

ATTACHMENT D

Technical Comments from M-NCPPC on DRAFT MD 586 / Veirs Mill Road Corridor Study Report October 10, 2016

As part of this review, M-NCPPC is commenting on the technical aspects of the Corridor Study Report. We anticipate that the Montgomery County Planning Board will comment on the alternatives when they review the study on November 3, 2016.

Minor Comments

Page S-4: Clarify that peak period person throughput is for auto and transit.

Page 7: The statements about projected bus and auto travel times in 2040 do not match Table S-1.

Page 33: Traffic Operations – To improve comparison to future modeling efforts, presentation of existing traffic flows, bus volumes and bus passenger trips is needed in order to better understand existing traffic problems. References should be added to direct readers to the more detailed discussions provided in the “Technical Reports – Part II.”

Page 36: What percentage of 2040 other bus boardings occur at stops that match the 12 stations proposed in the study, as these riders could easily switch buses to take the BRT instead of the local bus?

Page 43 and 44 – In the tables consider indicating a mode of access as “Walk and Bike”?

Page 46, 47, 48, and 50: Travel time savings – Overall travel time savings is useful when the majority of public transit trips are through trips but not all riders will experience the total travel time savings. Based on the 2040 forecasted ridership, what is the average travel time savings (BRT versus local bus, and BRT versus auto)? Does it vary along the corridor? By bus route?

Goals and Objectives

It is important that all stakeholders, including government agencies and the public, are clear on what the goals and objectives of a project are. To this end, in June 2015 Montgomery County convened a workshop to review draft goals and objectives for the bus rapid transit corridor studies. The study was headed in a good direction and provided a clear framework for analyzing the advantages and disadvantages of each BRT alternative. We strongly support resurrecting this approach for all of the BRT corridor studies. That said, we do appreciate that the study evaluated the metrics proposed in the Countywide Transit Corridors Functional Master Plan, including person throughput and person travel time.

Purpose & Need

The purposes and needs of the project are the primary way in which this study proposes to evaluate the alternatives, but the corridor study does not summarize how well each alternative compares with the purpose and need of the project. We have attempted to evaluate the purpose and need statements below for our own use below, and believe something like this should be included in the report.

Project Purpose:

To provide new, higher-speed, higher-frequency, premium transit bus service along Veirs Mill Road between the Rockville Metrorail Station and the Wheaton Metrorail Station.

Measure		Alternative 1	Alternative 2	Alternative 3	Alternative 5B
Higher Speed	Eastbound AM	n/a	21%	26%	36%

**Technical Comments from M-NCPPC on DRAFT MD 586 / Veirs Mill Road Corridor Study Report
October 10, 2016**

	Eastbound PM	n/a	30%	29%	33%
	Westbound AM	n/a	27%	23%	14%
	Westbound PM	n/a	24%	13%	17%
Higher Frequency		n/a	12 minutes (15 minutes)	6 minutes (10 minutes)	6 minutes (10 minutes)
Premium Transit		No	Maybe	Yes	Yes

Project Need:

Measure	What Does it Mean?	Alternative 1	Alternative 2	Alternative 3	Alternative 5B
System Connectivity	High-quality east-west transit	No	Yes?	Yes	Yes
Mobility (bus speed)	Eastbound AM	n/a	21%	26%	36%
	Eastbound PM	n/a	30%	29%	33%
	Westbound AM	n/a	27%	23%	14%
	Westbound PM	n/a	24%	13%	17%
Mobility (bus reliability)		Poor	Unclear	High?	High?
Transit Demand / Attractiveness	Insufficient capacity, unattractive	Not reported	Not reported	Not reported	Not reported
Livability	Same as above	Not reported	Not reported	Not reported	Not reported

Ridership Forecasts

A number of things call into question the usefulness of the ridership forecasts.

- The recommendations in the Countywide Transit Corridors Functional Master Plan were developed based on ridership forecasts for a network of bus rapid transit corridors. As a route that is the critical links between several other routes, the ridership forecasts on this corridor would likely be higher if a network of BRT corridors was evaluated.
- The travel forecasts assume that existing local bus service would remain unchanged over a 30-year period. Is this a reasonable assumption? If not, the ridership forecasts likely underestimate BRT ridership and overestimate local bus ridership.
- It is not intuitive why bus travel times in the westbound direction are lower for Alternative 3 and 5B (where the bus travels in dedicated lanes) compared to Alternative 2 (where the bus travels in mixed traffic). This may in fact be the case, but these results should be discussed.

