`

BALTIMORE REGION
FY 2015 UNIFIED PLANNING WORK PROGRAM
FOR TRANSPORTATION PLANNING

APRIL 29, 2014

PREPARED FOR THE

BALTIMORE REGIONAL TRANSPORTATION BOARD

The designated Metropolitan Planning Organization for the Baltimore Region

The BRTB is staffed by the:

BALTIMORE METROPOLITAN COUNCIL

Offices @ McHenry Row

1500 Whetstone Way, Suite 300

Baltimore, MD 21230-4767

The Baltimore Regional Transportation Board operates its programs and services without regard to race, color, or national origin in accordance with Title VI of the Civil Rights Act of 1964, and other applicable laws.

Qualified individuals with disabilities or those in need of language assistance can receive appropriate services by submitting a request at least seven days prior to a meeting. Call 410-732-0500.

The U.S. Department of Transportation, (the Federal Highway Administration, and the Federal Transit Administration) and the Maryland Department of Transportation contributed funding towards the preparation of the FY 2015 Unified Planning Work Program.

BALTIMORE REGION
FY 2015 UNIFIED PLANNING WORK PROGRAM
FOR TRANSPORTATION PLANNING

The Honorable David Craig
Chairman
Baltimore Regional Transportation Board

Todd R. Lang
Director Transportation Planning
Baltimore Metropolitan Council

April 29, 2014

Produced under the auspices of the Baltimore Regional Transportation Board,
the Metropolitan Planning Organization for the Baltimore Region

Baltimore Metropolitan Council
Offices @ McHenry Row
1500 Whetstone Way, Suite 300
Baltimore, Maryland 21230-4767

BALTIMORE REGIONAL TRANSPORTATION BOARD

Members followed by Empowered Representatives

The Honorable Michael J. Pantelides, Mayor, City of Annapolis - BRTB Vice Chair
Ms. Sally Nash, Acting Director, Department of Planning & Zoning

The Honorable Laura Neuman, County Executive, Anne Arundel County
Mr. Harvey Gold, Senior Transportation Planner, Office of Planning & Zoning

The Honorable Stephanie Rawlings-Blake, Mayor, City of Baltimore
Mr. Charles Lattuca, Deputy Director, Department of Transportation

The Honorable Kevin Kamenetz, County Executive, Baltimore County
Mr. Emery Hines, Manager of Transportation Planning, Department of Public Works

The Honorable Haven Shoemaker, Board of Commissioners, Carroll County
Ms. Lynda Eisenberg, Chief, Bureau of Comprehensive Planning, Department of Land Use, Planning & Development

The Honorable David R. Craig, County Executive, Harford County – BRTB Chair
Mr. Anthony McClune, Assistant Director, Department of Planning & Zoning

The Honorable Ken Ulman, County Executive, Howard County
Mr. John Powell, Administrator, Office of Transportation

The Honorable James T. Smith, Secretary, Maryland Department of Transportation
Mr. Don Halligan, Director, Office of Planning & Capital Programming

The Honorable Robert Summers, Ph.D., Secretary, Maryland Department of the Environment *
Ms. Diane Franks, Manager, Air Quality Planning Program

The Honorable Richard E. Hall, Secretary, Maryland Department of Planning *
Ms. Bihui Xu, Planner, Office of Smart Growth

Mr. Robert L. Smith, Administrator, Maryland Transit Administration *
Mr. Arnold "Pat" Keller, Deputy Chief Administrative Officer, Statewide Service Development

***** Denotes non-voting members

Table of Contents

I. INTRODUCTION 5
II. PROGRAM MANAGEMENT & COORDINATION 23
PROJECT: UPWP MANAGEMENT 25
PROJECT: PUBLIC PARTICIPATION AND COMMUNITY OUTREACH 27
PROJECT: PROFESSIONAL CONSULTANT SERVICES 29
III. LONG-RANGE TRANSPORTATION PLANNING - SYSTEM LEVEL 31
TASK: LONG-RANGE PLANNING 33
TASK: OPPORTUNITY PLANNING 35
TASK: CONGESTION MANAGEMENT PROCESS 37
TASK: OPERATIONS PLANNING 38
TASK: SAFETY PLANNING AND ANALYSIS 40
TASK: BICYCLE AND PEDESTRIAN PLANNING 42
TASK: FREIGHT MOBILITY PLANNING 43
TASK: TRANSIT AND HUMAN SERVICE TRANSPORTATION COORDINATION 44
TASK: EMERGENCY PREPAREDNESS PLANNING 46
TASK: TRANSPORTATION EQUITY PLANNING 48
IV. DATA DEVELOPMENT AND MODEL ENHANCEMENTS 49
PROJECT: DATA COLLECTION 51
TASK: DEVELOPMENT MONITORING 51
TASK: MONITORING SYSTEM PERFORMANCE AND RELIABILITY 53
TASK: DATABASES AND TRAVEL SURVEYS 55
PROJECT: DATA DEVELOPMENT AND ANALYSIS 56
TASK: GIS ACTIVITIES 56
TASK: DEMOGRAPHIC AND SOCIOECONOMIC FORECASTING 58
TASK: ANALYSIS OF REGIONAL DATA AND TRENDS 59
TASK: TECHNICAL ANALYSIS IN SUPPORT OF STATE INITIATIVES 61
PROJECT: REGION'S TRAVEL SIMULATION TOOLS 63
TASK: CURRENT SIMULATION TOOLS 63
TASK: EXPANDING THE REGION'S TOOLSET 65

V. SHORT-RANGE TRANSPORTATION PLANNING 67
PROJECT: TRANSPORTATION IMPROVEMENT PROGRAM 69
VI. ENVIRONMENTAL PLANNING 71
TASK: ENVIRONMENTAL PLANNING 73
TASK: AIR QUALITY CONFORMITY ANALYSIS 75
VII. APPENDIX A – FY 2015 BUDGET DETAILS 77
VIII. APPENDIX B – LOCAL PARTICIPANTS CORE AND SUBAREA PROJECTS 90
ANNE ARUNDEL COUNTY 91
BALTIMORE CITY 99
BALTIMORE COUNTY 100
CARROLL COUNTY 101
HARFORD COUNTY 103
HOWARD COUNTY 104
IX. APPENDIX C – PUBLIC REVIEW PROCESS 106
X. APPENDIX D – ADDITIONAL PLANNING STUDIES 116
XI. APPENDIX E – LIST OF ACRONYMS 120

INTRODUCTION

THIS PAGE LEFT BLANK INTENTIONALLY

Unified Planning Work Program Development Process

The Fiscal Year (FY) 2015 Unified Planning Work Program (UPWP) outlines the planning activities to be performed by all state, regional, and local participants involved in the Baltimore metropolitan transportation planning process. It defines the regionally agreed upon planning priorities and the roles and responsibilities of the various participants in this process.

The work program reflects a careful consideration of critical transportation issues currently facing the region, as well as the analytical capabilities necessary to address them. The UPWP is required as a basis and condition for all federal funding assistance for transportation planning by the joint planning regulations of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

It is through the FY 2015 UPWP, as well as previous UPWP initiatives, that the Baltimore Regional Transportation Board (BRTB) acting as the designated metropolitan planning organization (MPO) will address and support the short-term and long-range transportation planning priorities of the Baltimore metropolitan area. In November 2011, the BRTB approved *Plan It 2035*, the current long-range regional transportation plan that guides the region's short- term and long-term multimodal investments. The BRTB is now focusing on implementation of that Plan and development of the next regional long range plan due in 2015. This UPWP includes studies and programs to that end.

The UPWP is funded through an 80 percent planning grant provided by FHWA and FTA and a 20 percent match provided by Maryland Department of Transportation (MDOT) and the local governments of the Baltimore metropolitan planning area. Federal funding sources include Title 1, Section 112 metropolitan planning funds (Federal Highway Act (PL-93-87)) and Title III, Section 5303 metropolitan planning funds. The total funding proposed for the FY 2015 transportation planning activities for the Baltimore region is $6,545,080.

The UPWP is developed annually beginning in December and approved in March or April, and is the result of continued cooperation among State (specifically transportation, air quality and planning agencies), local and regional entities. The FY 2015 UPWP was prepared with the involvement of these organizations, acting through the BRTB and its subcommittee structure. The work tasks delineated in the UPWP are performed primarily by staff working in the Transportation Planning Division of the Baltimore Metropolitan Council (BMC), with limited support provided by other functioning units within the BMC. Specific elements of the UPWP, at times, are contracted out to consultants in accordance with the work program project descriptions and the budget. Some UPWP funds are also "passed through" to local jurisdiction members of the BRTB for specific transportation planning studies that support the regional transportation planning process.

