NATIONAL CAPITAL REGION
TRANSPORTATION PLANNING BOARD

MEETING NOTICE

Date: May 20, 2015
Time: 12 noon
Place: COG Board Room

AGENDA
(BEGINS PROMPTLY AT NOON)

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

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 encouraged to bring written copies of their remarks (65 copies) for distribution at the meeting.

12:20 2. **Approval of Minutes of April 15 meeting**
..... Chairman Mendelson

12:25 3. **Report of the Technical Committee**
..... Mr. Rawlings
Chair, Technical Committee

12:30 4. **Report of the Citizens Advisory Committee**
..... Mr. Summersgill
Chair, Citizens Advisory Committee

12:40 5. **Steering Committee Actions and Report of the Director**
.....Mr. Srikanth
Director, Department of
Transportation Planning (DTP)

This agenda item includes Steering Committee Actions, Letters Sent/Received, and Announcements and Updates. These categories of materials were previously included under this agenda item, which was named the “Steering Committee Report.”

12:45 6. **Chair’s Remarks**
..... Chairman Mendelson

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INFORMATION ITEMS

12:50 7. **Briefing on a Study to Identify Pedestrian/Bicycle Access Improvements at Select Rail Stations in the Washington Region**

……Mr. Swanson, DTP

The Board will be briefed on the final report, released in March 2015, of a study funded by a grant from the FHWA's Transportation, Community, and Systems Preservation (TCSP) Program. The study developed an inventory of pedestrian and bicycle improvements near 25 rail stations that currently have capacity to accommodate more riders, particularly reverse commuters, and are anticipating ridership growth.

1:05 8. **Briefing on Metro's Connecting Communities Key Performance Indicator, Walkability Research and Station Area Strategic Investment Plan**

……..……..Kristin Haldeman, WMATA

Metro's strategic goal to "connect communities" seeks to improve regional mobility by enhancing access to our transit system. This briefing will explain the framework for measuring this goal, explore new research on walkable station areas that builds the case for station connectivity, and discuss a new study that leverages the TPB's recent TCSP study (Item 7 above) by compiling and prioritizing walk/bike access projects within a half mile of all of Metro's 91 stations.

1:20 9. **Briefing on the DC2RVA High-Speed Rail Project Under Development by the Virginia Department of Rail and Public Transportation**

……...Ms. Stock, VDRPT

The Board will be briefed on the Tier II Environmental Impact Statement (EIS) process currently underway for the Washington, D.C. to Centralia, Virginia corridor (the DC2RVA high-speed rail project). The Tier II EIS, initiated in the fall of 2014, follows a Tier I EIS completed in 2002 for the larger Washington, D.C. to Charlotte, NC corridor. VDRPT will be holding three public meetings in early June in Richmond, Fredericksburg and Alexandria to solicit public comment on the process that will be used to evaluate potential alternatives for improvements in the project corridor. Completion of the Tier II EIS is currently scheduled for late 2017.

1:40 10. **Briefing on the Activities of the COG Multi-Sector Working Group to Examine and Analyze Greenhouse Gas Reductions Strategies in the Metropolitan Washington Region**

..... Mr. Griffiths, DTP

At its December 17 meeting, the Board committed staff and resources to support a multi-sector, multi-disciplinary professional working group convened by COG to examine and analyze viable, implementable Land Use, Transportation, Energy and Built Environment greenhouse gas

reductions strategies. The Board will be briefed on the activities of the COG multi-sector working group and the strategies that have been recommended for analysis.

1:50 11. **Status Report on the Development of a Regional List of Unfunded Transportation Projects**

……Mr. Griffiths, DTP

In response to a request from the TPB in September, TPB staff has begun the development of a list of transportation projects that are included in the plans of TPB members but cannot be included in the CLRP because funding has not been identified. The TPB will be briefed on efforts underway to develop this list.

1:55 pm 12. **Other Business**

2:00 pm 13. **Adjourn**

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

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.

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
April 15, 2015

Members and Alternates Present

Charles Allen, DC Council
Bob Brown, Loudoun County
Ron Burns, Frederick County
James Davenport, Prince William County/DOT
Allison Davis, WMATA
Dan Emerine, DC Office of Planning
Gary Erenrich, Montgomery County/DOT
Lyn Erickson, MDOT
Jay Fisette, Arlington County
Jason Groth, Charles County
Rene'e Hamilton, VDOT
Neil Harris, Gaithersburg City Council
John J. Jenkins, Prince William County
Shyam Kannan, WMATA
Tim Lovain, City of Alexandria
Phil Mendelson, DC Council
Bridget D. Newton, City of Rockville
Mark Rawlings, DC DOT
Rodney Roberts, City of Greenbelt
Kelly Russell, City of Frederick
Peter Schwartz, Fauquier County
Elissa Silverman, DC Council
Linda Smyth, Fairfax County
Tammy Stidham, NPS
Jonathan Way, City of Manassas
Victor Weissberg, Prince George's County/DPW&T
Patrick Wojahn, City of College Park
Sam Zimbabwe, DDOT

MWCOG Staff and Others Present

Kanti Srikanth	
Robert Griffiths	
Andrew Meese	
Eric Randall	
Rich Roisman	
Dusan Vuksan	
Jane Posey	
Eulalie Lucas	
William Bacon	
Wenjing Pu	
John Swanson	
Michael Farrell	
Erin Morrow	
Andrew Austin	
Daivamani Sivasailam	
Wendy Klancher	
Dan Sonenklar	
Ben Hampton	
Bryan Hayes	
Sergio Ritacco	
Lamont Cobb	
Yu Gao	
Debbie Leigh	
Deborah Etheridge	
Stuart Freudberg	COG/EO
Steve Walz	COG/DEP
Paul DesJardin	COG/DCPS
Sophie Mintier	COG/DCPS
Tim Schaible	COG/DPSH
Jameshia Peterson	DDOT
Gregory Matlesky	Chairman Mendelson
Andrew Beacher	VDOT
Norman Whitaker	VDOT
John Hartline	Tri-County Council for Southern Maryland
Nancy Abeles	Bethesda, MD
Bill Orleans	Resident
Tina Slater	Purple Line NOW
Betsy Massie	PRTC
Tamara Vatnick	DCOP
Lisa Ragain	COG/DEP
Matthew Colvin	Safe Routes to School National Partnership

John A. Townsend II	AAA Mid-Atlantic
Robert Thomas	Washington Post
Rob Whitfield	Fairfax County Taxpayers Alliance
Mike Lake	Fairfax County DOT
Maria Sinner	VDOT
Marcia Hook	Dunn Loring, VA Resident
Bryan Zelley	Vienna, VA Resident
Adrienne Moretz	Frederick Co., MD
Patrick Durany	Sup. Jenkin's Office
Alex Krempasanka	MDE
Mike Lambert	HDR/Arlington
Pierre Holloman	Alexandria
Jeanette Tejeda de Gomez	AAA Mid-Atlantic
Grayden Vanu	Prince William County/DOT

1. Public Comment on TPB Procedures and Activities

Bryan Zelley, a resident of Northern Virginia, commented that residents in the I-66 corridor believe that current plans do not reflect regional or multimodal solutions. He stated that the existing toll road proposal would take away a free lane of traffic, involve significant land takings, and enforce tolls on working families. Mr. Zelley encouraged the Board to consider transit and rapid bus service in the I-66 corridor.

Marcia Hook, a resident of Northern Virginia, said the Board should not approve VDOT's public-private partnership agreements in the I-66 corridor project. She cited aspects of the I-495 express lanes contract that should be avoided for the I-66 contract. She asked that VDOT consider bus rapid transit, pedestrian and bicycle improvements to under-utilized rail stations, and consistent lane changes inside and outside the Beltway. She urged the Board to push Virginia to revise their plans for the I-66 corridor.

David Bardin, former board member of the D.C Water and Sewer Authority, noted that Item 12 on the meeting agenda references transportation strategies to achieve co-benefits for regional climate change goals. He emphasized that the COG working group on greenhouse gas emissions reduction should focus on revenue raising transportation co-benefits, and evaluating them on a regional basis.

Kanti Srikanth reported that Carroll George, a resident of Northern Virginia, submitted a letter to the Board, with copies for distribution. Mr. George proposed a new way of pavement marking on freeway on-ramps for merging operations. Mr. Srikanth stated that TPB staff has reviewed the comments and will share its assessment with DOT staff responsible for freeway operations.

2. Approval of Minutes of March 18 Meeting

A motion was made to approve the March 18 meeting minutes. The motion was seconded and was approved unanimously.

3. Report of the Technical Committee

Mark Rawlings reported the Technical Committee met on April 3 and reviewed seven items on the Board's April Agenda. Staff briefed the committee on the following: Regional Bike to Work Day to be held at 79 locations across the region on Friday, May 15; incorporation of the new MOVES 2014 mobile emissions model into the 2015 CLRP and FY 2015 -2020 air quality conformity analysis; the review panel recommendations for funding to Northern Virginia projects for the FY 2016 Transportation Alternatives Program; the FY 2016 TLC program solicitation; the set of draft principles for the reauthorization of MAP-21; the February 18 memo to the Board outlining actions taken by COG, WMATA and several public safety committees in response to the January 12 Metro L'Enfant smoke incident; and a review of the activities of the transportation sector group of the Multi-Sector Working Group to develop an action plan to reduce greenhouse gas emissions.

Mr. Rawlings reported that staff presented three items for information and discussion: a multiyear strategic plan to refine the existing travel forecasting models and practice; a list of unfunded transportation projects; and the latest developments regarding USDOT regulations on performance measures under MAP-21.

4. Report of the Citizen Advisory Committee

Bob Summersgill reported that the Citizens Advisory Committee met on April 9. The committee heard a presentation on the multi-sector working group on greenhouse gas emission reductions and a subcommittee will look at making recommendations. The committee also heard a presentation on the status of real-time transit information for different regional transit providers and formed a subcommittee to develop recommendations on that. The committee also formed three additional subcommittees on public participation, unfunded project lists and WMATA issues. Mr. Summersgill reported that the committee would continue to look at transportation safety issues.

Mr. Kannan reported that WMATA is hosting and convening an open data discourse with the software developer community and will coordinate with the CAC and use input from the committee.

Mr. Summersgill commented that he looked forward to coordinating with WMATA and noted the agency has taken the lead in providing open data formats in the past.

5. Report of Steering Committee

Mr. Srikanth reported that the Steering Committee met on April 3 and approved a TIP amendment requested by Maryland DOT to add about $25 million in funding for two bridge replacement projects. He said that the Steering Committee had also discussed recent activities of COG and

WMATA undertaken since the January 12 Metrorail smoke incident and said an update to staff's earlier memo to the Board is included under agenda item eleven.

Mr. Srikanth then reviewed the following letters that were either sent or received by the Board: a letter from AAA noting an error in the March 3 TPB Weekly Report publication and staff's response letter with a correction noted in the current edition of the Weekly report; a request for and staff's letter sent in support of a federal grant application from the University of Maryland Center of Advanced Transportation Technology; a memo from COG executive director Chuck Bean to COG Board requesting approval of COG staff's participation to facilitate the three state's effort to replace the existing Tri-State Oversight Committee (TOC) with the Metro Safety Commission; and a memo from USDOT to MPOs encouraging the incorporation of a set of federal planning emphasis areas in the MPO's annual work programs.

Mr. Srikanth expanded on the COG Board item of Mr. Bean's letter to the COG Board and noted that the Board approved Mr. Bean's request to enter into a MOU with the Maryland, Virginia, and the District of Columbia. He said that the MOU would allow COG to assist the three states to replace the existing Tristate Oversight Committee (known as the TOC) with an independent Safety Oversight entity, called the Metro Safety Commission (MSC). This new commissions will continue to oversee the safety aspects of the Metrorail system. He said that this reconstitution of the existing oversight entity is a new requirement under MAP-21 and the Federal Transit Administration. He said that this MAP-21 mandated reconstitution of such oversight agencies is intended to provide agencies with authority to promulgate regulations as needed, hire and train qualified staff, enforce safety requirements and set consistent oversight policy on urban rail operations. The FTA will provide funding for this work. COG will not be serving as the MSC but only facilitating the creation of it by the three states.

Mr. Srikanth referred to the mailout and noted the following announcements and updates: the solicitation for projects under the FY 2016 TLC Technical Assistance program; recruitment for the Spring 2015 Community Leadership Institute, which will be conducted on June 3, 10, and 17; staff proposed plans for commemorating the TPB's 50th year anniversary this year; and the "Creating Pedestrian Spaces" best practices workshop on April 28 to be hosted by the Bicycle and Pedestrian Committee.

6. Chair's Remarks

Mr. Mendelson asked Mr. Srikanth about the 50th anniversary ceremony that will be held before the November 18 Board meeting.

Mr. Srikanth responded that the proposal is to hold an event before the Board meeting on November 18 and that staff is working with COG staff to hold a larger event in conjunction with the COG Board annual meeting in December.

Mr. Mendelson asked if the TPB planned to apply for funding for the sixth round of the USDOT

TIGER program.

Mr. Srikanth responded that staff has reviewed the TIGER announcement, and has done some initial outreach to DOTs. He said that Montgomery County has some interest in applying for a TIGER grant. He said that County has requested that the TPB endorse their application. From the staff perspective there is no opportunity for the TPB to take the lead on developing an application for a regional set of projects, but in the coming weeks staff will discuss working with DOTs and WMATA.

Mr. Mendelson noted that given the imminent deadlines of May 4 for the pre-application and June 5 for the final application, it is unlikely that a regional application would be submitted. He said that individual jurisdictions could look at applying for the sixth round.

Mr. Srikanth agreed.

Mr. Mendelson said that a bill in the U.S. House of Representatives titled "Commuter Parity Act" had only one sponsor from the regional delegation. The bill involves increasing transit commuter benefits to achieve parity with parking benefits. With no objection from the Board, he advised staff to draft a letter that the Executive Committee would approve to send to the rest of the delegation, urging that they co-sponsor the bill.

Mr. Srikanth responded that staff would follow up on this request.

Gar y Erenrich noted that the TPB should add support for commuter benefits to the Board's priorities for reauthorization, under Agenda Item 10.

Mr. Mendelson added that staff should look to both requests.

Mr. Srikanth agreed.

Mr. Fisette referred to the earlier announcement on the June 2015 CLI session and asked whether participants in the June CLI program could participate in one day out of three choices, or if it was a three-day experience. He also asked if Board members were required to make nominations or if people can self-nominate. Mr. Srikanth responded that the CLI comprises of three half-day sessions, that are held after work in the evenings and that nominations from either the Board members or self-nominations were acceptable

ACTION ITEMS

7. Approval of Regional Bike to Work Day 2015

Ms. Moretz, chair of the Bike to Work Day Subcommittee, said that Bike to Work Day would be held on Friday May 15 in the Washington region. She said that since 2001, WABA and Commuter

Connections have teamed to host the event with the aim to reduce the number of single occupant vehicles on the road and to encourage drivers who normally travel alone to try biking to work for the first time. To support first-time participants in the event, she said that WABA and Commuter connections offer safety classes, guaranteed ride home, and planned convoys. Last year 16,800 people registered to participate in the event, and the goal this year is to get 19,000 people to register. She said that people can register at biketoworkmetrodc.org, and that outreach is being conducted on Facebook as well as on Twitter @biketoworkday. Additional outreach is being conducted through English and Spanish language posters and rack cards that are being distributed by employers and agencies in the Washington region. She said that Greg Billing from WABA was in attendance and that her subcommittee was asking the TPB to approve the 2015 Bike to Work Day Proclamation and encouraged the Board to pass similar proclamations in their jurisdictions.

A motion was made and seconded to approve the 2015 Bike to Work Day proclamation. The proclamation was approved unanimously.

8. Approval of an Updated Scope of Work for the Air Quality Conformity Assessment for the 2015 CLRP and the FY 2015-2020 TIP to use MOVES2015

Ms. Posey said that in July 2014 the EPA released an update to their transportation air quality model, called MOVES 2014, and gave MPOs two years to use the model. She said that TPB staff has been testing the model since MOVES 2014 was released and that staff is ready to use that model for the CLRP 2015 air quality conformity analysis. She said that TPB staff has shared the results of their tests with the states and local agencies as well as the TPB's Technical Committee, MWAQC's Technical Committee, and the MWAQC Executive Committee. Each of these groups endorse the move from the old MOVES 2010a model to the newer model. She said that the TPB needs to approve an update to the CLRP scope of work in order to move forward with the new model.

A member asked what advantages the new model has over the old model.

Ms. Posey said that one advantage is that it allows the TPB to take credit for federal projects, like CAFE standards, that are already in effect but not included in MOVES 2010a. Another advantage is that the new model incorporates improved scientific assumptions that yield results that are more accurate.

A member said that it would be helpful if Ms. Posey could explain the different projections from MOVES 2010a and MOVES 2014.

Ms. Posey reiterated that the main difference between the outputs of the two models is that the newer model, MOVES 2014, allows the TPB to take credit for federal programs already in place, like the new CAFE standards. She said that the newer model also includes improved emission rates for gasoline, sulfur, and ethanol, as well as improved fine particle emissions calculations, among other improved assumptions.

A motion was made and seconded to approve the updated CLRP 2015 Scope of Work. The motion passed unanimously.

9. Approval of Projects for Funding under the MAP-21 Transportation Alternatives Program for FY 2015 in Virginia

Mr. Swanson provided background on the Transportation Alternatives Program (TAP), which was established by MAP-21. He said that in the Washington region, the District of Columbia, Maryland, and Virginia all sub-allocate part of the TAP funding they receive to the TPB. He said that the Board was being asked to approve projects for Northern Virginia. He said that the TPB received 17 applications for a total funding requested of $5.4 million. He said that nine of those projects were chosen to receive a total of $2.5 million.

He said that a selection committee had worked to review the applications and developing the recommendations. He also noted that the selection criteria for TAP projects draws from the Regional Transportation Priorities Plan.

Mr. Lovain said that he is pleased that MAP-21 enables MPOs to have some portion of federal funds to distribute.

Ms. Smyth asked if a list of all 17-project applications were available.

Mr. Swanson said that he would send the list of project applications to Ms. Smyth.

A motion was made to adopt resolution R20-2015 to approve the recommended projects for funding under the Virginia MAP-21 Transportation Alternatives Program for FY 2016. The motion was approved unanimously.

10. Approval of Policy Principles on the Reauthorization of the Moving Ahead for Progress in the 21st Century Act (MAP-21)

Mr. Srikanth said that TPB staff was asked by the Board to develop a set of policy principles for federal reauthorization of MAP-21. Referring to his handout, he said that the Board was being asked to approve a resolution and an attached statement of policy principles. The resolution includes 11 whereas clauses that provide context, and two resolution clauses. He said that the first resolution clause adopts the attached policy principles, and that the second resolution clause calls on the U.S. Congress to authorize the program for a full six-year period. Referring to the handout, he also summarized the three broad policy principles: increase federal transportation funding, fund priority needs, promote effective planning and project development.

Mr. Erenrich suggested that the principles include specific reference to restoring parity between the commuter transit benefit and the parking benefit.

Mr. Lovain agreed with Mr. Erenrich and suggested that the principle be rewritten to say, "The

federal commitment to balanced multimodal transportation systems must be reaffirmed, including by restoring parity between the transit commuter benefit and the parking commuter benefit."

The Board accepted this as an amendment.

Mr. Kannan proposed a series of grammatical changes to the policy principles that were accepted by the Board.

Mr. Roberts expressed concern regarding the policy principle statement that "changes in the federal planning and environmental review processes outlined in MAP-21 should be enhanced and strengthened." He said he was concerned that such changes might weaken environmental laws so that projects can be pushed through more quickly.

Mr. Srikanth responded that the principle was intended to convey support for MAP-21's promotion of collaboration of among federal and state agencies to streamline the review process for projects.

Mr. Zimbabwe said that this principle is not about changing federal requirements, but instead it is about making sure that projects can be delivered on a predictable basis and go through the same level of compliance that they go through today.

Mr. Srikanth suggested changing the principle to read, "Streamlining of federal planning and environmental review processes outlined in MAP-21 that are entered ensuring timely delivery of transportation projects should be supported."

The Board accepted the changes as an amendment.

Mr. Zimbabwe suggested that the resolution state that if Congress does not pass a long-term extension, then Congress should support a shorter-term reauthorization.

Mr. Mendelson said the resolution implies that a short-term extension is a possibility.

Mr. Lovain said that a six-year extension is preferred because it provides stability and predictability, and that explicitly mentioning a short-term solution would let them off the hook.

Mr. Wojahn said that reauthorization should include funding for public transit and safe bicycle and pedestrian infrastructure. They suggested that the last policy sentence read: “In particular, federal funding for public transit and for safe pedestrian and bicycle infrastructure should be enhanced."

The Board accepted the change as an amendment.

A motion was made to adopt resolution R21-2015 as amended to approve TPB policy principles regarding the reauthorization of MAP-21. The motion was seconded and approved unanimously.

INFORMATION ITEMS

11. Briefing on the COG/WMATA Actions subsequent to the January 12. 2015 Metrorail smoke incident near the L'Enfant Plaza train station

Mr. Freudberg and Mr. Troup briefed the Board.

Mr. Freudberg began by providing an overview of ongoing COG-led efforts to coordinate response during Metrorail emergencies. In particular, he highlighted a mutual-aid agreement maintained by COG's Passenger Rail Safety Subcommittee that details procedures for coordination and support between WMATA and area fire departments during Metrorail emergencies. He also highlighted the three key COG committees (Fire Chiefs, Police Chiefs, and 911 Directors) and two subcommittees (Public Safety Communications and Rail Safety) focused on public safety related to Metro, and he explained the membership and role of each group.

Mr. Freudberg also outlined steps that have been taken in response to letters from Senators Warren and Mikulski seeking plans for improving emergency communications in the Metro system and providing better training for first responders. He explained that WMATA and the fire departments of the six jurisdictions in which it operates have undertaken more regular testing of emergency communications systems since the January 12 incident, established procedures for regular testing going forward, and set up protocols for resolving any problems that are discovered during the testing. He also explained that a study is underway to identify additional technologies and steps to improve underground communications in the Metro system, including improving cell service. Regarding improved training for first responders, Mr. Freudberg explained that WMATA and area fire departments have been working to develop a regional training and exercise plan, including documenting best practices from other transit systems and metropolitan areas.

Mr. Troup provided an overview of ten early safety action items and communication improvements that WMATA has made since the January 12 incident. The improvements include quarterly rather than annual emergency training exercises for first responders, new emergency operations protocols for the Rail Operations Control Center, and replacement of damaged third-rail cables. (All ten action item were included in Mr. Troup's PowerPoint presentation.) He also outlined three early recommendations by the National Transportation Safety Board (NTSB) in response to the January 12 incident: assessing the tunnel ventilation system, developing written ventilation procedures, and incorporating those procedures into regular ongoing training and exercise programs.

Mr. Troup also gave a brief overview of the architecture of WMATA's radio system. He said that the agency has begun weekly tests of the public safety radio system and developed an outage display to provide first responders with up-to-date information on any possible outages. He also described an upgrade of WMATA's other main radio system, used by transit police and train operators for regular day-to-day communications, to use the same frequency as the public safety system. He said the upgrade is being coordinated with cell carriers working to expand cell service in Metro stations and tunnels. He said the work will take three to four years.

Chair Mendelson opened the floor to questions.

Ms. Silverman asked Mr. Troup to clarify how the steps being taken by WMATA will reduce or eliminate radio outages that prevent train operators from communicating with the Rail Operations Control Center.

Mr. Troup said that the new system planned to be in place in the next three to four years should eliminate such outages in the system. He said the set-up of the new system is much more robust and modern, and the challenges that have caused recent outages will be eliminated.

Ms. Silverman asked whether the planned upgrades had been fully funded.

Mr. Troup explained that WMATA has allocated funding for the upgrades, but that it hopes to offset some of those costs with assistance from the federal government.

Ms. Silverman asked whether there was a system in place to ensure that when train operators reported radio outages in the system those outages were recorded and resolved.

Mr. Troup explained that the new outage display maps were one-step in improving accountability and responsiveness. He said that WMATA has established new standards and expectations for getting broken radio equipment and transponders back in service. He said that WMATA is still in the process of developing ways to share outage and resolution information with operators so that they can be aware ahead of time about outages in the system and can know whether outages that they report have been resolved.

Ms. Russell asked about interoperability of WMATA's new radio system and the radio systems of the jurisdictions through which Metro runs.

Mr. Troup explained that the radios would operate on different frequencies but that those frequencies will all be able to be accessed through one single radio unit at any given time.

Ms. Russell also asked about enhancing the ability of Metro riders to report emergencies by texting 911.

Mr. Troup said that that would be an issue for local 911 centers. He did say, however, that Metro currently has a service in place for riders to text Metro transit police.

Mr. Harris asked Mr. Troup why the radio upgrades that would allow increased cell service in Metro stations and tunnels had not yet been completed, and he sought assurances that it would now be completed.

Mr. Troup explained that the private group that had been working on the cell service upgrades several years ago went bankrupt and that work ceased on the project for two years. He also said that high-priority safety upgrades called for in the wake of the 2009 Red Line crash had precluded much of the infrastructure installation inside tunnels and stations that would have been needed for the new cell system. He said that WMATA is now in charge of the installation and has a solid plan in place

to make sure it is completed in the next three to four years.

Mr. Harris also asked how WMATA plans to train all of the region's 10,000 first responders in responding to Metro emergencies.

Mr. Troup explained that WMATA now provides 24-hour-a-day, seven-day-a-week access to its emergency training facility to increase training opportunities, and he said the agency provides computer-based training to expand opportunities, too. He referred Mr. Harris to WMATA's Office of Emergency Management for more information.

12. Briefing on the Activities of the Transportation Sector Group of the COG Multi-Sector Working Group to Examine Greenhouse Gas Reductions

Mr. Griffiths provided a high-level summary of the activities completed to date for the COG Multi-Sector Working Group to Examine Greenhouse Has Reductions. He said that the initial suggested strategies have been identified for the transportation, land use, and environment sectors. He said that a public comment period on these suggest strategies will conclude on April 22 and that on May 8 the working group will decide on a final list of strategies. He said that he will present more information on this item at the May 20 TPB meeting.

13. Briefing on a Study to Identify Pedestrian/Bicycle Access Improvements at Select Rail Stations in the Washington Region

Item 13 was postponed and will be presented at the May 20 meeting.

OTHER ITEMS

14. Other Business

No other business was brought before the Board.

15. Adjourn

The meeting adjourned at 2:08 p.m.

Item 3

TPB Technical Committee May 1 Meeting Highlights

May 14, 2015

The Technical Committee met on May 1 at the Ronald F. Kirby Training Center at COG. The following items were reviewed for inclusion on the TPB agenda for May 20:

- TPB agenda Item 8

  Staff from WMATA provided a briefing on research on the value of increasing walkability near station areas and spoke about a new study that will compile and prioritize walk/bike access projects within a half mile of all of Metro's 91 stations. This project leverages some of the TPB's recent work promoting pedestrian and bicycle accessibility.

- TPB agenda Item 9

  Staff from the Virginia Department of Rail and Public Transportation briefed the committee on the Tier II Environmental Impact Statement (EIS) process currently underway for the Washington, D.C. to Centralia, Virginia corridor (the DC2RVA high-speed rail project). The committee suggested some changes in the presentation and recommended that it be presented to the TPB.

