not.

Projects selected for funding may have additional funding sources, however, including the NVTA's Local Distribution Funds (allocated at the sole discretion of the sponsoring jurisdiction). Other non-NVTA funding sources include Federal (i.e. CMAQ/RSTP allocations), State (subject to prioritization using the 'SMART SCALE' process), local jurisdiction and transit agency funds.

Regional Revenue Funds can be used directly to fund projects (PayGo) or to finance bonds that have been issued specifically to fund projects included in future updates to the Six Year Program.

V. LOOKING AHEAD

Subsequent Six Year Program Updates

Through the **SYP update** process, it is envisioned the **Authority will allocate an estimated \$400 million** (preliminary and subject to change) in regional revenues every two years, starting in June 2020, for program years 2024 and 2025. This does not include the Authority's debt capacity, which could increase the funding available in appropriate circumstances. Use of debt capacity will be most prudently considered when the rates of project expenditure exceed the rate of revenue receipt.

It is anticipated that the demand for regional revenues in future SYP update cycles will be intense, as new projects are evaluated alongside continuation projects that have advanced through engineering and design phases to the more expensive right-of-way acquisition and construction phases. However, the Authority's funding **allocation decisions** are expected to continue to **take into account modal and geographic balance**. The Authority will continue to give priority to projects that achieve the greatest congestion reduction relative to cost.

During the October 11, 2018 Authority Meeting, the Authority **took budget action to appropriate \$527.2 million for the first 16 of the 44 projects** approved in the FY2018–2023 Six Year Program. The remaining 28 projects of the nearly \$1.3 billion Six Year Program will receive funding appropriations during the Authority's future annual budgets.

Six Year Program Key Update Schedule:

- 1. July 2019: Call for Regional Transportation Projects
- 2. September 2019: Project application deadline
- 3. November 2019: Resolution deadline
- 4. February 2020: Commence PCAC/TAC/PPC reviews
- 5. March 2020: Release draft FY2020-2025 Six Year Program
- 6. April 2020: Open House and Public Hearing
- 7. June 2020: Six Year Program adoption *Dates subject to Authority approval

Continuation Projects

One-third of SYP funding (\$435 million) was allocated to projects that have previously been allocated regional revenues by the Authority. In total, 13 of the 44 approved projects in the SYP are 'continuation' projects. Demand for regional revenues is expected to become increasingly intense.

13 Continuation Projects in the SYP:

1. Fairfax County: Route 1 Widening (Mount Vernon Memorial Highway to Napper Road)

2. Fairfax County: Frontier Drive Extension and Intersection Improvements

3. Fairfax County: Route 28 Widening: Route 29 to Prince William County Line

4. Fairfax County: Rolling Road Widening: Hunter Village Drive to Old Keene Mill Road

5. Fairfax County: Fairfax County Parkway Widening from Ox Road to Lee Highway includes a grade separated interchange at the intersection of Popes Head Road

6. Prince William County: Route 28 corridor improvements (Fitzwater Dr to Pennsylvania Ave)

7. Prince William County: Route 28 Corridor Feasibility Study – Environmental Impact Statement (City of Manassas to Fairfax County)

8. Prince William County: Construct Route 28 Corridor Roadway Improvements

9. City of Alexandria: West End Transitway: Northern Segment – Phase 1

10. Town of Dumfries: Widen Route 1 (Fraley Blvd) to six lanes between Brady's Hill Rd and Dumfries Rd (Route 234)

11. Town of Leesburg: Construct Interchange at Route 7 and Battlefield Parkway

12. Town of Leesburg: Interchange Improvements at Route 15 Leesburg Bypass and Edwards Ferry Road

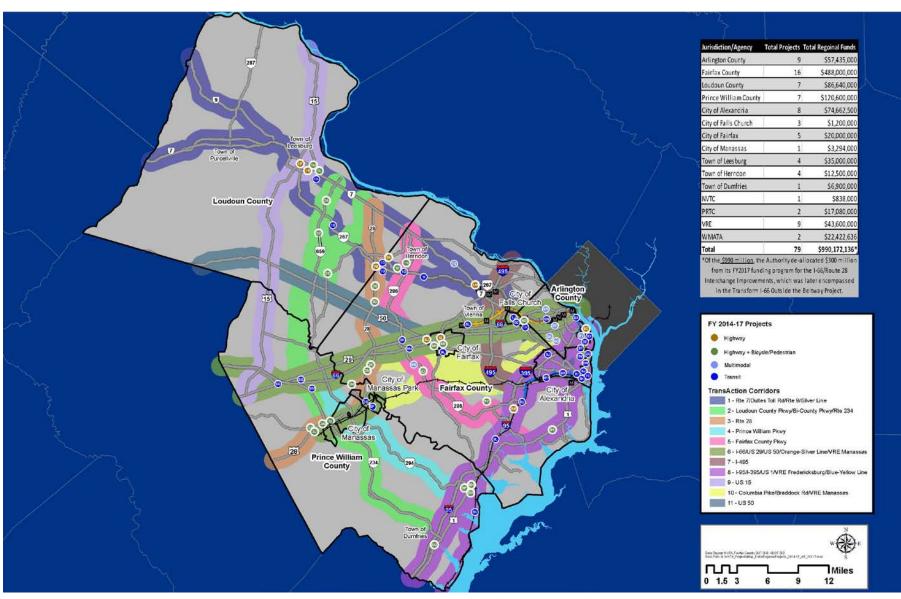
13. VRE: VRE Crystal City Station Improvements

APPENDIX A. PREVIOUS FUNDING PROGRAMS

Following project approval, the NVTA executes Standard Project Agreements (SPAs) with jurisdictions and agencies for each approved project. Individual projects may have multiple SPAs from successive NVTA program cycles related to different phases of the project (continuation projects). With the adoption of the SYP, **the Authority is advancing 122 SPAs for 95 discreet projects, totaling more than \$1.975 billion in regional multimodal investments** for Northern Virginia. Future funding programs (every two years) will result in additional SPAs for current and new projects. Even when projects are completed and SPAs are closed, the NVTA retains a fiduciary responsibility to protect the Authority's investment. Please reference **Appendix A** for a list of NVTA-funded projects, including continuation projects, prior to the adoption of the FY2018–2023 Six Year Program.

APPENDIX B. FY2018–2023 SIX YEAR PROGRAM PROJECT DESCRIPTION FORMS

Please reference **Appendix B** to review the 44 FY2018–2023 Six Year Program Project Description Forms with detailed information on each individual project.



APPENDIX A: FY2014-2017 FUNDING PROGRAMS

FY2014-2017 PROJECT LIST

Jurisdiction/Agency	Project Title	NVTA Funding	Project Cost	NVTA Funding Programs	Phase Funded
Arlington	Silver/Blue Line Mitigation (Four New Buses)	\$1,000,000	\$1,000,000	FY 2014	Bus Purchase
Arlington	Boundary Channel Drive Interchange	\$4,335,000	\$9,335,000	FY 2014	Design/Con
Arlington	Crystal City Multimodal Center	\$1,500,000	\$1,500,000	FY 2014	Con
Arlington	Columbia Pike Multimodal Street Improvements	\$12,000,000	\$12,000,000	FY 2014	Con
Arlington	Ballston Metrorail Station West Entrance	\$12,000,000	\$90,000,000	FY 2015-16	Final Design
Arlington	Glebe Road Corridor Intelligent Transportation System Improvements	\$2,000,000	\$2,000,000	FY 2015-16	Preliminary Eng., Con
Arlington	Columbia Pike Multimodal Street Improvements	\$10,000,000	\$82,500,000	FY 2015-16	Des, Con
Arlington	Lee Highway Corridor Intelligent Transportation System Enhancements	\$3,000,000	\$3,000,000	FY 2017	Des, Eng, ROW, Con
Arlington	Crystal City Streets: 12th Street Transitway, Clark/Bell Realignment & Intersection Improvements	\$11,600,000	\$11,600,000	FY 2017	Des, Eng, Env, Con
Fairfax	Innovation Center Metrorail Station	\$41,000,000	\$89,000,000	FY 2014	Des/Build
Fairfax/VDOT	Route 28 Widening 6 to 8 lanes (NB from McLearen Road to Dulles Toll Road)	\$11,100,000	\$13,300,000	FY 2014	Des/Build
Fairfax/VDOT	Route 28 Widening 6 to 8 lanes (SB from the Dulles Toll Road to Route 50)	\$20,000,000	\$22,200,000	FY 2014	Des/Build
Fairfax/VDOT	Route 7 Bridge Widening: Over Dulles Toll Road	\$13,900,000	\$34,400,000	FY 2015-16	Con
Fairfax	Innovation Center Metrorail Station	\$28,000,000	\$89,000,000	FY 2015-16	Con
Fairfax	Route 28 Widening: Prince William County Line to Route 29	\$5,000,000	\$47,350,000	FY 2015-16	Des, Preliminary Eng.
Fairfax	Fairfax County Parkway Improvements Study	\$10,000,000	\$396,100,000	FY 2015-16	Study, Env, Preliminary Eng.
Fairfax	Rolling Road Widening: Old Keene Mill Road to Franconia Springfield Parkway	\$5,000,000	\$35,200,000	FY 2015-16	Des, Preliminary Eng., ROW

Jurisdiction/Agency	Project Title	NVTA Funding	Project Cost	NVTA Funding Programs	Phase Funded
Fairfax	Frontier Drive Extension & Interchange Improvements	\$2,000,000	\$84,500,000	FY 2015-16	Des, Env, Preliminary Eng.
Fairfax	Route 1 Widening: Mount Vernon Memorial Highway to Napper Road	\$1,000,000	\$90,000,000	FY 2015-16	Env, Preliminary Eng.
Fairfax	Connector Buses (12 New)	\$6,000,000	\$11,000,000	FY 2015-16	Bus Purchase
Fairfax	West Ox Bus Garage Expansion	\$20,000,000	\$20,000,000	FY 2015-16	Con
Fairfax	I-66/Route 28 Interchange Improvements *	\$300,000,000	\$385,000,000	FY 2017	Des, Eng, Env, ROW, Con
Fairfax	Route 7 Widening: Colvin Forest Drive to Jarrett Valley Drive	\$10,000,000	\$135,900,000	FY 2017	ROW
Fairfax	Route 28 Widening: Prince William County Line to Route 29	\$5,000,000	\$68,910,000	FY 2017	Des, Eng, Env, ROW, Con
Fairfax	Route 286 Fairfax County Parkway Widening: Route 123 to Route 29	\$10,000,000	\$82,400,000	FY 2017	ROW
Loudoun	Leesburg Park and Ride	\$1,000,000	\$2,500,000	FY 2014	ROW/Con
Loudoun	Two New Transit Buses	\$880,000	\$880,000	FY 2014	Bus Purchase
Loudoun	Belmont Ridge Road, North of the Dulles Greenway	\$20,000,000	\$55,000,000	FY 2014	Con
Loudoun/VDOT	Route 28 Hot Spot Improvements (Sterling Boulevard to the Dulles Toll Road)	\$12,400,000	\$12,400,000	FY 2014	Con
Loudoun	Transit Buses (4 New)	\$1,860,000	\$1,860,000	FY 2015-16	Bus Purchase
Loudoun	Loudoun County Parkway Development	\$31,000,000	\$51,000,000	FY 2015-16	Con
Loudoun	Belmont Ridge Road Widening	\$19,500,000	\$35,863,000	FY 2015-16	Con
Prince William	Route 28 from Linton Hall Road to Fitzwater Drive	\$28,000,000	\$56,000,000	FY 2014	Con
Prince William	Route 1 from Featherstone Road to Marys Way	\$3,000,000	\$52,000,000	FY 2014	Des
Prince William	Route 28 Widening: Route 234 Bypass to Linton Hall Road	\$16,700,000	\$16,700,000	FY 2015-16	Preliminary Eng., Con

Jurisdiction/Agency	Project Title	NVTA Funding	Project Cost	NVTA Funding Programs	Phase Funded
Prince William	Route 1 Widening: Featherstone Road to Marys Way	\$49,400,000	\$52,400,000	FY 2015-16	ROW, Con
Prince William	Route 1 Widening: Featherstone Road to Marys Way	\$11,000,000	\$85,725,114	FY 2017	Con
Prince William	Route 28 Widening: Route 234 Bypass to Linton Hall Road	\$10,000,000	\$28,774,000	FY 2017	Con
Alexandria	Potomac Yard Metrorail Station EIS	\$2,000,000	\$250,000,000	FY 2014	Planning/ Preliminary Eng.
Alexandria	Shelters and Real-Time Transit Information for DASH/WMATA	\$450,000	\$1,500,000	FY 2014	Con
Alexandria	DASH Bus Expansion (Five New Buses)	\$1,462,500	\$3,250,000	FY 2014	Bus Purchase
Alexandria	Traffic Signal Updates/Transit Signal Priority	\$660,000	\$\$1,200,000	FY 2014	Design/Construction
Alexandria	Duke Street Transit Signal Priority Installation	\$190,000	\$ 250,000	FY 2015-16	Des, Con
Alexandria	Potomac Yard Metrorail Station Development	\$1,500,000	\$287,484,000	FY 2015-16	Preliminary Eng., Final Design
Alexandria	West End Transitway Study	\$2,400,000	\$129,000,000	FY 2015-16	Final Design
Alexandria	Potomac Yard Metrorail Station	\$66,000,000	\$287,484,000	FY 2017	Des, Con (Design- Build)
City of Fairfax	Chain Bridge Road Widening/Improvements	\$5,000,000	\$21,000,000	FY 2014	Des/ROW/Con
City of Fairfax	Kamp Washington Intersection Improvements	\$1,000,000	\$9,800,000	FY 2015-16	Con
City of Fairfax	Northfax - Intersection Improvements at Route 29/50 and Route 123	\$10,000,000	\$25,000,000	FY 2015-16	Con
City of Fairfax	Jermantown/Route 50 Roadway Improvements	\$1,000,000	\$6,500,000	FY 2015-16	Con
City of Fairfax	CUE 35-Foot Buses (6 New)	\$3,000,000	\$3,000,000	FY 2015-16	Bus Purchase
Falls Church	Funding for Bus Shelters	\$200,000	\$350,000	FY 2014	Des/ROW/Con
Falls Church	Pedestrian Access to Transit	\$700,000	\$2,900,000	FY 2014	Des/ROW/Con
Falls Church	Pedestrian Bridge at Van Buren Street	\$300,000	\$300,000	FY 2014	Design/Con

Jurisdiction/Agency	Project Title	NVTA Funding	Project Cost	NVTA Funding Programs	Phase Funded
Manassas/ Prince William	Route 28 Congestion Study - Godwin Drive Extension Alternative	\$2,500,000	TBD	FY 2015-16	Study
Manassas	Route 28 Widening: Godwin Drive to the Southern City Limits	\$3,294,000	\$12,847,000	FY 2015-16	Preliminary Eng., ROW, Con
Dumfries	Route 1 (Fraley Blvd) Widening: Brady's Hill Road to Dumfries Road	\$6,900,000	\$82,500,000	FY 2015-16	Preliminary Eng.
Herndon	Herndon Parkway Intersection Improvements at Van Buren St.	\$500,000	\$3,000,000	FY 2014	Des/ROW
Herndon	Herndon Metrorail Intermodal Access Improvements	\$1,100,000	\$2,000,000	FY 2014	Des/ROW
Herndon	Herndon Parkway Intersection Improvements at Sterling Road	\$500,000	\$500,000	FY 2014	Des/ROW/Con
Herndon	East Elden Street Improvements & Widening	\$10,400,000	\$30,902,000	FY 2015-16	ROW
Leesburg	Edwards Ferry Road at the Route 15 Leesburg Bypass Grade Separation	\$1,000,000	\$40,000,000	FY 2014	Des
Leesburg	Route 7/Battlefield Parkway Interchange	\$13,000,000	\$58,000,000	FY 2015-16	Final Des
Leesburg	Route 15 Bypass/Edwards Ferry Road Interchange	\$1,000,000	\$50,000,000	FY 2015-16	Des
Leesburg	Route 7 (East Market Street)/Battlefield Parkway Interchange	\$20,000,000	\$58,000,000	FY 2017	Con
NVTC	Transit Alternatives Analysis Study in the Route 7 Corridor (King Street, Alexandria to Tyson's Corner) (Phase II)	\$838,000	\$838,000	FY 2014	Study
PRTC	PRTC New Gainesville Service (1 bus)	\$580,000	\$580,000	FY 2014	Bus Purchase
PRTC	Western Bus Maintenance & Storage Facility	\$16,500,000	\$38,688,050	FY 2015-16	Con
VRE	VRE Gainesville-Haymarket Extension Project Development	\$1,500,000	\$1,500,000	FY 2014	Planning/Design
VRE	VRE Alexandria Station Tunnel and Platform Improvements	\$1,300,000	\$10,000,000	FY 2014	Con
VRE	VRE Lorton Station Second Platform	\$7,900,000	\$9,240,000	FY 2014	Des/Con

Jurisdiction/Agency	Project Title	NVTA Funding	Project Cost	NVTA Funding Programs	Phase Funded
VRE	VRE Rolling Stock Purchase **	\$19,800,000	\$19,800,000	FY 2014	Train Purchase
VRE	Manassas Park Station Parking Expansion	\$500,000	\$19,000,000	FY 2015-16	Des, Preliminary Eng.
VRE	Franconia-Springfield Platform Improvements	\$13,000,000	\$13,000,000	FY 2015-16	Preliminary Eng., Env, Con
VRE	Rippon Station Expansion and Second Platform	\$10,000,000	\$14,633,000	FY 2015-16	Des, Preliminary Eng., Con
VRE	Slaters Lane Rail Crossover	\$7,000,000	\$7,000,000	FY 2015-16	Preliminary Eng., Con
VRE	Crystal City Platform Extension Study	\$400,000	\$2,000,000	FY 2015-16	Study
VRE	Manassas Park Station Parking Expansion	\$2,000,000	\$19,600,000	FY 2017	Eng, Env, Des
WMATA	Traction Power Upgrades on the Orange Line in Virginia	\$4,978,685	\$496,000,000	FY 2014	Des
wmata	Ten New Buses on Virginia Routes **	\$7,000,000	\$66,400,000	FY 2014	Bus Purchase
WMATA	8-Car Train Traction Power Upgrades **	\$8,995,000	\$424,811,000	FY 2015-16	Con
WMATA	Blue Line Traction Power Upgrades	\$17,443,951	\$88,625,564	FY 2017	Eng, Con
	NVTA Funding Total:	\$690,172,136			

Des - Design; Eng - Engineering; Env - Environmental; ROW - Right of Way; Con - Construction; Acq - Acquisition

*The Authority de-allocated \$300 million from its FY2017 funding program for the I-66/Route28 Interchange Improvements, which were encompassed in the Transform I-66 Outside the Beltway Project.

