

*Loudoun County Parkway
(Route 606) / Old Ox Road*

RECONSTRUCTION  WIDENING PROJECT

ANNUAL FINANCIAL PLAN UPDATE

November 14, 2018

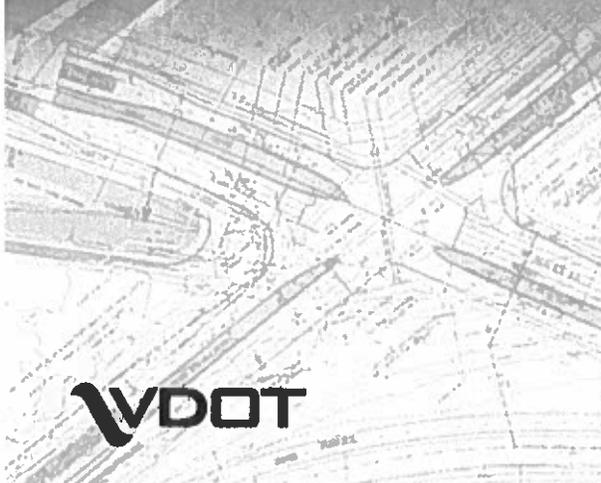
PROJECT/UPC NOS.:

0606-053-983, P101, R201, C501, B686, B687 (UPC 97529)

0606-053-983, P101, R201, C501 (UPC 105064)

0606-053-983, P101, C501 (UPC 105575)

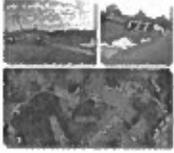
0606-053-983, P101, C501 (UPC 107953)





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1. BACKGROUND

A. Purpose

The purpose of the Route 606 Loudoun County Parkway/Old Ox Road Reconstruction & Widening Project is to improve the capacity and safety of a heavily traveled roadway and to provide a critical leg of the proposed Dulles Loop by widening the existing two-lane roadway to a four-lane roadway with divided median and signalized intersections. The ultimate condition will convert Route 606 between Route 50 and Route 28 into a limited access facility.

B. Needs

The needs associated with improving Route 606 within the study corridor include:

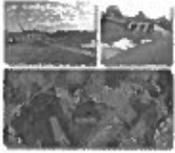
1. Improve capacity and reduce congestion.
2. Improve traffic safety through improvements to roadway geometry and operations.
3. Provide a critical segment of proposed Dulles Loop.
4. Allow improved connectivity with the regional multimodal transportation network.

C. Summary

When Dulles International Airport (IAD) was constructed in the early 1960s, a system of two-lane two-way perimeter roadways was constructed to serve the airport and surrounding areas. The west perimeter roadway built in 1961 functions today as Route 606 between US Route 50 and the Route 267 (Dulles Greenway Toll Road). Planning for the widening of the Route 606 corridor has been ongoing since the early 1990s. The first segment of this effort was implemented in 2002-2003 with reconstruction and widening between Route 50 and Route 621. Preliminary engineering for the remaining two-lane segment of the corridor was started in 2005 as part of the Secondary Six Year Plan (SSYP) for Loudoun County. At that time, it was felt that there would not be sufficient SSYP funds to construct the total project and, as a result, further project development was put on hold.

Because of the importance of Washington Dulles International Airport to the region and the importance of access to and from the airport, the Dulles Loop Implementation Group (DLIG) initiated a study managed by the Washington Airports Task Force titled the "**Dulles Loop Implementation Plan**". The *Implementation Plan* defines the Dulles Loop as an 18-mile loop which would encircle Dulles Airport by improving portions of Route 50, Route 606, and Route 28. Studies on which the Plan was based outline details on the existing conditions, interim needs, and long-term needs for improvements to the proposed Dulles Loop. The project has since been identified as part of the "Dulles Loop" which is a plan to encircle Washington Dulles International Airport with urban collectors and limited access arterials to allow traffic of all types to freely access the airport complex.

