



DEPARTMENT OF TRANSPORTATION

Isiah Leggett  
County Executive

Arthur Holmes, Jr.  
Director

January 20, 2009

Mr. Ben Ross, President  
Action Committee for Transit  
P.O. Box 7074  
Silver Spring, Maryland 20907

RE: Bus Rapid Transit Concepts

Dear Mr. Ross:

I am writing in response to your letter in which you offered a variety of suggestions to prioritize the movement of buses over general purpose traffic in the County. I appreciate your and the Action Committee for Transit's continued advocacy for improving transit services in the County. I want to apologize for the amount of time it has taken the Department of Transportation to respond to your suggestions. We failed you by not providing a timely response.

Allow me to begin by emphatically stating that the County Executive and the Department of Transportation (MCDOT) are committed to transit services in the County that achieve the intent of our growth policies and master plans. This includes continually improving upon the transit services and programs we currently provide based on budgetary allocations; building infrastructure in accordance with available resources to expand our transit capacity to meet our residents needs and changing demographics; and utilizing technology that maximize the efficiency of our services. We constantly strive to ensure our services are efficient, safe, and user-friendly, and welcome the opportunity for feedback from our users.

As stewards of the County's transportation system, we have a responsibility to serve all users, not only transit patrons, but also for motorists who depend on personalized transportation and convenience, pedestrians and cyclists, as well as the freight industry who rely on the transportation system to deliver their goods and services. Our charge is to provide a balanced, safe, effective and efficient transportation system that satisfies the needs of all users. The goals and objectives of each mode often compete or are in conflict with each other, and it is for that very reason that we attempt to provide a balanced set of policies and operational strategies to equitably serve all of our customers. I, and this Department, would not be faithfully serving our residents by discounting the transportation needs of one mode at the expense of another.

In the enclosed document, you will find our responses to each of the Committee's suggestions. I have asked my staff to thoughtfully consider and analyze each item. As you can see, we are not able to accommodate all of the suggestions made, either due to technical issues or because the suggested action is not in the overall best interest of providing a balanced transportation system as I described above. I can appreciate that you may not agree with our position on each and every item, and my staff and I are open to a dialogue to discuss further if you wish.

**Office of the Director**

There are a few points and comments that I thought are particularly worthwhile to make to assist in your understanding of our position on some of the items. These include jurisdiction and operational responsibilities associated with parts of the system, and some basic premises for traffic signal timing and synchronization.

**Intersection and traffic signal decision-making authority** – While MCDOT maintains and operates all of the traffic signals in the County, approximately two thirds of the nearly 800 signalized intersections in the County are owned by the Maryland State Highway Administration (MSHA). MSHA has the exclusive authority to decide how their facilities will function. As such, they determine the basic operational parameters of the intersections and traffic signals under their jurisdiction, including specifying turn prohibitions at intersections and lane use. Generally, MCDOT times the traffic signals in accordance with MSHA policy, and is responsible to ensure its continued operation.

**Traffic signal timing** – in a coordinated signal system, the cycle lengths for an intersection cannot be less than the sum of the minimum timing parameters associated with each phase of the cycle. This includes each movement's minimum green time, pedestrian walk and clearances times, and vehicular clearance times (i.e., yellow and all red times). The largest percentage of the sum of these timings is associated with the pedestrian clearance intervals, which are timed to allow a pedestrian to cross the entire width of the roadway at an average walking speed. We are currently in the midst of a Countywide effort to modify the pedestrian clearance intervals based on a change in the walking speed standard used in the calculation. This change will result in increasing many of the pedestrian intervals, and thereby the total minimums for many intersections, and will actually result in increasing many of our cycle lengths.

**Traffic signal synchronization** – Traffic signals are synchronized based on the predominant direction of travel and the time of day, and the prevailing speed for the particular time of day. This basic approach provides progressive flow that minimizes the stopping of vehicles in the peak direction, including buses. Coordination settings that purposefully disrupt the smooth and efficient flow of traffic will create more starting and stopping of vehicles, thereby wasting fuel and increasing emissions and environmental impacts.

