

Meeting Summary

US 29 South Corridor Advisory Committee

Meeting #12

Monday, July 10, 2017, 6:30pm – 8:30pm
Silver Spring Civic Building, Spring Room
1 Veterans Place, Silver Spring, MD 20910

Participants

CAC Members (X for in attendance, blank for regrets)			
Alan Bowser	X	Tom Lansworth	
Ilhan Cagri		Tracy Lewis	X
Barbara Ditzler	X	Anita Morrison	X
Sean Emerson	X	DeAndre Morrow	
Roberta Faul-Zeitler	X	Dan Reed	X
Brian Feit	X	Herb Simmens	
Dan Figueroa		Tina Slater	X
Avi Halpert	X	Brad Stewart	
Sean Heitkemper		Mel Tull	X
Linda Keenan	X	Lori Zeller	
Clifford Zinnes, US 29 Central CAC	X		

Staff

Darcy Buckley, MCDOT
Joana Conklin, MCDOT
Dan Hibbert, MCDOT
Anne Root, MCDOT
Dan Sheridan, MCDOT
Rick Kiegel, RK&K
Erron Ramsey, RK&K
Jim Bunch, Sabra Wang
Mike Kinney, Sabra Wang
Sandy Klanfer, Foursquare ITP
Michael Weinberger, Foursquare ITP

Members of the Public

Jamaica Arnold, WMATA
Nat Bottingheimer, Fehr & Peers, DC
Susan Neutish
Harriet Quinn
Jane Redicker, GSSCC
Rob Richardson
Pete Tomao, Coalition for Smarter Growth
Jim Williamson, US 29 Central CAC

1. Welcome

The meeting commenced at approximately 6:30 PM.

Michael Weinberger, meeting facilitator from Foursquare ITP, welcomed the CAC members and thanked them for attending the meeting. He began the meeting by reminding members of their role in the process as an advisory body, and that meeting agendas are set per the project scope. He reminded members that the success of the CAC process depends on mutual respect between the members, representatives of County government, and consultants. He encouraged members to contact him or County staff with any questions or concerns. He then introduced Jim Bunch (Sabra Wang) to discuss Transit Signal Priority.

2. Transit Signal Priority

a. Introduction

Jim Bunch introduced himself and Mike Kinney, both from Sabra Wang. Jim explained his experience working on Transit Signal Priority (TSP) in Montgomery County since the 1990s.

b. What is Transit Signal Priority?

Transit signal priority (TSP) is an operational strategy that facilitates the movement of transit vehicles through signal-controlled intersections. Under certain conditions, a green signal can be extended or a red signal can be shortened to allow transit vehicles to proceed faster through the light.

The use of TSP at intersections along US 29 is *conditional*, meaning that it only occurs if certain conditions are met. Considerations include minimum green times, pedestrian walk times, each transit vehicle's on-time performance, and distance between transit vehicles. For example, TSP cannot override a minimum green time needed for pedestrians to cross an intersection. The conditional TSP system is a modern system with reduced adverse effects on cross traffic in comparison to older TSP systems.

Transit vehicles are tracked by Global Positioning Satellite (GPS) technology. The priority request generator requests priority to the priority request server, which uses an algorithm to decide whether the bus will receive priority and sends the result to the signal controller at the intersection. If the bus receives priority, the traffic signal either remains green for longer or shortens a red light in accordance with the instructions from the priority request server. If the bus does not receive priority, the traffic signal continues as it would otherwise, with no change to the signal.

Member Question (Q): A member asked if there is any feedback to the priority request server based on the presence of pedestrians at an intersection.

Answer (A): The TSP system is aware of pedestrians only when the “beg button” is pressed at the intersection. These buttons are typically available in less urbanized parts of the corridor. At intersections where pedestrians automatically receive a walk signal, such as in downtown Silver Spring, the system won’t know that there are pedestrians. [However, it cannot override a minimum green time needed for pedestrians to cross an intersection.]

Q: A member asked for a clarification about the role of the [County’s existing] traffic management center in the TSP system.

A: Mike Kinney clarified that the traffic management center doesn’t normally manually control individual signals. Under normal operation, the only human interaction with the system is the occasional tweak to the parameters under which vehicles are given priority. Signals are programmed to operate differently under different conditions: morning rush, evening rush, special events, and so on, and monitored by human beings. These are manually controlled when necessary.

Member Comment (C): A member said that there needs to be an associated public education campaign to tell people that TSP requires them to press the button to cross. [This is a normal operational characteristic of signals in many non-urbanized areas of the county. It is not a requirement of TSP per se.]