Under existing conditions, this is the last section of unimproved roadway corridor serving the IAD perimeter. US Route 50, Route 606 from Route 267 to Route 28 Sully Road, Route 28 Sully Road, and Route 267 Dulles Greenway have all been widened and improved to provide high capacity corridors serving the airport's south, east, and north perimeter areas, respectively.



Route 606 is a desirable route for motorists originating from points west to access Ashburn, Sterling, and Herndon. The road currently experiences severe congestion in both directions during the weekday morning and evening peak hour periods.

D. Project Description

The project is located in Loudoun County and extends from approximately 0.3 mile south of Route 621 Evergreen Mills Road to approximately 0.1 mile south of Route 267 Dulles Greenway with a total length of approximately 5.5 miles. It consists of reconstructing and widening the existing two-lane rural collector roadway to a four-lane divided Urban Minor Arterial with a raised grass median and a shared use path on one side for bicycles and pedestrians.

The current Route 606 improvement project will construct the 'Interim Condition' as described in Loudoun County's *Countywide Transportation Plan*. The plan calls for Route 606 to be a four-lane median-divided roadway. The ultimate condition as described in the *Countywide Transportation Plan* calls for a six (6) lane limited-access median-divided urban arterial roadway with room for some type of future multimodal option in the median. The proposed design implements the interim condition while enabling a future conversion to its ultimate condition.

The project includes crossings of Cabin Branch and Horsepen Run, the latter of which occurs where Route 606 crosses Horsepen Dam, which is owned by the Metropolitan Washington Airports Authority (MWAA). The Project will require substantially increasing the earth mass of the dam and constructing twin bridges to carry Route 606 over the dam's emergency spillway.

E. Project History

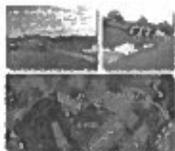
Pre-Award

1. Preliminary Engineering was authorized in January 2011, and VDOT started engineering activities for the development of the design including consultant procurement, scoping, survey, geotechnical investigations and environmental review processes.
2. A Design Public Hearing was held on June 26, 2013, and Chief Engineer Design Approval was received on October 10, 2013.
3. The project was developed as a Design-Build Contract, and the Request for Qualifications (RFQ) was issued in July 2013 after the Finding of Public Interest (FOPI) was signed by the Commissioner and Chief Engineer. The NEPA document (i.e., Environmental Assessment) was complete on November 20, 2013, when FHWA issued a Finding of No Significant Impact (FONSI) for the project.
4. The Request for Proposals (RFP) was released to the short listed Offerors on November 26, 2013, and Addendum 1 was released on February 21, 2014. Technical Proposals were received on March 17, 2014, and Price Proposals were received on April 21, 2014.
5. The Commonwealth Transportation Board approved the award of a contract to Shirley Contracting Company on May 14, 2014. The contract was executed on May 21, 2014, and Notice to Proceed was issued on June 19, 2014.



