



**Committee:** GO  
**Committee Review:** Completed  
**Staff:** Dr. Costis Torgas, Council IT Adviser  
**Purpose:** Final action – vote expected  
**Keywords:** Economic Development, Broadband Affordability, Broadband Availability, Partnerships

AGENDA ITEM #11  
April 27, 2021  
**Action**

## **SUBJECT**

Capital Improvements Program FY22 – ultraMontgomery (P341700)

## **EXPECTED ATTENDEES**

None

## **COUNCIL DECISION POINTS & COMMITTEE RECOMMENDATION**

Approve as proposed by the Executive with the proviso that the Project Description Form be expanded to include broadband affordability and availability beyond the proposed economic development targets.

## **DESCRIPTION/ISSUE**

The ultraMontgomery project provides for capital funding to support economic development and technology leadership in the County. The \$680,000 request supports planning, engineering, design and construction of high speed connections along Route 29, White Oak, and along the planned Purple Line, as well as connections to the Ashburn, VA data centers and global Internet hubs for County businesses. Public-private partnerships are vehicles that leverage County investment, and all funding comes from the Cable plan. This project was established in 2017 as a standalone effort within the CIP program; it was previously part of the FiberNet project, but the then-Executive felt that it needed its own focus and implementation strategies.

## **SUMMARY OF KEY DISCUSSION POINTS**

The Committee reviewed the Executive's requested FY22 CIP project for ultraMontgomery and requested that new language be written in the Project Description Form (PDF) before the project is presented to the full Council for approval as part of the FY22 CIP program. The current focus for the project is on economic development. However, the Committee believes that a new focus on ensuring affordable and available broadband to community members who do not have it should be driving this investment forward. The Committee agreed unanimously to recommend this adjustment to the full Council for action, with the change in focus towards affordable and available broadband in the community explicitly stated.

This new language was received on March 15 and is responsive to the Committee's request. See ©1 for revised PDF.

**This report contains:**

Revised ultraMontgomery PDF  
GO packet, March 8, 2021

© 1-2  
© 3-7

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ultraMontgomery  
(P341700)

Category	General Government	Date Last Modified	03/11/21
SubCategory	Technology Services	Administering Agency	Technology Services
Planning Area	Countywide	Status	Preliminary Design Stage

Total	Thru FY20	Rem FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
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EXPENDITURE SCHEDULE (\$000s)

Planning, Design and Supervision	866	343	-	513	159	134	70	50	50	50	-
Construction	6,388	222	-	6,166	2,569	1,097	610	630	630	630	-
<b>TOTAL EXPENDITURES</b>	<b>7,244</b>	<b>565</b>	<b>-</b>	<b>6,679</b>	<b>2,728</b>	<b>1,231</b>	<b>680</b>	<b>680</b>	<b>680</b>	<b>680</b>	<b>-</b>

FUNDING SCHEDULE (\$000s)

Current Revenue: Cable TV	7,244	565	-	6,679	2,728	1,231	680	680	680	680	-
<b>TOTAL FUNDING SOURCES</b>	<b>7,244</b>	<b>565</b>	<b>-</b>	<b>6,679</b>	<b>2,728</b>	<b>1,231</b>	<b>680</b>	<b>680</b>	<b>680</b>	<b>680</b>	<b>-</b>

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 22 Request	680	Year First Appropriation	FY16
Cumulative Appropriation	3,844	Last FY's Cost Estimate	7,244
Expenditure / Encumbrances	889		
Unencumbered Balance	2,955		

PROJECT DESCRIPTION

The ultraMontgomery CIP provides for capital funding to support Montgomery County's economic development program and digital equity initiatives. Like economic development, internet service accessibility and affordability are critical factors in addressing equity disparities. The Department of Technology Services (DTS) Office of Broadband Programs has re-directed the strategic goals of ultraMontgomery to better address equity-based initiatives in underserved neighborhoods and areas where service does not exist or residents are unable to afford service. Funding will support planning, design, and construction of: (1) completion of the Great Seneca Fiber Hwy to provide shortest distance, low latency connection between Great Seneca and Ashburn, Virginia data centers; (2) completion of phase 2 of the East County Fiber Hwy to provide regional interconnections north-south between White Oak and Howard County and east-west between Burtonsville and WSSC in Laurel; (3) MoCoNet Digital Equity in Affordable Housing projects to expand use of County broadband infrastructure to close the digital equity gap through the provision of free or low cost, reliable and robust residential Internet services and devices at affordable housing and rural properties throughout the County; (4) expanding rural broadband grant opportunities and exploring a pilot project with Starlink SpaceX satellite internet solutions to make robust broadband available (100 Mbps + download speeds) to unserved properties in the Agricultural Reserve who are interested in participating; (5) Public WiFi and Advanced Wireless Conduit Networks to provide conduit and fiber to support public WiFi and wireline and wireless broadband networks in commercial and community gathering areas of Montgomery County; (6) Innovation Testbeds to spur development and expansion of traffic, transit, and pedestrian sensors, Internet of Things (IoT), advanced robotic, and cybersecurity IoT applications and innovation in Montgomery County; (7) Purple Line Fiber to connect Montgomery County research and higher education facilities to MAX and Internet2 at the University of Maryland, College Park; and (8) White Oak Science Gateway Conduit Network to provide broadband conduit infrastructure in Viva White Oak and other White Oak commercial development projects.