- TPB agenda Item 10

  Staff briefed the committee on the activities of COG's Multi-Sector Working Group (MSWG) on Greenhouse Gas Emissions. The committee recommended that staff present information on these activities, including results of an MSWG meeting on May 8, at the TPB's May 20 meeting.

- TPB agenda Item 11

  Staff briefed the committee on the development of a regional list of transportation projects which could not be included in the CLRP because funding has not been identified. The TPB jurisdictions and agencies have been requested to provide projects and cost estimates for inclusion in this regional list. After determining that the draft list needs further development before it is presented, the committee recommended that the TPB receive a short status report on this project on May 20 instead of a full briefing.

The following item was presented for information and discussion:

- The committee was briefed on the Report "Peak Car Travel: An Analysis of Trends in the National Capital Region." Drawing on recent national research showing how peaking in VMT began far before 2004 in the U.S., this presentation shared statewide VMT trends in the National Capital Region and placed them in the national timeline context. In addition, potential causes for these trends were discussed, and thoughts about emerging trends were discussed.

TPB TECHNICAL COMMITTEE MEMBERS AND ALTERNATES
ATTENDANCE – May 1, 2015

DISTRICT OF COLUMBIA

DDOT	Mark Rawlings
DCOP	-------

MARYLAND

Charles County	-------
Frederick County	Ron Burns
City of Frederick	Timothy Davis
Gaithersburg	-------
Montgomery County	John Thomas
Prince George's County	Victor Weissberg
Rockville	-------
M-NCPPC	
Montgomery County	-------
Prince George's County	Faramarz Mokhtari
MDOT	Lyn Erickson
	Mike Nixon
	Matt Baker
Takoma Park	-------

VIRGINIA

Alexandria	Pierre Holloman
Arlington County	Dan Malouff
City of Fairfax	-------
Fairfax County	Mike Lake
	Malcom Watson
Falls Church	-------
Fauquier County	-------
Loudoun County	Robert Brown
Manassas	-------
NVTA	Keith Jasper
NVTC	Claire Randall
Prince William County	James Davenport
PRTC	Betsy Massie
VRE	Sonali Soneji
VDOT	Norman Whitaker
	Andy Beacher
	Dan Painter
VDRPT	Tim Roseboom
NVPDC	-------
VDOA	-------

WMATA	Allison Davis

FEDERAL/REGIONAL

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

COG STAFF

Kanti Srikanth, MWCOG
Robert Griffiths, DTP
Ron Milone, DTP
Andrew Meese, DTP
Elena Constantine, DTP
John Swanson, DTP
Andrew Austin, DTP
Bill Bacon, DTP
Anant Choudhary, DTP
Yu Gao, DTP
Bryan Hayes, DTP
Charlene Howard, DTP
Jessica Mirr, DTP
Mark Moran, DTP
Jinchul Park, DTP
Wenjing Pu, DTP
Eric Randall, DTP
Sergio Ritacco, DTP
Rich Roisman, DTP
Jon Schermann, DTP
Dusan Vuksan, DTP
Feng Xie, DTP
Stephen Walz, DEP
Paul DesJardin, DCPS
Sophie Mintier, DCPS

OTHER

Alexandra Krempasanka, Maryland Department of the Environment
Bill Orleans, Citizen
Rick Rybeck, Just Economics
David Romstad, WMATA
Mara Vonic, DCOP
Ryan Westrom, DDOT
Ehan Turk, Citizen
Emily Stock, VDRPT
John Morton, Consultant

Item 4

REPORT
TPB Citizens Advisory Committee
May 14, 2015
Bob Summersgill, Chair

On May 14 the Citizens Advisory Committee (CAC) was briefed on TPB Safety-related activities and provided with an update on the work of the COG Multi-sector Working Group on Greenhouse Gas Emissions Reductions. The committee also discussed the work of its various subcommittees.

Briefing on TPB Activities Related to Safety

Marco Trigueros of DTP staff presented on TPB data collection and analysis related to transportation safety. He described the various TPB coordinated safety activities designed to meet federal requirements and member jurisdiction needs. These activities include the work of the Transportation Safety Subcommittee, data compilation/analysis, and the Safety Element of the Constrained Long-Range Plan. He spoke about fatality rates across different TPB jurisdictions and described how the Washington region compares to other MPO planning areas. He provided information on data regarding injuries and fatalities for pedestrians and cyclists, as well as accidents related to freight trucks. He emphasized challenges in data collection among several datasets across various levels of government.

The committee raised several points of inquiry into the TPB's safety activities and the data presented. Attendees asked about collaborating with universities, police, insurance companies and wireless phone providers to enhance existing accident data. They also discussed having more specific data, such as time of day, weather, and more details on the causes of accidents.

Update on the Multi-Sector Working Group to Examine Greenhouse Gas Reductions

Bob Griffiths of DTP staff provided an update to the committee on the activities of the COG Multi-Sector Working Group (MSWG) that is examining strategies to reduce Greenhouse Gas Emissions. He reported that the Working Group has developed a list of 22 strategies believed to be most promising and worthy of more detailed quantitative analysis. A consultant team will analyze these strategies between May and July. The results of this analysis will be presented to the TPB and other COG/TPB committees between September 2015 and January 2016. Mr. Griffiths said the consultant's analysis will help create a baseline for future evaluation. He emphasized that the Working Group's strategies are high-level recommendations that may connect to scenario level analysis for both near- and long-term solutions.

The committee asked if performance targets would be developed through the consultant's recommendations, and debated the efforts of increasing CAFE standards and speed limits. They encouraged the TPB to consider more targeted efforts in educating the public.

Updates from CAC Subcommittees and Subcommittee Work Session

Chairs from each of the CAC subcommittees provided the committee with brief updates on work activities undertaken since the last CAC meeting.

Other Business

Mr. Griffiths briefed the committee on the May TPB agenda.

TPB staff announced that Jeremy Martin and Nancy Abeles, both from Maryland, have new roles on the committee. TPB Vice-Chair Newton nominated Martin to serve as a full member of the committee to fill a vacancy. Abeles was nominated to fill Martin's spot as an alternate on the committee. These nominations were approved by the TPB Steering Committee on May 1.

ATTENDEES
CAC Meeting, May 14, 2015

Members Present

Bob Summersgill (DC)
Keith Benjamin (DC)
Gary V. Hodge (MD)
Jeremy Martin (MD)
Jeff Parnes (VA)
Lorena Rios (VA)
Tom Sanchez (DC)
Douglas Stewart (VA)
Stephen Still (VA)
Alex Tremble (MD)
Emmet Tydings (MD)

Members Not Present

Veronica O. Davis (DC)
John Epps (MD)
Holly Muhammad (DC)
Andrea Hamre (VA)

Alternates Present

Nancy Abeles (MD)
Rob Jackson (VA)
Emily Oaksford (DC)
Michael Rodriguez (VA)
Tina Slater (MD)

TPB Staff

Bob Griffiths, COG/DTP staff
John Swanson, COG/DTP staff
Bryan Hayes, COG/DTP staff
Lamont Cobb, COG/DTP staff
Andrew Meese, COG/DTP staff
Marco Trigueros, COG/DTP staff

Guests

Bill Orleans

Item #5

MEMORANDUM

May 14, 2015

To: Transportation Planning Board

From: Kanathur Srikanth
Director, Department of Transportation Planning

Re: Item 5: Steering Committee Actions and Report of the Director

The attached materials include:

- Steering Committee Actions
- Letters Sent/Received
- Announcements and Updates

These categories of materials were previously included under this agenda item, which was named the "Steering Committee Report."

MEMORANDUM

May 14, 2015

To: Transportation Planning Board

From: Kanathur Srikanth
Director, Department of Transportation Planning

Re: Steering Committee Actions

At its meeting on May 1, 2015, the TPB Steering Committee took the following actions:

- SR17-2015: Resolution on an amendment to the FY 2015-2020 Transportation Improvement Program (TIP) that is exempt from the air quality conformity requirement to include additional funding for VRE-Rolling Stock Acquisition Project, as requested by the Virginia Department of Transportation (VDOT)

- The TPB Steering Committee approved Mayor Bridget Newton's nomination of Jeremy Martin to the Citizens Advisory Committee (CAC) and the nomination of Nancy Abeles to serve as a CAC alternate. The position became open due to the resignation of a member.

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 SR17-2015
May 1, 2015

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

RESOLUTION ON AN AMENDMENT TO THE FY 2015-2020 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) THAT IS EXEMPT FROM THE AIR QUALITY CONFORMITY REQUIREMENT TO INCLUDE ADDITIONAL FUNDING FOR VRE-ROLLING STOCK ACQUISITION PROJECT, AS REQUESTED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT)

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 October 15, 2014 the TPB adopted the FY 2015-2020 TIP; and

WHEREAS, in the attached letter of April 23, 2015, VDOT has requested that the FY 2015-2020 TIP be amended to include $9.023 million in Flexible Surface Transportation Program (STP) funds in FY 2015 for the VRE – Rolling Stock Acquisition Project, as described in the attached materials; and

WHEREAS, this project is 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 2015-2020 TIP to include $9.023 in Flexible STP funds in FY 2015 for the VRE – Rolling Stock Acquisition Project, as described in the attached materials.

Adopted by the Transportation Planning Board Steering Committee at its regular meeting on May 1, 2015.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4975 Alliance Drive
Fairfax, VA 22030

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

April 23, 2015

The Honorable Phil Mendelson, Chairman
National Capital Region Transportation Planning Board
Metropolitan Washington Council of Governments
777 North Capitol Street, N.E., Suite 300
Washington, DC 20002-4201

RE: National Capital Region FY 2015-2020 Transportation Improvement Program Amendment for VRE-Rolling Stock Acquisition

Dear Chairman Mendelson:

On behalf of the Potomac and Rappahannock Transportation Commission (PRTC), the Virginia Department of Transportation (VDOT) requests an amendment to the FY 2015-2020 Transportation Improvement Program (TIP) to add funding to the VRE-Rolling Stock Acquisition Project (TIP ID 4534, Agency ID VRE0009). The proposed amendment adds approximately $9.023 million in Flexible STP funds for the acquisition of expansion railcars.

The requested change is necessary as project funds must be included in an approved TIP in order for PRTC to access the funds through the Federal Transit Administration grant application process. The amendment will not impact the regional air quality conformity analysis as the project is not significant for air quality conformity purposes. Programming of these funds was anticipated in the most recent update of the CLRP Financial plan. VDOT staff has made appropriate revisions to the TPB's iTIP online database.

VDOT requests that this TIP Amendment be approved by the Transportation Planning Board's Steering Committee at its meeting on May 1, 2015. VDOT's representative will attend the meeting and will be available to answer any questions about the amendments.

Thank you for your consideration of this request. Should you have any questions, please contact Norman Whitaker, our Transportation Planning Director, at (703) 259-2799.

Sincerely,

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

cc: Ms. Dianne Mitchell, VDOT
Ms. Maria Sinner, P.E., VDOT-NOVA
Ms. Jan Vaughn, VDOT
Mr. Norman Whitaker, AICP, VDOT-NOVA

PRTC
Potomac and Rappahannock Transportation Commission

14700 Potomac Mills Road
Woodbridge, VA 22192

April 13, 2015

Ms. Helen Cuervo, P.E.
District Engineer, NOVA
Virginia Department of Transportation
4975 Alliance Drive, Suite 4E-342
Fairfax, VA 22030

Dear Ms. Cuervo:

The Potomac & Rappahannock Transportation Commission (PRTC) requests a project amendment to the FY 2015-2020 Transportation Improvement Program (TIP) to reflect an update in project funding. The project is already accounted for in the current conformity analysis or is a conformity-exempt transit project for the TIP. The change we wish to be made to the FY2015-2020 TIP is indicated in boldface in the attached spreadsheet and is outlined below:

- VRE–Rolling Stock Acquisition (TIP ID 4534, Agency ID VRE0009). The proposed amendment will add $9,023K in the construction phase of FY2015 using Flexible STP funds for the acquisition of expansion railcars.

PRTC requests that the Transportation Planning Board's (TPB) 2015-2020 TIP and the Commonwealth's FY2015-2018 STIP be amended to reflect the aforementioned change as project funds must be included in an approved TIP and STIP before PRTC can access these funds through the Federal Transit Administration grant application process.

Should you have any questions, please feel free to contact Betsy Massie at (703) 580-6113 or at bmassie@omniride.com. We greatly appreciate Mr. Whitaker's continuing assistance in facilitating this action.

Sincerely,

Alfred H. Harf
Executive Director

cc: with attachments: Betsy Massie, PRTC
Andrew Austin, MWCOG
Christine Hoeffner, VRE
Jan Vaughn, VDOT
Norman Whitaker, AICP, VDOT-NOVA
Andrew Beacher, VDOT
Marie Berry, VDRPT

Transit

VRE - Rolling Stock Acquisition

TIP ID: **4534** Agency ID: **VRE0009** Title: **Rolling Stock Acquisition** Complete:

Facility: VRE Rolling Stock
From: Systemwide
To:

Source	Fed/St/Loc	Previous Funding	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Source Total
Sect. 5307	80/20/0	3,574 c							
Sect. 5307 2	80/10/10	6,545 c	5,750 c	4,675 c	4,675 c	4,675 c	4,675 c	4,675 c	29,125
Sect. 5309-FG	80/20/0	5,135 c							
Sect. 5337 - SGR	80/10/10	13,793 c	4,146 c	1,931 c	1,931 c	1,931 c	1,931 c	1,931 c	13,801
STP	80/13/7		9,023 c						9,023
								Total Funds:	***51,949***

Description: VRE has purchased from Sumitomo 11 cab cars (base order), 50 cab and trailers (option order) and an additional 10 cars. In addition, VRE has contracted with Motive Power for 25 locomotives and will be adding additional as funding becomes available. This project includes funding plus a new procurement of up to 42 railcars. for debt service of the rolling stock, spec development and construction oversight.,plus a new procurement of up to 42 railcars.

Amendment: Add Funding **Approved on:** 5/1/2015

Add $9,023,439 Flexible STP funding in FY 2015 for expansion railcars.

City of Rockville
111 Maryland Avenue
Rockville, Maryland
20850-2364
www.rockvillemd.gov

240-314-5000
TTY 240-314-8137

April, 24, 2015

Dear Chair Mendelson:

In January I nominated Deanna Holford, Alex Tremble, and Gary Hodge to represent Maryland on the TPB's Citizens Advisory Committee (CAC). I also nominated Tina Slater, Cherian Eapen, and Jeremy Martin to serve as Maryland's alternates to the CAC. The Board approved the nominations on January 21, 2015. Since that time, Deanna Holford has resigned her position on the CAC and is moving away from the region.

I am writing to nominate Jeremy Martin to fill Ms. Holford's position on the CAC. I would also like to nominate Nancy Abeles to sit as an alternate on the CAC to fill Mr. Martin's vacated space.

Attached to this letter I have included excerpts from the applications submitted by Mr. Martin and Ms. Abeles.

I hope that the Steering Committee considers these nominations favorably at the May 1, 2015 meeting.

Sincerely,

Bridget Donnell Newton

Bridget Donnell Newton

Maryland

Jeremy Martin

5. Why are you interested in serving on the TPB's Citizen Advisory Committee?

I am interested in serving my community, the City of Rockville, Montgomery County and the greater Capital Region by providing my perspective as a citizen, a user of multiple travel modes, a parent and a member of several other related advisory bodies in the City of Rockville and Montgomery County, Maryland. I believe that good transportation planning is essential to the interests of these communities, from narrowly defined quality of life issues such as congestion or a lack of efficient, safe and cost effective transportation choices to more profound challenges such as addressing climate change. In all these areas, transportation planning can only be effective if the communities served participate actively in the process and I am happy to play my part.

7. Please briefly describe your experience related to the interest areas you checked in question two that you feel may contribute to your effectiveness on the Citizens Advisory Committee. Also, list any relevant organizations or groups in which you participate that may relate to your service on the Citizens Advisory Committee.

I marked a few interests with a capital "X" where I have a more significant experience or interest and marked with a lowercase "x" areas in which I am interested to learn more and contribute ideas.

I serve on the Rockville Traffic and Transportation Commission and have been representing that committee on the Rockville Pedestrian Safety Task Force. I am also representing the Maryland Municipal League on the Montgomery County Pedestrian, Bicycle, and Traffic Safety Advisory Committee.

I am employed as a Senior Scientist at the Union of Concerned Scientists where I work primarily on public policy related to biofuels and other transportation fuels. Our group, the Clean Vehicles Program, also works on vehicle efficiency standards and other areas related to reducing oil use and global warming pollution from transportation. While the work of the TPB is critical to this broadly stated goal, the detailed work of our program does not overlap significantly with TPB's work.

I routinely commute by bike and Metro, and often use bikeshare service, bus service, and also drive regularly. I have a son in middle school, a daughter with special needs and mobility challenges, and elderly relatives that give me an understanding of the diverse needs of the many users of our transportation system.

8. Is there any other information related to your serving as a member of the TPB Citizens Advisory Committee that you'd like to tell us about?

I participated in the Community Leadership Institute in Spring of 2013, and learned something about the role of TPB on that occasion.

Maryland

Nancy Abeles

5. Why are you interested in serving on the TPB's Citizen Advisory Committee?

Having previously served on local project-oriented civic advisories and various community coalitions and non-profit Boards, I learned that I have useful skill sets for and enjoy collaborating on successful solutions that serve infrastructure and civic needs of multiple and varied stakeholders. I want to find out more about how puzzle pieces of transit modes interact in pursuit of overall efficacy, including factors involving public spaces, technology, critical infrastructure, public safety, and, equally crucial, in their impacts upon people lives and their communities. Attending TBP's Community Leader Training Institute crystallized the process for me.

7. Please briefly describe your experience related to the interest areas you checked in question two that you feel may contribute to your effectiveness on the Citizens Advisory Committee. Also, list any relevant organizations or groups in which you participate that may relate to your service on the Citizens Advisory Committee.

I began by serving on the Bethesda BRAC Implementation Committee, where I learned the importance of integrated planning and multi-modal transit. I began self-educating about transit and planning by attending BRAC Planning Board hearings and work sessions, and expanded my perspective through regional conferences and forums such as MovingMontgomeryForward, the planners' streamed Zoning "Teach-In," the recent MoCo County Council's Growth Forum, and by participating actively in Bethesda Sector Plan workshops. I also read books, journals, and newspaper articles about related developments and news. I saw the need to understand the bigger picture to advocate effectively for both my community and to achieve multi-stakeholder consensus towards greater good. From observing at MoCo's RTS Steering Committee and Working Group, I progressed to active interactions and collaborated last summer with MDOT administrative staff in a small group of civic leaders to develop the organizational mission statement, goals, and membership criteria for BRT Citizens Advisory Committees—after advocating to establish their very existence through written and oral testimony to the County Council and meetings with councilmembers. I currently serve on the BRT 355 South CAC.

8. Is there any other information related to your serving as a member of the TPB Citizens Advisory Committee that you'd like to tell us about?

For non-profit organization and HOA purposes, I have worked in operational, policy, public outreach and promotion capacities. I also have a proven record in positioning and composition of project grant proposals. (My early career was in advertising, promotion, and public relations before working in arts organization administration and project management.)

Item #5

MEMORANDUM

May 14, 2015

TO: Transportation Planning Board

FROM: Kanti Srikanth
Director, Department of Transportation Planning

RE: Letters Sent/Received Since the April 15th TPB Meeting

The attached letters were sent/received since the April 15th TPB meeting. The letters will be reviewed under Agenda #5 of the May 20th TPB agenda.

Attachments

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD

April 27, 2015

The Honorable James Inhofe
Chairman
Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington DC 20510

The Honorable Bill Shuster
Chairman
House Committee on Transportation and Infrastrcture
2165 Rayburn House Office Building
Washington DC 20515

The Honorable Barbara Boxer
Ranking Member
Senate Committee on Environment and Public Works
456 Dirksen Senate Office Building
Washington DC 20510

The Honorable Peter DeFazio
Ranking Member
House Committee on Transportation and Infrastructure
2163 Rayburn House Office Building
Washington DC 20515

Dear Chairmen Inhofe and Shuster, and Ranking Members Boxer and DeFazio:

On behalf of the National Capital Region Transportation Planning Board (TPB) at the Metropolitan Washington Council of Governments (MWCOG), I transmit the attached board resolution and policy principles for the reauthorization of the federal transportation programs.

Our policy principles represent a common-sense approach to reauthorization. We urge Congress to enact legislation that will fund priority needs and promote effective planning and project development.

As we face the expiration of MAP-21, this moment offers an opportunity to demonstrate that our nation is still capable of taking care of its most basic needs as we plan for future generations. We urge Congress to act decisively and comprehensively.

Sincerely yours,

Phil Mendelson
Chairman
National Capital Region Transportation Planning Board

CC: National Capital Region Congressional Delegation (see attached)
National Capital Region Transportation Planning Board

777 North Capitol Street NE, Suite 300, Washington, DC 20002-4290
Web: www.mwcog.org/tpb Phone: (202) 962-3315 Fax: (202) 962-3202

National Capital Region Congressional Delegation

The Honorable Ben Cardin
United States Senate
Maryland

The Honorable Barbara Mikulski
United States Senate
Maryland

The Honorable Tim Kaine
United States Senate
Virginia

The Honorable Mark Warner
United States Senate
Virginia

The Honorable Don Beyer
United States House of Representatives
8th District, Virginia

The Honorable Barbara Comstock
United States House of Representatives
10th District, Virginia

The Honorable Gerald Connolly
United States House of Representatives
11th District, Virginia

The Honorable Robert Wittman
United States House of Representatives
1st District, Virginia

The Honorable John Delaney
United States House of Representatives
6th District, Maryland

The Honorable Donna Edwards
United States House of Representatives
4th District, Maryland

The Honorable Steny Hoyer
United States House of Representatives
5th District, Maryland

The Honorable Christopher Van Hollen
United States House of Representatives
8th District, Maryland

The Honorable Eleanor Holmes Norton
United States House of Representatives
District of Columbia

MEMORANDUM

May 14, 2015

To: Transportation Planning Board

From: Kanathur Srikanth
Director, Department of Transportation Planning

Re: Announcements and Updates

The attached documents provide updates on activities that are not included as separate items on the TPB agenda.

M E M O R A N D U M

TO: Transportation Planning Board

FROM: Eric Randall
Department of Transportation Planning

SUBJECT: Update on the Implementation of the TPB Regional Priority Bus Project under the Transportation Investments Generating Economic Recovery (TIGER) Program

DATE: May 14, 2015

This memorandum provides a short update on the status of the projects funded by the Transportation Investments Generating Economic Recovery (TIGER) grant awarded to the TPB in February 2010 for *Priority Bus Transit in the National Capital Region*. The $58 million grant has sixteen component projects being implemented on transit corridors across the District of Columbia, Maryland, and Virginia.

The TPB was briefed at their March 2015 meeting on the progress of the projects funded by the grant. At that meeting, TPB staff was asked to providing another update in May and a subsequent briefing in July. Background on the grant and details on its implementation were provided in the March memorandum and briefing provided to the Board.

March 2015 Memorandum on the TIGER Grant
March 2015 Briefing on the TIGER Grant

The TIGER grant period of performance ends on September 30, 2016, which given invoice processing time means all of the work to be reimbursed by the grant should be completed by the end of June 2016. As of April 30, 2015 approximately $27.2 million of the grant, or 46%, has been expended (compared to $24.5 million and 42% as of February 28, 2015). TPB staff holds regularly meetings to discuss all aspects of the project implementation.

Significant Recent Accomplishments
The following five projects have completed significant tasks in the recent months and appear to be on track to be completed before the June 30, 2016 deadline.

1. *Real time passenger information (RTPI) display project (DC, MD, and WMATA):*The third order of RTPI displays was installed, with a total of 150 displays now installed and successfully tested at locations in the District of Columbia, Maryland, and WMATA stations in Virginia. Twenty-nine displays remain to be installed (for a total of 179): seventeen at locations in the District in the next month and twelve at sites in Virginia once other work is completed.

2. *Georgia Avenue Bus Lane (DC):*
   Bus lane construction contracts were awarded in April 2015. Construction preparations are scheduled to start in June and the project to be completed in mid-2016.

3. *Takoma/Langley Transit Center (MD):*
   Construction of the steel structure of the transit center is in progress. Construction work is on track for an opening scheduled for October 2015.

4. *14th Street and Theodore Roosevelt Bridges to K Street Traffic Signal Optimization (DC):*
   DDOT implemented the new traffic signal timing plans for nearly 650 intersections in the downtown Washington DC core on Friday evening, April 24, 2015. Traffic conditions will continue to be monitored for several months to further improve traffic signal timing.

5. *Maryland Corridors' Queue Jump Projects (MD):* Final design is nearing completion with 90 percent plans expected this month and the final plans due in June. Construction should start in July 2015 and the projects are scheduled to be completed by the end of the summer.

Critical Projects and Milestones

The following three projects have schedules that will take their completion close to the deadline of June 30, 2016.

1. *Transit Signal Priority (TSP) Project (DC, MD, and WMATA)*
   - Preparations for the prototype intersection test on VA-7 (Leesburg Pike) continue, with the test plan in final review and the fleet operation readiness testing plan schedule for May. The prototype test is scheduled to be conducted in June 2015 at a location in Virginia.
   - Installation of the TSP equipment should begin in June 2015. This involves the City of Alexandria and VDOT which have signed MOUs on their respective responsibilities and whose signals have the ability to support the technology. The City of Falls Church still requires a signal upgrade prior to finalizing their MOU and agreeing on installation dates.
   - The system will subsequently be tested in the District and in Maryland, with their respective, different wayside traffic signal technologies. DDOT is in the process of procuring the wayside technology for traffic signals in the District, with the contract award package to be submitted to the Council in May 2015. The contract includes options that it is anticipated will be exercised by Maryland and the City of Alexandria for installation on their corridors.

2. *Pentagon and Franconia-Springfield Station Improvements (WMATA)*
   - At the Pentagon transit station, 100 percent design is in the process of final approval and the procurement of the long lead items was initiated in April 2015. Pre-construction of pedestrian access, safety, and security improvements started in early May, starting with traffic preparations, electrical work, and guardrail installation. The construction schedule starts in June 2015, with a six month work period.
   - For improvements at the Franconia-Springfield transit station, construction bids are due this month with scheduled award by June 2015. The intention is for construction to start this summer with a seven month work period.

3. Alternative Bus Bays at Army Navy Drive (WMATA)

This project for a bus bay facility at the Hayes Parking Lot off Army Navy Drive will continue past the lifetime of the TIGER grant, which will fund only the first part of the project. The 100 percent design submittal is due July 2015, with award of construction in fall 2015. WMATA and the DoD continue reviews of a draft memorandum of agreement on responsibilities for the project.

Staff will update the Board on the status of the above projects and highlight any potential issues associated with the timely completion and utilization of the grant funds at the July 2015 meeting.

NATIONAL CAPITAL REGION
TRANSPORTATION PLANNING BOARD

Item #5

MEMORANDUM

DATE: May 14, 2015

TO: Transportation Planning Board

FROM: Kanti Srikanth,
Director, Department of Transportation Planning

SUBJECT: Briefing the Board on follow up actions related to the January 12, 2015 Metrorail L'Enfant Plaza smoke incident.

