NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD

Financially Constrained
# Long-Range Transportation Plan
For the National Capital Region

# CLRP 2014

# AIR QUALITY CONFORMITY ANALYSIS

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

The preparation of this report was financially aided through grants from the District of Columbia Department of Transportation, the Maryland Department of Transportation, the Virginia Department of Rail & Public Transportation, the Virginia Department of Transportation, the U.S. Department of Transportation, the Federal Highway Administration, and the Federal Transit Administration.

# ABSTRACT

TITLE: Air Quality Conformity Analysis of the 2014 Constrained Long Range Plan and the FY2015-2020 Transportation Improvement Program for the Washington Metropolitan Region

DATE: October 15, 2014

AGENCY: The Metropolitan Washington Council of Governments is the regional planning organization of the Washington area's major local governments. COG works on finding solutions to regional problems, especially those related to regional growth, transportation, housing, human services, and the environment.

ABSTRACT: This report documents an updated analysis of the 2014 Constrained Long Range Plan (CLRP) with respect to air quality conformity requirements under the 1990 Clean Air Act Amendments. The analysis used criteria and procedures contained in the Environmental Protection Agency (EPA)'s final conformity rule, published in the November 24, 1993 Federal Register, with subsequent amendments and additional federal guidance published by the Environmental Protection Agency (EPA) and by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). The anlaysis is a responsibility of the National Capital Region Transportation Planning Board (TPB).

The report presents an overview of the conformity requirements contained in the legislation and subsequent guidance, and documents the technical procedures used in the analysis including travel demand forecasting, emissions calculation procedures and impacts of transportation emission reduction measures. The analysis demonstrates that mobile source emissions for each analysis year of the long range plan, adhere to all carbon monoxide, ozone season volatile organic compound and nitrogen oxide, and fine particle ($PM_{2.5}$) pollutants (direct $PM_{2.5}$ and precursor nitrogen oxide) emissions budgets established by the Metropolitan Washington Air Quality Committee (MWAQC), and found adequate or approved the EPA. These results provide a basis for a determination of conformity of the 2014 CLRP and FY2015-2020 TIP.

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# EXECUTIVE SUMMARY

This report documents the air quality conformity analysis of the 2014 Constrained Long Range Plan (CLRP) and FY2015-2020 Transportation Improvement Program (TIP) as carried out under the regulations contained in the Environmental Protection Agency's final rule, published in the November 24, 1993 *Federal Register,* with subsequent amendments and additional federal guidance published by the Environmental Protection Agency (EPA), the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA). The process involved consultation with affected agencies such as the EPA, the FHWA, the FTA, and the Metropolitan Washington Air Quality Committee (MWAQC), as well as with the public. The analysis is a responsibility of the National Capital Region Transportation Planning Board.

The following summarizes the pollutants included in this analysis:

- **Ozone Season VOC and NOx.** On May 21, 2012 EPA designated the Washington, DC-MD–VA region as 'marginal' nonattainment for the 2008 ozone National Ambient Air Quality Standards (NAAQS). Under a 'marginal' designation it is not necessary to develop updated mobile budgets, however the region must still adhere to those currently approved by EPA under the old 1997 standard. The currently approved budgets for VOC and NOx were submitted to the EPA by the Metropolitan Washington Air Quality Committee (MWAQC) in 2007, as part of an 8-hour ozone SIP, responding to the 1997 Ozone Standard, under which the region was designated as 'moderate'. On February 7, 2013 EPA found adequate the 2009 Attainment and 2010 Contingency budgets included in this SIP. The budgets are 66.5 tons/day of Volatile Organic Compounds (VOC) and 146.1 tons/day of Nitrogen Oxides (NOx) for the 2009 Attainment Plan and 144.3 tons/day of NOx for the 2010 Contingency Plan.

- **Fine Particles ($PM_{2.5}$).** On December 17, 2004 EPA designated the Washington, DC-MD-VA region as nonattainment for the 1997 Fine Particles Standard. The region developed and submitted an Attainment SIP with motor vehicle emissions budgets for $PM_{2.5}$ direct and $PM_{2.5}$ Precursor NOx. On January 12, 2009, however the EPA determined that the region had attained the 1997 $PM_{2.5}$ NAAQS and issued a clean data determination for the area. The region subsequently withdrew the $PM_{2.5}$ Attainment SIP and decided to seek redesignation as a Maintenance Area for the 1997 $PM_{2.5}$ Fine Particles Standard. On May 22, 2013 MWAQC approved a $PM_{2.5}$ Redesignation Request and a Maintenance Plan for the Washington region. This Maintenance Plan includes forecast year mobile budgets for $PM_{2.5}$ direct and $PM_{2.5}$ Precursor NOx for 2017 and 2025. On April 28, 2014, EPA found these mobile budgets adequate for use in conformity analyses, with an effective date of May 13, 2014, so these budgets will be used for the first time officially in the conformity analysis of the 2014 CLRP. The Maintenance Plan includes two tiers of mobile budgets. Tier 1 budgets were based on mobile emission inventory projections for 2017 and 2025, and are applicable with EPA's adequacy finding. Tier 2 budgets were developed by adding a 20% buffer to the mobile emission inventory projections for 2017 and 2025. The Tier 2 mobile budgets will become effective if it is determined that technical uncertainties primarily due to model changes and to

vehicle fleet turnover, which may affect future motor vehicle emissions inventories, lead to motor vehicle emissions estimates above the Tier 1 budgets. The determination to use the Tier 2 budgets will be made through the interagency consultation process. Tier 1 mobile budgets are 1,787 tons/year for 2017 $PM_{2.5}$ direct, 1,350 tons/year for 2025 $PM_{2.5}$ direct, 41,709 tons/year for 2017 $PM_{2.5}$ Precursor NOx, and 27,400 tons/year for 2025 $PM_{2.5}$ Precursor NOx. Tier 2 mobile budgets are 2,144 tons/year for 2017 $PM_{2.5}$ direct, 1,586 tons/year for 2025 $PM_{2.5}$ direct, 50,051 tons/year for 2017 $PM_{2.5}$ Precursor NOx, and 32,880 tons/year for 2025 $PM_{2.5}$ Precursor NOx.

- **Wintertime CO.** The region is designated as a Maintenance Area for mobile source wintertime CO, and is required to show that CO emissions from on-road mobile sources do not exceed the approved budget of 1671.5 tons/day.

Emissions estimates for all pollutants were developed for 2015, 2017, 2025, 2030, and 2040 forecast years. The results show that the 2014 CLRP and FY2015-2020 TIP demonstrate adherence to relevant mobile source emissions budgets for all forecast years.. This analysis provides a basis for a determination of conformity for the 2013 CLRP and FY2013-2018 TIP.

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1. Transportation Conformity Regulations as of April 2012 EPA–420-B-12-013, EPA April 2012. http://www.epa.gov/otaq/stateresources/transconf/regs/420b12013.pdf

2. Transportation Planning Board Consultation Procedures With Respect to Transportation Conformity Regulations Governing TPB Plans and Programs, May 20, 1998, NCRTPB/MWCOG. https://www.mwcog.org/uploads/pub-documents/8ltbWg20050707145627.pdf

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12. Participation Plan, 2014 Update; September 17, 2014. http://www.mwcog.org/uploads/committee-documents/YF1YWVZZ20140911142542.pdf

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# LIST OF ACRONYMS

| | |
|---|---|
| AWDT | Average Weekday Traffic |
| BMC | Baltimore Metropolitan Council |
| CAAA | Clean Air Act Amendments of 1990 |
| CAC | Citizens Advisory Committee |
| CLRP | Constrained Long Range Plan |
| CMAQ | Congestion Mitigation & Air Quality |
| CO | Carbon Monoxide |
| DC DOT | District of Columbia Department of Transportation |
| DTP | (COG's) Department of Transportation Planning |
| FHWA | Federal Highway Administration |
| FTA | Federal Transit Administration |
| HOT | High Occupancy Toll |
| HOV | High Occupancy Vehicle |
| I/M | Inspection and Maintenance |
| LOV | Low Occupancy Vehicle |
| MDOT | Maryland Department of Transportation |
| MPO | Metropolitan Planning Organization |
| MSA | Metropolitan Statistical Area |
| MOVES | MOtor Vehicle Emissions Simulator |
| MVEB | Motor Vehicle Emissions Budget |
| MWAQC | Metropolitan Washington Air Quality Committee |
| MWCOG | Metropolitan Washington Council of Governments |
| NAAQS | National Ambient Air Quality Standards |
| NOx | Nitrogen Oxides |
| $PM_{2.5}$ | Fine Particles |
| PNR | Park and Ride Lot |
| SIP | State Implementation Plan |
| TAZ | Transportation Analysis Zone |
| TCM | Transportation Control Measure |
| TERM | Transportation Emission Reduction Measure |
| T/D | Tons Per Day |
| TIP | Transportation Improvement Program |
| TPB | Transportation Planning Board |
| US DOT | United States Department of Transportation |
| US EPA | United States Environmental Protection Agency |
| VDOT | Virginia Department of Transportation |
| VMT | Vehicle Miles Traveled |
| VOC | Volatile Organic Compounds |
| WMATA | Washington Metropolitan Area Transit Authority |

**TPB R5-2015**
**October 15, 2014**

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

**RESOLUTION FINDING THAT THE 2014 CONSTRAINED LONG RANGE PLAN AND FY2015-2020 TRANSPORTATION IMPROVEMENT PROGRAM CONFORM WITH THE REQUIREMENTS OF THE CLEAN AIR ACT AMENDMENTS OF 1990**

**WHEREAS**, the National Capital Region Transportation Planning Board (TPB) has been designated by the Governors of Maryland and Virginia and the Mayor of the District of Columbia as the Metropolitan Planning Organization (MPO) for the Washington Metropolitan Area; and

**WHEREAS**, the U.S. Environmental Protection Agency (EPA), in conjunction with the U.S. Department of Transportation (DOT), under the Clean Air Act Amendments of 1990 (CAAA), issued on November 24, 1993 "Criteria and Procedures for Determining Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Funded or Approved Under Title 23 U.S.C. or the Federal Transit Act," and, over the years, subsequently amended these regulations and provided additional guidance, which taken together provide the specific criteria for TPB to make a determination of conformity of its financially Constrained Long Range Transportation Plan (CLRP) and Transportation Improvement Program (TIP) with the state implementation plans (SIPs) for air quality attainment within the Metropolitan Washington non-attainment area; and

**WHEREAS**, a work program was developed to address all procedures and requirements, including public and interagency consultation, and the work program was released for public comment on March 13 and approved by the TPB at its April 16, 2014 meeting; and

**WHEREAS,** highway and transit projects inputs submitted for inclusion in the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP were released for public comment on March 13, 2014, and approved by the TPB at its April 16, 2014 meeting; and

**WHEREAS**, on September 11, 2014, the draft results of the Air Quality Conformity Analysis of the 2014 CLRP and the FY2015-2020 TIP were released for a 30-day public comment period and inter-agency review; and

**WHEREAS**, the analysis reported in *Air Quality Conformity Analysis of the 2014 Constrained Long Range Plan and the FY2015-2020 Transportation Improvement Program for the Washington Metropolitan Region*, dated October 15, 2014, demonstrates adherence to all mobile source emissions budgets for all pollutants analyzed: (1) ground level ozone precursors- Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx), (2) fine particulate matter – $PM_{2.5}$ direct and $PM_{2.5}$ Precursor

NOx, and (3) Wintertime Carbon Monoxide (CO), meets all regulatory, planning and interagency consultation requirements, and therefore provides the basis for a finding of conformity of the plan with the requirements of the CAAA; and

**WHEREAS**, in the attached letter of October 2, 2014, the Metropolitan Washington Air Quality Committee (MWAQC) has provided favorable comments on the *Air Quality Conformity Analysis of the 2014 Constrained Long Range Plan and the FY2015-2020 Transportation Improvement Program for the Washington Metropolitan Region*;

**NOW, THEREFORE, BE IT RESOLVED THAT** THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD determines that the 2014 Constrained Long Range Plan and the FY2015-2020 Transportation Improvement Program conform to all requirements of the Clean Air Act Amendments of 1990.

**Adopted by the Transportation Planning Board at its regular meeting on October 15, 2014**

# Metropolitan Washington Air Quality Committee

Suite 300, 777 North Capitol Street, N.E. Washington, D.C. 20002-4239 202-962-3358 Fax: 202-962-3203

October 2, 2014

Honorable Patrick Wojahn, Chair
National Capital Region Transportation Planning Board
777 North Capitol Street, NE
Washington, D.C. 20002

Dear Chair Wojahn:

Thank you for providing an opportunity to the Metropolitan Washington Air Quality Committee (MWAQC) to comment on the 2014 Constrained Long Range Plan (CLRP) and the FY2015-2020 Transportation Improvement Program (TIP). MWAQC has reviewed the draft Air Quality Conformity assessment and concurs that the transportation sector emissions associated with the proposed transportation plans meet the approved motor vehicle emissions budgets (MVEBs) for the 1997 8-hour ozone national ambient air quality standard (NAAQS); the MVEBs found adequate for the 1997 annual fine particulate matter ($PM_{2.5}$) NAAQS; and the approved MVEB for the carbon monoxide (CO) NAAQS.

The Washington region is currently working toward meeting the more stringent 2008 ozone standard of 75 parts per billion (ppb). Draft data from the air quality monitors for the period 2012 through 2014 shows the region's design value for ozone is now at 76 ppb; an indication that the air quality has been improving over the years and now there is a strong likelihood that the region will be able to attain the above NAAQS by the required deadline of December 2015. However, since the Washington region's compliance with the 2008 ozone NAAQS will be based on its ambient air quality levels during the period 2013 through 2015, the region would still need to continue its efforts of reducing emissions from both transportation and non-transportation sectors to make sure it is able to meet the above NAAQS by 2015.

MWAQC also notes that U.S. Environmental Protection Agency (EPA) is scheduled to propose a revised and potentially tougher ozone NAAQS likely somewhere in the range of 60-70 ppb in December 2014 and is expected to finalize it by October 2015. Therefore, the region would need to reduce its emissions even further in order to meet the above expected tougher NAAQS. While the recently adopted Tier 3 program will provide significant emissions reduction benefits from the transportation sector, MWAQC will need the support and consultation with TPB to examine emissions from the transportation sector and to identify new cost-effective strategies and opportunities to reduce emissions in order to meet the above expected tougher NAAQS. Please note that the MWAQC also intends to work with the non-transportation related sectors to reduce emission from those sectors in order to meet the expected tougher attainment requirements.

In its $PM_{2.5}$ Maintenance Plan submitted in May 2013 to the EPA , the Washington region committed to update MVEBs for $PM_{2.5}$ and oxides of nitrogen ($NO_x$) using the latest models by the end of 2015. EPA released a new version of the mobile emissions model called MOVES2014 in July 2014. This model includes the recently published Tier 3 vehicle emission and fuel standards rule as well as two greenhouse gas rules for motor vehicles. MWAQC would like to work with TPB to update the annual $PM_{2.5}$ and $NO_x$ MVEBs described in the above plan using the MOVES2014 model, updated 2014 motor vehicle registration data, and the most current version of TPB's Travel Demand Model.

MWAQC is encouraged to learn that the region is actually achieving reductions in per capita vehicle miles travelled (VMT), even with an increase in employment. We urge TPB's continued investment in VMT and emission reduction strategies including public transit, ride-sharing, and transit-oriented development, for example, to continue to mitigate future growth in vehicle emissions. MWAQC strongly urges TPB to maintain its commitments to Transportation Emission Reduction Measures and other emission reduction measures. All of these efforts are essential to meet the 2008 ozone standard and potentially more stringent ozone and fine particle standards expected in the future.

Thank you again for the opportunity to comment on the draft conformity analysis.

Sincerely,

Hon. David Snyder, Chair
Metropolitan Washington Air Quality Committee

## I. INTRODUCTION

The Washington region is currently designated as nonattainment for the federal health standards for ozone and fine particles ($PM_{2.5}$), and as a maintenance area for Wintertime Carbon Monoxide (CO). Clean air legislation in 1977 mandated that a metropolitan planning organization may not approve any transportation project that did not conform to the approved state implementation plan (SIP) for the attainment of clean air standards. This established the responsibility on the part of COG/TPB to review transportation plans and programs and affirm that they conform to air quality state implementation plans for the region.

This requirement means that TPB plans, programs, and projects must be consistent with clean air objectives. In the 1990 Clean Air Act Amendments, conformity to an implementation plan is defined as conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards. In addition, Federal activities may not cause or contribute to new violations of air quality standards, exacerbate existing violations, or interfere with timely attainment or required interim emission reductions towards attainment.

## II. CONFORMITY REGULATIONS

Background

On November 15, 1990 President Bush signed into law the Clean Air Act Amendments (CAAA) of 1990. The CAAA establishes standards and procedures for reducing human and environmental exposure to a range of pollutants generated by industry and transportation. The law allows EPA to define the boundaries of "nonattainment" areas for various pollutants. These are geographic areas whose air quality does not meet Federal air quality standards. The law also established nonattainment area classifications ranked according to the severity of the area's air pollution problem. These classifications are marginal, moderate, serious, severe, and extreme. EPA assigns each nonattainment area one of these categories, thus triggering various requirements the area must comply with in order to meet a particular standard. The Washington region is currently designated nonattainment for the federal health standards for ozone and fine particles ($PM_{2.5}$).

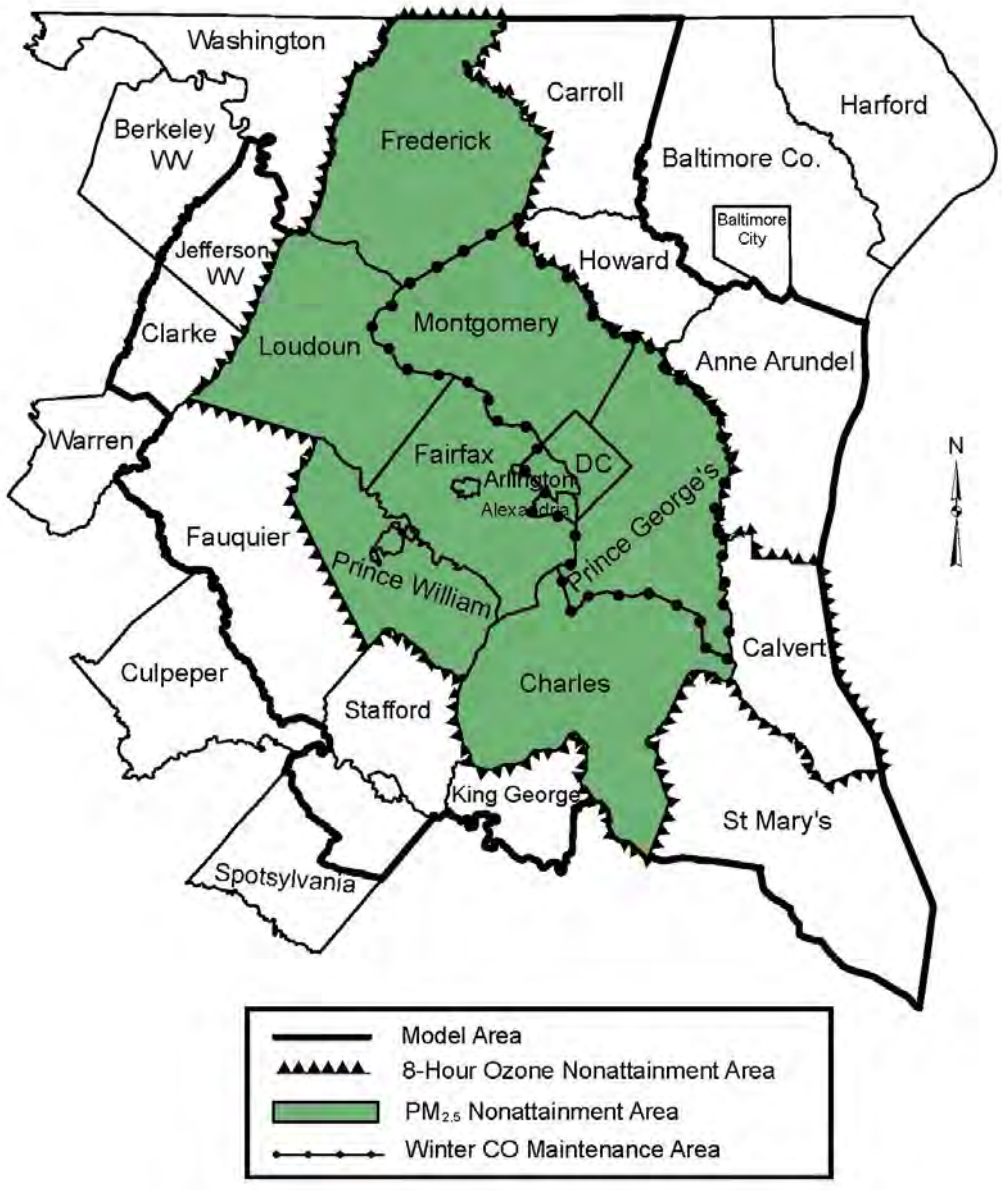
The concept of transportation conformity was introduced in the Clean Air Act (CAA) of 1977, which included a provision to ensure that Federal funding and approval go to those transportation activities that are consistent with air quality goals. These goals are set in each state's air quality implementation plan (SIP). Conformity requirements were made substantially more rigorous in the CAA Amendments of 1990. The transportation conformity regulations (Reference 1) that detail implementation of the CAA requirements were first issued in the November 24, 1993 *Federal Register*, and have been amended several times, most recently in April 2012 (federal register notice: March 14, 2012). The regulations establish the criteria and procedures for transportation agencies to demonstrate that air pollutant emissions from metropolitan Transportation

Plans, Transportation Improvement Programs (TIPs), and projects funded or approved by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA) are consistent with ("conform to") the State's air quality goals in the SIP.

## III. POLLUTANTS

The Washington Metropolitan Region is currently designated as nonattainment for ozone and fine particles ($PM_{2.5}$) pollutants. It is designated as a maintenance area for wintertime carbon monoxide (CO). The geography of the nonattainment area varies by pollutant. The map in Exhibit 1 outlines the boundaries of the each pollutant's nonattainment area.

**EXHIBIT 1**
**TPB Transportation Planning Area and**
**Washington, DC-MD-VA Nonattainment & Maintenance Areas**



Ozone Season Pollutants

On May 21, 2012 EPA designated the Metropolitan Washington, DC, (DC-MD-VA) region as 'marginal' nonattainment for the 2008 ozone National Ambient Air Quality Standards (NAAQS). Under a 'marginal' designation it is not necessary to develop updated mobile budgets; however, the region must still adhere to those currently approved by EPA under the old 1997 standard. The currently approved budgets for VOC and NOx were submitted to the EPA by the Metropolitan Washington Air Quality Committee (MWAQC) in 2007, as part of an 8-hour ozone SIP, responding to the 1997 Ozone Standard, under which the region was designated as 'moderate'. On February 7, 2013 EPA found adequate the 2009 Attainment and 2010 Contingency budgets included in this SIP. The budgets are 66.5 tons/day of Volatile Organic Compounds (VOC) and 146.1 tons/day of Nitrogen Oxides (NOx) for the 2009 Attainment Plan and 144.3 tons/day of NOx for the 2010 Contingency Plan.

Fine Particles Pollutants

On December 17, 2004 the Environmental Protection Agency (EPA) designated 224 counties, as well as the District of Columbia, that exceeded the health-based standards for fine particles ($PM_{2.5}$) as nonattainment areas. $PM_{2.5}$ standards refer to particulate matter less than or equal to 2.5 micrometers in diameter. The Washington, DC-MD-VA area was designated as nonattainment for $PM_{2.5}$ (see Exhibit 1 for area). On January 12, 2009, however, the EPA determined that the region had attained the 1997 $PM_{2.5}$ NAAQS and issued a clean data determination for the area. The region subsequently withdrew the $PM_{2.5}$ Attainment SIP and decided to seek redesignation as a Maintenance Area for the 1997 $PM_{2.5}$ Fine Particles NAAQS.

On May 22, 2013 MWAQC approved a $PM_{2.5}$ Redesignation Request and a Maintenance Plan for the Washington region. This Maintenance Plan includes forecast year mobile budgets for $PM_{2.5}$ direct and $PM_{2.5}$ Precursor NOx for 2017 and 2025. On April 28, 2014, EPA found these mobile budgets adequate for use in conformity analyses, with an effective date of May 13, 2014, so these budgets were used for the first time officially in the conformity analysis of the 2014 CLRP. On October 6, 2014 EPA approved the requests from the District of Columbia, Maryland, and Virginia to redesignate to attainment the Washington DC-MD-VA area for the 1997 NAAQS with an effective date of November 5, 2014.

The Maintenance Plan includes two tiers of mobile budgets. Tier 1 budgets were based on mobile emission inventory projections for 2017 and 2025, and are applicable with EPA's adequacy finding. Tier 2 budgets were developed by adding a 20% buffer to the mobile emission inventory projections for 2017 and 2025. The Tier 2 mobile budgets will become effective if it is determined that technical uncertainties primarily due to model changes and to vehicle fleet turnover, which may affect future motor vehicle emissions inventories, lead to motor vehicle emissions estimates above the Tier 1 budgets. The determination to use the Tier 2 budgets will be made through the interagency consultation process. Tier 1 mobile budgets are 1,787 tons/year for 2017

$PM_{2.5}$ direct, 1,350 tons/year for 2025 $PM_{2.5}$ direct, 41,709 tons/year for 2017 $PM_{2.5}$ Precursor NOx, and 27,400 tons/year for 2025 $PM_{2.5}$ Precursor NOx. Tier 2 mobile budgets are 2,144 tons/year for 2017 $PM_{2.5}$ direct, 1,586 tons/year for 2025 $PM_{2.5}$ direct, 50,051 tons/year for 2017 $PM_{2.5}$ Precursor NOx, and 32,880 tons/year for 2025 $PM_{2.5}$ Precursor NOx.

Wintertime Carbon Monoxide

The Metropolitan Washington DC-MD-VA region attained the federal carbon monoxide standard in the 1990s and submitted a CO maintenance plan covering the 1996-2007 period. EPA approved this maintenance plan effective March 16, 1996. The region was required to submit a second maintenance plan within eight years of its redesignation as an attainment area. This revised plan (Reference 3) was completed on February 19, 2004, and provides for attainment of the CO standard in the Washington DC-MD-VA attainment area through March 16, 2016. As a maintenance area, the region is required to show that pollutants do not exceed the approved mobile budget of 1671.5 tons/day.

## IV. TECHNICAL APPROACH

In developing the work program for this year's conformity analysis, contained as Appendix A of this report, staff identified latest planning assumptions and modeling techniques, and considered requirements of the conformity regulations, as well as requirements associated with, and comments received upon, past conformity analyses. Staff presented the work program to regional technical and policy committees starting in March 2014. Staff also coordinated the draft work program with EPA, FHWA, FTA and the state and local air management agencies through the TPB consultation procedures. This scope was adopted by the TPB on April 16, 2014. Exhibit 2 summarizes the key technical components of this conformity analysis.

# EXHIBIT 2
## Summary of Technical Approach

| | Ozone | Wintertime CO | $PM_{2.5}$ |
|---|---|---|---|
| **Pollutant:** | VOC, NOx | CO | Direct particles, Precursor NOx |
| **Mobile Model:** | MOVES 2010a | MOVES 2010a | MOVES 2010a |
| **Conformity Test:** | Budget Test: Using mobile budgets most recently approved by EPA. 2009 attainment and 2010 contingency budgets found adequate for use in conformity by EPA in Feb. 2013. All budgets were set using Mobile6 emissions model and submitted to EPA in 2007. | Budget Test: Using mobile budgets established with the Wintertime CO maintenance plan. All budgets set using Mobile6 emissions model and submitted to EPA in 2007. | Budget Test: Using mobile budgets established in the $PM_{2.5}$ Redesignation Request and Maintenance Plan approved by MWAQC on May 22, 2013 and found adequate for use in conformity analyses by EPA on April 28, 2014. |
| **Emissions Analysis Time-frame:** | Daily | Daily | Annual |
| **Vehicle Fleet Data:** | 2011 vehicle registration data for all jurisdictions | | |
| **Geography:** | 8-hour ozone non-attainment area | DC, Arlington, Alexandria, Montgomery Co., Prince George's Co. | 8-hour ozone non-attainment area less Calvert County |
| **Network Inputs:** | Regionally significant projects | | |
| **Land Activity:** | NEW! Round 8.3 | | |
| **Modeled Area:** | 3722 TAZ SYSTEM | | |
| **Travel Demand Model:** | Version 2.3.57 | | |

Technical work activities for the 2014 CLRP and FY2015-2020 TIP included the preparation of travel demand forecasts (Vehicle Miles Traveled and trip data) and emissions inventories (daily ozone season VOC and NOx emissions, yearly direct $PM_{2.5}$ and $PM_{2.5}$ precursor NOx emissions, and daily wintertime CO emissions) for each of the specified analysis years (2015, 2017, 2025, 2030, and 2040). The emissions inventories address a primary conformity assessment criterion to demonstrate that the plan adheres to established mobile source emissions budgets for all analyzed pollutants.

## V. TRAVEL FORECASTS

Travel Model

The preparation of travel forecasts for each of the conformity alternatives was carried out using the Version 2.3.57 travel modeling process. The 2.3 travel model operates on a 3722-zone area system. It was initially calibrated using the 2007/08 Household Travel

Survey (Reference 4). It was subsequently validated using 2010 data including traffic counts, Metrorail electronic counts, the American Community Survey, and the Geographically Focused Household Travel Survey (Reference 5).

As part of the technical methods originally employed in 2000, transit capacity constraint procedures, constraining trips to and through the regional core at 2020 levels, were applied to better relate transit forecast levels with transit carrying ability. These procedures are documented in the Version 2.3 travel model Calibration Report (Reference 4) and User's Guide (Reference 6).

As in recent years' analyses, in addition to existing toll facilities, the 2014 CLRP and FY2015-2020 TIP includes portions of the Virginia beltway and I-95 in Virginia as managed facilities, with time-of-day tolls used to ensure that a high level of service is maintained throughout the day. The Version 2.3 travel model Calibration Report and a HOT Lanes Modeling memo (Reference 7) document these procedures.

Network Development

Work on this task began last winter with the request for project inputs to the 2014 CLRP and FY2015-2020 TIP. All project submissions were reviewed and organized by DTP staff into transportation networks for appropriate forecast years, according to the project's completion date as estimated by the programming agency. The TPB approved the final project inputs at its April meeting.

These projects, summarized by state, agency, project characteristics and completion date are contained as Appendix B to this report. The list contains transit, highway, and HOV/HOT projects. Each project submission was reviewed and, where appropriate, coded highway and transit networks. In many cases the project inputs could not be coded into a regional network since such projects did not involve changes in capacity (e.g., transit operating assistance, highway rehabilitation, bridge reconstruction) or were too small to show up at the regional level (e.g., intersection improvements, improvements to a facility which is not contained in the regional networks). Exhibit 3 presents mileage summaries for the highway system, according to LOV and HOV/HOT lane miles, and for the rail transit system.

The COG modeled area includes counties outside the non-attainment areas to enable better simulation results within the non-attainment areas. Project inputs from these outer counties are provided by their respective MPOs, state DOTs, or county DOTs, and are coded, when appropriate, into the highway and transit networks. While travel demand estimates include all counties in the modeled area, emissions estimates are only tabulated for the defined nonattainment area for each pollutant.

## EXHIBIT 3

# RAIL AND ROAD MILES

(modeled area)

| | LOV<br>LANE MILES<br>TOTAL | HOV/HOT<br>LANE MILES<br>TOTAL | METRORAIL<br>MILES<br>TOTAL | COMMUTER RAIL * MILES<br>TOTAL | STREETCAR, LIGHTRAIL ** MILES<br>TOTAL |
|---|---|---|---|---|---|
| 2015 | 22,936 | 302 | 119 | 220 | 3 |
| 2017 | 23,057 | 310 | 131 | 220 | 10 |
| 2025 | 23,904 | 362 | 131 | 220 | 35 |
| 2030 | 23,990 | 399 | 131 | 220 | 35 |
| 2040 | 24,163 | 415 | 131 | 220 | 35 |

* Includes MARC and VRE

** Includes Purple Line, Arlington Streetcar (Columbia Pike & US 1 Corridor) & DC Streetcar (Anacostia, M St. SE/SW, Union Station/Georgetown, H St./Benning Rd., Benning Rd. extension, & Benning Rd. spur)

NOTE: If a lane operates as HOV/HOT during any part of the day, it is counted in the HOV/HOT column.

Land Activity

The COG Board approved the draft Round 8.3 Cooperative Forecasts for use in the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP in February, 2014. This update from Round 8.2 includes changes in the District, as well as Frederick, Fairfax, Loudoun, and Prince William counties. Generally Round 8.3, has slightly higher region-wide projections of households, population, and employment by 2040 when compared to Round 8.2. It also includes updates from the Baltimore region (BMC Round 8) for Anne Arundel, Howard, and Carroll counties. Exhibit 4 presents Round 8.3 household data for each of the years in the conformity analysis. Exhibit 5 presents similar data for the employment assumptions, and Exhibit 6 presents population assumptions. The employment data reflect census adjustments (References 8 & 9).

# EXHIBIT 4
# HOUSEHOLD DATA

| TPB PLANNING AREA: | 2015 | 2017 | 2020 | 2025 | 2030 | 2040 |
|---|---|---|---|---|---|---|
| | | | | | | |
| D.C. | 287,112 | 294,489 | 305,550 | 323,191 | 340,307 | 370,758 |
| MONTGOMERY | 377,524 | 385,296 | 396,955 | 414,873 | 434,767 | 460,161 |
| PR.GEORGES | 323,364 | 328,465 | 336,107 | 348,307 | 359,878 | 379,020 |
| ARLINGTON | 105,692 | 108,296 | 112,211 | 117,332 | 121,383 | 128,605 |
| ALEXANDRIA | 72,306 | 74,175 | 76,978 | 81,352 | 84,717 | 94,890 |
| FAIRFAX | 412,183 | 419,165 | 429,673 | 455,610 | 478,867 | 523,521 |
| LOUDOUN | 122,644 | 129,391 | 139,505 | 151,558 | 158,142 | 164,297 |
| PR. WILLIAM | 166,083 | 172,975 | 183,321 | 197,890 | 210,450 | 229,944 |
| FREDERICK | 89,935 | 92,546 | 96,471 | 103,944 | 111,118 | 123,247 |
| CHARLES | 57,528 | 60,235 | 64,299 | 70,833 | 75,847 | 85,901 |
| SUBTOTAL | 2,014,371 | 2,065,033 | 2,141,070 | 2,264,890 | 2,375,476 | 2,560,344 |
| ADDITIONAL COUNTIES: | | | | | | |
| HOWARD | 116,453 | 120,597 | 126,806 | 133,807 | 137,635 | 140,696 |
| ANNE ARUNDEL | 206,441 | 209,268 | 213,504 | 220,567 | 227,628 | 241,619 |
| CALVERT | 34,298 | 34,991 | 36,027 | 37,374 | 38,348 | 40,301 |
| CARROLL | 64,142 | 64,972 | 66,219 | 68,025 | 69,692 | 72,853 |
| FREDERICKSBURG (VA) &N. SPOTSYLVANIA | 47,742 | 49,894 | 53,122 | 57,878 | 62,604 | 69,306 |
| CLARKE&JEFFERSON | 29,378 | 30,455 | 32,064 | 34,783 | 37,347 | 42,371 |
| FAUQUIER | 25,337 | 25,981 | 26,954 | 28,616 | 30,272 | 33,801 |
| K. GEORGE | 9,808 | 10,379 | 11,237 | 12,808 | 14,366 | 17,142 |
| ST. MARY'S | 44,443 | 46,408 | 49,352 | 53,960 | 58,143 | 66,509 |
| STAFFORD | 49,673 | 52,815 | 57,533 | 65,473 | 73,367 | 87,670 |
| SUBTOTAL | 627,715 | 645,760 | 672,818 | 713,291 | 749,402 | 812,268 |
| TOTAL | 2,642,086 | 2,710,793 | 2,813,888 | 2,978,181 | 3,124,878 | 3,372,612 |

SOURCE:
MWCOG Round 8.3 Cooperative Forecasts
BMC Round 8 Cooperative Forecasts
George Washington Regional Commission / Federicksburg Area MPO February 2013
TAZ Refinements of the January 2012 GWRC/FAMPO Long-Range Transportation Plan
Update Control Estimates and Forecasts for City of Fredericksburg, King George, Spotsylvania and Stafford Counties
Tri-County Council for Southern Maryland data for Calvert, Charles and St. Mary's
COG/TPB Staff used Virginia Employment Commission Population Projections, February 2013 for Clark and Fauquier Counties
COG/TPB Staff used West Virginia University Population Projections, February 2013 for Jefferson County

# EXHIBIT 5
# EMPLOYMENT DATA

| TPB PLANNING AREA: | 2015 | 2017 | 2020 | 2025 | 2030 | 2040 |
|---|---|---|---|---|---|---|
| | | | | | | |
| D.C. | 814,957 | 833,701 | 861,814 | 905,846 | 944,096 | 1,001,814 |
| MONTGOMERY | 532,004 | 544,949 | 564,377 | 598,824 | 635,264 | 715,121 |
| PR.GEORGES | 356,958 | 365,324 | 377,879 | 403,134 | 427,514 | 497,652 |
| ARLINGTON | 247,460 | 258,989 | 276,281 | 292,078 | 303,044 | 308,830 |
| ALEXANDRIA | 110,248 | 112,872 | 116,812 | 131,152 | 149,552 | 167,598 |
| FAIRFAX | 693,803 | 719,557 | 758,260 | 814,740 | 866,739 | 930,665 |
| LOUDOUN | 163,850 | 177,217 | 197,265 | 224,249 | 248,803 | 278,216 |
| PR. WILLIAM | 163,423 | 172,538 | 186,215 | 207,340 | 230,047 | 278,151 |
| FREDERICK | 102,014 | 103,707 | 106,242 | 109,802 | 114,558 | 125,556 |
| CHARLES | 68,439 | 69,758 | 71,731 | 74,731 | 77,537 | 83,138 |
| SUBTOTAL | 3,253,156 | 3,358,612 | 3,516,876 | 3,761,896 | 3,997,154 | 4,386,741 |
| ADDITIONAL COUNTIES: | | | | | | |
| HOWARD | 172,819 | 178,098 | 186,021 | 199,221 | 212,413 | 229,066 |
| ANNE ARUNDEL | 321,519 | 328,912 | 339,998 | 353,529 | 367,834 | 398,632 |
| CALVERT | 41,059 | 42,422 | 44,457 | 46,258 | 47,159 | 48,955 |
| CARROLL | 67,946 | 69,081 | 70,781 | 72,933 | 75,219 | 79,383 |
| FREDERICKSBURG (VA) &N. SPOTSYLVANIA | 78,759 | 81,609 | 85,881 | 92,897 | 99,865 | 116,175 |
| CLARKE & JEFFERSON | 27,533 | 28,329 | 29,530 | 31,348 | 33,052 | 36,300 |
| FAUQUIER | 29,270 | 30,016 | 31,135 | 33,071 | 34,996 | 39,086 |
| K. GEORGE | 17,804 | 18,433 | 19,377 | 20,947 | 22,490 | 25,747 |
| ST. MARY'S | 64,083 | 65,350 | 67,268 | 70,093 | 71,969 | 75,862 |
| STAFFORD | 52,681 | 54,970 | 58,399 | 64,304 | 70,170 | 84,159 |
| SUBTOTAL | 873,473 | 897,220 | 932,847 | 984,601 | 1,035,167 | 1,133,365 |
| TOTAL | 4,126,629 | 4,255,832 | 4,449,723 | 4,746,497 | 5,032,321 | 5,520,106 |

SOURCE:
MWCOG Round 8.3 Cooperative Forecasts
BMC Round 8 Cooperative Forecasts
George Washington Regional Commission / Federicksburg Area MPO February 2013
TAZ Refinements of the January 2012 GWRC/FAMPO Long-Range Transportation Plan
Update Control Estimates and Forecasts for City of Fredericksburg, King George, Spotsylvania and Stafford Counties
- Tri-County Council for Southern Maryland data for Calvert, Charles and St. Mary's
- COG/TPB Staff used West Virginia University population projections, February 2013 for Clark and Fauquier Counties
- COG/TPB Staff used West Virginia University population projections, February 2013 for Jefferson County

NOTE: Includes Census Adjustment

# EXHIBIT 6
# POPULATION DATA

| TPB PLANNING AREA: | 2015 | 2017 | 2020 | 2025 | 2030 | 2040 |
|---|---|---|---|---|---|---|
| | | | | | | |
| D.C. | 660,528 | 682,499 | 715,494 | 764,267 | 808,718 | 883,568 |
| MONTGOMERY | 1,020,036 | 1,038,835 | 1,067,030 | 1,109,953 | 1,153,912 | 1,202,769 |
| PR.GEORGES | 881,379 | 888,788 | 899,912 | 926,944 | 950,030 | 995,503 |
| ARLINGTON | 222,885 | 228,161 | 236,083 | 248,682 | 258,757 | 276,072 |
| ALEXANDRIA | 148,513 | 152,348 | 158,102 | 167,085 | 174,030 | 194,890 |
| FAIRFAX | 1,154,153 | 1,169,931 | 1,193,606 | 1,254,384 | 1,308,944 | 1,414,154 |
| LOUDOUN | 367,957 | 387,970 | 417,986 | 452,242 | 468,664 | 484,498 |
| PR. WILLIAM | 505,772 | 524,245 | 551,967 | 589,645 | 623,113 | 675,953 |
| FREDERICK | 241,616 | 248,507 | 258,849 | 278,654 | 297,708 | 329,955 |
| CHARLES | 160,098 | 166,434 | 175,953 | 191,475 | 202,552 | 224,871 |
| SUBTOTAL | 5,362,937 | 5,487,718 | 5,674,982 | 5,983,331 | 6,246,428 | 6,682,233 |
| ADDITIONAL COUNTIES: | | | | | | |
| HOWARD | 302,206 | 309,870 | 321,370 | 334,991 | 343,327 | 350,116 |
| ANNE ARUNDEL | 555,159 | 562,478 | 573,462 | 585,521 | 597,135 | 615,624 |
| CALVERT | 96,500 | 98,081 | 100,450 | 103,253 | 105,099 | 108,882 |
| CARROLL | 170,549 | 172,687 | 175,901 | 179,437 | 183,258 | 189,574 |
| FREDERICKSBURG (VA) &N. SPOTSYLVANIA | 133,403 | 138,651 | 146,515 | 158,276 | 169,994 | 189,052 |
| CLARKE&JEFFERSON | 72,419 | 74,540 | 77,714 | 82,518 | 87,075 | 95,697 |
| FAUQUIER | 69,658 | 71,440 | 74,114 | 78,710 | 83,306 | 93,022 |
| K. GEORGE | 26,911 | 28,237 | 30,226 | 34,029 | 37,819 | 44,707 |
| ST. MARY'S | 118,184 | 122,945 | 130,098 | 141,135 | 151,403 | 173,832 |
| STAFFORD | 149,386 | 157,536 | 169,774 | 191,249 | 212,671 | 251,851 |
| SUBTOTAL | 1,694,375 | 1,736,465 | 1,799,624 | 1,889,119 | 1,971,087 | 2,112,357 |
| TOTAL | 7,057,312 | 7,224,183 | 7,474,606 | 7,872,450 | 8,217,515 | 8,794,590 |

SOURCE:
Includes Household and Group Quarters Population
MWCOG Round 8.3 Cooperative Forecasts
BMC Round 8 Cooperative Forecasts
George Washington Regional Commission / Federicksburg Area MPO February 2013
TAZ Refinements of the January 2012 GWRC/FAMPO Long-Range Transportation Plan
Update Control Estimates and Forecasts for City of Fredericksburg, King George, Spotsylvania and Stafford Counties
Tri-County Council for Southern Maryland data for Calvert, Charles and St. Mary's
COG/TPB Staff used Virginia Employment Commission Population Projections, February 2013 for Clark and Fauquier Counties
COG/TPB Staff used West Virginia University Population Projections, February 2013 for Jefferson County

Travel Summaries

After coding the networks, staff executed the travel forecasting process using the Version 2.3.57 model. Transit fares include the latest assumptions for all coded transit service and reflect policies such as price differentials for those who use SmarTrip versus those who use paper fare cards or cash. Transit capacity constraint procedures, in which transit trips to and through the core of the region are constrained at 2020 levels, are in place for 2025, 2030, and 2040 forecast years. Summary mode choice results are shown in Exhibits 7A and 7B. VMT summaries are shown in Exhibit 8. It should be noted that while VMT increases through time, VMT per capita decreases.

## EXHIBIT 7A

**2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY**
**DAILY REGIONAL HOME BASED WORK PURPOSE MODE ANALYSIS BY YEAR**
**(Based on Mode Choice Output - 4th Iteration)**

| YEAR | HBW MOTORIZED PERSON | TOTAL HBW AUTO PSN | HBW SINGLE OCCUPANT AUTO PSN | HBW MULTIPLE OCCUPANT AUTO PSN | TOTAL HBW AUTO DRV | HBW CAR OCC. | HBW TRANSIT | HBW TRANSIT (%) |
|---|---|---|---|---|---|---|---|---|
| **2015** | 3,979,258 | 3,141,278 | 2,673,478 | 467,799 | 2,882,151 | 1.09 | 837,980 | 21.10% |
| **2017** | 4,075,114 | 3,193,454 | 2,716,879 | 476,575 | 2,928,854 | 1.09 | 881,660 | 21.60% |
| **2025** | 4,451,707 | 3,460,566 | 2,904,245 | 556,322 | 3,137,845 | 1.10 | 991,141 | 22.30% |
| **2030** | 4,647,569 | 3,620,190 | 3,009,038 | 611,152 | 3,259,840 | 1.11 | 1,027,380 | 22.10% |
| **2040** | 4,986,295 | 3,889,006 | 3,224,418 | 664,589 | 3,495,369 | 1.11 | 1,097,289 | 22.00% |

## EXHIBIT 7B

**2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY**
**DAILY REGIONAL ANALYSIS BY YEAR FOR ALL TRIP PURPOSES**
**(Based on Mode Choice Output - 4th Iteration)**

| YEAR | TOTAL MOTORIZED PERSON | TOTAL AUTO PSN | SINGLE OCCUPANT AUTO PSN | MULTIPLE OCCUPANT AUTO PSN | TOTAL AUTO DRV | TOTAL CAR OCC. | TOTAL TRANSIT | TRANSIT (%) |
|---|---|---|---|---|---|---|---|---|
| **2015** | 19,287,802 | 18,112,657 | 9,362,041 | 8,750,616 | 12,886,954 | 1.41 | 1,175,145 | 6.10% |
| **2017** | 19,691,634 | 18,455,765 | 9,498,168 | 8,957,597 | 13,102,937 | 1.41 | 1,235,869 | 6.30% |
| **2025** | 21,254,974 | 19,855,098 | 10,075,485 | 9,779,613 | 13,987,023 | 1.42 | 1,399,875 | 6.60% |
| **2030** | 22,053,154 | 20,603,016 | 10,394,559 | 10,208,457 | 14,467,452 | 1.42 | 1,450,139 | 6.60% |
| **2040** | 23,400,961 | 21,853,001 | 10,950,909 | 10,902,092 | 15,289,031 | 1.43 | 1,547,961 | 6.60% |

*Note: Starting in 2020, all HOV facilities are HOV3+

EXHIBIT 8

**2014 CLRP / FY2015-2020 TIP AIR QUALITY CONFORMITY**
**MODELED AREA TRIPS AND VEHICLE MILES TRAVELED**
**AVERAGE WEEKDAY TRAFFIC (AAWDT)**
**(Based on Final Iteration)**

| YEAR | WORK AND NON-WORK AUTO DRV | TRUCKS (Med + Hvy) | MISC + THRU TRIPS | COMMERCIAL VEHICLES | TOTAL VEH. TRIPS | TOTAL VMT |
|---|---|---|---|---|---|---|
| **2015** | 13,917,611 | 689,216 | 866,773 | 1,373,827 | 16,847,427 | 167,728,795 |
| **2017** | 14,165,232 | 702,439 | 893,477 | 1,406,964 | 17,168,112 | 171,082,032 |
| **2025** | 15,182,084 | 758,612 | 998,014 | 1,532,519 | 18,471,229 | 186,310,088 |
| **2030** | 15,754,073 | 789,379 | 1,060,849 | 1,603,660 | 19,207,961 | 194,932,026 |
| **2040** | 16,683,918 | 847,665 | 1,171,113 | 1,735,284 | 20,437,980 | 207,557,341 |

## VI. EMISSIONS

MOVES

MOVES (MOtor Vehicle Emissions Simulator) is a computer program designed by the US Environmental Protection Agency (EPA) to estimate emissions from on-road mobile sources. Officially released in 2010, the MOVES model version, MOVES2010, replaced the previous on-road emissions model, MOBILE6.2. MOVES2010a, a subsequent release of the program, was used in this analysis.

A task force including staff from both transportation and environmental agencies worked together to outline the approach for the use of the MOVES model. During 18 monthly meetings between August 2009 and January 2011, the MOVES Task Force accomplished the following: (1) approved the use of local input data in the MOVES County Data Manager instead of EPA default values, a decision that was based on a series of sensitivity tests evaluating the appropriateness of using local data; (2) approved the county level as the appropriate level of disaggregation in the MOVES County Data Manager, a decision that was based on a series of sensitivity tests evaluating the appropriateness of the domain (reflecting state level) versus the county (jurisdictional level); and (3) selected the Inventory Approach as opposed to the Emissions Rate approach as the preferred method of developing mobile emissions inventories for Air Quality Conformity Determinations.

