

Facility Management, Infrastructure Replacement and Upgrades

PROGRAM DESCRIPTION

One of the primary roles for facility management in both government and private industry is to provide for the long-term needs of the organization's capital assets. This maximizes the life of the facilities, retards their obsolescence and provides for a planned program of repairs, improvements and restorations to make them suitable for organizational needs. Infrastructure Replacement and Upgrades is the planned replacement of building subsystems such as roofs, electrical systems, HVAC systems and plumbing systems that have reached the end of their useful life. Major capital renewal investments are required in facilities to replace old, obsolete building subsystems that have reached the end of their life cycle. Without significant reinvestment in building subsystems, older facilities will fall into a state of ever deteriorating condition and functionality and the maintenance and repair costs necessary to keep them functional will increase. Facilities Management also includes renovations and expansions of existing County vehicle service facilities and the management of the Laurel Hill area. Much of the land in the Laurel Hill area is under public ownership and is planned for park and recreation uses, public facilities and infrastructure, cultural and educational uses and the adaptive reuse of some of the existing structures.

LINK TO THE COMPREHENSIVE PLAN

Fairfax County's Comprehensive Plan has established a number of objectives and policies in order to:

- ✓ Maintain a high quality system of public infrastructure.
- ✓ Ensure adequate maintenance of existing County facilities, and provide urgently needed emergency repairs to facilities in order to meet public health or safety needs or required service levels.
- ✓ Provide at least one additional vehicle maintenance facility, preferably located in the northwestern County area, and ensure that County vehicle maintenance facilities are located on adequate and appropriate sites.

Source: 2007 Edition of the Fairfax County Comprehensive Plan, Area IV, and the Policy Plan Element, Economic Development and Public Facilities Sections, as amended.

CURRENT PROGRAM INITIATIVES

Facility Infrastructure Replacement and Upgrades

The Facilities Management Department currently provides support for evaluating facilities, identifying problems and problem areas, developing costs estimates, establishing priorities and performing the work required. Some of the major work completed annually at County facilities includes the replacement of building subsystems: HVAC and electrical system repairs and replacement, roof repairs and waterproofing, carpet replacement, parking lot and garage repairs, fire alarm replacement and emergency generator replacement.

Fairfax County will have a projected FY 2017 facility inventory of over 10 million square feet of space throughout the County (excluding schools, parks, housing and human services residential facilities). This inventory is expanding both with the addition of newly constructed facilities and with the acquisition of additional property. With such a large inventory, and the acquisition of additional facilities, it is critical that a planned program of repairs and restorations be maintained. In addition, the age of a major 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 which are susceptible to failure or are highly inefficient energy users. Sites are identified and each individual project involves a two-step process normally requiring two years to complete both design and construction. Roof repairs and waterproofing are conducted in priority order after an annual evaluation of all roofs at County facilities. Based upon the results of that evaluation, critical requirements are prioritized and a five-year plan is established. Repairs and replacement of facility roofs are considered critical for avoiding serious structural deterioration caused by roof leaks. By addressing this problem in a comprehensive manner, a major backlog of roof problems can be avoided. Carpet replacement and parking lot resurfacing are evaluated annually and prioritized, based on most critical requirements for high traffic areas; however, carpet and pavement requirements are programmed based on designated cycles. In addition, emergency generators and fire alarm systems are replaced based on equipment age coupled with maintenance and performance history. Minor repairs and renovations, usually generated by customer requests, are accomplished under the category of miscellaneous building and repair. These small projects abate building obsolescence, improve facility efficiency and effectiveness and address major structural repairs.

**GENERAL GUIDELINES FOR EXPECTED SERVICE LIFE
OF BUILDING SUBSYSTEMS**

ROOFS	20 years
ELECTRICAL	
Lighting	20 years
Generators	25 years
Service/power	25 years
Fire alarms	15 years
CONVEYING SYSTEMS	
Elevator	25 years
Escalator	25 years
HVAC	
Equipment	20 years
Boilers	15 to 30 years
Building Control Systems	10 years
PLUMBING	
Pumps	15 years
Pipes and fittings (supply)	30 years
Fixtures	30 years
FINISHES	
Broadloom Carpet	7 years
Carpet Tiles	15 years
Systems Furniture	20 to 25 years
SITE	
Paving	15 years

Each year, the Facilities Management Department (FMD) prioritizes and classifies capital renewal 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. The Committee found the analysis of financial policy, the review of the condition of hundreds of facilities, and the scarce options for financing to be challenging. 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 includes support for conducting capital needs assessments, new policy recommendations for capital financing, including a capital sinking fund and increased annual General Fund supported funding, 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.

