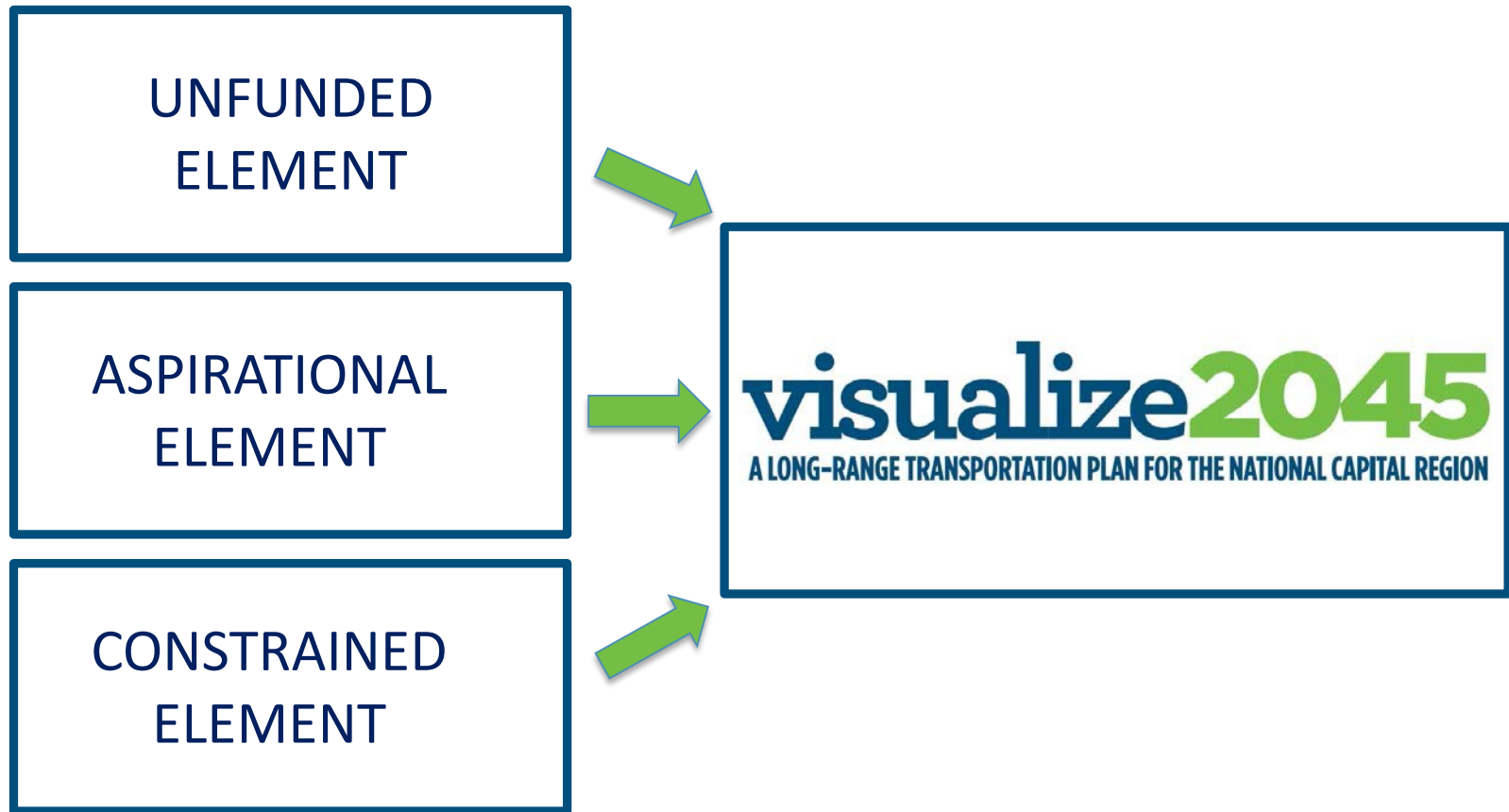


ELEMENTS OF VISUALIZE 2045

Jane Posey
TPB Transportation Engineer

Air Quality Public Advisory Committee
Item #2
January 8, 2018





UNFUNDED ELEMENT

- “All-Build” Scenario (everything, and the kitchen sink)
- Approximately 550 projects that are included in state, local, and regionally approved plans, but are not currently included in the constrained element of the long range transportation plan
- Analyzed as Phase I of the Long Range Plan Task Force





ASPIRATIONAL
ELEMENT

- Five initiatives endorsed by the TPB
- Pedestrian & bicycle priority initiatives (to be considered by the TPB in January 2018)





FIVE
INITIATIVES

- Optimize Regional Land-Use Balance
- Regionwide Bus Rapid Transit (BRT) and Transitways
- Metrorail Core Capacity Improvements
- Employer-Based Travel Demand Management Policies
- Regional Express Travel Network



