

Fund 30020: Infrastructure Replacement and Upgrades

Focus

Fund 30020, Infrastructure Replacement and Upgrades, supports the long-term needs of the County’s capital assets to maximize the life of County facilities, avoid their obsolescence, and provide for planned repairs, improvements, and restorations to make them suitable for organizational needs. Infrastructure replacement and upgrade is the planned replacement of building subsystems such as roofs, electrical systems, heating, ventilation, and air conditioning (HVAC), plumbing systems, elevators, windows, flooring, parking lots, fire alarms, fire suppression, building automation systems, and emergency generators that have reached the end of their useful life. Without significant reinvestment in building subsystems, older facilities can fall into a state of ever-decreasing condition and functionality, and the maintenance and repair costs necessary to operate the facilities increase. Fairfax County will have a projected FY 2024 facility inventory of approximately 12 million square feet of space (excluding schools, parks, and housing facilities). This inventory continues to expand with the addition of newly constructed facilities, the renovation and expansion of existing facilities, and the acquisition of additional property. With such a large inventory, it is critical that a planned program of repairs and restorations be maintained. In addition, the age of a large portion of this inventory of facilities is reaching a point where major reinvestments are required in the building subsystems.

Many County facilities have outdated HVAC and electrical systems that are susceptible to failure or are highly inefficient energy users. Projects are prioritized based on maintenance reports and availability of parts. Roof and envelope replacement, repairs, and waterproofing are conducted in priority order based on an evaluation of maintenance and performance history. Repair and replacement of facility roofs and building envelopes are considered critical to avoid the serious structural deterioration that occurs from roof and envelope leaks. By addressing this problem in a comprehensive manner, a major backlog of roof and envelope problems can be avoided. In addition, emergency generator systems and life safety systems are replaced based on equipment age, coupled with maintenance and performance history. Critical emergency repairs and renovations are accomplished under the category of emergency building repairs. These small projects abate building obsolescence and improve the efficiency and effectiveness of facilities and facility systems. The following table outlines, in general, the expected service life of building subsystems used to project infrastructure replacement and upgrade requirements, coupled with the actual condition of the subsystem component:

General Guidelines for Expected Service Life of Building Subsystems

<u>Electrical</u>		<u>Plumbing</u>	
Lighting	20 years	Pumps	15 years
Generators	25 years	Pipes and fittings	30 years
Service/Power	25 years	Fixtures	30 years
Fire Alarms	15 years		
<u>HVAC</u>		<u>Finishes</u>	
Equipment	20 years	Broadloom Carpet	7 years
Boilers	15 to 30 years	Carpet Tiles	15 years
Building Control Systems	7 years	Systems Furniture	20 to 25 years
<u>Conveying Systems</u>		<u>Site</u>	
Elevator	15 to 25 years	Paving	15 years
Escalator	15 to 25 years		
Conveying Technology	7 to 10 years	<u>Roofs</u>	
		Replacement	20 years

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Each year, the Facilities Management Department (FMD) prioritizes and classifies infrastructure replacement and upgrade projects into five categories. Projects are classified as Category F: urgent/safety related, or endangering life and/or property; Category D: critical systems beyond their useful life or in danger of possible failure; Category C: life-cycle repairs/replacements where repairs are no longer cost effective; Category B: repairs needed for improvements if funding is available, and Category A: good condition.

In April 2013, the County and School Board formed a joint committee, the Infrastructure Financing Committee (IFC), to collaborate and review both the County and School's Capital Improvement Program (CIP) and infrastructure upgrade requirements. One of the goals of the Committee was to develop long-term maintenance plans for both the County and Schools, including annual requirements and reserves. The committee conducted a comprehensive review of critical needs and approved recommendations to support the development of a sustainable financing plan to begin to address current and future capital requirements. A Final Report was developed and approved by the Board of Supervisors on March 25, 2014, and the School Board on April 10, 2014. The Report included support for conducting capital needs assessments, the establishment of a capital sinking fund and increased annual General Fund support for infrastructure replacement, the adoption of common definitions related to all types of maintenance, support for County and School joint use opportunities for facilities, and continued support for evaluating ways to further reduce capital costs.

