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

Date: October 16, 2013
Time: 12 noon
Place: COG Board Room

AGENDA
(BEGINS PROMPTLY AT NOON)

12 noon 1. **Public Comment on TPB Procedures and Activities**
.....Chairman York

Interested members of the public will be given the opportunity to make brief comments on transportation issues under consideration by the TPB. Each speaker will be allowed up to three minutes to present his or her views. Board members will have an opportunity to ask questions of the speakers, and to engage in limited discussion. Speakers are asked to bring written copies of their remarks (65 copies) for distribution at the meeting.

12:20 pm 2. **Approval of Minutes of September 18 Meeting**
.....Chairman York

12:25 pm 3. **Report of Technical Committee**
..... Ms. Erickson
Chair, Technical Committee

12:30 pm 4. **Report of the Citizen Advisory Committee**
.....Mr. Still
Chair, Citizens Advisory Committee

12:40 pm 5. **Report of Steering Committee**
..... Mr. Kirby
Director, Department of
Transportation Planning (DTP)

12:45 pm 6. **Chair's Remarks**
.....Chairman York

Alternative formats of this agenda and all other meeting materials are available upon request. Email: accommodations@mwcog.org. Phone: 202-962-3300 or 202-962-3213 (TDD). Please allow seven working days for preparation of the material. Electronic versions are available at www.mwcog.org.

INFORMATION ITEMS

12:50 pm 7. **Briefing on the Draft Call for Projects and Schedule for the Air Quality Conformity Assessment for the 2014 CLRP and FY 2015-2020 TIP**

.....Mr. Austin, DTP

The Board will be briefed on the draft call for projects document and schedule for the air quality conformity assessment for the 2014 CLRP and FY 2015-2020 TIP. The Board will be asked to approve the final call for projects document at its November 20 meeting.

12:55 pm 8. **Discussion of the Revised Draft TPB Regional Transportation Priorities Plan (RTPP)**

..... Mr. Turner
Mr. Kirby

The TPB Regional Transportation Priorities Plan (RTPP) is being developed to identify regional strategies that offer the greatest potential contributions toward addressing regional challenges. At the September 18 meeting, the Board was briefed on the comments received on the draft plan released on July 24. The Board will be updated on the September 27 COG Economy Forward event on regional activity centers and transportation priorities, and briefed on the revisions made to the priorities plan in response to the comments received to date. A proposed schedule for further public comment, followed by revision and TPB adoption of the plan, will be presented and discussed.

1:30 pm 9. **Briefing on the Final Report of the TPB Bus On Shoulders (BOS) Task Force**

..... Ms. Krimm and Mr. Zimmerman
Co-Chairs of TPB Bus on Shoulder Task Force
Mr. Randall, DTP

At the September 2012 meeting, the Board established the Bus on Shoulder Task Force to investigate promising locations in the region to operate buses on the shoulders of highways. The Board will be briefed on the final report of the task force.

1:45 pm 10. **Update on the Regional "Street Smart" Pedestrian and Bicycle Safety Education Campaign**

..... Mr. Farrell, DTP

The Board will be briefed on the evaluation of the Fall 2012 and Spring 2013 campaigns, and on the funding and planning for the Fall 2013 and Spring 2014 campaigns.

1:55 pm 11. **Other Business**

2:00 pm 12. **Adjourn**

2 hours
Lunch will be available for Board members and alternates at 11:30 am

Item #2

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD

777 North Capitol Street, NE
Washington, D.C. 20002-4226
(202) 962-3200

MINUTES OF THE TRANSPORTATION PLANNING BOARD September 18, 2013

Members and Alternates Present

Monica Backmon, Prince William County
Melissa Barlow, FTA
Eulois Cleckley, DDOT
Marc Elrich, Montgomery County
Dan Emerine, DC DOT
Gary Erenrich, Montgomery County
Lyn Erickson, MDOT
Jason Groth, Charles County
Cathy Hudgins, Fairfax County
Sandra Jackson, FHWA
John D. Jenkins, Prince William County
Emmett Jordan, City of Greenbelt
Carol Kissal, WMATA
Julia Koster, NCPC
Carol Krimm, City of Frederick
Tim Lovain, City of Alexandria
Phil Mendelson, DC Council
Mark Rawlings, DC-DOT
Paul Smith, Frederick County
Linda Smyth, Fairfax County
David Snyder, City of Falls Church
Kanathur Srikanth, Virginia DOT
Todd M. Turner, City of Bowie
Victor Weissberg, Prince George's County
Patrick Wojahn, City of College Park
Scott K. York, Loudoun County
Sam Zimbabwe, DDOT
Chris Zimmerman, Arlington County

MWCOG Staff and Others Present

Ron Kirby	
Nicholas Ramfos	
Andrew Meese	
Eric Randall	
John Swanson	
Rich Roisman	
Andrew Austin	
Deborah Kerson Bilek	
Dan Sonenklar	
Ben Hampton	
Bryan Hayes	
Debbie Leigh	
Deborah Etheridge	
Michael Farrell	
Daivamani Sivasailam	
Erin Morrow	
Marco Trigueros	
Bill Orleans	Citizen
Christine Hoeffner	VRE
Doug Allen	VRE
Faisal Hameed	DDOT
Lezie Rupert	DDOT
Vic Siaurusaitis	Baker
George Clark	Committee of 100
Stewart Schwartz	CSG
Paul Bickmore	CSG
Tina Slater	ACT
Mike Lake	Fairfax County DOT
Judi Gold	CM Bowser
Christine Green	Greater Washington Safe Routes to School Network
Evan Gross	GMU
Elizabeth Beziller	DDOP
Thomas Taylor	NoMa BID
Galin Brooks	NoMa BID
Patrick Durany	Prince William County
Pierre Holloman	City of Alexandria
Steve Hetrick	Albeck Gerken, Inc.
Tim Davis	City of Frederick
Stephen Flippin	CSX
Rob Whitfeld	Committee for Dulles
Nick Alexandrow	PRTC

1. Public Comment on TPB Procedures and Activities

Chair York opened the meeting and mentioned that he would have to leave at 1:45 p.m. and would turn the proceedings over to Vice Chair Wojahn at that time. He made note that Mr. Way was attending the meeting via telephone.

George Clark, representing the Committee of One Hundred on the Federal City, spoke about the importance of commuter rail in the region. He said the Regional Transportation Priorities Plan should call for improvements in commuter rail, including increased capacity and conversion to electric trains. He spoke of the importance of the Long Bridge and Virginia Avenue Tunnel projects. Copies of his remarks were submitted for the record.

Christine Green of the Greater Washington Region Safe Routes to School Network announced that the Network and the TPB's Bicycle and Pedestrian Subcommittee would be hosting a Safe Routes to School regional meeting on October 29. She said this is the first regional convening of professional staff and advocates of Safe Routes to School. She said that the funding for Safe Routes to School programs changed under MAP-21, but that the movement is still strong. She said the change in funding makes this regional meeting even more important.

Jim Dinegar of the Greater Washington Board of Trade said transportation is critical to commerce in the Washington region and that rehabilitation of the Long Bridge is a project of regional significance. He believes that the study provides an opportunity to look at commuter rail run-through service. He said the Board of Trade is undertaking a transportation study that would be made available to the TPB and would look at transportation enhancements that would make the region function more effectively.

2. Approval of Minutes of July 17 Meeting

A motion was made and seconded to approve the minutes of the July 17 meeting. The motion was passed unanimously.

3. Report of Technical Committee

Ms. Erickson provided a summary of the September 6 Technical Committee meeting. She said the committee reviewed five of the TPB agenda items, including highlights from the 2013 State of the Commute Survey, the list of regional highlighted freight projects, DDOT's Long Bridge study, the final report on a study of the Public Acceptability of Congestion Pricing and implications of related requirements of MAP-21, and the Regional Transportation Priorities Plan comments to date and proposed revisions. She said that in addition to the TPB agenda items the committee was briefed on the results of a survey on traffic signal timing in the region, a potential draft Green Streets policy, an analysis of a comparison of past performance of regional transit forecasts to actual 2010 transit ridership, and the status and latest development of MAP-21 performance measure regulations.

4. Report of the Citizen Advisory Committee

Mr. Still provided a summary of recent activities of the TPB Citizens Advisory Committee. He said the CAC met twice since the last TPB meeting: it had a special meeting on August 15 to discuss the Regional Transportation Priorities Plan (RTPP) and had its regular meeting on September 12. He said the CAC feels the RTPP is very well written and organized. He said the main comments of the CAC relate to areas of the RTPP that the committee believes should be elaborated upon, including: selection of the 15 strategies; how the RTPP will be implemented and how it would be integrated with other planning processes in the region; and measurement of the RTPP's effectiveness and progress over time. He said the CAC is appreciative of the responsiveness of TPB staff to its comments on the RTPP.

Chair York said that would like to have a conference call with Mr. Still and Mr. Kirby to discuss the CAC's comments on the RTPP.

5. Report of Steering Committee

Mr. Kirby said the Steering Committee met on September 6 and acted on two amendments to the Transportation Improvement Program that were included in the TPB mailout packet. He summarized items in the letters packet included in the mailout. He also called attention to *The Region* magazine, the TPB's annual report. He noted the additional letters packet distributed at the meeting and specifically mentioned the Economy Forward event scheduled for September 27, encouraging members to attend. He also provided detail on the TPB's letter to Federal Transit Administration Administrator Peter Rogoff regarding the proposed regulations on the new 5310 Program under MAP-21. He asked staff to speak on the final item, the announcement of another session of the TPB's Community Leadership Institute.

Ms. Bilek said the next session of the TPB's Community Leadership Institute (CLI) will be held on November 14 and November 20, and is geared specifically toward staff of the region's elected officials. The program's primary goal is to help increase awareness of regionalism and regional transportation issues when making decisions. She said Kathy Porter, former Mayor of Takoma Park, will facilitate the CLI. She said the deadline for recruitment is October 18.

Mr. Snyder had three remarks: a request to VDOT that it will make sure that the safety of the traveling public and first responders is not degraded by use of shoulder traffic; a request for a briefing or report from MATOC on the role it played during the recent Navy Yard incident; and support for a request for a presentation on traffic signal timing.

6. Chair's Remarks

Chair York chose not to make any remarks.

ACTION ITEM

7. Amendment to the FY2013-2018 Transportation Improvement Program (TIP) that is Exempt from the Air Quality Conformity Requirement to Include Funding for the Construction of a Replacement Interchange on MD 4 at Suitland Parkway and for the Reconstruction of US 1 in College park, as Requested by the Maryland Department of Transportation (MDOT)

Ms. Erickson summarized that in July, MDOT gave notice of two amendments to the TIP, and that a public comment period that followed in August closed with no comments received. She said that MDOT is now proposing to amend the TIP to add $154 million of federal and state funding for the replacement of an at-grade intersection at Maryland 4 and Suitland Parkway with a grade-separated interchange, and to add $19.6 million of state funding for right-of-way for the reconstruction of U.S. 1 between College Avenue and Sunnyside Avenue in College Park. She moved approval of Resolution R7-2014 to approve these amendments. The resolution was seconded and passed unanimously.

INFORMATION ITEMS

8. Briefing on the Results of the 2013 State of the Commute Survey for the Metropolitan Washington Region

Mr. Ramfos announced that Car Free Days were to be held on September 20-22, and said that a Twitter chat would be hosted after the TPB meeting to create a social media buzz around the event. He then turned to a PowerPoint Presentation and, referring to information that was provided in the agenda packet, provided an overview of some findings from the 2013 State of the Commute Survey. He explained the survey methodology, listed the survey topics – including new sections for 2013 – and reported some preliminary highlights on commute patterns, telework, travel facilities, commute ease and satisfaction, awareness of Commuter Connections, and employer services.

Mr. Ramfos said that, according to survey results, drive-alone percentages had been dropping since 2001, but had experienced a slight increase between 2010 and 2013 – from 64 percent to 66 percent. By comparison, other modes remain essentially unchanged. He added the fewer than half of the region's inner core commuters drive alone, compared with 70 percent of commuters in the middle ring who drive alone, and 74 percent of commuters in the outer ring who drive alone. He added that in the core, workers bike, walk, and carpool and vanpool at higher rates than the rest of the region. He mentioned that the average commute distance (16 miles) and average commute time (36 minutes) have remained the same since 2010.

Mr. Ramfos also explained that there has been a steady growth in telework since 2001, with most growth attributed to the federal government, which he suggested is related to the federal Telework Enhancements Act of 2010. He added that the average frequency of telework is 1.4 days per week, which is an increase from 1.3 days per week reported in 2010. With regard to

proximity to transit, Mr. Ramfos said that 50 percent of respondents live less than ½ mile from a bus stop and 65 percent live less than 1 mile. He also mentioned that commuters who lived in outer jurisdictions were more likely to have HOV lanes available on their route to work, and were more likely to use them when available. He discussed survey responses regarding societal and personal benefits of ridesharing, satisfaction levels with commutes, and awareness of Commuter Connections. Finally, he addressed real-time ride-matching, or instant carpooling, and stated that about one-third of respondents expressed interest in paying for an instantaneous carpool trip that could be found using a smartphone. He concluded by saying that copies of a technical report are available, and that the report would be finalized in 2014.

Mr. Erenrich asked about analysis on federal worker travel patterns, specifically whether federal workers were traveling longer distances than other workers, since a large portion of federal jobs are concentrated in the region's core.

Mr. Ramfos replied that while this information is not explicitly called out in the report, the data collected on worker and employer demographics would allow TPB staff to analyze federal workers' travel patterns.

Mr. Erenrich suggested that in the future, respondents could be coded based on their jurisdiction so that disaggregated data could be summarized, and that information could be broken out by jurisdiction.

Mr. Zimbabwe suggested that that it would be useful to collect data on commuting mode choice for people who live within half a mile of transit.

Mr. Ramfos replied that both of these suggestions could be considered for a future survey.

Mr. Kirby emphasized that the State of the Commute Survey is designed to be significant at the jurisdictional level, and that data is purposefully aggregated in three categories: core, inner-, and outer-jurisdiction, which he said represents a broad brush picture of the region. He added that TPB conducts additional geographic surveys that allow for a more detailed analysis of selected smaller areas, and said that TPB members are welcome to offer suggestions for places where these focused surveys should occur.

9. Briefing on Regional Highlighted Freight Projects

Mr. Cleckley, chair of the TPB's Freight Subcommittee, briefed the Board on a 2013 update to the group's Freight Transportation Highlighted Projects list, which features ten road, rail, and other initiatives that the states and freight railroads in the region are pursuing to improve freight movements in coming decades. He explained that freight movement is critical to the region's economy, that a 66 percent increase in freight traffic is expected by 2040, and that most of the traffic will be by truck. He said that the list of highlighted projects includes one short-term initiative and one long-term initiative from each of the three states and from each of the region's two Class I railroads.

Mr. Cleckley spoke to a PowerPoint presentation that featured several of the projects, including, in the short-term: reconstruction of CSX's Virginia Avenue tunnel in the District; improvements to truck parking facilities in Maryland; and widening of a portion of the 18-mile "loop road" around Dulles Airport in Virginia. The long-term initiatives featured in the presentation included: a multi-state effort by Norfolk Southern to clear major bottlenecks and improve efficiency; deployment of a real-time motor carrier information system in the District; expansion of CSX's Long Bridge across the Potomac River between the District and Virginia; upgrades to I-70 near Frederick, in Maryland, to improve truck connections between the Port of Baltimore and markets in the Midwest; and an integrated corridor management initiative along I-95 and I-395 in Virginia. More complete descriptions of these and the remaining projects were included in the briefing memorandum provided to Board members.

Chair York asked whether the freight forecasts featured in the presentation included freight that only passes through the region.

Mr. Cleckley confirmed that the forecasts do include through-traffic. He said that the forecasts were generated using the Federal Highway Administration's Freight Analysis Framework, which looks both at freight moving within a jurisdiction as well as freight that is passing through, destined for, or leaving that jurisdiction.

Chair York asked whether the share of total freight traffic generated by the region itself was available.

Mr. Cleckley said that the through-traffic can be separated from the traffic traveling within, to, or from the region.

Mr. Erenrich expressed concern about the degree to which the TPB supports and promotes the major initiatives of CSX and Norfolk Southern -- through such things as the Highlighted Projects list -- even as both railroads seem to stand in the way of many of the region's major transportation initiatives. In particular, he called attention to the difficulty in working with CSX on the Purple Line light rail line in Maryland.

Mr. Lovain drew the Board's attention to the fact that MAP-21, the federal transportation authorization passed in 2012, puts even greater emphasis on freight issues than did the previous authorization. He said the law calls for development of a national freight plan, and encourages states to develop their own freight plans, too, in order to prioritize freight projects. He said he hoped that the work of the Freight Subcommittee was consistent with the work of the states in the region to develop plans, as well as similar work at the U.S. Department of Transportation.

Mr. Cleckley confirmed that the work of the subcommittee has been consistent with the state and federal efforts. He said that Maryland and Virginia have both developed freight plans, and that the District is about to complete its freight plan. He pointed out, too, that there are new federal incentives to encourage states to identify high-priority freight projects, and that about ten percent of the projects awarded funding under the most recent federal TIGER program were freight

projects.

Mr. Mendelson referred to comments made by the Committee of One Hundred on the Federal City during the public comment period earlier in the meeting. He echoed the group's concerns that increasing the freight capacity of the Virginia Avenue tunnel in the District, one of the projects on the list, could impact commuter rail service, in particular by increasing freight traffic and taking away capacity for commuter and other passenger rail service.

Mr. Cleckley said that representatives of both freight railroads regularly attend meetings of the Freight Subcommittee, and that the list of highlighted projects includes one in Virginia to alleviate a major bottleneck for Amtrak and VRE trains. He said the subcommittee works to identify where the most pressing chokepoints are and to facilitate and coordinate with different stakeholders to address those issues.

Mr. Mendelson reiterated his concern about the potential chokepoint for commuter rail in Southwest that might be created should the Virginia Avenue tunnel be expanded. He requested that the Freight Subcommittee look specifically at how to ensure that there continues to be capacity to grow commuter rail capacity in the corridor.

Mr. Cleckley said that the subcommittee would do that.

Ms. Koster echoed Mr. Mendelson's concerns, stressing the importance of thinking about freight in the CSX corridor in Southwest in the context of commuter rail, Metrorail, and Amtrak passenger service. She urged the subcommittee to work together to better understand how freight decisions are impacting those other travel modes, in particular commuter rail.

Mr. Zimmerman also echoed Mr. Mendelson's concerns. He asked whether the subcommittee had considered long-term options for separating freight traffic from passenger rail traffic, perhaps by building another nearby span, or even rerouting freight traffic around the District. He said the region will need a great expansion of passenger rail, both within the region and inter-regionally, to handle future growth, and asked whether the subcommittee had thought about such big, long-term needs.

Mr. Cleckley said that the latest iteration of the Highlighted Projects list did not consider such long-term projects, but that the next iteration probably would. He said the latest list focused on projects that had relative ability to be funded within a certain period of time or are already being planned.

Mr. Zimmerman said that he appreciates the focus on short-term, realistic projects, but reiterated the importance of looking at long-term needs and starting the conversation now about what improvements will be needed 20 or 30 years from now. He acknowledged the difficulty in getting all the right parties to start talking now about such projects, but said that it is both necessary and possible to do, and that if any group or body is in a position to facilitate such a conversation, it is the TPB.

Mr. Cleckley agreed with Mr. Zimmerman.

Chair York also echoed Mr. Zimmerman's concerns.

10. Briefing on the Long Bridge Study

Ms. Rupert, from the District Department of Transportation, briefed the Board on the progress of the Long Bridge Study to assess freight, passenger, and commuter rail needs along the Long Bridge. The study was funded by the Federal Rail Administration (FRA), and participating stakeholders include the FRA, TPB, Arlington County, the Virginia Department of Rail and Public Transportation, CSX, and Amtrak. The 2,529-foot Long Bridge was originally built in 1904 and was last upgraded in 1942. The bridge is the only freight and passenger rail crossing that spans the Potomac River between the District and Virginia. The Long Bridge is owned by freight operator CSX. The National Park Service owns the landings at either side of the bridge and the Coast Guard has oversight of the navigation channel that passes underneath. Two-thirds of rail traffic that crosses the bridge is operated by Amtrak and Virginia Railway Express (VRE), while the remaining one-third is freight trains operated by CSX.

Ms. Rupert said that the purpose of the study is to assess the bridge's structure and possible multimodal improvements that could increase capacity to accommodate future growth. When complete, the study will include preliminary cost estimates, a location report, and recommendations for the required National Environmental Policy Act study.

Mr. Siaurusaitis, consultant with the Michael Baker Corporation, said that the study would also contain modeling exercises that include projections into the future for freight and passenger rail using nationally available data. These projections are not currently available.

Ms. Rupert said that work on the project started in September 2012 and included a site visit to visually inspect the bridge's superstructure. Participants found that the superstructure was in fair condition, and that the substructure of the bridge was in satisfactory to good shape. Other project events include a stakeholder meeting in January 2013 for stakeholders and industry experts. Findings and recommendations from that meeting were submitted with the presentation and include: "The current two track system provides operational challenges due to the growing freight, commuter, and passenger service demands;" "The bridge should accommodate the future freight, passenger, and commuter rail needs;" and, "Provisions should be made to accommodate future high speed rail... double stacked trains and electrified trains."

Ms. Rupert stated that through this process with stakeholders and the public, the study team narrowed 100 development alternatives to six. The first alternative suggests making no changes to the Long Bridge. The second alternative expands the bridge from two to four tracks, and adds room for pedestrians and cyclists. The third alternative, also expands the rail to four tracks, includes the pedestrian and bicycle connection, and adds streetcar tracks to potentially connect with the Columbia Pike streetcar in Arlington County. The fourth alternative is identical to the third, except that on this bridge the streetcar lanes will be shared with automobiles. The fifth

alternative adds an exclusive lane for automobiles to the configuration for the fourth alternative. Instead of adding to the Long Bridge, the final alternative builds a tunnel with four rail tracks that go underneath the Potomac River.

Ms. Rupert also presented four different design alternatives and an animation that demonstrates what a trip across the updated Long Bridge might look like. She also mentioned that the study should be completed by early 2014, and will be followed up with consultation with FRA regarding the NEPA process.

Chair York asked if there was a current cost estimate for the proposals.

Mr. Siarusaitis responded that there is no current cost estimate because the bridge concept report is still being written.

Mr. Zimmerman asked why the proposed designs include elements that allow the bridge to open for ships to pass through, since large ships have not passed underneath the bridge since 1960.

Dr. Hamidi, of the project team, said that designs accommodate navigation because it is required by law and that an exception would need to be granted by the Coast Guard. He also responded that based on impact, stakeholders and the public believe that the bridge should have a monumental look, and the designs reflect that.

Mr. Zimmerman agreed that it is fine to make the bridge attractive, but he also wanted to draw attention to the additional related costs.

11. Update on the Final Report "What Do People Think About Congestion Pricing? A Deliberative Dialogue with Residents of Metropolitan Washington"

Ms. Swanson said the TPB received a briefing on this report in January. He said staff has since updated the report based on comments received from the TPB and from the Federal Highway Administration (FHWA). He said the study looked at three different road-pricing scenarios: priced lanes on all major highways; a vehicle-based system using GPS in which drivers would pay for all miles driven; and a priced zone similar to that which has been implemented in London. He said more than 300 citizens were polled using a technique called deliberative forums. He said more than 60 percent of people strongly or somewhat supported the first scenario.

Mr. Swanson said the consensus of participants was that they were cautiously open to congestion pricing concepts, but with a number of conditions, including the need to see clear benefits. However, he said that they have doubts that the benefits can be accomplished. He said that there is a lack of confidence that the proposals could be effectively implemented, as well as a fear of government over-reach. He said that people are specifically concerned with the loss of privacy, the effectiveness of the priced options, and the use of revenues generated by priced roadways. He said that people wanted to know that congestion pricing is part of a wider strategic vision.

Mr. Swanson highlighted some items in MAP-21 that relate to congestion pricing. He said under the law's general tolling provisions, MAP-21 increased the authority of public agencies to build new tolled roadway capacity, but it put restrictions and limitations on tolling existing capacity. He explained that under these provisions, new toll projects generally cannot reduce the previous number of toll-free general-purpose lanes. He noted that there are still opportunities to toll existing capacity through the federal Interstate System Reconstruction and Rehabilitation Pilot Program and the Value Pricing Pilot Program.

Vice Chair Wojahn asked for questions and noted that the Executive Summary of the report is available in the TPB meeting packet and that the full report is online.

Mr. Turner asked if the public opinion research was done prior to the opening of the Intercounty Connector (ICC) and the tolled lanes on I-495.

Mr. Swanson said the research was done before the I-495 lanes opened and immediately after the ICC opened. He said it would be interesting to understand the public's reaction to congestion pricing after those facilities became available and were understood.

Mr. Zimbabwe said he recalled that the study's first scenario included BRT on the tolled lanes. He asked if any of the other scenarios included specific transit improvements.

Mr. Swanson said the first scenario included BRT and third scenario included circulation improvements—short-range transit along with more facilities for walking and bicycling.

12. Briefing on the Comments Received on the Draft TPB Regional Transportation Priorities Plan (RTPP)

Mr. Kirby, referring to a memo that was included in the mailout, summarized the progress to date on the RTPP. He explained that the document was released on July 24 for a 30-day public comment period. He said that the comments received through the comment period, and via the public opinion survey, generally reflect a good understanding of the information presented in the survey and in the draft RTPP. He mentioned that initial review of the comments received indicated three general topics that needed to be clarified in a revised version of the RTPP: tolling of existing highway lanes; the relationship between regional strategies and specific programs and projects; and the relationship between the RTPP and the TPB's Constrained Long Range Plan (CLRP).

With regard to tolling existing highway lanes, Mr. Kirby said that as a result of the MAP-21 legislative provisions on certain types of toll-financed construction activities, the CLRP Aspirations Scenario was revised to eliminate the instances where the number of toll-free lanes was reduced. The revised scenario network, which was reported to the TPB in April 2013, was used in the RTPP web-based survey and the subsequent July 2013 RTPP report. With regard to the comments pertaining to the relationship between regional strategies and specific programs

and projects, Mr. Kirby said that the RTPP presented potential benefits and costs of alternative strategies in qualitative terms that would help survey respondents to rank the relative importance of alternative approaches. He added that survey respondents were invited to suggest additional strategies throughout the survey itself, and that as the RTPP process moves forward, highly ranked strategies can be developed into more specific programs and projects.

Mr. Zimmerman asked when the RTPP would be brought before the TPB for formal action.

Mr. Kirby recommended that the TPB discuss a revised draft of the RTPP in October, which would be followed by a second comment period.

Mr. Zimmerman asked if this schedule would mean that the TPB would receive an information item on the RTPP in October.

Mr. Kirby said yes.

Mr. Zimmerman asked if the TPB would then take action on the RTPP in November of December.

Mr. Kirby responded that November would be the earliest time for the TPB to take action on the RTPP.

Mr. Zimmerman said that the RTPP was not only the most important thing on the day's agenda but it was perhaps one of the most important things that the TPB would ever take up – not only this year, but for the foreseeable future. He therefore said that it was unfortunate that this item began seven minutes prior to the TPB meeting's scheduled adjournment. He suggested that it deserves significantly more time for discussion. He advocated placing it as the first item after 'Action Items' on a future TPB agenda, and that the TPB block off time – separate from a staff presentation – to discuss the item as a Board. He said he thought the draft document was a good start but there are some significant questions the Board ought to be deliberating.

Vice Chair Wojahn agreed with Mr. Zimmerman.

Mr. Kirby followed up by offering an option of holding a work session prior to a regular TPB meeting, which he said would provide an opportunity for Board members to delve into details of the RTPP.

Mr. Zimmerman responded that while he would be willing to participate in a work session, it is important that the board itself set aside time to discuss the RTPP.

Vice Chair Wojahn agreed with Mr. Zimmerman.

Mr. Kirby responded that a future meeting agenda could include time for discussion of this item. He continued with his final point about the comments received, regarding the relationship between the prioritization strategies and the CLRP, saying that the next draft of the RTPP would

address this topic in greater detail. He added that the TPB would soon be launching the TPB Information Hub, a one-stop-shop website that will describe transportation planning activities at the regional, state, and local levels, and provide links to high profile projects and documents.

Mr. Zimbabwe requested that the upcoming TPB dialogue on the RTPP address the connections between the draft RTPP and the goals outlined in MWCOG's *Region Forward* document, and with WMATA's Strategic Plan, *Momentum*.

Mr. Kirby replied that Mr. Zimbabwe's comment provided him a chance to publicize an upcoming Economy Forward event planned for September 27. He said that event would address the topics and linkages mentioned by Mr. Zimbabwe.

Mr. Turner thanked the members of the TPB, CAC, and the Technical Committee who participated in the online survey. He encouraged TPB members to attend the Economy Forward event on September 27, and concurred with Mr. Zimmerman's comments about giving the TPB ample time to discuss the RTPP at a future meeting.

13. Other Business

There was no other business brought before the TPB.

14. Adjourn

The meeting was adjourned at 2:06pm.

Item 3

TPB Technical Committee Meeting Highlights

October 10, 2013

The Technical Committee met on October 4th at COG. Five items were reviewed for inclusion on the TPB agenda for October 16th.

- TPB agenda Item 7

  The Committee was briefed on the draft call for projects document and schedule for the air quality conformity assessment for the 2014 CLRP and FY 2015-2020 TIP. Staff also reviewed materials on future year transit coding assumptions. The TPB will be asked to approve the final call for projects document at its November 20 meeting.

- TPB agenda Item 8

  The TPB Regional Transportation Priorities Plan (RTPP) is being developed to identify regional strategies that offer the greatest potential contributions toward addressing regional challenges. The draft RTPP was released for public comment on July 24 and the TPB was briefed on the comments received at its September 18 meeting. The Committee was updated on the September 27 COG Economy Forward event on regional activity centers and transportation priorities, and on proposed revisions to the draft priorities plan.

- TPB agenda Item 9

  The Committee was updated on the final report of the TPB BOS task force which has investigated promising locations in the region to operate buses on the shoulders of highways.

- TPB agenda Item 10

  The Committee was briefed on the evaluation of the Fall 2012 and Spring 2013 Street Smart campaigns, and on the funding and planning for the Fall 2013 and Spring 2014 campaigns.

Four items were presented for information and discussion:

- In July, the Planning Directors Technical Advisory Committee (PDTAC) approved Transportation Analysis (TAZ)-based geographic definitions for the 141 new Activity Centers that have been designed to better integrate locally planned growth areas into the regional planning process. Staff briefed the Committee on the new Activity Centers and the share of future regional growth (Round 8.2) projected to occur in these centers by 2040.

- At the December 19, 2012 meeting, the TPB received a request from the Anacostia Watershed Restoration Partnership to adopt a regional Green Streets

policy, parallel to its adopted regional Complete Streets policy. The Committee was briefed on a draft regional Green Streets policy.

- As requested at its September 18 meeting, staff prepared a memorandum updating MATOC activities with information on MATOC's regional transportation coordination activities during the September 16 Navy Yard incident. The Committee was briefed on the memorandum which will be included in the October 16 TPB meeting materials.

- The Committee was briefed on proposed FHWA/FTA Guidance on Transit Representation on MPOs Serving TMAs. Staff presented a draft letter with proposed TPB comments on the proposed guidance, which will be presented to the TPB at its October 16 meeting. The Committee was also updated on the latest developments regarding US DOT regulations on performance measures under MAP-21.

TPB TECHNICAL COMMITTEE MEMBERS AND ALTERNATES
ATTENDANCE - October 4, 2013

DISTRICT OF COLUMBIA

DDOT	Mark Rawlings
DCOP	Dan Emerine

MARYLAND

Charles County	-------
Frederick Co.	Ron Burns
City of Frederick	Tim Davis
Gaithersburg	-------
Montgomery Co.	-------
Prince George's Co.	Abul Hassan
Rockville	-------
M-NCPPC	
Montgomery Co.	-------
Prince George's Co.	Faramarz Mokhtari
MDOT	Lyn Erickson
	John Thomas
MTA	-------
Takoma Park	-------

VIRGINIA

Alexandria	Pierre Holloman
Arlington Co.	Dan Malouff
City of Fairfax	-------
Fairfax Co.	Mike Lake
	Malcolm Watson
Falls Church	-------
Loudoun Co.	Robert Brown
Manassas	-------
Prince William Co.	Monica Backmon
NVTC	Claire Gron
PRTC	Nick Alexandrow
VRE	Christine Hoeffner
VDOT	Norman Whitaker
VDRPT	Tim Roseboom
NVPDC	-------
VDOA	-------

WMATA

WMATA	Danielle Wesolek

FEDERAL/OTHER

FHWA-DC	-------
FHWA-VA	-------
FTA	-------
NCPC	-------
NPS	-------
MWAQC	-------
MWAA	-------

COG Staff

Ron Kirby, DTP
Robert Griffiths, DTP
John Swanson, DTP
Michael Farrell, DTP
Mark Pfoutz, DTP
Ron Milone, DTP
Andrew Austin, DTP
Jane Posey, DTP
Andrew Meese, DTP
Elena Constantine, DTP
Eric Randall, DTP
Rich Roisman, DTP
Marco Trigueros, DTP
Sarah Crawford, DTP
Clara Reschovsky, DTP
William Bacon, DTP
Dusan Vuksan, DTP
Ben Hampton, DTP
Dan Sonenklar, DTP
Daivamani Sivasailam, DTP
Paul DesJardin, DCPS
Sunil Kumar, DEP

Other Attendees

Elizabeth Bezilla, DCOP
Bill Orleans

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

Item #5

MEMORANDUM

October 10, 2013

To: Transportation Planning Board

From: Ronald F. Kirby
Director, Department of
Transportation Planning

Re: Steering Committee Actions

At its meeting on October 4, 2013, the TPB Steering Committee approved the following resolution:

- SR3-2014: Resolution on an amendment to the FY 2013- 2018 Transportation Improvement Program (TIP) that is exempt from the air quality conformity requirement to update funding and project information for eight road projects, as requested by the Maryland Department of Transportation

The TPB Bylaws provide that the Steering Committee "shall have the full authority to approve non-regionally significant items, and in such cases it shall advise the TPB of its action."

TPB SR3- 2014
October 4, 2013

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
777 North Capitol Street, N.E.
Washington, D.C. 20002

RESOLUTION ON AN AMENDMENT TO THE FY 2013- 2018 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) THAT IS EXEMPT FROM THE AIR QUALITY CONFORMITY REQUIREMENT TO UPDATE FUNDING AND PROJECT INFORMATION FOR EIGHT ROAD PROJECTS, AS REQUESTED BY THE MARYLAND DEPARTMENT OF TRANSPORTATION (MDOT)

WHEREAS, the National Capital Region Transportation Planning Board (TPB), which is the metropolitan planning organization (MPO) for the Washington Region, has the responsibility under the provisions of Moving Ahead for Progress in the 21st Century (MAP-21) for developing and carrying out a continuing, cooperative and comprehensive transportation planning process for the Metropolitan Area; and

WHEREAS, the TIP is required by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) as a basis and condition for all federal funding assistance to state, local and regional agencies for transportation improvements within the Washington planning area; and

WHEREAS, on July 18, 2012 the TPB adopted the FY 2013-2018 TIP; and

WHEREAS, in the attached letter of September 26, 2013, MDOT has requested an amendment to the FY 2013-2018 TIP to change funding and project information as follows:

- Add $12.3 million in National Highway Performance Program (NHPP) and state matching funds between FY 2014 and FY 2016 for right-of-way acquisition to the MD 5/MD 373/Brandywine Road Relocated Interchange project (TIP ID 4882).
- Add $6 million in state funding for engineering between FY 2014 and FY 2018 to the US 29 Columbia Pike, Musgrove/Fairland Road Interchange project. An additional $1 million carries over to FY 2019 (TIP ID 3641).
- Add $6.6 million in NHPP and state matching funds between FY 2014 and 2018 to the US 301 Waldorf Area Transportation Improvements project (TIP ID 4881).
- Add $2.737 million in state funds between FY 2014 and 2018 to the MD 124 (Phase 2) Mid-county Highway to Airpark Road project (TIP ID 3057).
- Add $4 million in state funds for preliminary engineering between FY 2014 and FY 2018 to the MD 197 Collington Road Planning Study. An additional $7 million will flow to FY 2019. (TIP ID 4887).
- Add $3 million in state funds for study between FY 2014 and FY 2017 to the MD 28 Norbeck Road/Spencerville Road project (TIP ID 3476)
- Add $22.2 million in state funds for construction between FY 2017 and FY 2018 to the MD 97 Brookeville project (TIP ID 3106).
- Add the MD 500, Queens Chapel Road project to the TIP with $10.5 million in state funds for construction between FY 2014 and FY 2016 (TIP ID 6150).

as described in the attached materials; and

WHEREAS, these projects are already included in the air quality conformity analysis of the 2013 CLRP and FY 2013-2018 TIP or are exempt from the air quality conformity requirement, as defined in Environmental Protection Agency (EPA) regulations "40 CFR Parts 51 and 93 Transportation Conformity Rule Amendments: Flexibility and Streamlining; Final Rule," issued in the May 6, 2005, *Federal Register*;

NOW, THEREFORE, BE IT RESOLVED THAT the Steering Committee of the National Capital Region Transportation Planning Board amends the FY 2013-2018 TIP to change funding and project information as follows:

- Add $12.3 million in NHPP and state matching funds between FY 2014 and FY 2016 for right-of-way acquisition to the MD 5/MD 373/Brandywine Road Relocated Interchange project (TIP ID 4882).
- Add $6 million in state funding for engineering between FY 2014 and FY 2018 to the US 29 Columbia Pike, Musgrove/Fairland Road Interchange project. An additional $1 million carries over to FY 2019 (TIP ID 3641).
- Add $6.6 million in NHPP and state matching funds between FY 2014 and 2018 to the US 301 Waldorf Area Transportation Improvements project (TIP ID 4881).
- Add $2.737 million in state funds between FY 2014 and 2018 to the MD 124 (Phase 2) Mid-county Highway to Airpark Road project (TIP ID 3057).
- Add $4 million in state funds for preliminary engineering between FY 2014 and FY 2018 to the MD 197 Collington Road Planning Study. An additional $7 million will flow to FY 2019. (TIP ID 4887).
- Add $3 million in state funds for study between FY 2014 and FY 2017 to the MD 28 Norbeck Road/Spencerville Road project (TIP ID 3476)
- Add $22.2 million in state funds for construction between FY 2017 and FY 2018 to the MD 97 Brookeville project (TIP ID 3106).
- Add the MD 500, Queens Chapel Road project to the TIP with $10.5 million in state funds for construction between FY 2014 and FY 2016 (TIP ID 6150).

as described in the attached materials.

Adopted by the Transportation Planning Board Steering Committee at its regular meeting on October 4, 2013.

Maryland Department of Transportation
The Secretary's Office

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor

James T. Smith, Jr.
Secretary

September 26, 2013

The Honorable Scott York, Chair
National Capital Region Transportation Planning Board
Metropolitan Washington Council of Governments
777 North Capitol Street, N.E., Suite 300
Washington DC 20002

Dear Chairman York:

The Maryland Department of Transportation (MDOT) requests eight amendments to the State Highway Administration (SHA) portion of the FY 2013-2018 Transportation Improvement Program (TIP) as described in the attached memo. These projects are included in the currently approved air quality conformity analysis.

The funds have been made available by the Maryland Transportation Infrastructure Investment Act of 2013. The amendment details are summarized below and in the attached memo.

TIP ID #	Project	Phase	Amount of New Funding	Comment
3106	MD 97 – Brookeville	CO	$24,298,000 (An additional $834,000 will be flowed in FY19)	Add $24,298,000 to CO. – Maryland Transportation Infrastructure Improvement Act of 2013. CO is 100% State. Change name to MD 97 Brookeville.
3057	MD 124 (Phase 2): Mid-county Highway to Airpark Rd	PE	$2,737,000	Add $2,737,000 in State Funding to PE – Maryland Transportation Infrastructure Improvement Act of 2013
3641	US 29 at Musgrove Rd / Fairland Road	PE	$7,000,000 ($1,000,000 of this total will be flowed in FY19)	Add $7,000,000 to PE. – Maryland Transportation Infrastructure Improvement Act of 2013. PE is 100% State.
3476	MD 28 & MD 198 Planning Study	PP	$3,000,000	Add $3,000,000 to project planning (PP). – Maryland Transportation Infrastructure Improvement Act of 2013. PP is 100% State.

6150 New Phase Under TIP ID 3083	MD 500: MD 208 to MD 410 – Community Safety & Enhancement	CO	$10,600,000	Add $10.6M to Construction (CO) – Maryland Transportation Infrastructure Improvement Act of 2013. CO is 100% State.
4882	MD 5 at Brandywine Road (MD 373 & MD 381) - Interchange	RW	$12,333,000	Add $12.3M to Right of Way (RW) – Maryland Transportation Infrastructure Improvement Act of 2013.
2253	MD 197 – Kenhill Drive to MD 450 Relocated – Widen & Resurface	PE	$11,000,000 ($7,000,000 of this total will be flowed in FY19)	Add $11M to PE – Maryland Transportation Infrastructure Improvement Act of 2013. PE is 100% State.
4881	US 301 – Waldorf Area Project	PP	$6,624,000	Add $6.6M to Planning (PP) – Maryland Transportation Infrastructure Improvement Act of 2013.

MDOT requests that this amendment be approved by the Transportation Planning Board (TPB) Steering Committee at its October 4, 2013 meeting.

The revised funding status will not impact scheduling or funding availability for other projects in the current TIP, which continues to be fiscally constrained. The cost does not affect the portion of the federal funding which was programmed for transit, or any allocations of state aid in lieu of federal aid to local jurisdictions.

We appreciate your cooperation in this matter. If you have any questions or comments, please do not hesitate to contact Ms. Lyn Erickson, at 410-865-1279, toll-free at 888-713-1414 or via email at lerickson@mdot.state.md.us. Of course, please feel free to contact me directly. Thank you.

Sincerely

Michael W. Nixon

Michael W. Nixon, Manager
Office of Planning and Capital Programming

Attachment
cc: Ms. Mary Deitz, Chief, Regional and Intermodal Planning Division, SHA
Ms. Lyn Erickson, Manager, Office of Planning and Capital Programming, Maryland Department of Transportation
Ms. Heather Murphy, Deputy Director, Office of Planning and Capital Programming Maryland Department of Transportation

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA
State Highway Administration
MARYLAND DEPARTMENT OF TRANSPORTATION

James T. Smith, Jr., *Secretary*
Melinda B. Peters, *Administrator*

MEMORANDUM

TO: Mr. Don Halligan
Director of Planning and Capital Programming
Maryland Department of Transportation

ATTN: Mr. Mike Nixon
Ms. Lyn Erikson

FROM: Mary Deitz, Chief
Regional and Intermodal Planning Division

DATE: September 20, 2013

SUBJECT: October 2013 Amendment Request to the Fiscal Year (FY) 2013-2018 Transportation Improvement Program (TIP) for the National Capital Region

The State Highway Administration (SHA) hereby requests to amend the FY 2013-2018 TIP. The amendment is needed to reflect additional funding that has been programmed for projects in the National Capital Region, as summarized in the table on the following pages and attached.

The funds have been made available by the Maryland Transportation Infrastructure Investment Act of 2013. The MDOT is focusing on short-term and long-term strategies for building and restoring our transportation system, beginning with short-term priorities and key investments delayed by the recession. The MDOT's priorities for evaluating short-term investments include: safety and system preservation projects, public transportation, the quality of our environment, and the movement of cargo and freight.

The following represents the total amount of funding being added to FY 2013-2018 TIP with this amendment request:

TIP ID#	Project	Phase	Previously Programmed Funding (FY13-FY18 TIP)	Amount of New Funding FY13-FY18	Comment
3106	MD 97 – Brookeville	CO	0	24,298,000 (An additional 834,000 will be flowed in FY19)	Add $24,298,000 to CO. – Maryland Transportation Infrastructure Improvement Act of 2013. CO is 100 percent State. Change name to MD 97 Brookeville.
3057	MD 124 (Phase 2): Mid-county Highway to Airpark Road	PE	1,346,000	2,737,000	Add $2,737,000 in State Funding to PE – Maryland Transportation Infrastructure Improvement Act of 2013
3641	US 29 at Musgrove Road/Fairland Road	PE	0	7,000,000 (1,000,000 of this total will be flowed in FY19)	Add $7,000,000 to PE. – Maryland Transportation Infrastructure Improvement Act of 2013. PE is 100 percent State.
3476	MD 28 & MD 198 Planning Study	PP	0	3,000,000	Add $3,000,000 to project planning (PP). – Maryland Transportation Infrastructure Improvement Act of 2013. PP is 100 percent State.

TIP ID#	Project	Phase	Previously Programmed Funding	Amount of New Funding FY13-FY18	Comment
6150 New Phase Under TIP ID 3083	MD 500: MD 208 to MD 410 – Community Safety & Enhancement	CO	0	10,600,000	Add $10.6M to Construction (CO) – Maryland Transportation Infrastructure Improvement Act of 2013. CO is 100 percent State.
4882	MD 5 at Brandywine Road (MD 373 & MD 381) - Interchange	RW	4,000,000	12,333,000	Add $12.3M to Right of Way (RW) – Maryland Transportation Infrastructure Improvement Act of 2013.
2253	MD 197 – Kenhill Drive to MD 450 Relocated – Widen & Resurface	PE	576,000	11,000,000 (7,000,000 of this total will be flowed in FY19)	Add $11M to PE – Maryland Transportation Infrastructure Improvement Act of 2013. PE is 100 percent State.
4881	US 301 – Waldorf Area Project	PP	0	6,624,000	Add $6.6M to Planning (PP) – Maryland Transportation Infrastructure Improvement Act of 2013.

The revised funding status of these projects will not impact scheduling or funding availability for other projects in the current TIP, which continues to be fiscally constrained. The cost does not affect the portion of the federal funding, which was programmed for transit, or any allocations of state aid in lieu of federal aid to local jurisdictions.

After your review, please forward this request to the Washington Metropolitan Council of Governments. Upon approval of the requested TIP amendment, please process an amendment to the FY 2013 STIP. If you have any questions, please do not hesitate to contact Mr. Vaughn Lewis, Regional Planner, SHA at 410-545-5673 or via email at vlewis@sha.state.md.us and/or Mr. John Thomas, Regional Planner, SHA at 410-545-5671 or via email at jthomas10@sha.state.md.us.

Attachments

cc: Mr. Matt Baker, Assistant Regional Planner, SHA
Ms. Felicia Haywood, Deputy Director of Planning and Preliminary Engineering, SHA
Mr. Keith Kucharek, Assistant Chief, Regional and Intermodal Planning Division, SHA
Mr. Vaughn Lewis, Regional Planner, SHA
Mr. David Rodgers, Assistant Regional Planner, SHA
Mr. Gregory I. Slater, Director of Planning and Preliminary Engineering, SHA
Mr. John Thomas, Regional Planner, SHA
Mr. Brian Young, District Engineer, SHA

	Source	Fed/St/Loc	Previous Funding	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Source Total

MDOT/State Highway Administration

Primary

MD 5, Branch Avenue

TIP ID: **4882** Agency ID: **PG1751** Title: **MD 5/MD 373/Brandywine Road Relocated Interchange** Complete: **2016**

Facility: MD 5 at
From: MD 373 /Brandywine Road Relocated
To:

HPP	80/20/0	4,965 a							
NHPP	80/20/0			2,740 b	4,500 b	5,093 b			12,333
NHS	80/20/0		1,400 a	1,000 a	600 a				3,000
TCSP	80/20/0			1,000 b					1,000
								Total Funds:	***16,333***

Description: Construct a new interchange at MD 5, MD 373 and Brandywine Road Relocated. Bicycle and pedestrian access will be included as part of this project where appropriate. This interchange will be constructed in multiple phases. Phase 1 of this project includes widening existing MD 5 from 4 to 6 lanes from US 301 to north of MD 373 (1.07 miles). The widening will be done in the median, and will be part of the overall interchange.

Amendment: Modify Funding **Approved on:** 9/7/2012

Adding $1,000,000 of TCSP funding in FY 2013 for right-of-way needed to widen about 4,000 feet of road, replace existing signalized intersections at Brandywine road and MD 373 with a new interchange, and provide a park-and-ride lot for commuters.

Amendment: Additional Funding for Right-of-Way **Approved on:** 10/4/2013

Add $12.3M to Right of Way (RW); Maryland Transportation Infrastructure Improvement Act of 2013. These funds included $2.5M in State funds (FY14-FY16) and $9.8M in NHPP funds (FY14-FY16) for the right-of-way phase. Moved previously programmed TCSP funding for RW ($1M) to FY14. This is not included in the $12.3M in funds.

US 29, Columbia Pike

TIP ID: **3641** Agency ID: **MO8911** Title: **US 29 Columbia Pike, Musgrove/Fairland Road Interchange** Complete: **2025**

Facility: US 29 Columbia Pike
From: Musgrove/Fairland Road
To:

NHS	80/20/0	1,001 a 6,641 b							
State	0/100/0			503 a	1,003 a	1,500 a	1,500 a	1,500 a	6,006
								Total Funds:	***6,006***

Description: Construct an interchange at Musgrove/Fairland Road.

Amendment: Add Engineering Funding **Approved on:** 10/4/2013

Add $7,000,000 to Engineering Maryland Transportation Infrastructure Improvement Act of 2013. PE is 100% State. - $1M to be flowed in 2019

	Source	Fed/St/Loc	Previous Funding	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Source Total
US 301 Waldorf Area Project										
TIP ID: **4881** Agency ID: **AT8661** Title: **US 301 Waldorf Area Transportation Improvements Project**										Complete: **2040**
Facility: US 301 Waldorf Bypass	IM	90/10/0	2,953 a							
From: Turkey Hill Road/Washington Avenue in Cha										
To: north of the US 301/MD 5 interchange at TB	NHPP	24/76/0			300 d	1,581 d	1,581 d	1,581 d	1,581 d	6,624
									Total Funds:	***6,624***

Description: Examine alternatives to upgrade and widen US 301 through Waldorf and/or construct an access controlled bypass of Waldorf from Turkey Hill Road/Washington Aven. In Charles County to north of the US 301/MD 5 interchange at TB in Prince George's County.

Amendment: Additional Funding for Project Planning **Approved on:** 10/4/2013

Add $6.6M to Project Planning (PP); Maryland Tansportation Infrastructure Improvement Act of 2013. These funds include $5M in State funds (FY14-FY18) and $1.6M in NHPP funds (FY14-FY18) for the project planning phase.

	Source	Fed/St/Loc	Previous Funding	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Source Total
Secondary										
MD 124, Woodfield Road										
TIP ID: **3057** Agency ID: **MO6322** Title: **MD 124, Woodfield Road**										Complete: **2020**
Facility: MD 124 Woodfield Road	HPP	80/20/0	300 a	700 a						700
From: Midcounty Highway to south of Airpark Drive										
To: north of Fieldcrest Road to Warfield Road	HPP.	78/22/0			500 a	164 a				664
	State	0/100/0	2,311 a			586 a	750 a	1,058 a		2,394
	STP	80/20/0	4 b	325 a						325
									Total Funds:	***4,083***

Description: Reconstruct MD 124 (Woodfield Road), from Midcounty Highway to south of Airpark Drive, and north of Fieldcrest Road to Warfield Road. Sidewalks to be included where appropriate. Wide curb lanes will accommodate bicycles.

Amendment: Add PE Funding **Approved on:** 10/4/2013

Add $2,737,000 to PE. – Maryland Transportation Infrastructure Improvement Act of 2013.

MD 197, Collington Road

TIP ID: **4887** Agency ID: **PG6911** Title: **MD 197 Planning Study** Complete: **2025**

Facility: MD 197 Collington Road
From: MD 450 Relocated
To: Kenhill Drive

Source	Fed/St/Loc	Previous Funding	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Source Total
State	0/100/0			250 a	750 a	1,000 a	1,000 a	1,000 a	4,000
STP	80/20/0	700 a							
								Total Funds:	***4,000***

Description: Study to upgrade and widen existing MD 197 to a multi-lane divided highway from Kenhill Drive to MD 450 Relocated.

Amendment: Additional Funding for Preliminary Engineering **Approved on:** 10/4/2013

Add $11M ($7M of the total will be flowed in FY19) to Preliminary Engineering (PE); Maryland Transportation Infrastructure Improvement Act of 2013. PE is 100% State. These funds also include $4M, which will be flowed from FY14 to FY18 ($250K for FY14, $750K for FY15, $1M for FY16, $1M for FY17, and $1M for FY18).

MD 28 (Norbeck Road)/MD 198 (Spencerville Road)

TIP ID: **3476** Agency ID: **MO8861** Title: **Norbeck Road/Spencerville Road** Complete: **2025**

Facility: MD 28/198 Norbeck Road/Spencerville Roa
From: MD 97
To: I 95

Source	Fed/St/Loc	Previous Funding	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Source Total
State	0/100/0			300 d	900 d	1,100 d	700 d		3,000
STP	80/20/0	4,033 a 2 b							
								Total Funds:	***3,000***

Description: Upgrade MD 28/MD 198 to a 4-lane divided highway from east of MD 97 to Old Gunpowder Road, and to a 6-lane divided highway from Old Gunpowder Road to I-95 in Montgomery and Prince George's Counties. Wide curb lanes will be included to accommodate bicycles. Sidewalks to be included where appropriate. An 8' Hiker/Biker path will be constructed along the south side from MD 650 to I-95.

Amendment: Add Project Planning Funding **Approved on:** 10/4/2013

Add $3,000,000 to project planning (PP). Maryland Transportation Infrastructure Improvement Act of 2013. PP is 100% State.

MD 97, Brookeville

TIP ID: **3106** Agency ID: **MO7461** Title: **Brookeville** Complete: **2020**

Facility: MD 97 Brookeville Bypass
From:
To:

Source	Fed/St/Loc	Previous Funding	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Source Total
State	0/100/0						8,902 c	15,396 c	24,298
								Total Funds:	***24,298***

Description: Construct a new two-lane roadway on MD 97 from south of Brookeville to north of Brookeville. Two-lane roadway relocated west of Brookeville with two roundabouts: at Brookville Road and southern termini on MD 97.

Amendment: Additional Construction Funding **Approved on:** 9/12/2013

Add an additional $22.2 million in State funds for the construction phase ($8.902 million in FY17, $15.396 million in FY18). Balance to complete (2019 beyond TIP years): $0.834 million.

	Source	Fed/St/Loc	Previous Funding	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Source Total
Other										
System Preservation Projects										
TIP ID: **6150** Agency ID:	Title: **MD 500, Queens Chapel Road**									Complete:
Facility: MD 500 Queens Chapel Road	State	0/100/0		631 c	6,137 c	3,832 c				10,600
From: MD 208 Hamilton Street									***Total Funds:***	***10,600***
To: MD 410 East-West Highway/Adelphi Road										

Description: Construct landscaped median with sidewalk and crosswalk improvements from MD 208 (Hamilton Street) to MD 410 (East-West Highway/Adelphi).

Amendment: **Add New Project** **Approved on:** 10/4/2013

Add $10,600,000 to Construction (CO) Maryland Transportation Infrastructure Improvement Act of 2013. CO is 100% State.

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

Item #5

MEMORANDUM

October 10, 2013

TO: Transportation Planning Board

FROM: Ronald F. Kirby
Director, Department of
Transportation Planning

RE: Letters Sent/Received Since the September 18th TPB Meeting

The attached letters were sent/received since the September 18th TPB meeting. The letters will be reviewed under Agenda #5 of the October 16th TPB agenda.

Attachments

National Capital Region Transportation Planning Board

777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290 (202) 962-3315 Fax: (202) 962-3202

D R A F T

October 16, 2013

The Honorable Peter Rogoff
Administrator, Federal Transit Administration (FTA)

The Honorable Victor Mendez
Administrator, Federal Highway Administration (FHWA)

U.S. Department of Transportation (USDOT)
1200 New Jersey Avenue, SE
Washington, DC 20590

SUBJ: Comments on the Proposed Policy Guidance on Metropolitan Planning Organization Representation [Docket No. FTA-2013-0029]

Dear Administrators Rogoff and Mendez,

The National Capital Region Transportation Planning Board (TPB), the metropolitan planning organization (MPO) for the Metropolitan Washington Area, greatly appreciates your efforts and those of FTA and FHWA staff to provide opportunities for input and consultation on the guidance for representation by providers of public transportation on MPO boards, per the provision of the surface transportation reauthorization Moving Ahead for Progress in the 21st Century Act (MAP–21). The TPB already works closely with the thirteen providers of public transportation in the region, which has the second largest subway ridership and the fifth largest bus ridership among the nation's urban areas. The Washington Metropolitan Area Transit Authority (WMATA) is currently a voting member of the TPB, and other providers participate in the TPB's Technical Committee and subcommittees.

With regard to the proposed guidance provided in the Federal Register on September 30, 2013, the TPB appreciates the flexibility for each MPO to determine the best approach for incorporating a specifically designated representative for public transportation on its board. Of the thirteen providers of public transportation in the National Capital Region, three are direct recipients of the FTA Urbanized Area Funding program (Section 5307) for which representation is required. The TPB welcomes the provisions in the proposed guidance under which it may cooperatively develop a process

for selecting a specifically designated representative, along with a procedure for collective or proportional representation for the providers on the MPO board. The TPB strongly endorses this approach in the proposed FTA and FHWA guidance, and believes that it is highly preferable to more prescriptive provisions which could prove unduly onerous and difficult to adopt. Specifically, the approach in the proposed guidance will enable the TPB to carry out effective consultation with all regional public transportation providers in reaching a consensus on new MAP-21 requirements regarding measures and targets for public transportation safety, state of good repair, and other performance measures.

Please feel free to contact me at Scott.York@loudoun.gov or Ronald Kirby, staff director to the TPB, at rkirby@mwcog.org, if there is any additional information or support that the TPB can provide in the development and implementation of MAP-21 regulations.

Sincerely,

Scott K. York
Chairman
National Capital Region
Transportation Planning Board

rate of crash involvement than the general population. The diabetes rule provides that ''A person is physically qualified to drive a commercial motor vehicle if that person has no established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin for control'' (49 CFR 391.41(b)(3)).

FMCSA established its diabetes exemption program, based on the Agency's July 2000 study entitled ''A Report to Congress on the Feasibility of a Program to Qualify Individuals with Insulin-Treated Diabetes Mellitus to Operate in Interstate Commerce as Directed by the Transportation Act for the 21st Century.'' The report concluded that a safe and practicable protocol to allow some drivers with ITDM to operate CMVs is feasible. The September 3, 2003 (68 FR 52441), **Federal Register** notice in conjunction with the November 8, 2005 (70 FR 67777), **Federal Register** notice provides the current protocol for allowing such drivers to operate CMVs in interstate commerce.

These 16 applicants have had ITDM over a range of 1 to 28 years. These applicants report no severe hypoglycemic reactions resulting in loss of consciousness or seizure, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning symptoms, in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the past 5 years. In each case, an endocrinologist verified that the driver has demonstrated a willingness to properly monitor and manage his/her diabetes mellitus, received education related to diabetes management, and is on a stable insulin regimen. These drivers report no other disqualifying conditions, including diabetes-related complications. Each meets the vision requirement at 49 CFR 391.41(b)(10).

The qualifications and medical condition of each applicant were stated and discussed in detail in the June 26, 2013, **Federal Register** notice and they will not be repeated in this notice.

Discussion of Comments

FMCSA received two comments in this proceeding. The comments are considered and discussed below.

Laurie Susan Palmer expressed concern regarding the new A1C testing regulations.

John D. Heffington requested information regarding the new A1C testing regulations.

Basis for Exemption Determination

Under 49 U.S.C. 31136(e) and 31315, FMCSA may grant an exemption from the diabetes requirement in 49 CFR 391.41(b)(3) if the exemption is likely to achieve an equivalent or greater level of safety than would be achieved without the exemption. The exemption allows the applicants to operate CMVs in interstate commerce.

To evaluate the effect of these exemptions on safety, FMCSA considered medical reports about the applicants' ITDM and vision, and reviewed the treating endocrinologists' medical opinion related to the ability of the driver to safely operate a CMV while using insulin.

