



Mayor and Council Status Report Bus Rapid Transit Studies in Rockville

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This transmittal updates the Mayor and Council regarding the status of bus rapid transit, or BRT, studies being conducted by the Maryland Transit Administration/State Highway Administration as part of implementation efforts for Montgomery County's Rapid Transit System. Two of the corridors currently under study are major state highways that cross the city: MD 586 and MD 355.

One of the Priority Initiatives adopted by the Mayor and Council was an item to formulate the conditions under which Rockville can support bus rapid transit (PP4). The project schedules provided in the tables below present a number of opportunities for the City to formulate and express its preferences to the State and County in regard to the basic conceptual framework for the projects.

MD 586 - Veirs Mill Road Bus Rapid Transit Study

The State Highway Administration is the lead agency for the MD 586 BRT corridor study. The project study limits are from Rockville Station to the Wheaton Metrorail Station, but also includes proposed service to the Rockville campus of Montgomery College. A detailed schedule of meetings during the fall of 2016 is shown in the table below, including a briefing to the Mayor and Council on October 10.

Project Schedule

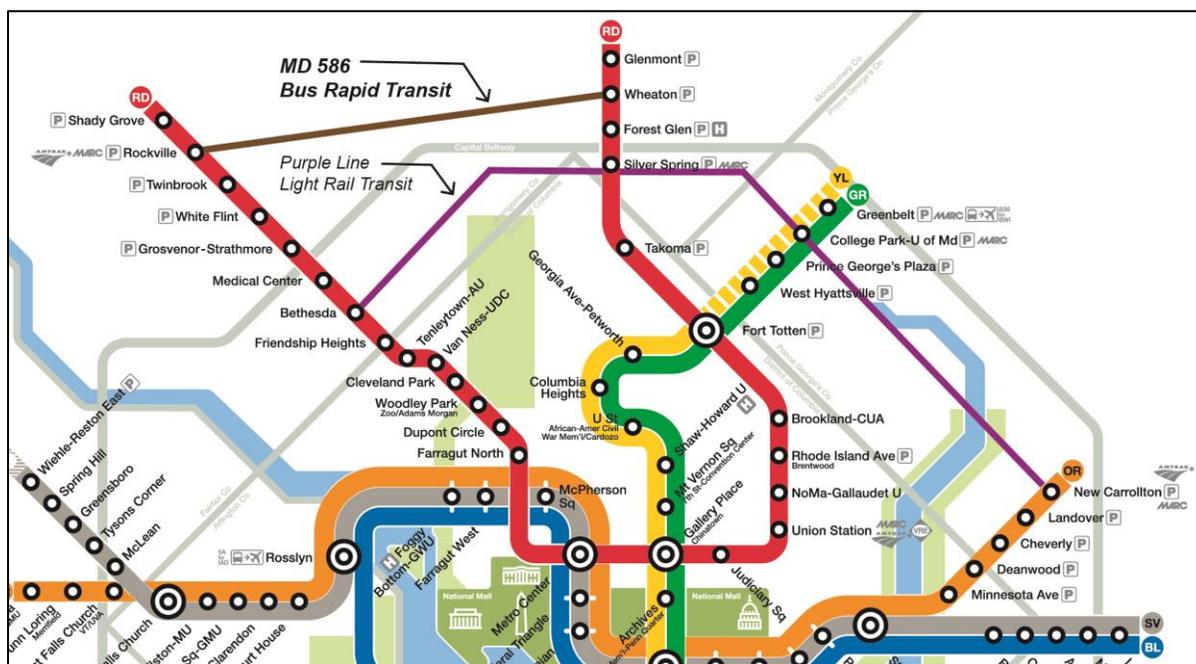
First week of September	SHA/MTA will release a Draft Corridor Study Report providing information on the No Build and the three Build Alternatives. This will include results of the traffic and ridership forecasts showing the performance of the alternatives being studied. The release of the report officially opens up the public record period, which will close October 14.
September 12	Update to the Mayor and Council by Rockville staff on the Veirs Mill Road BRT Corridor study (referenced above) and public outreach opportunities, including those initiated by staff.
September 14	Veirs Mill Road BRT Corridor Advisory Committee meeting to review traffic and ridership results for the alternatives.
September 28	Public Meeting conducted by SHA/MTA seeking public input on the alternatives (Executive Office Building cafeteria, beginning at 6:30 p.m.)
October 10	Briefing to the Mayor and Council by SHA/MTA and consultants on final alternatives under consideration; with Rockville feedback.
October 14 (estimated)	Public comment period will close for the Draft Corridor Study report.
Mid to late October	SHA/MTA recommends a Locally Preferred Alternative for the corridor.
October – December	Briefings to County Council and County Planning Board by SHA/MTA.
December	Decision by SHA/MTA on a Locally Preferred Alternative.

