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

DATE: Tuesday, June 10, 2014

TIME: 12:30 PM

PLACE: COG, First Floor, Meeting Room 1

CHAIR: Jean Yves Point-du-Jour, Maryland State Highway Administration

Attendance:

Tad Borkowski – Fairfax County DOT (phone)
Melissa Chow – WMATA
Warren Henry – Jacobs Engineering/SHA
Keith Jasper – NVTA
Curt McCullough – City of Fairfax (phone)
Amy Tang McElwain – VDOT (phone)
Jean Yves Point-du-Jour – SHA
Tom Scherer – Arlington County
John Thomas – Montgomery County DOT (phone)
Will Truong – MATOC
Robert Winick – Motion Maps, LLC

COG/TPB Staff:
Ben Hampton
Andrew Meese
Erin Morrow
Wenjing Pu
Jon Schermann
Daivamani Sivasailam
Marco Trigueros

1. **Welcome, Introductions, and Review of Notes**

Participants introduced themselves. Meeting notes from May 13th meeting were not available as a handout, but were posted on the website. Any comments or corrections can be directed to Mr. Meese.

2. **Update on the Draft 2014 Congestion Management Process (CMP) Technical Report**
Andrew Meese and Wenjing Pu, COG/TPB Staff

The first draft of the CMP Technical Report was presented to the subcommittee at its May 13th meeting. The purpose of the presentation was to highlight some items in the report that were not presented in May. Mr. Meese briefly reviewed the CMP requirements for MPOs and the format for

the report. The draft of the report presented at this meeting reflects comments from WMATA and edits to the TDM table which were received in response to the May 13th draft. Additionally, a recommendation to monitor freight movement was added. Since the release of the draft, there has also been discussion about how to develop networks and utilize available data to monitor congestion for transit and freight corridors.

Mr. Pu presented a congestion analysis that was prepared for the report using the VPP Suite. The tool is able to calculate congestion and reliability measures. Before delving into the technical analysis, he noted that here was an announcement from the I-95 Corridor Coalition the previous week that after July 1st, a new contact for data begins and instead of one vendor (INRIX), there will be three (INRIX, HERE, and TomTom). There are questions about the implications for future regional congestion analysis if the three states choose different vendors. Also, later this year, real-time O-D data could be available from this project. He informed the group that a Probe Data Working Group (PDWG) is being established to facilitate regional coordination for developing methods for using probe data to create consistency in analyses completed by TPB staff and across TPB member jurisdictions. This will be a subcommittee of MOITS that is expected to meet quarterly for a limited tenure. Mr. Pu was asked about the consistency in the data format between the three data vendors. He responded that there are significant differences. One difference is the location referencing system. A VPP webcast earlier this year compared the HERE and INRIX data and there is a comparison table that can be found online. There is an I-95 Corridor Coalition webinar scheduled for June 26 to discuss the new data.

Mr. Pu presented some of the details of the congestion analysis in the CMP Technical Report. The data are presented in a variety of ways including by day of the week, time of day, and geography (region vs. corridor). Mr. Sivasailam briefly discussed the new reporting for arterial highway congestion. For many years, data were collected by floating vehicles with each arterial route monitored one day every three years. Now, INRIX data are available for the arterial highway system. Last fiscal year, staff prepared a comparison between the probe vehicle and INRIX data (averaged over a corridor) and at the corridor level, the data compared well. In the CMP Technical Report, the INRIX data were used to prepare average conditions for the AM and PM peak over the entire year (2013). Mr. Meese commented that the data coverage is vastly better when using the INRIX data, but he was curious as to whether we are giving anything up by moving away from our own data collection. Mr. Sivasailam noted that in the past, we were able to isolate intersections that were identified as major bottlenecks and collect information such as how many light cycles it took to get through the intersection. Losing some of the insights to why the congestion is occurring is the trade-off for having expanded coverage and the ability to look at daily and seasonal variations.

Returning to a previous slide, Mr. Meese said that the VPP Suite allows users to rank bottlenecks in a defined geographic area; however, when these results were presented, staff received comments that these rankings did not reflect traffic volume. In response to these comments, Mr. Pu had prepared two sets of bottleneck rankings – with and without weighing for volume. One challenge is that volume data are not collected as frequently as the speed data, but it provides a relative difference between facilities. From a traveler's perspective, it may not matter how many other vehicles are stuck in the delay, but from an operator's perspective, volumes are used in making decisions. He noted that all data sources have their limitations, such as the ones noted by Mr. Sivasailam, which is

why in the CMP Technical Report; there is a recommendation to continue using and exploring a variety of data sources. The Top 10 bottlenecks remained the same between the weighted and unweighted, but in a slightly different order. Mr. Pu noted that there are two sets of rankings, one for bottlenecks located within the TPB planning area and one that includes bottlenecks outside the TPB planning area that cause back-ups in the planning area. There was a comment that the VPP data does not identify the cause of the congestion and since one of the purposes of the CMP is to identify strategies that cause congestion, having a better understanding of causality would be important to consider. Mr. Meese commented that the data sets that are available are really good a tracking changes through time at a lot of different time points, but they do not provide much information on causality and that is something that we need to think about. Mr. Sivasailam noted that he would address that issue in Item 7a.

