

MD 586/Veirs Mill Road Corridor Advisory Committee Meeting #3 Summary
Wednesday, May 27, 2015, 6:30 to 8:30 p.m.
Montgomery County Executive Office Building, Auditorium
101 Monroe Street, Rockville, MD 20850

Attendees:

Members	
Messanvi Richard Adjogah	Kathleen Hume
James Agliata	Mary Means
Michael Audigé	Sara Moline
Timothy Crawford	Jessica Reynolds
Mirza Donegan	Ethan Cohen alternate to Stacy L. Spann
D. Jonathan Fink	Michael A. Staiano
Larry Finkelberg	Mike Stein
Ethan Goffman	Thomas M. Strawbridge
Jared Hautamaki	
Apologies	
Galo A. Correa, Sr.	Philip C. Sossou
Staff	
Facilitator – Denise Watkins, RK&K	Consultant Project Manager – Karen Kahl, RK&K
State Highway Administration Project Manager – Jamaica Arnold	Project Engineer – Dave Roberts, RK&K
Maryland Transit Administration Transit Project Manager – Kyle Nembhard	Lead Facilitator – Andrew Bing, Kramer and Associates
State Highway Administration Community Outreach – Joe Harrison	Outreach Support/Scribe – Teri Moss, Remline, Corp.
Montgomery County DOT – Joana Conklin, Tom Pogue, Ligia Moss, Raphael Olarte	
Public/Non-CAC Members	
Tom Autrey, MNCPPC	Barry Gore, City of Rockville Planning

Handouts:

- Meeting #2 Summary
- Exercise #1 Summary of Comments Table (updated 4/20/15)
- Meeting #3 Agenda
- Meeting #3 Presentation
- Maps for Alternatives 3, 5A, 5B, and 6

Introductions:

Denise Watkins, MD 586 CAC facilitator, welcomed everyone to CAC Meeting #3 for the MD 586 Veirs Mill Road Bus Rapid Transit (BRT) Corridor Study. Denise confirmed with the CAC members that they are receiving her emails with meeting reminders and other information.

Following Denise's introduction, the Staff members, CAC members and general public attendees introduced themselves.

Denise then reviewed the meeting handouts and explained that additional comments were added to the Exercise #1 Summary of Comments Table, which is why everyone was receiving a new copy. She then summarized information discussed in Meeting #2 including the project development process, the general planning process, the existing conditions, and the Purpose and Need.

Denise reminded the group about the values and concerns exercise that was completed at the last meeting and stated that the comments were recorded in the Meeting #2 summary.

Purpose of the Meeting:

Denise explained that the purpose of the meeting is to review the ten conceptual alternatives that were presented at the November 2013 Public Workshop and identify the alternatives that have been retained for detailed study. The evaluation criteria that were used to determine whether an alternative was retained will also be explained. The proposed station locations will also be presented. Denise explained that as each alternative is explained, the CAC members will have a chance to ask questions specific to that alternative. CAC members will also have an opportunity to ask questions at the end of the presentation.

BRT Features:

Denise provided a review of the general BRT terms that were presented at the Kickoff Meeting. She reminded the CAC members that there is a "menu" of options to select from when developing a BRT system. Denise explained that the conceptual alternatives that will be presented will be focusing on the runningway and service plan "menu" options and that the stations would be discussed at a future CAC meeting. The vehicle and technology options would be studied in a future stage of the project.

Conceptual Alternatives Overview:

Karen Kahl (Consultant Project Manager) explained that the conceptual alternative information being presented to the CAC members was the same information that was presented at the 2013 Public Workshop. Karen explained that the six conceptual alternatives were developed by combining the various levels of bus service with the various types of runningway improvements. The various levels of bus service include:

- No improvements
- Enhanced bus service (WMATA's proposed Q9 route)
- New BRT service

The various types of runningway improvements include:

- Shared lanes vs. dedicated lanes
- Using existing lanes vs. repurposing lanes vs. adding lanes
- Median-running vs. curbside-running

Some of the six alternatives have multiple options which resulted in ten total conceptual alternatives. Karen gave a brief summary of each of the alternatives and noted that the majority of the remaining meeting time would be spent discussing each alternative in more detail.

Proposed Station Locations:

Karen reviewed the 11 proposed station locations that are being assumed for each of the conceptual alternatives. Karen noted that the locations were identified in previous studies and then included the *Countywide Transit Corridors Functional Master Plan*.

Alternative 1: Retained

Dave Roberts (Project Engineer) presented Alternative 1 to the group. Alternative 1 is the no-build alternative and would consist of no physical infrastructure or bus service changes. The existing buses would continue to operate in mixed traffic for most of the corridor, except along eastbound between Connecticut Avenue and University Boulevard where a “Bus Only” lane already exists.