The Veirs Mill corridor BRT study was started by SHA more than five years ago and is further along in the planning process than the MD 355 corridor BRT study. In 2015, SHA narrowed the range of alternative alignments to three (3) build options. The alternatives are described below. Of course a “No Build” alternative—one that leaves existing transit service in place without significant improvement—remains one of the alternatives.

The project team’s goal is to have a Locally Preferred Alternative (LPA) for this corridor by the end of 2016. As noted in the project schedule, the City of Rockville has opportunities to state its preference on the LPA to SHA/MTA this fall, and ideally to do so shortly after the October 10 briefing.

MD 586 Veirs Mill Road BRT Concept and Existing Transit Service

Veirs Mill Road is one Montgomery County’s most heavily traveled corridors, providing crucial east-west connections in a direction not served by Metrorail. WMATA’s Metrobus “Q” bus routes, operating on MD 586, connect between the two arms of the Metrorail Red Line, and allow movement via transit in the middle section of the county without traveling all the way through downtown D.C. on the Red Line. The new Purple Line will connect in the east-west direction down county, from Bethesda to Silver Spring. The proposed MD 586 BRT will provide the next tier of the high capacity transit system to the north.



WMATA’s Metrobus service provides six bus routes that operate on the corridor, including five “Q” routes that run the length of the proposed BRT corridor between Rockville and Wheaton. Combined ridership is between 11,300 to 12,200 passengers per day. Montgomery County operates five Ride On lines on the corridor, serving approximately 4,600 to 6,000 passengers daily, however none of these

operate on the Rockville segment of MD 586. A total of 43 stops are served along the corridor in the study area.

Total bus ridership on MD 586 is among the highest for any corridor in the county. But service also experiences challenges, such as bus bunching, passenger crowding, difficulty maintaining schedule adherence, and long travel times.

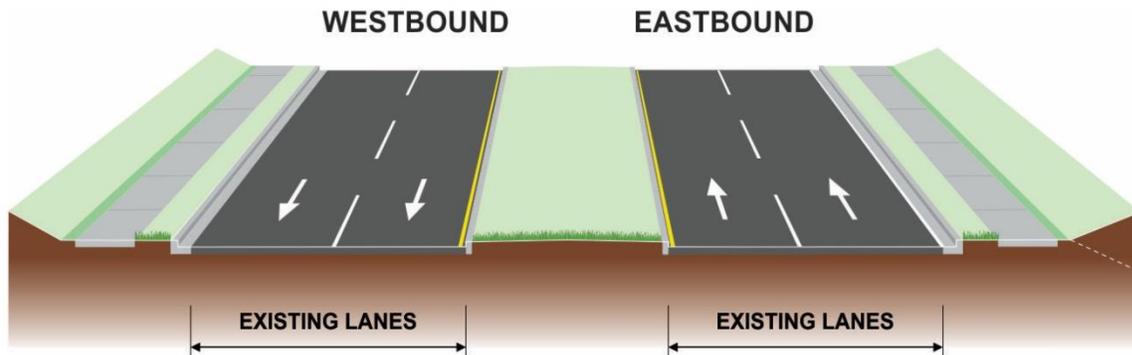
Veirs Mill Road BRT Alternatives Under Review

A summary of the alternatives retained for detailed design and final evaluation is provided below. Select graphics from SHA and CPDS describing these further are provided as attachments at the end of this report.

Alternative 1 - No Build

The “no build” alternative proposes no improvements to infrastructure or bus service along MD 586.

