



## Project Description Form – 1T

### Basic Project Information

**Submitting Jurisdiction/Agency:** Town of Herndon

**Project Title:** East Elden Street Improvements & Widening

**Project Location:** The Elden Street (Route 606) project is located between Monroe Street and Fairfax County Parkway (Route 286).



**Project Description:** East Elden Street Improvements and Widening Project is 1.0 mile in length and is located between Monroe Street and Fairfax County Parkway. The scope of this project is to widen and reconstruct East Elden Street from 4 to 6 lanes with a raised landscaped median between Fairfax County Parkway and Herndon Parkway, continuing as a 4-lane section with a raised landscaped median and dedicated turning lanes between Herndon Parkway and Van Buren Street, and then transitioning to a 2-lane section with left-turn lanes between Van Buren and Monroe Street. The project will be ADA accessible to include pedestrian/audio signalization, crosswalk enhancements and bus stop improvements at select major intersections as well as bike lanes along the length of the project.

The purpose of this project is to relieve peak-hour congestion by increasing roadway capacity via an additional lane for each direction between Herndon Parkway and Fairfax County Parkway interchange and to provide for dedicated turning lanes at each major intersection, while also improving safety and multi-modal circulation for drivers, pedestrians, bicyclists, and transit riders for local and regional destinations. The town has prepared a concept design to determine the right-of-way needed for roadway improvements and, since year 2000, has subsequently acquired applicable street dedication and easements to accommodate significant sections of the planned East Elden Street improvements. The project's preliminary engineering phase is now underway using previous state urban allocation funding and federal Regional Surface Transportation Program (RSTP) funding.

### Project Analysis Summary\*

NVTA Quantitative Score	42.79		Rank	17
Congestion Reduction Relative to Cost Ratio (NVTA Share)	0.01	hours saved/\$	Rank	24
Congestion Reduction Relative to Cost Ratio (Total Cost)	0.01	hours saved/\$	Rank	24

\*Detailed scoring information can be found at: <http://www.thenovaauthority.org/planning-programming/fy2017-program/>

## Project Milestones

### Project Milestones by Project Phase:

- Engineering, Environmental Work:** Now underway using Federal RSTP and State Urban allocation funding of \$4.7 Million. Preliminary Engineering Design is now underway and 30% completed by VDOT.  
 Public Hearing Submission (40% Design) - Spring 2016.  
 VDOT's Location & Design Public Hearing is scheduled for Summer 2016.
- Right-of-Way Acquisition:**  
 Field Inspection Submission (60% Design) - October / Fall 2016.  
 Right-of-Way Submission (70% Design) - October / Fall 2017.  
 Pre-Advertising / Final Design Submission (90% Design) - November / Winter 2019.
- Construction:** Start of Construction - Spring 2020.

## Project Cost

Requested NVTA FY2017 Funds: \$18,700,000

Total Cost to Complete Project: \$35,611,000

Project Phases	Requested NVTA FY2017 Funds	Other Sources of Funding	Total Cost by Phase
Engineering/ Environmental Work/ Design		Local \$389,000 (TEA-21 High-Priority Funds and local match) State \$1,019,000 (RSTP, Regional, Urban Formula Funds and State Match) Federal \$3,303,000 (RSTP, Regional, Urban Formula Funds)	\$4,711,000 (underway)
Right of Way Acquisition	\$2,700,000 (FY2017)	\$10,400,000 (NVTA FY2015-16 Program)	\$13,100,000 (FY2017)
Construction	\$16,000,000	\$1,800,000 (RSTP FY2018, FY2019, FY2020)	\$17,800,000 (FY2020)
Capital Asset Acquisitions			
Other			
<b>TOTAL</b>	<b>\$18,700,000</b>	<b>\$16,911,000</b>	<b>\$35,611,000</b>

## Project Impacts

**What regional benefit(s) does this project offer?** Elden Street is Herndon's commercial / office corridor and a critical town arterial with regional connectivity and access to Fairfax and Loudoun arterials and the Dulles Toll Road.. East Elden Street is also a primary state route for commuter traffic (37,000 VPD to 40,000 VPD) and a functional component of the region's multimodal transportation system. Accordingly, the project will provide:

