

INFORMATION TECHNOLOGY/EQUIPMENT PROGRAMS

Program Description

The information technology (IT) and equipment maintenance capital program maintains the County's IT and equipment assets in order to 1) sustain the County's existing business systems so they remain useful, operable and responsive to business needs, 2) best leverage the existing infrastructure to support the business needs of the entire County as well as department specific applications, 3) reduce operating and support costs associated with aging hardware, and 4) provide a reliable and secure environment for the operation of the County's data processing systems while furthering the County's goals for energy efficiency and worker productivity.

The IT systems, software, and hardware which serve departments typically reach the end of their useful life in three to ten years. At that point, the systems become increasingly costly to maintain and difficult to exchange information with other systems. Priorities for determining which applications to replace first are driven by age, criticality of the system to operations, and availability of ongoing support from the applications vendor. The IT systems and equipment are paid for through a combination of PAYG and short-term finance, with operating impacts through principal and interest payments on the short-term finance as described in the Capital Financing section of the CIP.

Program Summary

IT and equipment maintenance capital falls into three major program areas: Enterprise Information Technology (EIT), Public Safety Technology, and Information Technology/Other.

The EIT capital improvement program funds five categories:

- Maintenance Capital - Equipment includes the ongoing replacement of aging PCs, servers, networks, and other equipment, both employee and public facing.
- Hardware and Application Refreshment - Systems supports and refreshes software and management systems that provide the tools, capabilities, and processes that enable the County workforce to meet internal and external demands. This includes revenue/collection and ERP systems sustainment, which replaces the County's real estate assessment, collections, and financial systems.
- Citizen Services and Engagement – This program provides the tools where the County is making information more easily accessible to the public in hopes that outside individuals or organizations will use the information and statistics for new applications that benefit the community.
- Worker Mobility – Tools to support a proactive government include wireless connectivity to support staff in the delivery of services as well as wireless connection for residents, businesses and partners at County facilities.
- Emergency Communications – Provides for the maintenance and replacement of radio towers for public safety field agents to communicate with dispatch or a centralized control center during daily operations or during emergency crises.

The Public Safety capital improvement program consists of key projects that will keep existing IT systems refreshed or replaced on a reasonably expected life-cycle so that the systems remain useful, operable and responsive to public safety needs. Special concerns for forecasting public safety technology requirements include: rapid technology advances that require upgrades and/or replacements; the need to maintain interoperability within the region; the need to maintain redundancies that are required for safety and to avoid system failures; and, responding to the changing needs of the workforce and the community. These issues may impact not only the needs of public safety, but also the timing and scope of future projects. These projects are managed by the four public safety agencies. The useful life of these projects range from three to ten years and must be refreshed to maintain operability.

Other Equipment include special systems and equipment that is required for a department to maintain its specific operations and services. This CIP funds specific equipment such as electronic poll books for the Electoral Board used at polling places on Election Day to list the names of qualified voters. It also includes technology upgrades for systems that the Department of Human Services requires to manage mandated health services.

Arlington, Virginia

INFORMATION TECHNOLOGY/EQUIPMENT: PROGRAM FUNDING SUMMARY

CIP
2019 – 2028

10 YEAR PROGRAMMED CATEGORY SUMMARY (in \$1,000s)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Enterprise Information Technology	7,002	5,384	5,604	5,228	4,804	5,670	5,117	4,735	2,544	4,090	50,178
Public Safety Information Technology	7,553	12,775	1,520	13,063	4,457	6,467	7,946	11,382	4,661	6,539	76,363
IT/Other Equipment	415	350	0	0	0	0	0	0	0	0	765
Total Recommendation	14,970	18,509	7,124	18,291	9,261	12,137	13,063	16,117	7,205	10,629	127,306

PROGRAM FUNDING SOURCES (in \$1,000s)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
New Funding											
Federal Funding	0	0	0	0	0	0	0	0	0	0	0
State Funding	0	0	0	0	0	0	0	0	0	0	0
Developer Contributions	0	0	0	0	0	0	0	0	0	0	0
New Bond Issue	0	0	0	6,470	1,830	2,850	0	0	0	0	11,150
PAYG	1,582	2,585	2,480	2,423	500	500	500	500	500	500	12,070
Short Term Finance	11,388	10,999	4,644	5,025	4,704	8,787	12,563	10,445	6,705	3,890	79,150
Sanitary District Tax	0	0	0	0	0	0	0	0	0	0	0
Other Funding	0	4,925	0	4,373	2,227	0	0	5,172	0	6,239	22,936
Subtotal New Funding	12,970	18,509	7,124	18,291	9,261	12,137	13,063	16,117	7,205	10,629	125,306
Previously Approved Funding											
Authorized but Unissued Bonds	0	0	0	0	0	0	0	0	0	0	0
Issued but Unspent Bonds	0	0	0	0	0	0	0	0	0	0	0
Other Previously Approved Funds	2,000	0	0	0	0	0	0	0	0	0	2,000
Subtotal Previously Approved Funding	2,000	0	0	0	0	0	0	0	0	0	2,000
Total Funding Sources	14,970	18,509	7,124	18,291	9,261	12,137	13,063	16,117	7,205	10,629	127,306

