

Montgomery County *Department of Transportation*

Bethesda Unified Mobility Program (BUMP)

Bethesda TMD Advisory Committee
July 19, 2019

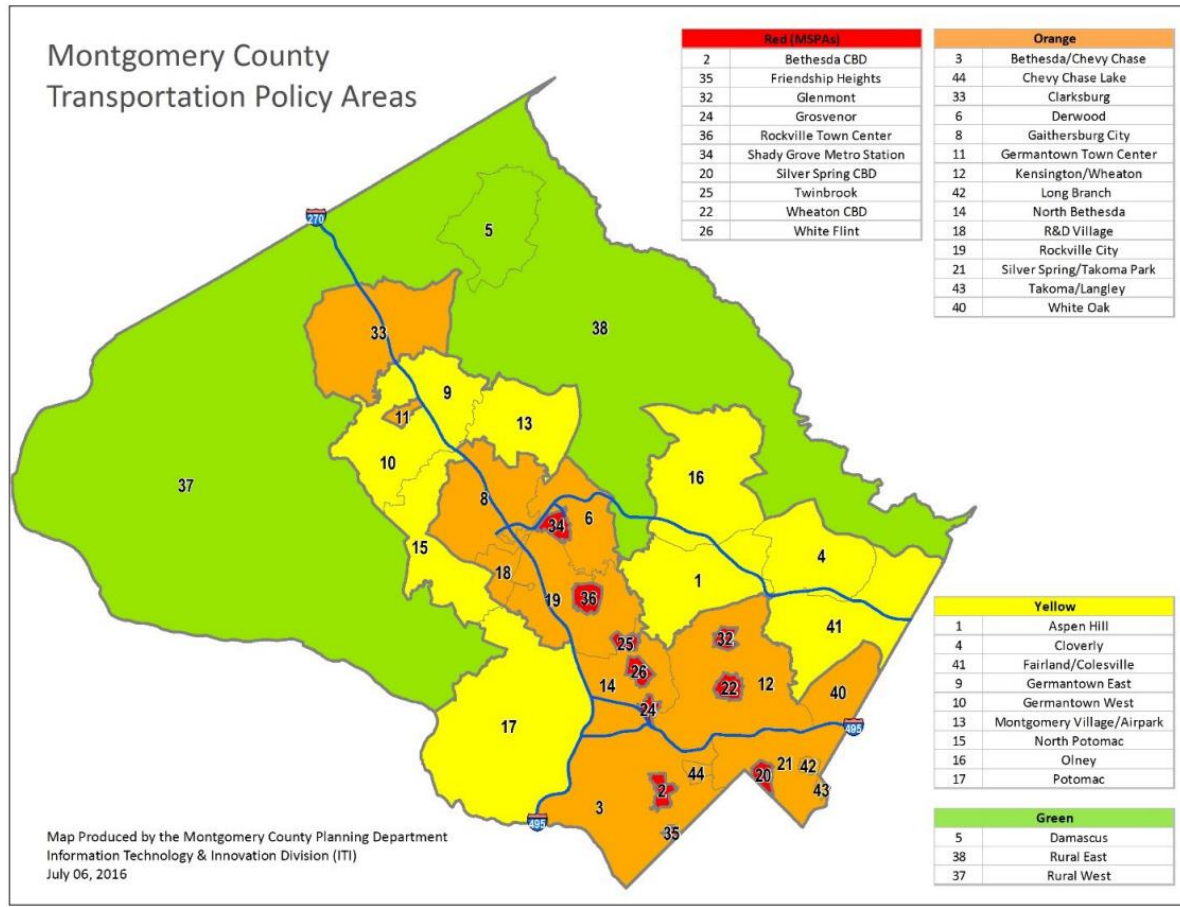
What is BUMP?

- A per-unit fee paid by new development
- Identification of necessary transportation infrastructure for...
 - SSP adequacy
 - A successful master plan
- Estimating costs for this infrastructure
- Dividing these costs equitably across future development
 - Assumes 100% build-out
- Stays local; goes into a lockbox specifically for that UMP
- Handled like Impact Tax

$$\frac{\text{Cost (\$\$\$)}}{\div \text{Traffic Generated (Trips)}} = \text{Fee (\$/trip)}$$

White Oak → $\frac{\$101,800,000}{\div 20,324 \text{ trips}} = \$5010 / \text{trip}$

Where does BUMP come from?



- Part of the SSP for Red Policy Areas
- Included in the Bethesda Downtown Plan
- Modeled after the White Oak LATIP

<https://www.montgomerycountymd.gov/dot-dir/Resources/Files/LATR-WhitePaper.pdf>

Why?

- **Coordination**
- Transparency
- Equity
- Time & Fiscal Savings

Coordination

Typically:

Developments do their own things relatively independently of each other.

UMP:

A unified analysis to identify all treatments within a policy area.

Why?

- Coordination
- **Transparency**
- Equity
- Time & Fiscal Savings

Transparency

Typically:

Each project goes before Planning Board, and each may have its own set of transportation projects. Can be difficult for people to monitor multiple development projects.

UMP:

People only have to pay primary attention to the UMP to get an understanding of what major changes can be expected.

Why?

- Coordination
- Transparency
- **Equity**
- Time & Fiscal Savings

Equity

Faster (and often larger & more organized) developments use available capacity, with few mitigation needs.

Later developments tend to be left with mitigation needs. These developments tend to be smaller, and the mitigation may give disproportionate benefit outsizing their individual needs.

UMPs are intended for each developer pays for their equitable share of the cost of the improvements.

Why?

- Coordination
- Transparency
- Equity
- Time & Fiscal Savings

Time & Fiscal Savings

Typically:

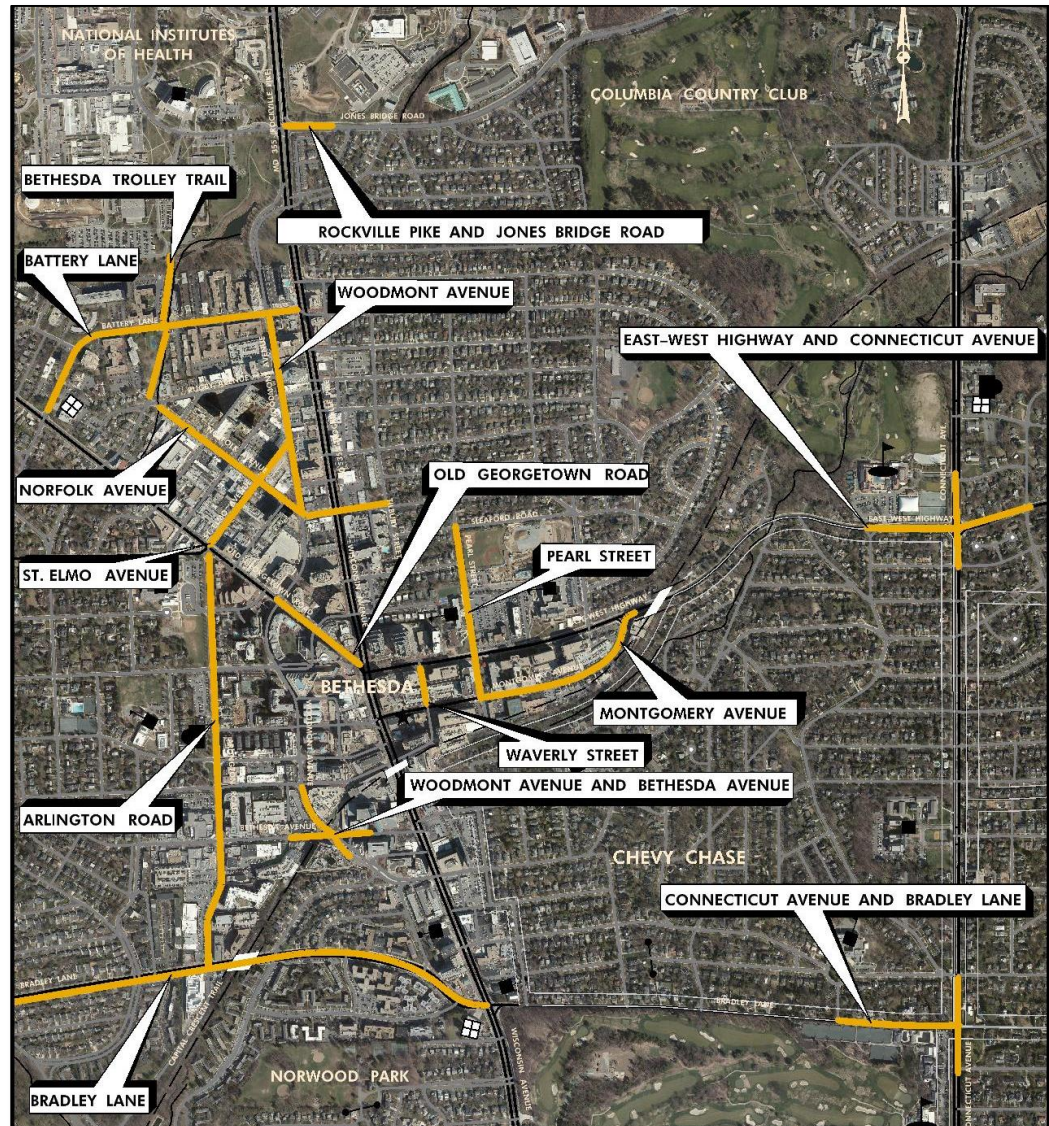
Developments must each perform sometimes significant analyses, and agencies must expend resources reviewing & negotiating on each. Many times these do not result in any action.

UMP:

A single centralized analysis with a single review process, recurring every 6 years.

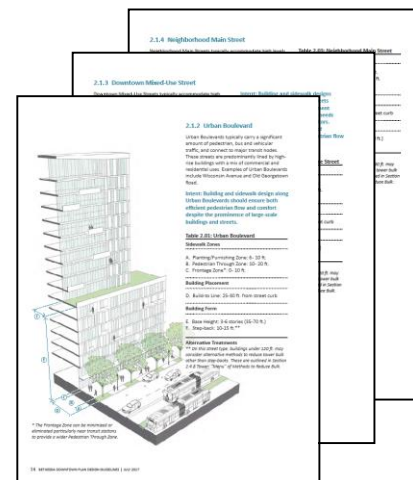
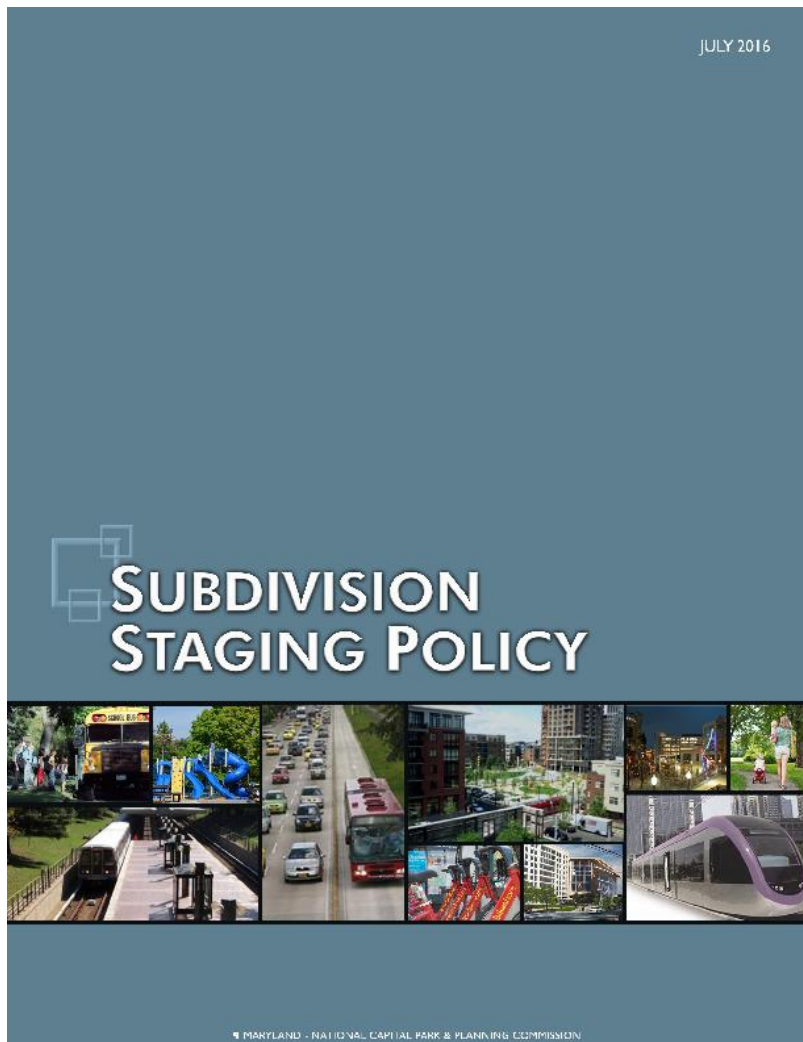
What's in the BUMP?

- Intersections
- ADA Upgrades
- Bikeways
- Transit



How were these projects identified?

- Master Plan CIP
- Master Plan Goals
- Transportation Analysis



Project	Project Description	Project Status	Project Value
1	Project 1 Description	Completed	\$10,000,000
2	Project 2 Description	In Progress	\$20,000,000
3	Project 3 Description	Planned	\$30,000,000
4	Project 4 Description	Completed	\$40,000,000
5	Project 5 Description	In Progress	\$50,000,000
6	Project 6 Description	Planned	\$60,000,000
7	Project 7 Description	Completed	\$70,000,000
8	Project 8 Description	In Progress	\$80,000,000
9	Project 9 Description	Planned	\$90,000,000
10	Project 10 Description	Completed	\$100,000,000