Alternative 1

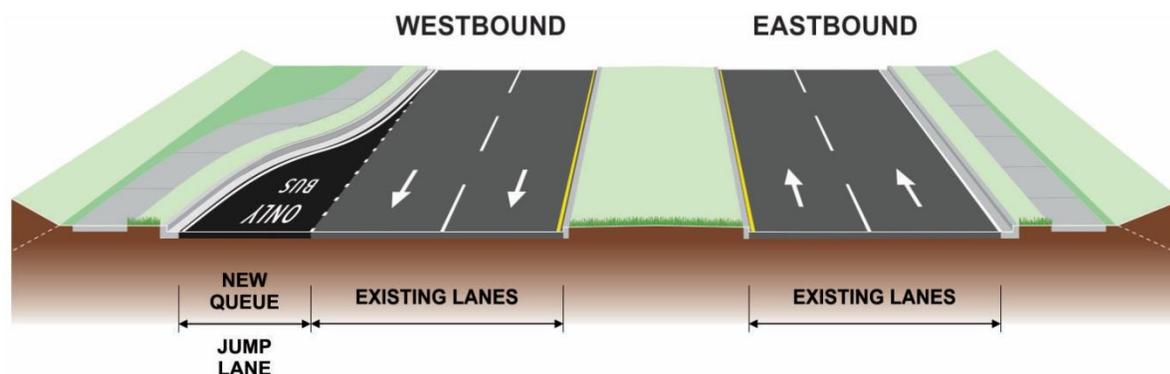


Alternative 2 – Transportation System Management (TSM): Enhanced Service with Queue Jumps

Key features:

- Implementation of WMATA’s proposed Q9 express bus service (but with additional stops).
- Operates in mixed traffic in curb lanes like existing bus service.
- Addition of ‘queue jump lanes’ (defined below) at select intersections, including at First Street, Edmonston Drive, and Twinbrook Parkway in Rockville.
- Installation of transit signal priority (TSP) at select intersections to hold the green light for the Q9 bus or provide an early green in conjunction with queue jump locations.
- Bus frequency (or headway): every 12 minutes during the peak, and 15 minutes off peak.
- Service to Montgomery College every third bus, or every 36 minutes peak, 45 minutes off peak.

Alternative 2



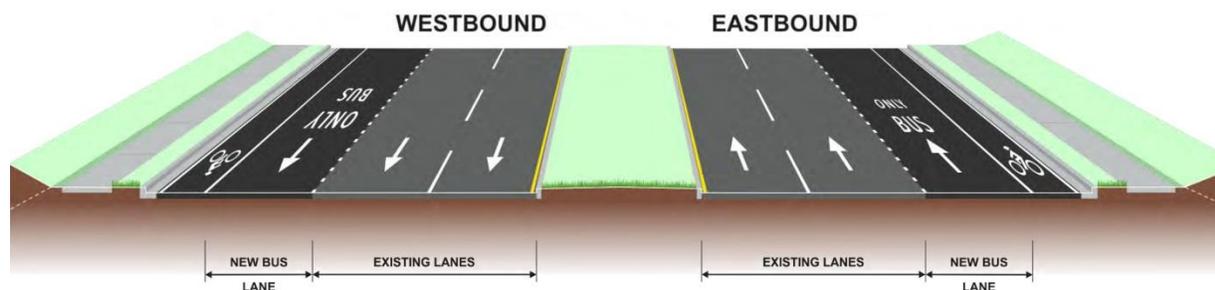
Alternative 2 cuts the number of stops from 43 to 12 for this new service, which increases overall bus speed and reduces travel time. This also includes an extension to Montgomery College. The key infrastructure improvement is the installation of dedicated queue jumps lanes at the curb at select intersections along the corridor, as noted, but may also use existing bus and right turn only lanes. These lanes may require additional right of way with impacts to property in Rockville. This additional space will allow buses to jump ahead of the line of traffic (the queue) that frequently backs up along the corridor at signalized intersections. Transit signal priority equipment on the buses communicates to the traffic signal to give priority to the Q9 bus. For the majority of the corridor, the Q9 bus would operate in mixed traffic.