ESTIMATED SCHEDULE

?(1) Primary construction of the Great Seneca Fiber Hwy will be completed in FY21, with fiber ring to alternate data centers completed in FY21-22, and additional extensions within Great Seneca completed in FY22-FY26. (2) East County Fiber Hwy Phase 1 (to Burtonsville) was completed in FY18; Phase 2 to Howard County and Prince George's County will be completed in Summer 2021. (3) Digital equity installations began in FY21 and will continue through FY23. (4) Providing robust broadband to the Agricultural Reserve began in FY21 and will continue through FY23. Starlink internet solutions started development in FY21. (5) Design for public WiFi, advanced wireless, and conduit in commercial and community gathering areas is underway and outreach to potential private partners is in development. (6) Testbeds are in development. (7) Purple Line is dependent on the Purple Line and third-party construction schedules, and agreement from MDOT and Purple Line concessionaire to use fiber. (8) White Science Gateway conduit construction will be performed concurrently with Viva White construction and is expected to begin in FY23-24.

PROJECT JUSTIFICATION

ultraMontgomery is a broadband economic development and digital equity program, designed to ensure that businesses and underserved residents of affordable housing units in Montgomery County have as much reliable, secure, and robust broadband service as they need to live, work, learn and keep our economy moving at the speed of our ideas. As part of the recovery efforts, OBP made internet access available at affordable housing and rural locations. For several years DTS has been working on expanding internet availability in the Agricultural Reserve through partnerships with the incumbent providers and applying for state and federal broadband grant opportunities. Additionally, efforts are focused on working with affordable housing partners to determine the level of interest and potential affordable housing developments that can be served.

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ultraMontgomery supports economic and racial diversity, equity, and inclusion goals by working to close our community's digital divide through: access to competitive broadband services in commercial buildings through infrastructure development, public private partnerships, strategic conduit network deployment, and leasing of spare County fiber and conduit; access to the digital economy for underserved communities through deployment of devices and residential broadband in affordable housing developments and expansion of Public WiFi; business growth and innovation in biotech/biohealth, cybersecurity, IT services, financial services, media and similar high-bandwidth-consuming sectors and federal, state, research and higher education institutions.

## COORDINATION

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FiberNet (P509651); Purple Line Department of Transportation; Maryland-National Capital Park and Planning Commission; Montgomery College; WSSC; Information Technology Policy Coordination Committee; and Montgomery County Economic Development Corporation.

**Worksession**

**MEMORANDUM**

March 3, 2021

TO: Government Operations and Fiscal Policy Committee  
FROM: Dr. Costis Toregas, Council IT Adviser  
SUBJECT: Capital Improvements Program – ultraMontgomery (P341700)

The following are expected to attend:

Gail Roper, Chief Information Officer, Department of Technology Services (DTS)  
Joe Webster, Chief Broadband Officer, DTS  
Felicia Hyatt, Office of Management and Budget (OMB)

**Staff Recommendation:**

1. **Refocus** the effort of this project on making broadband accessible and affordable to all residents, with an emphasis on the underprivileged sectors of our County. Develop measurable indicators of performance and success and establish targets for FY22 for the capital infrastructure efforts; also match with a similar refocused effort on the operating FY22 budget for ultraMontgomery.
2. **Request** that a new plan be developed for the \$680,000 allocation and be provided to the full Council when it takes up this item for final action.
3. **Endorse** the Executive’s recommendation of **\$680,000** for the ultraMontgomery program in FY22 with the stipulations in Recommendations # 1 and # 2, and recommend its full funding to the Council.