Ms. Morrow discussed a new category of strategies in the 2014 CMP Technical Report – Social Media and Mobile Devices. The transportation sector is using the prevalence of mobile devices combined with increasing available real-time transportation data and social media to deliver information to travelers and in some cases, receive information from the public. A change over the last few years is that the public has less desire to go to different websites to receive information and instead prefers to have information delivered to them either through social media or mobile applications. Safety remains a concern when travelers are seeking data en route. It was requested that Ms. Morrow add information about ART and Ride On in the CMP Technical Report. She was asked if there is information on parking availability. She responded that the topic of parking is not addressed in detail in the CMP; however, the Virginia 511 webpage specific to Northern Virginia has information on average parking availability at park and ride lots based on historic trends. Mr. Sivasailam noted that the CMP Technical Report focuses on what the public sector is doing. Mr. Meese noted that the bottom line is that the public sector agencies have to engage this world of mobile devices and social media and that is what this strategy is about. Social media allows for public agencies to have either one-way or two-way communication with the public. Another use of social media is crowdsourcing transportation data like the traffic application WAZE. MATOC uses social media to share information with the public and by following specific hashtags that media sources use to report incidents to help them identify incident locations. Other information that travelers can receive on their devices include weather radar and emergency alerts. Mr. Meese noted that this past winter, VDOT made their snowplow data publicly availably which reduced customer complaints. Mr. McElwain added that VDOT was able to shift staff resources from answering phones to dealing with issues with contractors in a timelier manner.

Ms. Morrow reminded the committee of the review schedule. The draft report was presented to the TPB Technical Committee the previous Friday. The comment period is open until June 18th. The report is expected to be presented at the TPB Technical Committee's June 27th meeting. Mr. Meese noted that the TPB Technical Committee is the committee of record for the CMP Technical Report and if they accept the report at their June 27th meeting, it will be considered final and any subsequent briefing will be for informational purposes, not review. Mr. Pu was asked if the TTI information was broken down by state or county. He responded that it was not. He was asked if that data are available, and he responded yes.

3. **Update on the National Capital Region Congestion Report for Traffic Conditions in the 4th Quarter, 2013**
   Wenjing Pu, COG/TPB Staff

Mr. Pu told the committee that the draft of the quarterly congestion report that members had been finalized and was available at www.mwcog.org/congestion. The software package, Tableau, was used to create interactive graphics for the congestion dashboard and make information available for download. In the future, it is possible that more categories of roadway facilities, such as the freight and transit significant networks, will be available. Additionally, the TPB Weekly Report that was released that day mentioned the congestion report.

4. **Regional Emergency Support Function #1 (RESF-1) Emergency Transportation Committee Update**
   Daivamani Sivasailam, COG/TPB Staff

At the May RESF-1 meeting, the AMTRAK's police chief gave a presentation on some of the safety measures AMTRAK has undertaken. There was also discussion about the chat feature in RITIS. There was an update on RICCS from Dennis Bailey. Most of the jurisdictions will be switching from RICCS to a new system. On the topic of UASI funding, all of the projects that RESF-1 supported, except for a RITIS simulator, were funded. Most relevant to the MOITS subcommittee was that the application for traffic signal power back-up was funded. RESF-1 is planning for a transportation evacuation tabletop exercise which will most likely be held in July or August. The initial and mid-term planning meetings have taken place. The exercise will be a day-long event and it is expected that approximately 100 people will participate. The first two hours will be a seminar on the evacuation plans in the three jurisdictions including traffic control points and available resources followed by a tabletop exercise with a scenario that necessitates evacuation. A question was asked about the funding source for this event. Mr. Sivasailam said that the funding is 100% federal and it comes through the District of Columbia's Office of Emergency Management as the main grantee and then sub-grants are provided to the other jurisdictions.

5. **Update on Traffic Signals-Related Activities**
   Marco Trigueros, COG/TPB Staff

Mr. Trigueros reported that the Traffic Signals Subcommittee last met on May 6th. They discussed the upcoming power back-up survey, the UASI grant, and comments received from the Greater Washington Board of Trade regarding traffic signal optimization. There were presentations on induction lighting technologies, SHA's pilot project to install wireless communications between traffic signals, and DDOT's signal optimization project.