Alternative 3 - New BRT Service in Dedicated and Shared Curb Lanes

Key features:

- Addition of dedicated bus lane in each direction by the curb for BRT operation, where impacts to property are deemed acceptable.
- In Rockville, a lane is added on the north side of MD 586 westbound up to Clagget Drive, and utilization of existing bus and right turn lane in vicinity of Atlantic Drive (see map graphic in the attachments).
- In Rockville, operates in mixed traffic west of Clagget Drive westbound, and west of Atlantic Avenue eastbound.
- Queue jump lanes at First Street and Edmonston Drive.
- Installs TSP at selected intersections.
- Full BRT stations and branding.
- Bus frequency (or headway): every 6 minutes during peak, and 10 minutes off peak.
- Service to Montgomery College every third bus, or every 18 minutes peak, 30 minutes off peak.

Alternative 3



Right of way constraints in Rockville make the addition of dedicated bus lanes less feasible in the western part of the corridor, where the proposed queue jump lanes are the same as in Alternative 2. The BRT would utilize the existing bus and right turn lane on the south side of the highway in the vicinity of Atlantic Drive and the Twinbrook shopping center and continue in a dedicated lane all the way to Wheaton. Dedicated bus lanes would be provided for 72% of the corridor. BRT vehicles would share the curb lane with existing local buses and also with right turning vehicles at intersections. This alternative does not require closing any existing median breaks.

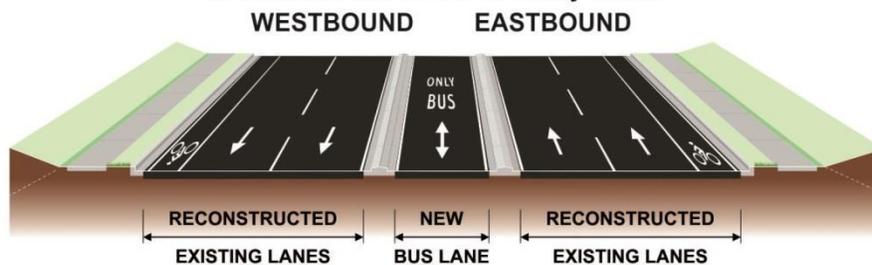
Alternative 5b - New BRT Service in one Bi-directional or Two Dedicated Median Lanes

Key features:

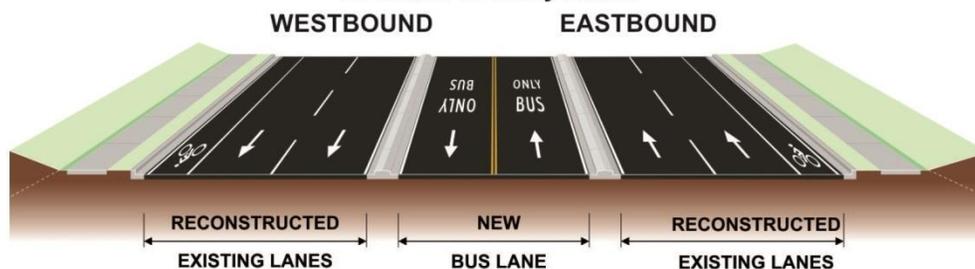
- Reconstruction of MD 586 east of First Street from curb to curb.
- Addition of fully dedicated BRT lanes, separate from local bus and right turn traffic, resulting in faster speeds and lower travel times.
- In Rockville, addition of one bi-directional BRT lane in the center of the right of way (replaces median), expanding to two BRT lanes at station locations to allow passing buses.
- In Rockville, operates in mixed traffic west of First Street to the Rockville Metro Station.
- Median running lanes require closing some existing median breaks in Rockville.
- Installation of TSP at selected intersections.
- Full BRT stations and branding.
- Bus frequency (or headway): every 6 minutes peak and 10 minutes off peak.
- Service to Montgomery College every third bus, or every 18 minutes peak, 30 minutes off peak.

Alternative 5B

A. East and West Ends of Study Limits



B. Center of Study Limits



Alternative 5b proposes new dedicated lanes in the center of MD 586, where a landscaped median is now located. The new lanes would replace the median and remove all of the landscaping. The service is an improvement from the other alternatives in that the new BRT lanes would be fully dedicated to the new service and would not share those lanes with local buses or other traffic. Due to constraints in Rockville, the section from First Street to Atlantic Avenue would be designed with a single, bi-directional

lane to limit the need to expand the right of way, and thereby reduce but not eliminate impacts to property. Buses would pass each other at the station locations where two dedicated lanes are provided and controls would require buses to wait at the station until the single lane ahead is clear. Dedicated lanes would be provided for 81% of the corridor.