Arlington County, Virginia

ENTERPRISE INFORMATION TECHNOLOGY: PROGRAM FUNDING SUMMARY

CIP
2019 – 2028

10 YEAR CATEGORY SUMMARY (in \$1,000s)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Maintenance Capital	4,741	5,084	4,504	4,828	2,394	2,830	4,577	4,445	1,954	3,800	39,157
Hardware and Application Refreshment	2,000	300	600	400	2,000	2,000	0	0	0	0	7,300
Citizen Services and Engagement	0	0	300	0	0	0	0	0	0	0	300
Worker Mobility	261	0	200	0	410	340	290	290	590	290	2,671
Emergency Communications	0	0	0	0	0	500	250	0	0	0	750
Total Recommendation	7,002	5,384	5,604	5,228	4,804	5,670	5,117	4,735	2,544	4,090	50,178

CATEGORY FUNDING SOURCES (in \$1,000s)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
New Funding											
Federal Funding	0	0	0	0	0	0	0	0	0	0	0
State Funding	0	0	0	0	0	0	0	0	0	0	0
Developer Contributions	0	0	0	0	0	0	0	0	0	0	0
New Bond Issue	0	0	0	0	0	0	0	0	0	0	0
PAYG	1,017	2,085	2,330	2,273	350	350	350	350	350	350	9,805
Short Term Finance	3,985	3,299	3,274	2,955	4,454	5,320	4,767	4,385	2,194	3,740	38,373
Sanitary District Tax	0	0	0	0	0	0	0	0	0	0	0
Other Funding	0	0	0	0	0	0	0	0	0	0	0
Subtotal New Funding	5,002	5,384	5,604	5,228	4,804	5,670	5,117	4,735	2,544	4,090	48,178
Previously Approved Funding											
Authorized but Unissued Bonds	0	0	0	0	0	0	0	0	0	0	0
Issued but Unspent Bonds	0	0	0	0	0	0	0	0	0	0	0
Other Previously Approved Funds	2,000	0	0	0	0	0	0	0	0	0	2,000
Subtotal Previously Approved Funding	2,000	0	0	0	0	0	0	0	0	0	2,000
Total Funding Sources	7,002	5,384	5,604	5,228	4,804	5,670	5,117	4,735	2,544	4,090	50,178

INFORMATION TECHNOLOGY/EQUIPMENT

ENTERPRISE INFORMATION TECHNOLOGY

INFORMATION TECHNOLOGY/EQUIPMENT
2019 – 2028 CIP

Maintenance Capital

Project Description

This program supports sustainment and replacement of enterprise IT equipment and is associated with the Digital Strategy (2015-2020). This includes network equipment, application servers, data storage equipment, personal computers, laptops, tablets, firewalls, data center equipment and wireless access points. These cost estimates are subject to change based on the technologies the County decides to use.

Personal computers are replaced on an industry-recommended cycle of every four years. Delaying replacement increases support costs and reduces productivity. County business and service delivery is changing such that there is a need to provide more flexible end-user computing solutions. This will include, but not be limited to, new approaches to the integration of consumer technologies into the workplace. Server refreshment replaces servers that support county applications. Failure to replace servers in a timely manner will lead to inaccessible systems causing a reduction in department productivity and services to citizens. Data storage refreshes enterprise storage required to support critical line of business applications. The data storage requirements are perpetually growing.

Capital Costs during Ten Year Period (FY19 to FY28) (in \$1,000s)

Projects	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Endpoint Replacement (PC Refresh)	1,985	1,959	2,174	3,773	1,684	1,730	1,982	1,850	1,684	1,730	20,551
Server Farm Upgrade	0	0	0	20		500	500	500	20	20	1,560
Network Refreshments	2,491	3,100	2,265	765	710	350	2,095	2,095	250	2,050	16,171
Storage	0	25	65	270	0	250	0	0	0	0	610
Security	265	0	0	0	0	0	0	0	0	0	265
Total Costs	3,496	4,562	3,808	4,498	4,820	4,128	4,048	3,678	4,311	4,681	42,030

Funding Schedule (in \$1,000s)

