# **PUBLIC WORKS**

# **DESCRIPTION**

The Henrico County Department of Public Works maintains the third largest road network in the State after the State of Virginia and the City of Virginia Beach. The Department is responsible for the construction and maintenance of all secondary roads in the county, storm water drainage, administration of Public Transit services, and enforcement of erosion and sedimentation laws and ordinances. The Department is organized into the following divisions: Administration, Design, Maintenance, Construction, Transportation Development, Traffic Engineering, Environmental Control, Real Property, and Standing Water Initiative.

Most departmental services are funded from highway maintenance (gasoline tax) revenues from the Department of Transportation (VDOT) and license fee revenue collected in the County's General Fund. In addition, the General Fund provides for certain Board of Supervisors' directives including the Environmental Control Program, Vacuum Leaf services, the JOBS transit service, the Standing Water Initiative, and supplemental funding for the Mass Transit division.

The Central Virginia Transportation Authority (CVTA) provides additional funding for transportation and mobility projects in the County and across the Richmond region through additional sales and gas taxes. Fifty percent of the revenues are sent directly to the member localities, thirty-five percent of the revenues are targeted for regionally significant projects, and fifteen percent of the revenues are dedicated to public transit and regional mobility. The Department of Public Works has representation on the CVTA Technical Advisory Committee and is responsible for programming the County's allocation of CVTA funds, as well as project development, programming, and construction.

# **OBJECTIVES**

- Develop and maintain a safe and efficient road system.
- Develop and maintain an efficient and economical storm drainage system.
- Ensure that road and drainage facility construction is accomplished in accordance with appropriate standards and in an environmentally correct manner.

# FISCAL YEAR 2024 SUMMARY

# **Annual Fiscal Plan**

	FY22 Actual		FY23 Original		FY24 Approved		Change 23-24	
Description								
Personnel	\$	20,993,010	\$	24,702,954	\$	26,502,406	7.3%	
Operation		24,823,775		30,664,946		30,913,035	0.8%	
Capital		842,668		3,050,465		1,998,831	(34.5%)	
Total	\$	46,659,453	\$	58,418,365	\$	59,414,272	1.7%	
Personnel Complement		289		295		300 *	5	

<sup>\*</sup> Includes addition of 5 positions: 1 Engineer in the Design Division, 3 Project Specialists in the Environmental Division, 1 Transportation Specialist in the Traffic Engineering Division, and a shared Public Relations Specialist.

# PERFORMANCE MEASURES

				Change
	FY22	FY23	FY24	23-24
Workload Measures				
Lane Miles of Road Maintained	3,563	3,573	3,584	11
Traffic Signals Maintained	175	180	185	5
Development Plans Reviewed	1,404	1,000	1,550	550
Property and Easements Purchased	\$ 9,326,000	\$ 3,500,000	\$ 3,700,000	\$ 200,000

# **OBJECTIVES CONTINUED**

- Review and provide the most cost-effective public transit system for county residents.
- Provide prompt responses to citizen inquiries or requests for service.
- Enforce Chesapeake Bay Act regulations along with current erosion and sedimentation control ordinances and policies.

# **BUDGET HIGHLIGHTS**

The Department's budget, which combines Gas Tax and General Fund supported programs, is \$59,414,272, an increase of \$995,907, or 1.7%. The personnel component is \$26,502,406, an increase of 1,799,452, or 7.3% due to the addition of five positions: 1 Engineer, 3 Project Specialists, and 1 Transportation Specialist, a shared Public Relations Specialist, and changes to salary and benefits. The Department will support one third of a Public Relation Specialist.

The operating component increased by \$248,089 or 0.8% over FY23 based on increases in automotive/motor pool, refuse services, and supplies. The capital component decreased by \$1,051,634, or 34.6%. A decrease in an expected need within motor vehicle equipment is offset by an increase in computer equipment, telecommunications, and additional vehicles.

The FY24 budget includes funding of \$ 47,948,557 the State's Gas Tax maintenance allocation, \$11,447,755 from Henrico's General Fund subsidy, and \$234,000 from miscellaneous departmental revenue. The total projected Gas Tax for FY24 is based on the allocation for operations and maintenance and does not include a construction allocation. If gas tax were allocated for construction, it would be included in the capital budget section of this document. There has not been a construction allocation funded by gas tax since FY09.

The State's Gas Tax maintenance allocation is used for 80.3% of the operating budget. The gas tax allocation will support all Department of Public Works' divisions except the Standing Water Initiative and Environmental Inspection. This revenue source is restricted to roadway maintenance activities.

The General Fund supports 100% of expenses related to the Standing Water Initiative and the Environmental Inspection Division.