MOVES Inputs

Input data from ten broad categories were used in the MOVES County Manager in order to generate the mobile emissions inventories for each analysis year. Five of these categories are travel-related (i.e., derived from the regional travel demand model), and five of these are obtained either directly from state agencies (i.e. air agencies and Department of Motor Vehicles), or developed based on actual meteorological data.

Exhibit 9 summarizes these categories, and indicates the methodology used to develop these data.

EXHIBIT 9

Local Input Data Categories

| No | Data Category | Data Table Name | Locality | Methodology |
|---|---|---|---|---|
| 1 | Age Distribution | **sourceTypeAgeDistribution** | County | based on VIN |
| 2 | Average Speed Distribution | **avgSpeedDistribution** | County | based on travel demand model's post-processor outputs + school bus/refuse truck data from Fairfax Co. + transit bus from WMATA |
| 3 | Road Type Distribution | **roadTypeDistribution** | County | based on travel demand model's post-processor outputs |
| 4 | Source Type Population | **sourceTypeYear** | County | based on CLRP Vehicle Projection & VIN |
| 5 | Vehicle Type VMT | **HPMSVTypeYear** | County | based on TDM's post-processor outputs |
| | | **monthVMTFraction** | Region | based on Regional Data |
| | | **dayVMTFraction** | Region | based on Regional Data |
| | | **hourVMTFraction** | Region | based on Regional Data |
| 6 | Ramp Fraction | **roadType** | Region | 8% of the urban/rural restricted access roads |
| 7 | Fuel | **FuelSupply** | State | from state air agency (state-wide data) |
| 8 | | **FuelFormulation** | State | from state air agency (state-wide data) |
| 9 | I/M Programs | **IMCoverage** | State | from state air agency (state-wide data) |
| 10 | Meteorology Data | **zoneMonthHour** | State | from DEP (region-wide data) |

Age Distribution and Source Type Population refer to vehicle fleet characteristics, and are developed using regional vehicle registration (VIN) data. Age Distribution refers to the age of the vehicle fleet by vehicle type. For Age Distribution, registered vehicles are divided into 13 vehicle classes and 31 age categories in a series of steps, using a commercial decoding software program and an EPA-developed converter. Source Type Population refers to the specific types of vehicles in the fleet. Trendlines (Reference 10) derived from actual vehicle population data from the period 1975-2011 serve as the basis for developing total vehicle population projections, by jurisdiction, for the analysis years. For each forecast year the population is then converted into 13 vehicle types using a population mapping table included in EPA's technical guidance.

Average Speed Distribution is average vehicle speeds stratified by vehicle type, road type, time of day, and type of day (i.e. weekday vs. weekend). Average vehicle speed data are used to derive Vehicle Hours of Travel (VHT). Speed data from the travel demand model are stratified, using a post processor, into hourly VHT for each jurisdiction by 3 vehicle types, 4 road types, and 16 speed bins. VHT distribution for trash trucks, school buses, and transit buses is derived using locally observed data.

Road Type Distribution is the percentage of VMT allocated to each road type by vehicle type. The VMT by road type is stratified into 13 vehicle types and 4 road types.

The average annual weekday VMT by six HPMS vehicle types from the travel demand model is fed into the EPA-provided annual VMT converter with local monthly adjustment factors and weekend-day adjustment factors. The converter develops annual VMT in six HPMS vehicle types as required for MOVES and provides two additional outputs, "monthVMTfraction" and "dayVMTfraction". The local "hourlyVMTfraction" is also provided as part of the annual VMT input.

With the MOVES model, local data is used to provide bus VMT estimates. Local bus VMT is substituted for heavy duty vehicle VMT from the travel model. With the MOVES model, auto access to transit VMT is added to the travel model VMT. In order to develop auto access VMT, TPB staff gathered capacity information for current and future parking lots. Parking lot capacities were kept constant through all forecast years because quality historic data is not currently available to develop future growth trends. However, in subsequent conformity analyses this assumption may change if reliable data become available. A regional average home-to-transit travel distance of 4.5 miles was assumed for most parking lots. This assumption was based on findings from Commuter Connections surveys and a 2012 Geographically Focused Travel Survey. An average home-to-transit travel distance of 7.5 miles was used for certain parking lots where longer commuting distances apply. The parking capacity was multiplied by twice the average travel distance to provide auto access to transit VMT.

Ramp Fraction is the percentage of driving time on ramps by road type. Local data indicate that ramp time represents 8 percent of VHT. This, coincidentally, is the same as the national default value.

Appendix D includes a detailed description of how the MOVES inputs were developed. TPB staff developed the travel-related MOVES inputs based on the regional travel demand model (Version 2.3.57). COG's Department of Environmental Programs (DEP) staff provided inputs related to Fuel Supply and Formulation and Inspection and Maintenance (I/M) programs, as well as Meteorology Data. Fuel and I/M program data were supplied directly from DC, Maryland, and Virginia's air agencies in MOVES ready formats. Meteorology data were developed by DEP staff and supplied as hourly records of temperature and relative humidity in MOVES format.

Mobile Emissions Inventories

*Ozone Season*

The emissions results for ozone season pollutants are summarized in Exhibits 10 and 11, and indicate total VOC and NOx emissions for each analysis year. The emissions are shown in relation to the approved mobile budget for each pollutant. Ozone season emissions show reductions through time despite steady increases in vehicle trips and VMT in the forecast years. The emissions reductions are attributed to cleaner vehicles and fuel standards, including Tier 2 federal standards, Tier 3 fuel formulation, and related emissions reductions/control programs. Tier 3 engine improvements are not included in this conformity analysis because MOVES2010a cannot account for those reductions. The Tier 3 engine improvements will be included once the region adopts MOVES2014 for used in conformity analyses. As programs are put into place, emissions reductions are realized, and decreases continue through time as fleet turnover replaces older vehicles. The uptick in emissions between 2030 and 2040 occurs as the cleaner vehicles have saturated the fleet, and the benefits from programs such as Tier 2 and Tier 3 can no longer keep pace with the emissions resulting from VMT increases.

*$PM_{2.5}$*

Direct $PM_{2.5}$ and precursor NOx emissions totals are shown in Exhibits 12 and 13. The $PM_{2.5}$ direct and $PM_{2.5}$ Precursor NOx emissions are shown in relation to the Tier 1 level mobile budgets contained in the region's $PM_{2.5}$ Maintenance SIP. The Tier 2 level mobile budgets for these pollutants are available for conformity on an as/if needed basis. Current analysis indicates no such need and, as such, Tier 1 level budgets are in effect and are the only ones included on the graphs. As seen for ozone season pollutants, fine particles pollutants show significant reductions through time. These are attributed to cleaner vehicles and fuel standards, including Tier 2 federal standards, Tier 3 fuel formulation, and the heavy duty engine rule. As with ozone season pollutants, the uptick in fine particles emissions between 2030 and 2040 occurs as the cleaner vehicles have saturated the fleet, and the benefits from programs such as Tier 2 and Tier 3 can no longer keep pace with the emissions resulting from VMT increases.

*Wintertime CO*

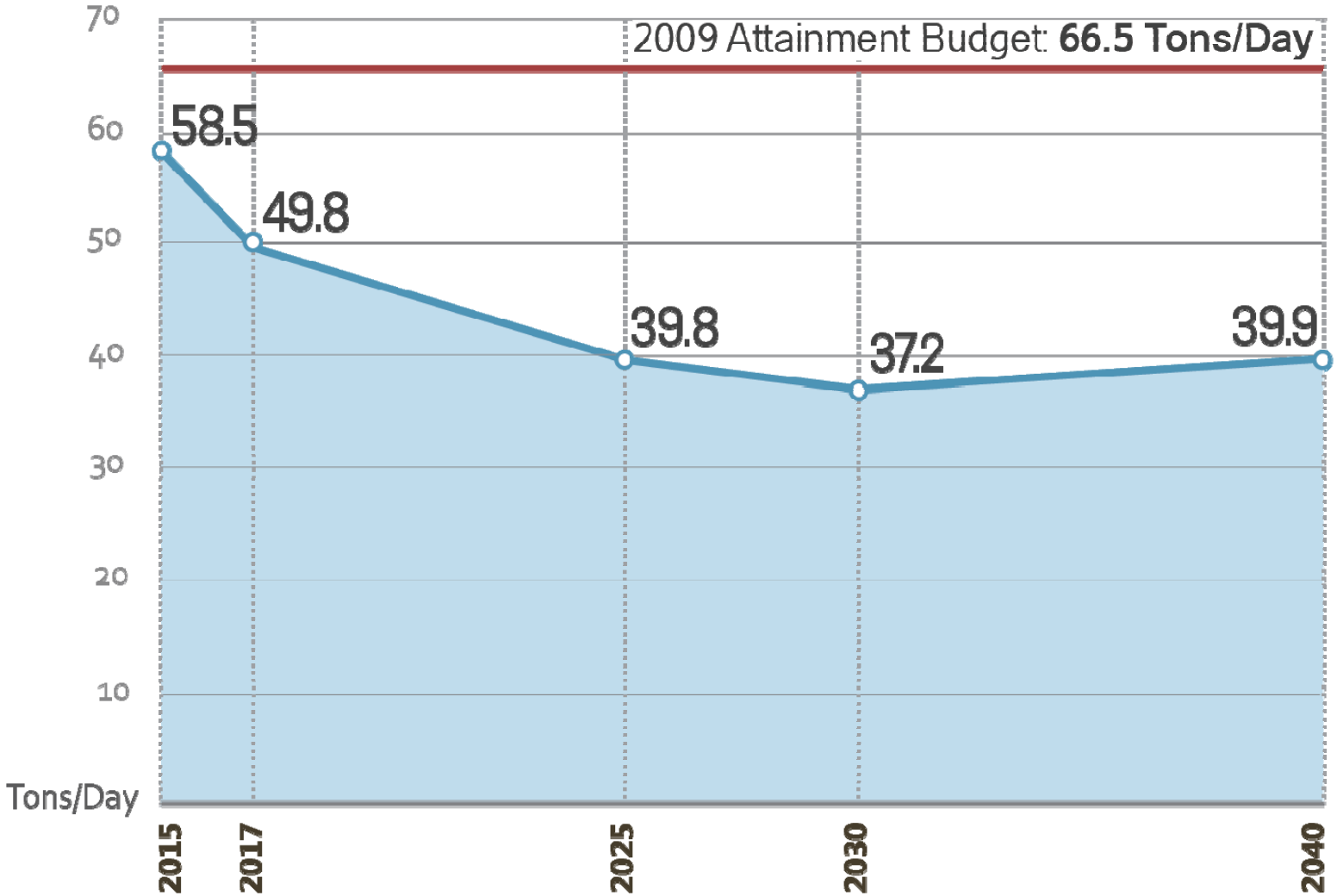
Wintertime CO emissions are shown in Exhibit 14. They are shown in relation to the mobile budget in the Wintertime CO Maintenance Plan.

<u>2014 CLRP Emissions Inventories vs. Budgets</u>

Exhibits 10-14 display net emissions for each forecast year. The charts show that emissions are within the mobile budgets for all analyzed pollutants for all forecast years.

NOTE: The Mobile Budget shown was developed in 2007, as part of the 8-Hour Ozone SIP, in response to the 1997 Ozone Standard. This budget, as the most current approved by EPA, is required for use in any conformity analysis assessing ozone season pollutants.

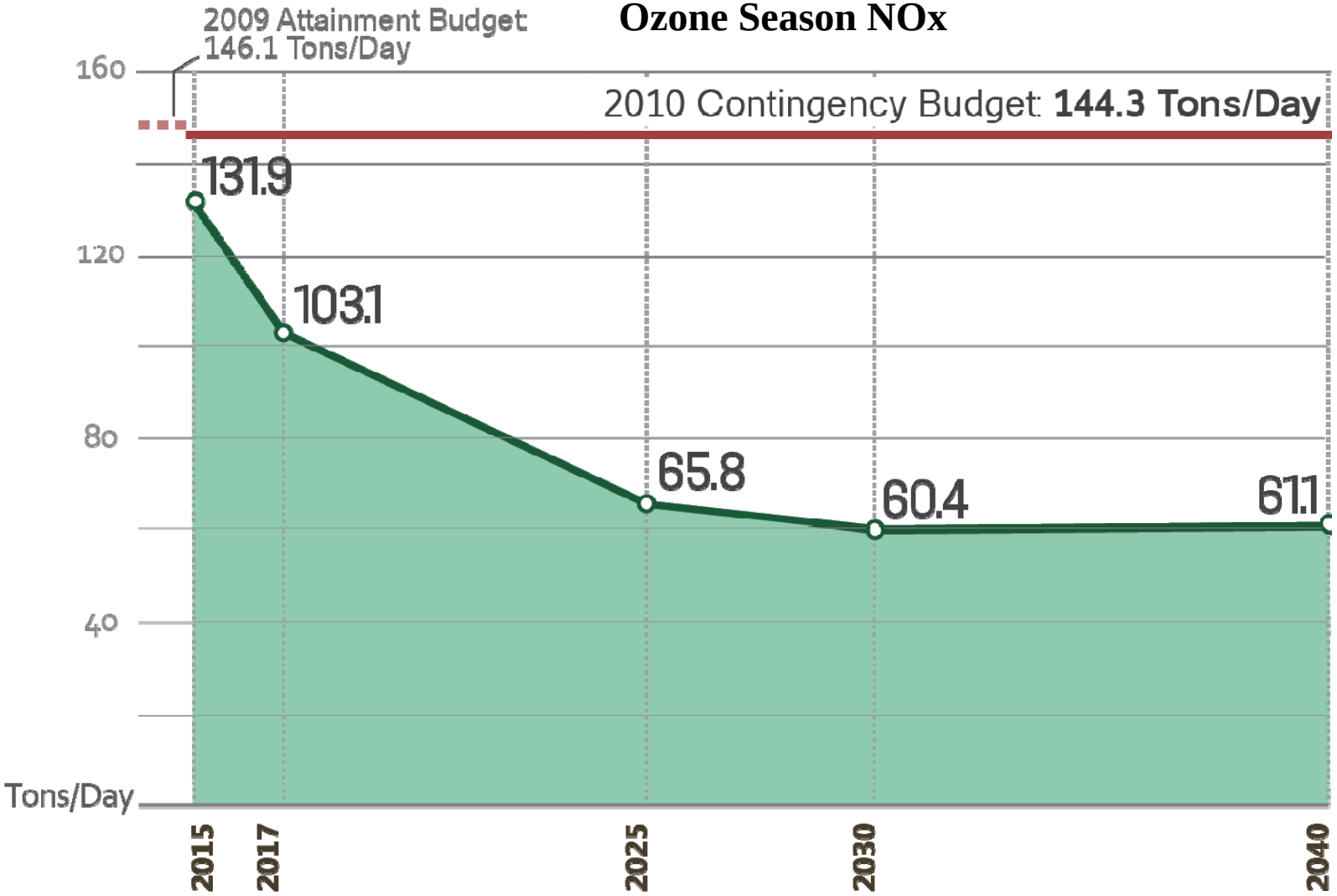
# EXHIBIT 10
# AIR QUALITY CONFORMITY
# 2014 CLRP & FY2015-2020 TIP
# Mobile Source Emissions
# Ozone Season VOC




TCMs and TERMS are not included in totals.

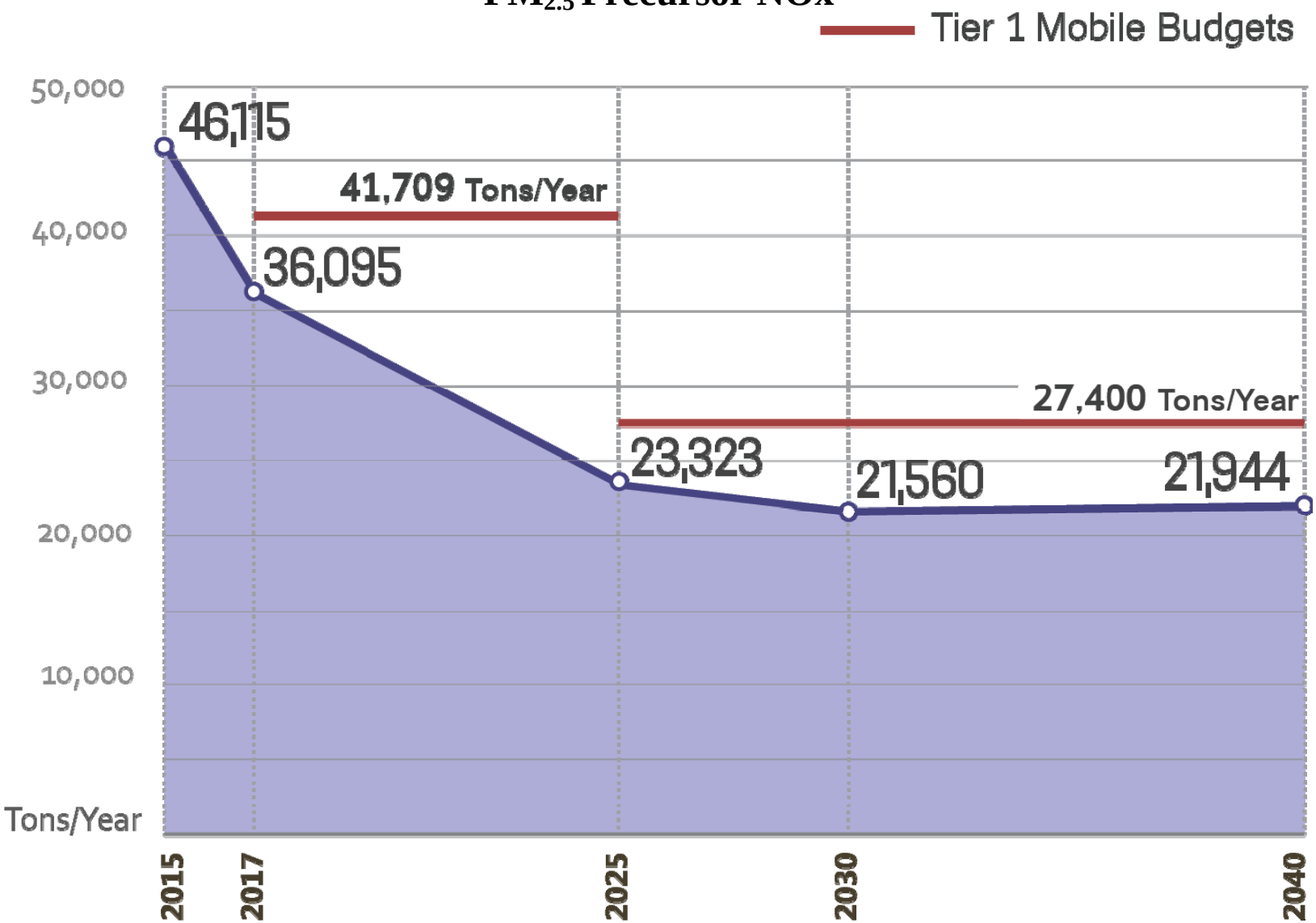
NOTE: The Mobile Budgets shown were developed in 2007, as part of the 8-Hour Ozone SIP, in response to the 1997 Ozone Standard. These budgets, as the most current approved by EPA, are required for use in any conformity analysis assessing ozone season pollutants.

# EXHIBIT 11
# AIR QUALITY CONFORMITY
# 2014 CLRP & FY2015-2020 TIP
## Mobile Source Emissions
## Ozone Season NOx




TCMs and TERMS are not included in totals.

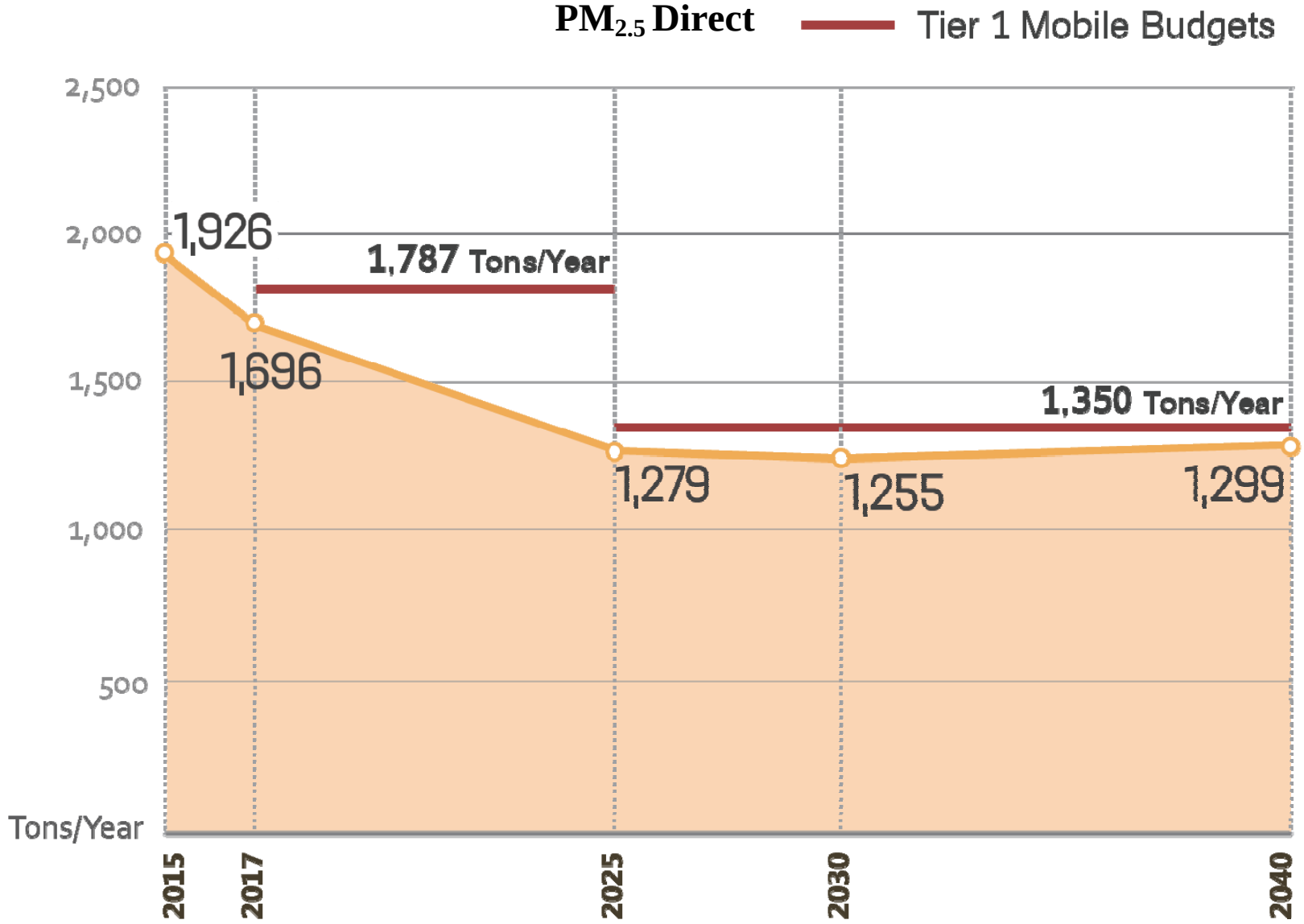
# EXHIBIT 12
# AIR QUALITY CONFORMITY
# 2014 CLRP & FY2015-2020 TIP
## Mobile Source Emissions
## $PM_{2.5}$ Precursor NOx





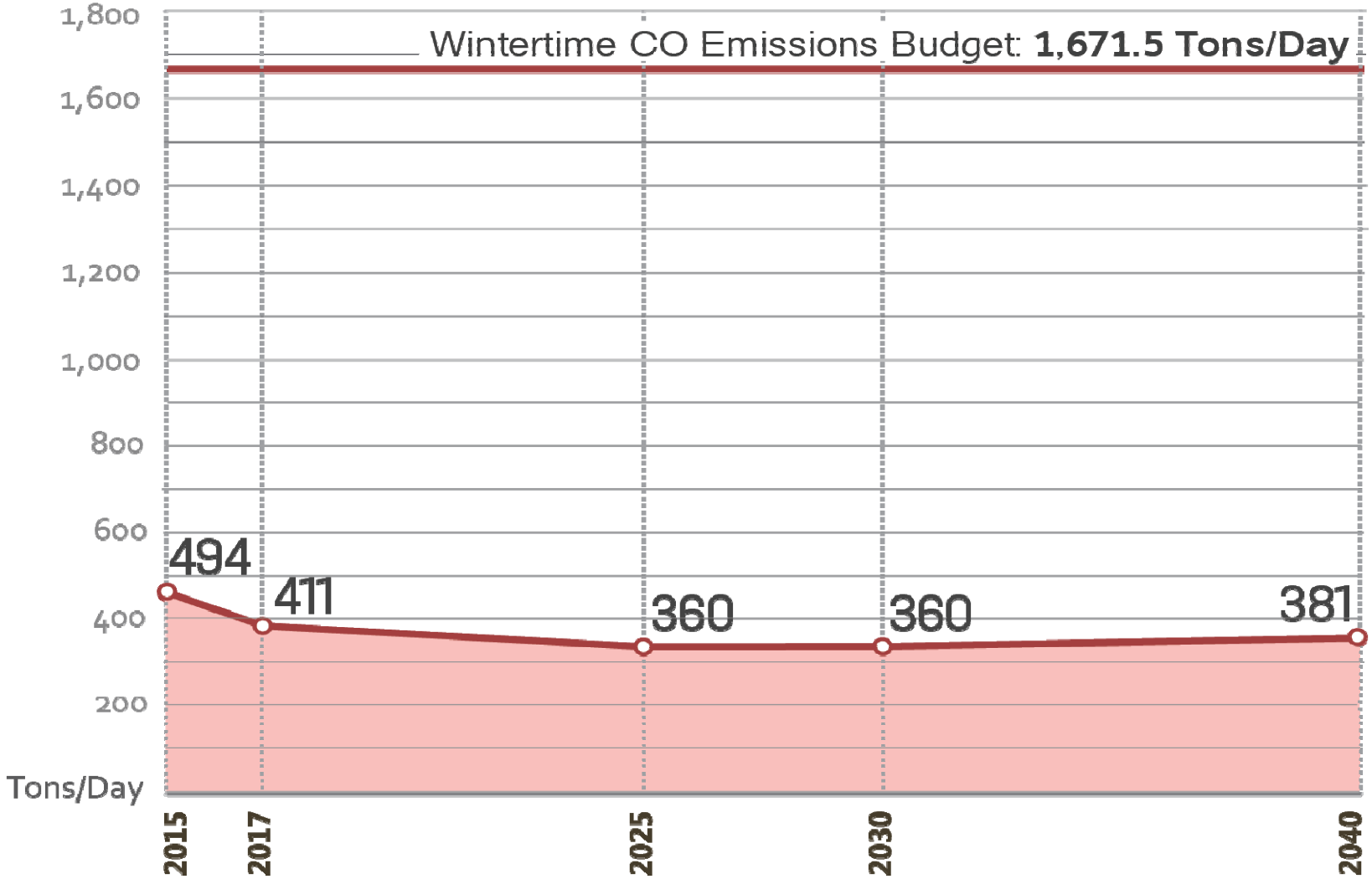

TCMs and TERMS are not included in totals.

# EXHIBIT 13
# AIR QUALITY CONFORMITY
# 2014 CLRP & FY2015-2020 TIP
# Mobile Source Emissions
# $PM_{2.5}$ Direct




TCMs and TERMS are not included in totals.

# EXHIBIT 14
# AIR QUALITY CONFORMITY
# 2014 CLRP & FY2015-2020 TIP
# Mobile Source Emissions
# Wintertime CO




TCMs and TERMS are not included in totals.

TERMs

Transportation Emission Reduction Measures (TERMs) are strategies or actions that the TPB can employ to offset increases in emissions from mobile sources. TERMs are generally intended to reduce either the number of vehicle trips (VT), vehicle miles traveled (VMT), or both. These strategies may include ridesharing and telecommuting programs, improved transit and bicycling facilities, clean fuel vehicle programs or other possible actions.

TERMs were analyzed using emissions rates generated in a post-processing environment using MOVES outputs from the conformity analysis. This approach ensured consistency of assumptions, inputs, and methodologies with conformity. Only projects put into place after 2010, or projects with improvements since 2010, were included in this analysis.

TERMs analyzed for the 2014 CLRP and FY2015-2020 TIP conformity analysis were grouped into four broad categories. Each category consisted of a grouping of several similar and related activities:

- TPB Commuter Connections Program
- Regional Incident Management Program
- Pedestrian Facilities Expansions & Enhancements
- Freeform Carpooling (Slug Lots)

Exhibit 15 lists the emission reduction potential of these TERMs, by pollutant, for each analysis year. The benefits of these projects are not included in the emissions totals in this report, but are available, if necessary, to offset future growth in mobile emissions. Appendix F contains detailed information about the updated TERMs analysis.

Looking Ahead

While TERMs offer some emissions benefits, other more substantial benefits are anticipated from federal-level programs currently under development. EPA recently proposed Tier 3 Motor Vehicle Emission and Fuel Standards, which would reduce both tailpipe and evaporative emissions from cars and trucks. Reductions in emissions of $NO_X$, VOC, $PM_{2.5}$ and air toxics expected as a result of these standards are projected to lead to significant decreases in ambient concentrations of ozone, $PM_{2.5}$, and air toxics. EPA estimates reductions of 8% NOx, 3% VOC, and .1% $PM_{2.5}$ to on-road inventories by the end of 2017, and reductions of 28% NOx, 23% VOC, and 10% $PM_{2.5}$ to on-road inventories by the end of 2030 (Reference 11). These significant reductions will lead to air quality improvements that are important both for maintaining current NAAQS and for addressing future, potentially tougher, air quality standards.

# EXHIBIT 15

# 2014 CLRP
# TRANSPORTATION EMISSIONS REDUCTION MEASURES
# SUMMARY TABLE

| REGIONAL EMISSIONS REDUCTIONS- ALL TERMS COMBINED | | | | | |
|---|---|---|---|---|---|
| **Years/Pollutants** | **Ozone - VOC** | **Ozone - NOx** | **PM2.5 Direct** | **Precursor NOx** | **Winter CO** |
| | (tons/day) | (tons/day) | (tons/year) | (tons/year) | (tons/day) |
| **2015** | 0.06 | 0.10 | 1.11 | 26.72 | 1.07 |
| **2017** | 0.07 | 0.10 | 1.42 | 27.53 | 1.30 |
| **2025** | 0.10 | 0.11 | 2.32 | 30.43 | 2.14 |
| **2030** | 0.12 | 0.13 | 2.99 | 34.63 | 2.74 |
| **2040** | 0.19 | 0.19 | 4.56 | 49.88 | 4.23 |

NOTE: Benefits from these TERMs are not included in the emissions totals in this conformity analysis.

Transportation Control Measures (TCMs)

Section 93.113 of the conformity regulations requires the timely implementation of TCMs. All adopted TCMs for this region were included in the 1-Hour Ozone SIP and the 8-Hour Ozone SIP. The 1-Hour Ozone SIP was adopted by MWAQC on February 19, 2004 and the mobile budgets were found adequate by EPA in December, 2003. The 8-Hour Ozone SIP was adopted by MWAQC on May 23, 2007, and replaced the 1-Hour Ozone SIP when EPA found the Reasonable Further Progress (RFP) mobile budgets adequate for use in conformity in September, 2009. All TCMs included in these SIPs were implemented in a timely manner, as documented in Appendix F of this report.

## VII. CONSULTATION & PUBLIC PARTICIPATION

Consultation

The conformity regulations require that Metropolitan Planning Organizations (MPOs) make Transportation Plans, TIPs, and conformity determinations available to the public, and accept

and respond to public comment. The Transportation Planning Board (TPB) staff went through a lengthy process involving EPA and state and local air quality agencies to develop the region's transportation and air quality conformity consultation procedures. These procedures have been organized into a report, Transportation Planning Board Consultation Procedures with Respect to Transportation Conformity Regulations Governing TPB Plans and Programs (Reference 2). They were adopted by the Board initially on September 21, 1994 and subsequently updated in response to EPA's August 15, 1997 amendments, and formally adopted by the TPB on May 20, 1998. The procedures seek early involvement of the air agencies in the transportation planning process through concurrent mailings to the TPB and consultation agencies of all material relevant to transportation conformity, including announcements of work sessions and public forums in which the materials will be discussed.

Public Participation

Public participation is a federal requirement initially outlined in the Intermodal Surface Transportation Efficiency Act of 1991, included in subsequent legislation, and most recently reaffirmed in the federal transportation reauthorization bill, Moving Ahead for Progress in the 21st Century (MAP-21), signed into law in 2012. Public participation is recognized as an integral part of the planning process.

The Region's fourth *Participation Plan* (Reference 12), adopted by the TPB on September 17, 2014, provides an overall framework for participation in the TPB process. The *Participation Plan* describes the policies of the TPB regarding public involvement activities relating to the development of TPB Plans and Programs, including the air quality conformity analysis. The *Participation Plan* ensures that the TPB follows federal requirements for public involvement, by including the following procedures:

- A public comment period of at least 30 days precedes the approval of documents
- Consideration is given and written responses are prepared to comments received
- TPB provides an additional opportunity for public comment, if the final CLRP or TIP differs significantly from the version that was made available for public comment by the TPB and raises new material issues which interested parties could not reasonably have foreseen from the public involvement efforts
- When significant written and oral comments are received on the draft CLRP and TIP (including financial plans) as a result of the participation process in the interagency consultation process required under the transportation conformity regulations (40 CFR part 93), a summary, analysis, and report on the disposition of comments shall be made as part of the final CLRP and TIP
- A period of time at the beginning of each TPB meeting is provided for public comment by interested citizens and groups on transportation issues under consideration by the TPB, and provide follow-up acknowledgement and response (as appropriate)
- Opportunities for public comment are offered on the TPB website
- Access to the technical and policy activities of the TPB is offered through open attendance at meetings of the TPB, and its Technical Committee and Subcommittees
- All publicly available TPB documents are posted on the TPB website, and otherwise

opportunities are sought to make reports and technical information widely available through the website
- Reports and technical information material are distributed at TPB, technical committees' and subcommittees' meetings free of charge
- At least one formal public meeting is provided during the TIP development process.

The TPB maintains and supports two public advisory committees, The Citizens Advisory Committee (CAC) and the Access for All Advisory Committee (AFA). These committees are intended to promote public involvement and represent the opinions of a variety of communities and interests. The CAC includes individual citizens and representatives of environmental, business, and civic interests concerned with regional transportation matters. The AFA advises the TPB on transportation issues, programs, policies, and services that are important to low-income communities, minority communities, and people with disabilities. Participants in the AFA include individuals and organizations that represent traditionally unrepresented populations.

The TPB also maintains a portfolio of websites as well as Facebook and Twitter accounts. The websites include a Transportation Homepage ("What's Happening in Transportation") http://www.mwcog.org/transportation, a Transportation Planning Information Hub http://www.transportationplanninghub.org, and pages specific to the CLRP http://www.mwcog.org/clrp. These websites cover planning activities, including online meeting calendars of the TPB, technical committees and subcommittees with links to the corresponding meeting agendas and support materials. Staff uses Facebook and Twitter to announce meetings, events, public comment periods, and release of key publications and reports.

The TPB publishes two newsletters, the *TPB Weekly Report* and *TPB News*. The *TPB Weekly Report* www.mwcog.org/tpbweeklyreport is an online publication designed to provide concise and timely updates of recent TPB research, analysis, outreach and planning. It reaches several hundred TPB stakeholders, media representatives, governmental agencies staff and members of the general public. *TPB News*, http://www.mwcog.org/store/item.asp?PUBLICATION_ID=94 is an online and print publication designed to provide concise updates pertaining to recent planning activities and events. It also includes a 3-month schedule of all advisory committee meetings.

The TPB provided two 30-day comment periods associated with this conformity analysis. The first was for a review of inputs and the conformity scope of work, and the second was for a review of the conformity analysis results and the CLRP and TIP documents. Each comment period began at a CAC meeting, where staff distributed materials and discussed the documents being released for comment. The TPB websites announced the comment opportunities. The Washington Post, The Afro-American, and the El Pregonero posted ads publicizing the comment period information. The TPB provides a comment opportunity at the beginning of each monthly meeting. The CLRP schedule in Exhibit 16 lists these opportunities.

Additional materials including a sample consultation letter, website announcements, Twitter and Facebook postings, and copies of the newspaper notifications are contained in Appendix C.

Additional information about public comment procedures as well as a detailed listing of all TPB consultation and public comment opportunities associated with the conformity assessment of the 2014 CLRP and FY2015-2020 TIP are also included in Appendix C.

**EXHIBIT 16**

**Schedule for the 2014 Financially Constrained Long-Range Transportation Plan (CLRP) and the FY2015-2020 Transportation Improvement Program (TIP)**

| | |
|---|---|
| *October 16, 2013 | TPB is Briefed on Draft Call for Projects |
| *November 20, 2013 | TPB Releases Final Call for Projects - Transportation Agencies Begin Submitting Project Information through On-Line Database |
| December 13, 2013 | **DEADLINE:** Transportation Agencies Complete On-Line Submission of Draft Project Inputs. |
| March 7, 2014 | Technical Committee Reviews Draft CLRP & TIP Project Submissions and Draft Scope of Work for the Air Quality Conformity Analysis |
| March 13, 2014 | CLRP & TIP Project Submissions and Draft Scope of Work Released for Public Comment |
| *March 19, 2014 | TPB is Briefed on Project Submissions and Draft Scope of Work |
| April 8, 2014 | TPB Staff Briefs MWAQC TAC on Project Submissions and Scope of Work |
| April 12, 2014 | Public Comment Period Ends |
| *April 16, 2014 | TPB Reviews Public Comments and is asked to Approve Project Submissions and Draft Scope of Work |
| June 6, 2014 | DEADLINE: Transportation Agencies Finalize Congestion Management Documentation Forms (where needed) and CLRP & TIP Forms. (Submissions must not impact conformity inputs; note that the deadline for changes affecting conformity inputs was April 16, 2014). |
| September 5, 2014 | Technical Committee Reviews Draft CLRP & TIP and Conformity Analysis |
| September 11, 2014 | Draft CLRP & TIP and Conformity Analysis Released for Public Comment at Citizens Advisory Committee (CAC) |
| *September 17, 2014 | TPB Briefed on the Draft CLRP & TIP and Conformity Analysis |
| September 9, 2014 | TPB Staff Briefs MWAQC TAC on the Draft CLRP & TIP and Conformity Analysis |
| October 11, 2014 | Public Comment Period Ends |
| *October 15, 2014 | TPB Reviews Public Comments and Responses to Comments, and is Presented the Draft CLRP & TIP and Conformity Analysis for Adoption |

*TPB Meeting

## VIII. FISCAL CONSTRAINT

EPA's conformity regulations require that transportation plans and TIPs must be fiscally constrained in order to be found in conformity. Every four years the TPB conducts a "major" update of the CLRP. This update includes a financial analysis of the regional transportation

plan and program. A report (Reference 13) documenting this financial plan for the 2014 CLRP is available on the COG website. The financial plan demonstrates that the updated 2014 CLRP and FY2015-2020 TIP, covering the period 2015 through 2040, is financially constrained. The plan is fiscally realistic, balancing all proposed new project investments and system maintenance and operating costs with reasonable revenue expectations. The plan demonstrates that the forecast revenues reasonably expected to be available cover the estimated costs of expanding and adequately maintaining and operating the highway and transit system in the region.

A total of $244 billion in transportation expenditures is projected for the Washington Metropolitan Region for the 26-year period from 2015 to 2040. WMATA expenditures constitute 41 percent and local transit 18 percent of the total for the 2014 CLRP and highways constitute 41 percent. The majority of future transportation revenues will be devoted to the operations and maintenance of the current transit and highway systems. However, funding is identified for significant capital projects, including the Streetcar Projects and the South Capitol Street Corridor project in the District of Columbia; I-270 widening, reconstruction of the Nice Bridge, the Purple Line, the Corridor Cities Transitway, and the MARC Growth and Investment Plan for commuter rail in Maryland; and the I-95 HOT Lanes, phase two of the Silver Line, the Columbia Pike streetcar, and the VRE System Expansion Plan in Virginia. The plan also demonstrates full funding for WMATA's forecast needs for both Operations and State of Good Repair through 2040. Exhibit 17 shows the balanced revenue and expenditures tables for the 2014 CLRP.

**EXHIBIT 17**
**REVENUES & EXPENDITURES**
**(in millions of year-of-expenditure dollars)**

| REVENUES: | Federal | State | Local | Private / Other | Fares / Tolls | TOTAL |
|---|---|---|---|---|---|---|
| **District of Columbia** | | | | | | |
| Highway | $5,624 | $2,128 | | $1,956 | | $9,708 |
| Local Transit | $282 | $5,210 | | | $879 | $6,371 |
| Commuter Rail | | | | | | $0 |
| WMATA Support | | $17,042 | | | | $17,042 |
| ***Sub-Total*** | ***$5,906*** | ***$24,380*** | ***$0*** | ***$1,956*** | ***$879*** | ***$33,121*** |
| | *17.8%* | *73.6%* | *0.0%* | *5.9%* | *2.7%* | |
| **Maryland** | | | | | | |
| Highway | $11,494 | $26,622 | $10,023 | $824 | | $48,964 |
| Local Transit | $1,791 | $5,125 | $6,380 | | $2,422 | $15,718 |
| Commuter Rail | | $4,951 | | | $791 | $5,742 |
| WMATA Support | | $16,902 | | | | $16,902 |
| ***Sub-Total*** | ***$13,285*** | ***$53,600*** | ***$16,403*** | ***$824*** | ***$3,213*** | ***$87,325*** |
| | *15.2%* | *61.4%* | *18.8%* | *0.9%* | *3.7%* | |
| **Virginia** | | | | | | |
| Highway | $3,767 | $12,036 | $13,880 | $2,745 | $8,080 | $40,509 |
| Local Transit | $294 | $1,794 | $4,909 | $1,573 | $3,268 | $11,838 |
| Commuter Rail | $1,125 | $602 | $583 | $8 | $1,430 | $3,749 |
| WMATA Support | | $5,860 | $6,525 | | | $12,385 |
| ***Sub-Total*** | ***$5,186*** | ***$20,292*** | ***$25,897*** | ***$4,327*** | ***$12,779*** | ***$68,480*** |
| | *7.6%* | *29.6%* | *37.8%* | *6.3%* | *18.7%* | |
| **WMATA Fares, Grants and Other Nonjurisdictional (Regional) Funds** | | | | | | |
| ***Sub-Total*** | $13,382 | | | $647 | $41,132 | $55,160 |
| **GRAND TOTAL** | **$37,759** | **$98,272** | **$42,300** | **$7,754** | **$58,002** | **$244,086** |

| EXPENDITURES: | Operations | State of Good Repair | Expansion | TOTAL |
|---|---|---|---|---|
| **District of Columbia** | | | | |
| Highway | $1,297 | $6,332 | $2,079 | $9,708 |
| Local Transit | $3,710 | $159 | $2,502 | $6,371 |
| Commuter Rail | | | | $0 |
| WMATA Support | $12,768 | $4,073 | $201 | $17,042 |
| ***Sub-Total*** | ***$17,775*** | ***$10,564*** | ***$4,782*** | ***$33,121*** |
| **Maryland** | | | | |
| Highway | $10,582 | $21,437 | $16,945 | $48,964 |
| Local Transit | $7,788 | $2,136 | $5,795 | $15,718 |
| Commuter Rail | $2,882 | $565 | $2,295 | $5,742 |
| WMATA Support | $12,764 | $3,946 | $192 | $16,902 |
| ***Sub-Total*** | ***$34,016*** | ***$28,083*** | ***$25,227*** | ***$87,325*** |
| **Virginia** | | | | |
| Highway | $12,050 | $20,434 | $8,024 | $40,508 |
| Local Transit | $6,482 | $1,839 | $3,517 | $11,837 |
| Commuter Rail | $2,723 | $216 | $810 | $3,749 |
| WMATA Support | $8,508 | $3,704 | $174 | $12,386 |
| ***Sub-Total*** | ***$29,763*** | ***$26,192*** | ***$12,525*** | ***$68,480*** |
| **WMATA Fares, Grants and Other Nonjurisdictional (Regional) Funds** | | | | |
| ***Sub-Total*** | $41,132 | $14,028 | | ***$55,160*** |
| **GRAND TOTAL** | ***$122,685*** | ***$78,867*** | ***$42,534*** | ***$244,086*** |

## IX. CONFORMITY ANALYSIS - CRITERIA AND PROCEDURES

EPA's conformity regulations identify criteria and procedures for the determination of conformity. The March 14, 2012 amendments to EPA's regulations represent the current transportation conformity requirements. The following sections indicate: (1) the appropriate sections of the regulations which must be adhered to in this conformity analysis, and (2) the manner in which the regulations have been met.

Conformity Criteria

This section identifies the criteria (sections of the regulations) which the CLRP must meet in order to conform to current implementation plans in the District of Columbia, Maryland and Virginia. Exhibit 18 lists the sections of the regulations relevant for the analysis of the 2014 CLRP and FY2015-2020 TIP. The following discussion indicates the manner in which each criterion was met.

**EXHIBIT 18**

Conformity Criteria

| | |
|---|---|
| All Actions at all times: | |
| Sec. 93.110 | Latest planning assumptions. |
| Sec. 93.111 | Latest emissions model. |
| Sec. 93.112 | Consultation. |
| Transportation Plan: | |
| Sec. 93.113(b) | TCMs. |
| Sec. 93.118 and/or | Emissions budget and /or Interim |
| Sec. 93.119 | emissions. |
| TIP: | |
| Sec. 93.113(c) | TCMs. |
| Sec. 93.118 and/or | Emissions budget and /or Interim |
| Sec. 93.119 | emissions. |
| Project (From a Conforming Plan and TIP): | |
| Sec. 93.114 | Currently conforming plan and TIP. |
| Sec. 93.115 | Project from a conforming plan and TIP. |
| Sec. 93.116 | CO, $PM_{10}$, and $PM_{2.5}$ hot spots. |
| Sec. 93.117 | $PM_{10}$ and $PM_{2.5}$ control measures. |
| Project (Not From a Conforming Plan and TIP): | |
| Sec. 93.113(d) | TCMs. |
| Sec. 93.114 | Currently conforming plan and TIP. |
| Sec. 93.116 | CO, $PM_{10}$, and $PM_{2.5}$ hot spots. |
| Sec. 93.117 | $PM_{10}$ and $PM_{2.5}$ control measures. |
| Sec. 93.118 and/or | Emissions budget and/or Interim |
| Sec. 93.119 | emissions |

**Sec. 93.110 Criteria and procedures: Latest planning assumptions.**

The conformity analysis is based upon the most current planning assumptions available for the Washington region. Round 8.3 Cooperative Forecasts were approved for use in the conformity analysis of the 2014 CLRP and FY2015-2020 TIP. These forecasts were developed and reviewed with an explicit perspective on transportation and land use interaction.

Travel demand modeling methods incorporating the latest travel time refinements were used in this study. Other refinements include development and use of a comprehensive set of transit and HOV networks. As with previous conformity analyses, transit fares are modeled explicitly in the modal choice process. The analysis includes actual fares for the base year simulation, with forecast year fares based on current (January 2014) fares with increases through time as a function of increases in the consumer price index. Base year fares are modeled to reflect the WMATA tariff and other actual charges levied by each transit provider; the updated fare tariffs provided the basis for future analysis years. Transit operating policies, such as hours and frequency of service, are updated annually and modeled explicitly to reflect actual conditions in the peak and off-peak hours. The overall travel demand modeling process is continually monitored and refined as new data become available.

**Sec. 93.111 Criteria and procedures: Latest emissions model.**

The current analysis used MOVES2010a, the latest emission factor model specified by EPA for use in preparation of state implementation plans and conformity assessments.

**Sec. 93.112 Criteria and procedures: Consultation.**

The TPB offers many opportunities for public comment. Since the initial consultation procedures were developed, TPB has expanded the opportunities for public involvement through a series of initiatives. Examples include: the public comment period at the start of each TPB meeting; regular public forums and workshops on major topics; a monthly newsletter; and the institution of the Citizens Advisory Committee and the Access For All Committee, website posts, and Twitter and Facebook postings. Details relating to public involvement for this conformity analysis are included in Chapter VII, and in Appendix C of this document. General information is summarized in a report called the TPB Participation Plan (Reference 12).

**Sec. 93.113 Criteria and procedures: Timely implementation of TCMs.**

Transportation Control Measures were included in both the 1-Hour Ozone SIP, the 8-Hour Ozone SIP, and the $PM_{2.5}$ SIP. Documentation regarding the timely implementation of each project is included as Appendix F of this document.

**Sec. 93.114 Criteria and procedures: Currently conforming transportation plan and TIP.**

There is a currently conforming plan and program in the Washington region. This current conformity analysis is designed to update and supersede the (conforming) 2013 CLRP, adopted by the TPB in July, 2013 and approved by the FHWA on January 22, 2014.

**Sec. 93.115 Criteria and procedures: Projects from a plan and TIP.**

All projects advanced for implementation come from a conforming plan and program.

**Sec. 93.116 Criteria and procedures: Localized CO and $PM_{10}$ violations (hot spots).**

Projects advancing to the current TIP have met this criterion as an element of their environmental study prior to being included in the TIP. (The Washington area is now in attainment for both carbon monoxide and $PM_{10}$.)