Intersections

ADA Upgrades

Bikeways

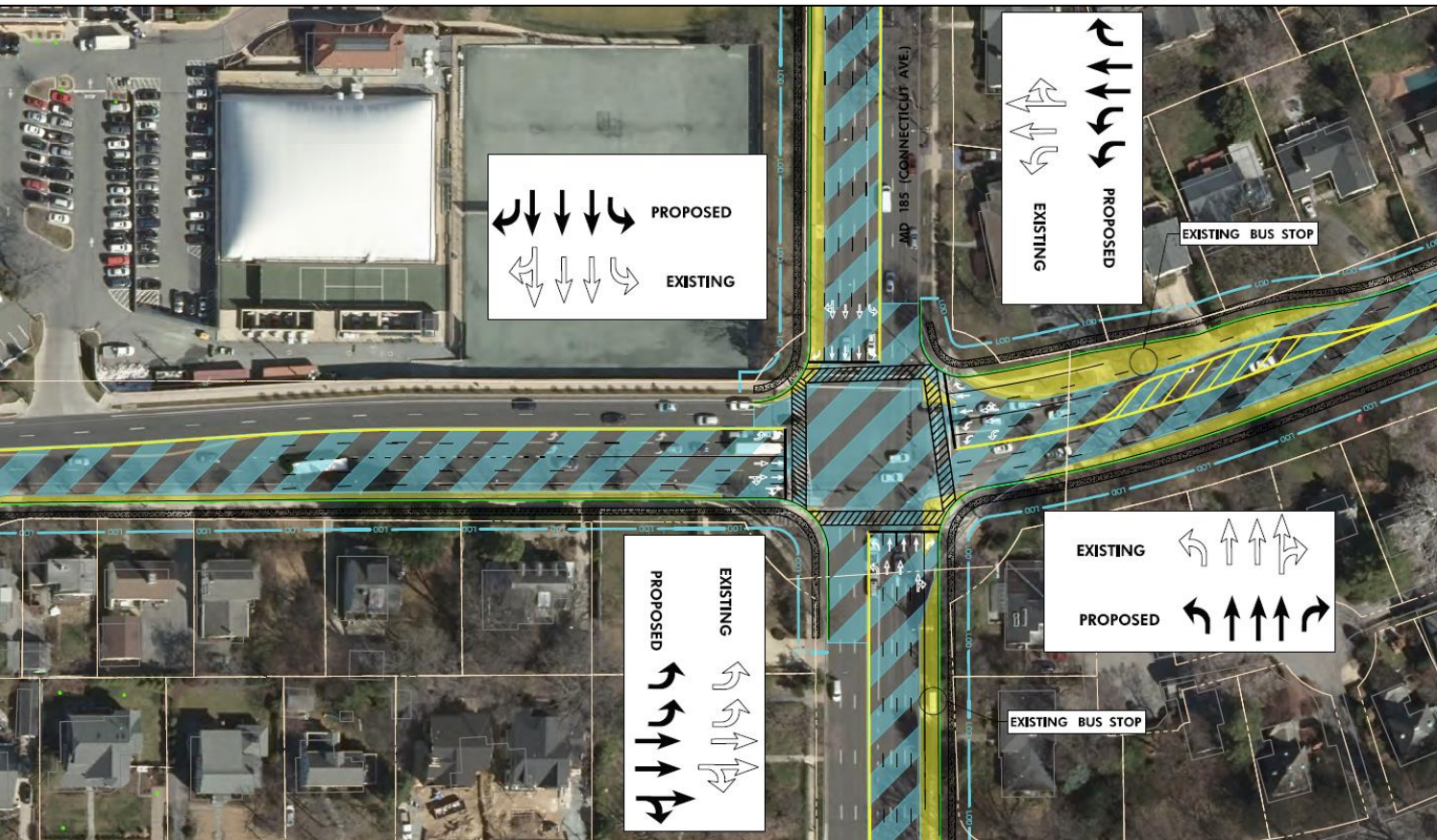
Transit

Intersections

MD 185 (Connecticut Ave) at MD 410 (East-West Hwy) **\$4,137,400**

MD 185 (Connecticut Ave) at MD 191 (Bradley Lane) **\$4,429,100**

MD 355 (Rockville Pike) at Jones Bridge Rd **\$517,700**



Delay:
78.8 s/veh

SSP Limit:
80.0 s/veh

Intersections

ADA Upgrades

Bikeways

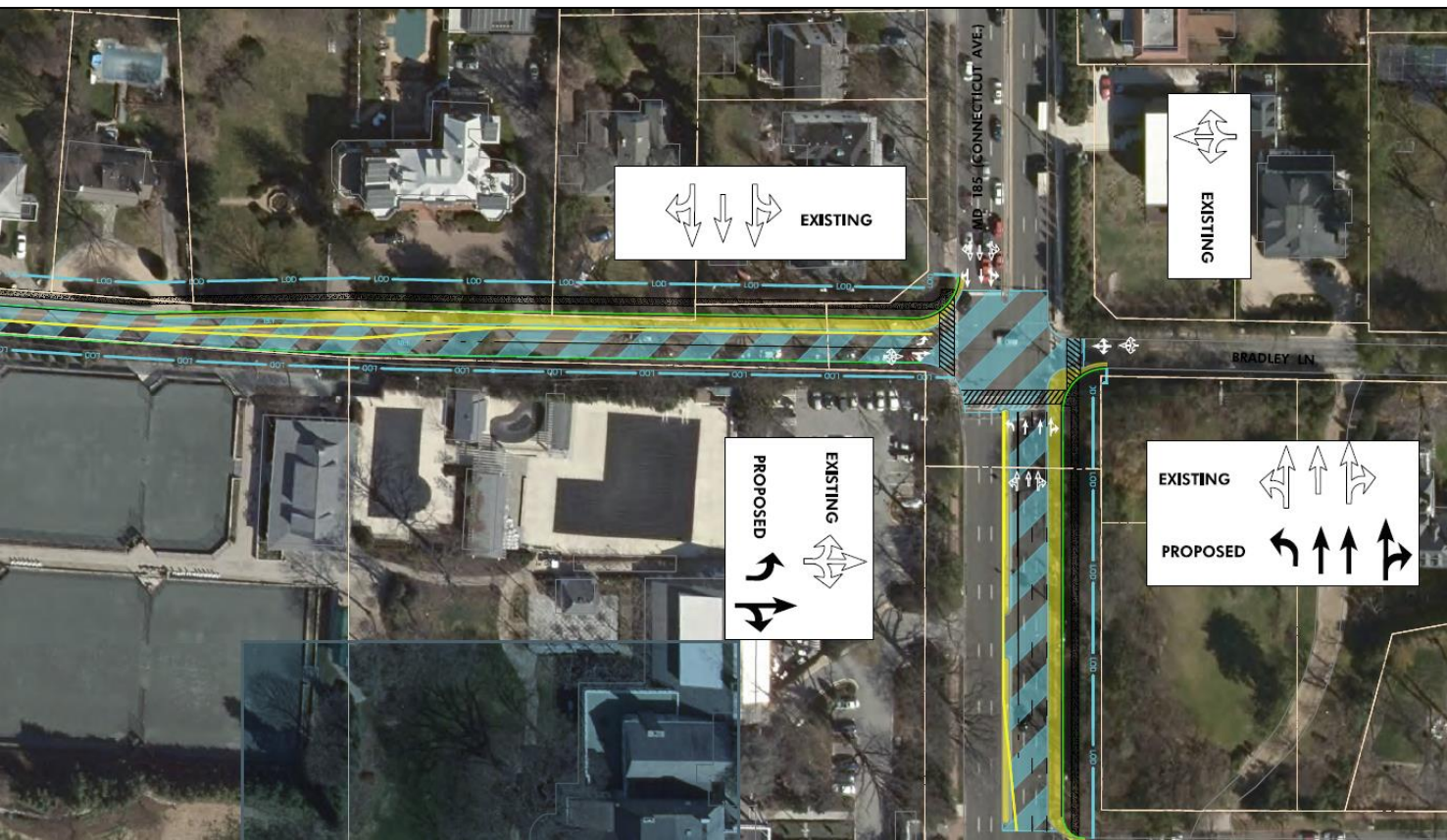
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MD 185 (Connecticut Ave) at MD 410 (East-West Hwy) **\$4,137,400**

MD 185 (Connecticut Ave) at MD 191 (Bradley Lane) \$4,429,100

MD 355 (Rockville Pike) at Jones Bridge Rd **\$517,700**



Delay:
52.9 s/veh

SSP Limit:
80.0 s/veh

Intersections

ADA Upgrades

Bikeways

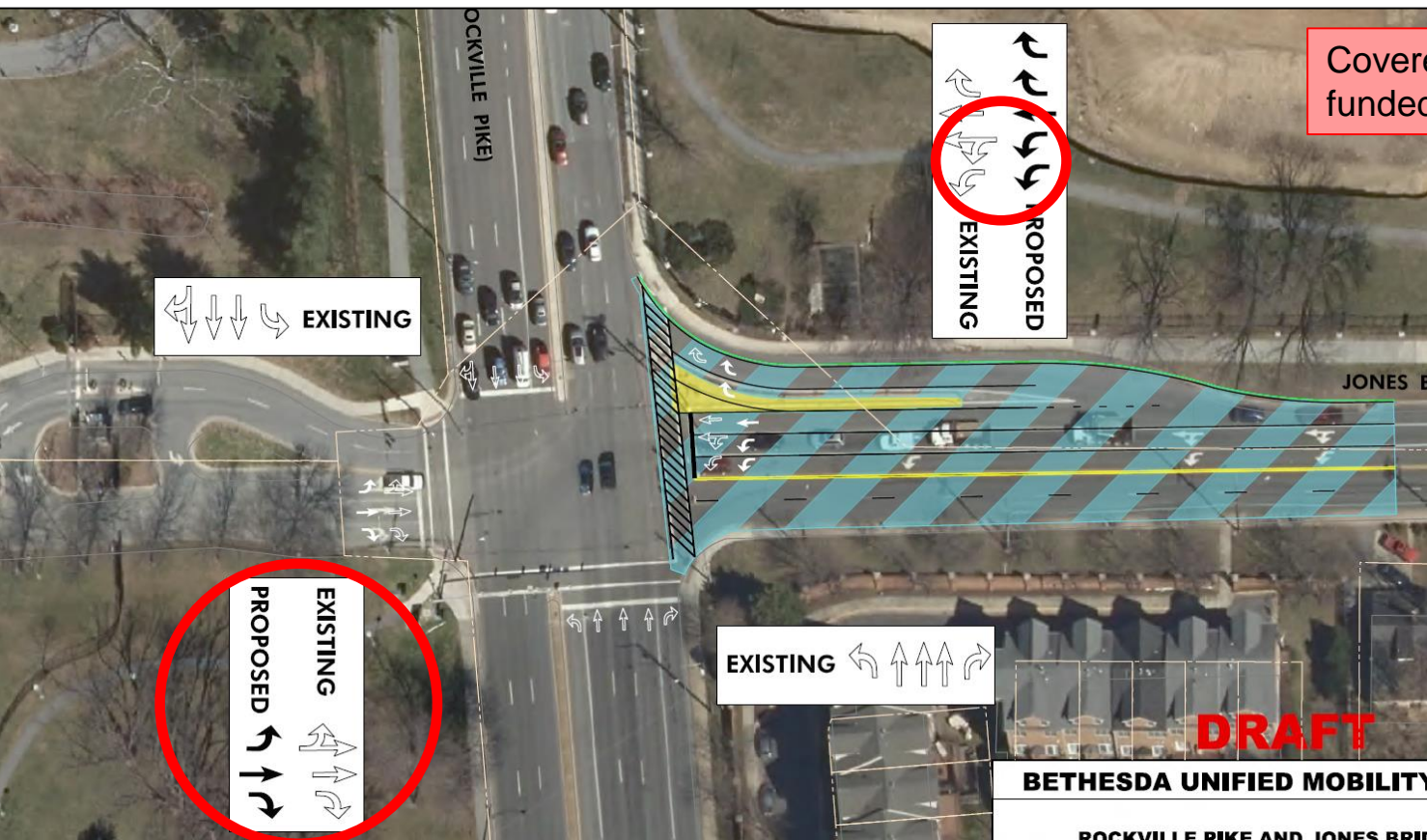
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MD 355 (Rockville Pike) at Jones Bridge Rd **\$517,700**



Covered by BRAC Tier 2,
funded by DoD

Delay:
77.5 s/veh

SSP Limit:
80.0 s/veh

Intersections

ADA Upgrades

Bikeways

Transit

ADA Upgrades

- \$14 per Linear Foot
- 55,000 Linear Feet
- \$770,000 for ADA facilities



Under consideration is whether this may be a separate fee, assessed based on how many LF of sidewalk are within 500 ft from site frontage.

Intersections
ADA Upgrades
Bikeways
Transit

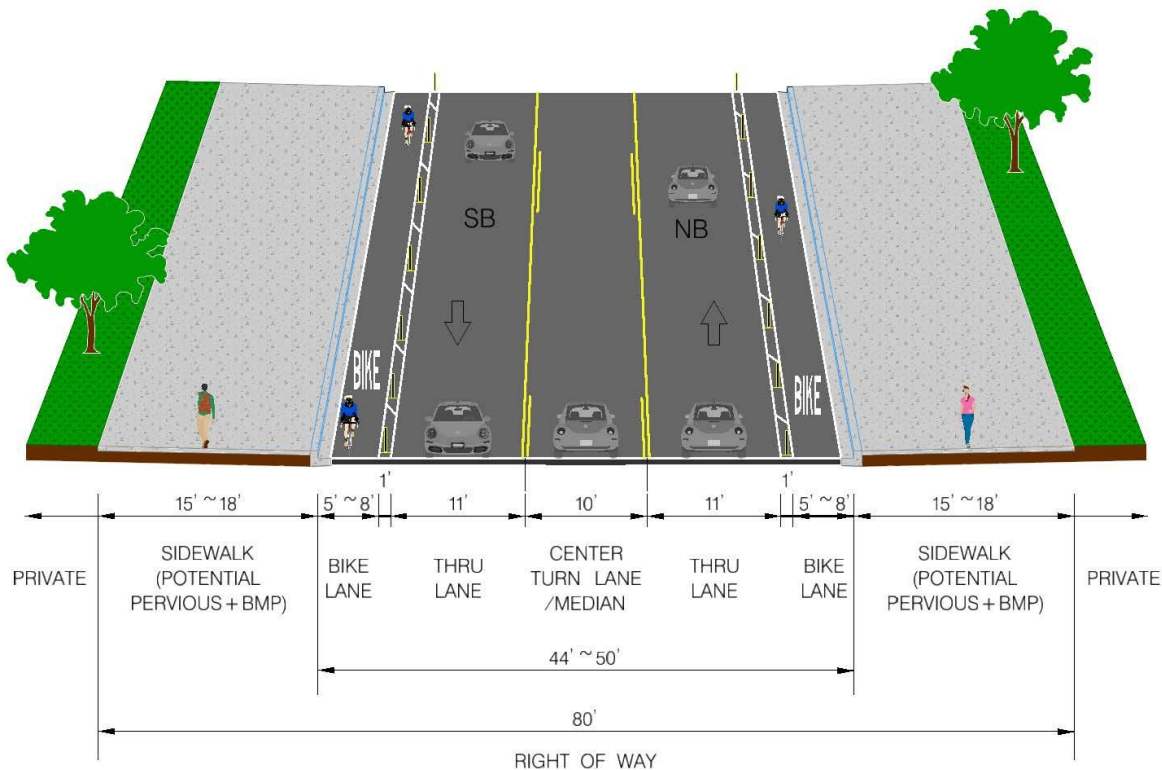
Bikeways

Arlington from Old Georgetown to Bradley	\$1,920,900
Battery from Old Georgetown to Wisconsin	\$441,300
Bethesda / Willow from Woodmont to 47 th	\$1,449,000
Bradley / Capital Crescent Trail Connection	\$2,307,800
Bradley from Glenbrook to Wisconsin	\$5,694,200
Montgomery from Woodmont to East-West	\$1,242,000
Norfolk / Cheltenham from Battery to Tilbury	\$4,500,100
North Bethesda Trail between Rugby and NIH	\$2,029,400
Old Georgetown from Woodmont to Wisconsin	\$220,800
Pearl from Montgomery to Sleaford	\$3,002,200
St Elmo from Wilson to Woodmont	\$262,400
Waverly from East-West to Montgomery	\$50,000
Woodmont / Bethesda Intersection	\$1,121,300
Woodmont from Battery to Wisconsin	\$2,135,900
Protected Intersections	\$3,500,000
Bike Parking (Short- & Long-Term)	\$2,379,250
Bikeshare	\$4,200,000

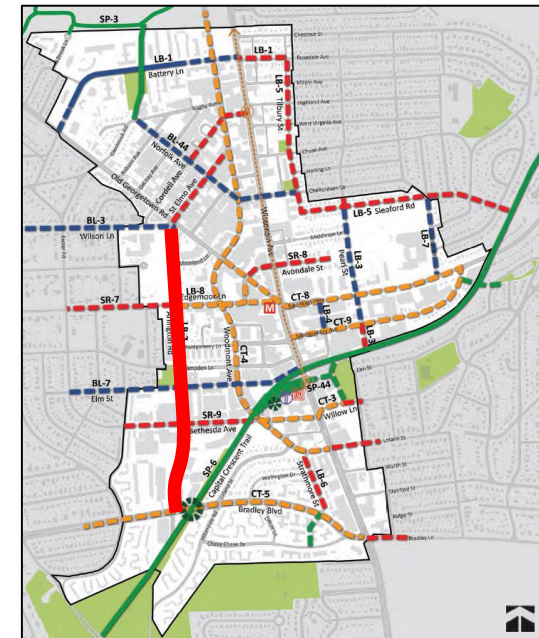


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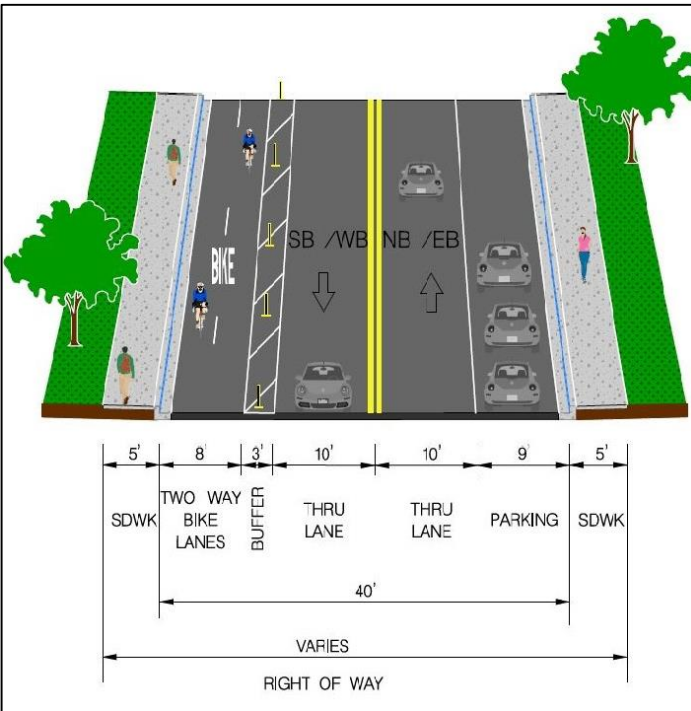


