TPB TECHNICAL COMMITTEE ITEM #1



Technical Committee Minutes

For the meeting of September 7, 2018

TRANSPORTATION PLANNING BOARD Technical Committee Meeting

Minutes

1. Welcome and Approval of Minutes from the July 6, 2018 Technical Committee Meeting

2. Visualize 2045: Draft Review

A. Regional Policy, Regional Context

Lyn Erickson, COG/TPB staff, introduced the Visualize 2045 draft Plan. Lori Zeller, COG/TPB staff, provided the overview of the plan document and the presentation, including the appendices which are separate from the draft plan. All the draft plan materials are available at visualize 2045.org.

Ms. Zeller presented highlights of Chapters 1, 2, and 3 of the plan document. Chapter 1 is the introduction, which provides an overview of the TPB and Visualize 2045. Chapter 2 provides regional context, including information about the existing land-use patterns, existing transportation system, recent transportation trends, and forecasts for land-use. Chapter 3 contains the TPB's guiding policies, including the TPB Vision, COG Region Forward, the Regional Transportation Priorities Plan, and the TPB's recently endorsed aspirational initiatives.

B. Aspirational Element

Abigail Zenner, COG/TPB staff, gave a brief summary of the aspirational element. There were no questions or comments.

C. Financially Constrained Element

Projects in the financially constrained element

Andrew Austin, COG/TPB staff, described some project highlights from the financially constrained element of Visualize 2045. He noted that there were over 600 projects in the constrained element which were itemized in Appendix B of the Visualize document. Mr. Austin explained how much capacity would be added by the projects and provided examples of projects that were newly included or significantly changed this year and how they supported the Aspirational Initiatives in Visualize 2045. These highlighted projects included the I-270 and I-495 Traffic Relief Plan projects in Maryland and I-495 HOT lanes in Virginia, a set of BRT projects in Montgomery County, dedicated bicycle lanes in the District, and expansion of Metrorail core capacity.

Gary Erenrich, Montgomery County, and Mr. Walker suggested that the US 29 BRT in Maryland and the US 1 BRT project in Virginia be added to the slide about BRT expansion. Mr. Austin noted that both projects had been added to the plan over the past few years since the last major update but were not new or changed significantly this year. Ms. Erickson responded that staff would review how to handle the inclusion of these projects.

Financial plan

Eric Randall, COG/TPB staff, briefed the committee on the financial plan for the constrained element of the Visualize 2045 long-range transportation plan. He noted that the committee was briefed on the draft financial plan in July, and this briefing was byand-large a repeat. Federal planning regulations require the long-range transportation plan and TIP to have a financial plan that demonstrates how they can be implemented. and the sources of funding reasonably expected to be made available to carry them out. The long-range plan must be fiscally constrained, with reasonably expected revenues equal to the estimated cost of operating and maintaining the region's highway and transit systems, as well as paying for the expansion projects in the plan. This effort must be documented in the financial plan, which is in year of expenditure dollars, so that costs in the 2030s and 2040s are considerably greater due to inflation.

Mr. Randall reviewed the methodology for developing future revenue and cost estimates and reviewed key assumptions by the state DOTs and WMATA. These include a continuation of PRIIA past 2019 also continued transit capital funding by Virginia for local transit systems in the state. He also described how WMATA's new dedicated capital funding authorized by the three states this year led to TPB staff making some assumptions to both revenue and expenditure projections in response to this new funding. This funding also enables the removal of the transit core capacity constraint in the air quality conformity determination process, that had been part of the travel demand model process since 2000.

Mr. Randall showed the graphs of the revenues for the region and for each state by source, followed by the expenditures for the region by highway or transit mode and by purpose. About 34 percent of funding is going to highways and 66 percent to transit, of which the majority will go towards WMATA. Most of the funding, 78 percent, goes towards operations, maintenance, and state of good repair. Just 22 percent goes towards capital for expansion projects, including \$40 billion for highways and \$24 billion of transit expansion. Approximately one-third of the transit expansion funds would go towards the WMATA system, including completion of the Silver Line, building the Potomac Yard station, and 8-car trains and core capacity station improvements. Another one-third would go to commuter rail, the Purple Line light rail, and DC streetcar projects, and the final one-third to BRT and other bus projects.