**Sec. 93.117 Criteria and procedures: Compliance with $PM_{10}$ and $PM_{2.5}$ control measures.**

The Washington area is in attainment for $PM_{10}$. Prior to the region attaining the 1997 $PM_{2.5}$ NAAQS, a SIP for the Washington nonattainment area was developed and submitted to EPA in April, 2008. That SIP was never approved. After attaining the 1997 $PM_{2.5}$ NAAQS, MWAQC submitted, and EPA approved, a $PM_{2.5}$ Resignation Request and Maintenance Plan for the Washington region. The On-Road control measures in that Maintenance Plan include only measures directly impacting vehicles and fuels which would not be pertinent for project level conformity determinations. These are: the 2007 heavy duty engine rule, Tier 1 federal motor vehicle emission standards, Tier 2 vehicle and gasoline sulfur program, and enhanced motor vehicle emission and maintenance programs

**93.118 Motor vehicle emissions budget**

As discussed in earlier in this report, this analysis includes use of the existing budgets developed as part of the 8-hour ozone SIP and the $PM_{2.5}$ maintenance SIP. Approved budgets exist for all pollutants under consideration. The mobile emissions inventories for all analysis years were compared to these budgets. Total VOC, NOx, Fine Particles, and CO emissions for all plan milestone analysis years are within their respective emissions budgets.

**Sec. 93.119 Criteria and procedures: Interim emissions in areas without motor vehicle budgets**

All assessed pollutants have motor vehicle budgets

**NOTE:** See EPA's conformity regulations for the full text associated with each section's requirements.

## X. FINDINGS

The analytical results described above provide a basis, in relation to US EPA conformity regulations, for a determination of conformity of the year 2014 Constrained Long Range Plan and FY2015-2020 Transportation Improvement Program for The Washington Metropolitan Region, with requirements of the Clean Air Act Amendments of 1990.

# APPENDIX A

## Scope of Work

# AIR QUALITY CONFORMITY ASSESSMENT: 2014 CONSTRAINED LONG RANGE PLAN AND THE FY2015-2020 TRANSPORTATION IMPROVEMENT PROGRAM

## SCOPE OF WORK

## I. INTRODUCTION

Projects solicited for the 2014 Constrained Long Range Plan (CLRP) and FY2015-2020 Transportation Improvement Program (TIP) are scheduled to be finalized at the April 16, 2014 TPB meeting. This scope of work reflects the tasks and schedule designed for the air quality conformity assessment leading to adoption of the plan on October 15, 2014. This work effort addresses requirements associated with attainment of the ozone standards (volatile organic compounds (VOC) and nitrogen oxides (NOx) as ozone precursor pollutants), and fine particles ($PM_{2.5}$) standards (direct particles and precursor NOx), as well as maintenance of the wintertime carbon monoxide (CO) standard.

The plan must meet air quality conformity regulations: (1) as originally published by the Environmental Protection Agency (EPA) in the November 24, 1993 Federal Register, and (2) as subsequently amended, most recently on March 14, 2012, and (3) as detailed in periodic FHWA / FTA and EPA guidance. These regulations specify both technical criteria and consultation procedures to follow in performing the assessment.

This scope of work provides a context in which to perform the conformity analyses and presents an outline of the work tasks required to address all regulations currently applicable.

## II. REQUIREMENTS AND APPROACH

### A. **Criteria** (See Exhibit A-1)

As described in the 1990 Clean Air Act Amendments, conformity is demonstrated if transportation plans and programs:

1. Are consistent with most recent estimates of mobile source emissions,

2. Provide expeditious implementation of TCMs, and

3. Contribute to annual emissions reductions.

Assessment criteria for ozone, CO, and $PM_{2.5}$ are discussed below.

Ozone season pollutants will be assessed by comparing the “action” scenarios to the most recently approved 8-hour ozone area VOC and NOx mobile emissions budgets. The 2009 Attainment and 2010 Contingency budgets were deemed adequate for use in conformity by EPA in February 2013. These budgets were submitted to EPA by the Metropolitan Washington Air Quality Committee (MWAQC) in 2007 as part of the 8-hour ozone State Implementation Plan (SIP).

The region is in maintenance for mobile source wintertime CO and, as in prior conformity assessments, is required to show that pollutant levels do not exceed the approved budget.

$PM_{2.5}$ pollutants will be assessed both by comparing the "action" scenarios to a 2002 base, and by comparing the pollutant levels to the budgets in the proposed $PM_{2.5}$ Maintenance Plan. $PM_{2.5}$ emissions will be inventoried for yearly totals (instead of on a daily basis as performed for Ozone and CO).

**B. Approach** (See Table A-1 – Summary of Technical Approach)

As in the past, this analysis will include use of the Version 2.3 travel demand model with the 3722 TAZ area system and the MOVES emissions model. There will be an update to the Cooperative Forecasts. The new round will be 8.3.

In addition to the elements below, explicit inputs include: a summary list of major policy and technical input assumptions, shown as Attachment A; and all transportation network elements which were finalized at the April 16, 2014 TPB meeting.

## TABLE A-1 – Summary of Technical Approach

| | Ozone | Wintertime CO | $PM_{2.5}$ |
|---|---|---|---|
| **Pollutant:** | VOC, NOx | CO | Direct particles, Precursor NOx |
| **Mobile Model:** | MOVES 2010a | MOVES 2010a | MOVES 2010a |
| **Conformity Test:** | Budget Test: Using mobile budgets most recently approved by EPA. 2009 attainment and 2010 contingency budgets found adequate for use in conformity by EPA in Feb. 2013. All budgets were set using Mobile6 emissions model and submitted to EPA in 2007. | Budget Test: Using mobile budgets established with the Wintertime CO maintenance plan. All budgets set using Mobile6 emissions model and submitted to EPA in 2007. | Reductions From Base (2002 inventory) Test & Budget Test; With no approved budgets, reduction from base test will be needed; if EPA approves the PM maintenance plan budgets, those budgets must be used. |
| **Emissions Analysis Time-frame:** | Daily | Daily | Annual |
| **Vehicle Fleet Data:** | 2011 vehicle registration data for all jurisdictions | | |
| **Geography:** | 8-hour ozone non-attainment area | DC, Arlington, Alexandria, Montgomery Co., Prince George's Co. | 8-hour ozone non-attainment area less Calvert County |
| **Network Inputs:** | Regionally significant projects | | |
| **Land Activity:** | NEW! Round 8.3 | | |
| **Modeled Area:** | 3722 TAZ SYSTEM | | |
| **Travel Demand Model:** | Version 2.3.57 | | |

## III. CONSULTATION

1. Execute TPB consultation procedures (as outlined in the consultation procedures report adopted by the TPB on May 20, 1998).

2. Participate in meetings of MWAQC, its Technical Advisory Committee, and its Conformity Subcommittee to discuss the scope of work activities, TERM development process, and other elements as needed; discuss at TPB meetings or forums, as needed, the following milestones:

   - CLRP & TIP Call for Projects
   - Scope of work
   - TERM proposals
   - Project submissions: documentation and comments
   - Analysis of TERMs, list of mitigation measures
   - Conformity assessment: documentation and comments
   - Process: comments and responses

## IV. WORK TASKS

1. Receive project inputs from programming agencies and organize into conformity documentation listings (endorsement of financially constrained project submissions scheduled for April 16, 2014)

   - Project type, limits, NEPA approval, etc.
   - Phasing with respect to forecast years
   - Transit operating parameters, e.g. schedules, service, fares
   - Action scenarios

2. Review and Update Land Activity files to reflect Round 8.3 Cooperative Forecasts

   - Households by auto ownership, population and employment
   - Zonal data files

3. Prepare forecast year highway, HOV, and transit networks

   - Develop 2015, 2017, 2020, 2025, 2030, & 2040 highway networks
   - Prepare 2015, 2017, 2020, 2025, 2030, & 2040 transit network input files
   - Update transit fares and highway tolls, as necessary

4. Prepare 2015 travel and emissions estimates

   - Execute travel demand modeling
   - Calculate emissions (daily for ozone season VOC and NOx for ozone standard requirements; daily for winter CO; yearly for $PM_{2.5}$ direct particles and precursor NOx)

5. Prepare 2017 travel and emissions estimates

   - Tasks as in year 2015 analysis

5. Prepare 2020 travel estimates (no emissions- only used for transit constraint)

   - Tasks as in year 2017 analysis

6. Prepare 2025 travel and emissions estimates

   - Tasks as in year 2017 analysis
   - Apply "transit constraint" using 2020 levels

7. Prepare 2030 travel and emissions estimates

   - Tasks as in year 2025 analysis, including transit constraint

8. Prepare 2040 travel and emissions estimates

   - Tasks as in year 2030 analysis, including transit constraint

9. Identify extent to which plan provides for expeditious implementation of TCMs contained in ozone state implementation plans and provide emissions reductions estimates for TERMs in current TIP

   - Staff will report on TCM's contained in ozone SIPs
   - Staff will report on estimated emissions reductions benefits for TERMs in the FY2015-2020 TIP

10. Analyze results of above technical analysis

    - 8-hour ozone season VOC and NOx budgets, direct $PM_{2.5}$ and precursor NOx budgets, and winter CO emissions budgets
    - With oversight from the Technical Committee and the TPB, identify and recommend additional measures, if needed, should the plan or program fail the budget test and incorporate measures into the plan

11. Assess conformity and document results in a report

    - Document methods
    - Draft conformity report
    - Forward to technical committees, policy committees
    - Make available for public and interagency consultation
    - Receive comments
    - Address comments and present to TPB for action
    - Finalize report and forward to FHWA, FTA and EPA

## V. SCHEDULE

The schedule for the execution of these work activities is shown in Exhibit A-2. The time line shows completion of the analytical tasks, preparation of a draft report, public and interagency review, response to comments and action by the TPB on October 15, 2014.

# Exhibit A-1

Conformity Criteria

---

All Actions at all times:

| | |
|---|---|
| Sec. 93.110 | Latest planning assumptions. |
| Sec. 93.111 | Latest emissions model. |
| Sec. 93.112 | Consultation. |

Transportation Plan:

| | |
|---|---|
| Sec. 93.113(b) | TCMs. |
| Sec. 93.118 and/or | Emissions budget and /or Interim |
| Sec. 93.119 | emissions. |

TIP:

| | |
|---|---|
| Sec. 93.113(c) | TCMs. |
| Sec. 93.118 and/or | Emissions budget and /or Interim |
| Sec. 93.119 | emissions. |

Project (From a Conforming Plan and TIP):

| | |
|---|---|
| Sec. 93.114 | Currently conforming plan and TIP. |
| Sec. 93.115 | Project from a conforming plan and TIP. |
| Sec. 93.116 | CO, $PM_{10}$, and $PM_{2.5}$ hot spots. |
| Sec. 93.117 | $PM_{10}$ and $PM_{2.5}$ control measures. |

Project (Not From a Conforming Plan and TIP):

| | |
|---|---|
| Sec. 93.113(d) | TCMs. |
| Sec. 93.114 | Currently conforming plan and TIP. |
| Sec. 93.116 | CO, $PM_{10}$, and $PM_{2.5}$ hot spots. |
| Sec. 93.117 | $PM_{10}$ and $PM_{2.5}$ control measures. |
| Sec. 93.118 and/or | Emissions budget and/or Interim |
| Sec. 93.119 | emissions |

---

**Sec. 93.110 Criteria and procedures: Latest planning assumptions.**

The conformity determination must be based upon the most recent planning assumptions in force at the time of the conformity determination.

**Sec. 93.111 Criteria and procedures: Latest emissions model.**

The conformity determination must be based on the latest emission estimation model available.

**Sec. 93.112 Criteria and procedures: Consultation.**

Conformity must be determined according to the consultation procedures in this subpart and in the applicable implementation plan, and according to the public involvement procedures established in compliance with 23 CFR part 450.

**Sec. 93.113 Criteria and procedures: Timely implementation of TCMs.**

The transportation plan, TIP, or any FHWA/FTA project which is not from a conforming plan and TIP must provide for the timely implementation of TCMs from the applicable implementation plan.

**Sec. 93.114 Criteria and procedures: Currently conforming transportation plan and TIP.**

There must be a currently conforming transportation plan and currently conforming TIP at the time of project approval.

**Sec. 93.115 Criteria and procedures: Projects from a plan and TIP.**

The project must come from a conforming plan and program.

**Sec. 93.116 Criteria and procedures: Localized CO, $PM_{10}$, and $PM_{2.5}$ violations (hot spots).**

The FHWA/FTA project must not cause or contribute to any new localized CO, $PM_{10}$, and/or $PM_{2.5}$ violations or increase the frequency or severity of any existing CO, $PM_{10}$, and /or $PM_{2.5}$ violations in CO, $PM_{10}$, and $PM_{2.5}$ nonattainment and maintenance areas.

**Sec. 93.117 Criteria and procedures: Compliance with $PM_{10}$ and $PM_{2.5}$ control measures.**

The FHWA/FTA project must comply with $PM_{10}$ and $PM_{2.5}$ control measures in the applicable implementation plan.

**Sec. 93.118 Criteria and procedures: Motor vehicle emissions budget**

The transportation plan, TIP, and projects must be consistent with the motor vehicle emissions budget(s).

**Sec. 93.119 Criteria and procedures: Interim emissions in areas without motor vehicle budgets**

The FHWA/FTA project must satisfy the interim emissions test(s).

**NOTE:** See EPA's conformity regulations for the full text associated with each section's requirements.

**EXHIBIT A-2**

## Schedule for the 2014 Financially Constrained Long-Range Transportation Plan (CLRP) and the FY2015-2020 Transportation Improvement Program (TIP)

| | |
|---|---|
| *October 16, 2013 | TPB is Briefed on Draft Call for Projects |
| *November 20, 2013 | TPB Releases Final Call for Projects - Transportation Agencies Begin Submitting Project Information through On-Line Database |
| December 13, 2013 | **DEADLINE:** Transportation Agencies Complete On-Line Submission of Draft Project Inputs. |
| March 7, 2014 | Technical Committee Reviews Draft CLRP & TIP Project Submissions and Draft Scope of Work for the Air Quality Conformity Analysis |
| March 13, 2014 | CLRP & TIP Project Submissions and Draft Scope of Work Released for Public Comment |
| *March 19, 2014 | TPB is Briefed on Project Submissions and Draft Scope of Work |
| April 8, 2014 | TPB Staff Briefs MWAQC TAC on Project Submissions and Scope of Work |
| April 12, 2014 | Public Comment Period Ends |
| *April 16, 2014 | TPB Reviews Public Comments and is asked to Approve Project Submissions and Draft Scope of Work |
| June 6, 2014 | DEADLINE: Transportation Agencies Finalize Congestion Management Documentation Forms (where needed) and CLRP & TIP Forms. (Submissions must not impact conformity inputs; note that the deadline for changes affecting conformity inputs was April 16, 2014). |
| September 5, 2014 | Technical Committee Reviews Draft CLRP & TIP and Conformity Analysis |
| September 11, 2014 | Draft CLRP & TIP and Conformity Analysis Released for Public Comment at Citizens Advisory Committee (CAC) |
| *September 17, 2014 | TPB Briefed on the Draft CLRP & TIP and Conformity Analysis |
| September 9, 2014 | TPB Staff Briefs MWAQC TAC on the Draft CLRP & TIP and Conformity Analysis |
| October 11, 2014 | Public Comment Period Ends |
| *October 15, 2014 | TPB Reviews Public Comments and Responses to Comments, and is Presented the Draft CLRP & TIP and Conformity Analysis for Adoption |

*TPB Meeting

**WORK SCOPE ATTACHMENT A**

**POLICY AND TECHNICAL INPUT ASSUMPTIONS**
**AIR QUALITY CONFORMITY ANALYSIS OF 2014 CLRP & FY2015-2020 TIP**

1. Land Activity

- Round 8.3 Cooperative Forecasts

2. Policy and Project Inputs

- Highway, HOV, and transit projects and operating parameters
- Financially constrained project submissions to be advanced by the TPB on 4/16/2014

3. Travel Demand Modeling Methods

- Version 2.3 Travel Model
- All HOV facilities at HOV-3 in 2020 & beyond
- Transit "capacity constraint" procedures (2020 constrains later years)

4. Emissions Model and Inputs

- MOVES2010a emissions model
- 2011 Vehicle Registration Data (VIN)

5. Conformity Assessment Criteria

- Emissions budgets for ozone precursors, $PM_{2.5}$ pollutants, and wintertime CO
- Analysis years: 2015, 2017, 2020 (travel demand only, to provide transit constraint), 2025, 2030, & 2040

# APPENDIX B

## Project Inputs

**(significant changes & project input table)**

## Key to the Air Quality Conformity Table:

**COLUMN 1:**

Agency - identification of submitting agency

**COLUMN 2:**

Project ID - project identification number (for reference purposes)

**COLUMN 3:**

Agency Code- agency project identification number (for reference purposes)

**COLUMN 4:**

Type of improvement - defined as follows:

| | | |
|---|---|---|
| Construct | = | build a new facility |
| Close | = | facility cease operation |
| Widen | = | increase the number of lanes on an existing facility |
| Upgrade | = | improve the facility type of a roadway |
| Relocate | = | construct an existing facility on a new right-of-way |
| Reconstruct | = | modify an existing facility with no capacity increase i.e., shoulder paving, geometric improvements |
| Rehabilitate | = | repair existing structures - no capacity increase |
| Study | = | to review alternative transportation improvements- project planning or preliminary engineering only |

**COLUMN 5:**

Facility - name of facility to be studied or improved

**COLUMNS 6 and 7:**

From and To - limits of the project

**COLUMN 8:**

Facility Type - defined as follows:

1 = Interstate
2 = Major Arterial
3 = Minor Arterial
4 = Collector
5 = Expressway or Freeway with at-grade intersections

If a facility is being upgraded, the old facility type is in the "from" column, and the new facility type is in the "to" column. If the facility is not being upgraded, the "from" and "to" columns are the same.

**COLUMN 9:**

Number of Lanes - same explanation of "from" and "to" columns as above

**COLUMN 10:**

Currently under construction or right-of-way acquired? -

| | | |
|---|---|---|
| "yes" | = | the facility is currently under construction and/or right-of-way has been acquired |
| "no" | = | the facility is not currently under construction and right-of-way has not been acquired |
| "completed" | = | the facility is open for use |

**COLUMN 11:**

Project Completion Date or Status - date project will be open for use.
"not coded" indicates that project is not included in the conformity analysis

NATIONAL CAPITAL REGION
TRANSPORTATION PLANNING BOARD

**MEMORANDUM**

March 13, 2014

To: Transportation Planning Board

From: Gerald Miller and Robert Griffiths
Acting Co-Directors,
Department of Transportation Planning

Re: Major Project Submissions for the 2014 Update to the Financially Constrained Long-Range Transportation Plan (CLRP) and the FY 2015-2020 Transportation Improvement Program (TIP)

The project submissions for inclusion in the Air Quality Conformity Analysis of the 2014 Update to the CLRP were released for public comment on March 13. The project submissions were reviewed and approved for public release by the TPB Steering Committee on March 7th. The attached materials present a summary of the major new projects or changes to existing major projects included in the project submissions. Comments may be submitted:

- online at mwcog.org/TPBPublicComment,
- via email at tpbpubliccomment@mwcog.org,
- by calling (202) 962-3262, TDD: (202) 962-3213
- or in writing to The Transportation Planning Board
  777 North Capitol Street, NE, Suite 300
  Washington, DC 20002-4239

The public comment period ends on April 12 and the TPB is scheduled to approve the project submissions on April 16.

Summary of Major Additions and Changes to Projects

In the **District of Columbia**, DDOT is proposing three new transit projects; the Union Station to Georgetown Streetcar Line, the M Street SE/SW Streetcar Line, and the Benning Road Streetcar Spur. DDOT is proposing to remove the planned implementation of Peak Period Bus-Only Lanes on H Street NW and I Street NW from the CLRP, pending further study. DDOT is also proposing three studies to examine managed lanes on the 14th Street/ Rochambeau Bridge, I-395/I-695 (SE/SW Freeway), and I-295.

In **Maryland**, the Maryland Transit Administration is updating the MARC Growth and Investment Plan. The State Highway administration is resubmitting the construction of an interchange on I-95/I-495, the Capital Beltway at the Greenbelt Metro Station in Prince George's County. This project had previously been included in the CLRP, but was removed in 2010 to meet financial constraint requirements.

In **Virginia**, VDOT is proposing to widen a segment of US 1 in Prince William County and to widen a portion of VA 123, Chain bridge Road in Fairfax County. VDOT is also proposing three alternatives for the Dulles Air Cargo, Passenger, Metro Access Highway project. The TPB released the three alternatives for public comment, but expects that VDOT will select a preferred alternative prior to the approval of project inputs on April 16 so only one of the alternatives will be carried forward into the Air Quality Conformity Analysis. Virginia Railway Express is updating its System Plan.

A complete technical listing of all project submissions can be found in the Air Quality Conformity Inputs for the 2014 CLRP and the FY 2015-2020 TIP, which was released for public comment on March 13.

# Major Additions and Changes to the 2014 Update to the Financially Constrained Long-Range Transportation Plan

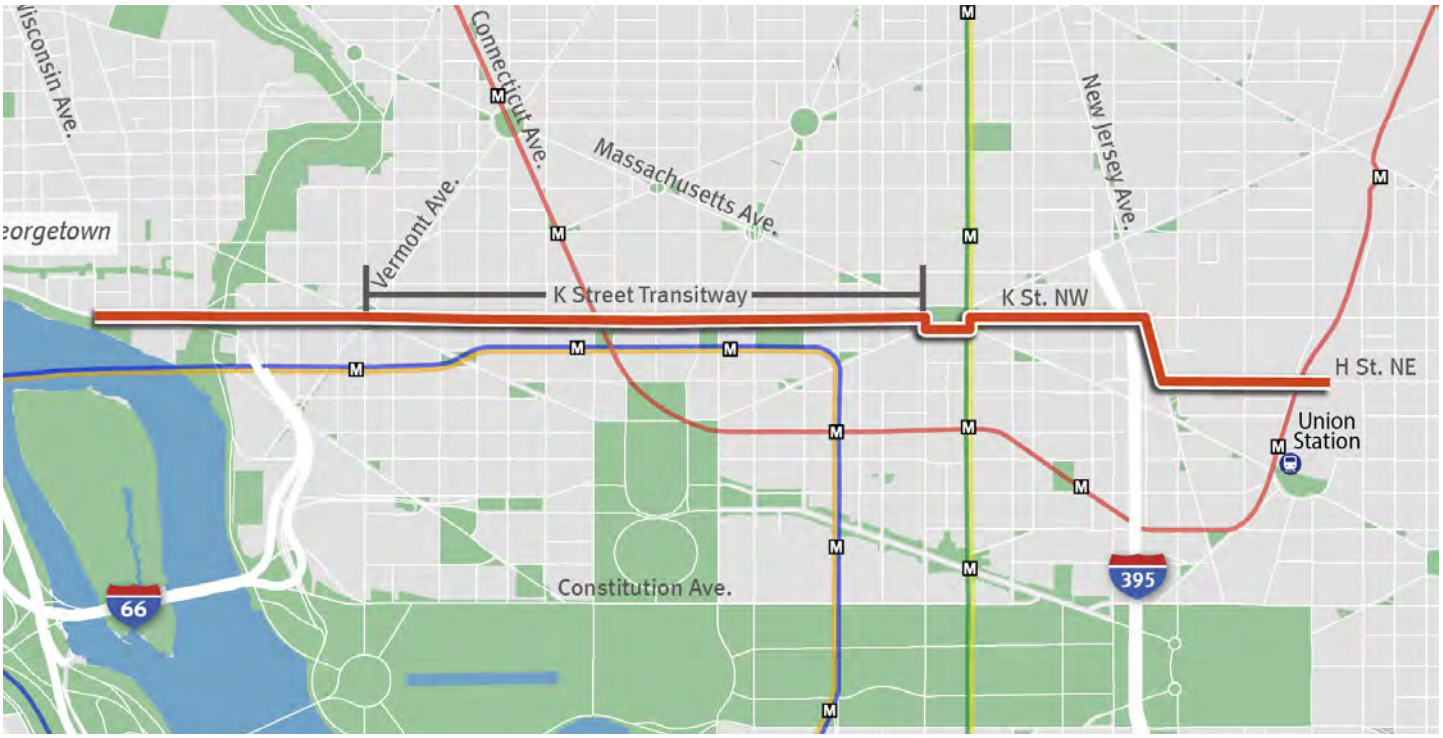
## District of Columbia

### 1. Union Station to Georgetown Streetcar Line from H Street NE to Wisconsin Avenue NW

Length: 3.4 miles

Complete: 2020

Cost: $348 million




Construct a streetcar line from H Street NE near Union Station, running along H Street NW to New Jersey Avenue NW, and continuing on K Street NW into Georgetown, ending at Wisconsin Avenue NW. This line will connect to the H Street NE – Benning Road line, already under construction. The streetcars will travel in mixed traffic lanes through the eastern portion of the route, but will travel in dedicated transit lanes on K Street between Mount Vernon Square/9th Street NW and Washington Circle/23rd Street NW (a project previously approved in the CLRP called the "K Street Transitway").

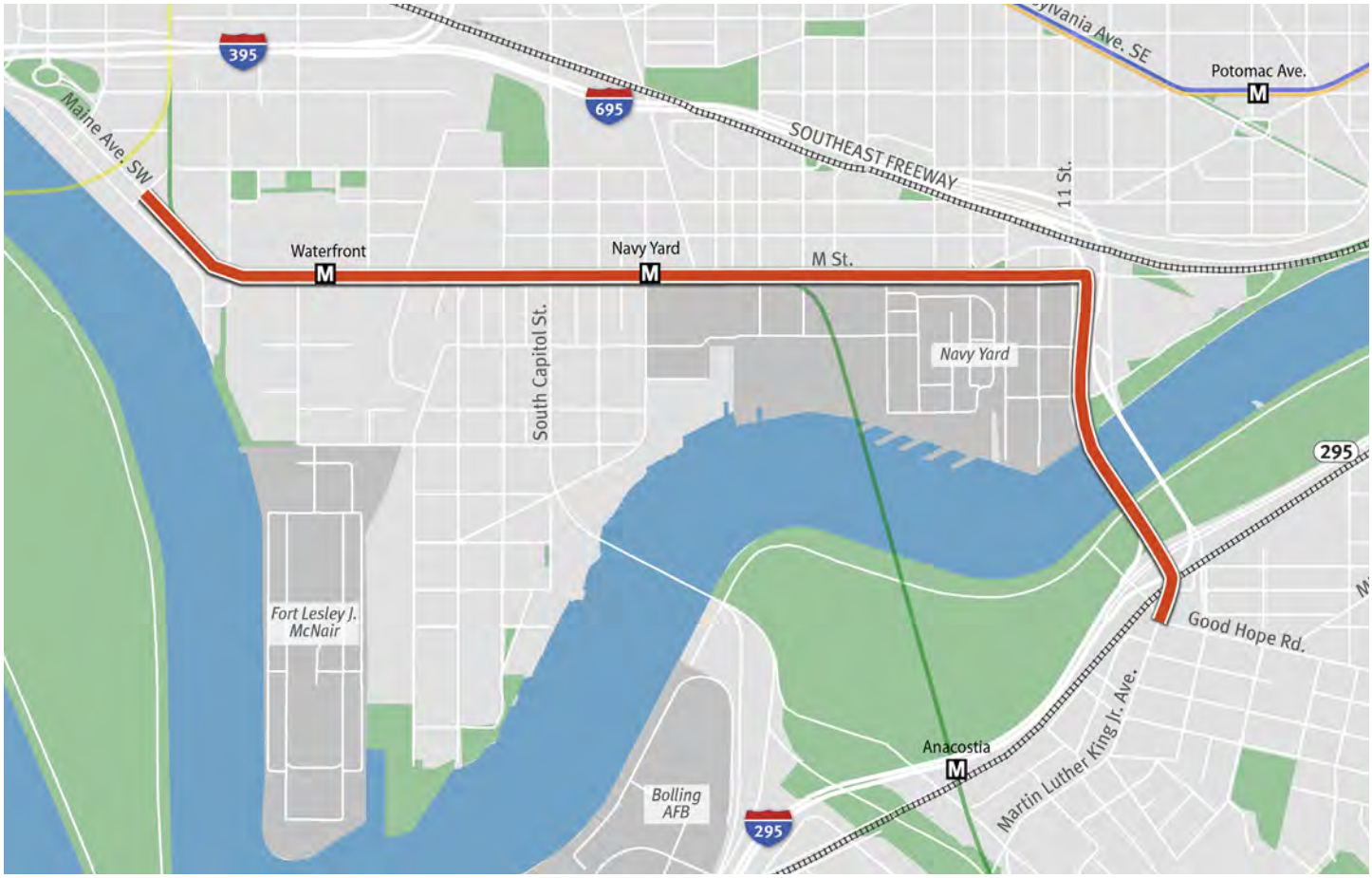
See CLRP Project Description Form in Attachment A for more information.

## 2. M Street Southeast/Southwest Streetcar Line from Good Hope Road SE to Maine Avenue SW

Length: 3 miles

Complete: 2020

Cost: $250 million




Construct a streetcar line running from Good Hope Road SE, across the 11th Street Bridge, to M Street SE/SW, ending at Maine Avenue SW. This line will connect to the planned Anacostia Initial Streetcar Line at Good Hope Road SE.

See CLRP Project Description Form in Attachment A for more information.

### 3. Benning Road Streetcar Spur from Benning Road to Minnesota Avenue Metro Station

Length: < 1 mile

Complete: 2018

Cost: $40 million


Construct a spur from the Benning Road Streetcar Line heading north along Minnesota Ave to the Minnesota Avenue Metro Station.

### 4. Removal of Proposed H and I Streets NW Peak Period Bus-Only Lanes

The approved CLRP contains two projects which proposed to implement bus-only lanes during peak periods. The H Street NW lane was planned between 17th Street NW and New York Avenue NW and the I Street NW lane was planned between 13th Street NW and Pennsylvania Avenue NW. These projects will be removed from the CLRP, pending further study.

**5.** ***Studies: Managed Lanes on 14th Street/Rochambeau Bridge, I-395/I-695, and I-295***

Length: ≈9 miles

Complete: 2015

Cost: $5.9 million

### A. 14th Street/Rochambeau Bridge

The first study will look at converting the two northbound lanes on the 14th Street/ Rochambeau Bridge to High Occupancy Vehicle (HOV 3+) during the morning peak period on weekdays and the two southbound lanes on the same facility to HOV 3+ during the evening peak period on weekdays, to mirror existing HOV operations in Virginia. The existing four northbound lanes on the Arland Williams, Jr. Bridge and four southbound lanes on the George Mason Memorial Bridge would remain as general purpose lanes. The study will also consider a subsequent conversion of the HOV lanes into High Occupancy/Toll (HOT) lanes.

### B. I-395/I-695, Southeast-Southwest Freeway

The second study will look at implementing HOV lanes on the Southeast/Southwest Freeway (I-395/I-695) from the Case Bridge to the 11th Street Bridge, and subsequently converting those to HOT.

### C. I-295

The third study will consider implementing HOV and then HOT lanes on I-295 from the 11th Street Bridge to the DC/Maryland Line.


See CLRP Project Description Forms in Attachment A for more information.

# Maryland


### 6. MARC Growth and Investment Plan

Complete: 2040

Cost: $1.06 billion (Washington region)

MDOT is including $1.06 billion of project improvements for MARC as identified in the MARC Growth and Investment Plan. The MARC Growth and Investment Plan is a multi-phased, multi-year plan to increase the capacity of MARC, Maryland's commuter rail system. MARC is a key component of Maryland's commuter network providing rail service for more than 30,000 commuters a day traveling between Washington's Union Station and northern, central and western Maryland.

Primary objectives of the plan include providing better service for current riders and addressing existing problems with capacity, frequency and reliability. This package of projects will increase passenger-carrying capacity and increase share of trips by MARC during peak travel periods, among other benefits. The $1.06 billion shown reflects the Washington region's proposed contribution towards projects in the larger $2.3 billion Growth and Investment Plan, which also includes the Baltimore area.

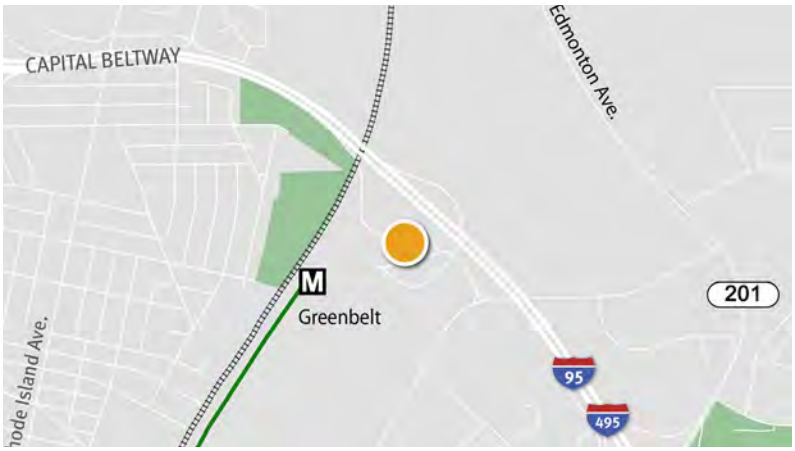
### 7. I-95/495 Interchange at Greenbelt Metro Station

Length: <1 mile

Complete: 2020

Cost: $78.21 million

Construct a full interchange along I-95/I-495 at the Greenbelt Metro Station. The existing partial interchange provides access from the inner loop of the Capital Beltway to the Greenbelt Metro Station. The project includes the addition of auxiliary lanes on I-95/I-495 between the Greenbelt metro and MD 201 interchanges.




See CLRP Project Description Form in Attachment A for more information.

# Virginia


### 8. Virginia Railway Express System Plan

Cost: 2040

Cost: $977.4 million

The VRE System Plan provides a framework for VRE service expansion through 2040. The Plan includes system investments and expansion of peak service on the Fredericksburg and Manassas Lines, introduction of reverse-peak service, additional mid-day service, and service extension to the Gainesville-Haymarket area of Prince William County. Major railroad capacity projects focus on the relief of key capacity bottlenecks on the VRE system, including additional track capacity in the Long Bridge corridor and completion of a third main track on the Fredericksburg Line from Alexandria to Spotsylvania County.

The VRE System Plan outlines capital investments totaling $3.2 billion to implement plan recommendations. It builds upon prior VRE growth plans included in the CLRP financial analysis and transit-modeling assumptions proposed for implementation by 2020, for which funding has been identified. Funding for projected VRE station, yards and equipment needs through 2040 has also been identified and is reflected in the $977 million CLRP project cost. Full funding for long-term system investments in railroad capacity, including the expansion of the Long Bridge and Fredericksburg Line third main track, and service enhancements such as reverse-peak service, additional mid-day trains or the future run-through of VRE and MARC trains has not been identified. Those recommendations are included for information purposes. As funding is identified for those initiatives they will be added to the CLRP and air quality conformity analysis.

## 9. Widen US 1 from Fuller Road to Russell Road Interchange

Length: 2.38 miles

Complete: 2025

Cost: $76 million


Widen US 1 from Fuller Road to Russell Road from 4 to 6 lanes.

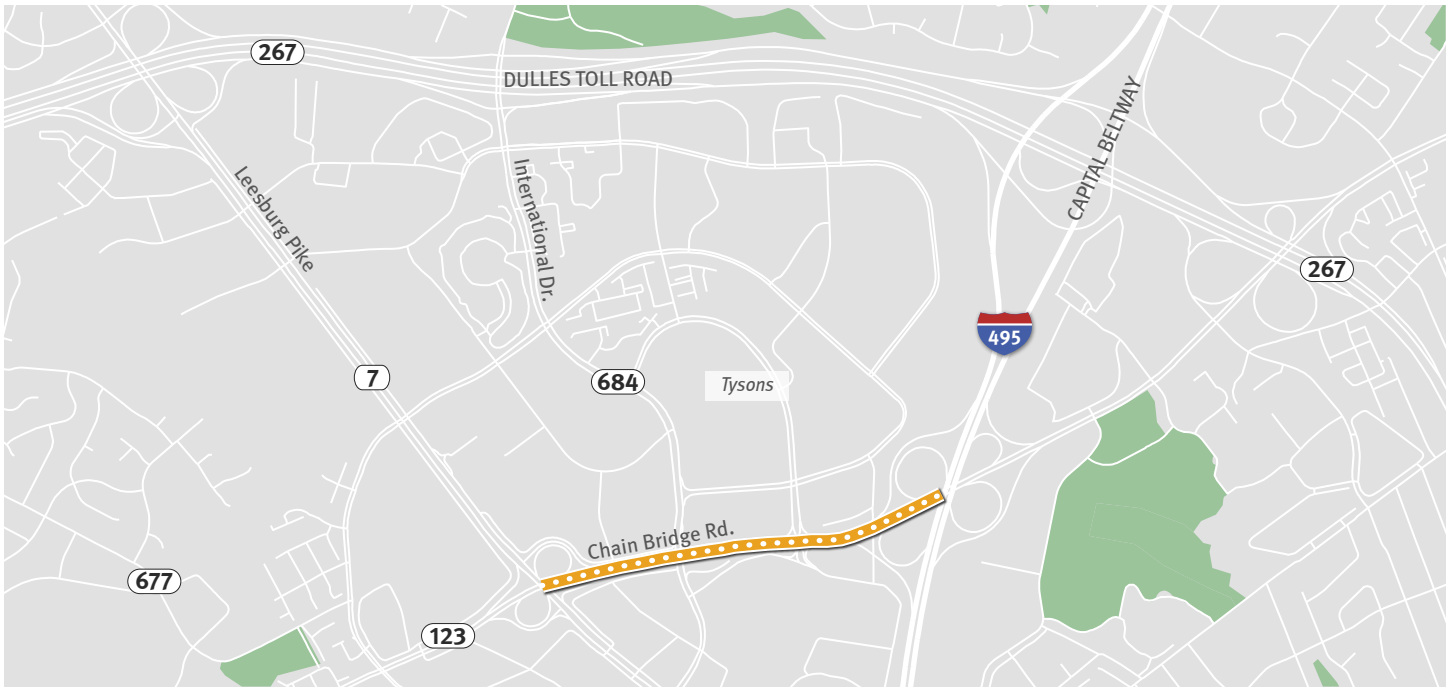
See CLRP Project Description Form in Attachment A for more information.

## 10. Widen VA 123 from VA 7, Leesburg Pike to I-495, Capital Beltway

Length: <1 mile

Complete: 2021

Cost: $22 million




Widen VA Route 123 from Leesburg Pike to the Capital Beltway from 6 to 8 lanes.

See CLRP Project Description Form in Attachment A for more information.

# Attachment A

# Project Description Forms

## 1. Union Station to Georgetown Streetcar Line

1. Submitting Agency: DDOT
2. Secondary Agency:
3. Agency Project ID: STC12A, SA306C
4. Project Type: _ Interstate X_ Primary _ Secondary _ Urban _ Bridge _ Bike/Ped _X Transit _ CMAQ _ ITS _ Enhancement _ Other _ Federal Lands Highways Program _ Human Service Transportation Coordination _ TERMs
5. Category: _ System Expansion; _ System Maintenance; _ Operational Program; _ Study; X_ Other (Intermodal Improvement)
6. Project Name: Union Station to Georgetown Streetcar Line

| | Prefix | Route | Name | Modifier |
|---|---|---|---|---|
| 7. Facility: | | | | |
| 8. From (_ at): | | | 3rd / H Street NE | |
| 9. To: | | | Wisconsin Avenue under Whitehurst Freeway NW | |

10. Description: DDOT is proposing a transportation improvement and the introduction of streetcar along the K Street NW corridor from Union Station to Georgetown. This project will provide an efficient east-west connection for transit and improve transportation mobility, and improve transit reliability. The streetcar alignment is primarily located along K Street, NW, New Jersey Avenue NW, and H Street, NE. Below are the proposed station locations and corridor links (to be finalized in the NEPA process):

**Station locations:**

| Location | Platform | Serves |
|---|---|---|
| H Street @ Hopscotch Bridge | side platform | Union Station |
| K Street between 3rd and 4th Streets | side platform | NoMa |
| Mount Vernon Square | side platform | Mount Vernon |
| K Street @ McPherson Square | side platform | 14th and 15th Streets |
| K Street @ Farragut Square | side platform | 17th and 18th Streets |
| K Street @ 19th and 20th Streets | side platform | 19th and 20th Streets |
| K Street @ 25th and 26th Streets | split center | Foggy Bottom / GU |
| K Street @ Wisconsin Avenue | center | Georgetown |

**Link-by-link connection:**

| Link | Roadway | shared/exclusive | streetcar |
|---|---|---|---|
| Georgetown to Washington Circle | Along K Street NW | shared lanes | center |
| At Washington Circle | Under circle | shared lanes | center |
| Washington Circle to Mount Vernon Square | Along K Street NW | exclusive | center |
| At Mount Vernon Square | WB: north side | shared lanes | curb |
| | EB: south side | | curb |
| Mount Vernon Square to Union Station | K Street | shared lanes | curb |
| | New Jersey | shared lanes | center |
| | H Street | shared lanes | curb |
| At Union Station | Hopscotch Bridge | shared lanes | curb |
| Connection to existing tracks | at 3rd Street NE | shared lanes | curb |

The streetcar program will operate with a 10 minute headway.

NEPA Status: DDOT will begin NEPA in the first quarter of CY 2014; it will be 12 – 18 months.

Map of preferred alternative from Alternatives Analysis. The NEPA process will build from this alternative and information gathered in the AA.


11. Projected Completion Year: 2020
12. Project Manager: Lezlie Rupert
13. Project Manager E-Mail: lezlie.rupert@dc.gov
14. Project Information URL: www.unionstationtogeorgetown.com
15. Total Miles: 3.41 miles
16. Schematic:
17. Documentation: Union Station to Georgetown Alternatives Analysis (September 2013)
18. Jurisdictions: DDOT
19. Baseline Cost: $348 million cost estimate as of 09/30/2013
20. Amended Cost: cost estimate as of MM/DD/YYYY
21. Funding Sources: X_ Federal; _X State; _X Local; _X Private; _ Bonds; _ Other

**MAP-21 PLANNING FACTORS**

22. Please identify any and all planning factors that are addressed by this project:
    a. _X Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
    b. _ Increase the **safety** of the transportation system for all motorized and non-motorized users.
        i. Is this project being proposed specifically to address a safety issue? _ Yes; _ No
        ii. If yes, briefly describe (in quantifiable terms, where possible) the nature of the safety problem:
    c. _ Increase the ability of the transportation system to support **homeland security** and to safeguard the personal security of all motorized and non-motorized users.
    d. _X Increase **accessibility and mobility** of people.
    e. _ Increase accessibility and mobility of **freight.**
    f. X_ Protect and enhance the **environment**, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
    g. X_ Enhance the **integration and connectivity** of the transportation system, across and between modes, for people and freight.
    h. X_ Promote efficient system **management and operation**.
    i. X_ Emphasize the **preservation** of the existing transportation system.

**ENVIRONMENTAL MITIGATION**

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

**CONGESTION MANAGEMENT INFORMATION**

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

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

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

## 2. M Street Southeast/Southwest Streetcar Line

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

| | Prefix | Route | Name | Modifier |
|---|---|---|---|---|
| 7. Facility: | | M | DC streetcar – M Street SE/SW | |
| 8. From (_ at): | | | 11th Street Bridge | |
| 9. To: | | | Maine Avenue SW | |

10. Description: Construct a streetcar line running from Good Hope Road SE, across the 11th Street Bridge, to M Street SE/SW, ending at Maine Avenue SW. This line will connect to the planned Anacostia Initial Streetcar Line at Good Hope Road SE.
11. Projected Completion Year: 2020
12. Project Manager: Thomas Perry
13. Project Manager E-Mail:Thomas.Perry@dc.gov
14. Project Information URL:www.dcstreetcar.com
15. Total Miles:3
16. Schematic:
17. Documentation:NEPA Phase
18. Jurisdictions: Washington, DC
19. Baseline Cost (in Thousands): $250 million cost estimate as of 1/23/2014
20. Amended Cost (in Thousands):TBD cost estimate as of MM/DD/YYYY
21. Funding Sources: _ Federal; _ State; x Local; _ Private; _ Bonds; _ Other

**MAP-21 PLANNING FACTORS**

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

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

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

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

h. [x] Promote efficient system **management and operation**.

i. [x] Emphasize the **preservation** of the existing transportation system.

**ENVIRONMENTAL MITIGATION**

23. Have any potential mitigation activities been identified for this project? _ Yes; [x] No

a. If yes, what types of mitigation activities have been identified?

_ Air Quality; _ Floodplains; _ Socioeconomics; _ Geology, Soils and Groundwater; Vibrations;

_ Energy; _ Noise; _ Surface Water; _ Hazardous and Contaminated Materials; _ Wetlands

**CONGESTION MANAGEMENT INFORMATION**

24. Congested Conditions

a. Do traffic congestion conditions necessitate the proposed project or program? _ Yes; [x] No

b. If so, is the congestion recurring or non-recurring? [x] Recurring; _ Non-recurring

c. If the congestion is on another facility, please identify it:

25. Capacity

a. Is this a capacity-increasing project on a limited access highway or other principal arterial? [x] Yes; _ No

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

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

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

## 3. Benning Road Streetcar Spur – Minnesota Avenue Metro Station

1. Submitting Agency: DDOT
2. Secondary Agency:
3. Agency Project ID: CD052A
4. Project Type: _ Interstate X _ Primary _ Secondary _ Urban _ Bridge _ Bike/Ped _ Transit _ CMAQ _ ITS _ Enhancement _ Other _ Federal Lands Highways Program _ Human Service Transportation Coordination _ TERMs
5. Category: _ System Expansion; _ System Maintenance; X_ Operational Program; _ Study; _ Other
6. Project Name: Streetcar – Benning Road/Minnesota Avenue Spur

| | Prefix | Route | Name | Modifier |
|---|---|---|---|---|
| 7. Facility: | | | Minnesota Avenue | |
| 8. From (_ at): | | | Benning Road | |
| 9. To: | | | Minnesota Avenue Metro Station | |

10. Description:

This will be an addition to the DC Streetcar Project which was part of the 2010 CLRP. This addition will have a spur at the Benning/Minnesota Ave intersection and proceed along Minnesota Ave to the Minnesota Ave Metro Station.

11. Projected Completion Year: 2018
12. Project Manager: Clarence Dickerson
13. Project Manager E-Mail: Clarence.dickerson@dc.gov
14. Project Information URL:
15. Total Miles: 2/10 of a mile
16. Schematic:
17. Documentation: DC Streetcar Project (2010 CLRP)
18. Jurisdictions: District of Columbia
19. Baseline Cost: $40 million cost estimate as of MM/DD/YYYY
20. Amended Cost: cost estimate as of MM/DD/YYYY
21. Funding Sources: X_ Federal; X_ State; X _ Local; _ Private; _ Bonds; _ Other

**MAP-21 PLANNING FACTORS**

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

safeguard the personal security of all motorized and non-motorized users.

d. _X Increase **accessibility and mobility** of people.

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

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

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

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

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

**ENVIRONMENTAL MITIGATION**

23. Have any potential mitigation activities been identified for this project? _ Yes; X_No

a. If yes, what types of mitigation activities have been identified?

_ Air Quality; _ Floodplains; _ Socioeconomics; _ Geology, Soils and Groundwater; Vibrations;

_ Energy; _ Noise; _ Surface Water; _ Hazardous and Contaminated Materials; _ Wetlands

**CONGESTION MANAGEMENT INFORMATION**

24. Congested Conditions

a. Do traffic congestion conditions necessitate the proposed project or program? _X Yes; _ No

b. If so, is the congestion recurring or non-recurring? _X Recurring; _ Non-recurring

c. If the congestion is on another facility, please identify it:

25. Capacity

a. Is this a capacity-increasing project on a limited access highway or other principal arterial? _X Yes; _ No

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

_ None of the exemption criteria apply to this project – a Congestion Management Documentation Form is required

_ The project will not use federal funds in any phase of development or construction (100% state, local, and/or private funding)

_ The number of lane-miles added to the highway system by the project totals less than one lane-mile

_ The project is an intersection reconstruction or other traffic engineering improvement, including replacement of an at-grade intersection with an interchange

_ The project, such as a transit, bicycle or pedestrian facility, will not allow private single-occupant motor vehicles

_ The project consists of preliminary studies or engineering only, and is not funded for construction

_X The construction costs for the project are less than $10 million.

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

## *5A. Study: Managed Lanes on the 14th Street/Rochambeau Bridge*

1. Submitting Agency: DDOT
2. Secondary Agency:
3. Agency Project ID: PM0A4A
4. Project Type: X Interstate _ Primary _ Secondary _ Urban _ Bridge _ Bike/Ped _ Transit _ CMAQ _ ITS _ Enhancement _ Other _ Federal Lands Highways Program _ Human Service Transportation Coordination _ TERMs
5. Category: _ System Expansion; _ System Maintenance; _ Operational Program; X Study; _ Other
6. Project Name: Study: Managed Lanes Conversion to HOV Lanes/HOT Lanes

| | Prefix | Route | Name | Modifier |
|---|---|---|---|---|
| 7. Facility: | | | Rochambeau Bridge (I-395) | |
| 8. From (_ at): | | | Va State Line | |
| 9. To: | | | Southeast/Southwest Freeway (I-395/I-695) | |

10. Description:

The managed lanes study consists of a network of three independent corridors linked to provide access into and through the District of Columbia to provide a predictable travel time. The project will promote multi-modal and High Occupancy Vehicle (HOV) use and promote the reduction of Single Occupancy Vehicle (SOV) travel into the District. The project utilizes the existing transportation network and makes improvements to that network as appropriate and required to provide a managed lane facility. Eventually HOV will be converted to HOT.

The District Department of Transportation completed a feasibility study on the Managed Lanes Corridor, which consisted of Rochambeau Bridge/I-395 (Corridor I); Southeast Southwest Freeway/I-395,I-695 (Corridor II); I-295 (Corridor III). Corridors II and III will have additional NEPA needs.

There are currently three bridges that cross into the District of Columbia from Virginia along the I-395 corridor. The Arland Williams Jr Memorial Bridge (Route 1/I-395) carries the northbound traffic coming into DC, has four General Purpose Lanes. These lanes will remain as GP Lanes and are not being changed.