As discussed with the IFC, the requirement for County infrastructure replacement and upgrades is estimated at \$26 million per year. This estimate is based on current assessment data, as well as industry standards (2 percent of the current replacement value). Based on current staffing levels, the complexity of many of the projects, and the timeline for completing replacement and upgrade projects, it is estimated that approximately \$15 million per year would be a good funding goal. In an effort to move closer to the funding goal of \$15 million, an amount of \$12,417,153 in priority FY 2017 projects is proposed to be funded using multiple funding sources. First, an amount of \$1,408,449 is supported by the General Fund in FY 2017 and \$3,591,551 was approved by the Board of Supervisors to be pre-funded as part of the *FY 2016 Third Quarter Review*. Second, an amount of \$2,810,000 will be supported by existing Public Safety bonds available in completed projects as a result of the favorable bid environment. These project, all located at Public Safety/Courts facilities are large upgrade projects with life spans in excess of 20 years and appropriately funded by bonds. Finally, an amount of \$4,607,153 is supported by the Capital Sinking Reserve Fund. The Capital Sinking Reserve Fund was established as a direct result of the IFC and has accumulated over the last two years based on the approval of funding at both the *FY 2014 Carryover Review* and the *FY 2015 Carryover Review*. As part of the *FY 2016 Third Quarter Review*, the Board approved the allocation of the Capital Sinking Reserve Fund based on the percentage of each maintenance program as it relates to the total County annual requirements. FMD projects requiring funding in FY 2017 can take advantage of the two prior years of funding in the Capital Sinking Reserve Fund, with an effort to reach close to the \$15 million goal in General Fund support in future years.

All of the FY 2017 funding sources will address 10 of the top priority Category F projects. FMD has identified to date an additional 146 Category F and 45 Category D projects. The funding required to address the remaining Category F and D projects is in excess of \$78 million. 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.

Vehicle Services

The Department of Vehicle Services (DVS) has four maintenance facilities and operates 52 County fuel sites: The Jermantown and West Ox facilities are located in the western part of the County, and the Newington and Alban facilities are in the southeastern part. These facilities provide timely, responsive and efficient vehicle repairs/services, including effective towing and road services at competitive prices.

The Newington facility was built in 1968 when the requirements to maintain vehicles were approximately 1/3 of the number of vehicles currently needed to meet local, State and Federal requirements. Over the years maintenance bays, a motorcycle shop and other additions have been made in an effort to keep pace with the increased number of vehicles and demands for repairs, inspections, and services. However, improvements are needed to enhance production and capacity for the current fleet of 1,850 vehicles that includes school buses, public safety vehicles and heavy equipment in support of the Department of Public Works and Environmental Services (DPWES) and other departments. As part of the fall 2007 Fairfax County Public School Bond Referendum, the voters approved an amount of \$50 million to support renovation and expansion efforts to transform the existing Newington facility into a more productive structure to support current and future vehicle maintenance needs for County and School vehicles. In addition, the DVS has contributed to support the project. The maintenance facility and associated site work for the Newington DVS facility was completed in 2014, with roadway access improvements scheduled for completion in early 2017. Based on the favorable construction bid environment, the remaining balance will be used to address infrastructure replacement and upgrades,

safety and code compliance upgrades, and operational efficiency improvements at the remaining three DVS maintenance facilities (Jermantown, West Ox, and Alban).

Laurel Hill

Laurel Hill, once the location of the former District of Columbia Department of Corrections Facility, is emerging as a resource of unequalled diversity and opportunity in the southeastern part of the County. Laurel Hill was transferred to the County by the Federal Government in 2002, and includes approximately 2,340 acres of land and 1.48 million square feet of building space. Although some land north and south of Silverbrook Road is developed for residential use, most of the Laurel Hill area is under public ownership and is planned for passive park, active recreation, adaptive reuse of historical structures and spaces, and public safety uses. In addition, land is reserved or being used for public facilities such as public schools, public infrastructure such as roadway widening and improvements, and a major greenway trail system. Institutional uses to support cultural and higher educational facilities either exist or are planned. The historically designated existing former correction facilities are planned for adaptive reuses to support residential, retail, and commercial development. The land uses adopted in The Comprehensive Plan in Laurel Hill will help fulfill the following goals and objectives for making Laurel Hill a world-class environment for Fairfax citizens and visitors:



The 280-acre, 18-hole Laurel Hill Golf Course is one of Northern Virginia's premier golf courses.

- Preserve the essential historical core (physical and symbolic) of the Workhouse and Reformatory/Penitentiary sites;
- Promote socially positive and acceptable reuses that compliment other development on site and in the surrounding community;
- Provide opportunities for active and passive recreation, environmental conservation and celebration of the historic and cultural resources in the area.