Station Locations in Rockville as Proposed by SHA/Montgomery County

Montgomery County's Countywide Transit Corridors Functional Master Plan, adopted in December 2013, recommended the following station locations for the Veirs Mill Road corridor BRT in Rockville:

- Rockville Metro Station
- MD 28 or First Street
- Broadwood Drive
- Twinbrook Parkway

The County's functional master plan notes: "Stations within the City of Rockville must be confirmed in the City's master plan." As of this time the City's master plan does not make any recommendation on BRT station locations.

City staff have received input from the community both as part of the BRT Citizen Advisory Committee (CAC) structure and during Listening Sessions conducted for the Rockville 2040 Master Plan update. Twinbrook residents and CAC members from Rockville have expressed strong support for locating a BRT station at Atlantic Avenue with direct access to the two shopping centers, public library, and post office in this vicinity. City staff note that the redevelopment of the Twinbrook Center, as envisioned in the Twinbrook Neighborhood Plan (2009) and allowed under the MXNC zoning, would be supported by a BRT station at Atlantic Avenue. WMATA's Q9 proposal recommends stops at Twinbrook Parkway, Atlantic Avenue, Edmonston Drive, and Rockville Station, these being the stops with the highest existing ridership on the Q buses in Rockville.

At this time, SHA has not fully analyzed the potential for station locations at Atlantic Avenue or Edmonston Drive. However, once a Locally Preferred Alternative is selected at the end of 2016, the next phase of the project will consider the potential for stations at these other locations. The City will have an opportunity to express preferences regarding station locations in that phase.

Master Plan Guidance

The City's Master Plan provides some guidance as it relates to BRT on Veirs Mill Road, specifically through the Twinbrook Neighborhood Plan (2009), which recommends that: "Any transit improvement on Veirs Mill Road should be made within the existing right-of-way and should not increase neighborhood cut-through traffic" (p. 48). Planning for the Veirs Mill Road BRT during that period is also discussed on pages 51-52 of the neighborhood plan.

Public Engagement

As noted in the project schedule above, SHA/MTA will hold a public meeting on September 28 to receive public input on the three build alternatives, with the public comment period open until October 14. In addition, Rockville staff will conduct other outreach and communication on the project. The September edition of *Rockville Reports* will include an article describing the status of the Veirs Mill Road BRT project and the upcoming public meeting and comment schedule. City staff will also communicate and meet with the Twinbrook Citizens Association, the East Rockville Citizens Association and others that are interested, to inform them of the alternatives under consideration and to encourage them to engage during this review and comment period. Staff will also use the web site, email listservs and other communication tools to raise awareness of the project status and opportunities to comment.

City staff will communicate feedback received from Rockville residents to the Mayor and Council during this period of evaluation leading up to any recommendation the City makes to SHA/MTA on the Locally Preferred Alternative.

MD 355 Bus Rapid Transit Corridor Study

MTA is leading this corridor study in coordination with SHA and Montgomery County for the 22 miles of MD 355 from the Bethesda Metro Station to Clarksburg. However some of the alternatives under consideration would terminate at the Grosvenor Metro Station due to difficult right of way constraints further south into downtown Bethesda.

In April 2016, the MTA released its Preliminary Purpose and Need report which documents existing and future transportation needs in the corridor, and describes the intended purpose of the project. In summary, the stated purpose of the project is to:

- Improve the quality of transit service;
- Improve mobility opportunities and choices;
- Develop transit services that enhance the quality of life;
- Develop transit services that support master plan development; and
- Support sustainable and cost effective transportation solutions.

The need expressed for the project is to address:

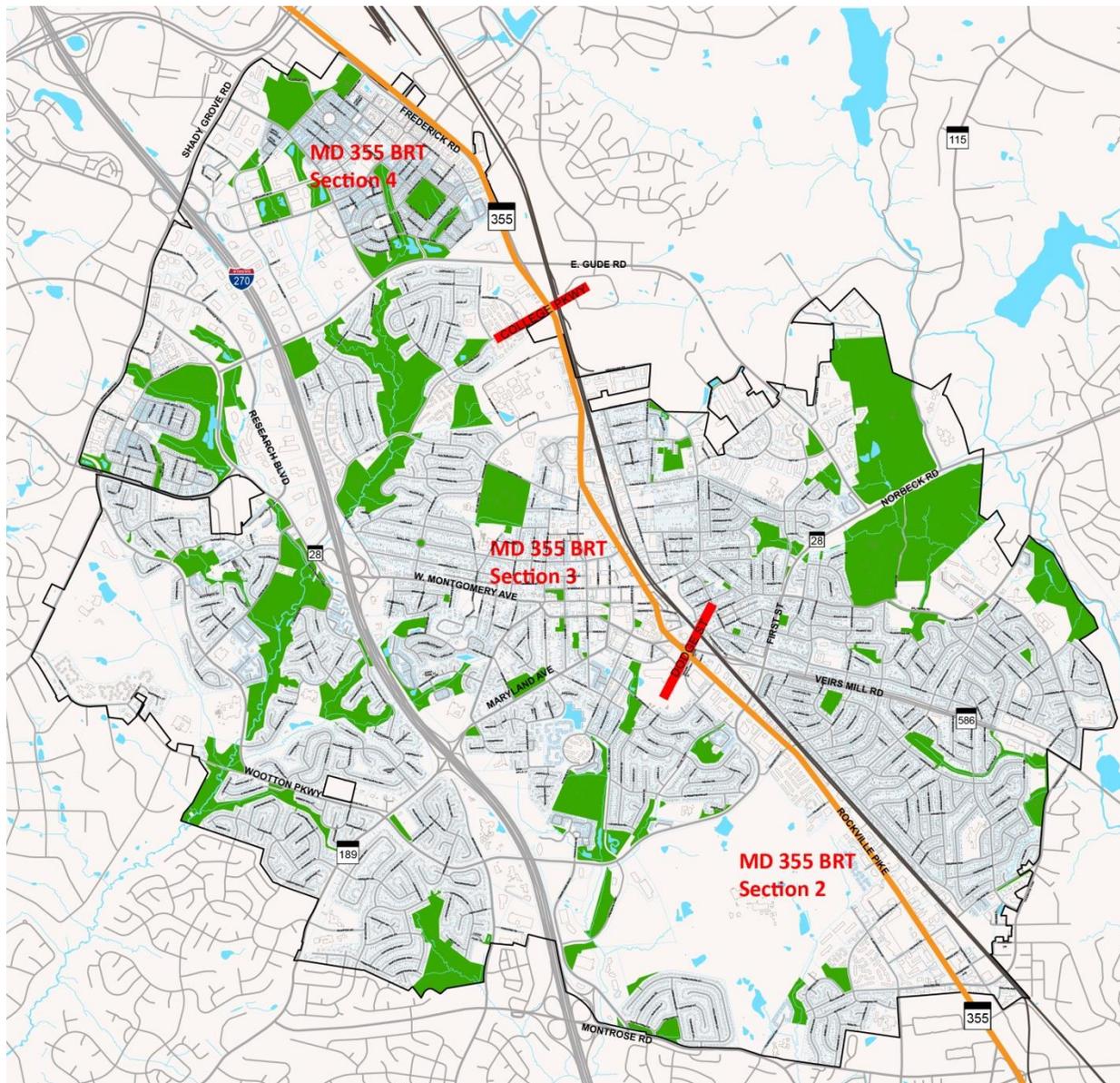
- Growth in population and employment within the study area;
- Roadway congestion conditions which will worsen; and
- A lack of competitive travel options in the corridor.

In June 2016, the MTA released a series of preliminary alternatives (described below) for each segment along the corridor. These alternatives are currently being analyzed by MTA in terms of ridership, traffic impacts and other factors. According to the current schedule, MTA intends to identify which alternatives will be retained for detailed study (known as “ARDS”) by the end of 2016. The City should be prepared to provide feedback to the State regarding the alternatives we would like to have included in this ARDS analysis.

Alternatives Under Consideration

There are four primary “build” alternatives unveiled in June that cover the length of the corridor, and they are described below (3a, 3b, 4a, and 4b). These alternatives are in addition to a “no build” option, and an alternative focusing on Transportation System Management (TSM) improvements. This TSM Alternative 2 proposes enhanced bus service in mixed traffic but with greater frequency, and queue jumps and signal priority implemented at selected intersections along the corridor.

