

**MD 355 South Corridor Advisory Committee Meeting #9 Summary
November 9th, 2016 from 6:30 to 9:00 PM
Bethesda Chevy Chase Regional Services Center
4805 Edgemoor Ln, Bethesda, MD 20814**

Attendees

Members	
Nancy Abeles	Peter Katz
Joshua Arcurio	Richard Levine
Barbara Condos	Damon Luciano
Roger Fox	Sasha Page
Debbie Friese	David Sears
Jerry Garson	Ana Milena Sobalvarro
Matt Gordon	Francine Waters
Celesta Jurkovich	Jan White
Apologies	
Peter Benjamin	Deborah Michaels
Jay Corbalis	D. Todd Pearson
Elizabeth Crane	Susan Roberts
Kristi Cruzat	Chad Salganik
Ryan Emery	Ralph Schofer
Greg Ford	Eric Siegel
Victoria Hall	Gerard Stack
Eleanor Kott	John Alex Staffier
Tony Kouneski	Michael Tardif
Todd Lewers	Stephen Wilcox
Jeremy Martin	
Staff	
MTA -- Kyle Nembhard	Facilitation Staff – Yolanda Takesian
MTA – Jackie Seneschal	Facilitation Staff – Liz Gordon
Montgomery County DOT – Joana Conklin	Study Team – Chris Bell
Montgomery County DOT – Darcy Buckley	Study Team – Alvaro Sifuentes
Montgomery County DOT – Rafael Olarte	Study Team– Krishna Patnam
Facilitation Staff – Andrew Bing	City of Rockville – Barry Gore
Guests	
David Winstead	

Handouts

Handouts provided to CAC Members included:

- Agenda for CAC Meeting #9
- Presentation for CAC Meeting #9
- BRT Draft Alternatives comparison handout

Meeting materials and video of the meeting will be posted on the project website:

<https://www.montgomerycountymd.gov/BRT/md355south.html>

Introduction

Facilitator Yolanda Takesian welcomed attendees, introduced meeting content, and outlined the agenda. She explained the meeting is the second of a two-part review of the analysis of BRT alternatives; the goal of this meeting is to understand the remaining high-level screening criteria for the BRT alternatives – costs and property impacts. The tabletop exercise following the presentation will allow participants to weigh the tradeoffs of different alternatives and to provide input on which running ways or alternatives could be removed from consideration or refined to move to the next stage of more detailed study.

Project Process and Screening Criteria

Kyle Nembhard reintroduced the four BRT conceptual alternatives for the corridor (Alternatives 3A, 3B, 4A, and 4B) that the project team has been testing at a high level. He explained that while this meeting would focus on comparing tested alternatives to one another, it is very likely that “hybrid” alternatives will emerge keeping only the best aspects of these preliminary alternatives in the mix for further study.

(Question) Is there a possibility that the alternative advanced to construction might be a hybrid/combination of these alternatives, with different characteristics in different sections?

(Response) Absolutely. There are some places that call for different operating approaches based on space and other constraints and this is why the corridor is shown as seven sections in analysis mapping.

(Q) Is Federal “scoring” of alternatives still based on cost-effectiveness?

(R) Yes, in part. We will definitely be comparing costs to benefits, chiefly in the form of cost per new rider.

(Q) When you say “mostly median running way” what does “mostly” mean, in terms of percentage?

(R) We have a few areas that are space constrained and thus some alternatives just aren’t considered there, and they will have a different approach. We haven’t quantified it in terms of percentage.

(Q) Can some sections use approaches not shown in these alternatives, such as mixed traffic? Specifically, inside the Beltway.

(R) Yes. We’re analyzing mixed traffic in every section because mixed traffic alternatives (both in the Transportation System Management (TSM) and No Build) are being carried forward.

Conceptual Alternatives Screening Criteria Results

Alvaro Sifuentes explained that this meeting will add a consideration of impacts and costs to the previous meeting's discussion of transit ridership, person throughput, travel time, and accessibility. Adding these criteria will begin to introduce tradeoffs, as the alternatives that provide the most transit benefit also tend to have higher impacts on property and higher capital and operating costs.

Mr. Sifuentes walked participants through the same general questions as in the previous meeting, but this time added the dimensions of operating costs and property impacts to the discussion. The previous takeaways from these questions are below, with operating cost and property impact implications added in italics.

The analysis presented at this and the previous meeting answer six questions at a high level, that is, in a very general sense.

- How does Observation Drive compare to MD 355, in the northernmost end of the study corridor?
 - Observation Drive has higher ridership.
 - Lower congestion would allow the BRT to operate quickly in mixed traffic on Observation Drive.
 - Important activity centers are planned along Observation Drive.
 - *Operating costs are slightly higher on Observation Drive compared to MD 355.*
 - *Construction costs on MD 355 would be higher than construction costs for an Observation Drive alignment.*
- How do the two southern termini (Bethesda and Grosvenor) compare?
 - 15% of the ridership is generated by extending service south of Grosvenor. This is true both in that portion and in the central portion of the corridor, north of Grosvenor, because it provides greater access to important activity centers.
 - *Stopping BRT service at Grosvenor will result in fewer property impacts and lower construction and operating costs compared to continuing service to Bethesda.*
- What is causing differences in the projected ridership for new BRT service between the BRT alternatives?
 - Higher ridership is anticipated along an Observation Drive alignment due to a greater number of large trip generators.
 - Extending service to Bethesda increases ridership by expanding the BRT market and providing access to additional activity centers.
 - In general, the median running way sections have shorter BRT travel times generating higher ridership within those sections.