Thank you again for taking the time to share your ideas and suggestions. I look forward to our continued collaboration on transit and transportation matters.

Sincerely,

  
Arthur Holmes, Jr.  
Director

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Enclosure

Responses to requests made by Action Committee for Transit

1. *Rockville: At Church St./Hungerford Drive intersection, move stop line for cars approaching intersection on westbound Church Street to the east, beyond the driveway used by buses exiting the Metro station so that buses leaving Metro station are not blocked by automobiles backed up at a signal.*

MCDOT Response:

We have evaluated the suggestion to relocate the stop line for Church Street to a point prior to the bus loop exit. The basic premise behind this suggestion has merits, and we feel that something can be done to achieve the desired objective, albeit with slight modifications. The stop line cannot simply be relocated since a stop line is needed at the current location to indicate the stopping point for that approach, including for the buses exiting the loop. However, we feel that a second stop line placed beyond the exit driveway, approximately 60' east of the existing stop line, along with signing encouraging motorists to not block the driveway exit, might deliver the desired results. Please note that Church Street is owned and maintained by the City of Rockville, and their approval is necessary to implement. We will contact the City to solicit their concurrence with the offer that we will implement the marking modification and associated signs.

Furthermore, in an attempt to facilitate improved egress for buses, we have increased the extension time for the sensors on the east leg, so that the green indication stays on longer as it waits for another vehicle on that leg, to allow more of an opportunity for the busses to exit the Metro station while the signal is green.

2. *Reduce period of signal cycle at Church St./Hungerford Drive intersection to one-half of current duration )so that the average wait until next green light is cut in half.*

MCDOT Response:

We have determined that a half cycle cannot be implemented at the intersection of Church St and Hungerford Drive as the minimum timing requirements for the movements and pedestrian crossings exceed the half cycle. This intersection currently runs a 150 second cycle length during the AM and PM peak periods and 110 seconds during off-peak periods, and minimum required timings are in excess of a 75 second peak and 55 second off-peak half cycle.

3. *Bethesda: Reduce period of signal cycle from 100 to 50 seconds at Woodmont/Edgemoor and Old Georgetown/Commerce intersections where buses exit Metro station.*

MCDOT Response:

- We have determined that a half cycle cannot be implemented at the intersection of Woodmont and Edgemoor as the minimum timing requirements for the movements and pedestrian crossings exceed the half cycle. This intersection currently runs a 100 second cycle length at all times of the day, and minimum required timings are in excess of a 50 second half cycle.

- At the intersection of Commerce and Old Georgetown, we have determined that a half cycle timing plan is feasible. This intersection operates with a 120 second cycle at all times, and the minimum timing requirements are less than a 60 second half cycle. The half cycle timing plan is being developed and will be implemented in the next couple of months along with planned pedestrian timings adjustments (which will adjust the pedestrian timings to a new walking speed standard). The new plan will initially be effective for weekday off-peak periods and weekends. Once the new timing plan is in place, we will monitor it for its effectiveness and impacts to overall operations. We will also evaluate to determine if the half cycle can be utilized in the AM peak period. We have concluded that the half cycle is not feasible for the PM peak period due to the volumes along northbound Old Georgetown, and the likelihood that the reduced green time for the northbound movement would cause queuing that would extend back into the intersection of Wisconsin Avenue, Old Georgetown Road and East-West Highway.
4. *Adjust signal synchronization so that buses leaving Bethesda Metro and turning left onto Woodmont Ave. hit green lights when turning left onto Montgomery Ave. and at subsequent signals on Montgomery Ave.*

MCDOT Response:

As addressed in the accompanying letter, adjusting signal coordination as suggested is not practical and not in the best interest of our overall transportation policies.

5. *Medical Center: Allow left turns by buses from northbound Rockville Pike onto Cedar Lane at all hours.*

MCDOT Response:

The intersection of Rockville Pike (MD 355) and Cedar Lane is a state owned and maintained intersection, and the decision to prohibit turning movements, or allowing vehicle based exceptions, is under the jurisdiction of the MSHA. I have written to the MSHA District 3 office and asked that they investigate this request.