New Funding	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Short-term finance	3,985	2,999	2,174	2,555	2,044	2,480	4,227	2,623	2,610	2,650	29,613
PAYG	756	2,085	2,330	2,273	350	350	350	350	350	350	12,417
Total Revenues	3,496	4,562	3,808	4,498	4,820	4,128	4,048	3,678	4,311	4,681	42,030

Hardware and Application Refreshment

Project Description

The goals of a hardware and applications refresh is to ensure that key enterprise systems are able to meet the current needs and requirements of the County and provide a stable platform. As large back office systems that hold key information necessary for running the business of the County, we must ensure the continuing operations of the existing Assessment and Collection (ACE), the Enterprise Resource Planning (ERP), Real Estate, and Land Records systems. The ACE system supports the revenue and collections of many of the County's receivables. The ERP system encompasses both the Human Resource (HR) and Finance applications for the County. We will invest in these systems to ensure they can continue to support the key assessment and collection functions by upgrading and enhancing the ACE system. The technical upgrade planned for the Finance and HR related functions will ensure the latest security and regulatory patches are in place and the system can be supported. The projects to support a refreshment of the Real Estate and Land Records systems will take advantage of the newly developing marketplace and functionality.

Changes from Prior CIP

The title of the project has been changed from Digital Alignment and Citizen Services and Engagement to Hardware and Applications Refresh. Human Resources system replacement and Financial system replacement have moved earlier to start in FY20 in order to better align with the system support end date. The current CIP plan has reduced the planned investment from previous CIP in the ERP system by \$9M. By the end of the current CIP cycle, the County will be working on a 23-year-old ERP application. The lack of investment will eliminate the opportunity for transformational process improvement. There will be no additions of mobility options or improvements in analytical capabilities. Limited CIP budget requires a consolidation of the HR System and Finance system projects to achieve efficiencies of investment. Investment will be made in the Real Estate and Land Records system to take advantage of modern functionality.

Capital Costs during Ten Year Period (FY19 to FY28) (in \$1,000s)

Projects	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Human Resources (HR) system replacement	0	300	300	0	0	0	0	0	0	0	600
Finance system hosting and replacement	0	0	300	400	0	0	0	0	0	0	700
Assessment and Collection (ACE) system replacement	2,000	0	0	0	0	0	0	0	0	0	2,000
Real Estate Assessment system upgrade	0	0	0	0	1,000	2,000	0	0	0	0	3,000
Land Management system replacement	0	0	0	0	1,000	0	0	0	0	0	1,000
Total Costs	2,000	300	600	400	2,000	2,000	0	0	0	0	7,300

Funding Schedule (in \$1,000s)

New Funding	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Short-term finance	0	300	600	400	2,000	2,000	0	0	0	0	5,300
PAYG	0	0	0	0	0	0	0	0	0	0	0
Subtotal New Revenues	0	300	600	400	2,000	2,000	0	0	0	0	5,300
Previously Approved Funding											
PAYG	2,000	0	0	0	0	0	0	0	0	0	2,000
Total Revenues	2,000	300	600	400	2,000	2,000	0	0	0	0	7,300

INFORMATION TECHNOLOGY/EQUIPMENT

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2019 – 2028 CIP

Citizen Services and Engagement

Project Description

To enable real-time decision making the County needs a support structure that is different from what currently exists. The focus needs to shift from collecting and identifying information correctly to creating transparent environments where information can be readily available and shared. The County collects and produces data in many key areas that are important to all kinds of constituents. We are making our information more easily accessible to the public in hopes that outside individuals or organizations will "mine" the information and statistics for new applications that benefit the community. These investments will fill in functionality and data quality gaps in current capabilities such as big data analysis and industry-standard data management. The County looks to implement a Customer Relationship Management (CRM) system to keep pace with constituent expectations.

Capital Costs during Ten Year Period (FY19 to FY28) (in \$1,000s)

Projects	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Citizen Services and Engagement	0	0	300	0	0	0	0	0	0	0	300
Total Costs	0	0	300	0	0	0	0	0	0	0	300

Funding Schedule (in \$1,000s)											
New Funding	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Short-term finance	0	0	300	0	0	0	0	0	0	0	300
Total Revenues	0	0	0	0	0	0	0	0	0	0	300