Public Works has several projects included in Henrico County's FY24 Capital Budget. Stormwater/MS4 improvements of \$2,348,000 and BMP Maintenance of \$1,000,000 are supported by the general fund. Countywide

land acquisitions (drainage), minor drainage improvements, and countywide creeks and streams projects have a combined budget of \$1,750,000 and are funded by revenues from motor vehicle license fees. Additionally, \$5,000,000 is included in the Capital Budget for countywide pedestrian improvements and \$25,000,000 for CVTA funded projects.

What follows is a discussion of each of the divisions within Public Works.

#### ADMINISTRATION DIVISON

The total budget for the Administration Division is \$2,182,146, an increase of \$107,355 or 5.2% from FY23. The personnel component increased by \$56,605, or 3.0% due to one third shared cost of a Public Information Officer, and changes to salary and benefits. The operating component remained flat, and the capital component increased by \$50,750, or 49.5% due to expected replacement computer needs.

#### ROAD MAINTENANCE DIVISION

The total budget for the Road Maintenance Division is \$31,468,314, which is a decrease of \$201,555, or 0.6% from FY23. The personnel component increased by \$463,878, or 4.3% due to changes in salary and benefits. The operating component increased by \$145,927, or 0.8%, with funds shifting within the component to adjust for increases in refuse services and maintenance supplies, and automotive/motor pool increase to support a midsize SUV. The capital component decreased by \$811,360, or 32.9% due to an expected decreased need for motor vehicle replacement.

# TRAFFIC ENGINEERING DIVISION

The total budget for the Traffic Engineering Division is \$4,684,128, a decrease of \$60,883, or 1.3% from FY23. The personnel component increased by \$231,017, or 8.0% due to the addition of a Traffic Specialist, and changes to salary and benefits. The operating component is increased by \$1,100, or 0.1% with increases to telecommunications. The capital component is decreased by \$293,000, or 75.7% due to limited need for equipment replacement.

# CONSTRUCTION DIVISION

The total budget for the Construction Division is \$4,144,223, an increase of \$117,800, or 2.9% from FY23. The personnel component increased by \$49,585, or 1.9% due to changes to salary and benefits. The operating component is increased by \$53,889, or 4.0% mainly due to an increase in the bridge maintenance contract. The capital component is increased by \$14,326, or 28.6% which includes funding to replace aging office furniture. This is offset by an expected lesser need of computer equipment.

## **DESIGN DIVISION**

The total budget for the Design Division is \$2,985,761, which is an increase of \$499,837, or 20.1% from FY23. The personnel component increased by \$482,775, or 22.6% due to the addition of an Engineer for drainage, and changes to salary and benefits. The operating component increased by \$14,562, or 4.6% due to automotive/motor pool and telecommunications increases.

## MASS TRANSIT AND TRANSPORTATION DEVELOPMENT DIVISION

The total budget for the Mass Transit Division is \$6,081,329, an increase of \$, 97,776 or 1.6% over FY23. The personnel component increased by \$137,685, or 10% due to changes to salary and benefits. The operating component decreased by \$25,059, or 0.5% due to an increase in automotive/motor pool charges for the addition of a passenger van which is offset by a reduction in other contractual services. The capital component decreased by \$14,850, or 92.8% due to an expected lesser need of computer equipment.

#### **ENVIRONMENTAL DIVISION**

The total budget for Environmental is \$3,139,456, an increase of \$236,012 or 8.1% over FY23. The personnel component increased by \$214,986, or 11.8% due to the addition of three Project Specialists for wetlands, watershed and capital projects, and changes to salary and benefits. The operating component increased by \$21,026, or 1.9%, due to increases to automotive/motor pool charges for the addition of three SUVs, education and training, and telecommunications.

## STANDING WATER AND MOSQUITO CONTROL

The total budget for Standing Water and Mosquito Control is \$538,466, an increase of \$44,357, or 9.0% over FY23. The personnel component increased by \$32,700, or 8.0%, due to changes to salary and benefits. The operating component increased by \$11,657, or 13.6% with increases to other contractual services.

# TRANSPORTATION AND MOBILITY DIVISION

The total budget for Transportation and Mobility is \$4,246,000, which is unchanged from FY23.

## **REAL PROPERTY DIVISION**

The total budget for Real Property is \$841,049, an increase of \$155,208, or 22.6% from FY23. The personnel component increased by \$130,221, or 19.7% due to changes to salary and benefits. The operating component increased by \$24,987, or 101.5% due to increases in other professional services, telecommunications, education and training, and computer software.

# **DEPARTMENTAL HIGHLIGHTS**

In 2023, the Department of Public Works accepted over 11 miles of new roads into the county road network. In addition, the department completed over 25,000 inspections of active construction projects and reviewed plans for over 600 construction projects. Public Works also secured over \$33.0 million in grant funding for roadway and pedestrian capital projects through the Virginia Department of Transportation's SMART SCALE program in FY23.

