

Montgomery County Planning Department  
Maryland-National Capital Park and Planning Commission

**Re:** Montgomery County Department of Technology Services  
Radio Communications Services  
Public Safety System Modernization Project  
**Site:** Fire Station 16  
111 E University Blvd  
39°01'01.66728"N 77°00'26.41370"W

Please find enclosed a copy of the Council Resolution #19-214, amending #19-24.

On July 30, 2019, the Montgomery County Council reviewed the proposed 22-site plan for the Public Safety System Modernization Project. The site identified above is included in the plan reviewed by the Council.

The Council resolved to amend the Capital Improvement Plan to include the following language:

*The Executive will locate these simulcast antenna sites at these identified sites to minimize costs to the County and meet the target cutover date of December 2020.*

If you have any questions or concerns, or need any further information regarding this application, please free to contact me.

Sincerely,

Tessia Knight  
Network Building + Consulting

410-712-7092 ext 1086  
tknight@nbcllc.com

Resolution No.: 19-214  
Introduced: July 9, 2019  
Adopted: July 30, 2019

**COUNTY COUNCIL  
FOR MONTGOMERY COUNTY, MARYLAND**

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Lead Sponsors: Councilmembers Katz and Riemer

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**SUBJECT:** Amendment to the FY19-24 Capital Improvements Program  
Montgomery County Government  
County Executive  
Public Safety System Modernization (No. 340901)

**Background**

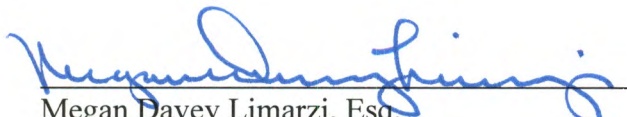
1. Section 302 of the Montgomery County Charter provides that the Council may amend an approved capital improvements program at any time by an affirmative vote of no fewer than six members of the Council.
2. This amendment identifies the specific 22 sites recommended by the County's radio tower vendor needed to meet the public safety standard of 95% coverage by December 2020.

**Action**

The County Council for Montgomery County, Maryland approves the following resolution:

The FY19-24 Capital Improvements Program of the Montgomery County Government is amended to revise the Public Safety System Modernization project (No. 340901), as reflected on the attached project description form.

This is a correct copy of Council action.

  
Megan Davey Limarzi, Esq.  
Clerk of the Council



## Public Safety System Modernization (P340901)

<b>Category</b>	General Government	<b>Date Last Modified</b>	01/11/19
<b>SubCategory</b>	County Offices and Other Improvements	<b>Administering Agency</b>	County Executive
<b>Planning Area</b>	Countywide	<b>Status</b>	Ongoing

### EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY18	Rem FY18	Total 6 Years	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Beyond 6 Years
Planning, Design and Supervision	9,543	3,379	5,229	935	935	-	-	-	-	-	-
Construction	33,594	2,635	15,859	15,100	15,100	-	-	-	-	-	-
Other	67,615	67,615	-	-	-	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>110,752</b>	<b>73,629</b>	<b>21,088</b>	<b>16,035</b>	<b>16,035</b>	-	-	-	-	-	-

### FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY18	Rem FY18	Total 6 Years	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Beyond 6 Years
G.O. Bonds	55,591	25,752	16,739	13,100	13,100	-	-	-	-	-	-
Short-Term Financing	42,356	38,179	2,177	2,000	2,000	-	-	-	-	-	-
Current Revenue: General	9,826	6,719	2,172	935	935	-	-	-	-	-	-
Federal Aid	2,947	2,947	-	-	-	-	-	-	-	-	-
Contributions	32	32	-	-	-	-	-	-	-	-	-
<b>TOTAL FUNDING SOURCES</b>	<b>110,752</b>	<b>73,629</b>	<b>21,088</b>	<b>16,035</b>	<b>16,035</b>	-	-	-	-	-	-

### OPERATING BUDGET IMPACT (\$000s)

Impact Type	Total 6 Years	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Maintenance	3,600	600	600	600	600	600	600
Program-Staff	1,200	200	200	200	200	200	200
Program-Other	1,584	264	264	264	264	264	264
<b>NET IMPACT</b>	<b>6,384</b>	<b>1,064</b>	<b>1,064</b>	<b>1,064</b>	<b>1,064</b>	<b>1,064</b>	<b>1,064</b>

### APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 20 Approp. Request	(96)	Year First Appropriation	FY09
Cumulative Appropriation	110,848	Last FY's Cost Estimate	110,848
Expenditure / Encumbrances	98,889		
Unencumbered Balance	11,959		

## PROJECT DESCRIPTION

Public Safety System Modernization

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This program will provide for phased upgrades and modernization of computer aided dispatch (CAD), law enforcement records management system (LE RMS), and voice radio systems used primarily by the County's public safety first responder agencies including Police, Fire and Rescue, Sheriff, Corrections and Rehabilitation, and Emergency Management and Homeland Security. The modernization will include replacement of the current CAD/LE RMS system, replacement of public safety mobile and portable radios, upgrade of non-public safety mobile and portable radios, and replacement of core voice radio communications infrastructure. The previously approved Fire Station Alerting System Upgrades project (CIP #451000) was transferred to this project in order to coordinate the upgrades with the new CAD system. The alerting system upgrades will modernize the fire station alerting systems at 43 existing work sites, maintaining the ability to notify fire and rescue stations of emergencies. The alerting system, including audible and data signals, is essential for the notification of an emergency and the dispatch of appropriate response units from the County. As voice, data, and video are beginning to converge to a single platform, this project will provide a pathway to a modern public safety support infrastructure that will enable the County to leverage technology advances and provide efficient and reliable systems for first responders. This project will follow the methodologies and strategies presented in the Public Safety Systems Modernization (PSSM) plan completed in July 2009.