SUMMARY:

This memorandum updates the activities taken by COG and a number of its public safety committees and by WMATA subsequent to the January 12, 2015 Metrorail L'Enfant Plaza smoke incident.

BACKGROUND:

During its January 21, 2015 meeting the Board engaged in a brief discussion of the fatal incident on the Yellow line of the Metro rail at the L'Enfant Plaza station on Jan. 12, 2015. Given the Board's association with regional transit projects and its interest in and long standing support for the Metrorail system it was decided that the TPB's Steering Committee would stay engaged in monitoring the developments related to this incident. The Steering Committee was charged with keeping the Board apprised of: (1) the developments related to the Jan. 12, 2015 event, (2) any recommendations for actions that the Transportation Planning Board (TPB) would have to take, and (3) any information needed to inform the TPB as to how it can remain engaged with or offer support for the Metrorail system.

The Steering Committee discussed the matter during its February and March meetings and reported to the Board via two separate memos. In April, the Board was briefed by Mr. Stuart Freudberg, COG's Deputy Executive Director, and by Mr. Robert Troup, WMATA Deputy General Manager for Operations on the actions WMATA and COG Committees had taken actions to date.

April 2015 Briefing to the Board on Actions subsequent to the January 12 L'Enfant Plaza smoke incident

RECENT ACTIVITIES:

At the Metro Board of Directors Safety and Security Committee meeting on April 23, WMATA announced four additional early-action safety measures in response to the January 12, 2015 Metrorail L'Enfant Plaza smoke incident. The additional safety measures were identified as part of Metro's

collaborative review with the National Transportation Safety Board (NTSB) investigation and are not formal NTSB recommendations. The following are in addition to the ten items that WMATA announced on January 22, 2015.

1. Initiating a multiyear maintenance program to replace or rehabilitate all 88,044 lights in Metro tunnels beginning next month.
2. Creating a dedicated maintenance crew to continuously clear tunnel passageways of debris, equipment or other potential obstructions across Metro's 100 miles of tunnel segments. This cleaning process may also help improve the performance of the bi-directional amplifiers utilized in radio communication in Metro tunnels.
3. Beginning this summer, review protocols of the alarms in the Rail Operations Control Center (ROCC) with the goal of separating critical alarms from non-critical notifications.
4. Establishing a quality audit process for ventilation system testing to ensure compliance with established maintenance and testing practices.

In regard to the second of these additional actions, the cleaning of tunnels requires the use of wash water in a manner that meets environmental requirements including protection of the wastewater treatment collection and treatment system. COG's Deputy Executive Director contacted senior management of DC Water and the Washington Suburban Sanitary Commission to determine the feasibility of managing the wash water needs of Metro.

Radio Communication and Enhanced Training

COG's Deputy Executive Director and supporting COG staff are continuing to assist the Fire Chiefs Committee in collaboration with WMATA and the District of Columbia Emergency Management Agency on four tasks to be completed in June in response to letters from Senator Mark Warner and Senator Barbara Mikulski. These tasks are as follows:

1. Implementation of a formal testing and corrective action program for radio communication. A tool has been developed by WMATA to record testing results and corrective actions which provides an active display of the radio system and enables first responders to have situational awareness of the system at all times, and to insure any outages are addressed in a more timely manner. WMATA is now conducting its own testing in addition to the jurisdictions, thereby further enhancing management of the radio communication system.
2. Development of a regionally standardized emergency evacuation training and exercise plan for first responders to the Metrorail system. This plan will include field training and exercises for all levels of first responders utilizing best practices from area jurisdictions and drawn from other transit systems in the United States and in other countries.
3. Updating the Metro Rail Transit – Fire/Rescue Emergency Procedures Policy Agreement 2011 which will formalize the new radio testing and corrective action procedures as well as the training plan.
4. Completing an expert consultant study seeking additional improvements to the existing radio system and cell phone communication system in Metrorail tunnels. This study is addressing short term fixes to improve system performance as well as identifying options for accelerating implementation of the new WMATA radio communication system currently scheduled for completion by 2021, as well as upgrades to the cell phone communication system.

MEMORANDUM

TO: Transportation Planning Board

FROM: Richard I. Roisman, AICP
Manager, Planning Data Programs

DATE: May 13, 2015

RE: Status of Follow-up Actions to the Regional Bus Staging, Layover, and Parking Location Study

---

At its March 18, 2015 meeting, the Board received a briefing on the Regional Bus Staging, Layover, and Parking Location Study. Following the briefing and discussion, in which the Board expressed considerable interest in follow-up actions, the Board directed staff to come back to the Board in May or June after following up with agencies and jurisdictions to identify next steps and a path forward to implementation.

A meeting of the study's Steering Committee and additional stakeholders who were not part of the Steering Committee (the National Park Service and D.C. Councilmember Charles Allen's office) was held on May 11, 2015. The May 11 meeting was attended by the National Park Service, DDOT, MDOT, VDRPT, WMATA, NVTC, PRTC, Loudoun County Transit, and DCOP. The group discussed the findings of the study, follow up actions and specifically the questions that came out of the March 18 TPB discussions (listed at the end of the memo). The group also discussed the findings of a separate National Park Service study that examines the needs and issues around tour buses.

There were three distinct outcomes of the meeting as listed below:

1. Clarifications/Edits to the Study Report: The group identified a set of clarifications and edits to the contents of the March 18 report, based primarily on written responses received from DDOT and NPS following publication to the TPB. Staff will develop these as a supplement to the report. This supplement will be shared with the Board once finalized by the Steering Committee and the additional stakeholders from the May 11 meeting.
2. Follow-up to Findings of the TPB Study: The group acknowledged that the TPB study was a logical conclusion of planning activities. The consensus of the group was that representatives of DDOT and the commuter transit agencies should work together to initiate a pre-implementation phase.

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Web: www.mwcog.org/tpb Phone: (202) 962-3315 Fax: (202) 962-3202

3. Coordination of NPS Study Outcomes: The NPS study is focused on tour buses and not on commuter buses. The TPB study included both commuter and tour buses. The NPS will be invited to participate in the TPB's Regional Public Transportation Subcommittee to coordinate the findings and outcomes of their study.

Staff is working with Councilmember Allen's office to schedule a briefing on the above outcomes from the May 11 stakeholders meeting in the context of the issues he raised on March 18.

Questions discussed during the May 11 meeting included:

- What can be done and when can it be done, particularly with regard to on-street solutions?
- Who takes responsibility for these post-study actions?
- How best to address the issues raised by Councilmember Allen (strong preference for off-street solutions over on-street solutions) and specific concerns about specific sites from the study report (on-street NW-14, off-street SE-6, SE-3, SE-2). Should these be examined as Phase 2 of the study to go from "potential sites identified" to "recommended sites for consideration" or would this be addressed as part of any follow up actions (bullet points 1 and 2 above)?
- What, if any, is the role of TPB staff going forward?

Metropolitan Washington Council of Governments

One Region Moving Forward

May 13, 2015

The Honorable Christopher Van Hollen
U.S. House of Representatives
1707 Longworth House Office Building
Washington, DC 20515

Dear Congressman Van Hollen:

As you know, the use of public transit in the Washington Metropolitan region is critical to the ability of our transportation system to operate without gridlock. It is for this reason, plus the important fact that a significant portion of federal workers rely on public transit, that Congress has provided a pre-tax monthly commuter benefit. However, as you know, on January 1st of this year the pre-tax monthly limit on the transit portion of the Commuter Benefit reverted back to an earlier level: it went from $245 a month to $130.

As a result of the reduction in the commuter benefit, WMATA estimates that as many as 8,000 fewer "full-fare" trips are made on Metro during an average weekday. Most of those are higher-fare trips from suburban stations, resulting in sharper revenue declines for WMATA. Thus, there are more cars on our already congested roads, and WMATA is financially affected.

The transit benefit reverted to $130 because the higher level was subject to a sunset provision. That higher level was also equal to a longstanding tax-free benefit for automobile commuters – but the parking benefit has never been sunsetted. Accordingly, there now exists an incentive to drive, while using public transit has become more costly.

HR 990, the Commuter Parity Act of 2015, would address this situation. It would lower the parking commuter benefit and increase the transit commuter benefit to $235. I write on behalf of the Transportation Planning Board to ask you to consider co-sponsoring HR 990. That legislation, or a measure similar to it, would significantly and positively affect the citizens of your district as well as the region.

Sincerely,

William Euille
Chairman, COG Board of Directors
Mayor, City of Alexandria

Phil Mendelson
Chairman, Transportation Planning Board
Chairman, Council of the District of Columbia

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Metropolitan Washington Council of Governments

One Region Moving Forward

May 13, 2015

The Honorable Eleanor Holmes Norton
U.S. House of Representatives
2136 Rayburn House Office Building
Washington, DC 20515

Dear Congresswoman Norton:

As you know, the use of public transit in the Washington Metropolitan region is critical to the ability of our transportation system to operate without gridlock. It is for this reason, plus the important fact that a significant portion of federal workers rely on public transit, that Congress has provided a pre-tax monthly commuter benefit. However, as you know, on January 1st of this year the pre-tax monthly limit on the transit portion of the Commuter Benefit reverted back to an earlier level: it went from $245 a month to $130.

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Metropolitan Washington Council of Governments

One Region Moving Forward

May 13, 2015

The Honorable John Delaney
U.S. House of Representatives
1632 Longworth House Office Building
Washington, DC 20515

Dear Congressman Delaney:

As you know, the use of public transit in the Washington Metropolitan region is critical to the ability of our transportation system to operate without gridlock. It is for this reason, plus the important fact that a significant portion of federal workers rely on public transit, that Congress has provided a pre-tax monthly commuter benefit. However, as you know, on January 1st of this year the pre-tax monthly limit on the transit portion of the Commuter Benefit reverted back to an earlier level: it went from $245 a month to $130.

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Metropolitan Washington Council of Governments

One Region Moving Forward

May 13, 2015

The Honorable Don Beyer
U.S. House of Representatives
431 Cannon House Office Building
Washington, DC 20515

Dear Congressman Beyer:

As you know, the use of public transit in the Washington Metropolitan region is critical to the ability of our transportation system to operate without gridlock. It is for this reason, plus the important fact that a significant portion of federal workers rely on public transit, that Congress has provided a pre-tax monthly commuter benefit. However, as you know, on January 1st of this year the pre-tax monthly limit on the transit portion of the Commuter Benefit reverted back to an earlier level: it went from $245 a month to $130.

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Mayor, City of Alexandria

Phil Mendelson
Chairman, Transportation Planning Board
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Metropolitan Washington Council of Governments

One Region Moving Forward

May 13, 2015

The Honorable Steny Hoyer
U.S. House of Representatives
1705 Longworth House Office Building
Washington, DC 20515

Dear Congressman Hoyer:

As you know, the use of public transit in the Washington Metropolitan region is critical to the ability of our transportation system to operate without gridlock. It is for this reason, plus the important fact that a significant portion of federal workers rely on public transit, that Congress has provided a pre-tax monthly commuter benefit. However, as you know, on January 1st of this year the pre-tax monthly limit on the transit portion of the Commuter Benefit reverted back to an earlier level: it went from $245 a month to $130.

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May 13, 2015

The Honorable First Last
Senator/Representative
United States Senate/House
Address 1
Address 2

Re: COG Support of Maintained Federal Funding of WMATA

Dear Senator/Representative:

The COG Board of Directors strongly urges you to support maintained federal funding of $150 million to WMATA to ensure continued and sustained federal investment in the nation's and this region's transportation system. Securing additional revenue sources dedicated to transportation is vital to maintaining our regional transportation system and keeping our growing National Capital Region moving forward.

Providing anything less than the federal commitment of $150 million would jeopardize rider safety and the current successful partnership with Virginia, Maryland, and the District of Columbia. Reducing the current commitment could disrupt improvements to the system such as new rail cars and vital safety improvements required to implement the recommendations of the National Transportation Safety Board. With a large percentage of Metro's rush hour passengers being federal workers, the federal government cannot operate without Metro.

If the region is to maintain its current transportation system and make the needed capacity investments for the future to meet population and economic growth, significant additional transportation funding is needed.

The State of Maryland and the Commonwealth of Virginia both passed major transportation revenue acts in 2013, and the District of Columbia is dedicating increasing funding from its general fund for transportation improvements. These increases in transportation funding at the state level will make more investment possible for the Washington metropolitan region. However, the increased state revenues do not make up for the decline in spending power of the federal contribution, leading to a decrease in overall transportation funding. As the seat of the federal government, we, the region, are asking the federal government to do more to ensure regional mobility and prosperity.

The COG Board of Directors urges you to consider the critical role that safe, efficient, and sustainable transportation investment plays in the economy of the region and the workings of the federal government and workforce and to maintain the current federal

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funding level of $150 million. If you have questions about the region's needs and support for renewed federal transportation funding, please feel free to contact me.

Sincerely,

William Euille
Mayor, City of Alexandria
Chairman, COG Board of Directors

cc: COG Board of Directors

Resolution R36-2015
May 13, 2015

METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS
777 NORTH CAPITOL STREET, N.E.
WASHINGTON, DC 20002-4239

RESOLUTION APPROVING A LETTER TO ENDORSE MAINTAINED FEDERAL FUNDING FOR WMATA

WHEREAS, the COG Board of Directors believes transportation planning and funding are vital to maintain and support the growing demand of the National Capital Region, the goals of Region Forward, the Regional Transportation Priorities Plan, and

WHEREAS, maintained federal funding of WMATA at $150 million is essential to ensure improvements to the system such as new rail cars and vital safety improvements required to implement the recommendations of the National Transportation Safety Board; and

WHEREAS, the State of Maryland and the Commonwealth of Virginia both passed major transportation revenue acts in 2013, and the District of Columbia is dedicating increasing funding from its general fund for transportation improvements; and

WHEREAS, these increases in transportation funding at the state level will not make up for the decline in spending power of the federal contribution, leading to a decrease in overall transportation funding; and

WHEREAS, providing anything less than the federal commitment of $150 million would jeopardize rider safety and the current successful partnership with Virginia, Maryland, and the District of Columbia; and

WHEREAS, as the seat of the federal government, we, the region, are asking the federal government to do more to ensure regional mobility and prosperity by providing a long-term and reliable source of transportation funds; and

WHEREAS, the COG Board acknowledges that maintaining federal funding is vital to maintaining our regional transportation system and to meeting the needs of our growing economy and population in order to keep our National Capital Region moving forward.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS THAT:

The attached letter regarding COG's support for Congressional actions in support of maintained federal transportation funding of WMATA be endorsed and disseminated by the COG Board of Directors.

I HEREBY CERTIFY THAT the foregoing resolution was approved and adopted by the COG Board of Directors at its regular meeting held on May 13, 2015.

Monica Beyrouti
Clerk to the Board of Directors

RESOLUTION R36-2015
APPROVING A LETTER TO ENDORSE MAINTAINED FEDERAL FUNDING FOR WMATA
PASSED BY COG BOARD OF DIRECTORS MAY 13, 2015

RECIPIENTS

COG Region Congressional Members:
Congressman Don Beyer
Congresswoman Barbara Comstock
Congressman Gerald Connolly
Congressman John Delaney
Congresswoman Donna Edwards
Congressman Steny Hoyer
Congresswoman Eleanor Holmes Norton
Congressman Christopher Van Hollen
Congressman Robert Wittman
Senator Ben Cardin
Senator Time Kaine
Senator Barbara Mikulski
Senator Mark Warner

U.S. House Appropriations Committee Chairman:
Congressman Hal Rogers (Kentucky)

U.S. House Appropriations Transportation, Housing and Urban Development, and Related Agencies Sub-Committee Chairman:
Congressman Mario Diaz-Balart (Florida)

U.S. Senate Appropriations Committee Chairman:
Senator Thad Cochran (Mississippi)

U.S. Senate Appropriations Transportation, Housing and Urban Development, and Related Agencies Sub-Committee Chairwoman:
Susan Collins (Maine)

ITEM 7 - Information
May 20, 2015

Briefing on a Study to Identify Pedestrian/Bicycle Access Improvements at Select Rail Stations in the Washington Region

Staff Recommendation: Receive briefing.

Issues: None

Background: The Board will be briefed on the final report, released in March 2015, of a study funded by a grant from the FHWA's Transportation, Community, and Systems Preservation (TCSP) Program. The study developed an inventory of pedestrian and bicycle improvements near 25 rail stations that currently have capacity to accommodate more riders, particularly reverse commuters, and are anticipating ridership growth.

MEMORANDUM

TO: Transportation Planning Board

FROM: John Swanson, Principal Transportation Planner

SUBJECT: TCSP Study: Improving Pedestrian/Bicycle Access at Select Rail Stations

DATE: May 14, 2015

The attached report describes a TPB study that has developed an inventory and map of nearly 3,000 pedestrian and bicycle capital improvements that would improve access to Metro, VRE and MARC rail stations with underutilized ridership capacity. This project was funded under a research grant that the TPB received in 2013 from the Federal Transportation, Community, and Systems Preservation (TCSP) Program. The report was developed by Toole Design, the primary consultant for this study.

This study seeks to better utilize the transportation system by identifying improvements around stations that will encourage rail ridership in reverse commute directions or by selling the same seat twice. The project focused on 25 rail stations that can accommodate additional riders, and are anticipating employment growth over the next decade or have a large concentration of low-income or transit-dependent residents nearby. All 25 stations are in Regional Activity Centers. For the most part, the ped/bike capital improvements in the inventory were derived from existing local plans, although the consultant conducted targeted field work to augment the recommendations for some locations. The 2,992 projects in the database range from simple sidewalk improvements to construction of major trail facilities. The combined price tag for all these projects is estimated at roughly $800 million. The average cost per project is $266,486. The database does not prioritize projects.

In the future, TPB staff intends to use this database to encourage project implementation. In particular, we will encourage our member jurisdictions to use the database as a resource for developing project applications for the federally funded Transportation Alternatives Program (TAP), which funds small capital improvements, and the Transportation Land-Use Connections (TLC) Program, which funds planning and preliminary engineering studies.

In addition, TPB staff looks forward to extending this study's analysis efforts in coordination with WMATA, which is launching the development of a Station Area Improvement Strategic Investment Plan to identify and prioritize access improvements for all Metrorail stations.

An interactive map showing the locations and other details of the access recommendations is available at: http://wikimapping.com/wikimap/Opportune-Rail-Station-Analysis.html.
The database can be downloaded in Excel and GIS format at:
http://www.mwcog.org/transportation/activities/tlc/tcsp/tcsp.html.

NATIONAL CAPITAL REGION
TRANSPORTATION PLANNING BOARD

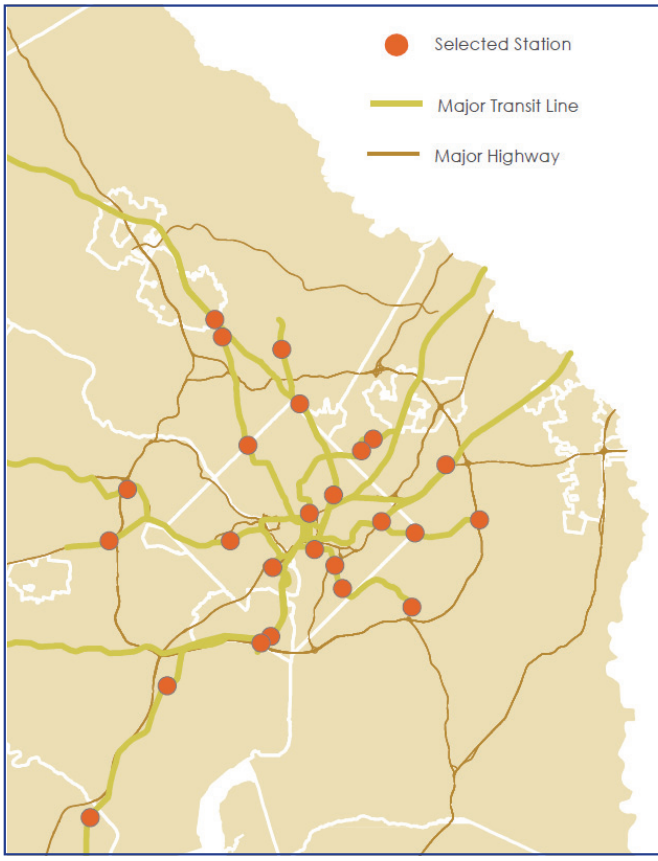
Improving Pedestrian/Bicycle Access at Select Rail Stations

Project Summary, March 2015

Project Overview

In August 2012, the Transportation Planning Board (TPB) received grant funding through the Federal Highway Administration's Transportation, Community and System Preservation (TCSP) Grant Program to identify strategic recommendations for bicycle and pedestrian access improvements at rail stations. The grant is focused on access improvements close to rail stations with underutilized capacity. This project seeks to better utilize the transportation system by identifying improvements around stations that will encourage rail ridership in reverse-commute directions or by selling the same seat twice. The final product of the project is an inventory of pedestrian and bicycle capital projects that can be quickly implemented in the vicinity of 25 opportune rail stations.

The 25 rail stations were identified by TPB staff with input from WMATA and the local jurisdictions. TPB began the selection process by first limiting their analysis to stations that are located in Activity Centers and have existing ridership capacity (based on vertical station capacity data provided by WMATA, as well as VRE and MARC ridership data). Next, TPB analyzed a range of metrics for each station area, including current and planned employment, low-income populations, subsidized housing, car ownership, demographic information and "walkability," as measured by the website www.walkscore.com. TPB also conducted meetings with staff in individual jurisdictions, to gather feedback and qualitative information about the rail stations in that jurisdiction. Ultimately, the final 25 stations identified for inclusion in this study are those that demonstrate regionally and/or locally significant characteristics in terms of employment and/or demographics.



TPB Project Selected Stations

Pentagon City, Arlington County
Virginia Square, Arlington County
Eisenhower Avenue, City of Alexandria
King Street, City of Alexandria
Anacostia, District of Columbia
Capitol Heights, District of Columbia and Prince George's County
Congress Heights, District of Columbia
Friendship Heights, District of Columbia and Montgomery County
Minnesota Avenue, District of Columbia
Mt. Vernon Square/7th St Convention Cntr, DC
Rhode Island Avenue, District of Columbia
Waterfront SEU, District of Columbia
Dunn Loring/Merrifield Avenue, Fairfax County
Franconia/Springfield, Fairfax County
McLean, Fairfax County
Silver Spring, Montgomery County
Twinbrook, Montgomery County
Wheaton, Montgomery County
White Flint, Montgomery County
Branch Ave, Prince George's County
Largo Town Center, Prince George's County
New Carrollton, Prince George's County
Prince George's Plaza, Prince George's County
West Hyattsville, Prince George's County
Woodbridge, Prince William County

Plan Review

The focus of the project was an extensive review of existing local plans and studies, conducted in order to identify existing pedestrian and bicycle facility recommendations located near one of the 25 priority rail stations. Project consultants (Toole Design Group with support from KFH Group), reviewed over 55 plans including pedestrian and bicycle master plans, county comprehensive plans, small area/sector plans, MWCOG Transportation/Land-Use Connections studies, WMATA station area plans, and other relevant planning documents. The reviewed plans were developed during the past ten years (no earlier than 2004) and the evaluation focused on pedestrian recommendations within one mile and bicycle improvements within three miles of stations.

Through the plan review, the project team developed a database of existing recommendations for each station, capturing attributes such as the improvement type, location, extents, cost estimate (if available), source (plan title and year), and the level of priority identified in the plan. The types of recommendations fit into two general categories as shown below:

<u>Linear recommendations</u>

- Bike Lanes
- Sharrows
- Separated Bike Lanes
- Sidewalks
- Trails/Paths

<u>Spot recommendations</u>

- Wayfinding
- Lighting
- Intersection Treatments
- Bus Stop Improvements
- Bicycle Parking
- Stairs

All recommendations were digitized in ArcGIS and the following additional data was incorporated into the database:

- Pedestrian and bicycle fatality data (2012 NHTSA Fatality Analysis Reporting System data) for the one mile area around each station
- WMATA Opportune Station Analysis data (a parallel effort led by WMATA Office of Long-Range Planning)
- Station area employment and demographic data

Field Work

To supplement the plan review process, the project team carried out field work at a subset of the 25 select stations. Field work stations were identified because they had either a low number of plans or recommendations related to the station area, and/or based on input from local jurisdictional staff who felt that the area would benefit from a more focused assessment in terms of pedestrian and bicycle access. The field work stations are shown in the table below.

Rail Station	Field Work Date
Wheaton	August 19, 2014
Congress Heights	August 20, 2014
Woodbridge	August 22, 2014
Dunn Loring-Merrifield	October 1, 2014
Largo Town Center	October 13, 2014

Field work focused on identifying potential access improvements (i.e. sidewalks, bicycle facilities, trails and intersection investments) that would improve connections between the rail station and areas of concentrated housing or employment. Field work recommendations were added to the master database and a short “station profile” was developed for each location. The station profiles identified key themes related to station access and provided photographs and maps of the station area recommendations (including both plan review and field work recommendations).

Project Completion Status

As a next step, the project team sought information on whether the recommended facilities in the database had been completed. This task was accomplished using a combination of methods, including: an online map and survey filled out by municipal staff; meetings with local jurisdictions to discuss recent investments near rail stations; and a review of websites or other city/county data from local jurisdictions. The categories used to document the status of each recommendation in the database were:

- Completed: Construction is underway or the project has been completed
- Planned, Designed, NOT Funded: Planning and design are completed (or not needed) and the project could be implemented if funding were identified.
- Planned, Designed & Funding Identified: Planning and design are underway or completed and a funding source has been identified.
- Partially Complete/Partially Funded: Planning and design are underway or completed, some elements may have been constructed or funded, but the project is not considered complete.
- Needs More Study: More planning, design, right-of-way acquisition, environmental review, or public process is needed before this project can advance.
- No Longer Under Consideration: City/County thinking has changed since the plan was adopted; or the City/County decided to install the facility elsewhere instead; or political opposition stopped the project; etc.

Given the volume of information in the database, this effort focused on linear records (i.e. recommended sidewalks, trails and on-street bicycle facilities) and information was only captured for a subset of the database records. TPB plans to update this information periodically with the support of local jurisdictions.

Cost Estimates

The project team developed cost estimates for all of the recommendations in the database. An order of magnitude cost estimate was developed for the recommended improvements based on an aerial and street-level review of each location. Cost estimates for linear improvements were developed by establishing a cost per linear foot for the recommended facility type and applying it to the length of the improvement. Cost estimates for individual spot improvements were developed by identifying anticipated quantities for significant construction items (e.g. asphalt, sidewalk, concrete curb, pavement markings, etc.). Unit prices for construction items were established based on regional historical bid pricing and the estimator's experience and judgment. Not included in this estimate are the costs for engineering, permitting, utility impacts, grading, right-of-way, survey, mobilization, insurance, and inspection. Although quantities and unit prices were developed for each estimate, a fluctuation in quantities and bid prices can be expected as project design progresses. Actual construction costs can only be determined following final design; as such, the costs at this level of review are budgetary in nature and are typically accurate within +/- 30 percent.

Final Products

The final deliverable for the project is a comprehensive database delivered in three formats: Excel, ArcGIS and an interactive web map (http://wikimapping.com/wikimap/Opportune-Rail-Station-Analysis.html). The three formats are designed to maximize the accessibility of the database for regional agencies, local jurisdictions and the public, allowing staff and stakeholders to easily view, search and sort recommendations by a range of attributes.