Post-Award

1. The project kick-off meeting was held on June 19, 2014.
2. The Health and Safety welfare plan was submitted by the Design-Builder and accepted by VDOT on August 25, 2014. The Spill Prevention Plan was submitted by the Design-Builder and accepted by VDOT on August 25, 2014, subject to additional documentation during construction.
3. The final roadway design for Route 606, excluding NOAA parcel 042 was approved by VDOT on March 24, 2015. The final Bridge design was approved by VDOT on May 14, 2015.
4. The final design for Route 606 project work and NOAA improvements on NOAA parcel 042 were approved on October 31, 2016.
5. Environmental Permitting:
 - a. Army Corps of Engineers (COE):
 - Approval of the Jurisdictional Determination for waters of the US - Approved January 13, 2015.
 - Approval of the Joint Permit Application (JPA) and issuance of the permit - Submitted January 19, 2015, and conditionally approved September 4, 2015, awaiting signed execution of the permit by the Design-Builder and proof of purchase of wetland mitigation credits. The actual permit is dated September 29, 2015, as that is the date of receipt by the Design-Builder of the executed permit. Additionally, time of year (TOY) restrictions for clearing was a conditional precedent of issuance of the permit.
 - The Design-Builder provided the ten (10) day notice of commence of work to the agency on September 28, 2015.
 - Approval of permit modification for additional Route 606 work on NOAA property dated October 31, 2016.
 - b. Virginia Department of Environmental Quality (DEQ):
 - Approval of the VSMP Permit (LD 445) - Submitted on November 18, 2014; Approved February 25, 2015.
 - Approval of the JPA issuance of the permit - Submitted January 19, 2015, conditionally approved September 4, 2015, awaiting receipt of purchase of wetland credits by Design-Builder. Additionally, time of year (TOY) restrictions for clearing was a conditional precedent of issuance of the permit.
 - The Design-Builder provided the ten (10) day notice of commence of work to the agency on September 28, 2015.
 - Approval of permit modification for additional Route 606 work on NOAA property dated November 2, 2016.
 - c. Virginia Department of Conservation and Recreation (DCR):



- Approval of Dam Modification Permit - Draft Permit submitted on January 28, 2015. Response received on March 13, 2015. Formal permit submitted to DCR on April 23, 2015, for approval. DCR permit approved effective May 31, 2015.
- d. Marine Resources Commission (VRMC):
 - On July 28, 2015, the Project team attended a VMRC public hearing due to a property owner complaint on the requested VMRC permit necessary for the extension of the Principal Spillway at the Horsepen Dam. At the hearing, VMRC advised that the impacts noted in the complaint were not within the jurisdiction of VMRC and that VMRC would be issuing the permit.
 - Approval of the VRMC permit occurred on September 2, 2015.
- e. Metropolitan Washington Airports Authority (MWAA):
 - Right of Entry Agreement - Executed on June 8, 2015.
 - Approval of Dam Modification plans - Approved by MWAA in April 2015 prior to submission to DCR.
 - Issuance of MWAA Work Permits - Phase 1 Permit for Roadway and Bridge construction was approved on June 30, 2015. Phase 2 Permit for Horsepen Dam modifications was approved on April 8, 2016.
- f. Multiple phased Final EQ-201, EQ-200 & EQ-103s were prepared due to delays in WQ permitting and executing out grant easement from NOAA.

F. Current Status

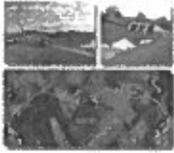
The project was successfully completed on August 1, 2018.

G. Project Website

Additional information on the Route 606 Loudoun County Parkway/Old Ox Road project can be found on the project website at the following link:

http://www.virginiadot.org/projects/northernvirginia/old_ox_road_widening.asp

The website provides additional information regarding project description, purpose, maps, implementation schedule, typical sections, and cost estimates.



2. PROJECT SCHEDULE

Table 1 below illustrates the contract procurement schedule activities and dates.

Table 1: Contract Procurement Schedule

Activity	Date
Notice of Intent to Award	April 29, 2014
CTB Approval/Notice to Award	May 14, 2014
Contract Award	May 15, 2014
Contract Execution	May 21, 2014
Notice to Proceed (Date of Commencement)	June 19, 2014
End Scope Validation Period (120 days from NTP)	October 18, 2014
Final Completion	September 8, 2017
Revised Final Completion	August 1, 2018

Since the Route 606 Loudoun County Parkway/Old Ox Road project is a Design-Build project Table 2 below illustrates the project implementation plan showing the actual or anticipated start and completion dates for the major project activities.