**These projects were withdrawn by the agency that applied for project funding.

APPENDIX B: PROJECT DESCRIPTION FORMS



NVTA FY2018-23 PROGRAM Updated September 28, 2018

West End Transitway:

Northern Segment (Phase 1)

Project Description

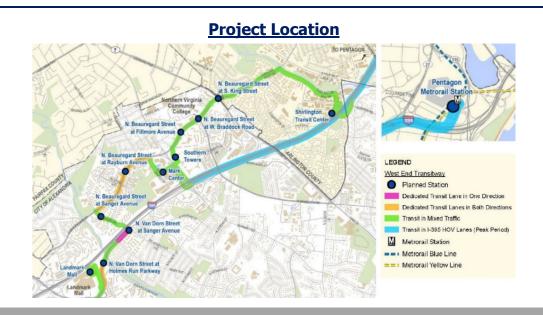


The West End Transitway will provide high capacity Bus Rapid Transit (BRT) between the Pentagon in Arlington County and the Landmark Mall in Alexandria, connecting major employment centers, residential neighborhoods, and transit hubs. Capital investments include: rolling stock, construction of stations with amenities (real time bus, shelter, seating, lighting, etc.), installation of Transit Signal Priority (TSP), upgrades to existing traffic signals, dedicated bus lanes and queue jump lanes, and acquisition of right of way (ROW) needed for construction. Once constructed, the plan is to operate two services – Local and Express. Under Phase 1, the Local service will operate between Landmark Mall and the

Reference Number: 2018-040-1 SPA Number: 2018-040-2 TransAction ID: 42 Submitting Jurisdiction/Agency: City of Alexandria Location: Landmark Mall to Pentagon Requested NVTA Funds: \$60,750,000 NVTA Funds Received: \$2,200,000 Previous NVTA Funds Received: \$2,400,000 Total Cost to Complete Project: \$128,151,000 (Phase 1 – Northern Segment)

Pentagon, serving the Beauregard and Van Dorn corridors, the Mark Center, Southern Towers, and Shirlington Bus Station in Arlington where the service will access I-395 to the Pentagon. The Express service will operate from Landmark Mall, serving the Van Dorn corridor, a portion of the Beauregard corridor, and the Mark Center where the service will access I-395 at Seminary Road to the Pentagon.

The funds requested in this application are for the first phase of the West End Transitway. The Northern Segment meets the Federal Transit Administration's (FTA) definition of minimal operable segment and will provide transit service not dependent on the Southern Segment (Landmark Mall to Van Dorn Metrorail station). The City of Alexandria intends to pursue implementation of the Southern Segment in later years beyond the timeframe of this SYP. In addition to funds for ROW, Construction, and Capital Asset Acquisition, the City is requesting funds in FY18-FY20 to hire a project manager to coordinate (within City departments and with funding, partner, and public stakeholders) the Design and Construction of the Transitway. This would be a capitalized position within the City's annual budget, specifically for the West End Transitway, and a specific charging code would be set up within the City's financial system so that all staff costs/charges would be toward the West End Transitway project.



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

*Other funds will be used to hire a Project Manager to complete Design and through Construction.

Project Funding

	Requested NVTA Funds		Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work			\$3,400,000 (SMART SCALE, NVTA)	\$3,400,000
Right of Way Acquisition	\$2,500,000	\$2,200,000	\$1,000,000 (SMART SCALE)	\$21,000,000
Construction	\$40,500,000		\$8,001,000 (SMART SCALE)	\$86,001,000
Capital Asset Acquisitions	\$17,000,000			\$17,000,000
Other	\$750,000			\$750,000
TOTAL:	\$60,750,000	\$2,200,000	\$12,401,000	\$128,151,000

Note: There is a funding gap of \$111,150,000.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	23.73
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	25
TransAction Project Rating:	68.16
TransAction Project Rating Rank:	27

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

- Improve connectivity and increase access for residents, visitors and employees to major transit and employment centers
- Improve travel time reliability for transit users
- Improve the safety of the transportation network
- Reduce transportation related emissions



NVTA FY2018-23 PROGRAM Updated September 28, 2018

Alexandria ITS Projects

Intelligent Transportation System Improvements

Project Description

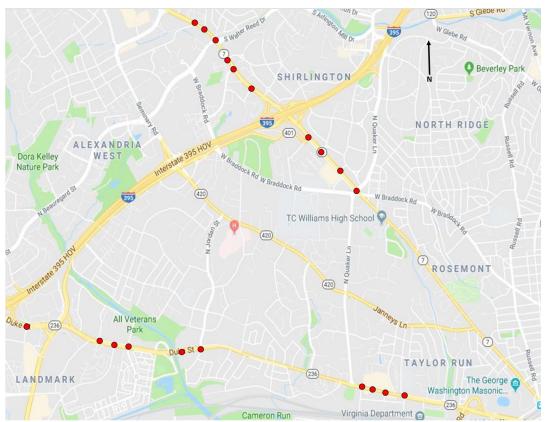


The City of Alexandria's ITS projects will install a transit vehicle signal priority system on King Street between Dawes Avenue and Quaker Lane: and enhance the transit vehicle signal priority system on Duke Street between Walker Street and Telegraph Road.

The following King Street traffic signals will be impacted by this project: Dawes Avenue, Chesterfield Road, Beauregard Street, S. 28th Street, North Hampton Drive, Park Center Drive, Menokin Drive, N. Dearing Street, S. Taylor Street, and N. Quaker Lane.

Reference Number: 2018-041-0 SPA Number: 2018-041-1 TransAction ID: 113 Submitting Jurisdiction/Agency: City of Alexandria Location: King St. between Dawes Ave. and Quaker Lane; Duke St. between Walker St. and Telegraph Rd. Requested NVTA Funds: \$1,195,491 NVTA Funds Received: \$1,195,491 Total Cost to Complete Project: \$1,195,491

The Following Duke Street traffic signals will be impacted by this project: S. Walker Street, N. Paxton Street, S. Pickett Street, N. Pickett Street, Fox Chase Shopping Center, Jordan Street, S. Quaker Lane, Alexandria Commons Shopping Center, Sweeley Street, and Roth Street.



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

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$200,000	\$200,000		\$200,000
Right of Way Acquisition				
Construction	\$995,491	\$995,491		\$995,491
Capital Asset Acquisitions				
TOTAL:	\$1,195,491	\$1,195,491		\$1,195,491

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	5520.61
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	1
TransAction Project Rating:	65.00
TransAction Project Rating Rank:	49

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 through improved transit operations
- Increase people moving capacity of the existing roadways
- Improve regional connectivity



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Alexandria Bus Network ITS

Intelligent Transportation System Improvements

Project Description



DASH is seeking to upgrade its real-time passenger info capabilities by implementing Real-Time General Transit Feed Specification (GTFS), developing a Real-Time SMS text system, and installing additional real-time signage along several of its busiest transit corridors.

With Real-Time GTFS, DASH would be able to provide realtime trip planning information, based on actual vehicle locations instead of scheduled arrival times. DASH would be able to integrate its real-time data feed with partner agency platforms (i.e. WMATA's BusETA) and third-party applications Reference Number: 2018-042-1 SPA Number: 2018-042-1 TransAction ID: 194 Submitting Jurisdiction/Agency: City of Alexandria Location: System-wide Requested NVTA Funds: \$150,000 NVTA Funds Received: \$150,000 Total Cost to Complete Project: \$150,000

such as Google Transit. The second item, Real-Time SMS, would allow passengers to get stop-specific real-time bus arrival information via text message. This is particularly helpful for passengers with non-smartphones, or those with tactile-related disabilities. Lastly, the additional real-time signage units would improve passenger information and convenience, particularly along busier routes and at major trip generators. Roughly 20 solar-powered units would be mounted on stop poles along major transit corridors such as King Street (Route 7), Duke Street, Beauregard Street, and Van Dorn Street.

Project Location

SYSTEM-WIDE

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

*Other includes installation/configuration of real-time signage, testing, launching real-time signage, and launching real-time GTFS and SMS systems

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work				
Right of Way Acquisition				
Construction				
Capital Asset Acquisitions	\$68,500	\$68,500		\$68,500
Other	\$81,500	\$81,500		\$81,500
TOTAL:	\$150,000	\$150,000		\$150,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	5144.53
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	2
TransAction Project Rating:	64.62
TransAction Project Rating Rank:	51

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

- Provide real-time information system
- Reduce congestion by making transit more convenient and attractive for existing and potential riders



DASH Transit Service Enhancements and Expansion

Project Description



The DASH Transit Service Enhancements and Expansion project will install infrastructure for electric buses in its planned facility expansion in an effort to accelerate the planned transition of the DASH fleet from hybrid and clean diesel buses to fully-electric vehicles and purchase eight fully electric buses. The electric buses would be used to provide new service in high-development areas such as Eisenhower Avenue and Potomac Yard, both existing and planned high development areas with large number of jobs and residents. These additional buses will also increase the reliability of existing services.

Reference Number: 2018-043-0 SPA Number: 2018-043-1 TransAction ID: 85 Submitting Jurisdiction/Agency: City of Alexandria Location: Dash facility located at 3000 Business Center Drive, Alexandria, VA Requested NVTA Funds: \$11,933,161 NVTA Funds Received: \$11,933,161 Total Cost to Complete Project: \$23,068,161 Segment)

DASH has previously been awarded \$11.1 million in SmartScale funds to expand its existing garage facility to accommodate 45 additional buses, and to purchase six (6) clean diesel-propulsion expansion vehicles. DASH is now seeking to leverage those funds to secure an additional \$11.1 million to install electric infrastructure in the new part of the planned facility, and purchase eight (8) fully-electric expansion buses.





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

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$50,000	\$50,000	\$397,000 (SMART SCALE)	\$447,000
Right of Way Acquisition				
Construction	\$354,000	\$354,000	\$6,157,000 (SMART SCALE)	\$6,511,000
Capital Asset Acquisitions	\$10,932,500	\$10,932,500	\$4,050,000 (SMART SCALE)	\$14,982,500
Other	\$596,661	\$596,661	\$531,000 (SMART SCALE)	\$1,127,661
TOTAL:	\$11,933,161	\$11,933,161	\$11,135,000	\$23,068,161

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	33.70
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	20
TransAction Project Rating:	66.53
TransAction Project Rating Rank:	39

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 allowing DASH to provide new/improved transit service
- Reduce environmental impacts
- Improve connectivity in and around Eisenhower Avenue and Potomac Yard

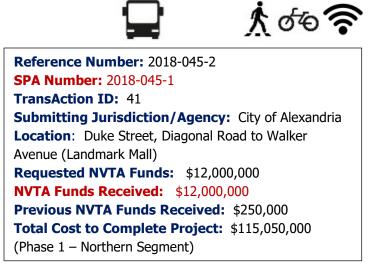


Alexandria Duke Street Transitway

Project Description

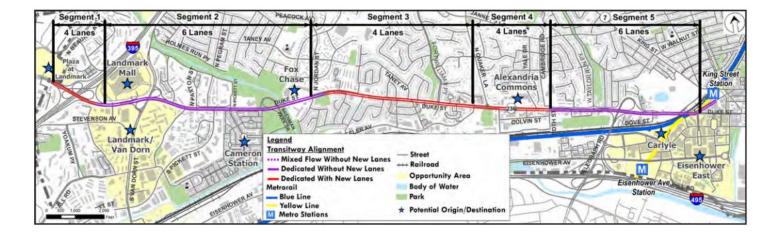
The Alexandria Duke Street Transitway will provide dedicated, curbside transit lanes on Duke Street for Bus Rapid Transit, between Diagonal Road (King Street Metro) and Walker Street (Landmark Mall). The conceptual design for the ultimate configuration, developed as part of the Transitway Corridors Feasibility Study (adopted by City Council in 2012), recommended that the existing curb lanes long most portions of Duke Street will be converted to a transit and business access lane.

In the section of Duke Street between Jordan Street and Wheeler Avenue, where there are currently four lanes, the street will be widened to provide a reversible center lane for general purpose traffic. The reversible lane would be



configured to allow Duke Street to accommodate a dedicated transit lane in the peak hour and peak direction of traffic flow during the a.m. and p.m. peak periods along Duke Street. The project will include streetscape enhancements, transit stations, transit signal priority, a bicycle facility along Duke Street along with corridor-wide pedestrian improvements. Previous NVTA funding for FY 2014 (\$60,000), FY 2015 / 2016 (\$190,000) was used for the installation of Transit Signal Priority (TSP) along the Duke Street corridor to initiate improved transit reliability, the first step toward the development of a Bus Rapid Transit facility.

The funding request for FY21, FY22 and FY23 will be used toward a Full Time Employee (FTE) position within the City to provide overall project management, and to begin the environmental and design work toward the Transitway project. This would be a capitalized position within the City's annual budget, specifically for the Duke Street Transitway, and a specific charging code would be set up within the City's financial system so that all staff costs / charges would be toward the Duke Street Transitway project.



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

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$12,000,000	\$12,000,000	\$250,000 (NVTA 70% Funds)	\$12,250,000
Right of Way Acquisition				\$12,600,000
Construction				\$79,200,000
Capital Asset Acquisitions				\$11,000,000
TOTAL:	\$12,000,000	\$12,000,000	\$250,000	\$115,050,000

Note: There is a funding gap of \$102,800,000.

Project Analysis HighlightsCongestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):17.07Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):31TransAction Project Rating:71.33TransAction Project Rating Rank:15

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

- Improve pedestrian facilities
- Enhance safety
- Improve travel time reliability
- Increase access to jobs, employers, and destinations
- Improve connections within areas of concentrated growth

ART Operations and Maintenance Facilities

Project Description

This project will fulfill the Arlington Transit (ART) facilities needs anticipated in the 2016 Transit Development Plan (TDP). Due to the service expansion identified in the TDP that will add 2.2 million riders to the ART system by 2026, as well as the lack of suitably-sized properties in Arlington County, the County is currently pursuing an approach to implementation that will require two facilities located on two sites to meet the increased capacity of ART. This funding request includes two discrete ART facility projects, both of which are currently in the process of site acquisition and conceptual analysis of facility siting. The main property is located on Shirlington Road in Arlington County. At this time, it is anticipated that this facility will include bus operations, bus parking, and other support facilities. The County Board approved purchase of this property in October 2017. The other property under consideration is

Reference Number: 2018-001-0 SPA Number: 2018-001-1 TransAction ID: 123 Submitting Jurisdiction/Agency: Arlington County Location: Shirlington Road, Arlington and Electronic Drive, Springfield, VA Requested NVTA Funds: \$39,027,000 (reduced from \$55,459,000) NVTA Funds Received: \$39,027,000 Total Cost to Complete Project: \$80,812,000 (reduced from \$98,487,000)

located in Springfield (in Fairfax County). It is anticipated that this site would accommodate heavy maintenance activities beyond that which can be accommodated in Arlington. The County Board approved the purchase of this property in December 2016, with a recent amendment in June 2017 to extend the Feasibility Period for the County and seller to determine construction and subdivision feasibility, respectively. The comprehensive ART Facilities request will implement the ART support facilities needed to implement future transit service increases as outlined in County's TDP and NVTA's TransAction. Specifically, the project includes phased construction for parking additional ART buses, facilities for maintenance and bus operations, as well as enclosed storage for transit infrastructure. When complete, ART will have the support network it needs to increase ridership, and to keep the entire bus fleet maintained and in service. This request would fund the ART Heavy Maintenance Facility and the ART Operations Facility, and includes anticipated land acquisition, design, site improvements, and phased construction. The project is currently undergoing conceptual design. The future bus service expansion that will be enabled by this project covers all of Arlington County and include dozens of additional service increments to existing routes, such as increased bus frequency and/or hours of service, as well as implementation of new routes.



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

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$3,817,000	\$3,817,000	\$2,465,000 (Local)	\$7,353,000
Right of Way Acquisition			\$27,572,000 (Local, Bond, DRPT)	\$29,153,000
Construction	\$34,839,000	\$34,839,000		\$43,395,000
Capital Asset Acquisitions	\$371,000	\$371,000		\$371,000
TOTAL:	\$39,027,000	\$39,027,000	\$30,037,000	\$80,812,000

Note: There is a funding gap of \$11,648,000, for which Arlington County anticipates an additional funding request to DRPT in FY2019-21.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	1.44
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	56
TransAction Project Rating:	65.96
TransAction Project Rating Rank:	45

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.

Project Impacts

- Provide the ability to increase regional transit capacity by expanding the number of buses Arlington can operate
- Reduce traffic congestion on all major roads



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Crystal City Metrorail Station Second Entrance

East Entrance and Intermodal Connections

Project Description

This project will design and construct a second entrance to the Crystal City Metrorail Station at the northwest corner of the intersection of Crystal Drive and 18th Street South. The new entrance will be located to the east of the existing entrance, which is located on south Bell Street at 18th Street South, and will provide access to the east side of the train platform. The new entrance will include two street-level elevators and stairs connecting to the fare payment area and an underground passageway and new mezzanine with stairs and elevators to the train platform. It will have fare gates, fare vending machines, and an attended kiosk. This new entrance will

Reference Number: 2018-003-0 SPA Number: 2018-003-1 TransAction ID: 89 Submitting Jurisdiction/Agency: Arlington County Location: Crystal Drive and 18th Street South, Arlington Requested NVTA Funds: \$87,000,000 NVTA Funds Received: \$5,000,000 Total Cost to Complete Project: \$90,140,000

provide more direct access to businesses and residences on the east side of Crystal City, and will better connect to the VRE station, served by the VRE Manassas and Fredericksburg Lines; the northbound Metroway service originating in Alexandria; the ART 43, which provides direct, limited-stop service to the Rosslyn-Ballston Corridor; and the ART 92, which provides a direct connection to the Pentagon. This intermodal connectivity provides bus-to-rail transfers at one location from regional rail service to employment centers. The new entrance will relieve congested conditions at the current entrance and station platform, provide for more even passenger distribution along the platform (enabling more efficient loading/unloading, thus reducing transit crowding on trains and enabling more efficient system performance), and provide additional egress during emergency situations. This project expands upon the existing transit, roadway, pedestrian, and bicycle network in Crystal City, and leverages other projects underway that also support that effort, including the Crystal City Multimodal Center and the Crystal City Streets projects, both funded by NVTA. Arlington County plans to lead the design and construction in coordination with WMATA and JBG Smith which owns the adjacent property where part of the entrance will be located. Arlington seeks funding in place to award construction, thereby delivering the project more on a guaranteed cash flow across multiple fiscal years rather than a fixed cash flow for single fiscal years. The guaranteed cash flow could potentially speed up the project.