Arlington from Old Georgetown to Bradley

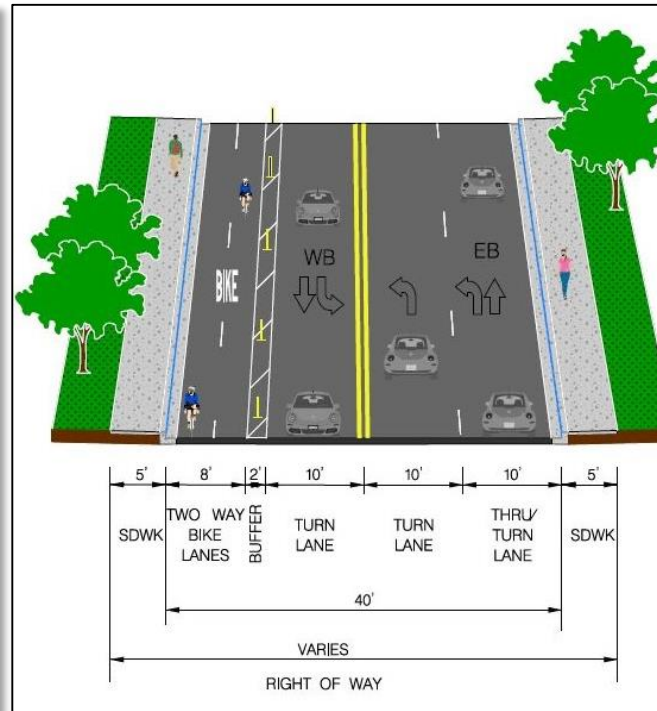
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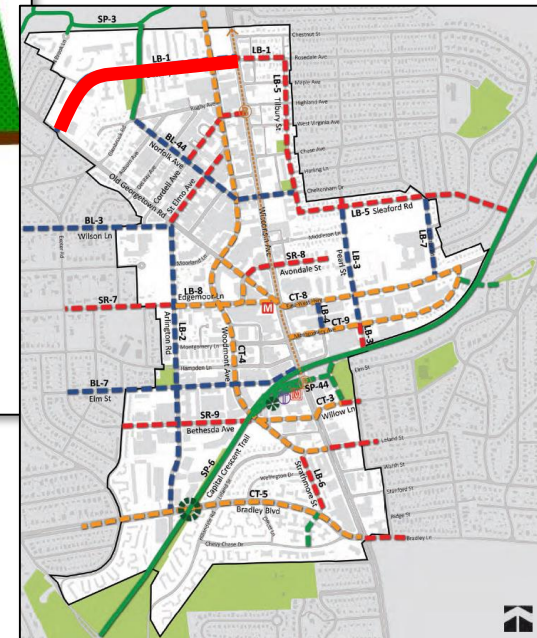


↑ Old Georgetown Rd
to Woodmont Ave↑



↑ Woodmont Ave
to Wisconsin Ave↑

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Battery from Old Georgetown to Wisconsin

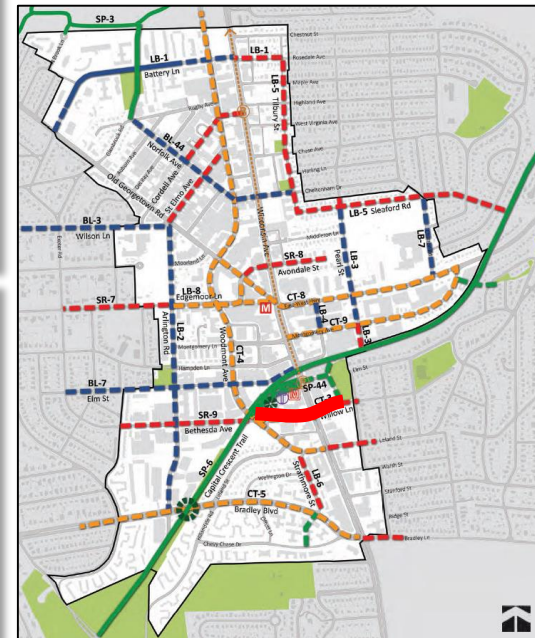
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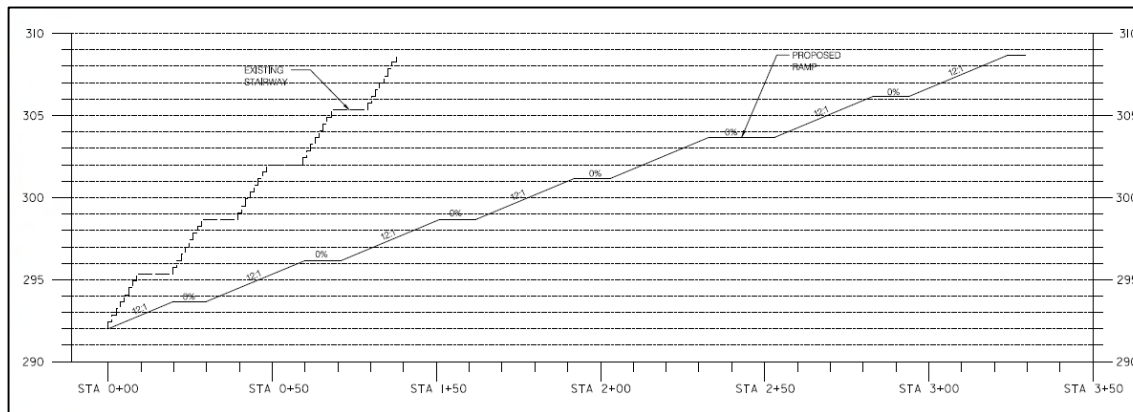


Bethesda / Willow from Woodmont to 47th **\$1,449,000**

<https://www.montgomerycountymd.gov/dot-dte/projects/bethesdabikewaypedfacilities/>

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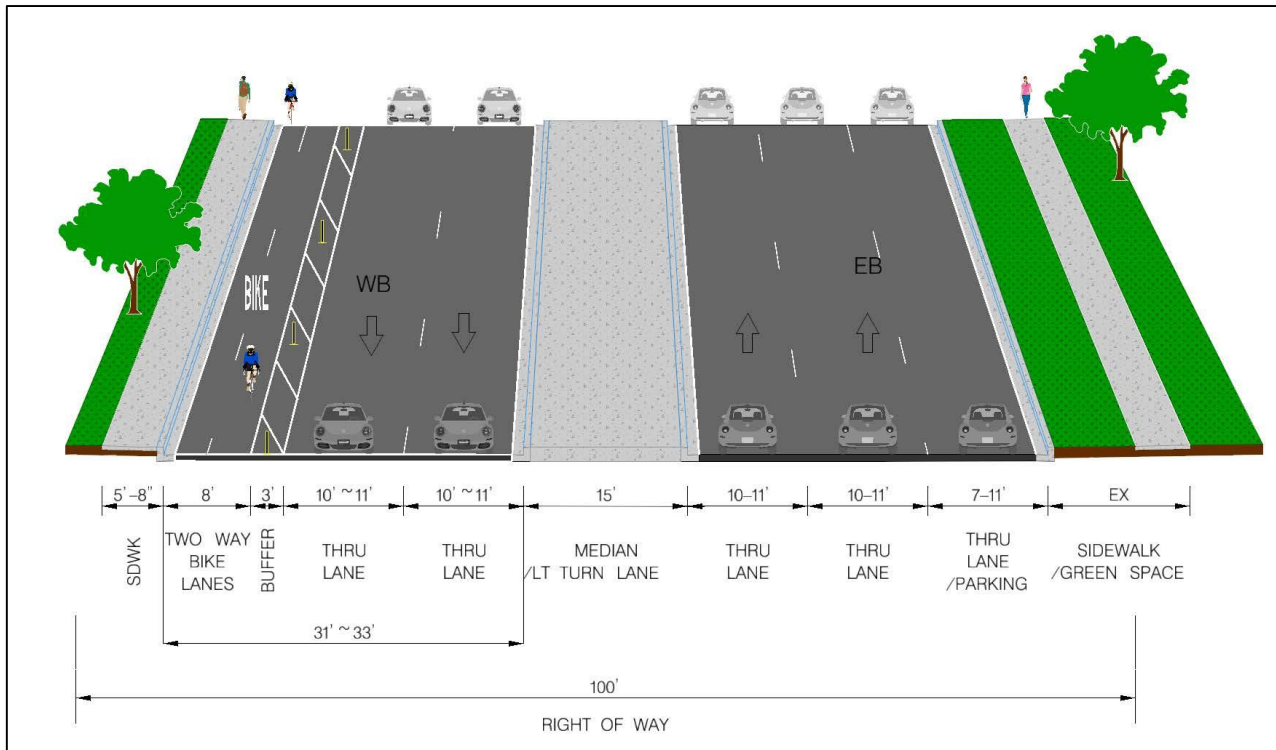


Bradley / Capital Crescent Trail Connection

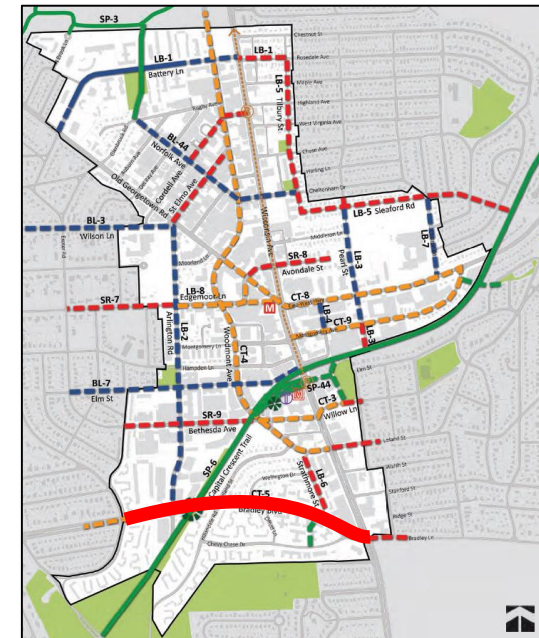
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Bradley from Glenbrook to Wisconsin

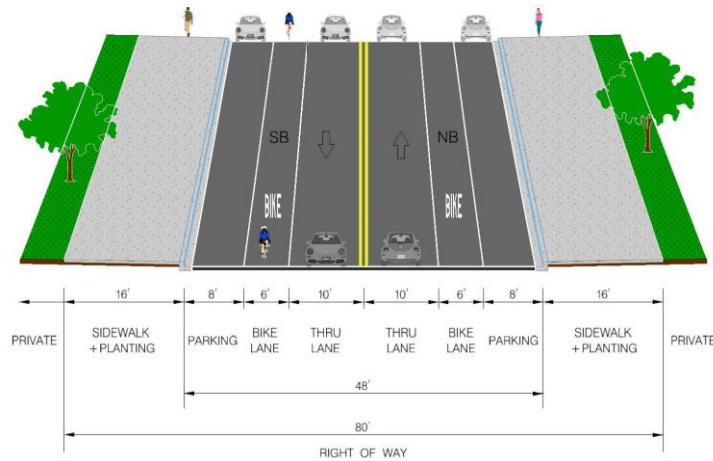
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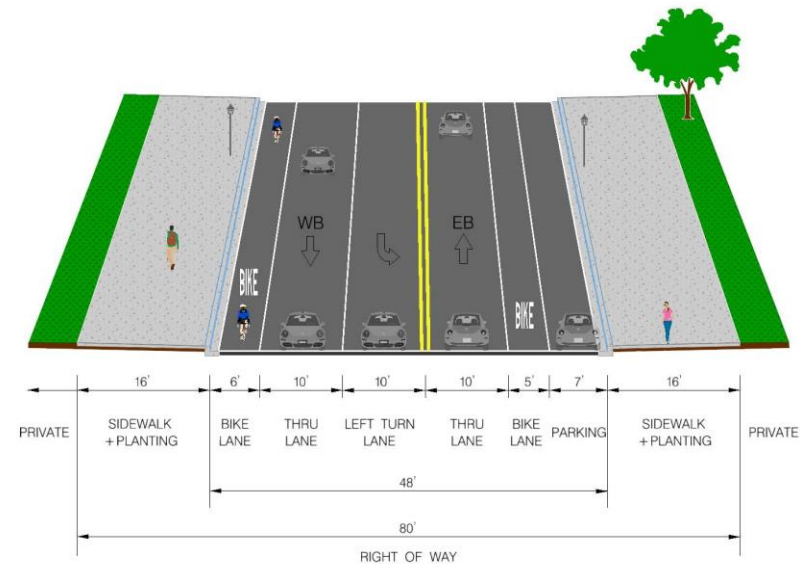
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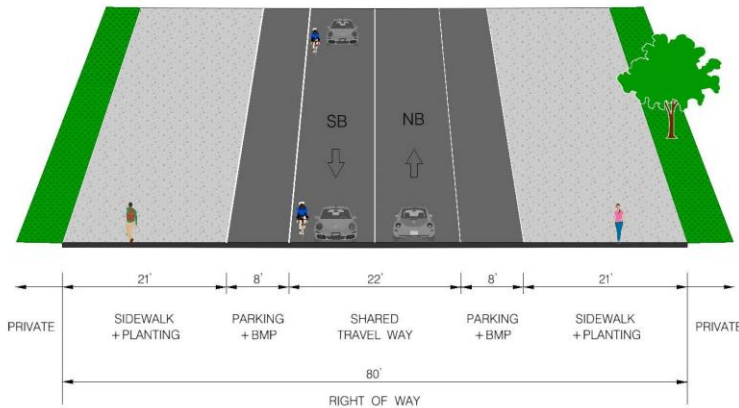
← Norfolk Short-Term



↓ Cheltenham Short-Term ↓



← Norfolk Long-Term

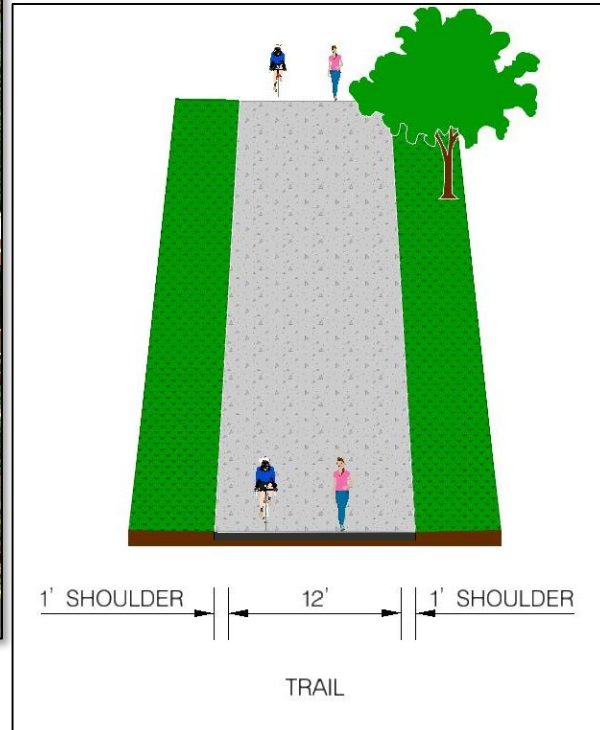
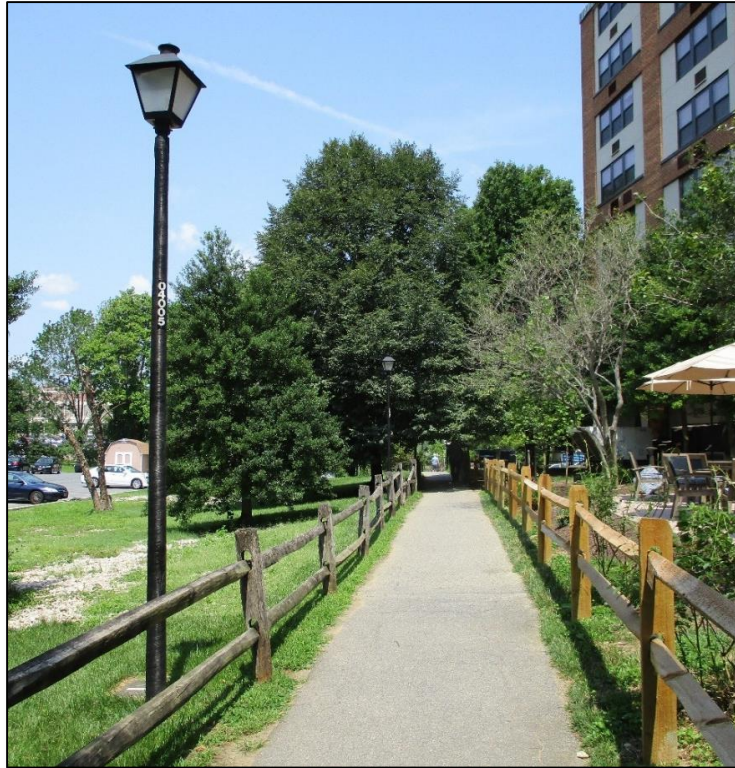