INFORMATION TECHNOLOGY/EQUIPMENT

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2019 – 2028 CIP

Worker Mobility

Project Description

Being connected and getting things done on the go is the norm today, but many people in the County don't have the ability to work this way. A faster, more proactive government is what people expect today and that requires tools to support mobility. Staff need tools and resources to do their job wherever they need to be. Technology investments are required to support staff in their delivery of services to the constituents. Technology needs to be available to support them internally and externally. As the County continues to promote mobility for staff, there is an increased need for full wireless coverage at County facilities in order for users to remain productive and connected to County resources throughout each site. Constituents, businesses, vendors and partners expect ubiquitous wireless connectivity to the Internet when they are on site at County locations. Also, as the County begins to fully explore the Internet of Things, there will be a greater need to wirelessly connect devices to collect data. There is a desire and need to convene in conference rooms for collaboration, interviews, training sessions and meetings. Vendors, contractors and other County partners are increasing their usage of web conferencing service Skype to interact with County staff and conduct County business. In support of the County's efforts to empower the modern workforce, the ability to enable web conferencing technology in conference rooms plays an integral role in helping remote users build and maintain relationships with onsite staff and other colleagues. The project seeks investment to upgrade the county's Mobility infrastructure. Critical networking equipment which serve all County data center hosted applications and ensure that applications can successfully be accessed from anywhere will be replaced in late 2018. The appliances which run the telework portal will be replaced in FY2021.

Capital Costs during Ten Year Period (FY19 to FY28) (in \$1,000s)

Projects	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Worker Mobility	261	0	200	0	410	340	290	290	590	290	2,671
Total Costs	261	0	300	0	410	340	290	290	590	290	2,671

Funding Schedule (in \$1,000s)

New Funding	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Short-term finance	261	0	200	0	410	340	290	290	590	290	2,671
Total Revenues	261	0	200	0	410	340	290	290	590	290	2,671

INFORMATION TECHNOLOGY/EQUIPMENT

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2019 – 2028 CIP

Emergency Communications

Project Description

The radio tower equipment utilized by Arlington County Fire Department (ACFD), Arlington County Police Department (ACPD), Department of Public Safety Communications and Emergency Management (DPSCEM), Department of Environmental Services (DES) and other departments is approaching End-of-Life (EOL). This radio equipment enables emergency responders and other county workers to communicate with the Emergency Communications Center (ECC) or a centralized control center during emergency incidents or to support daily the daily delivery of services in the field. The hardware in question was originally put in place in 2009 and fully operation by 2011. Because of the known EOL, proactive measure must be taken to replace the equipment and ensure the continued connectivity and reliability of this critical infrastructure. Current EOL for the equipment used for the radio towers is April 30, 2019.

Capital Costs during Ten Year Period (FY19 to FY28) (in \$1,000s)

Projects	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Emergency Communications	0	0	0	0	0	500	250	0	0	0	750
Total Costs	0	0	0	0	0	500	250	0	0	0	750

Funding Schedule (in \$1,000s)

New Funding	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Short-term finance	0	0	0	0	0	500	250	0	0	0	750
Total Revenues	0	0	0	0	0	500	250	0	0	0	750

Arlington County, Virginia

PUBLIC SAFETY: PROGRAM FUNDING SUMMARY

CIP
2019 – 2028

10 YEAR CATEGORY SUMMARY (in \$1,000s)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
1. Fire Department IT and Equipment	4,408	6,035	1,110	6,303	4,307	3,017	0	5,172	0	6,239	36,591
2. Police Department IT and Equipment	0	300	260	2,940	0	0	4,500	710	2,941	0	11,651
3. Sheriff IT and Equipment	0	0	0	1,570	0	450	246	0	1,570	150	3,986
4. Department of Public Safety Communications and	3,145	6,440	150	2,250	150	3,000	3,200	5,500	150	150	24,135
Total Recommendation	7,553	12,775	1,520	13,063	4,457	6,467	7,946	11,382	4,661	6,539	76,363

CATEGORY FUNDING SOURCES (in \$1,000s)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
New Funding											
Federal Funding	0	0	0	0	0	0	0	0	0	0	0
State Funding	0	0	0	0	0	0	0	0	0	0	0
Developer Contributions	0	0	0	0	0	0	0	0	0	0	0
New Bond Issue	0	0	0	6,470	1,830	2,850	0	0	0	0	11,150
PAYG	0	150	150	150	150	150	150	150	150	150	1,350
Short Term Finance	7,403	7,700	1,370	2,070	250	3,467	7,796	6,060	4,511	150	40,777
Sanitary District Tax	0	0	0	0	0	0	0	0	0	0	0
Other Funding	0	4,925	0	4,373	2,227	0	0	5,172	0	6,239	22,936
Subtotal New Funding	7,403	12,775	1,520	13,063	4,457	6,467	7,946	11,382	4,661	6,539	76,213
Previously Approved Funding											
Authorized but Unissued Bonds	0	0	0	0	0	0	0	0	0	0	0
Issued but Unspent Bonds	0	0	0	0	0	0	0	0	0	0	0
Other Previously Approved Funds	150	0	0	0	0	0	0	0	0	0	150
Subtotal Previously Approved Funding	150	0	0	0	0	0	0	0	0	0	150
Total Funding Sources	7,553	12,775	1,520	13,063	4,457	6,467	7,946	11,382	4,661	6,539	76,363

1. Fire Department IT and Equipment

Project Description

The Fire Department mitigates threats to life, property and the environment through education, prevention, and effective response to fire, medical, and environmental emergencies. Services provided include: emergency and non-emergency response to requests for service; inspections, code enforcement, education and community programs.