Summary of Database Findings

The database includes a total of 2,992 recommended facility improvements (or "records"). Of this total, 18.1 percent were pedestrian recommendations, 69.7 percent were recommended bicycle facilities, and 12.1 percent were a combination (bike and pedestrian). The high percentage of bicycle improvements is partly due to the larger access area considered for bicycle recommendations compared to pedestrian recommendations. The types of projects that appear most frequently in the database include recommended bike lanes and sharrows, though many other types of improvements were also common (see Figures 1 and 2 below). Interestingly, 71.7 percent of the records were recommendations for new facilities versus recommended changes to existing facilities (25.4 percent). Other key statistics from the database are presented below and on the subsequent page.

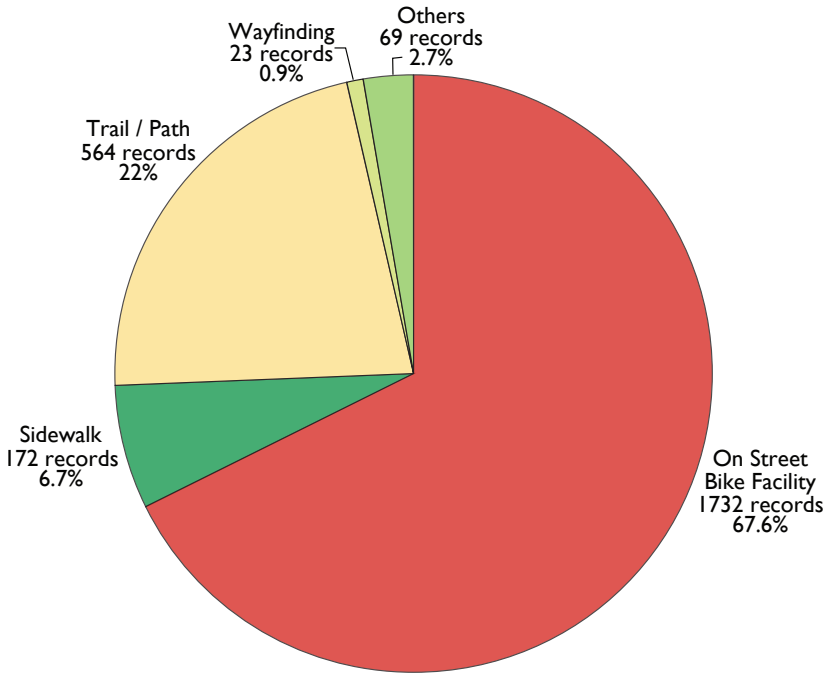


Figure 1. Linear Recommendations

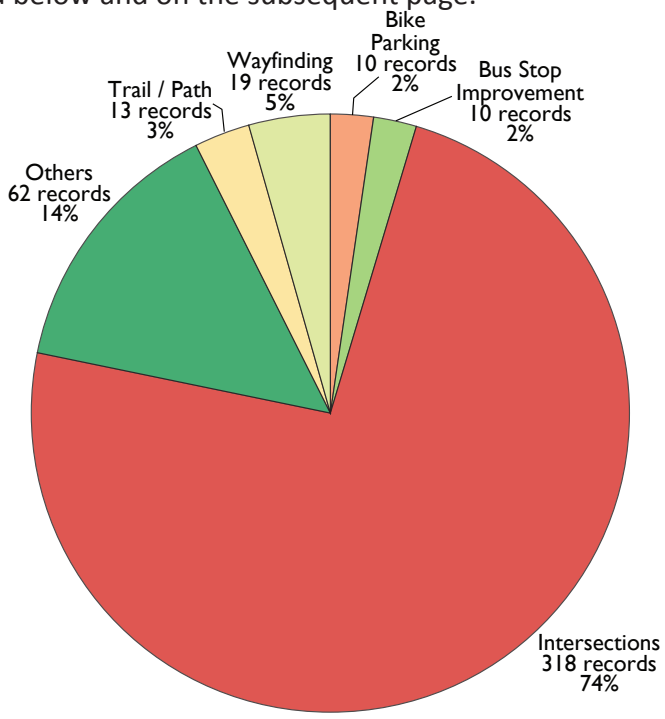


Figure 2. Spot Recommendations

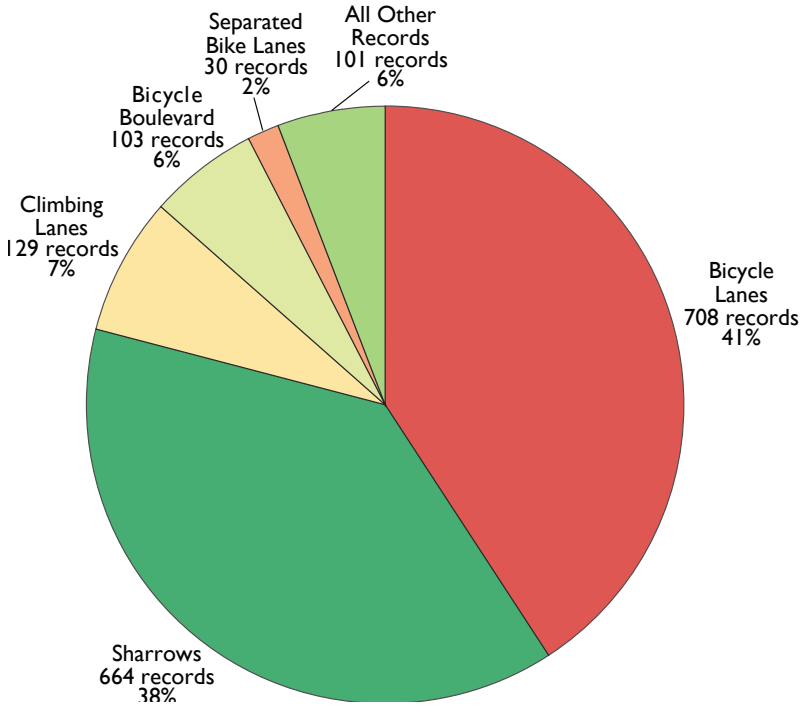


Figure 3. On Street Bicycle Facility Recommendations

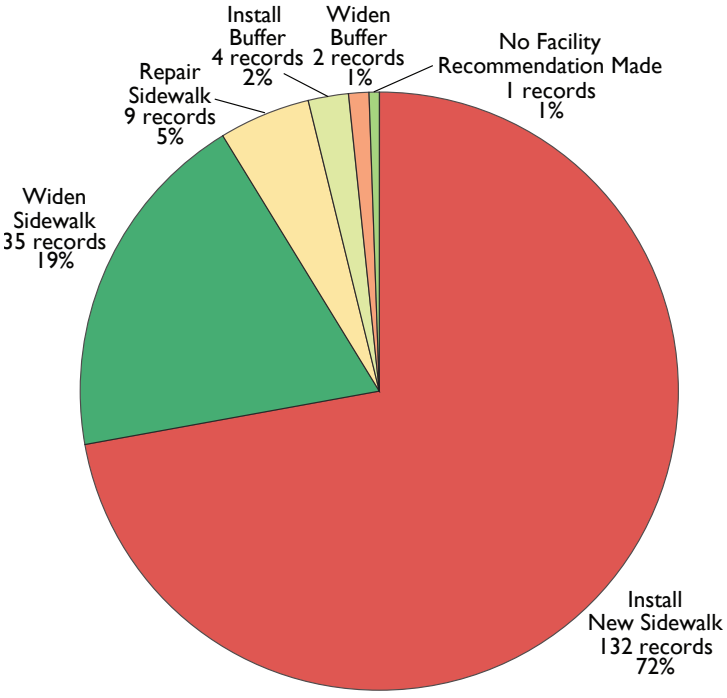


Figure 4. Sidewalk Recommendations

STATION	NUMBER OF RECORDS
King Street	661
McLean	377
Dunn Loring-Merrifield	301
Eisenhower Avenue	174
Largo Town Center	160

Table 1. Top Five Stations by Number of Records

STATION	NUMBER OF PED/BIKE FATALITIES
Mt. Vernon Square/ 7th St Convention Center	3
Woodbridge	2
Eisenhower Avenue	1

Table 2. Stations with Greatest Number of Ped/Bike Fatalities within one mile (2012 data)

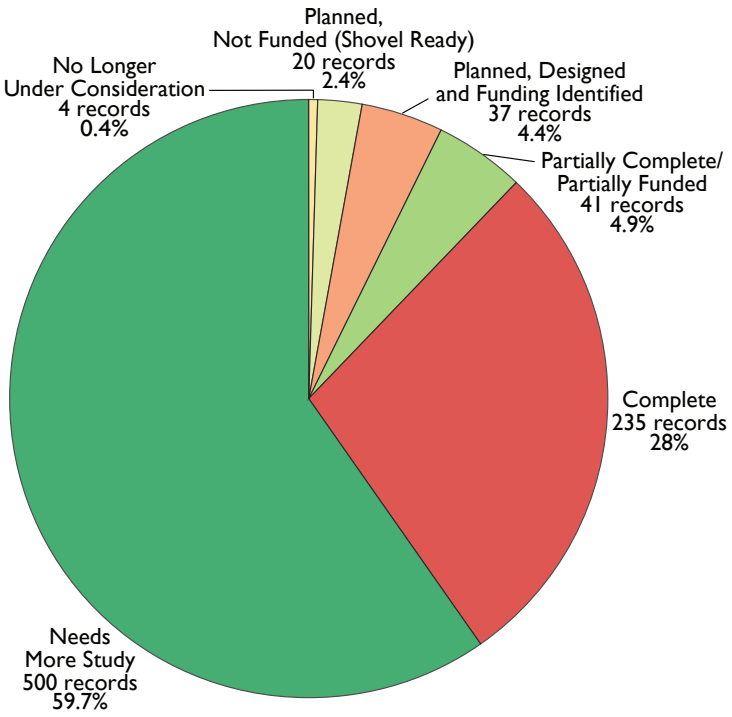


Figure 5. Completion Status of Recommendations
(Data available for 33% of linear records)

STATION	NUMBER OF JOBS IN STATION AREA
Pentagon City	49,330
Virginia Square	34,656
Silver Spring	30,931
Mt. Vernon Square / 7th St Convention Center	29,773
Twinbrook	24,859

Table 3. Top Five Stations by Current Local Employment

STATION	PERCENTAGE OF HOUSEHOLDS WITHOUT VEHICLES
Congress Heights	35.1%
Anacostia	33.6%
Mt. Vernon Square / 7th St Convention Center	33.2%
Waterfront / SEU	32.9%
Minnesota Avenue	27.4%

Table 4. Top Five Stations with Lowest Percentage Car Ownership

COST INFORMATION	
AVERAGE TOTAL COST PER STATION:	$31,892,989
Station with Lowest Total Improvement Cost	Virginia Square: $4,613,087
Station with Highest Total Improvement Cost	Largo Town Center: $90,275,755

Table 5. Cost Information

PROJECT TYPE	TOTAL COST ESTIMATE (PLANNING LEVEL)
Trail/Path	$442,806,254
On Street Bike Facility	$197,084,175
Other (New streets, lighting, combination improvements)	$84,558,162
Sidewalk	$37,117,965
Intersection	$34,625,849
Bike Parking	$756,684
Bus Stop Improvements	$317,761
Wayfinding	$60,380

Table 6. Improvement Cost Estimates by Project Type

Conclusion and Next Steps

Improving pedestrian and bicycle access to existing rail stations has the potential to benefit the region in a number of ways. For individuals, it can support lower transportation expenses and help counteract the high cost of living associated with many transit-adjacent locations. For governments and taxpayers, it can help maximize the efficiency of the existing transportation system, supporting increased transit ridership without adding more vehicles to roads near stations. Last, bicycle and pedestrian improvements can be part of a broader strategy to beautify streets, support active living and promote economic development in neighborhoods and districts. For these reasons, the Transportation Planning Board (TPB) recognizes that individual, local investments in pedestrian and bicycle infrastructure can have regional benefits, including fostering accessible, connected Activity Centers and a more efficient regional transit system.

This project provides TPB and local jurisdictions an inventory of the planned recommendations from throughout the region related to pedestrian and bicycle access near select rail stations. It also presents information on the completion status and cost of infrastructure investments that could improve access to regional transit. There are a number of ways this database can be used. TPB staff can consult the database when pursuing or distributing grant funding and identifying important inter-jurisdictional pedestrian/bicycle connections. Likewise, jurisdictions may use the database in local project/funding prioritization efforts, when working through development applications near stations, to identify sub-areas that need additional planning focus, or when planning pedestrian/bicycle improvements that cross jurisdictional lines.

TPB staff have identified a number of next steps to support the success of this project:

- Completion status has been identified for 33 percent of the linear records in the database. Following release of the database, staff will work with jurisdiction staff to identify completion status for a larger number of records. To monitor progress on completion status, staff plans to update the database yearly for the next five years.
- To increase awareness of the database and potential uses, staff will do additional outreach to member agencies and other regional partners over the coming months.
- Future TLC solicitations will encourage TLC applications focused on the 25 stations in this project, and emphasize this database as a resource for identifying possible TLC projects for more focused planning or design. Staff will also explore ways to use the TCSP database to enhance the Transportation Alternatives Program.
- TPB staff will coordinate with WMATA on its Opportune Station Analysis project, a complementary and parallel effort led by the WMATA Office of Long Range Planning to identify and prioritize access improvements for select Metro stations. The TCSP database does not include any prioritization of projects. A second phase to this project could include prioritizing recommendations at the station-level and jurisdiction-level, with input from jurisdiction staff, to provide guidance on high-impact access improvements.

For more information contact:

John Swanson
Principal Transportation Planner
Transportation Planning Board
jswanson@mwcog.org, 202-962-3295

Project completed by:

Toole Design Group
with support from KFH Group

Improving Pedestrian/Bicycle Access at Select Rail Stations

Federal Grant Project from the Transportation, Community and Systems Preservation Program (TCSP)

Transportation Planning Board
John Swanson, Principal Transportation Planner
May 20, 2015

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD

Overview

- Thesis: If we improve pedestrian and bicycle access to select rail stations, we can tap underutilized capacity on our transit system.
- This project identified:
  - 25 "opportune" stations that can accommodate new riders.
  - An inventory of approximately 3,000 capital improvements for ped/bike access.

25 Opportune Stations

TPB Project Selected Stations

Pentagon City, Arlington County
Virginia Square, Arlington County
Eisenhower Avenue, City of Alexandria
King Street, City of Alexandria
Anacostia, District of Columbia
Capitol Heights, District of Columbia and Prince George's County
Congress Heights, District of Columbia
Friendship Heights, District of Columbia and Montgomery County
Minnesota Avenue, District of Columbia
Mt. Vernon Square/7th St Convention Cntr, DC
Rhode Island Avenue, District of Columbia
Waterfront SEU, District of Columbia
Dunn Loring/Merrifield Avenue, Fairfax County
Franconia/Springfield, Fairfax County
McLean, Fairfax County
Silver Spring, Montgomery County
Twinbrook, Montgomery County
Wheaton, Montgomery County
White Flint, Montgomery County
Branch Ave, Prince George's County
Largo Town Center, Prince George's County
New Carrollton, Prince George's County
Prince George's Plaza, Prince George's County
West Hyattsville, Prince George's County
Woodbridge, Prince William County

Improving Pedestrian/Bicycle Access at Select Rail Stations

This map contains planned pedestrian/bicycle improvements and recommendations for 25 "opportune stations" in the Metropolitan Washington Council of Governments region. For more information about "opportune stations" or about this project, use the menu below to click: About & Help > Instructions.

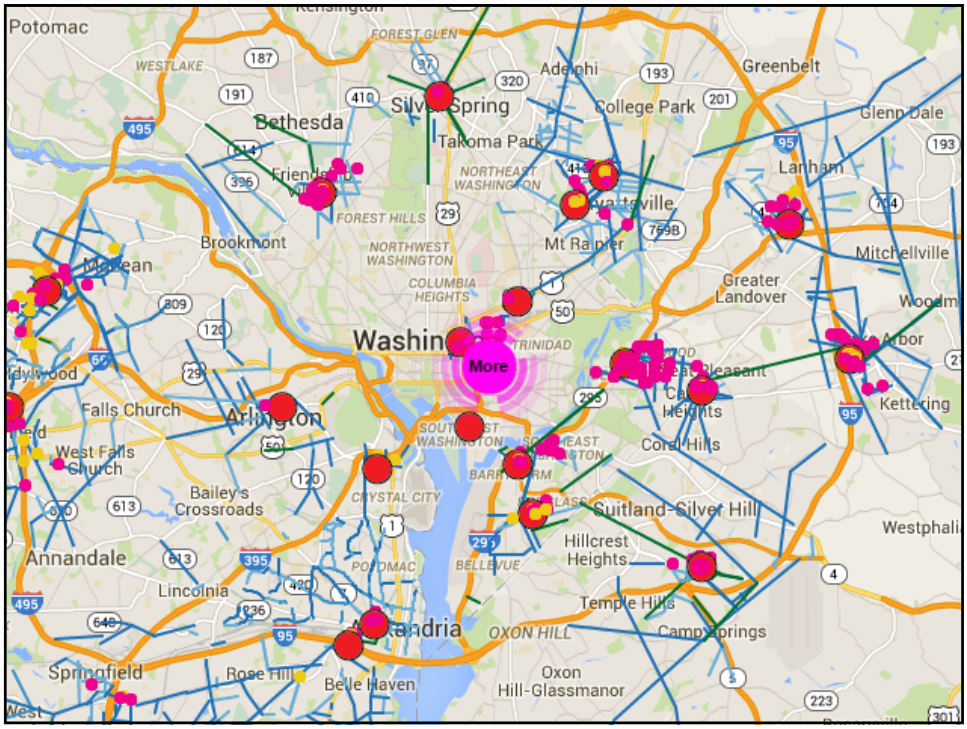
BASEMAP
- Opportune Station
- 1-Mile Buffer
- 3-Mile Buffer

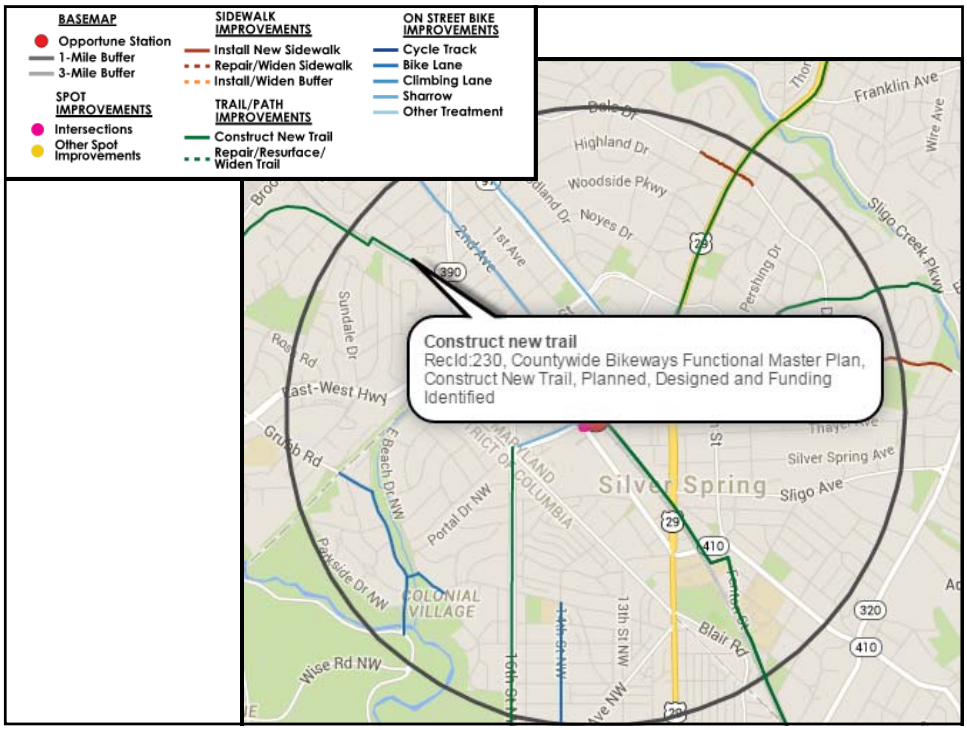
SPOT IMPROVEMENTS
- Intersections
- Other Spot Improvements

SIDEWALK IMPROVEMENTS
- Install New Sidewalk
- Repair/Widen Sidewalk
- Install/Widen Buffer

TRAIL/PATH IMPROVEMENTS
- Construct New Trail
- Repair/Resurface/ Widen Trail

ON STREET BIKE IMPROVEMENTS
- Cycle Track
- Bike Lane
- Climbing Lane
- Sharrow
- Other Treatment


Potomac
Bethesda
Silver Spring
Takoma Park
Adelphi
College Park
Greenbelt
Glenn Dale
Lanham
Mitchellville
Greater Landover
Brookmont
Mt Rainier
Falls Church
Arlington
West Falls Church
Bailey's Crossroads
Annandale
Lincolnia
Springfield
Rose Hill
Belle Haven
Oxon Hill-Glassmanor
Suitland-Silver Hill
Hillcrest Heights
Temple Hills
Camp Springs
Coral Hills
Kettering
Westphali
More


BASEMAP
Opportune Station
1-Mile Buffer
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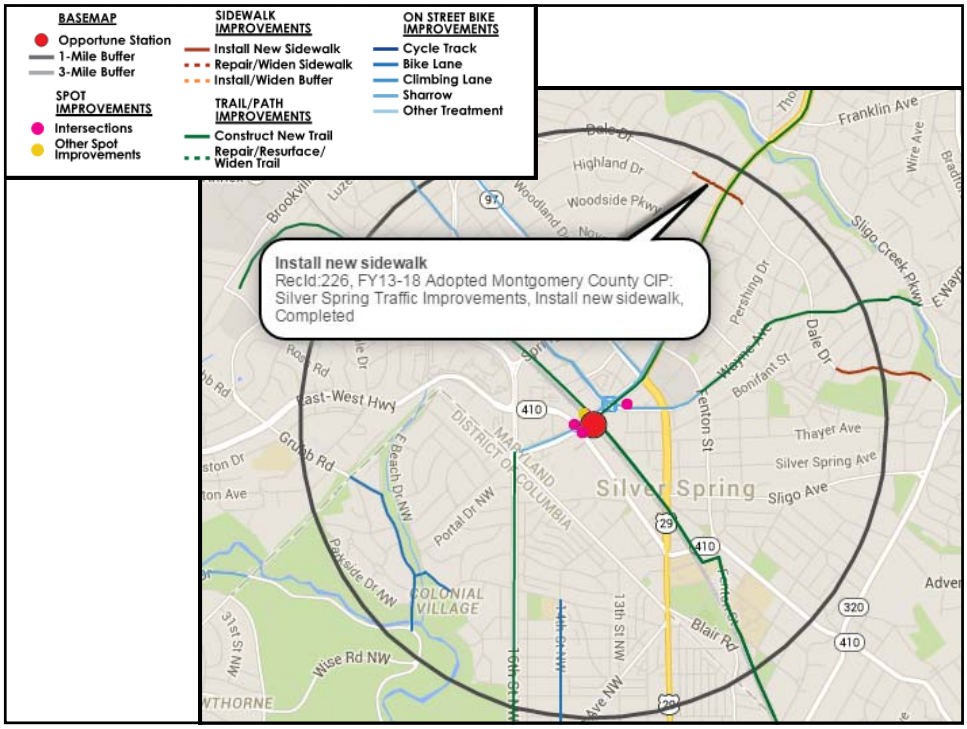
Construct New Trail
Repair/Resurface/ Widen Trail
ON STREET BIKE IMPROVEMENTS
Cycle Track
Bike Lane
Climbing Lane
Sharrow
Other Treatment
Construct new trail
RecId:230, Countywide Bikeways Functional Master Plan, Construct New Trail, Planned, Designed and Funding Identified
Silver Spring
Franklin Ave
Highland Dr
Woodside Pkwy
Noyes Dr
Sligo Creek Pkwy
Sligo Ave
Silver Spring Ave
East-West Hwy
Grubb Rd
Portal Dr NW
Colonial Village
Blair Rd
Wise Rd NW



Next Steps

- Wrap-up the grant
- Additional outreach
- Establish a system to track implementation
- Coordinate with WMATA on station access strategic investment planning
- Integrate with other TPB/COG programs including TLC and TAP

ITEM 8 - Information
May 20, 2015

Briefing on Metro's Connecting Communities
Key Performance Indicator, Walkability Research, and
Station Area Strategic Investment Plan

Staff Recommendation: Receive briefing.

Issues: None

Background: Metro's strategic goal to "connect communities" seeks to improve regional mobility by enhancing access to our transit system. This briefing will explain the framework for measuring this goal, explore new research on walkable station areas that builds the case for station connectivity, and discuss a new study that leverages the TPB's recent TCSP study (Item 7 above) by compiling and prioritizing walk/bike access projects within a half mile of all of Metro's 91 stations.