Norfolk / Cheltenham from Battery Lane Urban Park to Tilbury

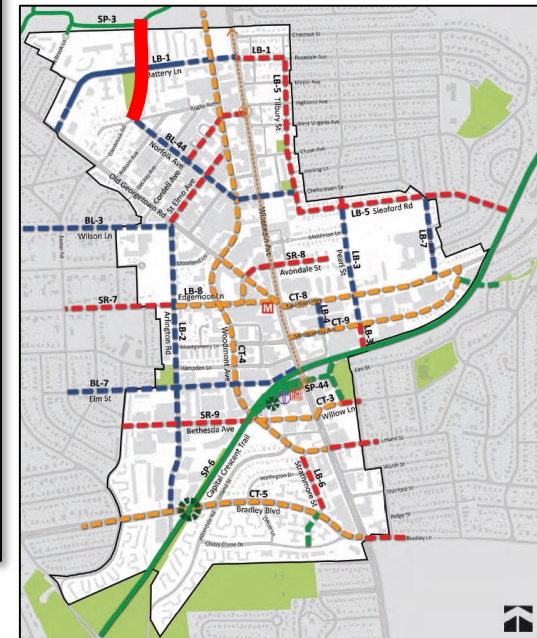
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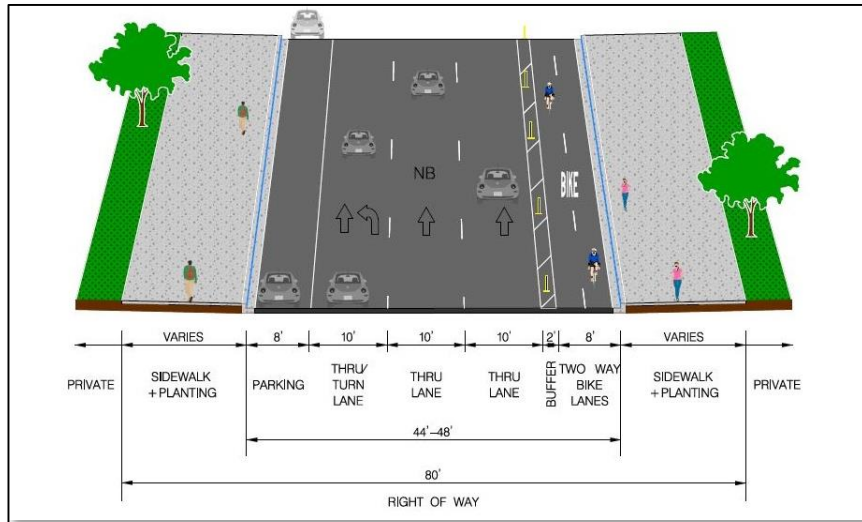


North Bethesda Trail between Rugby and NIH

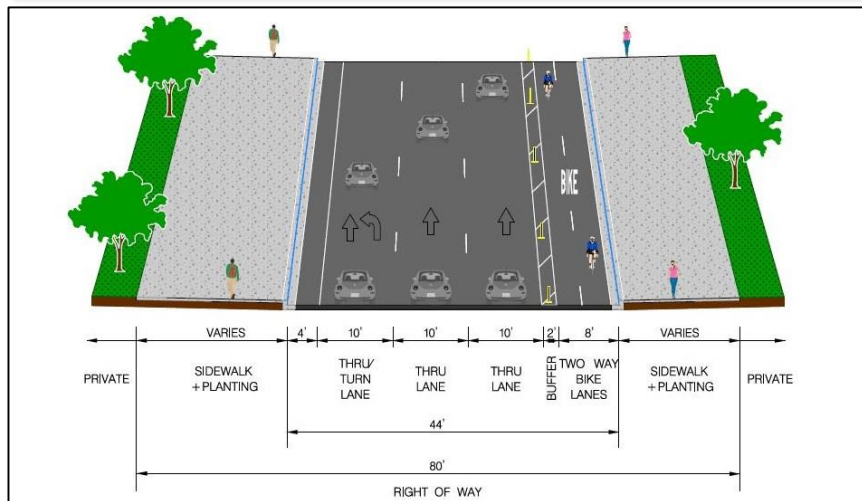
\$2,029,400

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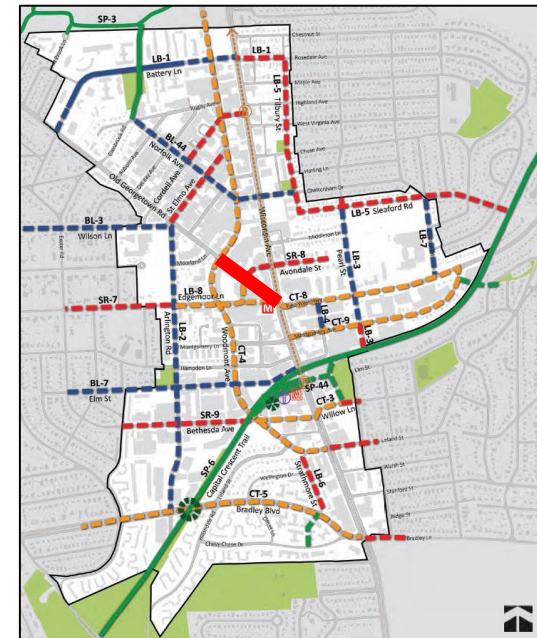


← Woodmont Ave
to Commerce Lane



← Commerce Lane
to Wisconsin Ave

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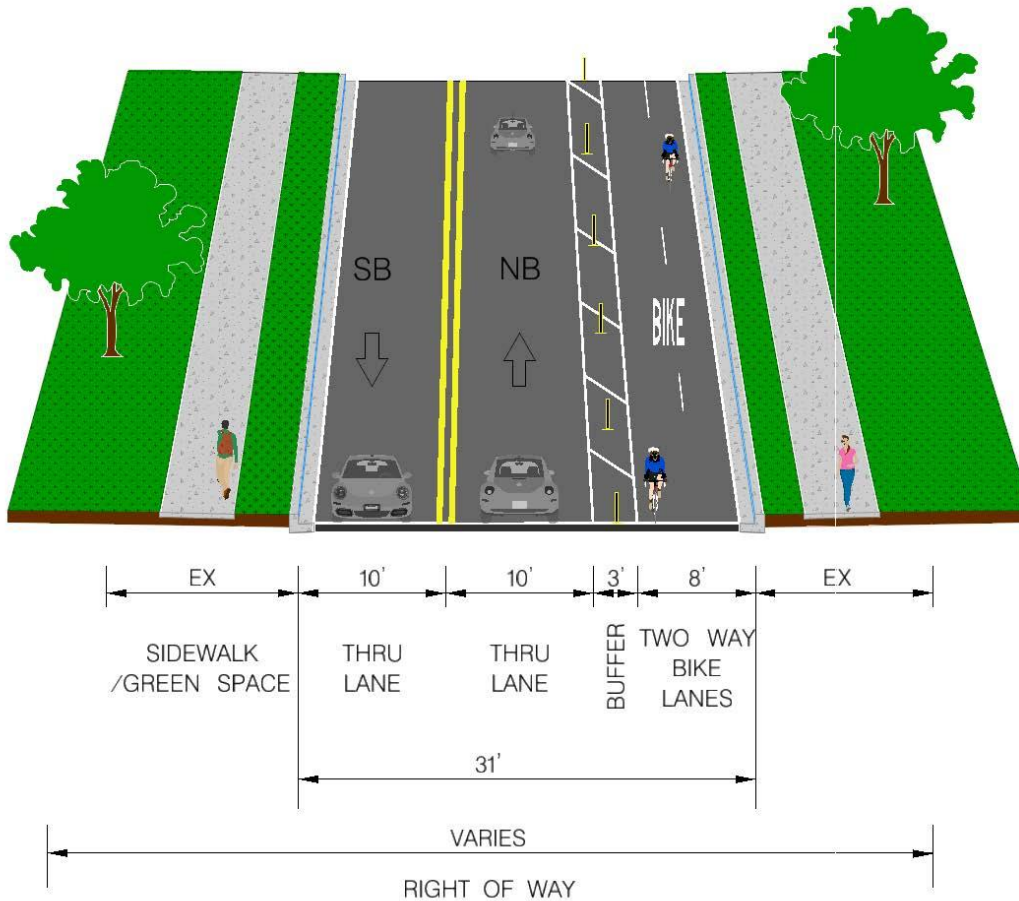


Old Georgetown from Woodmont to Wisconsin

\$220,800

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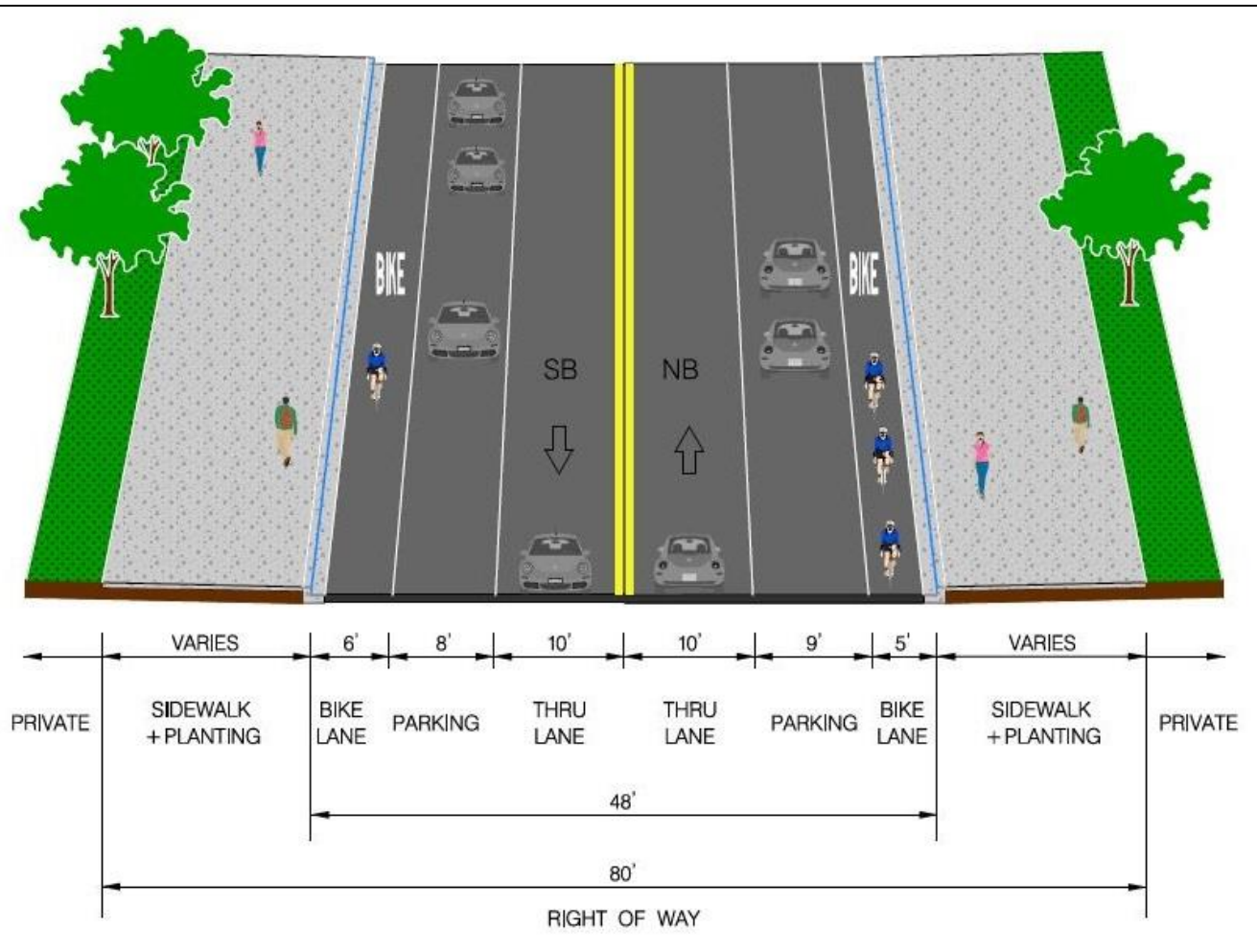


Pearl St from Montgomery to Sleaford

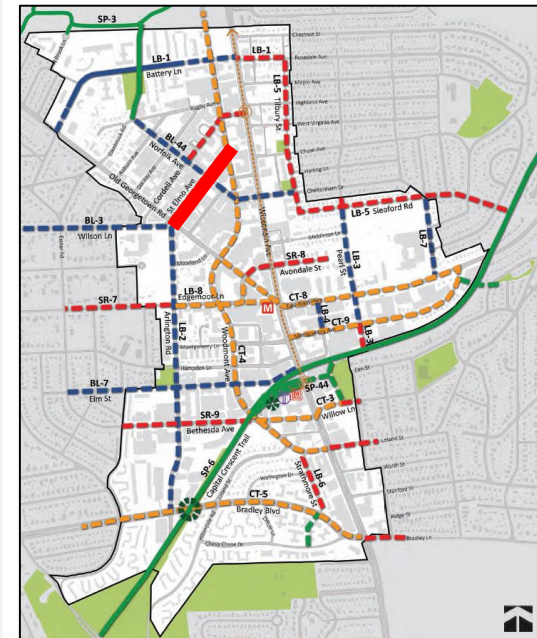
\$3,002,200

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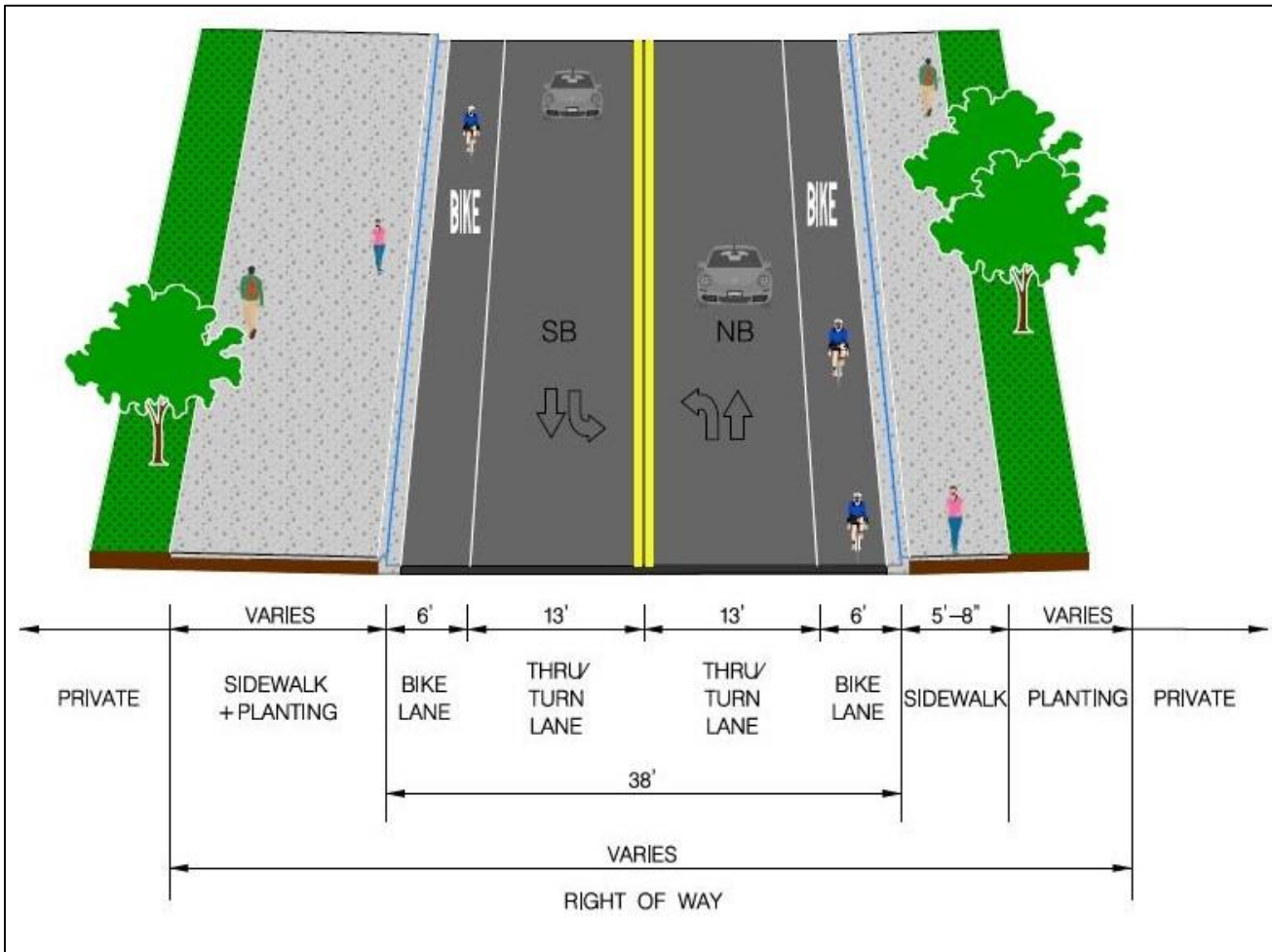