The majority of IT assets that are maintained by the Fire Department are used to alert staff to requests for service, respond to and manage critical incidents and maintain critical records. The key IT systems include: the records management system and fire station alerting system (commonly referred to as Westnet. Key fire equipment and machinery include: fire dispatch vehicles, defibrillators, breathing apparatus, fire command vehicle technology and portable radios.

- Fire Department's Command Vehicle is deployed during critical incidents and special events. Technologies needing refreshment include servers, radios, personal computers, and peripheral devices.
- A self-contained breathing apparatus, or SCBA, is a device worn by rescue workers, firefighters, and others to provide breathable air in an "Immediately Dangerous to Life or Health" atmosphere (IDLH) as defined by OSHA (Occupational Safety and Health Administration)
- The Westnet alerting system notifies fire and Emergency Medical Services personnel of an incident. As part of the larger systems used by the Emergency Communications Center (ECC) it reduces response times which improves responder effectiveness and chances for survival in critical situations.
- The Fire Records Management System (FRMS) is the application the Department uses to electronically enter data into the National Fire Incident Reporting System (NFIRS) as required by the Federal Government. The system pulls data from the Computer-Aided-Dispatch system in the ECC in order to track incident and Fire company movements. The system also enables staff to submit incident and company reports electronically.
- The patient defibrillators, carried on all Fire Department response vehicles, allow the Fire Department to treat many medical emergencies using the best technologies available. An example is its ability to monitor critical blood gasses and to transmit critical information directly to hospitals when a patient is diagnosed as having a possible heart attack. This dramatically reduces the time that the victim will need to wait upon arrival at the hospital to get life-saving care as doctors are notified at the earliest possible time of a critical patient's condition.
- Fire Department hand-held or portable radios will be replaced in the out years. These radios are essential for responders to communicate with each other and the ECC during incidents. All public safety radios are on a seven-year replacement cycle to ensure high reliability during emergencies. When public safety portable radios are replaced, they are transitioned to non-public safety departments for continued use. The replacement cycle for non-Fire portable radios is listed on the PSCM IT and Equipment page.
- The Fire Apparatus refreshment program is an on-going program that refreshes the various emergency vehicles used by the Fire Department. The inventory includes but is not limited to fire pumpers, rescue vehicles and ladder trucks. As fire emergency vehicles reach their end of useful life, they need to be refreshed to continue providing highly reliable service. Certain apparatuses include buy-back incentive programs where the County is able to acquire the equipment less the trade-in value for the existing equipment at a lower net cost to the County.

Capital Costs during Ten Year Period (FY19 to FY28) (in \$1,000s)

Fire Department IT and Equipment	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Fire Command Vehicle Technology	0	0	0	150	150	0	0	0	0	0	300
Fire Breathing Apparatus	3,298	0	0	0	0	0	0	0	0	0	3,298
Fire Records Management System	0	0	0	0	100	0	0	0	0	0	100
Fire Defibrillators	0	0	0	0	0	3,017	0	0	0	0	3,017
Fire Portable Radios	0	0	0	1,780	1,830	0	0	0	0	0	3,610
Fire Station Alerting System	1,110	1,110	1,110	0	0	0	0	0	0	0	3,330
Fire Vehicles Refreshment	0	4,925	0	4,373	2,227	0	0	5,172	0	6,239	22,936
Total Costs	4,408	6,035	1,110	6,303	4,307	3,017	0	5,172	0	6,239	36,591

Funding Schedule (in \$1,000s)

New Funding	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Short-term finance	4,408	1,110	1,110	150	250	3,017	0	0	0	0	10,045
New Bond Issue	0	0	0	1,780	1,830	0	0	0	0	0	3,610
Auto Fund Short-term finance	0	4,925	0	4,373	2,227	0	0	5,172	0	6,239	22,936
Total Revenues	4,408	6,035	1,110	6,303	4,307	3,017	0	5,172	0	6,239	36,591

2. Police Department IT and Equipment

Project Description

The Police Department is focused on reducing the incidence of crime and improving the quality of life in Arlington County by making it a place where all people can live safely and without fear. The primary functions of the Police Department are: patrolling the County; responding to calls for service; detecting, identifying, and arresting perpetrators of criminal offenses; investigating and preparing cases to ensure successful prosecution in court; use intelligence to identify emerging crime trends and terrorist threats; and develop crime prevention initiatives. The majority of IT assets are used to store and communicate data throughout the Police Department and other public safety agencies so that public safety personnel can more effectively respond to and manage critical incidents, investigate and prepare cases for prosecution and manage department resources. The key projects include: Refreshment of Police Interview Room Technology, Police/Sheriff Records Management System, In-Car Camera System, Computer Forensic Equipment, Command Vehicle Technology, Body Worn Cameras, and Mobile Data Computer (MDC) Infrastructure.