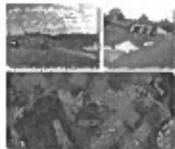


Table 2: Project Implementation Plan

Element	IFP Start Date	IFP Completion Date	Revised Start Date	Revised Completion Date
Preliminary Engineering Final Design				
Final Design:				
Roadway	June 19, 2014	December 23, 2014	June 19, 2014	**March 24, 2015; October 31, 2016
Bridge			June 19, 2014	May 14, 2015
Right of Way				
ROW Acquisition:	November 3, 2014	December 10, 2015	January 10, 2015	November 2, 2016
Utility Relocation	June 8, 2015	June 13, 2016	October 15, 2015	August 31, 2017
Construction				
Road and Bridge Construction:	May 1, 2015	September 8, 2017	September 15, 2015	August 1, 2018

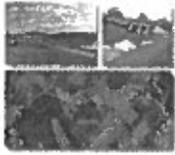
* See schedule bar chart for detailed data

** March 24, 2015: Date of final roadway design approval, excluding NOAA parcel 042.

October 31, 2016: Date of final roadway design approval including NOAA parcel 042.

May 14, 2015: Date of final bridge design approval.

Schedule Update: During the post award period from the date of Notice-to-Proceed (NTP), June 19, 2014, through April 4, 2016, issues arose on the Project, that caused impacts to the schedule, including: environmental permits delays, ROW acquisition delays, utility relocation delays, design changes and added scope. In order to resolve all outstanding issues and delays on the Project, the parties agreed to a non-compensable time extension, except the labor and material escalation costs, for Shirley Contracting, its suppliers and its subcontractors. This time extension revised the Fixed Contract Completion Date from September 8, 2017, to August 1, 2018, (327 calendar days).



3. PROJECT COST ESTIMATE

The project is jointly funded by VDOT, Loudoun County and MWAA. Three separate project administration agreements were necessary; one between VDOT and Loudoun County and two between VDOT and MWAA. Consequently, for programming purposes, three UPC numbers were established: 97529, 105064 and 105575.

VDOT and Loudoun County are jointly funding UPC 97529. The funding split for UPC 97529 is VDOT - \$60,259,000 and Loudoun County - \$24,441,000 with a total combined budget amount of **\$84,700,000**.

MWAA is funding two UPCs 105064 and 105575. The project purpose for UPC 105064 is to increase capacity of the Route 606 corridor in accordance with the Loudoun County Transportation Plan. The project purpose for UPC 105575 is to construct a commercial entrance, supporting turn lanes and traffic signal modifications to provide access to a rail car maintenance facility that is part of Phase 2 of the Silver Line extension of Metrorail. The funding amounts for these two UPCs are \$24,450,000 and \$581,200 respectively, with a total budget amount of **\$25,031,200**.

On June 17, 2015, Loudoun County BOS (Board of Supervisors) authorized additional NVTA funds in the amount **\$11,470,000** under UPC 107953. These funds are for additional scope of work related to the design and construction of Loudoun County Parkway & Old Ox Road intersection and design/installation of the revised Maintenance of Traffic (MOT) for advance opening of the Loudoun County Parkway by September 8, 2017.

The total current approved project budget for all four UPCs (97529, 105064, 105575 and 107953) is **\$121,201,200**. The total SYIP project allocation amount is **\$123,552,163**. The surplus funds are Regional Surface Transportation Program (RSTP) funds and will be transferred by the NVTA MPO.

VDOT's Project Cost Estimating System (PCES) is the official source for all cost estimate information. Table 3 below shows the current total project cost estimate for the Route 606 Loudoun County Parkway/Old Ox Road project under each UPC.