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

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$9,053,000	\$5,000,000	\$7,917,000 (DRPT, Local)	\$12,917,000
Right of Way Acquisition				
Construction	\$77,947,000			\$77,947,000
Capital Asset Acquisitions				
TOTAL:	\$87,000,000	\$5,000,000	\$7,917,000	\$90,140,000

Note: There is a funding gap of \$77,223,000 for which Arlington County anticipates a funding request to DRPT and other sources.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	1.13
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	58
TransAction Project Rating:	51.94
TransAction Project Rating Rank:	58

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

- Increase access/egress capacity for the station
- Provide direct connection to the Transitway station on Crystal Drive
- Improve emergency egress, making the station compliant with the National Fire Protection Act
- Reduce travel time to VRE station, businesses and residents along Crystal Drive, thereby increasing transit access
- Reduce congested operations of the station and platform.

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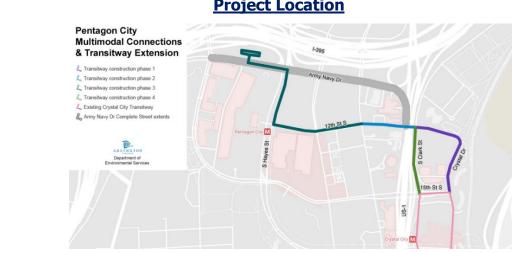
Pentagon City Multimodal Connections and **Transitway Extension**

Project Description

The Pentagon City Multimodal Connections and Transitway Extension project adds capacity and makes operational improvements to an inefficiently performing area of Pentagon City, where there is high demand for transit, pedestrian, and bicycle trips, but where the existing layout of streets makes those trips slow, difficult and dangerous. The project provides dedicated bus lanes for Metroway service, a premium bus service that operates much like bus rapid transit. It also expands safe travel options for bicycles and pedestrians, and adds turn lanes for vehicles. The project has two components: The Army Navy Drive Complete Street and the Transitway Extension to Pentagon



City. The Army Navy Drive improvements will rebuild Army Navy Drive between S Joyce Street and 12th Street S to expand capacity for transit, bicycles, and pedestrians. This component connects this section of Pentagon City to Arlington's overall high-quality pedestrian, bike, and transit network, and specifically improves the connection between the Pentagon itself and the mixed-use services of Pentagon City and Crystal City and Columbia Pike. The reconstruction provides a physically separated two-way protected bicycle lane along one side of Army Navy Drive, in addition to shorter, more practical, and safer pedestrian crossings. New turn lanes along Army Navy Drive will improve vehicular traffic flow at five locations: 2nd WB left turn lane at the Pentagon City Mall garage entrance, EB right turn lane at S Hayes St, WB left turn lane at S Fern Street, and EB and WB right turn lanes at S Eads Street. The component will accommodate high capacity transit via the addition of dedicated transit lanes between S Joyce St and S Hayes St, connecting to the other component of this project, the Transitway extension. The second component will design and construct an extension of the Crystal City Potomac Yard Transitway north through Pentagon City. The Transitway carries Metroway premium buses in dedicated bus lanes, connecting activity centers in Arlington and Alexandria. Currently the Transitway ends at 15th Street S in Crystal City. This extension brings it northwest to Pentagon City Metro station and Army Navy Drive, providing a dedicated, highquality connection to Columbia Pike. The component provides a bus rapid transit-like experience, implementing dedicated transit lanes, passenger stations, utility relocations, signing and pavement marking, and traffic signal upgrades. Transitway stations are anticipated to be at Crystal Drive at 15th St NB, 12th & Clark Streets, 12th & Eads Streets, 12th & Hayes Streets, and Joyce Street & Army Navy Drive. The Transitway improves transit performance by speeding Metroway buses both along their route and by at stops, and by extending high-quality BRT-style service to connect with VRE, the US Drug Enforcement Agency, the US Transportation Security Administration, and with Pentagon users at the new Army Navy Drive station.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х	Х	Х	Х				
Right of Way Acquisition		Х	Х					
Construction				Х	Х	Х		

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work			\$2,212,000 (Federal) \$992,000 (DRPT) \$1,451,000 (Local)	\$4,655,000
Right of Way Acquisition			\$135,000 (Federal) \$197,000 (Local)	\$1,390,000
Construction	\$28,850,000	\$28,850,000	\$559,000 (Federal) \$8,062,000 (Local)	\$40,620,000
TOTAL:	\$28,850,000	\$28,850,000	\$13,608,000	\$46,665,000

Note: There is a funding gap of \$4,207,000 for which Arlington County anticipates an additional funding request to DRPT in FY2019-21.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	10.34
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	40
TransAction Project Rating:	66.01
TransAction Project Rating Rank:	45

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

- Expand multimodal access within the Pentagon City activity center
- Extend the dedicated bus lanes of the Transitway providing for faster, more reliable service
- Add capacity for additional bus service
- Improve bicycle and pedestrian connectivity and safety between the Pentagon City Metro station and surrounding destinations
- Fill in missing links in the dedicated bus network in Arlington and Alexandria, bicycle, and pedestrian networks
- Relieve some of the ridership burden on the Yellow and Blue Metrorail lines, as well as reduce the burden on regional highways including Route 1
- Improve access to jobs\



Intelligent Transportation System Improvements

Arlington ITS Project

Project Description

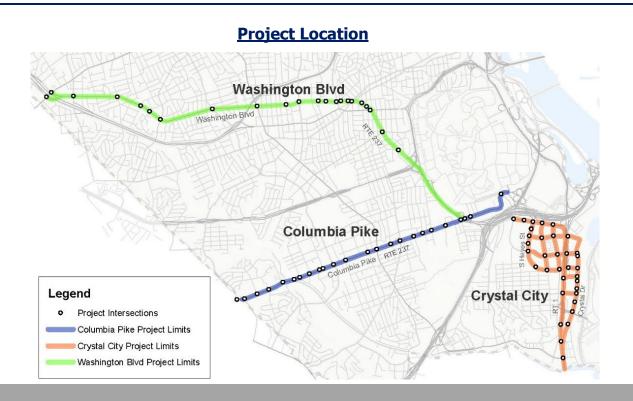
This project will improve the traffic signal infrastructure along several corridors to upgrade the Intelligent Transportation Systems, implement congestion-reducing adaptive signal optimization, and enable future initiatives such as connected vehicles and transit signal priority. The County's Adaptive 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.

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NVTA FY2018-23 PROGRAM Updated September 28, 2018

Reference Number: 2018-005-0 SPA Number: 2018-005-1 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 NVTA Funds Received: \$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.



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

Project Funding

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



Jermantown Road Corridor Improvements

Project Description

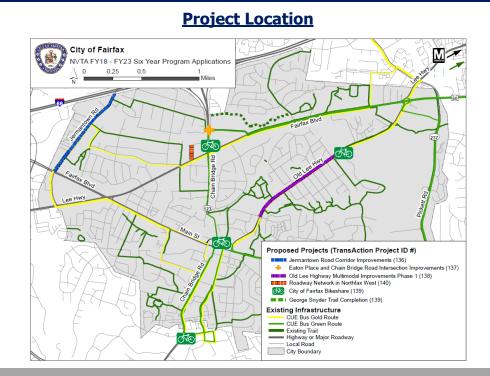
This project proposes to modify existing Jermantown Road (Rte 655) between I-66 to the north and Route 50 (Fairfax Boulevard) to the south (total project length approximately 0.7 miles) to provide improvements to reduce congestion and improve pedestrian mobility. This segment of Jermantown Road exists as a two-lane facility and experiences severe congestion during peak hour traffic. This project will make improvements including spot widening, new turn lanes, new signals, and pedestrian crossing locations to reduce the bottlenecks and improve mobility within the corridor. This project is a recommended project in the City's Multimodal Transportation



Reference Number: 2018-046-0 SPA Number: 2018-046-1 TransAction ID: 136 Submitting Jurisdiction/Agency: City of Fairfax Location: Jermantown Road between Fairfax Blvd (Route 50) and City Limits (South of bridge over I-66) Requested NVTA Funds: \$21,000,000 NVTA Funds Received: \$21,000,000 Total Cost to Complete Project: \$21,000,000

Plan (see attached Policy and Project Map). The City is currently performing an alternatives analysis to determine the optimal lane configuration to improve mobility along the corridor, including both improvements for vehicular and pedestrian movements.

Fairfax County has received I-66 Outside the Beltway Concessionaire funding to widen the bridge over Jermantown Road. The bridge is located within the county, just north of the City/County jurisdictional line. The City strongly supported Fairfax County's submitted project. Both the City and County requested that the I-66 project include the bridge's widening. The City's draft Comprehensive Plan calls for the widening of Jermantown Road and the bridge. Additionally, Fairfax County recently amended its Comprehensive Plan to include this widening. Jermantown Road north of the bridge is already four lanes. A wider bridge coupled with a potentially wider roadway in the City south of I-66 will facilitate the movement of traffic from the Vienna/Oakton area to access the I-66 managed-lane entrance at Monument Drive. The City would aim to complete this project prior to or concurrent with the completion of the I-66 project.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work		Х	Х	Х				
Right of Way Acquisition				Х	Х			
Construction					Х	Х	Х	

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$1,500,000	\$1,500,000		\$1,500,000
Right of Way Acquisition	\$9,500,000	\$9,500,000		\$9,500,000
Construction	\$10,000,000	\$10,000,000		\$10,000,000
TOTAL:	\$21,000,000	\$21,000,000		\$21,000,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	108.75
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	6
TransAction Project Rating:	65.80
TransAction Project Rating Rank:	46

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 and improve mobility
- Provide better connectivity from western Fairfax to the Oakton/Vienna area



Intersection Improvements at Eaton Place/ Chain Bridge Road

Project Description

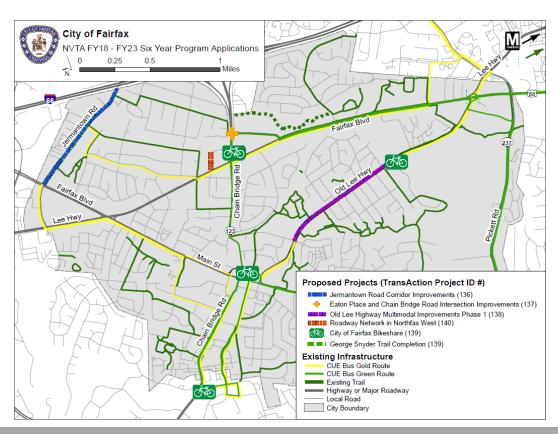
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This project will improve the intersection geometry at the Chain Bridge Road (Route 123)/Eaton Place intersection to improve vehicular flow along Route 123 and to/from the adjacent service drives and neighborhood roads. These improvements, in combination with adjacent projects occurring both inside the City (Northfax, University Drive Extension) and outside the City (I-66), will reduce congestion and improve traffic flow along this National Highway System (NHS) corridor.

The City is performing an alternatives analysis to determine the optimal solution to improve mobility at this intersection, which currently operates with eight signal phases (including four

Reference Number: 2018-047-0 SPA Number: 2018-047-1 TransAction ID: 137, 140 Submitting Jurisdiction/Agency: City of Fairfax Location: Jermantown Road between Fairfax Blvd (Route 50) and City Limits (South of bridge over I-66) Requested NVTA Funds: \$10,750,000 NVTA Funds Received: \$10,750,000 Total Cost to Complete Project: \$10,850,000

separate side street phases) to control movements at seven legs. Options under consideration include conversion to a multi-lane roundabout and/or keeping a traditional signalized intersection but removing and/or modifying some of the intersection phases to increase the through capacity of the intersection. The intersection has a current capacity of approximately 3,400 vehicles per hour; improvements to this intersection would increase that to upwards of 5,000 vehicles per hour. In addition, by improving vehicle throughput, the project will improve transit operations through this area.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work		Х	Х	Х				
Right of Way Acquisition			Х	Х				
Construction				Х	Х			

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$750,000	\$750,000	\$100,000 (Local Funds)	\$850,000
Right of Way Acquisition	\$2,500,000	\$2,500,000		\$2,500,000
Construction	\$7,500,000	\$7,500,000		\$7,500,000
TOTAL:	\$10,750,000	\$10,750,000	\$100,000	\$10,850,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	19.76
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	29
TransAction Project Rating:	65.01
TransAction Project Rating Rank:	48

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

- Enhance connectivity
- Reduce congestion



Old Lee Highway Multimodal Improvements: Phase I

Project Description

This project will convert Old Lee Highway into a regional multimodal corridor connecting the city with George Mason University to the south and Fairfax County and the Vienna Metrorail station to the north.

This project is located on the existing corridor of Old Lee Highway connecting downtown City of Fairfax to the Fairfax Circle Local Activity Center at Route 50/Route 29. The project will construct improvements from Layton Drive Hall Drive to Cornell Road to provide continuous multimodal facilities on both sides of Reference Number: 2018-048-0 SPA Number: 2018-048-1 TransAction ID: 138 Submitting Jurisdiction/Agency: City of Fairfax Location: Old Lee Highway between Layton Hall Drive and Cornell Road Requested NVTA Funds: \$5,000,000 NVTA Funds Received: \$5,000,000

Total Cost to Complete Project: \$14,000,000

Old Lee Highway including separated bicycle and pedestrian facilities and ADA-compliant bus stops. The Old Lee Highway corridor is home to three schools, a major City park, the Civil War Interpretive Center at Historic Blenheim, the City's Sherwood Community Center, the Police Station Headquarters and multiple residential neighborhoods. The corridor is book-ended by commercial areas: the City's downtown on the southern end and Fairfax Circle on the northern end. The roadway is two lanes (one lane in each direction) and carries approximately 13,000 vehicles per day. The width of the paved surface along Old Lee Highway varies widely. There is excess pavement (unused, paved roadway outside of the travel lanes) along long stretches of the corridor. There are sidewalks provided in many locations along the corridor, but they are discontinuous, varied in width and in deteriorating condition. In many locations, the sidewalks are directly adjacent to the roadway and lack a buffer. In other areas, there are no dedicated areas for pedestrians. There are sharrows along some of the roadway. The City's local bus service CUE runs its Gold Route along Old Lee Highway.

The project area for this phase is approximately 0.7 miles long and is wholly contained in the City of Fairfax. This project would complete the "center" section of Old Lee Highway. The remainder of the roadway would be improved through one or two additional phases of work. The City has done extensive planning for this roadway (concept plan was funded through TLC program) and this project is listed as a key priority in the City's Multimodal Plan.





	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work		Х	Х	Х				
Right of Way Acquisition				Х	Х			
Construction					Х	Х		

Project Funding

	Requested NVTA Funds		Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work			\$1,000,000 (Revenue Sharing/ Local Funds)	\$1,000,000
Right of Way Acquisition	\$1,500,000	\$1,500,000	\$3,000,000 (Revenue Sharing/ Local Funds)	\$4,500,000
Construction	\$3,500,000	\$3,500,000	\$5,000,000 (Revenue Sharing)	\$8,500,000
TOTAL:	\$5,000,000	\$5,000,000	\$9,000,000	\$14,000,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	1.83
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	55
TransAction Project Rating:	67.11
TransAction Project Rating Rank:	34

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

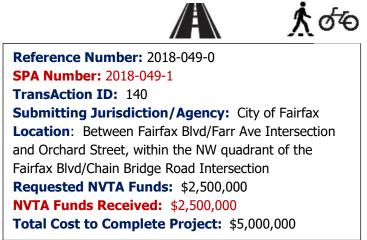
- Enhance connectivity
- Provide safer and multimodal travel options
- Reduce congestion



Roadway Network Northfax West

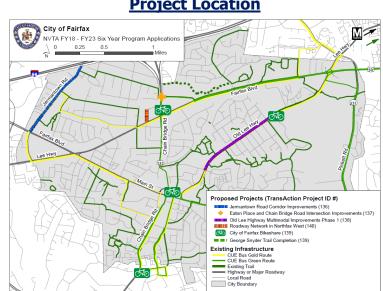
Project Description

This project is the construction of approximately 700 linear feet of new roadway between Fairfax Blvd/Farr Avenue and Orchard Street to create a grid network within the NW guadrant of Fairfax Blvd/Chain Bridge Road ("Northfax"). By providing an expanded grid within the Northfax area, the City seeks to reduce congestion at the Route 123/50/29 intersection, provide an expanded network for non-motorized traffic, and provide local access to existing commercial properties and future mixed-use redevelopment areas. Three private access drives are proposed to connect to the new roadway from an existing commercial property. The new roadway is scaled to promote multimodal use and includes context sensitive features appropriate for the



surrounding area. The new roadway includes two-way vehicular and bicycle lanes. The vehicular lanes are 11' in width and the bicycle lanes are 5' in width. On-street parking would be provided adjacent to the northbound bicycle lane with landscaped bulb-outs. Onstreet parking along the southbound bicycle lane would be provided with future redevelopment. Sidewalks with variable widths of 5'-7' are included adjacent to the northbound lanes. Sidewalk is provided adjacent to a portion of the southbound lane. Additional sidewalk adjacent to the southbound lanes would be provided with future development. Standard curb and gutter and header curb would be provided. Pedestrian lighting would also be included. The total proposed right-of-way width is 50 feet.

This project is a component of a larger set of Northfax Network Improvements, many of which are already underway. The City has spent approximately \$40M to make roadway and drainage improvements to the Route 50/29/123 intersection as part of the Northfax project (scheduled for December 2018 completion). The City has also received almost \$10M in Smart Scale funds to construct the University Drive Extension project, which is construction of a new roadway between Fairfax Boulevard and Eaton Place in the east Northfax quadrant. The Northfax West project is similar in scope to the University Drive Extension project in that its purpose is to provide a new roadway to improve mobility and pedestrian connectivity. The City is also applying for funding to improve the Chain Brian Road/Eaton Place intersection, which is a critical intersection on the Chain Bridge Road/Route 123 corridor that, in its current configuration, causes congestion on both Chain Bridge Road and Eaton Place.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work			Х					
Right of Way Acquisition			Х	Х				
Construction				Х	Х			

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$100,000	\$100,000	\$100,000 (Revenue Sharing)	\$200,000
Right of Way Acquisition	\$1,700,000	\$1,700,000	\$1,700,000 (Revenue Sharing)	\$3,400,000
Construction	\$700,000	\$700,000	\$566,522 (Revenue Sharing)	\$1,400,000
TOTAL:	\$2,500,000	\$2,500,000	\$2,366,522	\$5,000,000

Note: This project has a funding gap of \$133,478.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	10.78
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	38
TransAction Project Rating:	66.91
TransAction Project Rating Rank:	36

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
- Improve connectivity
- Improve accessibility



West Falls Church and Joint Campus Revitalization District Multimodal Transportation Project

Project Description

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Increasingly, State, Regional and Local Plans are recognizing the effectiveness and cost efficiency of investing in multimodal transportation options. Multimodal options have been repeatedly shown to be the most cost-effective transportation investments. This project reflects that trend by investing in multimodal transportation options near the West Falls Church Metrorail Station. The scope of this project includes intersection and signal improvements, pedestrian access improvements, bicycle access improvements, bus stop enhancement, and utility relocation/undergrounding. Signals will be installed or updated at or near the Chestnut Street & W

Reference Number: 2018-051-0 SPA Number: 2018-051-1 TransAction ID: 334, 66 Submitting Jurisdiction/Agency: City of Falls Church Location: See map below. Requested NVTA Funds: \$15,700,000 NVTA Funds Received: \$15,700,000 Total Cost to Complete Project: \$15,700,000

Broad Street/Route 7 intersection, Haycock Road & W Broad Street/Route 7 intersection, and Haycock Road and Schools Access Road intersection. A high-intensity activated crosswalk (HAWK) signal will be installed on Haycock Road to allow better connectivity and access to the school's area campus. Pedestrian access improvements will be made at the above listed intersections as well as along West Broad Street between the Metro Station Exit and Haycock Road. Improvements will also be made along both sides of Haycock Road between W Broad Street/Route 7 and the City line. Utility relocation/undergrounding and bicycle access improvements will take place along Haycock/Shreve Road and along W Broad Street within the project boundary.