St Elmo Avenue from Wilson Lane to Woodmont Ave

\$262,400

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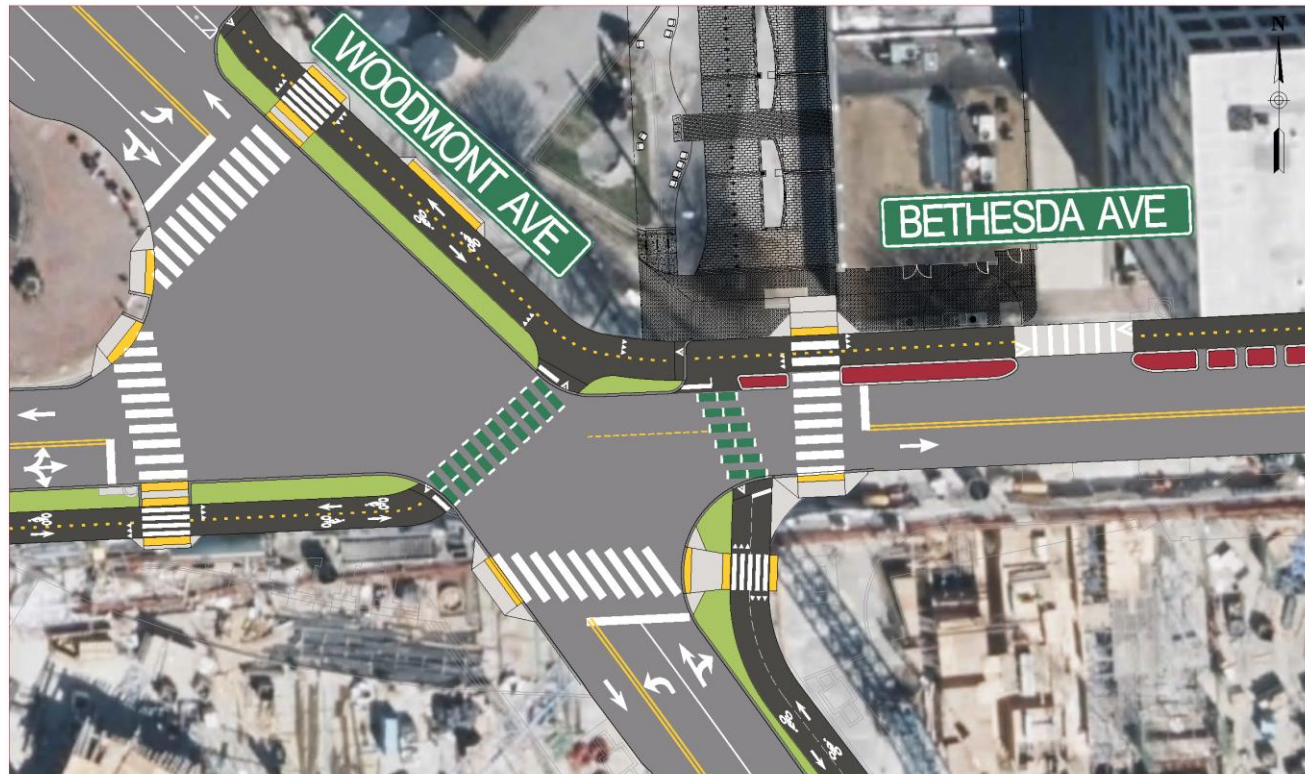


Waverly from East-West to Montgomery

\$50,000

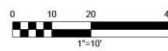
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CAPITAL CRESCENT SURFACE TRAIL
Bethesda Avenue and Woodmont Avenue

NOT FOR CONSTRUCTION



MC DOT TOOLE
DESIGN
Montgomery County Department of Transportation

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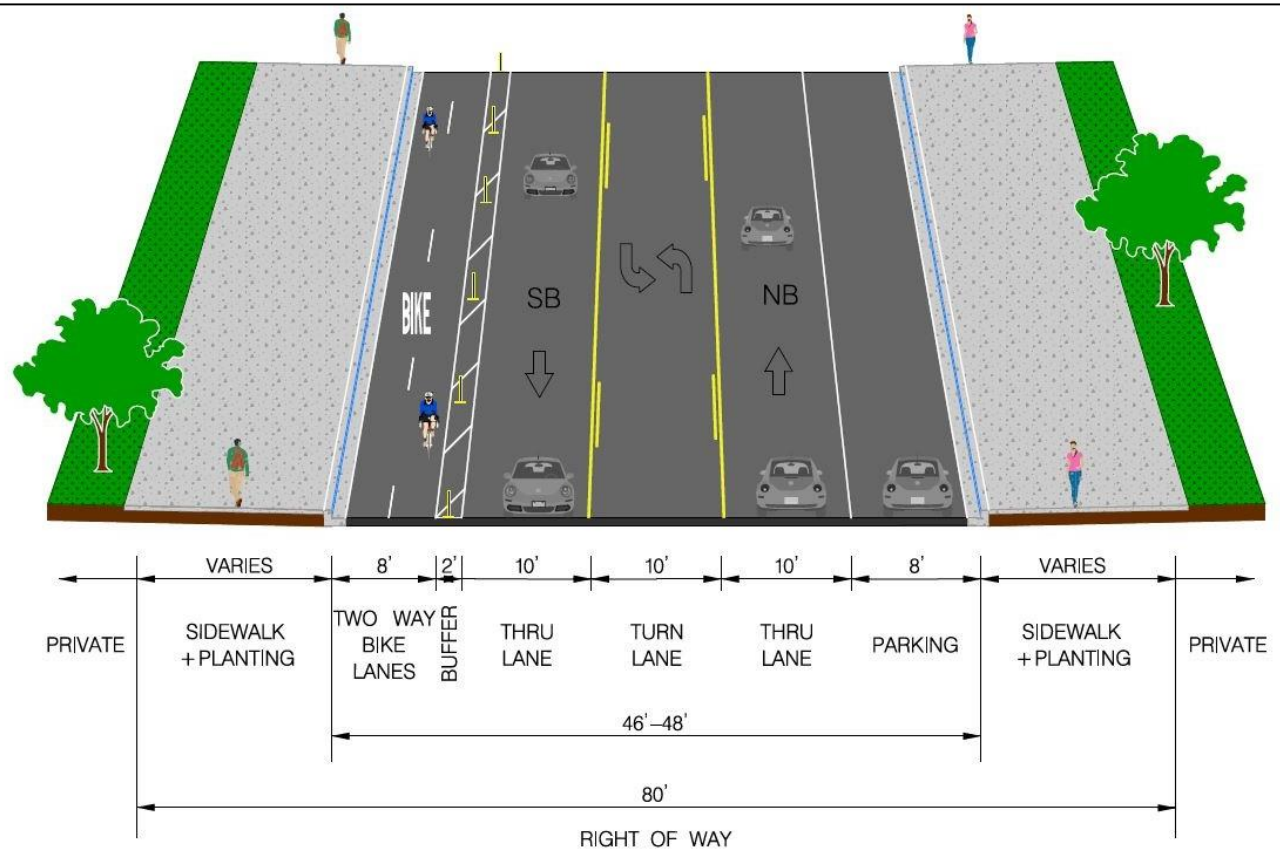
Woodmont / Bethesda Intersection **\$1,121,300**

<https://www.montgomerycountymd.gov/dot-dte/projects/bethesdabikewaypedfacilities/>

MC DOT
Montgomery County Department of Transportation

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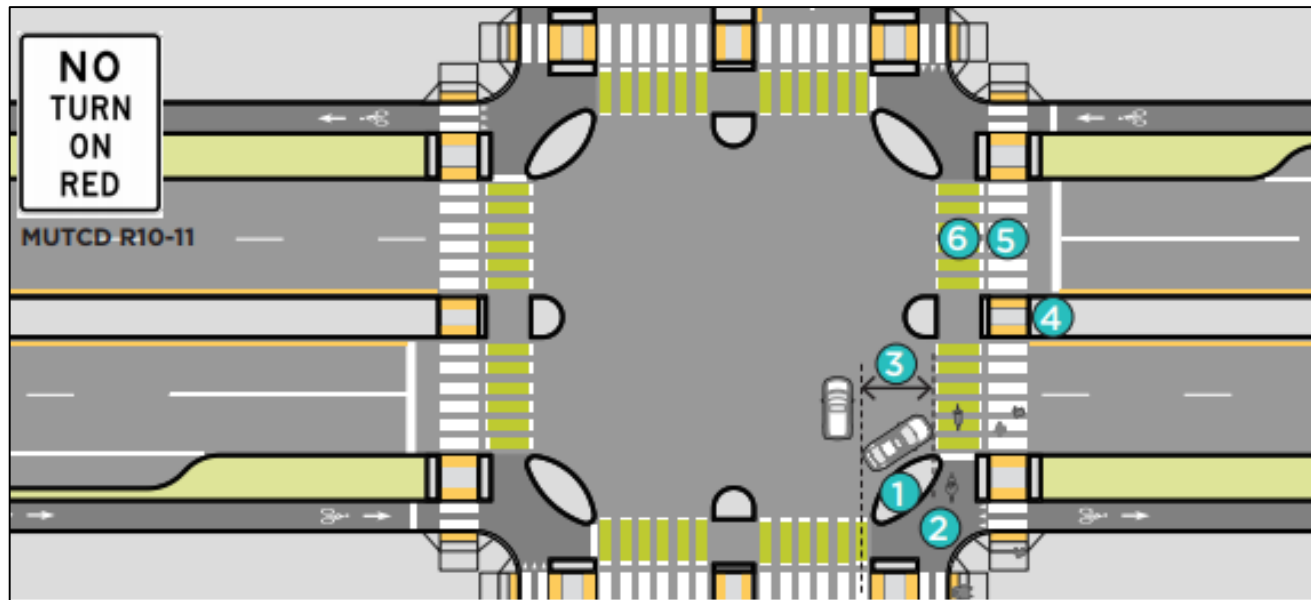
Woodmont from Battery to Wisconsin

\$2,135,900

Intersections
ADA Upgrades
Bikeways
Transit

Bikeways

Arlington from Old Georgetown to Bradley	\$1,920,900
Battery from Old Georgetown to Wisconsin	\$441,300
Bethesda / Willow from Woodmont to 47 th	\$1,449,000
Bradley / Capital Crescent Trail Connection	\$2,307,800
Bradley from Glenbrook to Wisconsin	\$5,694,200
Montgomery from Woodmont to East-West	\$1,242,000
Norfolk / Cheltenham from Battery Lane Urban Park to Tilbury	\$4,500,100
North Bethesda Trail between Rugby and NIH	\$2,029,400
Old Georgetown from Woodmont to Wisconsin	\$220,800
Pearl from Montgomery to Sleaford	\$3,002,200
St. Elmo Avenue from Wilson Lane to Woodmont Ave	\$262,400
Waverly from East-West to Montgomery	\$50,000
Woodmont / Bethesda Intersection	\$1,121,300
Woodmont from Battery to Wisconsin	\$2,135,900



Protected Intersections (x7)

\$3,500,000

Intersections
ADA Upgrades
Bikeways
Transit

Bikeways



Arlington from Old Georgetown to Bradley	\$1,920,900
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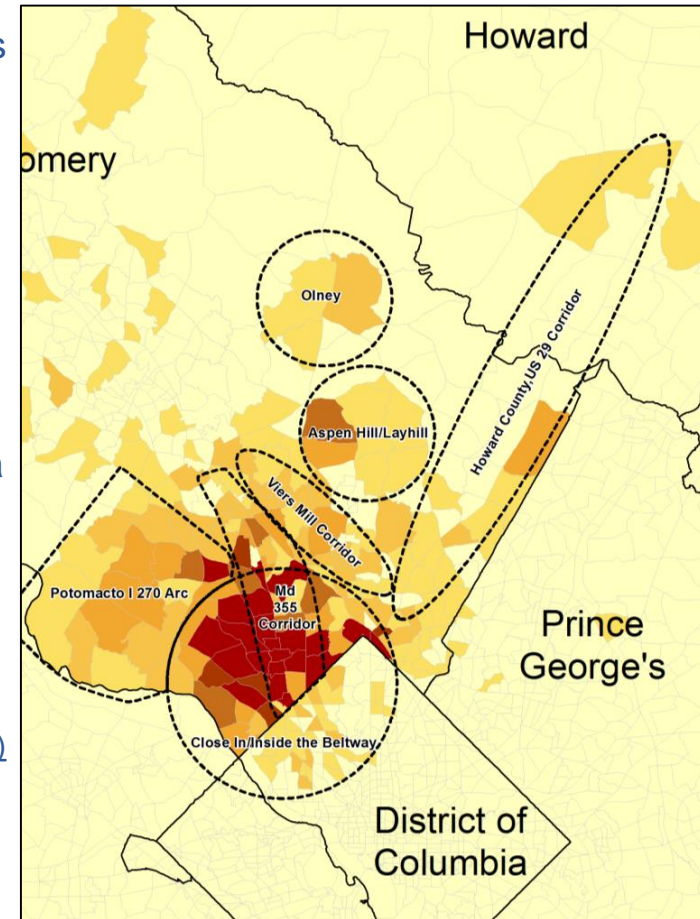