Consequently, FMCSA finds that in each case exempting these applicants from the diabetes requirement in 49 CFR 391.41(b)(3) is likely to achieve a level of safety equal to that existing without the exemption.

Conditions and Requirements

The terms and conditions of the exemption will be provided to the applicants in the exemption document and they include the following: (1) That each individual submit a quarterly monitoring checklist completed by the treating endocrinologist as well as an annual checklist with a comprehensive medical evaluation; (2) that each individual reports within 2 business days of occurrence, all episodes of severe hypoglycemia, significant complications, or inability to manage diabetes; also, any involvement in an accident or any other adverse event in a CMV or personal vehicle, whether or not it is related to an episode of hypoglycemia; (3) that each individual provide a copy of the ophthalmologist's or optometrist's report to the medical examiner at the time of the annual medical examination; and (4) that each individual provide a copy of the annual medical certification to the employer for retention in the driver's qualification file, or keep a copy in his/her driver's qualification file if he/she is self-employed. The driver must also have a copy of the certification when driving, for presentation to a duly authorized Federal, State, or local enforcement official.

Conclusion

Based upon its evaluation of the 16 exemption applications, FMCSA exempts Tyler A. Benjamin (AL), Larry K. Brindle (KS), James D. Damske (MA), Manuel M. Fabela, Jr. (CA), Ryan L. Guffey (IL), Richard B. Harvey (CA), Donald F. Kurzejewski (PA), Joshua O. Lilly (VA), Steven C. Lundberg (IA), Frank D. Marcou, Jr. (VT), Roger D. Mott (IA), Bernard K. Nixon (FL), Thomas P. Olson (WI), Steven T. Vanderburg (NC), John P. Washington (NJ), and Christopher J. Wisner (MD) from the ITDM requirement in 49 CFR 391.41(b)(3), subject to the conditions listed under ''Conditions and Requirements'' above.

In accordance with 49 U.S.C. 31136(e) and 31315 each exemption will be valid for two years unless revoked earlier by FMCSA. The exemption will be revoked if the following occurs: (1) The person fails to comply with the terms and conditions of the 1/exemption; (2) the exemption has resulted in a lower level of safety than was maintained before it was granted; or (3) continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31136(e) and 31315. If the exemption is still effective at the end of the 2-year period, the person may apply to FMCSA for a renewal under procedures in effect at that time.

Issued on: September 20, 2013.

Larry W. Minor,

Associate Administrator for Policy.

[FR Doc. 2013–23766 Filed 9–27–13; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Federal Transit Administration

Federal Highway Administration

[Docket No. FTA–2013–0029]

Proposed Policy Guidance on Metropolitan Planning Organization Representation

AGENCY: Federal Transit Administration (FTA) and Federal Highway Administration (FHWA), DOT.

ACTION: Proposed policy guidance; request for comments.

SUMMARY: The FTA and FHWA are jointly issuing this proposed guidance on implementation of provisions of the Moving Ahead for Progress in the 21st Century Act (MAP–21), Public Law 112–141, that require representation by providers of public transportation in each metropolitan planning organization (MPO) that serves a transportation management area (TMA) no later than October 1, 2014. The purpose of this guidance is to assist MPOs and providers of public transportation in complying with this new requirement.

DATES: Comments must be received by October 30, 2013. Any comments

received beyond this deadline will be considered to the extent practicable.

ADDRESSES: *Comments.* You may submit comments identified by the docket number (FTA–2013–0029) by any of the following methods:

Federal eRulemaking Portal: Go to *http://www.regulations.gov* and follow the online instructions for submitting comments.

DOT Electronic Docket: Go to *http://dms.dot.gov* and follow the instructions for submitting comments.

U.S. Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., Room W12–140, Washington, DC 20590.

Hand Delivery or Courier: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, Southeast, Room W12–140, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays.

Fax: 202–493–2251.

Instructions: You must include the agency names (Federal Transit Administration and Federal Highway Administration) and docket number (FTA–2013–0029) for this notice at the beginning of your comments. You must submit two copies of your comments if you submit them by mail. If you wish to receive confirmation that FTA and FHWA received your comments, you must include a self-addressed, stamped postcard. Due to security procedures in effect since October 2001, mail received through the U.S. Postal Service may be subject to delays. Parties submitting comments may wish to consider using an express mail firm to ensure prompt filing of any submissions not filed electronically or by hand. All comments received will be posted, without change and including any personal information provided, to *http://www.regulations.gov,* where they will be available to Internet users. You may review DOT's complete Privacy Act Statement published in the **Federal Register** on April 11, 2000, at 65 FR 19477. For access to the docket to read background documents and comments received, go to *http://www.regulations.gov* at any time, or to the Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., Room W12–140, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays.

FOR FURTHER INFORMATION CONTACT: Dwayne Weeks, FTA Office of Planning and Environment, telephone (202) 366–4033 or *Dwayne.Weeks@dot.gov;* or Harlan Miller, FHWA Office of Planning, telephone (202) 366–0847 or *Harlan.Miller@dot.gov.*

SUPPLEMENTARY INFORMATION:

I. *Introduction*

The FTA and FHWA are jointly issuing this proposed policy guidance on the implementation of 23 U.S.C. 134(d)(2)(B) and 49 U.S.C. 5303(d)(2)(B), which require representation by providers of public transportation in each MPO that serves an area designated as a TMA. The FTA and FHWA anticipate issuing a joint notice of proposed rulemaking to amend 23 CFR part 450 to implement 23 U.S.C. 134(d)(2)(B) and 49 U.S.C. 5303(d)(2)(B) as amended by sections 1201 and 20005 of MAP–21. These United States Code sections now require representation by providers of public transportation in each MPO that serves an area designated as a TMA. A TMA is defined as an urbanized area with a population of over 200,000 individuals as determined by the 2010 census, or an urbanized area with a population of fewer than 200,000 individuals that is designated as a TMA by the request of the Governor and the MPO designated for the area.[1] As of the date of this guidance, of the 384 MPOs throughout the Nation, 184 MPOs serve an area designated as a TMA.

The FTA conducted an On-Line Dialogue on this requirement from March 5 through March 29, 2013. Through this forum, FTA received input from MPOs, local elected officials, transit agencies, and the general public, with over 3,000 visits to the Web site. Over 100 ideas were submitted from 340 registered users who also provided hundreds of comments and votes on these ideas. Participants discussed the complex nature of MPOs and the advantages of providing flexibility for MPOs and transit providers to decide locally how to include representation by providers of public transportation in the MPO.

To increase the accountability and transparency of the Federal-aid highway and Federal transit programs and to improve project decision-making through performance-based planning and programming, MAP–21 establishes a performance management framework. The MAP–21 requires FHWA to establish, through a separate rulemaking, performance measures and standards to be used by States to assess the condition of the pavements and bridges, serious injuries and fatalities, performance of the Interstate System and National Highway System, traffic congestion, on-road mobile source emissions, and freight movement on the Interstate System.[2] The MAP–21 also requires FTA to establish, through separate rulemakings, state of good repair and safety performance measures, and requires each provider of public transportation to establish performance targets in relation to these performance measures.[3]

To ensure consistency, an MPO must coordinate to the maximum extent practicable with the State and providers of public transportation to establish performance targets for the metropolitan planning area that address these performance measures.[4] An MPO must describe in its metropolitan transportation plans the performance measures and targets used to assess the performance of its transportation system.[5] Statewide and metropolitan transportation improvement programs (STIPs and TIPs) must include, to the maximum extent practicable, a description of the anticipated effect of the program toward achieving the performance targets established in the statewide or metropolitan transportation plan, linking investment priorities and the highway and transit performance targets.[6] These changes to the planning process will be addressed in FHWA and FTA's anticipated joint rulemaking amending 23 CFR part 450.

As part of its performance management framework, MAP–21 assigns MPOs the new transit related responsibilities described above, i.e., to establish performance targets with respect to transit state of good repair and transit safety and to address these targets in their transportation plans and TIPs. Representation by providers of public transportation in each MPO that serves a TMA will better enable the MPO to define performance targets and to develop plans and TIPs that support an intermodal transportation system for the metropolitan area. Including representation by providers of public transportation in each MPO that serves an area designated as a TMA is an essential element of MAP–21's performance management framework and will support the successful implementation of a performance-based approach to transportation decisionmaking.

The FTA and FHWA seek comment on the following proposals in this guidance: the determination of specifically designated representatives, the eligibility of representatives of providers of public transportation to

[1] 23 U.S.C. 134(k)(1); 49 U.S.C. 5303(k)(1).

[2] 23 U.S.C. 150(c).

[3] 49 U.S.C. 5326(b), (c), 5329(b), (d).

[4] 23 U.S.C. 134(h)(2); 49 U.S.C. 5303(h)(2).

[5] 23 U.S.C. 134(i)(2)(B); 49 U.S.C. 5303(i)(2)(B).

[6] 23 U.S.C. 134(j)(2)(D); 49 U.S.C. 5303(i)(2)(D) (TIPs) and 23 U.S.C. 135(g)(4); 49 U.S.C. 5304(g)(4) (STIPs).

serve as specifically designated representatives, and the cooperative process to select a specifically designated representative in MPOs with multiple providers of public transportation. There is wide variation in transit agency representation among MPOs and in the governance structure of MPOs throughout the country. To accommodate the many existing models of transit agency representation on MPO boards, this proposed guidance proposes flexible approaches for MPOs and providers of public transportation to work together to meet this requirement.

II. Specifically Designated Representatives

MAP–21 requires that by October 1, 2014, MPOs that serve an area designated as a TMA must include local elected officials; officials of public agencies that administer or operate major modes of transportation in the metropolitan area, including representation by providers of public transportation; and appropriate State officials.[7] The requirement to include ''representation by providers of public transportation'' is a new requirement under MAP–21. The FHWA and FTA construe that the intent of this provision is that representatives of providers of public transportation, once designated, will have equal decision-making rights and authorities as other members listed in 23 U.S.C. 134(d)(2)(B) and 49 U.S.C. 5303(d)(2)(B) that are on the policy board of an MPO that serves a TMA. This expectation reflects the long-standing position of FHWA and FTA with respect to statutorily required MPO board members.[8]

A public transportation representative on an MPO board is referred to herein as the ''specifically designated representative.'' A specifically designated representative should be an elected official or a direct representative employed by the agency being represented, such as a member of a public transportation provider's board of directors, or a senior transit agency official like a chief executive officer or a general manager.

[7] 23 U.S.C. 134(d)(2); 49 U.S.C. 5303(d)(2).

[8] While this guidance specifically addresses the new requirement for representation by providers of public transportation, all MPOs that serve a TMA must consist of local elected officials; officials of public agencies that administer or operate major modes of transportation in the metropolitan area, including representation by providers of public transportation; and appropriate State officials by October 1, 2014. 23 U.S.C. 134(d)(2); 49 U.S.C. 5303(d)(2). Only those MPOs acting pursuant to authority created under State law that was in effect on December 18, 1991, that meet the requirements of 23 U.S.C. 134(d)(3) and 49 U.S.C. 5303(d)(3), are exempt.

III. Providers of Public Transportation

This guidance proposes that only representation by providers of public transportation that operate in a TMA and are direct recipients [9] of the Urbanized Area Formula Funding program [10] will satisfy 23 U.S.C. 134(d)(2)(B) and 49 U.S.C. 5303(d)(2)(B).

IV. Process for the Selection of Specifically Designated Representatives

The FTA and FHWA's Metropolitan Transportation Planning rule at 23 CFR 450.314 provides for metropolitan planning agreements in which MPOs, States, and providers of public transportation cooperatively determine their mutual responsibilities in carrying out the metropolitan transportation planning process. This guidance proposes that MPOs that serve an area designated as a TMA should cooperate with providers of public transportation and the State to amend their metropolitan planning agreements to include the cooperative process for selecting the specifically designated representative(s) for inclusion on the MPO board and for identifying the representative's role and responsibilities.

V. Role of the Specifically Designated Representative

To the extent that an MPO has bylaws, the MPO should, in consultation with transit providers in the TMA, develop bylaws that describe the establishment, roles, and responsibilities of the specifically designated representative. These bylaws should explain the process by which the specifically designated representative will identify transit-related issues for consideration by the full MPO policy board and verify that transit priorities are considered in planning products to be adopted by the MPO. In TMAs with multiple providers of public transportation, the bylaws also should outline how the specifically designated representative(s) will consider the needs of all eligible [11] providers of public transportation and address issues that are relevant to the responsibilities of the MPO.

VI. Restructuring MPOs To Include Representation by Providers of Public Transportation

Title 23 U.S.C. 134(d)(5)(B) and 49 U.S.C. 5303(d)(5)(B) provide that an MPO may be restructured to meet MAP–21's representation requirements without having to secure the agreement of the Governor and units of general purpose government as part of a redesignation.

There are multiple providers of public transportation within most TMAs. In large MPOs that include numerous municipal jurisdictions and multiple providers of public transportation, FTA and FHWA expect that it would not be practical to allocate separate representation to each provider of public transportation. Consequently, this guidance proposes that an MPO that serves an area designated as a TMA that has multiple providers of public transportation should cooperate [12] with the eligible providers to determine how the MPO will include representation by providers of public transportation.

There are various approaches to meeting this requirement. For example, an MPO may allocate a single board position to eligible providers of public transportation collectively, providing that one specifically designated representative must be agreed upon through the cooperative process. The requirement for specifically designated representation might also be met by rotating the board position among all eligible providers or by providing all eligible providers with proportional representation. However the representation is ultimately designated, the MPO should provide specifics of the designation in its bylaws, to the extent it has bylaws.

Apart from the requirement for specifically designated representation on the MPO's board, an MPO also may allow for transit representation on policy or technical committees. Eligible providers of public transportation not given decision-making rights on the MPO's board may hold positions on policy or technical committees.

The FHWA and FTA encourage MPOs, State Departments of Transportation, local stakeholders, and transit providers to take this opportunity to determine the most effective governance and institutional arrangements to best serve the interests of the metropolitan planning area.

Peter Rogoff,

FTA Administrator.

Victor M. Mendez,

FHWA Administrator.

[FR Doc. 2013–23780 Filed 9–27–13; 8:45 am]

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[9] A direct recipient is defined as a public entity that is legally eligible under Federal transit law to apply for and receive grants directly from FTA.

[10] 49 U.S.C. 5307.

[11] Eligible transit agencies are those that are direct recipients of the Urbanized Area Formula Funding program, 49 U.S.C. 5307, and operate in a TMA.

[12] Cooperation means that the parties involved in carrying out the transportation planning and programming processes work together to achieve a common goal or objective. 23 CFR 450.104.

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

State Highway Administration
MARYLAND DEPARTMENT OF TRANSPORTATION

James T. Smith, Jr., *Secretary*
Melinda B. Peters, *Administrator*

September 26, 2013

Mr. Erkin Ozberk
City Planner
City of Takoma Park
7500 Maple Avenue
Takoma Park MD 20912

Dear Mr. Ozberk:

The State Highway Administration (SHA) has been informed by the National Capital Region Transportation Planning Board that the City of Takoma Park was approved for $1,255,123 of Transportation Alternatives (TA) Program funds for the Ethan Allen Gateway Streetscape project and $1,040,330 for the Flower Avenue Green Street Project. These projects will construct improvements along MD 410 and MD 787, including widened sidewalks and pedestrian refuge islands, new sidewalk connections, reduced crossing distances at major intersections, a planted median, bike lanes, pedestrian lighting and storm water management.

Since these funds are administered by the Maryland Department of Transportation (MDOT) and have Federal and State requirements, I have asked Ms. Jessica Silwick, TA Program Coordinator, SHA and her staff to follow up with you regarding the details to secure these funds. You will be contacted by Ms. Silwick shortly to set up an initial kick-off meeting.

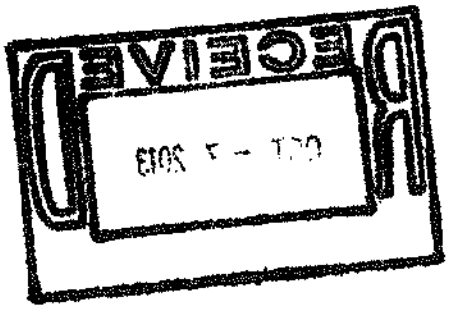
Congratulations and thank you for your participation in this program. If you have any questions, please do not hesitate to contact Ms. Silwick at 410-545-5653, toll-free 1-888-204-4828 or via email at jsilwick@sha.state.md.us.

Sincerely,

Douglas H. Simmons
Deputy Administrator/Chief Engineer for Planning,
Engineering, Real Estate, and Environment

cc: Ms. Jessica Silwick, TA Coordinator, SHA

bcc: Ms. Sarah Crawford, Transportation Planner, Metropolitan Washington Council of Governments
Mr. Ronald Kirby, Director of Transportation Planning, Metropolitan Washington Council of Governments
Ms. Jeanette Mar, Federal Highway Administration, Del Mar Office
Mr. Victor Barreira, Design Liaison, Community Design, SHA
Ms. Bonita Carter, Real Estate Liaison, Office of Real Estate, SHA
Ms. Mary Deitz, Chief, Regional and Intermodal Planning Division, SHA
Ms. Valerie Burnette Edgar, Director, Office of Customer Relations and Information, SHA
Ms. Kate Ellis, TA Program Assistant Coordinator, SHA
Mr. Dennis German, Chief, Community Design Division, SHA
Mr. Don Halligan, Director, Office of Planning and Capital Programming, MDOT
Mr. Mark Jesko, Real Estate Liaison, Office of Real Estate, SHA
Mr. Sean Johnson, Team Leader, Community Design Division, SHA
Mr. Vaughn Lewis, Regional Planner, SHA
Ms. Adriene Metzbower, Environmental Liaison, Environmental Planning Division, SHA
Ms. L'Kiesha Markley, Assistant Chief, Regional and Intermodal Planning Division, SHA
Mr. Frank Principe, Chief of Staff, MDOT
Ms. Thomasina Saxon, Administrative Assistant, SHA
Mr. Gregory I. Slater, Director of Planning and Preliminary Engineering, SHA
Mr. John Thomas, Regional Planner, SHA
Mr. Brian Young, District Engineer, SHA
Transportation Enhancement Program Executive Committee
Transportation Enhancement Program Technical Committee



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4975 Alliance Drive
Fairfax, VA 22030

GREGORY A. WHIRLEY
COMMISSIONER

September 26, 2013

Mr. Chuck Bean
Executive Director
Metropolitan Council of Governments
777 N. Capitol Street, N.E., Suite 300
Washington, DC 20002

Dear Mr. Bean:

The Commonwealth Transportation Board will again conduct nine public meetings across the state in October and November 2013 to give stakeholders the opportunity to review and provide comments on projects and programs to be included in the Fiscal Year 2015-2020 Six-Year Improvement Program (FY15-20 SYIP), including highway, rail and public transportation initiatives. The Virginia Department of Transportation (VDOT) will co-host this meeting with our local CTB representative(s) and the Department of Rail and Public Transportation. We want to build on the efforts during last year's fall meetings, and it is important that we hear from you and your constituents about those projects you feel are the highest priority for the state's limited transportation funds.

As we did last year, these meetings will consist of an open house format beginning at 6:00 p.m. where attendees can review materials produced by agency staff and discuss specific projects or issues. To encourage public comment, we have extended the open house time period until 7:00pm. Following the open house, an opportunity will be provided for comments from the public and transportation stakeholders. Written comments may also be submitted during this informal session, or they may be mailed or e-mailed until December 6, 2013. Meeting materials will be available on the web at http://www.virginiadot.org/2013fallmeetings starting October 22, 2013. The Fall Transportation Meeting Schedule is attached.

Representatives from the Virginia Department of Transportation, Virginia Department of Rail and Public Transportation, Office of Intermodal Planning and Investment, and Office of Transportation Public Private Partnerships have been invited to attend and provide information on current initiatives.

In addition, all Metropolitan Planning Organizations (MPOs) and Planning District Commissions (PDCs) are invited to participate in the meetings in their region. Space will be reserved at each meeting location for the respective MPO and PDC staffs to display presentation materials regarding regional initiatives and priorities.

You are invited to come and speak with our transportation agency representatives. If you cannot attend the meetings, you may send your comments to Diane Mitchell, VDOT, 1401 E. Broad Street, Richmond, VA 23219 or e-mail them to Six-YearProgram@vdot.virginia.gov by December 6, 2013. Comments on rail and public transportation may be sent to DRPT Public Information Officer at 600 East Main Street, Suite 2102, Richmond, VA 23219 or e-mail them to drptpr@drpt.virginia.gov. Your attendance will be truly appreciated at this session.

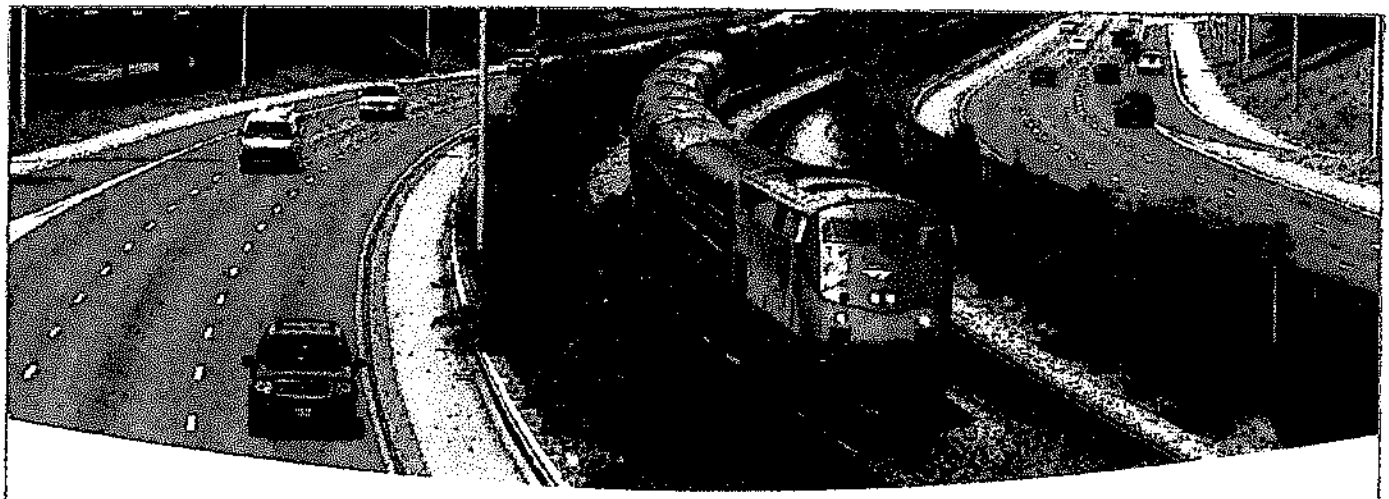
If you have any questions prior to the meeting, please contact Richard "Dic" Burke, our Programming Director, at (703) 259-2966.

Sincerely,

Helen L. Cuervo, P.E.
District Administrator
Northern Virginia District

Attachment

Copy: Richard "Dic Burke



Investing in Virginia's Transportation Future

http://www.virginiadot.org/2013fallmeetings

Fall Transportation Meeting Dates and Locations

Tuesday, October 22, 2013
VDOT Northern Virginia District Office
4975 Alliance Drive
Fairfax, VA 22030

Tuesday, October 29, 2013
Hampton Roads Planning District Commission
723 Woodlake Drive
Chesapeake, VA 23320

Wednesday, October 30, 2013
Northside High School
6758 Northside High School Road
Roanoke, VA 24019

Wednesday, November 6, 2013
VDOT Central Office Auditorium
1221 E. Broad Street
Richmond, VA 23219

Wednesday, November 13, 2013
University of Mary Washington
Stafford Campus – University Hall (North Building)
125 University Boulevard
Fredericksburg, VA 22406

Thursday, November 14, 2013
Holiday Inn Staunton Conference Center
152 Fairway Lane
Staunton , VA 24401

Monday, November 18, 2013
Germanna Community College
Daniel Technology Center
18121 Technology Drive
Culpeper, VA 22701

Tuesday, November 19, 2013
Holiday Inn Hotel & Suites
Bristol Convention Center
3005 Linden Drive
Bristol, VA 24202

Thursday, November 21, 2013
Kirkley Hotel & Conference Center
2900 Candler's Mountain Road
Lynchburg, VA 24502

VDOT
Virginia Department of Transportation

DRPT
Virginia Department of Rail and Public Transportation
The Smartest Distance Between Two Points

September 26, 2013

Scott York, Chair
National Capital Region Transportation Planning Board
777 North Capitol St., NE
Washington, DC 20002

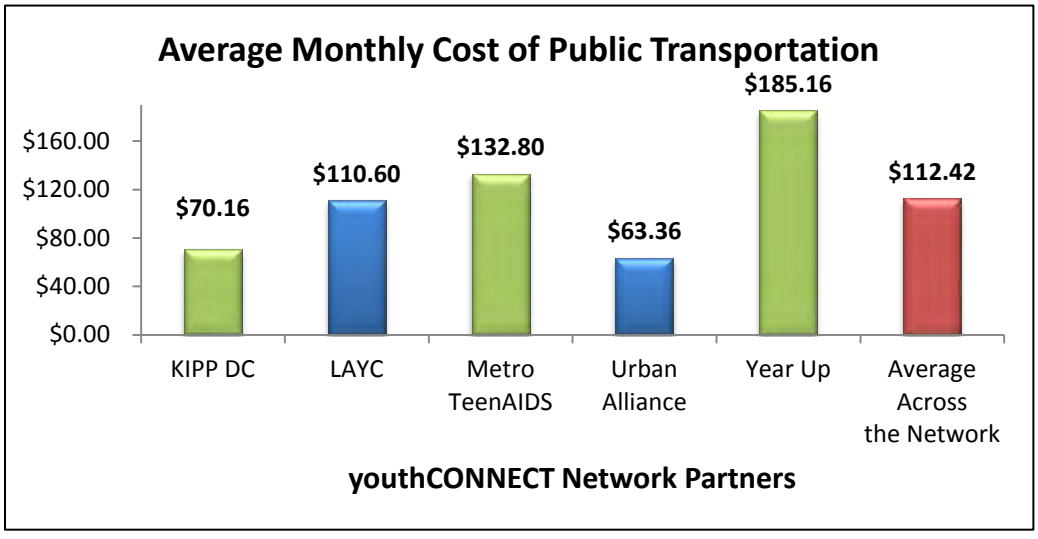
Dear Chairman York:

The youthCONNECT network is pleased to provide comments on the draft of your 2013 Regional Transportation Priorities Plan (RTPP). In reading through the RTPP the network noticed there were no references to students and youth, and the recognition that transportation can be an obstinate barrier to their success. Youth, particularly those from low-income backgrounds, are among the most adversely impacted by the lack of accessibility and affordability of public transportation across the region.

Youth Transportation

youthCONNECT, a network of innovative nonprofits, seeks to demonstrate that the complex education, employment, and health-related challenges of low-income youth can be addressed through an integrated approach that has the potential to be replicated. Over the past year, the network identified transportation as a major barrier facing students and disconnected youth in our network and the region, generally. Through background research, a youth development "hackathon", and primary data collection, we know that youth in our network struggle to take full advantage of youthCONNECT's core services and opportunities due to the challenges inherent in the region's public transportation system.

In fact, out of the nearly 100 youthCONNECT network youth surveyed, ages 16-24, the average youth spent over $100 per month on public transportation (see chart below). This is particularly problematic for youth from low-income families, and coincides with the U.S. Bureau of Labor Statistics' June 2013 consumer spending report which shows that low-income families spend approximately 16% of their annual household income on transportation.



Suggested Approaches

1. The RTPP could identify youth transportation as a barrier to achieving its first goal (G1C5), recognizing its critical importance to the success of the region's students and economic growth.

2. The Metropolitan Washington Council of Governments and its Transportation Planning Board (MWCOG/TPB) could establish youth transportation as a priority issue for 2014 and beyond for member jurisdictions to address.

3. There are numerous youth transportation subsidy programs within each jurisdiction across the National Capital Region. None is more prominent at this moment than D.C. Councilmember Muriel Bowser's *Kids Ride Free* legislation – which acknowledges transportation as an obstacle for children and youth to travel to school and internships – and allows DC residents enrolled in school up to age 22 to ride MetroBus for free. While the legislation is temporary, and does not eliminate the barriers, the youthCONNECT network applauds the effort as a crucial first step. Suggested actions include:
    a. Increase the student eligibility age across the region to 25 years for those in adult charter schools and approved "credential-earning" programs.
    b. Eliminate DC's "summer youth employment penalty" which precludes D.C. youth with paid summer internships from qualifying for transit subsidies.
    c. Research the economic impact of standardizing transportation subsidies for students and youth across all MWCOG member jurisdictions to make public transportation more accessible and affordable for all.

Conclusion

The RTPP's first goal of "providing a comprehensive range of transportation options" will not be achieved unless it first acknowledges the costly nature of public transportation for students and youth across the region; establishes it as a priority issue for future transportation planning; and focuses on aligning subsidies across the region to bring greater cost predictability for families, especially low-income families.

Thank you for the opportunity to submit our thoughts on this important issue. We look forward to continued dialogue with you, and welcome the opportunity to share the youthCONNECT network's transportation work with you to inform your deliberations in the future.

Sincerely,

Carol Thompson Cole
President and CEO, Venture Philanthropy Partners

Veronica Nolan
CEO, Urban Alliance Foundation

Allison Fansler
President and COO, KIPP DC

Ronda Thompson
Executive Director, Year Up NCR

Lori Kaplan
President and CEO, LAYC

Adam Tenner
Executive Director, Metro TeenAIDS

MATOC
Metropolitan Area Transportation Operations Coordination

MEMORANDUM

TO: Transportation Planning Board

FROM: Taran Hutchinson, MATOC Facilitator

DATE: October 10, 2013

SUBJECT: Briefing on the Washington Metropolitan Area Transportation Operations Coordination (MATOC) Program Response during the September 16 Navy Yard Incident

Background

The District of Columbia Department of Transportation (DDOT), the Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT), and the Washington Metropolitan Area Transit Authority (WMATA), in partnership with the TPB, established the MATOC Program to conduct real-time information sharing and interagency coordinated transportation management. MATOC began operations coordination activities in 2008, led by the MATOC Facilitator with supporting staff. For extensive information on MATOC's background, see www.matoc.org.

Critical to the success of the MATOC staff is the data sharing system that has been created to serve MATOC, known as the Regional Integrated Transportation Information System, or RITIS. RITIS amalgamates automated data from many sources, fuses it together into share-able formats, and then information is shared with transportation, public safety, emergency management, military, and other agencies, as well as the media and public. Additional background on RITIS, as well as a RITIS-powered real-time traveler information page, is also available at www.matoc.org.

Core Activities

MATOC has an annual budget of $1.2 million, now funded by DDOT, MDOT/SHA, and VDOT. Full funding was received FY2013 and has been committed for FY2014. This funding supports four core program elements: 1) Operations, 2) RITIS Operations and Maintenance, 3) RITIS Enhancements, and 4) Special Studies.

The MATOC Steering Committee is the governing body of MATOC comprising senior transportation operations officials from DDOT, MDOT/SHA, VDOT, and WMATA, with the MWCOG TPB transportation director as an ex-officio member. The MATOC Steering Committee and MATOC Program are supported by a number of advisory subcommittees, including a Roadway Operations Subcommittee, Transit Task Force, Information Systems Subcommittee, and Severe Weather Working Group.

MATOC's staff of four undertakes live coordination operations regularly Monday through Friday from 4:30 AM to 8:00 PM. MATOC can and has on a number of occasions gone to 24-hours-a-day operations on an on-call basis. MATOC operations are conducted from its recently relocated dedicated operations center, but can be accomplished from other/remote locations (see below).

Recent and Current Activities

Necessitated by circumstances at its previous leased location in Greenbelt, MATOC has moved its operations to a facility located in the University of Maryland's Technology Ventures Building in College Park; this move in the long run will achieve cost savings. The new offices and operations floor are currently under renovations to better support MATOC's needs. MATOC is continuing regional coordination / monitoring / notification activities from remote locations such as the DC Homeland Security & Emergency Management Agency with minimal impact to normal day-to-day operations during these renovations. MATOC is expected to reoccupy its completed space by the end of October.

Regular MATOC coverage continues five days a week from 4:30 AM to 8:00 PM. MATOC Staff can always be reached during afterhours and weekend should the need arise. The Regional Integrated Transportation Information System (RITIS) continues, with ongoing enhancements, as the core MATOC support technology.

MATOC operations responded to or have been expanded during a number of recent events, including the July 4th Celebrations, the March on Washington 50th Anniversary (August 28), the September 11 anniversary, and the tragic Navy Yard Incident (September 16 – see below). MATOC operations also continue to provide information and coordination on a daily basis for numerous traffic- and transit-impacting incidents.

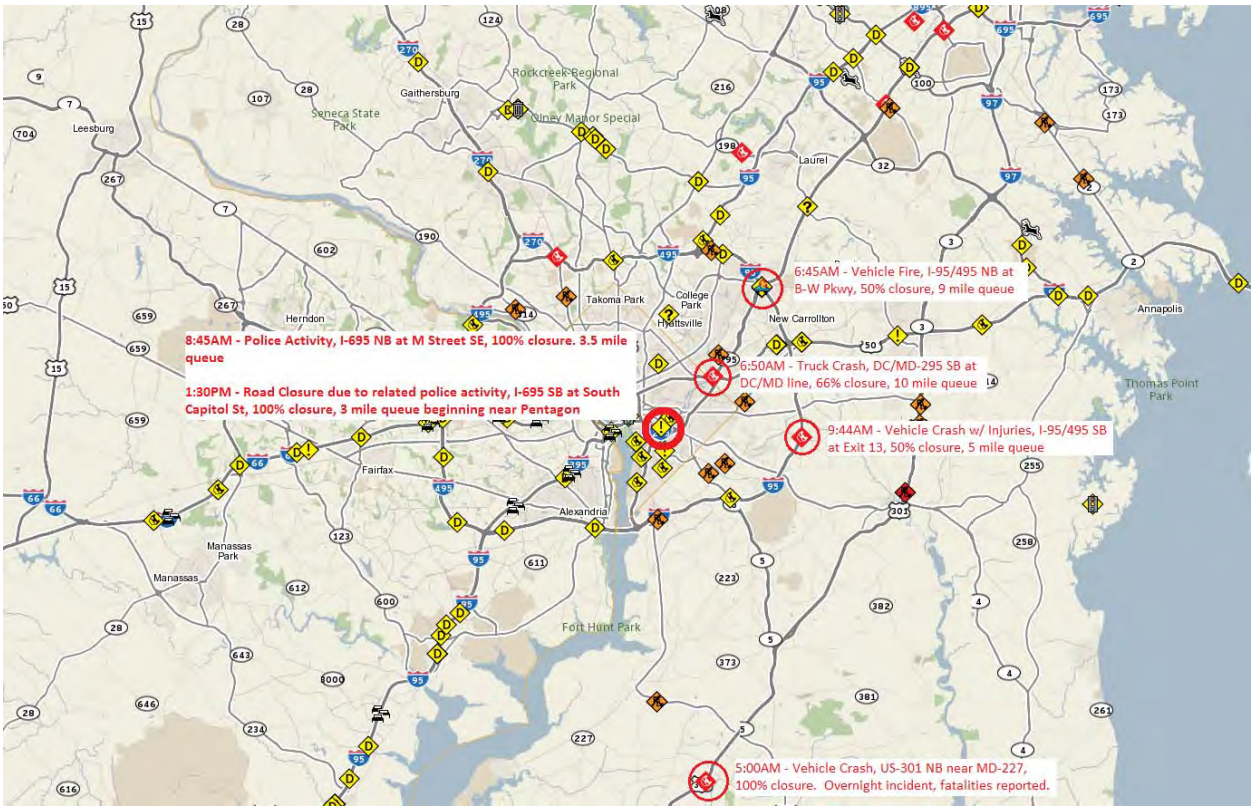
MATOC Response to the September 16 Navy Yard Incident

In response to the September 18 request from the TPB for such information, the following is a summary of MATOC's activities during the Navy Yard incident. Monday, September 16, 2013 was a very busy and complicated day for MATOC and its supporting transportation stakeholders. The combination of morning precipitation and several traffic related incidents around the region helped contribute to a slower than normal commute for some travelers, particularly to the east of the metropolitan area, in addition to the impacts of the Navy Yard incident itself.

MATOC staff notified stakeholders regarding several moderate to severe impact traffic incidents that occurred during the morning commute. These included:

- 5:00 AM – An overnight vehicle crash involving fatalities on US-301 North near MD-227 in Charles County, MD requiring a complete road closure for accident investigation.
- 6:45 AM – A vehicle fire on I-95/495 North (Outer Loop) at the Baltimore-Washington Parkway initially blocking all lanes travel lanes. Two of four lanes remained blocked for cleanup and recovery operations.
- 6:50 AM – A truck crash on DC/MD-295 South near the DC/MD line blocking two of three lanes that required an extended cleanup and response.
- 8:45 AM – Police activity on I-695 NB at M Street (related to the Navy Yard incident) requiring the morning closure of the 11th Street Bridge and subsequent afternoon closure of the outbound Southeast Freeway.

- 9:44 AM – A vehicle crash with injuries on I-95/495 South (Inner Loop) at Richie-Marlboro Road blocking two of four lanes.

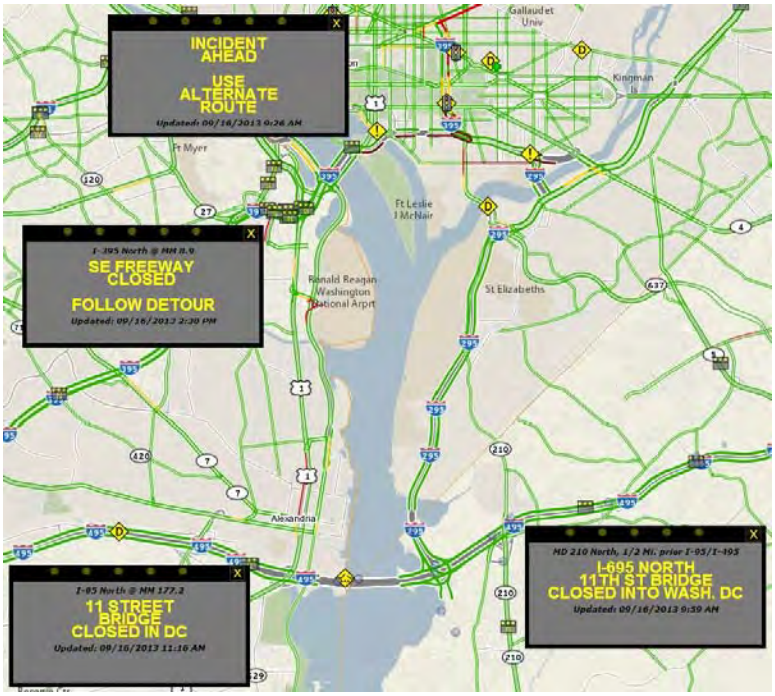


Incidents (AM Commute) requiring MATOC action and notification for Monday, September 16, 2013 (RITIS Event Query Screen Capture)

In all cases, MATOC staff followed predefined standard operating guidelines to detect, verify, and make notifications to affected stakeholders in the region. MATOC uses a mass notification system similar to the MWCOG RICCS notification system to send simultaneous messages to emails, cellphones, pagers and social media.

Upon learning of the severity of the Navy Yard incident, MATOC staff contacted traffic operations centers in Virginia and Maryland to request additional signage along I-395 and the Capital Beltway to alert commuters of the morning closure of the 11th Street Bridge as well as the afternoon closure of the Southeast Freeway; both related to the Navy Yard response. VDOT and MDOT traffic operations centers, with the assistance of MATOC, provide continuous roadway messaging throughout the day to support the response the Navy Yard incident.

MATOC request for roadway signage to support morning 11 St Bridge closure (RITIS Map Screen Capture)



MATOC request for roadway signage to support afternoon I-695 (Southeast Freeway) closure (RITIS Map Screen Capture)

Outlook

MATOC staff regularly conducts outreach/site visits to agencies to meet with transportation and public safety agency operations personnel. This networking with stakeholders bolsters regional information sharing, focusing both on MATOC staff interactions and RITIS use. MATOC staff is also continuing monthly web-based training seminars on use of RITIS for agency personnel. A study on MATOC's potential role in regional construction coordination/scheduling study is now underway, examining how the region's transportation agencies, in conjunction with MATOC, might better coordinate, schedule, and communicate lanes closures and service disruptions associated with planned construction activities and special events. And MATOC staff is committed to continuous improvements/enhancements to MATOC operating procedures and to RITIS features to enhance MATOC's regional coordination role.

GOVERNMENT OF THE DISTRICT OF COLUMBIA

October 10, 2013

National Capital Region Transportation Planning Board
The Honorable Scott York, Chair
777 N. Capitol Street, NE, Suite 300
Washington, DC 20002-4239

Dear Chairman York,

The Transportation Planning Board (TBP) and its staff have been engaged for the last three years in the development of a Regional Transportation Priorities Plan (RTPP) that would serve as an explicit statement of regional transportation priorities and a financially unconstrained regional vision for transportation operations and investment. It is our understanding that staff is undertaking revisions to the draft presented at the July meeting, and will present a new draft for Board review and public comment in October. In light of the potential for Board action on the document by the end of the year, the DC Office of Planning (DCOP) and the District Department of Transportation (DDOT) would like to submit the following comments for consideration. It is our hope that these comments will provide input into staff's revisions, as well as inform the Board's deliberations at our October meeting.

We acknowledge the significant efforts taken thus far to develop the RTPP. The current draft represents a major step forward in establishing regional priorities, engaging the public in decision-making in transportation investments, and identifying strategies that will shape the future decisions made by the TPB and its constituent jurisdictions. We are particularly pleased to see the objectives outlined in Region Forward identified as a key part of the context for the development of this plan. The draft RTPP has already played a useful role in highlighting many of the important strategies that will be crucial to successful achievement of those objectives, including the promotion of transportation choices, ensuring maintenance of existing infrastructure, and better coordination between our economic development strategies and our transportation investments.

At the same time, we believe there is room for substantial improvement in the current draft. If the RTPP is to inform—indeed, perhaps to guide—future TPB actions, including the Constrained Long-Range Plan, then it's important to ensure that the document is as robust as possible.

Our comments can generally be divided into the following categories:

- Planning Context – How the RTPP Fits With Other Regional Planning Efforts
- Strategies and Recommendations
- Public Understanding and Communication

Planning Context

As mentioned previously, the current draft correctly cites Region Forward and the TPB Vision statement as guiding vision documents that set the overall framework and context for the RTPP. However, we believe the RTPP should give greater weight to Region Forward as the broader, more comprehensive, and updated expression of consensus on regional planning objectives. Region Forward sets goals and targets for Land Use, Transportation, Climate and Energy, the Environment, Public Safety, and Education. These goals and objectives provide the context for regional transportation priorities. If the RTPP filtered the strategies through a Region Forward lens, it is quite possible that strategies would be ranked differently. For example, Region Forward establishes as an Accessibility target that "all Regional Activity Centers will have transit access." If strategies in the RTPP were evaluated against this target, some strategies would contribute more toward achieving the objective, and would deserve greater priority. For example, strategies related to transit expansions and transit-oriented development are consistent with the transit access objective, and presumably would be given higher priority.

In this context, it is also important to note that Region Forward has identified climate change as an important challenge facing our region. The current draft RTPP includes "Enhance Environmental Quality" as a major goal, but it should give greater emphasis to the significant efforts that will be required to achieve greenhouse gas emissions reductions. The current draft only briefly mentions greenhouse gas emissions as a major problem, and lumps together GHGs and other air pollutants, suggesting that both are expected to decline as a result of stricter federal standards and a more efficient fleet. While this is true for most criteria pollutants, the report should acknowledge that the region has adopted a goal of a 20% reduction in GHGs below 2005 levels by 2020, and the Counsel of Government's 2008 Climate Change Report has identified just over half of that reduction through current and potential actions.

Strategies and Recommendations

The draft RTPP highlights a number of important strategies that are crucial to achieving the goals laid out in Region Forward. In particular, the report usefully articulates a need to focus on maintenance and preservation of existing transit and road systems as a first priority. It has been well-established that years of deferred maintenance in the Metrorail system, for example, are now creating major problems for the region, and may even be negatively impacting ridership. These are serious challenges that deserve full commitment from the region, and will require substantial financial investment. Many of these strategies

have been the subject of extensive regional dialogue, and there is consensus on many of them. The RTPP performs a valuable service by confirming their priority to the region.

However, we wish to express our concern that some of the strategies described in the report as "priorities" in fact require much more development and discussion before rising to that level. In particular, the long-term strategies that call for implementation of a regional network of managed highway lanes, as well as the notion of linking new toll roads to Bus Rapid Transit (BRT), are relatively new additions to the regional dialogue. These strategies have not undergone the level of refinement, deliberation, and consensus-building that other strategies have, and as described in the draft plan, are uniquely problematic.

While the region has made important strides in managing and tolling roadway capacity as a way to address congestion, provide transportation choices, and finance construction and operations, the extensive network of new tolled highway capacity described in scenarios A and A+B has never, to our knowledge, been seriously discussed as part of any regional or jurisdictional plan. As TPB staff have admitted, the shift in the description of the strategy to focus on a tolled network consisting entirely of new highway capacity was driven entirely by new restrictions in the federal MAP-21 legislation that prohibit a net loss of untolled lanes when a highway is converted to a managed-lane facility. This prohibition greatly reduces the region's flexibility in addressing congestion, transportation choice, and financing gaps, and should be treated as an obstacle to overcome, not a condition that shifts the region's priorities. TPB staff have also indicated that there is a significant difference in the cost-effectiveness of these strategies, compared to earlier iterations that focused on tolling existing capacity. This is an enormously important point, given the huge cost of the proposed undertaking, and deserves discussion in the document.

The land-use implications of an extensive network of new tolled highway lanes also remain uncertain—and thus, the extent to which such a strategy will help or hinder other Region Forward goals. While the managed lanes outlined in these strategies are described as providing express bus service, we do not think it likely that such transit service will have the powerful concentrative effects that BRT would have on an urban grid of streets. BRT should be studied separately and delinked from new managed lanes. What may be proposed in these strategies is an approach that will simply facilitate a more dispersed residential pattern, facilitated by a costly new set of infrastructure that eases long-distance commuting to the core and other employment centers. At best, these concerns warrant extensive study before these strategies are enshrined as priorities in a regional plan.

In contrast, WMATA's Momentum plan has been adopted by the WMATA Board and endorsed by the governments of Maryland, Virginia, the District of Columbia, multiple local jurisdictions, and a wide range of stakeholders, from the AAA and the Board of Trade to the Sierra Club. We find it striking that the draft RTPP gives a high level of priority to an untested, not-yet-thoroughly-vetted toll lane strategy, yet never mentions Momentum, despite an extensive regional discussion of Metro's future system needs over the past several months. The document should explicitly acknowledge and evaluate transit capacity expansion (as distinct from upgrading the system's ability to keep up with ridership

growth and deferred maintenance) as a strategy, and should call out the strategies outlined in Momentum. The report must also clarify the level of investment in new Metro capacity required to meet regional goals. It appears that even Scenario B still limits itself to the Metro 2025 investments (just keeping up with ridership growth) and fails to include any new significant expansion in transit capacity.

Beyond expansion of the Metro system, the draft RTPP also neglects to mention other important strategies that are necessary to achieving regional goals. In particular, the current draft makes no mention of commuter rail as a strategy. Commuter rail services already carry more than 50,000 passengers on a daily basis in the Washington region. As the region considers important new modifications to regional "commuter" rail service, including weekend operations, reverse-peak service, and pass-through service between Maryland and Virginia, a Regional Transportation Priorities Plan should highlight and evaluate such strategies and present them to the public for discussion.

Similarly, jurisdictions throughout the region are engaged in detailed study—and in some cases, on the cusp of implementation—of major expansions of surface transit capacity on key travel corridors. These include the streetcar systems in DC and Arlington, the Crystal City/Potomac Yard transitway project between Arlington and Alexandria, the Purple Line in Maryland, and the BRT networks moving forward in Montgomery County and Alexandria. As with the planned and prospective enhancements to commuter rail, these surface transit expansions represent not just incremental improvements upon existing systems, but dramatic and qualitative changes in regional accessibility, mobility, and community revitalization potential. These strategies have often begun at the local level, and have been initiated to solve local problems. Yet the networks studied often have the potential to cross jurisdictional boundaries, suggesting a need for greater coordination and collaboration at the regional level. The RTPP should acknowledge this important new leap forward in thinking about surface transit, and highlight the importance of a regional approach to this strategy.

As mentioned previously, using Region Forward as the organizing framework for the RTPP would also produce a set of strategies more focused on the coordination of transportation and land use. While the current draft lays out regional goals related to this coordination problem and identifies challenges to addressing it (e.g., under-development around several Metrorail stations and housing/job location outside activity centers), the document should give greater weight to strategies that address these challenges. We are now examining approaches as part of our multimodal long range transportation plan, moveDC , that consider pricing strategies on existing lanes as well as strategies to advance transit capacity and use. The current draft's primary strategy focusing on this set of goals and challenges is the long-term strategy "Scenario B" (Concentrated Growth with More Transit Capacity). We support this strategy and believe it deserves the highest priority. Based on the TPB's Aspirations Scenario, the land use shifts in such a strategy have the potential to cause greater changes in Vehicle of Miles Traveled (VMT) and mode share than any new transportation infrastructure could—suggesting that these changes are the most effective (and cost-effective) strategy for achievement of our regional priorities.

Finally, the section on strategies could be greatly improved by a more thorough evaluation of the costs and benefits of each strategy. Each of the strategies is currently described primarily in terms of its benefits. While we should not lose sight of the important contributions that each strategy can make to solving our regional challenges, the TPB will not be doing the region a service if it fails to note that some strategies are more cost-effective (or costly) than others, and some strategies face significant obstacles to implementation. Indeed, some strategies may have impacts that run counter to achievement of Region Forward goals. For example, "eliminating bottlenecks" could actually reduce pedestrian and bicycle access and safety in some circumstances as well as high cumulative costs, if intersections are widened or converted to grade-separated interchanges.

Public Understanding and Communication

We acknowledge and appreciate the level of public engagement and opinion-gathering that has taken place through the process of developing the RTPP. The process has included a variety of innovative and effective public involvement methods. As mentioned above, however, the RTPP needs more discussion of costs and benefits. Failure to include such a discussion impedes the ability of the public to understand and evaluate the strategies being presented.

Conclusion

The Regional Transportation Priorities Plan offers a unique opportunity to move the vision described in Region Forward closer to reality. As several participants noted at the recent Economy Forward event on September 27th, collaborative decision-making and implementation on transportation investments remains a challenge for our diverse and complex region. While the TPB Vision of 1998 provided a set of principles that, in theory, has been used to guide transportation planning, it has proven difficult to focus TPB member jurisdictions and the public on a concrete set of strategies that could be used to intentionally achieve that vision. Now, with the much more comprehensive and targeted framework established by Region Forward, we have an opportunity to better delineate those strategies and prioritize them.

There has been a tremendous amount of work that has gone into developing the RTPP thus far, and we have every hope that, with a few critical improvements, the plan will be ready for adoption by the TPB in time to inform the development of the next four-year update of the Constrained Long-Range Plan. However, we also note that to date, TPB members have provided relatively little input into the development of this plan. We expect that the above comments, together with Board discussion over the next few meetings, will provide additional direction to staff in the refinement of this important effort.

Thank you for your leadership of the TPB during this important time. We look forward to working with you and other TPB members to successfully carry out the goals in Region Forward.

Sincerely,

Harriet Tregoning
Director, DC Office of Planning and Co-Chair, Region Forward Coalition

Terry Bellamy
Director, District Department of Transportation

CC: Chuck Bean, Executive Director, Metropolitan Washington Council of Governments

ITEM 7 – Information
October 16, 2013

Briefing on the Draft Call for Projects and Schedule for the Air Quality Conformity Assessment for the 2014 CLRP and FY 2015-2020 TIP

Staff Recommendation:	Receive briefing on the draft call for projects document and schedule for the air quality conformity assessment for the 2014 CLRP and FY 2015-2020 TIP.
Issues:	None
Background:	The Board will be asked to approve the final Call for Projects document at its November 20 meeting.

National Capital Region
Transportation Planning Board

CALL FOR PROJECTS

For the Air Quality Conformity Analysis of the
2014 Update to the Financially Constrained
Long-Range Transportation Plan (CLRP)
and the FY 2015-2020 Transportation
Improvement Program (TIP)

Draft
October 10, 2013

Alternative formats of this publication can be made available for persons with disabilities. Phone: 202.962.3300 or 202-962.3213 (TDD) Email: accommodations@mwcog.org. For details: www.mwcog.org.

CONTENTS

INTRODUCTION

The National Capital Region Transportation Planning Board (TPB), the designated Metropolitan Planning Organization (MPO) for the Washington region, has responsibilities for both long-term transportation planning covering the next two to three decades (the Financially Constrained Long Range Transportation Plan or CLRP) and short-term programming of projects covering the next six years (the Transportation Improvement Program or TIP). The planning horizon for the plan is from 2014 to 2040. The plan identifies transportation projects, programs and strategies that can be implemented by 2040, within financial resources "reasonably expected to be available."

Purpose of this Document

This document is a broad solicitation for projects and programs to be included in the 2014 Plan and the FY 2015-2020 TIP. Individual counties, municipalities and state and federal agencies with the fiscal authority to fund transportation projects are invited to submit projects in response to the solicitation. The purpose of this document is to:

1. Describe the policy framework and priorities that should guide project selections;
2. Review federal regulations related to the Plan and TIP; and
3. Explain the project submission process for the Plan and the TIP.

OVERVIEW OF THE POLICY FRAMEWORK AND FEDERAL REQUIREMENTS

The Plan and TIP must address the policy framework, the TPB Vision, and federal requirements, which together comprise the key criteria for the development of the Plan and TIP, summarized in Figure 1 on the next page. The eight policy goals in the TPB Vision can be found on page 14.

The Plan and TIP must meet federal requirements involving financial constraint, air quality conformity, public participation, Title VI and environmental justice, and other requirements including a Congestion Management Process (CMP). A financial plan must show how the updated long-range plan can be implemented with expected revenues. The plan and TIP need to demonstrate conformity with national air quality standards.

PLANNING REGULATIONS

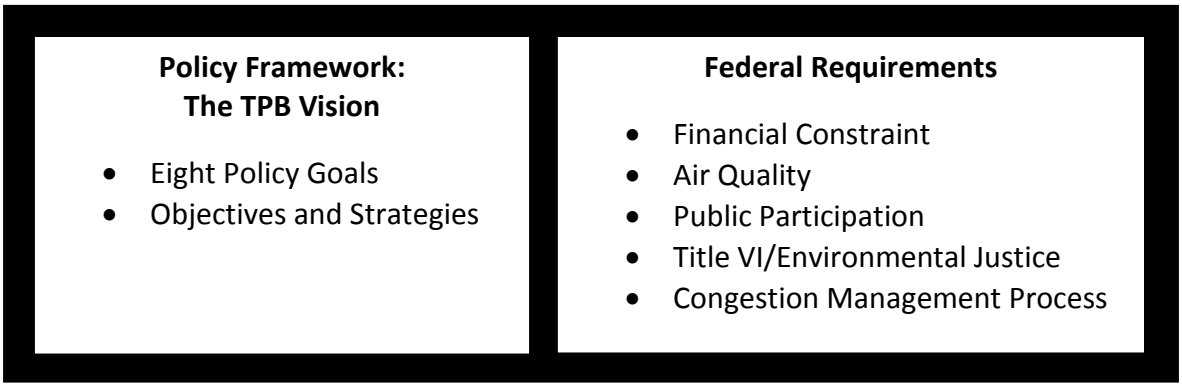
The Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users or SAFETEA-LU became law in 2005 and the U.S. Department of Transportation issued final regulations for Metropolitan Transportation Planning on February 14, 2007.

MAP-21 or Moving Ahead for Progress in the 21st Century is the successor to SAFETEA-LU and was signed into law on July 6, 2012. Federal planning regulations based on this law are under development and are expected to be released within the next year. Until such time, the 2007 regulations remain in effect unless otherwise specified in MAP-21.

Some of the basic requirements pertaining to the CLRP and TIP process have remained unchanged between SAFETEA-LU and MAP-21, including:

- The Plan and TIP must still be updated every 4 years. The 2010 CLRP was a major Plan update with a new financial plan. The 2014 CLRP will be considered another major update with a revised financial plan.
- A Congestion Management Process (CMP) is still required. The Congestion Management Process is a systematic set of actions to provide information on transportation system performance, and to consider alternative strategies to alleviate congestion, enhancing the mobility of persons and goods. MAP-21 enhances congestion and reliability monitoring and reporting.
- Eight planning factors to consider during Plan and TIP development. The TPB Vision incorporates all eight planning factors; security is addressed implicitly.
- During the development of the long-range plan, the TPB and state implementing agencies will have to consult with agencies responsible for land use management, natural resources, environmental protection, conservation, historic preservation, airport operations and freight movements on projects in the Plan. The Plan must include a discussion of potential environmental mitigation activities along with potential sites to carry out the activities to be included.

Figure 1: Key Criteria for Developing the Plan and TIP



RELATIONSHIP BETWEEN THE PLAN AND TIP

The TPB is responsible for preparing a program for implementing the plan using federal, state, and local funds. This document, known as the TIP, provides detailed information showing what projects are eligible for funding and implementation over a six-year period. Like the Plan, the TIP needs to address the TPB Vision and federal requirements. The TIP includes portions, or phases, of projects selected for implementation from the Plan. While the entire project is described in the Plan, in many instances only a portion of the project is included in the six-year TIP. The Plan is reviewed every year and the TIP is updated every two years. Under federal requirements the Plan and TIP must be updated at least every four years.

SCHEDULE FOR THE 2014 CLRP AND THE FY 2015-2020 TIP

October 16, 2013*	TPB is briefed on Draft Call for Projects.
November 20, 2013*	TPB releases Final Call for Projects - transportation agencies begin submitting project information through on-line database.
December 13, 2013	**DEADLINE:** transportation agencies complete on-line submission of draft project Inputs.
January 10, 2014	Technical Committee reviews Draft CLRP project submissions and draft Scope of Work for the Air Quality Conformity Assessment.
January 16, 2014	CLRP project submissions and draft Scope of Work released for public comment.
January 22, 2014*	TPB is briefed on project submissions and draft Scope of Work.
February 15, 2014	Public comment period ends.
February 19, 2014*	TPB reviews public comments and is asked to approve project submissions and draft Scope of Work.
May 2, 2014	**DEADLINE:** transportation agencies finalize CLRP forms (including Congestion Management Documentation Forms where needed) and inputs to the FY 2015-2020 TIP. Submissions must not impact conformity inputs; note that the deadline for changes affecting conformity inputs was February 19, 2014.
June 12, 2014	Draft CLRP, TIP, and Conformity Assessment released for public comment at Citizens Advisory Committee (CAC).
June 18, 2014*	TPB briefed on the draft CLRP, TIP, and Conformity Assessment.
July 12, 2014	Public comment period ends.
July 16, 2014*	TPB reviews public comments and responses to comments, and is presented the draft CLRP, TIP, and Conformity Assessment for adoption.

*TPB Meeting

SECTION 1: POLICY FRAMEWORK

THE TPB VISION

To guide the planning and implementation of transportation strategies, actions, and projects for the National Capital Region the TPB adopted a Vision in October 1998 that is a comprehensive set of policy goals, objectives, and strategies. The TPB Vision incorporates the eight planning factors specified in current federal regulations; security is addressed implicitly. The eight planning factors are provided in Section 2.

The TPB Vision will be used to review and assess the strategies and projects under consideration for inclusion in the Plan and TIP. In developing proposed projects and strategies in the Plan or TIP, each agency must consider their contributions to meeting the eight planning factors. In this way, the TPB will be able to ensure and document that consideration of the required planning factors has taken place. Consideration of regional goals and objectives may also prove useful to agencies in selecting among proposed projects or actions when the desired level of investment exceeds the projected available revenues. Especially important are projects and strategies that contribute to meeting the required emission reductions and achieving air quality conformity.