Several public improvement projects are planned or underway for the Laurel Hill area:

- Widening and improvements of Lorton Road and Furnace Road began in 2014. Construction is expected to be completed by the end of 2016.
- The implementation of the Workhouse Arts Foundation's subsequent development Phases, (coordinated with the County).
- The County has reached an agreement with a developer to adaptively reuse the historic Reformatory and Penitentiary buildings while creating a new residential and neighborhood-serving retail community on the former prison grounds. Ground breaking took place in December 2015 and elements of the first phase of development will be completed by the fall of 2017.
- The County continues to evaluate and maintain historic structures on the site including the Laurel Hill house and the former Physician's House. The Comprehensive Plan recommends that the Laurel Hill house and its gardens be designated as a heritage resource area within the Countywide Park. The former Physician's House is located on Board property identified for public safety use. The ultimate use and responsibility for both houses is to be determined.
- The Laurel Hill area contains land designated for public safety and public facility uses. Possible public safety uses could support the Police Department and a new Animal Shelter. Other public facilities could support the needs of solid waste, water, schools, or other County needs as identified and approved.

The Fairfax County Park Authority (FCPA) continues to work with several interested user groups to plan, develop and utilize some of the large park areas in Laurel Hill as well as provide capital funded improvements in accordance with the publicly adopted Conceptual Development Plan:

- The championship disc golf facility continues to be used and improved by the Northern Virginia Disc Golf Association. Currently they are volunteering maintenance improvements and sponsoring fundraising events which include several annual tournaments. The Lorton Road widening project and the adaptive re-use project will have impacts to the current course layout. Staff is working with Northern Virginia Disc Golf Association to redesign the course in the affected areas.
- The mountain bike trails have become part of an annual trail running race series and several other running groups have shown interest in having events on site. Nine miles of trails have been constructed since 2010. The Mid Atlantic Off-Road Enthusiasts (MORE) have been actively assisting with trail maintenance and reporting issues with the trails.
- The Central Green Area is currently under design development to include, parking, picnic shelters, playground area, a paved ADA trail, Stormwater Management and restroom facilities.
- The Signage and Wayfinding design project has been completed with guidelines being developed for Park and Board of Supervisor owned property. Conforming signs will be installed as funding becomes available.
- The Laurel Hill Natural Resource Management Plan was completed in 2011 with plans for implementation as funding becomes available.
- Coordination with FCDOT's Lorton Road widening project has been ongoing and will continue with the construction that started in April 2014. A large portion of the road is on parkland and construction monitoring is an important factor in preserving and protecting park resources.
- Removal of invasive plants in large open areas of the park continues to be a maintenance focus. Regular scheduled mowing of the disc golf course and trails is on-going.
- Building stabilization for the historic houses/features continues to be monitored and addressed as issues arise and funding becomes available.
- Coordination with the Adaptive Re-Use construction project started in 2015. The majority of the development is surrounded by FCPA parkland and the developer is utilizing the park entrance road as their primary construction access.
- The Park Authority partnered with Fairfax County Public Schools to improve athletic fields in the Laurel Hill area. A lighted synthetic turf 90' diamond field and a lighted multi-sport synthetic turf rectangular field were constructed at South County Middle School concurrently with the conversion of the South County High School stadium and practice field to synthetic turf.
- The Resident Curator program has included 2 houses for inclusion in the program, with FCPA's Stempson House being a top tier choice.
- Coordination with FCDOT for the design of the connector road that will connect Lorton Road with Laurel Crest Drive. The majority of this comprehensive plan road is on FCPA property