- capacity improvements for the eastern portion of Elden Street which is essential in creating a safe and efficient transportation network to relieve current congestion and to meet the needs of regional growth.
- street congestion reduction measures and addresses existing as well as future level of service deficiencies across all modes of transportation. The project is truly multi-modal and balances auto congestion relief with pedestrian, bicycle, transit circulation and connectivity to the regional roadway and trail network;
- improved multimodal connectivity between Herndon, its environs and the surrounding roadway and transit network to include: Centreville Road (Route 228), Fairfax County Parkway (Route 286), Barron Cameron (Route 606), Route 28 and the Dulles Toll Road (Route 267);
- street capacity and multi-modal improvements enabling the eastern portion of Elden Street to continue to serve as a critical arterial for commuter traffic and a functional component of the region's multimodal transportation system; particularly at the key regional intersections of Fairfax County Parkway / Elden Street / Barron Cameron intersection and Elden Street / Herndon Parkway intersection;
- transit improvements to serve four Fairfax Connector transit routes providing access to the future Herndon Station of Dulles Metrorail Silver Line as well as regional intermodal connectivity for Herndon and surrounding area, Dulles Airport, Dulles Corridor and beyond; and
- improved regional pedestrian and bike connectivity to Northern Virginia's W&OD Regional Trail, the town's Folly Lick / Van Buren Trail as well as Fairfax County's Sugarland Run Trail; all of which will provide inter-modal pedestrian and bike access to the northside pedestrian facility of the future Herndon Station of Dulles Metrorail and subsequently remove vehicle trips from the roadways.

Lastly, Herndon hosts a significant number of firms involved directly or indirectly with the federal government; several of which are located along the East Elden Street corridor. East Elden Street multi-modal capacity improvements will support access to the federal government as well as movement of people, goods and services to / from Herndon, Reston, and surrounding region.

**How will the project reduce congestion?** The project will reduce traffic congestion, facilitate vehicular access to and from the Fairfax County Parkway, and increase the efficiency of the East Elden Street / Herndon Parkway intersection. Specifically, the project addresses annual traffic volumes increases along with current and future level of service deficiencies between Herndon Parkway and the town limits at Fairfax County Parkway.

Between years 2000 to 2010, East Elden Street typical daily traffic volumes were approximately 30,000 vehicles per day (VPD). However, since year 2010, traffic volumes have increased to over 35,000 VPD. The town's most recent traffic count, conducted in March 2015, revealed 44,884 VPD. To relieve current and future congestion, several key access management and congestion relief measures include:

- two additional lanes, one in each direction, between Herndon Parkway and Fairfax County Parkway resulting in right-turn movement onto adjacent commercial/office land uses while accommodating vehicle throughput for current and future traffic volumes during peak commuting hours;
- providing turning lane capacity improvements at the Elden Street / Herndon Parkway intersection to include an extended, dedicated right-turn lane onto northbound Herndon Parkway and also an extended dedicated left-turn lane onto southbound Herndon Parkway;
- raised landscaped medians and dedicated left-turn lane capacity improvements to accommodate improved vehicle throughput between Van Buren Street and Herndon Parkway; and
- signalization and dedicated left-turn lane capacity improvements at the Elden Street / Van Buren intersection and Elden / Monroe intersection.

In addition to intersection and vehicle lane capacity improvements, the project is to encourage less reliance on vehicle travel by providing multi-modal circulation alternatives for pedestrians, bicyclists, and transit riders for local and regional destinations. The project is to include bike lanes, transit stop improvements and pedestrian street lighting, sidewalk and crosswalk enhancements along with pedestrian / bike connectivity to local and regional trails; all in a concerted effort to encourage non-vehicle usage and consequently reduce congestion. Specific improvements include:

- bus facility and ADA access improvements across all 14 bus stop / bus shelter locations to serve 4 Fairfax Connector routes;
- wide ADA accessible 6-foot sidewalks, ADA curb cuts, accessible (audio/tactile) pedestrian signals and crosswalk intersection enhancements;
- 5 foot dedicated bike lanes, in both directions, that will link to the regional network; and
- pedestrian / bike connectivity to local and regional trails that will connect to Northern Virginia's W&OD Regional Trail, Fairfax County Parkway Trail, Sugarland Run Trail, Folly Lick / Van Buren Trail and with connectivity to the future Herndon Metrorail Station.