Vision Statement

In the 21st Century, the Washington metropolitan region remains a vibrant world capital, with a transportation system that provides efficient movement of people and goods. This system promotes the region's economy and environmental quality, and operates in an attractive and safe setting—it is a system that serves everyone. The system is fiscally sustainable, promotes areas of concentrated growth, manages both demand and capacity, employs the best technology, and joins rail, roadway, bus, air, water, pedestrian and bicycle facilities into a fully interconnected network.

The Vision Goals

1. The Washington metropolitan region's transportation system will provide **reasonable access at reasonable cost** to everyone in the region.
2. The Washington metropolitan region will develop, implement, and maintain an interconnected transportation system that enhances quality of life and promotes a strong and growing economy throughout the entire region, including a **healthy regional core and dynamic regional activity centers** with a mix of jobs, housing and services in a walkable environment.
3. The Washington metropolitan region's transportation system will **give priority to management, performance, maintenance, and safety** of all modes and facilities.
4. The Washington metropolitan region will use the **best available technology** to maximize system effectiveness.
5. The Washington metropolitan region will plan and develop a transportation system that enhances and **protects the region's natural environmental quality, cultural and historic resources,** and communities.

6. The Washington metropolitan region will achieve better **inter-jurisdictional coordination of transportation and land use** planning.
7. The Washington metropolitan region will achieve an **enhanced funding mechanism(s) for regional and local transportation system priorities** that cannot be implemented with current and forecasted federal, state, and local funding.
8. The Washington metropolitan region will **support options for international and interregional travel** and commerce.

THE REGIONAL TRANSPORTATION PRIORITIES PLAN AND THE 2014 CLRP

The TPB is currently in the process of finalizing a Regional Transportation Priorities Plan (RTPP) to identify regional strategies that offer the greatest potential contributions toward addressing regional challenges.

In July of 2011, the TPB approved the Scope and Process for developing the RTPP. This process began in early 2012 with a series of listening sessions with regional stakeholders. In June 2012, TPB staff conducted a citizens forum attended by a representative sample of citizens from throughout the region in order to evaluate a draft set of challenges and strategies. Following further refinement, an online survey was conducted in the spring of 2013 to solicit citizen input on potential components of the Priorities Plan.

A draft of the RTPP was presented to the TPB in July 2013, and released for public comment. This draft RTPP set forth a series of desired goals and challenges to achieving each of those goals. Next, it identified a set of near-term, ongoing, and long-term regional strategies that offer the greatest potential for addressing these regional challenges, and that the public can support.

The strategies that are currently identified as regional priorities in the draft RTPP are those that:

- Address the Challenges of Needed Metro and Highway Repairs
- Address Transit Crowding and Roadway Congestion
- Address Special Focus Areas

In October, a revised draft will be released for further comments from the public and regional stakeholders. In November the TPB will consider the comments on the revised draft and schedule adoption of the RTPP.

The strategies identified in the RTPP should be considered by implementing agencies as they develop project submissions for the CLRP and TIP.

SECTION 2: FEDERAL REQUIREMENTS

AIR QUALITY CONFORMITY REQUIREMENTS

The Clean Air Act Amendments (CAAA) of 1990 require that the transportation actions and projects in the CLRP and TIP support the attainment of the federal health standards. The Washington area is currently in a nonattainment status for ozone and fine particles standards (PM2.5, or particulate matter less than or equal to 2.5 micrometers in diameter). The CLRP and TIP must meet air quality conformity regulations: (1) as originally published by the Environmental Protection Agency (EPA) in the November 24, 1993 Federal Register, and (2) as subsequently amended, most recently on March 14, 2012, and (3) as detailed in periodic FHWA / FTA and EPA guidance.

BACKGROUND

Ozone Season Pollutants (VOC and NOx)

On May 21, 2012 EPA designated the Washington, DC-MD–VA region as a marginal nonattainment area for the 2008 ozone National Ambient Air Quality Standards (NAAQS). Until new mobile budgets are developed, the region must adhere to those currently approved by EPA under the old 1997 standard. The currently approved budgets for VOC and NOx were submitted to the EPA by the Metropolitan Washington Air Quality Committee (MWAQC) in 2007, as part of an 8-hour ozone SIP, responding to the 1997 Ozone Standard. On February 7, 2013 EPA found adequate the 2009 Attainment and 2010 Contingency budgets included in this SIP. The budgets are 66.5 tons/day of Volatile Organic Compounds (VOC) and 146.1 tons/day of Nitrogen Oxides (NOx) for the 2009 Attainment Plan and 144.3 tons/day of NOx for the 2010 Contingency Plan.

Fine Particles (PM2.5) Pollutants

On December 17, 2004 EPA designated the Washington, DC-MD-VA region as nonattainment for the 1997 Fine Particles Standard. PM2.5 standards refer to particulate matter less than or equal to 2.5 micrometers in diameter. On January 12, 2009, EPA determined that the region had attained the 1997 $PM_{2.5}$ NAAQS and issued a clean data determination for the area. On May 22, 2013 MWAQC approved a $PM_{2.5}$ Resignation Request and Maintenance Plan for the Washington region. This Maintenance Plan includes forecast year mobile budgets for direct $PM_{2.5}$ and Precursor NOx. Until these mobile budgets are found adequate or are approved by EPA, the region will assess conformity based on a test that shows emissions in forecast year scenarios are no greater than those in a 2002 base.

CURRENT STATUS

As part of the conformity assessment of the 2014 CLRP, projected emissions for the actions and projects will need to be estimated for the following forecast years: 2015, 2017, 2020, 2025, 2030, and 2040. If the analysis of mobile source emissions for any of these years shows an increase in pollutants above what is allowed, it will be necessary for the TPB to define and

program transportation emission reduction measures (TERMs) to mitigate the excess emissions, as has been done in the past. The TPB Technical Committee's Travel Management Subcommittee will develop a schedule for submittal and analysis of candidate TERM proposals for potential inclusion in the 2014 CLRP for the purpose of NOx, VOC, or PM2.5 emissions mitigation. Should emissions analysis for any forecast year indicate excess emissions which cannot be mitigated, TPB's programming actions would become limited to those projects which are exempt from conformity.

FINANCIAL CONSTRAINT

UPDATING THE PLAN

The following financial requirements for the Plan are based upon the current federal planning regulations and MAP-21 requirements.

> The long-range Plan must include a financial plan that demonstrates the consistency between reasonably available and projected sources of Federal, State, local, and private revenues and the cost of implementing proposed transportation system improvements. The plan must compare the estimated revenue from existing and proposed funding sources that can reasonably be expected to be available for transportation use, and the estimated costs of constructing, maintaining and operating the total (existing plus planned) transportation system over the period of the plan.
>
> The estimated revenue by existing revenue source (Federal, State, local and private) available for transportation projects must be determined and any shortfalls shall be identified. Proposed new revenue and/or revenue sources to cover shortfalls must be identified, including strategies for ensuring their availability for proposed investments. Existing and proposed revenues shall cover all forecasted capital, operating, and maintenance costs. All revenue and cost estimates must use an inflation rate(s) to reflect "year of expenditure dollars" based upon reasonable financial principles and information developed cooperatively by the MPO, States and public transportation operators.

The 2010 financial plan for the Plan and TIP was adopted by the TPB in November 2010. This financial analysis produced the same financial "big picture" as in the 2006 analysis; the majority of currently anticipated future transportation revenues will continue to be devoted to the maintenance and operation of the current transit and highway systems. More information about the current financial plan is available at www.clrp.mwcog.org.

For the 2014 CLRP, the 2010 financial analysis is being updated to reflect new projections of federal and state revenues, cost estimates for new system expansion projects, as well as cost estimates for system maintenance and rehabilitation. All new project submissions must be included in this financial analysis.

Agencies should review the timing, costs and funding for the actions and projects in the Plan, ensuring that they are consistent with the "already available and projected sources of revenues." Significant changes to the projects or actions in the current plan should be identified. New projects and programs, specifically addressing regional air quality conformity

needs also should be identified. If new funding sources are to be utilized for a project or action, agencies should describe the strategies for ensuring that the funding will be available.

Other projects or actions above and beyond those for which funds are available or committed may be submitted to the Plan under illustrative status. A change in project status from illustrative to full status would require a Plan amendment. Illustrative projects will not be assumed in the air quality conformity determination of the Plan.

DEVELOPING INPUTS FOR THE TIP

The following financial requirements for the TIP are based upon the current federal planning regulations and MAP-21 requirements.

> The TIP must be financially constrained by year and include a financial plan that demonstrates which projects can be implemented using current revenue sources and which projects are to be implemented using proposed revenue sources (while the existing transportation system is being adequately operated and maintained).
>
> In developing the TIP, the MPO, the States and the public transportation operators must cooperatively develop estimates of funds that are reasonably expected to be available to support TIP implementation. The TIP shall include a project or a phase of a project only if full funding can reasonably be anticipated to be available for the project within the time period contemplated for completion of the project.
>
> Only projects for which construction and operating funds can reasonably be expected to be available may be included under full status in the plan. In the case of new funding sources, strategies for ensuring their availability shall be identified. In developing the financial analysis, the MPO shall take into account all projects and strategies funded under Title 23, USC and the Federal Transit Act, other Federal funds, local sources, state assistance, and private participation. All revenue and cost estimates must use an inflation rate(s) to reflect “year of expenditure dollars” based upon reasonable financial principles and information developed cooperatively by the MPO, States and public transportation operators.
>
> In non-attainment areas, projects included for the first two years of the current TIP shall be limited to those for which funds are available or committed.

To develop a financially constrained TIP, agencies should begin with the projects and actions committed in the previous TIP. After reviewing the estimates of available state and federal funds for the period, agencies can identify the actions and projects as inputs for the TIP, ensuring that projects for the first two years are "limited to those for which funds are available or committed."

TITLE VI AND ENVIRONMENTAL JUSTICE

The Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance. The Federal Transit Administration (FTA) issued the Circular “Title VI and Title VI-Dependant Guidelines for Federal Transit Administration Recipients” (FTA C 4702.1A) on May 13, 2007. The Federal

Highway Administration (FHWA) also has published guidance on how the TPB must ensure nondiscrimination in its plans, programs and activities: "FHWA Desk Reference: Title VI Nondiscrimination in the Federal Aid Highway Program".

The Metropolitan Washington Council of Governments (COG), as the administrative agent for the TPB, has developed a Title VI Plan to address the numerous Title VI requirements. On July 14, 2010 the COG Board adopted the "Title VI Plan to Ensure Nondiscrimination in all Programs and Activities" which includes a policy statement, Title VI assurances and nondiscrimination complaint procedures. The Title VI Plan describes how COG and the TPB meet a number of Title VI requirements, and is available at www.mwcog.org/titlevi.

The TPB addresses these requirements in several ways. First, to ensure on-going input from transportation disadvantaged population groups, the TPB has a proactive public involvement process as described in the TPB's Public Participation Plan. The TPB established the Access for All Advisory Committee in 2001 to advise on issues, projects and programs important to low-income communities, minority communities and persons with disabilities. Second, each time the Plan is updated, the AFA committee reviews maps of proposed major projects and comments on the long-range plan. The AFA chair, a TPB member, presents those comments to the TPB. Third, an analysis of travel characteristics and accessibility to jobs is conducted to ensure that disadvantaged groups are not disproportionately impacted by the long-range plan. The latest analysis and AFA report can be found on the CLRP website. Fourth, The TPB has a Language Assistance Plan (Language Assistance Plan: Accommodating Individuals with Limited English Proficiency in the Planning Process) and follows the COG accommodations policy for people with disabilities and LEP persons to ensure access to documents and meetings.

CONGESTION MANAGEMENT DOCUMENTATION

The Congestion Management Process (CMP) is a systematic set of actions to provide information on transportation system performance, and to consider alternative strategies to alleviate congestion, enhancing the mobility of persons and goods. The CMP impacts many aspects of the CLRP, including problem identification, analysis of possible actions, project prioritization and selection, and post-implementation monitoring. With the CMP, TPB aims to use existing and future transportation facilities efficiently and effectively, reducing the need for highway capacity increases for single-occupant vehicles (SOVs).

In accordance with federal law and regulations, the regional CMP must look at a number of separate components of congestion. The CMP must identify the location, extent, and severity of congestion in the region. Within the TPB work program, the CMP considers information and trend analysis on overall regional transportation system conditions, and undertakes a number of associated travel monitoring and analysis activities. A data collection and analysis program compiles transportation systems usage information, incorporates that information in its travel forecasting computer models, and publishes the information in reports. TPB's periodic aerial surveys of the region's freeways show the most congested locations and associated planning or project activities occurring at that location. Since there are only very limited sources of information at the regional level for non-freeway arterials, agencies or jurisdictions should use their own data sources to characterize congestion on those facilities.

The following additional CMP components should be addressed through this Call for Projects as follows:

1. The CMP must consider congestion and congestion management strategies directly associated with Plan projects. Requested in this Call for Projects is documentation of any project-specific information available on congestion that necessitates or impacts the proposed project. Submitting agencies are asked to cite whether congested conditions necessitate the proposed project, and if so, whether the congestion is recurring or non-recurring.

2. For any project providing a significant increase to SOV capacity, it must be documented that the implementing agency considered all appropriate systems and demand management alternatives to the SOV capacity. This requirement and its associated questions are substantially unchanged from what has been requested in recent years. A special set of SOV congestion management documentation questions must be answered for any project to be included in the Plan or TIP that significantly increases the single occupant vehicle carrying capacity of a highway. A copy of the Congestion Management Documentation Form is included in this Call for Projects document for reference. Note that this form is not required to be filled out for all projects, only for projects meeting certain criteria. Non-highway projects do not need a form.

   Certain highway projects may also be exempt from needing a form. The detailed instructions later in this Call for Projects document provide further instructions and exemption criteria. It is recommended to complete a form in association with all submitted, non-exempt projects to ensure compliance with federal regulations and with regional goals.

OTHER FEDERAL REQUIREMENTS

MAP-21 put forth seven new National Goals for Performance-Based Planning and Programming. Those goals include:

1. Safety
2. Infrastructure Condition
3. Congestion Reduction
4. System Reliability
5. Freight Movement and Economic Vitality
6. Environmental Sustainability
7. Reduced Project Delivery Delays

The SAFTEA-LU Final Planning Rule adds several other federal requirements in addition to air quality conformity and financial constraint which are described briefly here.

PLANNING FACTORS

MAP-21 reaffirms the eight planning factors in the Final Planning Rule to consider while developing the Plan and TIP, listed below, and emphasizes safety, security and consistency between transportation and economic development. The TPB vision incorporates all of the

planning factors specified in the current federal regulations, except for explicitly addressing security. However, the TPB and the region have been very active in addressing security since 9/11 and have incorporated security and safety into the TPB's planning framework through a series of on-going planning activities. Implementing agencies will be asked to identify how each project addresses the eight planning factors in the project submission forms.

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for all motorized and non-motorized users;
3. Increase the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and non-motorized users;
4. Increase accessibility and mobility of people and freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation; and
8. Emphasize the preservation of the existing transportation system.

PUBLIC PARTICIPATION

Metropolitan Planning Organizations (MPOs) are required to do the following based on the final planning regulations:

- Representatives of users of pedestrian walkways, bicycle transportation facilities, the disabled are specifically added as parties to be provided with the opportunity to participate in the planning process;
- The MPO is to develop a participation plan in consultation with interested parties that provides reasonable opportunities for all parties to comment; and
- To carry out the participation plan, public meetings are to be: conducted at convenient and accessible locations at convenient times; employ visualization techniques to describe plans; and make public information available in an electronically accessible format, such as on the Web.

The TPB adopted a Public Participation Plan on December 19, 2007. The Plan can be found online at www.mwcog.org/clrp/public/plan.asp.

CONSULTATION

During the development of the long-range plan, the TPB and state implementing agencies will have to consult with agencies responsible for land use management, natural resources, environmental protection, conservation, historic preservation, airport operations and freight movements on projects in the Plan. Consultation may involve comparison of a map of transportation improvements to conservation plans or maps and natural or historic resources inventories. The TPB's efforts on this requirement are described on the CLRP website at www.mwcog.org/clrp/elements/environment/.

ENVIRONMENTAL MITIGATION DISCUSSION

The Plan must include a discussion of potential environmental mitigation activities along with potential sites to carry out the activities to be included. The discussion is to be developed in consultation with Federal, State, and tribal wildlife, land management, and regulatory agencies. Implementing agencies will be asked to identify on the project description forms "types of potential mitigation activities" for major projects. Implementing agencies will be asked to identify on the project description forms "types of potential mitigation activities" for major projects. The TPB's efforts on this requirement are described on the CLRP website at www.mwcog.org/clrp/elements/environment/envmitigation.asp.

FREIGHT PLANNING

The ability to move freight and goods is a critical element of the Washington region's economy. All businesses and residences rely on freight. There is a strong emphasis on freight movement considerations in metropolitan transportation planning.

On July 21, 2010 the TPB approved the National Capital Region Freight Plan. This was the first Freight Plan for the metropolitan Washington area. It defines the role of freight in the region, provides information on current and forecasted conditions, identifies regional freight concerns such as safety and security, and includes a National Capital Region Freight Project Database.

Questions 22 through 29 on the Financially Constrained Long-Range Transportation Plan Project Description Form address a number of planning factors, including economic competitiveness, truck and freight safety, accessibility and mobility of people and freight, and integration and connectivity of the transportation system for people and freight. Strong consideration should be given to projects that support these goals for freight.

ANNUAL LISTING OF PROJECTS

Federal regulations require that the TPB must publish or otherwise make available an annual listing of projects, consistent with the categories in the TIP, for which federal funds have been obligated in the preceding year. With the assistance of and in cooperation with the transportation implementing agencies in the region, the TPB has prepared a listing of projects for which federal funds have been obligated each year since 2001.

SECTION 3: PROJECT SUBMISSION INSTRUCTIONS

This section describes the process to be used by transportation implementing agencies when updating project information for the CLRP as well as the Air Quality Conformity inputs, the Transportation Improvement Program and the Congestion Management Process. The project description forms are designed to elicit information to enable policy makers, citizens and other interested parties and segments of the community affected by projects in the plan to understand and review them. Description forms must be completed for all projects to be included in the Plan and the TIP. All regionally significant projects, regardless of funding source, must be included in the Plan for Air Quality Conformity information purposes. A Congestion Management Process Form must be completed for all projects meeting the requirements described on page 33 of these instructions. The remainder of this section describes how to update Plan, TIP and Conformity project information using an online database application. TERM analysis and reporting procedures are not addressed here; see Section 4 for those instructions.

THE ONLINE DATABASE FOR THE CLRP, TIP AND CONFORMITY

An online database application is used to gather project information from each agency. Staff from implementing agencies will be assigned an account with a user name and password. There are two levels of access to the database; editors and reviewers. Each agency should decide which person on their staff should assume these roles. Once logged into the application users will have access to the most recent version of the Plan and TIP information that was approved by the TPB. TPB staff will offer training sessions to assist staff with the application as needed.

CLRP PROJECT DESCRIPTION FORM INSTRUCTIONS

Projects should be described in sufficient detail to facilitate review by the TPB and the public. Specific information is needed on the project location and physical characteristics, purpose, projected completion date, total estimated costs, proposed sources of revenues, and other characteristics. Submissions for studies should indicate those cases where the design concept and scope (mode and alignment) have not been fully determined and will require further analysis. TERM projects or actions should also be identified. Project Description Forms should be used to describe the full scope of a facility's improvements.

Basic Project Information

1. *Submitting Agency* .....The agency that is submitting the project information. Defined by the user's agency status.

2. *Secondary Agency* .....Any other agencies working in conjunction with primary agency

3. *Agency Project ID* .....Agencies can use this field to track projects with their own ID systems.

4. *Project Type*.....Identify the functional class or category on which projects will be grouped in reports. Options include: *Interstate, Primary, Secondary, Urban, Transit, Bike/Ped, Bridge, Enhancement, ITS, Maintenance, CMAQ, Other*.

5. *Project Category*.....Identify the nature of the project: *System Expansion* (adding capacity to a road or transit system), *System Preservation* (any work on the road or transit system that does not add capacity), *Management, Operations and Maintenance*, *Study*, *Other*.

6. *Project Name*.....Brief, user-friendly name of the project; e.g. "East Market Street Widening" or "Downtown Circulator Bus System"

7. *Facility* .....These fields should be used to describe actual infrastructure or transit routes. Any of these fields may be left blank and there is no need for redundant entries. If a project can be described adequately in the *Project Title* field, it is not necessary to fill in these fields.

    a. *Prefix*.....Interstate or State abbreviation for route type, e.g. I, VA, MD, US. Combinations such as VA/US are acceptable

    b. *Number* .....The route number that corresponds with the above prefix. Again, combinations are acceptable.

    c. *Name* .....Full name of facility; e.g. "Capital Beltway," "East Street" or "Red Line". To the extent possible, this field should be limited to actual street names or transit routes.

d. *Modifier* .....Any term that needs to be used to further describe a facility, such as “extended”, “relocated” or “interchange”.

8. *From (At)* .....The beginning project limit or location of a spot improvement. Use the *(At)* checkbox to indicate a spot or interchange improvement. Follow the conventions above for *Prefix, Number, Name* and *Modifier.*

9. *To*.....Terminal project limit. Follow conventions above for *Prefix, Number, Name* and *Modifier.*

10. *Description* .....Describe the project as clearly as possible. Use public-friendly phrasing and avoid technical jargon where possible.

11. *Projected Completion Year*.....Estimated year that the project will be open to traffic or implemented.

12. *Project Manager* .....Name of project manager or point-of-contact for information

13. *E-mail* .....E-mail address for project manager or point-of-contact for information

14. *Web Site* .....URL for further project information from implementing agency

15. *Total Mileage* .....If available; enter the total length of the project to the closest tenth of a mile.

16. *Map Image* .....If available, upload an image file to assist

17. *Documentation* .....If necessary, upload any extra documentation for the project. This could include financial plans or supplemental information materials.

18. *Accommodation* .....*Indicate using the pull-down menu whether the project is:*

    a) Primarily a bicycle/pedestrian project,
    b) Includes accommodations for bicycle/pedestrian users,
    c) Does not include accommodations for bicycles/ pedestrians.

19. *Jurisdiction* .....Select the appropriate jurisdictions for the project. Multiple jurisdictions can be selected by pressing the **CTRL** key while clicking.

20. *Baseline Cost/As of* .....Initially estimated cost of project (in $1,000s) and approximate date of that estimate.

21. *Amended Cost/As of*.....Updates to project cost (in $1,000s) can be entered here with date of the amended cost estimate.

22. *Sources* .....Indicate the sources of funds: Federal, State, Local, Private, Bonds, Other. Hold the **CTRL** key down to select multiple sources.

MAP-21 Planning Factors

23. *Please identify any and all planning factors that are addressed by this project:*

Use the checkboxes to select all that apply:

a. Supports the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

b. Increases the safety of the transportation system for all motorized and non-motorized users.

i. *Is this project being proposed specifically to address a safety issue?*
Note: It is presumed that all new projects being constructed include safety considerations. Select "Yes" only if the primary reason the project is being proposed is to address a safety issue.

ii. *If so, please briefly describe (in quantifiable terms, where possible) the nature of the safety problem:*

c. Increases the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and non-motorized users.

d. Increase accessibility and mobility of people

e. Increase accessibility and mobility of freight

f. Protect and enhance the environment, promote energy conservation, improve the quality of life and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

g. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

h. Promote efficient system management and operation.

i. Emphasize the preservation of the existing transportation system.

Environmental Mitigation

24. *Have any potential mitigation activities been identified for this project? If so, identify the types of activities below.*

Use the checkboxes to select "Yes" or "No" and to identify any mitigation activities being planned for this project.

- *Air Quality,*
- *Energy,*
- *Floodplains,*
- *Geology, Soils and Groundwater,*
- *Hazardous and Contaminated Materials,*
- *Noise,*
- *Rare, Threatened and Endangered Species,*
- *Socioeconomics,*
- *Surface Water,*
- *Vibrations,*
- *Visual and Aesthetic Conditions,*
- *Wetlands,*
- *Wildlife and Habitat*

Congestion Management Process Documentation

The following addresses the MAP-21 component called the Congestion Management Process. Please see the discussion on Congestion Management Documentation in Section 2 of this document for more information. Questions 25 and 26 should be answered for every project. In addition, a Congestion Management Documentation Form should be completed for each project or action proposing an increase in SOV capacity.

25. *Congested Conditions*

a. *Do traffic congestion conditions on this or another facility necessitate the proposed project or program?*
   Check "Yes' if this project is being planned specifically to address congestion conditions.

b. *If so, is the congestion recurring or incident-related non-recurring in nature?*
   Use the checkboxes to identify either option.

c. *If the congestion is on a different facility, please identify it here:*
   Identify the name of the congested parallel or adjacent route that this project is intended to relieve.

26. *Capacity*

The federally-mandated Congestion Management Process requires that alternatives to major highway capacity increases be considered and, where reasonable, integrated into capacity-increasing projects. Except if projects fall under at least one of the exemption criteria listed under part (b), projects in the following categories require a Congestion Management Documentation Form:

- New limited access or other principal arterial roadways on new rights-of-way
- Additional through lanes on existing limited access or other principal arterial roadways
- Construction of grade-separated interchanges on limited access highways where previously there had not been an interchange.

a. *Is this a capacity-increasing project on a limited access highway or other principal arterial*?

Check "Yes" if the project will increase capacity on an SOV facility of functional class 1 (limited access highway), 2 (principal arterial) or 5 (grade-separated interchange on limited access highway).

b. *If the answer to Question 26.a was "yes," are any of the following exemption criteria true about the project? (Choose one, or indicate that none of the criteria apply):*

- *None of the exemption criteria below apply to this project – a Congestion Management Documentation Form is required.*
- *The project will not use federal funds in any phase of development or construction (100% state, local, and/or private funding).*
- *The number of lane-miles added to the highway system by the project totals less than one lane-mile*
- *The project is an intersection reconstruction or other traffic engineering improvements, including replacement of an at-grade intersection with an interchange*
- *The project, such as a transit, bicycle or pedestrian facility, will not allow private single-occupant motor vehicles.*
- *The project consists of preliminary studies or engineering only, and is not funded for construction*
- *Any project whose construction cost is less than $10 million.*

Review the list of potential exemption criteria and determine if any of them are true, thus exempting the project from needing a separate Congestion Management Documentation Form. If more than one criterion is true, please select just one as the primary criterion. Use the pull-down menu to identify the exemption criterion.

c. If the project is not exempt and requires a Congestion Management Documentation Form, click on the link provided to open a blank Congestion Management Documentation Form.

Record Tracking

27. *Completed Year*.....Use this field to indicate the year that the full scope of the project has been opened to traffic or implemented.

28. *Project Withdrawn*.....Use this checkbox to indicate that a project is being withdrawn from the Plan.

29. *Withdrawn Date*.....Provide an approximate date for the withdrawal of the project.

30. Created by.....Identification of who created the record originally.

31. Created On.....Date record was originally created on

32. Last Updater.....Recorded ID of last person to make modifications to record

33. Last Updated On .....Recorded date and time of last modifications to record

34. Comments.....General notes for agency or TPB staff to use.

TIP PROJECT DESCRIPTION FORM INSTRUCTIONS

Funding information should be completed for each project intended for programming in the current TIP. The TIP should show all funds (federal and non-federal) that are expected to be obligated between FY 2015 and FY 2020. Previous fiscal years are shown for historical purposes only and have no bearing on the current fiscal years.

1. *Submitting Agency* .....Automatically displayed based on user's agency.

2. *CLRP Parent Project Name* .....Automatically filled in based on parent project.

3. *Project Name*.....A very brief, public-friendly description of the project phase; e.g. "East Market Street Widening" or "Downtown Circulator Bus." This can be the same as the project name.

4. *Facility* .....These fields should be used to describe actual infrastructure or transit routes. Any of these fields may be left blank and there is no need for redundant entries. If a project can be described adequately in the *Project Title* field, it is not necessary to fill in these fields.

   a. *Prefix*.....*Interstate or State abbreviation for route type, e.g. I, VA, MD, US. Combinations such as VA/US are acceptable.*

   b. *Number*.....*The route number that corresponds with the above prefix.*

   c. *Name* .....*Full name of facility; e.g. "Capital Beltway," "East Street" or "Red Line". To the extent possible, this field should be limited to actual street names or transit routes.*

   d. *Modifier* .....*Any term that needs to be used to further describe a facility, such as "extended", "off-ramp", or "interchange".*

5. *From (At)* .....The beginning project limit or location of a spot improvement. Use the *(At)* checkbox to indicate a spot or interchange improvement. Follow the conventions above for *Prefix, Number, Name* and *Modifier.*

6. *To*.....Terminal project limit. Follow conventions above for *Prefix, Number, Name* and *Modifier.*

7. *Description* .....Describe the project as clearly as possible. Use public-friendly phrasing and avoid technical terms where possible.

8. *Agency Project ID* .....Agencies can use this field to track projects with their own ID systems.

9. *Projected Completion Year*.....Estimated year that the project will be complete.

10. *Project Status*.....Project is delayed, complete, withdrawn, or ongoing

11. *Completed*.....Date the project was completed (open to traffic) or implemented

12. *Environmental Review* .....Type of NEPA documentation required, if any

13. *Review Status*.....Current status of any required NEPA documentation

14. *Bike/Ped Accommodations* .....Indicate using the pull-down menu whether the project is:

    a) *Primarily a bicycle/pedestrian project*,
    b) *Includes accommodations for bicycle/pedestrian users*,
    c) *Does not include accommodations for bicycles/pedestrians*.

15. Complete Streets Policy.....Does your jurisdiction or agency have a Complete Streets Policy?

16. Complete Streets Detail .....Indicate if the project advances the Complete Streets goals of your agency, or if the policy is not applicable or is exempt, and for what reason.

17. Capital Costs

a. *Amount*.....Funds shown in $1,000s

b. *Phase* .....Funds obligated for: a) Planning and Engineering, b) R.O.W. acquisition, c) Construction, d) Studies and e) Other

c. *Fiscal Year* .....Fiscal year in which funds are expected to be obligated

d. *Source*.....Federally recognized source of funds

e. *Fed/State/Local Share*.....Percentage distribution of federal, state and local funds

18. *Creator* .....Recorded ID of the user that created the record

19. *Created On* .....Date record was originally created on

20. *Last Updated On* .....Recorded date and time of last modifications to record

21. Last Updater.....Recorded ID of last person to make modifications to record

CONFORMITY PROJECT INPUT INSTRUCTIONS

2. Conformity ID.....TPB Staff will assign each project a Conformity ID
3. Agency ID .....Agencies can use this field to track projects with their own ID systems.
4. *Improvement*.....Pull-down field to identify type of improvement being made to the facility (e.g. construct, widen, upgrade, etc.)

5. *Facility* .....These fields should be used to describe actual infrastructure or transit routes. Any of these fields may be left blank and there is no need for redundant entries. If a project can be described adequately in the *Project Title* field, it is not necessary to fill in these fields.

   a. Prefix.....Interstate or State abbreviation for route type, e.g. I, VA, MD, US. Combinations such as VA/US are acceptable.

   b. *Number*.....The route number that corresponds with the above prefix.

   c. Name .....Full name of facility; e.g. "Capital Beltway," "East Street" or "Red Line". To the extent possible, this field should be limited to actual street names or transit routes.

   d. Modifier .....Any term that needs to be used to further describe a facility, such as "extended", "off-ramp", or "interchange".

6. From (At) .....The beginning project limit or location of a spot improvement. Use the (At) checkbox to indicate a spot or interchange improvement. Follow the conventions above for Prefix, Number, Name and Modifier.

7. To.....Terminal project limit. Follow conventions above for Prefix, Number, Name and Modifier.

8. Description .....This field is not required but can be used to provide additional information beyond the data in the other fields.

9. Facility Type From/To

   a. *Facility Type From*.....Functional class of facility before improvement

   b. Facility Type To.....Functional class of facility after improvement

10. Lanes From/To

   a. Lanes From .....Number of lanes on facility before improvement

   b. *Lanes To*.....Number of lanes on facility after improvement

11. *R.O.W. Acquired*.....Right-of-way has been acquired for the facility

12. *Under Construction?* .....Construction has begun on the facility

13. *Projected Completion Year*.....Estimated year that the project will be complete.

14. *Completed* .....Date the project was completed (open to traffic) or implemented

15. *Creator* .....Recorded ID of the user that created the record

16. *Created On* .....Date record was originally created on

17. *Last Updated On* .....Recorded date and time of last modifications to record

18. Last Updater.....Recorded ID of last person to make modifications to record

CONGESTION MANAGEMENT DOCUMENTATION FORM FOR SOV PROJECTS

A Congestion Management Documentation Form should be completed for each project or action intended for the Plan that involves a significant increase in single-occupant vehicle (SOV) carrying capacity of a highway.

Brief and complete answers to all questions are recommended. A reference to an external document or an attachment without further explanation on the form itself is not recommended; findings of studies, Major Investment Studies, for example, should be summarized on the form itself. References to other documents can be made if desired *in addition to* the answer provided on the form.

As a rule of thumb, the scale and detail in the responses to the questions should be in proportion to the scale of the project. For example, a relatively minor project needs less information than a major, multi-lane-mile roadway construction project.

The form can summarize the results of EISs or other studies completed in association with the project, and can also summarize the impact or regional studies or programs. It allows the submitting agency to explain the context of the project in the region's already-adopted and implemented programs, such as the Commuter Connections program, and to go on to explain what new and additional strategies were considered for the project or corridor in question.

SAMPLE FORMS

The following pages are samples for the CLRP Project Description Form, TIP Project Description Form, and Congestion Management Documentation Form.

FINANCIALLY CONSTRAINED LONG-RANGE TRANSPORTATION PLAN FOR 2040
PROJECT DESCRIPTION FORM

BASIC PROJECT INFORMATION **CLRP ID**

1. Submitting Agency:
2. Secondary Agency:
3. Agency Project ID:
4. Project Type: _ Interstate _ Primary _ Secondary _ Urban _ Bridge _ Bike/Ped _ Transit _ CMAQ _ ITS _ Enhancement _ Other _ Federal Lands Highways Program _ Human Service Transportation Coordination _ TERMs
5. Category: _ System Expansion; _ System Maintenance; _ Operational Program; _ Study; _ Other
6. Project Name:

	Prefix	Route	Name	Modifier
7. Facility:				
8. From (_ at):				
9. To:				

10. Description:

11. Projected Completion Year:
12. Project Manager:
13. Project Manager E-Mail:
14. Project Information URL:
15. Total Miles:
16. Schematic:
17. Documentation:
18. Jurisdictions:
19. Baseline Cost (in Thousands): cost estimate as of MM/DD/YYYY
20. Amended Cost (in Thousands): cost estimate as of MM/DD/YYYY
21. Funding Sources: _ Federal; _ State; _ Local; _ Private; _ Bonds; _ Other

MAP-21 PLANNING FACTORS

22. Please identify any and all planning factors that are addressed by this project:
    a. _ Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
    b. _ Increase the **safety** of the transportation system for all motorized and non-motorized users.
        i. Is this project being proposed specifically to address a safety issue? _ Yes; _ No
        ii. If yes, briefly describe (in quantifiable terms, where possible) the nature of the safety problem:
    c. _ Increase the ability of the transportation system to support **homeland security** and to safeguard the personal security of all motorized and non-motorized users.
    d. _ Increase **accessibility and mobility** of people.

e. _ Increase accessibility and mobility of **freight.**

f. _ Protect and enhance the **environment**, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

g. _ Enhance the **integration and connectivity** of the transportation system, across and between modes, for people and freight.

h. _ Promote efficient system **management and operation**.

i. _ Emphasize the **preservation** of the existing transportation system.

ENVIRONMENTAL MITIGATION

23. Have any potential mitigation activities been identified for this project? _ Yes; _No
    a. If yes, what types of mitigation activities have been identified?
    _ Air Quality; _ Floodplains; _ Socioeconomics; _ Geology, Soils and Groundwater; Vibrations;
    _ Energy; _ Noise; _ Surface Water; _ Hazardous and Contaminated Materials; _ Wetlands

CONGESTION MANAGEMENT INFORMATION

24. Congested Conditions
    a. Do traffic congestion conditions necessitate the proposed project or program? _ Yes; _ No
    b. If so, is the congestion recurring or non-recurring? _ Recurring; _ Non-recurring
    c. If the congestion is on another facility, please identify it:
25. Capacity
    a. Is this a capacity-increasing project on a limited access highway or other principal arterial? _ Yes; _ No
    b. If the answer to Question 26.a was "yes", are any of the following exemption criteria true about the project? (Choose one, or indicate that none of the exemption criteria apply):

    _ None of the exemption criteria apply to this project – a Congestion Management Documentation Form is required
    _ The project will not use federal funds in any phase of development or construction (100% state, local, and/or private funding)
    _ The number of lane-miles added to the highway system by the project totals less than one lane-mile
    _ The project is an intersection reconstruction or other traffic engineering improvement, including replacement of an at-grade intersection with an interchange
    _ The project, such as a transit, bicycle or pedestrian facility, will not allow private single-occupant motor vehicles
    _ The project consists of preliminary studies or engineering only, and is not funded for construction
    _ The construction costs for the project are less than $10 million.

    c. If the project is not exempt and requires a Congestion Management Documentation Form, click here to open a blank Congestion Management Documentation Form.

RECORD MANAGEMENT

26. Completed Year:
27. _ Project is being withdrawn from the CLRP.
28. Withdrawn Date: MM/DD/YYYY
29. Record Creator:
30. Created On:
31. Last Updated by:
32. Last Updated On:
33. Comments:

TRANSPORTATION IMPROVEMENT PROGRAM FOR FY 2015-2020 PROJECT DESCRIPTION FORM

BASIC PROJECT INFORMATION

1. Submitting Agency:
2. CLRP Parent Project Name:
3. Project Name:

	Prefix	Route	Name	Modifier
4. Facility:				
5. From (_ at):				
6. To:				

7. Description:
8. Agency Project ID:
9. Projected Completion Year:
10. Project Status: _ New Project
    _ In previous TIP, proceeding as scheduled
    _ In previous TIP, delayed or reprogrammed
11. Completed:

Environmental Review

12. Type: _ PCE; _ CE; _ DEA; _ EA; _ FONSI; _ DEIS; _ FEIS; _ F4; _ N/A
13. Status: _ Proposed for preparation; _ Under preparation; _ Prepared for review; _ Under review; _ Approved

Complete Streets

14. Bicycle/pedestrian Accommodations:
    _ Primarily a bicycle/pedestrian project
    _ Bicycle/pedestrian accommodations included
    _ No bicycle/pedestrian accommodations included
    _ Not applicable
15. Does your jurisdiction or agency have a Complete Streets policy? _ Yes _ No (If Yes, answer #16)
16. Choose one of the following:
    _ Complete Streets policy is not applicable to this project
    _ This project advances our Complete Streets goals
    _ This project is exempt (Identify exemption from menu below)
        _ Grandfathered
        _ User group prohibited by law
        _ Excessive cost
        _ Absence of need
        _ Environmental
        _ Historic Preservation
        _ Accommodation of user group contrary to Jurisdiction/agency policy or plans

Capital Costs

FISCAL YEAR	AMOUNT	PHASE	SOURCE	FED	STA	LOC

DRAFT

2014 CLRP FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Conformity ID	Agency ID	Improvement	Facility	From	To	Facility Type		Lanes		Under Const. or ROW acquired?	Complt. Date or Status
						from	to	from	to		
Agency Name											

ITEM 8 – Information
October 16, 2013

Discussion of the Revised Draft TPB Regional Transportation Priorities Plan (RTPP)

Staff Recommendation: Receive:

- update on the September 27th COG Economy Forward event on regional activity centers and transportation priorities;
- briefing on the revisions made to the priorities plan in response to the comments received to date; and
- proposed schedule for further public comment, followed by revision and TPB adoption of the plan.

Issues: None

Background: The TPB Regional Transportation Priorities Plan (RTPP) is being developed to identify regional strategies that offer the greatest potential contributions toward addressing regional challenges. At the September 18 meeting, the Board was briefed on the comments received on the draft plan released on July 24.

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

MEMORANDUM

Date: October 10, 2013

To: Transportation Planning Board

From: Ronald F. Kirby
Director, Department of
Transportation Planning

Re: Responses to Comments Received on the
Draft TPB Regional Transportation Priorities Plan (RTPP)

Following the work session and briefing at the July 17 TPB meeting, a draft version of the RTPP report was released for a 30-day public comment period on July 24. Comments received during this period have been posted on the TPB's "Regional Transportation Priorities Plan" web-site. In addition to these comments, TPB staff has assembled and reviewed comments made by respondents in optional comment boxes in the web-based survey of 660 residents of the Washington region, as well as those by individuals who took this survey after it was made available to other groups and the general public on July 24. All of these comments are also now available for review on the TPB's RTPP web-site, grouped into two categories: those associated with the selected sample of 660 residents; and those associated with other groups and the general public. (In the first category, 418 respondents provided a total of 1887 optional comments, an average of 4.5 comments per respondent. In the second category, 78 of the 141 individuals who took the survey provided 492 optional comments, an average of 6.3 comments per individual.)

The TPB was briefed on the comments received on the draft RTPP at its September 18 meeting, as well as on potential revisions to the plan. In general, the comments received reflected a good understanding of the information presented in the draft RTPP document, and in the web-based survey. Staff has developed a revised version of the RTPP document for release at the October 10 Citizens Advisory Committee meeting and presentation at the October 16 TPB meeting. Another 30 day comment period is being provided on the revised document, from October 11 through November 10. In addition to the comments received to date, staff has also addressed in the revisions to the RTPP key comments received at the recent COG Economy Forward event held on September 27. (A summary report on this event is attached to this memorandum). Comments received by November 10 will be incorporated into a revised version for release at the November 14 CAC meeting and presentation at the November 20 TPB meeting. It is anticipated that the final RTPP document will be scheduled for approval by the TPB at its December 18 meeting.

Review of the comments received to date suggested that the following key topics should be clarified or expanded upon in the revised version of the RTPP:

(1) The relationship between regional strategies and specific programs and projects
(2) The process by which challenges and strategies were developed for the RTPP
(3) Tolling of existing highway lanes
(4) The relationship between the RTPP and COG's Region Forward initiative
(5) The relationship between the RTPP and the CLRP
(6) The relationship between the RTPP and Metro's "Momentum" strategic plan

(1) <u>The relationship between regional strategies and specific programs and projects</u>

There were some comments relating to the lack of specific programs and projects in the RTPP, and the exclusive focus on regional strategies. The relationship between strategies, programs, and projects was considered and discussed at some length in the development of the RTPP work scope approved by the TPB in July of 2011. The work scope called for a focus on regional strategies that offer the greatest potential toward addressing regional challenges and that the public can support. A major focus of the RTPP work effort has been in communicating regional goals, challenges, and strategies to representative groups of the public in the region, and seeking their comments and responses. This involved presenting challenges and strategies in a form to which the public could relate and respond. Potential benefits and costs of alternative strategies were presented in largely qualitative terms that would allow survey respondents to provide some rankings of the relative importance of alternative approaches. Respondents were invited to suggest additional strategies in optional comments boxes.

As the RTPP process moves forward, highly ranked strategies can be developed into more specific programs and projects, including those aimed at system maintenance and operations as well as location-specific improvements in system capacity. An in-depth review of benefits and costs based on quantification of program components and location specific factors will be necessary for this level of assessment. The recent "bus-on-shoulder" discussions conducted for a TPB Task Force illustrate the complexity and effort involved in taking a broad strategy like "bus-on-shoulder" to the level of location-specific projects.

Revisions to Draft RTPP: Additional text included under "RTPP Scope" in Chapter 1.

(2) <u>The process by which challenges and strategies were developed for the RTPP</u>

The challenges and strategies presented in the RTPP were developed by TPB staff based on the range of technical data and forecasting resources available within the TPB process, the input of the TPB and its committees, and subcommittees, and the ongoing suggestions of citizen and stakeholder groups. The overall objective of this effort was to frame the challenges and strategies in a form that could be readily understood and commented upon by members of the general public, most specifically in the form of a web-based survey. This provided an opportunity to obtain feedback from a representative sample of the region's citizens, and resulted in some valuable insights on how best to frame the priorities in the RTPP.

Revisions to Draft RTPP: Additional text included under the "Public Outreach" section of Chapter 1.

(3) Tolling of existing highway lanes

A number of comments urged that the RTPP should include a strategy of applying congestion pricing by tolling all existing highway lanes. The TPB has conducted a number of scenario studies involving the tolling of a significant number of existing highway lanes (including the major parkways, for example), and recently completed a study funded by the Federal Highway Administration (FHWA) of the public acceptability of congestion pricing in the Washington region. This latter study included three different congestion pricing scenarios, all of which included pricing of some existing highway lanes, and one of which included pricing of the entire highway system. The study found support for some of the scenarios, but also found significant concerns about a number of aspects of the pricing proposals.

During the course of the FHWA sponsored study of the public acceptability of congestion pricing, the new MAP-21 legislation enacted in July of 2012 included language which permits certain types of toll-financed construction activities, including: new highways; new lanes added to existing highways (so long as the number of existing toll-free lanes is not reduced); reconstruction of highways (non-Interstate only); reconstruction or replacement of bridges or tunnels; and capital improvements to existing toll facilities. Also permitted is conversion of high-occupancy vehicle (HOV) lanes to high-occupancy toll (HOT) lanes, both on and off the Interstate system.

Some limited opportunities to toll existing highway lanes are provided under MAP-21 through two pilot programs: the Interstate System Reconstruction and Rehabilitation Pilot Program (ISRRPP) and the Value Pricing Pilot Program (VPPP). The ISRRPP is currently available to only three states (North Carolina, Missouri, and Virginia), and requires approval of a program application by the Federal Highway Administration (FHWA).

With regard to the VPPP, MAP-21 continues FHWA's ability to enter into cooperative agreements, but no additional funds are available after Fiscal Year 2012 for discretionary grants to the 15 state agencies currently authorized to participate. (The District of Columbia, Maryland, and Virginia are included among these 15 authorized agencies). FHWA has indicated that requests for tolling authority under the VPPP will be limited to situations that cannot be accommodated under the mainstream tolling programs, such as the pricing of existing toll-free facilities without substantial reconstruction of those facilities.

As a result of these new MAP-21 legislative provisions, the TPB Aspirations Scenarios were revised to remove any instances where the number of toll-free lanes would be reduced. The results of the revised scenarios were reported to the TPB in April of 2013, and were used in the RTPP web-based survey and subsequent July 2013 draft RTPP report.

Revisions to Draft RTPP: Additional text included under the description of Strategy LT1 in Chapter 3.

(4) The relationship between the RTPP and COG's Region Forward Initiative

The relationship between the RTPP and Region Forward is discussed briefly in Chapter 1 of the RTPP. A September 27, 2013 COG event, "Economy Forward: Help Shape the Future of the Region," provided an opportunity for regional decision-makers and stake-holders to discuss the relationship between Region Forward, Economy Forward, the Regional Activity Centers Strategic Development Plan, and the RTPP. A brief summary report for this event has been developed and is attached to this memorandum. A more in-depth report which analyzes all of the comments recorded from the 16 discussion tables will be developed over the next three months.

The September 27 event was facilitated by America Speaks, and included more than 100 leaders from around metropolitan Washington; elected officials, government staff, business community and non-profit sector representatives, and citizen leaders. An overview presentation and hand-out document outlined the relationships between Region Forward, Economy Forward, and the key components of the Activity Centers Development Plan and the RTPP. Electronic polling of the participants by America Speaks provided the following viewpoints:

(a) Regional Issues of Greatest Concern

- Integrating various planning processes like transportation, environment, and development
- Committing to funding transportation

(b) Creating Vibrant Activity Centers: "Most Important"

- Improve accessibility to and within Activity Centers through a variety of transportation options
- Create places where people want to be; attractive and welcoming to diverse groups

(c) Creating Vibrant Activity Centers – "Most Challenging"

- Make affordable housing options available
- Ensure a balance of jobs and housing

(d) Regional Transportation Priorities – "Most Important"

- Develop a dedicated funding stream (gas tax, sales tax, etc)
- Use what we already have (existing transportation infrastructure) to create new options

(e) Regional Transportation Priorities – "Most Challenging"

- Develop a dedicated funding stream (gas tax, sales tax, etc)
- Create a regional transportation authority with power to regulate, prioritize, and implement

(f) Regional Transportation Priorities – "Gems"

- Make transportation network more adaptable to meet the needs of future growth, even those we can't foresee

- Get region to advocate together in states and on the Hill for transportation funding

Key outcomes of the September 27 event have been incorporated into the October 10 version of the RTPP. A major theme is the need for more collaboration among the area's local jurisdictions, stakeholders, and citizens to advance regional priorities, recognizing that transportation and land use decision-making is very decentralized throughout the region. Success will require greater focus on "thinking regionally, acting locally."

Revisions to Draft RTPP: Additional text included in Chapter 5

(5) The relationship between the RTPP and the CLRP

The draft RTPP report noted that the TPB will soon initiate steps toward the next federally required four-year update of the CLRP, and that the results of the RTPP should be considered in this significant CLRP update. (The 2010 CLRP update was approved the TPB on November 17, 2010, and approved by FHWA and FTA on February 9, 2011. The 2014 update must be completed within four years of these dates.)

A number of comments sought additional information on the CLRP update process, and the revised RTPP report will address this topic in greater detail. Perhaps most important is that the adopted 2012 CLRP formed the baseline for the development of the RTPP. Challenges, strategies, and priorities identified in the RTPP were developed based on the assumption that the 2012 CLRP will be implemented in accordance with the schedule defined in the documents adopted by the TPB on July 18, 2012. A number of significant projects currently under development but not yet implemented are included in the 2012 CLRP, and were therefore not considered in the formulation of challenges, strategies and priorities. Notable examples include completion of the 23.1 mile Silver Line to Loudoun County, the Potomac Yard Metrorail Station, the Anacostia and H Street phases of the District of Columbia Streetcar project, the Columbia Pike Streetcar, the Corridor Cities Transitway in Montgomery County, and the Purple Line from Bethesda to New Carrollton.

Additional discussion will be provided on the continuing and cooperative nature of the CLRP process, and the relationship between inclusion of programs and projects in the CLRP and the extensive location specific studies conducted by sponsoring agencies. It will be noted in particular that the CLRP is not "carved in stone", and that in the past CLRP projects have been modified and even removed entirely along with the addition of new programs and projects. In addition, the report will note that the TPB is launching a new "Transportation Planning Information Hub for the National Capital Region" that will describe transportation planning activities at the regional, state, and local levels, and provide links to high profile projects, documents, and resources.

The TPB is scheduled to approve the "Call for Projects" document for the 2014 CLRP update at its November 20 meeting. The document references the RTPP development process, and lists the three priority categories from the draft RTPP:

Priority One: Strategies that Address Metro and Highway Repair Needs

Priority Two: Strategies that Address Transit Crowding and Roadway Congestion

Priority Three: Strategies that Address Special Focus Areas

The Call for Projects document urges implementing agencies to consider these priority strategies as they develop project submissions for the 2014 CLRP. On-line submissions of draft project inputs are due on December 13, 2013. As these submissions are submitted and reviewed over the coming months, their relationship to the RTPP priority strategies will be assessed and discussed.

Revisions to Draft RTPP: Additional text included in Chapter 5.

(6) The relationship between the RTPP and Metro's "Momentum" strategic plan

Metro's "Momentum" strategic plan document was developed and reviewed during the spring and summer of 2013, somewhat in parallel with the web-based survey and drafting of the July 24, 2013 version of the RTPP. "Momentum" identifies three major activities: rehabilitate and maintain the existing system; increase system and core capacity and improve the effectiveness of the rail and bus networks (Metro 2025); and a long-range Regional Transit System Plan which is still under development (Metro 2040).

The first two of these three Momentum elements are already fairly well defined and consistent with Priority One (Metro and Highway Repair Needs) and Priority Two (Address Transit Crowding and Roadway Congestion) in the RTPP, and these Momentum elements will be included explicitly in the discussion of Priorities One and Two in the Recommendations chapter of the RTPP. If specific project elements and funding mechanisms can be identified for these two elements of Momentum in the next few months, they could be considered for incorporation in the upcoming 2014 update of the CLRP.

Revisions to Draft RTPP: Additional text included in Chapter 5.

(7) Longer-Range Studies and Initiatives

A number of longer-range studies and initiatives are underway throughout the region which currently are not far enough advanced to be submitted as projects for inclusion in the CLRP. Some of these studies might eventually lead to projects which could be supportive of the priority strategies defined in the RTPP. Examples include the Long Bridge Study to identify increased capacity for commuter rail services, Metro's Regional Transit System Plan to identify significant long-term capacity increases in the regional transit system, a Commuter Ferry Study, a bus rapid transit system in Montgomery County, multi-modal studies of the I-66, I-270, and I95/495 corridors, and additional streetcar lines in the District of Columbia. The TPB's new "Transportation Planning Hub for the National Capital Region" will provide a means of integrating up-to-date information on these studies into the RTPP/CLRP process.

Revisions to Draft RTPP: Additional text included in Chapter 5.

ECONOMY FORWARD
HELP SHAPE THE FUTURE OF THE REGION

Summary Report

Economy Forward
Washington, D.C. – September 27, 2013

More than 100 leaders from around metropolitan Washington – elected officials and community representatives - met last week to identify the most important steps needed to develop the region and ensure it remains one of the world's most attractive places to live and do business.

The day-long, interactive session also produced strong support for more collaboration among the area's local jurisdictions, stakeholders and citizens to advance regional priorities. The meeting focused on transportation and land-use concerns, which grew out of a series of strategies called *Economy Forward* developed in 2012 at the Metropolitan Washington Council of Governments. The strategies aim to connect a diverse web of Activity Centers – or mini-downtown locations that include residential, business and retail segments – to convenient transit and transportation hubs.

The participants were seated around large round tables to discuss the need to increase regional collaboration, develop strong Activity Centers and improve support for the region's transportation needs. Between a third and half of the participants were already familiar with those proposals. Using computers and voting keypads, the participants' conclusions were tabulated by America Speaks, a nonprofit company that specializes in enhancing citizen engagement.

This document summarizes the ideas generated by participants in the meeting and polling results.

Preliminary Polling: Who was at the meeting and what did they know about the plans?

Where do you live?

DC	21%
Maryland	31%
Virginia	48%

What sector do you represent?

Elected Office	14%
Government Staff	30%
Business	13%
Non-profit	24%
Community/Citizen Leader	14%
Other	6%

What best describes your knowledge of the Regional Transportation Priorities Plan?

I know a lot	39%
I know some	45%
I don't know much at all	15%

What best describes your knowledge of the Activity Centers Strategic Development Plan?

I know a lot	35%
I know some	55%
What's an Activity Center?	10%

What best describes your knowledge of Region Forward or Economy Forward?

I know a lot about both	35%
I know a lot about Region forward, but not Economy Forward	36%
I know a lot about Economy forward, but not Region Forward	4%
I don't know much about either, but I am a forward thinker	25%

Table Discussions

Over the course of several hours, participants talked in small groups and generated ideas around each of the following topics:

- Regional Issues of Greatest Concern
- Challenges to Collaboration
- Creating Vibrant Activity Centers
- Regional Transportation Priorities

For each discussion, the theme team reviewed ideas from the table discussions and generated a list of the most common themes from all the tables which was then reported back to participants. For all but the Regional Issues discussion, the participants were then asked to use their individual polling keypads to prioritize the list of themes.

Regional Issues of Greatest Concern

- Integrating various planning processes like transportation, environment & development so we don't miss the boat
- Committing to funding transportation
Ensuring that economic development is coordinated, equitable, and forward-looking
- Overcoming competition between our jurisdictions – need to collaborate to be competitive as a region
- Providing greater transportation connectivity and options
- Planning for environmental sustainably
- Reduce congestion

Challenges to Collaboration

Which 2 of these challenges are holding us back the most in acting regionally? (% of participants)

- No regional decision-making and implementation authority – "region needs one voice" (55%)
- No incentive for regional collaboration – "we've never had an economic incentive to collaborate" (49%)
- Competition between jurisdictions (37%)
- Too much fragmentation of services and funding (21%)
- Lack of communication regarding goals and priorities at each level of government (15%)
- Not enough trust between local governments and business - "businesses often see government as adversarial" (10%)

Creating Vibrant Activity Centers

For creating vibrant activity centers, which 3 will be the most <u>important</u> to implement? (% of participants)

- Improve accessibility to and within Activity Centers through a variety of transportation options (54%)
- Focus development around existing infrastructure and transportation (49%)
- "Create places where people want to be" – "attractive & welcoming to diverse groups" (38%)
- Ensure a balance of jobs and housing (32%)
- Invest strategically in specific Activity Centers (29%)
- Understand unique characteristics and market conditions of each Activity Center (27%)
- Build public-private partnerships; leverage private investment (24%)
- Increase public involvement to identify local priorities (ex. Charrettes) (17%)
- Make affordable housing options available (14%)

For creating vibrant activity centers, which 3 will be the most <u>challenging</u> to implement? (% of participants)

- Make affordable housing options available (77%)
- Ensure a balance of jobs and housing (50%)
- Invest strategically in specific Activity Centers (36%)
- Improve accessibility to and within Activity Centers through a variety of transportation options (33%)
- Build public-private partnerships; leverage private investment (30%)
- Increase public involvement to identify local priorities (ex. Charrettes) (26%)
- "Create places where people want to be" – "attractive & welcoming to diverse groups" (17%)
- Focus development around existing infrastructure and transportation (14%)
- Understand unique characteristics and market conditions of each Activity Center (0%)

Regional Transportation Priorities

Which 3 will be most <u>important</u> in implementing our regional transportation priorities? (% of participants)

-Develop a dedicated regional funding stream (gas tax, sales tax, etc) (58%)
-Use what we already have (existing transportation infrastructure) to create new options (42%)
-Increase public engagement so people better understand needs, priorities & consequences of not acting (36%)
-Build partnerships with big employers to anchor activity centers – Federal government, hospitals, etc (34%)
-Create a performance system with measurable goals and outcomes (34%)
-Create a regional transportation authority with power to regulate, prioritize & implement (32%)
-Focus on small improvements first "low hanging fruit" that has a big pay off to rebuild public trust (28%)
-Move beyond the big picture to identify specific priority projects (13%)

Regional Transportation Priorities Continued

Which 3 will be most <u>challenging</u> in implementing our regional transportation priorities? (% of participants)

-Develop a dedicated regional funding stream (gas tax, sales tax, etc) (84%)
-Create a regional transportation authority with power to regulate, prioritize & implement (80%)
-Create a performance system with measurable goals and outcomes (33%)
-Build partnerships with big employers to anchor activity centers – Federal government, hospitals, etc (27%)
-Increase public engagement so people better understand needs, priorities & consequences of not acting (20%)
-Move beyond the big picture to identify specific priority projects (13%)
-Use what we already have (existing transportation infrastructure) to create new options (7%)
-Focus on small improvements first "low hanging fruit" that has a big pay off to rebuild public trust (0%)

ECONOMY FORWARD
HELP SHAPE THE FUTURE OF THE REGION

In addition to identifying the most common ideas, the theme team also identified some "gems": ideas that only appeared once, but seemed interesting and worth sharing with all of the participants.

Creating Vibrant Activity Centers - GEMS

- Create a regional infrastructure bank to develop new revenue sources
- "Health needs to be part of the vision for activity centers"
- Create incentives for home ownership (not rentals)
- Make information about transportation systems integrated and accessible to all

Regional Transportation Priorities - GEMS

- Make transportation network more adaptable to meet the needs of future growth, even those we can't foresee
- Get region to advocate together in States & the Hill for transportation funding

Regional Transportation Priorities Plan

For the National Capital Region

REVISED DRAFT – For Review

October 10, 2013

The National Capital Region Transportation Planning Board **(TPB)**
The Metropolitan Washington Council of Governments **(MWCOG)**

TPB National Capital Region Transportation Planning Board

Table of Contents

EXECUTIVE SUMMARY

The Regional Transportation Priorities Plan is designed to advance regional goals for economic opportunity, environmental stewardship, and quality of life. Building upon the region's successes and learning from its shortcomings, the Plan is intended to generate consensus around key actions that people from all corners of the region can get behind.