The George Mason Memorial Bridge (Route 1/I-395) carries the southbound traffic coming into Va, has four GP Lanes, which will remain as GP Lanes and are not being changed.

The Rochambeau Bridge carries in total four lanes, two northbound and two southbound lanes. Traffic from these lanes feed into or come out of the existing HOV system in Va.

The operation of HOV will mirror the existing operation in Va, which is HOV 3+, 6am to 9am/3:30pm to 6pm Mon-Fri.

We are planning to convert the HOV to HOT by March 2015, with the NEPA being a Documented Categorical Exclusion. Corridor 2 and 3 will go through NEPA process.

There have been continuous and on-going coordination with state dot's and jurisdictions.

11. Projected Completion Year: 2015
12. Project Manager: Clarence Dickerson
13. Project Manager E-Mail: Clarence.dickerson@dc.gov
14. Project Information URL:
15. Total Miles: ≈9 miles
16. Schematic:
17. Documentation: Managed Lanes Corridor Project Feasibility Study (December 2013)
18. Jurisdictions: Virginia, District of Columbia
19. Baseline Cost: $5.9 million cost estimate as of 12/31/2013
20. Amended Cost: cost estimate as of MM/DD/YYYY
21. Funding Sources: X_ Federal; X_ State; X _ Local; X_ Private; _ Bonds; _ Other

**MAP-21 PLANNING FACTORS**

22. Please identify any and all planning factors that are addressed by this project:
    a. _ Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
    b. _X Increase the **safety** of the transportation system for all motorized and non-motorized users.
       i. Is this project being proposed specifically to address a safety issue? _ Yes; _ No
       ii. If yes, briefly describe (in quantifiable terms, where possible) the nature of the safety problem:
    c. _ Increase the ability of the transportation system to support **homeland security** and to safeguard the personal security of all motorized and non-motorized users.
    d. _X Increase **accessibility and mobility** of people.
    e. _ Increase accessibility and mobility of **freight.**
    f. _ Protect and enhance the **environment**, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
    g. _ Enhance the **integration and connectivity** of the transportation system, across and between modes, for people and freight.
    h. _X Promote efficient system **management and operation**.
    i. _ Emphasize the **preservation** of the existing transportation system.

**ENVIRONMENTAL MITIGATION**

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

**CONGESTION MANAGEMENT INFORMATION**

24. Congested Conditions
    a. Do traffic congestion conditions necessitate the proposed project or program? _X Yes; _ No
    b. If so, is the congestion recurring or non-recurring? _X Recurring; _ Non-recurring
    c. If the congestion is on another facility, please identify it:

25. Capacity
    a. Is this a capacity-increasing project on a limited access highway or other principal arterial? _X Yes; _ No
    b. If the answer to Question 26.a was "yes", are any of the following exemption criteria true about the project? (Choose one, or indicate that none of the exemption criteria apply):

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

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

## *5B/C. Study: Managed Lanes on the 14th Street/Rochambeau Bridge*

1. Submitting Agency: DDOT
2. Secondary Agency: DDOT
3. Agency Project ID: PM0A4A
4. Project Type: X Interstate _ Primary _ Secondary _ Urban _ Bridge _ Bike/Ped _ Transit _ CMAQ _ ITS _ Enhancement _ Other _ Federal Lands Highways Program _ Human Service Transportation Coordination _ TERMs
5. Category: _ System Expansion; _ System Maintenance; _ Operational Program; X Study; _ Other
6. Project Name: Managed Lanes Corridor II and III NEPA

| | Prefix | Route | Name | Modifier |
|---|---|---|---|---|
| 7. Facility:<br>8. From (_ at):<br>9. To:<br>10. Description: | | | {Corridor 2 SE/SW Freeway (I-395/I-695)}<br>{Corridor 3 (I-295)} | |
| | | | {Corridor 2 At Case Bridge}<br>{Corridor 3 at the junction of (I-295/I-695)} | |
| | | | {Corridor 2 11th Street Bridge}<br>{Corridor 3 DC/MD Line} | |

The managed lanes project consists of a network of three independent corridors linked to provide access into and through the District of Columbia to provide a predictable travel time. The project will promote multi-modal and High Occupancy Vehicle (HOV) use and promote the reduction of Single Occupancy Vehicle (SOV) travel into the District. The project utilizes the existing transportation network and makes improvements to that network as appropriate and required to provide a managed lane facility.

DDOT has plans to perform an environmental study on the Managed Lanes Corridor II and III. The study level of the NEPA document will be determined at later time but it will be at a higher level NEPA document.

Corridor II will be along SE/SW Freeway (I-395/I-695) beginning near the Case Bridge to the 11th Street Bridge. Corridor III will be along I-295 beginning near the 11th Street Bridge to the DC/MD line. The lanes along these corridors would either be converted to HOV/HOT or built into HOV/HOT lanes.

11. Projected Completion Year:
12. Project Manager: Clarence Dickerson
13. Project Manager E-Mail: Clarence.dickerson@dc.gov
14. Project Information URL:
15. Total Miles: 5.5 miles
16. Schematic:
17. Documentation: Managed Lanes Corridor Project Feasibility Study (December 2013)
18. Jurisdictions: Virginia, District of Columbia and Maryland
19. Baseline Cost (in Thousands): cost estimate as of MM/DD/YYYY
20. Amended Cost (in Thousands): cost estimate as of MM/DD/YYYY
21. Funding Sources: X_ Federal; X_ State; X _ Local; X_ Private; _ Bonds; _ Other

**MAP-21 PLANNING FACTORS**

22. Please identify any and all planning factors that are addressed by this project:
    a. _ Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
    b. _X Increase the **safety** of the transportation system for all motorized and non-motorized users.
        i. Is this project being proposed specifically to address a safety issue? _ Yes; _ No
        ii. If yes, briefly describe (in quantifiable terms, where possible) the nature of the safety problem:
    c. _ Increase the ability of the transportation system to support **homeland security** and to safeguard the personal security of all motorized and non-motorized users.
    d. _X Increase **accessibility and mobility** of people.
    e. _ Increase accessibility and mobility of **freight.**
    f. _ Protect and enhance the **environment**, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
    g. _ Enhance the **integration and connectivity** of the transportation system, across and between modes, for people and freight.
    h. _X Promote efficient system **management and operation**.
    i. _ Emphasize the **preservation** of the existing transportation system.

**ENVIRONMENTAL MITIGATION**

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

**CONGESTION MANAGEMENT INFORMATION**

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

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

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

## 7. I-95/I-495 Interchange at Greenbelt Metro Station

1. Submitting Agency: MDOT
2. Secondary Agency:
3. Agency Project ID:
4. Project Type: X Interstate _ Primary _ Secondary _ Urban _ Bridge _ Bike/Ped _ Transit _ CMAQ
5. Category: X System Expansion; _ System Maintenance; _ Operational Program; _ Study; _ Other
6. Project Name: I-95/I-495 Interchange at the Greenbelt Metro Station

| | Prefix | Route | Name | Modifier |
|---|---|---|---|---|
| 7. Facility: | I | 495/95 | Capital Beltway | |
| 8. From (_ at): | | | Greenbelt Metro Station | |
| 9. To: | | | | |

10. Description: Construct a full interchange along I-95/I-495 at the Greenbelt Metro Station. The existing partial interchange provides access from inner loop Capital Beltway to the Greenbelt Metro Station. The project includes the addition of auxilliary lanes on I-95/I-495 between the Greenbelt metro and MD 201 interchanges.

11. Projected Completion Year: 2020
12. Project Manager:
13. Project Manager E-Mail:
14. Project Information URL:
15. Total Miles:
16. Schematic:
17. Documentation:
18. Jurisdictions: District of Columbia
19. Baseline Cost: $78.21 million cost estimate as of 12/11/2013
20. Amended Cost: cost estimate as of MM/DD/YYYY
21. Funding Sources: X Federal; X State; _ Local; _ Private; _ Bonds; _ Other

**MAP-21 PLANNING FACTORS**

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

d. X Increase **accessibility and mobility** of people.

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

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

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

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

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

**ENVIRONMENTAL MITIGATION**

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

**CONGESTION MANAGEMENT INFORMATION**

24. Congested Conditions
    a. Do traffic congestion conditions necessitate the proposed project or program? _ Yes; _ No
    b. If so, is the congestion recurring or non-recurring? _ Recurring; _ Non-recurring
    c. If the congestion is on another facility, please identify it:

25. Capacity
    a. Is this a capacity-increasing project on a limited access highway or other principal arterial? _ Yes; _ No
    b. If the answer to Question 26.a was "yes", are any of the following exemption criteria true about the project? (Choose one, or indicate that none of the exemption criteria apply):

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

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

## 9. Widen US 1 from Fuller Road to Russell Road Interchange

1. Agency Project ID: N/A  Secondary Agency:
2. Project Type: X System Expansion; _ System Maintenance; _ Operational Program; _ Study; _ Other
   (check all that apply) _ Freeway; X Primary; _ Secondary; _ Urban; _ Bridge; _ Bike/Ped; _ Transit; _ CMAQ; _ ITS; _ Enhancement; _ Other
3. Project Title: Widen US 1 from Fuller Road to Russell Road Interchange

| | Prefix | Route | Name | Modifier |
|---|---|---|---|---|
| 4. Facility: | US | 1 | Jefferson Davis | |
| 5. From (_ at): | | | Fuller Road | |
| 6. To: | | | Russell Road | Interchange |

7. Jurisdiction(s): Prince William County
8. Description: Widen Route 1 from Fuller Road to Russell Road from 4 to 6 lanes
9. Bicycle or Pedestrian Accommodations: _ Not Included; X Included; _ Primarily a Bike/Ped Project; _ N/A
10. Total Miles:
11. Project Manager:  12. E-Mail:mbackmon@pwcgov.org
13. Project Information URL:
14. Projected Completion Year: 2025
15. Actual Completion Year:  _ Project is ongoing. Year refers to implementation.
16. _ This project is being withdrawn from the Plan as of:
17. Total cost: $76 million
18. Remaining cost (in Thousands):
19. Funding Sources: XFederal; _ State; X Local; _ Private; _ Bonds; X Other

**CONGESTION MANAGEMENT INFORMATION**

20. Do traffic congestion conditions necessitate the proposed project? X Yes; _ No
21. If so, describe those conditions: _XRecurring congestion; _ Non-site specific congestion; _ Frequent incident-related, non-recurring congestion; _ Other
22. Is this a capacity-increasing project on a limited access highway or other arterial highway of a functional class higher than minor arterial? _ Yes; X No
23. If yes, does this project require a Congestion Management Documentation form under the given criteria (see *Call for Projects* document)? _ Yes; _ No
24. If not, please identify the criteria that exempt the project here:
    - _ The number of lane-miles added to the highway system by the project totals less than 1 lane-mile
    - _ The project is an intersection reconstruction or other traffic engineering improvement, including replacement of an at-grade intersection with an interchange
    - _ The project will not allow motor vehicles, such as a bicycle or pedestrian facility
    - _ The project consists of preliminary studies or engineering only, and is not funded for construction
    - _ The project received NEPA approval on or before April 6, 1992
    - _ The project was already under construction on or before September 30, 1997, or construction funds were already committed in the FY98-03 TIP.

_ The construction costs for the project are less than $5 million.

**SAFETEA-LU PLANNING FACTORS**

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

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

_ Increase the safety of the transportation system for all motorized and non-motorized users.

a. Is this project being proposed specifically to address a safety issue? _ Yes; X No

b. Please identify issues: _ High accident location; _ Pedestrian safety; _ Other
_ Truck or freight safety; _ Engineer-identified problem

c. Briefly describe (in quantifiable terms, where possible) the nature of the safety problem:

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

X Increase accessibility and mobility of people and freight.

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

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

_ Promote efficient system management and operation.

_ Emphasize the preservation of the existing transportation system.

**ENVIRONMENTAL MITIGATION**

26. Have any potential mitigation activities been identified for this project? _ Yes XNo

27. If yes, what types of mitigation activities have been identified?

_ Air Quality; _ Floodplains; _ Socioeconomics; _ Geology, Soils and Groundwater; Vibrations;

_ Energy; _ Noise; _ Surface Water; _ Hazardous and Contaminated Materials; _ Wetlands

**INTELLIGENT TRANSPORTATION SYSTEMS**

28. Is this an Intelligent Transportation Systems (ITS) project as defined in federal law and regulation, and therefore subject to Federal Rule 940 Requirements? _ Yes; X No

29. If yes, what is the status of the systems engineering analysis compliant with Federal Rule 940 for the project? _ Not Started; _ Ongoing, not complete; _ Complete

30. Under which Architecture:

_ DC, Maryland or Virginia State Architecture

_ WMATA Architecture

_ COG/TPB Regional ITS Architecture

_ Other, please specify:

31. Other Comments

## 10. Widen VA 123 from VA 7 to I-495

1. Agency Project ID: N/A  Secondary Agency:
2. Project Type: _x System Expansion; _ System Maintenance; _ Operational Program; _ Study; _ Other
   (check all that apply) _ Freeway; _x Primary; _ Secondary; _ Urban; _ Bridge; _x Bike/Ped; _x Transit; _ CMAQ; _ ITS; _ Enhancement; _ Other
3. Project Title: Widen VA 123 from VA 7, Leesburg Pike to I-495, Capital Beltway

| | Prefix | Route | Name | Modifier |
|---|---|---|---|---|
| 4. Facility: | VA | 123 | Chain bridge Road | |
| 5. From (_ at): | VA | 7 | Leesburg Pike | |
| 6. To: | I | 495 | Capital Beltway | |

7. Jurisdiction(s): Fairfax County, VA
8. Description: Widen VA Route 123 from Leesburg Pike to the Capital Beltway from 6 to 8 lanes.
9. Bicycle or Pedestrian Accommodations: _ Not Included; _x Included; _x Primarily a Bike/Ped Project; _ N/A
10. Total Miles: 0.35 miles
11. Project Manager: Tad Borkowski  12. E-Mail: Tad.Borkowski@Fairfaxcounty.gov
13. Project Information URL: http://www.fairfaxcounty.gov/tysons/transportation
14. Projected Completion Year: 2021
15. Actual Completion Year:  _ Project is ongoing. Year refers to implementation.
16. _ This project is being withdrawn from the Plan as of:
17. Total cost (in Thousands): $22 million
18. Remaining cost (in Thousands):
19. Funding Sources: _ Federal; _ State; _ Local; _ Private; _ Bonds; _ Other

**CONGESTION MANAGEMENT INFORMATION**

20. Do traffic congestion conditions necessitate the proposed project? x_ Yes; _ No
21. If so, describe those conditions: x_ Recurring congestion; x_ Non-site specific congestion;
    _ Frequent incident-related, non-recurring congestion; _ Other
22. Is this a capacity-increasing project on a limited access highway or other arterial highway of a functional class higher than minor arterial? _ Yes; x_ No
23. If yes, does this project require a Congestion Management Documentation form under the given criteria (see *Call for Projects* document)? _ Yes; _ No
24. If not, please identify the criteria that exempt the project here:
    x The number of lane-miles added to the highway system by the project totals less than 1 lane-mile
    _ The project is an intersection reconstruction or other traffic engineering improvement, including replacement of an at-grade intersection with an interchange
    _ The project will not allow motor vehicles, such as a bicycle or pedestrian facility
    _ The project consists of preliminary studies or engineering only, and is not funded for construction
    _ The project received NEPA approval on or before April 6, 1992
    _ The project was already under construction on or before September 30, 1997, or construction funds were already committed in the FY98-03 TIP.

_ The construction costs for the project are less than $5 million.

**SAFETEA-LU PLANNING FACTORS**

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

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

_ Increase the safety of the transportation system for all motorized and non-motorized users.

a. Is this project being proposed specifically to address a safety issue? _ Yes; x_ No

b. Please identify issues: _ High accident location; _ Pedestrian safety; _ Other
_ Truck or freight safety; _ Engineer-identified problem

c. Briefly describe (in quantifiable terms, where possible) the nature of the safety problem:

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

_ Increase accessibility and mobility of people and freight.

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

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

_ Promote efficient system management and operation.

_ Emphasize the preservation of the existing transportation system.

**ENVIRONMENTAL MITIGATION**

26. Have any potential mitigation activities been identified for this project? _ Yes; x_No

27. If yes, what types of mitigation activities have been identified?

_ Air Quality; _ Floodplains; _ Socioeconomics; _ Geology, Soils and Groundwater; Vibrations;

_ Energy; _ Noise; _ Surface Water; _ Hazardous and Contaminated Materials; _ Wetlands

**INTELLIGENT TRANSPORTATION SYSTEMS**

28. Is this an Intelligent Transportation Systems (ITS) project as defined in federal law and regulation, and therefore subject to Federal Rule 940 Requirements? _ Yes; x_ No

29. If yes, what is the status of the systems engineering analysis compliant with Federal Rule 940 for the project? _ Not Started; _ Ongoing, not complete; _ Complete

30. Under which Architecture:

_ DC, Maryland or Virginia State Architecture

_ WMATA Architecture

_ COG/TPB Regional ITS Architecture

_ Other, please specify:

31. Other Comments

# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS 9/05/14

## (Transit)

| Agency | Project ID | Improv. | Facility | From | To | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|
| ***Washington Metropolitan Area Transit Authority*** | | | | | | | |
| WMATA | | Modify | Revised Metrorail Operating Plan | | | | 2015 |
| ***District of Columbia*** | | | | | | | |
| DDOT | | Construct | DC Streetcar - Anacostia Initial Line (AIL) | Defense Blvd. ~~Firth Sterling~~ and S. Capitol St. SE | Howard Rd. and Firth Sterling ~~MLK Jr. Ave. SE~~ | | 2015 ~~2014~~ |
| DDOT | | Construct | Anacostia DC Streetcar Extension | Howard Rd. and Firth Sterling ~~MLK Jr. Ave. SE~~ | Good Hope Rd. and MLK Jr. Ave. SE | | 2016 |
| DDOT | | Construct ~~Study~~ | M St. SE/SW Streetcar | Good Hope Road, SE | Maine Ave. SW | | 2020 ~~not coded~~ |
| DDOT | | Construct ~~Study~~ | Union Station/Georgetown Streetcar | Wisonsin Ave. under Whitehurst Freeway NW | 3rd /H St. (near Union Station) | | 2020 ~~not coded~~ |
| DDOT | | Construct | H St. / Benning Rd Streetcar | 3rd / H St. (near Union Station) | Oklahoma Ave., NE | | 2014 |
| DDOT | | Construct | Benning Rd. Streetcar Extension | Oklahoma Ave., NE | 45th St. / Benning Rd. Metro | | 2016 |
| DDOT | | Construct | Benning Rd. Streetcar Spur | Benning Rd. | Minnesota Ave. Metro Station | | 2015 |
| DDOT | | Reconstruct | K St. Transitway | Mt. Vernon Square/9th St. NW | Washington Circle / 23rd St. NW | | 2015 |
| ~~DDOT~~ | | Study ~~Implement~~ | ~~I St. NW peak period Bus Only Lanes~~ | ~~13th St. NW~~ | ~~Pennsylvania Ave. NW~~ | | not coded ~~2014~~ |
| ~~DDOT~~ | | Study ~~Implement~~ | ~~H St. Bus Lane- peak only~~ | ~~17th St. , NW~~ | ~~New York Ave., NW~~ | | not coded ~~2013~~ |
| DDOT | | Implement | H St./ Benning Rd. Bus Priority Improvements (TIGER Grant) | 16th St. NW | Capitol Heights Metro Station | | 2015 ~~by 2016~~ |
| DDOT | | Implement | 16th St. Bus Priority Improvements (TIGER Grant) | | | | 2015 ~~by 2016~~ |

Shaded areas represent changes since the 2013 CLRP.

# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

9/05/14

## (Transit)

| Agency | Project ID | Improv. | Facility | From | To | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|
| DDOT | | Implement | Georgia Ave Bus Priority Improvements | | | | 2015 ~~by 2016~~ |
| DDOT | | Implement | Wisconsin Ave. Bus Priority Improvements (TIGER Grant) | Friendship Heights Metro Station | Naylor Road Metrorail Station | | 2015 ~~by 2016~~ |
| DDOT | | Implement | Theodore Roosevelt Bridge to K St. Bus Priority Improvements (TIGER Grant) | | | | 2015 ~~by 2016~~ |
| DDOT | | Implement | 14th St. Bus Priority Improvements (TIGER Grant) | | | | 2015 ~~by 2016~~ |
| DDOT | | Study | North/South Corridor Streetcar Planning Study | Takoma Park Station | Buzzard Point | | not coded |
| ~~DDOT~~ | | ~~Study~~ | ~~Capitol Hill/8th Street Streetcar~~ | ~~H St. NE~~ | ~~M St. SE~~ | | ~~not coded~~ |
| ~~DDOT~~ | | ~~Study~~ | ~~14th St. NW Streetcar~~ | ~~K St. NW~~ | ~~U St. NW~~ | | ~~not coded~~ |
| DDOT | | Study | DC Circulator Expansion | Phase 1 Routes | | | not coded |
| DDOT | | Implement | DC Circulator | National Mall Area Route | ~~weekend only~~ | | 2015 ~~2013~~ |
| ***Maryland*** | | | | | | | |
| MTA | | Construct | Purple Line Transitway | Bethesda | New Carrollton | No | 2020 |
| MTA | | Construct | Silver Spring Transit Center | Phase II | | Yes | 2017 ~~2011~~ |
| MTA | | Construct | Corridor Cities BRT | Shady Grove | COMSAT | | 2020 |
| MTA | | Construct | Takoma/ Langley Park Transit Center | Intersection New Hampshire Ave and University Blvd. | Takoma / Langley Park | No | 2015 ~~2011~~ |
| | | Implement | Addison Rd. Transit Improvements (TIGER Grant) | near Seat Pleasant | Southern Ave. Metro Station | | by 2016 |

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# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS 9/05/14

## (Transit)

| Agency | Project ID | Improv. | Facility | From | To | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|
| | | Implement | US 1 (MD) Bus Priority Improvements (TIGER Grant) | | | | by 2016 |
| MTA | | Implement | Brunswick Line Service Improvements | | | | 2029 |
| MTA | | Implement | Camden Line Service Improvements | | | | 2029 |
| MTA | | Implement | Penn Line Service Improvements | | | | 2029 |
| MTA | | Study | MD 97 Georgia Ave. Busway | Wheaton | Olney | | not coded |
| MTA | | Study | MD 97 Georgia Ave. BRT | Wheaton | Olney | | not coded |
| MTA | | Study | Brunswick Line | new station | | | not coded |
| ***Montgomery County*** | | | | | | | |
| Mont.Co. | MCT7 | Construct | Olney Transit Center | adjacent to or north of MD 108 | | No | 2015 |
| ~~Mont.Co.~~ | | ~~Construct~~ | ~~University Blvd Bus Enhancement~~ | ~~Kensington~~ | ~~Silver Spring~~ | ~~No~~ | ~~2020~~ |
| Mont.Co. | | Study | Veirs Mill Road BRT | Rockville | Wheaton | No | not coded |
| Mont. Co. | | Study | Countywide BRT | various corridors | | | not coded |
| ***Virginia*** | | | | | | | |
| VDOT | | Widen | US 1 (bus/right-turn lanes) | VA 235 North | SCL Alexandria (I-95 Capital Beltway) | No | 2035 |
| Arlington Co. | | Construct | Crystal City / Potomac Yard Busway (2-lane) | Vicinity of Glebe Rd. Ext.-City/County line | Crystal City Metro Station | ROW acquired | 2014 ~~2013~~ |

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# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

9/05/14

## (Transit)

| Agency | Project ID | Improv. | Facility | From | To | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|
| Arlington Co. | | Construct | Crystal City Streetcar ~~Route 1 Corridor Streetcar~~ | Vicinity of Glebe Rd. Ext.-City/County line | Pentagon City Metro Station | | 2019 |
| Alex. | | Construct | Potomac Yard Transit Bus lanes (2 lanes) | Four Mile Run | Braddock Rd. | Yes | 2014 |
| Alex. | | Study | Route 1 Corridor Streetcar Conversion | Four Mile Run | Braddock Rd. | | not coded |
| Alex. | | Construct | Metro Station (Proposed) | @ Potomac Yards | | No | 2021 ~~2017~~ |
| VDOT | | Construct | Columbia Pike Streetcar | Skyline Center | Pentagon City | No | 2017 |
| ~~VDOT~~ | | ~~Construct~~ | ~~Transit Center (Bradlee Shopping Center)~~ | ~~King St. and Braddock Rd.~~ | | ~~No~~ | ~~2014~~ |
| VDOT | | Construct | Transit Center (Seven Corners) | Seven Corners Shopping Center | | Completed | 2012 |
| VDOT | | Construct | Park-and-Ride Lot | Wiehle Ave. Parking Garage | @ Reston East Park-and-Ride Lot | Completed | 2013 |
| VDOT | | Construct | Park-and-Ride Lot | Springfield CBD | vic. I-95 & Old Keene Mill Road | No | 2015 |
| VDOT | | Relocate/ Construct | Park-and-Ride Lot (Leesburg) | Relocate to vic. of Leesburg Bypass and / or the Dulles | 700 Spaces | Completed | 2010 |
| VDOT | | Construct | Lease Commuter Parking Spaces at Lowes Island | Leesburg | | Completed | 2013 |
| VDOT | | Construct | Park-and-Ride Lot | Purcellville | 100 Space Park & Ride Lot | Completed | 2013 ~~2015~~ |
| VDOT | | Implement | Loudoun County Commuter Bus Service. | Town of Leesburg -Harrison St & Catoctin Circle | 400 Space Park & Ride Lot | Completed | 2010 |
| VDOT | | Construct | Park-and-Ride Lot | Dulles Town Center | 300 Spaces | Proffered | 2014 ~~2015~~ |
| VDOT | | Construct | Park-and-Ride Lot | US 50 at Stone Ridge | 100 spaces ~~150 Spaces~~ | Proffered | 2014 ~~2015~~ |
| VDOT | | Construct | Park-and-Ride Lot | US 50 Dulles at East Gate | 200 Spaces | Yes | 2015 ~~2025~~ |

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# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS 9/05/14

## (Transit)

| Agency | Project ID | Improv. | Facility | From | To | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|
| VDOT | | Construct | Park-and-Ride Lot | VA 234 (vicinity of I-66) | at Cushing Road | Completed | 2013 |
| VDOT | | Construct | Park & Ride Facility | Round Hill | 75 Spaces | Completed | 2013 ~~2015~~ |
| VDOT | | Construct | Park & Ride Facility | Brambleton | 200 space expansion ~~100 space expansion~~ | No | 2018 ~~2015~~ |
| VDOT | | Construct | Park & Ride Facility | Arcola Center | 300 Spaces | Proffer | 2015 |
| VDOT | | Construct | Park-and-Ride Lot | at EPG | | No | 2015 |
| VDOT | | Construct | Park-and-Ride Lot | Telegraph Rd. / Caton Hill | 400-500 spaces | Completed | 2013 |
| FAMPO | | Construct | Park-and-Ride Lot | Staffordboro Blvd. (Stafford Co.) | 1,000 spaces | ROW acquired | 2015 |
| FAMPO | | Expand | Park-and-Ride Lot | Gordon Rd. (Spotsylvania Co) | additional spaces | ROW acquired | 2015 |
| VDRPT | | Construct | Dulles Corridor Metrorail | East Falls Church Metrorail Station | Wiehle-Reston East Station ~~Wiehle Ave.~~ | Yes | 2014 ~~2013~~ |
| VDRPT | | Construct | Dulles Corridor Metrorail | Wiehle-Reston East Station ~~Wiehle Ave.~~ | Route 772 | No | 2016 |
| VRE | | Construct | VRE- Spotsylvania Commuter Rail Station | south of U.S. Route 17/Mills Drive and west of Crossroads Parkway | | No | 2014 |
| VRE | | Construct | VRE - Potomac Shores ~~Cherry Hill~~ Commuter Rail Station | Potomac Shores ~~Cherry Hill~~ | Prince William County | No | 2017 ~~2015~~ |
| VRE | | Implement | VRE Service Improvements (Reduce Headways) | Fredericksburg and Manassas lines | | No | 2020 |
| FRA/ DRPT | | Construct | VRE- 3rd Track~~/ Cherry Hill Commuter Rail Station~~ | Arkendale, Stafford Co. | Powell's Creek, Prince William Co. | No | 2015 |
| VDOT | | Implement | Beltway HOT lanes transit service | | | Completed | 2014 |
| VDOT | | Implement | Beltway HOT lanes transit service | | | No | 2020 |

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# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

9/05/14

## (Transit)

| Agency | Project ID | Improv. | Facility | From | To | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|
| VDOT | | Implement | Beltway HOT lanes transit service | | | No | 2030 |
| | | Implement | VA 7 Bus Priority Improvements (TIGER Grant) | Alexandria | Tyson's Corner | | by 2016 |
| | | Implement | Van Dorn - Pentagon Rapid Bus (TIGER Grant) | Van Dorn St. Metro | Pentagon | | 2015 ~~2013~~ |
| Alex. | | Construct | Van Dorn - Pentagon BRT (City Funded) | Van Dorn St. Metro | Pentagon | | 2019 ~~2016~~ |
| | | Implement | I-95/I-395 Multimodal Improvements (TIGER Grant) | | | | by 2016 |
| Alex. | New | Construct | Landmark Transit Center | Duke St. & Van Dorn | | No | 2030 ~~2023~~ |
| Alex. | | Implement | DASH Bus Expansion | City-Wide | | | 2019 |
| Alex. | | Construct | Duke Street BRT | King Street Metro | Fairfax County Line | | 2022 |
| VDOT | | | Leesburg Park and Ride Lot (new location) | Crosstrails Blvd (approx) | 300 spaces | No | 2016 |
| VDOT | | | Sterling Park and Ride Lot | | 200 spaces | Yes/leased | 2014 |
| VDOT | | | One Loudoun Park and Ride Lot | VA 7 & Loudoun County Pkwy | 200 spaces | ROW acquired | 2019 |
| VDOT | | Study | Western Loudoun Park and Ride Lot | | 250 spaces | No | not coded ~~2018~~ |

Shaded areas represent changes since the 2013 CLRP.

# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility from | Facility to | Lanes from | Lanes to | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***District of Columbia*** | | | | | | | | | | | | |
| DDOT | DI10 | | Downgrade | Southeast Blvd. ~~SE/SW Freeway~~ | 11th St. SE | Barney Circle/ PA Ave. | 1 | 3 | | | | 2015 |
| DDOT | DI7A | | Reconstruct/ Widen | 11th St. Bridges (2 spans) | I-295 | Southeast Freeway | | | 8 | 8 freeway 4 local | completed | 2013 |
| DDOT | DI7A | | Construct | 11th St. Bridges (2 spans) | ramp movements to/from the northbound Anacostia Freeway for each span | | | | | | completed | 2013 |
| DDOT | | | Study | Rochambeau Bridge (I-395 / 14th St. center span) | conversion to HOV / HOT lanes | | | | | | | not coded |
| DDOT | | | Study | SE/SW Freeway (I-395-I-695) managed lanes (conversion or construction of HOV/HOT lanes)- Corridor III | Case Bridge | 11th St. Bridge | | | | | | not coded |
| DDOT | | | Study | I-295 managed lanes (conversion or construction of HOV/HOT lanes)- Corridor II | 11th St. Bridge | DC/MD line | | | | | | not coded |
| DDOT | | | Remove | I-395 SB exit ramp (w/ Return to L'Enfant project) | SB to the 400 block of 3rd St. NW | | | | 1 | 0 | | 2014 ~~2013~~ |
| DDOT | | | Construct | F St. (w/ Return to L'Enfant project) | 2nd St. NW | 3rd St. NW | | | 0 | 2 | | 2014 |
| DDOT | DI9 | | Reconstruct | I-295/ Malcolm X Interchange | add above grade ramp connection from NB I-295 off ramp to new St. Elizabeth's Access Rd. | | | | | | | 2014 |
| DDOT | DP9A | | Widen / Realign | South Capitol St. Corridor: Frederick Douglass Bridge | Independence Ave. ~~S. Capitol St. (east)~~ | MLK JR. Blvd. ~~Potomac Ave. (west)~~ | 2 | 2 | 5 | 6 | | 2015 |
| DDOT | DP9C | | Construct | South Capitol St. Corridor: S. Capitol St. intersection | at Potomac Ave. | | | | | | | 2015 |
| DDOT | DP9D | | Construct | South Capitol St. Corridor: Suitland Parkway Intch. | at MLK Jr. Blvd to complete movements | | | | | | | 2015 ~~2016~~ |
| DDOT | DP10 | | Construct | St. Elizabeth's Access Rd. (along West Campus western boundary) | Firth Sterling | Malcolm X | | | 0 | 3 | | 2014 |





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# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility | | Lanes | | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| DDOT | DS3 | | Construct | Southern Ave. SE | Branch Ave. SE | Naylor Rd. SE | | | 0 | 2 | | 2018 ~~2016~~ |
| DDOT | DS5A | | Reduce Capacity | M St. NW - add bike lane | Connecticut Ave NW | 29th St. NW | | | 5 | 4 | Yes | 2014 ~~2013~~ |
| DDOT | DS5 | | Reduce Capacity | M St. NW - add bike lane | 14th St, NW ~~15th St., NW~~ | Connecticut Ave NW | | | 4 | 3 | Yes | 2014 ~~2013~~ |
| DDOT | DP11 | | Widen ~~Reduce Capacity~~ | Wisconsin Ave. | Garfield St. | 34th St. | | | 4 ~~4/6~~ | 4/6 ~~4~~ | | 2014 ~~2012~~ |
| DDOT | DP12 | | Reduce Capacity | 17th St. NE/SE | Benning Rd. NE | Potomac Ave. SE | | | 2 SB | 1 SB | | 2014 ~~2013~~ |
| ~~DDOT~~ | ~~DP14~~ | | ~~Reduce Capacity~~ | ~~H St. NW **peak period** Bus Only Lanes~~ | ~~17th St. NW~~ | ~~New York Ave. NW~~ | | | ~~5 pk~~ | ~~4 pk~~ | | ~~2013~~ |
| ~~DDOT~~ | ~~DP18~~ | | ~~Reduce Capacity~~ | ~~I St. NW peak period Bus Only Lanes~~ | ~~13th St. NW~~ | ~~Pennsylvania Ave. NW~~ | | | ~~5 pk~~ | ~~4 pk~~ | | ~~2014~~ |
| DDOT | | | Reduce Capacity | C St. NE | Oklahoma Ave. NE | 14th St. NE ~~16th St. NE~~ | | | 5 ~~4~~ | 3 ~~2~~ | | 2014 ~~2013~~ |
| DDOT | DP16 | | Reduce Capacity | East Capitol Street | 40th St. | Southern Avenue | | | 6 | 4 | | 2015 |
| DDOT | DS6 | | Reduce Capacity | Maryland Ave. NE | 6th St. NE | 15th St. NE | | | 4 | 3 | | 2014 |
| DDOT | | | Reconstruct-1-way to 2-way | New Jersey Ave NW | H St. NW | N St. NW | | | | | | 2015 |
| DDOT | | | Reduce Capacity | South Capitol St. | Firth Sterling Ave. | Maryland border | | | 5 | 4 | | 2015 |
| DDOT | | | Reduce Capacity | Adams Mill Rd. NW | Kenyon | Klingle | | | 3 | 2 | | 2014 ~~2013~~ |
| DDOT | DP19 | | Reduce Capacity ~~Pilot Study~~ | 4th Street SW | Pennsylvania Ave | Virginia Ave | | | 4 | 2 ~~3~~ | | 2014 ~~Not Coded~~ |
| DDOT | DP20 | | Reduce Capacity ~~Pilot Study~~ | Reno Rd | 36th | Tilden | | | 4 | 2 ~~3~~ | | 2014 ~~Not Coded~~ |





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# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility from | Facility to | Lanes from | Lanes to | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Maryland*** | | | | | | | | | | | | |
| ***MDOT Freeway*** | | | | | | | | | | | | |
| MDSHA | MI2q | | Construct | I-270 | Interchange at Watkins Mill Road Extended | | 1 | 1 | 8 | 8+2 | No | 2016 |
| MDSHA | MI2SHOV MI2S | | Construct | I-270/US 15 Corridor | Shady Grove Metro | Biggs Ford Rd | 1 | 1 | varies | | No | 2030 |
| MDSHA | nrs | | Reconstruct | I-270 | Interchange at MD 121 | | 1 | 1 | 1 | 2 | No | 2016 |
| MDSHA | MI4 | | Widen | I-70 | Mt. Phillip Rd. | I-270 / US 40 ~~MD 144FA~~ | 1 | 1 | 4 | 6 | No | 2020 |
| MDSHA | MI4b | | Widen | I-70 | I-270/ US 40 ~~Mt. Phillip Rd.~~ | MD 144FA | 1 | 1 | 4 | 6 | Completed | 2013 ~~2020~~ |
| MDSHA | MI4a | | Reconstruct | I-70 | Interchange at Meadow Rd. | to add missing movements | 1 | 1 | | | No | 2020 |
| MDSHA | MI1f | | Construct | I-95 | Contee Road Relocated w/ CD Roads | | 1 | 1 | 8 | 8+4 | No | 2014 ~~2016~~ |
| MDSHA | MI1k | | Construct | I-95/I-495 (Capital Beltway) | Branch Avenue Metro Access | | 1 | 1 | 8 | 8 | Yes | 2020 |
| MDSHA | MI1p | | Construct ~~Study~~ | I-95/I-495 (Capital Beltway) | Interchange at Greenbelt Metro | | 1 | 1 | 8 | 8+2 | No | 2020 ~~not coded~~ |
| MDSHA | MP12a | | Construct | Intercounty Connector | I-95 | US 1 | 0 | 1 | 0 | 4 | Yes | 2014 |
| ***MDOT Primary*** | | | | | | | | | | | | |
| MDSHA | MP10a | | Reconstruct | US 1 (Baltimore Avenue) | College Avenue | Sunnyside Avenue | 2 | 2 | 4 | 4 | No | 2020 |
| MDSHA | MP10b | | Widen | US 1 (Baltimore Avenue) | Cherry Hill Road | I-95/I-495 | 2 | 2 | 4 | 6 | Completed | 2010 |
| MDSHA | MP9 | | Widen | MD 2/4 Solomons Island Road | south of MD 765 | Stoakley Road ~~MD 2/4 at Lusby~~ | 2 | 2 | 4 | 6 ~~3~~ | No | 2035 ~~2040~~ |
| MDSHA | nrs | | Reconstruct | MD 4 in St. Mary's County | MD 2 | MD 235 (including MD 235 intersection) | 2 | 2 | 2 | 2 | No | 2040 |
| MDSHA | MP9B | | Widen | Thomas Johnson "TJ" Bridge | on MD 4, between St. Mary's County and Calvert County | | 2 | 2 | 2 | 4 | No | 2040 |
| MDSHA | MP2c | | Widen | MD 3 (Robert Crain Highway) | US 50 | Anne Arundel County Line | 2 | 2 | 4 | 6 | No | 2030 |
| MDSHA | nrs | | Construct | MD 4 (Pennsylvania Avenue) | Interchange at Westphalia Rd | | 2 | 5 | 4 | 6 | No | 2020 |





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# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility | | Lanes | | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| MDSA | nrs | | Construct | MD 4 (Pennsylvania Avenue) | Interchange at Suitland Pkwy | | 2 | 5 | 4 | 6 | No | 2016 |
| MDSHA | MP3a | | Upgrade/ Widen | MD 4 (Pennsylvania Avenue) | MD 223 | I-95/I-495 | 2 | 1 | 4 | 6 | No | 2035 |
| MDSHA | nrs | | Construct | MD 5 (Branch Avenue) | Interchange at Earnshaw/Burch Hill Roads | | 2 | 5 | 4 | 6 | No | 2025 |
| MDSHA | MP4f | | Upgrade/ Widen | MD 5 (Branch Avenue) | US 301 at T.B. | North of the Capital Beltway | 2 | 5 | 4 | 6 | No | 2025 |
| MDSHA | nrs | | Construct | MD 5 (Branch Avenue) | Interchange at MD 373/Brandywine Road Rel. | | 2 | 5 | 4 | 6 | No | 2018 ~~2016~~ |
| MDSHA | nrs | | Construct | MD 5 (Branch Avenue) | Interchange at Surratts Road | | 2 | 5 | 4 | 6 | No | 2025 |
| MDSHA | MP15 | | Construct | US 15 | Interchange at Monocacy Blvd. | | 2 | 2 | 6 | 6 | No | 2016 |
| MDSHA | nrs | | Construct | US 29 (Columbia Pike) | Interchange at Musgrove/Fairland Rd. | | | | 6 | 6 | No | 2025 |
| MDSHA | MP5e | | Study | US 29 (Columbia Pike) | north of MD 650 | Howard County Line | 2 | 5 | 6 | 6 | No | not coded |
| MDSHA | | | Construct | MD 75 Relocated | MD 80 | | 0 | 4 | 0 | 4 | No | 2020 |
| MDSHA | FP2 | | Widen | MD 85 (Buckeystown Pike) | English Muffin Way | north of Grove Road | 2 | 2 | 2/4 | 4/6 | No | 2020 |
| MDSHA | MP14 | | Reconstruct | MD 202 (Largo Town Ctr. Metro Access Improvs. ) | at Brightseat Rd | | 2 | 2 | 6 | 6 | No | 2020 |
| MDSHA | nrs | | Upgrade | MD 210 interchange improvs. | @ Livingston Rd. / Kerby Hill Rd. | | 2 | 5 | 6 | 6 | | 2020 |
| MDSHA | MP6d | | Upgrade | MD 210 (Indian Head Highway) with interchange | MD 228 | Capital Beltway | 2 | 5 | 6 | 6 | No | 2030 |
| MDSHA | MP8e | | Study | US 301 | North of Mount Oak Road | US 50 | 2 | 5 | 4/6 | 6+2 | No | not coded |
| MDTA | MP18 | | Construct | US 301 Governor Nice Bridge | Charles County, MD | King George County, VA | 2 | 2 | 2 | 4 | No | 2030 |
| MDSHA | MP16 | | Construct | US 340 Interchange | @US 340 at Jefferson Tech Park | | 1 | 1 | 4 | 4 | No | 2016 |
| ***MDOT Secondary*** | | | | | | | | | | | | |
| MDSHA | MS33 | | Widen | MD 27 | MD 355 | A 305 | 2 | 2 | 4 | 6 | No | 2020 |
| MDSHA | MS2f | | Widen | MD 28 (Norbeck Road) / MD 198 (Spencerville Road) | MD 97 | I-95 | 2 | 2 | 2/4 | 4/6 | No | 2025 |





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# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility | | Lanes | | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| MDSHA | MP12c | | Construct | MD 97 (Brookeville Bypass) | South of Brookeville | North of Brookeville | 0 | 2 | 0 | 2 | No | 2020 |
| MDSHA | nrs | | Upgrade | MD 97 (Georgia Avenue) | interchange @ MD 28 (Norbeck Road) | | 2 | 2 | 6 | 6 | No | 2020 ~~2030~~ |
| MDSHA | nrs | | Upgrade | MD 97 (Georgia Avenue) | interchange @ Randolph Road | | 2 | 2 | 6 | 6 | No | 2015 |
| MDSHA | MS32 | | Widen | MD 117 | I-270 | Great Seneca Park | 2 | 2 | 2 | 4 | No | 2025 |
| MDSHA | MS34 | | Study | MD 121 | I-270 | W. Old Baltimore Rd. | 3 | 3 | 4 | 6 | No | not coded |
| MDSHA | MS6b | | Widen | MD 124 (Woodfield Road) | Midcounty Highway | S. of Airpark Dr. | 3 | 3 | 2 | 6 | No | 2020 |
| MDSHA | MS6d | | Widen | MD 124 (Woodfield Road) | N. of Fieldcrest Rd. | Warfield Road | 3 | 3 | 2 | 6 | No | 2020 |
| MDSHA | | | Study | MD 180/MD 351 | Greenfield Dr. | Corporate Dr. | | | | | No | not coded |
| MDSHA | MS35 | | Widen | MD 197 (Collington Rd.) | MD 450 Relocated | Kenhill Dr. | 2 | 2 | 2 | 4/5 | No | 2025 |
| MDSHA | MS10b | | Study | MD 201 (Kenilworth Ave.) | I-95/I-495 (Capital Beltway) ~~Rittenhouse Road~~ | north of Muirkirk Rd. ~~Pontiac St.~~ | 2 | 2 | 4 | 6 | No | not coded |
| MDSHA | nrs | | Construct | MD 355 | Montrose/Randolph Rds. | CSX RR | 2 | 2 | 6 | 6 | No | 2020 |
| MDSHA | MS18d | | Widen | MD 450 (Annapolis Road) | Stonybrook Drive | West of MD 3 | 2 | 2 | 2 | 4 | No | 2020 ~~2016~~ |
| MDSHA | BRAC nrs | | Reconstruct | BRAC Intersection Improvements near the National Naval Medical Center, Bethesda | | | | | | | | 2012 |
| ***Montgomery County*** | | | | | | | | | | | | |
| Mont.Co. | MC11c | | Construct | A-305 Snowden Farm Parkway - ~~MidCounty Highway Extended~~ | MD 355 | MD 27 | 0 | 3 | 0 | 4 | No | 2015 ~~2012~~ |
| Mont.Co. | nrs | | Construct | Burtonsville Access Rd. | MD 198 | School Access Rd. | 0 | 4 | 0 | 2 | No | 2025 ~~2013~~ |





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| Mont.Co. | nrs | | Construct | Chapman Avenue | Randolph Road | Old Georgetown Road | 0 | 3 | 0 | 2 | No | 2016 ~~2015~~ |
| Mont.Co. | MC5c | | Widen | Father Hurley/ Ridge Rd. | I-270 | existing MD 27 | 2 | 2 | 4 | 6 | Completed | 2010 |
| Mont.Co. | MC7a | | Widen | Goshen Rd. South | South of Girard Street | 1000 feet north of Warfield Road | 3 | 3 | 2 | ~~4~~ | No | 2025 ~~2015~~ |
| Mont.Co. | MC43 | | Construct | Dorsey Mill Rd. Bridge over I-270 | Century Boulevard | Milestone Center Drive | 0 | 3 | 0 | 4 | No | 2020 ~~2015~~ |
| Mont.Co. | MC11a | | Construct | M-83 - Midcounty Highway Extended | MD 27 (Ridge Road) | Middlebrook Road | 0 | 2 | 0 | 4-6 | No | 2025 ~~2020~~ |
| Mont.Co. | MC11d | | Construct | M-83 - Midcounty Highway Extended | Middlebrook Road | Montgomery Village Avenue | 0 | 2 | 0 | 4-6 | No | 2025 ~~2020~~ |
| Mont.Co. | MC12f | | Widen | MD 118 Ext (Germantown Road) | MD 355 | M-83/Watkins Mill Rd. | 2 | 2 | 3 | 4 | No | 2020 |
| Mont.Co. | MC14g | | Widen | Middlebrook Road Ext. | MD 355 | M-83 | 2 | 2 | 3 | 4 | No | 2025 ~~2020~~ |
| Mont.Co. | MC15b | | Construct | Montrose Parkway East | Eastern Limit of MD 355/Montrose Interchange | Veirs Mill Road/Parkland Road Intersection | 0 | 2 | 0 | 4 | No | 2022 ~~2015~~ |
| ~~Mont.Co.~~ | ~~MC42~~ | | ~~Construct~~ | ~~Randolph Road~~ | ~~Charles Road Parklawn Drive~~ | ~~Rock Creek Park~~ | ~~2~~ | ~~2~~ | ~~4~~ | ~~5~~ | ~~No~~ | ~~2014~~ |
| Mont.Co. | MC34 | | Widen | Snouffer School Rd. | MD 124 (Woodfield Road) | Centerway Road | 3 | 3 | 2 | 4 | No | 2016 |
| Mont.Co. | MC23a | | Construct | Watkins Mill Rd. ext. | I 270 (future interchange) | MD 355 | 0 | 2 | 0 | 6 | Completed | 2011 |
| Mont.Co. | MC13 | | Construct | Woodfield Rd. ( MD 124 Ext.) | ~~1200' North of~~ MD 108 | MD 27 at Faith Ln. | 0 | 2 | 0 | 2 | Yes | 2011 |
| Mont.Co. | | | Construct | Executive Blvd. Ext. - East | Rockville Pike (MD 355) | Nebel St. Ext. | | | 0 | 4 | | 2020 |
| Mont.Co. | | | Construct | Executive Blvd. Ext. - West | Old Georgetown Rd. | Marinelli Rd. | | | 0 | 4 | | 2020 |
| Mont.Co. | | | Construct | Main St./Market St. | Old Georgetown Rd. | Rockville Pike (MD 355) | | | 0 | 2 | | 2020 |
| Mont.Co. | | | Construct | Old Georgetown Rd. | Old Georgetown Rd. | Nicholson Lane/TildenLane | | | 0 | 6 | | 2020 |
| Mont.Co. | | | Construct | Hoya St. | Executive Blvd. | Montrose Pkwy | | | 0 | 4 | | 2020 |
| Mont.Co. | | | Construct | Platt Ridge Dr. Ext. | Jones Bridge Rd. | Montrose Dr. | | | 0 | 2 | | 2016 ~~2014~~ |
| Mont.Co. | nrs | | Construct | Century Blvd. | Current terminus south of Oxbridge Tract | Intersection with future Dorsey Mill Road | ? | ? | 0 | 4 | | 2020 ~~2014~~ |