CONSTRAINED ELEMENT

- Builds off of the 2016 Constrained Long Range Plan (CLRP) Amendment
- Projects where funding is “reasonably expected to be available”
- Must meet air quality conformity requirements



Constrained element of Visualize 2045

TPB action on January 17, 2018

- Approve the “What”: project submissions for inclusion into the Air Quality Conformity Analysis
- Approve the “How”: the Air Quality Conformity Analysis scope of work

Public comment period is now underway for constrained element inputs and air quality conformity scope of work



Major Additions and Changes to Existing Projects

Major New Projects

- Bicycle Lanes, Districtwide
 - 17th St. NW from New Hampshire Ave. to K St.
 - Irving St. NE/NW from Warder St. NW to Michigan Ave. NE
 - K St. NE/NW from 7th St. NW to Florida Ave. NE
 - New York Ave. NE from Florida Ave. to Bladensburg Rd.
 - Pennsylvania Ave. SE from 2nd St./Independence Ave. to Barney Circle

Changes to Existing Projects

- Remove three segments of the planned streetcar network:
 - Anacostia Initial Line from Defense Blvd./S. Capitol St. SE to Howard Rd. SE/Firth Sterling
 - Anacostia Extension from Howard Rd./Firth Sterling to Good Hope Rd. SE
 - M St. SE/SW from Good Hope Rd. SE to Maine Ave. SW



Major Additions and Changes to Existing Projects

Major New Projects

- I-270 Toll Lanes (Traffic Relief Plan)
- I-495 Toll Lanes (Traffic Relief Plan)
- US 301 Widening
- MD 201 Widening
- MD 97 Reconstruction
- Randolph Road BRT
- North Bethesda Transitway BRT
- MD 355 BRT
- Veirs Mill Road BRT

Changes to Existing Projects

- Widen MD 29 from MD 97 to MD 182 (Reduce Project Scope)
 - Eastern limit changed from I-95 to MD 182 – approx. 8.5 miles shorter
- Remove the planned widening of MD 27 from MD 355 to Snowden Farm Parkway



Major Additions and Changes to Existing Projects

Major New Projects

- I-95 Southbound Widening
- US 15 Widening

Changes to Existing Projects

- I-495 Capital Beltway HOT Lanes – Northern Extension
 - Advance from 2030 to 2025
 - Construct two HOT lanes in each direction up to American Legion Bridge to coordinate with Maryland’s Traffic Relief Plan
- Remove the planned extension of VRE to Gainesville-Haymarket

Non-Major New Projects

- 28 new roadway, transit, and bicycle/pedestrian improvements



Major Additions and Changes to Existing Projects

Major New Projects

- Implement 100% 8-car trains
- Core station capacity improvements
- Supporting infrastructure



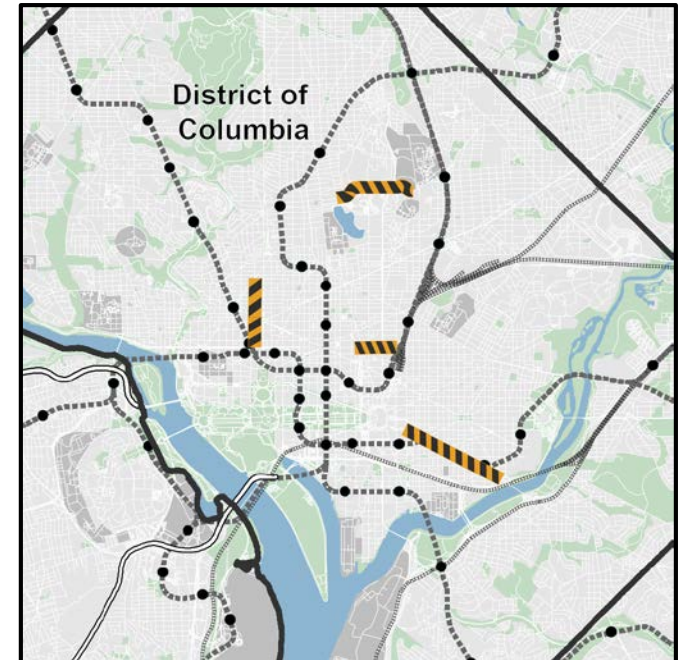
Various Locations Districtwide

Basic Project Information

Project Length	6 Miles
Anticipated Completion	2018, 2023
Estimated Cost of Construction	\$28 million
Submitting Agency	District DOT
Anticipated Funding Sources	Local

Project Description

- 17th St. NW from New Hampshire Ave. to K St. (<1 mile)
- Irving St. NE/NW from Warder St. NW to Michigan Ave. NE (1 mile)
- K St. NE/NW from 7th St. NW to Florida Ave. NE (1.7 miles)
- New York Ave. NE from Florida Ave. to Bladensburg Rd. (2.3 miles)
- Pennsylvania Ave. SE from 2nd St./Independence Ave. to Barney Circle (1.3 miles)