The Plan identifies key transportation strategies that are recognized throughout the region as offering the greatest potential contributions to addressing continuing regional challenges. Ultimately, the Plan will support efforts to incorporate those strategies into future updates of the region's Constrained Long-Range Transportation Plan (CLRP).

Background: The Metropolitan Washington Region and the TPB

The metropolitan Washington region is the area where most of us live, work, shop, and play. The region includes the District of Columbia plus parts of Maryland and Virginia. The entire area is approximately 3,000 square miles in size.

Within this region, there are more than 5.1 million people and 3.2 million jobs in hundreds of communities linked together by a system of roads, transit lines, and bicycle and pedestrian paths. Both population and employment in the region are expected to continue growing over the coming decades. Between 2010 and 2040, the population is expected to increase by 24 percent to 6.4 million people, while employment is expected to increase by 36 percent to 4.4 million jobs.

The Transportation Planning Board (TPB)

The National Capital Region Transportation Planning Board (TPB) is the federally designated Metropolitan Planning Organization (MPO) for the region, and plays an important role as the regional forum for transportation planning. The TPB is responsible for carrying out a continuing, cooperative, and comprehensive planning process for regional transportation planning in the District of Columbia, Northern Virginia, and Suburban Maryland. The TPB prepares plans and programs that must receive federal approval in order for federal-aid transportation funds to flow to the Washington region.

Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia, the District of Columbia, local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and non-voting members from the Metropolitan Washington Airports Authority and federal agencies.

The TPB Vision

Adopted by the TPB in 1998, the *Vision* provides a set of goals, objectives, and strategies to help the region develop the transportation system it needs to promote economic development, environmental protection, and a high quality of life. The following six goals derived from the *TPB Vision* provide a foundation for the Regional Transportation Priorities Plan process:

- Provide a Comprehensive Range of Transportation Options for Everyone
- Promote a Strong Regional Economy, Including a Healthy Regional Core and Dynamic Regional Activity Centers
- Ensure Adequate Maintenance, Preservation, and Safety of the Existing System
- Maximize Operational Effectiveness and Safety of the Transportation System
- Enhance Environmental Quality, and Protect Natural and Cultural Resources
- Support International and Inter-regional Travel and Commerce

The Financially Constrained Long-Range Transportation Plan (CLRP)

The CLRP identifies regionally significant transportation projects and programs that are planned in the Washington metropolitan area through 2040. A key feature of the CLRP is that it must be financially constrained: the plan includes only those projects that the region can afford to build, maintain, and operate with revenues that are reasonably expected to be available in the future. By definition, the CLRP may not include projects that are not anticipated to be funded – even if those projects are considered priorities by the region's jurisdictions.

More than 750 projects are included in the CLRP, ranging from simple highway landscaping to billion-dollar highway and transit projects. The projects and programs that go into the plan are developed cooperatively by governmental bodies and agencies represented on the TPB. Some of the projects will be completed in the near future, while others are in the initial planning stages and are scheduled for completion over the longer term.

Developing the Regional Transportation Priorities Plan

The concept of a priorities plan has its roots in more than a decade of TPB planning, including the establishment of regional goals through the *TPB Vision,* analysis of transportation and land-use scenarios using the adopted CLRP as a baseline, and various studies of the region's transportation funding challenges. In recent years, the TPB has extensively discussed how these activities might be applied to defining priorities for improving the regional transportation system.

The ultimate purpose of the Regional Transportation Priorities Plan (RTPP) is to highlight priorities that should be funded and included in the region's Constrained Long-Range Transportation Plan (CLRP). Because projects cannot be part of the CLRP if funding is not anticipated and because the TPB has little direct control over funding, the actual implementation of priorities, in most cases, will occur at the state and local levels.

The term "regional" is used throughout this document to refer to the National Capital Region. While many worthwhile transportation strategies are developed in response to state, sub-regional or local

challenges, not all of these strategies will contribute significantly to addressing regional challenges. Similarly, some strategies for providing facilities and services across regional or jurisdictional boundaries, such as adding "missing links" in the bicycle trail network, for example, may contribute significantly to addressing regional challenges while not being the highest priority for addressing individual state, sub-regional, or local challenges.

The timing of the RTPP report for the beginning of FY 2014 is designed to ensure that the results of the regional transportation priorities plan are available for consideration in the development of the next four year update of the TPB's Constrained Long Range Plan (CLRP), due at the end of the calendar year 2014. As with the CLRP, the priorities plan should be revisited and updated on a periodic basis to reflect changes in the CLRP baseline, new land use developments and forecasts, and new challenges which will occur as new policy issues arise over time.

Challenges and Strategies

The region's Financially-Constrained Long-Range Transportation Plan (CLRP) identifies regionally significant transportation projects and programs planned in the Washington metropolitan area through 2040. When coupled with accompanying forecasts of land use patterns through 2040, the CLRP provides a baseline of information that can be used to assess the challenges our region continues to face in achieving our adopted regional goals. This document reviews each of the six TPB Vision goals in turn, summarizing "where we are now and where we are headed" under the assumptions and forecasts contained in the CLRP, and characterizing the most significant challenges the region faces in achieving each of the six goals.

This document also outlines a set of regional strategies, each designed to address one or more of the challenges. The strategies are presented in three distinct categories corresponding to the time frame over which they would be implemented: near term (could be completed in one to five years), ongoing (should be conducted on a continuing basis), and long-term (would take several years to accomplish). We briefly describe each strategy ("what we should do"), and we present the case for pursuing the strategy ("why we should do it") in terms of the potential benefits relative to the costs.

A major focus of the RTPP work effort has been on communicating the goals, challenges and strategies to representative groups of the public in the region, and seeking their comments and responses. A citizens forum was held on June 2, 2012, in which the non-profit public outreach organization America Speaks facilitated an in-person discussion of the goals, challenges, and strategies. The discussion was conducted with 41 people selected to constitute a fairly representative sample of the region in terms of home jurisdiction, race and ethnicity, gender, and other important characteristics. Based on the information obtained at this citizens forum, a web-based survey was designed to solicit input on the goals, challenges, and strategies from a representative sample of 660 people from throughout the region using Metro Quest public engagement software. The survey was designed to be visually engaging and educational, and was conducted between April and July of 2013.

Setting Regional Priorities

The results of the web-based survey provide a valuable starting point for assessing the challenges facing the region and prioritizing the strategies that offer the greatest potential for addressing them. Public response to pilot testing of the web-based survey and to the full regional survey of 660 residents suggested that members of the public understood the descriptions of goals, challenges, and strategies

presented to them, and provided meaningful responses to the questions asked. The survey results describe how a representative sample of how the region's residents rank the relative importance of the challenges and strategies presented.

The four challenges that were identified by survey respondents as the most significant region-wide were, in order: transit crowding, Metro repair needs, roadway congestion, and roadway repair needs. Perhaps the most striking finding was that transit crowding was identified as the most significant regional challenge overall among respondents in all three sub-regional areas (regional core, inner suburbs, and outer suburbs) and across users of all modes of transportation (except that transit users identified roadway congestion as slightly more significant). Further, Metro repair needs was identified as a top challenge by residents throughout the region and by users of all modes.

A review of the goals and challenges, the strategies and the results of the web-based public opinion survey suggests that the strategies can be grouped into three priority categories, as follows:

Priority One: Strategies that Address Metro and Highway Repair Needs

Priority Two: Strategies that Address Transit Crowding and Roadway Congestion

Priority Three: Strategies that Address Special Focus Areas

Priority One: Strategies that Address Metro and Highway Repair Needs

Metro and highway repair needs are addressed by just two specific strategies: Metro maintenance and highway maintenance. Implementation of these strategies is the responsibility of the transportation agencies that own and operate the region's transit and highway facilities, and are accomplished through adequate funding of and management by those agencies.

A new focus on "state of good repair" of transit and highway facilities was signed into law on July 6 of 2012 in the form of a two-year reauthorization of the federal surface transportation program entitled "Moving Ahead for Progress in the 21st Century (MAP-21)." State transportation agencies, federally assisted transit agencies, and metropolitan planning organizations (MPOs) like the TPB will be required under this new law to adopt a performance-based planning and programming approach to addressing state of good repair of transit and highway facilities. These new MAP-21 requirements provide an excellent opportunity for the TPB, the state transportation agencies, and the region's transit agencies to significantly increase the region's focus and attention on this first category of strategies dealing with Metro and highway repair needs. As work begins throughout the region to develop a major four-year update to the CLRP in 2014, Metro and highway maintenance should be given the highest priority in program development and allocation of funding.

Priority Two: Strategies that Address Transit Crowding and Roadway Congestion

Transit crowding and roadway congestion are addressed by a number of different strategies that can and should be applied in combination. Some of these strategies are concerned with the supply side of the transit and roadway systems: Metro and highway maintenance as discussed under Priority One; near-term roadway improvements to alleviate bottlenecks; better access to bus stops and rail stations; ongoing roadway management and efficiency programs to smooth traffic flow and minimize delays; expanded pedestrian infrastructure; bus priority treatments; and long-term investments in increased

capacity of the rail and bus network, including eight-car Metro trains, station enhancements, and bus rapid transit on express toll lanes. Other strategies are concerned with the demand side: near-term commute alternative programs and long-term concentration of more growth in mixed-use activity centers that can be served efficiently by high capacity rail and bus transit and that will promote more bicycling and walking in place of vehicle trips.

An integrated approach incorporating both supply and demand side strategies needs to be taken to addressing the twin challenges of transit crowding and roadway congestion. Neither supply side nor demand side strategies should be adopted in isolation; only the effective integration of both supply and demand side strategies can produce significant long-term improvements in travel conditions throughout the region. And on the supply side, a multi-modal approach is essential. The top ranking ascribed to the transit crowding challenge by survey respondents across the region and by users of all transportation modes, many of whom are probably infrequent users of the transit system, demonstrates that the public recognizes and appreciates the inter-connected nature of the roadway, transit, pedestrian, and bikeway systems. For the system to function well overall, all of the component parts must function well.

Priority Three: Strategies that Address Special Focus Areas

The web-based survey results rated all of the regional challenges identified in the survey as being significant issues standing in the way of achieving our regional goals. The top four challenges of transit crowding, Metro repair needs, roadway congestion, and roadway repair needs and the strategies that address them have been grouped and address above as Priority One and Priority Two recommendations for the Regional Transportation Priorities Plan. The other challenges and the strategies that address them are presented as Priority Three recommendations: significant issues and drawing strong support, but receiving lower levels of support than the Priority One and Priority Two categories.

The relatively lower levels of support for strategies in this category may reflect the fact that they tend to be focused on challenges that are less apparent to the regional community as a whole. Nevertheless, meeting the mobility needs of people with disabilities, expanding bicycle infrastructure, encouraging alternative fuel vehicles, and updating and enforcing traffic laws to make roadways safer for all users all received significant support in the survey, and all deserve continuing attention in the regional transportation planning process.

Process Strategies

The web-based survey included three additional polling questions designed to assess the public's views about the following topics: confidence in transportation agencies; the importance of public information campaigns; and potential opposition to higher density development near transit stations. The responses to these questions suggest that implementation of the priority strategies discussed above should include the following process strategies: provide sufficient transparency to inspire confidence in the actions of the implementing agencies; make maximum use of public information campaigns; and provide opportunities for involvement of all affected parties when high density development is being considered.

Addressing Regional Priorities in the Constrained Long-Range Plan (CLRP)

The Regional Transportation Priorities Plan (RTPP) is designed to highlight challenges that the Washington region continues to face in achieving its regional transportation goals and strategies for addressing those challenges. The timing of this RTPP document provides an opportunity for the region's decision-makers to consider the three categories of priority strategies along with the three process strategies as part of the next four year update of the TPB's Constrained Long Range Plan (CLRP), due at the end of calendar year 2014.

Updating the CLRP is a continuing and cooperative process with close relationships between inclusion of programs and projects in the CLRP and the extensive location specific studies conducted by sponsoring agencies. The CLRP is not "carved in stone", and in the past CLRP projects have been modified and even removed entirely along with the addition of new programs and projects. The TPB is launching a new "Transportation Planning Information Hub for the National Capital Region" that will describe transportation planning activities at the regional, state, and local levels, and provide links to high profile projects, documents, and resources that are the building blocks for CLRP project submissions.

Strategies that address Metro and highway repair needs deserve the highest priority in program development and allocation of funding. An integrated package of demand and supply side strategies that address transit crowding and highway congestion should also be considered a high priority, including alternative commute programs; more concentrated land use in mixed use activity centers that support bicycling and walking; increased capacity of the bus and rail network; roadway capacity and management improvements; and bus rapid transit on express toll lanes. Ongoing strategies to improve transportation for limited mobility groups and update traffic laws also need to be addressed, as well as near-term incentives for alternative fuel vehicles and improvements in bicycle infrastructure.

Metro's "Momentum" strategic plan document was developed and reviewed during the spring and summer of 2013, somewhat in parallel with the web-based survey and drafting of the July 24, 2013 version of the RTPP. "Momentum" identifies three major activities: rehabilitate and maintain the existing system; increase system and core capacity and improve the effectiveness of the rail and bus networks (Metro 2025); and a long-range Regional Transit System Plan which is still under development (Metro 2040).

The first two of these three Momentum elements are already fairly well defined and consistent with Priority One (Metro and Highway Repair Needs) and Priority Two (Address Transit Crowding and Roadway Congestion) in the RTPP. If specific project elements and funding mechanisms can be identified for these two elements of Momentum in the next few months, they could be considered for incorporation in the upcoming 2014 update of the CLRP.

A number of longer-range studies and initiatives are underway throughout the region which currently are not far enough advanced to form the basis for project submissions for inclusion in the CLRP. These studies might eventually lead to projects which could be supportive of the priority strategies defined in the RTPP. The TPB's new "Transportation Planning Hub for the National Capital Region" will provide a means of integrating up-to-date information on these studies into the RTPP/CLRP process.

CHAPTER 1
INTRODUCTION AND PURPOSE

The Regional Transportation Priorities Plan is designed to advance regional goals for economic opportunity, environmental stewardship, and quality of life. Building upon the region's successes and learning from its shortcomings, the Plan is intended to generate consensus around key actions that people from all corners of the region can get behind.

The Plan identifies key transportation strategies that are recognized throughout the region as offering the greatest potential contributions to addressing continuing regional challenges. Ultimately, the Plan will support efforts to incorporate those strategies into future updates of the region's Constrained Long-Range Transportation Plan (CLRP).

Background: The Metropolitan Washington Region and the TPB

The metropolitan Washington region is the area where most of us live, work, shop, and play. The region includes the District of Columbia plus parts of Maryland and Virginia. The entire area is approximately 3,000 square miles in size.

Within this region, there are more than 5.1 million people and 3.2 million jobs in hundreds of communities linked together by a system of roads, transit lines, and bicycle and pedestrian paths. Both population and employment in the region are expected to continue growing over the coming decades. Between 2010 and 2040, the population is expected to increase by 24 percent to 6.4 million people, while employment is expected to increase by 36 percent to 4.4 million jobs.

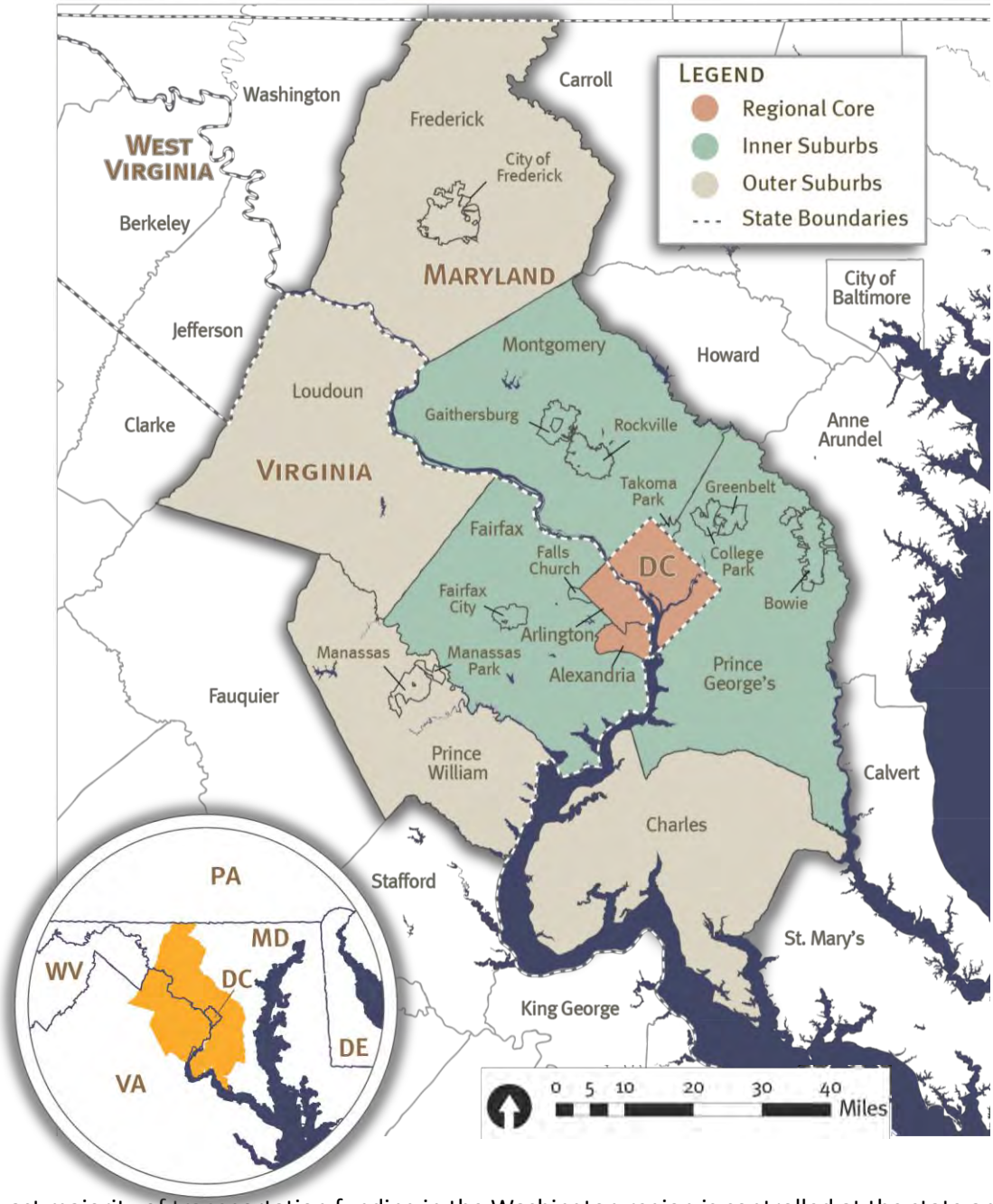
Population and jobs are not evenly distributed throughout the region; inner jurisdictions have the greatest numbers of jobs and housing, but outer jurisdictions are experiencing the most rapid growth. As the region grows to accommodate more people and jobs, greater demand will be placed on the transportation system. Competition for funds will continue to be difficult, including for rehabilitation and maintenance of existing roadway and transit systems.

The Transportation Planning Board (TPB)

The National Capital Region Transportation Planning Board (TPB) is the federally designated Metropolitan Planning Organization (MPO) for the region, and plays an important role as the regional forum for transportation planning. The TPB is responsible for carrying out a continuing, cooperative, and comprehensive planning process for regional transportation planning in the District of Columbia, Northern Virginia, and Suburban Maryland. The TPB prepares plans and programs that must receive federal approval in order for federal-aid transportation funds to flow to the Washington region.

Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia, the District of Columbia, local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and non-voting members from the Metropolitan Washington Airports Authority and federal agencies.

The TPB Planning Area:



The vast majority of transportation funding in the Washington region is controlled at the state and local levels. Although the TPB has crafted and supported some regional programs (e.g., the commuter Connections Program and the Metropolitan Area Transportation Operations Coordination –MATOC – Program), most of the project selection and funding decisions reflected in the region's transportation plans and programs are made by the TPB's member agencies and jurisdictions.

The TPB Vision, *Region Forward*, and Economy Forward

Adopted by the TPB in 1998, the *Vision* provides a set of goals, objectives, and strategies to help the region develop the transportation system it needs to promote economic development, environmental protection, and a high quality of life. It is shaped by the following Vision Statement:

> *In the 21st Century, the Washington metropolitan region remains a vibrant world capital, with a transportation system that provides efficient movement of people and goods. This system promotes the region's economy and environmental quality, and operates in an attractive and safe setting – it is a system that serves everyone. The system is fiscally sustainable, promotes areas of concentrated growth, manages both demand and capacity, employs the best technology, and joins rail, roadway, bus, air, water, pedestrian and bicycle facilities into a fully interconnected network.*

The *Vision* also includes six broad transportation-planning goals that provide policy guidance to shape the region's transportation investments. Identifying challenges – that is, the obstacles and shortcomings – in realizing these goals shows us where we must focus and prioritize our efforts. By developing a list of priorities that address regional challenges, we will make important strides toward improving our regional transportation system.

The following six goals derived from the *TPB Vision* provide a foundation for the Regional Transportation Priorities Plan process:

- Provide a Comprehensive Range of Transportation Options for Everyone
- Promote a Strong Regional Economy, Including a Healthy Regional Core and Dynamic Regional Activity Centers
- Ensure Adequate Maintenance, Preservation, and Safety of the Existing System
- Maximize Operational Effectiveness and Safety of the Transportation System
- Enhance Environmental Quality, and Protect Natural and Cultural Resources
- Support International and Inter-regional Travel and Commerce

Region Forward is a document that was approved in 2010 by the Board of Directors of the Metropolitan Washington Council of Governments (COG) following a two-year development process. It includes goals, targets, and a compact agreement to guide future planning and help measure progress in the areas of housing, transportation, the environment, health and the economy. The goals and targets relate to accessibility, sustainability, prosperity and livability. By the end of 2010, all of COG's member jurisdictions had signed the regional compact established in *Region Forward.*

Region Forward explicitly builds upon past planning activities. According to the final report, "rather than launch a new visioning process that could take several years, the Coalition's challenge was to tie together earlier work in a comprehensive way." For transportation, the primary building block for *Region Forward* was the TPB Vision. However, unlike the TPB Vision, *Region Forward* is multi-sectoral, covering a range of issues including energy, education, and public safety.

In September of 2012, the COG Board of Directors approved *Economy Forward*, an off shoot of *Region Forward* that focuses on the Washington region's key economic needs, and specific actions that are required to strengthen economic competitiveness and spur and sustain job growth. The TPB's Regional

Transportation Priorities Plan is one of the key initiatives identified by the COG Board in the recommendations section of the Economy Forward document.

The Financially Constrained Long-Range Transportation Plan (CLRP)

The CLRP identifies regionally significant transportation projects and programs that are planned in the Washington metropolitan area through 2040. A key feature of the CLRP is that it must be financially constrained: the plan includes only those projects that the region can afford to build, maintain, and operate with revenues that are reasonably expected to be available in the future. By definition, the CLRP may not include projects that are not anticipated to be funded – even if those projects are considered priorities by the region's jurisdictions.

More than 750 projects are included in the CLRP, ranging from simple highway landscaping to billion-dollar highway and transit projects. The projects and programs that go into the plan are developed cooperatively by governmental bodies and agencies represented on the TPB. Some of the projects will be completed in the near future, while others are in the initial planning stages and are scheduled for completion over the longer term. Because the adopted CLRP includes only what we realistically expect to be built by 2040, it provides a baseline for assessing challenges our region faces in achieving our regional transportation goals.

Developing the Regional Transportation Priorities Plan

The concept of a priorities plan has its roots in more than a decade of TPB planning, including the establishment of regional goals through the *TPB Vision* and *Region Forward*, analysis of transportation and land-use scenarios using the adopted CLRP as a baseline, and various studies of the region's transportation funding challenges. In recent years, the TPB has extensively discussed how these activities might be applied to defining priorities for improving the regional transportation system.

The ultimate purpose of the Regional Transportation Priorities Plan (RTPP) is to highlight priorities that should be funded and included in the region's Constrained Long-Range Transportation Plan (CLRP). Because projects cannot be part of the CLRP if funding is not anticipated and because the TPB has little direct control over funding, the actual implementation of priorities, in most cases, will occur at the state and local levels.

The term "regional" is used throughout this document to refer to the National Capital Region. While many worthwhile transportation strategies are developed in response to state, sub-regional or local challenges, not all of these strategies will contribute significantly to addressing regional challenges. Similarly, some strategies for providing facilities and services across regional or jurisdictional boundaries, such as adding "missing links" in the bicycle trail network, for example, may contribute significantly to addressing regional challenges while not being the highest priority for addressing individual state, sub-regional, or local challenges.

In general, the implementation of regional priorities will mean that additional funding must be identified to include new projects in the CLRP. In some cases, however, the region's jurisdictions could choose to fund these regional priorities by reallocating funding currently assigned to projects in the CLRP that are deemed to be of relatively lower priority.

The timing of the RTPP report for the beginning of FY 2014 is designed to ensure that the results of the regional transportation priorities plan are available for consideration in the development of the next four year update of the TPB's Constrained Long Range Plan (CLRP), due at the end of the calendar year 2014. The priorities plan should be revisited and updated in advance of each four-year update of the CLRP to reflect changes in the CLRP baseline, new land use developments and forecasts, and new challenges which will occur as policy issues change over time.

Getting Started

On May 26, 2010 the TPB hosted an event called the *Conversation on Setting Regional Transportation Priorities*, which addressed the possibilities for more explicitly establishing regional priorities. The impetus for that event was a request by the TPB's Citizens Advisory Committee (CAC) for the TPB to develop a "Regional Priorities Plan" that would serve as a financially *unconstrained* regional vision for transportation operations and investment.

The Conversation generated broad interest among TPB stakeholders in developing a priorities plan. As a result, on July 21, 2010, the TPB voted to form a task force to determine the scope and process for developing such a plan. The task force included approximately 20 stakeholders in the TPB process – members of the TPB, CAC, Access for All Committee and the Technical Committee. All task force members were participants in the Conversation. Between October 2010 and April 2011 the TPB Priorities Plan Scoping Task Force met four times and discussed planning processes and activities in the region, reasons for enhancing the current process, and options for change. At its first meeting, the task force also learned about the priorities planning activities of other Metropolitan Planning Organizations (MPOs) around the country.

RTPP Scope

On July 20, 2011, the TPB approved a work scope that had been developed through the TPB's Priorities Plan Scoping Task Force. The scope specified that the purpose of the RTPP was to identify transportation *strategies* that could be recognized throughout the region as offering the greatest potential contributions to addressing continuing regional challenges, and to provide support for efforts to incorporate those strategies into future updates of the CLRP in the form of specific programs and projects. The high priority strategies identified in the RTPP would also provide a source of specific programs and projects that could be advanced in response to particular discretionary funding opportunities, such as the federal TIGER grant program for which the TPB submitted a successful $59 million regional priority bus project application in September of 2009.

The relationship between regional strategies and specific programs and projects was considered and discussed at some length in the development of the RTPP work scope. As the RTPP process moves forward, highly ranked strategies can eventually be developed into more specific programs and projects, including those aimed at system maintenance and safety, as well as location-specific improvements in system capacity. An in-depth review of benefits and costs based on quantification of specific program components and location-specific factors will be necessary for this level of assessment. (A "bus-on-shoulder" study conducted for a TPB Task Force in 2013 illustrates the complexity and effort involved in taking a broad strategy like "bus-on-shoulder" to the level of location-specific projects.)

Building upon the region's successes and learning from its shortcomings, the process for developing the RTPP was designed to build consensus around key strategies that people from all corners of the region

can get behind. The RTPP would outline long-range strategies for the region's transportation system, and would also identify more immediate strategies which the region should aggressively pursue in the near future. The scope indicated that both long-range and more immediate strategies would draw upon ongoing planning activities at the state, regional, sub-regional and local levels.

The scope specified that the RTPP would focus on identifying a limited number of regional priorities, perhaps ten to fifteen in total, in order to encourage concentrated regional efforts on addressing the most pressing regional challenges at the time.

The scope specified that public participation would be sought at every stage of the two-year process.

Public Outreach

Effective communication of the RTPP is essential for gathering public input on regional priorities. Accordingly, the major planning activities undertaken between January and July 2012 focused on how best to communicate RTPP concepts and materials. During this time, listening sessions and a citizens forum tested several approaches to communicating the RTPP to the public. These outreach events helped TPB staff to determine which formats were readily understood and meaningful to the general public, and which ones were not.

- *Listening Sessions*

  In January and February 2012, TPB staff convened five listening sessions with regional stakeholders and citizen representatives to solicit feedback on the initial set of RTPP challenges and strategies. The listening sessions were also intended to provide guidance and input on framing identified challenges for the public during subsequent outreach phases.

  Based upon these sessions, TPB staff determined that greater emphasis should be placed on the use of narrative text, simple charts, and pictures to describe challenges and potential strategies to address them. In general, listening session participants found the use of performance measures in the draft material to be too technical and they did not understand their significance for identifying regional challenges. Responding to this feedback, staff determined that a technically oriented planning approach for deriving priorities, based upon performance measurement, did not resonate with the public and should not provide the primary basis for the RTPP plan development.

  TPB staff drafted a revised set of significant challenges to achieving each of six TPB Vision goals, along with a set of strategies designed to overcome these challenges. The challenges and strategies were developed based on the range of technical data and forecasting resources available to the TPB staff within the TPB process, the input of the TPB and its committees and subcommittees, and the ongoing suggestions of citizen and stakeholder groups. The overall objective of this effort was to frame the challenges and strategies in a form that could be readily understood and commented upon by members of the general public. Qualitative narrative, simple charts, and pictures were used to describe the regional goals, challenges, and strategies in a "Discussion Guide for Developing the Regional Transportation Priorities Plan." This Guide was then presented to a small representative group of citizens at a Citizens Forum held on June 2, 2012.

- *Citizen Deliberative Forum*

  TPB staff conducted a Citizens Forum on Saturday, June 2, 2012, to assess whether the RTPP's draft challenges and strategies were meaningful to the general public, and if there were any additional challenges or strategies that participants could suggest. Additionally, the forum sought to assess how best to communicate goals, challenges, and strategies to the general public.

  The format of the forum utilized a public outreach model called a deliberative forum. A deliberative forum allows citizens to learn about issues, share their thoughts via small group discussions and real-time polling, and hear from their peers. TPB staff contracted with America *Speaks*, a non-profit public outreach organization that specializes in the deliberative forum format, to help design and facilitate the forum.

  Participants were carefully selected to ensure a sample that was fairly representative of the region in terms of home jurisdiction, race and ethnicity, gender, and other important characteristics. A group of 50 participants was sought, and 41 people ultimately participated in the day-long forum. Participants were provided with a $100 stipend for their time.

  Participants were given the opportunity to discuss the RTPP's draft challenges and strategies and vote on their significance. They also had a chance to generate and offer their own ideas about regional priorities. A combination of evaluation forms, keypad polling questions, and debrief meetings with discussion facilitators was used to gather input.

  Regarding the content of the RTPP, participants at the forum identified some important new themes that were incorporated into the draft materials, including the importance of agency transparency and accountability to ensure that existing and any possible additional future funds are spent effectively. Participants also called attention to the importance of funding, noting that project costs and potential revenue mechanisms should be suggested for each strategy. Participants said they had difficulty in evaluating strategies without some information on how much they would cost and where funding might come from. Overall, the feedback suggested that the RTPP materials should use more simplified language, use examples whenever possible, and should provide explanations that are thorough but at an appropriate level of specificity.

  Based upon feedback from the forum, staff developed a revised narrative describing the goals, challenges and strategies, which was reflected in the Interim Report presented to the TPB in July 2012.

- *Online Survey*

  In a continuing effort to get input from a representative sample of the region's population, TPB staff conducted an online survey on regional transportation priorities in the spring of 2013. This survey used MetroQuest public engagement software, developed by the firm Envision Sustainability. The survey was designed to be visually engaging and educational. The web-based MetroQuest tool was used to solicit citizen input on the goals, challenges, and strategies in the RTPP, and provide an apparatus for collecting and processing opinion data from a large segment of the region's residents.

A controlled sample of 660 people, who were each paid $25, took the survey between April and July. Findings from the survey, which have been used to inform the final recommendations of the RTPP, are described in Chapter 4 of this document.

- *Public Comment on Draft Report Released on July 24, 2013*

  Following a work session and briefing on the results of the online survey at the July 17 TPB meeting, a draft version of the RTPP report was released for a 30-day public comment period on July 24. Comments received during this period were posted on the TPB's "Regional Transportation Priorities Plan" web-site. In addition to these comments, TPB staff assembled and reviewed comments made by respondents in optional comment boxes in the web-based survey of 660 residents of the Washington region, as well as those by individuals who took this survey after it was made available to other groups and the general public on July 24. All of these comments are available for review on the TPB's RTPP website, grouped into two categories: those associated with the selected sample of 660 residents; and those associated with other groups and the general public. (In the first category, 418 respondents provided a total of 1887 optional comments, an average of 4.5 comments per respondent. In the second category, 78 of the 141 individuals who took the survey provided 492 optional comments, an average of 6.3 comments per individual.)

  The TPB was briefed on the comments received on the draft RTPP at its September 18 meeting, as well as on potential revisions to the plan. In general, the comments received reflected a good understanding of the information presented in the draft RTPP document, and in the web-based survey. Staff developed the present revised version of the RTPP document for release at the October 10 Citizens Advisory Committee meeting and presentation at the October 16 TPB meeting.

CHAPTER 2:
GOALS AND CHALLENGES

The *TPB Vision*, developed collaboratively over several years in the late-1990s, paints a picture of what the region wants its transportation system to be like in the future. The *Vision* outlines six broad transportation-planning goals that provide policy guidance to shape the region's transportation investments. To identify the region's top transportation investment priorities, this plan identifies the top challenges that stand in the way of achieving our shared regional goals to help show us where we must focus and prioritize our efforts.

This chapter describes each of the six goal areas, where we are now, and where we're headed based on current planning and funding trajectories. Under each goal area, the top challenges in achieving the goal has been identified and briefly described.

GOAL 1: PROVIDE A COMPREHENSIVE RANGE OF TRANSPORTATION OPTIONS

Having more transportation options to choose from makes it easier for people to find the travel mode that works best for them in meeting their daily needs. This includes providing options for driving, carpooling, vanpooling, taking transit, bicycling, and walking to reach one's destination.

Where are we now and where are we headed?

Our region has an extensive transportation network of roads, rail, bus routes, bike paths and pedestrian infrastructure that provides a range of choices for travelers. However, access to these options varies depending on where in the region you are and your physical, psychological, or financial ability to use them: public transit has a limited geographical reach, many neighborhoods are not bicycle and pedestrian friendly, and some modes of transportation are difficult for people with disabilities and low-income residents to use.

Regional data show that most daily trips in the region rely on the automobile, and forecasts indicate this will continue well into the future. Today, the highway system in metropolitan Washington ranks as one of the most congested in the country and conditions are only forecast to get worse. Population and employment growth will cause rising demand on the region's roads to outpace increases in supply, leading to a significant increase in congestion through 2040.

Many residents in the region have little choice but to endure this congestion to get to work, school, or other important destinations. Though we have a robust public transit system, it suffers from issues of crowding and limited coverage and reliability. The Metrorail system is already operating at close to capacity during peak hours in certain areas of the region and will continue to get more crowded as the region grows. Though Metrobus and other local and express bus services provide another option for many travelers, not everyone lives within close proximity to a bus stop and many routes have limited frequencies. Currently, 55% of the region's population lives within a quarter-mile of bus transit.

People with disabilities and older adults are highly reliant on transit stations and paratransit services that can accommodate travelers with limited mobility or hearing or visual impairments. Unfortunately, the region's transit stations do not all have such accommodations and current public paratransit services have limited coverage and reliability. In addition, those with limited incomes face barriers to accessing transportation options because of rising public transit fares and a lack of adequate financial resources to purchase a personal vehicle.

To achieve our goal of providing transportation options for all individuals, improvements to all modes are needed. This includes both maintenance and expansion of the current systems and programs and services that guarantee that all residents can fulfill their mobility needs regardless income, age, ability, ethnicity, or language spoken.

Most Significant Challenges:

Roadway Congestion **(G1C1)**
The region's roadways are among the most congested in the nation, making it harder for people and goods to get where they need to go.

Transit Crowding **(G1C2)**
The Metrorail system currently experiences crowding during peak hours and lacks the capacity to support future population and employment growth.

Inadequate Bus Service **(G1C3)**
Existing bus service is too limited in its coverage, frequency, and reliability, making transit a less viable option, especially for people with disabilities and limited incomes.

Unsafe Walking and Biking **(G1C4)**
Too few people have access to safe pedestrian and bicycle infrastructure or live in areas where walking and bicycling are not practical options for reaching nearby destinations.

GOAL 2: PROMOTE A STRONG REGIONAL ECONOMY, INCLUDING A HEALTHY REGIONAL CORE AND DYNAMIC ACTIVITY CENTERS

Our region's economy is supported largely by the economic activity that occurs in major housing and jobs centers, known as Activity Centers. Strengthening these areas, including the regional core, and connecting them with good transportation options bolsters the economy, allows us to grow and use land more wisely, and creates numerous opportunities to move people and goods more efficiently.

Where are we now and where are we headed?

The region has several examples of successful Activity Centers, including the NoMa neighborhood in the District of Columbia, Silver Spring in Maryland, and Rosslyn in Virginia. Better coordinating transportation and land-use elsewhere in the region could lead to greater opportunity to achieve similar successes in more places.

Many activity centers currently lack access to high-capacity public transit - Metrorail, Bus Rapid Transit, commuter rail, or light rail. About seven in ten Activity Centers are currently served by high capacity transit or will be by 2040 thanks to planned investments like the Purple Line in Maryland and the Silver Line in Virginia. Some Metrorail stations serve areas that are not currently Activity Centers and represent unrealized opportunities to strengthen the regional economy and gain greater efficiency by attracting higher-density development nearby.

Data collected by the TPB shows that transit, bicycling, and walking rates are significantly higher in locations with high-quality transit and supportive bicycling and walking facilities. For example, in the Metro- accessible, pedestrian- and bicycle-friendly neighborhoods of Logan Circle in the District and Crystal City in Virginia, automobile trips only account for about 25 percent of all trips, compared to Largo, Maryland, or Reston, Virginia, where 80 to 90 percent of trips are taken in automobiles. Higher rates of non-automotive travel means less congestion, more options, and improved air quality, but many Activity Centers currently lack the necessary pedestrian and bicycle infrastructure to support this kind of non-automotive, short-distance circulation.

Though we are making progress, there still remain many unrealized opportunities to coordinate land-use and transportation in more efficient ways, and to improve the jobs and housing balance in the region's Activity Centers.

Most Significant Challenges

Development around Metrorail **(G2C1)**
Too many Metrorail stations, especially on the eastern side of the region, are surrounded by undeveloped or underdeveloped land, limiting the number of people who can live or work close to transit and leaving unused capacity in reverse-commute directions on several lines.

Housing and Job Location **(G2C2)**
Most housing, especially affordable housing, and many of the region's jobs are located in areas outside of activity centers where transit, bicycling, and walking are not safe and viable options.

GOAL 3: ENSURE ADEQUATE SYSTEM MAINTENANCE, PRESERVATION, AND SAFETY

Keeping the region's extensive transportation system in a state of good repair is crucial to ensuring reliability and safety. Maintaining existing infrastructure as repairs are needed can result in better system performance and significant savings in the long run.

Where are we now and where are we headed?

The region is currently giving priority to operations and maintenance of the existing system over expansion. Of the nearly $223 billion in transportation expenditures expected between 2011 and 2040, approximately 70 percent of the funds – or about $163 billion – will go just to operating and maintaining the existing and planned system. Another 23 percent will go toward system preservation efforts – new railcars and buses to replace old ones, road reconstruction, and replacement of aging bridges. Just 7 percent – or about $16 billion – will be spent on expanding the system and adding capacity. These capacity expansions will not be able to keep pace with rising demand over the coming years. And traditional revenue streams – especially taxes on motor fuels, as the fuel-efficiency of vehicles continues to rise – will increasingly fall short of helping us meet our growing needs.

On Metro, unreliable escalators and unscheduled delays caused by rail or railcar malfunctions have become a major regional concern. Roadways, too, suffer from potholes, crumbling pavement, and deficient bridges in some locations. These problems are the direct result of deferred maintenance, a result mainly of inadequate financial resources.

We have approved stop-gap measures to address Metrorail maintenance, but we have not found a long-term solution to Metro's maintenance needs. In response to calls for more funding for maintenance and rehabilitation of the Metrorail system, Congress in 2008 passed the Passenger Rail Investment and Improvement Act (PRIIA), which with 50 percent matching funds from the three states provides $3 billion in funding over ten years for Metro's rehabilitation needs. The agreement is set to expire in 2020, and currently there is nothing in place to ensure this level of funding is continued. As a result, the Metrorail system may be unable to handle projected ridership growth, limiting the number of people who can use Metrorail and possibly forcing more people onto already crowded roadways.

As funding levels become less dependable, so does our ability to provide timely repairs and maintenance of our aging transit and roadway infrastructure. Paying for necessary maintenance is a continuing struggle that will only worsen over time if current funding trends continue.

Most Significant Challenges

Metrorail Repair Needs **(G3C1)**
Deferred Metrorail maintenance over the years has led to unreliability, delays, and safety concerns today, as well as higher maintenance costs.

Roadway Repair Needs **(G3C2)**
Older bridges and roads are deteriorating and in need of major rehabilitation to ensure safe, reliable, and comfortable travel for cars, trucks, and buses.

GOAL 4: MAXIMIZE OPERATIONAL EFFECTIVENESS AND SAFETY OF THE TRANSPORTATION SYSTEM

Maximizing system effectiveness and safety means utilizing available technologies, techniques, and programs to get the most out of the existing system. Rapid growth and limited financial resources make it especially important to maximize system efficiency.

Where are we now and where are we headed?

Jurisdictions throughout the region have been working hard to increase safety for users of all modes of transportation and to coordinate public information and messaging.

Over the past few years, safety on our roadways has been steadily increasing in part due to advances in vehicle safety technology and enhanced enforcement. According to data collected by the TPB, automobile driver and passenger fatalities have been steadily declining since the early 2000s, from 342 in 2002 to 194 in 2012. Over the same period of time, however, the number of pedestrian and bicyclist fatalities has remained relatively constant.

As anyone who drives or uses transit on a regular basis knows, accidents and weather can have impacts on the transportation system far from the scene of the problem. Though incidents cannot be avoided entirely, transportation officials are committed to improving incident management and information through the Metropolitan Area Transportation Operations Coordination (MATOC) program. Since its inception, MATOC has facilitated better transportation management by monitoring traffic and weather conditions and coordinating responses to highly disruptive incidents like severe weather and major accidents.

Transportation users today have access to new forms of technology that improve the overall user experience. Public and private entities are continuing to develop more and better resources that help users make more effective transportation decisions. Third-party smartphone applications, for example, allow users to access up-to-date arrival time information for their buses using data provided by regional transit agencies.

Public information programs have become an effective means to better manage how the region's residents interact with the transportation system. One successful example of this is the TPB's "Street Smart" campaign, a public information campaign that aims to reduce pedestrian and bicyclist injuries and deaths. Since it began in 2002, the campaign has used radio, newspaper, and transit advertising, and added law enforcement to remind motorists, pedestrians, and bicyclists about the region's traffic safety laws in an effort to reduce deadly collisions.

Though progress has been made, there is room for significant improvement. Safety measures need to be improved in order to continually reduce the number of injuries and fatalities system wide, and information, public messaging, and technology resources will continually need to be improved to better serve our residents.

Most Significant Challenges

Incidents **(G4C1)**
Major accidents and weather disruptions on roadways and transit systems cause severe delays and inconvenience.

Pedestrian and Bicyclist Safety **(G4C2)**
The number of bicycle and pedestrian fatalities each year is holding steady even as the number of vehicle fatalities has declined steadily.

GOAL 5: ENHANCE ENVIRONMENTAL QUALITY, AND PROTECT NATURAL AND CULTURAL RESOURCES

An effective transportation system needs to balance the mobility needs of a growing region with the potentially harmful effects that travel by car and other modes may have on the environment and the health of our residents.

Where are we now and where are we headed?

Jurisdictions regionwide have implemented a variety of transportation-, land-use-, and energy-related policies to protect and preserve environmental resources. Though these efforts have been helpful, there is much more that can be done to enhance environmental quality.

The region is currently making good progress toward meeting Environmental Protection Agency (EPA) standards on regional air quality. Emissions of harmful air pollutants and greenhouse gases from motor vehicles are forecast to decline steadily over the next 30 years as more stringent federal standards come into effect and cleaner vehicles come onto the market.

Hybrid and electric vehicle use is on the rise, which will also contribute to a reduction in emissions. Today there are more than 50,000 hybrid vehicles and approximately 500 electric vehicles on the road in the region. As these technologies become more cost effective they are likely to replace vehicles that rely on gasoline. The electric vehicle market has been slow to take off because of a simultaneous lack of supply and demand. A large number of electric vehicles will not be sold until consumers feel as though there is a sufficient charging infrastructure to support their purchase, and the recharging industry will not be able to build significant infrastructure until there are enough vehicles on the road to support the investment.

Transportation infrastructure also has effects on water quality and open space development. Many of the region's waterways continue to suffer from degradation, erosion, and pollution cause caused by stormwater runoff from roads and other infrastructure. In addition, transportation facilities often support development in previously un-developed parts of the region. Local and state governments have been putting programs in place to enhance and protect green space, recognizing the importance of preserving open space for farming, wildlife habitat, and recreation. Nevertheless, much of the farmland and open space remains open to development and is slowly decreasing as the region grows outward.

In order to meet our environmental goals, we need to continue to make efforts to meet and exceed clean air and clean water standards, increase the energy efficiency of our transportation modes, and support more stringent preservations programs to development of open spaces.

Most Significant Challenges

Environmental Quality **(G5C1)**
Increasing amounts of vehicle travel resulting from population and job growth could threaten the quality of our region's air and water.

Open Space Development **(GSC2)**
Wildlife habitat, farmland, and other open spaces are threatened by construction of new transportation facilities and land development.

GOAL 6: SUPPORT INTER-REGIONAL AND INTERNATIONAL TRAVEL AND COMMERCE

The region strives to be among the most accessible in the nation for international and inter-regional passenger and goods movement. Providing strong passenger and freight connections by air, highway, rail, and sea brings economic benefits to our region.

Where are we now and where are we headed?

The Washington region is among the fastest growing areas in the country, and this trend is forecast to continue through 2040. As we grow, our transportation system has to adapt to a constant influx of people and goods, and will to have to accommodate even more in the future.

Today the region's major airports support nearly 25 million outbound trips per year, and major growth in air traffic is forecast. More air passengers and cargo coming and going from the region will place greater demand on both the airports and the ground transportation system that supports travel to and from them.

Highway bottlenecks currently cause delays and unreliable travel times for people and goods. Based on congestion forecasts, these bottlenecks are expected to get worse, causing delays for those traveling in the region, traveling out of the region, or simply passing through.

Bottlenecks also have a negative effect on the trucking industry, which is a critical part of the region's economy. At present, trucks carry approximately 76 percent of goods to, from, and within the region. As our economy grows, so too will the number of trucks on the road delivering goods. The shipping industry will face longer traffic delays as bottlenecks and congestion worsen.

Freight rail is also a necessary element of our regional economy. Metropolitan Washington serves primarily as a through corridor for freight rail travelling along the East Coast, but major railroads are in need of infrastructure improvements. For example, CSX is working to rebuild the rail tunnel under Virginia Avenue SE in the District of Columbia because freight trains carrying double-stacked cargo containers are unable to use the 100-year-old tunnel, while single-stack trains that can use the tunnel must often queue at either end while they wait to use the tunnel's single track. Trains queuing at the western end of the tunnel interfere with Amtrak and Virginia Railway Express (VRE) passenger traffic leaving from or approaching Union Station.

To ensure that metropolitan Washington remains a global economic center, a world-class destination for tourists, and an attractive place for businesses to locate, we must make efforts to make travel to, from, and through the region as smooth as possible.

Most Significant Challenges

Bottlenecks **(G6C1)**
Bottlenecks on the highway and rail systems cause delays in inter-regional travel for both freight and passengers, hurting the region's economic competitiveness.

Travel Time Reliability (G6C2):
Travel times to and from the region's airports are becoming less reliable for people and goods movement.

CHAPTER 3:
STRATEGIES

There is no question that we face an uphill battle in achieving our region's long-term transportation goals. Limited resources combined with growing demand means our transportation system is strained and state, local, and regional transportation agencies are finding it more difficult to meet the region's needs. The 15 strategies outlined in this plan are intended to identify those strategies that offer the greatest potential to respond to our most significant transportation challenges and to help us realize the transportation future we envision for ourselves, our children, and for future generations.

The strategies that this plan identifies are divided into three categories, according to the timeframe by which they should be achieved:

- **Near-Term:** to be completed within the next 1 to 5 years
- **Ongoing:** will require continuing attention and investment over time
- **Long-Term:** to be completed within the next 10 to 30 years

Included in the following chapters are summaries of each of the strategies, outlining the key strategic elements we should pursue and why we should pursue them. The summaries also provide an estimate of the magnitude of the cost of implementing a given strategy.

In most cases, many state, local, and regional transportation agencies are already pursuing these strategies in one form or another. But we need to do more if our transportation system is to support growth and a strong economy, and to provide a high quality of life for future generations by ensuring economic opportunity and strengthening communities.

NEAR-TERM STRATEGIES

A number of strategies to pursue in the next 1 to 5 years are an important first step in overcoming some of our region's biggest transportation challenges and achieving our long-term transportation goals. Many of our state, local, and regional transportation agencies are already pursuing these strategies, but we need to ensure that those efforts can continue into the future.

The six near-term strategies described in greater detail below include, in no particular order:

- **Improve Access to Transit Stops and Stations (NT1)**
- **Alleviate Roadway Bottlenecks (NT2)**
- **Support and Promote Electric Vehicles (NT3)**
- **Promote Commute Alternatives (NT4)**
- **Expand Pedestrian Infrastructure (NT5)**
- **Expand Bicycle Infrastructure (NT6)**

IMPROVE ACCESS TO TRANSIT STOPS AND STATIONS (NT1)

What we should do

Make it easier and safer to get to bus stops and rail stations, especially by modes other than car, and make bus stops and areas around rail stations more comfortable and inviting.

- Build sidewalks and pedestrian crosswalks and/or overpasses that connect transit stops to nearby neighborhoods, commercial areas, and existing pedestrian infrastructure
- Connect bicycle paths to transit stops and provide ample bicycle parking
- Install protective shelters, curb ramps, and better lighting at or near stations
- Improve signage and wayfinding in and around transit stops to aid in locating the stop as well as nearby destinations reachable on foot or by bicycle
- Provide bike-share and car-share services at or near transit stops to make more destinations reachable by transit

How much it will cost

**$$**$$$

Tens of millions of dollars

Why we should do it

Increases transit ridership

One of the barriers to choosing transit as a travel mode is the inability of potential users to access rail stations and bus stops easily and safely. Physical access improvements, like sidewalk connections and bike lanes, help make transit a more attractive and practical travel option for those who live or work nearby. Protective bus shelters, curb ramps, and better lighting make riders feel safer and more comfortable. And improved signage and wayfinding can help users feel more confident in finding their way to transit stops and through the system. All of these things, together, can encourage more people to ride transit.

Physical access improvements also help connect transit stops to final destinations, which is equally important in making transit a viable transportation option. All transit trips are, by nature, multi-modal journeys. Upon arriving at a stop, one must walk, ride, or drive to a final destination, whether home, work, restaurants, shops, medical appointments, or recreational opportunities. Sidewalks and bicycle lanes that connect to nearby residential and commercial areas, signage to help people find their way to such areas, and additional services like bike-share and car-share can help people reach their final destination more easily and safely, effectively expanding the number of destinations accessible by transit.

Can catalyze development near transit stations

In addition to making transit more accessible for people who already live or work near it, physical access improvements can also catalyze new residential and commercial development near transit stations –

especially underutilized ones – increasing the number of people for whom transit is a convenient option. Sparking new development near underutilized stations, especially on the eastern side of the region, can make better use of the existing system by filling empty seats in reverse-commute directions on trains that are currently operating with plenty of available capacity.

Spurring more development near stations closer to the regional core can also help take greater advantage of the existing system by creating a better balance of housing and jobs in station areas, which can provide opportunities to "sell the same seat twice" – first to workers commuting to a mixed-use housing and jobs center, and second to people living in the center and boarding the train to commute further along the line.

CALLOUT BOX:
Financial analyses consistently show net positive benefits of physical access improvements to transit stations and stops compared to their costs. For example, a 2012 Transportation Planning Board analysis of several proposed access improvements included in an application for federal TIGER funding found that investing in these types of improvements leads to substantial travel time and travel cost savings, in addition to congestion, environmental, health and safety benefits that outweigh the costs of building and operating them.

ADDITIONAL RESOURCES (Consistently identified as a goal by agencies in our region):

- *TPB – TLC program was established in 2006 to help jurisdictions plan small improvements – such as pedestrian facilities, safety and access improvements, or multimodal concepts for intersections or streets – to make activity centers function more effectively as vibrant, mixed-use places.*
- *TPB – TCSP grant to identify strategic recommendations for bicycle and pedestrian access improvements using a complete street approach that will complement housing and employment development close to Metrorail and commuter rail stations.*
- *WMATA – Metrorail Bicycle and Pedestrian Access Improvements Study - identifies strategies to enhance pedestrian and bicycle access and connectivity in and around Metrorail Stations.*

ALLEVIATE ROADWAY BOTTLENECKS (NT2)

What we should do

Make targeted roadway improvements that provide congestion relief for drivers in key locations throughout the region.

- Install extra turn lanes, extend highway on- and off-ramps, and build new lanes where doing so is modest in cost and provides congestion relief that supports other regional goals

How much it will cost

**$$**$$$
Tens of millions of dollars

Why we should do it

Reduces unnecessary congestion and travel delay

Bottlenecks on existing roads can create unnecessary traffic back-ups and delays for drivers and the movement of goods, resulting in wasted time and fuel and diminished economic productivity. Improvements like new turn lanes, longer on- and off-ramps, and additional lanes in key locations can significantly reduce congestion and improve travel time reliability for drivers. And the benefits of relieving bottlenecks can multiply quickly when they affect large numbers of travelers or goods shipments.

A wise use of limited resources

Building significant new roadway capacity is expensive. In an era of limited funding, it's especially important to identify and make improvements that promise the greatest benefits and outcomes relative to their cost. That means we need to be smart in the way we evaluate and prioritize bottlenecks that deserve attention, focusing on improvements that will provide the greatest reductions in congestion and increases in travel time reliability, and that support other regional goals like economic development and more efficient land-use.

Already the region's state and local governments go to great lengths to monitor current travel conditions and forecast future demand to identify bottlenecks worthy of improvements. The TPB conducts an aerial traffic survey of area freeways every three years to identify the chokepoints where travelers experience the greatest delays. The TPB's Freight Subcommittee has also worked to identify bottlenecks that are essential for improving goods movement in the region. In Maryland, the key short-term improvement identified by the subcommittee is to increase capacity along a four-mile stretch of Interstate 70 in Frederick County. In Virginia, construction of a new exit ramp from eastbound Interstate 66 to northbound Interstate 495, which is currently underway, will relieve a major bottleneck for trucks at the interchange.

While we need to seek out smaller-scale, high-payoff projects, we also need to recognize that not all bottlenecks will be quick or low-cost fixes. The Woodrow Wilson Bridge replacement, which cost more than $2 billion, provided massive regional benefits, but took years to coordinate and complete.

Demonstrates public sector responsiveness

Alleviating bottlenecks is seen by the public as a basic, commonsense solution to the region's transportation problems, and projects that alleviate bottlenecks are often highly visible. Because of this, efforts by transportation agencies to alleviate bottlenecks can be a good way to increase the public's trust in the ability of government agencies to solve problems and provide real improvements in our daily lives. Such renewed confidence is good for public agencies, our quality of life, our collective faith in the future of the region, and for our prospects for economic prosperity.

SUPPORT AND PROMOTE ELECTRIC VEHICLES (NT3)

What we should do

Make electric vehicles more convenient to use and encourage more consumers and businesses to purchase such vehicles.

- Invest in a system of public-access electric vehicle recharging stations for vehicles that run on electricity
- Offer tax credits to private businesses that install recharging stations and make them available to employees, customers, or the general public
- Offer benefits, such as access to HOV lanes or priority parking, to owners of electric vehicles
- Pursue all-electric car fleets for car-sharing programs like Zipcar and Car2Go, and for public agencies and other organizations with vehicle fleets

How much it will cost

**$**$$$$

Millions of dollars

Why we should do it

Better for the environment

Burning petroleum-based fuels results in emissions of harmful pollutants and diminishes the region's air quality. In 2007 in the Washington region, motor vehicles were responsible for 55% of nitrogen oxide emissions and 16% of fine particle emissions – two pollutants that cause a range of respiratory ailments. Since electric vehicles do not burn petroleum-based fuels, they do not produce tailpipe emissions of such harmful pollutants and would contribute significantly to improved air quality.

Widespread adoption of electric vehicles could also go a long way in reducing emissions of greenhouse gases. The U.S. Department of Energy sees the electrification of vehicles as one of the highest impact strategies for reducing greenhouse gas emissions and combating climate change. Though most of the electricity in the Washington region is still generated using carbon-based fuels like coal, the local electrical grid has a relatively low greenhouse gas emissions profile, producing emissions equivalent to automobiles that have a fuel efficiency of 50 miles per gallon or more. And since electric vehicles run on electricity produced at a central location, they become cleaner and more efficient as we phase in alternative forms of electricity production, such as solar and wind power.

A cheaper and more dependable energy source

Electric vehicles have fuel efficiencies generally equivalent to 75 to 100 miles per gallon and cost about $0.04 per mile to operate, compared to conventional fuel-burning vehicles, which cost about $0.13 per mile. An estimate from the Union of Concern Scientists says that drivers in the Washington region could save around $950 a year in fuel and operating costs by driving an electric vehicle.

Electricity is more dependable than petroleum-based fuels like gasoline and diesel because it can be produced from a variety of energy sources, including renewable sources like wind, solar, and biomass. Petroleum is not a renewable resource, meaning that unlike plants and other ever-present energy sources like the sun and wind, once our current reserves are used up it will no longer be a viable source of energy. And as oil supplies dwindle, fuel prices will increasingly suffer from greater volatility as the future availability of fuel becomes less and less certain. Encouraging the use of electric vehicles protects vehicle owners from such volatility.

An increasingly practical alternative for households

Though electric vehicles are still few in number in the Washington region, data on household travel patterns collected by the Transportation Planning Board suggest that electric vehicles, despite their limited range compared to gasoline-powered vehicles, could be practical for many of the vehicle trips currently made throughout the region. At 7.7 miles, the average length of a one-way trip by car is well within the range of a typical electric vehicle on a single battery charge. And in most jurisdictions in the region, the average total daily amount of driving per household is less than the one-charge range of most electric vehicles currently on the market.

Although there are a few electric vehicle models for sale to consumers, the market has been slow to take off because of a simultaneous lack of supply and demand. A large number of electric vehicles will not be sold until consumers feel as though there is a sufficient charging infrastructure to support their purchase, and the recharging industry will not be able to build significant infrastructure until there are enough vehicles on the road to support the investment. Much as the Internet needed substantial public investment in its early stages before it was widely adopted, so too do electric vehicle technology and infrastructure. Offering a variety of incentives to consumers and to industry to encourage adoption and overcome what is a classic "chicken and egg" dilemma is a low-cost way to support an industry that could bring a number of benefits to the region.