**Summary**

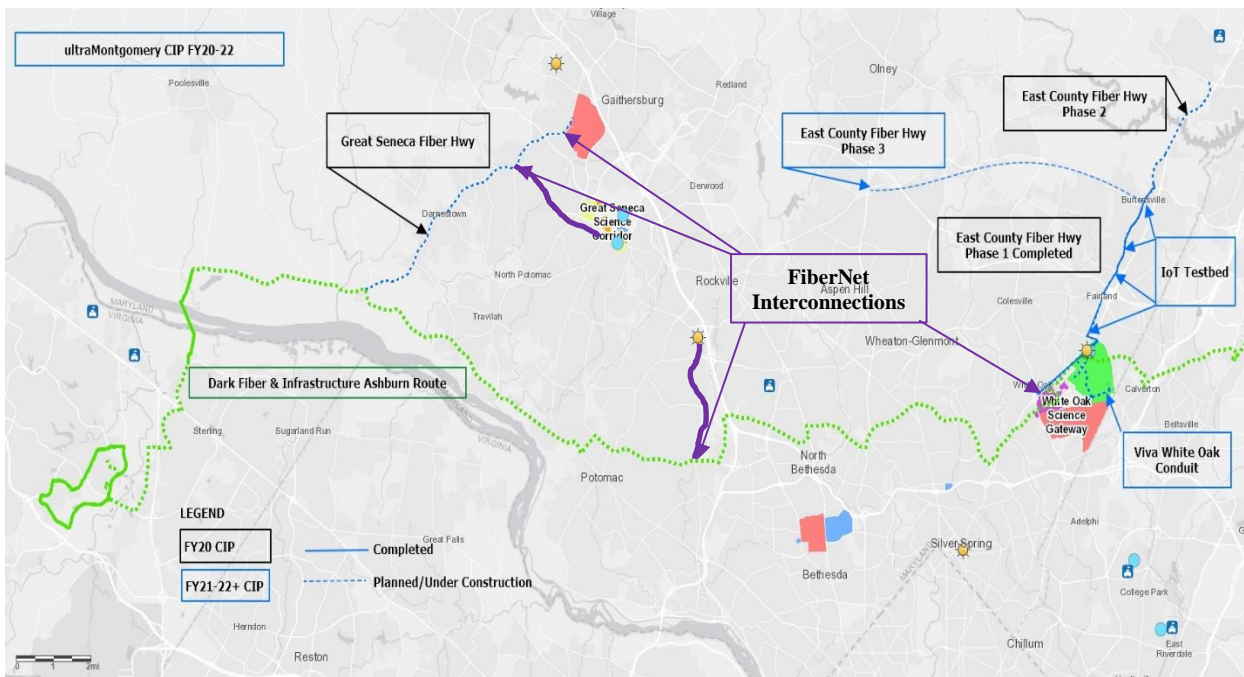
The ultraMontgomery project provides for capital funding to support economic development and technology leadership in the County. The \$680,000 request on ©1-2 supports planning, engineering, design and construction of high speed connections along Route 29, White Oak, and along the planned Purple Line, as well as connections to the Ashburn, VA data centers and global Internet hubs for County businesses. Public-private partnerships are vehicles that leverage County investment, and all funding comes from the Cable plan. This project was established in 2017 as a standalone effort within the CIP program; it was previously part of the FiberNet project, but the then-Executive felt that it needed its own focus and implementation strategies. Detailed information for FY22 was not included in the Executive’s

CIP submission on January 15, 2021, therefore it is not easy to understand the targets of this upcoming fiscal year.

The Committee has raised questions regarding the ultraMontgomery project in years past. In a time of pandemic, with so many residents needing adequate access to broadband services, this is a good time to refocus this initiative away from the prior Executive’s goal and more targeted towards our residents and their broadband needs.

### Strategic Questions

1. The ultraMontgomery project was a key component of the prior Administration. Committee members may want to raise questions regarding its focus for the current administration, and its relevance and intended outcomes in a time of Covid and high demand for broadband in the community.
2. Expected accomplishments in 2021 were as follows:
  - Completion of East County Fiber Hwy Phase 2
  - Completion of Great Seneca Fiber Hwy
  - East County Fiber Hwy Phase 3 Design
  - IoT Testbed concept development



Committee members may want to discuss these outcomes, current status and needs for the future

3. The end recipients of this project’s efforts and the intended impact of this project have not been clarified in prior year reviews, despite Committee questions. The opportunity to recraft this project and focus it on affordable and available broadband for County residents should be pursued and a

work plan clarified and submitted before the full Council reviews this item. Committee members can engage Executive staff in a dialog regarding such recrafting of direction.