Dave explained that the no-build alternative is always retained as a viable alternative. In addition, the no-build alternative serves as a baseline condition for comparing the costs, ridership, traffic, and impacts of the build alternatives. For these reasons, the project team has retained Alternative 1 for further study.

A CAC member asked if the percentage of dedicated lanes in Alternative 1 (11 percent) was for both directions or just along eastbound. Dave responded that the percentage was for both directions.

Alternative 2: Retained

Dave then presented Alternative 2 to the group. Alternative 2 is the Transportation System Management (TSM) alternative, and includes minor infrastructure improvements such as queue jumps and transit signal priority (TSP) at select intersections. Alternative 2 also includes enhanced bus service, such as the proposed Washington Metropolitan Area Transit Authority (WMATA) Q9 route that resulted from their Priority Corridor Network (PCN) study. The enhanced bus service would have fewer stops and more frequent service than the existing service.

Dave explained that a queue jump is a lane created in advance of an intersection that can be used by buses and right turning vehicles. When the bus is in the queue jump lane, it could receive a green light before the general purpose lanes receive a green light, which would allow the bus to pass through the intersection ahead of the vehicles in the general purpose lanes. This ‘early green’ signal phase is a type of TSP that could be implemented to decrease the travel time of the buses. ‘Extended green’ is another type of TSP that lengthens the green time as the bus approaches the intersection to ensure that the bus can pass through the intersection without having to stop at a red light.

Dave described the traffic analysis that was completed to identify intersections where queue jumps could be effective. Queue jumps would be most effective for the buses at intersections with a high projected delay. However, Dave added that a queue jump lane cannot be too long or it could be perceived as a through lane by some drivers.

Dave stated that the project team decided to retain Alternative 2 for detailed study because it would provide low-cost improvements that would decrease the bus travel times with minimal property impacts.

The following comments were discussed in response to Alternative 2:

- What happens when the bus is in the queue jump lane and there is a car in front of it? Dave responded that the early green light would apply to all vehicles in the queue jump lane, including right turning vehicles. The green time would have to be long enough for the bus to pass through the intersection.
- How far from the intersection would the dedicated lanes extend back? Dave responded that most queue jump lanes would be 500 to 600 feet long.

- Could there be more than one bus in the lane at a time? Dave responded that there could be more than one bus in the queue jump lane at a time due to the various bus routes and schedules.
- Could the buses overflow into the main lanes? Karen replied the standard buses are approximately 40 feet long so they would not block the main lanes.
- Would the existing services be allowed to use the queue jump lanes? Dave responded that if there is a bus stop at the intersection, the bus would have to use the queue jump lane to use the stop. Therefore, the queue jump lane would be available to all buses.
- Cars could follow the buses in the queue lane and move ahead of other cars. Could this impede the flow of traffic? Dave acknowledged that it could be possible for cars to use the queue jump with the buses. Enforcement measures would need to be established with the implementation of queue jumps.
- Have the conceptual alternatives been implemented in other cities? Karen responded that the alternatives have been implemented in other cities.
- Could there be degradation of automobile level of service (LOS) with the addition of queue jumps? Dave responded that there could be degradation in the LOS of the automobiles and that a traffic analysis will be performed on Alternative 2 since it was retained for detailed study.
- If more people take buses than use cars, would it help? Theoretically, as the bus service becomes more efficient, people would begin to switch from cars to buses which could improve the traffic conditions.
- How feasible is off-board collection? Travel times could decrease by eliminating on-board payment. Dave responded that off-board fare collection is an element of BRT that can decrease travel time. The current study is not at that level of detail yet, but it could be considered in the future. Karen added that WMATA is studying off-board fare collection and the project team will look into that study.

Alternative 3: Retained

Dave then began the discussion on Alternative 3, which is a step above Alternative 2 from a transit perspective. Alternative 3 would include curb-running dedicated bus lanes (where feasible) and implementation of the WMATA Q9 express bus route. The dedicated bus lanes could be created by widening or repurposing existing shoulders or lanes. Karen reviewed the Alternative 3 map which uses blue arrows to show the limits of the shared lanes and orange arrows to show the limits of the dedicated lanes.

Dave described that after the November 2013 Public Workshop, the description of Alternative 3 was revised to include new BRT service, rather than enhanced bus service. The reason for the change was to create more BRT alternatives since the goal of the study is to analyze options for BRT. Dave explained that Alternative 3, with BRT service, was retained for detailed study by the project team. Alternative 3 was retained because it would provide dedicated BRT lanes with minimal property impacts as compared to the full-BRT alternatives.