Jim explained the difference between schedule management vs. headway management. Schedule management is usually used at midday and in the late evening, when vehicles come less frequently. Under this scenario, buses are given signal priority if, for example, they are more than five minutes behind schedule. Headway management is used during rush hours, when buses are more frequent. Under this scenario, buses are given signal priority if the gap between them and the previous bus is 1.5 times or higher what it should be.

Jim showed a brief animation illustrating how TSP works.

c. Benefits of Transit Signal Priority

Jim showed results of TSP systems in various cities. Cities saw bus travel time improvements of 2 to 18 percent, with typical time reductions between 8 and 12 percent. He emphasized that while modern TSP systems improve bus running times, they do not do so at the expense of other vehicles on the road, as has been seen in several different cities.

Q: A member asked if TSP is used in any non-BRT contexts.

A: Jim answered that it is used for ordinary buses all over the country, and that the coming implementations on MD 355 [the new Ride On Extra service expected to start in October 2017] and in DC would be in non-BRT contexts.

d. Existing Signal Operations

Mike Kinney (former MCDOT employee in the Transportation Management Center) explained how existing traffic signals in Montgomery County are managed. MCDOT maintains all 850 signalized intersections in the county, even though roughly 65 percent of the signals are owned by the Maryland State Highway Administration. In 2013, the County upgraded its signal systems to a modern distributed system, replacing a system that had been installed in 1979. As part of that project, the County installed a high-speed communications network allowing signals to communicate with each other and the transportation management center.

TSP was first deployed to Ride On buses in the 1990s. This was a much older system and did not have a great impact. After the signal system modernization, the County performed a TSP pilot program in 2013 at three signals with five buses equipped with the technology, which was much more successful. This form of TSP will be incorporated into the Ride On Extra service debuting on MD 355 in October. He emphasized that the installation of TSP needs to not only account for the needs of buses and cars, but of all road users, including pedestrians.

Q: A member asked how much of US 29 TSP will be deployed inside vs. outside the beltway.

A: Mike answered, and Joana confirmed, that this decision has not yet been made.

e. Intersection Selection Criteria

Jim displayed the two-step process that MCDOT uses to determine where TSP should be placed. The first step is to determine whether TSP is acceptable at an intersection. TSP is acceptable at an intersection if the intersection's volume/capacity ratio is below one, and if its slack time—the cycle time, minus all minimum pedestrian clearance and minimum left turn green times—is more than five seconds. The second step is to rank acceptable intersections based on a variety of criteria. He asked if any members of the CAC would like to add criteria.

C: A member called for pedestrian safety to be added.

A: Jim pointed out that this was already accounted for in cycle time, but that they would be sure to highlight this as a key part of the process.

Joana asked Jim to explain the concept of the volume/capacity ratio. He explained that if the number of vehicles in one hour is larger than the number of vehicles that can safely go through the intersection, that the volume-capacity ratio is higher than one.

Q: A member asked about the relationship between the volume/capacity ratio and the level of service.

A: Jim answered that they were equivalent, but that level of service is generally measured mid-block, not at an intersection.

He explained the concept of slack time in greater detail. Slack time is calculated by taking the total green time at an intersection and subtracting the amount of time it takes for a pedestrian to cross the intersection.

Q: A member asked if it matters whether the bus stop is just before or just after the intersection in terms of the effectiveness of TSP.

A: Jim clarified that TSP is far more effective when the bus stop is on the far side of the intersection.

Considerations for TSP include the number of acceptable time periods; the type cross street (a smaller, less busy road is generally better); whether there are other bus priority treatments at the intersection; where the bus stop is located relative to the intersection; the speed at which the bus approaches the intersection; and the ridership and frequency of parallel bus lines (if both are higher, the intersection is better suited to TSP).

Q: A member asked if other services will be allowed to use the TSP system.

A: Jim answered that the focus for now is on the BRT implementation. Michael clarified that this is a policy question that will be made as the BRT near operation or perhaps even after the BRT is operational. However, the existing buses on the corridor are not equipped for TSP.

f. Intersection Selection Criteria

Jim showed a map of the corridor and a list of the corridor's 31 intersections. No decisions on TSP locations will be made for the next six months. Michael encouraged CAC members to use the maps and information provided to consider where TSP could be most helpful. CAC members will have the opportunity to provide input on specific intersections at a future CAC meeting.

Q: A member asked what useful input the CAC members could provide that the quantitative analysis could not.

A: Jim replied that they were not as aware before as they are now about the critical nature of the pedestrian safety concerns. Michael added that the additional point of view was inherently helpful, just as it was in the station location process.

