National Capital Region Transportation Planning Board
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TRAFFIC SIGNALS SUBCOMMITTEE OF THE MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS (MOITS) TECHNICAL SUBCOMMITTEE MEETING

DATE: Thursday, October 2, 2014

TIME: 10:30 AM

PLACE: MWCOG
First Floor Meeting Room 1
777 North Capitol Street NE
Washington, DC 20002

CHAIR: Ling Li, Virginia Department of Transportation

CALL-IN OPTION: A call-in option, with documents shared via WebEx, will be available for participants who are not able to attend in person.

Attendance:
Shahid Abbas – Arlington County
Maha Gilini – City of Alexandria (by phone)
Corren Johnson – MD SHA (by phone)
Ling Li – VDOT
Andrew Meese – COG/TPB
Wenjing Pu – COG/TPB
Piotr Rachtan – MD SHA
Stephanie Taylor – City of Falls Church (by phone)
Eric Tombs – WMATA
Marco Trigueros – COG/TPB
Jennifer Wong – City of Falls Church (by phone)

1. **Welcome, Introductions, and Review of Notes from the July 10, 2014 Traffic Signals Subcommittee Meeting**

Participants introduced themselves. Any comments on the notes from last meeting can be directed to Mr. Trigueros.

2. **Update on Transit Signal Priority Components of Regional TIGER Grant**

Mr. Tombs provided an update on the regional TIGER funded transit signal priority project. The presentation provided an overview of the TSP objectives – increasing on-time performance and travel speeds for Metro buses – as well as the equipment and methods being utilized. The VA-7 corridor has been chosen for the pilot test with 25 intersections under VDOT, City of Falls Church, and City of Alexandria jurisdictions being equipped for TSP. WMATA is looking to finalize MOUs with VDOT, City of Falls Church, and City of Alexandria. It is expected that the MOU with VDOT will be signed by the following week - this, in turn, will be used as a model for the other MOUs. To

accommodate some agencies' concerns, the cellular antenna can be installed on the existing cabinet, in a separate box, or on top of the signal mast arms. Bus performance will be tracked through a central server once TSP is up and running.

Once the MOU is signed, a detailed schedule will be released, but testing is expected to be underway in October at Old Gallows Road. All participating jurisdictions will be invited. Following that, an acceptance test is expected early next year and full implementation through the end of 2015.

In response to a question regarding what will determine whether a bus will be granted priority, Mr. Tombs noted that many factors are being considered (e.g. location of stop, adherence to schedule, number of passengers on bus), but will be up to the jurisdiction to decide. Clever Devices will provide a list of the parameters that can be considered by the system in deciding whether priority is given.

In response to a question regarding TSP along on US-1, Mr. Tombs noted that 2 intersections along this corridor will have TSP and 4 will have queue jumps.

Mr. Abbas noted that in some cases, traffic signal cycles are driven by pedestrian crossing times – and these are not going to change – making TSP challenging.

Ms. Li noted that the MOU is the critical path to proceeding with the field test, and Mr. Tombs noted that WMATA has received VDOT's comments and have met to address every concern point by point.

In response to a question regarding maintenance of the TSP system, Mr. Tombs noted that WMATA will handle maintenance and that it will outlined in the MOU. There is a 1-year warranty for the equipment. However, there will be a need for operating agency to dispatch staff to any intersections to

In response to a question, Mr. Tombs noted that this is the first TSP project in the region and that the total cost of the pilot project is about $1 million for 25 intersections along 16 miles. Mr. Meese clarified that there have been some other efforts before, but not as part of this project and not at a regional scale.

In response to a question regarding detection of vehicles, Mr. Tombs noted that agencies do not have to provide any detectors – all will be handled through the cellular network and GPS.

Mr. Tombs clarified that the communication to grant priority is between the bus and the controller and that cellular service has been confirmed as adequate along the test corridor.

In response to a question regarding the time period when the TSP would be operational, Mr. Tombs said that it has not been finalized but will likely begin in the off-peak period to test the operations without affecting peak travel.

In response to a question regarding the use of this technology for TSP in other areas, Mr. Tombs noted that Chicago has a TSP system developed by Clever Devices. Mr. Tombs can follow up with more information on that system.

In response to a question regarding selection of intersections for TSP, Mr. Tombs said he was not certain of the criteria, but each jurisdiction had input in selecting them. Ms. Li noted that she was involved in the selection for VDOT and they eliminated from consideration any intersections that provided adequate level of service.

In response to a question regarding the expected benefits of TSP, Mr. Tombs did not know of an exact goal. Mr. Meese noted that the Los Angeles system has been successful and provided significant benefits.

The group invited Mr. Tombs to attend future meetings to continue to provide updates on the project.

3. **Update on Power Back-up Survey**

The annual traffic signal power back-up survey has been sent to partner agencies. The group had a chance to review preliminary findings, but a few more entries are needed before the results can be finalized. The group requested a reminder e-mail to bring the survey to the attention of those that still need to complete it.

Ms. Gilini asked about the status of the UASI grant for traffic signal power backups. Mr. Meese noted that paperwork has been submitted to break down the project by jurisdiction for project management purposes and the RESF-1 committee is discussing a strategic plan for the installation of power backups for the region. The project management office (PMO) now managing these grants has taken steps to minimize the funds awarded that go unused, asking recipients to follow a stricter process than has been required in the past.

4. **Discussion on INRIX Data Analyses**
Marco Trigueros, COG/TPB Staff

The recently completed optimization of Southeast and Southwest DC was analyzed using the Vehicle Probe Project Suite of data analysis tools to investigate the impacts of the project on travel times. Mr. Trigueros presented on the results, which show some similarities to the travel time improvements documented by DDOT in their own analysis. Although the VPP Suite tools have a limited degree of flexibility, they can provide useful information as an alternate data source.

Ms. Li noted that VDOT is not using INRIX data for arterials because their research council concluded that it was not reliable enough. Mr. Pu agreed that from a purely scientific perspective arterial data is not ideal, but that it can still be informative.

Mr. Rachtan noted that MD SHA is working on retiming MD 301 – specifically the stretch in Prince George's Count before it merges with MD 5 – with the help of INRIX data to help measure the

backup along MD 5. The goal is to increase the throughput. Six months of data have been used, and a before and after study will be conducted once it is completed.

5. **Jurisdictional Roundtable**

MD SHA – Coordination between SHA, MTA, Montgomery County, and the City of Rockville for the design of CCT BRT. The TSP strategy for this corridor is to prevent bus bunching, operating on a headway (not schedule) system.

VDOT – Ms. Li contacted Ivan, the signal engineer in charge of the MOU, who said the TSP MOU with WMATA is in VDOT's hands and a response is expected next week.

City of Alexandria – BRT along US-1 is up and running. The project involved a lot of work in signal timing, clearances, and ROW.

City of Falls Church – In the final stages of completing their closed loop signal system. They are working on an inventory of their signal system to target system improvements. With the addition of two new staff members, more traffic signal management will be done in house.

6. **Other Business**

7. **Adjourn**

Next meeting scheduled for December 4, 2014.