In February 2020, the Board of Supervisors and the School Board established a second joint CIP working group to continue the work of the IFC and enhance information sharing, prioritizations, and planning by both the County and Fairfax County Public Schools. The Committee spent its time reviewing the County's existing Financial Policies, considering the financing options available for capital projects, understanding the capital project requirements identified for both the County and Schools, and evaluating the current CIP Plan and processes. Following these discussions, the Committee arrived at a series of recommendations, which included gradually increasing General Obligation Bond Sale limits from \$300 million to \$400 million annually; dedicating the equivalent value of one penny on the Real Estate tax rate to the County and School capital program to support both infrastructure replacement and upgrade projects and debt service on the increased annual sales; and increasing the percentage allocated to the Capital Sinking Fund at year-end, as well as including Schools in the allocation. Based on resource constraints, the Committee's recommendation to dedicate the value of one penny has not been included in the [FY 2024 Adopted Budget Plan](#). An investment totaling \$5 million, split equally between the County and Schools, was included, with the anticipation that this investment will grow in the coming fiscal years. When fully implemented, these recommendations will provide significant funding for infrastructure replacement and upgrades in the future.

To date, a total of \$66,144,221 has been allocated to FMD for critical infrastructure replacement and upgrade projects through the year-end allocation to the Sinking Fund. FMD has initiated several larger scale projects with funding from the Sinking Fund, including roof replacement at the Gerry Hyland South County Government Center, Huntington Community Center, and Juvenile Detention Center; HVAC system component replacement at the Herrity Building and Gerry Hyland South County Government Center; building improvements at the Bailey's Community Center; milling and paving at the Kingstowne Fire Station; plaza deck drainage and concrete improvements at the Government Center; fire alarm system replacement at the Government Center and Fairfax County Courthouse; elevator modernization at the Adult Detention Center, and building automation system upgrades at Fairfax Center Fire Station, Great Falls Library, Mott Community Center, Providence Community Center, and the Fire Training Academy.

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Due to budget constraints in FY 2024, an amount of \$1,500,000 has been included to address one of the top priority category F projects. In addition, an amount of \$6,100,000 was funded as part of the *FY 2023 Third Quarter Review* for a total of \$7,600,000 to support the most critical FY 2024 identified projects. In recent years, it has been the Board of Supervisors' practice to fund some or all of the infrastructure replacement and upgrade projects using one-time funding as available as part of quarterly reviews. These projects, all Category F, will address fire alarm system replacement, HVAC system upgrades, roof replacement, envelope renewal, and site work. The table below provides specific project details of the projects that are funded in the FY 2024 Adopted Budget Plan and the projects that were funded as part of the *FY 2023 Third Quarter Review*.

FY 2024 Infrastructure Replacement and Upgrade Program

Priority	Project Type	Facility	Category	Existing Conditions/Deficiencies	Estimate
Project funded as part of the FY 2024 Adopted Budget Plan:					
1	Building Envelope	Various Parking Garages (Partial funding associated with the first phase of a multi-year program).	F	<ul style="list-style-type: none"> Maintenance no longer feasible Leaks through openings and failed drainage systems resulting in flooding and ponding Deterioration and corrosion of existing structures Pedestrian and vehicle hazards 	\$1,500,000
Projects funded as part of the FY 2023 Third Quarter Review:					
2	Building Envelope	Various Parking Garages (Remaining FY 2024 funding associated with the first phase of a multi-year program)	F	<ul style="list-style-type: none"> Maintenance no longer feasible Leaks through openings and failed drainage systems resulting in flooding and ponding Deterioration and corrosion of existing structures Pedestrian and vehicle hazards 	\$500,000
3	Fire Alarm	Annandale Center	F	<ul style="list-style-type: none"> Maintenance intensive Parts difficult to obtain Elevated risk due to potential system malfunction 	\$100,000
4	HVAC	Pennino Building	F	<ul style="list-style-type: none"> Maintenance intensive and increased system failure Water leaks and air infiltration Parts are no longer available or are obsolete Increased utilities costs 	\$4,600,000
5	Roof	Fairfax County Government Center	F	<ul style="list-style-type: none"> Caulking has exceeded its life cycle Water leaks Lightning protection requires recertification Increased utilities costs 	\$500,000

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Priority	Project Type	Facility	Category	Existing Conditions/Deficiencies	Estimate
6	Paving	Fairfax County Courthouse	F	<ul style="list-style-type: none"> Maintenance no longer feasible Deteriorating conditions Potential for damage to vehicles and injuries to pedestrians 	\$400,000
Total					\$7,600,000

In addition to the above projects identified as part of the FY 2024 plan, FMD has identified additional Category F projects. Analysis of these requirements is conducted annually, and projects may shift categories, become an emergency and be funded by the emergency systems failures project, or be eliminated based on other changes, such as a proposed renovation project.

Changes to FY 2023 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2023 Revised Budget Plan since passage of the FY 2023 Adopted Budget Plan. Included are all adjustments made as part of the FY 2022 Carryover Review, FY 2023 Third Quarter Review, and all other approved changes through April 30, 2023.