The City is designated as a regional activity center and has recently been a focus of infill development. Immediately adjacent to the project area, the City is planning for 10 acres of redevelopment, with a likely minimum Floor Area Ratio (FAR) of 3.5. This would result in a minimum of 1.5 million square feet of additional development. Without viable travel alternatives, new City residents and workers will have little choice but to add to the automobile congestion on the already crowded regional highway network in the Route 7 Corridor and the I-66 Corridor. Expanding multimodal transportation options and extending the catchment area of the West Falls Church Metro Station will increase travel options and reduce pressure on the regional highway system.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work					Х			
Right of Way Acquisition					Х			
Construction						Х	Х	

Project Funding

	Requested NVTA Funds		Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$1,800,000	\$1,800,000		\$1,800,000
Right of Way Acquisition	\$600,000	\$600,000		\$600,000
Construction	\$10,600,000	\$10,600,000		\$10,600,000
Other	\$2,700,000	\$2,700,000		\$2,700,000
TOTAL:	\$15,700,000	\$15,700,000		\$15,700,000

Note: Other requested funding includes contract administration expenses.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	5.01
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	48
TransAction Project Rating:	52.57
TransAction Project Rating Rank:	57

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

- This project is expected to support economic growth.
- This project is expected to support an interconnected network.
- This project is expected to provide effective, cost-efficient transportation benefits.
- This project is expected to provide expanded travel choices.
- This project is expected to manage both demand and capacity.
- This project is expected to promote areas of concentrated growth.



Falls Church Enhanced Regional Bike Routes (W&OD Trail)

Project Description



The project is to replace the existing 10-foot wide shared-use trail with an 11-foot wide bicycle trail and an 8-foot wide pedestrian trail separated by a 2-foot wide median. Six substandard curb ramps and a narrow trail bridge over Four Mile Run will also be replaced. The length of the project is 1.2 miles in the City of Falls Church, extending from Broad Street (Route 7) to east of Little Falls Street and is the first phase of efforts to improve levels of service along congested portions of the W&OD Trail. The 45-mile long trail traverses the counties of Arlington, Fairfax, and Loudoun, the City of Falls Church, and the towns of Vienna, Herndon, and Leesburg. In a significant step to encourage non-motorized transportation, NOVA Parks extended hours of use to include commuting hours. The W&OD in the

Reference Number: 2018-062-0 SPA Number: 2018-062-1 TransAction ID: 134 Submitting Jurisdiction/Agency: Northern Virginia Regional Park Authority (NOVA Parks) Location: W&OD Trail, City of Falls Church, Broad Street (Route 7) to Little Falls Street. Requested NVTA Funds: \$3,793,209 NVTA Funds Received: \$3,244,959 Total Cost to Complete Project: \$3,793,209

project area connects to six roadways, each with sidewalk connections, which provide direct access to commuter routes for Metrobus. As part of VDOT's plans to widen I-66, it is constructing a W&OD Trail bridge over Lee Highway so that trails users will no longer cross five hazardous lanes of traffic. The bridge and parallel trails will significantly enhance first and last mile non-motorized access to the East and West Falls Church Metrorail Stations (.75 mile and .5 mile from the project area respectively) and bicycle access for commuters continuing into Arlington County, Alexandria, and Washington, D.C. The trail bridge will be 20 feet wide to accommodate parallel bicycle and pedestrian trails.

The W&OD passes through and near designated revitalization areas along Broad Street (Route 7) and Washington Street (Route 29). The city is a Regional Activity Center and is working to increase multimodal options to keep up with regional travel demand. This project will increase usage of the W&OD and increase patronage at nearby commercial uses and employment destinations. The parallel trails will provide greater capacity and encourage bicyclists and pedestrians who may avoid the facility due to overcrowding. As experience currently, at LOS D for pedestrians, there are frequent conflicts with bicyclists and at LOS F there are significant conflicts and a diminished experience for pedestrians. These conflicts and diminished experiences result in avoidance of the trail by users who do not feel safe, which will worsen as volumes increase.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work			Х					
Construction				Х				

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$400,000	\$400,000		\$400,000
Construction	\$3,393,209	\$2,844,959	\$548,250 (TA Funds)	\$3,393,209
TOTAL:	\$3,793,209	\$3,244,959	\$548,250	\$3,793,209

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	34.18
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	19
TransAction Project Rating:	50.00
TransAction Project Rating Rank:	60

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

- Provide enhanced bike and pedestrian access to the two Metrorail stations within the I-66 corridor
- Enhance mobility options by making the existing non-motorized transportation system easier and safer.
- Reduce road congestion



Widen Route 1 (Fraley Blvd.) to Six Lanes

Between Brady's Hill Road and Dumfries Road (Route 234)

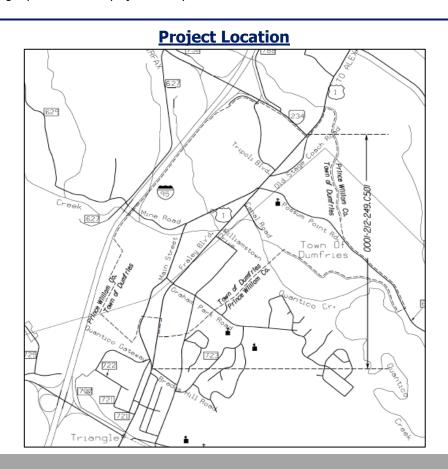
Project Description

Route 1 Northbound (Fraley Blvd) between Route 1109 (Brady's Hill Road) and Route 234 (Dumfries Road) is classified as an Urban Principal Arterial. Route 1 Southbound is on a separate alignment. This project will convert northbound Route 1 from a 2-lane undivided roadway to a divided 6-lane so both northbound and southbound traffic will be on the northbound alignment. The proposed typical section for the 2.1-mile project will consist of a six-lane facility with three 12' lanes in each direction. In addition to the six travel lanes, an outside lane will be added for bicycle use in both directions. The proposed design will provide a 16' raised median with sidewalks and shared use paths on opposite sides of the roadway. The design will follow the GS-5 (Urban



Reference Number: 2018-053-1 SPA Number: 2018-053-2 TransAction ID: 92 Submitting Jurisdiction/Agency: Town of Dumfries Location: From 0.1 Mile South of Brady's Hill Road to: 0.2 miles North of Route 234 (Dumfries Road) Requested NVTA Funds: \$116,554,000 NVTA Funds Received: \$44,860,000 Total Cost to Complete Project: \$123,954,000

Principal Arterial) standard at 45 mph design speed, as outlined in the Road Design Manual. The typical section will include CG-7 curbing and buffer space adjacent to pedestrian facilities. The roadway super-elevation will be based on urban low speed (TC-5.11 ULS) design standards. Side slopes will be 3:1 or flatter, where space is available. The existing southbound Route 1 (Main St) is on a separate alignment from northbound Route 1 (Fraley Rd) within the project limits. The separate alignment will be converted to a two-way road for local traffic after the six-lane widening is completed. Environmental studies and the NEPA document have been completed. A Public Hearing is planned for this project in early 2018.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х	Х	Х					
Right of Way Acquisition			Х	Х	Х	Х		
Construction						Х	Х	Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase				
Design, Engineering, Environmental Work			\$7,400,000 (NVTA 70, Other)	\$7,400,000				
Right of Way Acquisition	\$44,860,000	\$44,860,000		\$44,860,000				
Construction	\$71,694,000			\$71,694,000				
TOTAL:	\$116,554,000	\$44,860,000	\$7,400,000	\$123,954,000				
Note: The project has a funding gap of \$71,694,000								

Note: The project has a funding gap of \$71,694,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	56.15
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	17
TransAction Project Rating:	72.84
TransAction Project Rating Rank:	10

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

- Increase capacity and reduce congestion
- Increase safety
- Improve access to businesses
- Provide protected bus stop locations
- Provide pedestrian accommodations
- Enhance the quality of life





Route 1 Widening

Mount Vernon Memorial Highway to Napper Road

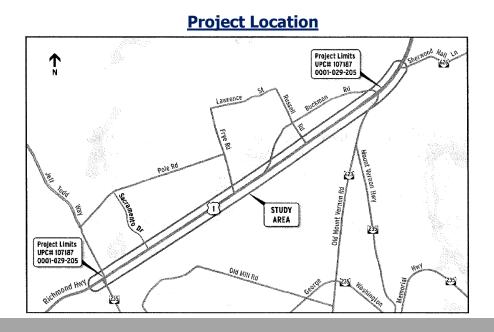
Project Description

The US Route 1 (known as Richmond Highway in Fairfax County) Corridor Improvements project (Route 1 Widening project) will provide multimodal improvements including roadway widening along the 2.91-mile section of Route 1 between Mt. Vernon Memorial Highway/Jeff Todd Way and Napper Road in Fairfax County. US Route 1 is currently classified as an Urban Principal Arterial. This project will increase the number of through travel lanes along Route 1 from four lanes to six lanes. In addition, it will provide a median reservation for future Bus Rapid Transit (BRT), intersection improvements, the replacement of three bridges, secure pedestrian crossings, as well as 6.5-foot wide off-road bicycle paths and 6-foot wide sidewalks on both sides of the roads.



Reference Number: 2018-006-1 SPA Number: 2018-006-2 TransAction ID: 214 Submitting Jurisdiction/Agency: Fairfax County Location: Mount Vernon Memorial Highway/Jeff Todd Way to Napper Road Requested NVTA Funds: \$127,000,000 NVTA Funds Received: \$127,000,000 Previous NVTA Funds Received: \$1,000,000 Total Cost to Complete Project: \$215,000,000

The project will seamlessly connect, on the south end, to the segment of Route 1 from Telegraph Road to Mt. Vernon Memorial Highway which was recently widened as part of the Federal Highway Administration (FHWA) Route 1 – Fort Belvoir project. This project will also connect to the existing six-lane segment of Route 1 north of Napper Road, resulting in a continuous six-lane facility from Fort Belvoir to I-95/I-495 in Alexandria. The roadway widening will help reduce congestion on about 10 miles of Route 1. Moreover, this project will improve safety for all users through various means. It will implement access management strategies such as the consolidation of driveways and other access points to reduce conflict points resulting in better safety and traffic flow. In addition, this project will implement intersection improvements to accommodate exiting and projected travel demand. These intersection improvements will include the addition of turn lanes, the provision of emergency signal preemption, pedestrian-activated countdown signals, transit signal priority for the future BRT, and potentially alternative intersection designs. This project is currently in the design stage.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х	Х	Х					
Right of Way Acquisition			Х	Х	Х	Х		
Construction						Х	Х	Х

Project Funding

	Requested NVTA Funds		Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$1,500,000	\$1,500,000	\$1,000,000 (NVTA FY2015- 16) \$3,460,000 (Rev Sharing '17) \$3,460,000 (Rev Sharing LCM) \$1,50,000 (Rev Sharing '18) \$7,580,000 (Rev Sharing LCM)	\$18,500,000
Right of Way Acquisition	\$87,000,000	\$87,000,000	\$3,000,000 (Rev Sharing 18) \$19,520,000 (RSTP)	\$120,600,000
Construction	\$38,500,000	\$38,500,000		\$75,900,000
TOTAL:	\$127,000,000	\$127,000,000	\$39,520,000	\$215,000,000

Note: There is a funding gap of \$48,480,000. Fairfax County plans to request additional funds through the state's Smart Scale program, the NVTA's next Call for Projects or other local, federal and/or private sources.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	26.48
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	24
TransAction Project Rating:	75.14
TransAction Project Rating Rank:	8

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

- Enhance the quality of life and economic strength
- Enable optimal use of the transportation network and leverage the existing network
- Establish a consistent six-lane section and enable the future median-running BRT system
- Reduce negative impacts of transportation on communities and the environment
- Reduce auto traffic volumes
- Improve reliable travel times for motorists and transit

• Provide frequent transit service, bicycle and pedestrian facilities



Richmond Highway Bus Rapid Transit

Phases I & II

Project Description

The Richmond Highway (Route 1) Bus Rapid Transit (BRT) project includes median running BRT from Huntington Metro Area to Fort Belvoir. The project will include new transit stations, facilities for bicycle, pedestrian, and vehicle travel modes.

In 2015, the Department of Rail and Public Transportation (DRPT) led a transportation study for Richmond Highway called the Route 1 Multimodal Alternatives Analysis, which evaluated the benefits, costs, and impacts of implementing multimodal improvements along a 15-mile stretch of Richmond Highway, from the I-95/I-495 Beltway area, through Fairfax County, to the VRE Station at Woodbridge in Prince William County. Through stakeholder participation and technical analysis, the study recommended transportation improvements for adoption by Fairfax County and Prince William County. This recommendation from the study included a phased approach, which was to implement median running BRT in the nearterm between Huntington in Fairfax County to Woodbridge in Prince William County and expanding Metrorail to Hybla Valley, Fairfax County in the long-term.

In May 2015, the Fairfax County Board of Supervisors endorsed phases I and II of the preferred transit alternative, which was to implement median running BRT from Huntington to Accotinck Village, Fort Belvoir. The Board action also included language for staff to work on updating the comprehensive plan to include elements along the corridor that would be supportive of BRT and other necessary actions for BRT implementation. 📮 🗼 d 🗟 🛜

Reference Number: 2018-007-0 SPA Number: 2018-007-1 TransAction ID: 39 Submitting Jurisdiction/Agency: Fairfax County Location: Between Fort Belvoir and Huntington Metrorail Station Requested NVTA Funds: \$250,000,000 NVTA Funds Received: \$250,000,000

Total Cost to Complete Project: \$544,800,000



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

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
			\$4,000,000 (VDRPT)	\$88,800,000
Design, Engineering,		¢74.000.000	\$6,000,000 (C&I Tax	
Environmental Work	\$74,000,000	\$74,000,000	Revenues)	
			\$6,000,000 (NVTA 30%)	
Right of Way	\$67,100,000	\$67,100,000	\$21,465,000 (CMAQ)	\$103,400,000
Acquisition			\$14,505,000 (RSTP)	
Construction	\$108,900,000	\$108,900,000		\$329,900,000
Capital Asset Acquisitions				\$22,700,000
TOTAL:	\$250,000,000	\$250,000,000	\$51,970,000	\$544,800,000

Note: There is a funding gap of \$242,830,000. Fairfax County plans to request additional funds through the state's Smart Scale program, the NVTA's next Call for Projects, federal New Starts Program or other local, federal and/or private sources.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	28.58
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	23
TransAction Project Rating:	85.86
TransAction Project Rating Rank:	2

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

- Enhance quality of life and economic strength
- Implement a multimodal transportation system, including BRT, bicycle, and pedestrian facilities
- Improve connectivity to Fort Belvoir and the Fort Belvoir Community Hospital, two very large employment centers in south eastern Fairfax County.
- Enable optimal use of the transportation network and leverage the existing network
- Reduce negative impacts of transportation on communities and the environment



Frontier Drive Extension and Intersection Improvements

Project Description

The project will extend Frontier Drive from its current southern terminus at the Joe Alexander Transit Center to Loisdale Road, through the Springfield Industrial Park, generally along the existing Spring Center Drive alignment. The extension would facilitate traffic and transit access to the Transit Center, which includes the Franconia-Springfield Metrorail Station serving both the Washington Metropolitan Area Transit Authority (WMATA) Metrorail and Virginia Railway Express Commuter Rail systems; and via the proposed braided ramps to and from the Franconia-Springfield Parkway. The extension will provide a more direct connection for twenty transit routes and Greyhound bus service, some of which will operate between the Transit Center and the



Reference Number: 2018-009-1 SPA Number: 2018-009-2 TransAction ID: 84 Submitting Jurisdiction/Agency: Fairfax County Location: Frontier Drive to Loisdale Road Requested NVTA Funds: \$79,500,000 NVTA Funds Received: \$25,000,000 Previous NVTA Funds Received: \$2,000,000 Total Cost to Complete Project: \$116,070,000

General Services Administration (GSA)/Springfield Industrial Park road network and the Northern Virginia Community College (NVCC). The current disconnected roadway forces transit providers to develop circuitous routes to reach the GSA road network. The more direct routing is anticipated to reduce travel time by 3 to 4 minutes on each trip. The project will also provide pedestrian and bicycle facilities along Frontier Drive and will support the relocation of the Transportation Security Administration headquarters adjacent to the GSA site, which will be located in the vicinity of Springfield Center Drive and is expected to bring more than 3,000 jobs by 2020.

The proposed Frontier Drive Extension is envisioned to run on the western portion of the Transit Center property, and would affect current station access and circulation. The new roadway would require conversion of the existing southbound entrance road from Frontier Drive and the Franconia-Springfield Parkway into a new, two-way, four-lane, divided, minor arterial facility, with associated turn lanes and a new entrance accessing the Transit Center. Improvements include the Frontier Drive Extension to Loisdale Road (Route 789), braided ramps at the Franconia-Springfield Parkway & Frontier Drive interchange, traffic signalization at two (2) intersections and internal circulation enhancements at the Franconia-Springfield Transit Center. The project is identified in the Fairfax County Comprehensive Plan (2013) and in VDOT's Six-Year Improvement Program (Year 2017). Partial funding has been established for the Preliminary Engineering (PE) phase of this project. Franconia-Springfield Parkway is classified as a National Highway System (NHS) non-Interstate facility.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х	Х	Х	Х	Х	Х		
Right of Way Acquisition			Х	Х	Х			
Construction						Х	Х	Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering,			\$2,000,000 (NVTA 70%)	\$10,000,000
Environmental Work			\$8,000,000 (NVTA 30%)	\$10,000,000
Right of Way Acquisition	\$25,000,000	\$25,000,000		\$25,000,000
Construction	\$54,500,000			\$81,070,000
TOTAL:	\$79,500,000	\$25,000,000	\$10,00,000	\$116,070,000

Note: There is a funding gap of \$81,070,000, for which Fairfax County plans to apply for funds through the state's Smart Scale program the NVTA's next Call for Projects or other local, federal and/or private sources.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	8.43
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	42
TransAction Project Rating:	69.80
TransAction Project Rating Rank:	21

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

- Enhance the quality of life and economic strength
- Reduce congestion on I-95 between the Fairfax County Parkway and Old Keene Mill Road (Route 644), and in the area around the Springfield Town Center.
- Improve travel times
- Provide mode options through on-road bicycle lanes, sidewalks and a shared-use path
- Increase access to jobs, employees, markets, and destinations



Route 28 Widening: Route 29 to Prince William County Line

Project Description

The original scope of this Route 28 project provided for the widening of Route 28 from 4-lanes to 6-lanes (3 lanes in each direction) from the Prince William County Line (bridge over Bull Run) to Route 29. The project includes bicycle and pedestrian facilities on throughout the project limits, and intersections.

