



Sidewalks, Traffic Signals, and Traffic Calming

Intersection Improvement Program

Details:

Project Number: C02204
Election District: Countywide
Length: n/a
Project Type: Traffic Signal/Channelization/Roundabout Construction
Estimated Completion Year: Ongoing
Referendum: November 2022

Background:

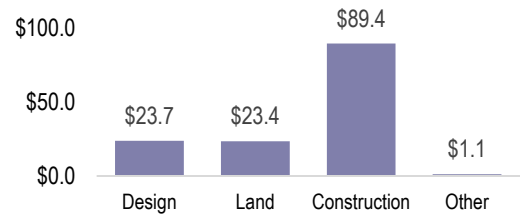
This program provides funding to initiate various intersection improvements each year based on Board direction and the size and scope of the needed improvement(s). Traffic signals typically require one year for design and one/two year(s) for land acquisition and utility relocation, with construction starting in year three/four. Roundabouts typically require two years for design, one/two year(s) for land acquisition, and two years for construction. Project development times vary by project location.

The proposed funding plan addresses the most urgent intersections in the first six years of the program. Prioritization of intersections is based on a Board-endorsed ranking of intersections that considers both the frequency of accidents and traffic volume at intersections of interest. The prioritized projects included on the next page represent those projects that received a ranking of 5 (on a five-point scale), indicating the level of highest need as determined in past intersection studies from 2017 to 2020. This parent project serves as a funding source account and funds will be moved to specific intersection improvement projects once they are identified. More prioritized intersections will be added to this program based on Board direction in subsequent fiscal years.

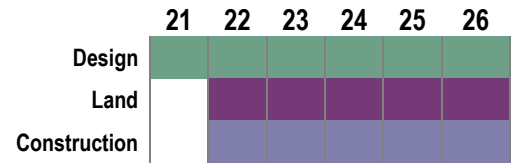
Prioritized project totals are for the list of projects prioritized to-date and do not directly align with the individual fiscal year or aggregate project totals for the program. Remaining capacity for the program will be allocated to new prioritized projects approved by the Board in future fiscal years.

As the program fully ramps up, additional project staff in the Department of Transportation and Capital Infrastructure may be needed.

Phase Costs in Millions



Project Phase Timeline by FY



Capital (\$ in 1000s)	Prior Years	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	6 Year Total	Future FYs	Project Total
Professional Services	1,854	3,700	2,700	1,900	1,900	1,900	1,900	14,000	7,800	23,654
Land	-	-	2,500	2,500	2,600	2,600	2,600	12,800	10,600	23,400
Construction	-	-	8,765	10,890	11,335	9,735	9,735	50,460	38,940	89,400
Personnel	-	-	1,102	-	-	-	-	1,102	-	1,102
Total Cost	1,854	3,700	15,067	15,290	15,835	14,235	14,235	78,362	57,340	137,556
Local Tax Funding	-	3,700	1,102	-	-	-	14,235	19,037	1,444	20,481
Local Tax Funding Roads	1,854	-	-	-	-	-	-	-	4,292	6,146
General Obligation Bonds	-	-	13,965	15,290	15,835	14,235	-	59,325	51,604	110,929
Total Financing	1,854	3,700	15,067	15,290	15,835	14,235	14,235	78,362	57,340	137,556

Operating Impact (\$ in 1000s)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total
FTE	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Personnel	-	104	107	110	114	117	552
Debt Service	-	-	1,398	2,893	4,401	5,710	14,403
Total Impact	-	104	1,505	3,003	4,515	5,827	14,955



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Intersection Improvement Program (Prioritized Projects List)