Washington Metropolitan Area Transit Authority

Connecting Communities through Walkable Station Areas

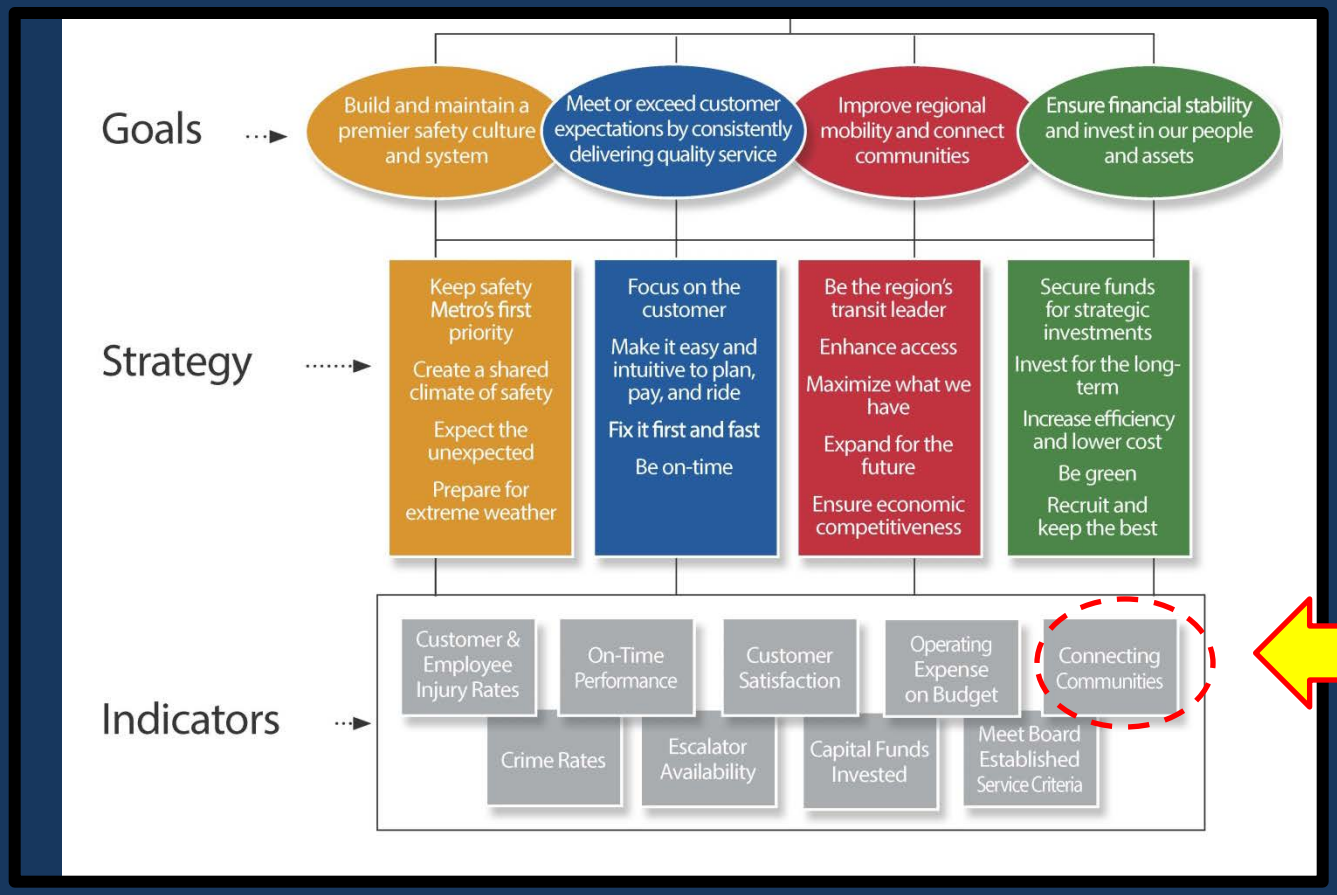
Transportation Planning Board
May 20, 2015

Kristin Haldeman, Metro Office of Planning

Agenda

- Metro's Connecting Communities Key Performance Indicator (KPI)
- Walkshed Research
- Station Area Strategic Investment Plan Project

Metro's Strategic Goal Framework



Why Connecting Communities Matters

- Access to Metro means access to opportunity
- Concentrating growth near transit maximizes use of regional infrastructure
- Connecting communities to transit attracts more ridership
- More ridership contributes to lower carbon footprints

Connecting Communities Defined

Grow Near Transit

- Transit-oriented development
- Zoning
- Planning

Expand Transit

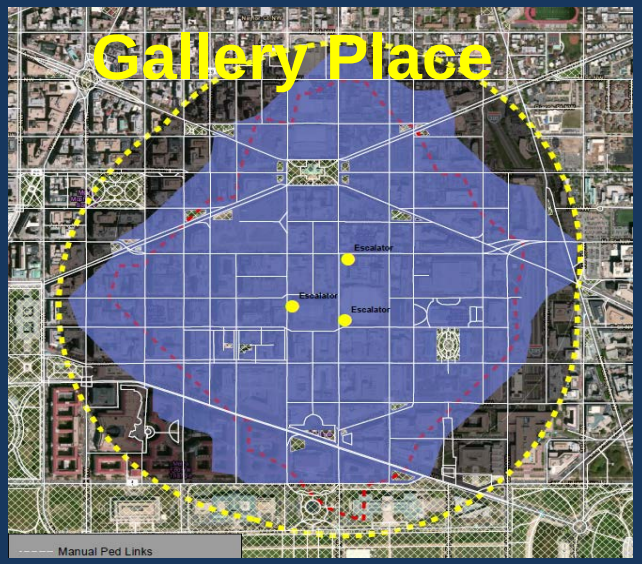
- Expand bus routes
- Build new Metrorail lines and stations

Improve Access to Your Stations

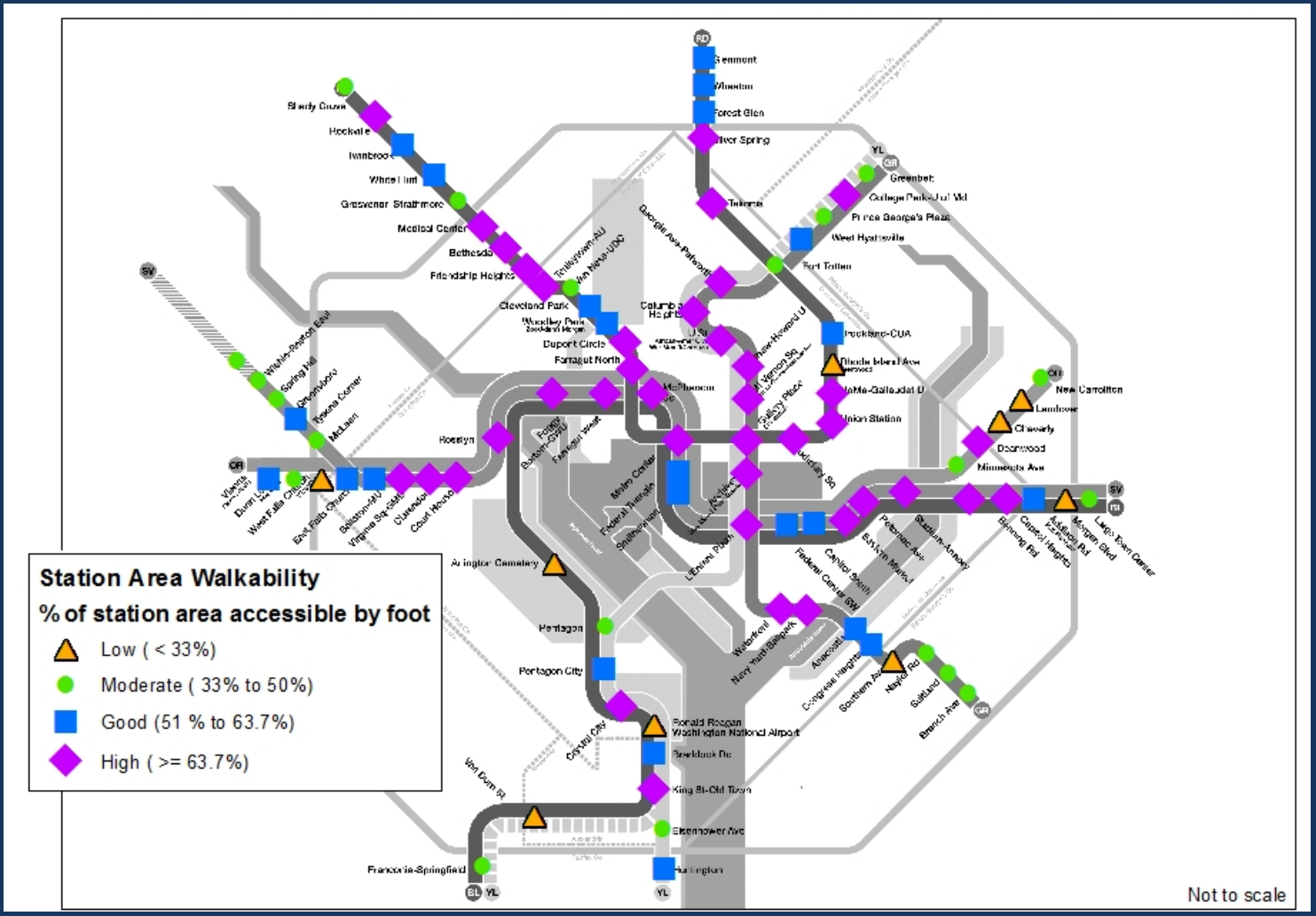
- Fix pedestrian barriers
- Build paths and sidewalks

Refining Station Walk Sheds

- Walking distance ½ mile from rail station
  - ➢ *Accounts for actual network – not as crow flies*
- Eliminate undevelopable land from calculation
- Add in ‘social’ connections
- Calculate ‘coverage ratio’



Results, Walk Shed Coverage



Land Use and Ridership Connection: Making the Case

- Land use near transit directly results in walk ridership at Metrorail stations

Ridership = 7 Trips/ 10 Households

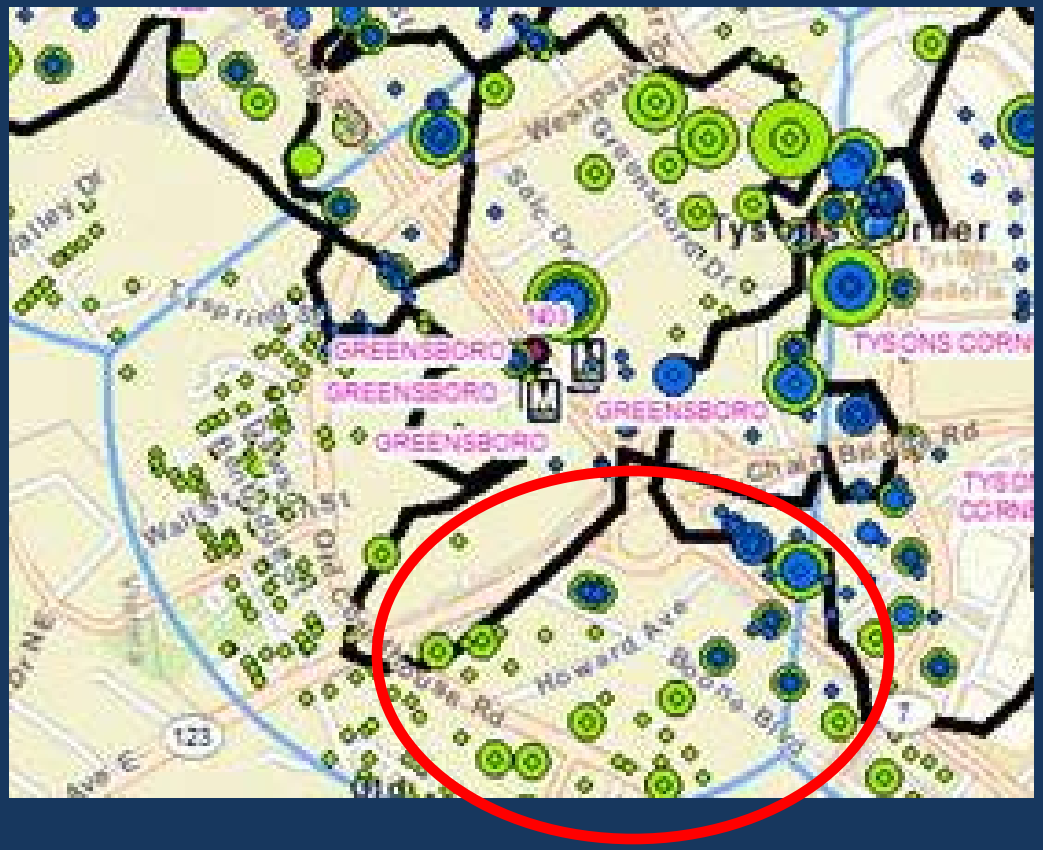
Improving Residential Access: Southern Avenue

Existing Shed

Shed with Connection

Improving Jobs Access to Greensboro Station

- No sidewalks along Route 7 south of Route 123
- 4,800 jobs within ½ mile of station, but outside shed
- 1,000 potential trips per day
- $875K in potential annual revenue



Station Area Strategic Investment Plan

- *Build off TCSP project* – inventory remaining 67 stations
- Estimate project costs
- Prioritize projects
- Create updatable interactive map

Prioritization Criteria

- Safety
- Walk shed/ ridership growth
- Directness
- Feasibility/ cost
- Access & equity

THANK YOU

ITEM 9 - Information
May 20, 2015

Briefing on the DC2RVA High-Speed Rail Project Under Development by the Virginia Department of Rail and Public Transportation

Staff Recommendation: Receive briefing.

Issues: None

Background: The Board will be briefed on the Tier II Environmental Impact Statement (EIS) process currently underway for the Washington, D.C. to Centralia, Virginia corridor (the DC2RVA high-speed rail project). The Tier II EIS, initiated in the fall of 2014, follows a Tier I EIS completed in 2002 for the larger Washington, D.C. to Charlotte, NC corridor. VDRPT will be holding three public meetings in early June in Richmond, Fredericksburg and Alexandria to solicit public comment on the process that will be used to evaluate potential alternatives for improvements in the project corridor. Completion of the Tier II EIS is currently scheduled for late 2017.

DC TO RICHMOND
SOUTHEAST HIGH SPEED RAIL

DC2RVA Project Update

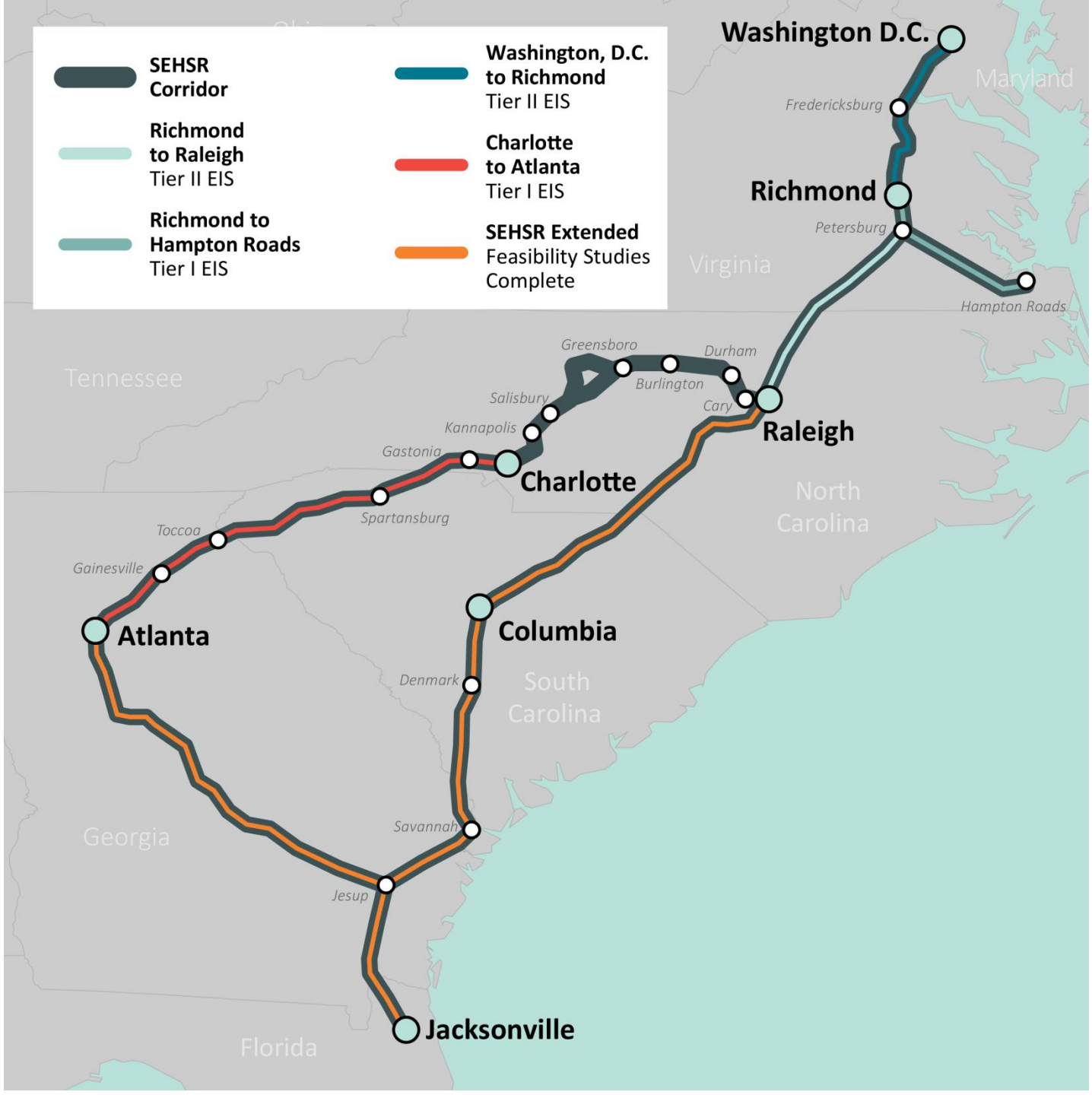
Emily Stock, AICP
Project Manager

Metropolitan Washington Council of Governments
Transportation Planning Board
May 20, 2015

DRPT Virginia Department of Rail and Public Transportation
U.S. Department of Transportation Federal Railroad Administration

Agenda

- Project Overview
- Schedule
- Current Activities
- Next Steps



Southeast High Speed Rail (SEHSR)

DC TO RICHMOND SOUTHEAST HIGH SPEED RAIL

Project Snapshot

123-Mile Corridor

Northernmost Segment of the SEHSR Corridor

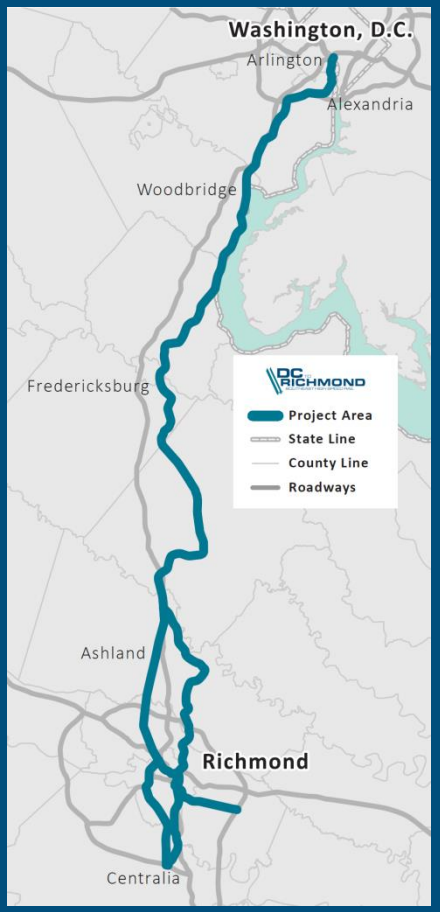
Connects to the Northeast Corridor

Preliminary Engineering and Environmental Review

Ridership and Revenue Review

Station Area Improvements

Service Frequency



Project Sponsor:

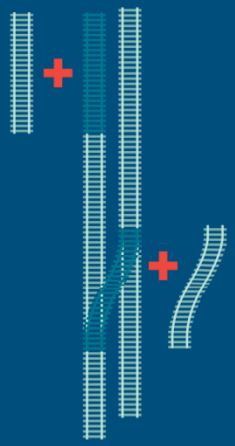
DRPT
Virginia Department of Rail and Public Transportation

Lead Federal Agency:

U.S. Department of Transportation
Federal Railroad Administration

Improvement Concepts

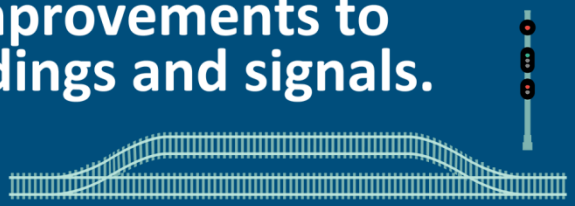
Construction of additional main line tracks and crossovers.



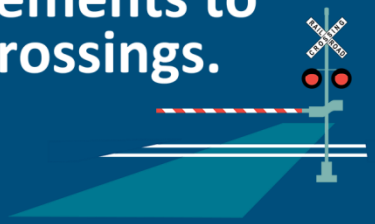
Straightening of curves.

Station area improvements.

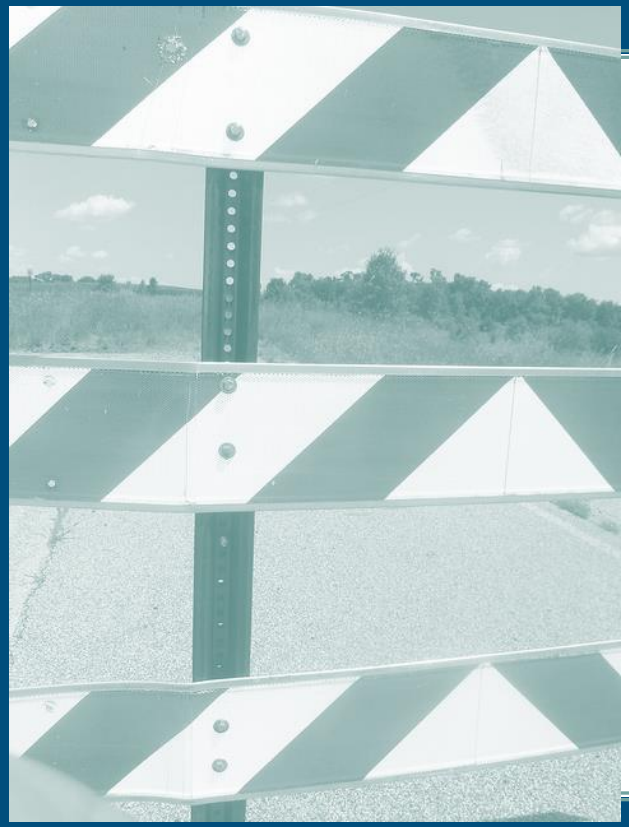
Improvements to sidings and signals.



Improvements to grade crossings.

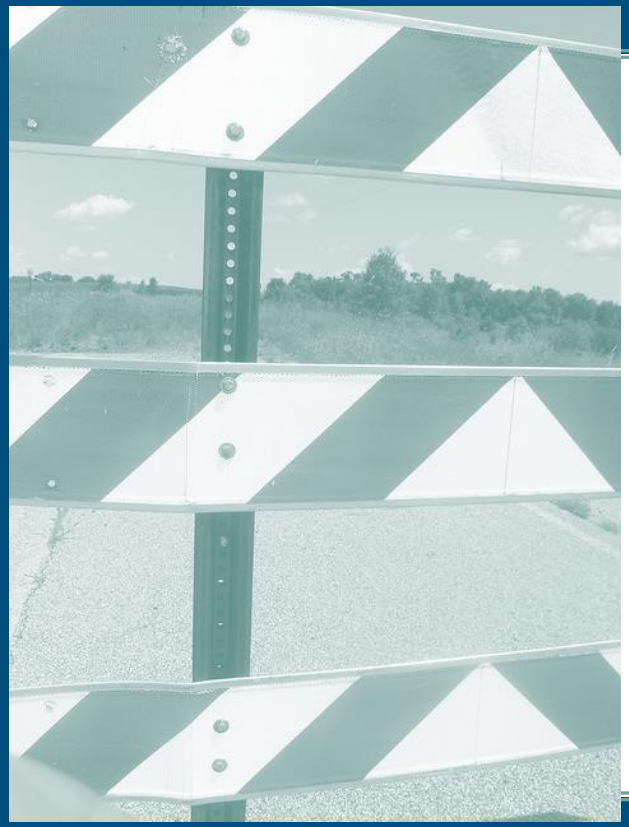


Challenges



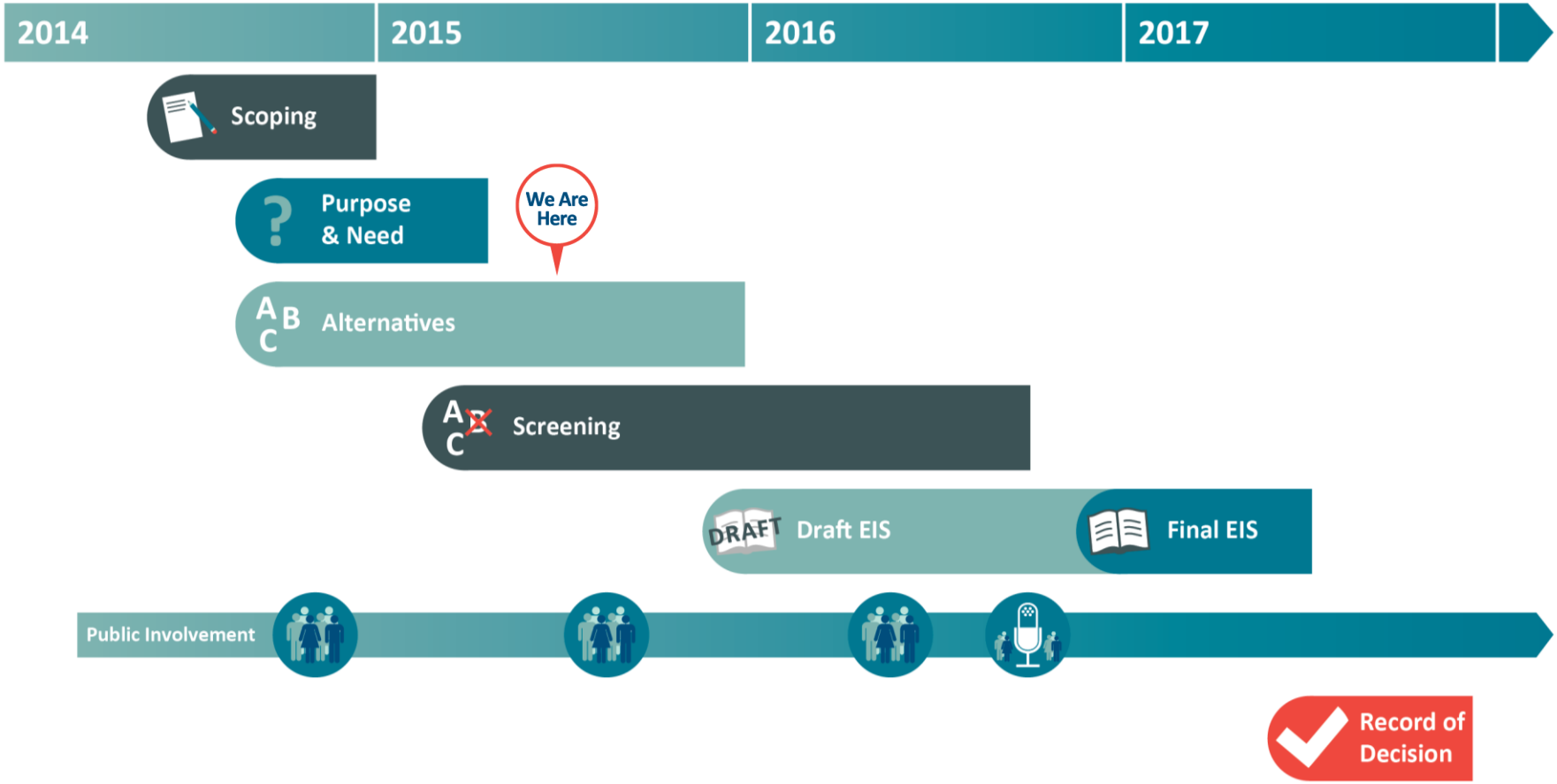
- Updating key elements of the 2002 SEHSR Tier I EIS
- Effectively applying past studies
- Addressing unresolved corridor issues
- Considering future VRE, Amtrak, and CSX plans

Coordination – Northern region



- VRE System Plan
- DDOT Long Bridge Project
- CSX Virginia Avenue Tunnel
- Arkendale to Powells Creek + other projects underway

Project Update | Where Are We Now?