I-270 TOLL LANES

PROPOSED MAJOR ADDITION
VISUALIZE 2045

From the I-495, Capital Beltway to I-70/US 40

Basic Project Information

Project Length	34 Miles
Anticipated Completion	2020-2025*
Estimated Cost of Construction	\$3.4 billion
Submitting Agency	Maryland DOT
Anticipated Funding Sources	Private

Project Description

The I-270 component of MDOT's "Traffic Relief Plan" project will add two new managed toll lanes in each direction along I-270 between the Capital Beltway (I-495) and I-70/US 40.

*Actual completion year will depend on awarded contract. For air quality conformity modeling purposes, the completion date is presumed to be 2025.



I-495 TOLL LANES

PROPOSED MAJOR ADDITION
VISUALIZE 2045

From the American Legion Bridge to the Woodrow Wilson Bridge

Basic Project Information

Project Length	22 Miles
Anticipated Completion	2020-2025*
Estimated Cost of Construction	\$4.2 billion
Submitting Agency	Maryland DOT
Anticipated Funding Sources	Private

Project Description

The I-495 component of MDOT's "Traffic Relief Plan" project will add two new managed toll lanes in each direction along the Capital Beltway between the Virginia side of the American Legion Bridge to the Potomac River, not including the Woodrow Wilson Bridge.

*Actual completion year will depend on awarded contract. For air quality conformity modeling purposes, the completion date is presumed to be 2025.



US 301 WIDENING

PROPOSED MAJOR ADDITION
VISUALIZE 2045

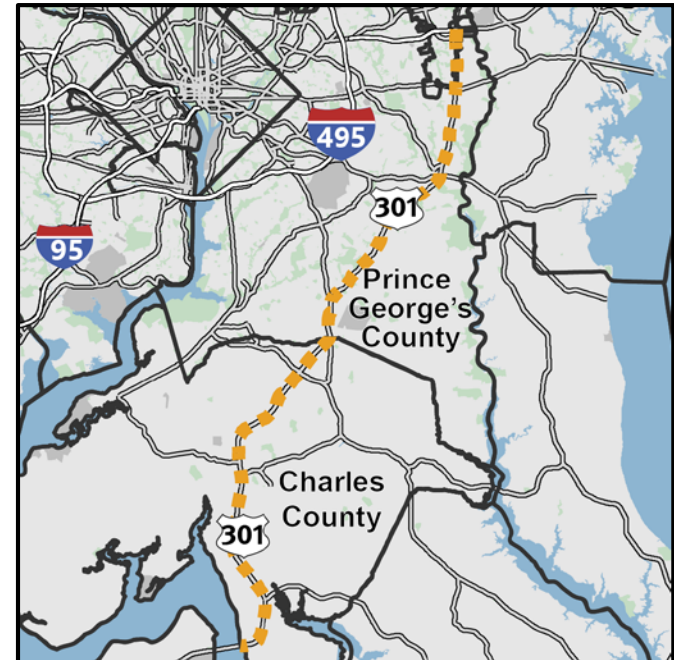
From the Governor Harry Nice Bridge to US 50/I-595

Basic Project Information

Project Length	48 Miles
Anticipated Completion	2045
Estimated Cost of Construction	\$4.6 billion
Submitting Agency	Maryland DOT
Anticipated Funding Sources	Federal, State

Project Description

Widen Crain Highway, US 301 from 4 to 6 lanes between the Governor Harry Nice Bridge at the Potomac River to the John Hanson Highway, US 50/I-595.



MD 201 WIDENING

PROPOSED MAJOR ADDITION
VISUALIZE 2045

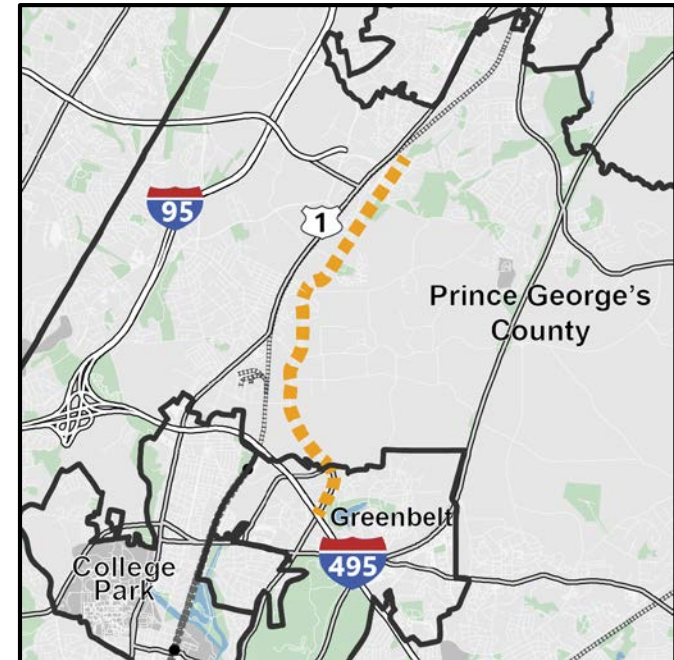
From I-495, Capital Beltway to US 1 North of Muirkirk Road