CALLOUT BOX

- *Feature COG/DEP report: "Charged Up"*
- *DDOE and DDOT are active with the TCI/NYSERDA planning grant that is investigating EV and CNG infrastructure expansion along the Northeast Corridor. Ten northeast states and the District of Columbia announced the formation of the Northeast Electric Vehicle Network to expedite the deployment of EVs in the region and promote the use of alternative fuels. The Network seeks to bolster economic growth, maintain the region's leadership in the clean energy economy and reduce the area's dependence on oil and its emissions of greenhouse gases and other pollutants.*
- *Fairfax County's Department of Vehicle Services is evaluating sites for installation of EV charging stations. On two of the county's new projects, conduit has been added out to some parking spaces for possible future charging infrastructure.*
- *Loudoun County has invested in 5 public charging stations at future Metro station in the county.*
- *Montgomery County has a green fleet policy in place and was a runner up for the 2009 National Green Fleet Award.*
- *City of Rockville - 2007 Sustainability Plan contains the City's green fleet goals and actions: http://www.rockvillemd.gov/environment/sustainability/SustainableRockville.pdf*

PROMOTE COMMUTE ALTERNATIVES (NT4)

What we should do

Encourage commuters to use travel modes that make efficient use of limited roadway space at peak hours.

- Reach out to commuters with more information on alternative ways to get to work, including by transit, carpool, vanpool, bicycle or walking, or by teleworking or living closer to work
- Provide more incentives for first-time users of alternative commute modes to encourage the shift into more efficient travel modes
- Help employers establish commute alternative programs that encourage and support employees who choose alternative modes

How much it will cost

**$**$$$$
Millions of dollars

Why we should do it

Increased efficiency, reduced emissions, and better quality of life

Even small decreases in the number of cars trying to use a crowded roadway can go a long way toward alleviating congestion and travel delay. Any vehicle with two or more people in it makes more efficient use of limited roadway space than vehicles with just a solo driver. Buses and other high-capacity vehicles make the most efficient use of limited roadway space, although teleworking and bicycling and walking to work can eliminate trips on crowded roadways altogether, and living closer to work can significantly reduce the overall number of miles one commutes.

Reducing the number of cars on the road also leads to reductions in the emissions of harmful, vehicle-related pollutants, resulting in improved air quality. And when travelers take advantage of alternative, more efficient modes, they stand to gain personally, through time savings, reduced fuel and vehicle maintenance costs, and reduction in stress associated with sitting in traffic – all of which leads to increased quality of life.

We have a good system of alternatives already in place

Fortunately, the Washington region's transportation system already provides a wide range of travel options for commuters – numerous park-and-ride lots where carpools and vanpools can meet; extensive Metrorail, commuter rail, and local and express bus services, especially at peak hours; increasingly robust bicycle and pedestrian infrastructure, like sidewalks, crosswalks, and bike lanes; more and more compact, walkable, mixed-use development centers that allow people to live closer to work or to transit; and a rising number of employers open to teleworking and flexible work schedules. With such options in place, efforts to promote alternative modes of travel can be especially effective.

People support commuter alternatives

People believe that getting more commuters to use alternatives to driving alone is a good idea, repeatedly suggesting that providing additional services and information – like more incentives and more and bigger mass media campaigns – to support and promote the use of alternatives is an obvious next step in addressing congestion and other transportation challenges.

Already, the TPB's Commuter Connections program actively reaches out to Washington area commuters to provide information about alternatives like carpooling and vanpooling, transit, biking and walking, teleworking, and living closer to work. Commuter Connections even provides incentives for first-time users of alternative modes to encourage the shift away from solo driving. Numerous transportation agencies around the region have similar programs in place. But the region should do more to spread the word about these alternatives and encourage commuters to take advantage of them.

EXPAND PEDESTRIAN INFRASTRUCTURE (NT5)

What we should do

Make walking a viable transportation choice for more people in more places by making it safer, easier, and more convenient.

- Add new sidewalks and improve existing ones
- Install crossing signals at more crosswalks, pedestrian refuge islands, and raised medians
- Employ traffic calming to reduce speeds in areas where there is a high density of pedestrians
- Provide direct pedestrian connections between nearby streets and land uses to reduce walking distance and make more destinations easily accessible on foot
- Ensuring accessibility to all users, including users of assistive mobility devices and persons with disabilities

How much it will cost

**$$**$$$

Tens of millions of dollars

Why we should do it

Improves safety and encourages more walking

Nearly 10% of all trips in the Washington region are made by foot, according to a 2007 TPB survey of household travel patterns. Everyone is a pedestrian at some point in their day – whether for whole trips to destinations or a part of one, like walking to or from a transit station or stop, even to or from one's parked car. According to data compiled by the TPB, while the number of motorists and vehicle passengers killed in traffic accidents has been declining steadily since the early 2000s, the number of pedestrian and bicyclists fatalities has remained relatively constant. Sidewalks, crosswalks, crossing signals, and other such infrastructure make trips on foot safer and help reduce the number of pedestrians injured or killed in traffic collisions.

Installing more pedestrian infrastructure can also encourage more people to make more trips on foot, which has numerous benefits. When trips are made by foot instead of by car or transit, it contributes to less overall congestion on both systems. Greater pedestrian travel also has a positive effect on public health: a 2012 study by the Alliance for Biking and Walking found that areas with high rates of non-motorized transportation often have lower rates of obesity, high blood pressure, and diabetes. And the increased use of non-motorized transportation also has environmental benefits, reducing the negative effects of automobile use, such as air, water, and noise pollution.

Supports activity centers and builds community

As the region moves toward a model of high-density development around transit stations, pedestrian infrastructure is a key element in providing mobility and circulation within these places. This infrastructure is especially important in areas where there is a high density of destinations that are within close proximity to one another.

Pedestrian mobility also helps to build a sense of community since pedestrians are more likely to interact with, get to know, and identify with an area and the people within it. Increasing the prevalence of pedestrian infrastructure is also especially important to the safety and security of residents that must walk to fulfill their daily needs but live in areas with little to no pedestrian infrastructure.

CALLOUT BOX

All three states and most of the region's jurisdictions have Complete Streets policies in place that call for a transportation system that accommodates all users including pedestrians. The TPB adopted a regional Complete Streets policy in 2012 and called upon its member jurisdictions to develop their own policies if they had not already. Montgomery, Prince George's, and the Maryland State Highway Administration (SHA) adopted policies that were influenced in part by this regional policy.

Swanson, Kristen. 2012. Bicycling and Walking in The United States: 2012 Benchmarking Report. Washington, DC: Alliance for Biking & Walking.

EXPAND BICYCLE INFRASTRUCTURE (NT6)

What we should do

Make bicycling a viable transportation choice for more people in more places by making it safer, easier, and more convenient.

- Invest in more bike lanes and bike paths
- Expand bike-sharing systems like Capital Bikeshare
- Provide more bicycle parking
- Increase workplace amenities for bicyclists, such as showers and changing rooms

How much it will cost

**$$**$$$

Tens of millions of dollars

Why we should do it

Responds to rising demand

Bicycling is booming in the Washington region – not just as way to get healthy and have fun, but as a practical mode of transportation. Because of this rising demand, we need to expand bicycling infrastructure to make it safer and easier for more people.

Between 2000 and 2011, the District of Columbia saw the share of its residents who bicycle to work double, from 1.4% to 3.5%. Regionally, the share is still below 1%, but growing. Some higher-density, mixed-use communities outside the regional core have higher shares of people commuting to work by bike, like the area near the East and West Falls Church Metrorail stations, which saw 3.6% of commuters traveling by bike.

Interest in and support for bicycling is also growing across the region. Suburban jurisdictions are increasingly seeing that bicycling can provide a viable transportation option in locations where it was previously considered unrealistic. Fairfax and Montgomery counties, for example, are both pursuing the expansion of Capital Bikeshare into communities there. Bike to Work Day 2013 had a record 14,500 total participants, with individuals from every jurisdiction in the region pledging to commute to work by bike as part of the event.

Encourages greater use

The more bicycle infrastructure that is available, the more people are likely to ride. For example, since the year 2000, the District Department of Transportation (DDOT) has designated 56 miles of marked bike lanes, installed 2,300 bicycle parking racks, and launched Capital Bikeshare. Most of the increases in bicycle use observed over the last decade have occurred in the neighborhoods near downtown Washington, which has the highest concentration of new bike lanes, cycle tracks and bike share stations. Capital Bikeshare has been particularly effective in increasing bicycling trips. Bikeshare members take more than 240,000 trips each month.

Bicycling infrastructure is cost effective

Bike lanes cost about $15,000 per mile and costs can be much lower if the striping is done as part of planned resurfacings or larger streetscape projects. The new protected cycle tracks are more expensive at approximately $200,000 per mile, but they also facilitate more bicycling than can normal lanes.

Supports activity centers and builds community

Bicycling infrastructure is key element in community design. The TPB's Complete Streets Policy, adopted in 2011, called upon the region's governments to adopt policies to promote street design policies and standards to make alternative modes of transportation – including bicycling and walking, safer and more comfortable. Today, nearly all the region's jurisdictions have adopted complete streets approaches and are finding ways to make a range of transportation options available to more and more residents. Jurisdictions in all corners of the region are seeking their own ways to promote mixed-use activity centers and bicycle infrastructure to expand the number of destinations that can be reached without a car.

As we seek to improve air quality and improve public health, bicycling provides the freedom to get where you need to go quickly and efficiently. Even for people who do not often bike, it represents an expansion of our options for travel. And transportation choice is a key element in our region's vision for the future.

ONGOING STRATEGIES

A number of ongoing strategies are also important to achieving our region's long-term goals. These are strategies that will require continuing attention and investment over time. As with the near-term strategies identified above, many of our state, local, and regional transportation agencies are already pursuing these strategies, but we need to ensure that those efforts can continue into the future as we continue to work to achieve our goals.

The six ongoing strategies described in greater detail below include, in no particular order:

- **Ensure Maintenance of the Transit System (OG1)**
- **Ensure Maintenance of Roads and Bridges (OG2)**
- **Apply Priority Bus Treatments (OG3)**
- **Increase Roadway Efficiency (OG4)**
- **Ensure Accessibility for Persons with Disabilities (OG5)**
- **Update and Enforce Traffic Laws (OG6)**

ENSURE MAINTENANCE OF THE TRANSIT SYSTEM (OG1)

What we should do

Keep the Metrorail, Metrobus, local bus, and commuter rail systems in the region safe and in good working order.

- Finish carrying out the backlog of deferred maintenance
- Set up systems to address maintenance challenges as they arise
- Secure dedicated, reliable sources of funding to ensure maintenance is carried out as needed

How much it will cost

**$$$**$$

Hundreds of millions of dollars

Why we should do it

Our daily lives and our future depend on it

The Metro system is an essential part of our daily lives, providing than one million trips a day to area travelers. In the region's the core jurisdictions, our most congested areas, more than 43 percent of workers rely on transit to get to work. Regionally, 17 percent of commuters use transit to get to work – more than three times the national average. Lower-income residents are particularly dependent upon Metro services to get to jobs, schools and shops.

Metro is also a cornerstone for our future. The Council of Governments' vision for the future, Region Forward, calls for more development in mixed-use, walkable activity centers, many of which are focused around Metro stations and services. The TPB's long-range plan calls for more than $7 billion in regional transit investments, including the Silver Line, the Purple Line, and portions of the District of Columbia's planned streetcar system. These investments will create new demands on the existing system and new pressures on maintenance. If we don't take care of Metro today, these other projects will not be as effective as they need to be. And as a result, continued employment and population growth around stations will not be sustainable. Essentially, if Metro is not maintained, our lives and our economy will be immediately threatened.

Metro is iconic and part of our region's self-identity

Over the last 50 years, we have invested much more than money in the Metro system. In many ways our regional self-identity and our vision of the future is riding on Metro. At its best, the system symbolizes our region's vibrancy and the connectivity among our local communities and economies. But at its worst, Metro's maintenance problems can cause us to question our region's very ability to take care of our most basic needs. If we can't maintain our regional transit system, how can we expect to thrive in a competitive global economy?

We're already making progress, but need to do more

We are making progress with the backlog of maintenance needs that have accumulated over the years. Thanks to an infusion of federal and state funding, Metro in 2011 launched an aggressive $5 billion program to pull itself out of the hole of deferred maintenance. This intensive effort has already delivered a host of improvements that are improving safety, reliability, and customer service.

But we can't stop now. The current funding agreements do not extend beyond 2020.WMATA estimates that it will need more than $1 billion annually just to maintain and replace assets on a regular life-cycle basis to ensure a state of good repair and continue current levels of service. These projects include safety improvements recommended by the National Transportation Safety Board (NTSB), rail car and bus replacement and repair, and escalator replacements. We need to secure a dedicated, reliable source of funding to make sure these things can happen on a continuing basis in future years.

ENSURE MAINTENANCE OF ROADWAYS AND BRIDGES (OG2)

What we should do

Ensure that roadways and bridges provide safe, reliable, and comfortable travel for people and goods.

- Ensure that needed road and bridge maintenance projects are completed as a first priority for use of highway funding

How much it will cost

**$$$**$$

Hundreds of millions of dollars

Why we should do it

Preserves the backbone of our transportation system

High-quality, well-functioning roads enable the many essential economic transactions that make our region's economy so strong and resilient, ensuring tremendous economic opportunity and a high quality of life for as many people as possible. More than 1.3 million people use the region's road network to get to jobs each day, whether by car, vanpool, bus, or bike. And the goods that move using our road network are an essential part of day-to-day life and overall economic well-being.

Our road and bridge network truly is the backbone of our transportation system. Maintaining it is essential to the region's economic health. And it helps us meet so many of our other transportation and land-use goals, including improved bus service, more bicycle use, and strengthening and connecting mixed-use activity centers.

Saves motorists money and time… and their lives

By one estimate, motorists in the Washington region pay more than $500 a year in additional vehicle operating costs – accelerated vehicle depreciation, additional repair costs, increased fuel consumption and tire wear – due to poor pavement conditions (TRIP press release, 5/8/2009). And time spent stuck in slow-moving traffic due to poor pavement conditions also adds up. But, ultimately, road and bridge maintenance is a matter of personal safety. Deteriorating roads can lead to an increased number of accidents in which drivers and passengers are at greater risk of injury or death. Deteriorating bridges can and do collapse, as seen recently on I-5 in Washington State and in 2007 on I-35W in Minnesota.

Saves tax dollars in the long-run

Waiting for roads to crumble or bridges to fall down before performing routine maintenance is poor public policy. Keeping our roads and bridges in a state of good repair – that is, repairing and maintaining them before they deteriorate to the point of needing to be fully rebuilt – saves transportation agencies significant amounts of money in the long run. One estimate from the American Association of State Highway and Transportation Officials says that every $1 spent to keep a roadway in good condition saves $7 in spending to reconstruct it once it has fallen into disrepair. (AASHTO, *RRA*, p. viii)

APPLY PRIORITY BUS TREATMENTS (OG3)

What we should do

Apply priority bus treatments on key routes to make bus transit faster, more reliable, and more convenient.

- Roadway improvements, like separated bus-only lanes and queue jump lanes at intersections to allow buses to bypass traffic congestion
- Signal priority, to give buses more green lights
- Curb extensions, station platforms, pre-boarding payment systems and low-floor buses to ease and speed boarding and alighting
- Real-time bus information to help travelers plan their trips

How much it will cost

**$$**$$$

Tens of millions of dollars

Why we should do it

It's a smart use of existing infrastructure

Bus priority treatments can be a smart use of existing infrastructure. Rather than implementing new transit services that could put unrealistic capital and operating burdens on cash-strapped public transit providers, these approaches will create new transit capacity without requiring new operating expenditures.

Reduces travel times and greater reliability

The region has already prioritized these kinds of improvements and we are looking to do more, because the benefits of bus priority treatments are significant. Analysis of WMATA's Priority Corridor Network found that bus-only lanes and off-board fare collection can each provide travel time savings of three minutes per mile. Transit signal priority systems reduce travel times by approximately 30 seconds per mile.

Encourages increased transit ridership

These benefits will add up to more predictability and convenience in the daily commutes of bus riders throughout the region. As bus travel becomes more attractive, more people will use them, which will reduce roadway congestion, improve air quality, and provide more accessibility to economic opportunity for people in all corners of the region.

CALLOUT

In 2010, the TPB was awarded a federal stimulus grant of $58.8 million under the TIGER (Transportation Investment Generating Economic Recovery) Program to implement bus priority projects throughout the region. Today the 16 projects funded under that grant are demonstrating efficiency benefits that are

models for replication. Looking forward, WMATA's Priority Corridor Network Plan has identified recommended improvements along 24 bus corridors throughout the region that could be first in line to receive funding for priority treatments.

INCREASE ROADWAY EFFICIENCY (OG4)

What we should do

Smooth traffic flow and minimize delays on the existing road network.

- Coordinate traffic signals and construction schedules
- Provide travelers with more real-time traffic information
- Respond to and clear traffic accidents more quickly
- Prepare for severe weather and other highly disruptive incidents

How much it will cost

**$$**$$$

Tens of millions of dollars

Why we should do it

Potential for extra capacity and fewer delays exists

We've found lots of ways over the years to use our road network more efficiently – for example, by using open-road tolling to eliminate queues at tollbooths and broadcasting traffic reports on television and radio so motorists can choose alternate, less congested routes. But the region can do more. And thanks to advances in technology, squeezing additional capacity out of the existing road network in such ways is becoming easier.

Already the state departments of transportation and other agencies in our region have come together to create and support MATOC, the Metropolitan Area Transportation Operations Coordination program. MATOC exists to monitor traffic and weather conditions and coordinate responses to highly disruptive incidents like severe weather and major accidents.

But measures like more traffic cameras and in-road sensors could help spot and respond to traffic accidents more quickly and to relay information about traffic conditions to drivers on overhead signs, smartphone apps, and in-vehicle navigation systems. Efforts to collect and store data about traffic conditions on an ongoing basis could be used to make predictions about future travel patterns, which could help identify improvements needed to further smooth traffic flow and minimize delays.

Eventually, technology could allow roadways to communicate with vehicles, and vehicles to communicate with other vehicles, allowing cars to follow one another more closely at constant speeds – minimizing congestion and moving more cars through a given roadway. Such steps could also improve on-road safety by reducing the chances of accidents.

The benefits of small improvements multiply quickly

The benefits of roadway efficiency measures multiply quickly, since they can affect so many travelers at once. Even something that saves an individual traveler only two minutes of travel time can get multiplied across tens of thousands of drivers on busy roads at peak travel times. The personal time-

savings, increased travel time reliability, savings on wasted fuel and increased productivity all add up to benefits for the region. And trucks that are responsible for moving goods and making on-time deliveries are also better able to do their jobs, providing further economic benefit.

Makes the most of what we already have

Finding ways to squeeze more capacity out of our existing road network helps us make the most of the transportation infrastructure we already have. That can allow us in some cases to avoid building expensive new infrastructure. Construction costs and limited availability of land, especially in urbanized areas, can make it difficult to expand roads, so finding ways to make the most of what we already have is a necessity.

ENSURE ACCESSIBILITY FOR PERSONS WITH DISABILITIES (OG5)

What we should do

Improve access to the existing transit system and other transportation services for people with disabilities, in order to create more and better travel options for all individuals.

- Increase oversight and compliance with requirements under the Americans with Disabilities Act (ADA)
- Improve MetroAccess and other paratransit services, and provide more wheelchair-accessible taxis regionwide
- Coordinate programs that benefit those with disabilities and increase information services such as travel training
- Encourage Complete Streets provisions that ensure that public rights-of-way are designed with all users in mind
- Ensure adequate funding to make accessibility improvements to public transportation

How much it will cost

**$$**$$$

Tens of millions of dollars

Why we should do it

Mobility is essential to equal opportunity

Two decades after passage of the Americans with Disabilities Act, or ADA, transportation options for many people with disabilities in the Washington region remain limited. Though ADA has led to substantial advancements by guaranteeing a baseline of accessibility to public transportation, some parts of the transportation network still do not comply with minimum ADA requirements, creating obstacles to access. Accessible transportation options are particularly sparse for individuals who live outside of the reach of public transportation.

Unfortunately, this lack of options means that getting to work, to school, to medical appointments, and to countless other destinations can be a challenge for individuals with limited mobility. Without access to reliable, affordable transportation options, many individuals are unable to contribute to and benefit from society as individuals, workers, taxpayers, and consumers.

Mobility for all means advantages for all

Most improvements that help people with disabilities also help the population at large. Everyone benefits from Complete Streets policies that promote high-quality pedestrian amenities, more accessible bus stops, easy-to-read signs, audible indications, and visual communications on transit. Additionally, as our population ages, a greater number of us will require more transportation options that are accessible to individuals with limited mobility.

We can easily build on programs that already exist

Efforts to improve transportation options for people with disabilities are already under way in our region. MetroAccess, WMATA's paratransit service, provides door to door service within a three-quarter mile radius of Metrorail stations and Metrobus stops in Maryland and the District, and jurisdictions throughout the region have passed legislation requiring operation of wheelchair-accessible taxicabs.

In addition, efforts to educate the public on existing options are gaining traction. Through the Reach-A-Ride program, the TPB is trying to make it easier for people with specialized transportation needs to find the services they require and to find providers that serve their area. With the help of federal grant funds, organizations in the region have begun to provide "travel training" to educate individuals and groups on how to use the transportation system safely and effectively. By participating in these programs, individuals can enjoy significantly greater independence, self-reliance, and mobility as they start using public transit. Much can be done to improve and expand these services so they become better options throughout the region.

UPDATE AND ENFORCE TRAFFIC LAWS (OG6)

What we should do

Apply non-engineering solutions to make the transportation system safer and reduce the number of traffic-related injuries and fatalities.

- Update existing traffic laws to make roadways safer for all users, especially bicyclists and pedestrians
- Improve enforcement of traffic laws, through stepped up in-person enforcement and automated enforcement techniques like red-light and speed cameras in high-exposure areas
- Increase public information and outreach regarding traffic laws to ensure that everyone is aware of the "rules of the road"

How much it will cost

**$**$$$$
Millions of dollars

Why we should do it

Improves safety for all users

As more and more trips in the region are made by bicycle and on foot, we have to find ways for all road users to coexist safely and peacefully. "Engineering" solutions – like striped crosswalks, pedestrian signals, and bike lanes – go a long way to making bicyclists, pedestrians, and drivers safer, by reducing the risk of collisions and other conflicts. But updated laws that account for the particular needs and vulnerabilities of non-motorized road users – and enforcement of those laws – are also important in reducing the risk of accidents that cause injuries, or even death.

One of the most effective ways to protect bicyclists and pedestrians is by lowering vehicle speeds in areas where they are most likely to be or would want to be. A 2011 study by the American Automobile Association (AAA) found that the average risk of severe injury for a pedestrian struck by a vehicle rises from 10% if struck by a vehicle traveling at 16 mph up to 50% if struck by a vehicle traveling at 31 mph. The risk increases to 75% at 39 mph and to 90% at 46 mph. Many places throughout the region, where local planners, officials, and residents are seeking to encourage non-motorized travel, have taken steps to reduce speed limits in key areas.

Changes to other laws, especially those that require bicyclists to operate as if they're motor vehicles, should also be changed to help reduce potential conflicts – for example, allowing bicyclists to enter intersections ahead of motorized vehicles. Other states and local jurisdictions also have in place laws requiring motorists to give three feet when passing bicyclists and imposing higher penalties for motorists who injure or kill a pedestrian or bicyclists through careless or inattentive driving.

To ensure that these measures are as effective as possible, stepped up in-person enforcement and automated enforcement techniques like red light and speed cameras, especially in high-exposure areas, are also important. Twice a year, the TPB sponsors the regional Street Smart program, which aims to

remind motorists, bicyclists, and pedestrians about traffic safety laws and to encourage local law enforcement to step up patrols in high-exposure areas.

Minimizes conflicts and improves traffic flow

All roadway users stand to gain from updating laws that minimize conflicts between different types of users because of reduced chances of collisions and the stress associated with that risk. Doing so can also smooth traffic flow by helping different users operate within the roadway in a predictable, coordinated way rather than in what can sometimes feel like chaotic, haphazard interaction.

Supports activity centers and builds community

Updating and enforcing traffic laws, especially those that protect bicyclists and pedestrians, makes modes of travel other than driving more viable travel options for more people. Such efforts complement expanded bicycle and pedestrian infrastructure to make activity centers function better and to build community. Moving people around within activity centers is crucial to the functioning of such high-density, mixed-use areas. But facilities alone – that is, engineering solutions – only go so far. Making bicycling and walking safer and easier invites more people to use non-motorized modes, which adds to the functioning of activity centers but also the sense of community that bicycling and walking encourages by making people more likely to interact with, get to know, and identify with an area and the people within it.

LONG-TERM STRATEGIES

A half-century ago, we built the Capital Beltway and launched the Metro system. These bold projects responded to our region's needs in a manner well suited to the post-World War II era, when resources were more abundant and support for major public spending projects was much higher.

Today things are different. Funding is tight, our road and rail systems desperately need maintenance, and expansion opportunities are limited due to resource constraints and little public will to raise new revenue. But the demands on our transportation system are even greater than they were 50 years ago. The region is growing and our economy is diversifying. We cannot afford to just sit back. The right transportation decisions today can help us seize the opportunities of tomorrow.

Massive public works projects like the Beltway and Metro were the result of bold, visionary, post-World War II thinking and determination. But what will be the bold solutions that serve the next generation? What will be the iconic transportation initiatives that respond to – and take advantage of – this current moment in history?

Our long-term strategies must be cost-effective. We need to be smart about our transportation decision-making, beginning with the fact that we need to make better use of infrastructure that is already in place. That means we need to promote growth in regional activity centers so that we can maximize existing transportation connections among and within these centers.

But we also need to capture the imagination of the public through visionary thinking and creative problem solving. At the most basic level, we need to continue to meet the everyday needs of a growing population, while planning for the growth expected over the coming decades.

The three integrated long-term strategies described below combine certain long-term strategies with others that, together, have synergistic effects surpassing the sum of the benefits of implementing either strategy by itself.

SCENARIO A: EXPRESS TOLL LANES WITH BUS RAPID TRANSIT (LT1)

What we should do

- **Build express toll lanes on most interstate highways and some major arterial highways**
- **Operate a network of bus rapid transit on express toll lanes, with connections primarily to Activity Centers and/or major rail stations**

How much it will cost

**$$$$**$

Billions of dollars

Why we should do it

Meets rising roadway demand in an era of limited funding

Express toll lanes represent a new way of thinking about how to meet rising demand for driving in an era of limited public funding. Express toll lanes can add capacity to our existing road system in a manner that ensures that congestion-free options will always be available for drivers willing to pay for them – that the lanes won't simply "fill up again" as more people crowd on to the region's roads. Rather than building enough capacity to ensure free-flowing traffic for all vehicles at all times – which most engineers agree is impossible in most urban areas – express toll lanes always make congestion-free travel an option for individuals when they need it most by charging tolls that vary based upon levels of congestion to ensure that traffic remains free-flowing and that travel times are more predictable and reliable.

Managed toll lanes already exist on the Intercounty Connector (ICC) in Maryland and on the 495 Express Lanes on the Capital Beltway in Virginia. Such lanes are also under construction on I-95 in Virginia. These facilities make more efficient use of our road system by putting a price on the use of new roadway capacity to help manage congestion and to help raise revenue for its construction. Toll lanes are the most likely way that we will be able to help fund the road improvements that we are going to need in our growing region, even as we seek to reduce our dependence on driving.

Provides high-quality transit service at a fraction of the cost of rail transit

Bus rapid transit, otherwise known as BRT, provides high-quality transit service approaching the speed, frequency, and reliability of heavy rail – like Metro – but at a fraction of the cost to build. Pre-payments systems and level boarding – either low-floor buses or elevated station platforms – assure speedier and more efficient service. Bus-only lanes or lanes with guaranteed free-flow traffic conditions ensure that BRT vehicles do not get stuck in traffic. And because BRT uses much of the same kind of infrastructure that cars do, it can be implemented on limited-access highways or arterial roads, as is being done on Route 1 in Alexandria.

Express toll lanes and BRT are mutually supportive

A combined network of express toll lanes and BRT would produce benefits that neither approach would independently offer. The congestion-free travel lanes provided through a variable tolling system would be used by BRT vehicles to ensure predictable service. In addition, TPB studies have found that tolls collected on the express toll lanes will cover much of the cost of the new lanes and bus service. Such a system would substantially increase the travel choices offered throughout the region – both for transit riders and for drivers who are seeking congestion-free driving.

Pairing the priced lanes with BRT services provides the potential for great synergy: variable priced toll lanes provide free-flowing running way for buses while toll revenues offset the cost of bus facilities and services. BRT services reduce the demand for the priced lanes, allowing them to operate more smoothly and carry more people with fewer vehicles. Both the BRT and priced lanes would provide incentives for travelers to choose more efficient travel modes, like carpools, vanpools, or transit, providing congestion relief to the existing general-purpose lanes.

TPB analysis has found that such a network would substantially reduce the anticipated increase in congestion, while providing the new road capacity necessary to keep our region's economy functioning. It would also provide improve transit access and shorten average commute times.

The TPB has conducted a number of scenario studies involving the tolling of a significant number of existing highway lanes (including the major parkways, for example), and has also conducted a study funded by the Federal Highway Administration (FHWA) of the public acceptability of congestion pricing in the Washington region. This latter study included three different congestion pricing scenarios, all of which included pricing of some existing highway lanes, and one of which included pricing of the entire highway system. The study found support for some of the scenarios, but also found significant concerns about a number of aspects of the pricing proposals.

During the course of the FHWA sponsored study of the public acceptability of congestion pricing, the new MAP-21 legislation enacted in July of 2012 included language which permits certain types of toll-financed construction activities, including: new highways; new lanes added to existing highways (so long as the number of existing toll-free lanes is not reduced); reconstruction of highways (non-Interstate only); reconstruction or replacement of bridges or tunnels; and capital improvements to existing toll facilities. Also permitted is conversion of high-occupancy vehicle (HOV) lanes to high-occupancy toll (HOT) lanes, both on and off the Interstate system.

Some limited opportunities to toll existing highway lanes are provided under MAP-21 through two pilot programs: the Interstate System Reconstruction and Rehabilitation Pilot Program (ISRRPP) and the Value Pricing Pilot Program (VPPP). The ISRRPP is currently available to only three states (North Carolina, Missouri, and Virginia), and requires approval of a program application by the Federal Highway Administration (FHWA).

With regard to the VPPP, MAP-21 continues FHWA's ability to enter into cooperative agreements, but no additional funds are available after Fiscal Year 2012 for discretionary grants to the 15 state agencies currently authorized to participate. (The District of Columbia, Maryland, and Virginia are included in these 15 authorized agencies). FHWA has indicated that requests for tolling authority under the VPPP will be limited to situations that cannot be accommodated under the mainstream tolling programs, such as the pricing of existing toll-free facilities without substantial reconstruction of those facilities.

As a result of these new MAP-21 legislative provisions, the TPB toll-lane scenarios were revised to remove any instances where the number of toll-free lanes would be reduced. The results of the revised scenarios were reported to the TPB in April of 2013, and were used to define the toll-lane strategies in the RTPP web-based survey and in this RTPP report.

SCENARIO B: CONCENTRATED GROWTH WITH MORE TRANSIT CAPACITY (LT2)

What we should do

- **Concentrate more development in Activity Centers to achieve land-use and transportation efficiencies**
- **Increase capacity of the existing rail and bus network to meet rising demand**
- **Expand pedestrian and bicycle infrastructure, especially in Activity Centers, to enhance local circulation and encourage more bicycling and walking**

How much it will cost

**$$$$**$

Billions of dollars

Why we should do it

Achieves land-use and transportation efficiencies

Concentrated growth has become a hallmark of our regional land-use policy. The *TPB Vision* and COG's *Region Forward* both emphasize the role of mixed-use regional activity centers throughout the region as focal points for job and housing development and as nodes for transportation linkages. COG's current list of regional activity centers includes 141 locations, about seven out of ten of which are or will, under current plans, be served by high-frequency, high-capacity transit service.

More housing and jobs located in activity centers near transit means more people can use the transit system and will have more opportunities to walk or bicycle to nearby destinations. But developing activity centers will do more than just achieve transportation efficiencies. It also supports and encourages more balanced job and household growth that benefits the region in other ways – by promoting robust economic development in all jurisdictions, inner and outer, east and west, for example. Activity centers can also be more resource-efficient, typically capitalizing on existing infrastructure like water, sewer, and power utilities and other public services, as well as transportation, instead of requiring expensive expansion.

The focus on activity centers is not a one-size-fits-all approach, however. The region's activity centers are located throughout every jurisdiction and must capitalize on their own unique identities and assets. An activity center in Loudoun County will not look like one in the District of Columbia, but both places can be less auto-dependent, and more walkable and economically vibrant.

Meets rising demand for transit, especially in the regional core

Basic capital improvements in the Metro system, commuter rail, and the region's other transit systems are desperately needed, as are capacity improvements in key locations, especially the regional core. The Metrorail system is already operating at close to capacity in some locations during peak hours and will continue to get more crowded as the region grows.

These needs are acute and will require action in the short-term. According to current regional plans, there is no funding for expanding Metro capacity in the core, and as a result, the Metrorail system may be unable to handle projected ridership growth, limiting the number of people who can use Metrorail and possibly forcing more people onto already crowded roadways. That kind of constraint is exactly the wrong direction for our region and our future economic prosperity and well-being, which will rely on increased transit ridership.

To respond to this need, the region needs to fund priority improvements for the next 10 years, including all eight-car trains during rush hour and station enhancements. So much depends on whether Metro and other transit systems in the region can handle the challenges they will face over the next decade. Activity centers – a cornerstone of our regional economic development policy – simply will not work if transit and commuter rail systems are not able to connect them and move people efficiently between them. And the new transportation systems that we have planned, including investments of $7 billion currently in the CLRP, will not perform as expected if the existing transit system does not rise to the challenge of anticipated growth.

Supports higher-density development and encourages more bicycling and walking

Travel *within* an activity center is just as critical as travel *between* activity centers. The region's communities must be designed to accommodate short trips on foot, by bike, or on circulator buses and vans, as these modes of transportation make much more efficient use of limited space and public resources. Our long-term strategies must include comprehensive efforts to ensure non-motorized options are fully viable, which can mean something as simple as building a sidewalk or as complicated as establishing a bike-share program in a suburban location.

Such enhancements will reduce localized congestion that may be created by concentrated development. They will help make transit a more attractive and practical travel option for those who live or work nearby by making it easier and safer to access transit or to reach final destinations.

More housing and jobs located near transit makes transit a more viable travel option for more people. But people won't take advantage of this increased opportunity if our trains and buses are too crowded, unreliable, or not even present. Nor will they choose to walk or bicycle to nearby destinations if communities don't have sidewalks and bike lanes, or if they feel unsafe or unwelcoming. To make activity centers vibrant and livable we need to implement these strategies in combination.

TPB analysis of this package of strategies shows that more compact development, with supportive transportation improvements, will be key to achieving greater efficiencies in our transportation system. By altering land-use priorities, this package suggests that we can take advantage of a significant amount of unused transportation capacity that already exists in reverse-commute directions on certain transit lines, as well as "selling the same seat twice" in the peak direction as one group alights to reach jobs at a suburban mixed-use center and another group boards to travel further along the line.

This package of strategic elements would provide substantial benefits in access for transit riders as well as for bicyclists and pedestrians. More modest benefits would also be achieved in reducing average commute times and in reducing anticipated increases in congestion.

COMBINATION OF STRATEGIES A AND B (LT3)

What we should do

- **Build express toll lanes on most interstate highways and some major arterial highways**
- **Operate a network of bus rapid transit on express toll lanes, with connections primarily to Activity Centers and/or major rail stations**
- **Concentrate more development in Activity Centers to achieve land-use and transportation efficiencies**
- **Increase capacity of the existing rail and bus network to meet rising demand**
- **Expand pedestrian and bicycle infrastructure, especially in Activity Centers, to enhance local circulation and encourage more bicycling and walking**

How much it will cost

$$$$$

Tens of billions of dollars

Why we should do it

Maximizes the mutually-supportive benefits of all the strategic elements

This combination would pull together all of the strategic elements described above. This strategy would be grounded in a regional land-use policy that would encourage activity centers to blossom into vibrant nodes of mixed-use and walkable development. People who live and work in these centers would enjoy a variety of travel options for trips across town and across the region. They could choose from a range of transportation options for longer trips that connect activity centers, including an integrated system of BRT and toll lanes, as well as a revitalized transit network. And for short trips, they could safely and easily walk, bike or take a short local bus.

The TPB has studied the elements of such a strategy in its *CLRP Aspirations Scenario*, which looked at the effects of implementing a 1,650-mile regional toll-lane network, a region-wide 500-mile system of high-quality bus rapid transit service, and changes in land-use policies to promote denser, transit-oriented development. The TPB found that combining all these elements above would give people in the region greater benefits than the disaggregated elements described earlier or the currently planned future. It would also create access to the widest variety of travel options. A range of new transportation options would be provided – including more transit, congestion-free priced lanes, and pedestrian and bicycle facilities, and new road capacity. Congestion will be less pervasive than otherwise predicted and commutes will take less time.

CHAPTER 4:
PUBLIC OPINION SURVEY

In the spring of 2013, TPB staff conducted an online survey on regional transportation priorities in order to solicit citizen input on potential components of the RTPP. The survey was designed and administered using MetroQuest public engagement software, developed by the firm Envision Sustainability.

SURVEY METHODOLOGY

Sample Design

The Regional Transportation Priorities Plan (RTPP) Survey was designed to obtain opinions on regional transportation challenges and strategies from a probability-based random sample of 600 adults residing in households located within local jurisdictions that comprise the TPB Planning Area. A multi-stage sampling process was used to obtain this scientifically selected random sample. In the first stage, a systematic random sample of all potential households to be surveyed was drawn from a current list of residential mailing addresses in the TPB Planning area. In this first stage, every household in the TPB planning area had an equal probability of being selected to participate in the RTPP survey. The randomly selected households from the first stage were sent letters in English and Spanish asking that the member of their household 18 years of age or older with the next upcoming birthday access and complete the RTPP Survey via an Internet web link and personal identification number (PIN) code provided in the letter. Selecting the household member 18 years of age or older with the next upcoming birthday was a simple way of randomly selecting one adult within each household to complete the RTPP survey. The randomly identified person in each household agreeing to participate in the survey was offered and provided with a $25 gift card once they completed the on-line RTPP survey.

Recruiting Participants

Recognizing that not every randomly selected household receiving a letter asking for their participation in the RTPP survey would agree to participate, a survey recruitment plan based on the postal carrier routes of the initial 600 randomly selected households was followed. Because it was estimated that only about 10% of the households receiving the RTPP Survey letters would likely participate, additional letters were mailed in successive, multiple waves to households living in the same postal carrier route as the initially selected household. That way, if the initially selected household did not agree to participate, additional mailings were made to other households in the same general neighborhood until a household residing within that same postal carrier route agreeing to participate was found. Up to 21 mailings in some postal carrier routes were made in an attempt to obtain at least one response from each of the 600 selected carrier routes. A postal carrier route is the house-to-house and apartment-to-apartment sequence of mail deliveries that a postal carrier follows each day. On average, postal carrier routes include deliveries to about 550 residential units and are generally homogeneous in the type of neighborhood served.

Response Rates

A total of 660 persons in 481 unique postal carrier routes responded to the request to participate and completed the online survey. Overall, about 8 percent of the households that were mailed letters requesting their participation completed the survey. Based on the number of completed survey responses in the 481 carrier routes, a sampling error of about +/- 3.5% at the 90-percent confidence level is estimated.

At least one survey response was received from every local jurisdiction in the TPB Planning Area, as shown in Table 1. A map depicting the geographic distribution of the RTPP Survey responses is presented in Figure 1.

TABLE 1: Completed Responses by Jurisdiction

Jurisdiction	Number of Surveys Completed
District of Columbia	77
Arlington County	56
City of Alexandria	21
Montgomery County	127
Prince George's County	81
Fairfax County	148
Fairfax City	5
City of Falls Church	3
Loudoun County	39
Prince William County	48
City of Manassas	3
City of Manassas Park	1
Frederick County	32
Charles County	19
TPB Regional Total	**660**

Weighting Responses

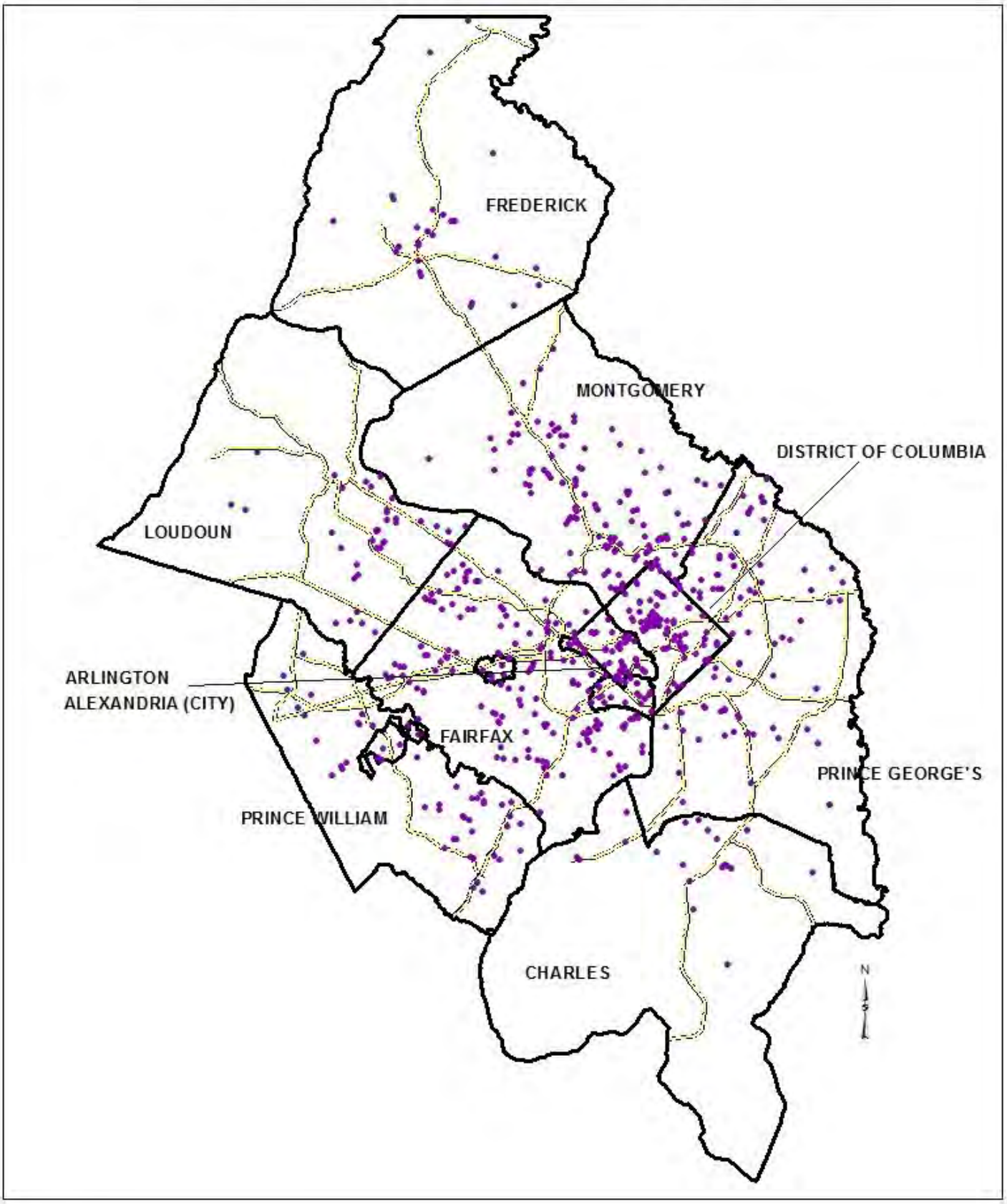
Rigorous statistical methods and controls were used to weight and tabulate the 660 survey responses. This was done to eliminate potential bias caused by people who did not respond and to ensure that the survey results accurately represented the opinions of all adults residing in households located within the TPB Planning Area.

First, each of the 600 postal carrier routes identified in the original systematic random sample of all potential households was assigned a base survey weight equal to the inverse of the probability of a

household in that carrier route would be selected in the random sample. Roughly, this value equated to a survey weight of 3,300 and meant that each household in the original random sample represented

Figure 1:

RTPP Survey Responses for the TPB Area



approximately 3,300 other households when expanded back to represent the total number of households in the TPB Planning Area.

Next, because multiple survey responses were received from some postal carrier routes and no responses were received from others, two additional weighting steps were required to maintain the overall representativeness of the original systematic random sample. First, in postal carrier routes with multiple survey responses, multiple response weighting factors were calculated by dividing each individual response from that carrier route by the total number of responses for that carrier route. Thus, if there were two survey responses from the same carrier route, then each response was weighted by one-half, or 0.50. Similarly, if there were three responses from the same carrier route each response was weighted by one-third, or 0.33, and so on.

The second additional weighting step accounted for the carrier routes from which no survey responses were obtained. In this step, all of the original 600 postal carrier routes in the original systematic random sample were post-stratified into 197 jurisdiction, income group, and carrier route housing type strata. Final survey weights for each responding household were then calculated by summing the initial carrier route base weights within each of the 197 jurisdiction, income group, and housing type strata and dividing this value by the sum of the total survey responses, weighted for multiple responses, in each of the respective strata. In the post-stratification process initial carrier route base weights and weighted surveys responses for the independent cities of Fairfax City and Falls Church were combined geographically with those for Fairfax County. Similarly, initial carrier routes base weights and weighted surveys responses for the independent cities of Manassas and Manassas Park were combined geographically with those for Prince William County.

Survey Respondents by Geographic and Household Characteristics

The distribution of weighted survey responses by jurisdiction within the TPB Planning Area matches up extremely well with the jurisdictional distribution of households reported from the 2010 Decennial Census, as shown in Table 2. No detectable survey bias in the geographical distribution of weighted survey responses is seen within the TPB Planning Area.

Also, the weighted survey responses by housing unit type compare very well with similar household data from the 2011 Census American Community Survey (ACS) for the Washington, DC, Metropolitan Statistical Area as shown in Tables 3. The distribution of median household incomes in the randomly selected postal carrier routes compared with similar 2011 ACS data show that a higher percentage of the respondents to the RTPP survey tended to live in postal carrier routes in middle income ranges as opposed to the highest income range, as seen in Table 4.

TABLE 2: Comparison of Regional Distribution of Weighted RTPP Survey Respondents with the 2010 Census

Jurisdiction	RTPP Survey Percent	2010 Census Percent
District of Columbia	14.2%	14.1%
Arlington County	5.5%	5.2%
City of Alexandria	3.5%	3.6%
Montgomery County	18.7%	18.9%
Prince George's County	16.3%	16.1%
Fairfax County/Cities	21.0%	21.5%
Loudoun County	5.5%	5.5%
Prince William County/Cities	8.0%	7.8%
Frederick County	4.7%	4.5%
Charles County	2.7%	2.7%
Total	100.0%	100.0%

TABLE 3: Percentage Distribution of RTPP Respondents by Housing Unit Type

	RTPP Survey Percent	2010 Census Percent
Single-Family House	67.0%	68.3%
Apartment or Condo	33.0%	31.6%
Total	100.0%	100.0%

TABLE 4: Distribution of Median Household Income

	RTPP Carrier Route Percent	2011 Census ACS Percent
Less than $75,000	38.2%	43.0%
$75,000 - $99,999	27.4%	13.6%
$100,000 - $124,999	21.0%	11.6%
$125,000 or more	13.4%	31.8%
Total	100.0%	100.0%

Survey Respondents by Demographic Characteristics

Persons responding to the RTPP Survey were asked three questions on their demographic characteristics and one question about their usual commuting mode. The three demographic characteristics were gender, age group, and race/ethnicity. Comparisons of the weighted RTPP survey responses with similar data from the 2010 Census data by gender, age group, and race/ethnicity are shown in Tables 5 to 8.

Generally, the demographic characteristics of the RTPP respondents compared very well with the Census data. Nonetheless, a slightly higher percentage of RTPP respondents tended to be in the 55 to 64 age group and slightly lower percentages of the RTPP respondents were in the 18 to 24 and 65+ age groups. Also, a somewhat higher percentage of RTPP respondents were Non-Hispanic and White by ethnicity and race compared to the 2010 Census data.

TABLE 5: Percentage Distribution of RTPP Respondents by Gender

	RTPP Survey Percent	2010 Census Percent
Female	53.7%	52.3%
Male	46.3%	47.7%
Total	100.0%	100.0%

TABLE 6: Percentage Distribution of RTPP Respondents by Age

	RTPP Survey Percent	2010 Census Percent
18-24 years	3.8%	11.0%
25 - 34 years	22.5%	20.9%
35 - 54 years	44.3%	40.2%
55 - 64 years	21.0%	14.9%
65 and over	8.4%	12.9%
Total	100.0%	100.0%

TABLE 7: Percentage Distribution of RTPP Respondents by Ethnicity and Race

Non-Hispanic/Latino:	RTPP Survey Percent	2010 Census Percent
White/ Caucasian	64.8%	56.6%
Black/African American	21.0%	29.4%
Asian American	7.6%	10.5%
All Other Race	6.6%	3.4%
Total Non-Hispanic Latino	100.0%	100.0%
Hispanic/Latino	6.1%	13.5%

Survey Respondents by Usual Commuting Mode

In addition to the three questions on their demographic characteristics, RTPP Survey respondents were also asked about their usual means of commuting to work. Table 8 shows that a significantly higher percentage of RTPP Survey respondents reported that they usually use transit to commute to work and lower percentages of RTPP Survey respondents reported that they drove alone or carpooled to work compared to similar data from the 2011 ACS. Nonetheless, still more than 60% of the RTPP respondents reported that they normally commuted to work by auto. Because each household in the initial randomly selected sample had an equal opportunity to respond, the higher percentage of transit commuters completing the RTPP survey may indicate that regular transit users may have a greater interest in regional transportation challenges and strategies than other types of commuters.

Overall, the analysis of the RTPP Survey respondents by geography, household and demographic characteristics, and usual commuting mode show that these respondents are generally representative of adults residing in households located within local jurisdictions that comprise the TPB Planning Area.

TABLE 8: Percentage Distribution of RTPP Respondent by Usual Commuting Mode

	RTPP Survey Percent	2011 Census ACS Percent
Drove Alone	58.6%	65.8%
Carpool	3.6%	9.7%
Public Transportation	29.0%	15.4%
Walk and Bike	3.9%	4.0%
Work at Home/Other	4.8%	5.1%
Total	100.0%	100.0%

SURVEY DESIGN

MetroQuest software was selected because it offered many advantages over a traditional survey. The software is fully customizable and provides an apparatus for collecting and processing opinion data from a large segment of the region's residents. It has the ability to convey large amounts of complex information in an attractive, engaging visual interface. In addition, the software solicits a variety of feedback including rating and rankings, traditional survey questions, and open-ended response areas for suggestions and additional comments.

The information that was presented to participants through the MetroQuest software was limited in terms of technical specificity since the survey was self-administered. Technical performance measures were not presented because they were difficult to communicate well to the general public through the web-based tool. Instead, the survey was designed give users information to understand the context for the Regional Transportation Priorities Plan before asking for feedback from them. Before the survey went public, two rounds of beta testing were held in order to make sure that the survey tool was clear and understandable to potential respondents. When released the survey was available in both English and Spanish, and additional accommodations were arranged for other participants when requested.

Goals and Challenges

Each goal was presented on a separate screen, and challenges keeping us from reaching the goals were presented below the goal description. Every goal included an optional "Read More" section that contained additional information about the goal, including where the region is in terms of achieving the goal. For each challenge, the following question was asked:

In order to reach the goal, how significant is each challenge?

Rate from 1 star (not significant)  to 5 stars (very significant)

Participants were also invited to comment on each challenge and to suggest additional challenges that might have been left out.

Strategies

Survey participants were then presented with 15 separate strategies organized into three categories: near term; on-going; and long term. Each strategy was presented with a picture, a brief description, and information on "what we get" and "what it costs us." Respondents were asked to answer two questions for each strategy:

1. **Do you support this strategy?** (Move the slider to indicate support or opposition)

Oppose Support

2. **How would you pay for it?** (select one)
   Additional Dedicated funding
   Compete for existing fund
   Don't support/ fund

The question about funding was asked and coupled with the question of support in order to remind participants that strategies will need to be paid for, and to find the strategies that had a deeper level of support from our participants if they indicated that they would support "additional dedicated funding". Our beta test subjects confirmed that they answered "additional dedicated funding" only for the strategies that were most important to them. Participants were also asked to submit comments on each of the strategies, and to suggest addition strategies that were not included in the survey.

Polling Questions

Following the main elements of the plan, three polling questions were asked to gauge participants' opinions on matters outside of the goals, challenges and strategies. Each of the questions was meant to address feedback from previous engagement activities that did not fit nicely into the discrete strategies that were being developed. These questions were:

1. **How confident are you that the transportation agencies serving the region will make good use of the resources available to them?**
    - Not confident at all
    - Somewhat not confident
    - Neutral
    - Somewhat confident
    - Very Confident

2. **How important do you think public information campaigns are?**
    - Not important at all
    - Not important
    - Neutral
    - Important
    - Very Important

3. **Do you think opposition from current residents and business owners would be an obstacle to increasing development in these areas?)**
    - Definitely Not
    - Probably Not
    - Neutral
    - Probably
    - Definitely

SURVEY RESULTS

Challenges

Survey respondents were asked to rate, on a scale of 1 to 5, how significant each of the transportation challenges was in keeping us from achieving the regional goal that it was associated with. A rating of 1 meant that the challenge was not significant and 5 meant the challenge was very significant.

NOTE: *The observed number of respondents for carpool, walk/bike, and other transportation mode users is very low. Information that is reported for each of these modes is meant to be illustrative.*

Findings:

- All of the regional challenges identified in the survey tool were rated as being significant issues standing in the way of achieving our regional goals. The average ratings for each challenge ranged from 3.26 (out of 5) to 4.47 (out of 5).

- The top four challenges that were identified as the most significant region-wide were, in order: **Transit Crowding**, **Metro Repair Needs**, **Roadway Congestion**, and **Roadway Repair Needs**
    - These four challenges were identified as the most significant by respondents in both the core and inner suburban jurisdictions
    - Respondents from the outer jurisdictions identified **Transit Crowding**, **Roadway Repair Needs**, **Bottlenecks**, and **Incidents** as their top four significant challenges
    - The top four challenges for users of different modes varied:
        - **Transit Crowding** was rated as a top challenge by all mode users.
        - **Metro Repair Needs** was identified as a top challenge by all mode users except those who drive alone.
        - Carpoolers identified **Environmental Quality** and **Open Space Development** in their top four challenges
        - Transit users also identified **Environmental Quality** as a top challenge
        - Walkers and bikers said that **Unsafe Walking and Biking Facilities** was also a top challenge

- Overall **Transit Crowding** was identified as the most significant regional challenge
    - This was consistent among respondents across the region: Transit crowding was the top challenge among respondents in all three sub-regional areas (regional core, inner suburbs, and outer suburbs).
    - Transit crowding was also identified as the top challenge across users of all modes of transportation, except transit-users who identified roadway congestion as slightly more significant.

- Overall, **Pedestrian and Bicyclist Safety** and **Development Around Metrorail** were rated as the least significant challenges.

- A similar percentage of respondents gave a rating of four for each challenge. The main difference in the responses was the rating of 5.

Figure 2: Transportation Challenge Ratings
Regional Averages

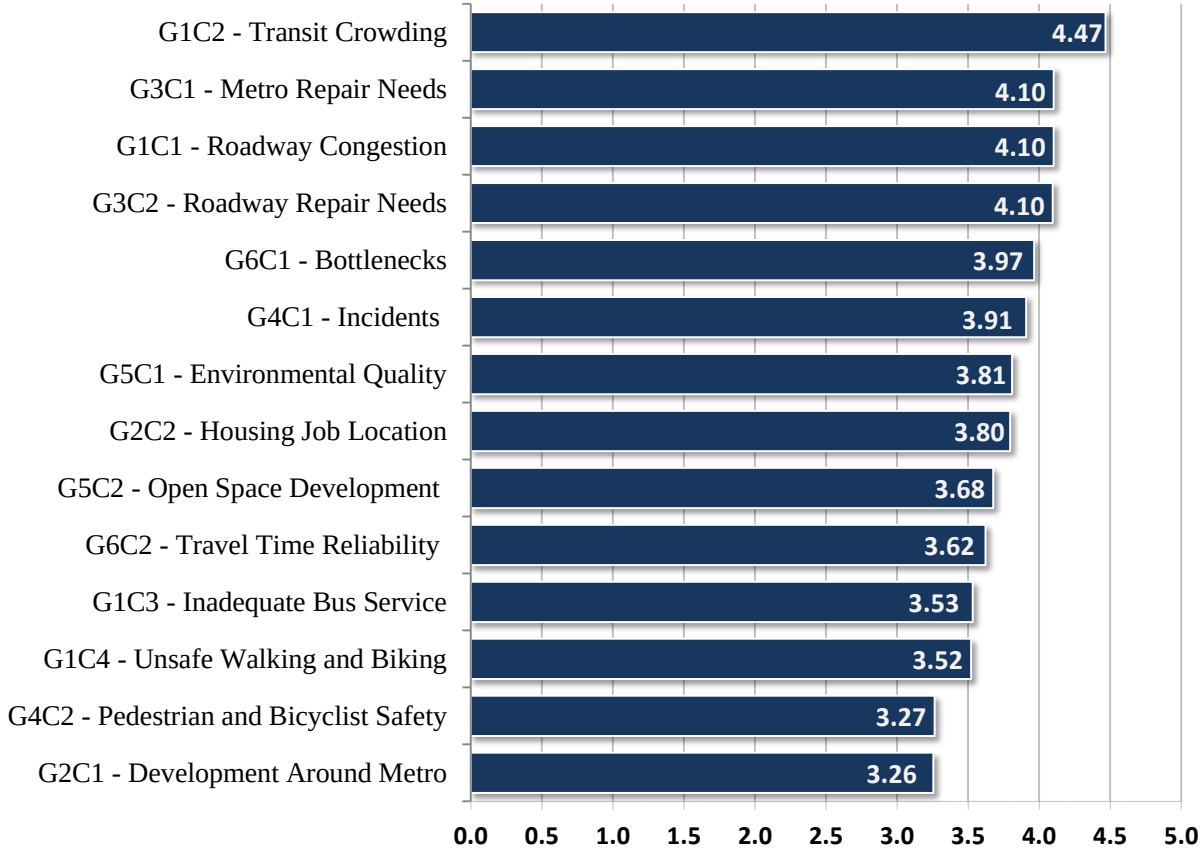


Figure 3: Tranportation Challege Ratings
Regional Distribution of Responses

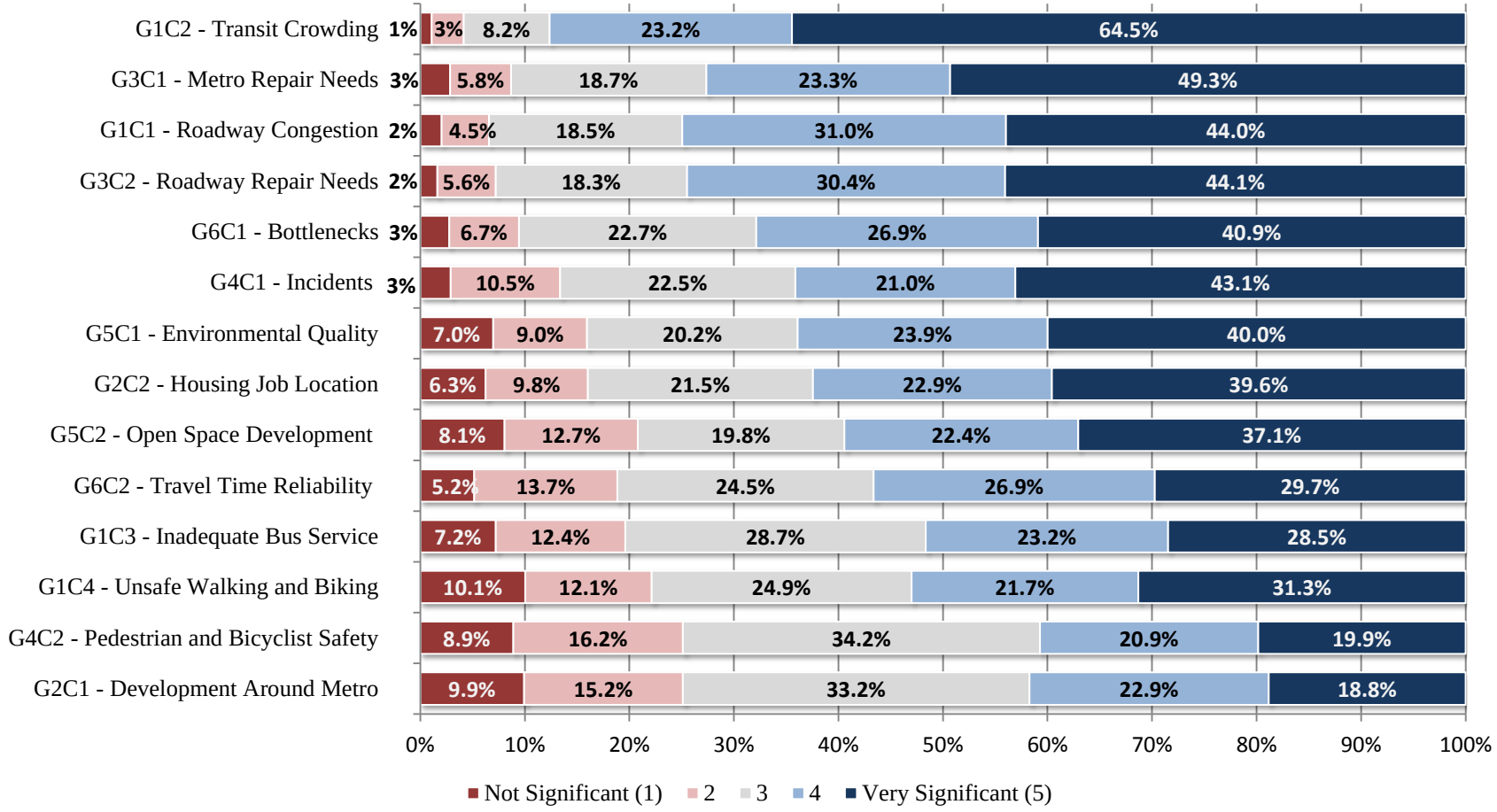


Table 9: Transportation Challenge Ratings: Regional Averages

(Question asked: on a scale of 1-5 rate how significant each challenge is to achieving regional goals?)