Short- and Long-Term Bike Parking

\$2,379,250

Transit

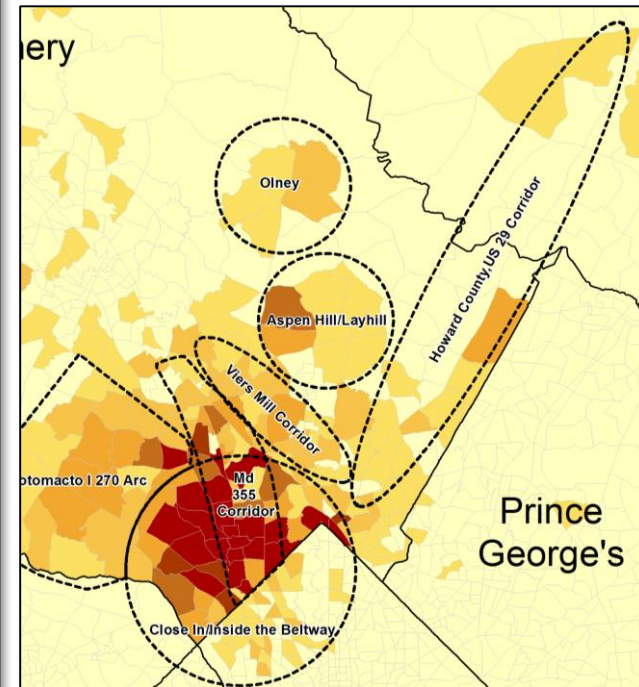
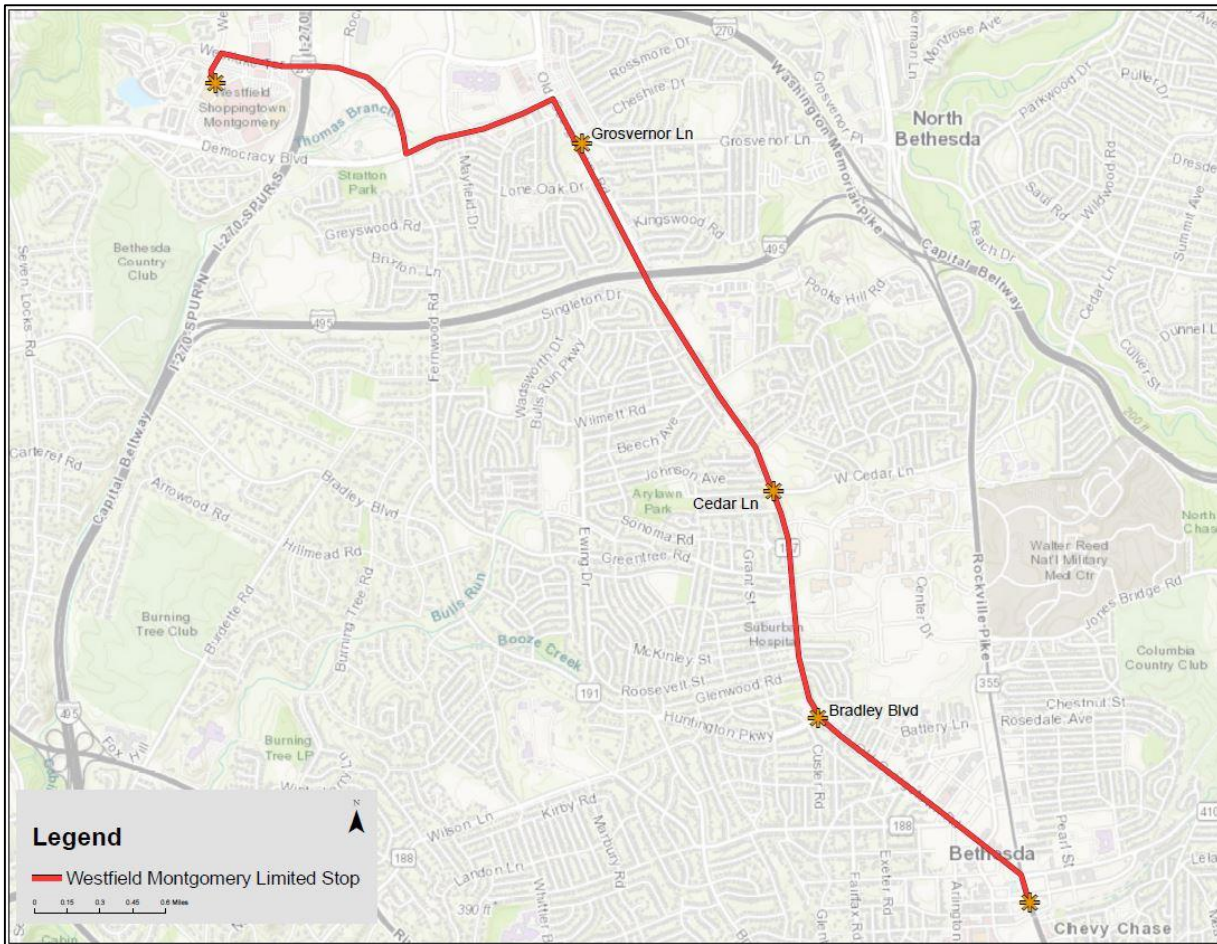
- Need to achieve a 55% NADMS goal, providing for +3,058 transit trips
- 1,839 Rock Spring Park & Ride and Express Service
- 1,536 Greater Bethesda Micro-Transit
- 869* MD 355 FLASH service
- 747 Layhill/Wheaton Express to White Flint Red Line
- 530 Extend Metrobus 30 Routes from Friendship Hghts to Bethesda
- 342 Howard County via US 29 FLASH Service to Purple Line
- 264 Other Ride-On Improvements (29, 30, 32, 34, 36, 47)
- 200 Olney / Aspen Hill Express to Shady Grove Red Line
- 0 Bethesda Circulator Extension (already included in background NADMS)
- 6,327 Total from New Transit Strategies
- Full implementation could achieve 62% NADMS



* based on an evaluation of extending extRa service

Transit

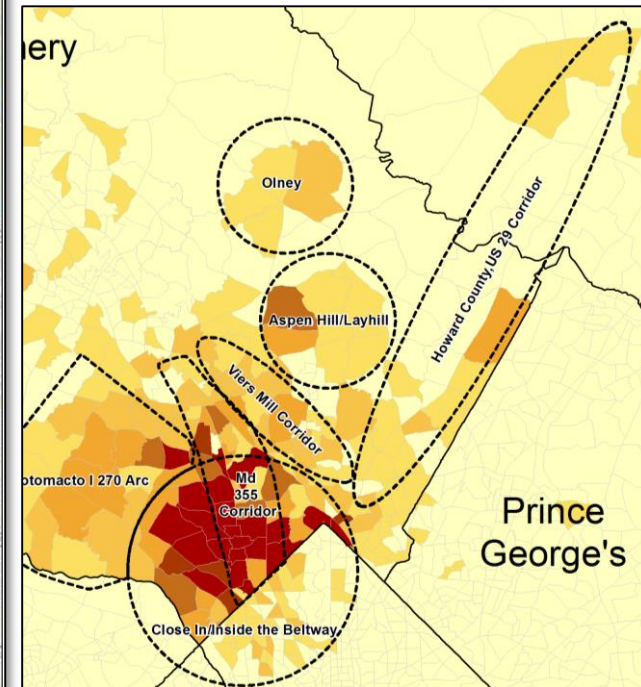
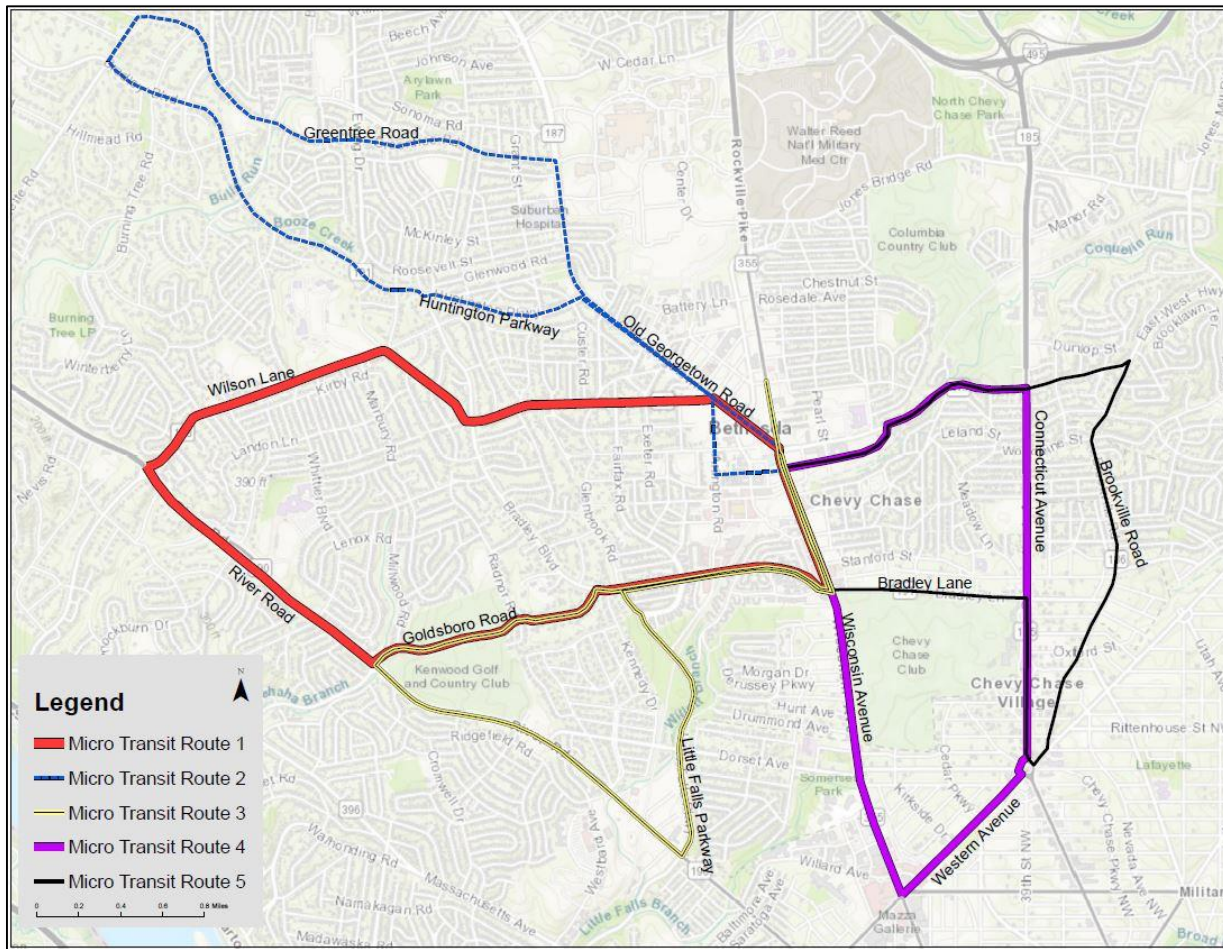
Rock Spring Park & Ride and Express Service	1,839
Greater Bethesda Micro-Transit	1,536
MD 355 FLASH service	869
Layhill/Wheaton Express to White Flint Red Line	747
Extend Metrobus 30 Routes from Friendship Hgts to Bethesda	530
Howard County via US 29 FLASH Service to Purple Line	342
Other Ride-On Improvements (29, 30, 32, 34, 36, 47)	264
Olney / Aspen Hill Express to Shady Grove Red Line	200



Rock Spring Park & Ride and Express Service 1,839

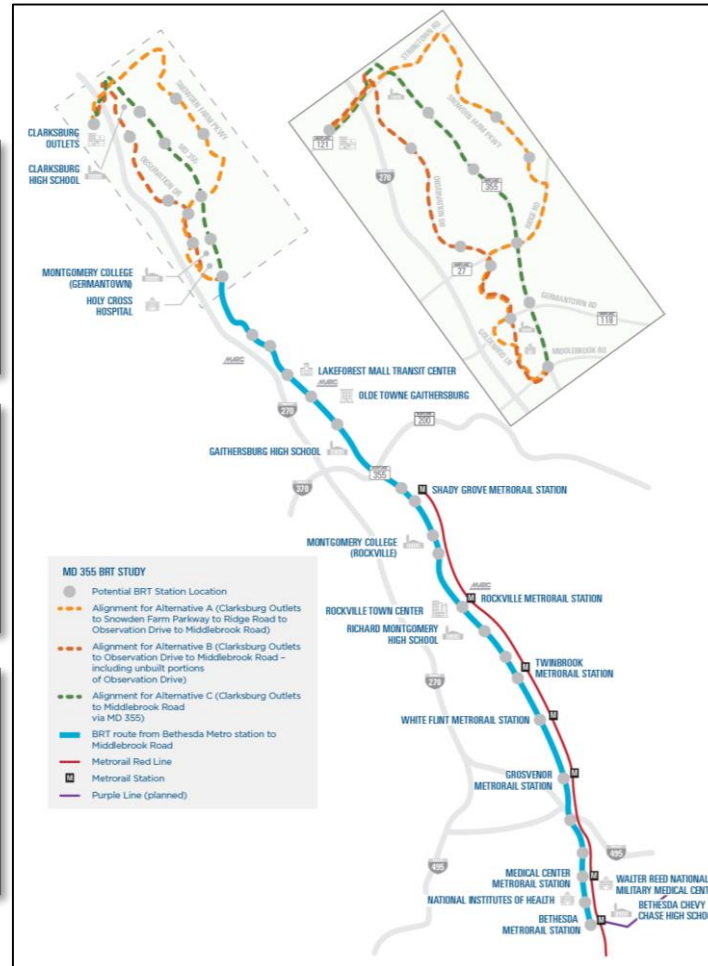
Transit

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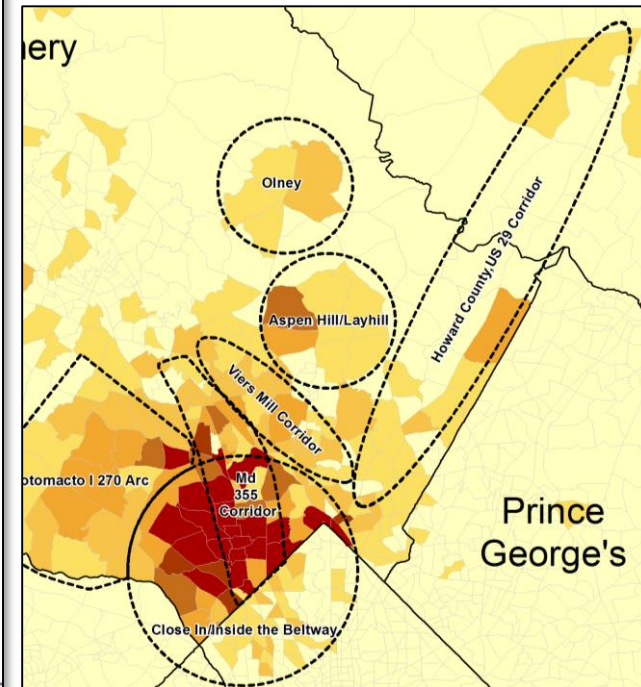


Transit

<https://www.ridetheflash.com/>



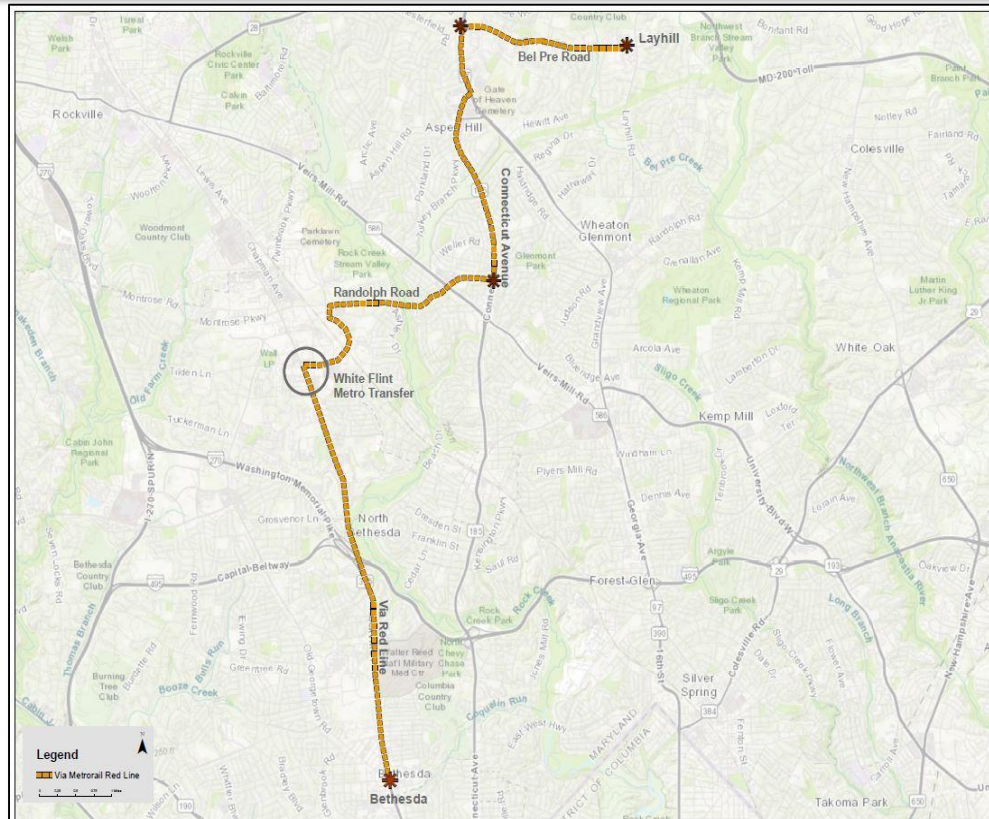
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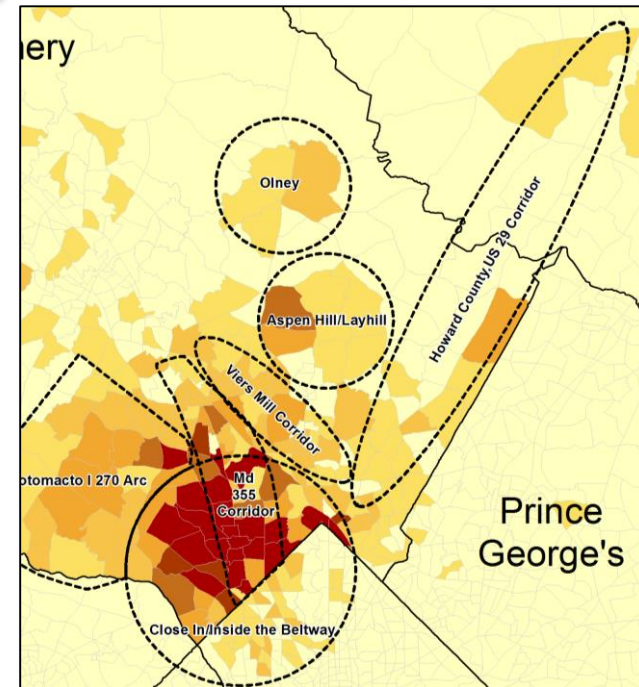
MD 355 FLASH Service 869