Jim showed a chart of available green time and volume/capacity ratios at each intersection in the corridor, showing how the process of determining which intersections to install with TSP could work.

Q: A member asked for a clarification of parallel service.

A: Parallel services run on the same street and the same direction as the BRT service.

3. Environmental Review Process

Erron Ramsey from RK&K introduced the National Environmental Policy Act (NEPA). It requires all projects that receive funding from a federal agency to go through an environmental impact analysis process. Because this project is funded in part by TIGER grant money from the Federal Transit Administration (FTA), this project must comply with NEPA requirements.

Erron explained the three levels of environmental review under NEPA. A *Categorical Exclusion* is the level involving the least analysis, and is often used when the environmental impact of a project is expected to be insignificant. An *Environmental Assessment* (EA) determines whether there are significant environmental impacts. There are two potential outcomes from an EA: there is either a Finding of No Significant Impact (FONSI) or the activation of the requirement to complete an *Environmental Impact Statement* (EIS). An EIS is the most involved analysis of the environmental impacts of a project.

Because environmental impacts of the US 29 BRT project are anticipated to be insignificant, the project qualifies for a “D-List” Categorical Exclusion (CE). To prepare the Categorical Exclusion (CE), RK&K is in the process of completing a CE Worksheet, which documents all the environmental resources, including social impacts, environmental impacts, right of way impacts, street trees, wetlands, water, physical impacts like noise and vibration, safety and security, and traffic impacts. The worksheet also includes the purpose and need of the project, activities involved in the project, and description of the public engagement process.

The CE Worksheet is currently being reviewed by the FTA. MCDOT and FTA have already completed two rounds of review and a field tour and are working on additional edits to the worksheet based on the field tour. The worksheet could be approved as soon as the end of the month. At that point, the NEPA process is completed unless there is a change in the scope of work or the alternatives. Although the CE is not required to be released to the public, FTA and the County have agreed that the document will be released once FTA has made its finding.

Q: A member asked at which point the completed CE will be released to the public for comment.

A: Erron replied that the document is not normally released to the public before FTA has made its Categorical Exclusion determination.

C: A member replied that he was troubled by the unwillingness of MCDOT to release the Categorical Exclusion document, citing a federal regulation.

A: Categorical Exclusions are not required to be released to the public; however, FTA and MCDOT have agreed that the documentation will be released once FTA has made its CE determination.

At this point, there was a back and forth between the member, Joana, and Michael, in which the member expressed his dissatisfaction with this answer and insisted that MCDOT release the document. Michael requested that this conversation be tabled until after the meeting.

Erron used Google Earth to show the proposed station placements and the relevant station Study Area. [During this meeting we referred to the Study Area as the Limits of Disturbance (LOD). However, in subsequent conversations with FTA, the Project Team was instructed to refer to it as the Study Area. The language has been updated in the summary to reflect this.] Within the Study Area, station platforms, amenities, and all other relevant improvements will take place. She showed an overlay of historic properties to demonstrate how they are considered in the station siting process. She showed that all construction will take place within existing right-of-way, and explained that Maryland state law requires that any street trees eliminated in State right-of-way as part of the project be replaced, one-for-one. [Trees in County right-of-way will be replaced three-for-one per County regulations.] She began with the examples of the Fenton Street station in Downtown Silver Spring.

Q: A member asked if the review process includes a projection of the height, width, and depth of each station platform.

A: Erron replied that there is a standard platform size assumed at each station, though individual stations occasionally require variations. Rick Kiegel, the project manager, pointed out that the environmental review process includes the entire Study Area.

Q: A member asked Erron to clarify the location context of the Google Earth image on the screen.

A: Erron and Jim explained where the Fenton Street station will be located in the broader context of the neighborhood.

C: A member suggested that this particular intersection would not be a good candidate for TSP, given that the southbound stop was on the near side of the intersection.

A: Jim pointed out that while that was true, the northbound stop will be on the far side of the intersection, so this intersection might still be a good location for TSP for northbound buses.

C: The member suggested that this station be moved to better take advantage of TSP, or that it be eliminated given that this station is close to the Silver Spring Transit Center.

Erron then asked if members would like to see other proposed stations, and University Boulevard was requested. Erron brought up that intersection on Google Earth and showed the proposed station locations. Jim noted that this location was a place where stops were not placed directly across from each other, and pointed out the reasons that this intersection would likely not be a good candidate for TSP.

Q: A member asked what will happen if there are future changes to the BRT service on US 29, and if another environmental assessment will be required.

A: Joana replied that it depends on the nature of the project and how it is funded. Only projects that receive federal funding are required to go through a full NEPA review process.