Service Goals

Service Goals

Reliability

Travel Time

Frequency

Number of Trains by Segment 2015

Washington D.C. to Alexandria — **Total Trains: 85**

Amtrak: **23** VRE: **30** CSX: **30** Norfolk Southern: **2**

Alexandria to Fredericksburg/Crossroads — **Total Trains: 64**

Amtrak: **20** VRE: **14** CSX: **30** Norfolk Southern: **0**

Fredericksburg/Crossroads to Acca Yard — **Total Trains: 50**

Amtrak: **20** VRE: **0** CSX: **30** Norfolk Southern: **0**

Acca Yard to Richmond — **Total Trains: 14**

Amtrak: **4** VRE: **0** CSX: **10** Norfolk Southern: **0**

Richmond to Centralia S-Line — **Total Trains: 10**

Amtrak: **0** VRE: **0** CSX: **10** Norfolk Southern: **0**

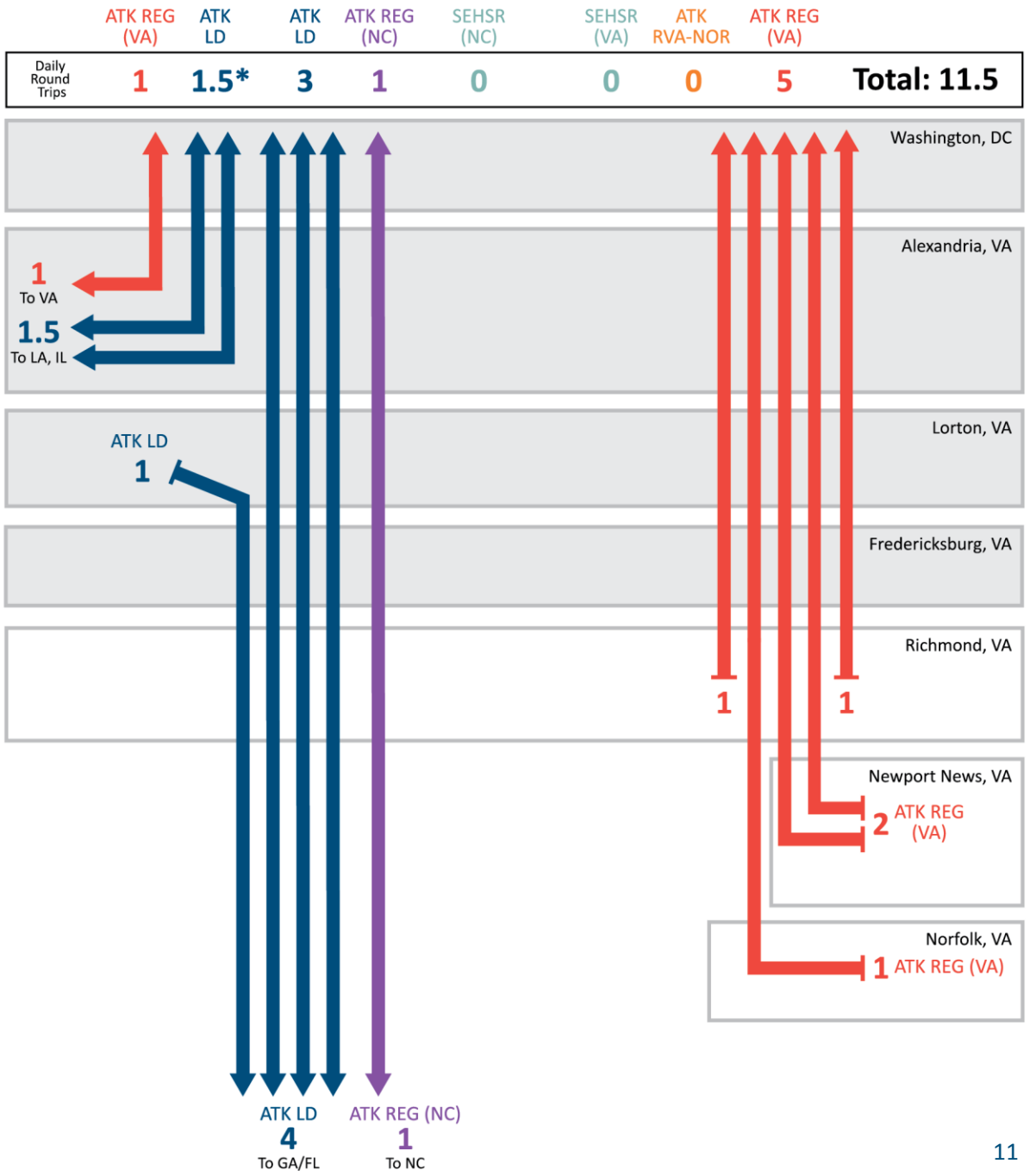
Acca Yard to Centralia A-Line — **Total Trains: 37**

Amtrak: **12** VRE: **0** CSX: **25** Norfolk Southern: **0**

Intercity Passenger Train Frequencies

2015

- Amtrak Long-Distance (ATK LD)
- State-supported Amtrak Regional Service, Virginia (ATK REG VA)
- State-supported Amtrak Regional Service, North Carolina (ATK REG NC)
- Richmond-Norfolk Shuttle (ATK RVA-NOR)
- Southeast High Speed Rail (SEHSR)
- Existing train extended to Norfolk
- City also served by VRE commuter trains
- * Operates 3x/week



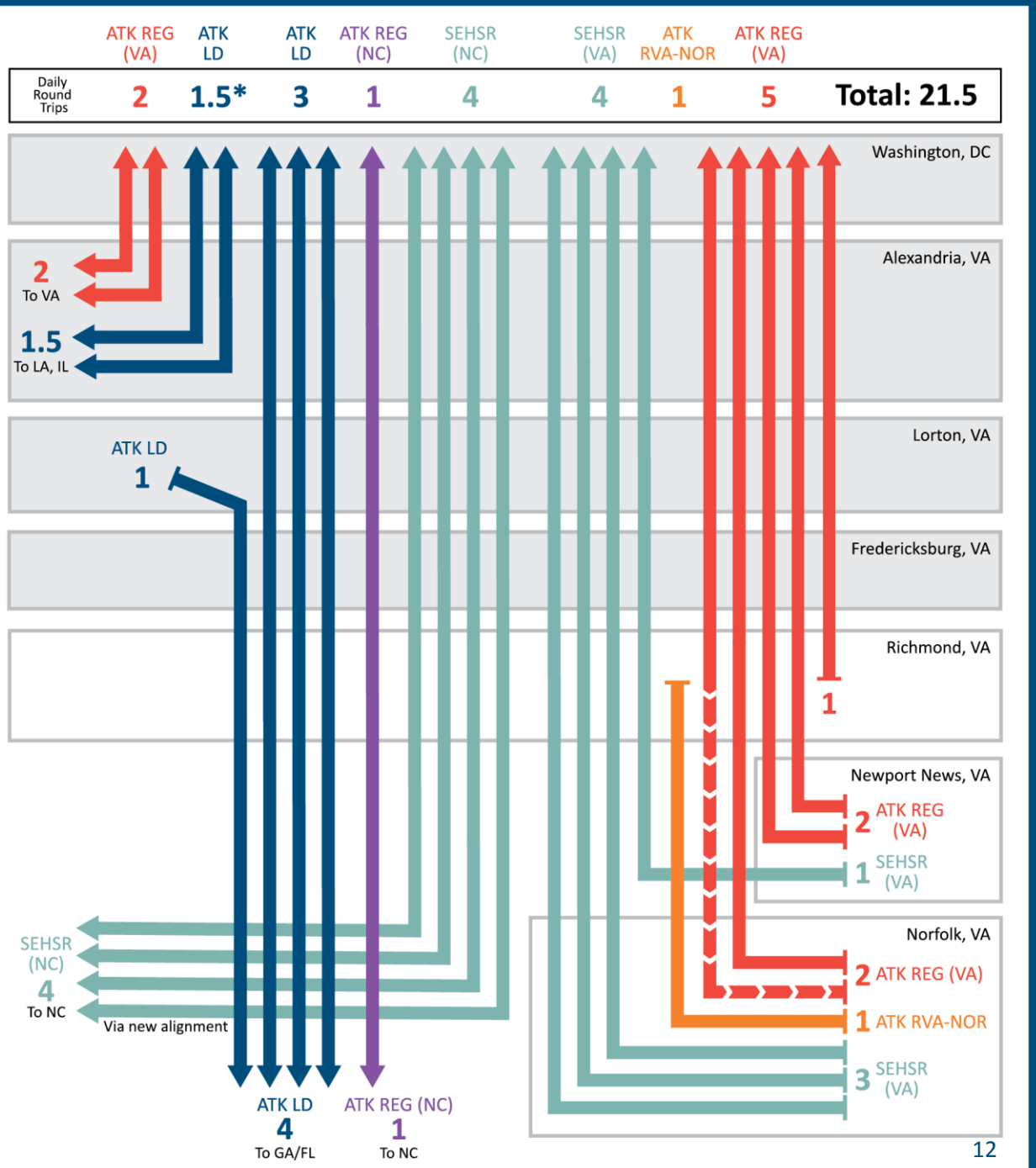
Intercity Passenger Train Frequencies

Future

- Amtrak Long-Distance (ATK LD)
- State-supported Amtrak Regional Service, Virginia (ATK REG VA)
- State-supported Amtrak Regional Service, North Carolina (ATK REG NC)
- Richmond-Norfolk Shuttle (ATK RVA-NOR)
- Southeast High Speed Rail (SEHSR)
- Existing train extended to Norfolk
- City also served by VRE commuter trains
- * Operates 3x/week

Changes from 2015

- 8 new SEHSR round trips
  - 4 to NC
  - 3 to Norfolk
  - 1 to Newport News
- 1 new Regional round trip to Lynchburg via Norfolk Southern
- One new Richmond-Norfolk Shuttle



Define Alternatives

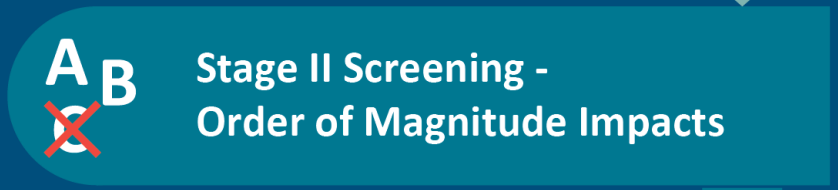
Design Options

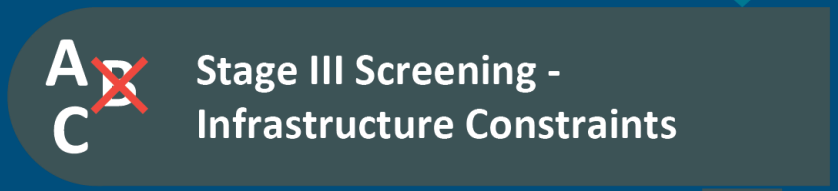
- -Rail Alignment
- -Stations
- -Road/Rail Crossings

Service Options

- -Frequency of Service
- -Schedule
- -Station Stops

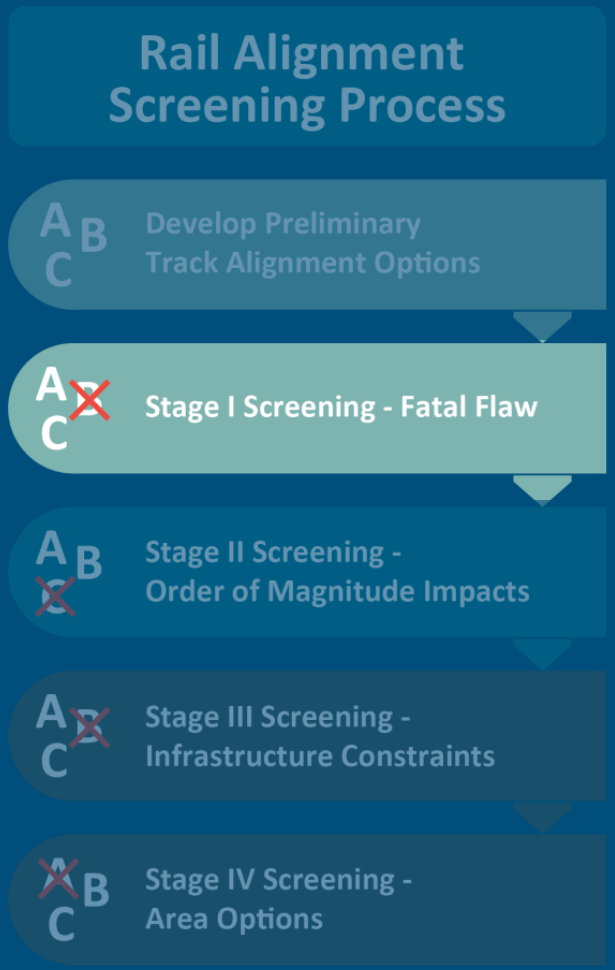
Rail Alignment Screening Process





DC TO RICHMOND
SOUTHEAST HIGH SPEED RAIL

Next Steps | Screening Continues



- Continue screening alternatives to identify narrowed range of reasonable alternatives
- These reasonable alternatives will be presented for comment at a third set of public meetings

Next Steps | June Public Meetings

Alexandria – Monday, June 1, 2015
Hilton Alexandria Old Town
1767 King Street

Fredericksburg – Tuesday, June 2, 2015
Dorothy Hart Community Center
408 Canal Street

Richmond – Wednesday, June 3, 2015
Department of Motor Vehicles
2300 W. Broad Street

**Open House format from 5:00 to 7:30 pm each evening.*

Thank you!

Emily Stock

804-786-1052

Emily.Stock@drpt.virginia.gov

www.dc2rvarail.com

DC TO RICHMOND
SOUTHEAST HIGH SPEED RAIL

ITEM 10 - Information
May 20, 2015

Briefing on the Activities of the COG Multi-Sector Working Group to Examine and Analyze Greenhouse Gas Reductions Strategies in the Metropolitan Washington Region

Staff Recommendation: Receive briefing.

Issues: None

Background: At its December 17 meeting, the Board committed staff and resources to support a multi-sector, multi-disciplinary professional working group convened by COG to examine and analyze viable, implementable Land Use, Transportation, Energy and Built Environment greenhouse gas reductions strategies. The Board will be briefed on the activities of the COG multi-sector working group and the strategies that have been recommended for analysis.

MEMORANDUM

May 14, 2015

To: **Transportation Planning Board**

From: **Robert E. Griffiths**
Director, Plan Development and Data Programs
Department of Transportation Planning

Subject: **Status Report on COG Greenhouse Gas Reduction Multi-Sector Working Group**

Purpose

The purpose of this memorandum is to provide the Board with a status report on the activities of the COG Multi-Sector Working Group (MSWG) established to identify and analyze potential strategies to reduce Greenhouse Gas (GHG) emissions in Washington metropolitan region.

Background

In December 2014, the TPB affirmed the greenhouse gas reduction goals adopted by COG and committed staff and resources to support a multi-sector, multi-disciplinary professional working group to identify and analyze implementable local, regional and state actions in four sectors (Land Use, Transportation, Energy and Built Environment) that would support the region's GHG reduction goals. In addition, this MSWG is charged with exploring GHG goals, measures and/or targets in each of the four sectors.

The proposed schedule for the MSWG is as follows:

January 2015
- Establish and convene MSWG

February- April
- Obtain contractor support and assistance
- Land Use, Transportation, Energy and Built Environment Subgroups identify strategies for analysis
- Seek public input on proposed strategies

May - August
- MSWG recommends strategies for quantitative analysis
- Consultant performs technical analyses of identified multi-sector strategies
- MSWG reviews consultant analyses
- Consultant drafts Interim Technical Report
- Consultant presents information on GHG goals and targets in other regions

September - October
- Interim Technical Report presented to COG Board, TPB, MWAQC, CEEPC
- Public input on Interim Report
- MSWG explores potential goals, targets by sector in metropolitan Washington region

November - December
- Contractor prepares draft Final Technical Report that includes explorations of goals and targets
- Public Input on draft Final Technical Report
- Report presented to TPB, MWAQC, CEEPC

January 2016
- Final Technical Report to COG Board

Status Report on MSWG Activities

The MSWG was convened on January 30th and Land Use, Transportation, and Energy/Built Environment Sector Subgroups were established. The three Sector Subgroups met in February and March to brainstorm and identify potential GHG reduction strategies. In March, the Land Use and Transportation Sector Subgroups met jointly because of the strong inter-relationships between Land Use and Transportation GHG reduction strategies.

In mid-March a consultant to support the work of the MSWG was selected and was brought on board in early April. The consultant, ICF International, reviewed the initial list of strategies identified for the Land Use, Transportation, Energy and Built Environment Sectors and prepared technical memorandums providing detailed descriptions of the strategies for 38 GHG reduction strategies, 6 in the Land Use Sector, 21 in the Transportation Sector and 11 in the Energy/Built Environment Sector. In addition, the consultant prepared three spreadsheet tables that provided an initial qualitative assessment of these strategies.

The Energy/Built Environment Sector Subgroup reviewed the 11 in the Energy/Built Environment Sector strategies on April 13th and the Land Use and Transportation Sectors met jointly on April 17th to review the strategy descriptions and initial qualitative assessments provided by the consultant. At these meetings the Sector Subgroups suggested further refinements to the strategies and provided comment on the strategies believed to be most promising and worthy of more detailed quantitative analysis.

Public input on all 38 GHG reduction strategies was sought from April 9th through April 22nd. The TPB Citizens Advisory Committee (CAC) was briefed on the initial set of identified strategies on April 9th and the Air and Climate Public Advisory Committee (ACPAC) was briefed on April 20th. Additional public was also sought and solicited via COG website and comments from 14 individuals and organizations were received. Staff compiled the public comments on the strategies and provide this input to the consultant on April 24th.

The consultant reviewed the additional input from the Sector Subgroups and the comments received public and prepared a refined list of 22 strategies of recommended for detailed quantitative analysis, 10 in the Energy/Built Environment Sector and 12 combined strategies in the Land Use and Transportation Sectors. The strategies in the Land Use and Transportation Sectors were combined because of the close interrelationships of GHG reduction strategies in these two sectors. The refined list of recommended 22 strategies of recommended by the consultant for detailed quantitative was reviewed by the MSWG on May 8th.

GHG Reduction Strategies Recommended for Quantitative Analysis

Energy and Built Environment Strategies

EBE-1: Existing Buildings - Energy and water performance
EBE-2: Building-level renewables
EBE-3: Encourage development in activity centers
EBE-4: New Buildings - Energy and water performance
EBE-5: Infrastructure – Energy and water performance and increase renewable energy use
EBE-6: Reduction in power sector emissions
EBE-7: Reduction in gas pipeline leaks
EBE-8: Reduction in municipal solid waste
EBE-9: Reduction in emissions from non-road engines
EBE-10: Educate and motivate public

Transportation and Land Use Strategies

TLU-1: Increase Urban Tree Canopy and Land Stewardship
TLU-2: Sustainable Development Patterns & Urban Design
(Including Enhancements for Non-motorized Modes)
TLU-3: Improve Fuel Economy of Light-duty Vehicle Fleet
TLU-4: Increase Alternative Fuels in Public Sector Fleets
TLU-5: Clean Freight Technologies
TLU-6: Low Carbon Fuel Standard
TLU-7: Enhance System Operations
TLU-8: Reduce Speeding on Freeways
TLU-9: Travel Demand Management
TLU-10: Transit Enhancements
TLU-11: Transit Incentives / Fare Reductions
TLU-12: Road Pricing

The detailed descriptions of the strategies recommended for quantitative analysis can be found at:

http://www.mwcog.org/committee/committee/documents.asp?COMMITTEE_ID=285

Next Steps

The MSWG suggested some further refinements to the details of the strategies recommended for quantitative analysis, but reached overall agreement on the consultant recommendations with one major modification. This modification was to expand strategy EBE-10: (Educate and motivate public to take GHG reduction actions) to also include the Land Use and Transportation sector actions. It was also recommended that the consultant's Interim Report on the analysis of the recommended strategies note the GHG reduction impacts of the adoption of LEED standards by local jurisdictions for new building construction and the impacts of roadway bottleneck relief / targeted capacity improvements that already have been included in local land use and regional transportation plans and, thus, already included in the baseline for this analysis.

With the consensus reached at the May 8th meeting the consultant will now begin the detailed quantitative analysis of the combined list of 22 strategies and prepare the results of this analysis for review by the Sector Subgroups and MSWG in July. In a parallel track the MSWG will meet on June 18th to receive information from the consultant on GHG reduction goals and targets in other metropolitan regions.

MEMORANDUM

To: Robert Griffiths, Multi-Sector Working Group Project Director

From: Michael Grant, Erika Myers, Lauren Pederson, Bill Prindle, Parker Crowe, ICF International

Rich Kuzmyak, Renaissance Planning

Date: May 1, 2015

Re: Task 3: Tech Memo on Combined Sector List of Strategies to be Analyzed

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The purpose of this memorandum is to present ICF's recommended list of greenhouse gas (GHG) reduction strategies proposed for analysis, along with a description of methodologies to be used to analyze these strategies. The list was developed based on discussions with the Energy and Built Environment Subgroup and the Transportation and Land Use Subgroups of the Multi-Sector Working group (MSWG), and informed by feedback from public input. This memorandum serves as one of ICF's deliverables under Task 3 of this project.

The strategy and measures were developed through brainstorming by the three subgroups. Initial lists were developed, then refined at subgroup meetings. The draft list of strategies and measures were then provided for public comment through the Transportation Planning Board Citizens Advisory Committee, COG's Air and Climate Public Advisory Committee, and COG's web site. ICF reviewed the input from the subgroups and public input, and has developed this consolidated listing of strategies and implementation measures. Subgroup documents and public comments are posted on the Council of Governments website at http://www.mwcog.org/committee/committee/default.asp?COMMITTEE_ID=285.

This listing identifies strategies and implementation measures. Strategies are high-level actions that can be taken to reduce greenhouse gas emissions. They are drafted at a high level to provide for scenario level analysis. The scenarios may include near-term viable actions and stretch actions requiring new policy implementation across the region, states and nation. Implementation measures include actions that could be put in place to support achievement of the strategy level scenarios. These differ from policies, goals and targets that do not directly result in reductions in greenhouse gas emissions. These policies, goals and targets will be separately considered in the next phase of this project.

Energy and Built Environment

First we present the Energy and Built Environment Strategies in Table 1 by strategy groupings (e.g. existing buildings, new buildings), individual strategies (e.g. EBE-1, EBE-2) and potential implementation actions for each strategy (shown in the right-hand column). This list is a modified version of ICF's April 9, 2015 draft list, and incorporates edits discussed at that COG/ICF team meeting, as well as the Energy and Built Environment Working Group meeting that took place on April 13, 2015, and public comment. Following the list of strategies is Table 2, presenting ICF's analysis approach to each of the strategies.

Table 1. Energy and Built Environment GHG Reduction Strategies

Strategy	Measure Description (including possible Implementation Actions)
I. Existing Buildings	
EBE-1: Achieve annual and cumulative reductions in energy and water consumption in existing buildings Scenario: • 2% annual reduction, 30% cumulative by 2030	Leverage utility ratepayer-funded programs to drive energy performance improvements via incentives and technical assistance • Implement continuous commissioning and monitoring, leveraging utility advanced metering data and related utility service offerings. Adopt Architecture 2030 goal, adapted for existing buildings. Extend enforcement of building energy code provisions to better address existing building stock • Adopt new building code-related requirements for energy improvements during renovations, additions, major alterations. Reduce water usage via planning/zoning policies, water utility partnerships • Reduce site water loss via rainwater harvesting and other re-use technologies, stormwater runoff reduction, low maintenance natural landscaping. • Improve water conservation in buildings via fixture efficiencies. Drive private building energy and water performance via mandatory benchmarking, and voluntary challenge initiatives • Adopt benchmarking and disclosure requirements. • Adopt green leasing requirements for public agencies, guidelines for private entities. • Implement occupant sustainability programs, such as upcoming EPA Tenant Star Expand low-income housing energy and water savings by leveraging federal, state, utility resources. • Implement programs to serve low-income residents and support affordability. Expand financing options for energy and water efficiency and renewable energy. • Enable PACE financing via property tax systems. • Develop Green Bank facilities (New York State, Virginia examples). • Provide credit enhancement mechanism such as loan loss reserves. • Support loan aggregation/secondary market development (e.g. WHEEL) • Drive public/institutional energy and water savings via performance contracting, especially for public and institutional buildings.

EBE-2. Support existing building-level renewable energy development Scenario: • Included in EBE-6 level	Support cooperative/aggregated renewable energy purchasing for public, residential and commercial sectors Provide incentives for building-level renewable technologies (e.g. property tax abatements, density allowances). Adopt solar access ordinances and similar regulations to support renewable development.
II. Location Efficiency	
EBE-3: Encourage development in activity centers Scenario: • increase in the proportion of new development built in Activity Centers by 2030. (Cross-referenced with Land Use strategies (L-2); primary assessment to be conducted by Land Use subgroup)	Update comprehensive plans to include energy and transportation efficiencies as a factor in public facility siting decisions. Update zoning policies and permitting guidelines to encourage low-impact site development, e.g. “rain garden” runoff landscaping, xeriscaping. Locate development at sites and in densities that can be served by efficient and renewable district energy systems. Encourage activity-center residential density to reduce average housing unit size and energy demand. Tie development review to GHG performance; e.g. locating new development in activity centers could be linked to a GHG credit or bonus.
III. New Buildings	
EBE-4: Improve new building energy and water efficiency performance Scenario: • 100% compliance with most stringent ICC (including IGCC) or ASHRAE building code/energy performance standards by 2020 • 100% of new buildings designed to meet ENERGY STAR Target Finder performance levels by 2030 • 100% of new buildings use WaterSense fixtures by 2030 to reduce energy needs of water and wastewater) • 50% of new buildings designed to be net zero energy by 2040 • 100% new buildings designed to be net zero energy by 2050. *Targets may need to be adjusted by building type; green power/other offset mechanisms likely to be needed*)	Adopt and enforce updated building codes and energy performance standards Develop building code compliance efforts, including utility programs. Create electric vehicle “charging-ready” infrastructure code provisions. Adopt Architecture 2030 goals in public policies. • Express preference for zero-energy performance levels via planning/zoning/permitting policies and practices (typically non-binding but encourage developers to bring such projects forward). Provide Net Zero building incentives, such as property tax abatements (e.g. Green Building tax credits) or permitting prioritization policies. Integrate green power purchasing into new building policies to offset any remaining site energy use. • Support development of long-term utility “green tariff” policies tied to meter address or other actions. Require new building sites to meet low-impact site development requirements, e.g. “rain garden” runoff landscaping, xeriscaping.