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| ***Prince Georges County*** | | | | | | | | | | | | |
| PG Co. | PGS3a | | Widen | Addison Road | MD 214 | Walker Mill Road | 3 | 3 | 2 | 4 | Yes | 2019 |
| PG Co. | nrs | | Reconstruct | Addison Road | Sheriff Road | MD 704 | 4 | 4 | 2 | 2 | Yes | 2014 |
| PG Co. | PGS5 | | Construct | Allentown Road Relocated | MD 210 (Indian Head Highway) | Brinkley Road | 0 | 3 | 0 | 4 | No | 2025 |
| PG Co. | PGS73 | | Widen | Ardwick-Ardmore Road | MD 704 | 91st Ave. | 4 | 4 | 2 | 4 | Yes | 2015 |
| PG Co. | PGP4a | | Construct | Baltimore Washington Pkwy/Greenbelt Rd (MD 193) | ramp to southbound Baltimore Washington Pkwy | | 0 | 5 | 0 | 4 | No | 2025 |
| PG Co. | PGS9b | | Widen | Bowie Race Track Road | MD 197 (Laurel-Bowie Road) | Old Chapel Road | 4 | 4 | 2 | 4 | No | 2015 |
| PG Co. | PGS9a | | Widen | Bowie Race Track Road | MD 450 (Annapolis Road) | Old Chapel Road | 4 | 4 | 2 | 4 | No | 2015 |
| PG Co. | PGS10 | | Widen | Brandywine Road | MD 223 (north of Piscataway Road) | Thrift Road | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS12 | | Widen | Brinkley Road | MD 414 (St. Barnabas Road) | MD 337 (Allentown Road) | 3 | 3 | 4 | 6 | No | 2020 |
| PG Co. | PGS13 | | Construct | Brooks Drive Extended | Marlboro Pike | Rollins Avenue | 0 | 3 | 0 | 4 | No | 2020 |
| PG Co. | PGS14 | | Widen | Cabin Branch Drive | Columbia Park Road | north of Sheriff Road | 4 | 4 | 2 | 4 | No | 2015 |
| PG Co. | PGS16a | | Construct | Campus Way North | Lake Arbor Way | south of Lottsford Road | 0 | 4 | 0 | 4 | No | 2023 |
| PG Co. | PGS16b | | Construct | Campus Way North Extended | south of Lottsford Road | Evarts Drive | 0 | 4 | 0 | 4 | No | 2020 |
| PG Co. | PGS17 | | Widen | Cherry Hill Road | Powder Mill Road | Selman Rd. ~~Baltimore Avenue (US 1)~~ | 3 | 3 | 2 | 4 | No | 2019 |
| PG Co. | PGS18 | | Widen | Church Road | Woodmore Rd. | MD 214 (Central Ave.) | 4 | 4 | 2 | 4 | No | 2011 ~~2020~~ |
| PG Co. | PGS20a | | Widen | Columbia Park Road | Cabin Branch Road | Columbia Terrace | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS20b | | Widen | Columbia Park Road | US 50 | Cabin Branch Road | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS21a | | Widen/ Construct | Contee Road | US 1 | MD 201/ VA Manor Rd. ~~Old Gunpowder Road~~ | 4 | 4 | 2 | 4 | Yes | 2016 |
| PG Co. | PGS22 | | Widen | Dangerfield Road | Cheltenham Avenue | MD 223 (Woodyard Road) | 4 | 4 | 2 | 4 | No | 2020 |





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| PG Co. | PGS24a | | Widen | Dower House Road | MD 223 (Woodyard Road) | Foxley Road | 4 | 4 | 2 | 4 | No | 2025 |
| PG Co. | PGS24b | | Widen | Dower House Road | Foxley Road | MD 4 (Pennsylvania Avenue) | 4 | 4 | 2 | 6 | No | 2015 ~~2017~~ |
| PG Co. | PGS25 | | Widen | Fisher road | Brinkley Road | Holton Lane | 4 | 4 | 2 | 4 | No | 2025 ~~2015~~ |
| PG Co. | PGS26 | | Construct | Forbes Boulevard Extended | south of Amtrak | MD 193 (Greenbelt Road) | 0 | 4 | 0 | 4 | No | 2020 |
| PG Co. | PGS27 | | Widen | Forestville Road | MD 337 (Allentown Road) | MD 4 (Pennsylvania Avenue) | 4 | 4 | 2 | 4 | No | 2025 |
| PG Co. | PGS29 | | Widen | Fort Washington Road | Riverview road | MD 210 (Indian Head Highway) | 4 | 4 | 2 | 4 | No | 2025 |
| PG Co. | PGS30a | | Widen | Good Luck Road | MD 2001 (east of Kenliworth Avenue) | Cipriano Road | 4 | 4 | 2 | 4 | No | 2025 |
| PG Co. | PGS30b | | Widen | Good Luck Road | Cipriano Road | MD 193 (Greenbelt Road) | 4 | 4 | 2 | 4 | No | 2025 |
| PG Co. | nrs | | Widen | Governor Bridge Road | US301 | Anne arundel County | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS34a | | Widen | Hill Road | Central Avenue (MD 214) | MD 704 (ML King Jr Highway) | 4 | 4 | 2 | 4 | No | 2016 ~~2018~~ |
| PG Co. | PGS34b | | Construct | Hill Road | MD 704 (ML King Jr Highway) | Sheriff Road | 0 | 4 | 0 | 2 | No | 2015 |
| PG Co. | PGS88 | | Construct | Iverson St. Extended | Wheeler Road | 19th Avenue | 0 | 4 | 0 | 4 | No | 2018 |
| PG Co. | PGS35 | | Widen | Karen Boulevard | Walker Mill Road | Central Avenue (MD 214) | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS38a | | Widen | Livingston Road | MD 210 at Eastover (Indian Head Highway) | Kerby Hill Rd. | 4 | 3/4 | 2 | 4 | No | 2015 |
| PG Co. | PGS38b | | Widen | Livingston Road | Piscataway Creek | Farmington Road | 2 | 2 | 2 | 4 | No | 2020 |
| PG Co. | PGS40a | | Widen | Lottsford Road | Archer Lane | MD 193 Enterprise Rd. ~~Lottsford Vista Rd.~~ | 3 | 3 | 2 | 4 | No | 2012 ~~2020~~ |
| PG Co. | PGS39b | | Widen | Lottsford Vista Road | MD 704 (ML King Jr Highway) | Ardwick-Ardmore Road/Relocated | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS44b | | Widen | Metzerott Road | Adelphi Road | MD 193 (University Boulevard) | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS44a | | Widen | Metzerott Road | MD 650 (New Hampshire Avenue) | Adelphi Road | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS45a | | | | Atlantis/Northview Dr. | Mount Oak Road | 4 | 4 | 4 | 6 | | |





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| PG Co. | PGS46 | | Widen | Murkirk Road | US 1 (west of Baltimore Avenue) | Odell Road | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS47 | | Widen | Oak Grove and Leeland Roads | MD 193 (Watkins Park Road) | US 301 (Robert Crain Highway) | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS48 | | Widen | Old Alexandria Ferry Road | MD 223 (Woodyard Road) | MD 5 (Branch Avenue) | 4 | 4 | 2 | 4 | No | 2015 |
| PG Co. | PGS80 | | Construct | Old Baltimore Pike Extended | Muirkirk Road | Contee Road | 0 | 4 | 0 | 2 | Yes | 2020 |
| PG Co. | PGS50 | | Widen | Old Branch Avenue | MD 223 (north of Piscataway Road) | MD 337 (Allentown Road) | 4 | 4 | 2 | 4 | Yes | 2020 |
| PG Co. | PGS90 | | Construct | Old Fort Rd. Extended | MD 223 (Piscataway Road) | Old Fort Rd | 0 | 4 | 0 | 4 | No | 2020 |
| PG Co. | PGS51a | | Widen | Old Gunpowder Road | Powder Mill Road | Greencastle Road | 3 | 3 | 2 | 4 | No | 2018 ~~2015~~ |
| PG Co. | PGS52 | | Reconst. ~~Widen~~ | Oxon Hill Road | Fort Foote Rd - North | MD 210 | 3 | 3 | 2 | 2 ~~4~~ | No | 2015 |
| PG Co. | | | Reconst. ~~Widen~~ | Oxon Hill Road | National Harbor Entrance | Fort Foote Rd - North | 4 | 4 | 2 | 2 ~~3~~ | Yes | 2015 |
| PG Co. | PGS81 | | Construct | Presidential Parkway | Suitland Parkway | Melwood Road | 0 | 3 | 0 | 6 | No | 2025 |
| PG Co. | PGS54 | | Reconst. ~~Widen~~ | Rhode Island Avenue | MD 193 (University Boulevard) | US 1 (Baltimore Avenue) | 4 | 4 | 2 | 2 ~~4~~ | No | 2016 |
| PG Co. | PGS55b | | Widen | Ritchie Marlboro Road | White House Road | Old Marlboro Rd. | 3 | 3 | 2 | 4 | | 2020 |
| PG Co. | PGS56a | | Widen | Ritchie Road/Forestville Road | Alberta Drive | MD 4 (Pennsylvania Avenue) | 3 | 3 | 2 | 4 | Yes | 2020 |
| PG Co. | PGS57 | | Widen | Rollins Avenue | MD 214 (Central Avenue) | Walker Mill Road | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS58 | | Widen | Rosaryville Road | US 301 (Robert Crain Highway) | MD 223 (Woodyard Road) | 3 | 3 | 2 | 4 | No | 2020 |
| PG Co. | PGS60b | | Widen ~~Construct~~ | Spine Road | MD 5/US 301 (Branch Avenue) | MD 381 (Brandywine Road) | 3 | 3 | 2 ~~0~~ | 4 | No | 2016 |
| PG Co. | PGS61 | | Widen | Springfield Road | MD 546 (Lanham-Severn Road) | Good Luck Road | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS82 | | Construct | St. Joseph's Drive | MD 202 | Ardwick-Ardmore Road | 0 | 4 | 0 | 4 | No | 2015 |
| PG Co. | PGP2 | | Construct | Suitland Parkway | interchange at Rena/Forestville Roads | | 5 | 5 | 0 | 0 | No | 2025 |
| PG Co. | PGS62a | | Widen | Suitland Road | MD 337 (Allentown Road) | Suitland Parkway | 3 | 3 | 2 | 4 | No | 2018 |





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| PG Co. | PGS62b | | Widen | Suitland Road | Suitland Parkway | MD 458 (Silver Hill Road) | 3 | 3 | 2 | 4 | No | 2018 |
| PG Co. | PGS63 | | Widen | Sunnyside Avenue | US 1 (Baltimore Avenue) | MD 201 (Kenliworth Avenue) | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS64 | | Widen | Surratts Road | Beverly Avenue | Brandywine Road | 4 | 4 | 2 | 4 | No | 2015 ~~2012~~ |
| PG Co. | PGS65 | | Widen | Temple Hill Road | MD 223 (Piscataway Road) | MD 414 (St. Barnabas Road) | 3 | 3 | 2 | 4 | No | 2020 |
| PG Co. | PGP5a | | Construct | US 50/Columbia Park Road Ramp | westbound ramp to Columbia Park Road | | 5 | 5 | 1 | 1 | No | 2025 |
| PG Co. | PGS67a | | Widen | Van Dusen Road | Contee Road | MD 198 (Sandy Springs Road) | 3 | 3 | 2 | 4 | No | 2020 |
| PG Co. | PGS67b | | Construct | Van Dusen Road Interchange | @Contee Road | | 0 | 0 | 0 | 0 | No | 2025 |
| PG Co. | PGS68 | | Widen | Virginia Manor Road | Muirkirk Road | Old Gunpowder Rd. ~~Contee Road~~ | 4 | 4 | 2 | 4 | No | 2014 ~~2015~~ |
| PG Co. | PGS69a | | Widen | Walker Mill Road | Silver Hill Road | I-95 | 3 | 3 | 2 | 4 | No | 2020 |
| PG Co. | PGS91 | | Widen | Westphalia Rd. | MD 4 | Ritchie-Marlboro Rd. | 4 | 3 | 2 | 4 | | 2020 |
| PG Co. | PGS70 | | Widen | Wheeler Road | MD 414 (St. Barnabas Road) | District of Columbia limits | 3 | 3 | 2 | 4 | No | 2018 ~~2020~~ |
| PG Co. | PGS71 | | Widen | White House Road | Ritchie-Marlboro Road | MD 202 (Largo-Landover Road) | 3 | 3 | 2 | 6 | Yes | 2020 |
| PG Co. | PGS72 | | Widen | Whitfield Chapel Road | MD 450 (Annapolis Road) | Ardwick-Ardmore Road | 4 | 4 | 2 | 4 | No | 2020 |
| PG Co. | PGS40b | | Construct | Woodmore Road | MD 193 (Enterprise Road) | Church Road | 3 | 3 | 2 | 4 | No | 2015 |
| PG Co. | PGS42 | | Widen | Woodyard Road (MD 223) | Rosaryville Road | Dower House Road | 2 | 2 | 2 | 4 | No | 2020 |
| PG Co. | PGS42c | | Widen | Woodyard Road Relocated (MD 223) | Piscataway Creek / Floral Park Rd. | Livingston Road / MD 4 | 3 | 3 | 2 | 4 | No | 2017 |
| ***City of Frederick*** | | | | | | | | | | | | |
| City of Fred | FS2 | | Construct | Monocacy Blvd | Hughes Ford Rd. | Gas House Pike | 0 | 3 | 0 | 4 | completed | 2012 ~~2011~~ |
| ***Charles County*** | | | | | | | | | | | | |
| Chas.Co. | CHS1 | | Widen/ Realign | Cross County Connector (Billingsly Rd.) | Middletown Rd. | MD 210 | 3 | 3 | 2 | 4 | | 2009 |





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| ***Anne Arundel County*** | | | | | | | | | | | | |
| BMC | AA1d | | Widen | I-97 | US 50/301 | MD 32/3 | 1 | 1 | 4 | 6 | | 2025 |
| BMC | AA15a | | Widen | I-295 | I-195 | MD 100 | 1 | 1 | 4 | 6 | | 2015 |
| BMC | AA15c | | Widen | I-295 | I-695 | I-195 | 1 | 1 | 4 | 6 | | 2015 |
| BMC | AA15b | | Construct | I-295 (New Interchange) | Hanover Road | | | | | | | 2015 |
| BMC | AA4e | | Widen | MD 3 | MD 32 | St. Stephen's Church Rd. | 2 | 2 | 4 | 6 | | 2025 |
| BMC | AA6e | | Widen | MD 100 | Howard Co. Line | I-97 | | 5/1 | 4 | 6 | | 2025 |
| BMC | AA8b | | Widen | MD 175 | MD 170 | BW Parkway | | 2 | 4 | 6 | | 2015 |
| BMC | AA30 | | Widen | MD 198 | MD 32 | BW Parkway | 2 | 2 | 2 | 4 | | 2025 |
| BMC | AA34a | | Widen | MD 713 | MD 175 | Arundel Mills Boulevard | | 2 | 2 | 4 | | 2025 |
| BMC | AA34b | | Widen | MD 713 | Arundel Mills Boulevard | MD 176 | | 2 | 4 | 6 | | 2025 |
| ***Carroll County*** | | | | | | | | | | | | |
| BMC | CA1B | | Widen | MD 140 | Sullivan Road | Market St. | | 1 | 4/6 | 8 | | 2025 |
| BMC | CA1C | | reconstruct | MD 140 (w/ intchg @ MD 191) | Baltimore County Line | Kays Mill Rd. | | | 4 | 4 | | 2020 |
| BMC | CA2a | | Widen | MD 26 | MD 32 | Reservoir | | | 2 | 4 | | 2015 |
| BMC | in base | | Widen | MD 32 | MD 26 | Howard County Line | | 2 | 2 | 4 | | 2020 |
| BMC | CA5 | | Widen | MD 97 | MD 140 | Pleasant Valley Rd | | 2 | 2 | 4 | | 2020 |
| BMC | nrs | | Construct | Boxwood Dr. Ext | Dogwood Dr. Terminus | MD 43 Ext. | | | 0 | 2 | | 2015 |
| ***Howard County*** | | | | | | | | | | | | |
| BMC | HW1b | | Widen | I-70 | US 29 | US 40 | 1 | 1 | 4 | 8 ~~6~~ | | 2025 |





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| BMC | HW20 | | Widen | US 1 | MD 100 | PG/ Howard Line | | | 4 | 6 | | 2025 |
| BMC | HW10b | | Widen | US 29 NB | Seneca Dr. | Middle Patuxent River | | 5 | 4 | 6 | | 2015 |
| BMC | HW3c | | Widen | MD 32 | Cedar Lane | Anne Arundel County Line | | 1 | 4/6 | 8 | | 2025 |
| BMC | HW3d | | Widen | MD 32 | MD 99 | Carroll County Line | | 2 | 2 | 4 | | 2025 |
| BMC | HW3e | | construct/ reconstruct | MD 32 (interchanges) | @ I-70/@ MD 144 @ Linden Church Rd/ Dayton Shop @Rosemary Lane | | | | | | | 2014 |
| BMC | HW6d | | Widen | MD 108 | Woodland Rd. | 1200' w. of Centennial Ln. | 2 | 2 | 2 | 4 | | 2014 |
| BMC | HW8b | | Widen | MD 216 | High School Access Rd. | Maple Lawn Blvd. | | 3 | 2 | 4 | | 2015 |
| BMC | nrs | | Widen | Guilford Rd. | US 1 | Dorsey Run Road | | | 2 | 4 | | 2017 |
| BMC | HW14c | | Widen | Snowden River Parkway | MD 100 | Broken Land Parkway | | 3 | 4 | 6 | | 2020 |
| ***Federal Lands*** | | | | | | | | | | | | |
| Fed. Lands | FED3a | 103319 | Construct | Manassas Battlefield Bypass | US 29 West of Centreville | East of Gainesville, via 234 | | 1 | 0/2 | 4 | No | 2035 |
| VDOT | VP1a | | Widen | US 1 | Telegraph Rd. | VA 235 South | 2 | 2 | 4 | 6 | No | 2016 ~~2020~~ |
| Fed Lands | FED3b | | Close | US 29 (Lee Hwy.) - in battlefield park | Pageland Ln. | Bridge over Bull Run | | 0 | 2/4 | 0 | No | 2035 |
| Fed Lands | FED3c | | Close | VA 234 (Sudley Rd.)- in battlefield park | Southern Park Boundary | Northern Park Boundary | | 0 | 2 | 0 | No | 2020 ~~2035~~ |
| Fed. Lands | FED2 | 77404 | Widen | Old Mill Rd. (future Mulligan Rd.) | US 1 | VA 611 (Telegraph Rd.) | 4 | 4 | 0/2 | 4 | Yes | 2014 |
| ***VIRGINIA*** | | | | | | | | | | | | |
| ***VDOT Freeway*** | | | | | | | | | | | | |
| VDOT | VI1w | 93577 | Widen | I-66 HOV during peak and SOV | 1.2 miles west of US 15 | 0.8 miles east of US 29 (Gainesville) | 1 | 1 | 4 | 8 | No | 2016 |
| VDOT | VI1wa | 100566 | Reconstruct | I-66 Interchange | US 15 (Haymarket) | | 1 | 1 | | | No | 2017 ~~2016~~ |





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| VDOT | VI1ab | 56356 | Reconstruct | I-66 Interchange | @ I-495 (Capital Beltway) | | 1 | 1 | - | - | Completed | 2013 |
| VDOT | VI1aj | 81009 | Construct | I-66 Vienna Metro Station bus ramp | EB I-66 and Saintsbury Dr. | Saintsbury Dr. and WB I-66 | 1 | 1 | 0 | 2 | No | 2014 |
| VDOT | VI1AK | | Widen | I-66 EB Auxiliary Lanes | West of Gallows Road | Off Ramp I-495 SB | 1 | 1 | 3+1 | 3+1+2 | Completed | 2013 ~~2030~~ |
| VDOT | VI1AL | | Widen | I-66 WB Auxiliary Lanes | On Ramp from SB I-495 | West of Gallows Road | 1 | 1 | 3+1 | 3+1+2 | Completed | 2013 ~~2030~~ |
| VDOT | VI1ah | | Widen | I-66 EB Auxiliary Lanes | Cedar Lane | West of Gallows Road | 1 | 1 | 3+1 | 3+1+1 | No | 2030 |
| VDOT | VI1ai | | Widen | I-66 WB Auxiliary Lanes | West of Gallows Road | Cedar Lane | 1 | 1 | 3+1 | 3+1+1 | No | 2030 |
| VDOT | VI1af | 78828 | Reconstruct | I-66 WB Operational/ Spot Improvements- extend acceleration/deceleration lanes | Washington Blvd. | Dulles Airport Access Rd. connector | 1 | 1 | 3 | 4 | No | 2020 |
| VDOT | VI1ag | 78827 | Reconstruct | I-66 WB Operational/ Spot Improvements | Lee Hwy. / Spout Run | Glebe Rd. | 1 | 1 | 2 | 3 | No | 2020 |
| VDOT | VI2ka | 18136 | Widen | I-95 (Wilson Bridge and approaches) | VA 241 (Telegraph Rd.) | US 1 | 1 | 1 | 6 | 12 | Completed | 2013 |
| VDOT | VI2ac | | Reconstruct | I-95 Interchange | @ VA 613 (Van Dorn Street) | | 1 | 1 | - | - | No | 2025 |
| VDOT | VI2ab | | Reconstruct | I-95 Interchange | @ VA 642 (Lorton Road) | | 1 | 1 | - | - | Completed | 2010 |
| VDOT | VI2RB | | Widen | I-395 HOV Lanes ramp | exit to Eads St. | | 1 | 1 | 1 | 2 | No | 2014 |
| VDOT | VI2r | 70849 | Widen / Revise Operations | I-395/I-95 HOV/ BUS/ HOT Lanes | Approx. 2 mi. N. of I-495 | VA 294 (Prince William Pkwy) | 1 | 1 | 2 | 3 | No | 2015 |
| VDOT | VI2r | 70849 | Revise Operations | I-395/I-95 HOV/ BUS/ HOT Lanes | VA 294 (Prince William Parkway) | S. of VA 234 (Dumfries Rd.) | 1 | 1 | 2 | 2 | No | 2015 |
| VDOT | VI2s | 70849 | Construct | I-395 (Auxiliary lane) | .28 mi. north of Duke St. on ramp | Sanger Rd. ~~Seminary Rd off ramp~~ | 1 | 1 | 3 | 4 | Yes | 2015 |





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# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility | | Lanes | | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | VI2T | | Widen | I-395 Southbound | North of Duke Street | South of Edsall Rd. | 1 | 1 | 3 | 4 | No | 2018 |
| VDOT | VI2ra | | Construct | I-395/I-95 HOV/ BUS/ HOT Lanes | S. of VA 234 (Dumfries Rd.) | VA 610 (Garrisonville Rd.) in Stafford Co. | 1 | 1 | 0 | 2 | No | 2015 |
| VDOT | nrs | 104323 | Construct | Boundary Chanel Drive Intersection Modifications | Boundary Chanel Drive | Old Jefferson Davis Highway (off of I-395 Boundary Chanel Inter. | | | | | No | 2016 |
| VDOT | BRAC | BRAC0005 | Construct | I-95 NB Off Ramp @ Newington | NB I-95 | NB Fairfax County Parkway | 1 | 1 | 0 | 1 | No | 2020 |
| VDOT | VI2r11 | | Construct | I 95: HOV / Bus / HOT Lanes Ramp: Between VA 648 (Edsall) and Turkeycock Run | NB I-395 HOV/HOT lanes | NB I-395 GP | - | 1 | 0 | 1 | No | 2015 |
| VDOT | VI2r24 | | Construct | I 95: HOV / Bus / HOT Reversible Ramp: | NB HOV/Bus/HOT Lanes | VA 7100 (Fairfax Co. Pkwy) (Alban Rd.) | - | 1 | 0 | 1 | No | 2015 |
| VDOT | VI2r24 | | Construct | I 95: HOV / Bus / HOT Reversible Ramp: | VA 7100 (Fairfax Co. Pkwy) (Alban Rd.) | SB HOV/Bus/HOT Lanes | - | 1 | 0 | 1 | No | 2015 |
| VDOT | BRAC0004 / VI2ra | | Construct | I-95 Reversible Ramp (Colocated w/ existing slip ramp from HOV to GP lanes) | NB HOV/BUS/HOT Lanes - Located N of Rte. 7100/I 95 I/C Phase II DAR | EPG Southern Loop Road. - AM Only | 1 | 1 | 0 | 1 | No | 2015 |
| VDOT | BRAC0004 / VI2rb | | Construct | I-95 Reversible Ramp (Colocated w/ existing slip ramp from HOV to GP lanes) | EPG Southern Loop Road. - PM Only Phase I DAR | SB HOV/BUS/HOT Lanes - N of Rte. 7100/I 95 I/C | 1 | 1 | 0 | 1 | No | 2015 ~~2013~~ |
| VDOT | BRAC0004/ VI2rc | | Construct | I-95 Ramp (Colocated w/ existing slip ramp from HOV to GP lanes) | EPG Southern Loop Road. - PM Only Phase I DAR | NB I 95 GP Lanes | 1 | 1 | 0 | 1 | No | 2015 ~~2013~~ |
| VDOT | VI2r31 | | Construct | I 95: HOV / Bus / HOT Ramp: | SB Gen Purpose Lanes to SB HOV/Bus/HOT lanes | Between US 1 & VA 123 | - | 1 | 0 | 1 | No | 2015 |
| VDOT | VI2r37 | | Construct | I 95: HOV / Bus / HOT Ramp: | SB Gen Purpose Lanes to SB HOV/Bus/HOT lanes | Between Opitz Blvd. and Dale Blvd. | - | 1 | 0 | 1 | No | 2015 |
| VDOT | VI2r34 | | Construct | I 95: HOV / Bus / HOT Ramp: | NB HOV/Bus/HOT to Gen. use lanes | Between VA 123 (Gordon Rd.) & VA 294 (Prince William Pkwy.) | - | 1 | 0 | 1 | No | 2015 |
| VDOT | VI2r43 | | Construct | I 95: HOV / Bus / HOT Ramp: | SB HOV/Bus/HOT lanes to SB Gen Purpose Lanes | Between Dumfries Rd. and Joplin Rd. | - | 1 | 0 | 1 | No | 2015 |





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**(Highway and HOV)**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | VI2r43a | | Construct | I 95: HOV / Bus / HOT Ramp: | SB Gen Purpose Lanes to SB HOV/Bus/HOT lanes | Between Dumfries Rd. and Joplin Rd. | - | 1 | 0 | 1 | No | 2018 |
| VDOT | VI2r45a | | Construct | I 95: HOV / Bus / HOT Ramp: | NB HOV/Bus/HOT lanes to NB Gen Purpose Lanes | Between Joplin Rd. and Russell Rd. | - | 1 | 0 | 1 | No | 2018 |
| VDOT | VI2r44 | | Construct | I 95: HOV / Bus / HOT Ramp: | SB HOV/BUS/HOT lanes to SB GP lanes | Between VA 619 (Joplin Rd.) and VA 610 (Garrisonville Rd.) | - | 1 | 0 | 1 | No | 2015 |
| VDOT | VI2r45 | | Construct | I 95: HOV / Bus / HOT Ramp: | NB GP lanes to NB HOV/BUS/HOT Lanes | Between VA 619 (Joplin Rd.) and VA 610 (Garrisonville Rd.) | - | 1 | 0 | 1 | No | 2015 |
| VDOT | VI2R6A | | Construct | I-395 HOV Lanes Reversible Ramp | NB HOV off-ramp to Seminary Rd. & Seminary Rd. on-ramp to SB HOV | | 1 | 1 | 0 | 1 | No | 2015 |
| VDOT | VI4laux | | Widen | I-495 NB Auxiliary Lane | North of Hemming Ave. Underpass | Off Ramp to Braddock Rd | 1 | 1 | 4+2 | 5+2 | Yes | 2030 |
| VDOT | VI4laux | | Widen | I-495 SB Auxiliary Lane | On Ramp from Braddock Rd | North of Hemming Ave. Underpass | 1 | 1 | 4+2 | 5+2 | Yes | 2030 |
| VDOT | VI4laux | | Widen | I-495 NB Auxiliary Lane | On Ramp from Braddock Rd | Off Ramp to Rte 236 | 1 | 1 | 4+2 | 5+2 | Yes | 2030 |
| VDOT | VI4laux | | Widen | I-495 SB Auxiliary Lane | On Ramp from Rte 236 | Off Ramp to Braddock Rd | 1 | 1 | 4+2 | 5+2 | Completed | 2013 |
| VDOT | VI4laux | | Widen | I-495 NB Auxiliary Lane | On Ramp from Rte 236 | Off Ramp to Gallows Road | 1 | 1 | 4+2 | 5+2 | Yes | 2030 |
| VDOT | VI4laux | | Widen | I-495 SB Auxiliary Lane | On Ramp from Gallows Road | Off Ramp to Rte 236 | 1 | 1 | 4+2 | 5+2 | Yes | 2030 |
| VDOT | VI4laux | | Widen | I-495 NB Auxiliary Lane | On Ramp from Gallows Road | Off Ramp to Route 50 | 1 | 1 | 4+2 | 6+2 | Completed | 2013 |
| VDOT | VI4laux | | Widen | I-495 SB Auxiliary Lane | On Ramp from Route 50 | Off Ramp to Gallows Road | 1 | 1 | 4+2 | 5+2 | Completed | 2013 |
| VDOT | VI4laux | | Widen | I-495 NB Auxiliary Lane | On Ramp from Route 50 | Off Ramp to I-66 | 1 | 1 | 4+2 | 5+2 | Completed | 2013 |
| VDOT | VI4laux | | Widen | I-495 NB Auxiliary Lane | On Ramp from Route 50 | Off Ramp to I-66 | 1 | 1 | 5+2 | 6+2 | Yes | 2030 |





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**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility | | Lanes | | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | VI4laux | | Widen | I-495 SB Auxiliary Lane | On Ramp from I-66 | Off Ramp to Route 50 | 1 | 1 | 4+2 | 5+2 | Completed | 2013 |
| VDOT | VI4laux | | Widen | I-495 NB | On ramp from EB I 66 | Off Ramp to Rte 7 | 1 | 1 | 4+2 | 5+2 | Completed | 2013 |
| VDOT | VI4laux | | Widen | I-495 SB Auxiliary Lane | On ramp from Rte 7 | Off Ramp to WB I 66 | 1 | 1 | 4+2 | 5+2 | Yes | 2030 |
| VDOT | VI4laux | | Widen | I-495 NB Auxiliary Lane | On ramp from Rte 7 | Off Ramp to Rte 123 | 1 | 1 | 4+2 | 5+2 | Completed | 2013 |
| VDOT | VI4laux | | Widen | I-495 SB Auxiliary Lane | On ramp from Rte 123 | Off Ramp to Route 7 | 1 | 1 | 4+2 | 5+2 | Completed | 2013 |
| VDOT | VI4laux | | Widen | I-495 SB Auxiliary Lane | On Ramp from Rte 123 | Off Ramp to Route 7 | 1 | 1 | 5+2 | 6+2 | Yes | 2030 |
| VDOT | VI4laux | | Widen | I-495 NB Auxiliary Lane | On Ramp from Rte 123 | Off Ramp to Rte 267 | 1 | 1 | 4+2 | 5+3 | Completed | 2013 |
| VDOT | VI4laux | | Widen | I-495 SB Auxiliary Lane | On Ramp from Route 267 | Off Ramp to Route 123 | 1 | 1 | 4+2 | 5+4 | Completed | 2013 |
| VDOT | VI4laux | | Widen | I-495 NB Auxiliary Lane | On Ramp from Route 267 | Off Ramp to Route 193 | 1 | 1 | 4+2 | 5+2 | Yes | 2030 |
| VDOT | VI4laux | | Widen | I-495 SB Auxiliary Lane | On Ramp from Route 193 | Off Ramp to Route 267 | 1 | 1 | 4+2 | 5+2 | Yes | 2030 |
| VDOT | VI4k | | Construct | I-495 HOT | American Legion Bridge | S. of George Washington Parkway | 1 | 1 | 8 | 8+2 | Yes | 2030 |
| VDOT | VI4ka | | Construct | I-495 HOT Lanes | S. of George Washington Parkway | S. of Old Dominion Dr. | 1 | 1 | 8 | 8+4 | No | 2025 ~~2015~~ |
| VDOT | VI4IHOT | | Construct | I-495 HOT | S. of Old Dominion Dr. | Hemming Ave. Underpass | 1 | 1 | 8 | 8+4 | Completed | 2013 |
| VDOT | VI4Ib | | Construct | I-495 NB Auxiliary Lane | 1 mi. east of I-95/I-395/I-495 | North of Hemming Ave. Underpass | 1 | 1 | 8 | 5+1 | Completed | 2013 |
| VDOT | VI4Ib | | Construct | I-495 SB Auxiliary Lane | Hemming Ave. Underpass | 1 mi. east of I-95/I-395/I-495 | 1 | 1 | 8 | 5+1 | Completed | 2013 |
| VDOT | VI2ca | | Construct | I-495 access ramps (Phase VIII of I-95/394/495 Interchange) | All Movements (I-95/395 NB & SB main & HOT to/from I-495/I-95 EB & WB main & HOV lanes) | | 1 | 1 | - | - | Completed | 2013 |





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**(Highway and HOV)**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | part of VI4IHOT | | Construct | I-495 HOT Lanes Interchange Phase 1 DTR | Provides SB to WB, EB to SB, & NB to WB HOV movements | @ VA 267 (Dulles Toll Road) | 1 | 1 | - | - | Completed | 2013 |
| VDOT/ MWAA | Part V141HOTa | | Relocate | I-495 Interchange Ramp (Phase 4) | Relocate I-495 Interchange Flyover Ramp (EB DAAH to NB GP) | @ VA 267 (Dulles Toll Rd) | 1 | 1 | 1 | 1 | Yes | 2030 |
| VDOT/ MWAA | part of VI4IHOTa | | Construct | I-495 HOT Lanes Interchange (Phase IV) | Provide SB HOT to EB HOV & EB DTR to NB HOT movements | @ VA 267 (Dulles Toll Road) | 1 | 1 | - | - | Yes | 2030 |
| VDOT/ MWAA | part of VI4IHOTa | | Widen | I-495 Interchange Ramp (Phase III DTR) | Widen EB DTR ramp to 2 NB lanes | NB GP lanes | 1 | 1 | 1 | 2 | Yes | 2030 |
| VDOT/ MWAA | VI4Irmp1 | | Construct | I-495 Interchange Ramp (Phase III DAAH) | NB GP lanes | WB Dulles Airport Access Highway (DAAH) | 0 | 1 | 0 | 1 | Yes | 2030 |
| VDOT/ MWAA | part of VI4IHOTa | | Relocate / Reconstruct | I-495 HOT Lanes Interchange Phase III DTR | Move ramps from left side to right side: NB GP lanes to WB DTR; SB GP lanes to EB DTR | @ VA 267 (Dulles Toll Road) | 1 | 1 | 1 | 1 | Completed | 2013 |
| VDOT/ MWAA | VI4IHOTb | | Construct | I-495 Interchange Ramp (Phase II, Ramp 3 DAAH | SB I-495 | WB Dulles Airport Access Highway (DAAH) | 0 | 1 | 0 | 1 | Yes | 2020 |
| VDOT | | | Construct | I-495 Interchange Ramp (Phase I Ramp 2 DAAH) | EB Dulles Airport Access Highway (DAAH) | NB I-495 | 0 | 1 | 0 | 1 | Completed | 2013 |
| VDOT | | | Construct | I-495 Interchange Ramp | EB Dulles Airport Access Highway (DAAH) | SB I-495 | 0 | 1 | 0 | 1 | Completed | 2013 |
| VDOT | part of VI4IHOT | | Construct | I-495 HOT Lanes Interchange | NB to WB, SB to WB, EB to NB, and EB to SB | @ Jones Branch Connector | 1 | 1 | - | - | Completed | 2013 |
| VDOT | part of VI4IHOT | | Construct | I-495 HOT Lanes Interchange | NB to WB, SB to WB, EB to NB, and EB to SB | @ West Park Connector | 1 | 1 | - | - | Completed | 2013 |
| VDOT | part of VI4IHOT | | Construct | I-495 HOT Lanes Interchange | NB to EB, NB to WB, EB to SB, and WB to SB | @ VA 7 | 1 | 1 | - | - | Completed | 2013 |
| VDOT | part of VI4IHOT | | Construct | I-495 HOT Lanes Interchange | Provides SB to WB, WB to SB, EB to SB, NB to WB, & EB to NB movements | @ I-66 | 1 | 1 | - | - | Completed | 2013 |
| VDOT | part of VI4IHOT | | Construct | I-495 HOT Lanes Interchange | NB to EB | @ I-66 | 1 | 1 | - | - | Completed | 2013 |





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# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility | | Lanes | | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | part of VI4IHOT | | Relocate | I-495 HOT Lanes Interchange | @ I-66 | Left side off ramp from NB I 495 to WB I 66 relocated to combine with right side off ramp from NB I 495 to WB I 66 | 1 | 1 | 1 | 2 | Completed | 2013 |
| VDOT | part of VI4IHOT | | Construct | I-495 HOT Lanes Interchange | NB to EB, NB to WB, EB to SB, and WB to SB | @ US 29 | 1 | 1 | - | - | Completed | 2013 |
| VDOT | part of VI4IHOT | | Construct | I-495 HOT Lanes Interchange | EB to NB, WB to NB, SB to EB, and SB to WB | @ VA 650 (Gallows Road) | 1 | 1 | 0 | 1 | Completed | 2013 |
| VDOT | part of VI4IHOT | | Construct | I-495 HOT Lanes Interchange | EB to NB, WB to NB, SB to EB, and SB to WB | @ VA 620 (Braddock Road) | 1 | 1 | - | - | Completed | 2013 |
| VDOT | part of VI4IHOTa | | Construct | I-495 HOT Lanes Interchange | NB to EB, NB to WB, EB to SB, and WB to SB | @ VA 620 (Braddock Road) | 1 | 1 | - | - | Completed | 2013 |
| VDOT | SHOULDER | | Construct | I-495 HOT lanes shoulder NB peak period only - (operating until HOT lanes extend northward) | South of Old Dominion Dr | GW Parkway | | | | | 2014 | 2015 |
| VDOT/ private | VP21F | | Construct | VA 267 (Dulles Greenway) Egress Ramp | @ Hawling Farm Boulevard (Future) | | 0 | 1 | 0 | 1 | No | 2015 |
| VDOT | VP15A | | Construct | Rt 267 (Dulles Toll Road) Ramp | New Boone Blvd Ext. @Ashgrove | | 0 | 1 | 0 | 2 | No | 2037 |
| VDOT | VP15B | | Construct | Rt 267 (Dulles Toll Road) Ramp | Greensboro Dr. @ Tyco Rd | | 0 | 1 | 0 | 2 | No | 2036 |
| VDOT | MW1 | | Widen | Dulles Airport Access Road | Dulles Airport | VA 123 | 1 | 1 | 4 | 6 | No | 2017 |
| ***VDOT Primary*** | | | | | | | | | | | | |
| VDOT | VP1ah | 90339 | Widen | US 1 | Russell Rd. | Fuller Rd. | 2 | 2 | 4 | 6 | No | 2025 |
| VDOT | VP1ad | 90339 | Widen | US 1 | Brady's Hill Road | VA 234 Dumfries Rd. | 2 | 2 | 4 | 6 | No | 2025 |
| VDOT | VP1ada | | Widen | US 1 | VA 234 Dumfries Rd. | Cardinal Drive | 2 | 2 | 4 | 6 | No | 2030 ~~2025~~ |
| VDOT | VP1ae | 100426 | Widen | US 1 | Blackburn Dr/Neabsco Dr. | Featherstone Road | 2 | 2 | 4 | 6 | No | 2016 ~~2014~~ |





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**(Highway and HOV)**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VDOT | VP1AF | 104303 | Widen | US 1 | Featherstone Road | Mary's Way | 2 | 2 | 4 | 6 | No | 2020 |
| VDOT | VP1p | 14693 & 94102 | Widen | US 1 (part of 1/123 interchange) | Mary's Way | Annapolis Way | 2 | 2 | 4 | 6 | Yes | 2018 ~~2017~~ |
| VDOT | nrs | 100938/ 1469 | Reconstruct | US 1 interchange | at VA 123 | | | | | | Yes | 2018 |
| VDOT | VSP63 | 100938 | Construct | Belmont Bay Dr. Extension | US 1 | Heron's View Way | | | 0 | 4 | Yes | 2018 |
| VDOT | VP1AG | | Widen | US 1 | Annapolis Way | Lorton Road | 2 | 2 | 4 | 6 | No | 2035 |
| VDOT | VP1u | | Widen | US 1 | VA 235 South | VA 235 North | 2 | 2 | 4 | 6 | No | 2025 |
| VDOT | nrs | | Study | VA Route 7 Interchange at VA Route 690 | | | | | 0 | 4 | No | not coded |
| VDOT | nrs | 58599 | Construct | VA 7 WB Truck Climbing Lane | VA 9 | Business 7 West | 5 | 1 | 4 | 5 | No | 2015 ~~2014~~ |
| VDOT | VP2ja | 16006 | Widen | VA 7 Bypass | VA 7 West | US 15 South (South King St) | 5 | 1 | 4 | 6 | No | 2040 |
| VDOT | VP2j | 16006 | Widen | VA 7 Bypass | US 15 South (South King St) | VA 7/US 15 East | 5 | 1 | 4 | 6 | No | 2040 |
| VDOT | VP2ma | | | VA 7 | Rolling Holly Drive | Reston Avenue | | | 4 | 6 | No | 2015 |
| FCDOT | VP2m | | Widen | VA 7 | Reston Avenue | West Approach to Bridge over DTR | 2 | 2 | 4 | 6 | No | 2025 |
| VDOT | nrs | 82135 | Construct | VA 7 | Bridge over Dulles Toll Road | | | | 4 | 6 | No | 2030 |
| VDOT | VP2La | | Widen | VA 7 | Dulles Toll Rd. | VA 123 | 2 | 2 | 6 | 8 | Yes | 2014 |
| VDOT | VP2Lb | | Widen | VA 7 | VA 123 | I-495 | 2 | 2 | 6 | 8 | Yes | 2021 ~~2014~~ |
| FCDOT | VP2N | | Widen | VA 7 | I-495 | I-66 | | | 4 | 6 | No | 2021 |
| VDOT | VP2b | | Widen | VA 7 | Seven Corners | Bailey's Crossroads | 2 | 2 | 4 | 6 | No | 2025 |





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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | nrs | 99256 | Construct | VA 7/15/ Bypass | Overpass at Sycolin Road | | 1 | 1 | 4 | 4 | No | 2014 |
| VDOT | nrs | 100425 | Construct | VA 7 | Overpass at Lexington Drive | | 1 | 1 | 6 | 6 | No | 2020 |
| VDOT | nrs | 99481 | Construct | VA 7 interchange | @ VA 659 (Belmont Ridge Rd.) | | 2 | 2 | 6 | 6 | No | 2017 |
| VDOT | nrs | | Reconstruct | VA Route 7 Interchange at Ashland Village Boulevard | Route 7 @ Ashland Village Boulevard | | | | 0 | 4 | No | 2017 |
| VDOT | VP4e | | Widen | US 15 (James Madison Highway) | US 29 | I-66 | 2 | 2 | 2 | 4 | No | 2040 |
| VDOT | nrs | | Widen | US 15 (James Madison Highway) | Monroe Glen Dr. | Thoroughfare Road | 3 | 3 | 2 | 4 | No | 2017 |
| VDOT | VP6h | | Widen | VA 28 | Fauquier County Line | VA 652 (Fitzwater Dr.) | 3 | 3 | 2 | 4 | No | 2040 |
| VDOT | VP6ka | 105198 | Widen | VA 28 | VA 652 (Fitzwater Dr.) | VA 215 (Vint Hill Rd.) Relocated | 3 | 3 | 2 | 4 | No | 2016 |
| VDOT | VP6kb | 92080 | Widen | VA 28 | VA 215 (Vint Hill Rd.) Relocated | VA 619 (Linton Hall Road) | 3 | 3 | 2 | 6 | No | 2015 |
| VDOT | VP6ma | 96721 | Widen | VA 28 (Nokesville Rd.) | Godwin Drive | Manassas City limits - west | 3 | 2 | 4 | 6 | | 2018 |
| VDOT | VP6K | 105428 | Widen | VA 28 (Nokesville Road) | Prince William Parkway ~~Manassas City Limits~~ | VA 619 (Linton Hall Road) | 3 | 3 | 4 | 6 | No | 2020 ~~2025~~ |
| VDOT | VP6e | | Widen/ Upgrade | VA 28 PPTA (Phase II) | I-66 | VA 7 | 2 | 1 | 6 | 8 | No | 2025 |
| VDOT | VP6eb | 78906 | Construct | VA 28 Interchange | @ VA 209 (Innovation Ave.) | | - | - | - | - | Yes | 2015 |
| VDOT | VP6ec | 92080 | Construct/ Upgrade | VA 28 Intersection | at Warp Dr. | | 1 | 1 | 6 | 6 | Completed | 2011 |
| Manassas City | | | Study | VA 28 Manassas Bypass | VA 234 (Sudley Road) | I-66 Proposed Interchange | | | | | | not coded |
| VDOT | VP7s | | Widen | US 29 (add NB lane) | I-66 | Entrance to Conway Robinson MSF | 3 | 2 | 4 | 5 | No | 2030 ~~2014~~ |
| VDOT | VP7AG | | Widen | US 29 (add NB lane) | Legato Road | Shirley Gate/Waples Mill Rd. | 2 | 2 | 2 | 3 | No | 2017 |





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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | VP7af | 59094 | Reconstruct | US 29 Bridge Little Rocky Run | 0.2 Miles East of Pickwick Rd | Rte 659 (Union Mill Road) | | | 4 | 5 | No | 2015 |
| VDOT | VP7ae | 52326 | Construct | US 29 Interchange | at VA 55/ VA 619 (Linton Hall) | | | | | | Yes | 2015 ~~2014~~ |
| VDOT | VP7aa | | Widen | US 29 | ECL City of Fairfax (vic. Nutley St.) | Espana Court | 2 | 2 | 4 | 6 | No | 2025 ~~2013~~ |
| VDOT | VP7ab | | Complete | US 29 | Espana Court | I-495 | 2 | 2 | 4 | 6 | No | 2025 ~~2012~~ |
| VDOT | VSP57a | | Construct | Route 29 (Parallel) | US 29 (Lee Highway) (near US 15) | Sommerset Crossing Drive | 0 | 4 | 0 | 4 | No | 2020 ~~2040~~ |
| VDOT | VP8q | LDN0015 | Widen | US 50 | *VA 659 Relocated* | VA 742 (Poland Rd.) | 2 | 2 | 4/5 | 6 | No | 2025 |
| VDOT | VP8c | 68757 | Widen | US 50 | VA 742 (Poland Rd.) | VA 609 (Pleasant Valley) | 2 | 2 | 4/5 | 6 | Yes | 2014 |
| VDOT | VP8r | 68757 | Widen | US 50 | VA 609 (Pleasant Valley) | Rte 28 | 2 | 2 | 4/5 | 6 | Yes | 2014 |
| VDOT | VP8h | | Widen | US 50 | ECL City of Fairfax | Arlington County Line | 2 | 2 | 4 | 6 | No | 2025 |
| VDOT | AR2e | | Reconstruct | US 50 (Arlington Blvd.) | ARC/FFX Line | Washington Blvd. | 2 | 2 | 6 | 6 | Completed | 2013 ~~2015~~ |
| VDOT | AR2f | | Reconstruct | US 50 (Arlington Blvd.) | Pershing Dr. | Ft. Myer Dr. | 5 | 5 | 6 | 6 | Completed | 2013 ~~2015~~ |
| VDOT | VP8o | 13531 | Reconstruct | US 50 Interchange | @ Courthouse Road / 10th Street | | 1 | 1 | 6 | 8 | Yes | 2014 |
| VDOT | nrs | | Construct | US 50 Interchange | VA 606 (Loudoun County Parkway) | | - | - | - | - | No | 2025 |
| VDOT | nrs | | Construct | US 50/ Gum Springs Interchange | West Spine (Gum Springs Rd) | | | | 0 | 4 | No | 2035 |
| VDOT | nrs | | Construct | US 50/South Riding Interchange | South Riding Blvd. | | | | 0 | 4 | No | 2035 |
| VDOT | nrs | | Construct | US 50/ Tall Cedars Interchange | Tall Cedars Pkwy | | | | 0 | 4 | No | 2035 |
| VDOT | VP10g | 100938 | Widen | VA 123 | Route 1 | Annapolis Way | 2 | 2 | 4 | 6 | No | 2018 ~~2017~~ |