After completing the initial traffic analyses, it was determined that a 6-lane facility was inadequate to handle the projected 2040 traffic volumes (see further discussion of traffic analysis under 6.2). The scope has therefore been revised to widen Route 28 from the Prince William County Line to the Route 29 Interchange from the existing 4-lanes to 7/8-lanes, including intersection improvements on all side streets by adding turn lanes and eliminating split phase signals. This Project also



Reference Number: 2018-010-2 SPA Number: 2018-010-3 TransAction ID: 30 Submitting Jurisdiction/Agency: Fairfax County Location: Route 29 in Centreville to Prince William County Line at the bridge over Bull Run Requested NVTA Funds: \$16,000,000 (reduced from \$38,270,000) NVTA Funds Received: \$16,000,000 Previous NVTA Funds Received: \$10,000,000 Total Cost to Complete Project: \$91,100,000

includes potentially relocating/realigning the Ordway Road/Compton Road/Old Centreville Road Intersection to improve traffic operations and safety through the corridor. The project will add two lanes in the southbound direction from Rt. 29 to Compton Road; and one lane in the southbound direction from Compton Road to the Bull Run Bridge (Prince William County line). It will add one lane in the northbound direction from the Bull Run Bridge to a point approximately 1,000 feet south of New Braddock Road; and two lanes in the northbound direction from this point, northward to the existing interchange at Route 29. Fairfax County application is for the original widening (to 6 lanes), with funding for the expanded scope being sought from other sources.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х	Х	Х					
Right of Way Acquisition				Х	Х	Х		
Construction			Х	Х	Х	Х	Х	

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering,			\$550,000 (Fed Demonstration)	\$4,500,000
Environmental Work			\$3,950,000 (NVTA 70%)	фт,500,000
			\$3,640,000 (NVTA 70%)	
Right of Way Acquisition			\$5,460,000 (Fed	\$9,100,000
			Demonstration)	
			\$2,410,000 (NVTA 70%)	
	\$16,000,000		\$3,400,000 (Fed	
Construction	(reduced from	\$16,000,000	Demonstration)	\$77,500,000
	\$38,270,000)		\$23,420,000 (SmartScale)	
			\$10,000,000 (Rev Share)	
TOTAL:	\$16,000,000	\$16,000,000	\$52,830,000	\$91,100,000
	Note: Th	ere is a funding gap of \$2	2,270,000	

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	77.88
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	11
TransAction Project Rating:	68.40
TransAction Project Rating Rank:	25

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

- Enhance the quality of life and economic strength
- Reduce congestion on a heavily traveled section of the VA Route 28 corridor
- Improve multi-modal travel by adding pedestrian/bicycle facilities
- Improve travel times and reliability along the entire Route 28 corridor in Fairfax County and beyond.



Richmond Highway CSX Underpass Widening

Project Description

As a part of the effort to widen Richmond Highway from I-495 to Prince William County, the project lowers and widens the roadway to eventually accommodate six lanes of traffic and facilitate alternative modes of transportation. Building upon the Virginia Department of Rail and Public Transportation (DRPT) Atlantic Gateway program, the Richmond Highway CSX Underpass Widening project leverages an innovative federal, state, and private sector partnership to make critical intermodal and safety improvements to the existing roadway facility and proposed railroad bridge upgrades at the intersection of Richmond Highway and the CSX Railroad.

The Atlantic Gateway program replaces the existing railroad bridge with a new, expanded facility with three tracks. The current bridge is too low to allow trucks to pass under the bridge and too narrow to accommodate the roadway widening and bicycle and pedestrian facilities. The Atlantic Gateway program, awarded FASTLANE grant program funding in FY 2016, only adds a single new track and bridge and precludes the ability to widen the roadway. This project retains and expands upon that element of the Atlantic Gateway. The resulting improved roadway and railroad bridge will widen and lower the roadway to increase vertical clearance that will: 1) Accommodate a future Bus Rapid Transit (BRT) system; 2) Enable the movement of additional goods by eliminating the existing truck restriction at the bridge; 3) Create pedestrian and bicycle facilities; and 4) Reduce automobile, pedestrian, and truck accidents on Richmond Highway.



Reference Number: 2018-012-0 SPA Number: 2018-012-1 TransAction ID: 282 Submitting Jurisdiction/Agency: Fairfax County Location: Occoquan River Bridge to Telegraph Road Requested NVTA Funds: \$12,000,000 NVTA Funds Received: \$12,000,000 Total Cost to Complete Project: \$56,000,000



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work		Х	Х	Х	Х			
Right of Way Acquisition				Х	Х			
Construction						Х	Х	

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering,			\$4,000,000 (VDOT/DRPT)	\$5,000,000
Environmental Work			\$1,000,000 (NVTA 30%)	
Right of Way			\$3,000,000 (VDOT/DRPT)	\$4,000,000
Acquisition			\$1,000,000 (NVTA 30%)	
			\$25,800,000 (VDOT/DRPT)	\$47,000,000
Construction	\$12,000,000	\$12,000,000	\$7,000,000 (NVTA 30%)	
			\$2,200,000 (Private Sector)	
TOTAL:	\$12,000,000	\$12,000,000	\$44,000,000	\$56,000,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	13.87
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	34
TransAction Project Rating:	70.75
TransAction Project Rating Rank:	17

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

- Enhance quality of life and economic strength
- Improve connectivity between the Fort Belvoir and Woodbridge Activity Centers
- Provides bicycle and pedestrian facility



NVTA FY2018-23 PROGRAM Updated September 28, 2018

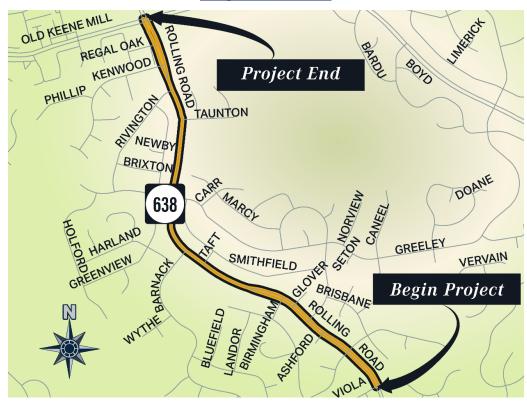
Rolling Road Widening

Hunter Village Drive to Old Keene Mill Road

Project Description

This project involves widening Rolling Road (Route 638) from a two to a four-lane divided roadway between Viola Street and Old Keene Mill Road, with pedestrian and bicycle facilities. In addition to widening Rolling Road, the project involves the following improvements:

- Implement access management by constructing a median on Rolling Road between Viola Street and Kenwood Avenue
- Construct dedicated left turn lanes at major intersections
- Construct an additional northbound left turn lane at the Old Keene Mill Road intersection
- Install a traffic signal at the intersection of Rolling Road at Greeley Boulevard
- Reduce congestion, enhance safety for all users, and improve access to points east and west while planning to meet future traffic demands,
- Providing storm-water management facilities.
- Provide continuity from both the south and north directions.
- This project also includes a shared-use path to increase safety for non-motorized users.



Project Location





Reference Number: 2018-014-1 SPA Number: 2018-014-2 TransAction ID: 54 Submitting Jurisdiction/Agency: Fairfax County Location: 0.369 miles North of Fairfax County Parkway (Route 286) to Old Keene Mill Rd (Route 644) Requested NVTA Funds: \$11,111,000 NVTA Funds Received: \$11,111,000 Previous NVTA Funds Received: \$5,000,000 Total Cost to Complete Project: \$51,600,000

	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х							
Right of Way Acquisition		Х	Х					
Construction				Х	Х	Х	Х	Х

Project Funding

	Requested NVTA Funds		Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work			\$2,400,000 (RSTP) \$600,000 (CMAQ) \$2,880,000 (Revenue Sharing)	\$5,880,000
Right of Way Acquisition	\$2,400,000	\$2,400,000	\$4,380,000 (RSTP) \$9,720,000 (Revenue Sharing) \$920,000 (Other State))	\$17,420,000
Construction	\$8,711,000	\$8,711,000	\$9,590,000 (RSTP) \$7,400,000 (Revenue Sharing) \$2,599,000 (Local Funds)	\$28,300,000
TOTAL:	\$11,111,000	\$11,111,000	\$40,489,000	\$51,600,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	79.73
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	10
TransAction Project Rating:	65.99
TransAction Project Rating Rank:	44

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 providing additional capacity on a highly congested north-south corridor
- Enhance the quality of life and economic strength
- Improves the safety of transportation network, and sustains and improves operation of the regional system





Fairfax County Parkway Widening

Ox Road to Lee Highway, including a grade-separated interchange at the intersection of Popes Head Road

Project Description

This project provides for the widening of Fairfax County Parkway from Ox Road (Route 123) to just north of Lee Highway (Route 29) from four to six lanes, and a grade separated interchange at the intersection of Fairfax County Parkway and Popes Head Road. Improvements will also be made to the existing Fairfax County Parkway Trail. Where there is no trail currently, a new shared-use path will be constructed to make the trail continuous within the project limits. Conceptual design assumes that all existing lanes will be salvaged and that 12' of pavement will be added to the inside median and 2' will be added to the outside to accommodate the future HOV lanes. The typical section has not been finalized, but shall not preclude future HOV additions or conversion. All





Reference Number: 2018-016-2 SPA Number: 2018-016-3 TransAction ID: 57 Submitting Jurisdiction/Agency: Fairfax County Location: North of Lee Highway to Ox Road Requested NVTA Funds: \$67,000,000 NVTA Funds Received: \$67,000,000 Previous NVTA Funds Received: \$20,000,000 Total Cost to Complete Project: \$191,300,000

signalized intersections are assumed to be full replacements and no new signalized intersections are being added.

The interchange will provide significant congestion relief as well as improve safety at the signalized intersection at Popes Head Road. The project will provide for the future connection to Shirley Gate Road to the east, which was identified to improve regional northsouth travel in this area of the County and alleviate congestion along the parallel Route 123 to the east. It is anticipated that the Shirley Gate Road extension will be built as a separate project after the interchange project is completed; however, the portion of the roadway from Fairfax County Parkway to the future Fairfax County Park Access Road entrance would be built as part of the interchange project. The interchange also includes shared use paths on Fairfax County Parkway.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х	Х	Х	Х				
Right of Way Acquisition			Х	Х				
Construction					Х	Х	Х	Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work			\$10,000,000 (NVTA 70% Funds) \$4,000,000 (Local)	\$14,000,000
Right of Way Acquisition	\$22,000,000	\$22,000,000	\$10,000,000 (NVTA 70% Funds)	\$32,000,000
Construction	\$45,000,000	\$45,000,000	\$50,500,000 (Smart Scale) \$5,500,000 (RSTP)	\$145,300,000
TOTAL:	\$67,000,000	\$67,000,000	\$80,000,000	\$191,300,000

Note: There is a funding gap of \$44,300,000. Fairfax County plans to pursue the remaining funding gap through the state's Smart Scale program, the NVTA's next Call for Projects or other local, federal, and/or private sources.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	73.05
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	12
TransAction Project Rating:	76.40
TransAction Project Rating Rank:	6

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

- Enhance quality of life and economic strength by improving connections among areas of concentrated growth.
- Reduce congestion and increase travel time reliability along the corridor and at the interchange at Popes Head Road
- Provide more mode options and expand travel choices for commuters through new bus route between Herndon Metrorail Station and Franconia-Springfield Metrorail/VRE Station via the Parkway to be implemented in Fiscal Year 2020.



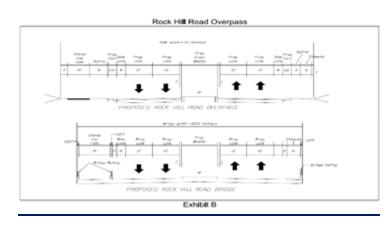
NVTA FY2018-23 PROGRAM Updated September 28, 2018

Rock Hill Road Bridge

Davis Drive Extension and Dulles Toll Road: Rock Hill Overpass

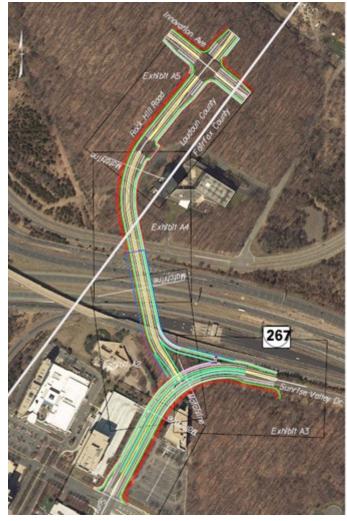
Project Description

The Rock Hill Road Bridge will be a new connection between Fairfax County and Loudoun County over the Dulles Toll Road. The new bridge will connect Sunrise Valley Drive over Dulles Toll Road to Innovation Avenue in Loudoun County. The new connection would be located just west of the Innovation Center Metrorail Station. The project will include a new four-lane divided road and bridge with curb and gutter, eleven-foot lanes, eight-foot raised grass median, six-foot bike lanes, and five-foot sidewalk on both sides. The proposed roadway would provide an additional crossing Dulles Corridor in the area, and provide direct connections within the Innovation Center Transit Station Area. The project would provide additional capacity across the Dulles Corridor, reduce congestion and delay on Route 28 and Centreville Avenue, and improve accessibility and mobility to and within the area surrounding the Innovation Center Metrorail Station.





Reference Number: 2018-017-0 SPA Number: 2018-017-1 TransAction ID: 19 Submitting Jurisdiction/Agency: Fairfax County Location: Sunrise Valley Drive in Fairfax over Dulles Toll Road to Innovation Avenue in Loudoun County Requested NVTA Funds: \$100,000,000 NVTA Funds Received: \$20,604,670 Total Cost to Complete Project: \$100,000,000



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work				Х	Х	Х	Х	Х
Right of Way Acquisition						Х	Х	
Construction								Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$10,000,000	\$10,000,000		\$10,000,000
Right of Way Acquisition	\$24,000,000	\$10,604,670		\$24,000,000
Construction	\$66,000,000			\$66,000,000
TOTAL:	\$100,000,000	\$20,604,670		\$100,000,000
	Noto: This	project bas a funding gap of	470 20E 220	

Note: This project has a funding gap of \$79,395,330

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	67.25
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	15
TransAction Project Rating:	75.22
TransAction Project Rating Rank:	7

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

- Improve connectivity
- Improve access to jobs
- Reduce congestion on parallel facilities (Route 28 and Centerville Rd)
- Improve travel time reliability and system resiliency

\$ 6€



Construct Interchange at Route 7 and Battlefield Parkway

Project Description

This project includes development of a grade-separated interchange between East Market Street (Route 7) and Battlefield Parkway in Leesburg. The project will also convert the existing signalized intersection at East Market Street and Cardinal Park Drive to an unsignalized right-in/right-out intersection. At completion of this project and other projects either planned or under construction, all traffic signals will be eliminated from Route 7 for a 38-mile segment between Algonkian Parkway and Berryville. The purpose of the project is to relieve congestion, improve traffic operations, improve safety, improve pedestrian access, and to allow Route 7 to function as a limited access corridor within the Town in

Reference Number: 2018-054-2 SPA Number: 2018-054-3 TransAction ID: 193 Submitting Jurisdiction/Agency: Town of Leesburg Location: See map below. Requested NVTA Funds: \$25,000,000 NVTA Funds Received: \$25,000,000 Previous NVTA Funds Received: \$33,000,000 Total Cost to Complete Project: \$58,000,000

accordance with the Town Plan. The project was originally included in the 1986 Leesburg Town Plan, and continues to be in the Town Plan today. The project is also included in the Town's Capital Improvement Program, the Loudoun Countywide Transportation Plan, the Loudoun County Capital Improvement Program, VDOT's Six-Year Improvement Program, and the National Capital Region Transportation Planning Board's 2016 Amendment to the Constrained Long Range Plan (CLRP).

The Route 7 corridor carries inter-state and intra-state traffic from the west and north to employment corridors and activity centers in the Dulles area and Washington, D.C. metropolitan area. The corridor routinely experiences severe congestion, especially during afternoon peak periods. VDOT, in cooperation with the Town of Leesburg and Loudoun County, is preparing an Interchange justification report (IJR) for the project (Attachment 2 – Draft Interchange Justification Report). As part of the IJR, traffic forecasts and traffic analyses were performed (see Chapters 6 – Traffic Volumes and Chapter 7 – Traffic Analysis of the IJR). The traffic analysis concluded that the proposed interchange will improve operations along Route 7 based on corridor travel times, speeds, densities, vehicle throughputs, and arterial intersection operation results. In addition to improving motorized vehicle operations, this project will also improve pedestrian and bicycle access and connectivity. There currently is a missing link in the sidewalk / shared use path system along Battlefield Parkway that establishes a barrier that prevents pedestrians and bicyclists from safely crossing Route 7. Earlier this year, the Town established a trail network along Battlefield Parkway. Because of this missing link, bicyclists riding along Battlefield Parkway must travel nearly two miles further to cross Route 7 at River Creek Parkway. The proposed interchange will provide a grade-separated crossing of Route 7 for bicyclists and pedestrians.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х	Х	Х	Х				
Right of Way Acquisition				Х				
Construction		Х	Х	Х	Х	Х		

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work			\$2,000,000 (NVTA 70%)	\$2,000,000
Right of Way Acquisition*				
Construction	\$25,000,000	\$25,000,000	\$31,000,000 (NVTA 70%)	\$56,000,000
TOTAL:	\$25,000,000	\$25,000,000	\$33,000,000	\$58,000,000

Note: Right of Way expenses are included in the Design costs.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	30.70
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	21
TransAction Project Rating:	71.12
TransAction Project Rating Rank:	16

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 and delay experienced by commuters and local residents on a daily basis.
- Improve access to jobs for commuters from points north and west traveling to employment centers further east.
- Improve travel time reliability by reducing congestion experienced during peak periods.
- Improve the multimodal transportation system by eliminating barriers to pedestrians and bicyclists who desire to cross Route 7 and travel between residential areas and commercial centers. Also improves access to the W&OD Regional trail for residents living north of Route 7.
- Reduce air pollution by reducing congestion.
- Improve safety by separating higher speed through traffic from slower speed local roads.