BRT Design Requirements

The Draft Report does not clearly provide background information on the design vehicle (BRT), its compatibility with existing local buses, and station geometry details. This information is presented in some detail in the July 2016 document titled "MD 586 / Veirs Mill Road Bus Rapid Transit Study,

Technical Comments from M-NCPPC on DRAFT MD 586 / Veirs Mill Road Corridor Study Report October 10, 2016

Technical Reports – Part II.” We recommend that the revision to this Draft Report provide a brief summary of BRT vehicle and station information with references to the Technical Report document.

Public Transit Origin-Destination Data and Forecasts

For a bus study, it is very difficult to evaluate the results when the existing passenger bus demand is not presented with detailed discussion of travel patterns (i.e origin-destination information). Where is the existing bus stop on/off counts by local bus stop? How does the passenger demand compare to the market service areas (walking distances)? Where are eastbound bus passengers destined (Wheaton/Metro versus other destinations) and the reverse in the westbound direction. This is very important to determining how to better serve existing and future bus passenger demand. If the bulk of the BRT demand has destination/origins beyond the corridor limits, it might make sense to incorporate an existing transit route into the BRT service, if possible.

Service Roads along MD 586

MD 586 has several sections with service roads along both sides. While providing access to residential properties along MD 586, it may not be the most efficient use of the Right of Way. Are there any homes along these service roads with no driveway access? Was the elimination of the service roads (with provision of driveways for properties without existing driveway access) considered during the study, including possibly replacing it with on-street parking and a bike lane (or some other improvement) within the improved road cross section? Is on-street parking actually needed along these stretches of road, and could parking be prohibited as an option?

Median Openings along MD 586

With the addition of a major bus service and corridor improvements, there is a good argument to improve existing access management conditions along the corridor to limit the number of median openings with any of the three action alternatives. Alternative 5B closed 16 median openings (unsignalized intersections) along the corridor due to the median BRT lane. It does not appear that any median openings were proposed for closure with the other alternatives. With Alternative 3, the addition of curbside BRT lanes may make some of the existing left turn movements less safe with the addition of one travel lane (the BRT lane). For a BRT lane in general, it would be preferable to minimize the number of unsignalized main street left-turn movements as much as possible. Were access management principles considered for each Alternative and if so, what guidelines or process was reviewed? We would have expected for Alternative 3 to see either the same number of median opening closures as Alternative 5B or some middle ground (8 or so closures).

Bicycle Access

The State’s one-size fits all approach to bike lanes is an ineffective use of the public right-of-way on Veirs Mill Road.

- Since the road ranges from four to six lanes wide with a posted speed limit of between 35 and 45 mph, bike lanes are only appropriate for about 5 – 10 percent of adults, and are inappropriate for children.
- Bike lanes make it more difficult to implement the appropriate bikeway – a shared use path – later on because there would be less public right-of-way available.

**Technical Comments from M-NCPPC on DRAFT MD 586 / Veirs Mill Road Corridor Study Report
October 10, 2016**

- Reduces traffic flow through signalized intersections by necessitating more time for the minor street to accommodate pedestrian crossings.

A more appropriate bikeway that requires the same amount of space is to upgrade the sidewalks on both sides of the street to shared use paths

Other bicycling considerations include:

- Requiring cyclist to share a lane with buses (making frequent stops) and right-turning traffic does not provide adequate separation to provide a safe, comfortable biking environment.
- As this study progresses, please consider the type of bike parking that will be provided at BRT or enhanced bus stations. Please estimate bike parking demand using the industry standards outlined in the Association of Pedestrian and Bicycle Professionals Bicycle Parking Guidelines, 2nd Edition. While this project may not be able to provide all of the needed bike parking, it will help the County to determine the bicycle parking gap that needs to be filled. A typical approach would be to provide a mix of short term (inverted u racks) and long term (secure/covered bike parking in cages or bike stations) at each station. Secure bicycle parking facilities are especially important at the major stations (Rockville and Wheaton).