Basic Project Information

Project Length	4.5 Miles
Anticipated Completion	2045
Estimated Cost of Construction	\$1 billion
Submitting Agency	Maryland DOT
Anticipated Funding Sources	State

Project Description

This project will widen MD 201 to four lanes between north of I-495, Capital Beltway to Ammendale Way. It will also extend the Maryland route 201 designation from its current end-point at Powdermill Road to continue along Edmonston Road and Old Baltimore Pike. Additionally, it will construct a four-lane extension from Muirkirk Road to US 1. Bicycle and pedestrian access will be considered as part of this project.



MD 97 RECONSTRUCTION

PROPOSED MAJOR ADDITION
VISUALIZE 2045

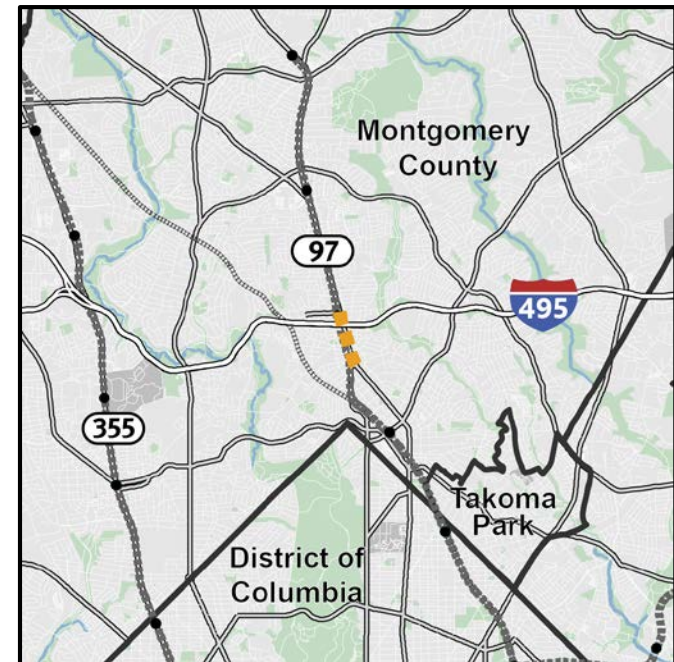
From 16th Street to Forest Glen Road

Basic Project Information

Project Length	<1 Mile
Anticipated Completion	2025
Estimated Cost of Construction	\$52 million
Submitting Agency	Maryland DOT
Anticipated Funding Sources	State, Local

Project Description

This project will reconstruct and widen MD 97, Georgia Avenue from six or seven lanes to seven or eight lanes on either side of I-495, Capital Beltway between 16th Street and Forest Glen Road. Sidewalks and accommodations for bicycles will be included where appropriate.



RANDOLPH ROAD BRT

PROPOSED MAJOR ADDITION
VISUALIZE 2045

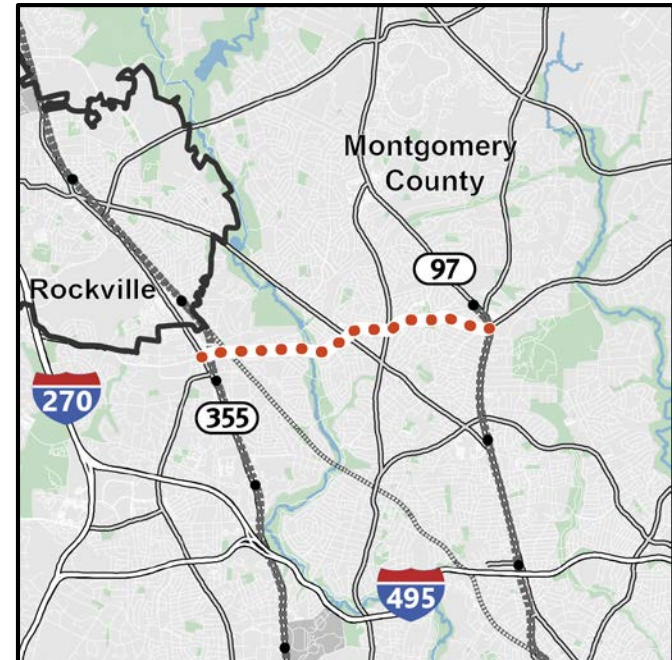
From US 29 to MD 355

Basic Project Information

Project Length	10 Miles
Anticipated Completion	2040
Estimated Cost of Construction	\$102 million
Submitting Agency	Montgomery County
Anticipated Funding Sources	Federal, Local

Project Description

This project will implement a Bus Rapid Transit (BRT) route on Randolph Road between the White Flint Metro Station to US 29, Columbia Pike. The buses will run in mixed-traffic.