Mr. Trigueros showed some results from the first phase of DDOT's signal optimization project (Zone 3) which shows an improvement in travel time in the corridors as a result. He was asked about the time period and directionality of the before and after comparison. He said that the travel times were overall and shown by direction. The reports were done with SYNCHRO. Additionally,

transit on-time arrivals improved in the corridor. Mr. Sivasailam noted that DDOT does not expect to see huge improvements in already oversaturated corridors like K St., NW. Ms. Chow asked where the transit data came from. Mr. Sivasailam responded that it was WMATA data, according to the presenter at the Traffic Signals Subcommittee. Mr. Meese asked about specific aspects of DDOT's signal timing project that were oriented towards buses, as this is a specific goal of this project, especially the TIGER-funded portion of the project. Mr. Sivasailam said that he did not recall anyone asking that specific question during the presentation, but the project will address that. Mr. Trigueros noted that traffic signals used to operate on an interval system and now they are operating on a phase system which is more flexible. A member noted that in the past, signals on radial facilities were timed, for example, in the afternoon to favor the outbound so the reverse direction flow was often slower and more congested and he asked that if on the transit side, does that mean that the transit buses in the reverse direction are traveling slower? What is the basis for optimization, person flow or vehicle flow? Mr. Trigueros responded that staff could ask DDOT about some of the specific optimization strategies and what the priorities are.

Mr. Trigueros also noted that the annual traffic signal power back-up survey is coming up on June 30th. The survey tracks the number of signals that have battery back-up or are generator-ready. When the results of the last survey were presented to the Emergency Preparedness Council, they requested more information on the number of generators available. The upcoming survey will seek to ascertain that information. He said that it looked from previous surveys like battery backed-up signals have leveled off, likely due to the maintenance cost. He was asked if there is a target for the number of signals backed-up. Mr. Meese said that the answer depends on who you ask. Staff looked at traffic control points in emergency and evacuation plans and there is an implied target that any traffic control point that is signal controlled should have a back-up. The chair of the now sunset IMR Committee had stated that his target for the region was 100%. The practical answer is probably close to where we are now due to the scale of maintenance.

6. **Update on Proposed MAP-21 Regulations**
Andrew Meese, COG/TPB Staff

Mr. Meese highlighted the MOITS-related points from a presentation given to the TPB Technical Committee the previous week. USDOT is in the process of releasing draft regulations for MAP-21 which is about to expire. The safety rule was presented at a previous meeting. The most significant rule to the TPB is the Metropolitan and Statewide Planning Regulations (aka The Planning Rule). The comment period is open until September 2 and the TPB is not planning to comment. There is also a new regulation that transit must be represented on the MPO. How this will affect the TPB's structure has yet to be determined. The most notable upcoming regulation for the MOITS subcommittee is the System Performance Measure Rule which is expected to be released this fall.

The Planning Rule creates a performance-driven, outcome-based approach to planning. It is not a dramatic change from what the TPB is already doing, but linking to target setting is new. At this point, it looks like the rule will go into effect in mid-2017. Mr. Meese noted that elements of other performance-based plans including the Congestion Mitigation and Air Quality Program Performance Plan, the Strategic Highway Safety Plan, the Public Transportation Agency Safety Plan, the Highway and Transit Asset Management Plans, and the State Freight Plans will be integrated into

the metropolitan planning process. Mr. Point-du-Jour noted SHA is encouraging local governments to have their own strategic highway safety plan. Mr. Meese also briefly noted that there are guidelines on scenario planning. He then spoke to a second presentation on the CMP explanation section of the regulation. MPOs may use the congestion management process to support the performance-based approach to transportation decision-making. There was a provision added to improve efficient service integration within and across modes and develop multimodal strategies to manage demand and improve operations. He felt that the TPB is already doing work in this area, like the bus hotspot study, and he expects to see more in the future.

7. **Brief Updates**
Andrew Meese and Daivamani Sivasailam, COG/TPB Staff

a. Freeway Congestion Monitoring Program

Skycomp completed data collection the previous week and they will now complete the analysis and prepare a report. Instead of four days of data collection as was done in years past, only three days of date were collected this year and the remaining funds will be used for a detailed pilot study of a bottleneck area which could help determine causality.

b. Regional ITS Architecture

No update.

c. Traffic Incident Management (TIM) Activities

Staff attended a 2-day TIM workshop sponsored by DDOT and FHWA. MATOC is looking into holding a regional TIM workshop. It has been almost 10 years since the last one.

d. Federal Section 1201/Real-Time System Management Information

No update.

8. **Other Business**

None.

9. **Adjourn**