		Frequency Distribution					Avg. Rating by Sub-Regional Area			Avg. Rating by Primary Commute Mode				
Challenge:	**Overall Avg.**	1 (Not significant)	2	3	4	5 (very significant)	**Core**	**Inner**	**Outer**	**Drive Alone**	**Carpool**	**Transit**	**Walk/bike**	**Other**
G1C2 - Transit Crowding	**4.47**	1.1%	3.1%	8.2%	23.2%	64.5%	**4.3**	**4.5**	**4.5**	**4.6**	**4.4**	**4.3**	**4.2**	**4.6**
G3C1 - Metro Repair Needs	**4.10**	2.9%	5.8%	18.7%	23.3%	49.3%	**4.3**	**4.2**	3.8	4.0	**4.0**	**4.4**	**4.1**	**4.0**
G1C1 - Roadway Congestion	**4.10**	2.1%	4.5%	18.5%	31.0%	44.0%	**4.3**	**4.1**	3.9	3.9	3.8	**4.5**	**4.1**	**4.0**
G3C2 - Roadway Repair Needs	**4.10**	1.6%	5.6%	18.3%	30.4%	44.1%	**3.9**	**4.2**	**4.0**	**4.2**	4.0	4.0	3.8	**4.2**
G6C1 - Bottlenecks	**3.97**	2.8%	6.7%	22.7%	26.9%	40.9%	3.8	4.0	**4.2**	**4.0**	3.7	3.9	3.8	3.8
G4C1 - Incidents	**3.91**	2.9%	10.5%	22.5%	21.0%	43.1%	3.6	4.0	**4.0**	**4.0**	3.7	3.8	3.4	3.6
G5C1 - Environmental Quality	**3.81**	7.0%	9.0%	20.2%	23.9%	40.0%	3.8	3.8	3.8	3.7	**4.3**	**4.0**	3.9	3.8
G2C2 - Housing Job Location	**3.80**	6.3%	9.8%	21.5%	22.9%	39.6%	3.9	3.8	3.8	3.7	3.8	4.0	4.1	3.4
G5C2 - Open Space Development	**3.68**	8.1%	12.7%	19.8%	22.4%	37.1%	3.7	3.7	3.7	3.6	**4.1**	3.7	3.5	3.6
G6C2 - Travel Time Reliability	**3.62**	5.2%	13.7%	24.5%	26.9%	29.7%	3.6	3.6	3.8	3.7	3.2	3.7	3.7	3.5
G1C3 - Inadequate Bus Service	**3.53**	7.2%	12.4%	28.7%	23.2%	28.5%	3.5	3.5	3.6	3.4	3.4	3.9	3.2	3.8
G1C4 - Unsafe Walking and Biking	**3.52**	10.1%	12.1%	24.9%	21.7%	31.3%	3.3	3.6	3.5	3.5	3.4	3.6	**4.1**	3.5
G4C2 - Pedestrian and Bicyclist Safety	**3.27**	8.9%	16.2%	34.2%	20.9%	19.9%	3.3	3.3	3.2	3.2	3.2	3.4	4.0	3.1
G2C1 - Development Around Metro	**3.26**	9.9%	15.2%	33.2%	22.9%	18.8%	3.3	3.3	3.2	3.2	3.3	3.3	3.6	3.4

BOLD RED numbers indicate four most significant challenges in each category

BOLD RED UNDERLINED numbers indicate the most significant challenge for each category

Strategies

For each near-term, on-going, and long-term strategy, respondents were asked whether or not they supported the strategy, and if they supported it, how they would pay for it. For the question of support, respondents could choose from strongly oppose, oppose, neutral, support, and strongly support. For the question on funding, respondents were given the options of "additional dedicated funding," "compete for existing funds," or "don't fund/support."

NOTE: *The observed number of respondents for carpool, walk/bike, and other transportation mode users is very low. Information that is reported for each of these modes is meant to be illustrative.*

Findings:

- Each of the near term, on-gong, and long-term strategies were supported by a majority of the survey respondents. Total support (the sum of those who support and strongly support a strategy) ranged from 61% to 91%.

- The top four supported strategies region-wide were, in order, **Metro Maintenance**, **Highway Maintenance**, **Alleviate Bottlenecks**, **Improve Transit Access**, and **Roadway Management**.
    - Though the top four supported strategies varied by geography, residents of the regional core, inner suburbs, and outer suburbs all identified **Metro Maintenance** and **Highway Maintenance** in their top for supported strategies.
    - In addition, users of all modes also identified **Metro Maintenance** and **Highway Maintenance** in their top four supported strategies.

- The strategies with the lowest overall support were **Bus Priority**, **Scenario A**, **Update Traffic Regulations**, **Alternative Fuel Vehicles**, and **Bicycle Infrastructure**.
    - Even though these were the lowest on the list, they still were supported by 61% or more of survey respondents.

- Support for additional dedicated funding varied by strategy
    - Support for additional dedicated funding was highly correlated with overall support – usually, the greater overall support for a strategy, the greater support there was for identifying additional funding
    - 60% of all respondents said that they would support identifying an additional dedicated funding source for **Metro Maintenance**
        - This is substantially higher than those who would support additional funding for highway maintenance – 44% – even though the overall support for both strategies is quite similar.
    - The smallest portion of respondents supported additional funding for updating traffic regulations.

- All of the long-term strategies overall had support from 65% or more of the respondents.
    - Of the three long term scenarios, **Scenario A + B** had the most support, followed by **Scenario B** and finally **Scenario A**
- Support for the long-term strategies varied by geography
    - In the core jurisdictions **Scenario B** was the most supported
    - In the Inner suburbs **Scenario A + B**

    - In the outer suburbs **Scenario A**
    - Overall, the long term strategies we all were least supported in the outer suburbs

- There was substantially less willingness to identify a new, dedicated funding source for **Scenario A** than for the other two long term strategies
    - Only 28% of survey respondents supported additional dedicated funding, compared to 41% for **Scenario B** and **Scenario A + B**

Figure 4: Near-Term, Ongoing, and Long-Term Strategies

Regional Support and Opposition

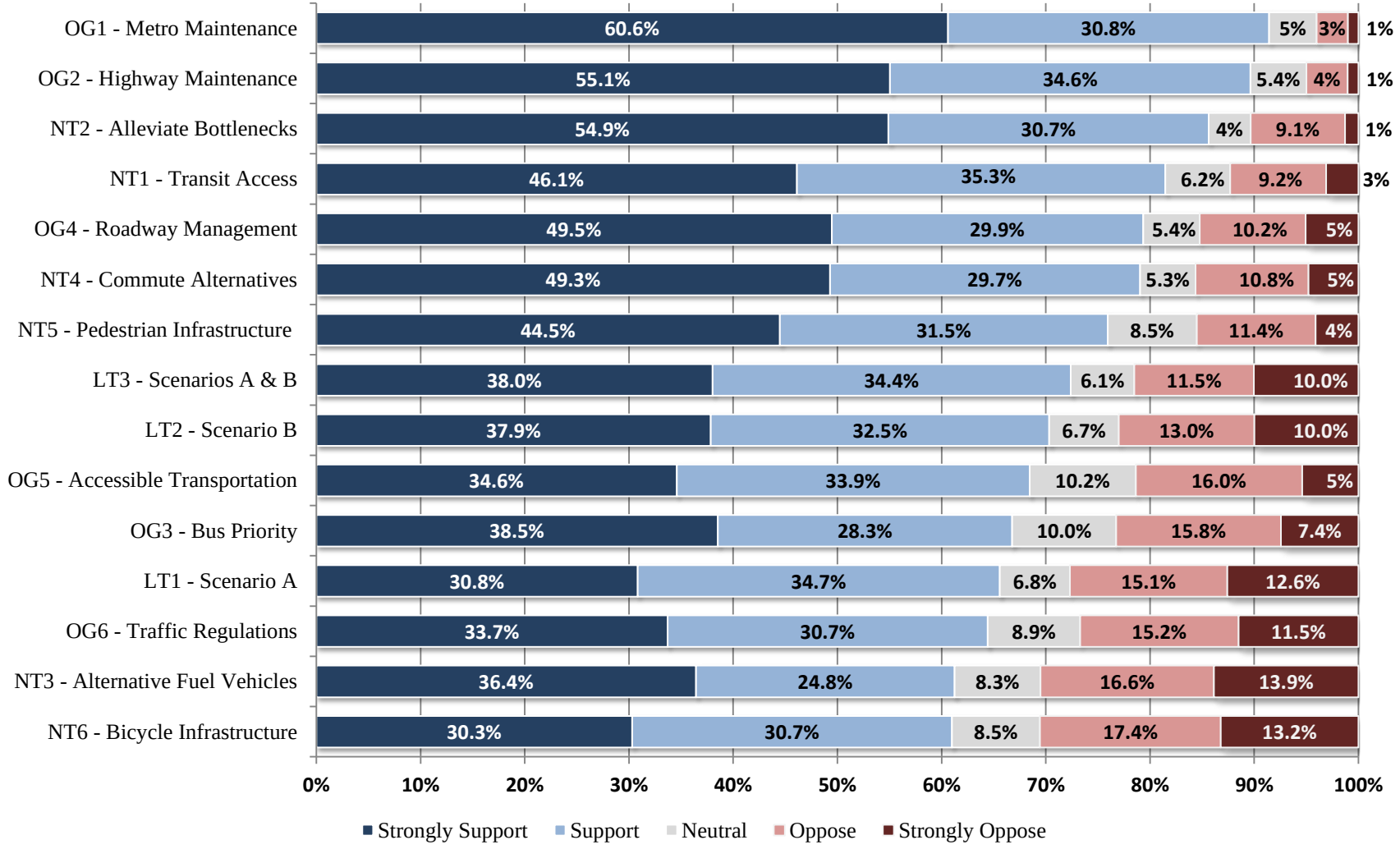


Figure 5: Near-Term, Ongoing, and Long-Term Strategies
% Respondents Who Support Additional Dedicated Funding

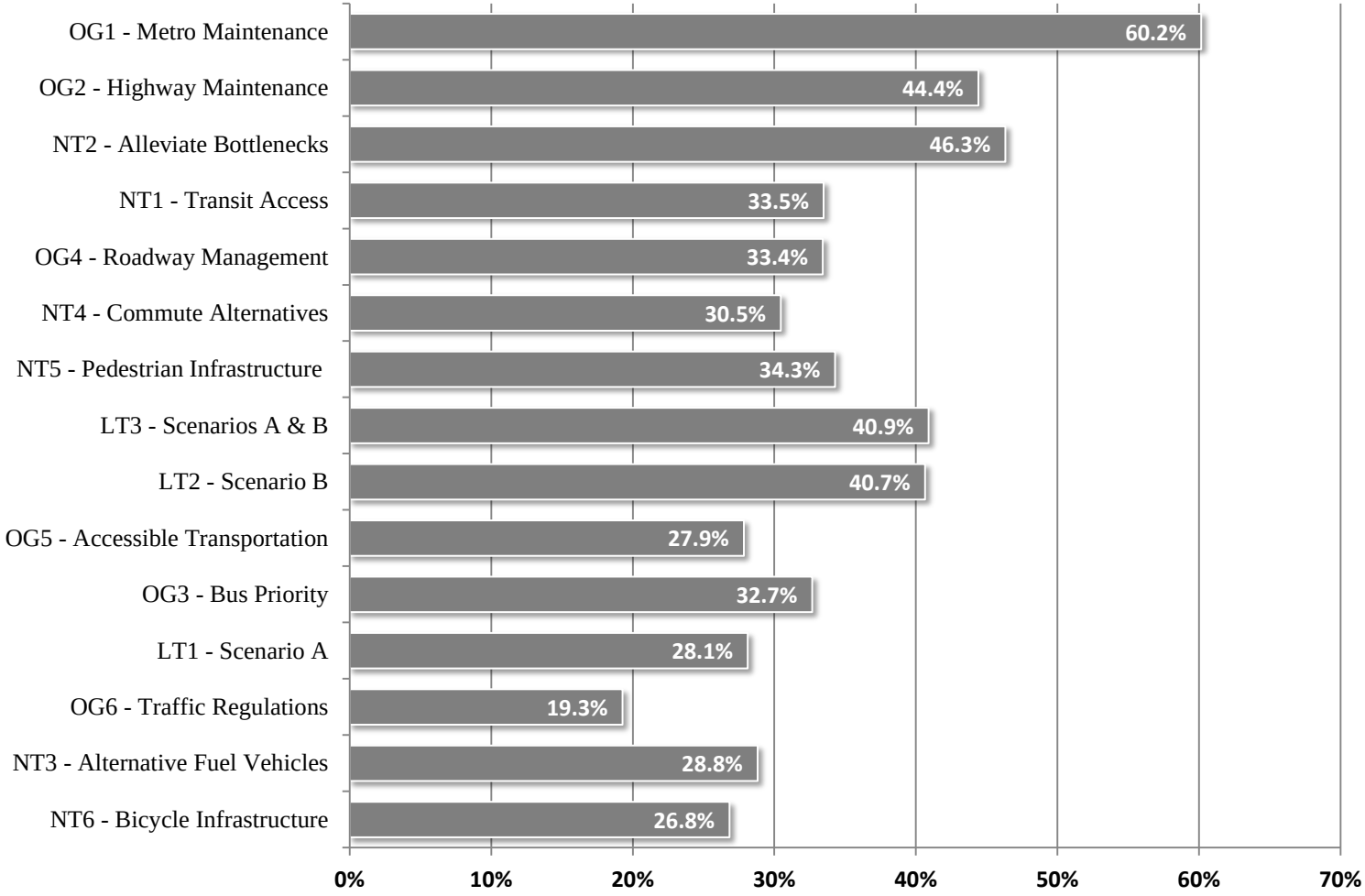


Table 10: Support and Opposition for Near Term, On-Going, and Long Term Strategies

(Question asked: Do you support this strategy?)

		Regional Support/Opposition							Total Support by Sub-Regional Area			Total Support by Primary Commute Mode				
	Strategy:	**Total Oppose**	*Strongly Oppose*	*Oppose*	**Neutral**	*Support*	*Strongly Support*	**Total Support**	**Core**	**Inner**	**Outer**	**Drive Alone**	**Carpool**	**Transit**	**Walk bike**	**Other**
High Support	OG1 - Metro Maintenance	**4.0%**	*1.0%*	*3.0%*	**4.6%**	*30.8%*	*60.6%*	**91.4%**	**96%**	**92%**	**84%**	**88%**	**85%**	**98%**	**90%**	**99%**
	OG2 - Highway Maintenance	**5.0%**	*1.0%*	*4.0%*	**5.4%**	*34.6%*	*55.1%*	**89.6%**	**86%**	**91%**	**91%**	**91%**	**92%**	**86%**	81%	**100%**
	NT2 - Alleviate Bottlenecks	**10.4%**	*1.3%*	*9.1%*	**4.0%**	*30.7%*	*54.9%*	**85.6%**	76%	**88%**	**91%**	**89%**	82%	82%	70%	77%
	NT1 - Transit Access	**12.3%**	*3.1%*	*9.2%*	**6.2%**	*35.3%*	*46.1%*	**81.5%**	80%	**85%**	73%	**77%**	**83%**	**90%**	80%	**79%**
	OG4 - Roadway Management	**15.2%**	*5.1%*	*10.2%*	**5.4%**	*29.9%*	*49.5%*	**79.4%**	**80%**	78%	**82%**	**78%**	**88%**	79%	78%	**92%**
Middle Support	NT4 - Commute Alternatives	**15.6%**	*4.8%*	*10.8%*	**5.3%**	*29.7%*	*49.3%*	**79.0%**	78%	**79%**	**79%**	73%	**86%**	**85%**	**85%**	**94%**
	NT5 - Pedestrian Infrastructure	**15.5%**	*4.1%*	*11.4%*	**8.5%**	*31.5%*	*44.5%*	**76.0%**	**82%**	78%	62%	69%	62%	**89%**	**92%**	75%
	LT3 - Scenarios A & B	**21.5%**	*10.0%*	*11.5%*	**6.1%**	*34.4%*	*38.0%*	**72.4%**	76%	74%	63%	68%	66%	77%	**87%**	77%
	LT2 - Scenario B	**23.0%**	*10.0%*	*13.0%*	**6.7%**	*32.5%*	*37.9%*	**70.3%**	**80%**	69%	62%	62%	63%	**83%**	**93%**	72%
	OG5 - Accessible Transportation	**21.4%**	*5.4%*	*16.0%*	**10.2%**	*33.9%*	*34.6%*	**68.4%**	70%	69%	66%	63%	73%	77%	59%	68%
Lower Support	OG3 - Bus Priority	**23.3%**	*7.4%*	*15.8%*	**10.0%**	*28.3%*	*38.5%*	**66.8%**	71%	66%	65%	60%	59%	80%	63%	70%
	LT1 - Scenario A	**27.7%**	*12.6%*	*15.1%*	**6.8%**	*34.7%*	*30.8%*	**65.6%**	62%	68%	64%	65%	60%	60%	65%	68%
	OG6 - Traffic Regulations	**26.7%**	*11.5%*	*15.2%*	**8.9%**	*30.7%*	*33.7%*	**64.4%**	65%	66%	60%	62%	62%	71%	64%	55%
	NT3 - Alternative Fuel Vehicles	**30.5%**	*13.9%*	*16.6%*	**8.3%**	*24.8%*	*36.4%*	**61.2%**	66%	59%	61%	59%	54%	68%	71%	56%
	NT6 - Bicycle Infrastructure	**30.6%**	*13.2%*	*17.4%*	**8.5%**	*30.7%*	*30.3%*	**61.0%**	66%	62%	51%	57%	75%	66%	77%	60%

BOLD RED numbers indicate top five supported strategies for each category

BOLD RED UNDERLINED numbers indicate the top supported strategy for each category

Table 11: Funding for Near-Term, Ongoing Strategies, and Long-Term Strategies:

(Question asked: If you support this strategy, how would you fund it?)

	Strategy	Respondents	Identify Add'l Funds	Compete For Existing Funds	Don't Fund
High Support	OG1 - Metro Maintenance	644	60.2%	36.9%	3.0%
	OG2 - Highway Maintenance	636	44.4%	52.2%	3.4%
	NT2 - Alleviate Bottlenecks	624	46.3%	44.9%	8.7%
	NT1 - Transit Access	633	33.5%	55.4%	11.2%
	OG4 - Roadway Management	634	33.4%	50.2%	16.4%
Middle Support	NT4 - Commute Alternatives	633	30.5%	49.6%	19.9%
	NT5 - Pedestrian Infrastructure	632	40.9%	35.6%	23.5%
	LT3 - Scenarios A & B	633	40.7%	38.5%	20.9%
	LT2 - Scenario B	623	34.3%	48.4%	17.3%
	OG5 - Accessible Transportation	638	27.9%	54.9%	17.2%
Lower Support	OG3 - Bus Priority	641	32.7%	46.4%	20.9%
	LT1 - Scenario A	638	28.1%	45.1%	26.8%
	OG6 - Traffic Regulations	646	19.3%	52.0%	28.7%
	NT3 - Alternative Fuel Vehicles	624	28.8%	35.4%	35.7%
	NT6 - Bicycle Infrastructure	639	26.8%	42.3%	30.9%

Additional Polling Questions

Survey respondents were asked to answer three additional polling questions on topics that did not fit nicely into the discrete strategies that were presented in the survey. Each question had a unique set of possible responses that can be found in the tables below.

1. Confidence in Transportation Agencies

In order to pay for future construction and maintenance of the region's highway and transit systems, state and local governments are developing ways to increase government revenue, including increasing gas taxes or sales taxes, and building toll lanes.

How confident are you that the transportation agencies serving the region will make good use of the resources available to them?

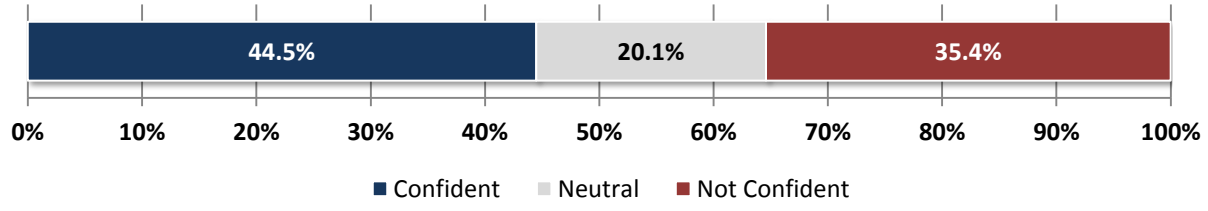
- 45% of respondents were confident that transportation agencies would make good use of resources, 35% were either not confident or not confident at all, and 20% were neutral on the issue.
- By comparison, annual Gallup surveys about general confidence in government show that from 2005 through 2012:
    - Confidence in state governments to handle state problems ranged from 51% to 67%
    - Confidence in local governments to handle local problems ranged from 68% to 74%
    - Confidence that government in Washington would do what is right just about always or most of the time ranged from 19% to 32%

Table 12: Confidence in Transportation Agencies

(Question: How confident are you that the transportation agencies serving the region will make good use of the resources available to them?)

Reponses	Frequency
Not confident at all	13.6%
Somewhat Not Confident	21.9%
Neutral	20.1%
Somewhat Confident	34.7%
Very Confident	9.8%

Figure 6: Confidence in Transportation Agencies



2. Public Information Campaigns

Public information campaigns can help raise the public's awareness about key transportation issues, such as safety and transportation funding.

How important do you think public information campaigns are?
And, ***What topics would you like to see more campaigns on?*** (options: bicycle safety, pedestrian safety, funding for transportation, alternative commutes, and suggest your own)

- 75% of survey respondents answered that they believe public information campaigns were either somewhat or very important, and only 9% said that they are either not important or not important at all
- Of the topic areas that were suggested, information campaigns on alternative commuting (61%) and transportation funding (59%) were the most popular. Bicycle and pedestrian safety information campaigns were much less supported.
-

Table 13: Public Information Campaigns

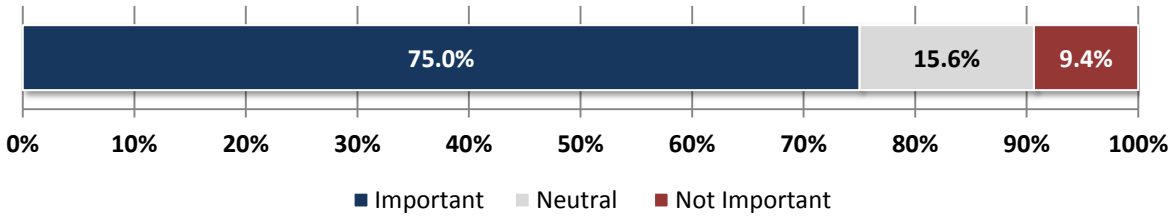
(Question: How important do you think public information campaigns are?)

Response	Frequency
Not Important At All	2.9%
Not Important	6.5%
Neutral	15.6%
Somewhat Important	35.0%
Very Important	40.0%

(Follow-up Question: What topics would you like to see more campaigns on?)

Topic	Answered "yes"
Bicycle Safety	29.1%
Pedestrian Safety	35.3%
Transportation Funding	59.3%
Alternative Commuting	60.9%

Figure 7: Public Information Campaigns



3. Opposition to Higher Density Development

Two of the long-term strategies we've presented propose more development near transit stations throughout the region.

Do you think opposition from current residents and business owners would be an obstacle to increasing development in these areas?

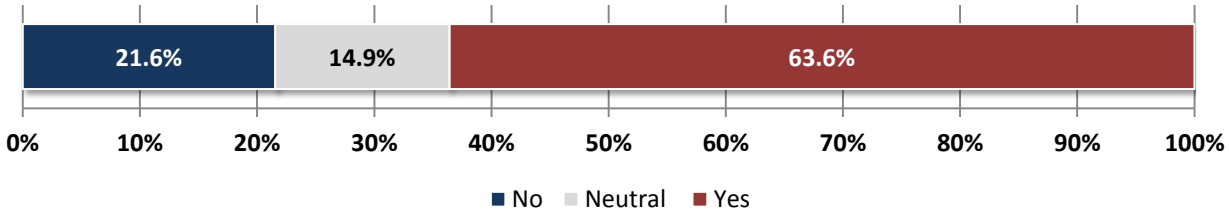
- 64% of respondents said that opposition from current residents and business owners would either probably or definitely be an obstacle toward increasing development.
- 22% said that opposition would probably or definitely not be an obstacle, and 15% were undecided on the issue

Table 14: Opposition to High Density Development

(Question: Do you think opposition from current residents and business owners would be an obstacle to increasing development in these areas?)

Reponses	Frequency
Definitely Not	1.9%
Probably Not	19.7%
Neutral	14.9%
Probably	42.3%
Definitely	21.3%

Figure 8: Opposition to Development



CHAPTER 5
RECOMMENDATIONS

The Regional Transportation Priorities Plan (RTPP) process conducted over the past two years has been designed to define the key challenges the Washington region is facing with respect to achieving the six major policy goals articulated in the TPB Vision, and to identify regional strategies that the public can support that offer the greatest potential contributions toward addressing those challenges. The six policy goals are:

- Provide a comprehensive range of transportation options for everyone
- Promote a strong regional economy, including a healthy regional core and dynamic Regional Activity Centers
- Ensure adequate maintenance, preservation, and safety of the existing system
- Maximize operational effectiveness and safety of the existing system
- Enhance environmental quality, and protect natural and cultural resources
- Support international and inter-regional travel and commerce

The region's Financially-Constrained Long-Range Transportation Plan (CLRP) identifies regionally significant transportation projects and programs planned in the Washington metropolitan area through 2040. When coupled with accompanying forecasts of land use patterns through 2040, the CLRP provides a baseline of information that can be used to assess the challenges our region continues to face in achieving our adopted regional goals. Chapter 2 of this document reviews each of the six TPB Vision goals in turn, summarizing "where we are now and where we are headed" under the assumptions and forecasts contained in the CLRP, and characterizing the most significant challenges the region faces in achieving each of the six goals.

Chapter 3 of the report outlines a set of regional strategies, each designed to address one or more of the challenges. The strategies are presented in three distinct categories corresponding to the time frame over which they would be implemented: near term (could be completed in one to five years), ongoing (should be conducted on a continuing basis), and long-term (would take several years to accomplish). Chapter 3 briefly describes each strategy ("what we should do"), and presents the case for pursuing the strategy ("why we should do it") in terms of the potential benefits relative to the costs.

The list of challenges characterized in Chapter 2, fourteen in all, and the list of strategies outlined in Chapter 3, fifteen in all, are shown in matrix form in Table 5.1, along with indications as to which strategies can be expected to contribute significantly to addressing which challenges. For convenience in reading the table and referencing sections in earlier chapters, each challenge is labeled with a simple identifier code including the goal number and challenge number: the code G3C2 refers to goal 3, challenge 2, for example. Similarly, each strategy is labeled with an identifier code including the time frame category and strategy number: the code OG3 refers to ongoing strategy number 3, for example.

A major focus of the RTPP work effort over the past year has been on communicating the goals, challenges and strategies to representative groups of the public in the region, and seeking their comments and responses. As described in Chapter 1, a citizens forum was held on June 2, 2012, in which the non-profit public outreach organization America Speaks facilitated an in-person discussion of

Table 15: Relationship Between Challenges and Strategies

Challenges	Strategies														
	NT1 - Transit Access	NT2 - Alleviate Bottlenecks	NT3 - Electric Vehicles	NT4 - Commute Alternatives	NT5 - Pedestrian Infrastructure	NT6 - Bicycle Infrastructure	OG1 - Metro Maintenance	OG2 - Highway Maintenance	OG3 - Bus Priority	OG4 - Roadway Management	OG5 - Accessible Transportation	OG6 - Traffic Regulations	LT1 - Scenario A	LT2 - Scenario B	LT3 - Scenarios A & B
G1C1 - Roadway Congestion	X	X		X	X	X		X	X	X		X	X		X
G1C2 - Transit Crowding				X	X	X	X		X					X	X
G1C3 - Inadequate Bus Service									X		X		X		X
G1C4 - Unsafe Walking and Biking					X	X								X	X
G2C1 - Development Around Metro	X													X	X
G2C2 - Housing Job Location	X													X	X
G3C1 - Metro Repair Needs							X								
G3C2 - Roadway Repair Needs								X							
G4C1 - Incidents										X					
G4C2 - Pedestrian and Bicyclist Safety					X	X					X	X		X	X
G5C1 - Environmental Quality			X	X	X	X								X	X
G5C2 - Open Space Development														X	X
G6C1 - Bottlenecks		X								X			X		X
G6C2 - Travel Time Reliability		X					X	X	X	X		X	X		X

the goals, challenges, and strategies. The discussion was conducted with 41 people selected to constitute a fairly representative sample of the region in terms of home jurisdiction, race and ethnicity, gender, and other important characteristics. Based on the information obtained at this citizens forum, a web-based survey was designed to solicit input on the goals, challenges, and strategies from a representative sample of 660 people from throughout the region using Metro Quest public engagement software. The survey was designed to be visually engaging and educational, and was conducted between April and July of 2013. Findings from this survey are described in Chapter 4 of this document.

Setting Regional Priorities

The results of the web-based survey reported in Chapter 4 provide a valuable starting point for assessing the challenges facing the region and prioritizing the strategies that offer the greatest potential for addressing them. Public response to pilot testing of the web-based survey and to the full regional survey of 660 residents suggested that members of the public understood the descriptions of goals, challenges, and strategies presented to them, and provided meaningful responses to the questions asked. The survey results describe how a representative sample of the region's residents rank the relative importance of the challenges and strategies presented.

As reported in Chapter 4 of this document, the four challenges that were identified by survey respondents as the most significant region-wide were, in order: transit crowding, Metro repair needs, roadway congestion, and roadway repair needs. Perhaps the most striking finding was that transit crowding was identified as the most significant regional challenge overall among respondents in all three sub-regional areas (regional core, inner suburbs, and outer suburbs) and across users of all modes of transportation (except that transit users identified roadway congestion as slightly more significant). Further, Metro repair needs was identified as a top challenge by residents throughout the region and by users of all modes. The top strategies identified by survey respondents were Metro maintenance and highway maintenance, alleviate bottlenecks, improve transit access, and roadway management. The Metro maintenance and highway maintenance strategies were strongly supported by residents throughout the region and by users of all transportation modes.

A review of the goals and challenges described in Chapter 2, the strategies described in Chapter 3, and the results of the web-based public opinion survey reported in Chapter 4 of this document suggests that the strategies can be grouped into three priority categories, as follows:

Priority One: Strategies that Address Metro and Highway Repair Needs

Priority Two: Strategies that Address Transit Crowding and Roadway Congestion

Priority Three: Strategies that Address Special Focus Areas

Priority One: Strategies that Address Metro and Highway Repair Needs

The mapping between regional challenges and strategies illustrated in Figure 5.1 shows that Metro and highway repair needs are addressed by just two specific strategies: Metro maintenance and highway maintenance. Implementation of these strategies is the responsibility of the transportation agencies that own and operate the region's transit and highway facilities, and are accomplished through adequate funding of and management by those agencies.

A new focus on "state of good repair" of transit and highway facilities was signed into law on July 6 of 2012 in the form of a two-year reauthorization of the federal surface transportation program entitled "Moving Ahead for Progress in the 21st Century (MAP-21)." State transportation agencies, federally assisted transit agencies, and metropolitan planning organizations (MPOs) like the TPB will be required under this new law to adopt a performance-based planning and programming approach to addressing state of good repair of transit and highway facilities, including establishment of performance measures by the Secretary of the US Department of Transportation (USDOT), setting of performance targets by states, transit agencies, and MPOs, and regular reporting on progress in achieving targets. The US Department of Transportation is expected to provide proposed performance measures for transit and highway state of good repair, along with other goals like safety and system reliability, toward the end of 2013.

The new MAP-21 performance based planning and programming requirements currently under development by the USDOT provide an excellent opportunity for the TPB, the state transportation agencies, and the region's transit agencies to significantly increase the region's focus and attention on this first category of strategies dealing with Metro and highway repair needs. As work begins throughout the region to develop a major four-year update to the CLRP in 2014, Metro and highway maintenance should be given the highest priority in program development and allocation of funding.

Priority Two: Strategies that Address Transit Crowding and Roadway Congestion

The mapping between regional challenges and strategies illustrated in Figure 5.1 shows that transit crowding and roadway congestion are addressed by a number of different strategies that can and should be applied in combination. Some of these strategies are concerned with the supply side of the transit and roadway systems: Metro and highway maintenance as discussed under Priority One; near-term roadway improvements to alleviate bottlenecks; better access to bus stops and rail stations; ongoing roadway management and efficiency programs to smooth traffic flow and minimize delays; expanded pedestrian infrastructure; bus priority treatments; and long-term investments in increased capacity of the rail and bus network, including eight-car Metro trains, station enhancements, and bus rapid transit on express toll lanes. Other strategies are concerned with the demand side: near-term commute alternative programs and long-term concentration of more growth in mixed-use activity centers that can be served efficiently by high capacity rail and bus transit and that will promote more bicycling and walking in place of vehicle trips.

Respondents to the web-based survey indicated strong support for both supply and demand side strategies, including them all in the top eight ranked strategies. It is notable that of the three long-term strategies presented in the survey, integration of the concentrated land use, transit, toll lanes and bus rapid transit in strategy LT3 received the strongest support, and the express toll lanes with bus rapid transit in strategy LT1, which did not include greater concentration of land use, received the lowest support.

Review of the goals and challenges described in Chapter 2, the strategies described in Chapter 3, and the results of the web-based survey presented in Chapter 4 suggest that an integrated approach incorporating both supply and demand side strategies needs to be taken to addressing the twin challenges of transit crowding and roadway congestion. Neither supply side nor demand side strategies should be adopted in isolation; only the effective integration of both supply and demand side strategies can produce significant long-term improvements in travel conditions throughout the region. And on the supply side, a multi-modal approach is essential. The top ranking ascribed to the transit crowding

challenge by respondents across the region and by users of all transportation modes, many of whom are probably infrequent users of the transit system, demonstrates that the public recognizes and appreciates the inter-connected nature of the roadway, transit, pedestrian, and bikeway systems. For the system to function well overall, all of the component parts must function well.

Priority Three: Strategies that Address Special Focus Areas

The web-based survey results reported in Chapter 4 rated all of the regional challenges identified in the survey as being significant issues standing in the way of achieving our regional goals. The top four challenges of transit crowding, Metro repair needs, roadway congestion, and roadway repair needs and the strategies that address them have been grouped and address above as Priority One and Priority Two recommendations for the Regional Transportation Priorities Plan. The other challenges and the strategies that address them are presented as Priority Three recommendations: significant issues and drawing strong support, but receiving somewhat lower levels of support than the Priority One and Priority Two categories.

The relatively lower levels of support for strategies in this category may reflect the fact that they tend to be focused on challenges that are less apparent to the regional community as a whole. Nevertheless, meeting the mobility needs of people with disabilities, updating and enforcing traffic laws to make roadways safer for all users, encouraging alternative fuel vehicles, and expanding bicycle infrastructure all received significant support in the survey, and all deserve continuing attention in the regional transportation planning process.

Process Strategies

The web-based survey included three additional polling questions designed to assess the public's views about the following topics: confidence in transportation agencies; the importance of public information campaigns; and potential opposition to higher density development near transit stations. The responses to these questions are reported in Chapter 4, and suggest that implementation of the priority strategies discussed above should include the following process strategies: provide sufficient transparency to inspire confidence in the actions of the implementing agencies; make maximum use of public information campaigns; and provide opportunities for involvement of all affected parties when high density development is being considered.

The Relationship between the RTPP and COG's Region Forward Initiative

The relationship between the RTPP and Region Forward is reviewed in Chapter 1 of the RTPP. A September 27, 2013 COG event, "Economy Forward: Help Shape the Future of the Region," provided an opportunity for regional decision-makers and stake-holders to discuss the relationship between Region Forward, Economy Forward, the Regional Activity Centers Strategic Development Plan, and the RTPP. A brief summary report for this event has been developed and is attached to this memorandum. A more in-depth report which analyzes all of the comments recorded from the 16 discussion tables will be developed over the next three months.

The September 27 event was facilitated by America Speaks, and included more than 100 leaders from around metropolitan Washington; elected officials, government staff, business community and non-profit sector representatives, and citizen leaders. An overview presentation and hand-out document outlined the relationships between Region Forward, Economy Forward, and the key components of the

Activity Centers Development Plan and the RTPP. Electronic polling of the participants by America Speaks provided the following viewpoints:

(a) Regional Issues of Greatest Concern

- Integrating various planning processes like transportation, environment, and development
- Committing to funding transportation

(b) Creating Vibrant Activity Centers: "Most Important"

- Improve accessibility to and within Activity Centers through a variety of transportation options
- Create places where people want to be; attractive and welcoming to diverse groups

(c) Creating Vibrant Activity Centers – "Most Challenging"

- Make affordable housing options available
- Ensure a balance of jobs and housing

(d) Regional Transportation Priorities – "Most Important"

- Develop a dedicated funding stream (gas tax, sales tax, etc)
- Use what we already have (existing transportation infrastructure) to create new options

(e) Regional Transportation Priorities – "Most Challenging"

- Develop a dedicated funding stream (gas tax, sales tax, etc)
- Create a regional transportation authority with power to regulate, prioritize, and implement

(f) Regional Transportation Priorities – "Gems"

- Make transportation network more adaptable to meet the needs of future growth, even those we can't foresee
- Get region to advocate together in states and on the Hill for transportation funding

A major theme of the September 27 event is the need for more collaboration among the area's local jurisdictions, stakeholders, and citizens to advance regional priorities, recognizing that transportation and land use decision-making is very decentralized throughout the region. Success will require greater focus on "thinking regionally, acting locally."

Addressing Regional Priorities in the Constrained Long-Range Plan (CLRP)

The Regional Transportation Priorities Plan (RTPP) is designed to highlight challenges that the Washington region continues to face in achieving its regional transportation goals and strategies for addressing those challenges. The timing of this RTPP document provides an opportunity for the region's decision-makers to consider the three categories of priority strategies along with the three process strategies as part of the next four year update of the TPB's Constrained Long Range Plan (CLRP), due at the end of calendar year 2014.

It is important to note that the adopted 2012 CLRP formed the baseline for the development of the RTPP. Challenges, strategies, and priorities identified in the RTPP were developed based on the assumption that the 2012 CLRP will be implemented in accordance with the schedule defined in the documents adopted by the TPB on July 18, 2012. A number of significant projects currently under development but not yet implemented are included in the 2012 CLRP, and were therefore not considered in the formulation of outstanding challenges, strategies and priorities. Notable examples include completion of the 23.1 mile Silver Line to Loudoun County, the Bi-County Parkway, the Potomac Yard Metrorail Station, the Anacostia and H Street phases of the District of Columbia Streetcar project, the Columbia Pike Streetcar, the Corridor Cities Transitway in Montgomery County, and the Purple Line from Bethesda to New Carrollton.

Updating the CLRP is a continuing and cooperative process with close relationships between inclusion of programs and projects in the CLRP and the extensive location specific studies conducted by sponsoring agencies. The CLRP is not "carved in stone", and in the past CLRP projects have been modified and even removed entirely along with the addition of new programs and projects. The TPB is launching a new "Transportation Planning Information Hub for the National Capital Region" that will describe transportation planning activities at the regional, state, and local levels, and provide links to high profile projects, documents, and resources that are the building blocks for CLRP project submissions.

The TPB is scheduled to approve the "Call for Projects" document for the 2014 CLRP update at its November 20 meeting. The document references the RTPP development process, and lists the three priority categories from the draft RTPP.

The Call for Projects document urges implementing agencies to consider these priority strategies as they develop project submissions for the 2014 CLRP. On-line submissions of draft project inputs are due on December 13, 2013. As these submissions are submitted and reviewed over the coming months, their relationship to the RTPP priority strategies will be assessed and discussed.

Strategies that address Metro and highway repair needs deserve the highest priority in program development and allocation of funding. An integrated package of demand and supply side strategies that address transit crowding and highway congestion should also be considered a high priority, including alternative commute programs; more concentrated land use in mixed use activity centers that support bicycling and walking; increased capacity of the bus and rail network; roadway capacity and management improvements; and bus rapid transit on express toll lanes. Ongoing strategies to improve transportation for limited mobility groups and update traffic laws also need to be addressed, as well as near-term incentives for alternative fuel vehicles and improvements in bicycle infrastructure.

Finally, some key process strategies are recommended: provide sufficient transparency to inspire confidence that agencies are making good use of the resources available to them; make maximum use of public information campaigns to raise public awareness about key transportation issues; and provide opportunities for involvement of all affected parties when high density development is being considered near transit stations throughout the region.

The Relationship between the RTPP and Metro's "Momentum" Strategic Plan

Metro's "Momentum" strategic plan document was developed and reviewed during the spring and summer of 2013, somewhat in parallel with the web-based survey and drafting of the July 24, 2013 version of the RTPP. "Momentum" identifies three major activities: rehabilitate and maintain the

existing system; increase system and core capacity and improve the effectiveness of the rail and bus networks (Metro 2025); and a long-range Regional Transit System Plan which is still under development (Metro 2040).

The first two of these three Momentum elements are already fairly well defined and consistent with Priority One (Metro and Highway Repair Needs) and Priority Two (Address Transit Crowding and Roadway Congestion) in the RTPP. If specific project elements and funding mechanisms can be identified for these two elements of Momentum in the next few months, they could be considered for incorporation in the upcoming 2014 update of the CLRP.

Longer-Range Studies and Initiatives

A number of longer-range studies and initiatives are underway throughout the region which currently are not far enough advanced to form the basis for project submissions for inclusion in the CLRP. These studies might eventually lead to projects which could be supportive of the priority strategies defined in the RTPP. Examples include the Long Bridge Study to identify increased capacity for commuter rail services, Metro's Regional Transit System Plan to identify significant long-term capacity increases in the regional transit system, a Commuter Ferry Study, a bus rapid transit system in Montgomery County, multi-modal studies of the I-66, I-270, and I95/495 corridors, and additional streetcar lines in the District of Columbia. The TPB's new "Transportation Planning Hub for the National Capital Region" will provide a means of integrating up-to-date information on these studies into the RTPP/CLRP process.

ITEM 9 – Information
October 16, 2013

Briefing on the Final Report of the TPB Bus On Shoulders (BOS) Task Force

Staff Recommendation: Receive briefing on the final report of the task force.

Issues: None

Background: At the September 2012 meeting, the Board established the Bus on Shoulder Task Force to investigate promising locations in the region to operate buses on the shoulders of highways. On September 18, 2013, the task force reviewed and approved the final report for submission to the TPB.

National Capital Region
Transportation Planning Board

Bus On Shoulders (BOS) Task Force
Overview and Final Report

Transportation Planning Board
October 16, 2013

Eric Randall
Department of Transportation Planning
Metropolitan Washington Council of Governments

TPB Task Force on BOS

- At the July 18, 2012 meeting of the Transportation Planning Board (TPB), it was requested that a task force be established to identify promising locations in the region to operate buses on the shoulders of highways.
- The proposed membership, work plan, and schedule were approved at the September 19 TPB meeting.

BOS is an arrangement by which buses providing public transportation service operate on designated highway shoulders, when safe and practical to do so, in order to circumvent peak traffic congestion.

Why BOS?

- Increased interest in regional transit network using the region's highway network.
  - Provide alternatives to single-occupancy vehicles and auto-dependency.
- Known congestion issues on region's highways.
  - I-495 Express Lanes in Virginia provide managed right-of-way for buses, but lack connections to make regional network effective.
- Modest experience in this region:
  - 1.6 mile section of Dulles Airport Access Road (VA-267) into West Falls Church Metrorail Station,
  - US-29 near Burtonsville, MD,
  - Previously, on Maryland portion of Capital Beltway (I-495) near the American Legion Bridge.
- Currently, VDOT is preparing to implement a BOS pilot project along I-66 inside the Beltway in Fall 2014.

History of Task Force

Task Force Meeting #1 – October 2012

- Discussed local and national/world experience with key issues: implementation, design, operational, and regulatory.

Task Force Meeting #2 – January 2013

- Discussed BOS feasibility on three study corridors: MD 5/US 301 Corridor in Prince George's and Charles Counties; I-270 Corridor from City of Frederick to the Capital Beltway; Virginia: I-66 Inside the Beltway.

Task Force Meeting #3 – April 2013

- Discussion of benefit-cost analysis (BCA) model.
- Draft Report distributed in July.

Task Force Meeting #4 – September 2013

- Reviewed and approved Final Report for submission to TPB.
- ***"An Assessment of the Feasibility of Bus On Shoulders (BOS) at Select Locations in the National Capital Region"***

Key Issues for BOS

Operating buses on shoulders has implications for general travel and emergency use of the shoulders. Among the key issues are:

- Operational Speeds and Hours
- Roadway Shoulder Width, Structural Strength, Geometry and Sight Distances
- Clearance at Barriers and Overpasses
- Posted Signage and Markings
- Enforcement and Public Outreach and Education
- Emergency Incidents and Responder Access
- Federal and State Exceptions to Design Code
- Eligible Vehicles and Bus Driver Training Requirements

These issues are in many cases location or agency specific, and would have to be addressed during preliminary engineering, in operations protocols, or as part of project implementation.

Three corridors were evaluated for BOS feasibility

Maryland

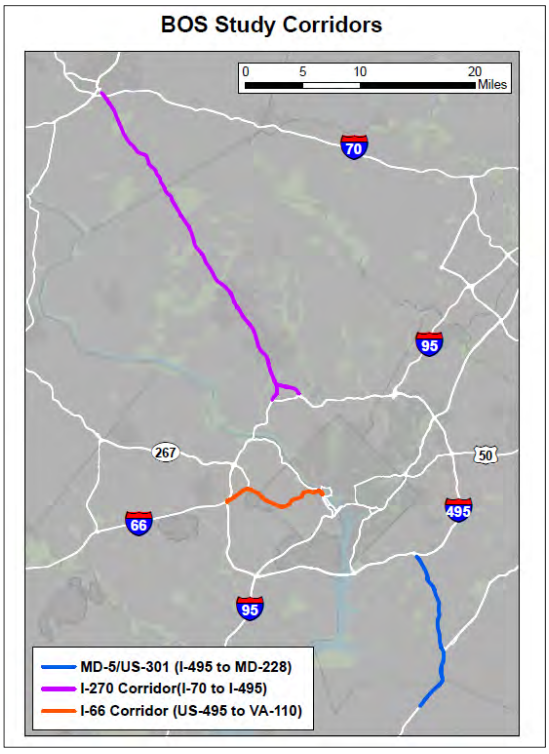
- MD-5/US-301 Corridor in Prince George's and Charles Counties.
- I-270 Corridor from City of Frederick to the Capital Beltway.

Virginia

- I-66 Inside the Beltway.

Reviewed information and data for three key criteria:

- **Bus Service** (number of buses and of bus riders)
- **Traffic Congestion** (average speed and unreliability in peak hour)
- **Shoulder Conditions** (known data on shoulder conditions)



Findings of Final Report – "*An Assessment of the Feasibility of Bus On Shoulders (BOS) at Select Locations in the National Capital Region*"

Shoulder Conditions

- Detailed information is generally unavailable on shoulder width and strength and overall suitability for routine use by buses.
- Pinch points and conflict points on the corridors require additional evaluation.
- Initial capital cost estimates to upgrade the shoulders of some corridors are high, but could be refined with further study.

Targeted Implementation

- BOS implementation is likely to be more feasible if initially targeted to short segments that have high transit usage and high congestion.
- Shoulder upgrade costs could be reduced or minimized if integrated with other road work

Member Agencies' Next Steps for Examining Bus on Shoulders

- Update TPB in 2015 on VDOT I-66 Inside the Beltway Pilot Implementation and further BOS developments.
- Contingent upon funding, State DOTs, Jurisdictions, and Transit Operators should continue evaluating corridors for BOS feasibility:
  1. Further refine shoulder condition data through engineering evaluations.
  2. Identify and fund necessary capital improvements for specific segments.
  3. Define necessary procedural and operational steps to conduct BOS projects or pilot programs.
  4. Review long-range roadwork schedule for opportunities to upgrade shoulders for BOS operations in conjunction with rehab / re-surfacing.

Final Report and All Documents available at:

http://www.mwcog.org/bostf

Assessment of the Feasibility of Bus On Shoulders (BOS) at Select Locations in the National Capital Region

Final Report

Prepared for the Bus On Shoulders Task Force of the National Capital Region Transportation Planning Board (TPB)

September 26, 2013

Table of Contents

Section A: Introduction

Bus on Shoulders Task Force - Background

At the July 18, 2012 meeting of the Transportation Planning Board (TPB), it was requested that a task force be established to identify promising locations in the region to operate buses on the shoulders of highways. This task force brought together the stakeholder agencies, including transit operators, departments of transportation, and local jurisdictions, to coordinate an assessment of the experience and potential for Bus on Shoulder (BOS) operations on the region's freeways and major arterials. The task force oversaw a scoping of potential locations for BOS, including a high-level benefit-cost analysis of implementing BOS along select corridors and bus routes.

Outline of Report

The regional assessment of BOS feasibility has been coordinated through a series of meetings, with necessary work assigned through discussion.

Section B – Summary of Local and National Experience with Bus on Shoulders

The National Capital Region already has some local experience with BOS, along a short section (1.3 mi) of the Dulles Airport Access Highway (VA 267) for bus access to the West Falls Church Metrorail Station, and along the shoulders of Columbia Pike (US 29) near Burtonsville, MD. In addition, several other cities across the United States and Canada also have BOS service; of these, the twin cities of Minneapolis and St. Paul have the most-developed network with over 280 miles of BOS corridors.

Section C – Lessons and Challenges for BOS Implementation

There are numerous issues and topics that must be addressed in implementing a Bus on Shoulders project by highway, safety, and bus operating agencies. This section summarizes critical experience with current and previous BOS operations, including safety, roadway engineering, and bus service operations aspects.

Section D – Assessment of the Feasibility of BOS at Specific Locations in the National Capital Region

Potential corridors for BOS operation on the region's highway network were identified, based on 1) current bus service, 2) existing highway congestion locations, and 3) highway shoulder conditions.

Section E – Findings

The findings of the research, survey of current conditions, and discussion at meetings are summarized. In addition, potential next steps for further development of potential BOS locations are suggested.

Section F – References

The primary resources used in researching BOS are identified here, though there are many other sources including media articles, conference and research board presentations, and websites.

Appendices

Appendices with additional detail are provided, including a) the progress of the TPB's BOS task force, b) maps of the corridor segments assessed in the study, and c) a discussion of the development and application of a planning-level benefit-cost analysis model.

Section B: Local and National Experience with BOS

BOS is an arrangement by which buses providing public transportation service operate on designated highway shoulders, when safe and practical to do so, in order to circumvent peak traffic congestion. As described in the recently published *Transit Cooperative Research Program (TCRP) Report 151: A Guide for Implementing Bus on Shoulder (BOS) Systems*:

> *"Typically, the BOS projects limit buses using the shoulder to times when traffic on the highway is congested and moving very slowly, and they cap the speed buses are allowed to operate on the shoulder." (Page 1-1).*
> http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_151.pdf

Current local experience with BOS includes bus operation along a short section (1.3 mi) of the Dulles Airport Access Highway (VA 267[1]) for bus access to the West Falls Church Metrorail Station, and along the shoulders of Columbia Pike (US 29) near Burtonsville, MD. Previously, bus service operated along the Maryland portion of the Capital Beltway (I-495) in the vicinity of the American Legion Bridge; these buses were permitted to operate on the shoulders, however, this service was discontinued in 2003. Looking forward, VDOT has completed a planning feasibility study and has begun preliminary engineering for a pilot project to operate BOS along I-66 inside the Beltway.

In addition, as described in the TCRP report, several other cities across the United States and Canada also have BOS service; of these, Minneapolis and St. Paul have the most-developed network with over 280 miles of BOS corridors.

Local Experience

As introduced above, there are two current examples of BOS in the region, on VA 267 and on US 29 near Burtonsville. An addition, there was BOS operation along the Maryland portion of the Capital Beltway from 1999 to 2003, while BOS is being considered for I-66 inside the Beltway.

Virginia: VA-267 BOS

This corridor for BOS is limited in scope to 1.3 miles along the eastbound shoulder of VA-267 inside the Beltway. The corridor leads directly to a bus-only access ramp to the West Falls Church Metrorail Station, just before the intersection with I-66. The implementation of this BOS corridor is described in detail as the second case study in *TCRP Synthesis 64 Bus Use of Shoulders* (pp. 26-28).

[1] This is the Metropolitan Washington Airports Authority's designation of the untolled section of VA 267 inside the Capital Beltway (I-495). See http://www.metwashairports.com/tollroad/925.htm

Key findings from the TCRP case study include:

- Primary reason for implementation was to bypass congestion backing up on VA 267 from the merge with I-66 eastbound.
- Joint implementation by Fairfax County, Virginia State Police, the Metropolitan Washington Airports Authority, and VDOT.
- Use of BOS is restricted to the PM peak period (3:00 - 8:00 PM) and the maximum permitted bus speed is 25 MPH.
- Operators call in if any breakdowns or obstacles are encountered on the shoulder, at which point transit dispatchers instruct all bus drivers not to make use of the shoulder.

Following the TCRP Synthesis 64 case study, VDOT expanded the BOS operating hours in 2009 to also include a morning peak period of 6:00 AM to 10:00 AM. The outside shoulder on which buses operate is 14 feet wide.

Maryland: Columbia Pike (US 29) BOS

This corridor provides for BOS operation along approximately 4 miles, between MD 198 at the north and Randolph Road / Cherry Hill Road at the south (see Figure 2). However, BOS operation is now very infrequent due to significant reconstruction of this highway. Grade-separated interchanges were completed in recent years (MD 198 in 2004, Randolph Road/Cherry Hill Road in 2005, and Briggs Chaney Road in 2007) that have largely eliminated the congestion experienced previously at the then-signalized intersections. In addition, a new interchange with MD 200, the Inter-County Connector, has sizable entry and exit ramps that impact shoulder availability in the vicinity of the interchange.

Portions of the corridor remain posted for BOS, and buses will occasionally make use of the shoulders. However, the relative infrequency of BOS operation limits useful information from this corridor.

Maryland: Capital Beltway (I-495) BOS

In 1998, Metrobus Route 14 service between points along the I-270 corridor in Maryland and Tysons Corner in Virginia was introduced, operating along the Beltway and crossing the American Legion Bridge. Metrobus was given permission to operate along the shoulders on the Maryland portion of the Beltway to circumvent congestion, with appropriate signage installed. However, in practice the benefits were modest. VDOT did not allow shoulder operation on its portion of the Beltway for safety reasons. In addition, a major primary cause of congestion for traffic headed to Tysons Corner during this time frame was the poor I-495 (outer loop) access in Virginia to the Dulles Toll Road (VA-267), which the bus could not avoid. (This ramp was subsequently widened from one lane to two lanes in August 2005 and the bottleneck was

eliminated). Ridership on the Metrobus Route 14 did not meet expectations, and by May 2002 was averaging only six persons per trip or approximately 400 persons per day. The service was discontinued on December 26, 2003.

The one key finding from this BOS implementation was that without end-to-end coverage of the corridor/route, and in particular not at the most congested location, BOS did not offer improved travel time or reliability. In addition, there were reports that "jealous motorists", whether in automobiles or trucks, occasionally attempted to block the buses.

Virginia: Study of I-66 inside the Beltway

This is a VDOT study in progress on the feasibility of BOS for this corridor, with the goal of establishing a pilot project in 2014. The planning study, which has been completed, identified the best practices related to BOS systems, determined potential locations, and evaluated operational as well as design and safety issues related to a pilot BOS implementation on I-66 inside the Beltway. Five (5) pilot BOS segments were identified in the study, and preliminary engineering has begun for those locations.

As an operational study taking place contemporaneously with the TPB BOS Task Force work, information from the I-66 study was used to better inform the task force's work.

Other Potential Local Corridors

In regard to other potential locations in the region, task force members noted that in several cases the terrain in this metropolitan region along some highway corridors has more turns and elevation changes than other urban regions. Though these conditions vary across corridors in the region, geography can limit the width and safety of shoulder lanes for use as auxiliary travel lanes for BOS operations.

This region's highway system, like much of the Northeastern United States (where there are relatively few BOS examples), was also laid out earlier than in some other major urban areas. This constrains the available right-of-way, in particular on highways that have already been widened several times over the past decades, or that travel through areas with dense development or historical significance (e.g., Monocacy Battlefield along I-270 in Frederick County).

National and Other Experience with BOS

There have been a number of studies of Bus on Shoulders by the Federal Highway Administration (FHWA) and by the TCRP. TCRP Report 151 provides considerable information on BOS operations in North America, including 11 in metropolitan regions in the United States and three in Canada, as shown in Figure 1.