CURRENT PROJECT DESCRIPTIONS

1. **Emergency Building Repairs.** (Countywide) This is a continuing project for the critical repair, renovation, remodeling and upgrading of various facilities throughout the County. Requirements include abatement of health or safety hazards and emergency or unanticipated repairs of building systems or components.
2. **HVAC System Replacement/Renovations.** (Countywide) This is a continuing project for the repair, renovation and/or upgrading of Heating Ventilation and Air Conditioning (HVAC) systems in various facilities throughout the County. Funding in the amount of \$3,000,000, supported by the General Fund was included in the *FY 2016 Third Quarter Review* for HVAC system component replacements at the Government Center. Approximately 5 Air Handling Units (AHUs) are required to be replaced based on increased failure of the equipment, the difficulty in procuring obsolete parts, outdated technology and multiple water leaks. They require increased maintenance efforts due to age and stress on the systems and replacement components. Failure to replace these units can lead to mold accumulation, increased energy usage and a disruption to the building. The Government Center currently uses a total of 22 AHUs which are systematically being replaced as they reach failure or imminent failure. In general, the useful life of HVAC/Electrical systems is 20 years; however, some systems fail earlier due to wear and tear, and often emergency repairs are costly based on difficulty obtaining parts and additional code requirements. In addition to the General Fund Support, an amount of \$1,310,000 will be supported by existing public safety bonds to replace obsolete control panels as well as integrate new control features at the Adult Detention Center (West wing). This HVAC system is experiencing increased failures based on old technology, obsolete parts and increased energy costs.
3. **Roof Repairs and Waterproofing.** (Countywide) This is a continuing project for the repair and replacement of facility roofs and waterproofing systems at County buildings. FY 2017 funding in the amount of \$115,000 will be supported by existing public safety bonds to replace the reflective coating, caulking and gutters at the West Centreville Fire Station. Although the roof will not be entirely replaced, this work will prevent further leaking, water infiltration, and mold build up. Roofs at County facilities range in warranty periods from 10 to 20 years. The roof at the Fire Station was installed in 1995.
4. **Fire Alarm System Replacements.** (Countywide) This is a continuing project for the replacement of fire alarm systems based on age, difficulty in obtaining replacement parts and service and overall condition assessment. This program provides for the replacement of fire alarm systems which are 15 to 30 years old, have exceeded their useful life and experience frequent failure when tested. Funding in the amount of \$320,000, supported by the General Fund, was included in the *FY 2016 Third Quarter Review* for replacement of the fire alarm system at the South County Government Center. This equipment is original to the building and is over 15 years old. The system is unreliable, parts are no longer available based on old technology and maintenance is no longer feasible. In addition, to the General fund support, an amount of \$210,000 will be supported by existing public safety bonds to replace the fire alarm system at the West Springfield Fire Station. This station is currently operating with two separate systems that do not communicate well. The systems were installed in 1990 and 2004. The Fire alarms are unreliable and there is potential for the equipment failure during an emergency.
5. **Parking Lot and Garage Repairs.** (Countywide) This is a continuing project for the repair and maintenance to parking lots and garages at various locations throughout the County. Parking lot surfaces are removed, the base re-compacted and a new surface course installed. In some cases, asphalt paving is milled down and resurfaced.
6. **Carpet Replacement.** (Countywide) This is a continuing project for carpet replacement at various County facilities where the existing carpet has deteriorated beyond repair or is in an unserviceable condition.

7. **Emergency Generator Replacement.** (Countywide) This is a continuing project for generator replacements at various sites throughout the County. Requirements are programmed based on equipment age coupled with maintenance and performance history. FY 2017 funding in the amount of \$1,408,449, supported by the General Fund, is included for the Government Center Emergency back-up system. This project will also be supported by the Capital Sinking Fund in the amount of \$4,607,153 and FY 2016 Third Quarter funding of \$271,551. The total project cost is approximately \$6,300,000 and will replace the entire emergency generator system. This generator system provides Building Code required back-up power to the Government Center's life safety systems such as emergency lights, sprinklers, fire alarms, automatic transfer switches, emergency distribution boards, and the generator fuel pump system. This project represents the first year of a multi-year project. The system is currently unreliable and has the potential to fail during an emergency. Replacement parts are no longer available, maintenance and repairs are not feasible and the old technology is leading to increased system failures. This planned replacement will help avoid costs related to emergency service work including temporary wiring, rental fees, and delivery fees associated with a temporary system.
8. **Elevator Replacement.** (Countywide) This is a continuing project for the replacement and repairs of elevators throughout the County. FY 2017 funding in the amount of \$650,000 will be supported by existing public safety bonds to modernize the elevators at the Judicial Center Garage. These elevators are experiencing frequent breakdowns, and water infiltration. The equipment is unreliable and presents safety concerns.
9. **Window Replacement.** (Countywide) This is a continuing project for the replacement or repair of windows where water is leaking into County buildings.
10. **Electrical System Renovations.** (Countywide) This is a continuing project for the repair, renovation and upgrading of mechanical and electrical systems in various facilities throughout the County. FY 2017 funding in the amount of \$525,000 is supported by existing public safety bonds for the replacement of the electrical systems at the Judicial Center Garage and the McConnell Public Safety and Transportation Operations Center (MPSTOC). This funding includes \$125,000 for the replacement of the Uninterrupted Power Source (UPS) batteries at MPSTOC to ensure that there is not equipment failure during an emergency and \$400,000 for the Judicial Center Garage lighting. The existing lighting in the garage is experiencing frequent lamp, ballast and conduit failures and can create dark areas and safety concerns for users.
11. **Emergency Replacement of Failed Systems.** (Countywide) This is a continuing project for emergency repairs and replacements to County facilities in the event of a major systems failure, such as a large HVAC system or other unforeseen event. Currently, this is the County's only source to deal with potential system failures. Capital renewal funding is encumbered quickly because it is earmarked for specific projects. As a result specific project balances are unavailable for emergencies. If a system failure should occur, there is the potential that a County facility may shut down, suspending services to residents and disrupting County business. Although the County's emphasis on capital renewal and preventative maintenance is intended to ensure these kinds of interruptions are avoided, this funding will enable potential disruptions to be corrected immediately.
12. **Newington DVS Facility Renovation and Expansion.** (Mt Vernon District) \$51,360,318 to renovate the existing Newington facility into a more productive structure to support current and future vehicle maintenance needs for County vehicles. The Newington facility was built in 1968 when the requirements to maintain vehicles were approximately 1/3 of the number of vehicles currently needed to meet local, State and Federal requirements. Over the years maintenance bays, a motorcycle shop and other additions have been made in an effort to keep pace with the increased number of vehicles and demands for repairs, inspections, and services. However, improvements are needed to enhance production and capacity for the current fleet of 1,850 vehicles that includes school buses, public safety vehicles and heavy equipment. The maintenance facility and