NORTH BETHESDA BRT

PROPOSED MAJOR ADDITION
VISUALIZE 2045

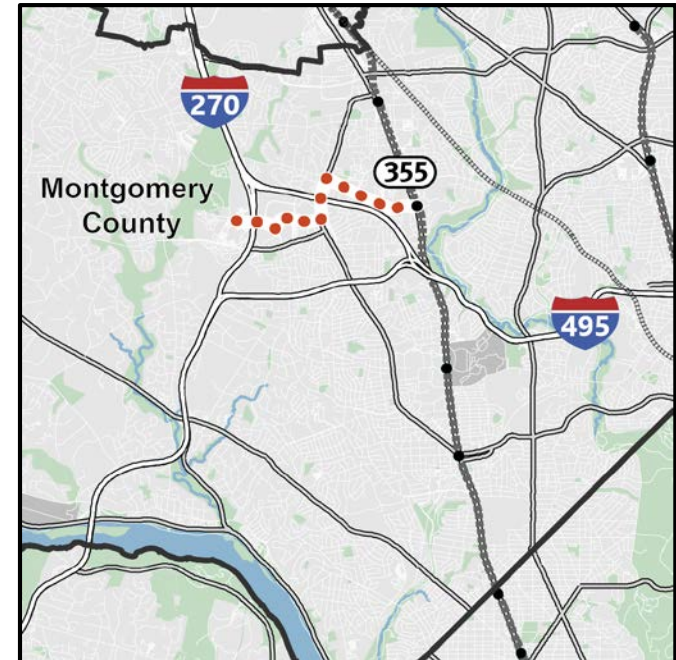
From Montgomery Mall Transit Center to White Flint Metrorail Station

Basic Project Information

Project Length	3.5 Miles
Anticipated Completion	2035
Estimated Cost of Construction	\$115 million
Submitting Agency	Montgomery County
Anticipated Funding Sources	Federal, Local

Project Description

This project will implement a Bus Rapid Transit (BRT) route on Rock Spring Drive and Old Georgetown Road connecting the White Flint Metro Station with the Montgomery Mall Transit Center and the Rock Spring office park area. The buses will run on a dedicated transitway.



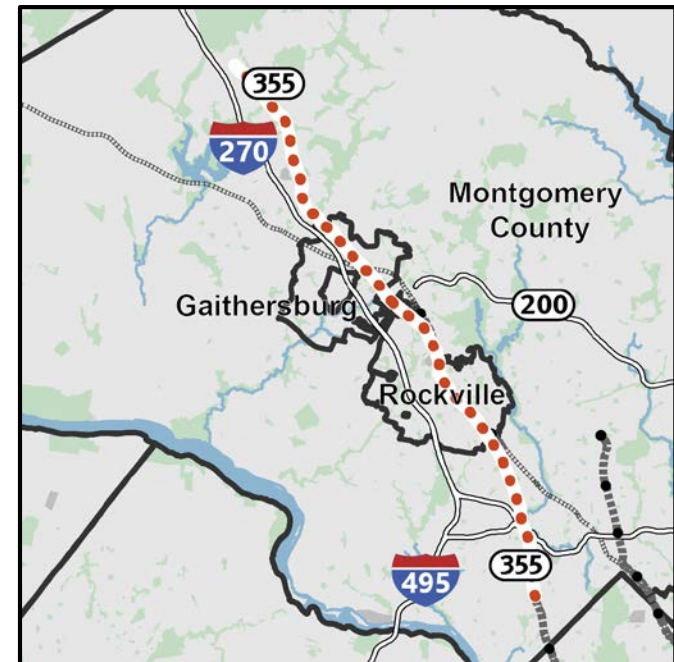
From Bethesda to Clarksburg

Basic Project Information

Project Length	22 Miles
Anticipated Completion	2045
Estimated Cost of Construction	\$1.08 billion
Submitting Agency	Montgomery County
Anticipated Funding Sources	Federal, Local

Project Description

This project will implement a Bus Rapid Transit (BRT) route on MD 355 between Bethesda and Clarksburg. The buses will run in a combination of dedicated transitway and mixed traffic.