Table 3: Project Cost Estimate by Phase

Phase	UPC 97529	UPC 105064	UPC 105575	UPC 107953	Total
PE	\$3,402,043	\$0	\$50,000	\$0	\$3,452,043
RW	\$18,500,000	*\$0	\$0	\$0	\$18,500,000
CN	\$62,797,957	\$24,450,000	\$531,200	\$11,470,000	\$99,249,157
Total	\$84,700,000	\$24,450,000	\$581,200	\$11,470,000	\$121,201,200



4. PROJECT FINANCING

Summary of Estimates and Expenditures

A total of fifty-seven (57) Work Orders for added work have been processed for the project totaling \$17,583,919. In addition to original contingency budget of \$7M, Loudoun County provided additional NVTVA funding in the amount of \$11.47M. The additional NVTVA funding has ensured that there are adequate funds to construct this project at this time. The added work is approximately 22.7 percent of the contracting capacity of this project. Per the code of Virginia §2.2-4309-Modification of contract which states,

“A public contract may include provisions for modification of the contract during performance, but no fixed-price contract may be increased by more than twenty-five percent of the amount of the contract or \$50,000, whichever is greater, without the advance written approval of the Governor or his designee, in the case of state agencies, or the governing body, in the case of political subdivisions.”

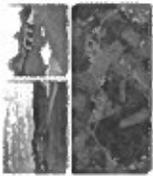
The Project Management team is very aware of this requirement and will endeavor to ensure that the project does not exceed this requirement.

Table 4 below shows the comparison of the total project cost estimate and expenditures for the Route 606 Loudoun County Parkway/Old Ox Road project as of November 30, 2018.

Table 4: Comparison of Project Estimate and Expenditures

Phase	Estimate	*Expenditures (11/30/18)
PE	\$3,452,043	\$3,452,043
RW	\$17,000,000	\$17,899,163
CN	\$98,749,157	\$91,004,914
Total	\$119,201,200	\$112,356,120

**Expenditures for all four UPCs (97529, 105064, 105575 & 107953)*



Loudoun County Parkway
(Route 606) / Old Ox Road
RECONSTRUCTION & WIDENING PROJECT

Project Allocations

Table 5 below shows the total allocations for the Route 606 Loudoun County Parkway/Old Ox Road project.

Table 5: Project Allocations

Funding Source	Previous & 2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	TOTAL
Federal Allocations								
CTB Formula Federal - HP	\$600,000	\$0	\$0	\$0	\$0	\$0	\$0	\$600,000
CTB Formula Soft Match - HP	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
MAP21 STP Statewide 80/20	\$2,950,029	\$0	\$0	\$0	\$0	\$0	\$0	\$2,950,029
MAP21 STP Statewide Soft Match 80/20	\$737,507	\$0	\$0	\$0	\$0	\$0	\$0	\$737,507
MAP21 RSTP NOVA	\$15,799,333	\$1,175,140	\$1,291,127	\$0	\$0	\$0	\$0	\$18,265,600
Minimum Guarantee: EB-Secondary: Loudoun	\$560,000	\$0	\$0	\$0	\$0	\$0	\$0	\$560,000
State Allocations								
Bond Match - Secondary	\$140,000	\$0	\$0	\$0	\$0	\$0	\$0	\$140,000
Bond Proceeds - CPR	\$125,000	\$0	\$0	\$0	\$0	\$0	\$0	\$125,000
CTB Formula - HP State	\$34,515,428	\$0	\$0	\$0	\$0	\$0	\$0	\$34,515,428
MAP21 RSTP Match NOVA	\$3,949,832	\$293,785	\$322,782	\$0	\$0	\$0	\$0	\$4,566,399
Local Allocations								
Accounts Receivable -Secondary	\$36,636,154	\$0	\$0	\$0	\$0	\$0	\$0	\$36,636,154
Accounts Receivable - NVTA AR Funds	\$11,470,000	\$0	\$0	\$0	\$0	\$0	\$0	\$11,470,000
Local Project Contributions- Secondary	\$12,836,046	\$0	\$0	\$0	\$0	\$0	\$0	\$12,836,046
Total	\$120,469,329	\$1,468,925	\$1,613,909	\$0	\$0	\$0	Total Allocations	\$123,552,163
							Total Estimate	\$121,201,200
							Remaining Balance	(\$2,350,963)

HP- High Priority; CPR – Capital Projects Revenue; EB-Equity Bonus; Local allocations are local contributions from Loudoun Co. and MWAA



5. PROJECT CASH FLOW

Table 6 below shows the projected project cash flow over the life of the project by year and funding source.