Transit

Route Pattern	One Way Bus Travel Time	Time on Rail	Transfer Time (bus to rail)	Bus Dwell Time at each Park and Ride	Total Time
Layhill – White Flint Station – Dwntrn Bethesda	30	11	5	5 (10 min total)	56



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Greater Bethesda Micro-Transit	1,536
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Layhill/Wheaton Express to White Flint Red Line	747
Extend Metrobus 30 Routes from Friendship Hgts to Bethesda	530
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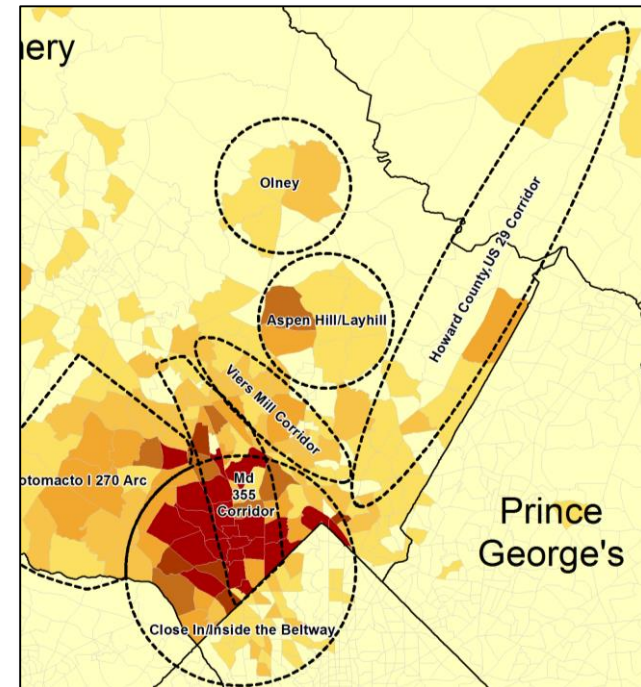


Layhill/Wheaton Express to White Flint Red Line 747

Transit



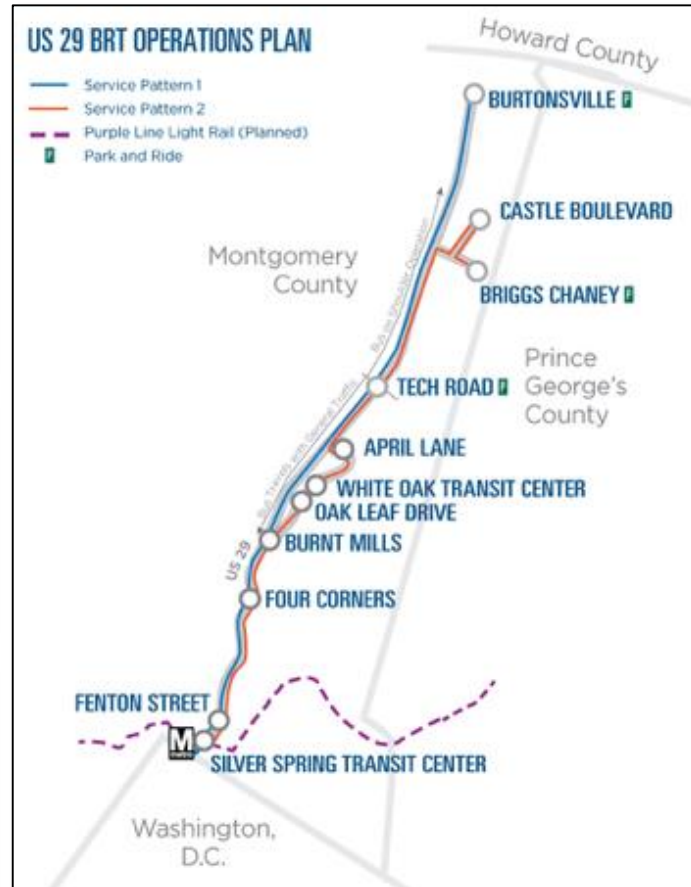
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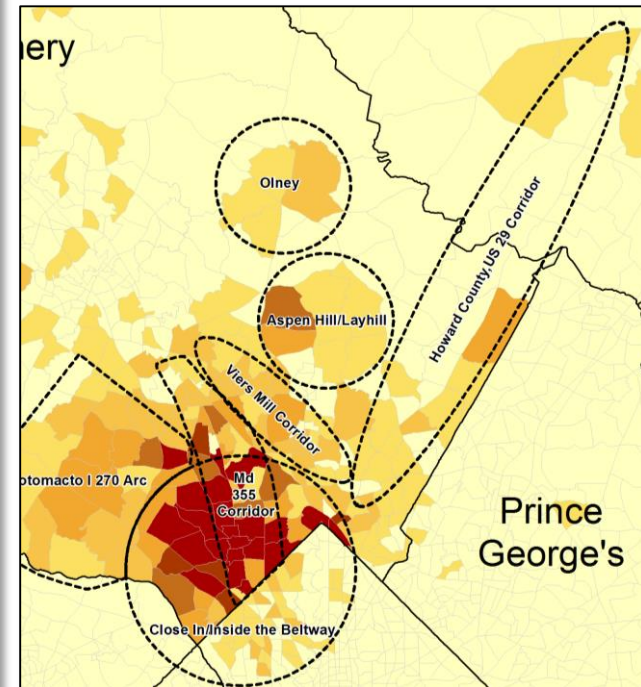
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Transit

<https://www.ridetheflash.com/>



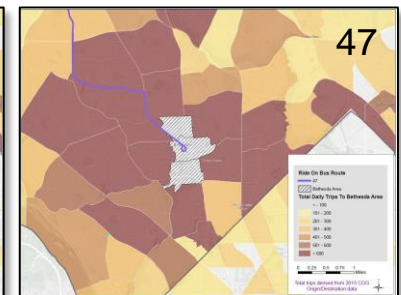
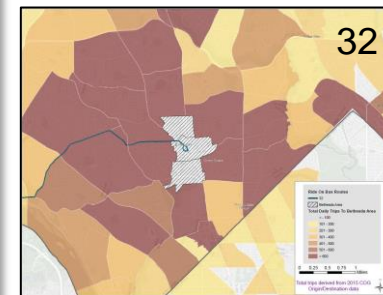
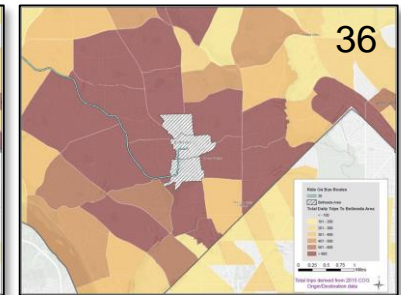
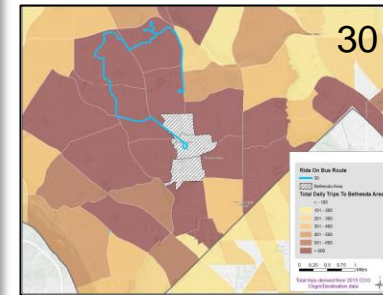
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Howard County via US 29 FLASH Service to Purple Line 342

Transit

Rock Spring Park & Ride and Express Service	1,839
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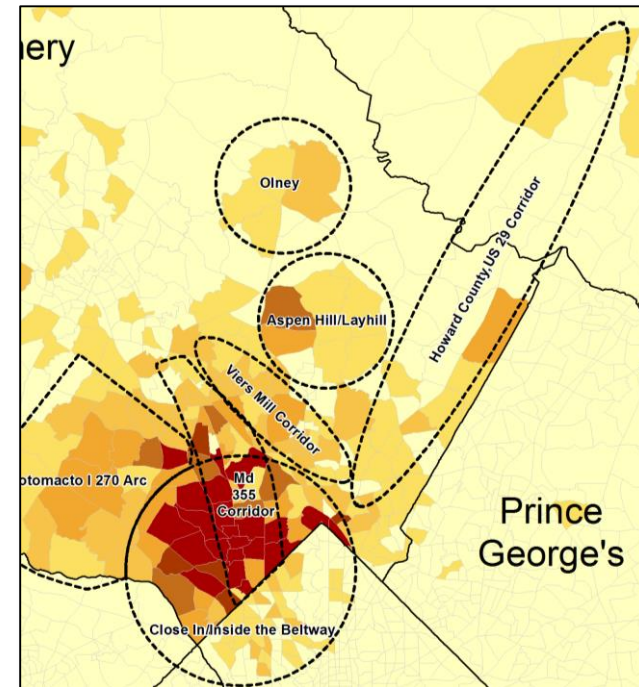
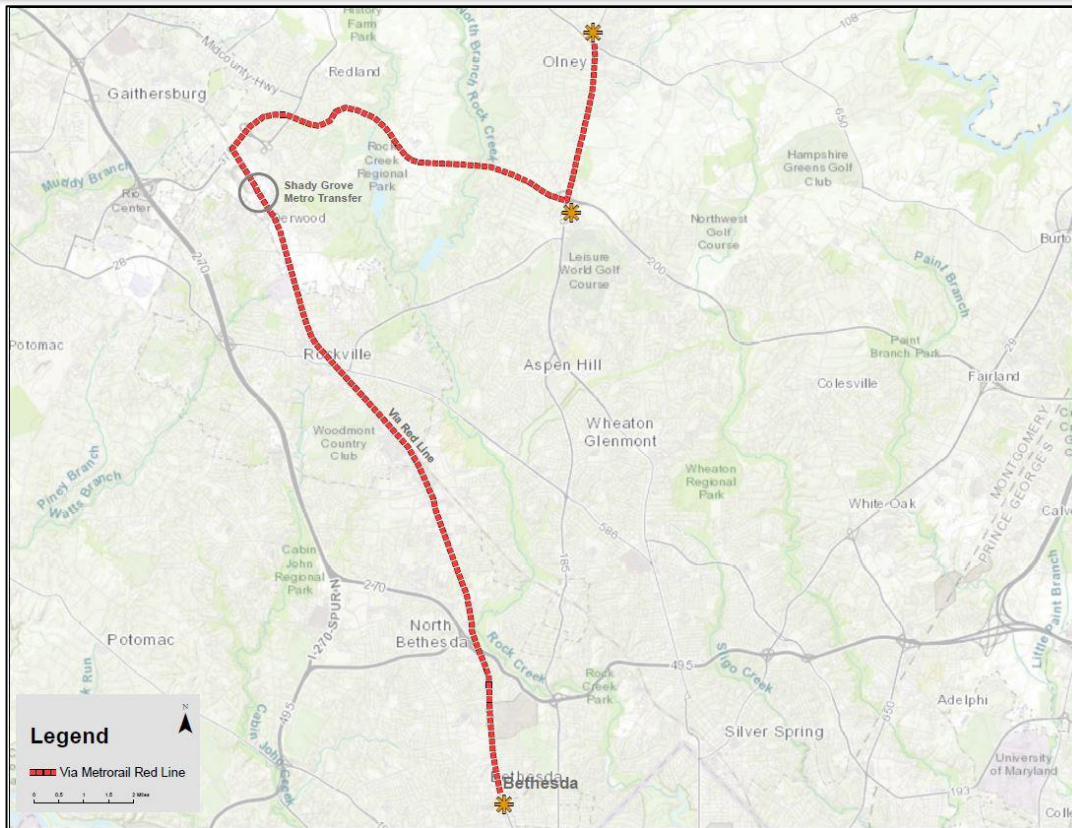


Other Ride-On Improvements (29, 30, 32, 34, 36, 47) 264

Transit

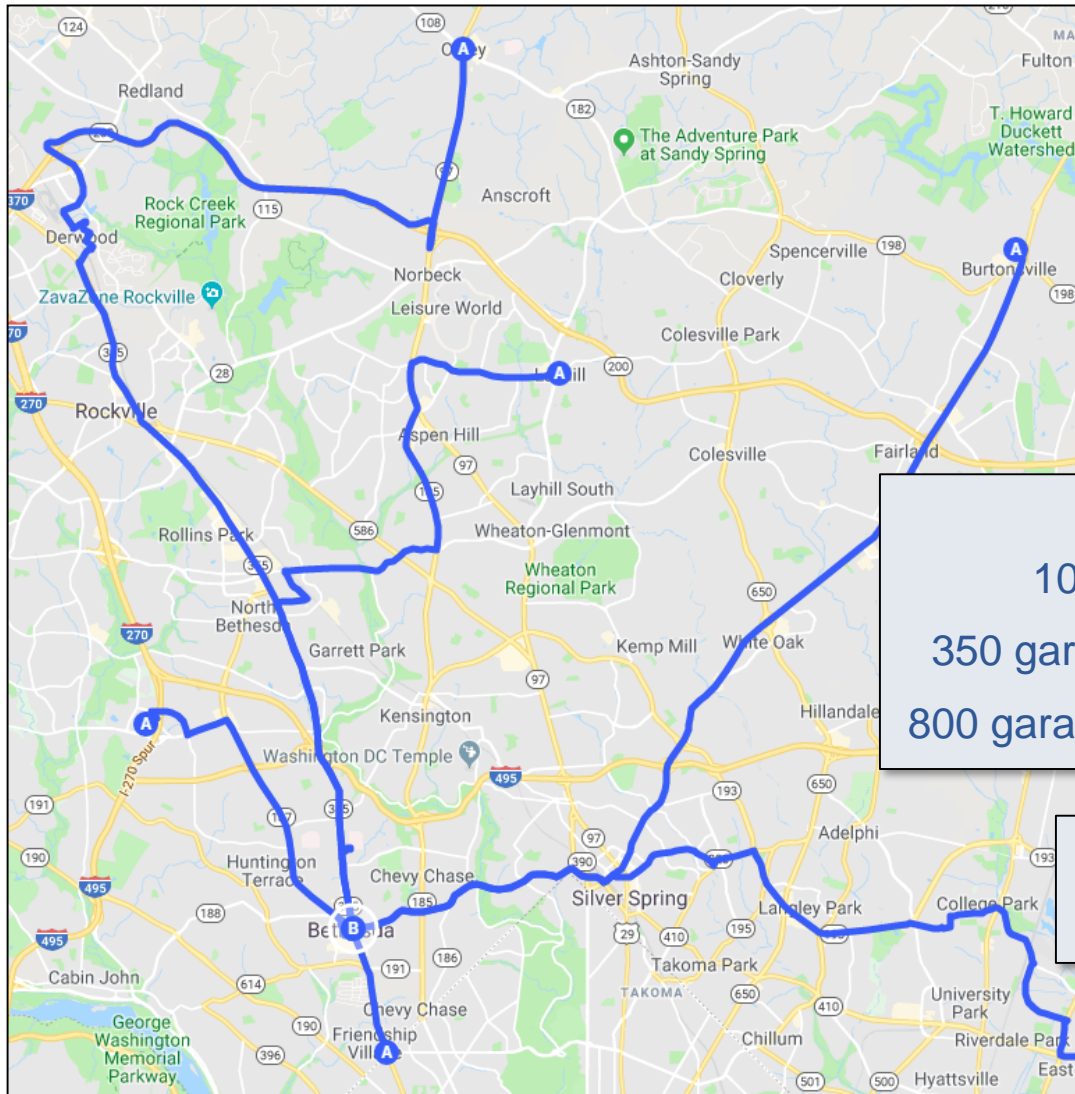
Route Pattern	One Way Bus Travel Time	Time on Rail	Transfer Time (bus to rail)	Bus Dwell Time at each Park and Ride	Total Time
Olney – Shady Grove Metro Station – Downtown Bethesda	20	19	5	5 (10 minutes total)	54