In conclusion, the financial plan demonstrates that the forecasted revenues are reasonably expected to be available to implement the financially constrained element of Visualize 2045. The plan demonstrates the region's commitment to maintaining a 'State of Good Repair' for highways and public transportation systems; provides for operations and maintenance of the existing transportation system; and provides for some capacity expansion to address forecasted growth in the region's population and economy. The financial plan is included as Appendix A of the Visualize 2045 plan.

Performance analysis

Sergio Ritacco, COG/TPB staff, briefed the committee on a performance analysis summary of the Draft Visualize 2045 financially constrained element. The analysis included a review of scenarios, inputs, and then indicators on the following information: mode share and travel demand, transit accessibility and connectivity, roadway congestion, and job accessibility.

Bob Brown, Loudoun County, asked whether and how transportation network companies (TNCs) are factored into the analysis. Mr. Ritacco and Ron Milone, COG/TPB staff responded that TNCs are not explicitly addressed in the All Trips analysis. Future performance analyses will be informed by the 2018 Household Travel Survey. Mr. Milone also clarified that since the analysis is not explicitly addressing TNCs, there is high likelihood of underestimating those types of trips. Gary Erenrich, Montgomery County, added that TNC trips may be affecting transit trips in the region and recommends staff further explore this topic.

Mr. Brown requested additional clarification on the slides regarding the difference between 2045 Build and 2045 No-Build scenarios.

Victor Weissberg, Prince George's County, requested that staff continue considering and working to explore the role of equity and environmental justice on various analytical factors presented. Mr. Weissberg requested further analysis that breaks down transit and highway job access findings to more specific modes, like HOV, HOT, and other submodes.

Mr. Erenrich asked staff to consider adding additional points of comparison for some indicators to better understand the metrics. He explained that average minutes of delay per trip can be difficult to understand without understanding what the average regional trip length is and how much the delay is impacting it.

Sonali Soneji, VRE, expressed her support for including the indicator that looks at percent of miles travelled on reliable modes and asked for additional detail on which transit modes are included in the definition of 'reliable mode.' Mr. Ritacco responded that the term includes Metrorail, Commuter Rail, Light Rail, Streetcar, Bust Rapid Transit, and long-haul express bus service.

Jean Friedberg, Choptank Group LLC., recommended that staff conduct additional analysis on the geographic differences of all trips in the TPB region by including an indicator on people miles travelled by sub-region during peak period and average peak period trip length per person. This would allow staff to explore issues related to the lane miles available throughout the region and how they relate to total miles driven, congestion, and delay.

Air quality conformity determination

Jane Posey, COG/TPB staff distributed a summary conformity report. She noted that she would be presenting the conformity analysis results to MWAOC TAC, MWAOC and CEEPC later in the month as part of consultation procedures. Ms. Posey told the group that the bottom line for a conformity analysis is to show that mobile emissions are below mobile budgets and she stated that the emissions for Visualize 2045 are below the mobile budgets. She noted that this year there are newly approved mobile budgets which are much tighter than the previous budgets. The new budgets were developed as part of the 2008 Ozone Maintenance Plan. EPA approved the budgets for use in conformity analyses in August. Ms. Posey reviewed the VOC and NOx emissions graphs and indicated that the Tier 1 budgets had been set at the emissions inventory levels in the 2008 Ozone Maintenance Plan and that the Tier 2 budgets had included a safety margin to allow for changes in planning assumptions through time. She pointed out the emissions levels and the mobile budget lines and noted that VOC and NOx forecasts for 2025 and 2030 are above the Tier 1 budgets. Ms. Posey noted that there were differences in the inputs used