Figure 1: North American Cities with BOS (TCRP Report 151)

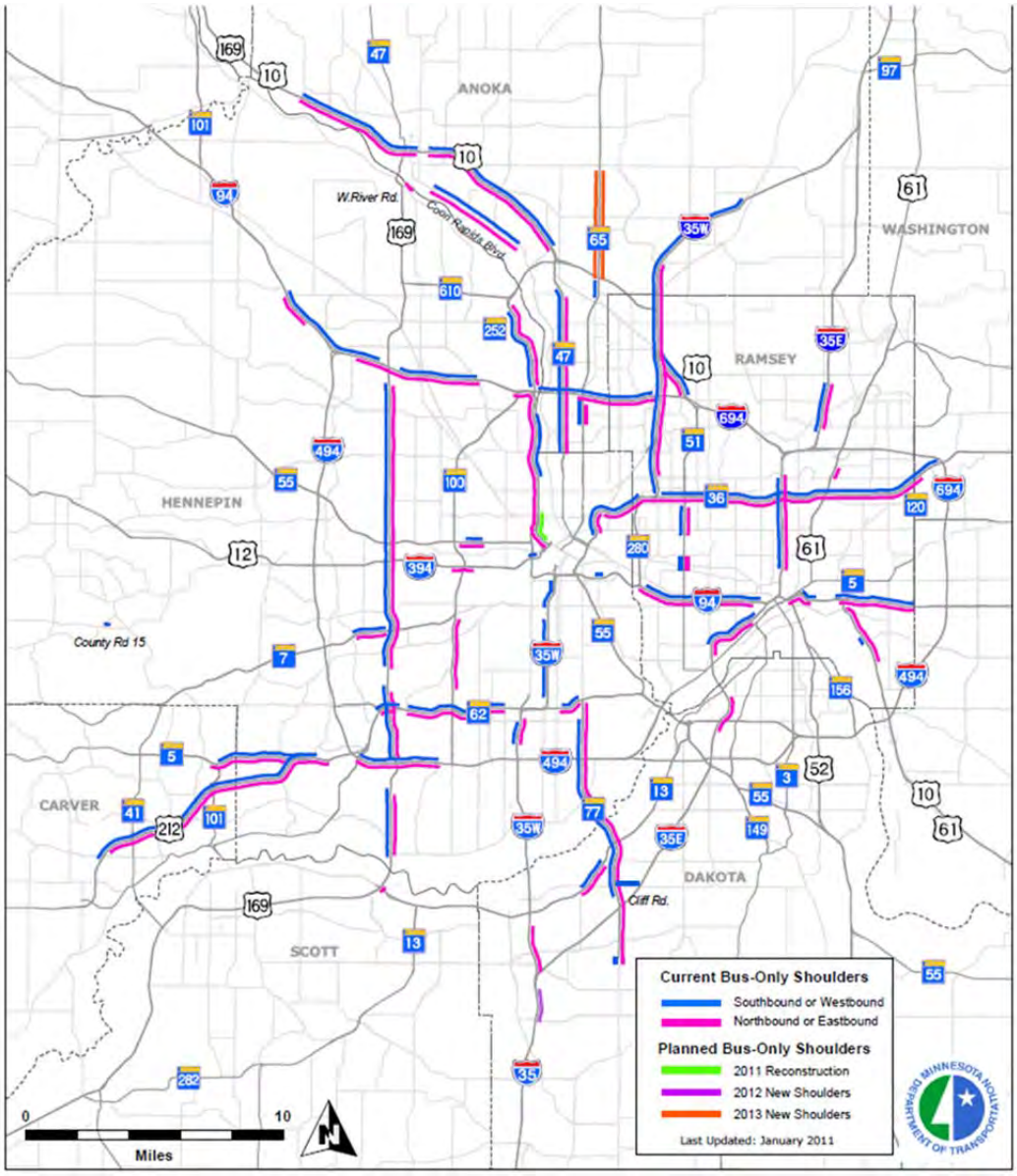
The dominant example of BOS is in the Twin Cities area of Minneapolis and St. Paul. Begun in 1991 in response to floods shutting down several key points on the road network, the quickly implemented measure proved successful, leading to further expansion. The Twin Cities now has a network of over 280 miles of highways with BOS, with four to eight miles added per year. Some 1,700 bus trips a day (400 buses) make use of at least part of the BOS network. Key characteristics of the Twin Cities' network include:

- Dedicated funding line item in the State DOT budget, which funds the road upgrades necessary for BOS at a cost of $150,000 to $250,000 per mile. Originally $2 million a year, funding approximately 20 miles of improvements. Now $1 million per year for improvements (funding 4 to 8 miles) and $1 million a year for maintenance of the shoulders.
- Rider perception of time savings is two times greater than actual time savings measured.
- Safety reviews have found no statistically significant differences between BOS and routine operations.

Policy for BOS implementation, operating requirements, and other elements of the Twin Cities' BOS program are described further in Section C.

As shown in Figure 2, the BOS Network in the Twin Cities is not a continuous network, but rather a series of distinct corridors or segments, focused on areas where there is recurring congestion that buses want to circumvent.

Figure 2: Map of Twin Cities BOS Network (Minnesota DOT)



Besides the Twin Cities, most BOS operations are newer and typically consist of just one or two corridors. One recently implemented BOS operation is along the I-55 corridor in the Chicagoland area. To date, the Chicago experience has proven very successful, with the operating agency Pace now having to add bus trips. From when the BOS pilot project began on November 14, 2011 to April 2012, travel times and on-time performance on the two routes using BOS improved from 68 percent of trips arriving on-time to 92 percent. Six months after

implementation, the two routes carry a total of about 500 passengers per day, up almost 75% from before BOS was implemented.

Another recent BOS pilot implementation has taken place in the Triangle area (Raleigh / Durham / Chapel Hill) of North Carolina along I-40. This pilot project covers four Triangle Transit bus routes operating along on a little over 10 miles of roadway (most both directions, a small section one direction only) on the outside shoulder. Operation is 24/7 and cost is approximately $2,000 per mile for signage.

The most recent BOS implementation in North America (as of time of writing) is the Jo Xpress express buses operating on I-35 in Johnson County, KS, in the Kansas City Metropolitan Area. BOS operation began in January 2012. The project is a joint effort between Johnson County Transit and the Kansas Department of Transportation (KDOT), along with the Kansas Highway Patrol. BOS operation is permitted during peak periods and both signage and markings have been installed to allow buses to operate on the outside (right) shoulder. Buses are not permitted to use the shoulders at system to system interchanges with multiple ramps. Buses operating on the shoulders may not exceed the speed in the general traffic lanes by more than 10 mph and the maximum operating speed for BOS is 35 mph. The approximate cost of the shoulder improvements was $9,250 per mile.

Section C: Lessons and Challenges for BOS Implementation

There are numerous issues and topics that must be addressed in implementing a Bus on Shoulders project by highway, safety, and bus operating agencies. The TCRP reports and the reports, presentations, and other documentation prepared by federal and state agencies and within the transportation industry review the lessons learned and challenges of BOS implementation in considerable detail. As a supplement to these comprehensive studies, this section of the memorandum notes some of the highlights from these studies and provides some comparisons among BOS projects.

Implementation Considerations

Operational Speeds, Hours, Limits

Most BOS projects have specified speeds for traffic in the general purpose travel lanes that indicate when shoulders may be used and the operating speeds of buses using them. In addition, there may be restricted hours of operation and other limits set upon bus use of shoulders.

The operational speeds standard developed in the Twin Cities is: 1) buses must not use the shoulder when traffic is moving faster than 35 mph; 2) buses cannot exceed the speed of general traffic by more than 15 mph; and 3) maximum bus speed on the shoulders is 35 mph. Most other BOS projects in the United States have used these same rules, as shown in Table 1.

Table 1 – BOS Operational Speeds and Limits (TCRP Report 151)

	Twin Cities, Columbus, New Jersey, North Carolina	Atlanta, Miami	Cincinnati	San Diego	Ottawa
General Traffic Speeds	35 mph or less	25 mph or less	30 mph or less	35 mph or less	None
Maximum Bus on Shoulder speed	Up to 15 mph faster than general traffic, not to exceed 35 mph	Up to 15 mph faster than general traffic, not to exceed 35 mph	Up to 15 mph faster than general traffic. (i.e., up to 45 mph).	Up to 10 mph faster than general traffic, not to exceed 35 mph	Up to posted highway speed of 100 kph (62 mph)

In establishing protocols, operational speeds and permitted speed differentials should be matched with the corresponding shoulder width and the frequency of intersections or merge points.

Another limit occasionally discussed is the impact of foul weather and whether operational limits should be imposed on shoulder use. Due to increased congestion, shoulder use by buses during foul weather typically offers greater than usual travel time and reliability savings. However, the driving conditions are also more challenging in foul weather and bus drivers are therefore cautious in their use of shoulders, thus limiting the potential benefit in travel time and schedule adherence.

Bus Travel Time Savings / Reliability

The primary goal of implementing BOS is to reduce travel time and improve travel reliability for buses and their passengers. Accordingly, policy criteria for implementing BOS are typically established. In the Twin Cities, for BOS to be considered a corridor must be used by at least six buses a day, and use of the shoulders must save a bus eight or more minutes per mile per week in travel time. In Miami, congestion measured at level of service (LOS) E or F in the peak hour was identified as one threshold for screening corridors for BOS implementation.

Note that while criteria are typically established for recurring (i.e., regular) congestion, bus operating agencies also note the value of being able to use shoulders during non-recurring congestion, such as when lanes are by blocked by a breakdown or during congestion due to a special event. This is why bus agencies typically recommend allowing use of the shoulders unrestricted by time of day.

Regions in which BOS has been implemented have collected data on the travel time savings and increased schedule reliability of bus operations when using the shoulders. Some results are presented below in Table 2.

Table 2 – Observed Travel Time and Reliability Data (TCRP Report 151)

	Twin Cities	San Diego	New Jersey	Miami
Segment Length	(multiple corridors)	8 miles	4 miles	9 miles
Travel Time Savings	5-20 min. (10-60 min. worst case)	Up to 5 min.	3-4 minutes	n/a
Reliability Improvement	n/a	99% on time	n/a	50% reduction in late buses

Design Elements

Shoulder Width, Structural Strength, and Slope

The width of corridor shoulders is one of the primary factors affecting BOS, given that a public transit bus with mirrors typically requires at least ten feet of width. **Generally, shoulder widths range from a minimum of 10 feet to the standard lane width of 12 feet.** Some BOS is operated along lanes as narrow as 9.5 feet; however this narrow width appears to be feasible only for short segments and infrequent use. On the Twin Cities network, some 90% of the approximately 280 miles of designated shoulders are the minimum 10 feet wide, though the standard is 12 feet for all new construction. To provide sufficient shoulder width, Minnesota DOT has reduced some adjoining general lane widths by up to six inches.

Miami requires at least a twelve-foot shoulder when truck volumes exceeded 250 trucks per hour. In Cincinnati and Chicago where shoulders are in use along the median (i.e., left shoulder bus operation), a twelve foot minimum for these shoulders is required due to the restricted sight lines of the bus drivers towards the right, as well as to allow for the tendency of congested motorists to pull left towards the median in order to see further ahead.

An exception in shoulder width is Ottawa, where wide shoulders enable a transitway type of operation. Shoulders are widened beyond general lane width to allow BOS operation at full speed of 100 kph (62 mph). Shoulder width is 5 meters (16.4 ft) on one corridor, Regional Road 174, and 7 meters (23 ft) on Regional Road 417 (peak use of these corridors is 100 buses per hour and 60 buses per hour respectively). Seattle also has extra-wide shoulders for BOS operations.

After width, the second most important physical factor is the strength of the shoulder, largely determined by the pavement thickness. **Typical pavement thickness on general travel lanes is a minimum of is seven inches; however shoulders are typically thinner**, sometimes being only three inches thick. While thinner pavement can support infrequent use, this is not acceptable for frequent use, especially by heavier vehicles like buses. In the Twin Cities, they now build all shoulders to a seven inch thickness.

Shoulders typically have increased slope for drainage purposes. **Reconstruction to build up the shoulders to a flatter slope is recommended**; Minnesota DOT has moved to a two degree slope standard from the four percent slope of older shoulders. New Jersey required 2.5 degree slopes to replace the previous four degree slopes. The areas around drains should also be a

focus for structural improvements; New Jersey added 78 new drain inlets for its four-mile long Old Bridge arterial BOS project.

Roadway Geometry and Sight Distances

Roadway geometry affects both the operation of a vehicle itself and also the sight distances of the driver. Buses off-track around curves (i.e., rear wheels follow a shorter path) and may require a larger shoulder width to reduce the possibility of the rear of the bus swinging inside or outside of the shoulder (i.e., intruding on the travel lane or towards the outside of the shoulder). Curves may also restrict sight lines to an obstacle in the shoulder and require the bus speed to be reduced. **Minnesota DOT requires that shoulders be upgraded to the same grades and slopes as the general purpose lanes**, along with a 250 foot minimum sight distance (see Table 4-1 in TCRP 151).

For arterial highways with unrestricted access (i.e., access roads or driveways along the road), wider shoulder widths are recommended due to motorists pulling forward into the shoulder to set up for merging.

Merging at Intersections and Ramps

Typically buses on shoulders must yield to any vehicle entering the shoulder, including at freeway ramps or intersections. **In complex or very busy intersections, shoulder use by buses is generally not permitted.** Generally, more than 1,000 vehicles per hour entering or exiting at an intersection indicate that buses should re-merge with general traffic beforehand, though another option is to implement ramp metering. For dual exit lanes, re-merging with the general lanes is standard practice; for dual entry lanes, bus drivers are usually permitted to weave through the traffic.

In Atlanta, a more restrictive protocol specifies that all buses must re-merge with general traffic before interchange off-ramps and not access the shoulder again until after the on-ramp merge.

It should be noted that motorists are more likely to illegally make use of shoulders at intersections, especially to exit during congestion, which can further impact safety at intersections.

To assist with merging, Minnesota DOT uses ramp metering, which is regarded as being effective in ensuring vehicle spacing for safer merging. In San Diego all intersections along the BOS corridor have auxiliary lanes between the off-ramps and on-ramps, enabling safer merges.

The above discussion applies to most BOS operation, which is along the right-hand shoulders of highways. However Cincinnati and Chicago are examples of median shoulder BOS operation for which intersections are typically less of a concern, unless there are left exits and merges are

present along the roadway). However buses have to merge with general traffic and gradually cross to the other side of the highway when transitioning between median shoulders and right-hand entry and exit ramps. This can be challenging when crossing right due to restricted bus driver visibility towards the right rear of the bus.

Clearance at Barriers and Overpasses

In the Twin Cities and most other cities, a 10 foot shoulder width is the minimum acceptable for BOS operation, and is also acceptable for short distances on an overpass. For longer bridges, a minimum of 11.5 feet is required due to the challenge of driving a bus next to a bridge railing. **In general, there should be a 1.5 or 2 foot clearance beyond the shoulder width to any barrier or wall, as well as any drainage gratings or culverts.**

Vertical clearance is not typically an issue, unless a facility has bridges that predate modern design clearances, or if repeated resurfacing has raised the road height over time.

Posted Signage, Markings, and Warning Devices

In general, BOS implementation has used minimal signing and markings. In addition to relevant signage recommended in the Manual for Uniform Control Devices (MUTCD), regions implementing BOS projects have used a number of different signs as appropriate to their state codes, though there does appear to be a gradual convergence. Signs will indicate authorized bus use of shoulders, both along the shoulders and at intersections and merges. For roads within the National Highway System, the precise signage is subject to approval from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

Figure 3: Samples of BOS Signage

In the Twin Cities, small yellow advisory "pinch-point" signs are posted when the shoulder narrows to less than 10 feet and the bus must re-merge into the general lanes.

While in Maryland and New Jersey the authorized time period for BOS operation has been included on signage, there is a growing opinion that this is unnecessary, as bus operations already take into account any time period limitations, while more flexibility might be needed in special circumstances. The exception would be if there are time period rules in effect for general traffic as well (e.g., high occupancy vehicle operation in peak periods, or no turns on arterial highways in peak periods).

In addition to signage, pavement markings may be used, such as a double white line or a double-wide line, or a there may be a warning device such as rumble strips. Rumble strips between shoulders and the general travel lanes may not be possible if shoulder width is narrow, and existing strips may need to be removed if restricting the useable portion of the shoulder by buses.

Dynamic Signage and Lane Control

The use of Intelligent Transportation Systems (ITS) technology offers some potential applications for BOS. The Washington metropolitan region already employs ITS along I-66 outside the Beltway between the Beltway and US 50 to allow use of the shoulder lane by all traffic, when enabled by overhead signals.

Ottawa, which has bus stops along the highways, has customer actuated call buttons so that buses can exit the shoulders and access the stops to pick up waiting passengers.

BOS operations can benefit from variable message signs with specific information on shoulder use or conditions, or from coordinated traffic operations information on blocked shoulders being pushed to the drivers.

Looking to the future, the University of Minnesota has designed a lane guidance concept, which would use GPS location and other sensors to assist in steering and provide warnings, including a collision avoidance system, for implementation onboard buses. Further developments may lead to deployment of this technology in buses intended for BOS operation.

Operational Considerations

BOS Safety and Emergency Incidents & Responder Access

The reported safety record for all BOS systems evaluated in the TCRP reports has been exceptional. Periodic accident review has not produced any statistically significant findings concerning BOS operation. In general only minor property accidents have taken place, mostly involving mirrors. Proper education, enforcement, training, and signage have all been important in achieving this record in all the BOS projects evaluated.

Except in unusual circumstances, with completely blocked traffic, there have been few reported instances of buses not being able to re-merge into the general lanes to clear the way for emergency vehicles.

In Atlanta, additional bulb-outs outside the shoulders were added, for both enforcement use and for disabled vehicles.

Enforcement and Encroachment / "Jealous Motorist" Issues

Enforcement's primary role for BOS operation is to ensure only authorized buses make use the shoulders. In addition to motorists using the shoulders, motorists can also encroach upon the shoulders, blocking safe bus use. According to interviews and surveys, bus drivers using BOS often experience motorists blocking the shoulder so that the bus could not pass or pass only with difficulty; in Miami up to 44% of bus drivers reported experiencing this daily. This encroachment on the shoulder is particularly problematic when the other vehicle is a truck. Most of these incidents are ascribed to poor or inattentive driving, but there are also cases of other drivers deliberately blocking the bus: the "jealous motorist" issue. Education and enforcement are the common strategies to combat encroachment of any type.

In Miami, the fine for failure to yield to buses as they enter and exit shoulders, or for following a bus on the shoulders, is $133.50 plus license points.

Dedicated additional police enforcement is often provided during the early stages of BOS operation on a corridor; six to eight hours during the first couple of weeks and two hours per week for another four weeks. Some projects have also used escort vehicles the first day of operation, to accompany the buses.

Public Outreach and Education

In advance of the Miami BOS project on SR-874/878, a three-element outreach plan was conducted. First, a service campaign with details on the bus service to be provided: routes, travel time, fares, and park-and-ride lots. Second, a media and elected officials event, including a comparative trip by two buses, one using the shoulders and one not. Third, a public service announcement was made for the project, emphasizing enforcement.

For implementation in North Carolina, NCDOT drafted a one-page fact sheet and developed a list of Frequently Asked Questions (FAQs) and responses, for stakeholders to use in public outreach efforts.

In Chicago, the bus operator PACE produced a livery wrap for its buses to indicate that they have permission to use the shoulders.

Figure 4: PACE Bus Livery Wrap

Shoulder Cleaning / Snow Removal

Ensuring the shoulders are clear of debris or snow is essential for safe BOS operation. The Twin Cities includes shoulder clearance in their snow clearance plans. In Columbus, OH, the frequency for shoulder debris clearance was increased from once every three weeks to once a week for the BOS segment.

Regulatory and Funding Considerations

Federal and State Exceptions to Design Code

FHWA must approve design code exceptions to allow BOS along the National Highway System. The Federal Transit Administration may also be involved if any FTA funds are used for implementation.

Most states also have vehicle codes that require amendment when first authorizing BOS; the amendments typically carefully define the shoulders as limited-access or special transit use lanes to get around general roadway standards. Exceptions are often used for pilot periods of two or three years, before legislation for permanent programs is required.

It is important to note for liability issues that any nonstandard exceptions to design code could be targeted in court in the event of a crash or accident. Several states, such as California, incorporate permission into code for transit-only use of shoulders provided comprehensive safety and engineering studies are completed and approved.

The exact designation of the BOS segments, whether as transit lanes or shoulder lanes, will in turn be reflected in the necessary traffic signage.

In regard to the Washington metropolitan region, it is recommended that signage in the region be either the same or as similar as possible across state lines. There do not appear to be any current BOS operations that continue across state lines, which would require coordination of regulatory and operational factors.

Eligible Vehicles

In most cases, BOS operation is typically limited to public transit buses. North Carolina further limits BOS operations to transit buses of standard size, though other projects offer wider latitude. Operationally, large transit buses can be seen by other motorists and the drivers sit high enough to see potential hazards. The drivers are also trained and supervised, as detailed below. Policy wise, this restriction limits shoulder use to a small number of vehicles and those vehicles are transit buses that directly help to reduce congestion. In addition, roughly half of BOS projects allow deadheading (i.e., non-revenue service) buses to make use of the shoulders; others only allow use when carrying passengers.

However, there are exceptions. Minnesota allows paratransit vehicles to use the shoulders. Private charter buses that have gained permits are also allowed to use the shoulders, though reports are that few private operators have invested in the necessary driving training in order to obtain permits. Minnesota also considered allowing vanpools to use shoulders, but this did not pass the state legislature.

Atlanta encountered an unusual exception to eligible vehicles when first implementing BOS; school buses also made use of the shoulders even though they were not permitted. This violation was quickly corrected.

Bus Driver Training Requirements and Supervision

Public transit bus drivers are allowed to use the shoulders because they are professional drivers. They are accountable to operating rules and trained to handle complex driving decisions while driving on the shoulder.

Driver training typically includes lessons on the purpose and policy for BOS use, knowledge of signs and markings, operating speed limits for the bus and for general traffic, merging at

intersections, accessing and exiting the shoulders, and procedures when the shoulders are blocked or need to be used by first responders. For instance, in the Twin Cities the BOS drivers are instructed to merge with the general lanes once within 1,000 feet of an obstruction.

In addition to protocols, there may be special instructions when operating in the shoulder; for instance, in the Twin Cities, Miami, Columbus, and North Carolina, buses activate their four-way flashing lights. In San Diego buses don't use flashing lights but put on low-beam headlights.

Funding for Construction and Implementation

Costs range considerably for BOS implementation, depending upon the initial condition of the roadway and the desired conditions. The Twin Cities, with a specific fund of $1 million a year, is able to add four to eight miles of shoulder segments a year, at a cost of roughly $150,000 to $250,000 per mile. Other areas have had lesser costs per mile for less frequently used shoulders, typically only four to six buses per hour. At the higher end, the Old Bridge BOS project in New Jersey was $8.5 million for nine miles of arterial highway, but this involved substantial shoulder improvements, as well as bus shelters, sidewalks, and pedestrian islands.

Capital funding for BOS implementation typically comes from state and local sources. In the long run, fixed guideway miles become eligible for federal transportation funds, and shoulders may qualify under certain criteria. In the Twin Cities, with twenty years of operation, the transit agency collects FTA Section 5307 capital guideway funds of roughly $30,000 per shoulder lane mile.

Funding for Operations and Maintenance

Additional funding is needed for support of BOS operations. More frequent shoulder clearance of debris, or snowfall, adds to operating costs. Enforcement costs also increase to patrol the shoulders for traffic offenses and deal more quickly with any breakdowns or vehicle removal. Bus operations for shoulder use will also require some additional funding, as new drivers require training on the protocol for bus operations and familiarization with the shoulders. Some additional supervision costs may also be incurred to ensure more frequent reporting on shoulder use. However, many of these are base costs already being incurred. The additional marginal cost of supporting BOS operations would be difficult to identify.

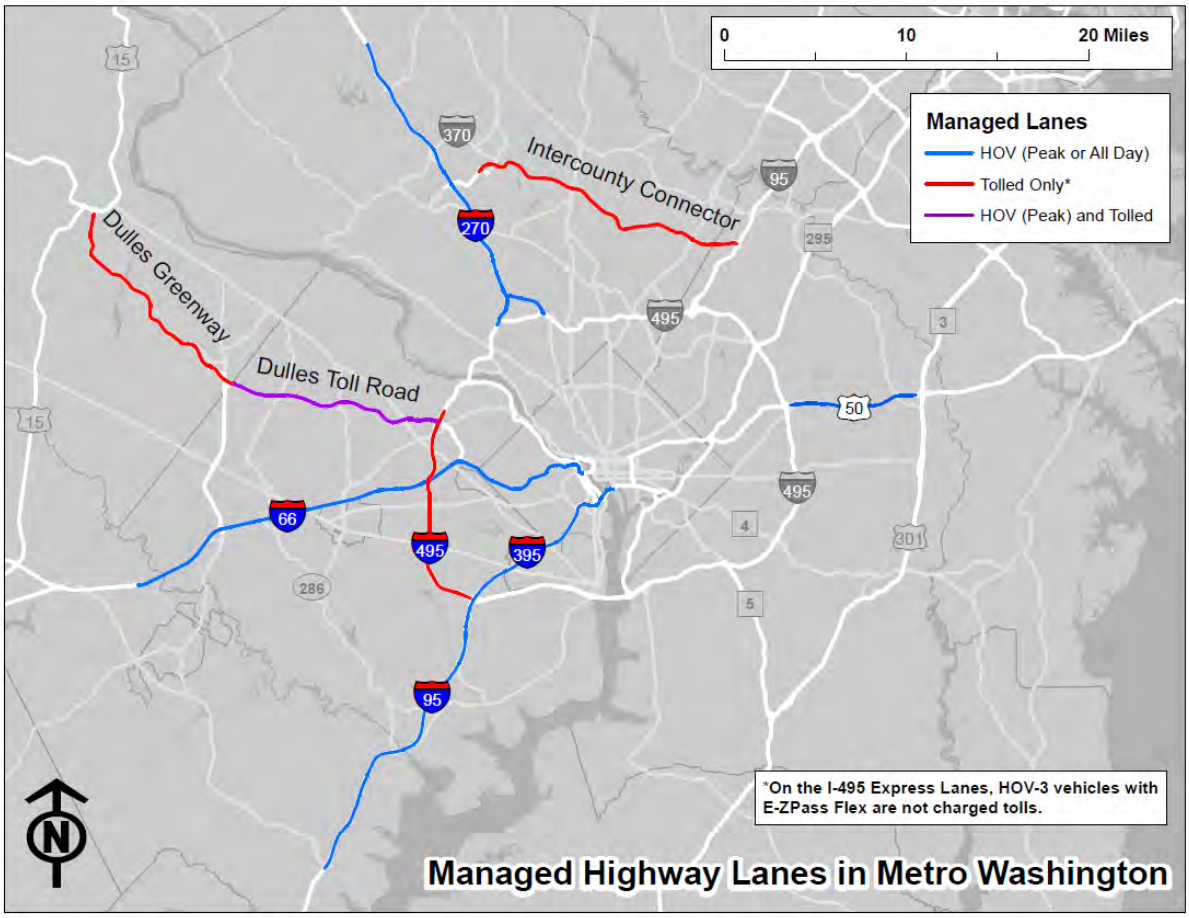
The net financial impact of BOS operations is likely to be indeterminate, or rely on variable traffic conditions. Much bus service using shoulders is implemented in conjunction with shoulder use, so tracking savings from improved travel speeds and schedule reliability is difficult. By and large, practitioners evaluate the bus operating savings as roughly offsetting the costs of driver training and supervision by the transit agencies as well as the enforcement costs for the police and increased road maintenance costs for the highway agencies.

Section D: Assessment of the Feasibility of BOS at Specific Locations in the National Capital Region

In order to assess the feasibility of BOS at specific locations in the metropolitan region, three data elements were identified as being critical: bus service, congestion, and shoulder conditions. The study methodology therefore consisted of reviewing available data for each element or identifying what data is needed. This methodology was then applied to specific locations proposed by regional stakeholders to identify those locations which offered the most potential for feasibility analysis.

Several key highways in Virginia have HOV or restricted access that should enable relatively congestion-free travel by bus, as shown in Figure 5, including: I-66 outside the Beltway, VA-267 (Dulles Access Road), I-495 Express Lanes, and the I-95 HOV Lanes (to be converted to HOT Lanes).

Figure 5: Managed Lanes on Principal Highways in the Washington Metropolitan Region



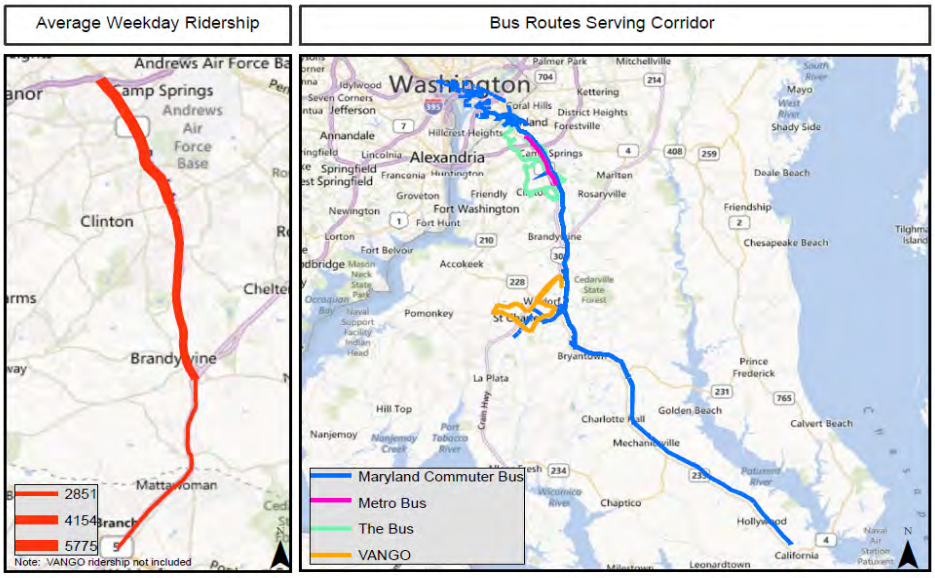
Methodology

Three data elements were evaluated to determine their application to assessing BOS feasibility.

Bus Service

Bus ridership was selected as the most relevant data item for the element of bus service. The TPB's Regional Transit Data Clearinghouse (RTDC) provides GIS functions and data support that enables selecting and combining data from geographically co-located bus routes. The primary data factor available is average weekday ridership over the past fiscal year. Combining the data for all transit routes along a corridor produces a total of daily ridership, all-day and in both directions, that could benefit from improved travel times and reliability.

Figure 6: Transit Ridership Map from the RTDC



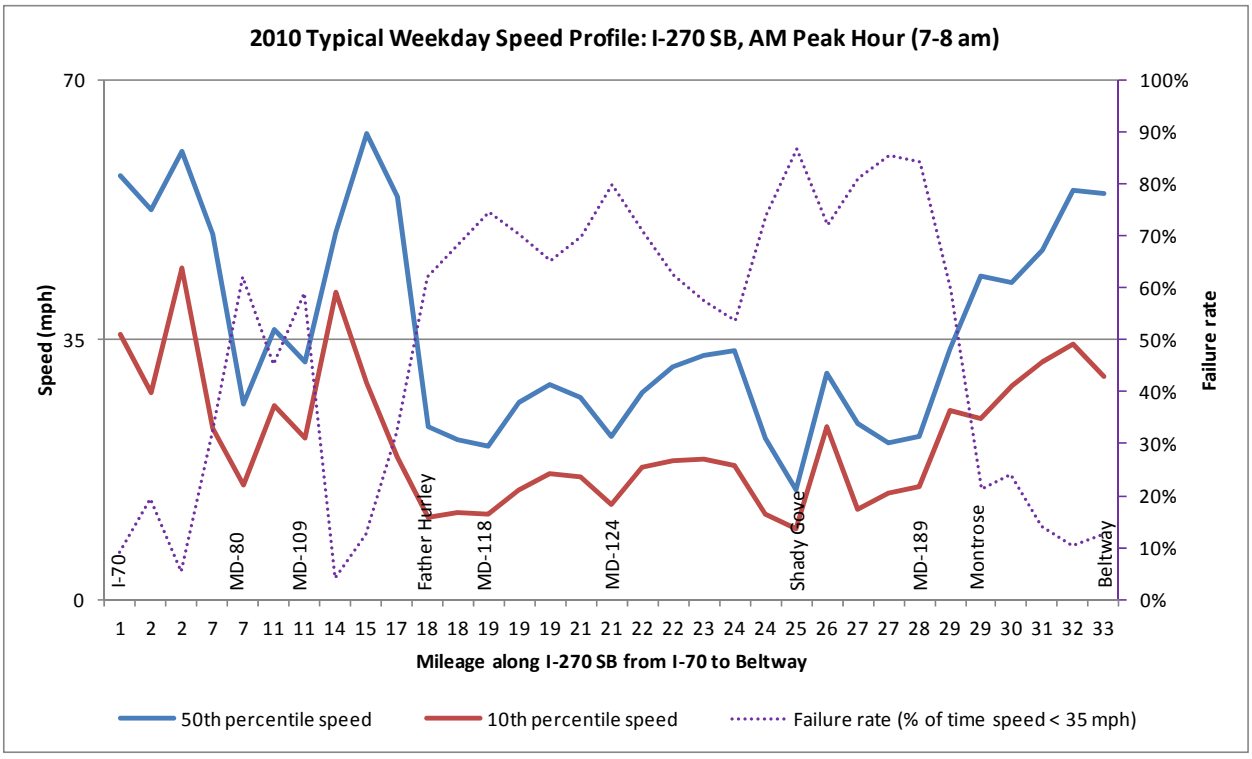
Other bus service data items for a potential BOS corridor that could be considered include the number of bus trips, the on-time performance of bus routes, the scheduled and/or actual running times of bus routes, and more detailed analysis by time period and direction. A full-fledged analysis would consider these elements in a more detailed BOS study.

Traffic Congestion

The specific data items of interest in evaluating traffic congestion are general traffic speeds during the peak hours (and direction of travel) and the percentage of time average speed falls below 35 mph. The 35 mph general traffic speed figure is the most commonly accepted policy threshold below which BOS operations are typically authorized. These data elements are

available from INRIX data, to which the TPB has access as an affiliate member of the I-95 Corridor Coalition. Generally, data are collated from Tuesdays, Wednesdays, and Thursdays throughout a calendar year, thereby avoiding many holidays and the less typical traffic of Fridays.

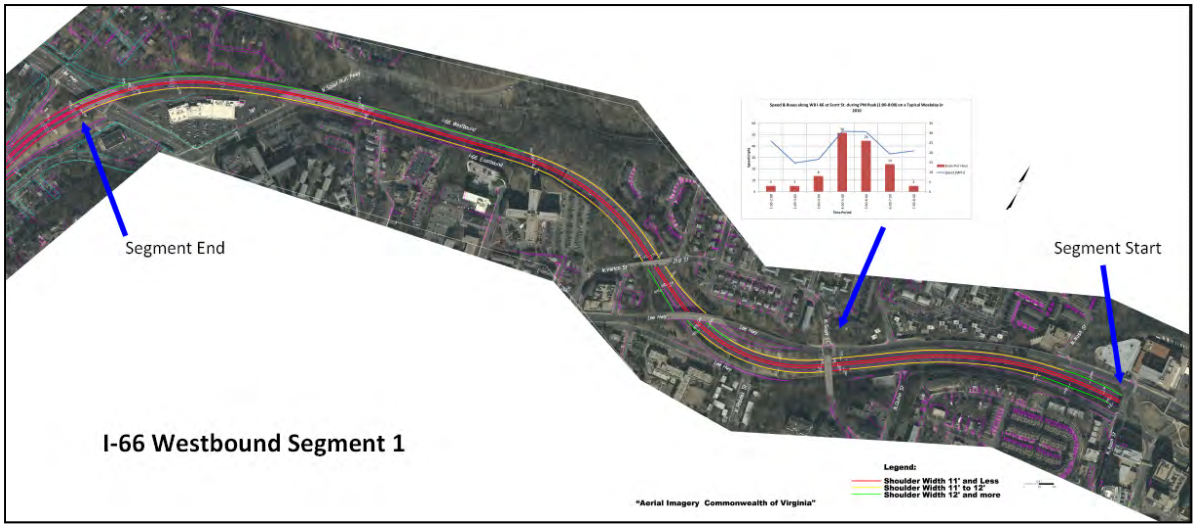
Figure 7: Traffic Congestion Data from INRIX



Shoulder Conditions

The most uncertain data element is the conditions of the shoulders along Interstate and arterial highways. Data on shoulder width, pavement thickness, grade or slope, and obstructions is not generally measured or collected by road agencies. While design standards or contract specifications should ideally determine shoulder conditions, in some cases these may date back forty or more years. Subsequent repaving work or reconstruction of interchanges may have significantly altered original conditions. In only a relatively few cases do road agencies have more detailed shoulder condition data available; VDOT has it for I-66 inside the Beltway because the agency performed a special survey of the roadway as part of project planning work.

Figure 8: Virginia DOT Aerial Map of a segment of I-66 inside the Beltway



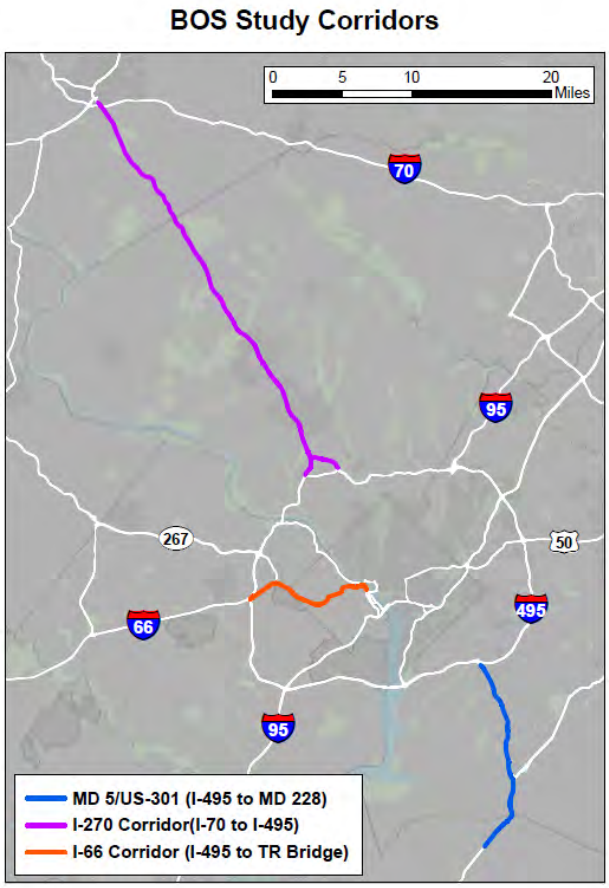
More commonly, general shoulder condition data is available when specific corridors or locations have been the focus of engineering studies preliminary to planned rehabilitation work or to support multimodal analysis studies. Potential sources of general shoulder condition data include aerial surveys, planimetrics using Computer Assisted Design (CAD) drawings, field samples with measurements and shoulder thickness sampling, and other surveys.

Study Locations

Based on the above methodology, the study corridors were further narrowed to three locations.

- MD 5/US 301 Corridor in Prince George's and Charles Counties.
  - Segment 1 – MD 5 from Beltway south to MD 223 (Clinton)
  - Segment 2 – MD 5 from MD 223 to US 301 split (northern end)
  - Segment 3 – US 301 from MD 5 split to MD 228 (Waldorf)
- I-270 Corridor from City of Frederick to the Capital Beltway.
  - Segment 1 – I-270 from I-70 interchange (Frederick) to MD 121 (Clarksburg)
  - Segment 2 – I-270 from MD 121 to MD 124 (Gaithersburg)
  - Segment 3 – I-270 from MD 124 to MD 28 (Rockville)
  - Segment 4 – I-270 from MD 28 to Beltway.
- I-66 Inside the Beltway – as part of the concurrent VDOT pilot project.

Figure 9: Map of BOS Study Corridors



MD 5/US 301 Corridor in Prince George's and Charles Counties

Bus Service

Bus service in the corridor is provided by MTA Commuter Bus, WMATA Metrobus, Prince George's The Bus, and VANGO (Charles County transit). Transit ridership ranges from 2,551 riders on a typical weekday in the southern section to 4,154 midway and 5,775 in the northern portion.

Traffic Congestion

Traffic speeds in the southern part of the corridor during the AM peak-hour, inbound, average below 20 mph for a considerable segment. This portion of the corridor is signalized, which limits travel speeds, though in the PM peak hours, outbound, traffic averages just below 35 mph. In the northern portion of the corridor, past Surratts Road where the corridor becomes

limited-access and grade-separated before connecting to the Beltway, AM peak travel speeds are typically in the 50 mph range rarely fall below 35 mph.

Shoulder Conditions

SHA collected data on shoulder width along the segment of MD 5 between Surratts Road and Burch Hill Road, in the vicinity south of Clinton. While much of the shoulder along the corridor has widths greater than 10 feet, especially on the northbound side of the road, there are pinch points narrower than this at merging intersections and at some bridges.

This corridor consists of both limited-access and open-access sections (i.e., with parking lot entrances and driveways), totaling just over 15 miles in length. An SHA analysis of the corridor between the Capital Beltway (I-495) and the Charles County line identified 26 conflict points and 3 pinch points on the corridor.

- Conflict Points are points at which a highway user crossing, merging with, or diverging from a road or driveway conflicts with another highway user using the same road or driveway (e.g., ramps, intersections).
- Pinch Points are traffic congestion points, intersections, bridges or short lengths of road at which a traffic bottleneck exists slowing down the broader network (e.g., bridges).

In addition, the southern portion of the corridor has several signalized intersections, for which a system of queue jump lanes and/or transit signal priority might provide more practicable benefits than expanding or upgrading shoulders to enable shoulder use by buses. Further intersection and traffic analysis would be needed to evaluate the feasibility of a queue jump and transit signal priority system along the southern portion of the corridor.

Overall, it would appear that it would be feasible to have some BOS operations along the corridor, if some pinch points could be physically improved. SHA estimates necessary shoulder improvements to the MD 5/US 301 corridor as ranging between $4 and $8 million per mile, given the current 10-foot shoulder, the known pinch and conflict points, and the cost of making the shoulders safe for operation. This is a preliminary overall capital cost, and it is possible that shorter shoulder segments could be identified for BOS operation; however, this would require more detailed engineering studies.

I-270 Corridor from the City of Frederick to the Capital Beltway.

Bus Service

Bus service in the corridor is provided by MTA Commuter Bus, WMATA Metrobus, and Montgomery County Ride-On Bus. Transit ridership ranges from 3,088 riders on a typical weekday in the northern section up to 14,248 in the middle segment leading to the I-370

intersection. Most transit service is on a 5.2 mile segment between Germantown Road (MD 118) and I-370 (to Shady Grove station), which overlaps segments 2 and 3.

Traffic Congestion

Based on INRIX traffic data, speeds on I-270 in the AM peak, southbound from Frederick County heading to the Capital Beltway, range on average from 45 miles per hour down to 26 miles per hour on one segment. In worst-case conditions (10%), travel speeds are only about 16 miles per hour. Traffic falls below 35 mph approximately 75% of the time, indicating BOS operations would be common if implemented for general traffic speeds below this policy threshold.

Shoulder Conditions

There is little detailed data available on shoulder conditions along I-270, especially for the portion of the highway north of the collector/distributor (C/D) lanes, which would be the likely focus of BOS operations. South of the C/D lanes, which begin in the southbound direction just before the I-370 interchange, buses would ideally use the HOV (far left) lanes to keep moving. Further effort would be needed to collect more detailed shoulder data as well as available right-of-way information.

An SHA analysis of the corridor between the Capital Beltway (I-495) and the Frederick County line identified 22 conflict points and 17 pinch points on the corridor. SHA estimates necessary shoulder improvements to the I-270 corridor as ranging between $4 and $8 million per mile, given the current 10-foot shoulder, the known pinch and conflict points, and the cost of making the shoulders safe for operation. This is a preliminary overall cost, and it is possible that shorter shoulder segments could be identified for BOS operation; however, this would require more detailed engineering studies.

I-66 Inside the Beltway

Bus Service

In the case of I-66 transit operations data, VDOT focused on collecting the numbers of bus trips, with a maximum observed bus density of 33 buses per hour along some segments. The corridor was analyzed in 15-minute increments, with bus numbers at various segments along the corridor, to develop a more detailed picture of bus travel on the corridor. Bus ridership information was taken from more detailed reports provided by the transit bus operators. Bus operators include Loudoun County Transit, WMATA Metrobus, PRTC Omniride, and Fairfax County Connector.

Traffic Congestion

Average traffic speeds in the corridor during the AM peak-hour, inbound, are below 35 mph between Westmoreland Street and Sycamore Street. In the PM peak-hour, outbound, average speeds in this segment are below 30 mph.

Shoulder Conditions

VDOT has conducted substantial shoulder condition data collection along I-66 in support of previous multi-modal studies, including an aerial survey. They have identified several segments along which shoulders are wider than the planned minimum operating criterion of 11 feet. Other segments, however, are narrower, and there are also intersections to consider.

Based on their pilot program analysis, VDOT has identified three segments in the eastbound and two segments in the westbound direction on which they intend to pilot BOS operations. These are segments that meet VDOT's criteria of a minimum shoulder width greater than 11 feet with no lateral obstruction (11.5 feet with lateral obstruction). About 85-90% of the shoulders in the five pilot segment locations are 11' or greater in width. There is a pinch point in one of the pilot segments where the shoulder is about 10.6'. This condition is for a very short length under a bridge. In addition, there are some additional segments identified for possible physical improvements to the shoulders to make BOS operations feasible in the longer run.

VDOT has completed the development of an operations protocol for buses using shoulders, which will allow all day operations for public transit buses and which permits those buses to use the shoulders when general traffic speeds fall below 35 miles per hour. However, the maximum bus operating speed on the shoulders for the pilot project will be limited to 25 mph. This speed limit for the pilot project is because of the unknown effects that bus use will have on the shoulders; however, VDOT anticipates that shoulder strength is adequate to support the pilot BOS project for a two year trial period.

Section E: Findings

This report summarizes the information collected and reviewed from technical research reports, national examples of bus on shoulders operations, and examples and studies of bus on shoulders operations in the Washington, DC metropolitan region. This information was used to assess the feasibility of expanded bus on shoulders operations in the region, as intended in Virginia for I-66 inside the Beltway in 2014 and as there may be potential for on corridors in Maryland.

Shoulder Conditions

The condition of the shoulders on the proposed corridors – their width, strength, and overall suitability for routine use by buses – was determined to the primary factor affecting the near-term potential for BOS operations.

Corridors or corridor segments for which the shoulders are known to be of sufficient width and strength and that meet other requirements could allow near-term implementation of BOS operations. VDOT's plan for the I-66 inside the Beltway pilot project will use five segments along the corridor which have sufficient shoulder conditions.

However, detailed information on shoulder conditions is generally unavailable for most corridors; further data collection and evaluation are required. In addition, pinch points at overpasses and intersection conflict points on potential corridors require more in-depth evaluation. Data collection and evaluation would need to be conducted by the cognizant agencies before a determination on the feasibility of BOS operations could be made or necessary shoulder improvements could be identified.

Corridors for which shoulders are determined to require capital improvements generally require additional analysis and planning to evaluate if BOS operations would be feasible and cost-effective. Initial capital cost estimates to upgrade the shoulders of the proposed corridors in Maryland range up to $4 to $8 million per mile. This range of costs is based on a major quantity review of existing projects and unit prices from recently bid SHA projects; the estimated costs would include full resurfacing of the roadway, full depth shoulder construction, stormwater considerations, work zone management, and other construction costs. The cost range does not include any bridge reconstruction costs. This range of costs is considered comparable to VDOT's figure for upgrading shoulders on I-66 inside the Beltway following a successful pilot project for long-term, routine use by buses.

Targeted Implementation

BOS implementation is likely to be more feasible if initially targeted to short highway segments that have high transit usage and high traffic congestion. Implementing bus on shoulders on long, continuous segments of highways does not appear feasible as a near-term project. The cost for upgrading many miles of shoulders is likely to outweigh the relatively modest benefits for buses and ridership on long-haul routes.

The stand-alone cost of upgrading shoulders to support BOS operations might be significantly reduced if improvements were conducted in parallel with other road work, including periodic repaving and resurfacing or when bridges and intersections are rehabilitated or replaced. Travel lanes could also be repainted to widen one shoulder to sufficient width for bus use, though this would have to be balanced against any safety impact if general travel lanes or the other shoulder are narrowed.

Possible Options for Future Study of BOS by Member Agencies

Contingent upon funding, highway agencies, counties, and transit operators should continue evaluating the I-270 corridor, MD 5/US 301 corridor, and other corridors in order to identify shorter, more effective segments for potential BOS operations. Suggested locations include I-270 southbound between Germantown Road (MD 118) and I-370 (to the Shady Grove Metrorail Station) or I-270 northbound where I-270 goes from three lanes to two.

Next steps by cognizant agencies would include:

- Identifying specific corridors or segments for more detailed consideration.
- Collecting and refining shoulder condition information for these specific segments.
- Identifying capital improvements that would be necessary for BOS operations.
- Discussing operating protocols that would be needed to implement a pilot program.

In the long-run and for any potential corridors for BOS operations in the region, agencies could:

- Assess the results of the I-66 inside the Beltway BOS pilot project in Virginia. If BOS operations begin in late 2014, initial performance evaluation results after six months of operation may be available by mid-2015.
- Review long-range roadwork schedules for opportunities to upgrade shoulders for BOS operations in conjunction with planned rehabilitation and resurfacing of highways, especially at intersections and for structures. This could lead to a multi-year program of constructing any necessary shoulder improvements for BOS operations.

Section F: References

TCRP Synthesis 64: Bus Use of Shoulders, 2006
http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_syn_64.pdf

TCRP Report 151: A Guide for Implementing Bus on Shoulder (BOS) Systems, 2012
http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_151.pdf

NCDOT I-40 BOSS Implementation and Operations Plan, May 2012
www.letsgetmoving.org/bossiop

Miami Dade MPO Bus on Shoulder Service Evaluation, January 2009
http://www.miamidade.gov/mpo/docs/MPO_bus_shoulders_eval_final_200901.pdf

FTA Bus-Only Shoulders in the Twin Cities, June 2007
http://www.hhh.umn.edu/img/assets/11475/Bus%20Only%20Shoulders%20Report%20FINAL.pdf

Appendix A: TPB BOS Task Force

Bus on Shoulders Task Force - Background

At the July 18, 2012 meeting of the Transportation Planning Board (TPB), it was requested that a task force be established to identify promising locations in the region to operate buses on the shoulders of highways. As requested by the TPB, this task force will bring together the stakeholder agencies, including transit operators, departments of transportation, and local jurisdictions, to coordinate an assessment of the experience and potential for Bus On Shoulder (BOS) operations on the region's freeways and major arterials. The task force will oversee a scoping of potential locations for BOS, including a high-level benefit-cost analysis of implementing BOS along select corridors and bus routes. The proposed membership, work plan, and schedule for the Task Force were approved at the September 19, 2012 TPB meeting.

Task Force Membership

The task force co-Chairs are Ms. Carol Krimm, of the City of Frederick Board of Aldermen, and Mr. Chris Zimmerman, of the Arlington County Board. Other members were invited from the following:

Departments of Transportation	Transit Operators	Jurisdictions
• District of Columbia (DDOT) • Maryland (MDOT) • Virginia (VDOT)	• WMATA • PRTC • MTA Commuter Bus • Loudoun Transit	• Fairfax County • Frederick County • Montgomery County • Prince George's County • Others…

Work Plan and Schedule

The regional assessment of BOS feasibility is being coordinated through a series of meetings, with necessary work assigned through discussion.

Task 1 – Summary of Local and National Experience with Bus On Shoulders

The task force will develop a summary of critical experience with current and previous BOS operations, to include an overview of safety, roadway engineering, and bus service operations aspects. In addition, a summary of national experience and its applicability and use in this region will be prepared and reviewed, including federal regulations, requirements for

requesting design exceptions, and supporting state legislation. This information will be used as a resource for discussion and development of the assessment.

Task 2 – Assessment of the Feasibility of BOS at Specific Locations

Stakeholder agencies will identify potential corridors for BOS operation on the region's highway network, based on 1) existing highway congestion locations, 2) current bus service, and 3) highway shoulder conditions. This information will be used to screen out infeasible locations and to identify potential corridors and bus routes for further analysis.

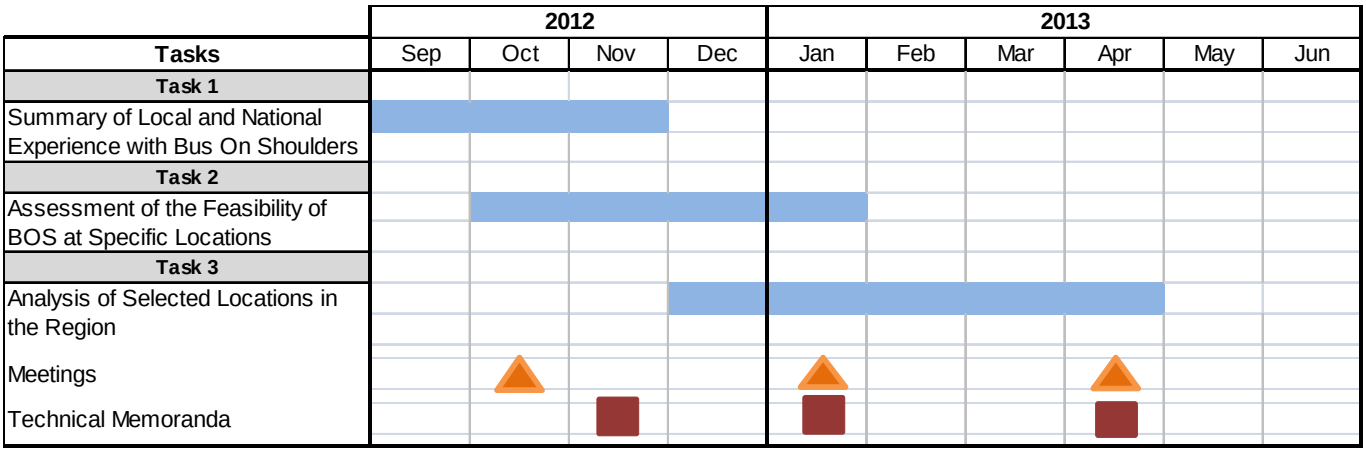
Task 3 – Analysis of Select Corridors/Routes in the Region

Using the results of Tasks 1 and 2, the TPB staff, with assistance from the respective highway and transit agencies, will conduct an analysis of the feasibility of BOS on the potential corridors/routes in the region. The analysis will:

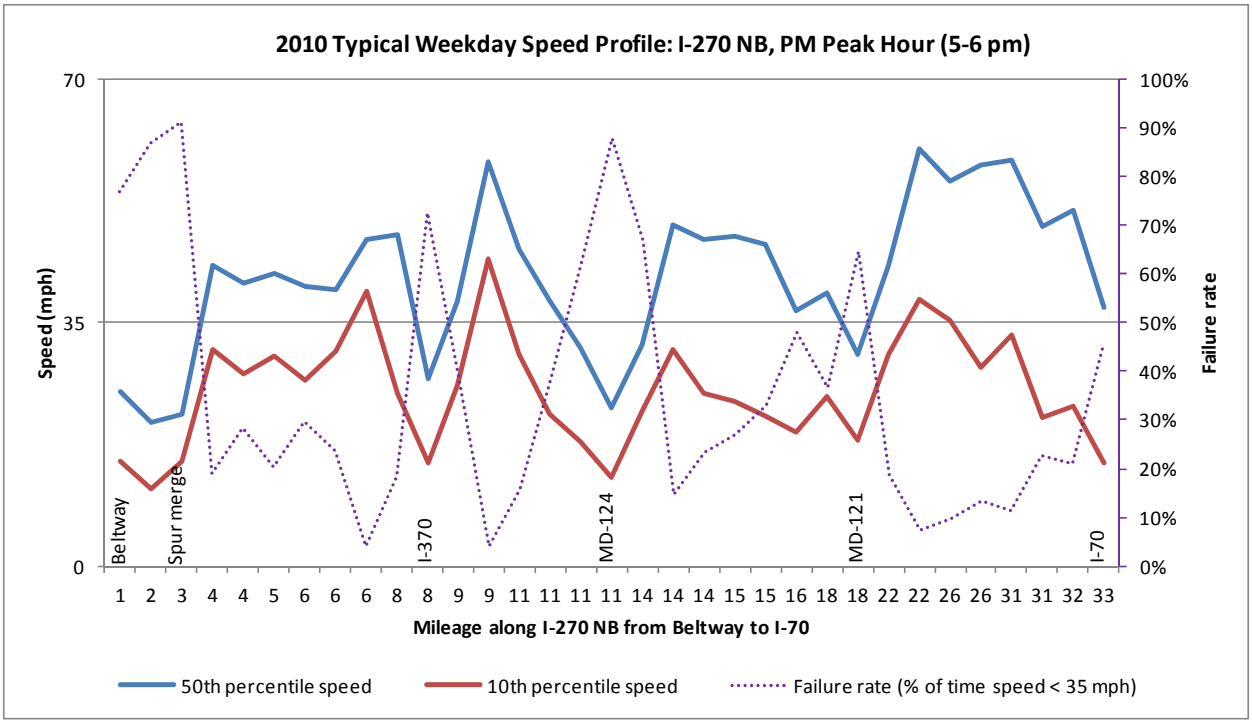
1. Identify issues and challenges with safe operation,
2. Develop capital cost and operating cost inputs, as provided by the stakeholder agencies.
3. Determine potential travel time savings for bus routes based on highway congestion,
4. Present a benefit-cost analysis of the prospective benefits to riders and traffic relative to the projected costs of implementation of BOS service on the selected corridors/routes.

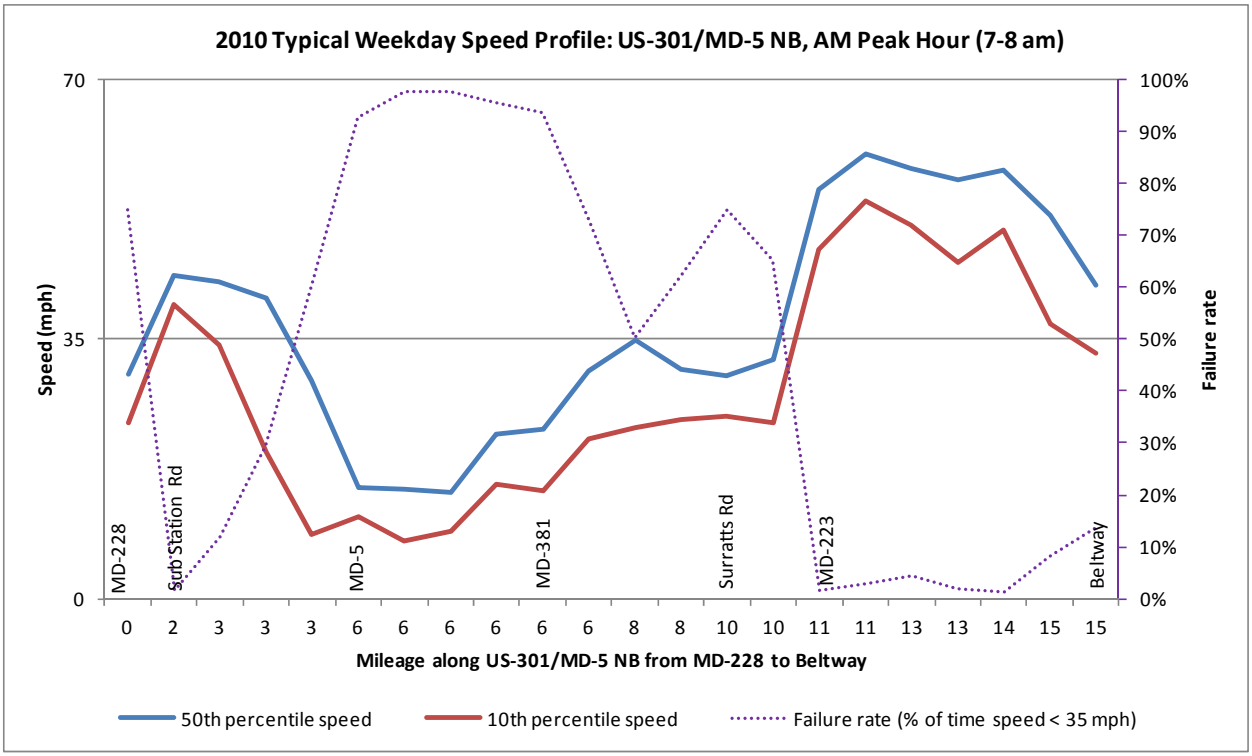
For each task, technical memoranda summarizing the results will be prepared, with supporting presentations for the task force. The work schedule and months for task force meetings and delivery of the technical memoranda are shown below in Figure 1.