- *No additional information. Property impacts and construction costs are not related to differences in ridership between BRT Alternatives.*
- What are the effects of lane repurposing?
 - Transit person throughput increases on all alternatives and all alignment sections compared to the No Build alternative.
 - In general, total person throughput decreases in sections where lane repurposing is being proposed due to a decrease in auto person throughput (caused by increased traffic congestion).
 - *Lane repurposing minimizes property impacts and has been proposed in constrained areas.*
- How does the bi-directional section operate?
 - It creates longer travel times due to buses having to wait to pass one another.
 - Longer travel times lower the ridership projections.
 - *Construction costs and property impacts are higher for this option compared to lane repurposing.*
- How do the median vs. curb running ways compare?
 - Median options result in shorter BRT travel times, in general.
 - Median alternatives also generate higher ridership, in general.
 - *The median alternatives require higher property impacts and result in higher construction costs than curb alternatives.*

(Q) Have you included the traffic impacts and the businesses that will close because of the traffic created?

(R) Those are not screening criteria. They are selection criteria and will be analyzed later in the project.

(Q) Have you studied whether adding BRT to this corridor will further decrease Metro ridership?

(R) The model predicts a nominal impact on Metro ridership and in some alternatives slightly raised ridership.

(Q) Will that Metro ridership analysis be available to the public?

(R) Yes, that information will be included in the memo describing the screening results.

(Q) In sections where lane repurposing is being considered, how much will total person throughput decrease, in percentage?

(R) Specific numbers will be presented later in the study; right now we're looking high level.

(Q) If operation is bi-directional in some sections, will buses have to wait for each other to pass?

(R) Yes. That's why travel time is slow in that scenario.

(Comment) It is important that you give us real costs to compare scenarios.

(R) At the moment we are selecting what to study further. We'll compare costs for the alternatives we study in detail.

(Q) For property impacts it is hard to tell how much of the difference occurs due to each decision, such as alignment or end point.

(R) In the appendix the results are described by section, so you can see where the differences occur, specifically.

(Q) Can we model analysis results for intermediate years, not just existing conditions and 20 years from now?

(R) We can talk about that as we move forward in the process.

Next Steps

Kyle Nembhard described the public meeting that will be held in February, 2017, where the information shared with the CACs in the past two meetings will be shown to the general public.

Breakout Exercise

Yolanda Takesian then transitioned the meeting to small table group work, where staff led discussions of study results and tradeoffs, corridor segment by corridor segment. Four groups developed their own "hybrid" conceptual alternatives and made other suggestions for the team to consider as it moves forward into detailed study. Concepts and the basis for consideration are described below.

First Table:

- Service should be extended south of Grosvenor to Bethesda, but in mixed traffic.
- Mixed traffic, median and curb should all be considered in section 2.
- A reversible BRT lane and mixed traffic should be considered in section 3.
- Premium BRT should be focused north of Shady Grove. Median and curb running BRT should be considered north of Shady Grove; mixed traffic should be considered south of Shady Grove.
- In Gaithersburg, due to constraints, consider a reversible system or mixed traffic.
- In section 6, look at dedicated median and dedicated curb BRT options.
- In section 7, only Observation Drive should be carried to further study.

Second Table:

- Service should be extended south of Grosvenor to Bethesda, but also consider a TSP/queue jump strategy.
- Where median makes sense on the length of the corridor, focus on that option.
- A single median bi-directional or reversible lane should be considered in the constrained sections, 3 and 5.
 - Passing lanes might be used to alleviate some of the poor performance associated with a bi-directional lane.
- In section 7, only Observation Drive should be carried to further study, due to important destinations including the outlets and hospital.

Third Table:

- Service should be extended south of Grosvenor to Bethesda in some form due to the high predicted ridership in that area. Consider using Woodmont Avenue to access the west side of the Bethesda Metro station, instead of remaining on Wisconsin Avenue.

- Since BRT speed influences ridership, try to use the faster (median) option where space allows.
 - Pedestrian access to a median BRT station must be provided for with good design.
- A single median bi-directional lane shouldn't be considered in further study due to its poor expected performance.
- In section 7, only Observation Drive should be carried to further study, due to high projected ridership there.
 - While mixed traffic service may be acceptable under current conditions, the additional reserved space in the right of way for expansion into the median if need be is an important feature in favor of Observation Drive.

Fourth Table:

- For BRT service to be most successful in reducing congestion on the corridor, it must achieve trip times that are equal to or better than trips made by single occupancy vehicles. This requires that the overall system be well-designed and able to work within the context it is serving.
- Median-running BRT should be retained for study for all segments where possible due to faster run times and higher ridership levels.
- A “thick pipe” approach to system design was discussed. Such an approach would incorporate Ride-On and WMATA service in parts of the BRT corridor. Once in the corridor, these vehicles would provide either local or express service, giving them the ability to pass one another as needed creating viable service to nearby off-corridor locations.
- Brisbane Australia’s “Quickway” transit system was discussed, a system that has achieved significant ridership in a region of mixed and mostly suburban density. This system and other international systems use the flexibility of BRT, allowing the same vehicles to run like trains within the corridor, and like local buses when outside the corridor. The group recognized that while attractive in concept, it may have issues related to incompatibilities between vehicle types used for local service vs. median running BRT.
- Service should continue to Bethesda Metrorail Station and not stop at Grosvenor Metrorail Station. It should be fast service, the group did not have an opinion as to which alternative would best achieve that goal and would look to the results of the technical analysis to determine how best to accomplish.

Member Materials

- As part of the Group 4 discussion (as summarized above), CAC member Peter Katz provided a short PowerPoint presentation showing ways to optimize BRT at the system level to address the ways transit works in a suburban environment of varying density and intensity.
- CAC member Jerry Garson presented printed copies of existing conditions data such as turning movement counts at study area intersections and transit ridership data in the area.