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# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | VP10h | | Widen | VA 123 (Ox Road) | Hooes Rd. | Fairfax Co. Parkway | 2 | 2 | 4 | 6 | No | 2025 |
| VDOT | VP10f | 1784 | Widen | VA 123 (Ox Road) | Fairfax Co. Parkway | Burke Center Parkway | 2 | 2 | 4 | 6 | No | 2025 |
| VDOT | VP10r | | Widen | VA 123 | Burke Center Parkway | Braddock Road | 2 | 2 | 4 | 6 | No | 2025 |
| VDOT | VP10S | | Widen | VA 123 | VA 677 (Old Courthouse Rd) | Rt 7 (Leesburg Pike) | | | 4 | 6 | No | 2025 ~~2020~~ |
| VDOT | VP10T | | Widen | VA 123 | Rt 7 (Leesburg Pike) | I-495 | | | 6 | 8 | No | 2021 |
| VDOT | VP24A | | Construct | VA 215 (Vint Hill Road Relocated) | VA 28 | Schaefer Lane | 0 | 3 | 0 | 4 | Yes ~~No~~ | 2015 |
| VDOT | VP24B | | Widen | VA 215 (Vint Hill Road) | VA 655 (Schaefer Lane) | Sudley Manor Dr. | 4 | 4 | 2 | 4 | No | 2020 |
| VDOT | | 105420 / T143 | Construct | VA 234 (Bypass Interchange) | Relocated Balls Ford Rd | | | | | | No | 2020 |
| VDOT | | T5665 | Construct | VA 234 (Bypass Interchange) | Dumfries Rd/Brentsville Rd. | | | | | | No | 2025 |
| VDOT | VP13a | | Widen | VA 236 | Pickett Road | I-395 | 2 | 2 | 4 | 6 | No | 2025 |
| VDOT | | | Reconstruct | VA 244/VA 27 Interchange | .03 MI North of I-395 | .29 MI North of Rte 244 | | | | | Yes | 2015 |
| VDOT | VSF25aa | 57167 | Convert | VA 286 (Fairfax Co Pkwy HOV) | VA 267 (Dulles Toll Road) | Sunrise Valley Dr. | 5 | 5 | 6 | 4+2 | No | 2035 |
| VDOT | VSF25ea | 57167 | Widen | VA 286 (Fairfax Co Pkwy HOV) | Sunrise Valley | West Ox Rd. ~~Rugby Rd.~~ | 5 | 5 | 4 | 4+2 | No | 2035 |
| VDOT | VSF25e | 57167 | Convert | VA 286 (Fairfax Co Pkwy HOV) | West Ox Rd. ~~Rugby Rd.~~ | US 50 | 5 | 5 | 6 | 4+2 | No | 2035 |
| VDOT | VSF25y | 57167 | Convert/ Upgrade | VA 286 (Fairfax Co Pkwy HOV) | US 50 | VA 7735 (Fair Lakes Pkwy) | 2 | 5 | 6 | 4+2 | No | 2035 |
| VDOT | VSF25EB | | Widen | VA 286 (Fairfax Co Pkwy) | Rugby Rd. | US 50 | 5 | 5 | 4 | 6 | Completed | 2013 |
| VDOT | VSF25YA | | Widen | VA 286 (Fairfax Co Pkwy) | US 50 | VA 7735 (Fair Lakes Pkwy) | 2 | 2 | 4 | 6 | Completed | 2013 |





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**(Highway and HOV)**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | VSF25z | 57167 | Upgrade /Widen | VA 286 (Fairfax Co Pkwy HOV) | VA 7735 (Fair Lakes Pkwy) | I-66 | 2 | 5 | 6 | 6+2 | No | 2035 |
| VDOT | VSF25ga | | Widen | VA 286 (Fairfax Co Pkwy) | I-66 | US 29 | 5 | 5 | 4 | 6 | Completed | 2013 |
| VDOT | VSF25g | | Widen | VA 286 (Fairfax Co Pkwy) | US 29 | VA 123 (Ox Road) | 5 | 5 | 4 | 6 | No | 2020 |
| VDOT | VSF25na | 88195 | Construct | VA 286 (Fairfax County Parkway) Phase 3 | Donegal La. / Hooes Rd. | VA 289 (Franconia-Springfield Pkwy) | 0 | 1 | 0 | 6 | Completed | 2012 |
| VDOT | BRAC | 88195 | Construct | VA 286 (Fairfax County Parkway) Interchange (Phase 3) | @ Franconia Springfield Parkway | Various movements; includes relocated Rolling Rd. | - | - | - | - | Completed | 2012 |
| VDOT | BRAC / VSF25nb | 88195 | Construct | VA 286 (Fairfax County Parkway) Interchange (Phase 4) | @ Boudinat Drive (BD) | Ramp movements: EB F.C.Pkwy. To SB BD; WB F.C.Pkwy to SB BD; NB BD to WB F.C.Pkwy. | - | - | - | - | Completed | 2011 |
| VDOT | | | Construct | VA 286 Interchange | @ VA 7700 (Fair Lakes Pkwy) & Monument Dr. | | 2 | 5 | 4 | 6 | Yes | 2013 |
| VDOT | VSF39 | | Widen | VA 7735 (Fair Lakes Pkwy) (3rd EB Lane) | VA 286 (Fairfax County Parkway) | Fair Lakes Circle | 4 | 4 | 4 | 5 | Completed | 2013 |
| VDOT | VSF26 | | Construct | VA 289 HOV (Franconia-Springfield Pkwy) | VA 286 (Fairfax County Parkway) | VA 2677 (Frontier Drive) | 5 | 5 | - | 2 | No | 2025 |
| VDOT | VSF26a | 1833 | Construct | VA 289 HOV (Franconia-Springfield Pkwy) | Interchange @ Neuman St. | | 1 | 1 | - | - | No | 2025 |
| VDOT | VSF26b | 1833 / 10101 | Upgrade | VA 289 HOV (Franconia-Springfield Pkwy) | VA 638 (Rolling Rd.) | VA 617 (Backlick Rd.) | 5 | 1 | 6+2 | 6+2 | No | 2025 |
| VDOT | VSP23d | | Widen | VA 294 (Prince William Parkway) | VA 776 (Liberia Ave.) | Hoadly Rd | 2 | 2 | 4 | 6 | Yes | 2040 |
| VDOT | VSP23f | PWC0008 | Widen | VA 294 (Prince William Parkway) | Old Bridge Road | Minnieville Rd | 2 | 2 | 4 | 6 | Yes | 2014 |
| FCDOT | VP15CD | | Construct | Collector-Distributor Rd Westbound (parallels Dulles Toll Rd.) | VA 684 (Spring Hill Road) | VA 828 (Wiehle Ave) | 0 | | 0 | 2 | No | 2037 |
| FCDOT | VP15CD | | Construct | Collector-Distributor Rd Eastbound (parallels Dulles Toll Rd.) | VA 828 (Wiehle Ave) | VA 684 (Spring Hill Road) | 0 | | 0 | 2 | No | 2036 |





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**(Highway and HOV)**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | VP12o | 99482 | Construct | VA 234 Bypass Ext (aka Tricounty and Bi-County Parkway) ~~Tri-County Parkway (CTB alignment C & D)~~ | VA 234 Bypass @ I 66 | Braddock Road (note: segment from Braddock Rd. to US 50 is included as North Star Blvd in secondary projects) | 0 | 5 | 0 | 4 | No | 2020 |
| *VDOT Urban* | | | | | | | | | | | | |
| VDOT | VU28b | 100518 | Construct | Battlefield Parkway | US 15 south of Leesburg | Dulles Greenway | 0 | 2 | 0 | 4 | No | 2020 |
| VDOT | VU28f | | Construct | Battlefield Parkway | Fort Evans Road | Edwards Ferry Road | 0 | 2 | 0 | 4 | Completed | 2012 |
| VDOT | VU30f | 50100 | Widen | East Elden Street | Monroe St | Fairfax County Parkway | 2 | 2 | 4 | 6 | No | 2019 |
| VDOT | VU52 | 77378 | Widen | Eisenhower Ave. | Mill Road | Holland Lane | 3 | 3 | 4 | ~~4~~ | No | 2016 ~~2015~~ |
| VDOT | VU55 | VUAL1.4.2 | Widen | Evergreen Mills Rd. | US 15 S. King St. | South limits City of Leesburg | 3 | 3 | 2 | ~~4~~ | No | 2022 |
| VDOT | VU56 | VUAL1.4.1 | Construct | Farrington Ave. | Van Dorn St at Eisenhower Ave. | Edsall Rd. | 0 | 4 | 0 | 2 | No | 2035 |
| VDOT | VU51a | | Construct | Potomac Yard Spine Road | US Route 1 | Crystal Dr. | 0 | 4 | 0 | 4 | Completed | 2014 |
| VDOT | VU10b | | Widen | Spring Street | Herndon Parkway / Spring St. Intersection | Fairfax County Parkway / Spring St. Interchange | 3 | 3 | 4 | 6 | No | 2017 ~~2020~~ |
| VDOT | VU33 | 78853 (91474 / 102895) | Widen | Sycolin Road | VA 7/US 15 Bypass | SCL of Leesburg | 3 | 3 | 2 | 4 | No | 2020 |
| VDOT | VU32 | 17687 VUL14.1 | Widen | US 15 (South King Street) | Evergreen Mills Road | SCL of Leesburg | 3 | 2 | 2 | 4 | Yes ~~No~~ | 2015 |
| VDOT | | 89890 | Construct | US 15 (Bypass Interchange) | Edwards Ferry Rd. | .2 mi. north to .3 mi. south | 2 | 2 | - | 2 | No | 2020 ~~2035~~ |
| VDOT | VU29 | | Construct | VA 123 (Chain Bridge Road) | US 50 | I-66 | 2 | 2 | 5 | 6 | Completed | 2013 |
| VDOT | VU45 | 15960 | Widen | VA 234 (Dumfries Road) | South Corporate Limits | Hastings Drive | 3 | 3 | 2 | 4 | No | 2018 |
| VDOT | nrs | | Reconstruct | VA 234 (Grant Ave.) | Lee Ave. | Wellington Rd. | 3 | 3 | 4 | 4 | Yes | 2020 |





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**(Highway and HOV)**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VDOT | VU48b | 53037 | Widen | Wellington Road | Godwin Drive | VA 28 (Nokesville Road) | 3 | 3 | 2 | 4 | Completed | 2010 |
| VDOT | VU14a | | Widen | Liberia Ave. | Rt.e 28 | Quarry Road | 3 | 3 | 4 | 6 | Completed | 2013 ~~2017~~ |
| | nrs | 8645 | Construct | Intersection Improvement | King St. | Beauregard St | | | | | No | 2016 ~~2015~~ |
| VDOT | nrs | | Construct | Ellipse | Seminary Road | Beauregard St | | | | | No | 2020 |
| VDOT | nrs | 70580 | Construct | Intersection Improvement | King/Quaker Lane | Braddock Rd | | | | | No | 2017 ~~2014~~ |
| VDOT | nrs | | Construct | Herndon Parkway (East): Transit Drop-off/Pick-Up Access to Metrorail Station | East of Rte 666/van Buren Street (@ 593 Herndon Parkway) | West of Rte 675 / Spring Street (@ 575 Herndon Parkway | 2 | 2 | 4 | 4 | No | 2017 |
| VDOT | VU54 | 101304 | Construct | Southern Collector Road | Rte 7 -Main St. at Rte 287 | A Street(2,200) Ft N Yaxley | 0 | 2 | | | Yes | 2014 |
| VDOT | nrs | 76408 | Reconstruct | VA 17 Intersection Improvements in Warrenton | South of Frost Ave. | South of Winchester St. | | | | | No | 2021 |
| *ARLINGTON COUNTY SECONDARY* | | | | | | | | | | | | |
| VDOT | AR17a | | Widen | Washington Blvd. | Wilson | Kirkwood | 3 | 3 | 3 | 4 | No | 2016 ~~2015~~ |
| *FAIRFAX COUNTY SECONDARY* | | | | | | | | | | | | |
| VDOT | FFX2a | | Construct | VA 602 (Reston Pkwy.) | VA 5320 (Sunrise Valley Dr.) | VA 606 (Baron Cameron Avenue) | 2 | 2 | 4 | 6 | No | 2020 |
| VDOT | VSF4f | | Widen | VA 611 (Furnace Road) | VA 123 (Ox Road) | VA 642 (Lorton Road) | 3 | 3 | 2 | 4 | Yes | 2014 |
| VDOT | VSF4c | 11012 | Widen | VA 611 (Telegraph Road) | VA 613 (Beulah St.) | Leaf Road North | 3 | 3 | 2 | 4 | Yes | 2014 |
| VDOT | VSF4ca | 11012 | Widen | VA 611 (Telegraph Road) | Leaf Road North | VA 635 (Hayfield Road) | 3 | 3 | 2 | 4 | No | 2025 |
| VDOT | VSF4i | | Widen | VA 611 (Telegraph Road) | VA 635 (Hayfield Road) | VA 613 (Van Dorn St.) ~~VA 633 (S. Kings Hwy.)~~ | 3 | 3 | 2 | 4 | No | 2025 |





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| | | | | | | | from | to | from | to | | |
| VDOT | | 96509 | Widen | VA 611 (Telegraph Road) | VA 633 (S. Kings Hwy.) | VA 613 (S. Van Dorn) | 3 | 3 | 2 | 4 | No | 2015 |
| VDOT | VSF4h | 11012 | Widen | VA 611 (Telegraph Road) | VA 613 S. Van Dorn | VA 644 (Franconia Road) | 3 | 3 | 2 | 3 | No | 2025 |
| VDOT | VSF15b | | Construct | VA 613 (Van Dorn Street) | @ VA 644 (Franconia Road) | interchange | 0 | 0 | 0 | 0 | No | 2025 |
| VDOT | VSF8g | | Widen | VA 620 (Braddock Rd) | VA 286 (Fairfax Co. Pkwy.) | VA 123 (Ox Road) | 3 | 3 | 4 | 6 | No | 2025 |
| VDOT | VSF8j | | Construct/ Widen | VA 620 (New Braddock Rd.) | VA 28 | US 29 @ VA 662 (Stone Rd.) | 0/4 | 3 | 0/2 | 4 | No | 2025 |
| VDOT | BRAC | 100391 | Widen | VA 638 (Rolling Rd.) NB off-ramp @ Fairfax County Pkwy. | NB Rolling Rd. | NB Fairfax County Pkwy | 3 | 3 | 2 | 4 | No | 2015 |
| VDOT | VSF10a | 5559 | Widen | VA 638 (Rolling Rd.) | VA 286 (Fairfax Co. Pkwy.) | VA 644 (Old Keene Mill Rd.) | 3 | 3 | 2 | 4 | No | 2020 |
| VDOT | VSF10E | | Widen | VA 638 (Rolling Road) | Delong Dr. | N. Fullerton Rd. | 3 | 3 | 2 | 4 | No | 2022 |
| VDOT | VSF10c | 16505 | Widen | VA 638 (Pohick Road) | US 1 | I-95 | 3 | 3 | 2 | 4 | No | 2025 |
| VDOT | VSF13d | | Widen | VA 642 (Lorton Road) | VA 123 (Ox Road) | VA 600 (Silverbrook Road) | 3 | 3 | 2 | 4 | Yes | 2014 |
| VDOT | FFX11a | | Widen | VA 645 (Stringfellow Rd.) | US 50 | VA 286 (Fairfax Co. Pkwy.) | 3 | 3 | 2 | 4 | No | 2020 |
| VDOT | VSF16g | 60864 | Widen | VA 645 (Stringfellow Road) | VA 7735 (Fair Lakes Blvd.) | US 50 | 3 | 3 | 2 | 4 | Yes | 2015 |
| VDOT | VSF37 | | Widen | VA 650 (Gallows Road) | Gatehouse Road | Providence Forest Dr. | 2 | 2 | 4 | 6 | Completed | 2013 |
| FCDOT | VSF37A | | Widen | VA 650 (Gallows Road) | VA 7 (Leesburg Pike) | Rte. 699 (Prosperity Ave.) | 3 | 3 | 4 | 6 | No | 2038 |
| ~~VDOT~~ | ~~VSF33d~~ | ~~60866~~ | ~~Widen~~ | ~~VA 651 (Guinea Road)~~ | ~~VA 620 (Braddock Road)~~ | ~~VA 2430 (Braeburn Road)~~ | ~~3~~ | ~~3~~ | ~~2~~ | ~~4~~ | ~~No~~ | ~~2025~~ |
| VDOT | VSF33a | 16508 | Widen | VA 651 (Guinea Road) | VA 6197 (Roberts Parkway) | VA 4807 (Pommeroy Drive) | 3 | 3 | 2 | 4 | No | 2025 |
| VDOT | FFX12a | | Construct | VA 651 (New Guinea Rd.) | VA 123 (Ox Road) | Roberts Rd. | 0 | 3 | 0 | 4 | No | 2025 |





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| | | | | | | | from | to | from | to | | |
| VDOT | VSF17b | | Construct | VA 655 (Shirley Gate Road) | VA 286 (Fairfax Co. Pkwy.) | VA 620 (Braddock Road) | 0 | 3 | 0 | 4 | No | 2025 |
| VDOT | VSF18c | 74749 | Widen | VA 657 (Centreville Road) | VA 8390 (Metrotech Dr.) | VA 668 (McLearen Road) | 3 | 3 | 4 | 6 | No | 2040 |
| FCDOT | VSF42 | | Construct | Boone Blvd Extension | VA 123 (Chain Bridge Road) | Ashgrove Lane | | | 0 | 4 | No | 2036 |
| FCDOT | | | Construct | New Bridge /Road Crossing | Tysons Corner Center Ring Road | Old Meadow Road | | | | 4 | No | 2035 |
| FCDOT | VSF43 | | Widen | Magarity Road | Rt 7 (Leesburg Pike) | VA 694 (Great Falls St) | | | 2 | 4 | No | 2037 |
| VDOT | VSF41 | 103907 | Construct / Widen | Scotts Crossing Drive | Rte. 123 (Dolley Madison Blvd.) | Rte. 5062 (Jones Branch Drive) | | | 0/2 | 4/4 | No | 2018 |
| FCDOT | nrs | | Extend / Construct | Greensboro Dr. WB | Spring Hill Td. | Tyco Rd. | 4 | 4 | 0 | 2 | No | 2034 |
| *LOUDOUN COUNTY SECONDARY* | | | | | | | | | | | | |
| VDOT | nrs | | Construct | VA Route 606 Ramp | VA 606 Eastbound | Lockridge Road northbound | | | 0 | 2 | No | 2020 |
| VDOT | VSL1b | 97529 &105064 | Widen/ Upgrade | VA 606 (Old Ox Rd.) | VA 634 (Moran Rd.) | VA 621 (Evergreen Mills Rd.) | 4 | 3 | 2 | 4 | No | 2020 |
| VDOT | VSL10E | | Widen | VA 607 (Loudoun County Pkwy) | US 50 | VA 606 at new Arcola Blvd. | | | 4 | 6 | No | 2030 |
| VDOT | VSL10c | | Construct | VA 607 (Loudoun County Pkwy) | VA 606 (Old Ox Rd.) / VA 842 (Arcola Rd.) | VA 772 (Ryan Rd.) | 0 | 3 | 0 | 4 | Yes | 2015 |
| VDOT | VSL10bb | | Widen/ Upgrade | VA 607 (Loudoun County Pkwy) | W&OD Trail | Redskin Park Drive | 4 | 3 | 2 | 6 | No | 2025 |
| VDOT | VSL10bf | | Widen/ Upgrade | VA 607 (Loudoun County Pkwy) | Redskin Park Drive | Gloucester Parkway | 4 | 3 | 2 | 4 | yes | 2014 ~~2013~~ |
| VDOT | VSL12d | 00087106 | Construct | VA 625 (Waxpool Rd.) | VA 2920 Faulkner Parkway | Unbridled Way | 4 | 3 | 2 | 4 | Completed | 2013 |
| VDOT | VSL54 | | Widen | Farmwell Rd. | Smith Switch | Ashburn Road | 4 | 4 | 2 | 6 | No | 2017 |
| VDOT | nrs | | Construct | Interchange Waxpool Road/ Loudoun County Parkway Intersection | | | | | 0 | 4 | No | 2019 |





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| | | | | | | | from | to | from | to | | |
| VDOT | VSL45 | | Widen/ Upgrade | VA 643 (Sycolin Road) Phase II | Leesburg Town Limits | Crosstrails Blvd. | 4 | 3 | 2 | 4 | No | 2035 |
| VDOT | VSL4ac | 76243? | Widen | VA 659 (Belmont Ridge Road) | VA 7 | Croson Ln. ~~Dulles Greenway~~ | 4 | 3 | 2 | 4 | No | 2018 ~~2014~~ |
| ~~VDOT~~ | ~~VSL4a~~ | ~~73823~~ | ~~Study~~ | ~~VA 659 (Belmont Ridge Rd.) PE ONLY~~ | ~~National Rec. & Park Ent.~~ | ~~Dulles Greenway~~ | ~~4~~ | ~~3~~ | ~~2~~ | ~~4~~ | ~~No~~ | ~~not coded~~ |
| VDOT | VSL4e | LDN0005 | Widen/ Upgrade | VA 659 (Gum Spring Rd.) | VA 620 (Braddock Road) | US 50 | 4 | 3 | 2 | 4 | Yes | 2015 |
| VDOT | VSL4f | | Widen/ Upgrade | VA 659 (Gum Spring Rd.) | Prince William County Line | VA 620 (Braddock Road) | 4 | 3 | 2 | 4 | No | 2035 |
| VDOT | VSL58 | | Construct | Route 772 Transit Station Connector Bridge | Dulles Greenway | Route 772 Transit Station | | | 0 | 4 | No | 2019 |
| VDOT | VSL50 | | Widen/ Upgrade | VA 773 (Fort Evans Road) | Leesburg Town Limits | Kingsport Rd. | 4 | 3 | 2 | 4 | Completed | 2013 |
| VDOT | nrs | | Construct | VA 868 (Davis Dr.) | VA 606 (Old Ox Road) | VA 846 (Sterling Blvd) | 0 | 4 | 0 | 4 | No | 2025 |
| VDOT | VSL46 | 68767 | Construct | VA 1036 (Pacific Boulevard) | Sterling Blvd. | Gloucester Parkway | 0 | 3 | 0 | 4 | Completed | 2013 ~~2015~~ |
| VDOT | VSL52 | 104418 | Construct | VA 2150 (Gloucester Pkwy Extension) | VA 607 (Loudoun County Pkwy) | VA 1036 (Pacific Blvd.) | 0 | 3 | 0 | 4 | Yes | 2016 ~~2015~~ |
| VDOT | VSL61 | | Construct | Arcola Boulevard (Southern Segment) | US 50 | Loudoun County Parkway | 0 | 4 | 0 | 4 | No | 2022 |
| VDOT | VSL40F | | Construct | Clairborne Parkway | Croson Lane | Ryan Road | | | 2 | 4 | No | 2015 |
| VDOT | VSL56 | | Construct | Crosstrail Boulevard | Sycolin Road | Kincaid Blvd. | | | 0 | 4 | No | 2019 |
| VDOT | VSL62 | | Widen | Evergreen Mills Road (Eastern Segment) | Loudoun County Parkway | Belmont Ridge Rd. | 4 | 4 | 2 | 4 | No | 2025 |
| VDOT | nrs | | Construct | George Washington Boulevard Overpass | George Washington Boulevard | Richfield Street | | | 0 | 4 | No | |
| VDOT | nrs | | Construct | Glascock Road (Eastern Segment) | Arcola Boulevard | Loundoun County Parkway | | | 0 | 4 | No | 2023 |
| VDOT | nrs | | Construct | Glascock Road (Western Segment) | Arcola Road | Northstar Boulevard | | | 0 | 4 | No | 2023 |





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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | VSL57 | | Construct | Mooreview Parkway (Missing Link) | Amberleigh Farm Drive | Old Ryan Road | | | 0 | 4 | No | 2019 |
| VDOT | VP12R | | Construct | Northstar Boulevard (Missing Link #79) | Shreveport Drive | U.S. 50 | | 2 | 0 | 4 | No | 2022 |
| VDOT | VP12Q | | Construct | Northstar Boulevard (Missing Link #78) | US 50 | Tall Cedars Parkway | | 5 | 0 | 4 | No | 2019 |
| VDOT | VP12P | | Construct | Northstar Boulevard (Missing Link #80) | Tall Cedars Parkway | Braddock Road | | 5 | 0 | 4 | No | 2017 |
| VDOT | VSL59 | | Construct | Prentice Drive (Western Segment) | Loudoun County Parkway | Loudoun Station Drive | | | 0 | 4 | No | 2019 |
| VDOT | VSL59 | | Construct | Prentice Drive (Eastern Segment) | Lockridge | Loudoun County Parkway | | | 0 | 4 | No | 2019 |
| VDOT | VSL48A | | Construct | Riverside Parkway | River Creek Parkway | Upper Meadow Drive / Kingsport Drive | | | 2 | 4 | Yes | 2014 ~~2013~~ |
| VDOT | VSL49 | | Construct | Russell Branch Parkway | Loudoun County Parkway | Ashburn Village Rd. ~~VA 659 (Belmont Ridge Road)~~ | 0 | 3 | 0 | 4 | Completed | 2014 |
| VDOT | VSL49A | | Construct | Russell Branch Parkway (Eastern Segment) | Ashburn Village Road | Ashburn Road | | | 0 | 4 | No | 2017 |
| VDOT | VSL49B | | Construct | Russell Branch Parkway (Western Segment) | Belmont Ridge Road | Tournament Parkway | | | 0 | 4 | No | 2017 |
| VDOT | VSL55 | | Construct | Shreveport Drive (Eastern Segment) | Belmont Ridge Road | Loudoun County Parkway | | | 0 | 4 | No | 2017 |
| VDOT | VSL60 | | Construct | Sterling Boulevard Extension | Pacific Boulevard | Moran Road | | | 0 | 4 | No | 2019 |
| VDOT | VSL53 | | Construct | Tall Cedars Parkway | Pinebrook Road | Gum Springs Road | | | 0 | 4 | No | 2015 |
| *PRINCE WILLIAM COUNTY SECONDARY* | | | | | | | | | | | | |
| ~~VDOT~~ | ~~VSP59~~ | | ~~Construct~~ | ~~Peaks Mill (Purcell Road east)~~ | ~~Route 643 (Purcell Road )~~ | ~~Route 294 (Prince William Parkway)~~ | ~~0~~ | ~~4~~ | ~~0~~ | ~~2~~ | ~~No~~ | ~~2035~~ |
| VDOT | VSP63 | 104802 | Construct | VA 2190 (Summit School Rd Extension) | Telegraph Rd. ~~Horner P & R Access Road~~ | South end of existing VA 2190 (Summit School Road) | 4 | 4 | 2 | 4 | No | 2020 ~~2040~~ |





NOTE: Shaded areas represent changes from the 2013 CLRP.

# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility | | Lanes | | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | VSP25b | 104802 | Widen | VA 1781 (Telegraph Rd) | VA 849 (Caton Hill Rd) | VA 2190 Summit School Rd. Extension ~~VA 640 (Minnieville Rd.)~~ | 4 | 4 | 2 | 4 | No | 2020 ~~2040~~ |
| VDOT | VSP25c | 104802 | Widen | VA 1781 (Telegraph Rd.) | VA 294 (Prince William Parkway) | VA 849 (Caton Hill Rd.) | 4 | 4 | 2 | 4 | No | 2020 ~~2040~~ |
| VDOT | VSP2H | 92999 | Widen | VA 619 (Joplin Rd Eastbound) | I-95 Ramp | US 1 | | | 2 | 3 | No | 2015 ~~2014~~ |
| VDOT | VSP3a | | Widen/ Upgrade | VA 621 (Balls Ford Road) | VA 234 (Sudley Road) | Ashton Ave. ~~Bethlehem Road~~ | 4 | 3 | 2 | 4 | No | 2040 |
| VDOT | VSP3b | 80347 | Widen/ Upgrade | VA 621 (Balls Ford Road) | Ashton Ave. ~~Bethlehem Road~~ | Groveton Rd. ~~VA 234 Bypass~~ | 4 | 3 | 2 | 4 | No | 2025 ~~2040~~ |
| VDOT | VSP64 | | Construct | Balls Ford Road Relocated | Doane Drive | Devlin Rd. | 0 | 3 | 0 | 4 | No | 2020 |
| VDOT | VSP5e | 103484 | Widen | VA 640 (Minnieville Road) | VA 643 (Spriggs Road) | VA 234 | 3 | 3 | 2 | 4 | No | 2015 |
| VDOT | nrs ~~VSP8a~~ | 90499 | Reconstruct ~~Widen~~ | VA 643 (Purcell Rd.) | VA 234 (Dumfries Rd.) | VA 642 (Hoadly Rd.) | 4 | 4 | 2 | 2 ~~4~~ | No | 2025 |
| VDOT | VSP17ba | | Widen | VA 674 (Wellington Rd.) | VA 621 (Devlin Rd/Balls Ford Rd) | VA 234 Bypass (Prince William Parkway) | 3 | 3 | 2 | 4 | No | 2025 ~~2035~~ |
| VDOT | VSP17b | | Widen | VA 674 (Wellington Rd.) | VA 234 Bypass Prince William Parkway | VA 668 (Rixlew Lane) | 3 | 3 | 2 | 4 | No | 2035 |
| VDOT | VSP18 | | Widen | VA 676 (Catharpin Rd.) | VA 55 (John Marshall Highway) | Heathcote Blvd. | 3 | 3 | 2 | 4 | No | 2040 |
| VDOT | VSP20c | | Widen/ Upgrade | VA 1392 (Rippon Blvd Extension) | West of Wigeon Way | Rippon VRE Station | 4 | 3 | 2 | 4 | No | 2040 |
| VDOT | VSP47d | 94194 | Construct | VA 840 (University Blvd.) (nee East-West Connector) | Rt 234 Bypass | Sudley Manor Dr. | 0 | 3 | 0 | 4 | Completed | 2013 ~~2014~~ |
| VDOT | VSP47e | | Construct | University Blvd/Progress Ct | Sudley Manor Dr. ~~Rollins Ford Extension~~ | Wellington Rd /Progress Ct. | 0 | 3 | 0 | 4 | No | 2016 |
| VDOT | VSP56A | | Extend | VA 840 (University Blvd.) (nee East-West Connector) | Progress Court | US 29 | | | 0 | 4 | Completed | 2006 ~~2014~~ |
| VDOT | VSP2I | 92999 | Widen | Fuller Road | US 1 | Relocated Rt 619 (Fuller Heights Rd) | | | 2 | 4 | No | 2015 ~~2014~~ |
| VDOT | | | Widen | Hornbaker Rd. | N. of its intersection with University Blvd. | Thomason Barn Rd. | | | 2 | 4 | Completed | 2013 |





NOTE: Shaded areas represent changes from the 2013 CLRP.

# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility | | Lanes | | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| VDOT | VSP65 | | Widen | Neabsco Mills Road | Route 1 | Dale Blvd | | | 2 | 4 | | 2020 |
| VDOT | VSP62 | 90226 | Construct | Rollins Ford Rd. | Songsparrow Rd./ Yellow Hammer | VA 215 (Vint Hill Rd.) | 0 | | 0 | 4 | Yes | 2014 |
| VDOT | VSP62a | | Construct | Rollins Ford Rd. | Wellington Rd | Linton Hall Rd | 0 | 3 | 0 | 4 | No | 2020 |
| VDOT | VSP66 | | Construct | Van Buren Rd. | VA 234 | Cardinal Dr. | 0 | 4 | 0 | 4 | No | 2035 |
| *FAMPO* | | | | | | | | | | | | |
| | VI2rf | | Construct | I 95 : HOV / Bus / HOT Lanes | Rte. 610 (Garrisonville Rd. ) in Stafford County | VA 17 in Spotsylvania County (exit 126) | 1 | 1 | 0 | 2 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | South of Telegraph Road (North of Aquia Creek) | SB GP Lanes to SB HOT Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | South of Telegraph Road (North of Aquia Creek) | NB HOT Lanes to NB GP Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | North of Garrisonville Road (south of Aquia Creek) | NB GP Lanes to NB HOT Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Garrisonsville Road and Courthouse Road | SB GP Lanes to SB HOT Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Garrisonsville Road and Courthouse Road | NB HOT Lanes to NB GP Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Garrisonsville Road and Courthouse Road | SB HOT Lanes to SB GP Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Garrisonsville Road and Courthouse Road | NB GP Lanes to NB HOT Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | South of Rt 628 (North of Stafford Regional Airport) | SB HOT Lanes to SB GP Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | South of Rt 628 (North of Stafford Regional Airport) | NB GP Lanes to NB HOT Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Centerpoint Road (St.Co.Airport Access Rd.) | SB GP Lanes to SB HOT Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Centerpoint Road (St.Co.Airport Access Rd.) | NB HOT Lanes to NB GP Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Centerpoint Road (St.Co.Airport Access Rd.) | SB HOT Lanes to SB GP Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Centerpoint Road (St.Co.Airport Access Rd.) | NB GP Lanes to NB HOT Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | South of Rt 17 (North of Rappahannock River) | NB HOT Lanes to NB GP Lanes | 1 | 1 | 0 | 1 | No | 2025 |





NOTE: Shaded areas represent changes from the 2013 CLRP.

# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility | | Lanes | | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Just South of Rappahannock River | SB HOT Lanes to SB GP Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Just north of Rt 3 | NB GP Lanes to NB HOT Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Rt 620 and Rt 208 | NB GP Lanes to NB HOT Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Rt 620 and Rt 208 | SB HOT Lanes to SB GP Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Rt 1 and Rt 17 | NB GP Lanes to NB HOT Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Construct | I 95 : HOV / Bus / HOT Lanes: Ramp | Between Rt 1 and Rt 17 | SB HOT Lanes to SB GP Lanes | 1 | 1 | 0 | 1 | No | 2025 |
| | | | Reconstruct | I-95 interchange | at Courthouse Rd. (exit #140) | | | | | | Yes | 2025 |
| | FAI1E | | Upgrade | Inside I-95 shoulders for use as travel lanes in peak periods | 1.3 mi. n. of Garrisonville Rd. | .4 mi. n. of Amleg Rd. | | | | | No | 2020 |
| | FAP5F | | Widen | US-1 | Prince William County Line | VA-637, Telegraph Rd. (Northern Intersection) | | | 4 | 6 | No | 2025 |
| | | | Reconstruct | US-1/US-17/PR-218 Intersection | | | | | | | Yes | 2020 |
| | FAP5I | | Widen | US 1 (Bridge Replacement) | US 17 (Butler Rd.) | Princess Anne St. ~~Fredericksburg N. City Limit~~ | 2 | 2 | 4 | 6 | No | 2025 ~~2020~~ |
| | FAS22A | | Widen | VA-3 (William St) | Gateway Blvd. | William St./Blue Gray Parkway | | | 4 | 6 | No | 2030 |
| | FAS22 | | Widen | VA 3 (Spotsylvania) | Chewing Lane | VA 627 (Gordon Rd.) | 2 | 2 | 4 | 6 | Complete | 2013 |
| | FAP6A | | Widen | US 17 Bypass (Mills Dr.) | I-95 | Caroline County Line | 2 | 2 | 2 | 4 | No | 2030 |
| | FAP6E | | Widen | Tidewater Trail US 17 Business/VA 2 | SCL Fredericksburg | US 17 Bypass (Mills Dr.) | 2 | 2 | 2 | 4 | | 2040 ~~2035~~ |
| | FAP6C | | Widen | US 17 (Warrenton Rd.) | McLane Drive | Stafford Lakes Parkway | 2 | 2 | 4 | 6 | Yes | 2020 |
| | FAP6D | | Widen | US 17 (Warrenton Rd.) | Stafford Lakes Parkway | VA 612 (Hartwood Road) | 2 | 2 | 4 | 6 | | 2040 |
| | FAP7 | | Widen | VA 218 (Butler Rd) | US 1 | VA 212 (Chatham Heights Rd) | 4 | 4 | 2 | 4 | No | 2030 |
| | FAS40 | | Widen | VA 208 (Courthouse Road) | US 1 (Jefferson Davis Hwy) | Smith Station Road ~~VA 628 (Station Road)~~ | 3 | 3 | 4 | 6 | | 2040 |





NOTE: Shaded areas represent changes from the 2013 CLRP.

# 2014 CLRP AND FY2015-2020 TIP AIR QUALITY CONFORMITY INPUTS

**(Highway and HOV)**

| Agency | Project ID | Agency Code | Improv. | Facility | From | To | Facility | | Lanes | | Under Const. or ROW acquired? | Complt. Date or Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to | | |
| *FREDERICKSBURG* | | | | | | | | | | | | |
| | FAU1 | | Widen | Fall Hill Ave./ Mary Washington Blvd. Extension | Mary Wash. Blvd. | Gordon Shelton Blvd. | | | 2 | 4 | Yes | 2020 |
| | | | Upgrade/ roundabout | Lafayette Blvd. (Phase 1) | Sophia St | VA-3 (Blue & Gray Parkway) | | | | | No | 2025 |
| | FAU2 | | Construct | Gateway Blvd. Extended | William St. (PR-3) | Fall Hill Ave (UR-3965) | | | 0 | 4 | No | 2030 |
| *STAFFORD COUNTY SECONDARY* | | | | | | | | | | | | |
| | FAS43 | | Intersection improvement | VA 606 (Ferry Rd) | VA 3 (Kings Highway) | VA 608 (Brook Rd) | 4 | 3 | | | | 2035 |
| | FAS5b | | Widen | VA 630 (Courthouse Rd) | Winding Creek Dr. ~~Austin Ridge Dr.~~ | VA 648 (Shelton Shop Rd) | 4 | 4 | 2 | 4 | No | 2030 ~~2035~~ |
| | FAS13 | | Widen | VA 648 (Shelton Shop Rd.) | VA 610 (Garrisonville Rd) | VA 627 (Mountainview Rd) | 4 | 4 | 2 | 4 | No | 2035 |
| *SPOTSYLVANIA COUNTY SECONDARY* | | | | | | | | | | | | |
| | FAS18c | | Widen | VA 620 (Harrison Rd) | VA 610 (Old Plank Rd.) | VA 627 (Gordon Rd.) | 4 | 4 | 2 | 4 | | 2025 |
| | FAS18B | | Widen | VA-620 (Harrison Rd.) | US-1 BUS (Lafayette Blvd.) | VA-639 (Salem Church Rd.) | | | 2 | 4 | No | 2025 |
| | FAS28 | | Widen | VA 628 (Smith Station Rd) | VA 608 (Massaponax Church Rd.) | VA 627 (Gordon Rd.) | 4 | 4 | 2 | 4 | No | 2035 |
| | FAS19 | | Widen | VA 636 (Mine Rd./ Hood Dr.) | VA 208 (Courthouse Rd.) | US 1 | 4 | 4 | 2 | 4 | No | 2025 |
| | FAS20b | | Widen | VA 639 (Leavells Rd.) | VA 208 (Courthouse Rd.) | VA 628 (Smith Station Rd.) | 4 | 4 | 2 | 4 | Yes | 2035 |





NOTE: Shaded areas represent changes from the 2013 CLRP.

# APPENDIX C

## Interagency Consultation and Public Involvement Process

# TPB Public Comment Procedures and Opportunities Related the Air Quality Conformity Planning Process

As described in the 2014 TPB *Participation Plan*, it is the policy of the TPB to carry out the following public involvement activities with respect to air quality conformity regulations governing TPB plans and programs.

- Ensure that the TPB follows federal requirements for public involvement, including a public comment period of at least 30 days prior to the approval of air quality conformity determinations that are part of the Financially Constrained Long-Range Transportation Plan (CLRP), Transportation Improvement Program (TIP) and other major documents, and the development and consideration of written responses to comments received.

    - Provide notification of the opportunity to comment during the public comment period through a variety of means, including:
        - Direct email notifications that the public comment period has begun;
        - Paid advertisements in local newspapers;
        - Notices in the TPB's monthly newsletter the *TPB News;*
        - Information in other publications, including the TPB *Weekly Report;*
        - Announcements on TPB websites including the COG Transportation homepage http://www.mwcog.org/transportation, the TPB Transportation Planning Information Hub http://www.transportationplanninghub.org, and pages specific to the CLRP http://www.mwcog.org/clrp.
        - Agenda items on key TPB committee's including the Citizens Advisory Committee, Access for All Advisory Committee and Technical Committee;
        - At least one formal public meeting during the development process for the TIP.

    - Comments from the public can be submitted on the TPB's web site, by email, postal mail, or in person at the beginning of TPB meetings. All comments are posted on the web site and are grouped according to whether the comment was submitted by a private citizen, a business or non-profit organization, or a government official or representative body. Comments can also be sorted according to the nature of the comment.

    - The TPB shall provide an additional opportunity for public comment, if the final CLRP or TIP differs significantly from the version that was made available for public comment by the TPB and raises new material issues which interested parties could not reasonably have foreseen from the public involvement efforts.

    - When significant written and oral comments are received on the draft CLRP and

- In addition to the formal public comment process described above, the following ongoing public involvement opportunities are in place and can be used to provide comment on air quality conformity determinations related to the TPB's plans and programs, and to learn about the conformity process:
    - A period of time for public comment is provided at the beginning of each TPB meeting.
    - The TPB website provides online opportunities for public comment.
    - All meetings of the TPB's committees are open to public.
    - The TPB strives to provide reasonable public access to technical and policy information through its website, distribution of paper documents, and through telephone and email communications.
    - Information about the planning process, including air quality conformity issues, is provided through a variety of ad hoc meetings and presentations that regularly occur throughout the region.

## TPB Consultation and Public Comment Opportunities for the Air Quality Conformity Analysis of the 2014 CLRP and FY2015-2020 TIP

The following lists TPB consultation and public comment opportunities during the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP:

- October 10th, 2013 - TPB Citizen Advisory Committee (CAC) meeting presentation on the draft call for projects and schedule for the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- October 10th, 2013 - Draft call for projects and schedule for the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP was in the TPB's monthly newsletter the ***TPB News*** as an agenda item for the TPB October 16, 2014 meeting;
- October 10th, 2013 - Monthly conformity consultation letter referenced the draft call for projects and schedule for the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- October 16th, 2013 - Opportunity for the public comment at the TPB meeting;
- October 16th , 2013 - TPB presentation on the draft call for projects and schedule for the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- November 1st, 2013 - Draft call for projects and schedule for the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP was in the TPB's monthly newsletter the ***TPB News***;
- January 3rd, 2014 - Update on project submissions and schedule for the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP was in the TPB's monthly newsletter the ***TPB News*** as an agenda item for the TPB January 15, 2014 meeting;
- January 10th, 2014 - Monthly conformity consultation letter referenced the upcoming discussion of transportation projects and the schedule for the air quality conformity analysis of the CLRP at the upcoming TPB meeting;
- January 15th , 2014 - Opportunity for public comment at the TPB meeting;
- January 15th, 2014 - TPB presentation on the update on project submissions and schedule for the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- February 7th, 2014 - Update on project submissions and schedule for the air quality conformity analysis, and status of the financial analysis for the

2014 CLRP was in the TPB's monthly newsletter the ***TPB News*** as an agenda item for the TPB February 19, 2014 meeting;

- February 12th, 2014 - Monthly conformity consultation letter referenced the upcoming discussion of the project submissions and schedule for the air quality conformity analysis, and status of the financial analysis for the 2014 CLRP;
- February 19th, 2014 - Opportunity for public comment at the TPB meeting;
- February 19th, 2014 - TPB presentation on the update on the project submissions and schedule for the air quality conformity analysis of 2014 CLRP and FY2015-2020 TIP;
- March 11th, 2014 – MWAQC Technical Advisory Committee (TAC) presentation on inputs and scope of work and project inputs for the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- March 13th , 2014 - Draft scope of work and project inputs released for 30-day public comment and documents posted on web;
- March 13th, 2014 - TPB CAC meeting presentation on inputs and scope of work and project inputs for the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- March 13th, 2014 - Paid advertisement posted in the Washington Post announcing 30-day public comment period for scope of work and project inputs;
- March 20th, 2014 - Paid advertisement posted in the El Pregonero announcing 30-day public comment period for scope of work and project inputs;
- March 14th, 2014 - Monthly conformity consultation letter referenced inputs and scope of work and announced public comment period;
- March 18th, 2014 - Public comment period announced in the TPB's monthly newsletter the ***TPB News*** and the TPB ***Weekly Report***;
- March 19th , 2014 - Opportunity for public comment at the TPB meeting;
- March 19th, 2014 - TPB presentation on the inputs and scope of work for the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- April 4th, 2014 - Approval of scope of work for the air quality conformity analysis for the 2014 CLRP and FY2015-2020 TIP was in the TPB's monthly newsletter the ***TPB News*** as agenda items for the TPB April 16, 2014 meeting;

- April 10th, 2014 -TPB CAC meeting presentation on the project submissions for the air quality conformity analysis for the 2014 CLRP and FY2015-2020 TIP;
- April 11th, 2014 - Monthly conformity consultation letter referenced the upcoming discussion of comments received and recommended responses, and TPB approval of inputs and scope of work for the air quality conformity analysis;
- April 16th, 2014 - Opportunity for public comment at the TPB meeting;
- April 16th, 2014 - TPB presentation on the comments received and recommended responses, and TPB approval of the scope of work and project inputs for the air quality conformity analysis for the 2014 CLRP and FY2015-2020 TIP;
- May 13th, 2014 - CLRP air quality conformity analysis article was in the TPB ***Weekly Report***;
- September 4th, 2014 - Paid advertisement posted in the El Pregonero announcing 30-day public comment period for draft conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- September 9th, 2014 - MWAQC TAC presentation on results of the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- September 11th, 2014 - Draft CLRP and TIP conformity analysis released for 30-day public comment period and posted on web;
- September 11th, 2014 - TPB CAC meeting presentation on the draft conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- September 11th, 2014 - Paid advertisement posted in the Washington Post announcing 30-day public comment period for draft conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- September 11th, 2014 - Public comment period announced in the TPB's monthly newsletter the ***TPB News***;
- September 12th, 2014 - Paid advertisement posted in the Afro-American announcing 30-day public comment period for draft conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- September 12th, 2014 - Monthly conformity consultation letter referenced results and announced public comment period for draft conformity analysis of the 2014 CLRP and FY2015-2020 TIP;

- September 15th, 2014 - MWAQC Air and Climate Public Advisory Committee (ACPAC) presentation on results of the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- September 16th, 2014 - Public comment period announced in the **TPB *Weekly Report***;
- September 17th, 2014 - Opportunity for public comment at the TPB meeting;
- September 17th, 2014 - TPB presentation on the draft air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- October 10th, 2014 - Monthly conformity consultation letter referenced results for the air quality conformity analysis of the 2014 CLRP and FY2015-2020 TIP;
- October 16th, 2014 - Opportunity for public comment at the TPB meeting;
- October 16th, 2014 - TPB responded to comments received during public comment period.

Note: All TPB and TPB subcommittee meetings are open to the public

# National Capital Region Transportation Planning Board

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

April 11, 2014

TO: Transportation Consultation Agencies
(United States Environmental Protection Agency, Federal Highway Administration, Federal Transit Administration, Metropolitan Washington Air Quality Committee, Air Quality Public Advisory Committee, and Transportation Planning Board Citizens Advisory Committee)

FROM: Gerald Miller
Acting Co-Director, Department of
Transportation Planning

SUBJECT: Consultation with respect to TPB plans and programs

**Enclosure:**
1) Agenda for April 16, 2014 TPB meeting

This memo transmits the agenda for the April TPB meeting, which is relevant to TPB consultation with respect to air quality conformity. Materials associated with each agenda item are available on the TPB web site www.mwcog.org under Dates and Events. As always, you are welcome to attend the TPB meetings (and/or any meetings of the TPB committees and their subcommittees). A schedule of monthly meetings is listed in the Calendar of Events in *TPB NEWS.*

The April TPB agenda items relevant for transportation conformity and consultation are identified below.

Item 8 is an action item in which the Board will be briefed on comments received and recommended responses, and asked to approve the project submissions for inclusion in the air quality conformity assessment for the 2014 Constrained Long Range Transportation Plan (CLRP) and FY 2015-2020 Transportation Improvement Program (TIP). At the March 19 meeting, the Board was briefed on the major project changes submitted for inclusion in the air quality conformity assessment for the 2014 CLRP and FY 2015-2020 TIP which were released for a 30-day public comment period that ended April 12.

Item 9 is an action item in which the Board will be briefed on the comments received and recommended responses, and asked to approve the scope of work for the air quality conformity assessment for the 2014 CLRP and FY 2015-2020 TIP. At the March 19 meeting, the Board was briefed on the draft scope of work which was released for a

30-day public comment period that ended April 12.

Item 12 is an information item in which the Board will be briefed on a draft initial assessment of the 2014 update of the CLRP and the Regional Transportation Priorities Plan (RTPP). In January, the TPB approved the RTPP which identifies strategies that are "within reach" both financially and politically and have the greatest potential to respond to the most significant transportation challenges. In response to a request at the February TPB meeting, staff has prepared an initial qualitative assessment of how the priorities identified in the RTPP compare to the transportation system in the CLRP as it is being updated with a new financial analysis and additional projects in 2014.

Item 13 is a notice item in which the Virginia Department of Transportation (VDOT) has requested an amendment to update projects and funding in the Northern Virginia section of the FY 2013-2018 TIP. The Board will be asked to approve this amendment at the May 21 meeting.

# National Capital Region Transportation Planning Board

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

Date: April 16, 2014
Time: 12 noon
Place: COG Board Room

**AGENDA**
**(BEGINS PROMPTLY AT NOON)**

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

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

12:20 pm 2. **Approval of Minutes of March 19 Meeting**
..... Chairman Wojahn

12:25 pm 3. **Report of Technical Committee**
..... Mr. Srikanth
Chair, Technical Committee

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

12:35 pm 5. **Report of Steering Committee**
.....Mr. Miller
Acting Co-Director, Department of Transportation Planning (DTP)

12:40 pm 6. **Chair's Remarks**
..... Chairman Wojahn



*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.*

## ACTION ITEMS

12:50 pm 7. **Approval of Regional Bike to Work Day 2014 Proclamation**

..... Mr. Ramfos, DTP

In an effort to increase public awareness of the viability of bicycle commuting in the Washington region, regional Bike to Work Day events are being organized at seventy-nine locations in the region for Friday May 16. These events will encourage the business community and other regional decision-makers to support increased bicycle commuting through bicycle-friendly policies and initiatives.

**Action**: Approve the enclosed Bike to Work Day 2014 Proclamation.

12:55 pm 8. **Review of Comments Received and Approval of Project Submissions for the Air Quality Conformity Assessment for the 2014 Financially Constrained Long Range Transportation Plan (CLRP) and the FY 2015-2020 Transportation Improvement Program (TIP)**

..... Mr. Griffiths
Acting Co-Director, DTP

At the March 19 meeting, the Board was briefed on the major project changes submitted for inclusion in the air quality conformity assessment for the 2014 CLRP and FY 2015-2020 TIP which were released for a 30-day public comment period that ended April 12. The Board will be briefed on the comments received and recommended responses, and asked to approve the project submissions for inclusion in the air quality conformity assessment for the 2014 CLRP and FY 2015-2020 TIP.