	Adapt planning/zoning policies and work with water utilities to increase rainwater harvesting and other re-use technologies, manage storm water, and encourage low-maintenance natural landscaping. Update planning/zoning policies and work with water utilities to improve water conservation in buildings to reduce water consumption. Create building code-related policies to mandate WaterSense or comparable performance levels in applicable fixtures.
IV. Public and Private Infrastructure	
EBE-5: Achieve annual and cumulative reductions in fossil energy use by improving Infrastructure efficiency and increasing renewable energy use Scenario: • 1% annual reduction in fossil energy use, 35% cumulative by 2050	Reduce energy use by water and wastewater systems by reducing leaks, increasing onsite generation, increasing system efficiency, and fostering process improvements, by working through institutional and utility programs. Implement outdoor lighting and other end-use efficiency technologies, working through institutional and utility programs. Install on-site renewable power systems at facility and transit sites by working through institutional and utility programs.
V. Energy Source and Supply	
EBE-6: Achieve targeted reductions in power sector emissions Scenario: • 30% reduction in emissions from energy generation by 2030 (on a total emissions (mass) basis rather than an emission-rate basis)	Support state plans to achieve a 30% mass-based reduction in electrical generation emissions. • Allow District of Columbia GHG successes to be leveraged in Maryland's Clean Power Plan. • Phase out coal use in regional coal plants by 2030. • Explore the possibility of installing additional units at existing regional nuclear plants. • Increase efficiency of thermal power plants. Support increases in state Renewable Portfolio Standards (RPS) to 40% by 2030. • Increase Solar PV capacity via RPS carve outs or other policies. Increase electric-grid energy storage capacity by supporting utility investments in grid storage technology. Reduce energy waste from transmission and distribution of energy by supporting utility efforts to upgrade grid efficiencies via efficient transformers, smart grid technologies, etc. Expand natural gas supply infrastructure to existing and new power plant sites. Sustain and expand federal, state and local grid-scale renewable energy incentives, e.g. federal PTC

EBE-7: Achieve targeted reductions in reduce natural gas pipeline leaks Scenario: • 20% reduction in methane leaks from natural gas pipelines by 2030)	Support utility investments by encouraging utility commission action on cost recovery.
VI. Resource Recovery, Conservation and Management	
EBE-8: Achieve targeted reduction in municipal solid waste Scenario: • Net Zero Waste by 2050	Increase the recycling rate of the region to 75%, via waste collection fees and other policies. Increase reuse of construction /demolition waste by 15% by 2020 and 100% by 2050 via tipping fees, builder incentives, and similar measures. Divert 100% of organic waste by 2040 via tipping fees, waste collection fees and other measures. Implement green purchasing and procurement programs via government agency and private sector commitments. Increase use of waste to energy plants, including landfill gas projects.
VII. Non-road Engines	
EBE-9: Reduce emissions from non-road engines Scenario: • 2% annual, 30% cumulative reduction in greenhouse gas emissions from non-road sources by 2030	Increase market penetration of energy efficient alternatives for non-road engines including back-up generators, construction equipment, agriculture, lawn and garden equipment, construction equipment, commercial and industrial equipment, and recreational equipment, as listed in the MWCOG Gold Book.
VIII. Awareness and Education	
EBE-10: Educate and motivate public through community engagement Move education to action - Create measurable results through community energy engagement.	Educate on benefits and costs of clean energy technologies and behaviors, via school curricula and public information campaigns. Increase motivation through incentives and other measures, linked to utility customer education and information services. • Use utility advanced metering data to monitor and influence behavior. Create a culture of responsibility via school curricula and public information campaigns. Encourage employee behavior change to increase teleworking and commuting by public transportation through actions such as the “Commuter Connections” program.

Table 2 below provides the analysis approach for each of the Energy and Built Environment Strategies and the proposed scenarios for evaluation.

Table 2. Analysis Methodology for Energy and Built Environment GHG Reduction Strategies

Strategy	Affected Resource Type		Analytic Methodology	Scenarios
	Energy Efficiency	Energy Supply		
EBE-1. Existing Buildings - Energy and water performance	x		Apply savings estimates from existing energy efficiency (EE) potential studies (e.g. Pepco, Montgomery County), augmented by individual policy and program impact data (e.g. DC benchmarking EUI results)	2% annual reductions, 30% cumulative reductions by 2030
EBE-2. Building-level renewables		x	Apply per-building renewable energy (RE) production estimates based on regional experience to market penetration assumptions.	
EBE-3. Encourage development in activity centers	x		Apply housing size reduction estimates and expected number of units	Increase in % of new development in Activity Centers by 2030
EBE-4. New Buildings - Energy and water performance	x		Reduce energy use and emissions impacts of new residential and commercial building stock using three scenarios Calculate water usage reductions based on difference between NAECA standards and WaterSense performance levels for affected fixtures. Use existing EECC building codes calculator tool	100% of new buildings reach ENERGY STAR levels by 2030 50% of new buildings NZE by 2040 100% of new buildings NZE by 2050 100% of new buildings use WaterSense fixtures by 2030 100% compliance with most stringent model codes by 2020
EBE-5. Infrastructure – Energy and water performance and increase renewable energy use	x	x	Apply scenario savings goals to current and project infrastructure usage estimates	1% annual reduction, 35% cumulative reduction by 2050

Strategy	Affected Resource Type		Analytic Methodology	Scenarios
	Energy Efficiency	Energy Supply		
EBE-6. Reduction in power sector emissions	x	x	Project emission reductions on a regional mass basis, applying impact estimates of defined actions	30% reduction in total mass emissions by 2030
EBE-7. Reduction in gas pipeline leaks		x	Estimate reduced methane emissions (converted to CO2e) from WGL system based on available data	20% reduction in methane leakage by 2030
EBE-8. Reduction in municipal solid waste	x	x	Estimate energy and emissions impacts of increased recycling/waste prevention, and increased utilization of waste to energy projects	Net zero waste by 2050
EBE-9. Reduction in emissions from non-road engines	x	x	See transportation analysis	2% annual, 30% cumulative reductions in NRE GHGs by 2030
EBE-10. Educate and motivate public	x	x	Use impact estimates from previous public campaigns and educational efforts	

Transportation and Land Use

Based on the discussions during the combined Transportation and Land Use Work Group meeting on April 17, 2015, and feedback from the public comment process, ICF is recommending the 12 bundled Transportation and Land Use GHG Reduction Strategies shown in Table 3 for further analysis. Also, based on the feedback received at the April 17th meeting and from the public comment process, ICF is recommending the elimination of a few of the previously identified draft transportation strategies from further analysis due to limited GHG reduction potential, controversial nature, or overlap with other proposed strategies. The strategies to be dropped from further analysis are shown in Table 5 and are described further in a later section of this memo. Table 5 also shows how ICF is recommending the other previously identified Transportation and Land Use strategies be grouped into a set of strategy bundles for analysis. Other edits to strategies were generally minor (for instance, rather than "Reduce speed limits", this strategy was edited to say "Increase speed limit enforcement").

Table 3. Transportation and Land Use GHG Reduction Strategies

Strategy Type/Focus	Measure Description (including possible Implementation Actions)
TLU-1: Increase urban tree canopy and land stewardship Scenario: • 2020: Project effects of 2020 development increment on canopy coverage; possibly augment with tree preservation/planting programs in short term • 2040: Link tree and undeveloped land cover to base and stretch scenarios.	Measures to maintain/increase open space, tree canopy, and green infrastructure through sustainable landscaping and land management practices: • Maximize urban canopy • Tree conservation ordinances • Conservation of open space • Regional mitigation bank • Shifting more new development into activity centers with smaller environmental footprint (through measures like L-2 and L-3 below) and thus preserving existing undeveloped lands. • Commercial and residential landscaping should follow Climate, Community, and Biodiversity Standards • Reduce impervious surfaces to minimize water treatment energy needs to remove phosphorus, nitrogen, and sediment • Support soil and forest carbon sequestration
TLU-2: Sustainable Development Patterns & Urban Design (including Enhancements for Non-motorized Modes) Scenario: • 2020: Run base CLRP land use and transport networks (don't have 2020 AC growth assumptions – can't tell if meaningful shifts are available) • 2040: Run base CLRP land use and networks • 2040 stretch: Reallocate growth and balance into and among	Measures to encourage a higher share of new development in Activity Centers (ACs), together with associated sustainable urban design factors, such as: • Build near transit (transit-oriented development) and/or enhance existing transit service levels • Higher densities • Greater mix & balance of uses • Street network/walk friendly • Management of parking supply/cost • Greater mix of housing options RE size and affordability • School locations, design and access

centers, accounting for proximity to rail transit, jobs/housing ratios, holding capacity and other factors	Recommend testing as a package of the above, in three different levels: • Constrained Long-Range Plan (CLRP) activity levels and networks (with assumed growth in ACs) • Maximum shift to ACs: assume entire 2014-2040 growth increment into ACs • Augmented: increase above current planned levels, rule-based targeting to centers by place type (transit service, location in major corridors) Efforts to foster greater jobs/housing balance, particularly by targeting more residential opportunities to areas with high jobs/housing ratios. Key actions embodied in this strategy include • Housing affordability (especially in center city and inner suburban jurisdictions and areas near transit) • Live Near Your Work incentives • Balancing job opportunities between west and east region • More job opportunities in bedroom communities and exurban satellite cities • Incentivize jobs in eastern region Ensure adequate pedestrian and bicycle infrastructure and connectivity in activity centers to support walking and biking as modes, as well as access to transit. Key actions embodied in this strategy include: • Local street networks meeting block size or intersection density criteria • Complete streets concepts • Traffic calming measures. On & off-road bicycle networks and storage facilities Actions embodied in this strategy include: • Higher retail/service to households or employment ratios • Location incentives for retail • Easing/changing zoning to allow broader array of retail/service options, locations Retail must be located strategically within centers This measure seeks to locate as much of new or relocated government employment near premium transit (Metro, commuter rail, LRT/BRT), including: • Federal agencies • State agencies Regional, county and municipal agencies

	Measures designed to increase the share of bike/walk trips, such as: • Complete streets policies • Increased bike-sharing • Completion of bicycle/pedestrian enhancements • Increased connectivity of pedestrian network (especially in cul-de-sac developments), require sidewalks on all streets except freeways which should have parallel trails, connect communities to parks, and identify and complete trails with maximum potential
TLU-3: Improve Fuel Economy of Light-duty Vehicle Fleet Scenario: • 2020: Increase % of light-duty zero emission vehicles (ZEVs) to 2% of total vehicle population in study region • 2040: Increase % of light-duty ZEVs to 15% • 2040 stretch: Increase % of light-duty ZEVs to 25%	Measures to incentivize more fuel efficient passenger vehicles: • Implement a "Cash for Clunkers" program to encourage replacement of older, less fuel efficient vehicles • Offer incentives for consumer/private sector purchase of electric vehicles and charging equipment • Offer incentives for purchases of fuel-efficient vehicles (fee-bates) • Provide disincentives for purchases of fuel-inefficient vehicles (gas guzzler tax/registration fees) • Adoption of CA Low-Emission Vehicle (LEV) Phase II program
TLU-4: Increase Alternative Fuels in Public Sector Fleets Scenario: • 2020: Add X(TBD) CNG buses to public transit fleet • 2040: Increase % of ZEVs in municipal light-duty fleets to 15% of total fleet population; require B5 in all municipal fleets and school buses; require X%(TBD) of public transit fleet to be converted to CNG • 2040 stretch: Increase % of ZEVs in municipal light-duty fleets to 25% of total fleet population; require B20 in all municipal fleets and school buses; require X% (TBD) of public transit fleet to be converted to CNG	Measures to incentivize more fuel efficient passenger vehicles: • Implement a "Cash for Clunkers" program to encourage replacement of older, less fuel efficient vehicles • Offer incentives for consumer/private sector purchase of electric vehicles and charging equipment • Offer incentives for purchases of fuel-efficient vehicles (fee-bates) • Provide disincentives for purchases of fuel-inefficient vehicles (gas guzzler tax/registration fees) • Adoption of CA Low-Emission Vehicle (LEV) Phase II program

TLU-5: Clean Freight Technologies Scenario: • 2020: Add one truck stop electrification (TSE) location with 30 bays in study region • 2040: Add five additional TSE locations with 30 bays/location • 2040 stretch: Add eight additional TSE locations with 30 bays/location	Measures to reduce emissions associated with freight: • Engine and powertrain technologies to improve fuel efficiency (e.g., hybrids, plug-in electric, and alternative fuel vehicles) • Vehicle technologies to improve fuel efficiency (e.g., aerodynamic devices, low rolling resistance tires, tire pressure systems, idle reduction technologies) • Operational strategies (e.g., routing software, engine governors, truck-stop electrification, efficient truck refrigeration units, off-peak delivery incentives) • Clean truck corridor infrastructure (e.g., overhead catenary systems, linear synchronous motors, in-road battery charging capabilities)
TLU-6: Low Carbon Fuel Standard Scenario: • 2020: N/A • 2040: Reduce fuel emissions in region by 10% • 2040 stretch: Reduce fuel emissions in region by 15%	Implement market-based program to reduce carbon intensity of on-road fuels through use of lower-carbon alternatives (e.g., natural gas, electricity, biofuels, hydrogen)
Enhancing system operations (T-7, T-8, and T-11) Scenario: • 2020: 20% of drivers adopt eco-driving practices; corridor operational improvements reduce travel time by 10% • 2040: 80% of drivers adopt eco-driving practices; corridor operational improvements reduce travel time by 20% • 2040 stretch: 100% of drivers utilize eco-driving practices; corridor operational improvements reduce travel time by 25%	Apply cost effective operational improvements to freeways and arterials/collectors, such as: • Integrated corridor management (ICM) on freeway and major arterial corridors • Implement ramp metering • Freeway operations patrols / faster incident management • Signal retiming • Roundabouts Intersection efficiency improvements Promote driving patterns to reduce rapid acceleration/deceleration and extended idling System efficiency improvements through connected vehicles, such as vehicle-to-vehicle, vehicle-to-infrastructure, and autonomous vehicles

TLU-8: Reduce Speeding on Freeways Scenario: • 2020: Average speeds on freeways (outside of congested periods) reduced to 57 mph. • 2040: Average speeds on freeways (outside of congested periods) reduced to 57 mph. • 2040 stretch: Average speeds on freeways (outside of congested periods) reduced to 55 mph. Incorporate into Operational Improvements Strategy Scenario.	Enforce speed limits on freeways and included GHG surcharge as part of enforcement
TLU-9: Travel Demand Management Scenario: • 2020: Expand employer-based incentives (subsidies of $50 per month for 40% of employers); 50% of parking in activity centers is priced at average of at least $8 per day ($1 per hour) • 2040: Expand employer-based incentives (subsidies of $50 per month for 80% of employers); 90% of parking in activity centers is priced at average of at least $8 per day ($1 per hour) • 2040 stretch: Expand employer-based incentives (subsidies of $80 per month for 100% of employers); 100% of parking in activity centers is priced at average of at least $8 per day ($1 per hour)	Measures to reduce the availability of free parking in activity centers, such as: • Parking impact fees • Parking caps Parking pricing for on and off-street parking Measures designed to incentives carpooling/ridesharing, non-motorized modes, and telecommuting, such as: • Expanding telecommuting • Carpool incentive programs • Vanpool incentive programs • Increased employer outreach Ordinances to require employers to offer parking cash out / transit benefits
TLU-10: Transit Enhancements Scenario: • 2020: Reduce transit travel times by 5% and reduce headways (wait time) by 5% on 10 major commute corridors • 2040: Reduce transit travel times by 20% and reduce headways (wait time) by 20% on 24 major commute corridors	Measures designed to increase the share of transit trips through increased/improved services, such as: • More neighborhood circulator buses • Enhanced commuter bus services • Real-time bus scheduling information • Transit signal priority improvements / bus rapid transit • Expand Metrorail / Commuter rail • Bus stop improvements (benches, shelters) • Increase schedule coordination between transit agencies

• 2040 stretch: Reduce transit travel times by 30% and reduce headways (wait time) by 30% on 24 major commute corridors; reduce wait time by 10% on all other corridors (assumed due to improved traveler information)	• Bus on Shoulder • Transit access improvements to eliminate drive access to bus • System of dedicated bus lanes • Bus infrastructure commitments
TLU-11: Transit Incentives / Fare Reductions Scenario: • 2020: Reduce transit fares during off-peak periods by 5% by offering monthly passes or providing free trips for students or free transfers • 2040: Reduce transit fares regionally by 20% • 2040 stretch: Reduce transit fares regionally by 40% partially funded through pricing strategies	Measures designed to incentivize transit use through lower fares, such as: • Reduced price monthly transit passes • Free bus-rail transfers • Free off-peak bus service
TLU-12: Road Pricing Scenario: • 2020: None – Long-term scenario only; but potentially assume 20 percent of drivers switch to Pay-As-You-Drive insurance • 2040: Full VMT-based pricing at $0.25 per mile [May consider option for pricing only all freeways, but challenging without more detailed modeling • 2040 stretch: Full VMT-based pricing on road network at $0.25 per mile peak. Cordon pricing into downtown DC at $5 [Need to determine if can forecast, and overlaps with transit service enhancements and fare reductions]	Pricing freeway travel, such as: • Electronic tolling of major bridges and connectors • Conversion to full electronic tolling VMT-based vehicle fees Adding roadway pricing for entering major activity centers across the region (e.g., downtown Washington, Tysons Corner)

Table 4 below provides the analysis approach for each of the Transportation and Land Use Strategies bundled for analysis and the proposed scenarios for evaluation.

Table 4. Transportation and Land Use Strategies Recommended for Quantitative Analysis[1]

Strategy	Affected Mobile Source Emissions Parameter			Analytic Methodology	Scenarios
	VMT	Speed/ Idling	Vehicles/ Fuels		
TLU-1: Increase Urban Tree Canopy and Land Stewardship				Estimate carbon sequestration equivalent of 1 acre of tree cover. Develop acreage-saved conversion factor for relocating a household or employee from suburban/exurban greenfield development to urban/TOD/MXD location. Assess potential increase in tree coverage from other programs.	2015: Establish base year tree canopy coverage by jurisdiction (also impervious surface, undeveloped land) 2020: Project effects of 2020 development increment on canopy coverage; possibly augment with tree preservation/planting programs in short term 2040: Link tree and undeveloped ground cover to base and stretch scenarios.
TLU-2: Sustainable Development Patterns & Urban Design (including Enhancements for Non-motorized Modes)	X			Calculate TAZ level modal accessibility scores for 2015, 2020 and 2040. Use these scores to project the effects of TR+LU on mode choice, leading to delta trips by mode and delta VMT. Create alternative land use allocations for the region & activity centers in 2040, and possibly key enhancements to the transportation network. Recalculate accessibilities and travel impacts	2015: Base year accounting for accessibility effects on mode share (effects beyond COG model) 2020: Run base CLRP land use and transport networks (don't have 2020 AC growth assumptions – can't tell if meaningful shifts are available) 2040: Run base CLRP land use and networks 2040 stretch: Reallocate growth and balance into and among centers, accounting for proximity to rail transit, jobs/housing ratios, holding capacity and other factors

[1] Explanation of bundling strategies are included in Table 5 and implementation strategies included in Table 3

Strategy	Affected Mobile Source Emissions Parameter			Analytic Methodology	Scenarios
	VMT	Speed/ Idling	Vehicles/ Fuels		
TLU-3: Improve Fuel Economy of Light-duty Vehicle Fleet			X	Use GREET Model and spreadsheet analysis to develop residual mix profile (electricity) and calculate avg. lifecycle emission reduction per ZEV	2020: Increase % of light-duty zero emission vehicles (ZEVs) to 2% of total vehicle population in study region 2040: Increase % of light-duty ZEVs to 15% 2040 stretch: Increase % of light-duty ZEVs to 25%
TLU-4: Increase Alternative Fuels in Public Sector Fleets			X	GREET Model and spreadsheet analysis to calculate lifecycle emission reductions per CNG vehicle, ZEV vehicle and from projected biodiesel consumption	2020: Add X (TBD) CNG buses to public transit fleet 2040: Increase % of ZEVs in municipal light-duty fleets to 15% of total fleet population; require B5 in all municipal fleets and school buses; % (TBD) of public transit fleet to be converted to CNG 2040 stretch: Increase % of ZEVs in municipal light-duty fleets to 25% of total fleet population; require B20 in all municipal fleets and school buses; % (TBD) of public transit fleet to be converted to CNG
TLU-5: Clean Freight Technologies			X	Spreadsheet analysis and literature review to estimate lifecycle emission reductions per truck stop electrification (TSE) bay compared to avg. GHG emission reductions from diesel trucks (GREET)	2020: Add one TSE location with 30 bays in study region 2040: Add five additional TSE locations with 30 bays/location 2040 stretch: Add eight additional TSE locations with 30 bays/location

Strategy	Affected Mobile Source Emissions Parameter			Analytic Methodology	Scenarios
	VMT	Speed/ Idling	Vehicles/ Fuels		
TLU-6: Low Carbon Fuel Standard			X	Will use analysis already prepared by NESCAUM and apply portion of projected reductions specific to fuel use in region	2020: N/A 2040: Reduce fuel emissions in region by 10% 2040 stretch: Reduce fuel emissions in region by 15%
TLU-7: Enhance System Operations		X		Utilize literature to estimate change in speed profile for vehicles from eco-driving; utilize TOPS-BC and literature to estimate potential reduction in delay or idling time. Apply speed-based emissions factors or idle emissions factors to estimate GHG reduction. Add V2I description as part of methodology	2020: 20% of drivers adopt eco-driving practices; corridor operational improvements reduce travel time by 10% 2040: 80% of drivers adopt eco-driving practices; corridor operational improvements reduce travel time by 20% 2040 stretch: 100% of drivers utilize eco-driving practices; corridor operational improvements reduce travel time by 25%
TLU-8: Reduce Speeding on Freeways		X		Spreadsheet analysis - Examine share of traffic on freeways at speeds above posted limits. For applicable VMT, apply emissions factors for corresponding speeds.	2020: Average speeds on freeways (outside of congested periods) reduced to 57 mph. 2040: Average speeds on freeways (outside of congested periods) reduced to 57 mph. 2040 stretch: Average speeds on freeways (outside of congested periods) reduced to 55 mph. Incorporate into Operational Improvements Strategy Scenario. *Note: This strategy overlaps with the ecodriving strategy, and potentially could be grouped.*

TLU-9: Travel Demand Management	X			Use TRIMMS sketch planning tool - Extract mode shares (by region, sub-region, or by O-D pairs) and apply elasticities from TRIMMS to estimate change in mode split.	2020: Expand employer-based incentives (subsidies of $50 per month for 40% of employers); 50% of parking in activity centers is priced at average of at least $8 per day ($1 per hour) 2040: Expand employer-based incentives (subsidies of $50 per month for 80% of employers); 90% of parking in activity centers is priced at average of at least $8 per day ($1 per hour) 2040 stretch: Expand employer-based incentives (subsidies of $80 per month for 100% of employers); 100% of parking in activity centers is priced at average of at least $8 per day ($1 per hour)
TLU-10: Transit Enhancements	X	X		Use TRIMMS sketch planning tool - Extract mode shares (by region, sub-region, or by O-D pairs) and apply elasticities from TRIMMS to estimate change in mode split.	2020: Reduce transit travel times by 5% and reduce headways (wait time) by 5% on 10 major commute corridors 2040: Reduce transit travel times by 20% and reduce headways (wait time) by 20% on 24 major commute corridors 2040 stretch: Reduce transit travel times by 30% and reduce headways (wait time) by 30% on 24 major commute corridors; reduce wait time by 10% on all other corridors (assumed due to improved traveler information)

TLU-11: Transit Incentives / Fare Reductions	X			Use TRIMMS sketch planning tool - Extract mode shares (by region, sub-region, or by O-D pairs) and apply elasticities from TRIMMS to estimate change in mode split.	2020: Reduce transit fares during off-peak periods by 5% by offering monthly passes or providing free trips for students or free transfers 2040: Reduce transit fares regionally by 20% 2040 stretch: Reduce transit fares regionally by 40% partially funded through pricing strategies
TLU-12: Road Pricing	X			Use TRIMMS sketch planning tool - Extract mode shares (by region, sub-region, or by O-D pairs) and apply elasticities from TRIMMS to estimate change in mode split.	2020: None – Long-term scenario only; but potentially assume 20 percent of drivers switch to Pay-As-You-Drive insurance 2040: Full VMT-based pricing at $0.25 per mile [May consider option for pricing only all freeways, but challenging without more detailed modeling 2040 stretch: Full VMT-based pricing on road network at $0.25 per mile peak. Cordon pricing into downtown DC at $5 [Need to determine if can forecast, and overlaps with transit service enhancements and fare reductions]

Table 5. Mapping of Proposed Transportation-Land Use Strategy Bundles for Analysis with Detailed Strategy List

Strategy for Analysis	L-1: Maximize urban tree canopy and land stewardship	L-2: Increase proportion of new housing & jobs in activity centers	L-3: Improve regional jobs/housing balance	L-4: Maximize walkable design in activity centers	L-5: Establish adequate retail balance in activity centers	L-6: Focus Government employment near premium transit	T-1: Improve fuel economy of light-duty vehicle fleet	T-2: Increase alternative fuels in public sector fleets	T-3: Clean freight technologies	T-4: Lower emissions off-road construction vehicles	T-5: Low carbon fuel standard	T-6: Roadway bottleneck relief / targeted capacity enhancements	T-7: Corridor / regional operational improvements	T-8: Promote ecodriving	T-9: Off-peak freight deliveries	T-10: Increase speed limit enforcement	T-11: Advance adoption of connected vehicle technologies	T-12: Enhance the bicycle/pedestrian environment	T-13: Enhance transit services	T-14: Transit incentives	T-15: Park-and-ride and HOV investments	T-16: Parking management	T-17: Travel demand management	T-18: Road pricing / congestion pricing	T-19: Cordon pricing	T-20: Pay As You Drive insurance	T-21: Increasing fuel taxes / Carbon tax
TLU-1: Increase Urban Tree Canopy and Land Stewardship	■																											
TLU-2: Sustainable Development Patterns & Urban Design		■	■	■	■	■												■										
TLU-3: Improve Fuel Economy of Light-duty Vehicle Fleet							■																					
TLU-4: Increase Alternative Fuels in Public Sector Fleets								■																				
TLU-5: Clean Freight Technologies									■																			
TLU-6: Low Carbon Fuel Standard											■																	
TLU-7: Enhance System Operations													■	■			■											
TLU-8: Reduce Speeding on Freeways														■		■												
TLU-9: Travel Demand Management																					■	■	■					
TLU-10: Transit Enhancements																			■									
TLU-11: Transit Incentives / Fare Reductions																				■								
TLU-12: Road Pricing																									■	■		

Strategy Elimination: The following draft transportation strategies were eliminated from consideration for the following reasons:

Roadway bottleneck relief / targeted capacity enhancements (T-6): ICF received negative feedback about this particular strategy; some of the impacts of this strategy will be addressed by the enhanced system operations bundle, and some capacity enhancements and bottleneck relief projects should be part of the baseline transportation plan.

Off-peak freight delivery (T-9): Based on our initial qualitative assessment, ICF believes that this strategy would have a nominal GHG emission reduction potential and would be difficult to analyze given limitations in data.

Pay as you drive insurance (T-20): As a voluntary measure, this incentive is likely to only attract individuals that are already in a position to use alternative modes of transportation. This strategy works in a way very similar to road pricing (providing a monetary incentive to reduce vehicle travel) and so could be encompassed as part of the road pricing strategy.

Increasing fuel tax / carbon tax (T-21): Based on feedback, this pricing strategy is controversial. It is likely that this strategy would be most effectively implemented at the federal level.

Groupings of Strategies: ICF grouped closely aligned strategies in order to recognize synergies across these strategies and because they share GHG benefits that would be best to analyze together. For analysis purposes, we are suggesting the following strategies be grouped as follows (and as shown in Table 5, and renamed "TLU" to reflect the bundled strategies):

Sustainable Development Patterns & Urban Design (TLU-2): Increase proportion of new housing and jobs in activity centers (L-2) + Improve regional jobs/housing balance (L-3) + Maximize walkable design in activity centers (L-4) + Establish adequate retail balance in activity centers (L-5) + Focus Government employment near premium transit (L-6) + Enhance the bicycle/pedestrian environment (T-12).