Metropolitan Planning Area

At a minimum, a Metropolitan Planning Area (MPA) must cover the urbanized area and contiguous geographic areas likely to become urbanized within the next 20 years. The Baltimore MPA consists of Baltimore City as well as Anne Arundel, Baltimore, Carroll, Harford, Howard and portions of Queen Anne's counties (see **Figure 1** for the geographic location of each participating local jurisdiction). The planning area is part of the 2010 U.S. Census Bureau's Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA), containing the Baltimore Urbanized Area, the Aberdeen-Havre De Grace-Bel Air Urbanized Area, the Westminster Urbanized area, and a portion of Queen Anne's County. Also included within the Baltimore

region are thirteen smaller incorporated municipalities. The renamed Baltimore-Towson metropolitan area (excluding Queen Anne's County) has also been designated by the Environmental Protection Agency (EPA) as a "moderate" non-attainment area for the 8- hour ozone standard and a non-attainment area for fine particulate matter ($PM_{2.5}$). The entire non- attainment area is in the northern portion of the 2010 U.S. Census Bureau designated Washington-Baltimore-Northern Virginia, DC-MD-VA-WV Combined Statistical Area (CSA).

Public Input into the UPWP

In keeping with the proactive public involvement spirit of the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141) (MAP-21), the FY 2015 UPWP is being released to the public for a 30-day review and comment opportunity. Full public access, disclosure, and modification based on the reasonableness of the public response should expand the comprehensiveness and user- friendliness of the final FY 2015 UPWP. Information on the public review process including outreach is included in Appendix C of this document.

Metropolitan Transportation Planning

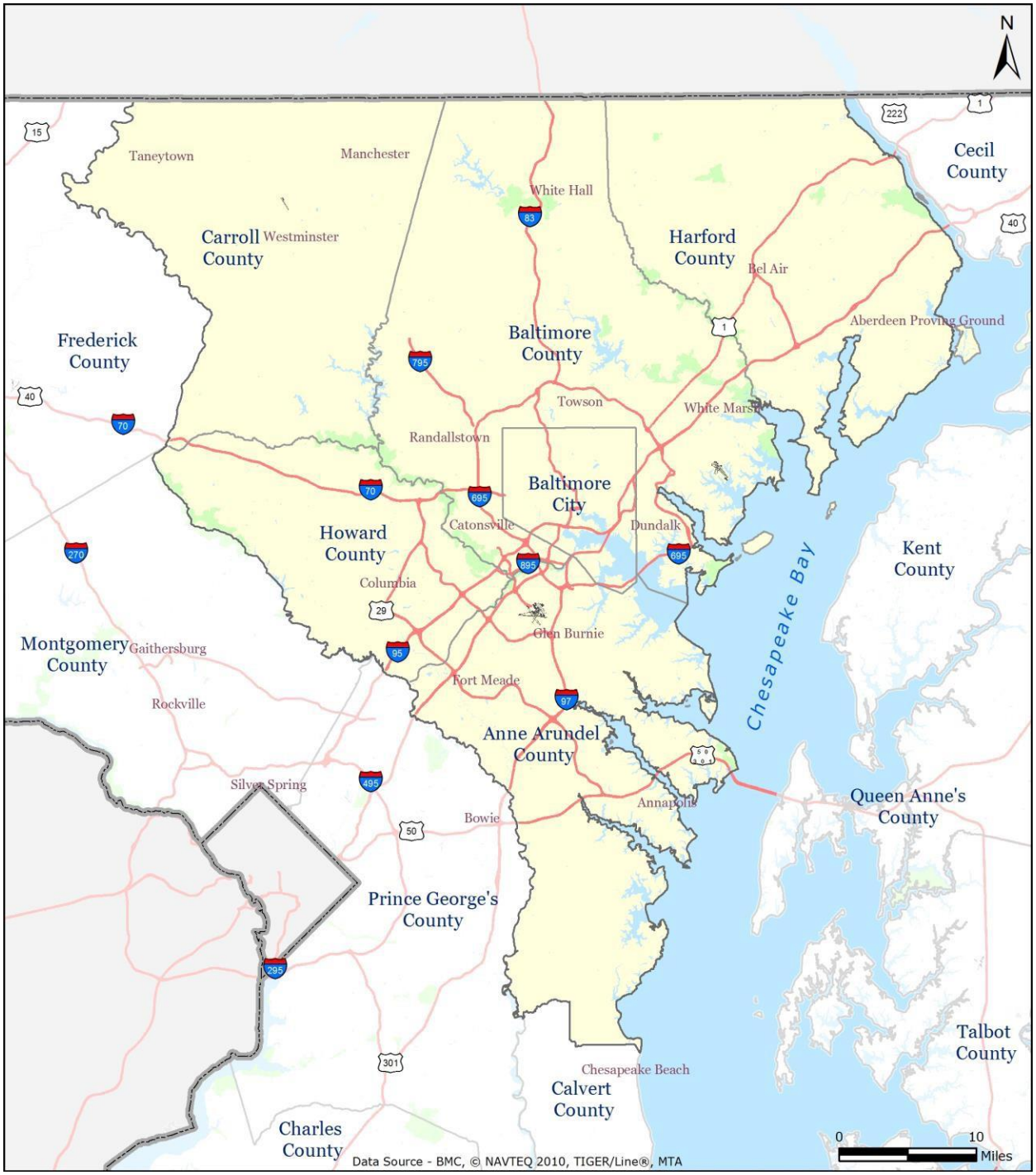
The most recent federal transportation legislative program, MAP-21, was signed into law by President Obama on July 6, 2012. MAP-21 preserves the commitment to the metropolitan transportation planning process established in previous federal initiatives. On February 14, 2007, the U.S. Department of Transportation (U.S. DOT) issued the latest regulations regarding metropolitan planning (based upon the previous legislation-Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, or SAFETEA-LU), specifically outlining the planning requirements associated with the metropolitan planning process, including the Transportation Improvement Program and the Long- Range Transportation Plan. Federal agencies are expected to update these regulations to reflect key changes in MAP-21 from previous transportation legislation that include an increased focus on performance measures and relating these measures to prioritization of projects in key MPO documents.

MPO Roles and Responsibilities

The BRTB is the federally designated MPO acting as the regional transportation planning and policy making body for the Baltimore region. In this capacity, the BRTB is directly responsible for conducting the continuing, cooperative and comprehensive (3-C) transportation planning process for the Baltimore metropolitan region in accordance with the metropolitan planning requirements of Section 134 (Title 23 U.S.C.) of the Federal Highway Act of 1962 and Section 8 of the Federal Transit Act. The BRTB provides overall program management of the UPWP work tasks and budget as well as policy direction and oversight in the development of the federally mandated Long-Range Transportation Plan, the Transportation Improvement Program and the transportation element of the State Air Quality Implementation Plan.

FIGURE 1

THE BALTIMORE REGION



The BRTB is an 11-member policy board consisting of the cities of Annapolis and Baltimore; the counties of Anne Arundel, Baltimore, Carroll, Harford, and Howard; and MDOT, the Maryland Department of the Environment (MDE), the Maryland Department of Planning (MDP), and the Maryland Transit Administration (MTA). Voting rights are extended to all members with the exception of the Maryland Department of the Environment, the Maryland Department of Planning, and the Maryland Transit Administration. These agencies serve the BRTB in an advisory capacity. Representatives from the local jurisdictions and agencies have been designated and empowered by their respective lead elected official or department secretary to integrate locally oriented policies and needs into a regionally based agenda.

In the Baltimore metropolitan area, the roles and responsibilities of the BRTB, state and local transportation operators and transportation-related state agencies for cooperatively conducting transportation planning and programming have been established over several years. **Table 1** outlines the various parties responsible for the primary planning and programming activities in the Baltimore region.

A network of committees and subcommittees was formulated to focus on specific technical and policy areas at the direction of the BRTB (**Figure 2**). Coordination of this diversified transportation planning structure, a direct responsibility of the BRTB, serves to ensure that transportation planning is integrated with the region's efforts to address economic and environmental challenges, land development and quality of life issues such as public health. The BRTB establishes a Budget Subcommittee annually to review projects and work tasks included in the UPWP to ensure regional significance and quality control.

The MDOT has a standing Memorandum of Understanding (MOU) with the BMC that delineates responsibilities in support of the regional transportation planning process. This agreement, initiated in 1992 with the re-designation of the BRTB and reauthorized in 2004, stipulates that MDOT will apply for federal transportation planning grants from both FHWA and FTA to support the UPWP as well as provide a portion of the non-federal matching funds required. In addition, MDOT formally represents all State-affiliated transportation modes and authorities on the BRTB.

As the leading air quality agency, MDE is an active member in the transportation planning process. Providing technical input and direction, MDE has assumed an advocacy role in the development of transportation system improvements that enhance the region's efforts to reach attainment by the prescribed timelines. The Maryland Department of Planning provides a direct linkage between transportation planning decisions and statewide growth management and land planning strategies.

MTA operates a comprehensive transit system throughout the Baltimore and Washington metropolitan areas. The MTA works closely with the BRTB on planning new transit lines in the Baltimore region.