**Action**: Adopt Resolution R15-2014 to approve the project submissions for inclusion in the air quality conformity assessment for the 2014 CLRP and FY 2015-2020 TIP.

1:00 pm 9. **Approval of Scope of Work for the Air Quality Conformity Assessment for the 2014 CLRP and the FY 2015-2020 TIP**

..... Ms. Posey, DTP

At the March 19 meeting, the Board was briefed on the draft scope of work for the air quality conformity assessment for the 2014 CLRP and FY 2015-2020 TIP which was released for a 30-day public comment period that ended April 12. The Board will be briefed on the comments received and recommended responses, and asked to approve the scope of work for the air quality conformity assessment for the 2014 CLRP and FY 2015-2020 TIP.

**Action:** Approve the enclosed scope of work for the air quality conformity assessment for the 2014 CLRP and FY 2015-2020.

1:05 pm 10. **Briefing on the Requirement that A Portion of Fauquier County, Virginia Now be Included in the in TPB Planning Area, and Approval of a Letter Inviting the County to Join TPB**

..... Mr. Griffiths

The 2010 Census extended the Washington DC-VA-MD Urbanized Area into a portion of Fauquier County, including the Town of Warrenton. Federal MPO planning regulations require that this portion with a population of about 21,000 be included in the metropolitan planning area and that representatives of the area be included in the TPB's transportation planning and programming process. The Board will be briefed on steps for Fauquier

County to join TPB and asked to formally invite the county to become a member.

**Action:** Approve the enclosed letter to Fauquier County inviting it to become a member of the TPB.

**INFORMATION ITEMS**

1:10 pm 11. **Briefing on the COG Cooperative Forecasting Process**
..... Mr. DesJardin, Department of Community Planning & Services
Mr. Griffiths
The Board will be briefed on how the COG Cooperative Forecasting Process develops population, household and employment forecasts for use in the regional transportation planning process, including key features of the recently developed Round 8.3 forecasts.

1:30 pm 12. **Briefing on a Draft Initial Assessment of the 2014 Update of the CLRP and the Regional Transportation Priorities Plan (RTPP)**
..... Mr. Swanson, DTP
In January, the TPB approved the RTPP which identifies strategies that are "within reach" both financially and politically and have the greatest potential to respond to the most significant transportation challenges. In response to a request at the February TPB meeting, staff have prepared an initial qualitative assessment of how the priorities identified in the RTPP compare to the transportation system in the CLRP as it is being updated with a new financial analysis and additional projects in 2014. The Board will be briefed on this draft initial assessment.

**NOTICE ITEM**

1:55 pm 13. **Notice of a Proposed Amendment to the FY 2013-2018 TIP that is Exempt from the Air Quality Conformity Requirement to Include Project and Funding Updates for the Northern Virginia Section of the FY 2013-2018 TIP**
..... Ms. Cuervo, VDOT
Notice is provided that the Virginia Department of Transportation (VDOT)) has requested an amendment to update projects and funding in the Northern Virginia section of the FY 2013-2018 TIP. The Board will be asked to approve this amendment at the May 21 meeting.

1:56 pm 14. **Other Business**

2:00 pm 15. **Adjourn**

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

# TPB News November 2013

## Schedule Announced for CLRP

During its October 16 meeting, the TPB received a briefing on the draft call for projects document and schedule for the air quality conformity assessment for the 2014 Constrained Long-Range Transportation Plan (CLRP) and FY 2015-2020 Transportation Improvement Program (TIP). The currently proposed schedule is as follows:

- November 20, 2013: TPB releases Final Call for Projects.
- December 13, 2013 (deadline): Transportation agencies complete on-line submission of draft project Inputs.
- January 3, 2014: Technical Committee reviews Draft CLRP project submissions and draft Scope of Work for the Air Quality Conformity Assessment.
- January 9, 2014: CLRP project submissions and draft Scope of Work released for public comment.
- January 15, 2014: TPB is briefed on project submissions and draft Scope of Work.
- February 8, 2014: Public comment period ends.
- February 19, 2014: TPB reviews public comments and is asked to approve project submissions and draft Scope of Work.
- May 2, 2014 (deadline): Transportation agencies finalize CLRP forms and inputs to the FY 2015-2020 TIP.
- June 12, 2014: Draft CLRP, TIP, and Conformity Assessment released for public comment at Citizens Advisory Committee (CAC).
- June 18, 2014: TPB briefed on the draft CLRP, TIP, and Conformity Assessment.
- July 12, 2014: Public comment period ends.
- July 16, 2014: TPB reviews public comments and responses to comments, and is presented the draft CLRP, TIP, and Conformity Assessment for adoption.

Gary Erenrich of the Montgomery County Department of Transportation asked how the fiscal constraint of the CLRP would be reviewed in light of the jurisdictions and states working to fund projects through a larger variety of funding opportunities. Ron Kirby, Director of Transportation Planning at MWCOG, responded that work is currently underway to update the financial forecasts for the region. Kirby noted that the 2014 CLRP schedule could be revised if necessary.

Harriet Tregoning of the District of Columbia Office of Planning noted that the 2013 call for projects included "an explicit acknowledgment of Region Forward, a document that had been voted on and approved by all 22 jurisdictions, and specifically mentioned climate goals." Staff said the documentation was shifted towards focusing on the Regional Transportation Priorities Plan. She asked that language also be included in the Policy Framework again to call attention to Region Forward. It was agreed that the Region Forward language will be added back into the documentation.

The TPB will be asked to approve the final call for projects document at its November 20 meeting. ◆

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If you're interested in getting up-to-date information about the TPB, find us on Facebook and follow us on Twitter! Search ***National Capital Region Transportation Planning Board*** on Facebook and "like" our page. Follow us on Twitter at ***@NatCapRegTPB***.

We announce upcoming meetings; release of key studies; presentations; reports and publications; public comment periods; and other relevant information. ◆

# TPB Weekly Report September 16, 2014

Metropolitan Washington Council of Governments

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## Transportation

Home > Transportation > Weekly Report

# TPB Weekly Report

An online publication of the National Capital Region Transportation Planning Board

September 16, 2014

## Final 2014 CLRP Public Comment Underway

Elected officials, transportation agencies, and the public have one last opportunity to comment on this year's update of the region's Constrained Long-Range Transportation Plan (CLRP) before the Transportation Planning Board considers it for final approval on October 15.

The TPB recently released a summary of the **Draft 2014 CLRP** and a number of other key supporting analyses to aid those interested in reviewing and commenting on this year's update.

The summary of the draft plan details the ten major projects proposed to be added to or changed in this year's update. Among the projects are new streetcar lines in the District of Columbia, revised plans for service and infrastructure improvements for MARC and VRE commuter rail services, and a handful of road-widening projects in Virginia.

The summary also includes a link to an online CLRP database, which details hundreds of other regionally significant highway, transit, and bicycle and pedestrian projects already in the plan, as well as a link to the online database for the six-year Transportation Improvement Program (TIP), which identifies specific projects to be implemented within the next six years.


Two of the most useful analyses accompanying this year's CLRP update are the **Performance Analysis** and the **Priorities Plan Assessment** of the draft plan. The Performance Analysis uses forecasts of future population and job growth patterns along with the system of roadways and transit planned in the CLRP to predict future changes in travel patterns and travel conditions. The Priorities Plan Assessment looks at how

**Recent Weekly Reports**

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"Regional Solicitation Underway for Federal 'Enhanced Mobility' Grant Funding"

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"Metroway, Region's First BRT Line, Gets Start With TIGER Help"

**August 26, 2014**
"Millions Worldwide to Go Car-Free or 'Car-Lite' on Monday, Sept. 22"

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# TPB CLRP Website


http://www.mwcog.org/clrp/

# TPB CLRP Website

#CLRP2014

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Today @ noon: the Sep #TPBmtg. #CLRP2014 & more on the agenda: bit.ly/TPBmtg Tune in for live highlights!
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TPB @NatCapRegTPB 2h
Today @ noon: the Sep #TPBmtg. #CLRP2014 & more on the agenda: bit.ly/TPBmtg Tune in for live highlights!

Tweet #CLRP2014

## Latest CLRP and TIP Documents

The following documents and resources related to the 2014 CLRP update were released by the TPB on September 11. These resources are meant to inform public comment on the draft 2014 CLRP update and FY 2015-2020 TIP, and to inform TPB discussion and decision-making.

- Draft 2014 Constrained Long-Range Transportation Plan (CLRP)
- Draft FY 2015-2020 Transportation Improvement Program (TIP)
- Air Quality Conformity Analysis of the 2014 CLRP and FY 2015-2020 TIP
- Financial Analysis for the 2014 CLRP
- Performance Analysis of the Draft 2014 CLRP
- Priorities Plan Assessment of the Draft 2014 CLRP

Descriptions of the above documents and summary presentations can be found on the 2014 Key Documents page.

## Public Comment

The TPB is scheduled to consider the 2014 CLRP, the FY 2015-2020 TIP, and the Air Quality Conformity Analysis for final approval at its meeting on October 15. Visit www.mwcog.org/TPBcomment to **submit comments by 11:59 p.m. on October 11** on any of the draft 2014 CLRP update documentation and to view others' comments.

**Comment by October 11:**
**www.mwcog.org/TPBcomment**

Materials may also be reviewed at the Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Washington, DC 20002. Submit written comments to:

TPB Chair Patrick Wojahn
Metropolitan Washington Council of Governments (COG)
777 N. Capitol St. NE, Suite 300
Washington, DC 20002

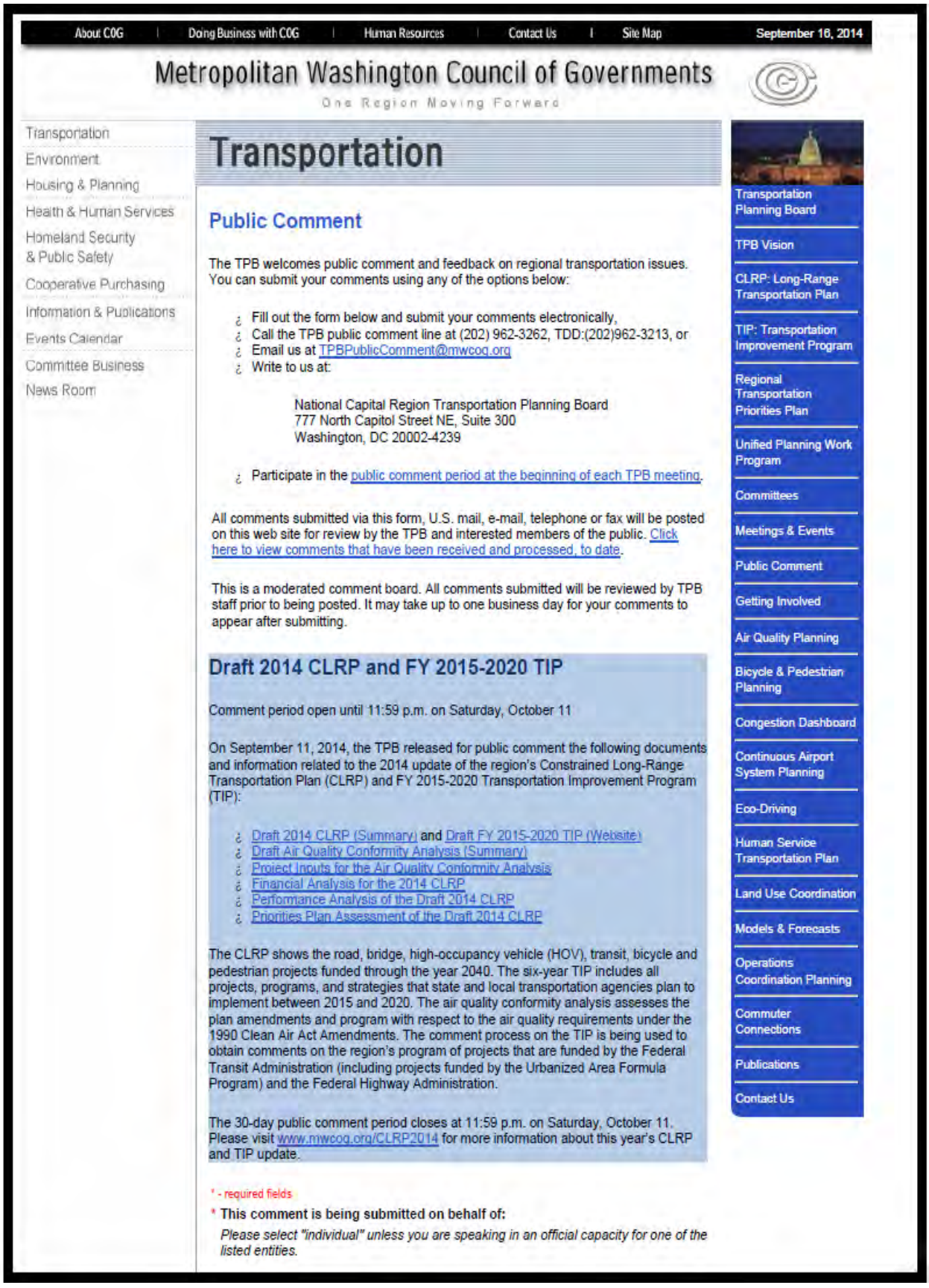
## Additional Resources

**Transportation Planning Information Hub for the National Capital Region**
Learn more about transportation decision-making in the Washington region, including the state and local decision-making that feeds the CLRP update process.

www.transportationplanninghub.org

http://www.mwcog.org/clrp/

# MWCOG Website
# 2014 CLRP Public Comment Notification



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# Transportation

## Public Comment

The TPB welcomes public comment and feedback on regional transportation issues. You can submit your comments using any of the options below:

- Fill out the form below and submit your comments electronically,
- Call the TPB public comment line at (202) 962-3262, TDD:(202)962-3213, or
- Email us at TPBPublicComment@mwcog.org
- Write to us at:

National Capital Region Transportation Planning Board
777 North Capitol Street NE, Suite 300
Washington, DC 20002-4239

- Participate in the public comment period at the beginning of each TPB meeting.

All comments submitted via this form, U.S. mail, e-mail, telephone or fax will be posted on this web site for review by the TPB and interested members of the public. Click here to view comments that have been received and processed, to date.

This is a moderated comment board. All comments submitted will be reviewed by TPB staff prior to being posted. It may take up to one business day for your comments to appear after submitting.

### Draft 2014 CLRP and FY 2015-2020 TIP

Comment period open until 11:59 p.m. on Saturday, October 11

On September 11, 2014, the TPB released for public comment the following documents and information related to the 2014 update of the region's Constrained Long-Range Transportation Plan (CLRP) and FY 2015-2020 Transportation Improvement Program (TIP):

- Draft 2014 CLRP (Summary) and Draft FY 2015-2020 TIP (Website)
- Draft Air Quality Conformity Analysis (Summary)
- Project Inputs for the Air Quality Conformity Analysis
- Financial Analysis for the 2014 CLRP
- Performance Analysis of the Draft 2014 CLRP
- Priorities Plan Assessment of the Draft 2014 CLRP

The CLRP shows the road, bridge, high-occupancy vehicle (HOV), transit, bicycle and pedestrian projects funded through the year 2040. The six-year TIP includes all projects, programs, and strategies that state and local transportation agencies plan to implement between 2015 and 2020. The air quality conformity analysis assesses the plan amendments and program with respect to the air quality requirements under the 1990 Clean Air Act Amendments. The comment process on the TIP is being used to obtain comments on the region's program of projects that are funded by the Federal Transit Administration (including projects funded by the Urbanized Area Formula Program) and the Federal Highway Administration.

The 30-day public comment period closes at 11:59 p.m. on Saturday, October 11. Please visit www.mwcog.org/CLRP2014 for more information about this year's CLRP and TIP update.

* - required fields

* **This comment is being submitted on behalf of:**

*Please select "individual" unless you are speaking in an official capacity for one of the listed entities.*

Transportation Planning Board
TPB Vision
CLRP: Long-Range Transportation Plan
TIP: Transportation Improvement Program
Regional Transportation Priorities Plan
Unified Planning Work Program
Committees
Meetings & Events
Public Comment
Getting Involved
Air Quality Planning
Bicycle & Pedestrian Planning
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Continuous Airport System Planning
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## PERIODO DE COMENTARIOS PÚBLICOS SOBRE PRESENTACIONES DE PROPUESTAS EN LA REGIÓN DE WASHINGTON PARA LA ACTUALIZACIÓN 2014 DEL PLAN RESTRINGIDO DE LARGO ALCANCE (CLRP), PROGRAMA DE MEJORAS EN EL TRANSPORTE FY 2015-2020 Y ANÁLISIS DE CONFORMIDAD DE LA CALIDAD DEL AIRE

La Junta de Planeamiento del Transporte en la Región de la Capital de la Nación (TPB) iniciará un periodo de 30 días para comentarios del público sobre las presentaciones de propuestas para la actualización 2014 del Plan Restringido de Largo Alcance (CLRP) y el Programa de Mejoramiento en el Transporte FY 2015-2020 (TIP), incluyendo un panorama del trabajo para el análisis de conformidad de la calidad del aire el 13 de marzo en la reunión del Comité Asesor del Ciudadano (CAC). El CAC se reúne de 6 a 8 pm en el centro de conferencias del primer piso del Consejo de Gobiernos del Área Metropolitana de Washington, 777 N. Capitol St. NE, Washington, DC 20002. Este periodo de comentarios públicos se extenderá hasta el sábado 12 de abril del 2014. Se ha programado que el TPB apruebe estas propuestas en su reunión del 16 de abril del 2014. El público en general está invitado a revisar estos documentos provisionales en el portal cibernético de COG: www.mwcog.org/transportation/. Este material también puede revisarse en persona en la sede del Consejo de Gobiernos del Área Metropolitana de Washington (COG), 777 N. Capitol St. NE, Washington, DC 20002.

El CLRP muestra la carretera, puente, vehículos que transitan en carriles restringidos (HOV), proyectos para tránsito, bicicletas y peatones con fondos hasta el año 2040. El TIP de seis años incluye todos los proyectos, programas y estrategias que las agencias de transporte local y estatal planean implementar entre el 2015 y 2020. El análisis de conformidad de la calidad del aire evalúa el programa y las enmiendas del plan con respecto a los requerimientos de la calidad del aire según las enmiendas a la Ley de Aire Puro de 1990.

El público en general está invitado a enviar sus comentarios sobre los documentos provisionales a través del internet: www.mwcog.org/tpbpubliccomment/. Los comentarios escritos también pueden ser enviados por correo a: TPB Chairman Patrick Wojahn, Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Suite 300, Washington, DC 20002.

**Para información adicional o asistencia especial, por favor llame al (202) 962-3311 ó (202) 962-3213 (TDD).**

**Washington Post March 13, 2014**

# PUBLIC COMMENT PERIOD FOR THE WASHINGTON REGION'S PROPOSED SUBMISSIONS FOR THE 2014 UPDATE TO THE CONSTRAINED LONG-RANGE PLAN (CLRP), FY 2015-2020 TRANSPORTATION IMPROVEMENT PROGRAM (TIP), AND AIR QUALITY CONFORMITY ANALYSIS

The National Capital Region Transportation Planning Board (TPB) will initiate a 30-day public comment period for the proposed submissions for the 2014 update to the Constrained Long-Range Plan (CLRP) and FY2015-2020 Transportation Improvement Program (TIP), including a scope of work for the air quality conformity analysis, on March 13 at the TPB Citizen Advisory Committee (CAC) meeting. The CAC meets from 6 pm to 8 pm in the Metropolitan Washington Council of Governments (COG) first floor conference center, 777 N. Capitol St. NE, Washington, DC 20002. This public comment period will extend through Saturday April 12, 2014. The TPB is scheduled to approve these submissions at its April 16, 2014 meeting. Members of the public are invited to review these draft documents on the COG website, **www.mwcog.org/transportation/**. These materials may also be reviewed at the Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Washington, DC 20002.

The CLRP shows the road, bridge, high-occupancy vehicle (HOV), transit, bicycle and pedestrian projects funded through the year 2040. The six-year TIP includes all projects, programs, and strategies that state and local transportation agencies plan to implement between 2015 and 2020. The air quality conformity analysis assesses the plan amendments and program with respect to the air quality requirements under the 1990 Clean Air Act Amendments.

Members of the public are invited to submit comments on the draft documents on-line at **www.mwcog.org/tpbpublic comment/**. Written comments can also be mailed to TPB Chairman Patrick Wojahn, Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Suite 300, Washington, DC 20002.

For additional information or for special assistance, please call (202) 962-3311 or (202) 962-3213 (TDD).

## PUBLIC COMMENT PERIOD FOR THE WASHINGTON REGION'S PROPOSED 2014 UPDATE TO THE CONSTRAINED LONG-RANGE PLAN (CLRP), FINANCIAL PLAN, FY 2015-2020 TRANSPORTATION IMPROVEMENT PROGRAM (TIP), AND AIR QUALITY CONFORMITY ANALYSIS

The National Capital Region Transportation Planning Board (TPB) will initiate a 30-day public comment period for the proposed 2014 update to the Constrained Long-Range Plan (CLRP) and FY 2015-2020 Transportation Improvement Program (TIP), their accompanying air quality conformity analysis, and the CLRP Financial Plan, on September 11 at the TPB Citizen Advisory Committee (CAC) meeting. The CAC meets from 6 pm to 8 pm in the Metropolitan Washington Council of Governments (COG) first floor conference center, 777 N. Capitol St. NE, Washington, DC 20002. This public comment period will extend through Saturday October 11, 2014. The TPB is scheduled to approve these submissions at its October 15, 2014 meeting. Members of the public are invited to review these draft documents on the COG website, www.mwcog.org/clrp/. These materials may also be reviewed at the Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Washington, DC 20002.

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Members of the public are invited to submit comments on the draft documents on-line at www.mwcog.org/TPBcomment/. Written comments can also be mailed to TPB Chairman Patrick Wojahn, Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Suite 300, Washington, DC 20002.For additional information or for special assistance, please call (202) 962-3311 or (202) 962-3213 (TDD).

**PERIODO DE COMENTARIO PUBLICO
PARA LA PRESENTACIÓN DE PROPUESTAS DE LA REGIÓN
DE WASHINGTON PARA LA ACTUALIZACIÓN DE 2014
A LA RESTRINGIDO PLAN A LARGO PLAZO (CLRP),
EL AÑO FISCAL 2015-2020 PROGRAMA
DE MEJORAMIENTO DEL TRANSPORTE (TIP)
Y ANÁLISIS DE CALIDAD DEL AIRE DE LA CONFORMIDAD**

La National Capital Region Transporte Junta de Planificación (TPB) se iniciará un período de 30 días de comentarios públicos para las presentaciones propuestas para la actualización de 2014 a la restringida Plan a Largo Plazo (CLRP) y FY2015-2020 Programa de Mejoramiento del Transporte (TIP), incluyendo un alcance del trabajo para el análisis de conformidad de calidad del aire, el 11 de Septiembre en el TPB Ciudadana Comité Consultivo (CAC) de reuniones. El CAC se reúne 6pm-8pm en el Consejo Metropolitano de Washington de Gobiernos (COG) centro de conferencia primer piso, 777 N. Capitol St. NE, Washington, DC 20002. Este período de comentarios públicos se extenderá hasta el Sábado 11 de Octubre 2014. La TPB tiene previsto aprobar estas propuestas en su reunión el 15 de Octubre 2014. Los miembros del público están invitado a revisar estos proyectos de documentos en el sitio web del CLRP, www.mwcog.org/clrp/. Estos materiales pueden ser vistos en Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Washington, DC 20002.

El CLRP muestra el camino, el puente, los vehículos de alta ocupación (HOV), el tránsito, proyectos para bicicletas y peatones a través de fondos para el año 2040. El TIP de seis años, incluye todos los proyectos, programas y estrategias que las agencias estatales y locales del Plan de Transporte a aplicar entre 2015 y 2020. El análisis de la calidad del aire conforme evalúa las modificaciones del plan y el programa con respecto a los requisitos de calidad del aire en la década de 1990 la Ley de Aire Limpio Enmiendas.

Los miembros del público están invitados a presentar sus observaciones sobre los proyectos de documentos en línea en www.mwcog.org/TPBcomment/.
Los comentarios por escrito también pueden enviarse por correo, TPB Chairman Patrick Wojahn, Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Suite 300, Washington, DC 20002.

**Para información adicional o asistencia especial, por favor llame, (202) 962-3311 o (202) 962-3213 (TDD).**

# PUBLIC COMMENT PERIOD FOR THE WASHINGTON REGION'S PROPOSED 2014 UPDATE TO THE CONSTRAINED LONG-RANGE PLAN (CLRP), FINANCIAL PLAN, FY 2015-2020 TRANSPORTATION IMPROVEMENT PROGRAM (TIP), AND AIR QUALITY CONFORMITY ANALYSIS

The National Capital Region Transportation Planning Board (TPB) will initiate a 30-day public comment period for the proposed 2014 update to the Constrained Long-Range Plan (CLRP) and FY 2015-2020 Transportation Improvement Program (TIP), their accompanying air quality conformity analysis, and the CLRP Financial Plan, on September 11 at the TPB Citizen Advisory Committee (CAC) meeting. The CAC meets from 6 pm to 8 pm in the Metropolitan Washington Council of Governments (COG) first floor conference center, 777 N. Capitol St. NE, Washington, DC 20002. This public comment period will extend through Saturday October 11, 2014. The TPB is scheduled to approve these submissions at its October 15, 2014 meeting. Members of the public are invited to review these draft documents on the COG website, www.mwcog.org/clrp/. These materials may also be reviewed at the Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Washington, DC 20002.

The CLRP shows the road, bridge, high-occupancy vehicle (HOV), transit, bicycle and pedestrian projects funded through the year 2040. The six-year TIP includes all projects, programs, and strategies that state and local transportation agencies plan to implement between 2015 and 2020. The air quality conformity analysis assesses the plan amendments and program with respect to the air quality requirements under the 1990 Clean Air Act Amendments. The comment process on the TIP is being used to obtain comments on the region's program of projects that are funded by the Federal Transit Administration (including projects funded by the Urbanized Area Formula Program) and the Federal Highway Administration.

Members of the public are invited to submit comments on the draft documents on-line at www.mwcog.org/TPBcomment/. Written comments can also be mailed to TPB Chairman Patrick Wojahn, Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Suite 300, Washington, DC 20002.

For additional information or for special assistance, please call (202) 962-3311 or (202) 962-3213 (TDD).

# APPENDIX D

## Documentation of Mobile Source Emissions

# MOBILE EMISSIONS INPUT DEVELOPMENT

# TECHNICAL DOCUMENTATION

# LIST OF REFERENCES


1. VinPOWER, Copyright: ESP Data Solutions Inc., Product version 4.0.0.16

2. RegistrationDistributionConverter_Veh16
   http://www.epa.gov/oms/models/moves/tools.htm

3. AAD VMT Calculator HPMS.XLS
   http://www.epa.gov/oms/models/moves/tools.htm

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**BACKGROUND**

This technical appendix documents how the various input categories needed for successful MOVES model runs were developed. It covers the development of travel-related inputs, which are based on the MWCOG/TPB regional travel demand model (Version 2.3. 57), non-travel related inputs (i.e., meteorology, fuel supply and formulation, and Inspection/Maintenance Programs), and the latest vehicle population data for year 2011 obtained from agencies in the District of Columbia, the Commonwealth of Virginia, and the state of Maryland.

Inputs from ten broad categories were used in the MOVES County Manager in order to generate the mobile emissions inventories. The input categories and the overall modeling sequence are graphically illustrated in Figure 1.

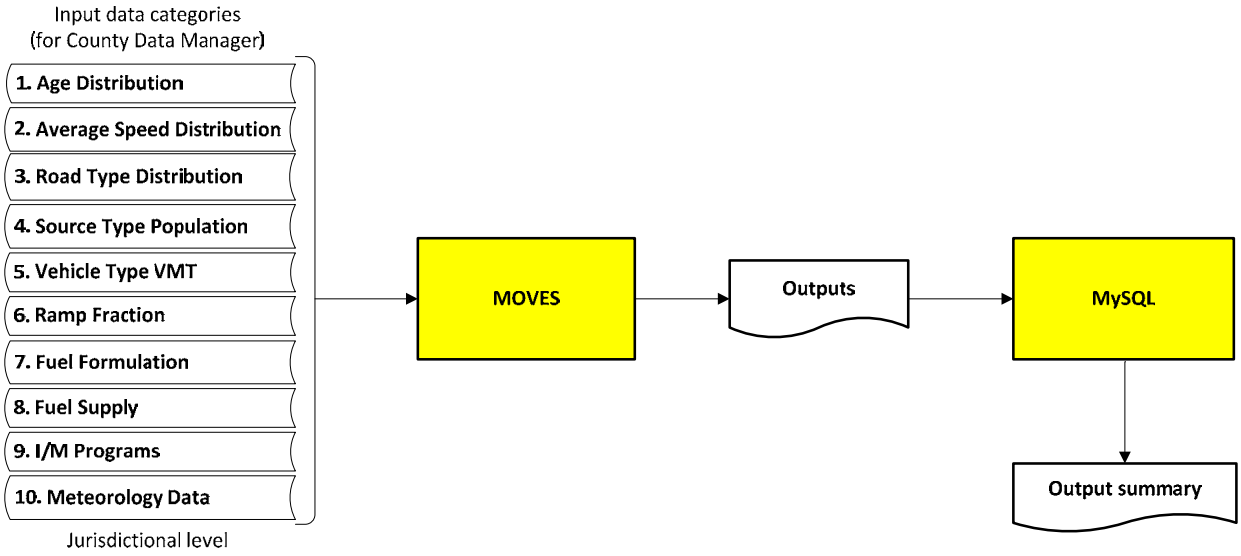


**Figure 1**– MOVES Modeling Process

Inputs were obtained from a variety of sources (Table 1). Local data was used as much as possible instead of MOVES defaults. .

| No | Data Category | Data Table Name | Locality | Methodology |
|---|---|---|---|---|
| 1 | Age Distribution | **sourceTypeAgeDistribution** | County | based on VIN |
| 2 | Average Speed Distribution | **avgSpeedDistribution** | County | based on travel demand model's post-processor outputs + school bus/refuse truck data from Fairfax Co. + transit bus from WMATA |
| 3 | Road Type Distribution | **roadTypeDistribution** | County | based on travel demand model's post-processor outputs |
| 4 | Source Type Population | **sourceTypeYear** | County | based on CLRP Vehicle Projection & VIN |
| 5 | Vehicle Type VMT | **HPMSVTypeYear** | County | based on TDM's post-processor outputs |
| | | **monthVMTFraction** | Region | based on Regional Data |
| | | **dayVMTFraction** | Region | based on Regional Data |
| | | **hourVMTFraction** | Region | based on Regional Data |
| 6 | Ramp Fraction | **roadType** | Region | 8% of the urban/rural restricted access roads |
| 7 | Fuel | **FuelSupply** | State | from state air agency (state-wide data) |
| 8 | | **FuelFormulation** | State | from state air agency (state-wide data) |
| 9 | I/M Programs | **IMCoverage** | State | from state air agency (state-wide data) |
| 10 | Meteorology Data | **zoneMonthHour** | State | from DEP (region-wide data) |

**Table 1**– MOVES Input Categories

**AGE DISTRIBUTION**

On a triennial basis since 2005, the Departments of Motor Vehicles (DMV) of the District of Columbia, Maryland and Virginia have been supplying MWCOG/TPB vehicle registration data for use in Air Quality Conformity Determinations. These databases contain a broad range of attributes of the vehicles registered in the jurisdictions of the Metropolitan Washington DC (DC-MD-VA) non-attainment area. The latest database is from 2011 and it was used as the basis for developing future year vehicle population profiles (i.e., age and vehicle type distributions) for all the analysis years of this air quality conformity assessment.

Prior to being used as inputs in MOVES model runs, the "raw" vehicle registration data – also known as Vehicle Identification Numbers (VIN) – were decoded by TPB staff using a commercial decoding software program [(1)]. The decoding was achieved in two steps: (1) the "raw" data was decoded to a Mobile 6.2-compatible format; and (2) the Mobile 6.2-compatible vehicle population distributions were converted to a MOVES-compatible format using an EPA-developed converter [(2)] while following the process recommended by EPA. The vehicle population mapping process is shown in greater detail in Table AS1 in the Appendix Supplement section.

The vehicle population databases were reviewed by the MWCOG/TPB technical oversight committees and went through public comments prior to becoming approved for transportation planning applications. The 2011 VIN database was formally approved by MWCOG/TPB concurrently with the 2012 CLRP Air Quality Conformity Determination (July 2012).

**AVERAGE SPEED DISTRIBUTION**

The MWCOG/TPB regional travel demand model is calibrated on link-level traffic volumes and not average link-level speed estimates. Therefore, Vehicle Hours of Travel (VHT) distributions were chosen as suitable proxies in the analyses. The regional travel demand model derives VHT distributions by six travel markets:

1. Light Duty Vehicles/Single Occupancy Vehicles (SOV)
2. Light Duty Vehicles/High Occupancy Vehicles (HOV2)
3. Light Duty Vehicles/High Occupancy Vehicles (HOV3+)
4. Airport Passenger Trips
5. Commercial Vehicles
6. Trucks

Through post-model processing, VHT distributions by MOVES-compatible speed bins, by jurisdiction (i.e., county), and road type from the six travel markets were "condensed" to distributions by three key vehicle type categories as follows:

- Passenger Vehicles (PVs) = SOV + HOV2 + HOV3+ + Airport Passenger Trips
- Commercial Vehicles (CVs) = Commercial Vehicles
- Heavy Duty Vehicles (HDVs) = Trucks

MOVES calls for: (1) 16 speed bins along a continuous spectrum of speeds ranging from a low value of 2.5 mph to a high value of 75 mph in increments of 5 mph; and (2) Four road types: restricted access facilities (i.e., freeways and expressways) in urban and rural settings and unrestricted access facilities (i.e., major/minor arterials, collectors and local roads) in urban and rural settings. The assumptions used to develop Average Speed Distributions fulfilling all of the above MOVES requirements are as follows:

1. **VHT Distribution to Restricted Facilities:**

   a. **All Vehicle Type Categories:**
      - Weekday VHT Distribution:
        - All Day: Hourly distribution for all vehicles
      - Weekend VHT Distribution:
        - 11:00 am – 7:00 pm: Distribution across the 13 MOVES-compatible vehicle type categories reflecting the 3:00 pm hour on a weekday
        - 7:01 pm – 10:59 am: Distribution across the 13 MOVES-compatible vehicle type categories reflecting the 12:00 am hour on a weekday

2. **VHT Distribution to Unrestricted Facilities:**

   a. **All Vehicle Type Categories plus Intercity Bus minus Refuse Trucks, School Buses and Transit Buses:**
      - Weekday VHT Distribution:
        - All Day: Hourly distribution for all vehicles
      - Weekend VHT Distribution:
        - 11:00 am – 7:00 pm: Distribution reflecting the 3:00 pm hour on a weekday
        - 7:01 pm – 10:59 am: Distribution reflecting the 12:00 am hour on a weekday

   b. **Refuse Trucks:** Refuse Trucks operate on a 3-phase cycle: Phase 1 is the period of driving from the dispatch garage to trash collection sites; Phase 2 is the period of the actual trash/recycle collection; Phase 3 is the period of driving back to transfer stations. Using local data from Fairfax County, VA, the average speed of Phases 1 and 3 were assumed to be in the range of 22.5-27.5 miles per hour (i.e., MOVES Speed Bin 6), and the average speed of Phase 2 was assumed to be in the range of 2.5-7.5 miles per hour (i.e., MOVES Speed Bin 2). Based on the above assumptions the refuse truck vehicle type VHT distributions were as follows:

      - Weekday VHT Distribution (Table 2):
        - 5:00 am–5:00 pm (Trash Collection): VHT hourly distributions according to Phases 1, 2 and 3.
        - 5:01 pm–5:00 am (On Road Phase): VHT hourly distribution consists of Phase 2.

| Speed Bins | Speed Range | 5:00 AM - 5:00 PM | 5:01 PM - 4:59 AM |
|---|---|---|---|
| 1 | speed < 2.5mph | 0.00% | 0.00% |
| 2 | 2.5mph <= speed < 7.5mph | 62.65% | 0.00% |
| 3 | 7.5mph <= speed < 12.5mph | 0.00% | 0.00% |
| 4 | 12.5mph <= speed < 17.5mph | 0.00% | 0.00% |
| 5 | 17.5mph <= speed <22.5mph | 0.00% | 0.00% |
| 6 | 22.5mph <= speed < 27.5mph | 37.35% | 100.00% |
| 7 | 27.5mph <= speed < 32.5mph | 0.00% | 0.00% |
| 8 | 32.5mph <= speed < 37.5mph | 0.00% | 0.00% |
| 9 | 37.5mph <= speed < 42.5mph | 0.00% | 0.00% |
| 10 | 42.5mph <= speed < 47.5mph | 0.00% | 0.00% |
| 11 | 47.5mph <= speed < 52.5mph | 0.00% | 0.00% |
| 12 | 52.5mph <= speed < 57.5mph | 0.00% | 0.00% |
| 13 | 57.5mph <= speed < 62.5mph | 0.00% | 0.00% |
| 14 | 62.5mph <= speed < 67.5mph | 0.00% | 0.00% |
| 15 | 67.5mph <= speed < 72.5mph | 0.00% | 0.00% |
| 16 | 72.5mph <= speed | 0.00% | 0.00% |

*Source: Fairfax Co., VA*

**Table 2**– VHT Distribution for Refuse Trucks (Average Weekday)

- Weekend VHT Distribution:
  - All Day: VHT distribution made up of Phase 1 and Phase 3 (on road phases)

**c. School Buses:**

- Weekday VHT Distribution:
  - 6:00 am – 6:00 pm: VHT distribution per Table 3
  - 6:00 pm – 6:00 am: VHT distribution of heavy duty vehicles

- Weekend VHT Distribution:
  - 11:00 am–7:00 pm: VHT Distribution of heavy duty vehicles at 3:00 pm on a weekday
  - 7:00 pm – 11:00 am: VHT Distribution of heavy duty vehicles at 12:00 am on a weekday

**d. Transit Buses**

- Weekday VHT Distributions (Table 4):
  - 6:00 – 9:00 am: Per WMATA's bus speed distribution of the AM peak period
  - 9:00 am–3:00 pm: Per WMATA's bus speed distribution of the off-peak period
  - 3:00 - 6:00 pm: Per WMATA's bus speed distribution of the PM peak period
  - 6:00pm-6:00 am: Per WMATA's bus speed distribution of the off-peak period

- Weekend VHT Distribution (Table 4):
  - All Day: Per WMATA's bus speed distribution of the off-peak period.

**ROAD TYPE DISTRIBUTION**

The Vehicle Miles of Travel (VMT) allocations by Vehicle Class Type and Facility Type was as follows:

1. Through post-model processing, VMT distributions by MOVES-compatible speed bins, by jurisdiction (i.e., county), and road type from the six travel markets were "condensed" to distributions by three key vehicle type categories as follows:

   - Passenger Vehicles (PVs) = SOV + HOV2 + HOV3+ + Airport Passenger Trips
   - Commercial Vehicles (CVs) = Commercial Vehicles
   - Heavy Duty Vehicles (HDVs) = Trucks

2. VMT percentages by the three key vehicle type categories were allocated to MOVES-compatible vehicle type categories as follows:

   - Passenger Vehicles (PVs): VMT percentages (by facility type) were applied to motorcycles, passenger cars and passenger trucks
   - Commercial Vehicles (CVs): VMT percentages (by facility type) were applied to light commercial trucks
   - Heavy Duty Vehicles (HDVs): VMT percentages (by facility type) were applied to single unit short haul and long haul trucks, and combination short and long haul trucks
   - Refuse Trucks and Motor Homes: MOVES default percentage values
   - School, Transit and Intercity Buses: Local network percentages from local data sources (i.e., local bus operators)

| Speed Bins | Speed Range | Bus Trip 1 | Bus Trip 2 | Bus Trip 3 | Bus Trip 4 | Bus Trip 5 | Bus Trip 6 | Bus Trip 7 | Bus Trip 8 | Bus Trip 9 | Bus Trip 10 | Bus Trip 11 | Weighted Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | speed < 2.5mph | 35.20% | 24.30% | 17.58% | 14.65% | 7.90% | 16.11% | 6.65% | 18.30% | 25.76% | 16.18% | 17.67% | **19.21%** |
| 2 | 2.5mph <= speed < 7.5mph | 10.87% | 11.57% | 6.45% | 11.04% | 29.89% | 20.20% | 44.83% | 11.01% | 9.68% | 6.49% | 9.12% | **14.39%** |
| 3 | 7.5mph <= speed < 12.5mph | 10.90% | 9.35% | 12.89% | 6.50% | 26.31% | 17.69% | 3.34% | 9.12% | 9.52% | 6.69% | 8.69% | **10.92%** |
| 4 | 12.5mph <= speed < 17.5mph | 8.81% | 9.18% | 8.59% | 9.45% | 6.00% | 11.13% | 23.76% | 10.12% | 9.98% | 8.46% | 10.32% | **10.37%** |
| 5 | 17.5mph <= speed <22.5mph | 5.01% | 10.15% | 5.18% | 14.04% | 3.04% | 5.94% | 4.09% | 10.36% | 7.57% | 9.74% | 12.02% | **8.30%** |
| 6 | 22.5mph <= speed < 27.5mph | 8.91% | 8.55% | 11.62% | 12.59% | 6.18% | 5.30% | 3.54% | 7.29% | 7.11% | 8.87% | 11.73% | **8.13%** |
| 7 | 27.5mph <= speed < 32.5mph | 8.79% | 7.97% | 14.36% | 11.28% | 5.86% | 13.33% | 6.35% | 9.43% | 5.37% | 10.06% | 10.20% | **9.41%** |
| 8 | 32.5mph <= speed < 37.5mph | 5.33% | 9.10% | 5.86% | 13.43% | 7.62% | 3.32% | 6.36% | 13.79% | 8.68% | 12.04% | 6.81% | **7.81%** |
| 9 | 37.5mph <= speed < 42.5mph | 3.43% | 6.89% | 8.69% | 7.02% | 4.80% | 3.76% | 1.07% | 7.94% | 9.79% | 13.81% | 8.16% | **7.22%** |
| 10 | 42.5mph <= speed < 47.5mph | 1.72% | 2.44% | 8.79% | 0.00% | 2.40% | 2.87% | 0.00% | 1.31% | 5.83% | 5.15% | 4.75% | **3.42%** |
| 11 | 47.5mph <= speed < 52.5mph | 0.68% | 0.00% | 0.00% | 0.00% | 0.00% | 0.36% | 0.00% | 0.67% | 0.31% | 2.27% | 0.36% | **0.59%** |
| 12 | 52.5mph <= speed < 57.5mph | 0.34% | 0.50% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.67% | 0.41% | 0.24% | 0.18% | **0.23%** |
| 13 | 57.5mph <= speed < 62.5mph | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | **0.00%** |
| 14 | 62.5mph <= speed < 67.5mph | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | **0.00%** |
| 15 | 67.5mph <= speed < 72.5mph | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | **0.00%** |
| 16 | 72.5mph <= speed | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | **0.00%** |

*Source: Fairfax Co., VA*

**Table 3–** VHT Distribution of School Buses (6:00 am – 6:00 pm)

| avgSpeedBinID | avgBinSpeed | avgSpeedBinDesc | 6:00AM-9:00AM | 3:00PM-6:00PM | 9:01AM-2:59PM/6:01PM-5:59AM |
|---|---|---|---|---|---|
| 1 | 2.5 | speed < 2.5mph | **9.94%** | **9.10%** | **7.92%** |
| 2 | 5 | 2.5mph <= speed < 7.5mph | **13.79%** | **18.95%** | **14.49%** |
| 3 | 10 | 7.5mph <= speed < 12.5mph | **34.07%** | **37.86%** | **31.36%** |
| 4 | 15 | 12.5mph <= speed < 17.5mph | **28.52%** | **23.97%** | **29.17%** |
| 5 | 20 | 17.5mph <= speed <22.5mph | **10.02%** | **5.92%** | **10.77%** |
| 6 | 25 | 22.5mph <= speed < 27.5mph | **1.88%** | **1.84%** | **3.91%** |
| 7 | 30 | 27.5mph <= speed < 32.5mph | **0.92%** | **0.85%** | **1.04%** |
| 8 | 35 | 32.5mph <= speed < 37.5mph | **0.34%** | **0.60%** | **0.72%** |
| 9 | 40 | 37.5mph <= speed < 42.5mph | **0.14%** | **0.50%** | **0.35%** |
| 10 | 45 | 42.5mph <= speed < 47.5mph | **0.05%** | **0.15%** | **0.15%** |
| 11 | 50 | 47.5mph <= speed < 52.5mph | **0.31%** | **0.28%** | **0.06%** |
| 12 | 55 | 52.5mph <= speed < 57.5mph | **0.00%** | **0.00%** | **0.06%** |
| 13 | 60 | 57.5mph <= speed < 62.5mph | **0.00%** | **0.00%** | **0.00%** |
| 14 | 65 | 62.5mph <= speed < 67.5mph | **0.00%** | **0.00%** | **0.00%** |
| 15 | 70 | 67.5mph <= speed < 72.5mph | **0.00%** | **0.00%** | **0.00%** |
| 16 | 75 | 72.5mph <= speed | **0.00%** | **0.00%** | **0.00%** |

*Source: Washington Metropolitan Area Transit Authority (WMATA)*

**Table 4**– VHT Distribution of Transit Buses

3. Urban versus Rural percentage split factors were subsequently applied to differentiate VMT allocations between urban and rural facilities. These factors varied by jurisdiction as they were based on the latest Highway Performance Monitoring System (HPMS) VMT data provided by the three state transportation agencies. Figure 2 graphically illustrates the process used to allocate VMT percentages by vehicle type class and road type in a format that is MOVES-compatible.

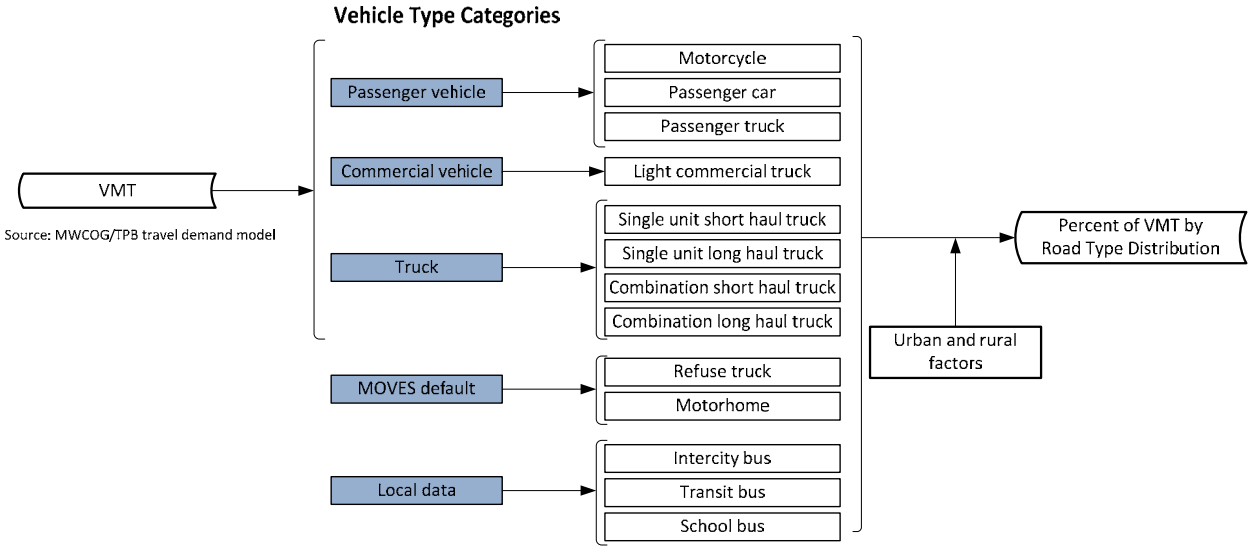


**Figure 2** – VMT Distribution Development Process

## SOURCE TYPE POPULATION

Vehicle population totals by jurisdiction for the analysis years were developed by extrapolating empirical data from the region from years 1975 through 2011. The method to project future year vehicle population totals by jurisdiction is a modified version of a previously used approach, which has been used for several years. Both methods are based on the statistical linear regression analysis, which draws the "best fitting" line among scattered data points. While the previous approach was based on five data sets from the 1975-1989 time period and derived future year projections using a fixed annual growth rate, the updated approach is based on a larger sample of data points, ten data sets spanning the 1975-2011 time period. Furthermore, the updated approach no longer derives future year projections based on a fixed annual growth rate. Instead, it derives projections directly from the linear regression equation.

The long-term advantages of the updated process are: (1) there are no fixed annual growth rates representative of a certain time period, which may become stale over time if they are not systematically monitored for relevance, and ultimately refreshed periodically; (2) with the infusion of new data – when they become available over time – the updated pool of data will continuously refresh the "best fitting" regression line for each jurisdiction, thus resulting in systematically updated future year vehicle population projections; (3) there is an inherently higher degree of confidence in the forecasts due to the stronger and broader foundation of data points.