Rock Spring Park & Ride and Express Service	1,839
Greater Bethesda Micro-Transit	1,536
MD 355 FLASH service	869
Layhill/Wheaton Express to White Flint Red Line	747
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Olney / Aspen Hill Express to Shady Grove Red Line	200



Olney / Aspen Hill Express to Shady Grove Red Line 200

Transit



PARK & RIDES

100 surface spaces at Olney	\$1,000,000
350 garage spaces at Burtonsville	\$8,750,000
800 garage spaces at Rock Spring	\$20,000,000

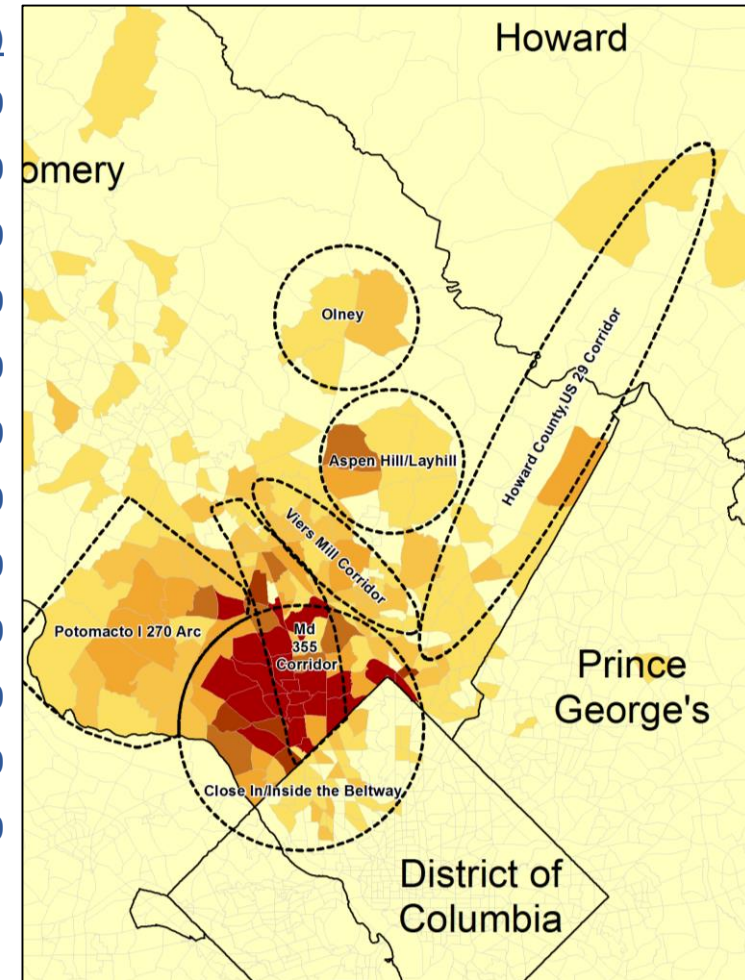
OPERATIONS & MAINT FACILITY

30 buses, location TBD \$21,000,000

Transit

CAPITAL COSTS (VEHICLE + PARK & RIDE)

Rock Spring Park & Ride and Express Service	\$24,375,000
Greater Bethesda Micro-Transit	\$5,400,000
MD 355 FLASH service	* \$535,000
Layhill/Wheaton Express to White Flint Red Line	\$6,125,000
Extend Metrobus 30s from Friendship Hghts to Bethesda	\$1,070,000
Howard County via US 29 FLASH Service to Purple Line	\$8,750,000
Other Ride-On Improvements (29, 32, 47)	\$4,280,000
Other Ride-On Improvements (30, 36)	\$2,675,000
Other Ride-On Improvements (34)	\$535,000
Olney / Aspen Hill Express to Shady Grove Red Line	\$2,605,000
Bethesda Circulator Expansion	\$2,200,000
Operations & Maintenance Facility Expansion	\$21,000,000



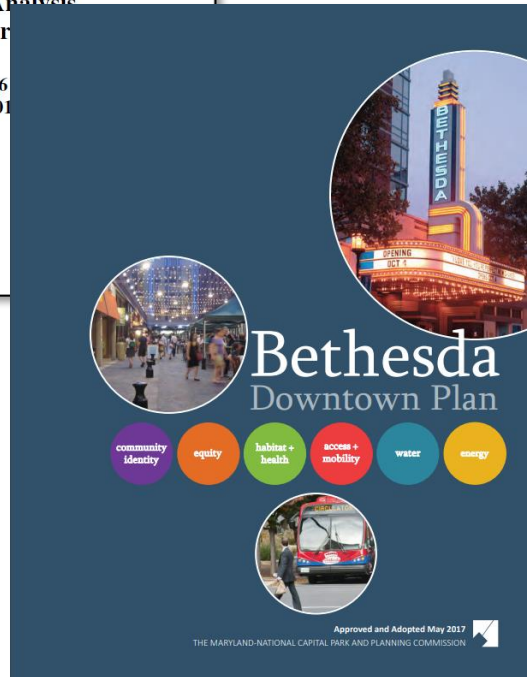
** based on an evaluation of extending extRa service*

Development & Estimated Fee



White Oak Science Gateway LATR / LATIP Cost Estimating Analysis White Paper

December 2016
Updated May 2017



Intersections	\$9,084,200
ADA Compliance	\$770,000
Bikeways	\$36,416,550
Transit Vehicles	\$28,800,000
Park & Ride Expansion	\$29,750,000
O&M Facility Expansion	\$21,000,000
6-yr Reanalyses	\$400,000
TOTAL	\$126,220,750

White Oak \$101,800,000

Development & Estimated Fee

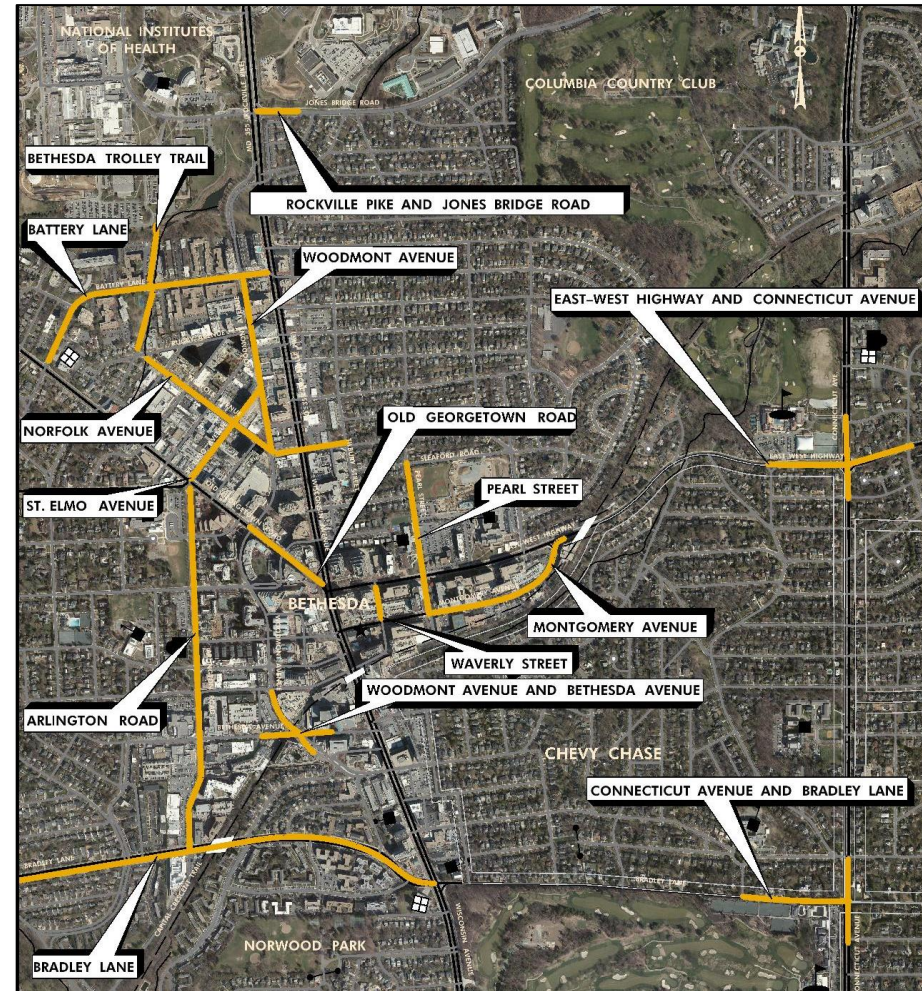
Estimated Cost \$126,220,750

Estimated Development 8,800,000 SF

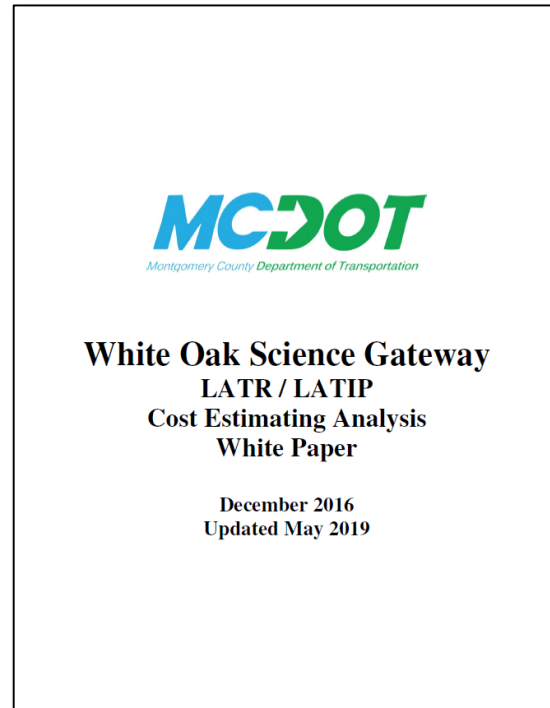
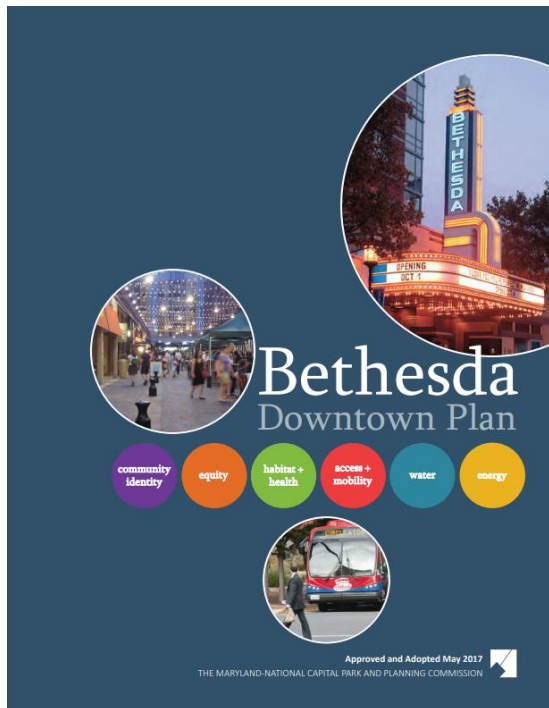
Estimated UMP Fee \$14.34/SF

White Oak Approx \$5.50/SF

Bethesda UMP Estimate does not include costs of Transit Operations



Developer Obligations



- Still required to evaluate site access & construct frontage requirements
- Developments outside of Policy Area are unaffected by BUMP
- May construct UMP projects for credit
- See p14 of the White Oak LATIP White Paper

<https://www.montgomerycountymd.gov/dot-dir/Resources/Files/LATR-WhitePaper.pdf>

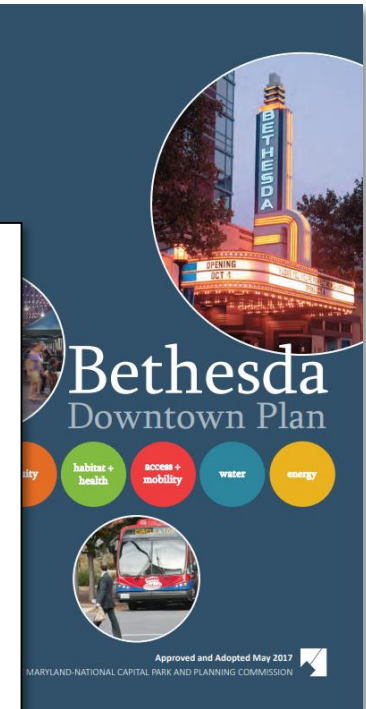
Upkeep

- Update costs every 2 years
- Reanalyze every 6 years
- Forward funding



**White Oak Science Gateway
LATR / LATIP
Cost Estimating Analysis
White Paper**

December 2016
Updated May 2019



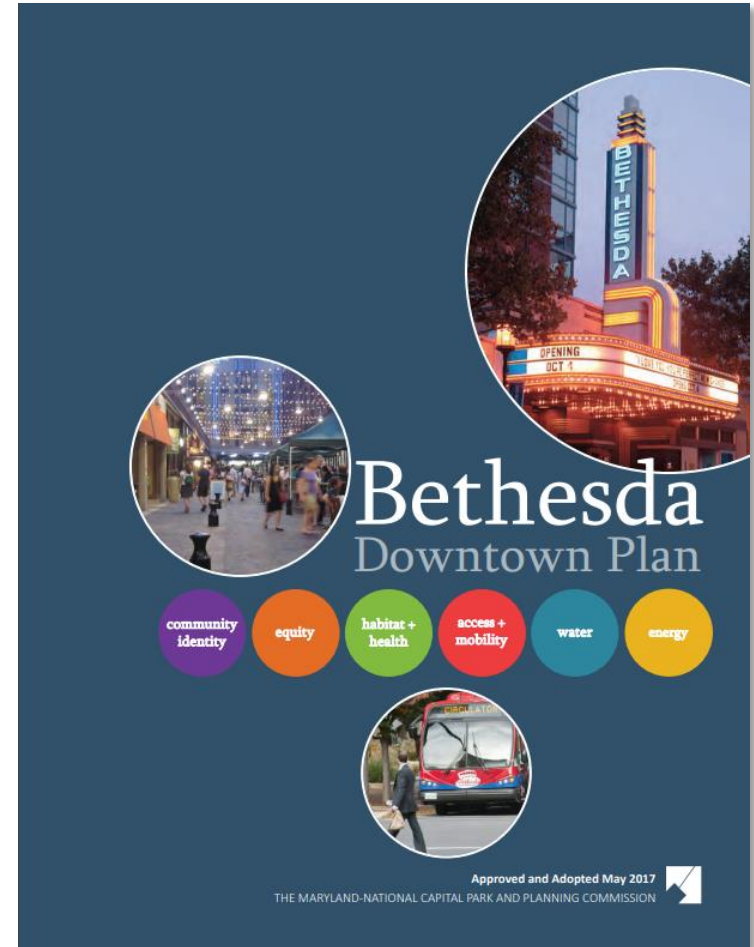
Next Steps



- Other Presentations
- Open House, late July / Aug
- Council, late Summer-Fall

Next Steps

- We prepare technical information in coordination with County Executive
- Council ultimately determines what is in or out of the program



Questions

- Questions?
- What do you love?
- What do you loathe?
- Is anything missing?
- What information do you want so that you can be prepared to share input with Council?

Andrew Bossi, P.E.

Senior Engineer for Transportation Policy

Office of the Director

Montgomery County Department of Transportation

andrew.bossi@montgomerycountymd.gov