The following comments were discussed in response to Alternative 3:

- How does Alternative 3 differ from Alternative 6? Dave responded that they are similar, especially when BRT service was added to Alternative 3. The primary difference was the limits of the dedicated lanes. Alternative 6 provided more dedicated lanes than Alternative 3. Ultimately, the refined version of Alternative 3 will likely be a combination of Alternatives 3 and 6. Alternative 6 was not retained due to similarities with Alternative 3.
- How will this impact the current bus service? Will every Ride-On bus be able to use the lane? Dave responded that the outside dedicated lane would be available for all buses to use so that they can still access the bus stops along the curb.

- BRT in the median would not serve all buses. It looks like Alternatives 2 and 3 would improve all bus service along Veirs Mill Road.
- Should we assume that BRT would serve those that do not use the existing bus service? BRT is supposed to entice non-sprawl development rather than sprawl. Karen responded that it is expected that some people will switch from their vehicles to the BRT.
- Future generations would be more likely to use the BRT. This project should serve the future generations and not necessarily the current generation. The BRT project could spur new higher density development along the corridor.
- The term ‘BRT’ has a negative connotation to many people because they associate it with buses. Instead, it should be advertised more like a light rail system. Karen stated that the county is using the term ‘Rapid Transit System’ (RTS) to describe the BRT projects.

Alternative 4:

Karen then reviewed Alternative 4. Alternative 4 would include new BRT service in dedicated lanes from MD 28 to MD 193. The alternative was split into Alternatives 4A, 4B, 4C, and 4D to differentiate how the dedicated lanes are formed and where the dedicated lanes are located. Alternatives 4A and 4B would create the dedicated lanes by repurposing an existing lane in each direction. Alternatives 4C and 4D would create the dedicated lanes by widening. The dedicated lanes would be median-running in Alternatives 4A and 4C and curb-running in Alternatives 4B and 4D.

Alternatives 4A and 4B (Being studied further) would reduce the number of travel lanes by one in each direction. The preliminary traffic analysis showed strong deterioration in the traffic conditions with the implementation of Alternatives 4A and 4B. However, alternatives 4A and 4B are being reevaluated from a person throughput perspective to determine if lane repurposing is viable along Veirs Mill Road. Therefore, a decision on whether to retain or not retain Alternatives 4A and 4B has not been made, and it will be made after the person throughput analysis is completed.

The following comments were discussed in response to Alternatives 4A and 4B:

- How would vehicles be prevented from using the bus only lanes? Karen stated that photographic enforcement is used to capture violators in HOV lanes, and the same technology could be used along Veirs Mill Road. However, enforcement has not been studied in this project and would be considered at later stages.
- Repurposing is successful along roadways with excess capacity and Veirs Mill Road does not seem to have excess capacity. Karen responded that the person throughput analysis will help determine the feasibility of lane repurposing.
- If there is only one traffic lane, people will use neighborhood roads to avoid Veirs Mill Road. Karen replied that traffic along the neighborhood roads could increase due to lane repurposing.
- With only one lane, accidents would cause problems for cars and the bus services. A broken down bus would severely impact the BRT service.

Alternatives 4C and 4D (Not Retained) would create entirely new bus lanes by widening the roadway. Karen explained that the 2040 projected daily ridership is 9,100 for Alternative 4C and 6,900 for Alternative 4D. Ridership projections will be completed for each of the retained alternatives and the team will compare the projected ridership to the costs and impacts of each alternative. Karen stated that the number of property impacts with Alternatives 4C and 4D, especially in Rockville, led to the team deciding to not retain either alternative.

The following comments were discussed in response to Alternatives 4C and 4D:

- Why do the typical sections show bike lanes for some alternatives and not others? Karen replied that the SHA policy is to add bike lanes whenever the roadway is being widened. Alternatives that just require repurposing or where the bus would be in mixed traffic do not include bike lanes.
- Do we know if all areas have enough width to accommodate new lanes within the existing right of way? Karen replied that there is not enough width in all areas, which is why there would be many impacts with Alternatives 4C and 4D.
- With these alternatives, what percentage of corridor would be impacted? Karen responded that the impacts would be extensive, primarily in the western portion of corridor where there are service roads. The team analyzed the possibility of eliminating the service roads but it was determined that the service roads need to remain in order to provide parking for the homes along Veirs Mill Road. These alternatives were too impactful for the state, city and county which is why these alternatives were not retained for further study.
- How would the impacts change if you go to single dedicated lane? Karen replied that the single dedicated lane is being looked at now because Alternative 5B has been retained.
- With Alternative 4C, how would left turns be impacted if there is a median separating the BRT from the general traffic lanes? Karen responded that all unsignalized left turns would be closed-off when the BRT is in dedicated median lanes.
- Would there be U-turn lanes in between the signalized intersections? Karen responded that u-turns would only be allowed at the signalized intersections in Alternative 4C.
- Would you expect the auto speeds to increase if the unsignalized left turns were closed-off? Karen responded that this has not been studied but she suspects the automobile speeds could increase because vehicles would not be slowing down to turn left onto side streets. In addition, vehicles would not be allowed to turn left onto Veirs Mill Road from a side street.