TABLE 1

ROLES AND RESPONSIBILITIES FOR TRANSPORTATION PLANNING AND PROGRAMMING

Planning Responsibility	Memorandum of Understanding (MOU)	Date Executed	Status	Changes Planned
UPWP Development	Formal MOU establishing the BRTB as Baltimore MPO and develop an annual UPWP consistent with the 3-C planning process.	7/1/2004	In Effect	No
UPWP Development	Formal Memorandum of Agreement ((MOA) between MDOT and BMC outlining managerial oversight of the UPWP.	7/1/2004	In Effect	No
Transportation Conformity and State Implementation Plan Development	Formal procedures of Interagency Consultation Process	1996	In Effect	No
Public Transit Operators and MPO Process	Formal MOA between BRTB, MDOT and MTA defining roles and responsibilities of public transit operator and State Department of Transportation in the Baltimore regional planning process.	2/26/2008	In Effect	No
Financial Plan for Long-range Transportation Plan and Transportation Improvement Program	Formal MOA between BRTB, MDOT and MTA defining roles and responsibilities of public transit operator and State Department of Transportation in the Baltimore regional planning process.	2/26/2008	In Effect	No
Corridor Planning Studies	Formal MOA between BRTB, MDOT and MTA defining roles and responsibilities of public transit operator and State Department of Transportation in the Baltimore regional planning process.	2/26/2008	In Effect	No
MPO Certification	Formal MOA between BRTB, MDOT and MTA defining roles and responsibilities of public transit operator and State Department of Transportation in the Baltimore regional planning process.	2/26/2008	In Effect	No

Federal Certification Review Process

At least every four years, the FTA and FHWA must jointly certify that the transportation planning process in urbanized areas with a population greater than 200,000 (i.e. Transportation Management Area (TMA)), is being conducted in accordance with the joint planning requirements. The primary purpose of a certification review is to formalize the continuing oversight and day-to-day evaluation of the planning process. The certification review process ensures that the planning requirements under Title 23 are being satisfactorily implemented. In a broader sense, the certification review process is a valuable opportunity to provide advice and guidance to a TMA, for enhancing the planning process and improving the quality of transportation investment decisions.

While the FHWA and FTA interact with TMA planning officials, state DOTs, transit operators, etc. on a routine basis—reviewing and approving planning products, providing technical assistance, and promoting good practice—the formal assessment during a certification review provides an objective view of the TMA transportation planning process. It can serve as a catalyst to improve the effectiveness and efficiency of the planning process, and help ensure that the major transportation planning issues facing a metropolitan area are being addressed.

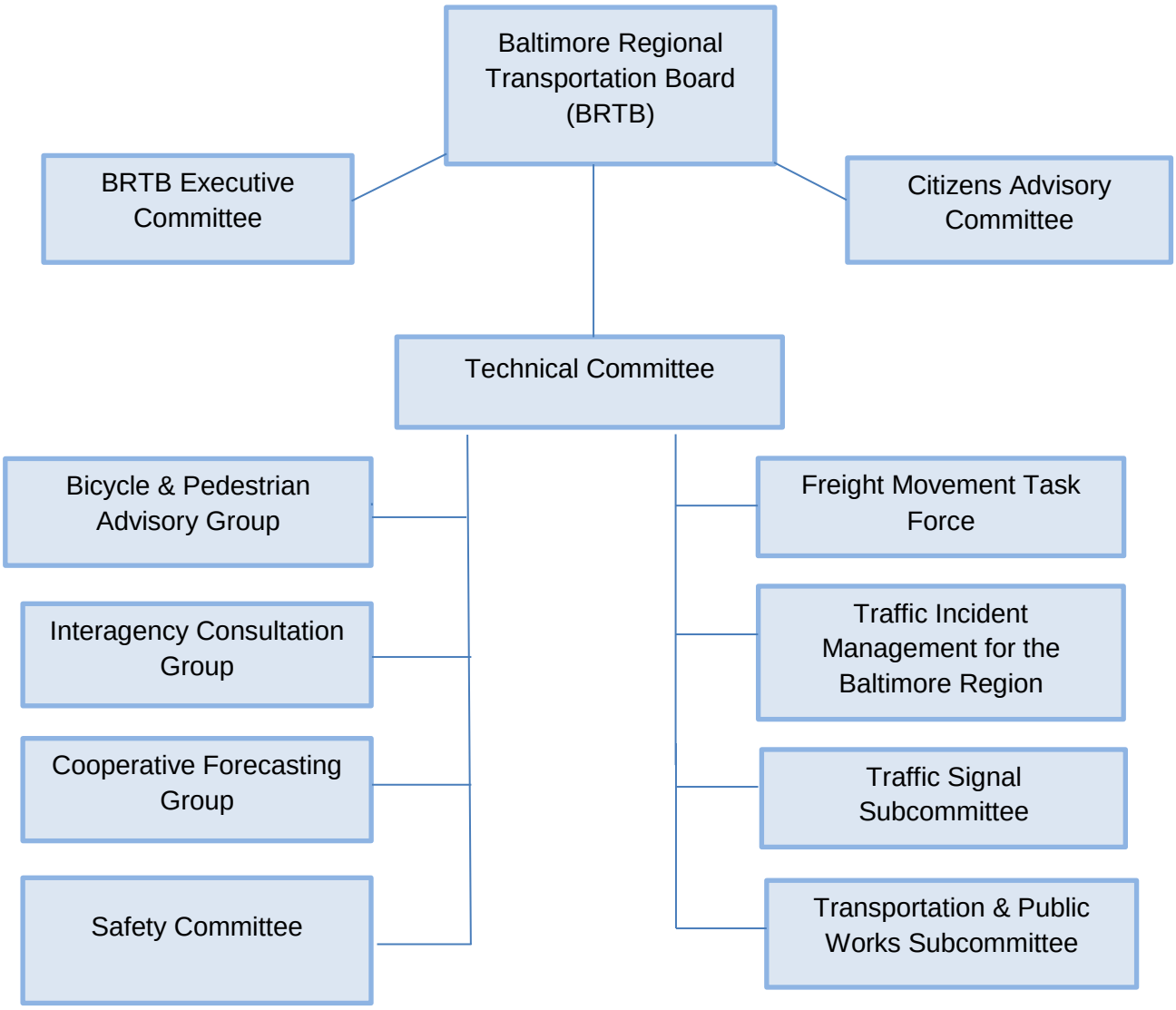
2012 Federal Certification Review

The most recent certification review took place from June 26-28, 2012. In general, the federal team determined that the BRTB continues to conduct a "3-C" transportation planning process that satisfies the federal provisions governing metropolitan planning.

The review team highlighted several noteworthy practices in the BRTB planning process (e.g., development of a performance-based long-range transportation plan, definition and documentation of the regional Congestion Management Process (CMP), linkage of transportation planning with the National Environmental Policy Act (NEPA) requirements, incorporation of freight planning into the transportation planning process, etc.).

FIGURE 2

BALTIMORE REGIONAL TRANSPORTATION BOARD COMMITTEE STRUCTURE



The team also identified areas in need of improvement. These include:

1. Establishing performance targets
2. Including work completed and percentage of federal funds spent in biannual UPWP submittals
3. Improving the public involvement process (specifically, better explanation of projects' linkage to the state Consolidated Transportation Program (CTP), increased engagement with low-income and minority residents, and better incorporation of social media into the decision making process)
4. Improving the Title VI (Under the Civil Rights Act of 1964, no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the of, or be subjected to discrimination under any program or activity receiving Federal financial assistance) program and documentation
5. Adopting state DBE program methodology
6. Increasing participation of locally operated transit system agencies in regional planning
7. Monitoring the effectiveness of CMP strategies
8. Working with the MDE to develop mobile emission budgets and emission reduction strategies in anticipation of potential future 8-hour ozone or $PM_{2.5}$ standards. The BRTB, with the support of the BMC staff, has begun to address the certification team's recommendations.

Additional Planning Studies

See **Appendix D** of this document for more information on additional planning studies that are supported by state or local funding only and that provide valuable information in support of the core regional planning efforts.

UPWP Priorities: Regional Transportation Goals / Performance-Based Approach

The tasks delineated in the UPWP are linked to the region's transportation goals, as adopted by the BRTB in developing *Plan It 2035*, the current long-range plan. The region's transportation goals as adopted in *Plan It 2035* are:

1. Improve Transportation System Safety
2. Preserve the Existing Infrastructure
3. Improve Accessibility
4. Increase Mobility
5. Preserve the Environment
6. Improve Transportation System Security
7. Promote Prosperity and Economic Opportunity
8. Foster Participation and Cooperation among All Stakeholder Groups

Chapter 4 of *Plan It 2035* provides additional information on these goals and their supporting strategies (see http://www.baltometro.org/PlanIt2035/planit2035ch4.pdf). These goals and strategies are the means by which the Baltimore region can make sound, responsible investments in transportation systems. They provide the framework through which the region can make progress toward improving accessibility and mobility for people and goods, in as safe and secure and environmentally sustainable a manner as possible, to advance the overall prosperity of the Baltimore region and the opportunities available to its communities and citizens.