If MSHA allows an "Except Buses" provision for the existing restriction, it would not affect current Ride-On operations, as none of the existing Ride-On bus routes utilize this movement when it is allowed. However, Metro J1, J2, and J3 would potentially utilize the movement, as those lines are routed south along Rockville Pike to Battery Lane in the AM to detour around the prohibited turn movement. The dominant direction for these routes is inbound to Medical Center in the AM (from Montgomery Mall), and Metro has proposed budget related elimination of the J1 route beginning this March.

6. *Glenmont: Increase the duration of the green signal for buses leaving the Metro station onto Georgia Avenue:*

MCDOT Response:

We have reviewed the signal timings at this intersection along with observations of existing operations, and have not noted instances of buses needing additional green time. The

existing duration of green time provided throughout the day for both the driveway and the southbound left turn from Georgia are adequate to serve all buses queued when those movements were serviced by the traffic signal. Since the sensors detect that there are no more vehicles to serve and terminate the green for the movement, adding additional time would serve no purpose because there would be no buses to take advantage of any added time.

7. *Adjust signal synchronization so that buses leaving Metro station and turning left onto Georgia Ave. hit green lights at subsequent intersections (Georgia/Layhill, Layhill/Glenallen, and Georgia/Randolph intersections).*

MCDOT Response:

As addressed in the accompanying letter, adjusting signal coordination as suggested is not practical and not in the best interest of our overall transportation policies.

8. *Increase the duration of the green signal for left turns from southbound Georgia Ave. onto Randolph Road.*

MCDOT Response:

This intersection operates at failing levels of service, especially during the peak periods. The existing traffic signal timings are best suited to serve the overall intersection, and changes that favor one particular movement would come at the expense of others and would exacerbate overall congestion, as well as cause ripple effects at the upstream intersections. Most notably, adding time for the southbound left turn would cause a decrease of green time for the northbound through movements, as well as the eastbound left turn movement from Randolph to Georgia. This would negatively impacts the Metro Y routes that run north and south along Georgia Avenue and the Metro C8 and Ride-On #10 as they make the eastbound left turn. The resulting problems would impact bus operations as well as vehicular traffic, and likely not provide any net transit benefits.

Please note that the MSHA has a funded project at this location to build an interchange. Utility relocation in advance of the construction work has commenced. The completion of the interchange project will address the primary congestion issues at this location, and will provide improved transit operations in this area.

9. *Silver Spring: Allow westbound buses on East-West Highway to use existing right-turn lanes to bypass queuing at Jones Mill Road and 16<sup>th</sup> Street.*

MCDOT Response:

East West Highway (MD 410) is a state owned and maintained roadway, and the decision to allow use of a turn lane as a queue jumper lane along a state road is under the jurisdiction of the MSHA. I have written to the MSHA District 3 office and asked that they investigate this request.

10. *Montgomery College: Move bus stops at Montgomery College's Germantown and Rockville campuses from beyond parking lots to directly in front of the academic buildings.*

MCDOT Response:

We have discussed this request with representatives of Montgomery College, and while we agree it would shorten the travel time for students and faculty who use transit, relocation of the bus stops is not feasible at this time due to physical constraints. Generally, the circulation roadways and parking lots of the campuses, much like you would find in any commercial property, are not designed for the repeated structural loads associated with buses and trucks. Our buses can and do cause a tremendous amount of wear and tear on the college's infrastructure. At the Germantown campus, College staff specifically requested that the buses be restricted to the special concrete bus pad area and not be routed or detoured through the campus. A bus stop waiting area was recently installed with a new shelter, lighting, payphone, and crosswalks for transit patrons. Similar conditions exist at the Rockville campus. There is a concrete bus pull off area where the stops and shelters are located, thereby avoiding damage to the parking lot. I assure you that as the College makes any future changes to its grounds, we will work with them to make the transit facilities as convenient as possible.