VEIRS MILL ROAD BRT

PROPOSED MAJOR ADDITION
VISUALIZE 2045

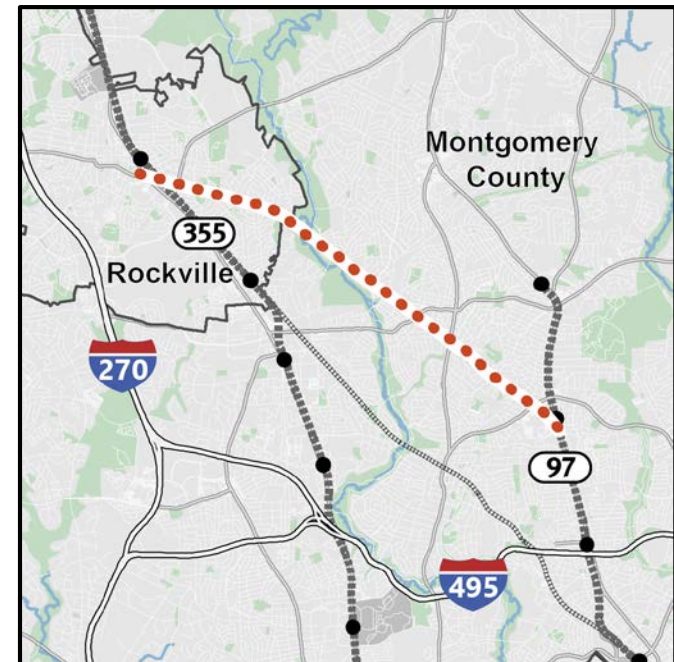
From MD 355, Rockville Pike to MD 97, Georgia Avenue

Basic Project Information

Project Length	6 Miles
Anticipated Completion	2030
Estimated Cost of Construction	\$80 million
Submitting Agency	Montgomery County
Anticipated Funding Sources	Federal, Local

Project Description

This project will implement a Bus Rapid Transit (BRT) line on Veirs Mill Road between the Rockville and Wheaton Metrorail stations. The project includes constructing queue jumps and installing transit signal priority at key intersections. The project also adds new transit service using articulated BRT vehicles, BRT stations with level boarding and off-board fare collection, and pedestrian and bike improvements.



I-495 HOT LANES

PROPOSED MAJOR CHANGE
VISUALIZE 2045

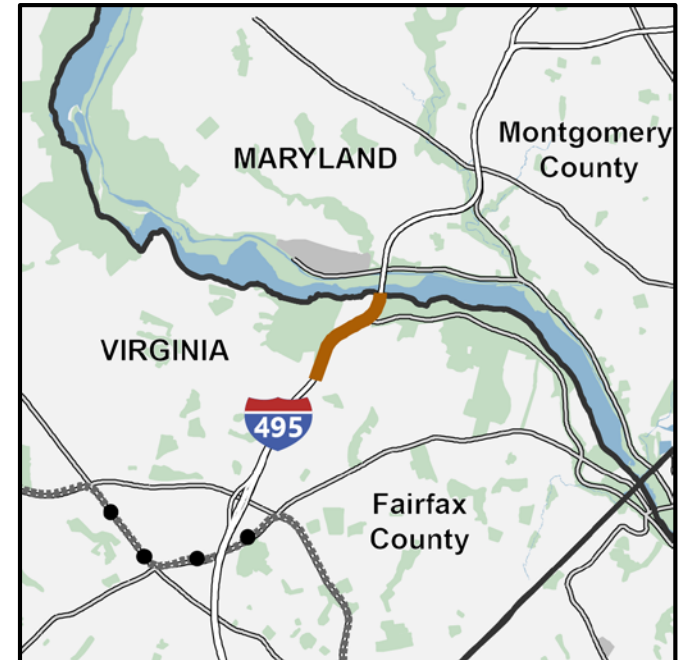
From Old Dominion Drive to the American Legion Bridge

Basic Project Information

Project Length	2 Miles
Anticipated Completion	2025
Estimated Cost of Construction	\$500 million
Submitting Agency	Virginia DOT
Anticipated Funding Sources	Federal, State, Private

Project Description

This project has been included in the long-range plan since 2005. To better coordinate with the toll lane project on the Capital Beltway in Maryland, the completion date is being advanced to 2025 and the HOT facilities between the George Washington Parkway and the bridge will be expanded to two lanes in each direction.