Interchange Improvements at Route 15 Leesburg Bypass and Edwards Ferry Road

Project Description



The existing intersections between the Route 15 Leesburg Bypass and Edwards Ferry Road and between the Bypass and Fort Evans Road are two of the most congested and high accident intersections within the Town of Leesburg. The Bypass also acts as a barrier that inhibits east-west movements on Battlefield Parkway by motor vehicles, pedestrians and bicycles. Development of an interchange at this location was first included in the Leesburg Town Plan in 1986 and continues to be included in the current Town Plan the Loudoun Countywide Transportation Plan, and the Metropolitan Washington Council of Governments (MWCOG) Constrained Long-Range Plan. During the past three years,

Reference Number: 2018-055-2
SPA Number: 2018-055-3
TransAction ID: 131
Submitting Jurisdiction/Agency: Town of Leesburg
Location: See map below.
Requested NVTA Funds: \$105,700,000
NVTA Funds Received: \$5,400,000
Previous NVTA Funds Received: \$2,000,000
Total Cost to Complete Project: \$112,000,000

the Virginia Department of Transportation has been preparing an Interchange Justification Report (IJR), Preliminary Plans, and a NEPA Environmental Document for the project. The Leesburg Town Council endorsed the interchange configuration in May 2017. A final Public Hearing for the project is scheduled for April 2018. It is anticipated that by summer 2018, the IJR will be approved, the NEPA document will be approved, and the preliminary design will be completed. At that point, the project will be ready for final design and construction. Depending on the schedule for obtaining funding, the project could be constructed under a design-build contract. If that approach is taken, the process for procuring and Design-Build contractor could begin immediately.

The existing at-grade intersections of the Route 15 Leesburg Bypass with Edwards Ferry Road and Fort Evans Road are two of three remaining signalized intersections on the Bypass. Route 15 is part of the National Highway System that serves as a major commuter route between northern Loudoun County, Maryland, and Pennsylvania and employment centers in eastern Loudoun County, Fairfax County, and points further east. Both of the intersections have large retail stores and shopping centers, including Kohls, Target, Costco, Home Depot, Leesburg Premium Outlets, Walmart, and others. There is also very heavy weekend traffic from local residents, shoppers, and travelers along the east coast. Traffic volumes and analyses have been performed as part of the IJR. Congestion at both intersections is severe – traffic studies indicate a forecasted level of service F during specific peak periods.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work							Х	Х
Right of Way Acquisition							Х	Х
Construction							Х	Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$5,400,000	\$5,400,000	\$2,000,000 (NVTA 70%)	\$7,400,000
Right of Way Acquisition	\$7,000,000			\$7,000,000
Construction	\$93,300,000		\$4,300,000 (RSTP)	\$97,600,000
TOTAL:	\$105,700,000	\$5,400,000	\$6,300,000	\$112,000,000

Note: There is a funding gap of \$100,300,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	1.41
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	57
TransAction Project Rating:	64.73
TransAction Project Rating Rank:	50

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 and delay experienced by commuters and local residents on a daily basis.
- Improve access to jobs for commuters from northern Loudoun County, Maryland and Pennsylvania traveling to employment in eastern Loudoun County, Fairfax County and points further east.
- Improve travel time reliability by reducing congestion experienced during peak periods.
- Reduce congestion on weekends and during holiday shopping seasons for local and regional drivers going to the various
 retail centers in the interchange area.
- Improve the multimodal transportation system by eliminating barriers to pedestrians and bicyclists who desire to cross the Route 15 Bypass and travel between residential areas west of the Bypass and shopping /employment area to the east.
- Reduce air pollution by reducing congestion.
- Improve safety by separating high volume, high speed Bypass traffic from the slower speed local traffic.

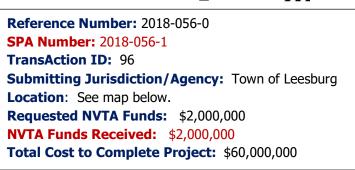
\$60



Construct Interchange at Route 15 Bypass and Battlefield Parkway

Project Description

The existing intersection between the Route 15 Leesburg Bypass and Battlefield Parkway is one of the most congested intersections within the Town of Leesburg. The Bypass also acts as a barrier that inhibits east-west movements on Battlefield Parkway by motor vehicles, pedestrians and bicycles. The funding requested under this project is for the initial steps of developing a grade-separated interchange. This includes preparation of an interchange justification report (IJR) to evaluate the need for the interchange, comparison of alternative designs, analysis of environmental impacts, and establishment of a project budget. Development of an



interchange at this location was first included in the Leesburg Town Plan in 1986 and continues to be included in the current Town Plan. The project is also included in the Loudoun County Transportation Plan. During rezoning for adjacent residential developments, right of way for the interchange was provided. Accordingly, little or no additional right of way is expected to be required.

The existing at-grade intersection of the Route 15 Leesburg Bypass with Battlefield Parkway is one of three remaining signalized intersections on the Bypass. The other two traffic signals on the Bypass will be eliminated with the construction of an Interchange with Edwards Ferry Road and Fort Evans Road. The project is located at the southern terminus of proposed widening of Route 15 between Battlefield Parkway and Montresor Road. Route 15 is part of the National Highway System that serves as a major commuter route between northern Loudoun County, Maryland, and Pennsylvania and employment centers in eastern Loudoun County, Fairfax County, and points further east. There is also very heavy weekend traffic from local residents and travelers along the east coast. Peak traffic volumes on Route 15 were approximately 2,000 VPH in 2015, and are forecast to increase to approximately 2,500 VPH in year 2040. Battlefield Parkway serves as an arterial loop around the east side of Leesburg, and serves local residential and business traffic. Traffic on Battlefield Parkway is forecast to increase by approximately 30% from slightly less than 1,000 VPH in 2015 to over 1,300 VPH by 2040. Congestion at the intersection is severe – traffic studies indicate a current level of service F during the weekday afternoon peak period.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work					Х	Х		Х
Right of Way Acquisition								Х
Construction								Х

Project Funding

	Requested NVTA Funds		Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$2,000,000	\$2,000,000		\$6,000,000
Right of Way Acquisition				\$5,000,000
Construction				\$49,000,000
TOTAL:	\$2,000,000	\$2,000,000		\$60,000,000

Note: This project has a funding gap of \$58,000,000.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	10.58
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	39
TransAction Project Rating:	72.54
TransAction Project Rating Rank:	12

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

- Reducing congestion and delay experienced by commuters and local residents on a daily basis.
- Improving access to jobs for commuters from northern Loudoun County, Maryland and Pennsylvania traveling to employment in eastern Loudoun County, Fairfax County and points further east.
- Improving travel time reliability by reducing congestion experienced during peak periods.
- Improving the multimodal transportation system by eliminating barriers to pedestrians and bicyclists who desire to cross the Route 15 Bypass and travel between residential areas and schools, parks, churches and other facilities.
- Reducing the need for cut-through traffic by commuters using neighborhood roads to avoid congestion on the primary arteries.
- Reducing air pollution by reducing congestion.
- Improving safety by separating high volume, high speed Bypass traffic from the slower speed local traffic.



Route 15 Bypass Widening: Battlefield Parkway to Montresor Road

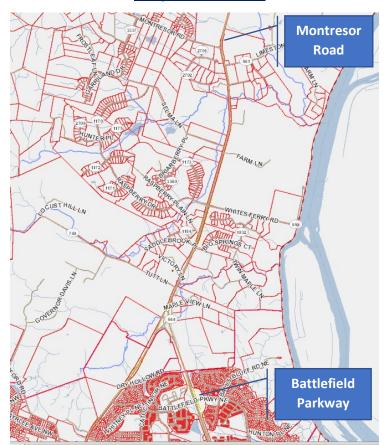
Project Description

This project will implement the improvement recommendations from the Route 15 Congestion Report presented to the Board on May 18, 2017. This project will widen 3.5 miles of U.S. Route 15 from Battlefield Parkway to Montresor Road. This principal arterial will be widened from 2-lanes to 4-lanes divided between the limits described. Additional improvements are required to transition the improved 4-lane section to the existing 2-lane section north of Montresor Road. The project will also improve the intersection at King Street and Whites Ferry Road/Raspberry Falls Drive. Widening this key arterial route north of Leesburg will provided more capacity along the project corridor, relieve



Reference Number: 2018-021-1 SPA Number: 2018-021-1 TransAction ID: 191 Submitting Jurisdiction/Agency: Loudoun County Location: Battlefield Parkway to Montresor Road Requested NVTA Funds: \$54,000,000 NVTA Funds Received: \$54,000,000 Total Cost to Complete Project: \$81,163,683

congestion that impacts Leesburg and the village of Lucketts, and reduce the attractiveness of secondary routes for commuters through Waterford and Stumptown. A shared use path will also be constructed along the east side of this project to connect pedestrians and bicyclists from Battlefield Parkway to Whites Ferry Road.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work			Х	Х	Х			
Right of Way Acquisition					Х	Х	Х	Х
Utilities Relocations					Х	Х	Х	Х
Construction							Х	Х

Project Funding

	Requested NVTA Funds		Other Funding Sources	Total Cost by Phase
			\$1,665,801 (Federal Earmark)	
Design, Engineering,			\$929,882 (NVTD Bond)	\$6,095,683
Environmental Work			\$3,500,000 (Loudoun County)	
Right of Way Acquisition	\$12,000,000	\$12,000,000		\$12,000,000
Utilities Relocations			\$5,592,000 (Loudoun County)	\$5,592,000
	\$42,000,000	\$42,000,000	\$15,476,000 (Loudoun	¢57 476 000
Construction	\$ 4 2,000,000	\$ 1 2,000,000	County)	\$57,476,000
TOTAL:	\$54,000,000	\$54,000,000	\$27,163,683	\$81,163,683

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	106.63
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	7
TransAction Project Rating:	80.77
TransAction Project Rating Rank:	4

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

- Increase access to employees, markets, jobs and destinations
- Improve connections among and within areas of regional growth
- Increase network safety
- Increase integration between modes and systems by providing new shared-use path
- Improve operation of regional system
- Reduce negative impacts of transportation on communities and the environment



Northstar Boulevard Shreveport Drive to Tall Cedars Parkway

Project Description

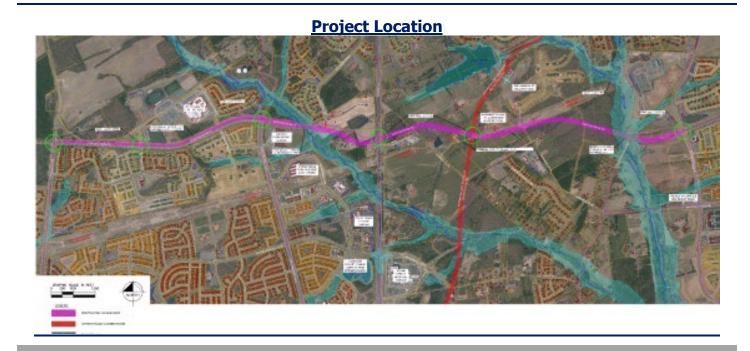
Northstar Boulevard is planned to open as a 4-lane controlled access divided road within a 6-lane Right of Way from Tall Cedars Parkway to Shreveport Drive, including shared use paths (10-foot-wide) on both sides. Northstar Boulevard provides an alternative to Route 606 to points north from Route 50, alleviating congestion on Route 606 and creating better access to the Brambleton and Stone Ridge areas. VDOT has recognized Northstar Boulevard as part of a North/South Corridor of Statewide Significance due to its potential to reduce congestion on parallel north/south routes between I-95 and Dulles Airport and to connect travelers to activity centers in Loudoun County and beyond.





Reference Number: 2018-022-0 SPA Number: 2018-022-1 TransAction ID: 119, 188 Submitting Jurisdiction/Agency: Loudoun County Location: Shreveport Drive to Tall Cedars Parkway Requested NVTA Funds: \$89,805,000 NVTA Funds Received: \$64,805,000 Total Cost to Complete Project: \$135,180,000

This project will construct approximately 2.25 miles of Northstar Boulevard as a minor arterial that will be a key north/south connection on the west side of Dulles International Airport. The north terminus of this project will construct the 4th leg of the Shreveport Road and Northstar Boulevard intersection and install a new Traffic Signal. This project will provide dedicated left and right turn lanes from Shreveport Drive to southbound Northstar Boulevard as well as turn lanes on the new Northstar Boulevard leg. Where this new segment of the Northstar Boulevard crosses over Evergreen Mills Road, directional ramps will be constructed on the east side of Northstar Boulevard to provide access to Evergreen Mills Road. This project will construct a new signalized intersection at U.S. Route 50. Left and Right turn lanes would be constructed along all approaches and a wide median that would allow for dual left-turn lanes on both Northstar Boulevard and U.S. Route 50. The intersection at U.S. Route 50 is an interim condition that is ultimately planned to be interchange but not part of this project. The southern terminus of this project at Tall Cedars parkway will be a T-intersection that this project would build the northern leg as well as additional improvements south of Tall Cedars Parkway to transition Northstar Boulevard back to the existing two-lane section south of the project limits.



Project Milestones (Northstar Blvd. – Route 50 to Tall Cedars Parkway)

	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х	Х						
Right of Way Acquisition		Х	Х	Х				
Construction				Х	Х	Х		

Project Milestones (Northstar Blvd. – Shreveport Drive to Route 50)

	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work		Х	Х	Х	Х			
Right of Way Acquisition					Х	Х	Х	
Construction							Х	Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work			\$26,087,000 (Loudoun County)	\$26,087,000
Right of Way Acquisition	\$6,500,000	\$6,500,000	\$11,000,000 (Loudoun County)	\$17,500,000
Utilities Relocations			\$1,000,000 (Loudoun County)	\$1,000,000
Construction	\$83,305,000	\$58,305,000	\$15,476,000 (Loudoun County) \$25,000,000 (TIGER Grant)	\$90,593,000
Other			\$1,000,000 (Loudoun County)	\$1,000,000
TOTAL:	\$89,805,000	\$64,805,000	\$70,375,000	\$135,180,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):			
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	16		
TransAction Project Rating:	69.54		
TransAction Project Rating Rank:	22		

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

- Enhance quality of life and economic strength
- Reduce congestion and improve travel time
- Increase access to employees, markets, jobs and destinations
- Improve connections among and within areas of regional growth.
- Reduce the amount of traffic moving through these intersections and allow the historic character of the area to remain intact



Extend Shellhorn Road: Loudoun County Parkway to Randolph Drive

Project Description

This project entails the continuity of west-east corridor of Shellhorn Road from Waxpool Road (Route 2119) to Sterling Boulevard (Route 846 Extended). Shellhorn Road has been constructed as a 4-lane urban median divided roadway from Waxpool Road (Route 2119) to the intersection of Loudoun County Parkway (Route 607). Shellhorn Road will be extended from the intersection of Loudoun County Parkway (Route 607) to Sterling Boulevard (Route 846 Extended, currently under design), approximately 0.08 miles east of the current intersection of Moran Road and Randolph Road. This multimodal corridor is planned to include an urban median divided 4-lane road, with





Reference Number: 2018-023-0 **SPA Number:** 2018-023-1 TransAction ID: 184 Submitting Jurisdiction/Agency: Loudoun County Location: Loudoun County Pkwy to Randolph Dr Requested NVTA Funds: \$16,000,000 NVTA Funds Received: \$16,000,000 Total Cost to Complete Project: \$126,750,000

accommodation for turn lanes with on road bike facilities, within 120 feet of right of way. The project includes 4 new signalized intersections, and 2 signal modifications. This new 1.8-mile-long, major collector road will reconstruct approximately 0.08 miles of Lockridge Road south of the intersection with Prentice Drive with a new roadway segment that will create a T intersection with Shellhorn Road, the north portion of Lockridge Road to the intersection will be reconstructed as part of the Shellhorn Road and Lockridge Road West Project. Shellhorn Road east of the proposed intersection with Lockridge Road will utilize as much as possible of the existing footprint of Lockridge Road and tie-in to the proposed road improvements due to the proposed Loudoun Gateway Metro Station, widening to a 4-lane divided urban facility. A new roadway segment for Shellhorn Road will be built east of the Loudoun Gateway Metro Station to tie to Sterling Boulevard. A new roadway entrance will be provided for the Dulles North Transit Center. The existing Randolph Drive and Moran Road will be relocated to align with the proposed Shellhorn Road. Moran Road will be renamed to Randolph Drive up to the current intersection with Old Ox Road (Route 606). The new major collector road is a critical east west component of the Silver Line District transportation network that will support multimodal access to/from the future Loudoun Gateway and Ashburn Metrorail stations. This roadway will serve as one of the primary routes for potential transit circulator service between the stations connecting travelers to activity centers, Dulles Airport, and the Greenway. The corridor will support a more efficient distribution of east-west traffic, relieving congestion and bottlenecks on parallel roads that are at or over capacity. As a parallel corridor to the Dulles Greenway, it will serve as a relief valve for the other limited supply of east-west collector roadways that are congested due to traffic generated by motorists that avoid the tolled facility. This corridor is an essential component of this area's growth and long-term viability, this east-west corridor will help support mobility for residents, retail patrons, and employees to the transit-oriented developments of the Silver Line Station Areas. Shellhorn Road will include on-street bike lanes and wide sidewalks for pedestrians



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work		Х	Х	Х				
Right of Way Acquisition				Х	Х	Х		
Construction							Х	Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work			\$8,000,000 (Loudoun County)	\$8,000,000
Right of Way Acquisition	\$10,000,000	\$10,000,000		\$10,000,000
Utilities Relocations	\$6,000,000	\$6,000,000		\$6,000,000
Construction			\$102,750,000 (Loudoun County)	\$102,750,000
TOTAL:	\$16,000,000	\$16,000,000	\$110,750,000	\$126,750,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	80.15
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	9
TransAction Project Rating:	85.13
TransAction Project Rating Rank:	3

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

- Provide multi-modal connections to the new Silver Line Phase 2 Metrorail Stations in Loudoun County
- Enhance quality of life and economic strength
- Reduce congestion and improve travel time
- Increase multimodal access to employees, markets, jobs and destinations
- Improve connections among and within areas of regional growth



Route 28 Northbound Widening:

Between Dulles Toll Road and Sterling Boulevard

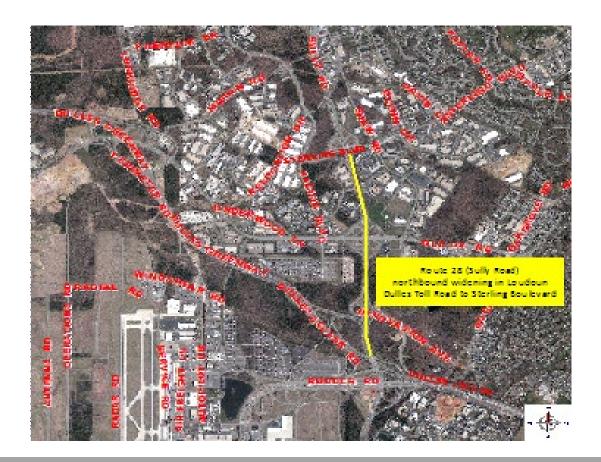
Project Description



The Route 28 Widening – Area 5 Project consists of the widening of northbound Route 28 from 3 to 4-lanes between the Dulles Toll Road and Sterling Boulevard. An additional thru lane will be added in the northbound direction, and the existing auxiliary lane configurations between the Innovation Avenue, Route 606 and Sterling Boulevard interchanges will be maintained but shifted to the east to accommodate the additional thru lane. The southern terminus will be at the north end of the Route 28 Widening, Area 3 Project that was completed in August 2017 and provided a fourth northbound lane from McLearen Boulevard to the Dulles Toll Road. At the northern terminus of the project, the 4th thru

Reference Number: 2018-024-0 SPA Number: 2018-024-1 TransAction ID: 155, 159 Submitting Jurisdiction/Agency: Loudoun County Location: Dulles Toll Road and Sterling Boulevard Requested NVTA Funds: \$20,000,000 NVTA Funds Received: \$20,000,000 Total Cost to Complete Project: \$23,508,200

lane will terminate at the loop ramp exit to westbound Sterling Boulevard, although adequate pavement is being constructed to accommodate future extension of the 4th thru lane beyond the Sterling Boulevard interchange.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х							
Right of Way Acquisition	Х	Х						
Construction			Х	Х				

Project Funding

	Requested NVTA Funds		Other Funding Sources	Total Cost by Phase	
Design, Engineering,			\$2,523,200 (Route 28 Tax	\$2,523,200	
Environmental Work			District)	\$2,525,200	
Right of Way			\$985,000 (Route 28 Tax	\$985,000	
Acquisition			District)	\$905,000	
Construction	\$20,000,000	\$20,000,000		\$20,000,000	
TOTAL:	\$20,000,000	\$20,000,000	\$3,528,200	\$23,508,200	

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	216.70
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	5
TransAction Project Rating:	90.00
TransAction Project Rating Rank:	1

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

- Enhance quality of life and support economic growth
- Reduce congestion and increase capacity
- Improve travel time reliability and safety



Prentice Drive Extension: Lockridge Road (Route 789) to Shellhorn Road (Route 643)

Project Description

Prentice Drive (VA Route 1071/VA Route 1071 Extended/Route 789 Extended) will provide an additional east-west connection across Broad Run. This major collector adds approximately 3.2 miles of 4 new through lanes of Prentice Drive from Shellhorn Road at Metro Center Drive to Lockridge Road and includes an additional connection of Lockridge Road West between Waxpool Road and Prentice Drive. The connection will provide multimodal access between the future Loudoun Gateway and Ashburn Metrorail stations. Specifically, the project provides a new alignment extension of Prentice Drive from the intersection with Lockridge Road to the west where it ties into Metro Center Drive





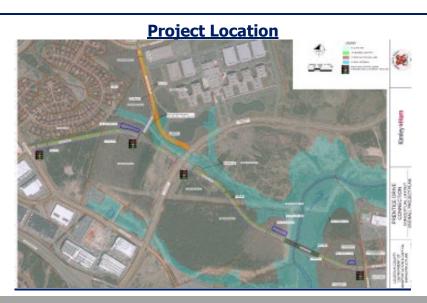
Reference Number: 2018-026-0 SPA Number: 2018-026-1 TransAction ID: 179 Submitting Jurisdiction/Agency: Loudoun County Location: Lockridge Road to Shellhorn Road Requested NVTA Funds: \$76,230,000 NVTA Funds Received: \$76,230,000 Total Cost to Complete Project: \$102,325,000

at Shellhorn Road. This link will address a critical need for an additional east-west route across Broad Run to relieve congestion on Waxpool Road. Prentice Drive will also provide an alternative option to using the Dulles Greenway Toll Road. Commuters and commercial vehicles avoid the tolls by using a limited supply of collector roads and which thereby creates congestion on those roadways. Preliminary studies have been completed. This will be an urban, four lane divided roadway facility with on street bike lanes, a sidewalk, and a Shared Use path. This corridor is anticipated to serve bus routes to and from the planned Silver Line Metrorail Stations. It will connect Pacific Boulevard (VA Route 1036) to Shellhorn Road (VA Route 643) at Metro Center Drive in the Ashburn Community.

This project will impact and improve the following 5 intersections:

- Shellhorn Road and Metro Center Drive/Prentice Drive
- Lockridge Road West and Prentice Drive
- Waxpool Road and Lockridge Road West
- Loudoun County Parkway and Prentice Drive
- Lockridge Road and Prentice Drive

This project includes a large bridge span across the Broad Run floodplain. The western terminus of this corridor will connect to Metro Center Drive, which will provide direct access to the Loudoun Station Drive and a key greenway overpass that connects the north and south side of the station.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х	Х						
Right of Way Acquisition			Х	Х	Х			
Construction						Х	Х	Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work			\$9,000,000 (Loudoun County CIP)	\$9,000,000
Right of Way Acquisition	\$7,600,000	\$7,600,000	\$15,400,000 (Loudoun County CIP)	\$23,000,000
Utilities Relocations	\$1,900,000	\$1,900,000		\$1,900,000
Construction	\$66,730,000	\$66,730,000	\$1,695,000 (Loudoun County CIP)	\$68,425,000
TOTAL:	\$76,230,000	\$76,230,000	\$26,095,000	\$102,325,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	46.19
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	18
TransAction Project Rating:	72.95
TransAction Project Rating Rank:	9

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 and improve travel time
- Increase access to employees, markets, jobs and destinations
- Improve connectivity



Route 9 Traffic Calming

Town of Hillsboro

Project Description

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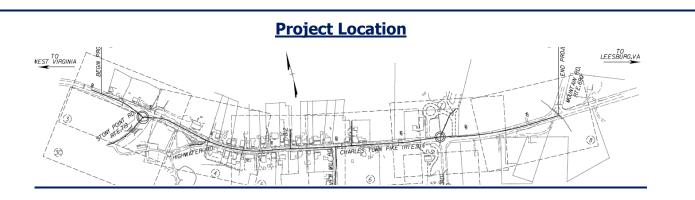
This project addresses congestion on corridor segment 1/1 of Rt. 7/Dulles Toll Road/Silver Line corridor—a designated NVTA "hot spot". The project segment supports 16,000 ADT, projected 25,000 ADT by 2038. The project, which has 45% of its total funding secured, is scheduled to begin construction in fall 2018. Securing the balance of funding allows the entire project to be built concurrently and completed in 2020, reducing prolonged negative impacts on commuters, businesses and residents, better accommodating construction MOT and minimizing motorist disruption by building roundabouts first and—leveraging significant economies of scale—saving an estimated \$4 million. The project provides traffic congestion mitigation, traffic-calming measures and pedestrian safety improvements on the Rt. 9

Reference Number: 2018-027-0 SPA Number: 2018-027-1 TransAction ID: 327 Submitting Jurisdiction/Agency: Loudoun County Location: Route 9 Corridor in the historic Town of Hillsboro, from 0.070 miles west of Rt. 719 (Stony Point Road) to Rt. 690N (Mountain Road). Requested NVTA Funds: \$12,112,000 NVTA Funds Received: \$12,112,000 Total Cost to Complete Project: \$22,206,000

corridor, which bisects the fastest growing agricultural/recreational tourism economy in Northern Virginia.

The project begins 0.070 miles west of Rt. 719 (Stony Point Road) and ends at Rt. 690N (Mountain Road). The project includes the following side streets: Stony Point (from Rt. 9 south 252'), Gaver Mill Road (from Rt. 9 south 250'), Rt. 690S/Hillsboro Road (from Rt. 9 south 455'). The project includes two roundabouts, minimum 4' sidewalks on north and south sides of Rt. 9, streetscaping, pedestrian lighting, raised and at-grade crosswalks, on-street parking, a closed storm sewer system and a shared-use path connecting to existing and planned area trails. Additional improvements include overhead utility burial with duct banks for future data utilities and installation of a new drinking water main, sanitary sewer main and laterals. A September 2012, VDOT Location and Design Public Hearing was held and design features were approved by the VDOT Chief Engineer. The project's Rt. 9 lane-width reduction to 11', in conjunction with the roundabouts (western at Rt. 9/Rt. 719; eastern at Rt. 9/Rt.690S), raised and at-grade crosswalks and a 25-mph speed within the Hillsboro limits contribute to the overall traffic-calming effect. The Rt.9/Rt.690S roundabouts replace two existing traffic signal levels of service, adding additional capacity and providing safety benefits compared to the existing traffic signal levels of service improve from 'F' during AM and PM peak, to a LOS 'B' during AM peak and LOS 'E' during PM peak—a reduction in intersection delay of approximately 86% during AM peak and 58% during PM peak. This improvement reduces current corridor congestion and facilitates additional traffic load that will reroute to Rt. 9 via Rt. 690 as a result of the approved Smart Scale Rt. 7/Rt. 690 interchange, now at 50% design.

The project limits also incorporate an approved Transportation Alternatives grant shared-use-path—GapWay Trail—for connectivity to the historic Hillsboro Town Hall, employment centers, civic and educational institutions. The shared-use path on the north side of Rt. 9 extends from the Rt. 9/Rt.690S intersection east (0.22 mi.) to Mountain Road (Rt.690N). The GapWay Trail project includes a crosswalk at the eastern entrance to Hillsboro Cemetery and a sidewalk on the south side of Rt. 9 connecting to the roadway project sidewalk.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х	Х	Х					
Right of Way Acquisition		Х	Х					
Construction			Х	Х				
Utilities		Х	Х	Х				

Project Funding

	Requested NVTA Funds	Requested NVTA Funds	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$1,260,000	\$1,260,000	\$740,000 (Loudoun County) \$1,600,000 (FHWA)	\$3,600,000
Right of Way Acquisition	\$1,000,000	\$1,000,000	\$700,000 (Loudoun County)	\$1,700,000
Construction	\$7,960,000	\$7,960,000	\$6,100,000 (Loudoun County) \$472,000 (VDOT Grant) \$482,000 (Proffers)	\$15,014,000
Utilities Relocations	\$1,892,000	\$1,892,000		\$1,892,000
TOTAL:	\$12,112,000	\$12,112,000	\$10,094,000	\$22,206,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	16.01
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	33
TransAction Project Rating:	53.58
TransAction Project Rating Rank:	55

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 and improve travel time
- Improve safety
- Enhance environmental quality
- Improve access to employment and destinations
- Improve safety



Dulles West Boulevard Widening

Loudoun County Parkway to Northstar Boulevard

Project Description

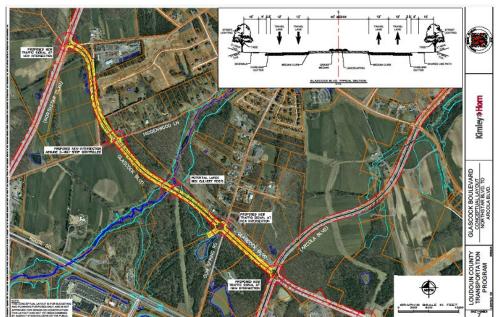
The Dulles West Boulevard project provides for the design, right of way acquisition, and construction of a major collector roadway from Northstar Boulevard to Loudoun County Parkway. The project includes the construction of a four-lane median divided roadway for approximately 2 miles within a 120 foot right of way and six signalized intersections. This project will include the construction or modification of the following at-grade intersections with Dulles Boulevard.

- Northstar Boulevard
- Stone Springs Boulevard
- Arcola Boulevard
- Hutchinson Farm Drive
- Dulles Landing Drive
- Loudoun County Parkway



Reference Number: 2018-028-0 SPA Number: 2018-028-1 TransAction ID: 160 Submitting Jurisdiction/Agency: Loudoun County Location: See map below Requested NVTA Funds: \$47,800,000 NVTA Funds Received: \$47,800,000 Total Cost to Complete Project: \$59,314,000

Dulles West Boulevard will allow east/west trips to navigate through the County without adding to the congestion of local streets in the urban growth area. In the future, Route 50 is planned to be limited access and this project will provide local access to businesses and an alternative route to U.S. Route 50 and Evergreen Mills Road. In addition to benefiting vehicular travel, Dulles West Boulevard will be designed to further promote the county's commitment to high quality multimodal facilities and will include a 10' foot shared use path one either side of the roadway to enhance the safety and mobility of pedestrian and bicycle movements. The road also supports the growth and development of the Arcola Center planned mixed use community and provides multimodal links to a planned 200 space park and ride facility, and supports the travel of residents and visitors of this community to access residential neighborhoods, retail, and employment centers.



Project Milestones (Dulles Landing to Arcola Boulevard)

	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work			Х	Х				
Right of Way Acquisition				Х	Х	Х		
Construction						Х	Х	Х

Project Milestones (Arcola Boulevard to Northstar)

	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work					Х	Х		
Right of Way Acquisition							Х	Х
Construction								Х

Project Funding

	Requested NVTA Funds	Requested NVTA Funds	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$4,100,000	\$4,100,000	\$6,000,000 (Loudoun County)	\$10,100,000
Right of Way Acquisition	\$6,000,000	\$6,000,000	\$3,000,000 (Loudoun County)	\$9,000,000
Utilities Relocations	\$1,000,000	\$1,000,000		\$1,000,000
Construction	\$36,700,000	\$36,700,000	\$2,514,000 (Loudoun County)	\$39,214,000
TOTAL:	\$47,800,000	\$47,800,000	\$11,514,000	\$59,314,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	30.01
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	22
TransAction Project Rating:	72.51
TransAction Project Rating Rank:	13

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

- Enable congestion reduction and travel time improvement
- Increase access to employees, markets, jobs and destinations



Evergreen Mills Road Intersection Realignments

Watson Road and Reservoir Road

Project Description



NVTA FY2018-23 PROGRAM Updated September 28, 2018

This project realigns 0.3 miles of Evergreen Mills Road (Route 621) from the bridge over Goose Creek to a point approximately 1,000 feet south of Reservoir Road. It also includes the realignment of Watson Road (Route 860) to align with the intersection of Evergreen Mills Road and Reservoir Road (Route 861). This project will construct right and left turn lanes from Evergreen Mills Road onto Watson Road and Reservoir Road. The project will provide safety improvements along the realigned portion of Evergreen Mills by addressing sight distance deficiencies, wider shoulders, and meet standard curve.

Reference Number: 2018-029-0 SPA Number: 2018-029-1 TransAction ID: 180 Submitting Jurisdiction/Agency: Loudoun County Location: Watson Road (Route 860) at the Intersection of Evergreen Mills Road (Route 621) and Reservoir Road (Route 861) Requested NVTA Funds: \$14,000,000 NVTA Funds Received: \$14,000,000 Total Cost to Complete Project: \$14,000,000



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work			Х	Х				
Right of Way Acquisition				Х	Х			
Construction					Х	Х	Х	

Project Funding

	Requested NVTA Funds		Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$2,000,000	\$2,000,000		\$2,000,000
Right of Way Acquisition	\$2,000,000	\$2,000,000		\$2,000,000
Utilities Relocations	\$500,000	\$500,000		\$500,000
Construction	\$9,500,000	\$9,500,000		\$9,500,000
TOTAL:	\$14,000,000	\$14,000,000		\$14,000,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	6.02
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	45
TransAction Project Rating:	68.03
TransAction Project Rating Rank:	28

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

- Improve safety
- Increase access to employees, markets, jobs, and destinations
- Improve connections among and within areas of regional growth



Route 28 Corridor Improvements

Fitzwater Drive to Pennsylvania Avenue

Project Description

The Route 28 Corridor Improvements project consists of widening Route 28 (Nokesville Road) from Fitzwater Drive to Pennsylvania Avenue and the construction of bicycle and pedestrian facilities along the length of the project. Route 28 from Fitzwater Drive to Linton Hall Road will be widened from a 2-lane undivided roadway, to a 4-lane divided roadway, which will include a 10' shared use path on the south side. Route 28 from Linton Hall Road to Pennsylvania Avenue will be widened from a 4-lane undivided roadway to a 6-lane divided roadway, which will include a variable 8' to 10' shared use path and 5' sidewalk. All travel lanes will be 12' wide. The roadway widening and the new pedestrian and bicycle facilities being constructed as part of this project will facilitate and

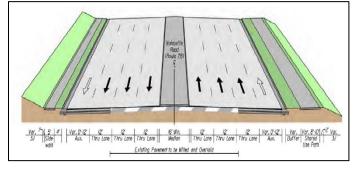




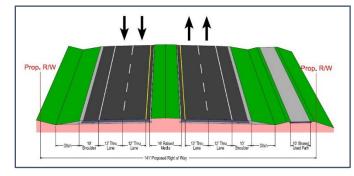
Reference Number: 2018-030-3 SPA Number: 2018-030-4 TransAction ID: 300 Submitting Jurisdiction/Agency: Prince William County Location: See map below Requested NVTA Funds: \$15,000,000 NVTA Funds Received: \$15,000,000 Previous NVTA Funds Received: \$54,700,000 Total Cost to Complete Project: \$70,900,000

create multi-modal access to the VRE Broad Run Station. Specifically, multi-modal access will be provided to the VRE Broad Run Station. The project length is approximately 4.4 miles long. Funds requested will be used for the construction phase of the project.

Route 28 – Typical Section Linton Hall Road to Pennsylvania Avenue



Route 28 – Typical Section Fitzwater Drive to Linton Hall Road





	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work	Х							
Right of Way Acquisition	Х	Х	Х	Х				
Construction		Х	Х	Х	Х			

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work			\$2,740,000 (NVTA 70% Revenues)	\$2,740,000
Right of Way Acquisition			\$5,270,000 (NVTA 70% Revenues)	\$5,270,000
Construction	\$15,000,000	\$15,000,000	\$47,890,000 (NVTA 70% Revenues and Developer Contributions)	\$62,890,000
TOTAL:	\$15,000,000	\$15,000,000	\$55,900,000	\$70,900,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	71.22
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	14
TransAction Project Rating:	70.62
TransAction Project Rating Rank:	18

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

- Increase accessibility and mobility of people
- Increase capacity throughout the corridor
- Improve multi-modal access to the Broad Run VRE Station and other transit facilities along Route 28
- Provide new roadway and multi-modal facilities
- Provide bicycle and pedestrian facilities
- Increase integration between modes and systems
- Improve travel time reliability
- Improve access to jobs, employees, and key destinations.