- The Mobile Data Computer Infrastructure (MDC) is the hardware, software, servers and vehicle docking stations required for police vehicles to utilize mobile computing technology in the vehicle. These terminals or laptops permit data exchange via wireless technology to the Police, Fire and Sheriff's departments and are located in public safety vehicles. The use of these devices increases the efficiency of information sharing, investigations, records management and all forms of communication
- The Police and Sheriff Records Management System stores critical response, case and inmate data and is an essential piece of record keeping for the organization.
- The in-car camera video system is used in Police and Sheriff's Department vehicles. The cameras record activities inside and around the vehicles. The cameras provide evidence of all traffic stops and other calls for service. This provides an added layer of protection and accountability for public safety officers and the public. The portable and mobile radios will be used by Police, Sheriff, and DPSCEM. Fire Department portable radios are on a different replacement cycle and are listed under the Fire Department's programs.
- Various equipment and software are used by the Police Department's Computer Forensic Unit. The equipment and software are used to retrieve and analyze data from various forms of technology including personal computers and cellular devices.
- The Police department's criminal investigation interrogation rooms require an update in technology and hardware to ensure the most reliable communication data is maintained for investigation purposes. This project includes the replacement of the interview room recording system for 8 criminal investigation interrogation rooms, and two polygraph interview rooms.
- The Police Department's Command Vehicle is deployed during critical incidents and special events. Technologies include servers, radios, personal computers and peripheral devices.

Capital Costs during Ten Year Period (FY19 to FY28) (in \$1,000s)

Police Department IT and Equipment	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Mobile Data Computer Infrastructure	0	0	0	2,940	0	0	0	0	2,941	0	5,881
Police/Sheriff Records Management System	0	300	0	0	0	0	4,500	0	0	0	4,800
In-car Camera Video System	0	0	65	0	0	0	0	65	0	0	130
Computer Forensic Equipment	0	0	75	0	0	0	0	75	0	0	150
Interview Room	0	0	0	0	0	0	0	450	0	0	450
Police Command Vehicle Technology	0	0	120	0	0	0	0	120	0	0	240
Total Costs	0	300	260	2,940	0	0	4,500	710	2,941	0	11,651

Funding Schedule (in \$1,000s)

New Funding	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Short-term finance	0	300	260	0	0	0	4,500	710	2,941	0	8,711
New Bond Issue	0	0	0	2,940	0	0	0	0	0	0	2,940
Total Revenues	0	0	260	2,940	0	0	4,500	710	2,941	0	11,651

INFORMATION TECHNOLOGY/EQUIPMENT

PUBLIC SAFETY INFORMATION TECHNOLOGY

INFORMATION
TECHNOLOGY/EQUIPMENT
2019 – 2028 CIP

3. Sheriff IT and Equipment

Project Description

The Sheriff's Office is responsible for the management and operation of the Arlington County Detention Facility and all related correctional responsibilities; providing courthouse/courtroom security and court support services; service/execution of civil and criminal warrants and court orders; transportation of inmates; providing administrative support; as well as management and oversight of the Arlington Alcohol Safety Action Program (ASAP). The majority of IT assets that are maintained by the Sheriff's Office are used to secure the Courts Building and the Detention Facility. Additional IT assets are used to process incarcerated individuals and retain critical records. The key projects include: Real Time Tracking and Monitoring System, the Detention Facility and Courthouse Security Systems, In Car Video System, Magnometers and X-Ray Machines and Live Scan System.

- The Sheriff's Office magnometers and X-ray machines reside in the Courts Building. These assets screen all visitors to the building for potentially threatening items, and assist in maintaining security in the Courthouse.
- The Detention Facility Security System is used to monitor and control access to Detention Facility areas for the protection of staff, inmates and the public. This equipment includes cameras, touch screens that control all doors, alarms and intercoms.
- The Live Scan and Portable Live Scan systems are automatic fingerprinting systems. State Code requires use of an automated fingerprinting system which is tied to the State Police database and sends fingerprints obtained at the Detention Center to the State Police automatically. Using the system, State Police verifies the identity of individuals within fifteen minutes and can also determine the identity of individuals that provide false names to authorities.
- The in-car camera video system records activities inside and around the Sheriff's Department vehicles. The cameras provide evidence of calls for service. This provides an added layer of protection and accountability for public safety officers and the public.