Table 2 below shows how the UPWP tasks relate to these regional transportation goals:

TABLE 2

UPWP Tasks	**Regional Goals** (✓ = primary association; ▪ = peripheral assoc.)							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
UPWP Management								▪
Public Participation and Community Outreach	▪	▪	▪	▪	▪	▪	▪	✓
Professional Consultant Services (this depends on scope)								
Long-Range Planning	✓	✓	✓	✓	✓	✓	✓	✓
Opportunity Planning			✓				▪	✓
Congestion Management Process				✓	▪			▪
Operations Planning	▪			✓		✓		▪
Safety Planning and Analysis	✓							▪
Bicycle and Pedestrian Planning	✓	▪	✓		▪			▪
Freight Mobility Planning	▪	▪		✓		▪	✓	▪
Transit and Human Service Transportation Coordination	▪	▪	✓	▪		▪		✓
Emergency Preparedness Planning				▪		✓		
Transportation Equity Planning			✓				▪	✓
Development Monitoring					▪		✓	
Monitoring System Performance and Reliability			▪	✓			▪	
Databases and Travel Surveys							✓	
GIS Activities	▪	▪	▪	▪	▪	▪	▪	▪
Demographic and Socioeconomic Forecasting							✓	✓
Analysis of Regional Data and Trends	✓		✓	✓	▪		▪	
Technical Analysis in Support of State Initiatives			✓	✓				▪
Current Simulation Tools			✓	✓			▪	
Expanding the Region's Toolset			✓	✓			▪	
Transportation Improvement Program	✓	✓	✓	✓	✓	✓	✓	✓
Environmental Planning					✓			▪
Air Quality Conformity Analysis					✓			▪
Anne Arundel County: Subarea Analysis				✓			▪	
Baltimore City: Subarea Analysis	✓		✓	✓			▪	
Baltimore County: Subarea Analysis			✓	✓	▪			
Carroll County: Subarea Analysis	✓	▪	✓				✓	
Howard County: Subarea Analysis	✓		✓	✓				

Performance-Based Approach

With respect to both states and MPOs, MAP-21 stipulates that the transportation planning process is to "provide for the establishment and use of a performance-based approach to transportation decision-making." Tasks delineated in the UPWP are linked to the region's performance-based approach.

Performance Measures and Targets – Highways

MAP-21 requires the U.S. DOT to establish national standards for asset condition and system performance for facilities on the National Highway System (NHS). MAP-21 also continues the highway safety improvement program, intended to "achieve a significant reduction in traffic fatalities and serious injuries on all public roads."

The performance-based approach found in both the state and the metropolitan planning processes must support these national goals:

1. Safety: To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
2. Infrastructure Condition: To maintain the highway infrastructure asset system in a state of good repair.
3. Congestion Reduction: To achieve a significant reduction in congestion on the National Highway System.
4. System Reliability: To improve the efficiency of the surface transportation system.
5. Freight Movement and Economic Vitality: To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
6. Environmental Sustainability: To enhance the performance of the transportation system while protecting and enhancing the natural environment.
7. Reduced Project Delivery Delays: To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices."

Each state is required to develop an asset management plan for its NHS facilities and a state highway safety improvement program, including a strategic highway safety plan that "identifies and analyzes highway safety problems and opportunities." The state plans must include strategies that would make progress toward achieving targets for asset condition, system performance, and safety. States establish state performance measures and targets based on the national standards.

MPOs set the regional performance targets, in consultation with states, to use in tracking progress toward attaining critical outcomes for the region.

Performance Measures and Targets – Transit Systems

MAP-21 requires the U.S. DOT to implement a national transit asset management system and a national transit safety program. MAP-21 defines the national transit asset management system as a "strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively throughout the life cycle of such assets." MAP-21 states that the national transit safety plan is

to include "safety performance criteria for all modes of public transportation" and a "public transportation safety certification training program."

Each recipient of federal transit funds (for example, the Maryland Transit Administration) develops its own asset management and safety plans, consistent with the national plans. The MPO transportation planning process must incorporate a performance-based approach to support several purposes included in MAP-21. These purposes include: 1) establish standards for the state of good repair of public transportation infrastructure and vehicles, and 2) promote continuing, cooperative, and comprehensive planning that improves the performance of the transportation network. As part of this process, MPOs develop regional transit system performance targets for asset management and safety in coordination with transit providers.

Performance Measures and Targets – Schedule for Implementation

The U.S. DOT must establish national performance standards by April 2014. The states then have a year (April 2015) to establish performance targets in support of those measures; and the MPOs subsequently have 180 days (October 2015) to establish performance targets coordinated with those of the states and public transportation providers. After these targets are set, the metropolitan transportation plan and the transportation improvement program (TIP) are required to include a description of the performance measures and targets used in assessing the performance of the transportation system. The metropolitan transportation plan will also have to include a system performance report evaluating the condition and performance of the transportation system with respect to the established targets. The TIP is also required to include a description of the anticipated effect of the TIP toward achieving the performance targets set in the plan.

UPWP Priorities: Improving the Regional Process

The FY 2015 UPWP includes several priority work tasks whose ultimate objective is to improve the analytical and consensus building capabilities of the BRTB. The UPWP details the "prescriptive" planning activities that must be addressed—such as Public Participation, the Transportation Improvement Program, and a Congestion Management Process—to maintain a viable "3-C" planning process and meet federal certification requirements. The UPWP also describes the various tasks designed to better inform the decision-making process of the region's long-range plan and the TIP as well as the technical and policy planning activities. This work plan has also been prepared to ensure sufficient levels of support (financial and political) and create an atmosphere of trust and cooperation among the wide array of stakeholders to be tasked to assist in various work activities undertaken by the BRTB. In addition to the activities directly involving the BRTB, a number of major transportation-related studies are under way throughout the region that are detailed in Appendix D.

Improving Transportation Safety

One of the region's guiding principles is to develop a transportation investment strategy that improves vehicular, bicycle, and pedestrian safety. BRTB members and BMC staff were actively involved in the development of the 2005-2010 and 2011-2015 Strategic Highway Safety Plans (SHSPs) that have served as blueprints to reduce crashes, injuries, and fatalities for the traveling public.

In FY 2008 and 2009, the BRTB sponsored the creation of a regional safety media campaign that targeted distracted driving among young drivers in the metropolitan region. Since FY 2010, BMC in partnership with

the Maryland Highway Safety Office (MHSO) has implemented the StreetSmart bicycle and pedestrian safety campaign to reduce the number of crashes and fatalities involving pedestrians and bicyclists in the region.

In FY 2015, BMC staff will continue to expand this public outreach initiative to incorporate other partnerships and communication opportunities. Throughout FY 2015, BMC staff will work with Community Traffic Safety Program (CTSP) coordinators as well as state and federal representatives to educate and train decision makers on system, driver and vehicle safety improvement strategies.

Improving the Travel Demand Model

The ability to understand existing and future travel patterns and behavior is essential to the transportation planning effort in the Baltimore region. An important element of these efforts is the BMC staff's maintenance of the Baltimore Region Travel Demand Model. The FY 2015 UPWP will continue to support efforts to enhance transportation planning methods and analysis capabilities as we focus on regional travel demand in an attempt to determine the existing transportation network's ability to meet regional mobility needs.

As quality of life needs and issues continue to be unpredictable, the influence is significant on regional travel behavior patterns. In an attempt to understand and plan, where possible, for the challenges imposed by the ever-changing marketplace, BMC staff will continue to dialogue with nearby colleagues at the National Capital Transportation Planning Board (TPB) and the Wilmington Area Planning Council (WILMAPCO). This will include preparing a comprehensive list of inter-state transportation problems and opportunities, both current and future, that limits or enhance the interchangeability of living in one metropolitan region and working in another.

As in previous work programs, the UPWP directs fiscal resources to upgrade the analytical tools and capacities of the BRTB and its technical support staff to meet public policy evaluation needs. This UPWP will continue to support BMC's traditional trip-based travel demand model (trip generation, trip distribution, mode choice, and trip assignment) and continue the phased transition to activity-based models. Staff have incorporated the 2010 Census Transportation Analysis Zones and spatially enhanced the transportation networks in preparation for a 2010 validation effort, taking advantage of the release of Census Transportation Planning Package (CTPP) data. A model update working group developed a multi-year "blueprint" for developing and enhancing the region's technical tools. The plan's identified enhancements were shared with BRTB subcommittees, and an activity-based model was selected for development. A consultant team was retained to begin the multi-year project of designing, estimating, calibrating, and validating a disaggregate travel model. The ability of the region's current and future technical modeling tools to replicate revealed behavior and provide analysis of regional policy questions is valuable to the BRTB for decision-making purposes.

Accounting for Socioeconomic Factors

A key part of understanding future travel patterns and behavior is the use of a solid socioeconomic dataset. Based on newly defined Urbanized Area Boundaries in the 2010 Census, BMC staff will work with state agencies and local planners in Queen Anne's County to ensure that the entire Baltimore Urbanized Area is recognized and considered in project planning. BMC staff will develop GIS and map resources that will assist urban area delineation and functional classification activities conducted by local and state agencies.