to develop the mobile budgets compared to the inputs used to develop the emissions estimates for Visualize 2045. She listed the differences and stated that for Visualize 2045 there were more households and jobs, and a vehicle fleet that contains more SUVs and heavy trucks, which would increase emissions. She discussed a sensitivity test which showed that the new vehicle fleet is responsible for most of the emissions increases in Visualize 2045 compared to the emissions from the analysis that set the mobile budgets. Ms. Posey informed the group that language in the Ozone Maintenance Plan allowed for use of the Tier 2 mobile budgets if the inputs for a conformity analysis were different than those used to develop the mobile budgets. She concluded that the Tier 2 budgets would be used in the conformity analysis. Ms. Posey showed a graph of CO_2 emissions through time, and noted that while it is not officially a part of the conformity analysis, the TPB estimates mobile source CO_2 emissions.

Charles Freeman, Frederick County, asked why emissions are dropping if VMT is increasing. Ms. Posey indicated that it was mostly due to federal programs requiring cleaner vehicles combined with fleet turnover. Mr. Freeman asked if the current vehicle fleet mix is carried through time. Ms. Posey replied that all the years of collected fleet data are used to create a trend line.

Bill Orleans asked if there is a group at COG that monitors tree loss. Ms. Posey indicated that COG's Department of Environmental Programs has staff that works with trees. Mr. Orleans further asked about the impacts of tree loss and development patterns on pollution. Ms. Posey replied that the TPB addresses mobile emissions, and that MWAQC is responsible for addressing emissions from other sources. She noted that monitored emissions, which include tree canopy changes, are going down significantly through time.

D. Performance Planning

Andrew Meese, COG/TPB staff presented on Chapter 6 of Visualize 2045. He stated that Chapter 6 of the plan, "Performance Planning," encompasses three key components of performance, specifically related to federal requirements for regional transportation plans.

Mr. Meese shared that the first component of the chapter is the Performance-Based Planning and Programming, or PBPP process, including federally mandated data analysis and associated targets that the TPB has reviewed and approved. He noted that the TPB and TPB Technical Committee had received numerous briefings and taken several actions regarding PBPP over the last 18 months, and staff worked with members in determining the region's target-setting approaches and, ultimately, the targets approved by the TPB. The second component of Chapter 6 is a summary of the longstanding Congestion Management Process (CMP), systematically looking at congestion in the region and strategies to alleviate that congestion. The most recent biennial detailed CMP Technical Report was also on today's Technical Committee agenda for finalization. The third component of Chapter 6 is the Safety Element of Visualize 2045, with a systematic look at regional fatality and crash injury information.

Mr. Meese concluded in sharing that that all three of these components are also subjects of appendices to Visualize 2045, providing more information. The analyses undertaken through the PBPP, CMP, and Safety Element provide data for consideration by TPB member agencies for decision making as they programmed projects into the plan. Performance Planning information in Chapter 6 also ties to TPB policy initiatives, including the TPB Vision, Regional Transportation Priorities Plan, and Seven Endorsed Initiatives, with these policy

initiatives' recurring emphases on safety, efficiency, and effectiveness of the region's transportation system.

E. Additional Plan Elements

Ms. Zeller presented the Additional Elements portion of the plan, which is Chapter 7. There are 14 different elements that make up this chapter, consisting of various regional planning activities and programs that the TPB is engaged in and helps coordinate. In the plan document, each of the elements are broken down into key information which demonstrates how the element fits into the overall TPB work plan and mission: the TPB role in the element, ongoing challenges, 'visualizing' the future with this element, and the policy context are described for each of the elements. Ms. Zeller provided highlights for four of the elements during the presentation: bicycle and pedestrian planning, land-use coordination, equity and inclusion, and transportation demand management.

Mr. Ritacco presented an interactive map for Environmental Consultation and Mitigation. Federal regulations require inventory mapping of the constrained element of the long-range transportation plan against a variety of environmental resources.

F. Public Participation

John Swanson, COG/TPB staff, described public involvement activities conducted for the plan. These activities included a survey in 2017, which received more than 7,000 responses; 12 public forums in the spring of 2018; and three open houses that were planned for September 2018. He described some overarching findings from the outreach activities.