Renovation and expansion at the Newington DVS Facility in Mount Vernon District

associated site work for the Newington DVS facility was completed in 2014 with roadway access improvements scheduled for completion in early 2017. This project was supported by the fall 2007 bond referendum and transfers from Fund 60010, Department of Vehicle Services. As part of the *FY 2015 Third Quarter Review*, the Board of Supervisors approved a decrease of \$5,400,000 in this project. This General Fund balance was available based on the completion of the project. In addition, based on the favorable construction bid environment, the remaining bond balance will be used to address infrastructure replacement and upgrades, safety and code compliance upgrades, and operational efficiency improvements at the remaining three DVS maintenance facilities (Jermantown, West Ox, and Alban).

13. **Laurel Hill Development.** (Mt Vernon District) This is a continuing project to address property management, planning and development in the Laurel Hill area. Funding of \$1,260,000 is included to address only the most critical aspects of property management at the Laurel Hill property. Laurel Hill was transferred to the County by the federal government and includes approximately 2,340 acres of land and 1.48 million square feet of building space. Of the amount funded in FY 2017, \$860,000 will fund the Facilities Management Department's security, maintenance services and grounds maintenance. The remaining \$400,000 will fund Park Authority's critical maintenance activities.
14. **Laurel Hill Adaptive Reuse (Liberty Crest).** (Mt Vernon District) This project includes redevelopment of the 80-acre former Lorton maximum security prison and reformatory site acquired from the Federal government in 2002 and implements the Laurel Hill Adaptive Reuse Area Master Plan which was adopted by the Board of Supervisors on May 11, 2010. The Reuse area once developed will include mixed-use residential, retail and recreational space as well as the rehabilitation and refurbishment of many of the existing historic structures associated with the old Lorton Correctional Complex. The Board of Supervisors conducted a public hearing on the Laurel Hill Adaptive Reuse Property Conveyance and Comprehensive Agreement on June 3, 2014 and approved the Agreement on July 29, 2014. The total County contribution for infrastructure improvements over a four year period is capped at \$12,765,000 per the Master Development Agreement, of which \$4,475,000 is estimated to be supported by the General Fund and \$8,290,000 will be supported by other funds. To date, the Board of Supervisors has approved funding of \$3,250,000 from the General Fund and \$4,400,000 from Transportation, Wastewater and Stormwater Funds. Future funding in the amount of \$5,115,000 will be required including \$1,225,000 from the General Fund and \$3,890,000 from Transportation, Stormwater and Wastewater funds. It is anticipated that future funding will be provided as part of the *FY 2017 Carryover Review*.
15. **Events Center.** (Mt Vernon District) \$5,000,000 has been approved to support potential renovations for an Events Center at the Workhouse Arts Center. The Workhouse campus is a 56-acre, historically important County landmark, situated on the site of the former Lorton prison. Originally constructed in the early 1900's, the former workhouse and reformatory is on the National Park Service's Register of Historic Places, and included the imprisonment of early suffragettes. A planned Event Center is at the heart of the educational, visual and performing arts campus run by the Workhouse Arts Foundation (WAF).
16. **Northern Virginia Community College Contribution.** (Countywide) \$2,517,489 is included for Fairfax County's contribution to the Northern Virginia Community College (NVCC). Funding provides for the continued construction and maintenance of various capital projects on college campuses within the NVCC system. The County contribution in FY 2017 remains at the FY 2016 level of \$2.25 per capita. Jurisdictional contributions had been increasing in recent years due to the unprecedented 12 percent growth in the NVCC student enrollment and the corresponding capital program requirements. The NVCC capital plan has recently been adjusted to keep pace with this accelerated enrollment and it is anticipated that capital contributions from the partners will continue to be adjusted gradually to avoid a major commitment from supporting jurisdictions in any given year.