— ADD TEXT AND MAP HERE —

## **COST CHANGE**

Reduction in Federal Aid of \$96,000.

## **PROJECT JUSTIFICATION**

The public safety systems require modernization. The CAD system is reaching the end of useful life and does not meet the County's current operational requirements, impacting the response time of first responders to 9-1-1 calls. The CAD Roadmap Study, completed in March 2009, recommended replacement of the system to address existing shortcomings and prepare for the next generation 9-1-1 systems. The manufacturer's support for the voice radio system has begun to be phased out as of December 31, 2009. Beyond that date, the manufacturer will only continue to provide system support on an as available basis, but will not guarantee the availability of parts or technical resources. The CAD modernization has initiated a detailed planning phase that included the use of industry experts to assist with business process analysis and to develop detailed business and technical requirements for the new CAD system. This process will allow the County to incorporate lessons learned and best practices from other jurisdictions. As more of the County's regional partners migrate to newer voice technologies, it will affect interoperable voice communications. To ensure that the County maintains reliable and effective public safety (voice radio) communications for the operations of its first responders and to sustain communications interoperability for seamless mutual aid among its regional partners, the County needs to implement a project to upgrade and modernize its portable and mobile radio units and subsequently the radio voice communications infrastructure. Acceleration of the public safety radio purchases was initiated to take advantage of a Partial Payment in Lieu of Re-Banding offer from Sprint/Nextel toward the financing of new, upgraded, P-25 compliant public safety radios and to meet the Federal Communications Commission (FCC) mandated 800 MHz frequency rebanding requirements for nationwide public safety radio frequency interoperability. Now, the installation of the new core radio communication infrastructure is needed. The fire station alerting system upgrades were identified as a need under Section 5 of the MCFRS Master Plan (adopted by the County Council in October 2005) and detailed in the Station Alerting and Public Address (SA/PA) System for Fire/Rescue Stations, Rev 1, 2006. This project allows for the continuous and seamless functioning of the alerting systems within each fire station. A preliminary survey by DTS of existing conditions at all stations revealed system-wide concerns, including inadequate spare parts inventory and lack of available maintenance support for alerting systems.

## **OTHER**

\$20.936 million was appropriated in FY11 to purchase P-25 compliant radios that allowed the County to complete immediate re-banding within the 800 MHz frequency as required by the FCC. The radio replacement program includes the M-NCPPC Montgomery County Park Police. The future purchase of public safety radios (other than to replace broken equipment) must be able to be supported by a P25 Phase-2 compliant infrastructure. The use of State of Maryland infrastructure will be aggressively pursued in

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order to minimize costs to Montgomery County. The CAD procurement request will reflect the County's interest in maintaining the station alerting functionality at the current level or better through the CAD system. The RFP for CAD replacement will include replacement of the following systems: CAD, mapping, and the existing Law Enforcement Records Management and Field Reporting systems. Coordination with participating department/agencies and regional partners will continue throughout the project.

## **FISCAL NOTE**

Funding in FY09 included Urban Area Security Initiative (UASI) grant funding of \$2.055 million and Fire Act grant funding of \$988,000. Funding schedule reflects FY18 supplemental adding \$32,000 in Contributions for additional equipment required for Local Fire Rescue Departments (LFRDs). FY18 funding switch is due to a transfer of Current Revenue General for \$283,000 from Technology Modernization (MCG) project offset by an equal reduction in Short Term Financing.

## **COORDINATION**

PSSM Executive Steering Committee, Executive Program Directors, Department of Technology Services, Department of Police, Montgomery County Fire and Rescue Service, Sheriff's Office, Department of Correction and Rehabilitation, Office of Emergency Management and Homeland Security, Department of Transportation, Department of Liquor Control, Montgomery County Public Schools (MCPS), Maryland-National Park and Planning Commission (M-NCPPC) Park Police, Washington Metropolitan Area Transit Authority (WMATA)

Proposed new language for PSSM CIP:

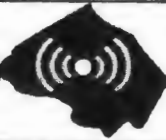
The core voice radio communications infrastructure replacement has identified the following 22 trunked simulcast antenna sites for the new system, as also shown on the map below:

Sites	Location
Bethesda	5202 River Road
Black Rock	17410 Black Rock Road
Bretton Woods	15700 River Road
Brookeville	4301 Brookeville Road
Burtonsville	16135 Old Columbia Pike
Carole Highlands	1616 Hannon Street
Castle Blvd.	14000 Castle Blvd.
Damascus	26154 Ridge Road
Dickerson	21200 Martinsburg Road
Elmer School	18500 Elmer School Road
Executive Office Building	101 Monroe Street.
Fire Station 16	111 University Blvd. East
Fire Station 30	9404 Falls Road
Germantown	20235 Observation Drive
Grosvenor	10101 Grosvenor Place
Hampshire Greens	15916 New Hampshire Avenue
ICC/Georgia Avenue	15912 Georgia Avenue
Montgomery County Correctional Facility	22880 Whelan Lane
Nuclear Regulatory Commission	11555 Rockville Pike
Penn Shop	18800 Penn Shop Road
Shady Grove	8620 Pleasant Road
White Oak	11215 Oakleaf Drive

The Executive will locate these simulcast antenna sites at these identified sites to minimize costs to the County and meet the target cutover date of December 2020.



# Radio System Sites & Microwave Links Map



**PSSM**  
program