I-95 SOUTH WIDENING

PROPOSED MAJOR CHANGE
VISUALIZE 2045

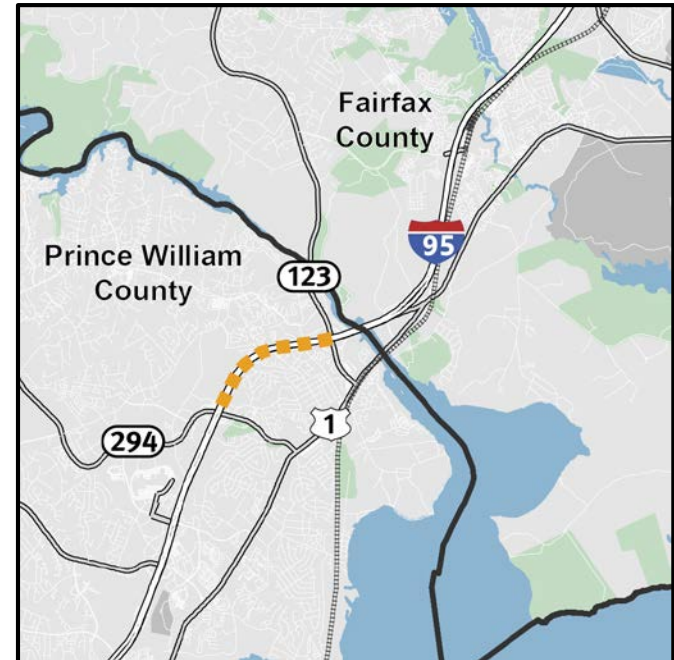
From VA 123 to VA 294

Basic Project Information

Project Length	1.5 Miles
Anticipated Completion	2028
Estimated Cost of Construction	\$27.5 million
Submitting Agency	Virginia DOT
Anticipated Funding Sources	Federal, State

Project Description

This project will add one auxiliary lane to southbound I-95 between the Route 123 on-ramp and the Route 294 exit ramp.



US 15 WIDENING

PROPOSED MAJOR CHANGE
VISUALIZE 2045

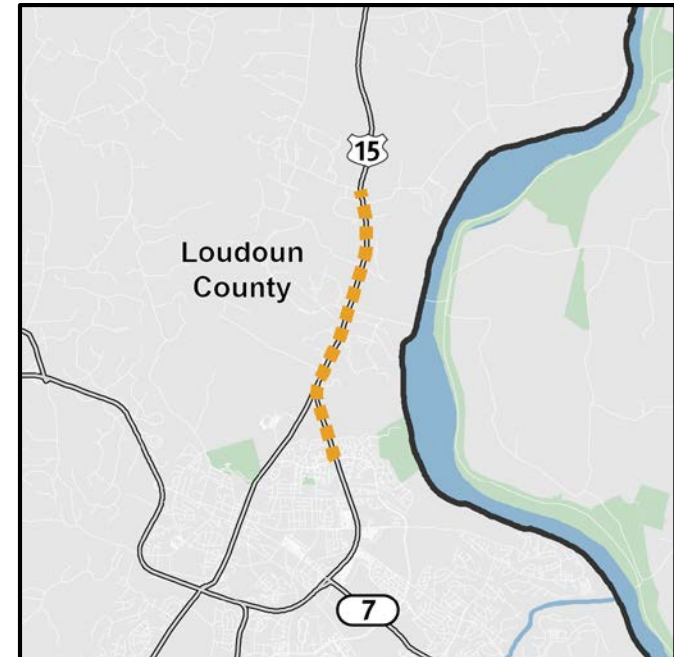
From Battlefield Parkway to VA 661, Montessor Road

Basic Project Information

Project Length	3.6 Miles
Anticipated Completion	2025
Estimated Cost of Construction	\$33 million
Submitting Agency	Virginia DOT
Anticipated Funding Sources	Federal, State, Local

Project Description

This project will widen US Route 15, James Madison Highway from two to four lanes between the northern interchange with Battlefield Parkway and VA 661, Montessor Road.



METRO IMPROVEMENTS

PROPOSED MAJOR ADDITION
VISUALIZE 2045

Basic Project Information

Anticipated Completion **2045**

Estimated Cost of Construction **\$5.4 Billion**

Submitting Agency **WMATA**

Anticipated Funding Sources **Federal, State, Local**

Project Description

This project will implement all 8-car trains running on the system during peak periods. Capacity improvements will be made to stations in the core to accommodate the trains. Supporting power infrastructure will be added to support the expansion.