Given the length of the corridor, the State has divided it into numbered sections that identify different alignment alternatives to address the unique challenges in each. Of the seven (7) total sections, the portion of MD 355 within Rockville is covered by sections 2, 3 and 4. The State has emphasized that it is possible that one or more of the alternatives recommended for detailed study may be a hybrid of the alternatives proposed, so they are described here in terms of each alternative prepared within the respective section.



Section 2

This segment of the corridor runs from the Grosvenor Metro station north to Dodge Street (thereby covering the entire area within the Rockville Pike Neighborhood Plan area).

- Alternatives 3a and 3b – both of these alternatives involve widening the roadway to add two dedicated BRT lanes in the median, where feasible; is generally consistent with the Rockville Pike Plan with BRT, but unclear at this point how sidewalks, bike lanes and other features align.
- Alternatives 4a and 4b – both of these alternatives involve widening the roadway to add two dedicated BRT lanes along the curb side of the road, which they would share with local buses and right turns.

Section 3

This segment runs from Dodge Street north to College Parkway (covering the “mixing bowl” intersection with Veirs Mill Road, Town Center, the Rockville Metro station, and Montgomery College).

- Alternative 3a – this would involve widening the roadway to add one dedicated BRT lane in the median, which would provide service in both directions (bi-directional, sharing a single lane).
- Alternative 3b – this alternative would repurpose two travel lanes to two dedicated BRT lanes along the median.
- Alternative 4a – same as 3a, this would involve widening the roadway to add one dedicated BRT lane in the median.
- Alternative 4b – this alternative would repurpose two outer travel lanes to two dedicated BRT lanes along the curb side of the roadway.

At this time, the State has not agreed to include all three of the alternatives identified in the City’s Town Center/BRT Integration Study (which is primarily within section 3). They agreed to include the lower impact option that includes intersection improvements such as queue jumps at select locations. But the two options with dedicated median lanes (one with roadway expansion and one with a tunnel as a long-term solution) were not selected at this stage. However in a recent conversation with the State, they felt it would be an appropriate time to discuss our tunnel option once the preliminary modeling results for the other alternatives are available in September.

Section 4

This segment runs from College Parkway north to Summit Avenue in Gaithersburg (covering King Farm and the Shady Grove Metro station).

- Alternatives 3a, 3b and 4a – each of these alternatives involve widening the roadway to add two dedicated BRT lanes in the median, where feasible.
- Alternative 4b – this alternative involves widening the roadway where feasible to add two dedicated BRT lanes along the curb side of the roadway.

Project Schedule

Through September	The State is modeling and analyzing each alternative for preliminary ridership and traffic impacts.
Fall 2016	The State will hold an open house to seek public feedback on the alternatives under review. No date set yet.
December	The State will brief the elected officials in the area, including the Mayor and Council. We understand they may do so during the next inter-jurisdictional meeting of the elected officials (with the County Council, Gaithersburg Mayor and Council, and our Mayor and Council). This could be beneficial in terms of hearing the same presentation and engaging in the same discussion with the other partners involved. No arrangements have been made yet, but it is likely to take place in December. Coordination will begin in September.
End of December	The State would like to identify the Alternatives to be Retained for Detailed Study by the end of 2016.

Additional Interim Service Proposed by the County for MD 355

In March 2016, County Executive Leggett announced that he is recommending Ride On Plus priority service to run from the Lakeforest Transit Center to the Medical Center Metro station, and to have this in place within two years. The service will be peak period, limited stop with specially-branded vehicles and upgraded stops/stations, including transit signal priority and real-time bus arrival information.

Attachments

- A. MD 586 BRT Alternative 1 (SHA)
- B. MD 586 BRT Alternative 2 (SHA)
- C. MD 586 Alternative 3 (SHA)
- D. MD 586 Alternative 5b (SHA)
- E. WMATA Proposed Q9 Express Bus Service (SHA)
- F. MD 586 Existing Transportation System (CPDS)
- G. MD 586 Land Use (CPDS)
- H. MD 586 Veirs Mill Corridor Context (CPDS)
- I. MD 586 Q Line Weekly Boardings and Alightings by Stop (CPDS)
- J. MD 586 Potential BRT Station Locations and Spacing (CPDS)