A member then asked to see the Burnt Hills station. Jim pointed out that the southbound station in this location is shorter than other stations due to space constraints.

Michael suggested that if members wanted to see additional stations projected in Google Earth, it could be done after 8:30 or at a future meeting.

Rick clarified that the exact dimensions of the stations, as well as their attributes, are still yet to be determined.

4. Bicycle Accommodations

Anne Root, Bikeshare Director for MCDOT, presented the potential for Capital Bikeshare to complement this project. The TIGER grant includes funding for 10 bikeshare stations.

In the DC metro area, bikeshare provides short point-to-point trips, averaging 30 minutes or less. Bikeshare in Montgomery County is used to complement existing bus and Metrorail service, with all services connecting to high-quality bus or Metrorail services. In addition to the regular subscription payment option, Capital Bikeshare is now offering a new \$2.00 single ride payment option, to provide an identically-priced alternative to Metrobus. This has been well received.

Q: A member asked why the 30-minute threshold exists, given that there are docks from Montgomery County to Alexandria, Virginia and it is difficult to travel between the two in half an hour.

A: Anne replied that 30 minutes is a global standard for bikeshare systems, as they are primarily designed for short trips. Michael pointed out that trips longer than 30 minutes are charged to your account, and that riders who take longer trips will sometimes plan their trips so that they stop at a dock every half hour and avoid the time-based fee. Anne added that lengthening that time has been considered periodically.

C: The member pointed out that using Capital Bikeshare to travel around the National Mall would take more than half an hour. The member once tried to use Bikeshare on the Mall and found it impossible due to the 30-minute limitation.

A: Anne apologized for the confusion, but pointed out that getting used to the way it works is part of any transportation system, and that the system is very popular with tourists on the Mall.

The Capital Bikeshare system debuted in Montgomery County in 2013. System-wide, it now has 32,000 members and users have made 16,000,000 total trips to date. Capital Bikeshare stations are located or clustered in five areas within the County: Silver Spring/Takoma Park, including two at the Silver Spring Transit Center; Bethesda/Friendship Heights; Rockville/Shady Grove/Life Sciences Center, including King Farm; Chevy Chase Lake; and Wheaton. The County has long-term plans to connect these into a more continuous and consistent network.

Bikeshare is often used to access transit and to commute to work. People who use Bikeshare tend to use automobiles less, both private cars and taxis/ride-sharing services. Businesses appreciate bikeshare because people are more likely to visit businesses that are bikeshare-accessible.

The stations are modular (like Legos) and solar-powered. They consist of docks where bikes are held; the kiosk; and the bikes. Station sizes are usually 15 or 19 docks; generally, the goal is to have half of the docks filled with bikes at any given time.

Road safety is a key factor when deciding where to place stations. Station placements are also dependent on sunlight; because they are solar-powered; the stations need at least four hours of direct sunlight a day. They need to be visible and easily accessible, and they cannot block sightlines for drivers or pedestrians. Placement near transit or other activity centers is preferred. Stations are generally a mile and a half apart in Montgomery County, which is higher than the industry standard of about 0.2 miles between stations, or between 28 and 36 stations per square mile. Reaching that industry standard is a long-term goal for Montgomery County.

New stations in the County are usually mostly grant-funded, with the remainder coming from developer contributions. For the US 29 BRT project, all funded stations must be placed within the BRT station Study Area.

Q: A member asked if the County has a list of where the Bikeshare stations will be placed.

A: Anne replied that the County is just starting to compile a list of potential station placement and welcomes feedback on this.

C: Several members requested stations near their homes.

Anne presented a list of 2016 and 2017 station installations and a list of upcoming 2017 and 2018 installations, including a new cluster of stations in the White Flint/Twinbrook area.

Q: A member asked if the bikeshare stations along US 29 are planned to be at the BRT stations themselves.

A: Anne replied that the ideal is for bikeshare stations to be located near the BRT stations, with additional stations in adjacent communities and activity centers so people can use bikeshare to access homes and shops to or from the BRT.

Q: A member asked if there are currently existing criteria to determine where BRT feeder bikeshare stations would be located.

A: Anne replied that the criteria that currently exist are broad. She encouraged members to suggest locations.

Q: A member asked if the bikeshare stations would all be at BRT stations.

A: Anne and Michael replied that bikeshare is not intended to be used to take people up and down the US 29 corridor, but instead primarily as a last mile solution for getting people from BRT to homes and workplaces and shops or vice versa (first mile).

Q: A member spoke up to express confusion, given that the bikeshare stations in this project must be placed within the Study Areas for the BRT stations.