BMC staff will continue to work with the Cooperative Forecasting Group (CFG) in the Baltimore area and

coordinate with the TPB and WILMAPCO to jointly develop forecasts based on the interaction of the regions. MDP is also a partner in this endeavor.

BMC staff, with the approval of the CFG, will develop new employment projections based on staff research on estimating and forecasting employment data so that there is a consistent employment forecast dataset and accompanying long-range employment assumptions. These new employment forecasts will become a part of a new Round 8-A Cooperative Forecasts. The Round 8-A Cooperative Forecasts for population, households, and employment will be completed in the coming year.

Addressing Air Quality Standards / Environmental Impact Mitigation

In an attempt to ensure timely attainment of air quality standards and protect public health, the BRTB continues to view clean air planning as a major priority. As a serious non-attainment area under the 8-hour ozone standard, the Baltimore region must complete additional requirements to show progress toward attainment or face federally-imposed penalty measures. EPA has issued a clean data determination for the Baltimore region as monitored data show the region complies with the federal fine particulate matter standard. The region has prepared a redesignation request and maintenance plan to submit to EPA. The 1990 amendments to the Clean Air Act mandated the implementation of specific state actions that reduce vehicular emissions through technological enhancements and expanded vehicle emissions inspection programs as measures to offset growth related to future vehicle emissions. Moreover, the BRTB is required by federal mandate to demonstrate that implementation of the region's proposed transportation plans and programs conform to the applicable State Implementation Plan (SIP).

Under a cooperative MOU between the Maryland Departments of the Environment and Transportation, the BRTB established the ICG in 1996 to assess the conformity requirement of the metropolitan transportation planning process and to evaluate the development of regional transportation plans and programs with the preparation of mobile source emission budgets included in the SIP. Included in *Plan It 2035* is a set of transportation-related control strategies that are recommended for implementation by 2035 to sustain the objectives of the SIP. The BRTB will continue to evaluate potentially endorsable transportation control measures for the Baltimore non-attainment area, including a BRTB-sponsored initiative of a competitive selection process for Congestion Mitigation and Air Quality Improvement Program (CMAQ) projects in the Baltimore region.

Through the UPWP, the BRTB is reaffirming its support of Clean Air Partners, a non-profit, public- private partnership committed to improving air quality in the metropolitan Baltimore and Washington regions. The Partners raises public awareness of air quality issues and promotes voluntary actions by individuals and organizations to reduce emissions. More information on this partnership can be found in the section describing the Environmental Planning task.

In keeping with the environmental impact mitigation regulations for metropolitan planning, the BRTB will continue environmental coordination with local and state regulatory agencies and will use resource inventories and conservation plans to evaluate environmental resource indicators and performance measures in the implementation of *Plan It 2035*. *Plan It 2035* laid out additional strategies for achieving the goal of environmental preservation, one of which is investing in transportation programs and projects that reduce surface runoff and protect water resources. The implementation of this strategy will be one focus of environmental coordination activities.

Transportation Equity Planning

Related to the priority of public participation in the planning process, the issue of equity planning has gained heightened awareness in the transportation field. Equity is a general term that considers the distributive "fairness" of decisions, projects, and services. A subset of the issue is environmental justice, which considers how decisions specifically affect minority and low-income individuals. Since FY 2002, the BRTB has supported efforts to conduct technical assessment of projects and programs included in all plans and programs as to their ability to balance the region's transportation network in relation to economic opportunities. More information on past and planned efforts can be found in the section describing the Transportation Equity Planning task.

Exploring the Land Use / Transportation Connection

The BRTB has also directed the BMC staff to continue work with the region's local jurisdiction Planning Directors and various state agencies to explore alternative land-use configurations and scenarios that strengthen the coordination between land use and transportation while promoting transportation and air quality benefits. This activity utilizes the Production, Exchange and Consumption Allocation System (PECAS) model to assess land value, employment and other demographic variables based on changes in land use (consumption) and/or changes to the transportation network. BMC staff will continue to work to integrate PECAS output with various regional travel scenarios to assess a wide range of system performance measures. These outcomes will enhance efforts to evaluate the potential impact growth scenarios will have on various transportation investment strategies.

Integrating Regional Sustainable Planning Grant Work with Transportation Planning

The BRTB will continue to monitor and react to new initiatives through the Federal Partnership for Sustainable Communities—consisting of U.S. DOT, U.S. Department of Housing and Urban Development (HUD), and EPA. This will include exploring ways to further incorporate the six livability principles into the UPWP and to integrate sustainable community planning with transportation planning. This will include working with the BMC-led Consortium that received one of the Regional Sustainable Planning grants.

Improving System Operations / Congestion Management Process

Efforts to develop a comprehensive approach to transportation planning in the Baltimore region include opportunities to employ technology and enhanced coordination as a means of adding capacity to the region's transportation network. This work includes the continued support of various committees that focus on enhancing regional management and operations coordination in an attempt to improve safety while also improving overall system efficiency. Issues such as inter- jurisdictional signal coordination; traffic incident management; and roadway, bicycle, and pedestrian safety are major regional priorities.

Congestion management work tasks will also continue, as the region looks to detail strategies and solutions to congestion problems throughout the metropolitan area. As part of the ongoing effort to monitor the effectiveness of the regional CMP, BMC staff will continue to gather traffic counts and highway speeds/travel time data, under the Travel Monitoring Program. These internal datasets will be combined with outside sources, such as the Vehicle Probe Project Performance Measure Suite (I-95 Corridor Coalition/University of Maryland), to develop quarterly regional bottleneck reports. The final report will serve as a systematic guide for monitoring congestion that provides information on transportation system performance and identifies opportunities and alternatives for alleviating congestion and enhancing mobility.

New corridors will be selected based on performance measures and congestion density (including adjacent congested segments and/or intersections) and predominant travel patterns as well as group consensus and professional judgment. Data and performance measures along these corridors will be shared with state and local operators and BRTB subcommittees such as traffic signal, freight, and safety to coordinate improvements and programs.

Addressing Freight Needs

The UPWP also includes continued support toward the understanding of regional freight flows, corridors, and facilities. The BRTB will continue to widen its awareness and identification of freight movement issues through a planned regional freight-related database as well as through the activities of the regional Freight Movement Task Force. These efforts will build on various work tasks completed in previous years.

Work on the regional freight analysis task will be an important ongoing initiative. This analysis work is intended to help the region understand how the movement of freight contributes to overall economic well-being and to identify transportation improvements to promote continued economic development opportunities.

Addressing Regional Transportation Security Concerns

In light of the events of September 11, 2001, as well as requirements and policies established in MAP-21, the BRTB, like many of its counterparts, has initiated a wide array of transportation security-related planning activities. Staff has participated in the Baltimore Urban Area Homeland Security Work Group (UAWG) since FY 2004. In addition, the BRTB supports the Transportation & Public Works Subcommittee, which brings local and state stakeholders together to address homeland security / emergency preparedness issues.

THIS PAGE LEFT BLANK INTENTIONALLY.

PROGRAM MANAGEMENT & COORDINATION

THIS PAGE LEFT BLANK INTENTIONALLY.

PROJECT: UPWP MANAGEMENT

PURPOSE: To manage, coordinate, and guide the activities of the Unified Planning Work Program (UPWP) and the regional transportation planning process. This requires a variety of means including: direct involvement in planning activities, public education and public participation opportunities, and support of the multi-disciplined and multi-agency transportation committees essential to a coordinated regional planning process.

During Fiscal Year (FY) 2014 staff coordinated with local jurisdictions to collect products and billing information. Monthly Progress Reports and Invoices were submitted to MDOT. Agendas and minutes for the BRTB as well as all standing committees were made available to the public. The Executive Committee provided guidance on BRTB agendas as well as direction on TIP-related Administrative Modifications. In December 2013 the BRTB and the Technical Committee (TC) held a Retreat to plan for the upcoming UPWP work program and assess progress in the current year. A schedule was endorsed to complete the work program with an opportunity for the public to review.

In FY 2015, BMC staff will continue to provide administrative support for the UPWP. Staff manages the work program and budget, and is charged with preparation of work programs, contracts and quarterly progress reports. Included within this budget category are non-staff expenses that support transportation planning functions. Typical expenses include: 1) staff training and education, and participation at meetings and other transportation-related seminars, workshops and conferences; 2) membership fees for professional organizations and associations; 3) publication costs including printing and design; 4) travel expenses; 5) preparation for special events; 6) purchase of computers and related software for BMC staff; 7) fuel expenses to support the congestion monitoring program; and 8) annual computer maintenance agreements for the Baltimore Metropolitan Council (BMC) and local/state participants. Staff also will provide support activity to the Baltimore Regional Transportation Board (BRTB), Technical Committee (TC), Interagency Consultation Group, Citizens Advisory Committee, Bicycle & Pedestrian Advisory Group, Freight Movement Task Force, Cooperative Forecasting Group, etc., including the preparation of meeting notices, minutes, agendas, mailings, and reports on issues of special committee interest.