Alternative 5A: Not Retained

Dave then described Alternative 5A. Alternative 5A would include new BRT service in a single dedicated median lane. The dedicated lane would be reversible, meaning it would be used by buses travelling in the peak direction, while buses in the off-peak direction would travel in mixed traffic.

Dave stated that an important feature of a reversible system is a predominant peak direction. The traffic analysis showed that there is no peak direction along Veirs Mill Road. The team decided to not retain Alternative 5A due to the ineffectiveness of a reversible system along a roadway with no peak direction of travel.

The following comment was discussed in response to Alternative 5A:

- Was an alternative that uses Randolph Road considered to create a loop? Dave responded that no alternatives along roads other than Veirs Mill Road have been considered. Joana Conklin (MCDOT) responded that the Master Plan includes BRT corridors along Randolph Road, MD 355, and MD 97, so the Veirs Mill BRT would be part of a larger network.

Alternative 5B: Retained

Dave then described Alternative 5B. Alternative 5B would include new BRT service in a bidirectional BRT system. Where the existing right-of-way is constrained, Alternative 5B would consist of a single dedicated median lane, with buses travelling in both directions in that single lane. Buses would wait at stations for the approaching bus to pass, before moving into the one lane section. Where more right-of-way is available, there would be two dedicated median lanes.

The team decided to retain Alternative 5B because the service would be similar to the service provided in Alternative 4C, but there would be fewer impacts.

The following comments were discussed in response to Alternative 5B:

- Has a bidirectional BRT system been used elsewhere? A general public member stated that there may be one or two bidirectional systems in the United States. Another CAC member commented that a bidirectional system would be similar to ‘single-tracking’ along the WMATA Metrorail lines.
- Where would the stations be located? Dave and Karen described how the stations would be located in the median, on the far side of the intersection. There is typically dead space located across from the left turn lanes, so this area could be used for the stations.
- How would pedestrians access the stations? Pedestrians would have to use the crosswalks at the intersections to access the median stations.
- Could pedestrian bridges be included? Dave replied that pedestrian bridges could be included, although none have been studied at this point.
- If the station is on the far side of the intersection, the bus would have to wait at a red light, and then stop on the opposite side of the intersection immediately after getting a green light. Karen replied that the same thing could happen if the bus station was on the near side. The bus could have to stop at the station, and then wait at a red light.
- If these are articulated buses, where would the people board? Karen replied that articulated buses are 60-feet long with three doors. The stations would be long enough to accommodate all three doors.
- Would it be better to use a center platform? Karen replied that a center platform would require more widening because the BRT lanes would have to widen out to accommodate a center platform. With the side platforms, the station space is naturally created from the left turn lanes.

Alternative 6: Not Retained

Karen then described Alternative 6. Alternative 6 would include new BRT service in dedicated lanes along the curb, similar to Alternative 3. Alternative 6 was not retained due to the similarities with Alternative 3, which was retained.

The following comments were discussed in response to Alternative 6:

- Did you look at adding lanes on the inside (toward the median) instead of always widening to the outside? Karen replied that the median width varies so much due to the frequency of left turn lanes that it was not feasible to widen into the median for any significant length.
- On 16th Street in DC, the lane widths are not as wide as Veirs Mill Rd, and yet they still accommodate buses. Would SHA be willing to settle for lane widths less than 11 feet? Karen replied that SHA typically prefers 12 foot wide lanes. The team is using 11 foot wide lanes in the design of the alternatives to help narrow the footprint. Using 10 foot lanes may create safety concerns along an arterial with speeds around 35 or 40 miles per hour.

Alternatives Public Workshop:

Dave explained that a lot of the same materials presented to the CAC members on the Alternatives were presented at a Public Workshop in November 2013. Nearly 100 people attended the Workshop and there was general support for the project. The major concerns expressed by the public were related to the pedestrian crossings, the costs, and the property and environmental impacts.