17. **Americans with Disabilities Act (ADA) Compliance.** (Countywide) This is a continuing project to support County compliance with the Americans with Disabilities Act County-owned facilities. As part of the *FY 2016 Third Quarter Review*, the Board of Supervisors pre-funded this project, eliminating the need for FY 2017 funding. An amount of \$2,000,000 was provided for the continuation of improvements required as part of the Department of Justice audit and identified in the settlement agreement signed by the Board of Supervisors on January 28, 2011. It should be noted that mitigation of violations associated with Park Authority buildings and facilities is detailed in the Parks section of this document.
18. **Environmental Agenda Projects** (Countywide). This is a continuing project to fund initiatives that directly support the Board of Supervisors Environmental Agenda. The Environmental Excellence 20-year Vision Plan (Environmental Agenda) includes six topic areas: Growth and Land Use; Air Quality and Transportation; Water Quality; Solid Waste; Parks, Trails and Open Space; and Environmental Stewardship. In FY 2017 an amount of \$535,000 is provided for the Invasive Plant Removal Program, Community Outreach and Education, the Green Purchasing Program, Water Smart web-based irrigation controllers, lighting retrofits/upgrades at Fairfax County Park Authority facilities, a Variable Frequency Drive (VFD) at two RECenter pools, and a protected bike land demonstration project.
19. **Massey Building Demolition** (Providence District): \$20,000,000 will be required to demolish the Massey Building. As part of the *FY 2016 Third Quarter Review*, the Board of Supervisors pre-funded the design phase of this project, eliminating the need for FY 2017 funding. Funding of \$600,000 will provide for the design of the demolition. The Massey Building will be vacated upon occupancy of the Public Safety Headquarters anticipated in June 2017. The scope of the project includes removal of asbestos/hazardous materials, demolition of the building (Massey Building, Cooperative Computer Center, and Massey Annex), and the restoration of the site to an open grass area.
20. **Burkholder Building Renovation** (Providence District): \$3,000,000 will be required for renovations to the Burkholder Building. As part of the *FY 2016 Third Quarter Review*, the Board of Supervisors pre-funded the design phase of this project, eliminating the need for FY 2017 funding. Funding of \$300,000 will provide for the design costs associated with these renovations. The Burkholder Building will be vacated upon occupancy of the Public Safety Headquarters anticipated in June 2017. Once vacated, the outdated mechanical, electrical, and plumbing systems and elevator will be replaced, the building envelop will be repaired, the non-compliant accessibility items will be corrected, and basic tenant fit-outs will be provided.
21. **Joint Venture Development** (Countywide): \$350,000 is included in FY 2017 for public private partnerships and joint venture developments. This funding will support negotiations, development agreements, and staff time associated with projects that are not yet funded, as well as design support, financial consultation, and real estate development for the evaluation of project proposals. These projects are highly complex and require a significant amount of concept planning prior to the project's approval for financing.
22. **Original Mount Vernon High School Planning** (Mt Vernon District): \$350,000 for study and concept planning associated with the original Mount Vernon High School facility. The original Mount Vernon High School building is currently being leased to the Islamic Saudi Academy (ISA) and the lease will expire in October 2016. Planning efforts are underway to determine interim occupancy and long term development potential for this facility. As part of the *FY 2016 Third Quarter Review*, the Board of Supervisors pre-funded this project, eliminating the need for FY 2017 funding. Funding will support continued planning and early design efforts for the interim occupancy.
23. **Facility Reconfiguration** (Countywide): \$1,000,000 is included in FY 2017 for the facility and space realignment project that will provide a source of funding for reconfigurations that would maximize owned space, potentially eliminate leased space and facilitate hoteling of office spaces.

24. **Massey Complex Master Planning** (Providence District): \$100,000 will support a Massey Complex Master Planning effort, to evaluate potential land use alternatives for the Massey Complex subsequent to the Massey Building being vacated and demolished. As part of the *FY 2016 Third Quarter Review*, the Board of Supervisors pre-funded this project, eliminating the need for FY 2017 funding. The master planning effort will include assessment of priority County uses for the site, including future criminal justice, public safety and human services' needs, as well as City of Fairfax and George Mason University interest in the site. Major areas of consideration will include the Massey Building, Burkholder Building, and Police Administration Building sites, and existing surface parking lots. The disposition of other County-owned real estate assets within the City of Fairfax may also be evaluated for opportunities, and the potential for public private partnerships redevelopment will be assessed. In addition, work will continue on existing and previously funded projects.
25. **Board Member Neighborhood Improvement Capital Projects** (Countywide): \$1,000,000 to address unfunded capital needs, including minor repairs, streetlights, and/or walkways. Funding of \$100,000 is provided for each District and the Chairman. Board members can fund or leverage grant funding to support capital projects within their District. It is anticipated that this funding mechanism for capital projects will be considered annually. This project was approved as part of the *FY 2016 Third Quarter Review*.
26. **Capital Sinking Fund – FMD**. (Countywide): \$4,607,153 for the capital sinking fund for FMD infrastructure replacement and upgrade projects. The Capital Sinking Reserve Fund was established as a direct result of the Infrastructure Financing Committee (IFC) and had accumulated based on the approval of funding at both the *FY 2014 Carryover Review* and the *FY 2015 Carryover Review*. The Board of Supervisors approved the allocation of the Capital Sinking Reserve Fund for capital projects as part of the *FY 2016 Third Quarter Review*. The Capital Sinking Reserve Fund totaled \$8,376,639 and an amount of \$4,607,153 was allocated to fund FMD infrastructure replacement and upgrade projects. It is anticipated that the allocation proposed in the *FY 2016 Third Quarter Review* would be implemented at each Carryover Review based on the following percentage allocation: 55 percent for FMD, 20 percent for Parks, 10 percent for walkways, 10 percent for County maintained Roads and Service Drives, and 5 percent for revitalization maintenance.