Mr. Swanson closed the Visualize 2045 presentation by observing that once the plan is approved, the next steps would involve implementation of the TPB's endorsed initiatives.

3. Briefing on the FY 2019-2024 Transportation Improvement Program

Andrew Austin noted that the draft FY 2019-2024 TIP had been released along with Visualize 2045 for public comment. He described a change to the organization of the TIP document from previous versions that would include a core document with a financial plan and performance-based planning and programming analysis and then a set of appendices that would include the TIP project tables which change frequently. He provided a brief overview of the financial plan and explained that the staggered schedules of various implementing agencies meant that funding in Virginia would appear significantly lower than other jurisdictions or agencies. He described the new section detailing the PBPP baseline analysis and provided examples of projects would be listed according to funding sources related to various performance measures. Mr. Austin also provided a preview of future developments for the TIP including staff work to acquire a new database application to improve the data collection, analysis, and reporting for the TIP.

4. Briefing on the TPB's Draft 2018 Congestion Management Process (CMP) Technical Report

Andrew Meese, COG/TPB staff, presented a detailed presentation on the draft 2018 Congestion Management Process Technical Report given to the committee at its July 6 meeting, with a request for review and comments. No comments were received on the draft report during the comment period. With today's presentation, the report was taken as accepted as final by the Technical Committee. The full report was posted on the TPB website; searching for "CMP Technical Report" on the website will find the page with several CMP Technical Reports posted. Mr. Meese thanked

colleagues Daivamani Sivasailam, James Li, and Patrick Zilliacus for their extensive work on the report.

Mr. Brown thanked staff for the efforts, appreciating the graphics in the report, and encouraged members to look.

5. Commuter Connections Mobile APP and Incentive Programs

Nicholas Ramfos, COG/TPB staff, briefed the committee about the background of Commuter Connections activities on mobile applications beginning with the Commuter Connections mobile app which allows existing Commuter Connections users to access their accounts and run ridematches and search for park and ride lots. New tools to help form new carpools/vanpools and promote the creation of new pools for the Washington D.C. was the main objective for this project area and began in 2013. CarpoolNow, a real-time, dynamic, mobile based matching application was developed and deployed and includes an incentive program for drivers initially available for any trip that touched Howard County, MD in FY2018. This incentive is being expanded to the Washington DC region during FY2019.

Mr. Ramfos said a collaborative effort with the University of Maryland led to the development and implementation of the Flextime Rewards program last fiscal year. Flextime Rewards is an incentive program benefit for commuters who are able and willing to commute during off-peak hours to avoid congestion along major corridors in the region, specifically, during a major incident or significantly higher-than-average traffic volume days. Initial research was conducted on flexible work hours incentives and a White Paper was released in July 2017 which led to the creation of a pilot program introduced in the region last December.

Mr. Ramfos then discussed the collaboration with the University of Maryland on incentTrip, a multimodal dynamic trip planner and incentive application developed through a US Department of Energy ARPA-E grant. The app was released during a launch for Commuter Connections network members in May of this year and is currently being tested. It is expected to be released to the public later this fall. Staff is still working on identifying a source of funding for the incentive associated with the mobile app. The initial launch to the public will not include the incentive, just points until funding is identified and secured. In the meantime, there would be a monetary incentive applied to the point totals for each participant.

Mr. Ramfos said that given the proliferation of apps for just about everything, the goal is to make the apps prominent for commuters to use daily. Mr. Ramfos reviewed several screen shots and features of the CarpoolNow mobile app. Users can login using their existing Commuter Connections login credentials. Both drivers and passengers can use the app to connect with each other for a commuter trip. For the driver incentive portion of the app, there are participation guidelines that the driver would need to agree to. If a ride is requested, a drop off location is designated and there is an acknowledgement notification if there is a driver looking to pick up the passenger and the rider can accept the notification for the ride. If a driver is not located right away, a window will pop up suggesting other options to the user, such as transit and a long-term carpool arrangement through the Commuter Connections TDM system.