# SUPPORTING ECONOMIC DEVELOPMENT

Public Works continued facilitating economic development in the county by improving access to the road system. The Department constructed an extension of the westbound Nuckols Road ramp onto I-295 to facilitate traffic flow in the Innsbrook area and is designing an extension of the off-ramp on the eastbound side. In addition, the Department

secured a \$650,000 Economic Development Access Program grant from VDOT to extend Engineered Wood Way to accommodate future development.

## COMMUNITY OUTREACH

Public Works staff conducted citizen information meetings and public hearings for new roadway, sidewalk, and stream restoration projects. They provided information at community association events and hosted interactive booths at Earth Day Spring Energy Fair, Fall Energy Fair, Native Plant Festival, and the Henrico Bug Bizarre, where attendees were educated on environmental health compliance related to mosquitoes, proper pet waste disposal, vehicle washing, and proper leaf disposal methods. They also facilitated programs and taught classes in the virtual platform during events such as the Central and Southern Virginia Mosquito Identification and information classes, which are now available on YouTube. Since in-person activities were limited due to the pandemic, biweekly mosquito outreach sessions were offered, including lengthy detailed mosquito management videos, live video Q&A sessions, virtual ride-along programs, extended mosquito biology education, and a variety of other content. Public Works participated in two career fairs: (1) hosting a booth related to job opportunities at the County's Public Works Job Fair, and (2) providing educational materials regarding stormwater and the County's Municipal Separate Storm Sewer System Program for the Mission Tomorrow event (8th grade career fair).

#### **ROAD PROJECTS**

Public Works has 96 road and drainage projects underway. There are also 22 transportation studies ongoing. Updates on several major projects include:

# **Dabbs House Road**

A 0.8-mile section of Dabbs House Road between Nine Mile Road and East Richmond Road will be widened with curband-gutter, drainage improvements, a sidewalk, and a right-turn lane. Utility lines have been relocated. Construction began in October 2020 and is expected to be complete by late spring or early summer of 2023. The total cost of this project is estimated at \$13.3 million dollars.

## N. Gayton Road Interchange at I-64

The Department of Public Works is working with the Virginia Department of Transportation to complete an engineering study supporting a new interchange at N. Gayton Road and I-64 in Short Pump. Upon approval by the Virginia Department of Transportation and the Federal Highway Administration, the county will work to fund and design the interchange.

# Richmond-Henrico Turnpike

The county leveraged \$14.0 million in bond funds to receive \$11.7 million in Virginia Department of Transportation SMART SCALE funding for the Richmond-Henrico Turnpike Improvement Project. This project will widen and improve the existing 1.9-mile section of roadway between Laburnum Avenue and Hummingbird Road, just south of Azalea Avenue. A private developer is constructing Richmond-Henrico Turnpike from Hummingbird Road to the at-grade railroad crossing located approximately 0.7 miles north of Azalea Avenue. The road will be reconstructed as a four-lane divided roadway with turn lanes, curb-and-gutter, drainage improvements, a 10-foot multi-use trail, and sidewalk. Utility relocation is scheduled to be completed June 2023. Construction is expected to begin October 2023.

## Sadler Road

A 1.9-mile section of Sadler Road between Dominion Boulevard and Cedar Forest Road is being widened and the alignment improved. The project includes curb and gutter, drainage, a 10-foot-wide shared use path, and two roundabouts. The right-of-way acquisition is complete with utility location scheduled to be completed the end of 2023. Construction is expected to begin April, 2024 and proceed until April 2026.

## Three Chopt Road

A project to improve a 2.1-mile section of Three Chopt Road between Gaskins Road and Barrington Hills Drive continues to advance with right-of-way acquisition. This project will widen the roadway to a four-lane divided section with curb-and-gutter, drainage improvements, and sidewalks. Utility relocation is scheduled to be completed by the end of 2024. Construction is expected to begin April 2025 and proceed until April 2027.

## Three Chopt Road Sidewalk Improvements (Freeman High School)

The Department of Public Works started this project December 12, 2022, and expects completion in June of 2023. Project work consists of the construction of 1,980 linear feet of either four-foot-wide sidewalk with utility strip or five-foot wide sidewalk on the north side of Three Chopt Road and approximately 1,310 of either four-foot wide or five-foot wide sidewalk on the south side of Three Chopt Road. ADA compliant ramps will be provided as needed on both the north side and south side of Three Chopt Road. The project is located between Dinwiddie Avenue and Bexhill Road.

# St. Claire Lane Sidewalk and Drainage Improvements

The Department of Public Works started this project September 26, 2022. The project is expected to be completed in April of 2023. Project work consists of improvements along St. Claire Lane from Mechanicsville Turnpike to Hartman Street including sidewalk construction with associated road, drainage, and utility improvements, and tie-in of existing driveway entrance aprons and concrete walkways.