Prioritized Project (Project ID) ¹ Description	Intersection ID	Election District	Beginning FY	Ending FY	Project Total (\$ in 1000s)
Sterling Blvd. (Route 846) and Glenn Drive (C02408) Provides for traffic signal installation at the intersection with lane configuration changes on the northbound approach with a dedicated left turn lane and a shared thru/right lane.	2017-2	Broad Run, Sterling	FY 2022	FY 2028	\$2,725
Claiborne Parkway (Route 901) and Marshfield Dr. (C02406) Provides for the conversion of the intersection to a right-in, right-out, left-in configuration and the addition of a U-turn lane on the northbound approach of the Claiborne Pkwy/Wayside Court intersection.	2017-4	Ashburn	FY 2022	FY 2025	\$1,773
Tall Cedars Parkway (Rt. 2200) (C02305) Provides for the conversion of the intersection at Tall Cedars Parkway and Nations Street to a right-in, right-out, left-in configuration.	2017-5	Dulles	FY 2022	FY 2025	\$357
Ashburn Road (Route 641) (C02409) Provides for the installation of a traffic signal at the intersection of Ashburn Road and Faulkner Parkway. Additionally, provides for the creation of dedicated right and left turn lanes in the east and westbound directions.	2017-3	Ashburn	FY 2022	FY 2026	\$6,760
Old Ox Road (Route 606) and Douglas Court (C02410) Provides for the conversion of the intersection to a right-in, right-out, left-in configuration.	2017-9	Broad Run	FY 2022	FY 2025	\$1,021
Old Ox Road (Route 606) and Dulles Summit Ct. (C02411) Provides for various minor improvements at the intersection including: repositioning the stop bar, extending the median nose, modifying the curb ramps, and installing additional warning signs. The project will also include new curb and gutter, and mill and overlay of all legs of the intersection.	2017-10	Broad Run, Dulles	FY 2022	FY 2025	\$542
Ryan Road (Route 772) and Cotton Grass Way (C02412) Provides for improvements to pavement markings in order to update the northbound approach lane configurations to a shared left/through lane and a dedicated right turn lane and therefore align the northbound lanes with the matching receiver lanes.	2017-19	Blue Ridge, Dulles	FY 2022	FY 2024	\$94
Sugarland Road (Route 604) Provides for an installation of the mini roundabout at the intersection of Sugarland Road & Church Road/Frederick Drive. Additional, related work will be required to reconfigure existing approach lanes and to provide ADA upgrades to pedestrian ramps.	2017-20	Sterling	FY 2023	FY 2027	\$3,473
Claiborne Parkway (Route 901) and Dulles Greenway Provides for the installation of a traffic signal at the intersection while retaining existing lane configurations.	2017-8	Ashburn	FY 2023	FY 2027	\$1,381
Sterling Blvd. (Route 846) and West Laurel Ave. Provides for the installation of a traffic signal at the intersection, while preserving the existing lane configurations, and upgrades to the existing curb and gutter system.	2017-15	Sterling	FY 2023	FY 2027	\$2,092
Waxpool Road (Route 2119) and Shellhorn Road (Route 643) (C02290)² Provides for interim safety improvements at the Waxpool Road and Shellhorn Road intersection to include tree trimming and vegetation removal, as well as the installation of advanced intersection warning signs.	2017-21	Broad Run	FY 2021	FY 2023	\$2
Waxpool Road (Route 2119) and Ashburn Road (Route 641) (C02426)² Provides for interim and long-term safety improvements at the intersection of Ashburn Road/Waxpool Road/Ryan Corner Place. Interim improvements include the installation of All Ways Stop (AWS) signage and minor pavement marking updates. Long-term improvements would include the installation of a traffic signal at the intersection.	2017-12	Broad Run	FY 2021	FY 2026	\$1,762
Total Cost					\$21,983³

¹ Project IDs have been provided for those prioritized projects receiving funding in FY 2022 or that have previously received funding.

² This project is part of the Waxpool Road Corridor Study as presented to the Board at the Nov. 7, 2019 Business Meeting as part of *Item 6 BMI: Traffic Analysis and Safety Study of Waxpool Road between Faulkner Parkway and Demott Drive*.

³ The current prioritized project list total does not match the six-year total for the program because the current list of projects reflects the initial iteration of projects prioritized for funding in FY 2022 and 2023. Remaining capacity in the six-year period will be absorbed by additional projects once those have been identified and prioritized by the Board in subsequent fiscal years.