PROJECT COST SUMMARIES
FACILITY MANAGEMENT, INFRASTRUCTURE REPLACEMENT AND UPGRADES
(\$000's)

	Project Title/ Project Number	Source of Funds	Budgeted or Expended Through FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total FY2017-FY2021	Total FY2022-FY2026	Total Project Estimate
	INFRASTRUCTURE REPLACEMENT										
1	Emergency Building Repairs / GF-000008	G	C		500	500	500	500	2,000	2,500	4,500
2	HVAC System Replacement/Renovation / GF-000011 ¹	G	C		8,000	8,000	8,000	8,000	32,000	40,000	72,000
3	Roof Repairs and Waterproofing / GF-000010	G	C		600	600	600	600	2,400	3,000	5,400
4	Fire Alarm System Replacements / GF-0000091 ¹	G	C		500	500	500	500	2,000	2,500	4,500
5	Parking Lot and Garage Repairs / 2G08-004-000	G	C		1,200	1,200	1,200	1,200	4,800	6,000	10,800
6	Carpet Replacement / 2G08-003-000	G	C		500	500	500	500	2,000	2,500	4,500
7	Emergency Generator Replacement / GF-000012	G	C	1,408	1,000	1,000	1,000	1,000	5,408	5,000	10,408
8	Elevator Replacement / GF-000013	G	C		1,000	1,000	1,000	1,000	4,000	5,000	9,000
9	Window Replacement / 2G08-006-000	G	C		200	200	200	200	800	1,000	1,800
10	Electrical System Renovations / GF-000017	G	C		500	500	500	500	2,000	2,500	4,500
11	Emergency Replacement of Failed Systems / 2G08-005-000	G	C		1,000	1,000	1,000	1,000	4,000	5,000	9,000
	INFRASTRUCTURE REPLACEMENT Subtotal		0	1,408	15,000	15,000	15,000	15,000	61,408	75,000	136,408

PROJECT COST SUMMARIES

FACILITY MANAGEMENT, INFRASTRUCTURE REPLACEMENT AND UPGRADES

(\$000's)

	Project Title/ Project Number	Source of Funds	Budgeted or Expended Through FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total FY2017-FY2021	Total FY2022-FY2026	Total Project Estimate
	OTHER										
12	Newington DVS Facility Renovation and Expansion / TF-00004	B, G	40,522	2,560	7,183	1,095			10,838		51,360
13	Laurel Hill Development (FMD and Parks) / 2G08-001-000 and 2G51-008-000	G	C	1,260	1,260	1,260	1,260	1,260	6,300		6,300
14	Laurel Hill Adaptive Reuse / 2G25-098-000	G, X	7,650	3,300	1,815				5,115		12,765
15	Events Center / GF-000019	G, X	5,000						0		5,000
16	Northern Virginia Community College Contribution / 2G25-013-000	G	C	2,517	2,517	2,517	2,517	2,517	12,585		12,585
17	Americans with Disabilities Act (ADA) Compliance / GF-000001 ¹	G	C		2,000	2,000	1,500		5,500		5,500
18	Environmental Agenda Projects / 2G02-001-000	G	C	535	535	535	535	535	2,675		2,675
19	Massey Building Demolition / GF-000023 ¹	G	600		19,400				19,400		20,000
20	Burkholder Renovations / GF-000022 ¹	G	300		2,700				2,700		3,000
21	Joint Venture Development / 2G25-085-000	G	C	350					350		350
22	Original Mt Vernon High School Planning / 2G25-102-000 ¹	G	350						0		350
23	Facility Space Realignment / IT-000023	G	C	1,000					1,000		1,000
24	Massey Complex Master Planning / 2G25-104-000 ¹	G	100						0		100
25	Board Member Neighborhood Improvement Capital Projects / ST-000004 thru ST-000013	G	1,000						0		1,000
26	Capital Sinking Fund - FMD / 2G08-018-000	G	4,607						0		4,607
	OTHER Subtotal		60,129	11,522	37,410	7,407	5,812	4,312	66,463		126,592
	TOTAL		\$60,129	\$12,930	\$52,410	\$22,407	\$20,812	\$19,312	\$127,871	\$75,000	\$263,000

¹ During their deliberations on the FY 2017 Advertised Budget Plan, the Board of Supervisors approved funding for this project as part of the FY 2016 Third Quarter Review, eliminating the need for funding in FY 2017.