The local jurisdictions are also responsible for a similar set of work tasks that are required as part of their involvement in the administration of the UPWP. This includes preparation of invoices and progress reports, financial reports, project work programs, annual UPWP contracts, and related correspondence. This activity also supports the professional development and training activities of the local government staffs.

BMC staff will continue to promote participation of minority business enterprises in the planning process and implementation of transportation projects within the Baltimore region in accordance with Title VI of the Civil Rights Act of 1964 and the requirements set forth in 49 CFR Part 23. Staff will also promote Federal Transit Administration's policy to encourage private enterprise participation in the planning and provision of transportation services.

BMC staff will prepare the detailed tasks associated with the development of the FY 2015 UPWP grant application and associated contracts with the member agencies of BRTB. The FY 2016 UPWP and budget will be scheduled for approval in Spring, 2015.

PRODUCTS/MILESTONES	SCHEDULE
Minutes, resolutions and special reports	Throughout Fiscal Year
Quarterly progress reports, invoices, and financial reports	Throughout Fiscal Year
FY 2015 UPWP amendments	Throughout Fiscal Year
FY 2016 UPWP and budget	3rd Quarter
FY 2016 UPWP budget development and local contracts	4th Quarter

BUDGET: **$620,000**

PROJECT: **PUBLIC PARTICIPATION AND COMMUNITY OUTREACH**

PURPOSE: To allow both individuals and groups opportunities to participate in the regional transportation planning process. Public participation in the planning process is essential because it enables government agencies to understand and account for the concerns and needs of the public, particularly at times when key decisions regarding the region's transportation network are made.

During Fiscal Year (FY) 2014, staff informed and engaged the public in a variety of ways, including:

Solicited Public Comments through comment periods and public meetings such as: draft project list for the 2014-2017 Transportation Improvement Program (TIP) and 3 State Highway Administration (SHA) TIP amendments; final draft 2014-2017 TIP, amendments to *Plan It 2035*, and Air Quality Conformity public meetings; ads were placed for October in the Baltimore Sun, Prensa Libre, and Afro American Newspaper). Staff distributed public comments received during comment periods and coordinated responses from Baltimore Regional Transportation Board (BRTB) members. Staff also worked to update a revised draft Public Involvement Plan (PIP), utilizing feedback obtained from the Citizen Advisory Committee (CAC) and research of best practices among other metropolitan planning organizations (MPO) and planning/transportation groups.

Convened the Citizens Advisory Committee (CAC). Held monthly meetings of the CAC and its two subcommittees. Presentations were made on topics such as 2009 Central Maryland Transit Oriented Development Strategy Report, SHA Complete Streets Policy, the Central Maryland Transit Operations and Maintenance Facility, and local planning efforts in Howard County. The CAC submitted resolutions to the BRTB for their consideration on a variety of topics including Amendments to *Plan It 2035* and the TIP; Air Quality Conformity Determination, and the Public Involvement Plan.

Improved Communications and Outreach Efforts. Press releases were sent to a mailing list of over 600 subscribers, local media outlets, in addition to being posted on the Baltimore Metropolitan Council (BMC) web site. Staff continued to utilize social media to share information and grow our audiences on Facebook, Twitter, and LinkedIn pages for B'more Involved, Bike2WorkCentralMD, *Plan It 2035*, Opportunity Collaborative, and @BaltoMetroCo (a new Twitter feed for BMC). The B'more Involved Twitter page surpassed the 2,000 follower mark. E-newsletters sent to list of over 7, 875 active contacts. Staff continued to conduct outreach and education efforts throughout the year, meeting with organizations such as: University of Maryland Community Engagement, Environmental Justice, and Health program, DC/MD/VA Environmental Justice Coalition, Environmental Justice Partnership, A Bike to Work Day (B2W) survey was distributed with nearly 200 responses received. Input was used in the coordination of plans for the 2014 B2W event. Media and Street outreach was done for the StreetSmart pedestrian safety campaign. Staff worked closely with BMC's new Communications Officer to update BRTB communications and outreach policies, tools, techniques, and plans. Staff worked with BRTB members to develop and implement a branding concept for the 2015 long-range transportation plan.

Improved Web Site. Staff worked with the webmaster and a consultant to develop a new information architecture and web design for BMC/BRTB web site. Ongoing site improvements and streamlining information was also conducted throughout the year. A survey to collect feedback on the existing web site was posted on the current web site.

Increased staff knowledge through webinars and trainings. Staff participated in a variety of trainings and webinars throughout the year, with a particular focus on equity and environmental justice. Trainings included: Bridges Out of Poverty; Neighborhood Planning & Equity; Data-Driven Citizen Engagement; Social media policies at Maryland Nonprofits; Equity and Transportation.

In FY 2015, staff will continue to educate and engage the public early and often throughout the planning process. Highlights of activities include:

Solicit Public Comments: Staff will solicit public input throughout the planning process by hosting public meetings, promoting public comment opportunities, conducting outreach and education efforts throughout the region. In particular, staff will promote comment opportunities for *Maximize2040*, Transportation Improvement Program, Unified Planning Work Program, Air Quality Conformity Determination, and other plans and programs issued for public review by the BRTB. Staff will review the PIP, addressing any new federal guidance on planning regulations, while also utilizing feedback obtained from the CAC, public input, and research of best practices among other MPO's and planning/transportation groups.

Convene the CAC: Staff will provide support for the 30 CAC members at monthly meetings of the CAC and their subcommittees.

Improve Communications and Outreach Efforts: Staff will provide support on outreach and education efforts including: *Maximize2040,* Transportation Improvement Program, *Street Smart,* Clean Commute Initiative, B2W day, etc.

Staff will utilize a variety of communications tools and techniques to reach the public including: Outreach at local events and meetings; Sending press releases and e-newsletters, maintaining a robust social media presence; distributing surveys, place advertisements in local media outlets, etc.

Maintain Web Site and Continue Site Improvements: Staff will continue to make improvements to web site, working with consultant to finalize new design and information architecture. Updated information will be maintained.

PRODUCTS/MILESTONES	SCHEDULE
CAC Meetings	Monthly (or as needed)
Press releases	Throughout Fiscal Year
B'More Involved and other e-newsletters	Throughout Fiscal Year
Social Media Marketing and Web-based surveys	Throughout Fiscal Year
Conduct outreach and participation at events	Throughout Fiscal Year
Maintain website and, when possible, add new visualization tools	Throughout Fiscal Year

BUDGET: **$160,000**

PROJECT: **PROFESSIONAL CONSULTANT SERVICES**

PURPOSE: To retain consultant services for work activities in the Unified Planning Work Program (UPWP) that requires external support due to complexity or uniqueness of the tasks. These work efforts will strengthen the overall regional transportation planning process and expand the capabilities of the BRTB. BMC will utilize transportation consultants to expand the activities funded in the UPWP and to provide services that are currently not available to the BRTB.

During Fiscal Year (FY) 2014, three multi-year option contracts were initiated including on-call services related to freight and transit planning activities and the development of an activity based travel demand model. These contracts are anticipated to be continued in FY 2015. Consultants are typically utilized in various activities to enhance the decision-making ability of the region's transportation professionals and provide input to BMC staff.

In FY 2015, the continued use of consultant services will be employed. At the direction of the BRTB, BMC staff expect to explore using consultant services for the following potential activities:

Model Development – Continued development of an activity based travel demand model.

Travel Monitoring Program – Obtain portable and classified traffic and/or bicycle/pedestrian counts throughout the region for use in the travel demand model and for local traffic management purposes.

Long Range Plan Development – Consultant activities related to the development of the 2015 Long Range Transportation Plan.

Surveys and Data Analysis/Presentation – Staff will explore data sources including surveys to support regional and local transportation decision-making. In addition, staff will look to expand its data sharing resources including on the world wide web.

Regional Transit Analysis – Follow-up studies to FY 2014 activities as directed by the BRTB.

Regional Freight Analysis – Follow-up studies to FY 2014 activities as directed by the BRTB.

PRODUCTS/MILESTONES	SCHEDULE
Consultant contracts	Throughout Fiscal Year
Memoranda/Reports	Throughout Fiscal Year

BUDGET: **$745,000**

THIS PAGE LEFT BLANK INTENTIONALLY.

LONG-RANGE TRANSPORTATION PLANNING - SYSTEM LEVEL

THIS PAGE LEFT BLANK INTENTIONALLY.

TASK: **LONG-RANGE PLANNING**

PURPOSE: Maintain the regional planning process in response to guidance in the Metropolitan Planning Regulations. Develop the plan guiding long-term investments in the region's transportation systems.

During Fiscal Year (FY) 2014 a range of activities supporting long range planning were completed.

