



FiberNet

(P509651)

Category	General Government	Date Last Modified	01/08/20
SubCategory	Technology Services	Administering Agency	Technology Services
Planning Area	Countywide	Status	Ongoing

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	12,450	2,159	1,291	9,000	2,500	2,500	1,000	1,000	1,000	1,000	-
Land	1,961	4	353	1,604	302	302	250	250	250	250	-
Site Improvements and Utilities	17,535	16,650	85	800	500	100	50	50	50	50	-
Construction	15,719	1,503	2,320	11,896	2,350	2,370	2,088	1,696	1,696	1,696	-
Other	42,322	39,077	245	3,000	500	500	500	500	500	500	-
TOTAL EXPENDITURES	89,987	59,393	4,294	26,300	6,152	5,772	3,888	3,496	3,496	3,496	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Contributions	1,611	1,611	-	-	-	-	-	-	-	-	-
Current Revenue: Cable TV	77,107	46,769	4,038	26,300	6,152	5,772	3,888	3,496	3,496	3,496	-
Current Revenue: General	256	-	256	-	-	-	-	-	-	-	-
G.O. Bonds	8,866	8,866	-	-	-	-	-	-	-	-	-
PAYGO	2,147	2,147	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	89,987	59,393	4,294	26,300	6,152	5,772	3,888	3,496	3,496	3,496	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 21 Approp. Request	3,081	Year First Appropriation	FY96
Appropriation FY 22 Approp. Request	3,496	Last FY's Cost Estimate	82,995
Cumulative Appropriation	68,938		
Expenditure / Encumbrances	61,406		
Unencumbered Balance	7,532		

PROJECT DESCRIPTION

FiberNet CIP provides for the planning, design, and installation of a countywide electro-optical fiber communication network with the capacity to support voice, public-safety, traffic management, data, Internet access, wireless networking (including public WiFi) and video transmissions among Montgomery County Government (MCG), Montgomery County Public Schools (MCPS), Montgomery College (MC), Maryland National Capital Park and Planning Commission (M-NCPPC), Housing Opportunities Commission (HOC) and Washington Suburban Sanitary Commission (WSSC) facilities. Video transmission will include distribution of public, education, government access channel and selected cable programming. FiberNet is the communications backbone for the Public Safety Radio and

Public Safety Mobile Data Systems (collectively, Public Safety Communications System (PSCS)), DOT's Advanced Traffic Management System (ATMS), and future technology implementations (including 800 MHz IP public safety radio). FiberNet's outside physical plant has a practically unlimited useful life. Upgrades and replacements to electronic components in the core and at user sites will be required periodically throughout the service life. Each generation of FiberNet electronic components have an estimated useful life of at least 10 years. FiberNet I is a legacy network still used to support specific public safety and traffic communications, with a plan to phase out at or prior to completion of the Public Safety System Modernization. FiberNet II is being used to support all County communications services including 311, e-mail, Internet and local cable channel video. FiberNet III is in the pilot and planning phase. When implemented, FiberNet III equipment will allow faster, higher capacity, more reliable means of optical networking. Using optical technology, all three generations of FiberNet can be run on the same outside physical plant.

ESTIMATED SCHEDULE

At the end of FY19, FiberNet reached 476 locations. Based on the current funding schedule, FiberNet is scheduled to reach 526 locations by the end of FY20. The Traffic Management network reaches over 220 traffic cameras and 880 traffic signals, and backup power to keep traffic signals operations during large scale power outages have been added at 428 traffic signals. By the end of FY22 - and including sites connected by private carriers and institutional partners - FiberNet is expected to have a total of more than 1,845 sites on the network serving a tremendous variety of facilities from pedestrian beacons to public schools to fire stations to wine and liquor stores, to major campus networks and large multi-story office buildings. The primary focus of the FY21-22 CIP will be to upgrade edge and core equipment to exponentially expand capacity within FiberNet and to edge locations, upgrade hub-site HVAC and back-up power supplies, and to leverage inter-jurisdictional connections and Ashburn data center connections, to enable cost-effective future technology public-private partnerships with major research and educational institutions, regional broadband service providers, and large employers.

COST CHANGE

Cost increase due to the addition of FY25 and FY26 to this ongoing level-of-effort project.

PROJECT JUSTIFICATION

FiberNet is a critical infrastructure asset providing communication services and applications to every agency in Montgomery County. As more services are offered electronically (e-applications, e-payment, e-document, e-storage, e-learning), and more services require cloud-access, it is critical that every County location has robust access to FiberNet, and that FiberNet be secure, reliable, and always-on. The FiberNet CIP also supports and expands the ATMS system and networks that monitor, control and collect information along the transportation system, which includes traffic signals, traffic surveillance cameras, lane control systems, traffic adaptive system, back-up power monitoring, and Bus Transit Signal Priority. By leveraging FiberNet, the ATMS has diverse network paths to eliminate single points of failure.

FISCAL NOTE

The FiberNet CIP originally was funded by the General Fund. As restricted-use Cable Fund PEG/I NET capital grant funding grew, the Cable Fund became the primary funding source for FiberNet. Cable revenues are declining as cord cutting increases, and may be negatively impacted by federal government efforts to restrict the authority of local governments to collect revenue for use of public assets by communications providers. Funding for future FiberNet CIPs may need to be supplemented by the General Fund. FiberNet operations and maintenance (O&M) activities are a critical component of FiberNet's utility but are not funded by the FiberNet CIP. Federal regulatory actions, or the outcome of renegotiations when the Comcast and Verizon franchises expire in 2021, may negatively impact the Cable Fund. In FY16 funds were also used to support government and educational ultraMontgomery broadband initiatives.

DISCLOSURES

Expenditures will continue indefinitely.

COORDINATION

DTS, Department of Transportation, Advanced Transportation Management System Project, Montgomery County Public Schools, MNCPPC, MC, HOC, WSSC, PSCS, Information Technology Policy Coordination Committee (ITPCC), ITPCC CIO Subcommittee, and Interagency Technology Advisory Group (ITAG); and supports ATMS, Traffic Signal System Modernization (TSSM) and Traffic Signal CIPs.