4. There is an unencumbered balance of \$2,412,000 shown in the Project Description File; with the additional \$680,000 requested, the balance is expected to rise to over \$3 million. An expenditure schedule for this amount should be provided, targeted at the affordability and availability gap in our County.

Attachment: ultraMontgomery project description p1-2



# ultraMontgomery

(P341700)

<b>Category</b>	General Government	<b>Date Last Modified</b>	01/04/20
<b>SubCategory</b>	Technology Services	<b>Administering Agency</b>	Technology Services
<b>Planning Area</b>	Countywide	<b>Status</b>	Preliminary Design Stage

## 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	775	170	245	360	70	70	70	50	50	50	-
Construction	6,469	201	2,548	3,720	610	610	610	630	630	630	-
<b>TOTAL EXPENDITURES</b>	<b>7,244</b>	<b>371</b>	<b>2,793</b>	<b>4,080</b>	<b>680</b>	<b>680</b>	<b>680</b>	<b>680</b>	<b>680</b>	<b>680</b>	-

## 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
Current Revenue: Cable TV	7,244	371	2,793	4,080	680	680	680	680	680	680	-
<b>TOTAL FUNDING SOURCES</b>	<b>7,244</b>	<b>371</b>	<b>2,793</b>	<b>4,080</b>	<b>680</b>	<b>680</b>	<b>680</b>	<b>680</b>	<b>680</b>	<b>680</b>	-

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

Appropriation FY 21 Request	680	Year First Appropriation	FY16
Appropriation FY 22 Request	680	Last FY's Cost Estimate	5,884
Cumulative Appropriation	3,164		
Expenditure / Encumbrances	752		
Unencumbered Balance	2,412		

## PROJECT DESCRIPTION

The ultraMontgomery CIP provides for capital funding to support Montgomery County's economic development program. Funding will support planning, design, and construction of: (1) East County Fiber Hwy to provide regional interconnections north-south between White Oak and Howard County and east-west between Burtonsville and Rockville; (2) Great Seneca Fiber Hwy to provide shortest distance, low latency connection between Great Seneca and Ashburn, Virginia data centers; (3) White Oak Science Gateway Conduit Network to provide broadband conduit infrastructure in Viva White Oak and other White Oak commercial development projects; (4) Gigabit Innovation Conduit Network to provide conduit and fiber for wireline and wireless broadband networks in commercial areas of Montgomery County; (5) IoT (Internet of Things) and Advanced Wireless Testbeds to spur development and expansion of advanced wireless service companies, protective cybersecurity IoT applications and innovation in Montgomery County; (6) Purple Line Fiber to connect Montgomery County research and higher education facilities to MAX and Internet2 at University of Maryland, College Park.

## ESTIMATED SCHEDULE



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(1) East County Fiber Hwy Phase 1 (to Burtonsville) completed FY 18; Phase 2 to Howard County to be completed in FY20; Phase 3 to Rockville to be completed in FY22. (2) Primary construction of Great Seneca Fiber Hwy to be completed in FY20, with fiber ring to alternate data centers in FY21-22, and additional extensions within Great Seneca in FY23-26. (3) White Science Gateway conduit construction will be performed concurrently with Viva White construction and is expected to begin in FY21-22. (4) Design for conduit in commercial areas is underway and outreach to potential private partners is in development. (5) Pilots IoT and advanced wireless will be developed in FY20 with scheduled deployment in FY21-22. (6) Purple Line utility relocation is underway in FY20, with fiber to be constructed in FY21, but is dependent on the Purple Line and third-party construction schedules.

## **COST CHANGE**

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

## **PROJECT JUSTIFICATION**

ultraMontgomery is a broadband economic development program, designed to ensure that businesses in Montgomery have as much reliable, secure, and robust broadband service as they need to keep our economy moving at the speed of our ideas. ultraMontgomery supports infrastructure development and public private partnerships: to facilitate access to competitive broadband services in commercial buildings through strategic conduit network deployment and leasing of spare County fiber and conduit; and to facilitate access to the digital economy for underserved communities. ultraMontgomery supports business growth and innovation through network connectivity and partnerships, pilot projects for advanced wireless broadband, and cybersecurity innovation to keep wireless networks secure, with a specific focus on federal, state, research and higher education institutions, financial services, biotech/biohealth, IT services, media and similar high-bandwidth consuming companies.

## **COORDINATION**

FiberNet (P509651); Purple Line Department of Transportation; Maryland-National Capital Park and Planning Commission; Montgomery College; WSSC; Information Technology Policy Coordination Committee; and Montgomery County Economic Development Corporation.