Performance Monitoring, 2011 Plan – Baltimore Metropolitan Council (BMC) staff worked with staff from Maryland Department of Transportation (MDOT), State Highway Administration (SHA), and Maryland Transit Administration (MTA) to gather data relative to the performance measures adopted in *Plan It 2035*, the region's current long-range transportation plan. This is in response to the Baltimore Regional Transportation Board's (BRTB) directive to BMC staff to provide an annual assessment of progress relative to these measures. At the October 2013 Technical Committee meeting, BMC staff presented a progress report, including material comparing data from the baseline years shown in the plan to the most recent data provided by MDOT, SHA, and MTA.

Amendments, 2011 Plan – The BRTB approved five amendments to *Plan It 2035* at its November 2013 meeting. These amendments encompassed lane additions on two sections of I-695 in Baltimore County, a new access road and new interchange on MD 32 in Howard County, and a cost increase to the Red Line light rail project in Baltimore County and Baltimore City. The I-695 and MD 32 projects had been included in the final preferred alternative in the 2007 plan. However, the BRTB dropped these projects from the final *Plan It 2035* preferred alternative for fiscal constraint considerations. These projects were included in the list of illustrative projects in *Plan It 2035*.

2015 Plan –Staff refined a draft schedule for the 2015 plan as well as data needs, required analyses, and public outreach objectives and techniques. Staff presented the draft timeline for the 2015 plan to the Technical Committee and the BRTB. Staff also monitored U.S. Department of Transportation (DOT), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA) websites for release of additional information on Moving Ahead for Progress in the 21st Century (MAP-21) national standards and performance measures.

In keeping with MAP-21's performance-based approach to planning and programming, staff met with the BRTB's advisory committees to solicit their input relative to regional goals, strategies, and performance measures for the 2015 plan. Most of the additional potential strategies would address the need for more effective performance monitoring in the region. Potential measures incorporate the latest recommendations from federal agencies as well as information from MDOT's annual attainment report. The BRTB will adopt goals, strategies, performance measures, and targets for the 2015 plan before the end of FY 2014.

Staff attended several coordination meetings with the transportation and housing department staffs of local jurisdictions. These meetings identified issues affecting job access and affordable housing and discussed how these issues will inform the 2015 plan as well as the Regional Plan for Sustainable Development (being developed through a U.S. Department of Housing and Urban Development Sustainable Communities grant).

An in-house team developed brand concepts (e.g., logo, theme, etc.) to anchor public and stakeholder involvement for the planning process.

In FY 2015 the activities include:

2015 Plan – Include working with partner agencies to gather data relative to adopted system performance measures related to each of the *Plan It 2035* goals. Report to the BRTB on system performance, using the performance measures identified in *Plan It 2035*. Prepare for adoption of the following tasks: financial forecasts for the 2015 plan, Round 8-A socioeconomic forecasts, and evaluation criteria to guide the selection of projects for the 2015 plan. Later in the FY there will be a solicitation for candidate projects in a collaborative process between state and local partners.

Evaluate the candidate projects and recommend a draft preferred alternative consistent with the financial forecasts and Year of Expenditure (YOE) cost estimates. Once this is in place the BRTB will solicit public and stakeholder input on the draft preferred alternative. Test the draft preferred alternative relative to regional goals, strategies, and performance measures. This process will include modeling for air quality conformity and travel demand, evaluation with respect to the regional congestion management process, and evaluation relative to regional equity objectives and environmental justice requirements.

PRODUCTS/MILESTONES	SCHEDULE
Gather data relative to adopted system performance measures related to each of the *Plan It 2035* goals.	2nd Quarter
Adopt financial forecasts for the 2015 plan.	1st Quarter
Adopt Round 8-A socioeconomic forecasts for the plan.	1st Quarter
Adopt evaluation criteria to guide the selection of projects for the plan.	1st Quarter
Solicit local jurisdictions for candidate projects for the plan.	2nd Quarter
Evaluate the candidate projects and recommend a draft preferred alternative consistent with the financial forecasts and YOE cost estimates.	3rd Quarter
Solicit public and stakeholder input on the draft preferred alternative. Test the draft preferred alternative.	3rd & 4th Quarters

BUDGET: **$150,000**

TASK: **OPPORTUNITY PLANNING**

PURPOSE: To work with the Opportunity Collaborative on the development of a Regional Plan for Sustainable Development.

The Opportunity Collaborative ("the Collaborative", previously known as the Baltimore Sustainable Communities Initiative) is the consortium charged with developing Baltimore's Regional Plan for Sustainable Development (RPSD). This 25 member coalition includes six local governments, the metropolitan planning organization, three Maryland state agencies, two universities and local philanthropy and advocacy organizations. The Baltimore Metropolitan Council (BMC) serves as the lead applicant and fiscal agent for the Collaborative.

The Collaborative is developing a RPSD that links our region's housing, transportation and workforce development plans and investments with specific focus on reducing regional disparities. Government, philanthropic and private sector partners are working together with community members to develop a practical plan to connect all of our citizens to a prosperous and sustainable future. The process of developing this plan will include extensive community education and engagement, citizen leadership development, real world demonstration projects and the writing of regional housing and workforce development plans. Central to the RPSD will be the development of a financial strategy for implementation to ensure that the recommendations of the planning process can be put into place and the positive lessons learned through demonstration projects can be widely replicated.

On June 16, 2009, the U.S. Department of Housing and Urban Development, U.S. Department of Transportation, and the U.S. Environmental Protection Agency formed the Partnership for Sustainable Communities to help communities nationwide improve access to affordable housing, increase transportation options, and lower transportation costs while protecting the environment. The partnership agencies incorporate six principles of livability into federal funding programs, policies, and future legislative proposals. The six Livability Principles are:

1. Provide more transportation choices
2. Promote equitable, affordable housing
3. Enhance economic competitiveness
4. Support existing communities
5. Coordinate and leverage federal policies and investment
6. Value communities and neighborhoods

The Opportunity Collaborative has added a seventh Livability Principle for our work here in Baltimore: Protect the Chesapeake Bay - Promote location efficient and low-impact development in the region.

The Regional Planning Grant program, an effort of the Partnership for Sustainable Communities encourages grantees to support regional planning efforts that integrate housing, land-use, economic and workforce development, transportation, and infrastructure investments in a manner that empowers regions to consider how all of these factors work together to create more jobs and economic opportunities. The program places a priority on partnerships, including the collaboration of arts and culture, philanthropy, and innovative ideas to the regional planning process.

During Fiscal Year (FY) 2014, the work group (with input from other Collaborative committees) identified eight major employment centers in the region based on targeted industry sectors (healthcare, information technology (IT), business services, transportation and warehousing, construction). Once these centers were determined, staff developed maps to assist the work group in identifying areas of density of households with less than a bachelor's degree that would benefit from additional multi-modal transportation access to the employment centers.

In FY 2015, staff will continue to support the Transportation Work Group of the Opportunity Collaborative. Also, staff will provide assistance to the work group in their analysis, while they develop transportation recommendations for each of the eight selected employment centers. The recommendations will attempt to address identified transportation connectivity gaps in access to mid-skill employment centers. The scope of the recommendations may include local/state transit projects, highway projects, bicycle/pedestrian needs, private transportation, and cost effective alternatives to transit. Access to essential services, including employment, is identified in the Ladders of Opportunity planning emphasis area for the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

PRODUCT/MILESTONE	SCHEDULE
Provide Technical Support	Throughout Fiscal Year
Participate in Opportunity Collaborative	Throughout Fiscal Year

BUDGET: **$70,000**

TASK: **CONGESTION MANAGEMENT PROCESS**

PURPOSE: Study and analyze regional patterns to identify recurring and non-recurring congestion and develop strategies to improve travel for people and goods in a safe and reliable manner.

During Fiscal Year (FY) 2014, staff developed quarterly bottleneck reports that highlight the top ten bottlenecks in the region. Staff also participated in the mid-Atlantic archived operations group that is leading the effort to develop a common set of performance measures and the I-95 corridor coalition's vehicle probe project.

In FY 2015 the congestion management process (CMP) will include the following: monitoring the highway network using vehicle probe data and developing quarterly bottleneck reports, adopt/use congestion measures such as travel time index consistent with the mid-Atlantic archived operations group states and metropolitan planning organizations (MPOs). Staff will develop one or more corridor congestion brochures to highlight delay and cost of congestion and measures being taken by state and local agencies to improve mobility and safety (similar to the MD 295 effort in FY 2014). Continue coordination to better link planning and National Environmental Policy Act/environmental planning efforts. Continue to participate as a commenting agency as part of the State Highway Administration's (SHA's) Interagency Review process for project planning.

PRODUCTS/MILESTONES	SCHEDULE
Quarterly Congestion Reports	Quarterly
Corridor Brochure	Throughout fiscal year

BUDGET: **$150,000**

TASK: **OPERATIONS PLANNING**

PURPOSE: To improve the movement of people and goods and to increase the safety and efficiency of the transportation system through enhanced coordination of existing management and operations (M&O) activities and implementation of new management and operations (M&O) activities.