Refinement and Evaluation of ARDS:

Karen gave a summary of the alternatives that were **retained (Alternatives 1, 2, 3, and 5B), being studied further (Alternatives 4A and 4B), and not retained (Alternatives 4C, 4D, and 6)**. She also gave an overview of the work that would be completed for each of the alternatives that were retained for

detailed study. The Alternatives retained for detailed study will be evaluated through more detailed engineering including horizontal and vertical alignments, right of way (ROW) and environmental impacts, cost analysis, traffic/ridership studies, and environmental analyses. The refinements will be continuing over the summer and some results of the refinements are anticipated to be ready for presentation at the next CAC meeting.

Open Discussion:

Denise then opened the floor for questions from the CAC members on anything that had been presented at the meeting. The following topics and comments were discussed:

- A CAC member asked for a chart that compares the alternatives? Karen responded that a chart will be given to the CAC members to compare the alternatives that have been retained once more detailed analysis is complete.
- Who makes the decision on which alternatives should be retained? Karen replied that SHA, Montgomery County, MTA and the technical team looked at parameters and used engineering judgment and reasonableness with regard to level of impacts and costs in order to select the retained alternatives.
- Are the County, the State and MTA looking only at Veirs Mill Road, or are they looking at this comprehensively? Joana replied that the Master Plan has 10 BRT corridors. Currently, Veirs Mill Road, MD 355 and US 29 are being studied and the New Hampshire Avenue study will be beginning soon. Joana added that the County is not able to do all 10 studies at once – it is a phased approach that will take time. Andrew Bing (Lead Facilitator) referenced the County's RTS website and the fall public workshops for MD 355 and US 29 if the CAC members are interested in the other corridors.
- A CAC member received a letter from SHA stating that field crews may need to enter her property. What field work is being done? Jamaica Arnold (SHA Project Manager) responded that as part of the environmental analysis, field personnel need to identify any existing environmental features such as streams or wetlands. That work may include soil samples, but mostly will be conducted from the roadway without having to enter private property. The letter was sent to about 650 property owners along Veirs Mill Road as a precautionary measure. Karen added that noise or air data collection could also occur.
- It took years to study the ICC. By the time it was built, the automobiles that were supposed to use it were not there. What is the timeline for BRT? Are we going to study it for people who need to use it? Karen responded that when we plan for infrastructure improvements, it is usually for 20 to 30 years in the future and not for today. The BRT projects are using 2040 as the horizon year. The Corridor Cities Transitway (CCT) is the furthest along of the bus rapid transit projects in Montgomery County. Compared to the other BRT corridors in the Master Plan, Veirs Mill Road is the furthest along. Andrew stated there are many steps that need to take place and public support plays a role as the projects are evaluated. Jamaica added the timeframe for SHA projects is typically 3 to 5 years for planning, 3 to 5 years to design and 3 to 5 years for construction – if all of the funding is in place.
- How long would it take to implement the Q9 bus service? Joana stated it would not take as long to implement as BRT would. The Q9 could be another approach if the County wants to implement something more quickly.
- Would the BRT projects be accelerated if the Purple Line is canceled? Joana responded that is unknown since we don't know where the funds would go.

Conclusion:

Denise thanked everyone for attending and asked the CAC members to email her with any more questions they may have as they consider the alternatives. In CAC Meeting #4, more detail will be presented on the alternatives that were retained. Denise encouraged the group to reference the website for updates and to stay informed on the status of the other BRT studies.

Meeting #4 will be held in September 2015. Once determined, the date and location will be emailed to the CAC members and posted to the County's website.

Additional comments by CAC members made via comment card or email after the meeting and prior to issuance of summary:

- Re: Offboard Payment System: RFID embedded cards that can be read through clothing where riders pass through a detector that “opens” and allows entry to a holding area. This is used at many ski areas for lifts and trams. You go through the scanner then wait for the lift/tram.
- Re: Naming of the system/study. The term “bus” should be eliminated. Taking the cue from rail transit, let the guideway type be the defining element, i.e., the road. Thus, analogous to rail transit, the service is “road” transit. Likewise, Bus Rapid Transit (BRT) becomes Road Rapid Transit (RRT).

For the same reason, the vehicle itself should be as unlike a traditional transit bus as possible. Most importantly the reciprocating engine (whether diesel, LNG, or CNG; and including hybrids) should be replaced by electric propulsion – as in rail systems. Battery-electric buses that are starting to see revenue service (e.g., New Flyer Xcelsior Electric Bus and Proterra Battery Electric) are ideal – although modern trolley-buses also are suitable. FTA has a capital grant program, TIGER, to encourage reduced energy consumption and pollution from public transit. A battery-electric system might be eligible for funding from that program.