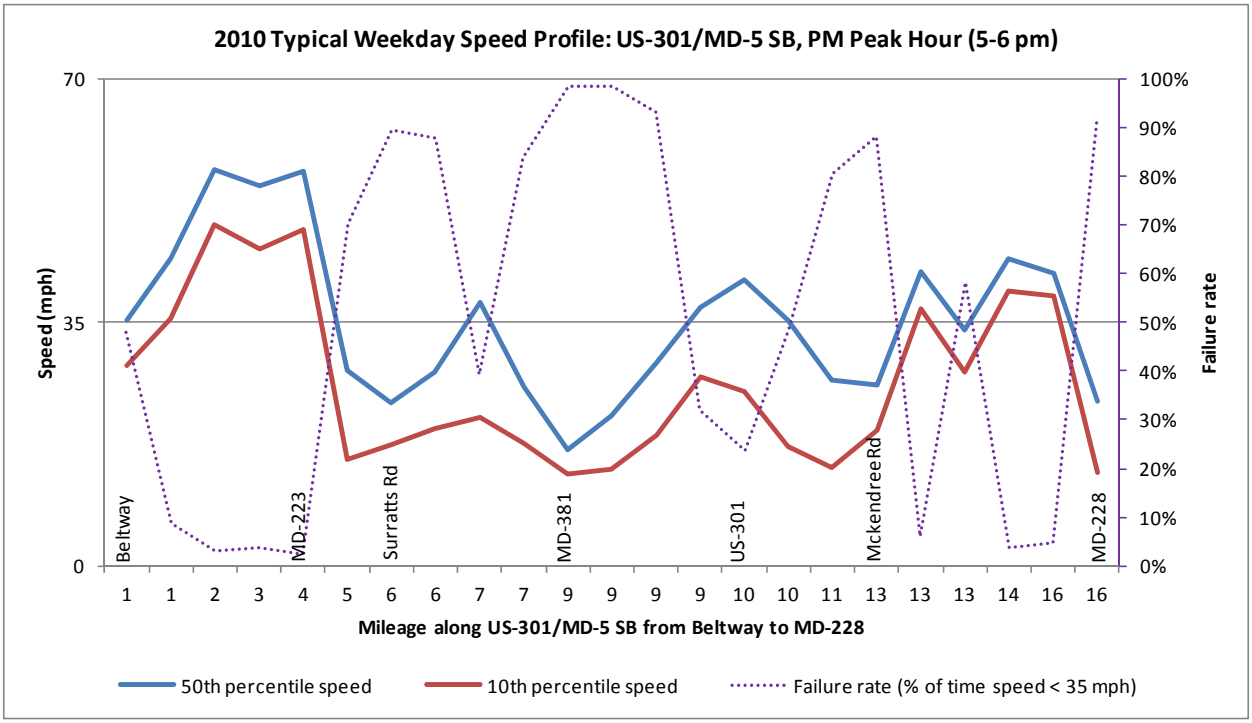
Figure 1: TPB BOS Task Force Work Plan and Schedule



Appendix B: Maps and Figures



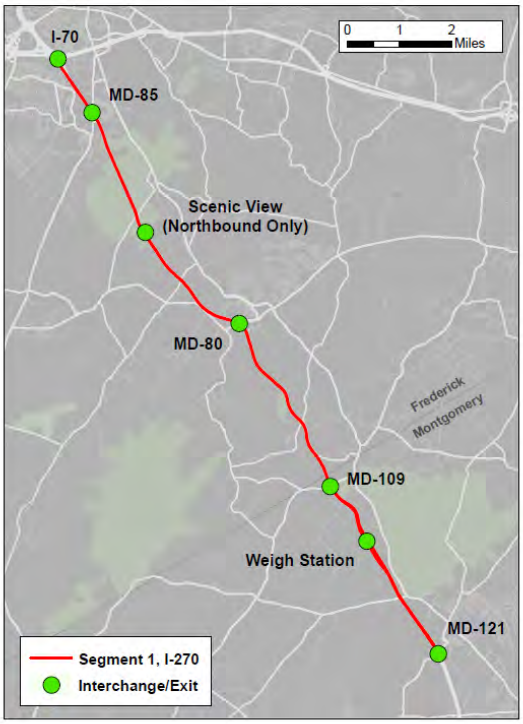



2010 Typical Weekday Speed Profile: US-301/MD-5 SB, PM Peak Hour (5-6 pm)
Speed (mph)
70
35
0
Failure rate
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Beltway
MD-223
Surratts Rd
MD-381
US-301
MckendreeRd
MD-228
1 1 2 3 4 5 6 6 7 7 9 9 9 9 10 10 11 13 13 13 14 16 16
Mileage along US-301/MD-5 SB from Beltway to MD-228
50th percentile speed
10th percentile speed
Failure rate (% of time speed < 35 mph)

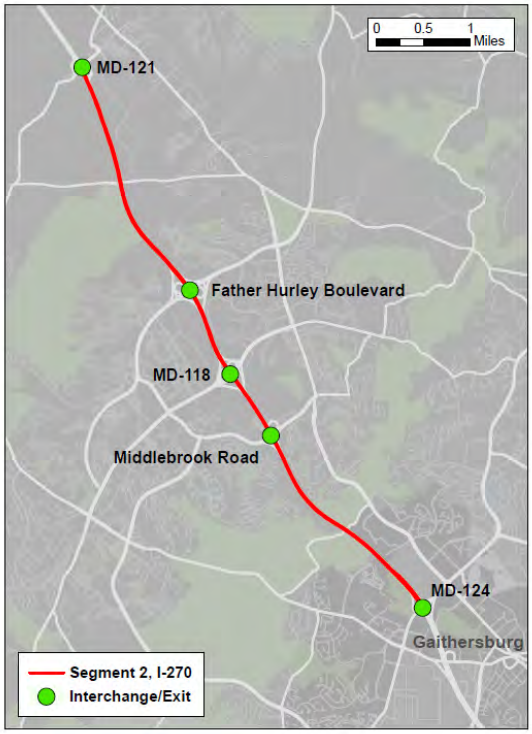
Map of VDOT I-66 Pilot BOS Locations (courtesy of VDOT)

I-270 Bus on Shoulder Study Corridors

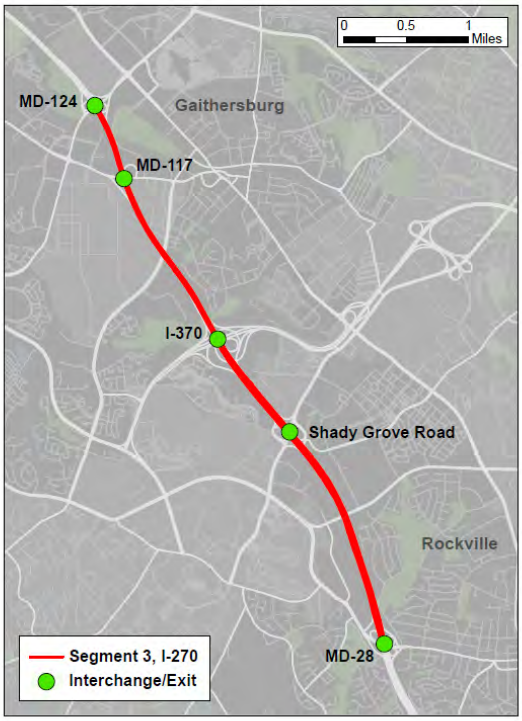
I-270 BOS Corridor, Segment 1: I-70 to MD-121



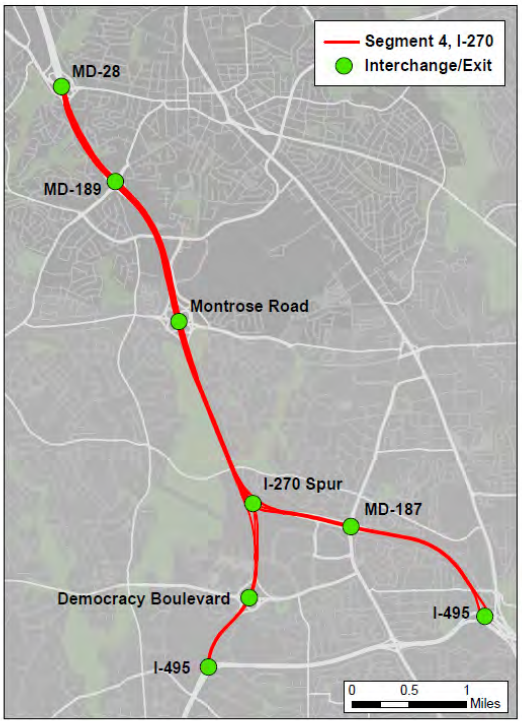
I-270 BOS Corridor, Segment 2: MD-121 to MD-124



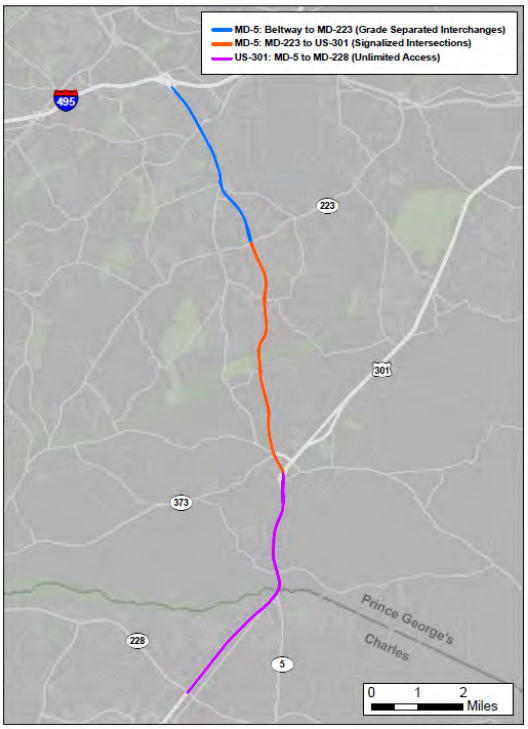
I-270 BOS Corridor, Segment 3: MD-124 to MD-28



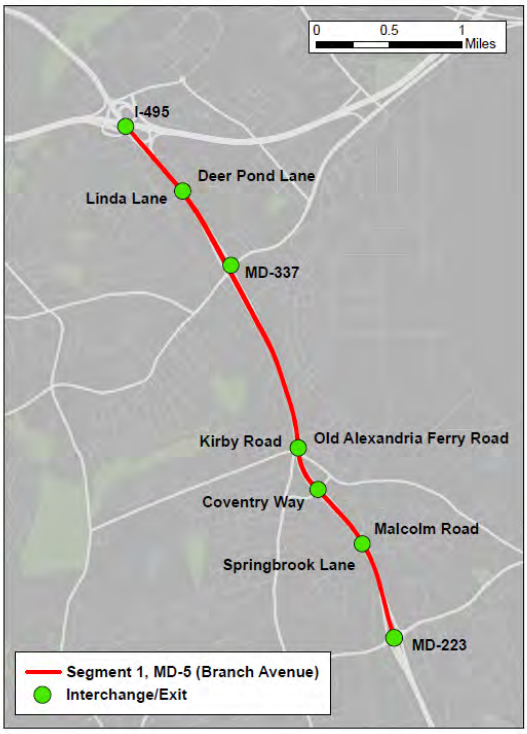
I-270 BOS Corridor, Segment 4: MD-28 to I-495



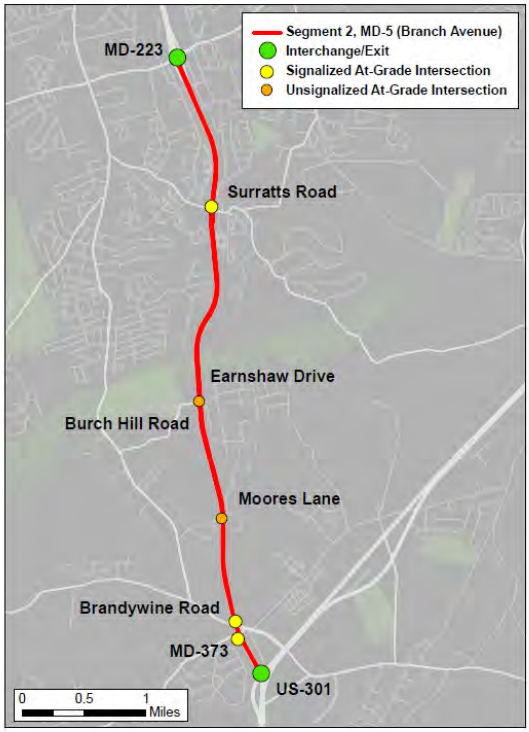
MD-5/US-301 Bus on Shoulder Study Corridors



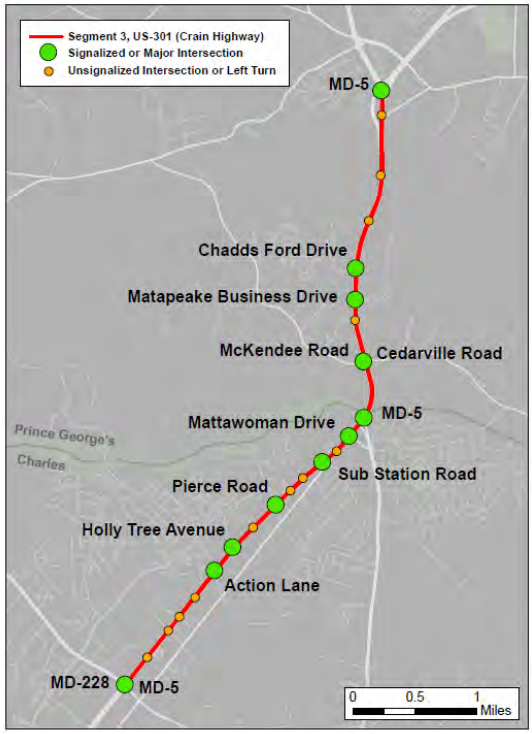
MD-5/US-301 BOS Corridor, Segment 1: I-495 to MD-223



MD-5/US-301 BOS Corridor, Segment 2: MD-223 to US-301



MD-5/US-301 BOS Corridor, Segment 3: MD-5 to US-228



Appendix C: Benefit-Cost Analysis Model

Using a benefit-cost analysis (BCA) model for assessing a proposed BOS project at a planning level can provide insight on the effectiveness of the proposed project. The BCA model developed for the task force uses available travel data and typical cost assumptions to calculate a benefit-cost ratio for the financial and/or passenger benefits a BOS project could bring compared to the capital cost for implementation. However, it is important to stress that use of the BCA model for planning purposes provides only a conceptual evaluation of a project that does not reflect the necessary engineering and coordination work needed for actual implementation.

While used as a planning tool, the BCA model can be used in a sensitivity analysis that varies the inputs to provide insight on the factors that would be important for a proposed BOS project. What bus use and ridership, what capital costs, what traffic speeds would make a BOS project feasible to evaluate further? A sensitivity analysis can compare different alternatives and forecast inputs to assist planners in evaluating these factors for a proposed project.

Corridor Characteristics and Transit Data

The characteristics of the corridor along which a BOS project will take place are the primary inputs for the benefit-cost analysis model.

- Length of Shoulders – The operable length of the proposed BOS segment being evaluated, which could be a short, queue jump-like location at a major intersection or a long, continuous segment of highway.
- General Travel Speed – The average speed of general traffic during the peak hour condition being analyzed. AM peak hour traffic data is typically more available, but the analysis could also be for a PM peak hour.
- Unreliable Travel Speed – The average speed of general traffic for the 10% worst days. Used to incorporate a measure for the unreliability of travel.
- Transit Data – There are two transit data elements to be included in the analysis, which are requested for both the peak hour and the peak period outside of the peak hour.
    - Number of Buses – This can be calculated from current bus schedules for those routes operating along a corridor along which BOS is being implemented. Alternatively, a planning forecast figure could be entered into the model as well.

  - Number of Passengers – This can be calculated from known ridership data, or can also be a forecast estimate.

- Peak Hour Adjustment – As noted, the BCA model is set up for average peak hour conditions. Conditions in the rest of the peak period might be nearly as congested as the peak hour, but are more likely not to be as bad, and to also have fewer bus trips and bus travelers. The peak hour adjustment thus scales for the fact that some BOS operations will take place in the peak period outside of the peak hour, but not as much. AM peak hour traffic data is typically more available, but the analysis could also be for a PM peak hour, which might have a longer peak period of congestion than the AM peak period.

Travel Time Savings and Reliability

This section takes the travel data and calculates the improvements in average travel time and in reliability from buses making use of shoulders to bypass congestion over the defined segment for analysis. Bus travelers and bus operators value both faster travel time and the improved schedule reliability that BOS operations can offer, and these results are used to calculate the financial and passenger benefits from BOS.

- Travel Time Savings – From the general travel speed, and applying the Twin Cities operations protocol for BOS operations (e.g., no more than 15 mph greater than general traffic speed and in no case more than 35 mph), the typical average travel time savings per bus trip for a proposed BOS segment can be calculated.
- Reliability Improvement – For analysis, this is measured by the time difference between travel at the average travel speed and travel when speed conditions are the worst ten percentile. The ability to use the shoulders will ensure the buses arrive on schedule more often, with benefits to both the bus travelers and bus operators.
- Shoulder Use – As noted, the BCA model uses average AM peak hour conditions. Buses will not use BOS all the time; some days traffic congestion may not be that severe or there may be a breakdown or other conditions that prevent shoulder use. The shoulder use adjustment scales the model to account for these factors; different factors are used for average conditions and for the ten percentile worst case conditions.

Financial Benefits and Costs

The financial costs of BOS operations include both the capital costs of implementation costs and the operating costs and benefits of ongoing operations.

- Capital Costs – One-time cost of implementation.
    - Shoulder Improvements – The cost per mile of any known or assumptive improvements to make shoulders useable for BOS operations.
    - Public Education – An assumptive cost for conducting a public outreach effort in conjunction with the start of BOS operations along a corridor to ensure the public understands the purpose of the project and the safety issues.
    - Operations Training – A cost for training bus drivers for BOS operations, including route familiarization, operations protocol, and driving techniques. Number of bus drivers typically calculated as a multiple of the number of buses in operation.
- Operations and Maintenance (O & M) Costs – Ongoing annual costs
    - Shoulder Clearance – An annual cost of keeping a mile of shoulder lane clear of snow and debris.
    - Enforcement – An annual cost per mile for additional enforcement and incident response to keep shoulder lanes available for bus use.
    - Bus Operations – An annual cost for supervision and ongoing driver training in support of BOS operations, calculated as a factor of the number of buses on the corridor.
- Travel Time & Reliability – Annual savings for bus operating agencies and personal benefits to passengers from better bus travel.
    - Bus value of time – Expressed in $ per hour, this represents the operating cost savings from faster and more reliable bus service due to BOS operations.
    - Passenger value of time – Expressed in $ per hour, this represents the value the passenger places on improved travel time and reduced unreliability, i.e., a faster and more reliable trip. Each passenger on a bus is presumed to have the same value of time and experience the same benefits.

Other benefits could also be provided by BOS operations, such as the environmental benefits from a reduction in traffic congestion and emissions due to travelers switching modes from auto to bus. However, given the very small proportion of travel on bus compared to auto travel on most corridors, these benefits and costs are expected to be minimal and are excluded from the model analysis for the sake of simplicity.

There could also be benefits and/or costs from changes in accident rates and severity from BOS operations, either positive or negative; however, reviews of BOS operating safety by TCRP

research studies and other studies have not found any measureable change in accidents, so a safety element is not included in this BCA model.

Benefit / Cost Ratio

The BCA model's final result is a ratio calculated from the financial costs and benefits and the passenger (or social) benefits of the analyzed BOS project. The higher the value of the benefit-cost ratio, the greater the effectiveness of the project is regarded. A benefit-cost ratio greater than 1.0 for a proposed project is generally regarded as worthwhile in terms of the stand-alone benefits it brings compared to the cost of implementation and operation.

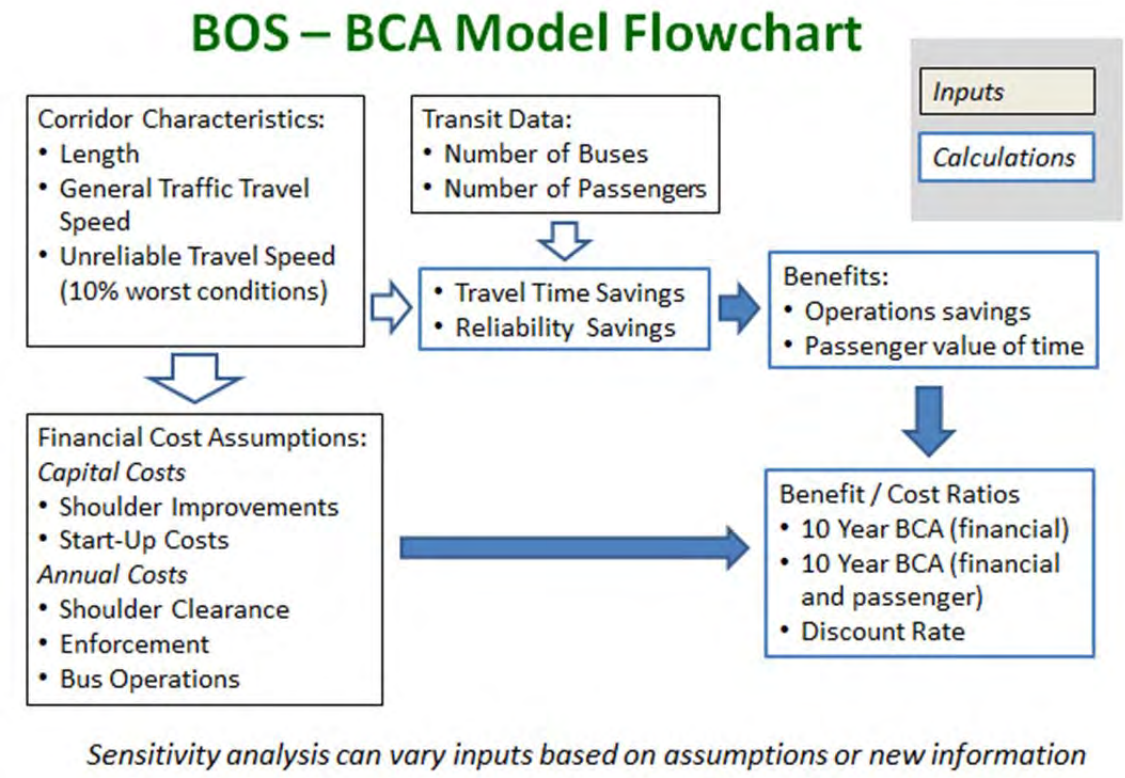
However, while this BCA model is a planning-level tool that includes the major characteristics of BOS operations, it does not capture all possible benefits or costs and may not reflect the full impacts of a proposed BOS project. The BCA model's primary application is likely to be in the initial evaluation of a project. The model can also be used to compare benefit-cost ratios relative to each other across a range of alternatives analyses or sensitivity tests, or among different proposed projects.

The BCA model makes the following benefit-cost ratio calculations.

- 10 Year BCA (financial) – Ratio calculated by taking the ten-year total of the financial operating benefits (minus O&M costs) and dividing by the capital costs of the project. Does not include passenger benefits.
- 10 Year BCA (financial + passenger) – Ratio calculated by taking the ten-year total of the financial operating benefits (minus O&M costs) and the benefits to passengers, divided by the capital costs of the project.
- Discount Rate – Applies a typical discount rate to the future stream of operating costs and benefits to allow comparison to other transportation projects. The two BCA ratios are re-calculated using this discount rate.

The following schematic provides an overview of the BCA Model:

Figure 1: Benefit-Cost Analysis Model Schematic



An illustration of the model in its Excel spreadsheet is shown in Figure 2.

Figure 2: BCA Model Results for I-66 – *For Illustrative Purposes Only*

Bus On Shoulders (BOS) Benefit-Cost Analysis Model		**I-66 Eastbound**			**I-66 Westbound**		**TOTAL**
		Pilot 1	**Pilot 2**	**Pilot 3**	**Pilot 4**	**Pilot 5**	
		Existing BOS on Dulles Connector to I-66	N. Sycamore Street to N. Jacksonville St.	Rte. 29 Overpass at Spout Run Pkwy to N. Nash St.	N. Nash Street to Rte. 29 Overpass at Spout Run Pkwy	Outside shoulder from N. Quincy St to Fairfax Drive merge point	
Corridor Characteristics							
Length of Bus On Shoulder Segment	miles	1.75	1.4	1.4	1.4	1.1	**7.05**
General Traffic Travel Speed	miles per hour	23	27	48	36	21	
Unreliable Travel Speed (10% worst conditions)	miles per hour	*15*	*15*	*25*	*15*	*15*	
Transit Data							
Number of Buses	Scheduled trips (peak hour)	32	32	30	31	30	**32**
	Scheduled trips (peak period)	122	122	122	122	122	**122**
	peak factor	33%	33%	33%	33%	33%	
Number of Passengers	Ridership (peak hour)	960	960	900	930	900	**960**
	Ridership (peak period)	3050	3050	3050	3050	3050	**3050**
Travel Time Savings	% of peak bus trips using shoulders	50%	50%	50%	50%	50%	
	BOS speed	25	0	0	0	25	
	average speed differential	2	0	0	0	4	
	segment length	1.75	1.4	1.4	1.4	1.1	
	Travel Time Savings (hr)	***0.003***	***0.000***	***0.000***	***0.000***	***0.004***	***0.0072***
Reliability Improvement	% of peak bus trips arriving on time	90%	90%	90%	90%	90%	
	BOS speed	25	25	0	25	25	
	average speed differential	10.00	10.00	0.00	10.00	10.00	
	segment length	1.75	1.4	1.4	1.4	1.1	
	Reliability Savings (hr)	***0.042***	***0.034***	***0.000***	***0.034***	***0.026***	***0.1356***
Benefits and Costs							
Capital Costs	***Assumptions***						
Shoulder Improvements (cost/mile)		$550,000	$350,000	$300,000	$300,000	$650,000	**$2,150,000**
Public Education (per project)	$50,000						**$50,000**
Operations Training (per bus driver)	$600						**$73,200**
O & M Costs							
Shoulder Clearance (annual, per mile)	$10,000	$17,500	$17,500	$17,500	$17,500	$17,500	**$87,500**
Enforcement (annual, per mile)	$5,000	$8,750	$7,000	$7,000	$7,000	$5,500	**$35,250**
Bus Operations (annual, per bus)	$2,500						**$305,000**
Travel Time & Reliability							
Operations Savings (weekday, $/hour)	$100	$278	$207	$0	$205	$185	**$875**
Passenger value of time ($/hour)	$12.00	$892	$665	$0	$657	$591	**$2,805**
Project Summary							
Capital Costs (once)		$550,000	$350,000	$300,000	$300,000	$650,000	**$2,273,200**
O & M Costs (annual)		$26,250	$24,500	$24,500	$24,500	$23,000	**$427,750**
Financial Benefits (annual)		$69,480	$51,828	$0	$51,265	$46,161	**$218,734**
Passenger Benefits (annual)		$222,925	$166,290	$0	$164,264	$147,706	**$701,184**
10 Year BCA (financial)		**0.786**	**0.781**		**0.892**	**0.356**	**-0.919**
10 Year BCA (financial and passenger)		**4.839**	**5.532**		**6.368**	**2.629**	**2.165**
Discount Rate	*3%*						
10 Year BCA (financial)		**0.670**	**0.666**		**0.761**	**0.304**	**-0.784**
10 Year BCA (financial and passenger)		**4.128**	**4.719**		**5.432**	**2.242**	**1.847**

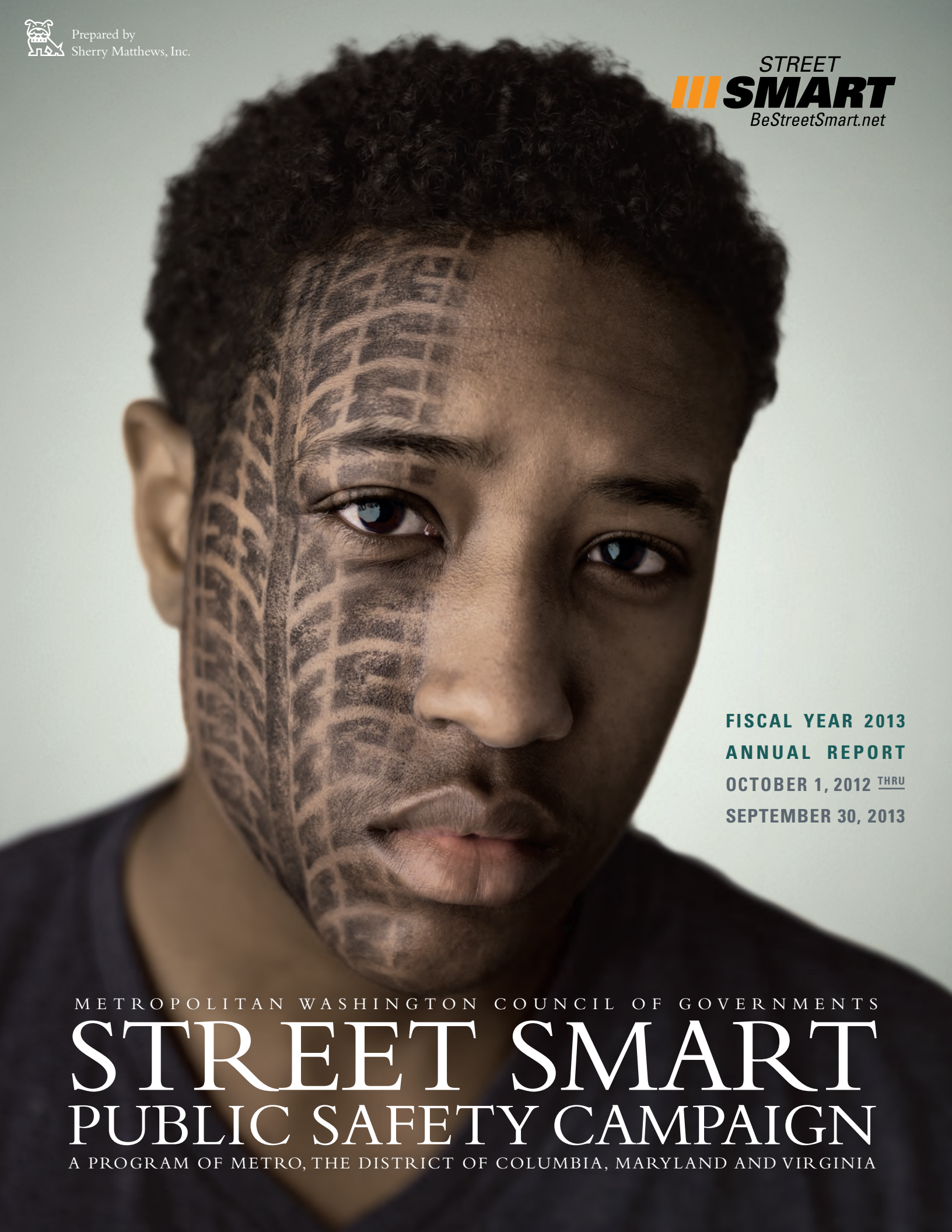
ITEM 10 – Information
October 16, 2013

Update on the Regional "Street Smart" Pedestrian and Bicycle Safety Education Campaign

Staff Recommendation: Receive briefing on the evaluation of the Fall 2012 and Spring 2013 campaigns, and on the funding and planning for the Fall 2013 and Spring 2014 campaigns.

Issues: None

Background: On October 17, 2012, the Board was briefed on the evaluation of the Fall 2011 and Spring 2012 campaign and the status of the funding and planning for the Fall 2012 and Spring 2013 campaigns.


Prepared by
Sherry Matthews, Inc.
STREET
SMART
BeStreetSmart.net
FISCAL YEAR 2013
ANNUAL REPORT
OCTOBER 1, 2012 THRU
SEPTEMBER 30, 2013
METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS
STREET SMART
PUBLIC SAFETY CAMPAIGN
A PROGRAM OF METRO, THE DISTRICT OF COLUMBIA, MARYLAND AND VIRGINIA

Every day an average of eight people in the Washington metropolitan region are struck by a moving vehicle. Some escape with only cuts and bruises; others suffer serious injuries such as broken bones and other trauma. Preliminary data tells us that in 2012, 3,033 crashes resulted in 70 pedestrian and bicyclist fatalities, accounting for 26.5 percent of the 264 traffic fatalities in the Washington region.

Since 2002, the Metropolitan Washington Council of Governments' (MWCOG) *Street Smart* program has worked to raise public awareness and added law enforcement efforts to respond to the challenges of pedestrian and bicyclist safety.

The *Street Smart* public safety campaign, conducted across the greater metropolitan Washington, DC region, targets drivers, pedestrians and bicyclists in the District of Columbia, suburban Maryland and northern Virginia. The initiative integrates several components, including media relations, radio and out-of-home advertising, donated media, street-level outreach events, digital efforts and increased law enforcement.

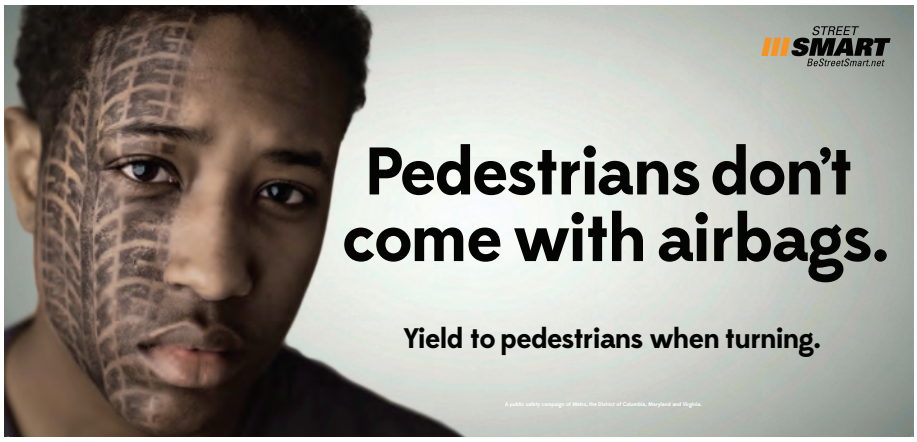
The goals of the *Street Smart* campaign are to:

- Reduce pedestrian and cyclist injuries and deaths in the region.
- Educate drivers, pedestrians and cyclists about safe usage of roadways.
- Increase enforcement of pedestrian and bicycle safety laws and raise awareness about enforcement.

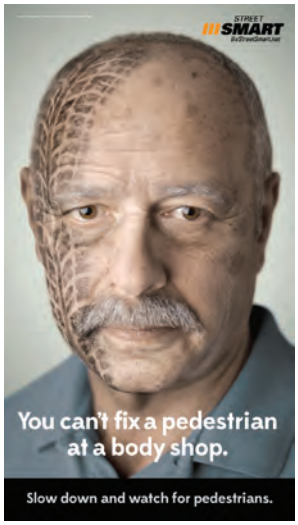
CREATIVE

Working with Sherry Matthews Marketing, *Street Smart* developed a new series of research-based advertisements in FY2013. We tested multiple concepts and executions with English- and Spanish-speaking focus groups that represented our target audience: drivers, pedestrians, and bicyclists. We used participants' feedback to evaluate how relevant, understandable and inspiring the creative was in motivating them to improve behavior related to pedestrian and bicyclist safety. Based on this feedback, we selected the "Tired Faces" concept—which emphasizes the vulnerability of the human body—as the strongest campaign for the program.

"Tired Faces" Creative



The "Tired Faces" series of transit shelter ads won the national Wildcard Platform award in MediaPost's 2013 Digital Out-of-Home Awards.



PAID MEDIA

Our overall media strategy used a combination of traditional and nontraditional approaches, placing a heavy focus on street-level marketing that reached target audiences in the most relevant places. We designed our media plan to achieve maximum reach across the region. The target audience was adults 18–49, skewing male. Media included both English- and Spanish-language ads.

RADIO	FLIGHT DATES	NOTES	IMPRESSIONS
Fall Radio	11/12/12-11/25/12	15-second traffic liners and promos focused Wed-Fri 3-8 pm; Sat 6 am-8 pm	5,016,200
Fall Added Value		Streaming video, web banners, social media	540,000
Spring Radio	4/15/13-5/5/13	15-second traffic liners and promos focused Wed-Fri 3-8 pm; Sat 6 am-8 pm	5,164,170
Spring Added Value		Streaming video, web banners, social media	58,500
OUTDOOR	**FLIGHT DATES**	**NOTES**	**IMPRESSIONS**
Spring Exterior Bus Ads	4/15/13-5/12/13	5 Ultra Bus Kings, 20 L-Sides, 135 Bus Kings (paid), 73 Bus Kings (bonus from WMATA) + overrides	58,976,000
Spring Digital Transit Shelters	4/15/13-5/12/13	20 Locations - Roosevelt Network	4,100,604
TOTAL CAMPAIGN IMPRESSIONS			**73,855,474**

Added Value

Paid media value-add benefits including negotiated public service ad rates, bonus ads, bonus traffic sponsorships, overrides, streaming videos and web banner impressions totaled $467,792. A detail of added value is in Appendix I.

Radio Traffic Sponsorships

Combining local market research and focused format selection, we used radio to connect to our target audience and we chose traffic sponsorships as a cost-effective way to reach motorists directly. Minimal production costs allowed several messages to be rotated in 15-second announcements that aired adjacent to news/traffic reports during prime drive time—a window of higher risk for pedestrian and bicycle accidents. Messages targeted drivers and focused on visibility issues, pedestrian vulnerability, increased enforcement and watching for/yielding to pedestrians.

Stations:

- WKYS-FM (Urban Contemporary Hit Radio)
- WPGC-FM (Rhythmic Contemporary Hit Radio)
- WIAD-FM (Hot Adult Contemporary)
- WJFK-FM (Sports)
- WLZL-FM (Spanish Contemporary)
- WNEW-FM (News/Talk)

Nearly 74 million impressions via paid media

More than $467,000 in added value media benefits

Outdoor Media

During the spring campaign, we deployed outdoor media near high-risk areas throughout the Washington region. Exterior bus ads put the *Street Smart* messages in motion to cover as much geography as possible. We placed larger format ads to achieve maximum impact for the debut of the "Tired Faces" series. Digital shelter displays, illuminated at night for 24-hour visibility, displayed ads to waiting bus riders, pedestrians on sidewalks, and passing motorists in vehicles. The digital shelters also allowed flexibility, rotating eight versions of "Tired Faces" ads to keep audiences engaged with fresh creative.

Exterior Bus Ad

Digital Transit Shelter

Street Smart Safety Zone Outreach Promotions

To extend the reach of the radio buy and bring street-level messaging to pedestrians, we launched a new series of "*Street Smart* Safety Zone" events near higher risk areas throughout the region. Hosted by popular local radio stations, these outreach events featured engaging and informative safety promotions with giveaways and educational materials distribution. We partnered with local law enforcement and advocacy groups to participate in these events, which included:

- 11/15/12 MD 4 at Donnell Drive, Forestville, MD
- 12/4/12 Benning Road and Minnesota Avenue NE, Washington, DC
- 12/5/12 Glen Forest and VA 7, Fairfax, VA
- 4/16/13 Hillandale Shopping Center at New Hampshire Avenue and Powder Mill Road, Hillandale, MD
- 4/17/13 Market Street and Center Point Way in Kentlands Shopping Center, Gaithersburg, MD
- 4/23/13 Silver Hill Road near Suitland Road, Suitland, MD
- 4/24/13 Wheaton Triangle at Reedie Drive and Georgia Avenue near Metro, Wheaton-Glenmont, MD
- 4/25/13 University Boulevard and Riggs Road, Chillum, MD
- 5/2/13 Central Avenue and Addison Road, Seat Pleasant, MD
- 5/3/13 Route 1 and Featherstone Road, Woodbridge, VA
- 5/6/13 MLK and Parkland SE (near Congress Heights), Washington DC
- 5/8/13 Columbia Pike Plaza near Columbus, Arlington, VA

Street Smart *Safety Zone in Montgomery County*

Street Smart *Safety Zone in Prince William County*

Pedestrian tips cards and other safety materials

Street teams distributed safety literature and reflective zipper pulls.

DONATED MEDIA

Street Smart leveraged many opportunities in FY2013 to multiply coverage and message effectiveness. With the goodwill of jurisdictional partners and media outlets, paid media was supplemented by donated out-of-home message placements, including nearly 4,200 interior bus cards, 72 exterior bus ads, more than 100 transit shelters, and 29 junior billboards. Many of these remained in place for weeks or months after the campaign ended for the season. The estimated total donated media value is $975,971+. Donated media is detailed in Appendix II.

Nearly one million dollars in donated media

MEDIA RELATIONS

With the project's limited dollars for paid advertising, landing extensive news coverage was a critical part of relaying pedestrian and bicyclist safety reminders to the public.

Fall Campaign Kickoff Press Event

On Wednesday, November 14, 2012, MWCOG kicked off its fall *Street Smart* pedestrian and cyclist safety campaign, *Be Safe. Be Seen.,* at the intersection of Belmont Ridge Road (Route 659) and the W&OD Trail in Ashburn, Virginia. State and local officials joined law enforcement and safety advocates from the region to urge drivers, cyclists and pedestrians to remain alert, share the road and obey traffic laws to keep roadways and trails safe for everyone.

The end of Daylight Savings Time in November means commuters' evening hours are darker, with reduced visibility that leads to more frequent collisions between cars and pedestrians or cyclists. Press event messaging included the importance of engineering, enforcement and education to reduce these collisions. Speakers highlighted regional safety efforts and law enforcement's increased ticketing during November of motorists, pedestrians and bicyclists breaking area traffic safety laws.

Speakers at the event included Todd Turner, National Capital Region Transportation Planning Board; Ralph Buona, Loudoun County Board of Supervisors, Ashburn District; Jeff Dunckel, Department of Transportation, Montgomery County, Maryland; Steven Friedman, Crash Victim/Montgomery County Pedestrian Traffic and Safety Advisory Committee; Mike Chapman, Loudoun County Sheriff's Office; Paul Gilbert, Northern Virginia Regional Park Authority; and Cindy Engelhart, Virginia Department of Transportation.

Press event in Loudoun County, Virginia

Cindy Engelhart, Virginia Department of Transportation, joined traffic safety officials and police departments to launch the fall campaign.

Spring Campaign Kickoff Press Event

On Tuesday, April 9, 2013, MWCOG launched a spring campaign with an event at Starburst Plaza in Northeast Washington, DC. Local officials and safety advocates kicked off the spring campaign and unveiled the new "Tired Faces" series of safety ads.

Speakers at the event included Washington, DC Mayor Vincent Gray; Sam Zimbabwe, District of Columbia Department of Transportation; Jeff Dunckel, Department of Transportation, Montgomery County, Maryland; Walter Tejada, Arlington County Board Chair; and Shane Farthing, Washington Area Bicyclist Association.

Speakers highlighted the efforts to increase pedestrian and bicyclist safety, including police departments' heightened enforcement of pedestrian and bicycle safety laws during April and May. The press event also included a "crosswalk sting" demonstration for media in which an undercover police officer attempted to legally cross the street in a marked crosswalk. If drivers failed to yield, another officer—this one uniformed and standing down the block—would wave the vehicle over and issue a warning with educational literature.

Mayor Vince Gray speaks at the Street Smart *press event in Washington, DC.*

Arlington County Board Chairman Walter Tejada reminds people to safely share the roads.

Media Tours

In addition to the launch events, the *Street Smart* program sponsored a local media tour with press interviews to extend the coverage of the campaign. Spokespeople for the campaign included George Branyan, District Department of Transportation; Monica Hernandez, District Department of Transportation; Michael Farrell, Metropolitan Washington Council of Governments; Jeff Dunckel, Department of Transportation, Montgomery County, Maryland; Scott K. York, Loudoun County Board of Supervisors; and Walter Tejada, Arlington County Board. Sherry Matthews Marketing distributed news releases, fact sheets, press photos and cutlines, pre-recorded sound bites and b-roll video footage in both English and Spanish to regional media outlets.

Media Relations Results

- 36 television and radio broadcast news stories reaching more than one million viewers, valued at more than $402,500 in publicity.*
- 37 print and online articles in publications with a combined circulation of nearly 33 million readers.

Press coverage is detailed in Appendix III.

More than 70 television, radio, print and online news stories

DIGITAL

To extend the reach and engagement of the campaign, we created a digital toolkit to distribute to campaign partners. This toolkit included web banners, prewritten tweets and Facebook posts, social media images and other digital resources. We also created an editorial calendar for *Street Smart*'s official Twitter account and a new splash page reflecting campaign creative.

Digital Results

- 300+ Twitter mentions, retweets, follows
- 6,990 website visits with 81 percent new visitors
- Average website visit was one minute, 20 seconds

Socia media image for Facebook and Twitter

*Publicity value is determined through an industry-standard equation based on advertising rates reported by third party sources. The online valuation system is still being refined; digital coverage is not reflected in the total publicity value.

ENFORCEMENT

Street Smart public awareness efforts are conducted in conjunction with increased law enforcement "waves," in which police step up enforcement of traffic safety laws that keep pedestrians and bicyclists safe. During the fall and spring campaigns, 3,804* citations and 483 warnings were issued to motorists, pedestrians and cyclists, according to reports from participating agencies in the District of Columbia, Montgomery County, Prince William County, the City of Alexandria, the City of Falls Church, and the City of Rockville.

EVALUATION

We conducted online surveys to measure awareness and attitudes among drivers, cyclists and pedestrians. Measurements taken pre- and post-campaign gauged the effectiveness of the spring 2013 campaign.

The groups surveyed were a representative sample of respondents who live in the three targeted geographic regions: the Maryland suburbs, northern Virginia and the District of Columbia. Participants were divided into two separate segments: driver and pedestrian.

The pre-campaign benchmark survey was conducted April 4 - 9, 2013 with 314 respondents. The follow-up survey was conducted May 20 - 30, 2013 with 300 respondents. All significance testing was conducted at the 95 percent confidence level.

Selected Survey Results

Advertising Awareness

- On an unaided basis, 24 percent of the respondents said they recalled seeing or hearing ads for *Street Smart*.
- The respondents who recalled *Street Smart* advertising clearly played back campaign elements such as "treads on a face," "exercise caution," "Street Smart," "can't fix a pedestrian at a body shop," and "dangers of jaywalking."
- On an aided basis, 39 percent said they saw at least one of the three advertising executions.
- Aided advertising awareness was nearly twice as high for pedestrians (50 percent) as for drivers (27 percent).
- Buses and other public transportation were the main source of ad awareness.

One of the three ads presented to measure aided awareness. On an aided basis, 39 percent of respondents said they saw at least one of the advertising executions.

*Actual numbers may be higher. The metrics are based on enforcement reports received at the end of the campaign. Other participating agencies include police departments in Prince George's County.

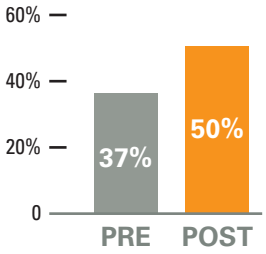
General Awareness

- General awareness for the *Street Smart* advertising program remained constant from Wave 1 (39 percent) to Wave 2 (38 percent).
- There was an overall increase in respondents who identified *Street Smart* as being about roadway safety (from 37 to 50 percent) and who said the program was about public safety awareness (from 18 to 29 percent).

Behaviors and Attitudes

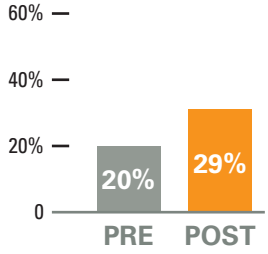
- The respondents reviewed a list of behaviors surrounding pedestrian and bicycle safety. There were no significant changes in any of the self-reported behavior measures between waves.
- In both waves, the respondents identified "driving while texting," "driving while on cell phone," and "aggressive driving" as the most serious problems. The respondents believe that these problems are not getting any better, although they are not worsening either.
- Between the two waves there was no significant change in how the respondents perceive the safety of their streets and highways for drivers, pedestrians or bicyclists.
- There was a significant increase in respondents' awareness of police efforts to enforce pedestrian safety laws (from 20 to 29 percent).

Street Smart Awareness



There was a 35 percent increase in respondents identifying **Street Smart** *as a roadway safety program.*

Enforcement Awareness



There was a 45 percent increase in awareness of police enforcement of pedestrian safety laws.

OVERALL CAMPAIGN VALUE

Thanks to a highly successful earned media campaign and a generous amount of in-kind donations from paid media vendors, jurisdictional partners, and Sherry Matthews Marketing, *Street Smart* more than quadrupled its FY2013 campaign budget.

TOTAL CAMPAIGN VALUE	
Paid Media Added Value	$467,792
Donated Media Value	$975,971
Earned Media Publicity Value	$402,578
Campaign Budget	$534,000
Sherry Matthews Marketing Donated Staff Time	$133,816
CAMPAIGN VALUE	**$2,514,157**

Combining added value with earned and donated media and services, the FY2013 *Street Smart* program garnered more than $2.5 million in overall campaign value on a budget of $534,000.

For more information on the *Street Smart* campaign visit BeStreetSmart.net.

APPENDIX I: Added Value from Paid Media Buy

OUTDOOR ADDED VALUE (SPRING 2013)	
Negotiated Package vs Rate Card	$29,559
CBS/WMATA Bonus Kings	$49,382

OVERRIDES

MARKET	VENDOR	MEDIUM	QUANTITY	# OF DAYS OVERRIDE	CURRENT COPY	VALUE
DC	CCO	Digital Shelters	20	472,073 (over-delivered spots)		$27,770
DC, Maryland and Virginia	CBS	Ultra Super Kings	5	34		$14,286
DC, Maryland and Virginia	CBS	L-Sides	20	40		$22,689
DC, Maryland and Virginia	CBS	Kings	135	30		$97,847
DC, Maryland and Virginia	CBS	Kings	73 (bonus)	30		$52,560
DC, Maryland and Virginia	CBS	Kings	4	71 (still posted as of 8/21)		$6,816
TOTAL OUTDOOR ADDED VALUE:						**$300,909**

RADIO ADDED VALUE (FALL 2012 AND SPRING 2013)

FALL 2012	STATION	MARKETING ELEMENTS	ADDED VALUE
	WKYS-FM	70 PSAs	$7,000
		Rotating video on kysdc.com	$400
		Streaming commercials with web banners	$300
	WLZL-FM	36 PSAs	$3,600
	WPGC-FM	36 PSAs	$3,600
	WJFK-FM	36 PSAs	$1,800
	WNEW-FM	36 PSAs	$1,800
	WIAD-FM	20 PSAs	$1,000
	CBS Radio	(3) Pedestrian safety appearances	$12,000
		Web banners	$5,000
		45 Promotional announcements	$9,000
		Public affairs interviews	$15,000
		Distribution of safety material/collateral	$5,000
FALL 2012 RADIO ADDED VALUE:			**$65,500**

SPRING 2013	STATION	MARKETING ELEMENTS	ADDED VALUE
	WKYS-FM	24 PSAs	$2,400
		Rotating video on kysdc.com	$420
		Streaming commercials with web banners	$563
	WLZL-FM	30 PSAs	$3,000
	WPGC-FM	30 PSAs	$3,000
	WJFK-FM	30 PSAs	$1,500
	WNEW-FM	30 PSAs	$1,500
	WIAD-FM	60 PSAs	$3,000
	CBS Radio	(9) Pedestrian safety appearances	$36,000
		135 promotional announcements	$27,000
		Facebook mentions	$3,000
		Public affairs interviews	$15,000
		Distribution of safety material/collateral	$5,000
SPRING 2013 RADIO ADDED VALUE:			**$101,383**
RADIO TOTAL FY2013 ADDED VALUE			**$166,883**

TOTAL ADDED VALUE FROM PAID MEDIA BUY	$467,792

APPENDIX II: Donated Media

FALL 2012 AND SPRING 2013 CAMPAIGNS

MEDIA	JURISDICTION / AGENCY	QUANTITY	DURATION	VALUE
Transit Shelters	District of Columbia	2	8 weeks	$6,353
Transit Shelters	Montgomery County	80	8 weeks	$254,118
Transit Shelters	Prince George's County	25	4 weeks	$18,000
Junior Billboards	District of Columbia	29	12 weeks	$460,588
Exterior Bus Queens	Montgomery County	10	12 weeks	$10,059
Exterior Bus Tails	Montgomery County	15	12 weeks	$17,100
Exterior Bus Junior Kings	Montgomery County	15	12 weeks	$20,118
Exterior Bus Kings	Montgomery County	30	12 weeks	$51,776
Exterior Bus King Kongs	Montgomery County	2	12 weeks	$11,859
Interior Bus Cards		4200	4 weeks	$126,000
	Alexandria (VA)	*146*		
	ART - Arlington County (VA)	*182*		
	Circulator (DC)	*29*		
	DASH (VA)	*225*		
	Fairfax County (VA)	*1900*		
	Manassas (VA)	*100*		
	Prince George's County (MD)	*93*		
	PRTC (VA)	*300*		
	Ride On - Montgomery County (MD)	*700*		
	TransIT Services of Frederick County (MD)	*25*		
	WMATA	*500*		
TOTAL DONATED MEDIA VALUE				**$975,971**

APPENDIX III: Earned Media Summary

FALL 2012 and SPRING 2013

TELEVISION COVERAGE

DATE	TIME (Total run time)	CHANNEL	PROGRAM	RATINGS	PR VALUE
11/14/12	7:00 am (:47)	WTTG (FOX)	Fox 5 News at 7:00 am	73,521	$7,990
11/14/12	5:00 pm (:50)	WRC (NBC)	News 4 at 5:00 pm	88,684	$9,000
11/14/12	6:00 pm (2:25)	WFDC (UNIVISION)	Noticias Univision 6:00 pm	46,428	$10,000
11/14/12	11:00 pm (2:08)	WFDC (UNIVISION)	Noticias Univision 11:00 pm	24,909	$5,600
11/16/12	10:00 am (13:29)	News Channel 8	NewsTalk	7,523	$44,550
11/16/12	1:00 pm (13:29)	News Channel 8	Afternoon Report at 1:00 pm	6,408	$28,350
11/23/12	10:00 am (13:29)	News Channel 8	NewsTalk	7,523	$44,550
11/23/12	1:00 pm (13:29)	News Channel 8	Afternoon Report at 1:00 pm	6,408	$28,350
4/9/13	3:00 pm (:51)	News Channel 8	Afternoon Report at 3:00 pm	8,074	$331
4/9/13	2:00 pm (1:27)	News Channel 8	Afternoon Report at 2:00 pm	6,172	$565
4/9/13	8:00 am (:36)	News Channel 8	Morning Report at 8:00 am	6,139	$288
4/9/13	6:00 am (:32)	News Channel 8	Morning Report at 6:00 am	4,754	$320
4/9/13	5:00 am (1:52)	News Channel 8	Morning Report at 5:00 am	4,635	$2,520
4/9/13	4:30 am (:39)	WJLA (ABC)	Good Morning Washington at 4:30 am	12,551	$390
4/9/13	5:00 pm (1:55)	WJLA (ABC)	ABC 7 News at 5:00 pm	53,840	$28,750
4/9/13	5:00 am (1:38)	WTTG (FOX)	Fox 5 Morning News at 5:00 am	38,402	$2,205
4/9/13	5:00 pm (1:55)	WTTG (FOX)	Fox 5 News at 5:00 pm	58,082	$8,625
4/9/13	6:00 am (:21)	WTTG (FOX)	Fox 5 Morning News at 6:00 am	70,769	$1,785
4/9/13	10:00 pm (1:03)	WTTG (FOX)	Fox 5 News at 10:00 pm	153,093	$20,790
4/9/13	11:00 pm (2:00)	WZDZ (Telemudo)	Telenoticias Washington at 11:00 pm	6,530	$5,736
4/9/13	6:00 pm (2:30)	WZDZ (Telemudo)	Telenoticias Washington at 6:00 pm	9,123	$10,017
4/9/13	5:00 am (:15)	News Channel 8	NewsTalk at 1:00 pm	5,627	$98
4/10/13	5:00 am (1:14)	WTTG (FOX)	Fox 5 Morning News at 5:00 am	38,502	$1,665
4/10/13	5:00 am (:33)	WTTG (FOX)	Fox 5 Morning News at 5:00 am	38,502	$743
4/11/13	10:00 am (1:20)	News Channel 8	NewsTalk at 10:00 am	8,519	$400
4/11/13	10:00 pm (:24)	News Channel 8	NewsTalk at 10:00 am	8,519	$120
4/11/13	1:00 pm (:24)	News Channel 8	NewsTalk at 1:00 pm	5,627	$156
4/11/13	1:00 pm (1:16)	News Channel 8	NewsTalk at 1:00 pm	5,627	$884
4/12/13	4:00 pm (1:24)	WRC (NBC)	News 4 at 4:00 pm	85,308	$5,880
4/14/13	7:00 am (10:43)	WRC (NBC)	News 4 Today at 7:00 am (Sunday)	70,859	$102,880
4/14/13	10:00 pm (1:28)	WTTG (FOX)	Fox 5 News at 10:00 pm	78,766	$29,040
TOTAL				**1,039,424**	**$402,578**

RADIO COVERAGE

DATE	TIME (Total run time)	CHANNEL	PROGRAM
4/9/13	4:00 pm (:52)	WTOP-FM	4:00 pm news
4/9/13	6:00 pm (2:26)	WTOP-FM	6:00 pm news
4/10/13	5:00 am (2:32)	WTOP-FM	5:00 am news
4/10/13	10:00 am (2:25)	WMAL-FM	Chris Plante
6/2/13	6:00 am (16:39)	WLZL-FM	Pedro Biaggi en la mañana

APPENDIX III: Earned Media Summary Continued

FALL 2012 and SPRING 2013

ONLINE AND PRINT COVERAGE			
DATE	**PUBLICATION**	**MEDIA**	**CIRCULATION**
11/10/12	Blue Ridge Leader	Print	15,000
11/12/12	Bike Loudoun	Online (blog)	
11/11/12	WJLA.com	Online (video)	278,488
11/13/12	Loudoun Times-Mirror	Online	63,013
11/13/12	Viva Loudoun Blog	Online (blog)	3,706
11/13/12	Loudoun County Traffic	Online	
11/14/12	TVWFDC.com	Online (video)	900
11/15/12	Leesburg Today	Online	569
11/15/12	Ashburn Today	Print	72,000
11/16/12	Washington Times	Online	68,276
11/16/12	Lasesana	Online (blog)	
11/16/12	InsideNOVA.com	Online	3,585
11/16/12	Lakeridge-Occoquan Patch	Online	
11/19/12	Bike Arlington	Online (blog)	
11/23/12	Ashburn Patch	Online	
11/27/12	Washington Post	Online	10,000,000
12/8/12	Lakeridge-Occoquan Patch	Online	
12/12/12	JD Supra	Online (blog)	
4/9/13	MyFoxDC.com	Online (video)	724,500
4/9/13	TVWFDC.com	Online (video)	900
4/9/13	DCist.com	Online	270,935
4/10/13	Greater Greater Washington	Online (blog)	11,911
4/10/13	TheWashCycle.com	Online (blog)	3,181
4/10/13	CBS Washington Local	Online (audio)	404,116
4/10/13	WTOP.com	Online (audio)	347,242
4/11/13	WJLA.com	Online (video)	278,488
4/13/13	Washington Times	Online	33,096
4/13/13	Alexandria News	Online	1,500
4/15/13	Washington Post	Online	10,000,000
4/19/13	Gazette.net	Online	178,746
4/20/13	Silver Spring Patch	Online	8,000
4/20/13	Bethesda Patch	Online	8,000
4/20/13	Washington Post	Online	10,000,000
4/25/13	TheSentinal.com	Online	1,000
4/30/13	Clarendon-Courthouse-Rosslyn Patch	Online	8,000
5/8/13	InsideNOVA.com	Online	33,940
5/9/13	Gazette.net	Online	178,746
TOTAL			**32,997,838**

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