# <u>Tuckahoe Volunteer Rescue Squad</u>

The Department of Public Works started this four-phased project August 8, 2022. Project work consists of the construction of site improvements for new parking spaces and renovation of existing parking areas east and west of the existing Tuckahoe Volunteer Rescue Squad building. Additionally, a new concrete paved entry apron along the frontage of the access to the site, drainage, and sidewalk improvements along Horsepen Road. The project also includes guardrail along the intersection of Horsepen and Three Chopt Roads. The improvements include demolition of existing pavement, curb and gutter, new curb and gutter, closed drainage system improvements with underground detention, construction of new pavement for surface parking, and construction of concrete sidewalk to tie-in to exiting squad bay access.

# **COMPLETED CIP PROJECTS IN 2022**

PROJECT	SCOPE	DATE COMPLETED	FINAL COST	
Gaskin Road Sidewalk (River Road to Derbyshire)	Sidewalk	January 15, 2022	\$	987,613
Pump Road Widening and Sidewalk	Pedestrian Access	April 15, 2022	\$	1,378,216
Azalea Avenue Pedestrian and Signal Improvements	Crosswalk and Traffic Signal	May 16, 2022	\$	1,150,321
Gay Avenue Sidewalk	130 feet of Sidewalk	June 28, 2022	\$	1,623,804
Woodman Road Extension	Roadway	August 24, 2022	\$	7,676,882
Oakley's Lane Realignment and Improvements	Roadway	November 1, 2022	\$	5,190,854
Engineered Wood Way Roadway Extension Phase II	Grading and Paving	November 3, 2022	\$	1,788,312
E Laburnum Avenue Sidewalk Route 360 to Bolling Road	1450 feet Sidewalk, Curb, Gutter, Drainage	November 9, 2022	\$	588,789
-			\$	20,384,791

#### PEDESTRIAN AND COMMUTER IMPROVEMENTS

The Department of Public Works is continuing an initiative to improve bicycle and pedestrian accommodations across the county. In total, the Department has 61 programmed projects scheduled to be completed or under construction over the next three years that will add over 26 miles of sidewalks and over 17 miles of paved multi-use trials.

## **BRIDGE PROJECTS**

The Department of Public Works has three bridge and culvert repair or replacement projects and one new bridge project under design. Repairs to the Greenwood Road bridge and the Parham Road bridge over the CSX railroad tracks are both under contract with the projects expected to commence in the spring of 2023. The Lakeside Avenue and Wilkinson Road bridge replacements, and the Meadow Road culvert replacement are in final design and anticipated to begin construction in 2023. The new Magellan Parkway I-95 Bridge and Approaches Section project is currently in the right of way phase and is anticipated to be advertised for construction Spring of 2024.

# MUNICIPAL SEPARATE STORM SEWER SYSTEM PERMIT (MS4)

Work is ongoing to comply with the state permit, which requires pollution reductions over a 15-year period. The Department has already achieved approximately 60% of the total required pollution reductions to date. This progress puts the county ahead of schedule, as 40% reduction is required by 2025. The Department must achieve 100% of the pollution reductions by the year 2030.

The Dietrick Road Outfall Restoration project is scheduled for 2023. Hidden Creek Park Stream Restoration, Wilder Middle School Stream Restoration, and Adams Elementary Stream Restoration projects are all currently under design and are scheduled for construction in 2023 and 2024. Projects listed have received DEQ grant funding totaling over \$2.4 million (approximately 50% of the total project costs).

## MOSQUITO CONTROL

Public Works standing water initiative (SWI) continues to perform adult mosquito surveillance operations and monitoring for the presence of mosquito borne diseases. This past year (2022) included responding to 89 resident complaints as well as sustained biweekly monitoring of 100 sites throughout the County. The SWI section collected 19,925 mosquitoes, which included 25 different species. SWI also documented 1,750 mosquito larviciding site visits. West Nile virus (WNV) and mosquito surveillance revealed not only a return to more standard WNV positive (5)

mosquito collections (pools) but also a numerical rebound in overall nuisance species such as Aedes albopictus (Asian Tiger mosquitoes) whose populations monitoring was disrupted by a dry-ice shortage in September.

# CENTRAL VIRGINIA TRANSPORTAION AUTHORITY

The Central Virginia Transportation Authority (CVTA) was created by the General Assembly in the 2020 legislative session. CVTA provides funding for local and regional transportation projects along with additional funds for Mass Transit for Henrico and Central Virginia. In FY23, Henrico County received \$119.1 million in CVTA Regional funds for seven projects as well as \$35.8 million of funding for construction of the Fall Line Trail.