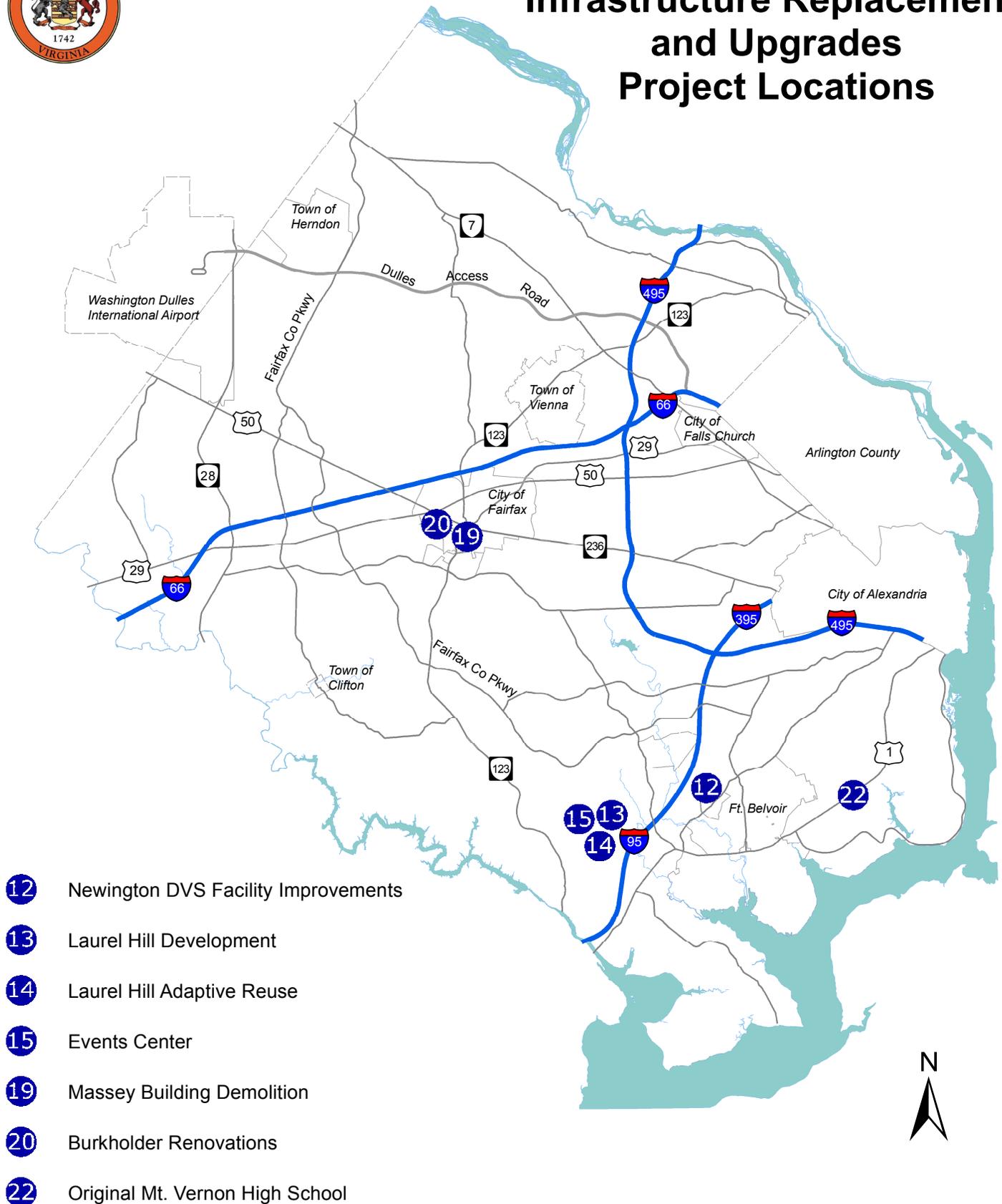
Notes: Numbers in **bold italics** represent funded amounts. A "C" in the 'Budgeted or Expended' column denotes a continuing project.

Key: Stage of Development	
	Feasibility Study or Design
	Land Acquisition
	Construction

Key: Source of Funds	
B	Bonds
G	General Fund
S	State
F	Federal
X	Other
U	Undetermined



Facility Management Infrastructure Replacement and Upgrades Project Locations



Note: Map numbers correspond to project descriptions in the text and cost summary tables. Only CIP projects with selected, fixed sites are shown on the map.