Carryover Adjustments \$80,651,798

As part of the FY 2022 Carryover Review, the Board of Supervisors approved an increase of \$80,651,798 due to the carryover of unexpended project balances in the amount of \$60,236,073 and an adjustment of \$20,415,725. This adjustment included an increase to the General Fund transfer of \$20,015,961, including: \$3,000,000 to support emergency systems failures that occur at aging County facilities throughout the year, and \$17,015,961 to support the Capital Sinking Fund. In addition, the adjustment included the appropriation of revenues in the amount of \$399,764 received in FY 2022 associated with reimbursements from the Virginia Department of Transportation (VDOT) and the Virginia State Police for their share of the operational costs at the McConnell Public Safety and Transportation Operations Center (MPSTOC) as well as the state share of future projected capital renewal requirements at this facility.

Third Quarter Adjustments \$9,900,000

As part of the FY 2023 Third Quarter Review, the Board of Supervisors approved an increase of \$9,900,000, including \$3,800,000 to support emergency systems failures that occur at aging County facilities throughout the year and \$6,100,000 to support infrastructure replacement and upgrades at County facilities. Funding of one-time capital improvements as part of a quarterly review is consistent with actions taken by the Board of Supervisors in previous years.

A Fund Statement and a Summary of Capital Projects are provided on the following pages. The Summary of Capital Projects may include some projects without a Total Project Estimate amount. These projects are considered "continuing" projects or projects for which funding is necessary on an ongoing basis (e.g., a contingency or planning project).

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FUND STATEMENT

Category	FY 2022 Actual	FY 2023 Adopted Budget Plan	FY 2023 Revised Budget Plan	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
Beginning Balance	\$43,704,861	\$0	\$60,635,837	\$0	\$0
Revenue:					
MPSTOC Reimbursement ¹	\$399,764	\$0	\$0	\$0	\$0
Total Revenue	\$399,764	\$0	\$0	\$0	\$0
Transfers In:					
General Fund (10001)	\$28,291,318	\$1,500,000	\$31,415,961	\$1,500,000	\$1,500,000
Total Transfers In	\$28,291,318	\$1,500,000	\$31,415,961	\$1,500,000	\$1,500,000
Total Available	\$72,395,943	\$1,500,000	\$92,051,798	\$1,500,000	\$1,500,000
Total Expenditures	\$11,760,106	\$1,500,000	\$92,051,798	\$1,500,000	\$1,500,000
Total Disbursements	\$11,760,106	\$1,500,000	\$92,051,798	\$1,500,000	\$1,500,000
Ending Balance²	\$60,635,837	\$0	\$0	\$0	\$0

¹ A total of \$399,764 represents revenue received from the Virginia Department of Transportation (VDOT) and Virginia State Police associated with the state share of operating costs at the McConnell Public Safety and Transportation Operations Center (MPSTOC). These funding reimbursements will be held in projects for future infrastructure replacement and upgrade requirements. State reimbursement is based on actual operational expenditures, eliminating the need to reconcile estimates and actuals each year.

² Capital projects are budgeted based on the total project costs. Most projects span multiple years, from design to construction completion. Therefore, funding for capital projects is carried forward each fiscal year, and ending balances fluctuate, reflecting the carryover of these funds.

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SUMMARY OF CAPITAL PROJECTS

Project	Total Project Estimate	FY 2022 Actual Expenditures	FY 2023 Revised Budget	FY 2024 Advertised Budget Plan	FY 2024 Adopted Budget Plan
Capital Sinking Fund for Facilities (GF-000029)	\$66,144,221	\$5,346,134.77	\$42,280,681.73	\$0	\$0
Electrical System Upgrades and Replacements (GF-000017)		600,000.00	371,658.13	0	0
Elevator/Escalator Renewal (GF-000013)		1,402,099.99	2,943,806.81	0	0
Emergency Generator Replacement (GF-000012)		24,690.11	1,845,066.60	0	0
Emergency Systems Failures (2G08-005-000)		1,612,394.49	14,862,278.57	0	0
HVAC and Plumbing System Upgrades and Replacement (GF-000011)		500,577.83	13,830,376.30	0	0
Life Safety System Replacements (GF-000009)		348,500.19	2,818,566.06	0	0
Miscellaneous Building Repairs (GF-000008)		15,600.00	5,978,243.35	1,500,000	1,500,000
MPSTOC County Support For Renewal (2G08-008-000)		801,257.90	2,401,226.30	0	0
MPSTOC State Support For Renewal (2G08-007-000)		0.00	941,585.00	0	0
Parking Lot and Parking Garage Improvements (GF-000041)		0.00	689,512.31	0	0
Roof and Envelope Repairs and Waterproofing (GF-000010)		1,108,850.25	3,088,797.33	0	0
Total	\$66,144,221	\$11,760,105.53	\$92,051,798.49	\$1,500,000	\$1,500,000