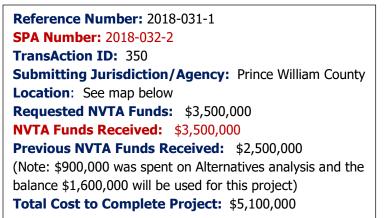
Route 28 Corridor Feasibility Study

Environmental Impact Statement (City of Manassas to Fairfax County)

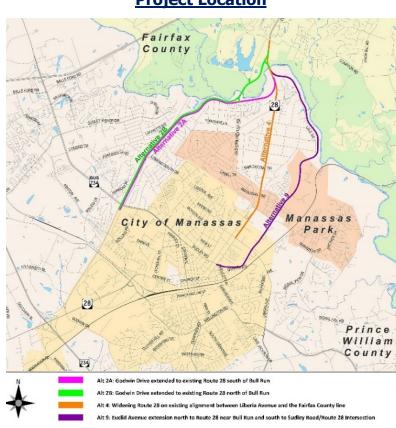
Project Description

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The Route 28 Corridor Feasibility Study – Environmental Impact Statement (City of Manassas to Fairfax County) project, consists of completing the National Environmental Policy Act (NEPA) process to select a preferred alternative and complete a Record of Decision for the Route 28 Corridor Improvement Project, from the City of Manassas to Fairfax County. This project involves preparation of an Environmental Impact Statement (EIS) following the NEPA process. The EIS will be administered by the Prince William County Department of Transportation in partnership with the Virginia Department of Transportation (VDOT). The funding requested for this project will continue the Route 28 Corridor Feasibility Study, also known as the Route 28 (Manassas Bypass) Godwin Drive Extension Study that was previously funded using NVTA 70% Regional Revenue Funding. The Route 28 Corridor Feasibility



Study began by identifying and evaluating 14 preliminary alternatives. As part of the EIS, these 14 preliminary alternatives will be further reviewed. The EIS may identify additional alternatives during the study. After the conclusion of the NEPA process and completion of the EIS, Prince William County will select a preferred build alternative for the Route 28 Corridor Improvements Project, which will proceed to design and construction.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Environmental Impact Statement		Х	Х	Х	Х			

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Environmental Impact	+2 500 000	\$3,500,000	\$1,600,000 (NVTA 70%	\$5,100,000
Statement	\$3,500,000	\$3,300,000	Revenues)	\$3,100,000
TOTAL:	\$3,500,000	\$3,500,000	\$1,600,000	\$5,100,000

Project Analysis Highlights	
Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	21.13
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	27
TransAction Project Rating:	67.59
TransAction Project Rating Rank:	30

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

• Identify a build alternative, which will ultimately lead to the design and construction of improvements along the Route 28 corridor, between the City of Manassas Line and Fairfax County Line.



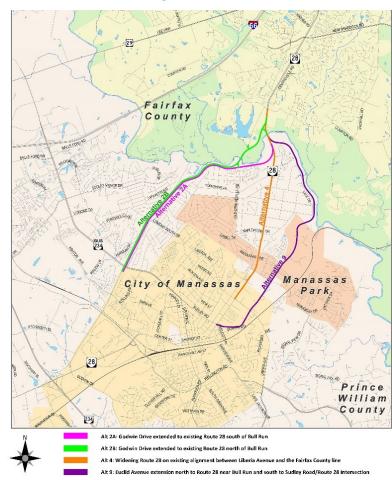
Construct Route 28 Corridor Roadway Improvements

Project Description



The Route 28 Corridor Roadway Improvements project consists of funding the design and construction of corridor improvements along Route 28, from the City of Manassas to Fairfax County. Construction of the project will include rightof-way acquisition, utility relocations, and the securing of additional environmental permits and approvals. After the conclusion of the National Environmental Policy Act (NEPA) process and completion of the Environmental Impact Statement (EIS), Prince William County will have selected a preferred build alternative for the Route 28 Corridor Improvements project, which will proceed to design and construction.

Reference Number: 2018-032-1 SPA Number: 2018-032-3 TransAction ID: 350 Submitting Jurisdiction/Agency: Prince William County Location: Route 28, City of Manassas to Fairfax County Requested NVTA Funds: \$145,000,000 NVTA Funds Received: \$89,000,000 Previous NVTA Funds Received (study): \$2,500,000 Total Cost to Complete Project: \$228,000,000



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work					Х	Х	Х	
Right of Way Acquisition						Х	Х	Х
Construction							Х	Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$20,000,000	\$20,000,000		\$20,000,000
Right of Way Acquisition	\$25,000,000	\$25,000,000		\$25,000,000
Construction	\$100,000,000	\$44,000,000		\$183,000,000
TOTAL:	\$145,000,000	\$89,000,000		\$228,000,000

Note: This project has a funding gap of \$139,000,000.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	21.13
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	28
TransAction Project Rating:	67.59
TransAction Project Rating Rank:	31

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

- Increase capacity and reduce congestion
- Provide multi-modal regional connectivity
- Provide bike and pedestrian facilities
- Increase connectivity



Construct Interchange at Route 234 and Brentsville Road

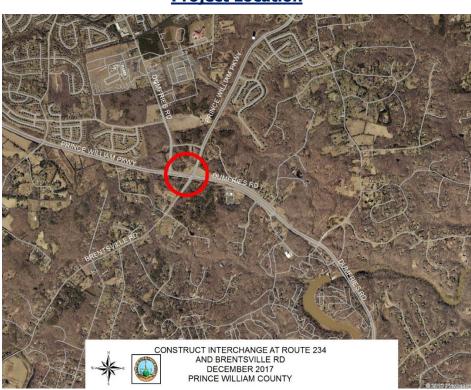
Project Description

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This project consists of constructing an interchange at the intersection of Route 234 (Prince William Parkway/Dumfries Road) and Brentsville Road. The project will include the construction of a bridge to grade separate the intersection of Prince William Parkway and Brentsville Road. The project will convert the intersection of Prince William Parkway at Bradley Cemetery Way to a continuous green-T intersection, and will include the realigning of Brentsville Road to provide a through roadway to Dumfries Road. The new bridge will provide free-flow movements and will eliminate delay for southbound Prince William Parkway (Rt. 234) to eastbound Prince William Parkway (Rt. 294), as well as westbound Prince William

Reference Number: 2018-034-0 SPA Number: 2018-034-1 TransAction ID: 283 Submitting Jurisdiction/Agency: Prince William County Location: Intersection of Route 234 and Brentsville Road Requested NVTA Funds: \$54,900,000 NVTA Funds Received: \$54,900,000 Total Cost to Complete Project: \$54,900,000

Parkway (Rt. 294) to southbound Dumfries Road (Rt. 234). At the continuous Green-T intersection on Prince William Parkway (Rt. 294) and Bradley Cemetery Way, the eastbound direction will be free-flowing, which allows additional green time to be provided to other movements. Brentsville Road will be rerouted to align with the intersection of Prince William Parkway and Dumfries Road and will operate under a three-phase signal control. Funding requested for this application will cover all phases of the project. This intersection was reviewed under the VDOT Strategically Targeted Affordable Roadway Solutions (STARS) program, which is used to develop comprehensive, innovative transportation solutions to improve congestion and solve traffic and safety challenges in the State of Virginia. VDOT has invested \$400,000 in studying the Prince William Parkway Corridor for potential improvements to major intersections.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work			Х	Х	Х			
Right of Way Acquisition					Х	Х	Х	
Construction						Х	Х	Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$6,400,000	\$6,400,000		\$6,400,000
Right of Way Acquisition	\$1,400,000	\$1,400,000		\$1,400,000
Construction	\$47,100,000	\$47,100,000		\$47,100,000
TOTAL:	\$54,900,000	\$54,900,000		\$54,900,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	13.77
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	36
TransAction Project Rating:	67.96
TransAction Project Rating Rank:	29

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 and improve travel times
- Provide long-term operational improvements to Route 234
- Provide improved safety and operations

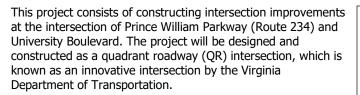
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Construct Interchange at Prince William Parkway University Boulevard

Project Description





As part of the project, left turns will not be permitted at the main intersection and vehicles will use the connector road and secondary intersections to complete left turn movements. Removing left turns from the main intersection will allow this intersection to operate under a two-phase signal control, which will increase green time on Prince William Parkway and Reference Number: 2018-035-0 SPA Number: 2018-035-1 TransAction ID: 324 Submitting Jurisdiction/Agency: Prince William County Location: Prince William Parkway at University Boulevard Intersection Requested NVTA Funds: \$24,200,000 NVTA Funds Received: \$24,200,000 Total Cost to Complete Project: \$24,200,000

University Boulevard. The design will include signalizing two new intersections at the terminus of the new connector road. This intersection was reviewed under the VDOT Strategically Targeted Affordable Roadway Solutions (STARS) program, which is used to develop comprehensive, innovative transportation solutions to improve congestion and solve traffic and safety challenges in the State of Virginia. VDOT has invested \$400,000 in studying the Prince William Parkway Corridor for potential improvements to major intersections.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work					Х	Х		
Right of Way Acquisition						Х	Х	
Construction						Х	Х	Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$2,900,000	\$2,900,000		\$2,900,000
Right of Way Acquisition	\$400,000	\$400,000		\$400,000
Construction	\$20,900,000	\$20,900,000		\$20,900,000
TOTAL:	\$24,200,000	\$24,200,000		\$24,200,000

Project Analysis Highlights	
Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	17.57
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	30
TransAction Project Rating:	72.69
TransAction Project Rating Rank:	11

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 and improve travel time
- Improve operations at the intersection



Summit School Road Extension and Telegraph Road Widening

Project Description

This project consists of extending Summit School Road from where it currently dead-ends to connect with Telegraph Road as a 4-lane divided roadway. Telegraph Road will also be widened from 2 lanes to 4 lanes between the new Summit School Road connection and the Horner Road Commuter Lot, and from Caton Hill Road to Prince William Parkway. The total length of the project is approximately 1.25 miles. The Summit School Road extension and Telegraph Road widening will consist of four travel lanes, a median, a 5' sidewalk and 10' shared use path. The project will include signalizing the new Summit School Road and Telegraph Road intersection.







Reference Number: 2018-036-0 SPA Number: 2018-036-1 TransAction ID: 270, 271 Submitting Jurisdiction/Agency: Prince William County Location: See map below. Requested NVTA Funds: \$38,700,000 NVTA Funds Received: \$11,000,000 Total Cost to Complete Project: \$38,700,000



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work			Х	Х	Х			
Right of Way Acquisition					Х	Х	Х	
Construction						Х	Х	Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase
Design, Engineering, Environmental Work	\$2,400,000	\$2,400,000		\$2,400,000
Right of Way Acquisition	\$7,200,000	\$7,200,000		\$7,200,000
Construction	\$29,100,000	\$1,400,000		\$29,100,000
TOTAL:	\$38,700,000	\$11,000,000		\$38,700,000

Note: There is a funding gap of \$27,700,000

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	3.03
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	51
TransAction Project Rating:	69.91
TransAction Project Rating Rank:	20

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 and improve traffic operations
- Enhance quality of life and economic strength
- Improve operations at the intersection
- Provide improved safety



Construct Interchange at Prince William Parkway and Clover Hill Road

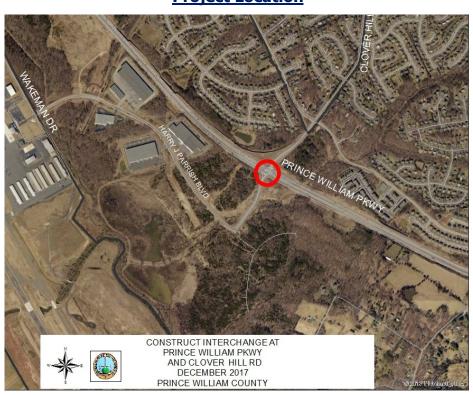
Project Description



This project consists of constructing improvements at the intersection of Prince William Parkway (Route 234) and Clover Hill Road. Prince William Parkway at Clover Hill Road will be converted from an existing conventional intersection to a bowtie intersection. Left turns will not be permitted at the main intersection and vehicles must turn right or continue straight and use downstream roundabouts to complete left turn movements. Removing left turns from the main intersection will allow the intersection to operate under a twophase signal control, which increases green time on Prince William Parkway and the overall intersection. The roundabouts will be designed to accommodate large trucks and will be spaced to provide appropriate storage for queuing. The

Reference Number: 2018-039-0 **SPA Number:** 2018-039-1 TransAction ID: 284 Submitting Jurisdiction/Agency: Prince William County Location: Prince William Parkway at Clover Hill Road Intersection Requested NVTA Funds: \$1,900,000 **NVTA Funds Received:** \$1,900,000 Total Cost to Complete Project: \$12,900,000

project will also include the construction of a 10' shared use path along Clover Hill Road. This intersection was reviewed under the VDOT Strategically Targeted Affordable Roadway Solutions (STARS) program, which is used to develop comprehensive, innovative transportation solutions to improve congestion and solve traffic and safety challenges in the State of Virginia. VDOT has invested \$400,000 in studying the Prince William Parkway Corridor for potential improvements to major intersections.



Project Location

Project Milestones

	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental Work							Х	Х
Right of Way Acquisition								Х
Construction								Х

Project Funding

	Requested NVTA Funds	NVTA Funds Received	Other Funding Sources	Total Cost by Phase			
Design, Engineering, Environmental Work	\$1,500,000	\$1,500,000		\$1,500,000			
Right of Way Acquisition	\$200,000	\$200,000		\$200,000			
Construction	\$200,000	\$200,000		\$11,200,000			
TOTAL:	\$1,900,000	\$1,900,000		\$12,900,000			
Note: There is a funding gap of \$11,000,000							

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):	72.84
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	13
TransAction Project Rating:	68.35
TransAction Project Rating Rank:	26

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

- Improve operations at the intersection of Prince William Parkway and Clover Hill Road
- Reduce congestion and improve travel times along the corridor
- Provide bicycle and pedestrian facilities on Clover Hill Road within the project limits.



Mill Street NE Parking Garage

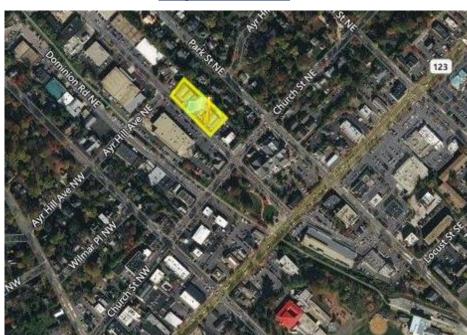
Project Description



The Town of Vienna is planning to purchase 43,000 square feet of floor area in a proposed building at 223 Mill Street NE, as a capital asset, to be used for public parking. The project is located between Church Street NE and Ayr Hill Ave NE near the center of pedestrian and commercial activity of the Town. It conveniently located about 800 feet from the nearest Fairfax Connector bus stop on Maple Ave E and 360 feet from the W &OD bike/pedestrian trail that runs through town. On the site currently is a single story commercial building that will be removed and a new building will be built to include structured parking by a private developer. The Town is not involved in the management nor construction of this project; this is a fee simple purchase of a capital asset.

Reference Number: 2018-057-0 SPA Number: 2018-057-1 TransAction ID: 199 Submitting Jurisdiction/Agency: Town of Vienna Location: 223 Mill Street NE, located between Church Street NE and Ayr Hill Avenue NE Requested NVTA Funds: \$2,300,000 NVTA Funds Received: \$2,300,000 Total Cost to Complete Project: \$4,600,000

This project will provide approximately 120 public parking spaces of which 60 spaces can be made available to Metro commuters, car-poolers and/or cyclists. The Vienna/Oakton metro parking garages regular fill to capacity and the Tysons Stations do not provide any public parking; this project supplies additional parking and improves access for users of the Metro system. Being located close to Maple Ave and close to a Fairfax Connector stops, this garage provides connectivity to mass transit and provides alternative links to two nearby Metrorail stations (Vienna/Oakton Station and Greensboro Station) as well as easy access to the W&OD trail for bicycle commuters.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Capital Asset Acquisitions			Х					

Project Funding

	Requested NVTA Funds		Other Funding Sources	Total Cost by Phase
Capital Asset Acquisitions	\$2,300,000	\$2,300,000	\$2,300,000 (G.O. Bond)	\$4,600,000
TOTAL:	\$2,300,000	\$2,300,000	\$2,300,000	\$4,600,000

Project Analysis HighlightsCongestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):13.85Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):35TransAction Project Rating:52.73TransAction Project Rating Rank:56

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 in the corridor
- Provide access to multimodal options
- Improve access to jobs, employees, markets, and destinations by providing interconnection of roadway, bus, transit, pedestrian and bicycle facilities.

Crystal City Station Improvements

Project Description

This project includes removal of the existing VRE Crystal City Station and providing a new expanded station that can serve full-length VRE trains on two tracks. The station will have two pedestrian gradeseparated access points to Crystal Drive, one at the south end of Crystal City Water Park and the other through the Crystal Park office complex. The new station location will enhance connectivity to the local and regional transportation network including more convenient and safer access to the Crystal City Underground, bicycle/bikeshare infrastructure, the proposed second entrance to Crystal City Metro station, the Crystal City-Potomac Yard transitway, kiss-and-ride area, and the proposed walkway to National Airport including the Metro station. Necessary track relocations

Reference Number: 2018-058-1 **SPA Number:** 2018-058-2 TransAction ID: 298 Submitting Jurisdiction/Agency: Virginia Railway Express (VRE) **Location**: Existing VRE Crystal City Station: 1503 South Crystal Drive, Arlington, VA 22202; and an expanded VRE Station located about half a mile south with two access points to Crystal Drive and related CSXT track relocations. Requested NVTA Funds: \$4,000,000 NVTA Funds Received: \$4,000,000

Previous NVTA Funds Received: \$400,000 Total Cost to Complete Project: \$41,810,000

LEGEND

Project Limits **Existing Platform**

CSX Tracks Metro Station Entra

in the station area will be undertaken to accommodate the new platform. This project will be coordinated with the Commonwealth of Virginia's Atlantic Gateway Initiative that will provide a fourth track between Alexandria and the Potomac River.



	Before FY2018	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	After FY2023
Design, Engineering, Environmental	Х	Х	Х	Х	Х			
Right of Way					Х			
Construction						Х	Х	Х

Project Funding

	Requested NVTA Funds		Other Funding Sources	Total Cost by Phase
	\$4,000,000	\$4,000,000	\$400,000 (NVTA FY14	\$5,410,000
Design, Engineering, Environmental			Program)	
Environmentai			\$1,010,000 (REF)	
Right of Way				\$285,000
Construction				\$36,115,000
TOTAL:	\$4,000,000	\$4,000,000	\$1,410,000	\$41,810,000

Note: This project has a funding gap of \$36,400,000.

Project Analysis Highlights

Congestion Reduction Relative to Cost Ratio (Total Cost in \$1000's):		
Congestion Reduction Relative to Cost Ratio Rank (Total Cost in \$1000's):	43	
TransAction Project Rating:	63.91	
TransAction Project Rating Rank:	53	

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

- Enhance station capacity and convenience for passengers
- Expand railroad capacity, operational flexibility, and resilience
- Improve reliability and on-time performance
- Reduce highway congestion
- Reduce transportation-related air pollution