Next, Mr. Ramfos discussed the Flextime Rewards incentive program. Those signing up to participate in the program agree to delay their trip to/from work during peak times should incidents service/speed rates change. Participants are notified via real-time traffic alerts that are prompted through the University of Maryland using the Regional Integrated Transportation Information System (RITIS). If the participant uses one of the following corridors for their daily commute: I-270 spur (IL), I-495 b/w I-95 and MD-193 (OL), I-66 EB at VA-267, or DC-295 SB at Benning Road, and the delay their trip after receiving a notification they will be eligible to be entered a prize drawing each month.

Those participating along other corridors will receive the notification of unusual congestion along their route. Mr. Ramfos then reviewed the Flextime Rewards dashboard that participants would use. He stated the goal was to move to a geolocation-based service for the program using the Commuter Connections mobile app to allow for the immediate detection of whether a trip was delayed and to then reward that participant with a cash incentive. This approach is slated to be programmed and released this fiscal year.

Lastly, Mr. Ramfos covered the incenTrip mobile app developed in conjunction with the University of Maryland through a USDOE grant. As stated earlier, the app is a multi-modal trip planner than uses real-time travel data to suggest the best mode for commuters to use. It also incorporates transit, carpool/vanpool, TNCs, bike, and walk modes with real-time data and re-routes trip as needed. depending on trip conditions. The app allows users to track their eco-score and earn points for their trip, grade their fuel efficiency, and receive third-party supplied incentives which would be available in the future. Mr. Ramfos then reviewed the interface of the app from creating an account to using the app and the resulting scores received based on the modes taken and Eco driving.

In summary, Mr. Ramfos stated that staff will be monitoring the use of CarpoolNow Driver incentive and Flextime Rewards this fiscal year to determine program effectiveness including emission impacts, improved mobility and less fuel consumption. The incenTrip mobile app was introduced to Commuter Connections network members this past May and its use and feedback will be monitored and changes will be made prior to the roll out to Commuter Connections account holders in the fall. Those interested in accessing the incenTrip mobile app can download it from the app stores and a code will be sent for access and testing of the app. Plans to expand CarpoolNow Driver Incentive to the rest of the region during will occur this fiscal year with about \$42K in incentive funds. The Flextime Rewards Program will include \$70K in cash incentives along the four selected bottlenecked corridors during FY 2019. Staff will also be working on secure funding for use of incenTrip mobile app depending on evaluation results and the roll out in the fall.

Bob Brown asked whether the apps had to be used while driving as this can pose a safety issue. Mr. Ramfos stated that most mobile phones are sensitized to movement in a vehicle and may prevent the user from accessing the app, particularly if there is a Bluetooth connection. He also verified that the software cannot prevent a driver from using the app when in motion. Kari Snyder, MDOT, stated that mounting devices for phones may also be of benefit when using any mobile app during drive times. Ms. Snyder also asked whether incenTrip had navigation capabilities. Mr. Ramfos stated that the app does show navigation on a map and where the user is traveling to.

Mr. Ramfos encouraged committee participants to test the apps and incentive programs and provide their feedback.

6. Other Business - Lyn Erickson, TPB Plan Development and Coordination Program Director

EPA Ozone Maintenance Plan Mobile Budget Adequacy Finding

Jane Posey announced that EPA found the mobile budgets that were included in the 2008 Ozone maintenance plan adequate for use for conformity and that DTP is now required to use those budgets. This was in effect on August 21, 2018. More detailed information is available in the Federal Register - Vol. 83, No. 151 / Monday, Aug. 6, 2018. The Notices issue which was provided in the meeting's materials packet.