**How will the project increase capacity?** N/A

**How will the project improve auto and pedestrian safety?** Proposed improvements will increase overall auto and pedestrian safety, while also improving safety and multi-modal circulation for drivers, pedestrians, bicyclists, and transit riders for local and regional destinations. Specific safety measures include:

- access management and median controls along the Elden Street commercial corridor between Van Buren Street and Herndon Parkway to reduce vehicle turning accidents;
- signalized intersection improvements along East Elden Street to include a proposed new intersection pedestrian crossing with a High-Intensity Activated Crosswalk at a high volume commercial driveway entrance at K-Mart plaza;
- roadway and pedestrian scale street-lighting along the length of the project to accommodate safe passage for all modes of traffic;
- safety improvements for the traveling public and transit users to include enhanced facilities for pedestrians and cyclists (i.e. ADA accessible wide sidewalks / curb cuts, paver crosswalks, pedestrian crossing / refuge islands, pedestrian/audio/tactile signalization, curb radius reduction);
- dedicated locations for safe, ADA accessible bus facilities (i.e. bus shelter and benches) at 14 bus stops serving 4 Fairfax Connector routes;
- separated bike lanes, in both directions, to include applicable roadway bicycle markings and reflective signage.

Lastly, the project is also to incorporate critical flood mitigation measures to resolve significant Sugarland Run flooding at the roadway section between Herndon Parkway and Fairfax County Parkway. The frequency of roadway flooding along this section of Elden Street, has warranted the need to correct an extremely unsafe and dangerous street condition. VDOT's design elevates the roadway to accommodate an upgraded and larger capacity bridge structure necessitated by development within the Sugarland watershed area.

**How will the project improve regional connectivity?** The project will provide improved regional multi-modal connectivity primarily between the Activity Centers of Herndon, Reston, Dulles Corridor as well as the surrounding roadway and transit network. The project will provide improved vehicle, transit, pedestrian and bike connectivity to Fairfax County Parkway (Route 286), Barron Cameron Ave. (Route 606) and the Dulles Toll Road (Route 267).

The project and its transit improvements are anticipated to serve four Fairfax Connector transit routes providing access to the future Herndon Station of Dulles Metrorail Silver Line as well as regional intermodal connectivity for Herndon and surrounding area, Dulles Airport, Dulles Corridor and beyond.

And, the project is to include improved regional pedestrian and bike connectivity to access Northern Virginia's W&OD Regional Trail, Fairfax County Parkway Trail, Baron Cameron Avenue, Sugarland Run Trail as well as the town's Folly Lick / Van Buren Trail; all of which will provide inter-modal pedestrian and bike connectivity and access to the northside pedestrian facility of the future Herndon Station of Dulles Metrorail removing vehicle trips from the roadways.

**How will the project improve bicycle and pedestrian travel options?** The project is to encourage less reliance on vehicle travel by providing multi-modal circulation alternatives for pedestrians, bicyclists, and transit riders for local and regional destinations. The project is to include bike lanes, transit stop improvements and pedestrian enhancements along with pedestrian / bike connectivity to local and regional trails. Specific improvements to provide bicycle and pedestrian travel alternatives include:

- bus facility and ADA access improvements across all 14 bus stop / bus shelter locations to serve 4 Fairfax Connector routes;
- wide ADA accessible 6-foot sidewalks, ADA curb cuts, accessible (audio/tactile) pedestrian signals and crosswalk intersection enhancements;
- 5 foot dedicated bike lanes, in both directions, that will link to the regional network;
- signalized intersection improvements along East Elden Street to include a proposed new intersection pedestrian crossing with a High-Intensity Activated Crosswalk at a high volume commercial driveway entrance at K-Mart plaza;
- enhanced facilities for pedestrians and cyclists (ie. ADA accessible wide sidewalks and ADA dual curb cuts, paver crosswalks, pedestrian crossing/refuge islands, pedestrian audio/tactile signalization, curb radius reduction, etc); and
- roadway and pedestrian scale street-lighting along the length of the project to accommodate safe passage for all modes of traffic and particularly to accommodate bicycle and pedestrian travel options.

The project is to include improved local and regional pedestrian and bike connectivity to access Northern Virginia's W&OD Regional Trail, Fairfax County Parkway Trail, Sugarland Run Trail as well as the town's Folly Lick / Van Buren Trail; all of which will provide inter-modal pedestrian and bike connectivity and access

to the northside pedestrian facility of the future Herndon Station of Dulles Metrorail Silver Line in a concerted effort to provide bicycle and pedestrian travel options and encourage non-vehicle usage.

**How will the project improve the management and operation of existing facilities through technology applications?** The project has several transportation technology applications to improve the management and operation of existing facilities to include:

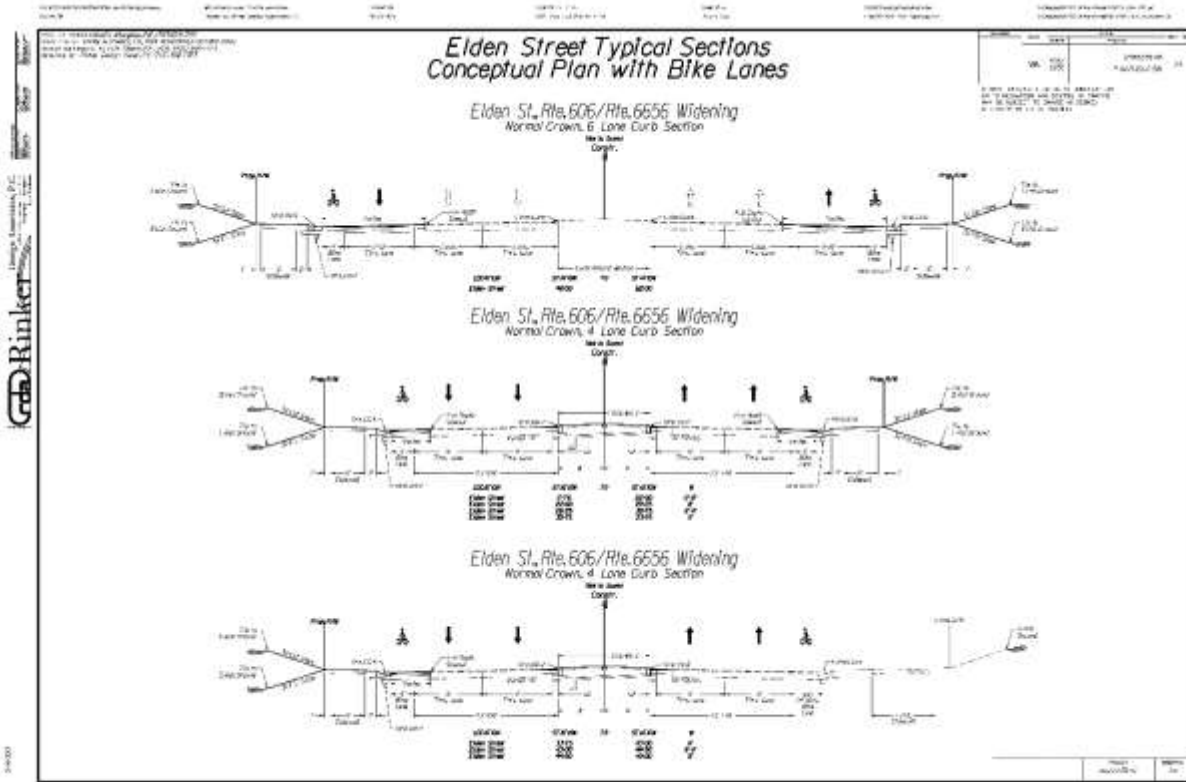
- proposed new intersection pedestrian activated crossing with a High-Intensity Activated Crosswalk at a high-volume commercial driveway entrance at K-Mart plaza;
- installation of new bus stop shelters are planned for select signalized intersections, instead of the current mid-block bus stop locations to reduce mid-block crossings; and
- LED signalized intersections with pedestrian countdown / audio / tactile signals at each intersection.