The 2011 VIN vehicle population profile by jurisdiction – comprised of vehicle type and age distributions – was used as the "template" to develop future year vehicle population profiles. The vehicle type and age distributions were applied to the jurisdictional totals to derive the future year vehicle population profiles (Table 5).

| **SOURCE TYPE POPULATION FORECASTS<br>Jurisdictions in the Non-Attainment Area** | | | | | | |
|---|---|---|---|---|---|---|
| **State** | **Jurisdiction** | **Analysis Years** | | | | |
| | | **2015** | **2017** | **2025** | **2030** | **2040** |
| DC | District of Columbia | 294,342 | 301,618 | 330,723 | 348,914 | 385,295 |
| MD | Calvert Co. | 98,950 | 103,147 | 119,934 | 130,426 | 151,410 |
| | Charles Co. | 146,405 | 151,765 | 173,201 | 186,599 | 213,395 |
| | Frederick Co. | 243,781 | 252,659 | 288,170 | 310,364 | 354,753 |
| | Montgomery Co. | 783,222 | 802,436 | 879,293 | 927,328 | 1,023,398 |
| | Prince George's Co. | 635,586 | 646,610 | 690,706 | 718,266 | 773,386 |
| | **SUB TOTAL 1 - MD** | 1,907,945 | 1,956,617 | 2,151,304 | 2,272,983 | 2,516,342 |
| VA | City of Alexandria | 141,034 | 144,486 | 158,295 | 166,925 | 184,186 |
| | Arlington Co. | 152,012 | 154,420 | 164,054 | 170,075 | 182,116 |
| | Fairfax Co. | 974,175 | 1,003,096 | 1,118,784 | 1,191,089 | 1,335,698 |
| | Loudoun Co. | 266,765 | 279,994 | 332,907 | 365,979 | 432,121 |
| | Prince William Co. | 393,396 | 410,318 | 478,009 | 520,316 | 604,929 |
| | **SUB TOTAL 2 - VA** | 1,927,382 | 1,992,315 | 2,252,049 | 2,414,383 | 2,739,050 |
| **TOTAL** | | 4,129,669 | 4,250,550 | 4,734,076 | 5,036,280 | 5,640,687 |

**Table 5**– *Vehicle Population Forecasts (Source Type Population)*

The future year extrapolated population distributions by jurisdiction -- were converted to a MOVES-compatible format using the standard EPA-developed vehicle population mapping table. Figure 3 graphically illustrates the process.

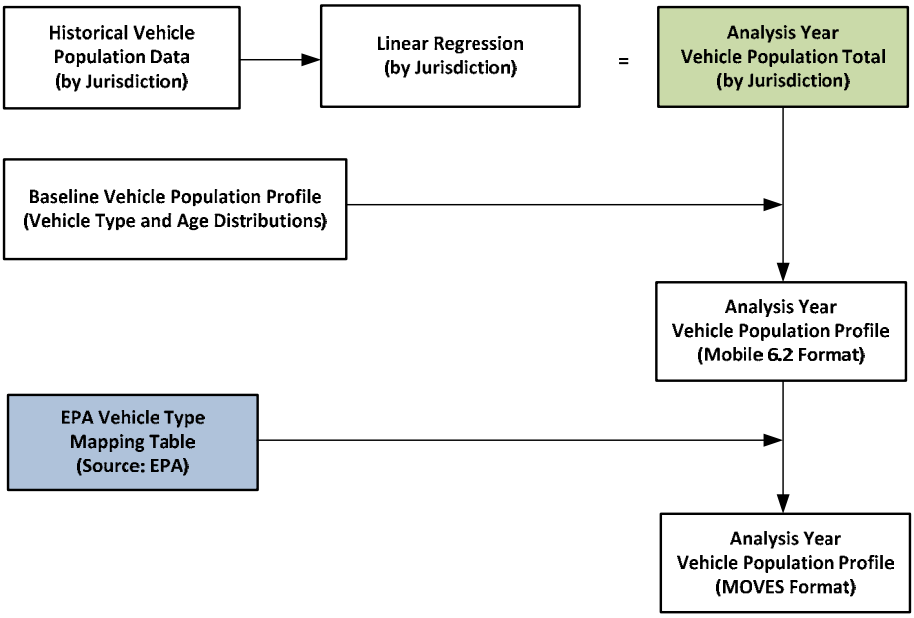


**Figure 3**– Source Type Population Development Process

**VEHICLE TYPE VMT**

MOVES requires annual VMT by 6 Highway Performance Monitoring System (HPMS) function-based vehicle types (10, 20, 30, 40, 50 and 60). Through post processing average annual weekday VMT estimates by three vehicle types: passenger vehicles, commercial vehicles and heavy duty vehicles are developed. Based on the local VMT percent by the 13 FHWA vehicle types, and the vehicle registration data, the average annual weekday VMT in three vehicle types through post processing and the local bus VMT estimates, VMT estimates are developed for the MOVES-required 6 HPMS vehicle types.

The average annual weekday VMT by six HPMS vehicle types is then fed into the EPA-provided annual VMT converter (AAD VMT Calculator HPMS.XLS) [(3)] with local monthly adjustment factors and weekend-day adjustment factors. The converter develops annual VMT in six HPMS vehicle types required as an input to MOVES with two additional outputs (i.e., 'monthVMTfraction' and 'dayVMTfraction'). The local "hourlyVMTfraction" is also provided as part of the annual VMT input**.**

**RAMP FRACTION**

Local data was used to estimate the local ramp fraction using a method approved by the MOVES Task Force. The locally-derived percentage is equal to 8 percent of VHT, the same as the MOVES default value.

**METEOROLOGY**

Meteorology data used in the conformity analysis vary by pollutant. For each pollutant they match the data used in the appropriate State Implementation Plan (SIP) or Maintenance Plan demonstrating attainment or maintenance of the national ambient air quality standard (NAAQS) for the pertinent pollutant. The meteorology data used are as follows:

- Ozone: Meteorology data from a 2007 Ozone attainment SIP (submitted to EPA in May 2007) for the 1997 ozone NAAQS. The data – while remained unchanged in content – they were reformatted from the original format -- Mobile6.2-compatible, the prevailing emissions estimating model in 2007 -- to MOVES-compatible format for this application[1].

- Fine Particles ($PM_{2.5}$): Meteorology data from a 2013 $PM_{2.5}$ Maintenance Plan (submitted to EPA in May 2013) for the 1997 annual $PM_{2.5}$ NAAQS. Since the original data was already in MOVES-compatible format, no further data conversion was necessary.

- Carbon Monoxide (CO): Meteorology data from a 1995 CO Maintenance Plan (submitted to EPA in September 1995) for the 1971 CO NAAQS. The 1995 database did not contain relative humidity percentages, which is a MOVES input requirement. Therefore, hourly relative humidity percentages were developed in consultations and oversight by MWAQC in a MOVES-compatible format in order to be used for conformity analyses purposes. The original temperature data – while remained unchanged in content – they were reformatted from the original format Mobile5a -- the prevailing emissions estimating model in 1995 -- to MOVES-compatible format for this application[1].

[1] Sunil Kumar, "Development of Meteorology Inputs for Existing Conformity Analyses (Ozone & PM2.5 – 1997 Standards, CO – 1971 Standard", July 20, 2013.

**FUEL SUPPLY & FORMULATION**

The state air agencies of the District of Columbia, the state of Maryland, and the Commonwealth of Virginia provided fuel characteristics data for the analysis years in a MOVES-compatible format.

For analysis year 2015, the gasoline sulfur content was 30 ppm or lower. For analysis year 2017 and beyond, the gasoline sulfur content used was 10 ppm, which is an assumption that is consistent with the 2014 Tier 3 rule of EPA. The 2013 CLRP air quality conformity analysis was based on the assumption of gasoline sulfur content of 30 ppm or lower for the analysis year 2015 and beyond.

**INSPECTION/MAINTENANCE (I/M) PROGRAMS**

The District of Columbia, Maryland, and Virginia provided details of I/M programs for all analysis years in MOVES2010a ready format.

In addition to the above inputs there are state-specific programs that were taken into account in the analyses:

**STATE SPECIFIC CONTROL PROGRAMS**

1. Early NLEV: The District of Columbia, Maryland, and Virginia adopted an Early NLEV program, which is reflected in all analysis years. Early NLEV input database file – early_NLEV

2. Stage II: Varies by jurisdiction as follows:
   - District of Columbia: 1999 onwards - Refueling vapor program adjustment- 0.9, Refueling spill program adjustment- 0.5 (MOVES2010a defaults)

   - Maryland: 1999 onwards - Refueling vapor program adjustment- 0.7, Refueling spill program adjustment- 0.7, MOVES2010a Stage II database file - md_stageii_yy

   - Virginia: 2015 onwards - Refueling vapor program adjustment- 0, Refueling spill program adjustment- 0, MOVES2010a Stage II database file - va_stage2_input_20140507

3. CAL-LEV II/ZEV Programs: Since 2011 Maryland adopted CAL-LEV II program and as such it is reflected in all analysis years. The following auxiliary files, provided by the Maryland Department of the Environment (MDE), were used to model these programs in the Maryland jurisdictions:

   MOVES2010a Cal-Lev II Database file - md_levii;
   MOVES2010a ZEV MS-Excel file - ZEV_AVFT_MD_2010a.xls

## APPENDIX SUPPLEMENT

**TABLE AS1** - Population Mapping from MOBILE6.2 Vehicle Types to MOVES Source Types

| MOBILE6.2 Vehicle | | MOVES Source Type | | |
|---|---|---|---|---|
| **ID** | **Name** | **ID** | **Name** | **Fraction** |
| 1 | LDGV | 21 | Passenger Car | 1.00 |
| 2 | LDGT1 | 31 | Passenger Truck | 0.78 |
| | | 32 | Light Commercial Truck | 0.22 |
| 3 | LDGT2 | 31 | Passenger Truck | 0.78 |
| | | 32 | Light Commercial Truck | 0.22 |
| 4 | LDGT3 | 31 | Passenger Truck | 0.78 |
| | | 32 | Light Commercial Truck | 0.22 |
| 5 | LDGT4 | 31 | Passenger Truck | 0.78 |
| | | 32 | Light Commercial Truck | 0.22 |
| 6 | HDGV2B | 31 | Passenger Truck | 0.63 |
| | | 32 | Light Commercial Truck | 0.37 |
| 7 | HDGV3 | 31 | Passenger Truck | 0.63 |
| | | 32 | Light Commercial Truck | 0.37 |
| 8 | HDGV4 | 31 | Passenger Truck | 0.06 |
| | | 32 | Light Commercial Truck | 0.94 |
| 9 | HDGV5 | 31 | Passenger Truck | 0.06 |
| | | 32 | Light Commercial Truck | 0.94 |
| 10 | HDGV6 | 43 | School Bus | 0.04 |
| | | 52 | Single Unit Short-haul Truck | 0.69 |
| | | 53 | Single Unit Long-haul Truck | 0.03 |
| | | 54 | Motor Home | 0.23 |
| | | 61 | Combination Short-haul Truck | 0.01 |
| 11 | HDGV7 | 43 | School Bus | 0.04 |
| | | 52 | Single Unit Short-haul Truck | 0.69 |
| | | 53 | Single Unit Long-haul Truck | 0.03 |
| | | 54 | Motor Home | 0.23 |
| | | 61 | Combination Short-haul Truck | 0.01 |
| 12 | HDGV8A | 52 | Single Unit Short-haul Truck | 0.90 |
| | | 53 | Single Unit Long-haul Truck | 0.08 |
| | | 61 | Combination Short-haul Truck | 0.02 |
| 13 | HDGV8B | 52 | Single Unit Short-haul Truck | 0.90 |
| | | 53 | Single Unit Long-haul Truck | 0.08 |
| | | 61 | Combination Short-haul Truck | 0.02 |
| 14 | LDDV | 21 | Passenger Car | 1.00 |

**TABLE AS1** - Population Mapping from MOBILE6.2 Vehicle Types to MOVES Source Types (continues)

| MOBILE6.2 Vehicle Type | | MOVES Source Type | | |
|---|---|---|---|---|
| ID | Name | ID | Name | Fraction |
| 15 | LDDT12 | 31 | Passenger Truck | 0.42 |
| | | 32 | Light Commercial Truck | 0.58 |
| 16 | HDDV2B | 31 | Passenger Truck | 0.43 |
| | | 32 | Light Commercial Truck | 0.57 |
| 17 | HDDV3 | 31 | Passenger Truck | 0.43 |
| | | 32 | Light Commercial Truck | 0.57 |
| 18 | HDDV4 | 31 | Passenger Truck | 0.10 |
| | | 32 | Light Commercial Truck | 0.90 |
| 19 | HDDV5 | 31 | Passenger Truck | 0.10 |
| | | 32 | Light Commercial Truck | 0.90 |
| 20 | HDDV6 | 51 | Refuse Truck | 0.01 |
| | | 52 | Single Unit Short-haul Truck | 0.72 |
| | | 53 | Single Unit Long-haul Truck | 0.06 |
| | | 54 | Motor Home | 0.07 |
| | | 61 | Combination Short-haul Truck | 0.11 |
| | | 62 | Combination Long-haul Truck | 0.03 |
| 21 | HDDV7 | 51 | Refuse Truck | 0.01 |
| | | 52 | Single Unit Short-haul Truck | 0.72 |
| | | 53 | Single Unit Long-haul Truck | 0.06 |
| | | 54 | Motor Home | 0.07 |
| | | 61 | Combination Short-haul Truck | 0.11 |
| | | 62 | Combination Long-haul Truck | 0.03 |
| 22 | HDDV8A | 51 | Refuse Truck | 0.02 |
| | | 52 | Single Unit Short-haul Truck | 0.30 |
| | | 53 | Single Unit Long-haul Truck | 0.02 |
| | | 61 | Combination Short-haul Truck | 0.35 |
| | | 62 | Combination Long-haul Truck | 0.31 |
| 23 | HDDV8B | 51 | Refuse Truck | 0.02 |
| | | 52 | Single Unit Short-haul Truck | 0.30 |
| | | 53 | Single Unit Long-haul Truck | 0.02 |
| | | 61 | Combination Short-haul Truck | 0.35 |
| | | 62 | Combination Long-haul Truck | 0.31 |
| 24 | MC | 11 | Motorcycle | 1.00 |
| 25 | HDGB | 43 | School Bus | 1.00 |
| 26 | HDDBT | 41 | Intercity Bus | 0.62 |
| | | 42 | Transit Bus | 0.38 |
| 27 | HDDBS | 43 | School Bus | 1.00 |
| 28 | LDDT34 | 31 | Passenger Truck | 0.42 |
| | | 32 | Light Commercial Truck | 0.58 |

# APPENDIX E

## TERMS

## Transportation Emission Reduction Measures

# TRANSPORTATION EMISSIONS REDUCTION MEASURES (TERMs) ANALYSIS

**for the**
**2014 CLRP and FY2015-2020 TIP**

# TECHNICAL DOCUMENTATION

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**BACKGROUND**

Mobile emissions reductions were estimated from four categories of TERMs as follows:

a. MWCOG/TPB Commuter Connections Program: It has been the cornerstone program for regional travel demand management (TDM) and emissions reductions since its inception in 1999. Its service area has expanded considerably since its early days in 1999, and it now serves a vast geographical area that extends beyond the TPB modeled area. It is also a legacy program, which is subjected to a rigorous performance review process. As a result, it maintains a data inventory that was used in this analysis.

b. Regional Incident Management Program (MATOC): The Metropolitan Area Transportation Operations Coordination is a regional umbrella organization, and a clearance house of real-time information sharing when significant incidents occur in order for traffic congestion and secondary accidents to be mitigated.

c. Pedestrian Facilities Expansions & Enhancements: The FY2015-2020 Transportation Improvement Program (TIP) contains a number of pedestrian facilities expansions and enhancements (i.e., trails, bike paths and bikeways, and sidewalks). They were used as a TERM since they can contribute to mobile emissions reductions by enticing travelers to switch from driving to walking or biking.

d. Informal Carpooling Lots: "Slugging" is local phenomenon and a widespread practice of free forming carpools among commuters aiming to save travel time by traveling on the HOV lanes during peak commuting periods, and to reduce travel costs. They were used as a TERM since they can contribute to mobile emissions reductions by reducing single-occupancy driving.

**The emissions reductions from the above TERMs were not used for meeting conformity of the 2014 CLRP and FY2015-2020 TIP because it was not necessary in order to be in conformity.**

**EMISSIONS REDUCTIONS FROM THE MWCOG/TPB COMMUTER CONNECTIONS PROGRAM**

The program comprises of four activities: (1) Telework; (2) Guaranteed Ride Home; (3) Employer Outreach; and (4) Mass Marketing. Supplemental services have been provided over time, and they were accounted for as elements of one core activity or another. Such internal accounting shifts did not alter the overall effectiveness of the program in terms of reducing VMT, which was the variable used in the TERMs analysis.

The program undergoes triennial audits to assess its effectiveness in reducing vehicle trips and mobile emissions[1]. The self-reported daily VMT reduction estimates from five audited periods are shown in Table 1. These historic estimates were used for developing daily VMT reductions for the conformity analysis years (Table 2). It should be noted that only the incremental VMT reductions above and beyond year 2007/2008 levels were used in the TERMs analysis. This is because the latest travel demand model (Version 2.3.57) was calibrated using a 2007/2008 Household Travel Survey. As such, travel behavior prior to 2007/2008 was assumed as already "embedded" in the travel demand model.

| **HISTORIC VMT REDUCTIONS - COMMUTER CONNECTIONS (Average Weekday)** | | | | | |
|---|---|---|---|---|---|
| | **Audited Periods** [1] | | | | |
| | **Audit #1** | **Audit #2** | **Audit #3** | **Audit #4** | **Audit #5** |
| **Telework Resource Center** | 606,908 | 279,692 | 226,913 | 413,703 | 241,834 |
| **Guaranteed Ride Home** | 13,069 | 202,058 | 334,088 | 227,428 | 208,346 |
| **Expanded Telecommuting** | 0 | 0 | 36,859 | 0 | 0 |
| **Integrated Rideshare** | 6,977 | 117,940 | 146,612 | 199.079 | 51,589 |
| **Employer Outreach** | 90,000 | 1,107,698 | 1,339,818 | 968,047 | 1,656,726 |
| **Employer Outreach– Bicycling** | 0 | 1,225 | 3,431 | 0 | 0 |
| **Mass Marketing** | 0 | 0 | 132,861 | 69,274 | 78,297 |
| **Commuter Operations Center** | 0 | 0 | 279,055 | 575,237 | 180,409 |
| **TOTAL** | **716,964** | **1,708,613** | **2,499,637** | **2,453,895** | **2,418,264** |

***Table 1***– *Historic VMT Reductions (Commuter Connections)*

[1] *"Transportation Emission Measure (TERM) Analysis Report", which has been published in September 1999 (Audit #1 of the FY1997-FY1999 period), March 2003 (Audit#2 of the FY2000-FY2002 period), January 2006 (Audit#3 of the FY2003-FY2005 period), January 2009 (Audit#4 of the FY2006-FY2008 period), and January 2012 (Audit#5t of the FY2009-FY2011 period).*

| FORECASTED VMT REDUCTIONS - COMMUTER CONNECTIONS | | | |
|---|---|---|---|
| **Years** | **Ozone (VOC and $NO_x$)** | **$PM_{2.5}$ Direct and Precursor $NO_x$** | **Winter CO** |
| | VMT/day | VMT/year | VMT/day |
| **2015** | 59,592 | 14,897,973 | 59,592 |
| **2017** | 108,600 | 27,150,081 | 108,600 |
| **2025** | 314,378 | 78,594,487 | 314,378 |
| **2030** | 451,298 | 112,824,603 | 451,298 |
| **2040** | 745,791 | 186,447,702 | 745,791 |

***Table 2***– *Forecasted VMT Reductions (Commuter Connections)*

Mobile emissions rates (Table 3) were derived as follows: (1) mobile emissions by pollutant and analysis year attributable only to passenger cars and light duty trucks vehicle types were segregated from the overall mobile emissions; (2) they were subsequently divided by the appropriate daily VMT totals by pollutant and analysis year (Table 2). Heavy duty vehicles were excluded because the Commuter Connections Program operates only light-duty vehicles. The product of VMT * Emissions Rates yielded the emissions reduction estimates from Commuter Connections (Table 4).

| MOBILE EMISSIONS RATES - COMMUTER CONNECTIONS (gr/mile) | | | | | |
|---|---|---|---|---|---|
| **Years** | **Ozone - VOC** | **Ozone - NOx** | **$PM_{2.5}$ Direct** | **Precursor NOx** | **Winter CO** |
| **2015** | 0.344 | 0.501 | 0.022 | 0.523 | 6.750 |
| **2017** | 0.287 | 0.373 | 0.021 | 0.387 | 5.530 |
| **2025** | 0.214 | 0.225 | 0.019 | 0.236 | 4.569 |
| **2030** | 0.191 | 0.196 | 0.019 | 0.207 | 4.425 |
| **2040** | 0.195 | 0.190 | 0.019 | 0.201 | 4.482 |

***Table 3***– *Mobile Emissions Rates (Commuter Connections)*

| MOBILE EMISSIONS REDUCTIONS – COMMUTER CONNECTIONS | | | | | |
|---|---|---|---|---|---|
| **Years** | **Ozone - VOC** | **Ozone - NOx** | **$PM_{2.5}$ Direct** | **Precursor NOx** | **Winter CO** |
| | (tons/day) | | (tons/year) | | (tons/day) |
| **2015** | 0.023 | 0.033 | 0.355 | 8.583 | 0.443 |
| **2017** | 0.034 | 0.045 | 0.619 | 11.572 | 0.662 |
| **2025** | 0.074 | 0.078 | 1.636 | 20.412 | 1.583 |
| **2030** | 0.095 | 0.098 | 2.327 | 25.782 | 2.201 |
| **2040** | 0.160 | 0.156 | 3.893 | 41.343 | 3.684 |

***Table 4***– *Mobile Emissions Reductions (Commuter Connections)*

**EMISSIONS REDUCTIONS FROM THE REGIONAL INCIDENT MANAGEMENT PROGRAM**

The Metropolitan Area Transportation Operations Coordination (MATOC) Program – a jointly funded program by the state of Maryland, the District of Columbia, and the Commonwealth of Virginia -- monitors, gathers and communicates timely incident information so that transportation agencies may better coordinate their respective response activities in order to reduce travel delay, fuel consumption and better inform the public. The information allows travelers to make informed travel decisions by deferring/delaying trip making, taking an alternate route, or switching modes of travel.

Mobile emissions reductions from the MATOC program were derived based from VMT savings that can be realized by avoiding the queue that forms after an incident occurrence. The emissions reductions were based on the VMT differential between two hypothetical scenarios: "without MATOC" and "with MATOC" scenarios. A customized methodology was developed especially for this analysis, which is based on based on published data[2], conservative assumptions, and it is assumption-driven. As such, the resulting emissions reductions reflect the assumptions made, which are as follows:

- Fairfax County (VA) was selected as a representative jurisdiction of the National Capital region for having a balanced mix of restricted-access facilities (i.e., highways and expressways) and unrestricted-access facilities ( i.e., arterials, collectors, locals)
- Travel speeds in a typical queue after an highway/expressway incident were in the 12.5 - 17.5 mph range (i.e., 4$^{th}$ MOVES Speed Bin)
- "…..MATOC is typically involved in approximately 20 minor incidents and one major freeway, arterial or transit incident of regional significance per month…."[2] .

<u>Customized Methodology:</u>

- *Speed Specific Emission Rates Development*: An adjustment factor -- $\mathrm{Rate_{adj}}$ -- was developed to align the mobile emission rates developed as part of the conformity assessment in MOVES Inventory Approach, which are not speed sensitive, with low speed ranges (i.e., 12,5-17.5 mph), which are typical at the queue behind incident occurrences.

$$\mathrm{Rate_{adj}} = \frac{\mathrm{P\_Rate_e}}{\mathrm{P\_Rate_i}}$$

  Where:

[2] *MATOC Benefit-Cost Analysis White Paper", June 2010 authored by Sabra, Wang & Associates, Inc., on behalf of MWCOG and under the guidance of the MATOC Steering Committee.*

$P\_Rate_e$ (grams per mile): was derived using MOVES in Rate Approach for Fairfax County, for year 2015 based on the 2012 CLRP Air Quality Conformity Assessment, and applicable to the 4th MOVES Speed Bin (i.e., 12.5-17.5 mph)

$P\_Rate_i$ (grams per mile) was derived using MOVES in Inventory Approach for Fairfax County, for year 2015 based on the 2012 CLRP Air Quality Conformity Assessment as follows:

$$P\_Rate_i = \frac{\text{Total Emissions FFX Co., 2012 CLRP, Yr 2015}}{\text{Total VMT FFX Co., 2012 CLRP, Yr 2015}}$$

For Ozone (VOC and NOx) daily emissions the corresponding rate was 1.30.

- *Regional Emission Rates Development*: The Total Emissions in the Region (by pollutant and analysis year) were divided by the corresponding VMTs from the 2014 CLRP Air Quality Conformity Analyses, as follows:

$$\text{Rate}_i \text{ (grams per mile)} = \frac{\text{Total Regional Emissions, by Analysis Year, 2014 CLRP AQC}}{\text{Total Regional VMT, by Analysis Year, 2014 CLRP AQC}}$$

- *Mobile Emissions Savings Development (attributable to MATOC):*

$$\text{Emissions Savings (grams per mile)} = \text{Queue VMT Savings} * \text{Rate}_i * \text{Rate}_{adj}$$

Major Incident Queue VMT Savings = 452,120 (vehicle miles) [2]
Minor Incident Queue VMT Savings = 19,040 (vehicle miles) [2]

Daily Emissions Savings (grams per mile) by Pollutant:
1/30 (1 major incident per month) * Emissions Savings from Major Incident +
20/30 (20 minor incidents per month) * Emissions Saving from Minor Incident [2]

Annual Emissions Savings (grams per mile) by Pollutant:
12 (1 major incident per month) X Emissions Savings from Major Incident + 240 (20 minor incidents per month) X Emissions Savings from Minor Incident [2]

| MOBILE EMISSIONS RATES – REGIONAL INCIDENT MGMT PROGRAM (gr/mile) | | | | | |
|---|---|---|---|---|---|
| **Years** | **Ozone - VOC** | **Ozone - NOx** | **$PM_{2.5}$ Direct** | **Precursor NOx** | **Winter CO** |
| **2015** | 0.493 | 1.111 | 0.038 | 0.921 | 6.900 |
| **2017** | 0.412 | 0.853 | 0.033 | 0.708 | 5.671 |
| **2025** | 0.305 | 0.504 | 0.023 | 0.423 | 4.696 |
| **2030** | 0.273 | 0.443 | 0.022 | 0.375 | 4.544 |
| **2040** | 0.277 | 0.424 | 0.021 | 0.360 | 4.595 |

***Table 5****– Mobile Emissions Rates (Regional Incident Management Program)*

| EMISSIONS REDUCTIONS – REGIONAL INCIDENT MGMT PROGRAM | | | | | |
|---|---|---|---|---|---|
| **Years** | **Ozone - VOC** | **Ozone - NOx** | **$PM_{2.5}$ Direct** | **Precursor NOx** | **Winter CO** |
| | (tons/day) | | (tons/year) | | (tons/day) |
| 2015 | 0.015 | 0.034 | 0.424 | 10.146 | 0.211 |
| 2017 | 0.013 | 0.026 | 0.366 | 7.798 | 0.174 |
| 2025 | 0.009 | 0.015 | 0.256 | 4.666 | 0.144 |
| 2030 | 0.008 | 0.014 | 0.241 | 4.133 | 0.139 |
| 2040 | 0.008 | 0.013 | 0.235 | 3.965 | 0.141 |

***Table 6****– Mobile Emissions Reductions (Regional Incident Management Program)*

**EMISSIONS REDUCTIONS FROM THE PEDESTRIAN FACILITIES EXPANSIONS & ENHANCEMENTS**

A customized methodology was developed to generate mobile emissions reductions from VMT savings realized from travelers choosing a non-motorized mode of travel instead of driving. It is assumption-driven[3], and the resulting emissions reductions are dependent on the assumptions made, which are as follows:

- Facility construction/expansions/enhancements were post-2007/2008
- Baseline Year 2010 Pedestrian Facilities Length = 634 miles[4]. VMT estimates were based only on Home-Based-Work (HBW) trips from the regional travel demand model
- Average Trip Length (ATL) = 3 miles[5]
- Non-motorized HBW trips percentage = 3% of the regional total HBW trips[6]

Customized Methodology:

- *Baseline (Year 2010) VMT Reductions* from use of the pedestrian facilities as a function of non-motorized HBW trips percentage, HBW trips (regional total), and average trip length:

  *Baseline VMT Reductions = HBW Bike Trips % x HBW Trips x ATL*

  Where:
  HBW Bike Trips Percentage = 3%
  Average Weekday HBW Trips (Year 2010) = 3,659,233
  Average Trip Length (ATL) = 3.0 miles

- *Baseline (Year 2010) VMT reductions per mile* as follows:

  *VMT Reductions/mile = Baseline VMT Reductions/Baseline Length of Ped. Facilities*

  Where:
  Baseline VMT Reductions = 0.03 x 3,659,233 x 3.0 = 329,330.97
  Baseline (Year 2010 Regional Total) Pedestrian Facilities Length = 634 miles
  VMT Reductions (per mile) = 329,330.97/634 = 519.45

- *Forecasting of VMT Reductions/mile,* based on the mileage of new or expanded pedestrian facilities included in the 2014 CLRP & FY2015-2020 TIP beyond 2007/2008 according to their forecasted completion years. Facilities without adequate numerical information to allow

[3] *Caltrans/Air Resources Board analysis, dated December, 1995, which was developed by COMSIS Corporation, for FHWA & FTA, and which was previously used by MWCOG/DTP staff for TERMs analyses starting in 1993.*
[4] *"2010 Bicycle and Pedestrian Plan for the National Capital Region* Report*", TPB, October 2010*
[5] *2012 TPB Geographically Focused Household Travel Survey)*
[6] *2010 TPB State of the Commute Report, June 2011*

computations were omitted. For projects without a stated completion year, it was assumed that they would be completed when the funding was programed. Consistent with the above, the following pedestrian facilities expansions were assumed:

Year 2015: 6.27 lane miles
Year 2017: 46.85 lane miles
Year 2025 - 2040: 58.25 lane miles

Future VMT reductions (average weekday) due to the above lane mile additions:
Year 2015: 6.27 miles x 519.45 = 3,257 vehicle miles
Year 2017: 46.85 miles x 519.45 = 24,336 vehicle miles
Year 2025 - 2040: 58.25 miles x 519.45 = 30,258 vehicle miles

The emissions rates used in the Commuter Connections calculations (Table 3) were multiplied by the above VMT reductions by milestone year to yield mobile emission reductions (Table 7).

| **EMISSIONS REDUCTIONS - PEDESTRIAN FACILITIES EXPANSIONS** | | | | | |
|---|---|---|---|---|---|
| **Years** | **Ozone - VOC** | **Ozone - NOx** | **$PM_{2.5}$ Direct** | **Precursor NOx** | **Winter CO** |
| | (tons/day) | | (tons/year) | | (tons/day) |
| **2015** | 0.001 | 0.002 | 0.019 | 0.469 | 0.024 |
| **2017** | 0.008 | 0.010 | 0.139 | 2.593 | 0.148 |
| **2025** | 0.007 | 0.007 | 0.157 | 1.965 | 0.152 |
| **2030** | 0.006 | 0.007 | 0.156 | 1.729 | 0.148 |
| **2040** | 0.007 | 0.006 | 0.158 | 1.677 | 0.149 |

***Table 7***– *Mobile Emissions Reductions (Pedestrian Facilities)*

**EMISSIONS REDUCTIONS FROM INFORMAL CARPOOLING LOTS**

"Slugging" is a widespread phenomenon in the National Capital region, born out of a need to capitalize on the availability of HOV lanes during the peak commuting periods, and to save time and money. Several unofficial Park & Ride lots throughout the region exist for this purpose and their location and functions are spread through word-of-mouth. Over time, commuters have been gathering at such facilities to build informal carpools and vanpools.

Park & Ride lots without transit service were inventoried, and their capacities were obtained from several sources (e.g., the Commuter Connections Program, state departments of transportation and local jurisdictions). They are listed in Table 8.

Average travel distance estimates (18.12 miles) from such facilities to Work were derived from the weighted average Home-Based-Work (HBW) trip purpose trip lengths of the Traffic Analysis Zones (TAZs) containing Slug Lots locations. The estimates were derived directly from the TPB regional travel demand model for year 2012. Furthermore, the following assumptions were made:

1. The TAZ containing each slug lot was considered as "home" of each HBW trip for this exercise because it is the origin of the "slugged" trip to work
2. The TAZ containing the work trip destination was considered as "work" of each HBW trip for this exercise, thus assuming the spatial distribution of destinations of slug lots trips as the overall HBW trips in the region
3. The slugged trips are made along the sshortest path during the am peak commuting period
4. The overall average slugged trip distance was calculated as the weighted average trip distances for each slug lot (thus taking into account the size/utilization of each lot in the computations)
5. TAZs 926 and 2728 were used as proxies for TAZs 925 and 2729 because there no household population data are associated with TAZs 925 and 2729 respectively; the proxy TAZs are abutting to the original ones, thus not affecting the resulting average slugged trip distances in a meaningful way
6. Average trip length calculations are based on trip productions

According to the paper of "*Methods to find the Cost-Effectiveness of Funding Air Quality Projects, May 2005"* by Caltrans/Air Resources Board, a default 16 miles is suggested as the Length of auto trips eliminated for Ridesharing programs.

According to the paper of *"Reasonably Available Control Measure (RACM) Analysis for the Baltimore Region, July 2001"* by MDE, an estimated 13 miles were reduced (one way travel) by

people who rideshare in Guaranteed Ride Home Program based on BMC Travel Demand Model Validation Report. The resulting weighted average distance of 18.12 miles (Table 8) calculated based on local data is within range of the average distances reported by the other sources.

| SLUG LOTS SUMMARIES | TAZ ID | 2013 Parking Spaces | Average HBW Trip length (miles) |
|---|---|---|---|
| Beltway (I95 south of I495) | 925 (926) | 265 | 11.6 |
| Autumn Willow Park | 1654 | 105 | 14.4 |
| AMF Centreville Lanes | 1658 | 31 | 15.9 |
| Greenbriar Park | 1665 | 60 | 12.9 |
| Apple Federal Credit Union | 2039 | 12 | 13 |
| Potomac Station | 2263 | 50 | 17.6 |
| Crossroads United Methodist Church | 2302 | 90 | 18 |
| Ashburn Farm | 2303 | 20 | 17.6 |
| Broadlands | 2304 | 30 | 16.9 |
| Ashburn Village | 2340 | 40 | 17.8 |
| Sterling Park Shopping Center | 2375 | 46 | 13.9 |
| Harbor Drive | 2668 | 183 | 16.7 |
| Prince William Stadium | 2678 | 190 | 18.2 |
| Princedale | 2712 | 75 | 22 |
| Montclair Commuter Lot | 2729(2728) | 49 | 22.2 |
| Good Shepherd United Methodist Church | 2732 | 58 | 17.9 |
| Cherrydale Road | 2732 | 30 | 17.9 |
| Bethel United Methodist Church | 2745 | 49 | 18.1 |
| Rosemont | 2820 | 44 | 29.5 |
| Jefferson | 2826 | 105 | 28.9 |
| Woodsboro | 2879 | 23 | 27.1 |
| New Market | 2888 | 54 | 26.9 |
| Urbana (North Lot) | 2899 | 250 | 19.1 |
| Frederick Armory | 2914 | 125 | 16.3 |
| Frederick Stadium | 2934 | 112 | 17.9 |
| Mount Zion East | 2940 | 36 | 20.3 |
| Lusby | 3324 | 30 | 26 |
| **Weighted Average Trip Length (Lots to work)** | | | **18.12** |

***Table 8**–Informal Carpooling Lots (Capacity and Trip Length to Work)*

Average weekday VMT reductions were derived by multiplying the capacities of the lots – reduced by 1/3 to account for less-than-full lots – by average weekday travel distances to/from these lots. The capacity reduction assumption is consistent with WMATA observations (Washington Examiner article on March 19, 2013), earlier TPB TERMs analyses, and literature research from metropolitan areas in California.

Base Year 2013 lot capacities were kept constant for the analysis years because: (1) no reliable historic data was available to allow the development of trendlines; where such data was available, it was fragmented and deemed not reliable for extrapolation; (2) prospects for Park & Ride lot expansions were considered limited as most of these facilities are located in developed areas with limited additional developable land. As data become available, the zero growth assumption may be revisited and potentially changed. Based on these assumptions the average weekday VMT estimate was equal to 52234 miles. Using the emission rates of Table 3, the emission reductions from the informal carpooling lots were derived (Table 9).

| **REGIONAL EMISSIONS REDUCTIONS – INFORMAL CARPOOLING LOTS** | | | | | |
|---|---|---|---|---|---|
| **Years** | **Ozone - VOC** | **Ozone - NOx** | **$PM_{2.5}$ Direct** | **Precursor NOx** | **Winter CO** |
| | (tons/day) | | (tons/year) | | (tons/day) |
| **2015** | 0.020 | 0.029 | 0.311 | 7.523 | 0.389 |
| **2017** | 0.017 | 0.021 | 0.297 | 5.566 | 0.318 |
| **2025** | 0.012 | 0.013 | 0.272 | 3.391 | 0.263 |
| **2030** | 0.011 | 0.011 | 0.269 | 2.984 | 0.255 |
| **2040** | 0.011 | 0.011 | 0.273 | 2.896 | 0.258 |

***Table 9****– Mobile Emissions Reductions from Informal Carpooling Lots*

| **REGIONAL EMISSIONS REDUCTIONS – ALL TERMs COMBINED** | | | | | |
|---|---|---|---|---|---|
| **Years** | **Ozone - VOC** | **Ozone - NOx** | **$PM_{2.5}$ Direct** | **Precursor NOx** | **Winter CO** |
| | (tons/day) | (tons/day) | (tons/year) | (tons/year) | (tons/day) |
| **2015** | 0.06 | 0.10 | 1.11 | 26.72 | 1.07 |
| **2017** | 0.07 | 0.10 | 1.42 | 27.53 | 1.30 |
| **2025** | 0.10 | 0.11 | 2.32 | 30.43 | 2.14 |
| **2030** | 0.12 | 0.13 | 2.99 | 34.63 | 2.74 |
| **2040** | 0.19 | 0.19 | 4.56 | 49.88 | 4.23 |

***Table 10****– Mobile Emissions Reductions (All TERMs Combined)*

# APPENDIX F

## Transportation Control Measures (TCMs) Implementation

**MEMORANDUM**

**September 11, 2014**

**To:** **Files**

**From:** **Jane Posey**
**Senior Transportation Engineer**

**Subject:** **TCM Reporting: All TCMs Completed**

The transportation conformity rule and the Clean Air Act require that Transportation Control Measures (TCMs) in approved State Implementation Plans (SIPs) be implemented in a timely manner according to the schedules in the SIP. If a nonattainment or maintenance area cannot determine that TCMs are meeting the timely implementation requirement, the Long Range Plan or Transportation Improvement Program does not conform.

Table F-1 lists all TCMs included in the Washington DC- Maryland-Virginia Region's 1-Hour Ozone SIP (adopted by the Metropolitan Washington Air Quality Committee-- MWAQC on 2/19/04), the 8-Hour Ozone SIP (adopted by MWAQC on 5/23/07), and the $PM_{2.5}$ SIP (adopted by MWAQC on 3/7/2008). Following the table are TCM implementation status letters from the agencies responsible for the completion of each project. These letters confirm that all of the TCM's in Table F-1 were completed in a timely manner.



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# TABLE F-1
# DC-MD-VA Region State Implementation Plan
# TRANSPORTATION CONTROL MEASURES (TCMs)

| ID | Description | Responsible Agency |
|---|---|---|
| | | |
| DC-1 | Bicycle Lane in D. C. (8 miles) | DDOT |
| DC-2 | New CNG Powered Trash Trucks (2 Vehicles) | DDOT |
| DC-3 | Bicycle Racks in D.C. (150 Racks) | DDOT |
| | | |
| MD-1 | Maryland Suburban Bus Replacements | MCG, PG |
| MD-2 | Transit Parking Facilities (at Lake Forest, Tulagi, Germantown) | MDOT |
| MD-3 | MARC Replacement/Expansion Coaches | MARC |
| MD-4 | Bicycle Facilities | MDOT |
| MD-5 | Park and Ride Facilities (at MD5/MD205, MD210/MD 373, I-270/MD 80) | MDOT |
| MD-6 | Grosvenor Metro Garage (1300 spaces) | MDOT |
| MD-7 | Maryland Park & Ride Lots ( at MD 210/MD 373, I-270/ MD 124, MD 2/MD 4, MD 231/ Fairgrounds, MD 117/I-270, MD 2/MD 4) | MDOT |
| | | |
| NV-1 | Northern Virginia Districtwide Park-And-Ride Spaces (1872 spaces) | VDOT |
| NV-2 | Transit Access Improvements (200 VRE Parking Spaces) | VDOT |
| NV-3 | Purchase Of New Transit Buses (52 WMATA buses) | VDOT |
| NV-4 | Improved Pedestrian Access | VDOT |
| NV-5 | Construction of Bus Shelters (12 shelters) | City of Fairfax |
| NV-6 | Park & Ride Spaces (3200 spaces) | VDOT |
| NV-7 | Bicycle Lanes/Trails in Northern Virginia (12 miles) | VDOT |
| NV-8 | Bicycle Lockers in Northern Virginia (100 lockers) | VDOT |
| NV-9 | Hybrid Light Duty Vehicles (25 vehicles) | Fairfax County |
| NV-10 | Bicycle Trails/Lanes in Northern Virginia (29 miles) | Arlington County<br>P.W. County |
| NV-11 | Sidewalk improvements in Northern Virginia (1.5 miles) | VDOT |
| NV-12 | 11 New CNG Buses in place of Diesel Buses | Arlington County |
| WM-1 | Bicycle Racks on Buses (1458 racks) | WMATA |
| WM-2 | ULSD; CRT Filters (886 buses) | WMATA |
| WM-3 | CNG Buses (164 buses) | WMATA |

NOTE: The projects in this list include all TCMs in the 1-Hour Ozone SIP (adopted by MWAQC 2/19/04), the 8-Hour Ozone SIP (adopted by MWAQC 5/23/07), and the $PM_{2.5}$ SIP (adopted by MWAQC on 3/7/2008).

**GOVERNMENT OF THE DISTRICT OF COLUMBIA**
**DEPARTMENT OF TRANSPORTATION**

**d. Policy, Planning and Sustainability Administration**

August 11, 2014

Mr. Kanti Srikanth, Director
Department of Transportation Planning
Metropolitan Washington Council of Governments
777 North Capitol Street, N.E., Suite 300
Washington, D.C. 20002-4239

RE: Confirmation of Transportation Control Measures (TCMs) Completion

Dear Mr. Srikanth:

The Transportation Control Measures (TCMs) commitments made by the District Department of Transportation (DDOT) as a part of a regional coordinated effort to mitigate ozone emissions from on-road mobile sources have been completed as demonstrated in pervious conformity determinations. The summary of the status remains unchanged in that all TCMs committed by DDOT have been completed. Listed below are the TCM projects in our jurisdiction, completion years, and reference to the provided documentation.

| ID | Description | Completion Year | Reference |
|---|---|---|---|
| DC-1 | Bicycle Lanes (8 miles) | 2004 | DDOT internal documents |
| DC-2 | CNG Powered Refuse Haulers (2) | 2004 | DDOT Letter 6/6/2004 |
| DC-3 | Bicycle Racks (150) | 2004 | DDOT Letter 6/6/2004 |

Should you have any questions, please contact Mark Rawlings at (202) 671-2234 or mark.rawlings@dc.gov.

Sincerely,

Sam Zimbabwe
Associate Director

**Maryland Department of Transportation**
**The Secretary's Office**

**Martin O'Malley**
Governor

**Anthony G. Brown**
Lt. Governor

**James T. Smith, Jr.**
Secretary

August 6, 2014

Mr. Gerald Miller
Co-Director of Transportation Planning (Acting)
Transportation Planning Board
Metropolitan Washington Council of Governments
777 N. Capitol Street, N.E., Suite 300
Washington, D.C. 20002-4239

Re: Confirmation of Transportation Control Measures (TCMs) Completion

Dear Mr. Miller,

The Transportation Control Measures (TCMs) commitments made by the Maryland Department of Transportation (MDOT) as part of a regional coordinated effort to mitigate ozone emissions from on-road mobile sources have been completed as demonstrated in previous conformity determinations. The summary of the status remains unchanged in that all of the TCMs that have been committed to by MDOT have been duly completed/implemented. Listed below are the TCM projects in our jurisdictional area, their completion years, and the reference to the documentation that had been provided:

| ID | Description | Completion Year | Reference |
|---|---|---|---|
| **MD-1** | Maryland Suburban Bus Replacements | 2003 | MDOT letter 7/29/2003 |
| **MD-2** | Transit Parking Facilities (@ Lake Forest, Tulagi, Germantown) | 2003 | MDOT letter 7/29/2003 |
| **MD-3** | MARC Replacement/Expansion Coaches | 2004 | MDOT letter 7/29/2003 |
| **MD-4** | Bicycle Facilities | 2003 | MDOT letter 7/29/2003 |
| **MD-5** | Park & Ride Facilities (@ MD5/MD205, MD210/MD373, I-270/MD80 | 2003 | MDOT letter 8/25/2004 |
| **MD-6** | Grosvenor Metro Garage (1,300 spaces) | 2004 | Montgomery County email 7/30/2004 |
| **MD-7** | Park & Ride Facilities (@ MD210/MD373, I-270/MD124, MD2/MD4, MD231/Fairgrounds, MD117/I-270, MD2/MD4) | 2001 | MDOT letter 9/3/2003 |

My telephone number is _____
Toll Free Number 1-888-713-1414 TTY Users Call Via MD Relay
7201 Corporate Center Drive, Hanover, Maryland 21076

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

Thank You,

Lyn Erickson, Manager
Office of Planning and Capital Programming

Attachment

cc: Mr. Donald A. Halligan, Director, Office of Planning and Capital Programming
Maryland Department of Transportation
Ms. Heather Murphy, Deputy Director, Office of Planning and Capital Programming
Maryland Department of Transportation
Michael W. Nixon, Manager, Office of Planning and Capital Programming
Maryland Department of Transportation
Mr. Howard Simons, Air Quality Specialist, Office of Planning and Capital Programming
Maryland Department of Transportation

# COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4975 Alliance Drive
Fairfax, VA 22030

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

August 21, 2014

Mr. Kanathur Srikanth
Director of Transportation Planning
Transportation Planning Board
Metropolitan Washington Council of Governments
777 N. Capitol Street, N.E., Suite 300
Washington, D.C. 20002-4239

Re: Confirmation of Transportation Control Measures (TCMs) Completion

Dear Mr. Srikanth,

The Transportation Control Measures (TCMs) commitments made by our agency as part of a regional coordinated effort to mitigate ozone emissions from on-road mobile sources have been completed in a timely manner and consistent with the agreed upon schedule. Listed below are the TCM projects in our jurisdictional area and their completion years:

| ID | Description | Completion Year |
|---|---|---|
| VA-1 | Northern Virginia Districtwide Park & Ride Facilities (1,872 Parking Spaces) | 1996-1999 |
| VA-2 | Transit Access Improvements (200 VRE Parking Spaces) | 1994 & 2002 |
| VA-3 | Purchase of New Transit Buses (52 WMATA Buses) | 1995-1996 |
| VA-4 | Improved Pedestrian Access | 2001-2004 |
| VA-5 | Construction of Bus Shelters (12 Shelters) | 2000-2004 |
| VA-6 | Park & Ride Facilities (3,200 Parking Spaces) | 2000-2002 |
| VA-7 | Northern Virginia Bicycle Lanes/Trails (12 miles) | 1999-2003 |
| VA-8 | Northern Virginia Bicycle Lockers (100 Lockers) | 1997-2002 |
| VA-9 | Hybrid light Duty Vehicles purchase (25 Vehicles) | 2002-2003 |
| VA-10 | Northern Virginia Bicycle Lanes/Trails (29 miles) | 2000-2003 |
| VA-11 | Northern Virginia Sidewalk Improvements (1.5 miles) | 2001-2003 |
| VA-12 | CNG Bus Replacements for Diesel Buses (11 Vehicles) | 2002-2003 |

Thank you for the TPB's cooperation assistance and cooperation. Please contact me if you need any additional information.

Sincerely,

Norman Whitaker, AICP
Transportation Planning Manager
C: Maria Sinner, P.E.

August 5, 2014

Mr. Gerald Miller
Co-Director of Transportation Planning (Acting)
Transportation Planning Board
Metropolitan Washington Council of Governments
777 N. Capitol Street, N.E., Suite 300
Washington, D.C. 20002-4239

Re: Confirmation of Transportation Control Measures (TCMs) Completion

Dear Mr. Miller,

The Transportation Control Measures (TCMs) commitments made by our agency as part of a regional coordinated effort to mitigate ozone emissions from on-road mobile sources have been completed in a timely manner and consistent with the agreed upon schedule. Listed below are the TCM projects in our jurisdictional area and their completion years:

| ID | Description | Completion Year |
|---|---|---|
| **WM-1** | Bicycle Racks on Buses (1,458 Racks) | 2004 |
| **WM-2** | Ultra Low Sulfur Diesel Fuel with CRT Filters (886 Buses) | 2004 |
| **WM-3** | CNG Buses Purchase (164 Buses) | 2004 |

Sincerely,

Shyam Kannan
Managing Director
Office of Planning

**Washington Metropolitan Area Transit Authority**

600 Fifth Street, NW
Washington, D.C. 20001
202/962-1234

*By Metrorail:*
*Judiciary Square-Red Line*
*Gallery Place-Chinatown*
*Red, Green and Yellow Lines*

*A District of Columbia Maryland and Virginia Transit Partnership*