The Safer Affordable Fuel Efficient (SAFE) Vehicles Proposed Rule for Model Years 2021-2026

Erin Morrow, COG/TPB staff noted that as we were expecting back in the spring, NHTSA and EPA have initiated rulemaking to reduce the existing CAFE standards and greenhouse gas emissions standards for Model Years 2021 through 2026. In the Federal Register, the rule is referred to as the Safer Affordable Fuel Efficient (SAFE) Vehicles Proposed Rule for Model Years 2021-2026. The preferred alternative essentially freezes the standards for this time period at the 2020 standard. Comments on the rule are due by October 23, 2018. A draft joint comment letter from MWAOC, CEEPC, and TPB voicing opposition to the new rule is being prepared and will be shared with the TPB and relevant committees. This letter would be similar in nature to the joint TPB/MWAQC/CEEPC letter that was sent a year ago when EPA announced that it was reconsidering the mid-term evaluation of the standards.

WMATA Bus Transformation Project

Eric Randall shared that Metro has hired a consulting team that is going to help them envision what Metro bus may look like over the next ten years. He recognized Allision Davis of WAMATA as the project manager, drew the committee's attention to the one-page document associated with the announcement and noted that TPB staff will keep members informed about the progress of the study over the next year. Ms. Davis briefly shared more details regarding the study.

Performance Based Planning LOAs

Eric Randall spoke about the performance-based planning component of the TIP. He noted that planning regulations require the signing of an agreement on who does what for the performance based planning. Members were briefed on the topic at the beginning of the year and since then there has been some additional guidance and the transit safety rule has been completed. Mr. Randall said that he is in the process of following up with individual agencies regarding agreement letters and that every transit agency that received federal money should have their letter of agreement in place by end of month per the guidance of the FTA. He concluded in noting that he will be following up individually, but encouraged members to reach out to him for assistance.

Visualize 2045 Open Houses September 12, 13, 17

Lyn Erickson reminded and encouraged committee members to attend one of the series of open houses that are being held on the 12th, 13th, and 17th of September in 3 different locations in the region. She shared the open houses flyer and made herself available to any questions regarding the events. She briefly explained the format and style of the events.

Visualize 2045 work session reminder, September 21 at 10:30 A.M.

Lyn Erickson reminded committee members of the upcoming work session to be held at 10:30 A.M. directly before to the upcoming TPB meeting. She noted that the goal of the work session is to focus specifically on the financially constrained element of the plan. She noted that the work session will provide the opportunity for board members to ask more detailed questions.

• Update to the Coordinated Human Service Transportation Plan (CHSTP) for the National Capital Region – list of specialized services reminder (Lynn Winchell-Mendy)

Lynn Winchell-Mendy COG/TPB staff made a request for assistance from committee members regarding the list of specialized services component of the CHSTP. She specifically referenced Frederick, Charles, Arlington and Prince George's Counties and the City of Alexandria in terms of municipalities where more information is needed.

COG July Board Retreat

Kanti Srikanth COG/TPB staff, shared that the COG Board of Directors held their annual retreat this past July in Maryland and that one of areas of focus that was discussed during the retreat was the adequacy and affordability of the housing plan for the region over the next 20 years. He mentioned that this conversation relates to one of the endorsed seven initiatives of the long range plan in bringing jobs and housing closer together in that one of the findings of the regions housing plan is that the projected levels of housing over the long term is inadequate. At the retreat, elected officials also discussed the technical analysis of the plan which estimated that an additional 130,000 houses will be built during this time and that this is expected to provide housing to people who are commuting from outside the region which will in effect help reduce congestion on the interstate and other travel facilities. He noted that this is another example of how the endorsed initiatives are being elevated to the attention of policy makers in the region so that they can determine what types of policy intervention they can engage in. At the upcoming COG Board meeting, the board will likely adopt a resolution that will ask the planning directors to consider how they can enhance the plans for housing in the region and also work with the TPB to figure out the best locations. In analysis that have been performed, the optimal locations that were identified were regional activity centers or close to high capacity transit.

• September 6 DC, MD, VA leadership summit

Mr. Srikanth shared that he attended a summit between the governors of Maryland and Virginia and the mayor DC in Tysons Corner which was the 4th such of the recent annually held event. Various transportation officials attended the event and transportation was one of the major areas of focus. Recognition was given to leaders for their activity in working with state and district elected officials in securing additional funding for WMATA. The governor of Maryland discussed the Transportation Relief Plan (TRP) and other projects. The District of Columbia discussed housing, which was a mutual topic of interest for the three, particularly housing affordability. There were no specific announcements regarding a unified plan but, congestion and mobility were also discussion as it relates to transportation.