DRAFT SCOPE OF WORK

For the Air Quality Conformity Analysis

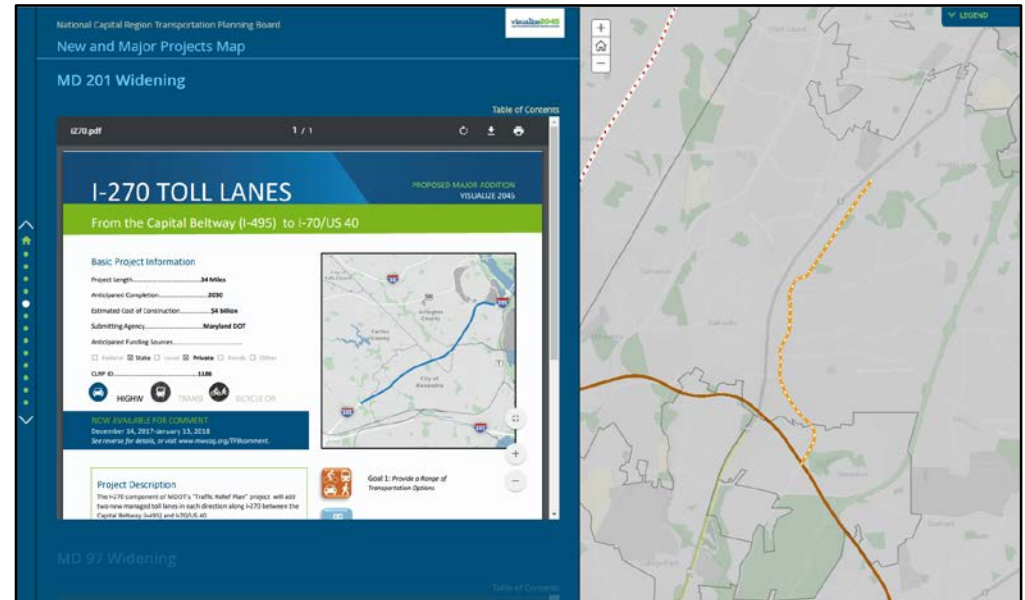
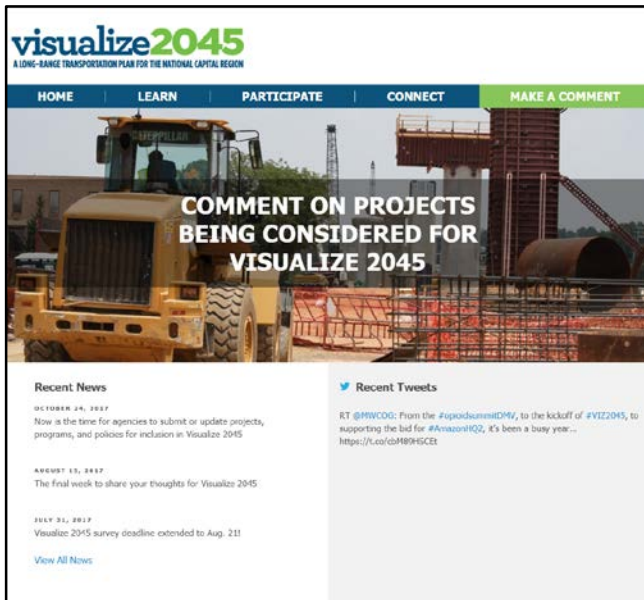
Policy and Technical Approach

- The table below summarizes the key elements of the Policy & Technical Approach:

Pollutants	Ozone Season VOC and NOx
Emissions Model	MOVES2014a
Conformity Test	<u>Budget Test</u> : Using mobile budgets most recently approved by EPA. Two possibilities: 1) 2009 attainment and 2010 contingency budgets found adequate for use in conformity by EPA in Feb. 2013; or 2) 2008 Ozone NAAQS Maintenance Plan mobile budgets scheduled to be approved by MWAQC in December and submitted to EPA in early 2018
Vehicle Fleet Data	December 2016 vehicle registration data for all jurisdictions
Geography	8-hour ozone non-attainment area
Network Inputs	Regionally significant projects
Land Activity	Cooperative Forecasts Round 9.1
HOV/HOT	<u>VA</u> : All HOV 2+/HOT 2+ facilities become HOV 3+/HOT 3+ in 2020 and beyond except I-66 inside the Beltway, which will convert to HOT3+ when I-66 outside the Beltway opens <u>MD</u> : All HOV facilities remain HOV2+ through 2045
Transit Constraint	Metrorail "capacity constraint" procedures - 2020 constrains later years
Analysis Years	2019, 2020, 2025, 2030, 2040, 2045
Modeled Area	3,722 TAZ System
Travel Demand Model	Version 2.3.70 or latest



www.Visualize2045.org



- Find all documents and information available for public comment at www.vizualize2045.
- Submit comments:
 - On the web at www.mwcog.org/TPBcomment
 - By email at TPBcomment@mwcog.org
 - In writing:

TPB Chairman
National Capital Region Transportation Planning Board
777 North Capitol Street NE, Suite 300
Washington DC 20002
- Deadline is January 13, 2018.



January 2018

- Present TPB with comments and responses

Spring/Summer 2018

- Conduct air quality and system performance analyses
- Develop FY 2019-2024 TIP
- Public Outreach Phase 2

September 13 – October 13, 2018

- Final public comment period

October 17, 2018

- TPB asked to approve:
 - Constrained Element
 - Air Quality Conformity Analysis
 - FY 2019-2024 TIP



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