

# Fibernet -- No. 509651

Category  
Subcategory  
Administering Agency  
Planning Area

**General Government**  
**Technology Services**  
**Technology Services**  
**Countywide**

Date Last Modified  
Required Adequate Public Facility  
Relocation Impact  
Status

**January 09, 2012**  
**No**  
**None.**  
**On-going**

## EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY11	Est. FY12	Total 6 Years	FY13	FY14	FY15	FY16	FY17	FY18	Beyond 6 Years
Planning, Design, and Supervision	3,046	2,220	200	626	606	20	0	0	0	0	0
Land	4	4	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	13,106	12,441	65	600	250	175	175	0	0	0	0
Construction	14,544	1,169	1,875	11,500	875	2,175	2,175	2,175	2,175	1,925	0
Other	24,773	21,173	0	3,600	100	100	100	1,600	1,600	100	0
<b>Total</b>	<b>55,473</b>	<b>37,007</b>	<b>2,140</b>	<b>16,326</b>	<b>1,831</b>	<b>2,470</b>	<b>2,450</b>	<b>3,775</b>	<b>3,775</b>	<b>2,025</b>	<b>0</b>

## FUNDING SCHEDULE (\$000)

Cable TV	44,387	25,921	2,140	16,326	1,831	2,470	2,450	3,775	3,775	2,025	0
Contributions	86	86	0	0	0	0	0	0	0	0	0
G.O. Bonds	8,900	8,900	0	0	0	0	0	0	0	0	0
PAYGO	2,100	2,100	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>55,473</b>	<b>37,007</b>	<b>2,140</b>	<b>16,326</b>	<b>1,831</b>	<b>2,470</b>	<b>2,450</b>	<b>3,775</b>	<b>3,775</b>	<b>2,025</b>	<b>0</b>

## OPERATING BUDGET IMPACT (\$000)

Maintenance				1,459	1,097	153	101	13	37	58
<b>Net Impact</b>				<b>1,459</b>	<b>1,097</b>	<b>153</b>	<b>101</b>	<b>13</b>	<b>37</b>	<b>58</b>

### DESCRIPTION

This project provides for the planning, design, and installation of a County wide fiber optic cable-based communication network with the capacity to support voice, data, 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. FiberNet is also the communications backbone for the Public Safety Radio and Public Safety Mobile Data Systems (collectively, Public Safety Communications System PSCS), and future technology implementations. Fibernet has an estimated useful life of at least 20 years. Upgrades and replacements to electronic components in the core and at user sites will be required periodically.

### CAPACITY

As of September 1, 2011, there are 316 sites on FiberNet. The number of sites scheduled for completion by September 1, 2014 is 465. By September 1, 2017, that number is expected to be 510. The majority of these sites will be Montgomery Public Schools.

### ESTIMATED SCHEDULE

FiberNet anticipates 134 sites will be brought on-net by 2014. In the prior FY11-16 CIP, the estimated time frame would have extended into 2017.

### COST CHANGE

Cost increase is due to an increase in the project scope primarily related to the increasing Montgomery County Public Schools FiberNet sites, as well as, providing FiberNet support to the Advanced Traffic Management System.

### JUSTIFICATION

FiberNet is a critical infrastructure asset serving every agency in Montgomery County. As of September 1, 2011, 316 user sites are on-net and receiving critical services from FiberNet. In FY07, the Department of Technology Services (DTS) completed the re-engineering of FiberNet (now referred to as FiberNet II) to directly support Ethernet connections. This provides a core network that is technologically newer, faster and less expensive to operate on a per-site basis.