A: Anne clarified that the first ten stations placed under the TIGER grant must be at the BRT stations, but that other funding will be sought out to add an additional six or seven stations connecting to the US 29 corridor.

Q: A member asked how low-income individuals without credit or debit cards can access bikeshare.

A: Anne replied that Montgomery County has the region's only program that provides free bikeshare for low-income people, even those who are unbanked. People who want to join just

need to show that they are on some form of federal assistance. She passed around brochures for the program, called MC Liberty.

Q: Another member asked for clarification, noting that in order for this member to use bikeshare in conjunction with the BRT, there would need to be a dock at the BRT station as well as one in an area near their home.

A: Anne confirmed this, but also pointed out that stations could be located near other activity centers like YMCAs or libraries.

Q: A member asked about safety, pointing out that most people do not carry bike helmets. The member asked if there will be helmet rentals as well.

A: Anne replied that there have been pilot programs in other parts of the country to provide helmet rentals. When someone joins bikeshare, they can purchase a helmet for \$16.

C: Another member pointed that there has only been one fatality on bikeshare in the US.

A: Michael added that the bikes are big and heavy, which makes them safer to ride.

Anne displayed a graphic showing the bikeshare network in Silver Spring and Takoma Park and described plans to locate one more station in the area as part of the US 29 BRT project, along with a station at Burnt Mills.

Q: A member asked whether the County has considered when it is appropriate to move bikeshare stations due to lack of use, and whether there are any metrics the County has developed to that end.

A: Anne replied that the County has never moved a bikeshare station because its network is still sparse, but that this is common in DC and Arlington, which have denser networks of stations. Michael added that moving a station is often part of transit plans in these places. Anne added that people dislike it when stations are removed from their community.

Q: A member asked if BRT stations will include bike racks for privately-owned bikes.

A: Anne and Rick replied that the BRT station platforms include space for bike racks, but if BRT stations need to be shortened, bike racks are likely to be one of the first things to be removed.

Q: A member asked if BRT buses will include bike racks.

A: Rick replied that BRT buses will include bike racks, and that unlike other buses in the region in which the bike rack is located on the front of the bus, the BRT buses will have bike racks inside the bus, so riders can roll their bike onto the bus. It is not yet known what the capacity of those bike racks will be.

Anne displayed a graphic showing the existing bikeshare stations in Silver Spring, Takoma Park, and Wheaton.

Rick clarified that the County has \$2 million of TIGER grant money to use on bicycle and pedestrian infrastructure on this project, but that it must be used within the BRT station limits of disturbance. He encouraged members to help them identify places where bike and pedestrian infrastructure could be improved along the BRT corridor, and outside the corridor as well, that would need to be addressed by other future funding streams.

Q: A member asked where bike lanes will be located along this route, and if there was a map that showed those.

A: Rick replied that there will be no new bike lanes on the US 29 corridor as part of this project. He encouraged CAC members to find the County's existing bike infrastructure map on the County website to understand the existing network.

5. Concluding Remarks

Michael opened the floor for general questions.

Q: A member asked how the County decided on 15 TSP locations, and not 8, 10, or 12.

A: Jim responded that the original recommendation was for every intersection to have TSP. Due to funding limitations, this was reduced to 15, as it was believed that this number would provide most of the benefits of TSP while limiting costs. Because of the way modern TSP systems work, that number could be increased if more funding becomes available, and it would also be possible to move TSP from one intersection to another as needed.

Q: A member asked if the TSP analysis would look at traffic flow on streets crossing US 29, mentioning specifically the traffic problems at Dale Drive.

A: Jim reiterated that TSP does not have a significant impact on cross traffic, but that intersections that are over capacity, as measured by the volume-capacity ratio, are not eligible for TSP.

Q: A member asked if there are any updates to the vehicle procurement schedule.

A: Joana replied that the RFP for new transit vehicles for this project would likely be released in the fall.

Q: A member asked if the County had given any consideration to his request at a prior meeting for video samples of other BRT systems.

A: Joana replied that the County has an intern searching for useful videos, and that these could either be shown at a subsequent meeting or sent out to the CAC members via e-mail.

Q: A member asked if the County had considered his request for the next meeting not to be held in August.

A: Michael told him that the August meeting would not be taking place, and there would instead be meetings in both September and October.

Michael closed by noting to CAC members that their packets contain a handout with contact information for MCDOT and FITP staff working on the project, and encouraged them to use that contact information to be in touch. He concluded by thanking them for their time and adjourning the meeting.

The meeting adjourned at approximately 8:30pm.

The next meeting is scheduled for Tuesday, September 19th.