### Additional Information in Support of This Project

The below YouTube weblink provides a video providing documentation of Sugarland Run flooding. The video, dated September 8, 2011, shows (from 1:25 to 2:50 minute mark) extensive roadway flooding of Sugarland Run onto East Elden Street. This section of East Elden Street has flooded several times from stronger storms than shown in the video. <http://www.youtube.com/watch?v=wCsOaGHnxzq>



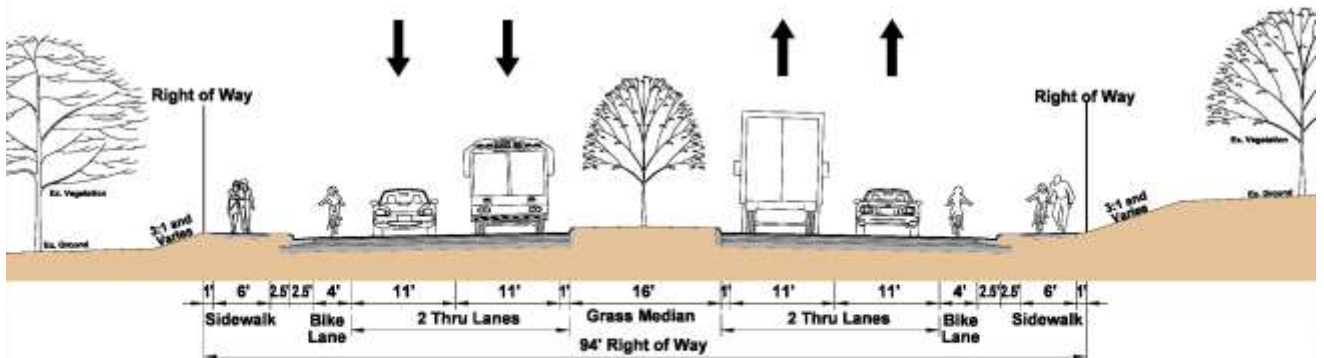
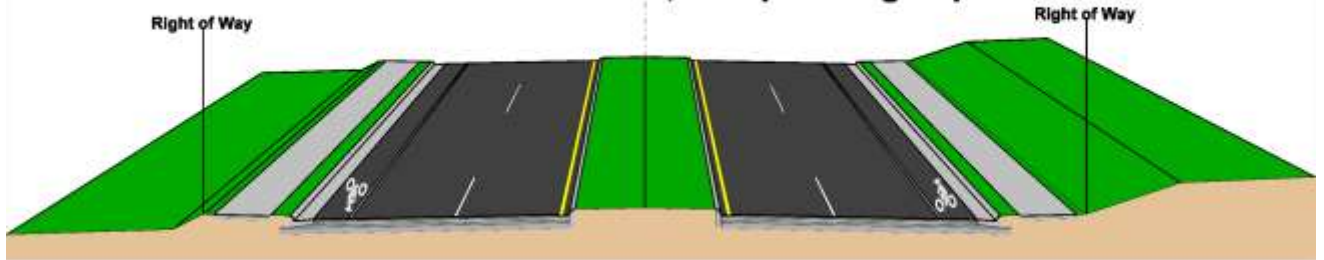






# Typical Section 4 Lane Divided Roadway

With 4' Dedicated Bike Lane, 35 mph Design Speed



## East Elden Street Widening

VDOT Project # U000-235-110