Table 6: Total Project Cash Flow Projections

	Previous & FY2019	FY2020	FY2021	Totals
Existing / Projected Expenditures	\$121,201,200	\$0	\$0	\$121,201,200
Accumulated Expenditures	\$121,201,200	\$121,201,200	\$121,201,200	\$121,201,200
Available Funding				
MWAA	\$25,031,200	\$0	\$0	\$25,031,200
Loudoun County (Includes \$11.47 M NVTA Funds)	\$35,911,000	\$0	\$0	\$35,911,000
VDOT	\$59,527,129	\$1,468,925	\$1,613,909	\$62,609,963
Accumulated Allocations	\$120,469,329	\$121,938,254	\$123,552,163	\$123,552,163
Cash Flow	\$731,871	\$737,054	\$2,350,963	(\$2,350,963)



6. INVOLVEMENT OF PRIVATE ENTERPRISE AND PRIVATE CAPITAL

N/A

7. RISKS AND MITIGATION MEASURES

Major urban highway improvement projects such as the Route 606 Loudoun County Parkway/Old Ox Road Reconstruction and Widening Project involve risks that can result in project cost escalation and/or delays. After issuance of the NTP on June 19, 2015, the project team encountered a number of challenges all of which have been successfully overcome as of the date of this final annual update. There is no known risk or any outstanding claim.

8. UPDATES AND RESOURCES

A. Future Updates

This is the final annual financial plan update as the project was completed on August 1, 2018.

B. VDOT Resources

Table 7 below lists VDOT resources associated with the Route 606 Old Ox Road/ Loudoun County Parkway Widening and Reconstruction project.

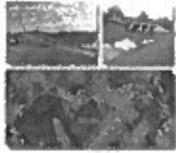


Table 7: VDOT Resources

Central Office	NOVA District
<p>Garrett W. Moore, P.E. Chief Engineer (804) 786-4798</p>	<p>Helen L. Cuervo, P.E. District Engineer (703) 259-2345</p>
<p>John W. Lawson Chief Financial Officer (804) 786-2707</p>	<p>William C. Cuttler, P.E. District Construction Engineer (703) 259-2990</p>
<p>Kim Pryor Infrastructure Investment Director (804) 786-2543</p>	<p>Christiana M. Briganti-Dunn, P.E. District Design-Build Program Manager (703) 259-2960</p>
<p>Wendy E. Thomas Federal Programs Management Director (804) 225-3552</p>	<p>Maria J. Sinner P.E. Assistant District Administrator, Programming and Investment Management (703) 259-2342</p>
<p>Mohammad Mirshahi, P.E. Deputy Chief Engineer (804) 786-1475</p>	<p>Jan S. Vaughan Manager NOVA Program Management NOVA District (703) 259-2425</p>
<p>Susan Keen, P.E. State Location and Design Engineer (804) 786-2507</p>	<p>Stephen L. Bates, P.E. District Location and Design Engineer (703) 259-2949</p>
<p>John C. Daoulas P.E. Senior Project Delivery Engineer (804) 371- 6787</p>	<p>Kim McCool, P.E. Preliminary Engineering Manager (Loudoun County) (703) 259-3220</p>
<p>Jeffrey A. Roby, P.E. Alternate Project Delivery Program Manager (804) 786-1103</p>	<p>Zamir A. Mirza District Project Manager (703) 259-1794</p>
<p>Shailendra Patel, P.E., DBIA Director, Alternate Project Delivery Office (804) 692-0476</p>	<p>Sanjeev Suri, P.E., DBIA, PMP, CCM District Design-Build Project Manager (703) 259-2232</p>