Enhance System Operations / Ecodriving (TLU-7): Corridor/regional operational improvements (T-7) + Promote ecodriving (T-8) + Advanced adoption of connected vehicle technologies (T-11)

Travel Demand Management (TLU-9): Park-and-ride and HOV investments (T-15) + Parking management (T-16) + Travel demand management (T-17)

Road Pricing (TLU-12): Road pricing / congestion pricing (T-18) + Cordon pricing (T-19)

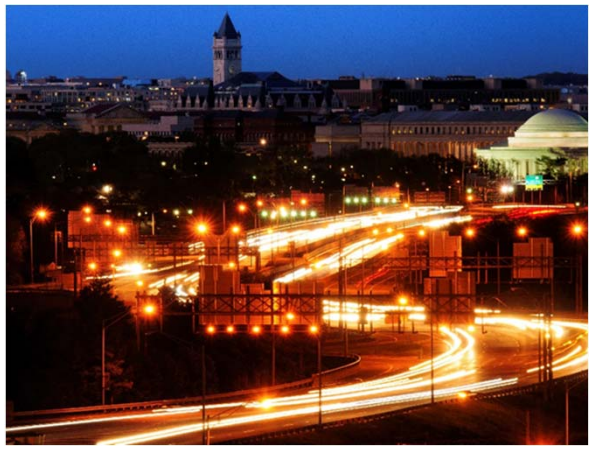
Lower emissions off-road construction vehicles (T-4): Based on our initial qualitative assessment, ICF believes that this strategy would have a nominal GHG emission reduction potential. Few alternative options exist to reduce off-road construction vehicle emissions due to less stringent federal efficiency requirements for off-road engines. However, this is still being evaluated as part of Energy and Built Environment sector (EBE-9) as together, there may be more than nominal reductions from improvements to larger construction equipment and fixed generators.

Metropolitan Washington Council of Governments
Multi-Sector Working Group Member Roster

Jurisdiction	Land Use	Transportation	Energy & Built Environment
DISTRICT OF COLUMBIA			
	Eric Shaw Dan Emerine Laine Cidlowski Tanya Stern	Sam Zimbabwe Mark Rawlings Tina Casey	Kate Johnson Cecily Beall Jessica Daniels
MARYLAND			
Charles County	Jason Groth	Jason Groth	Beth Groth
City of College Park			Bill Gardiner
City of Greenbelt			Luisa Robles
City of Takoma Park			Gina Mathias
City of Gaithersburg			Dyan Backe
City of Frederick		Tim Davis	Jenny Willoughby
City of Rockville	David Levy		
Frederick County	Jim Gugel	Ronald J. Burns	Shannon Moore
Montgomery County	Valdis Lazdins Robert Ruiz Tom Autrey	Gary Erenrich	Eric Coffman Michele Vigen
Prince George's County	Kierre McCune Jacqueline Philson	Faramarz Mokhtari Victor Wissberg	Akosua Dosu Dawn Hawkins-Nixon Erica Bannerman
Maryland State Agencies	Mike Paone (MDP)	Lyn Erickson (MDOT) Howard Simons (MDOT) Tad Aburn (MDE) Elizabeth Entwisle (MDE)	Tad Aburn (MDE) Christopher Beck (MDE)
VIRGINIA			
Arlington County	Matt Ladd Bob Duffy	Dennis Leach	John Morrill Joan Kelsch
City of Alexandria	Rob Kerns	Bill Skrabak	Bill Skrabak Bill Eger
City of Fairfax			Stephanie Kupka
City of Falls Church	Jim Snyder	Paul Stoddard	Cindy Mester
Fairfax County	Marianne Gardner Noel Kaplan	Mike Lake	Kambiz Agazi
Loudoun County	John Merrithew	Robert Brown	Alan Brewer

Metropolitan Washington Council of Governments
Multi-Sector Working Group Member Roster

Jurisdiction	Land Use	Transportation	Energy & Built Environment
Prince William County	David J. McGettigan	Ricardo Canizales James Davenport	Jessica Wessel
Virginia State Agencies		Norman Whitaker (VDOT) Jim Ponticello (VDOT) Tim Roseboom (VDRPT) Sonya Lewis-Cheatham (VDEQ)	Thomas R. Ballou (VDEQ) Al Christopher (DMME)
NVTA		Monica Backmon	
VRE		Christine Hoeffner	
OTHER – REGIONAL AND FEDERAL			
WMATA	Rachel Healy	Rachel Healy Allison Davis	Rachel Healy
NCPC	Nick Bonard		Nick Bonard



Item #10

Status Report on the Activities of the COG Multi-Sector Working Group to Examine and Analyze Greenhouse Gas Reduction Strategies in the Metropolitan Washington Region

Presented by:

Robert E. Griffiths
Director, Plan Development and Data Programs

National Capital Region Transportation Planning Board
May 20, 2015

OVERSIGHT

Transportation Planning Board (TPB)

COG Board of Directors

Climate, Energy & Environment Policy Committee (CEEPC)

Metropolitan Washington Air Quality Committee (MWAQC)

Multi-Sector Working Group

(Local Jurisdiction Staff)

Energy/Environment Subgroup – Energy & Built Environment Sectors

Planning Subgroup – Land Use Sector

Transportation Subgroup – Transportation Sector

COG/TPB Committee Input

Region Forward Coalition
Planning Directors
TPB Technical Subcommittee
Built Environment Energy Advisory Committee (BEEAC)
MWAQC – Technical Advisory Committee

Additional Input from

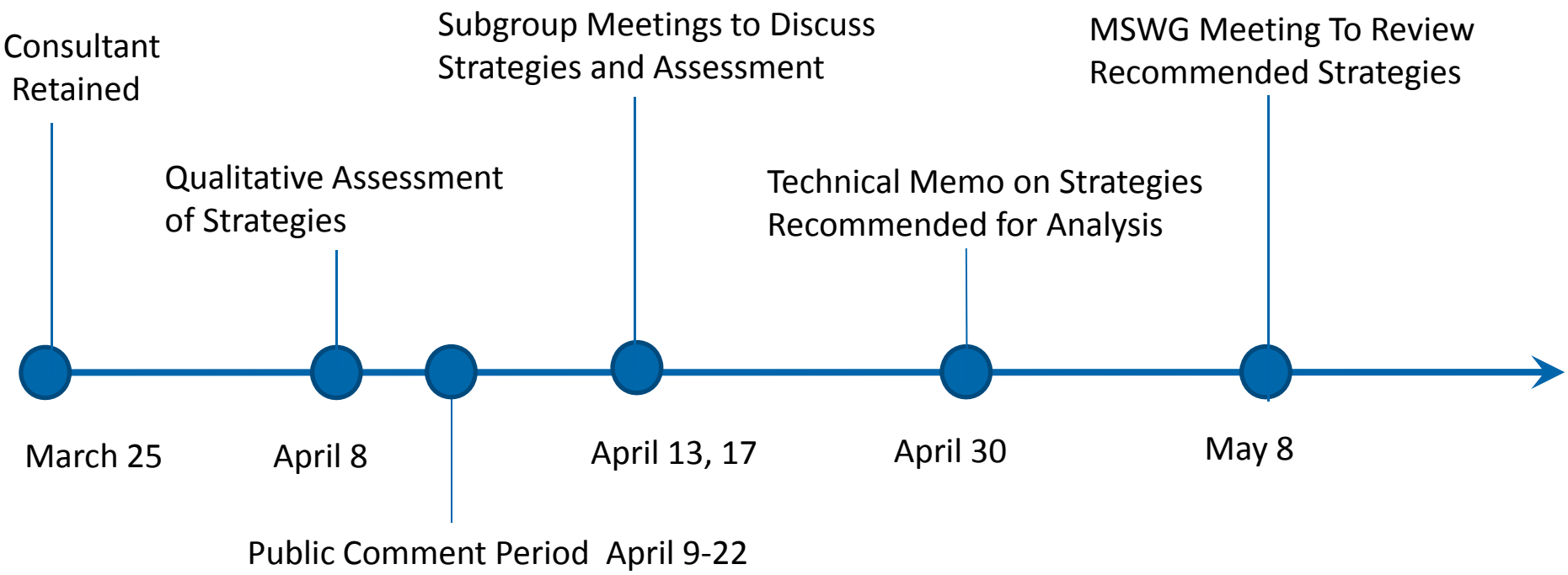
Subject Matter Experts
Public

COG Staff Support

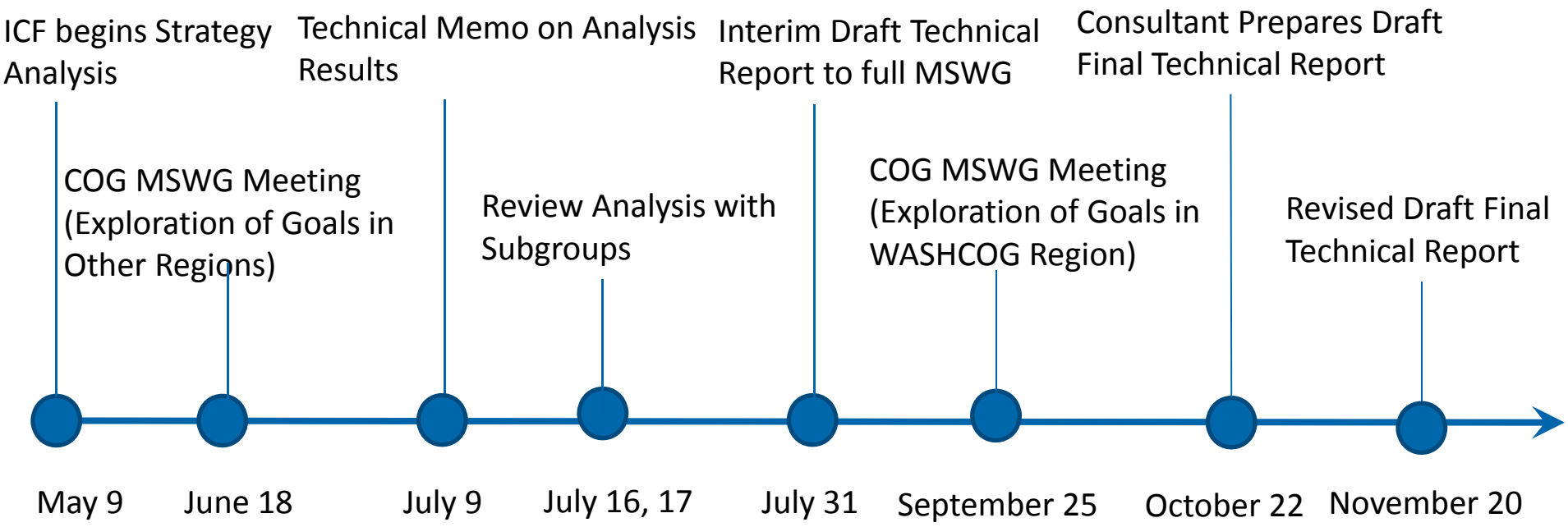
Consultant Support

Multi-Sector Working Group Project Milestones to-Date

Project Timeline



Project Milestones Going Forward



ICF Conducts Strategy Analysis May 9 - July 9

Additional Public Comment Periods:
(Aug 27- Sep 21) and (Nov 20 - Dec 18)
Presentations to Policy Boards/Committees (TPB, MWAQC, CEEPC, COG) September/October and December 2015/January 2016

Definitions

Strategy

High-level actions that can be taken to reduce greenhouse gas emissions. They are drafted at a high level to provide for **scenario level analysis**. The scenarios may include **near-term viable actions** and **stretch actions** requiring new policy implementation across the region, states and nation.

Definitions

Implementation Action

Actions that could be put in place to **support achievement of the strategy level** scenarios. These differ from policies, goals and targets that do not directly result in reductions in greenhouse gas emissions.

Process for Recommendations

1. Reviewed and refined list of GHG reduction strategies brainstormed by Sector Working Groups.
2. Performed qualitative analysis on strategies, identifying reduction potential, timeframe for implementation, and co-benefits.
3. Accepted public comment on strategies through COG website.
4. Incorporated feedback, **grouped/bundled** and prioritized strategies for analysis.

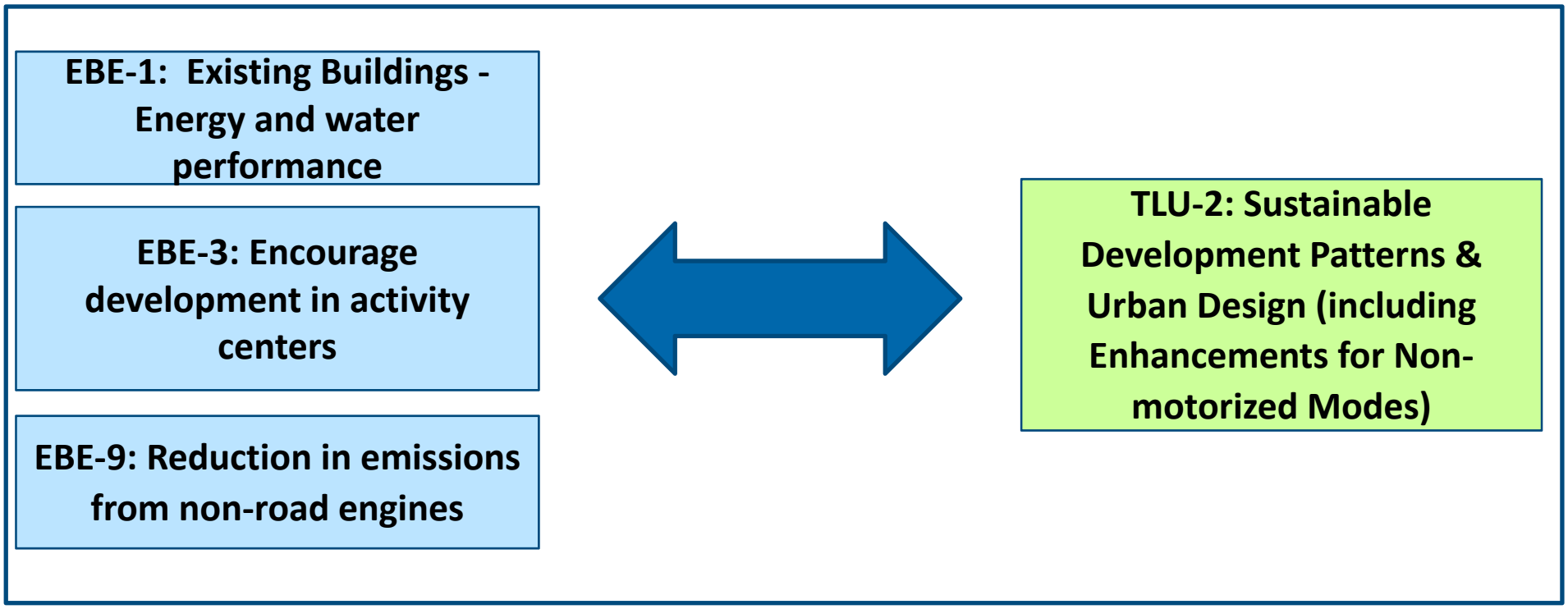
GHG Reduction Strategies

Energy and Built Environment Strategies
EBE-1: Existing Buildings - Energy and water performance
EBE-2: Building-level renewables
EBE-3: Encourage development in activity centers
EBE-4: New Buildings - Energy and water performance
EBE-5: Infrastructure – Energy and water performance and increase renewable energy use
EBE-6: Reduction in power sector emissions
EBE-7: Reduction in gas pipeline leaks
EBE-8: Reduction in municipal solid waste
EBE-9: Reduction in emissions from non-road engines
EBE-10: Educate and motivate public

Transportation and Land Use Strategies
TLU-1: Increase Urban Tree Canopy and Land Stewardship
TLU-2: Sustainable Development Patterns & Urban Design (including Enhancements for Non-motorized Modes)
TLU-3: Improve Fuel Economy of Light-duty Vehicle Fleet
TLU-4: Increase Alternative Fuels in Public Sector Fleets
TLU-5: Clean Freight Technologies
TLU-6: Low Carbon Fuel Standard
TLU-7: Enhance System Operations
TLU-8: Reduce Speeding on Freeways
TLU-9: Travel Demand Management
TLU-10: Transit Enhancements
TLU-11: Transit Incentives / Fare Reductions
TLU-12: Road Pricing

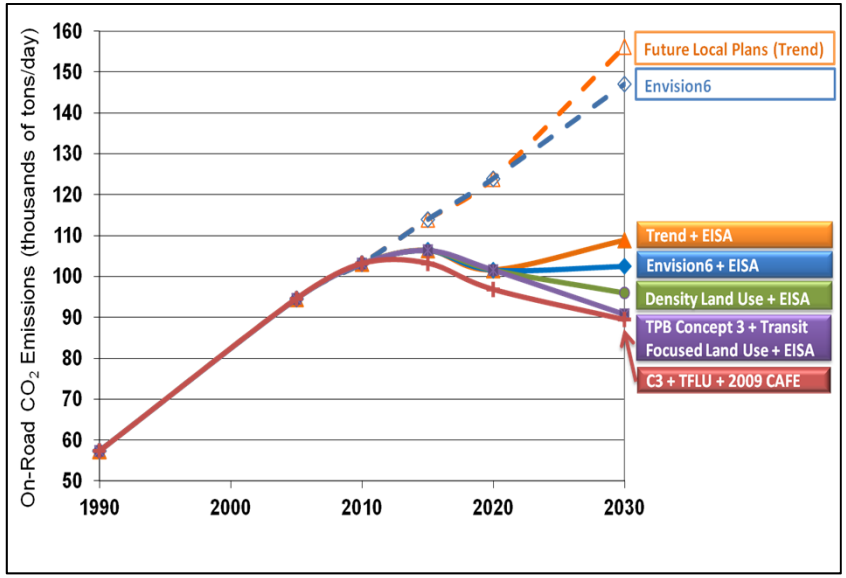
GHG Reduction Strategies- Synergies

- **Coordinated analysis will take place to account for overlap across sectors**



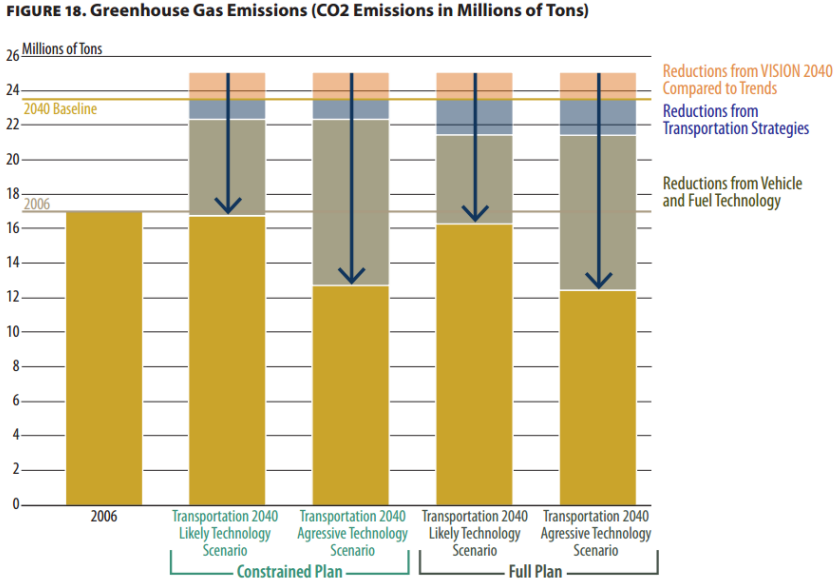
Analysis Approaches

Different sets of (combined) strategies



Source: Atlanta Regional Commission

Different levels of aggressiveness



Source: Puget Sound Regional Council, *Transportation 2040,* Chapter 3 and Appendix L, available at: http://www.psrc.org/transportation/t2040/t2040-pubs/final-draft-transportation-2040

Overall Analysis Methodology

- **Analysis will focus on the Strategy level**
  - Specific implementation actions will play important roles in implementing the strategies
  - Time and budget constraints limit the analysis to sketch modeling—making quantitative estimates based on existing data sources and previous analyses
- **Sketch modeling will differentiate COG-member actions from Federal and State actions**
  - Estimate incremental impacts of COG-member strategies/action as additional to Federal CAFE and appliance standards, State CPP plan impacts, etc.
- **Sketch modeling will draw on existing COG-region datasets**
  - ICF analyses for PEPCO, Dominion, and Montgomery County
  - COG baseline data, including emissions, energy, and related data sources and tools

Questions, Comments?

ITEM 11 - Information
May 20, 2015

Status Report on the Development of a Regional List of Unfunded Transportation Projects

Staff Recommendation: Receive briefing.

Issues: None

Background: In response to a request from the TPB in September 2014, TPB staff has begun the development of a list of transportation projects that are included in the plans of TPB members but cannot be included in the CLRP because funding has not been identified. The TPB will be briefed on efforts underway to develop this list.

NATIONAL CAPITAL REGION
TRANSPORTATION PLANNING BOARD

MEMORANDUM

TO: Transportation Planning Board

FROM: Robert Griffiths
Director, Plan Development and Data Programs
Department of Transportation Planning

SUBJECT: Status Report on the Development of a Regional List of Unfunded Transportation Projects

DATE: May 14, 2015

Purpose

The purpose of this memorandum is to provide the Board with a status report on the development of a regional list of unfunded transportation projects.

Background

In September 2014, the TPB asked staff to develop a compilation of the region's unfunded transportation projects. In October, the Citizens Advisory Committee passed a resolution supporting this request and asking that the list be made available for use in public outreach and other regional planning activities. In November, TPB staff reported that it would work with member jurisdictions to gather a list of projects that are in state, local, and regionally approved plans, but are not currently in the Financially Constrained Long-Range Transportation Plan (CLRP).

Status Report

Solicitation of project inputs was issued to member jurisdictions via members of the TPB Technical Committee on February 3, 2015 with February 27 as the due date for project submissions. At the request of TPB Technical members this deadline for the project submission was extended until the end of April.

As of April 30th, more than 600 projects have been submitted by 14 state, local and regional agencies from their approved transportation plans. The primary transportation plans serving as the source for a majority of these projects are: the District of Columbia's "moveDC" plan, the Joint Transportation Priorities Letters from Charles, Frederick, Montgomery, and Prince George's counties in Maryland, the Northern Virginia Transportation Authority's "TransAction 2040" plan and the Washington Metropolitan Area Transit Authority's "Momentum" and "Connect Greater Washington" plans. Jurisdictions also submitted other projects derived from various other adopted comprehensive or master plans from the individual counties and cities in

Virginia. In compiling the list of unfunded projects, TPB staff excluded those projects that are in the 2014 CLRP and that were submitted for the 2015 CLRP for construction, as projects in the CLRP have funding reasonably expected to be available.

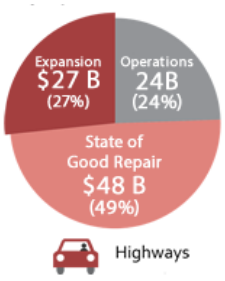
Of the 620 projects submitted to date, 305 are roadway, 94 are transit and the remaining 221 are bicycle/pedestrian projects.

Using data provided by agencies on project length and capacity increases, staff determined that the projects in the unfunded list would add more than 400 lane miles to the region's surface transportation network. This would be on top of a planned addition of 1,187 lane miles already included in the CLRP. Similarly, the unfunded list contains more than 210 new miles of high-capacity surface transit and 18 miles of Metrorail expansion, above the 37 new railway miles planned for in the CLRP. There was insufficient data to summarize mileage for bike lane facilities in this summary. Maps have been developed for most projects where spatial data was provided by agencies.

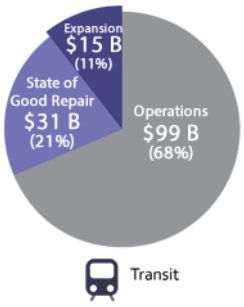
Most of the projects (562) are at a planning level and submitting agencies provided a planning-level cost estimate. There are, however, a number of projects (58) that may be at a pre-planning or conceptual level and as such did not have a cost estimate associated with them. The total estimated capital cost for the 562 projects with cost information is $60.2 billion. The list includes 268 roadway projects that total almost $15 billion and another 37 projects with costs yet to be determined. The list also includes 80 transit projects that come to almost $45 billion and 14 more transit projects with undetermined costs. Lastly, there are 214 bicycle/pedestrian (or other) projects that total $423 million and 7 with unknown costs. It must be noted that the cost estimates are strictly for the capital expenditures. These projects, once implemented, will generate additional annual operating and maintenance costs which are not accounted for in this exercise.

For perspective, the Financial Plan for the 2014 CLRP Update includes $244 billion in Capital and Operations/Maintenance expenditures between 2015 and 2040. Of that amount, 83% or $202 billion is estimated to cover the cost of operating and maintaining the region's transportation system. Only 17% or $42 billion is estimated to fund projects that expand capacity - $27 billion for roadways and $15 billion for transit (see figures below).

CLRP Transit and Highway Expenditures for 2015-2040 $244 Billion



$99 Billion



$145 Billion

Next Steps and Future Direction

Because of the different ways member jurisdictions approached this exercise, there is currently an imbalance in the number of projects in Maryland in comparison to the District of Columbia and Virginia. The District and members in Virginia submitted all projects in their respective plans, while jurisdictions in Maryland largely submitted only those projects from their plans that had been designated as priorities in their annual letters to the Maryland Department of Transportation. There are fundamental differences in the way projects are conceived, prioritized, funded and developed in each jurisdiction. Given the additional time and effort that would be required to identify additional transportation projects in Maryland local plans beyond those in the priority letters, several Maryland agencies would like a better understanding of how the TPB plans to use the list of unfunded projects. In particular, the Maryland agencies noted that the list of significant projects in the Maryland priority letters already greatly exceeds what the state anticipates could conceivably be funded and be completed in a 2040 timeframe. In addition, Maryland does not develop cost estimates for potential projects until feasibility and planning analysis begins.

Staff sees the development of an unfunded project list as the first step in preparing a comprehensive and financially unconstrained list of the transportation projects that member jurisdictions would like to advance into the CLRP sometime in the future. This list would provide an inventory of these projects and an overall planning level cost estimate of the projects in this inventory. This cost estimate together with the projects already in the CLRP would provide the TPB with information on the cost and scope of projects in the financially constrained CLRP relative to the inventory of all projects currently in the region's long range transportation plans.

Once the inventory of the region's unfunded transportation projects has been developed, a second step in this exercise could be to review this list and identify projects that are particularly important from a regional perspective and would significantly advance achievement of the TPB's goals and priorities. The performance analysis of the 2014 CLRP showed significantly increased congestion on both the region's highway transit network. Using criteria established by the TPB from a regional perspective, it may be possible to identify a small subset of projects from the comprehensive inventory of unfunded projects that could significantly improve the performance of the regional transportation system in the longer term.

If consensus on a subset of projects from the inventory can be reached, then as a third step in this exercise, the TPB could host a regional forum to explore innovative approaches to generate new funding for the subset of significant projects identified to be a priority for this region. The intent would be to help advance these projects that would substantially benefit the region and advance the TPB's multi-modal goals and priorities as outlined in its Vision and Regional Transportation Priority Plan documents.

TPB staff would like to discuss with the TPB Steering Committee the potential uses of the Unfunded Project List suggested above by staff and come back to the Board with a recommended future direction for this effort.