Capital Costs during Ten Year Period (FY19 to FY28) (in \$1,000s)

Sheriff IT and Equipment	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Courthouse Mag/X-Ray Machine	0	0	0	0	0	300	0	0	0	0	300
Justice Center Security System	0	0	0	1,500	0	0	0	0	1,500	0	3000
Live Scan and Portable Live Scan	0	0	0	0	0	0	246	0	0	0	246
In-Car Camera Video	0	0	0	70	0	150	0	0	70	150	440
Total Costs	0	0	0	1,570	0	450	246	0	1,570	150	3,986
Funding Schedule (in \$1,000s)											
New Funding	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Short-term finance	0	0	0	1,570	0	450	246	0	1,570	150	3,986
Total Revenues	7553	7850	1520	1,570	0	450	246	0	1,570	150	3,986

4. Department of Public Safety Communications and Emergency Management

Project Description

The Department of Public Safety Communications and Emergency Management (DPSCEM) is focused on providing the highest level of preparedness for Arlington through an expansion of the County's comprehensive emergency management program as well as full staffing and operation of Arlington's emergency 9-1-1 center. DPSCEM programs include emergency planning, emergency exercises/drills; 24/7 public safety communication, coordination and dispatch; public education; and volunteer management. The majority of IT assets that are maintained by DPSCEM are used to manage the Emergency Communications Center (ECC), the Alternative Emergency Communications Center (AECC) and the Emergency Operations Center (EOC). The key projects include: Computer Aided Dispatch (CAD), Interoperable Radio System Enhancements, Public Safety Radios, and 9-1-1 Telephone System Upgrades, all with a focus on Next Generation 9-1-1 capabilities.

- The Computer-Aided-Dispatch (CAD) system is used to receive requests for service and resource management and transfer information so public safety personnel can effectively respond. All aspects of a CAD system must be optimized for rapid response time and system reliability, which requires refreshment of the system and its components. That refreshment will also be guided by Next Generation 9-1-1, which is the convergence of text, video, and voice technologies to emergency calls for service. In order for 9-1-1 centers to respond to and dispatch information that arrives via new mediums, all technologies that are connected to this system (CAD, Radios, Telephone, etc) will require enhancements, upgrades, and updates to ensure the information is seamlessly transmitted.
- The implementation of an improved radio system communication solutions, such as IP Simulcast, allow the Public Safety Radio System to move from an antiquated analog-based system to Internet Protocol (IP) based connectivity. This project would convert all six radio sites to IP-based connection which will lead to more reliable communication with advanced features and allow the system to operate within a communication standard that exists within the County, as well as follow recommendations made for the National Capital Region.
- The Public Safety Radios being recommended for replacement are mobile and portable radios. Police and Sheriff mobile radios are installed in County vehicles and provide two-way communication between the Emergency Communication Center and public safety vehicles. Police and Sheriff portable radios are hand-held radios that allow for two-way communication with the Emergency Communications Center and all public safety agencies throughout the National Capital Region.
- The 911 telephone system is the backbone system for the call taking, processing and dispatching, and consists of servers, telephony, and infrastructure needs that require regular upgrades and enhancements to ensure a reliability of the 9-1-1 call system. Implementation during the prior CIP established a next generation capable system designed in conjunction with the City of Alexandria to meet regional standards and provide a basis for interoperability and collaboration. Modifications going forward will further enhance that system and provide for the replacement of hardware to keep the system up-to date and efficient.

Changes from Prior CIP

The biggest change is CAD replacement moving from an FY 2020/FY2021 project to an FY19/FY2020 project. The CAD project was originally slated for use with Bond proceeds, however implementation of various solutions must begin earlier. The cost of the project has gone down from \$12 in the last CIP to \$8 in this CIP. This CIP also includes the IP Simulcast Radio solution for FY19/FY20, which was not on the last adopted CIP.