Request for presentations on local projects which exemplify the seven endorsed initiatives

Lyn Erickson briefly reminded committee members to submit any projects, policies or programs that their jurisdictions may be involved with that support the seven endorsed initiatives so that they may be put on the agenda as presentations. She noted that the board will be discussing the initiatives in October and November with subject matter experts briefing the TPB from the Commuter Connections Subcommittee, the Regional Public Transit Subcommittee and the Bicycle and Pedestrian Subcommittee.

Montgomery County Announcement

Mr. Erenrich shared that in conjunction with Car Free Day on Saturday, September 22, Montgomery County is hosting an event called, "Shop and Play the Easy Way," where there will be free rides on metro offered from Shady Grove to Germantown to the Black Hill Regional Park which will be hosting its Saturday Fall Festival with great family activities, free bikes and water activities. There will also be transportation provided to the Clarksburg premium outlets that will run every 30 mins. He concluded in inviting members to attend and that publicity on the event will be released soon.

Car Free Days 2018

Nicholas Ramfos, COG/TPB staff reminded the committee that Car Free Day will be held on both Friday September 21 and Saturday September 22, He encouraged members to take the pledge at https://carfreemetrodc.org/.

7. Adjourn

TPB TECHNICAL COMMITTEE MEMBERS AND ALTERNATES ATTENDANCE – September 7, 2018

DISTRICT OF COLUMBIA		FEDERAL/REGIONAL	
DDOT DCOP	Mark Rawlings Kristin Calkins	FHWA-DC FHWA-VA	
<u>MARYLAND</u>		FTA NCPC	Dan Koenig
Charles County Frederick County City of Frederick	Charles Freeman Timothy Davis	NPS MWAQC MWAA	Laurel Hammig
Gaithersburg		<u>COG STAFF</u>	
Montgomery County Prince George's County Rockville M-NCPPC Montgomery County Prince George's County MDOT Takoma Park		Kanti Srikanth, DTP Lyn Erickson, DTP Ron Milone, DTP Tim Canan, DTP Andrew Meese, DTP Andrew Austin, DTP Anant Choudhary, DTP Bill Bacon, DTP Brandon Brown, DTP	
<u>VIRGINIA</u>		Kenneth Joh, DTP Michael Farrell, DTP	
Alexandria Arlington County City of Fairfax Fairfax County	Dan Malouff Malcolm Watson Mike Lake	Mark Moran, DTP Nicholas Ramfos, DTP Dan Sheehan, DTP Eric Randall, DTP	
Falls Church Fauquier County Loudoun County Manassas NVTA NVTC Prince William County PRTC VRE VDOT VDRPT NVPDC VDOA WMATA	Robert Brown Sree Nampoothiri Adam Weigel Betsy Massie Sonali Soneji Norman Whitaker Regina Moore Ciara Williams	Sergio Ritacco, DTP Daivamani Sivasailam, DTP John Swanson, DTP Feng Xie, DTP Lori Zeller, DTP Abigail Zenner, DTP Nicole McCall, DCPS Paul DesJardin, DCPS Sunil Kumar, DEP Patrick Zilliacus, DTP Lynn Winchell-Mendy, DTP Dusan Vuksan, DTP Jinchul Park, DTP Ray Ngo, DTP Jane Posey, DTP Matthew Gaskin, DTP Arianna Koudounas, DTP James Li, DTP Charlene Howard, DTP Jen Desimone, DEP	
		Erin Marrow, DTP	

TPB TECHNICAL COMMITTEE MEMBERS AND ALTERNATES ATTENDANCE – September 7, 2018

OTHER

Alexandra Brun, MDE Meredith Hill, MDOT SHA Sunhil Kumar Bill Orleans Tamara Blake-Wallace Jean Friedberg Doris McLeod Sonya Lewis-Cheatham