

National Capital Region Transportation Planning Board

777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290 (202) 962-3310 Fax: (202) 962-3202 TDD: (202) 962-3213

TRAFFIC SIGNALS SUBCOMMITTEE OF THE MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS (MOITS) TECHNICAL SUBCOMMITTEE MEETING

DATE: Tuesday, February 4, 2013

TIME: 11:00 AM

PLACE: VDOT Northern Virginia District Office
Occoquan/Bull Run Meeting Room
4975 Alliance Drive
Fairfax, VA 22030

CHAIR: Ling Li, Virginia Department of Transportation

Attendance

Shahid Abbas – Arlington County
Sean Baroody – Town of Leesburg
Maha Gilini – City of Alexandria
Anthony Guignard – City of Alexandria
Jay Johnson – City of Manassas Park
Mike Kinney – Montgomery County
Ling Li – VDOT
Ben Myrick – MDSHA
Curt McCullough – City of Fairfax
Shaneka Owens – MDSHA
Piotr Rachtan - MDSHA
Daivamani Sivasailam – COG/TPB
Bob Souza – VDOT
Robbie Wilson – Town of Herndon

1. Welcome, Introductions, and Review of Notes from the November 12, 2013 Traffic Signals Subcommittee Meeting

Participants introduced themselves and approved minutes from November 12, 2013 meeting.

2. Discussion on Traffic Signal Power Back-Up Systems in the Region Marco Trigueros, COG/TPB Staff

Mr. Trigueros went over the results of the most recent traffic signal power back-up survey that stated that 61% of signals are generator-ready and 26% have battery-based back-ups. Among the topics in its 2012 final report, the COG Incident Management and Response (IMR) Oversight Committee (formed following the disruptive January 26, 2011 storm) recommended that COG keep track of traffic signal power back-up system improvements regionally. The Traffic Signals Subcommittee will be conducting the survey on an annual basis.

To a question from Ms. Li regarding requests for information from the TPB board, Mr. Sivasailam answered that no formal request has been submitted but that the Emergency Preparedness Council would be interested in the findings.

3. **Status Report on Presenting Results of the Regional Survey on Traffic Signal Timing/Optimization**
Andrew Meese and Marco Trigueros, COG/TPB Staff

Mr. Meese went through the presentation prepared for the TPB. A results memo was included in the September meeting letters sent/received and a presentation is scheduled for the February 19th TPB meeting. The results show that of the 5,500 signals in the region, 76% have been optimized or checked in the last three years. The presentation to the TPB should keep technical details in the background slides to make the best use of the limited amount of time allocated and allow for board member questions.

Mr. Abbas suggested that the effects of emergency vehicle prevention (EVP) be discussed in the presentation given that this technology has the potential to disrupt progression along corridors and cause delays during peak periods as affected signals take a few cycles to fall back into synchronization. Arlington County conducted a study along Lee highway, Columbia Pike, and Arlington Boulevard where a fire engine drove through the corridors with EVP – resulting in travel times 58% longer than without EVP. Group members discussed the advantages and disadvantages of EVP, and it was decided that it would be listed in slide 4 of the presentation as one of the constraints to optimal traffic flow that should still be implemented where appropriate along with other safety considerations.

4. **Presentation of FLIR Thermal Video Technology**
Jim Lampe, Control Technologies, Inc.

Mr. Lampe provided a brief background of thermal vehicle and bike detection technology along with example video clips and applications. The major advantages to this technology include: better detection and visualization in low light, sun glare, fog, and precipitation; differentiation between motor vehicles and bicycles. VDOT is utilizing this technology at Gallows Road and Westpark Drive where vehicle headlights were making detection through regular cameras difficult. Thermal technology is now being used for speed detection, incident detection, and other ITS applications. Arlington County and DDOT have used FLIR systems for pedestrian detection at intersections.

5. **Jurisdictional Roundtable**
All

City of Fairfax – The city is preparing for a major detour as northbound Route 123 will be closed for 6 months beginning in the end of March. They have been coordinating with Candice Gibson at VDOT.

Alexandria – The City completed the adaptive traffic signal system along Duke Street – 19 intersections. Bus Rapid Transit issues are being addressed – especially at intersections. Fiber optic and CCTV systems are being installed.

Traffic Signals Subcommittee

February 4, 2014 Meeting Notes

Page 3 of 3

Arlington – The County has adopted FLIR systems as standard specifications for detection. They have replaced Eagle controllers for a MaxView system with Intelight controllers – 100 controllers are to be installed. The MaxView system is considered more user-friendly than the Siemens software it is replacing at the TMC. Battery back-up systems can be monitored from the TMC so technician can check when batteries go on, their charge, and when they need to be replaced. A future meeting of the Traffic Signals Subcommittee may be held at Arlington's TMC to see their new equipment.

Town of Herndon – They are working on installing battery back-up systems and upgrading some intersections with dual left turn lanes.

Montgomery County DOT – They have just completed a system replacement with custom software by Siemens and Econolite controllers. They continue to do some active management of traffic signals and are looking at increasing vehicle detection to build an adaptive traffic signal system. They have been installing battery back-ups and can also monitor battery status remotely. Construction on Brighton Dam will force alternating one-lane traffic for a year. A future meeting of the Traffic Signals Subcommittee could be held at Montgomery County's TMC in Gaithersburg to see their new equipment.

Manassas Park – They will be starting a central control center.

MDSHA – They are working to get the Centrac system up and running and trying to get a workable cellular communication plan. Planning for traffic signal priority for the TIGER project, Purple Line, and Montgomery County BRT is ongoing and needs to be tested and implemented soon.

VDOT – They have completed retrofitting existing traffic signals with power back-up systems (at around 800 total) – any new power back-up systems will be for new signals only. The conversion of 170 to 2070 controllers is 30% complete.

6. **Other Business**

7. **Adjournment**