Capital Costs during Ten Year Period (FY19 to FY28) (in \$1,000s)

Department of Public Safety Communications & Emergency Management	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Public Safety Portable Radios	0	0	0	0	0	2,850	2,850	2,850	0	0	8,550
ECC 911 Phone Equipment/Work Station	0	0	0	0	0	0	0	2,500	0	0	2,500
Radio Base Stations/System	0	0	0	1,750	0	0	0	0	0	0	1,750
ECC Radio System-Circuit-IP Simulcast	715	1,440	0	0	0	0	0	0	0	0	2,155
E Summons	150	150	150	150	150	150	150	150	150	150	1,500
CAD System Replacement	2,280	4,850	0	350	0	0	200	0	0	0	7,680
Total Costs	3,145	6,440	150	2,250	150	3,000	3,200	5,500	150	150	24,135

Funding Schedule (in \$1,000s)

New Funding	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
Short-term finance	2,995	6,290	0	350	0	0	3,050	5,350	0	0	18,035
New Bond Issue	0	0	0	1,750	0	2,850	0	0	0	0	4,600
PAYG	150	150	150	150	150	150	150	150	150	150	1,500
Total Revenues	3,145	6,440	150	2,250	150	3,000	3,200	5,500	150	150	24,135

Arlington County, Virginia

INFORMATION TECHNOLOGY/OTHER EQUIPMENT: PROGRAM FUNDING SUMMARY

CIP
2019 – 2028

10 YEAR CATEGORY SUMMARY (in \$1,000s)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
DHS Housing Choice Voucher	100	0	0	0	0	0	0	0	0	0	100
DHS Local Housing and Benefits	315	0	0	0	0	0	0	0	0	0	315
Electronic Poll Books	0	350	0	0	0	0	0	0	0	0	350
Total Recommendation	415	350	0	0	0	0	0	0	0	0	765

CATEGORY FUNDING SOURCES (in \$1,000s)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	10 Year Total
New Funding											
Federal Funding	0	0	0	0	0	0	0	0	0	0	0
State Funding	0	0	0	0	0	0	0	0	0	0	0
Developer Contributions	0	0	0	0	0	0	0	0	0	0	0
New Bond Issue	0	0	0	0	0	0	0	0	0	0	0
PAYG	415	350	0	0	0	0	0	0	0	0	765
Short Term Finance	0	0	0	0	0	0	0	0	0	0	0
Sanitary District Tax	0	0	0	0	0	0	0	0	0	0	0
Other Funding	0	0	0	0	0	0	0	0	0	0	0
Subtotal New Funding	415	350	0	0	0	0	0	0	0	0	765
Previously Approved Funding											
Authorized but Unissued Bonds	0	0	0	0	0	0	0	0	0	0	0
Issued but Unspent Bonds	0	0	0	0	0	0	0	0	0	0	0
Other Previously Approved Funds	0	0	0	0	0	0	0	0	0	0	0
Subtotal Previously Approved Funding	0	0	0	0	0	0	0	0	0	0	0
Total Funding Sources	415	350	0	0	0	0	0	0	0	0	765

DHS Housing Choice Voucher

Project Description

Beginning in January 2019, the vendor for our current system will no longer perform software modifications, enhancements, or fixes to the current software. The Housing Choice Voucher (HCV) program is a HUD funded program that provides housing subsidies to approximately 1,500 families and pays about \$1.3 million monthly. The current firm acquired our prior HCV vendor and is switching to their original core product. The system manages the following: wait list of applicants, client eligibility, subsidy calculation, issue payments to landlord and or clients, reconciles payments with client data and financial county processes, and complies with HUD regulations and reporting. Without migrating to a new HCV system, DHS risks failure to comply with HUD regulations, implement new mandates, and meet HUD reporting requirements.

DHS Local Housing and Benefits

Project Description

DHS currently manages local housing and benefits programs out of the same system used for Housing Choice Vouchers (HCV). The system will no longer be supported in beginning January 2019 (in particular, these local programs are at risk). Local Housing and General Assistance Benefits Programs are County funded programs providing housing subsidies and general financial assistance to low income County residents. These programs benefit about 1,600 households and pays about \$1.0 million monthly. The system was originally included as part of the HCV system implementation and customized to meet specifications for Local Housing and Benefits Programs. The new system will likely be separate from HCV: different technical solution, hosting, and licensing model. Funding request does not include costs for County hosting and staff time for implementation.

Electronic Poll Books

Project Description

The Arlington Electoral Board needs to replace aging electronic poll books (EPBs) purchased in 2008. EPBs replaced paper poll books traditionally used at polling places on election day to list the names of qualified voters in each precinct. Using EPBs instead of paper poll books greatly decrease lines at polling places on Election Day by reducing the time needed to check in voters. The vendor of the current EPB no longer provides software or hardware upgrades or maintenance. It is a legacy product. We have started to experience system failures consistent with aging technology. Technology has also improved in the last 10 years. New EPBs are faster and have more features than our current system. New EPBs also use commercial off the shelf (COTS) hardware. Our current system is proprietary hardware which costs 3 times more than COTS solutions. We will need to replace and add units by 2020 if we do not change systems. Transitioning to a cheaper hardware solution could save money in the long run. New EPBs also take up less physical space than our current model.