The Interagency Technology Policy Coordination Committee (ITPCC) focus during the first two years of this CIP will be constructing the ARRA Grant funded sites. MCG, MCPS, MC, M-NCPPC, HOC and WSSC require substantially increased communication services and bandwidth among their facilities. The County will provide fiber optic services to those facilities for which leased telecommunications services cannot meet current or projected demand as cost effectively as FiberNet. Studies include: Fibernet Master Plan; RAM Comm. Mar 1995; Fibernet Eval. Rpt., TRW, Sept 1997; Fibernet Proj. Cost Est., ARINC, Apr 1998; Fibernet Proj. Cost-Benefit Analysis, ARINC, Oct 1998; Fibernet Strategic Plan, PrimeNet, June 2002; Fibernet Strategic Direction, Interagency Telecommunications Advisory Group (ITAG), Nov 2003; and the Fibernet service level agreement, Jan 2005.

### OTHER

DTS is responsible for project management, network operations, and maintenance of electronics, while the Department of Transportation (DOT) is responsible for installation and maintenance of the fiber optic cable. Comcast, at DTS's direction, also provides fiber used in Fibernet. Sites installed to date include MCG

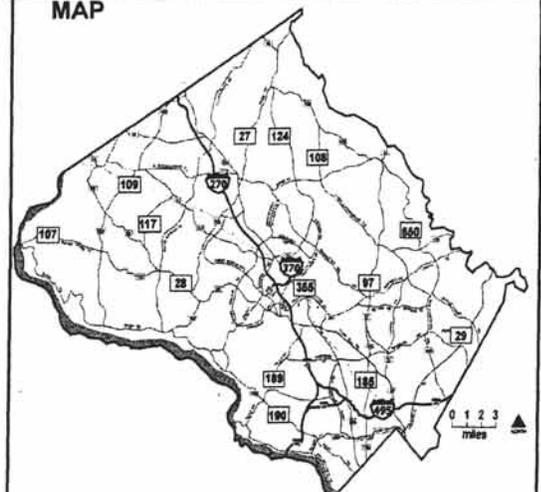
### APPROPRIATION AND EXPENDITURE DATA

Date First Appropriation	FY96	(\$000)
First Cost Estimate	FY12	55,473
Current Scope		
Last FY's Cost Estimate		39,147
Appropriation Request	FY13	1,831
Appropriation Request Est.	FY14	2,470
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		39,148
Expenditures / Encumbrances		37,045
Unencumbered Balance		2,103
Partial Closeout Thru	FY10	0
New Partial Closeout	FY11	0
Total Partial Closeout		0

### COORDINATION

Department of Technology Services  
Department of Transportation  
Advanced Transportation Management System Project  
Montgomery County Public Schools  
M-NCPPC  
Montgomery College  
HOC  
WSSC  
Comcast  
Public Safety Radio System  
Information Technology Policy Coordination Committee (ITPCC)  
ITPCC CIO Subcommittee  
Interagency Technology Advisory Group (ITAG)  
CIO Howard County  
Inter-County Broadband Network Program Office

### MAP



## Fibernet -- No. 509651 (continued)

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departments/offices, PSCS sites, MC campuses, MCPS high schools/middle schools/administrative facilities and several elementary schools, M-NCPPC sites, HOC sites and WSSC sites including the headquarters building in Prince Georges County. The municipalities of Takoma Park, Gaithersburg and Rockville are on FiberNet as well as several cultural centers including American Film Institute (AFI), Strathmore, the Convention Center and Black Rock. Currently FiberNet is focused on building out the ARRA Grant sites which are elementary schools and HOC properties. Approximately \$3 million is necessary to build out the cable plant to support Advanced Traffic Management System field devices. Funding for this project is included in the FY13-FY18 CIP.

### **FISCAL NOTE**

The ARRA Grant represents a tremendous cost savings to Montgomery County. The County will receive the benefit of over \$17 million dollars in construction for a matching contribution of \$2.6 million.

Fibernet maintenance is supported by a grant from the franchise agreement with the County's cable service provider, Comcast. The original grant amount of \$1.2 million/yr is increased by the CPI each year.

The Comcast franchise agreement is currently in renegotiation.