During Fiscal Year (FY) 2014, staff supported the ongoing activities of several operations-focused committees described below. Staff also continued to support operations efforts of the State, neighboring regions, and professional organizations such as the Intelligent Transportation Society of Maryland. Staff has also worked to identify opportunities to further integrate operations into the transportation planning process, particularly through closer coordination with the regional Congestion Management Process (CMP).

Supporting Regional Operations Committees:
Traffic Signal Subcommittee - A quarterly meeting to discuss signal operations and ways to improve mobility and safety for all road users including pedestrians, bicyclists, and motorcycle riders. Planning for the next Signal Forum began. Local jurisdictions continue to deploy adaptive and other signal control systems using congestion mitigation and air quality (CMAQ) funds.

Traffic Incident Management for the Baltimore Region (TIMBR) Committee - Meeting bi-monthly to improve communication, coordination and cooperation needed for safe and efficient traffic incident management in the region. Staff continued to promote the products, including the Traffic Incident Management (TIM) On-line Training Course (www.BaltimoreTIMCourse.org); safety messages; and Funeral Procession Contact List and Guidelines. TIMBR began to look at measuring TIM performance and developing performance goals.

Transportation & Public Works Committee – The Committee pursued daily operations and public works topics as well as supports homeland security / emergency preparedness planning. (Refer to Emergency Preparedness Planning section for emergency preparedness activities).

Coordination with Operations Partners:
In addition to supporting regional activities, committees, and initiatives, staff supports local and state partners by participating in their operations planning activities. Baltimore Metropolitan Council (BMC) staff began participating on the State's Coordinated Highways Action Response Team (CHART) Board. Also, as part of the SHRP2 project a Capability Maturity Model workshop was held in the region and attended by local, regional, and state M&O stakeholders. Subsequent to the workshop, staff worked with these stakeholders to implement action items from the workshop.

With SHA as the lead, the region submitted an application to the Federal Highway Administration (FHWA) under the Integrated Corridor Management (ICM) Grant Program. If the application is funded, work on the project will be on-going in FY 2015. The SHA Office of Planning and Preliminary Engineering (OPPE) took the lead on applying for the SHRP2 Implementation Grant and the ICM Grant.

Using Archived Operations Data
BMC has been expanding its use of archived operations data, specifically using the Vehicle Probe Project suite of tools refer to monitoring System Performance and Reliability task.

In FY 2015 staff will focus on: supporting regional operations committees, coordination with Operations Partners, and coordinating with internal and external stakeholders on using archived operations data to support the regional CMP and measuring performance, as required by Moving Ahead for Progress in the 21st Century (MAP-21).

Supporting Regional Operations Committees:
Traffic Signal Subcommittee - The Subcommittee will discuss signal operations and ways to improve mobility and safety for all road users including pedestrians, bicyclists, and motorcycle riders. The subcommittee plans to hold the 7th Regional Traffic Signal Forum mid-year. The Subcommittee will also coordinate with the congestion management process (CMP) and corridor analysis teams to identify potential projects that could be eligible for CMAQ and/or other types of funding.

Traffic Incident Management for the Baltimore Region Committee - the Committee will continue to improve communication, coordination and cooperation needed for safe and efficient traffic incident management in the region. Previous efforts at measuring TIM performance and developing performance goals will continue. Staff will continue to schedule TIM Training sessions for responders in the region.

TIM Conference: Staff will work with a small group of TIMBR committee members to plan a TIM conference to be held mid-year. The conference will be similar in format to previous conferences and be attended by about 100 of the region's responders.

Transportation & Public Works Committee – The Committee will continue to identify topics for discussion at regional information exchange forums, with the goal of holding one or two in FY 2015.

Coordination with Operations Partners
If the application to the Integrated Corridor Management Grant Program is funded, work on the project will be on-going in FY 2015.

PRODUCTS/MILESTONES	SCHEDULE
Subcommittee meeting minutes	Throughout Fiscal Year
Support stakeholder operations activities	Throughout Fiscal Year
Hold an incident management conference (if funding is available)	4th Quarter
Hold T&PW forum(s)	3rd Quarter
Coordinate with regional CMP	Throughout Fiscal Year

BUDGET: **$120,000**

TASK: **SAFETY PLANNING AND ANALYSIS**

PURPOSE: Improve safety in the region by supporting State and local efforts to reduce crashes, injuries, and fatalities. Fully integrate Metropolitan Planning Organization activities with the Maryland Strategic Highway Safety Plan (SHSP) as well as local safety planning efforts.

During Fiscal Year (FY) 2014, the Baltimore Region Safety Subcommittee (BRSS) met quarterly under the leadership of Captain John McKissick, Howard County, and led the deployment of Street Smart – a regional pedestrian safety campaign. The BRSS brings together state and local representatives from the 4 E's – Engineering, Education, Enforcement, and Emergency Medical Services – to improve transportation safety in the Baltimore region. The BRSS also welcomed new members from several local universities such as the Johns Hopkins School of Public Health, Maryland Institute College of Art (MICA), Towson University, and the University of Baltimore. Baltimore Metropolitan Council (BMC) staff also played an active role on the Anne Arundel County and Baltimore-Harford County safety task forces led by the regional traffic safety program coordinators from the Maryland Highway Safety Office (MHSO).

BMC staff played an active role in the implementation of the state's 5-year (2011-2015) SHSP. The SHSP is a blueprint for reducing crashes, fatalities, and injuries across the state and the region. BMC staff co-chairs the Infrastructure Emphasis Area Team (EAT) and play an active role on the Pedestrian EAT and the statewide Motorcycle Safety Coalition.

BMC continued the Street Smart pedestrian safety campaign that began in 2009 with significant funding support from the MHSO. The FY 2014 campaign included Baltimore City and Anne Arundel, Baltimore and Harford Counties. Street teams were deployed along several high pedestrian crash corridors to distribute driver and pedestrian safety messages. The media element of the campaign included radio and television public service announcements, billboards, overhead banners, gas-pump toppers and online and social media outreach.

In FY 2015, the BRSS will continue to meet quarterly and develop plans and programs for implementation. BMC will work closely with the Maryland Motor Vehicle Administration's Highway Safety Office, State Highway Administration (SHA), and local jurisdictions in developing the next SHSP.

BMC will continue to build on the 2014 campaign by deploying additional resources and bringing in new partners. FY 2015 Grant from MHSO - $350,000.

BMC is an active, non-voting member of the technical and executive committees of the Traffic Records Coordinating Committee (TRCC). The mission of the TRCC is to coordinate all traffic records system components (crash, roadway, citation/adjudication, driver, vehicle, injury surveillance) using data quality performance measures (timeliness, completeness, accuracy, accessibility, integration, uniformity) in an effort to advance the Maryland traffic safety community. BMC will also join a new Geographic Information Systems (GIS) subcommittee of the TRCC. BMC staff will continue to get crash data and analytical support from the MHSO and the National Study Center (NSC). Staff will share crash data reports with the various subcommittees on a regular/as-needed basis.

BMC will partner with SHA and one or more local jurisdictions in conducting one or more Pedestrian Roadway Safety Audit (PRSA) along high-crash corridors. BMC will coordinate with SHA's pedestrian Key Performance Area (KPA) team as well as the SHSP pedestrian Emphasis Area Team (EAT) to conduct a

comprehensive pedestrian safety audit.

PRODUCTS/MILESTONES	SCHEDULE
Regional Safety Subcommittee Meetings Data and Analysis	Quarterly
Regional Pedestrian Safety	Throughout Fiscal Year
Collaborate with state and local agencies on public safety	Throughout Fiscal Year

BUDGET: **$120,000**

TASK: **BICYCLE AND PEDESTRIAN PLANNING**

PURPOSE: To strategically develop and support implementation of regional and local plans which promote opportunities for an integrated multi-modal transportation system. Development of various plans should be related to regional goals in an effort to achieve connectivity, mobility and safety.

During Fiscal Year (FY) 2014, the Baltimore Metropolitan Council (BMC) facilitated the following activities on a regional level: Continued success with the StreetSmart education program; BMC hosted several Association of Pedestrian and Bicycle Professionals webinars; Worked on planning for implementation of a bicycle and pedestrian counting pilot project, including recommending counts at two scheduled activity centers (Westminster and Bel Air) and met with state agencies and networked with other potential public and private sector partners in preparation for a planned Regional Bicycle and Pedestrian Data Collection and Sharing Forum on April 3, 2013. Recommended a focus on bike and pedestrian projects for the regional Congestion Mitigation and Air Quality (CMAQ) solicitation; Participated in Healthy Harford Day in September; Reviewed the 2014-2017 Transportation Improvement Program (TIP) in relation to bike and pedestrian improvements; and Invited two Baltimore County councilmen to discuss local bike planning and the relationship to regional efforts.

In FY 2015, the successful development of many local bicycle and pedestrian plans will be followed with efforts to support implementation of the recommendations. The Bicycle and Pedestrian Advisory Group will advise the Baltimore Regional Transportation Board (BRTB) on bicycle and pedestrian considerations in the context of the overall regional transportation planning framework. The BPAG will track and report on progress on implementing projects from relevant plans and provide the status of planning and construction phases.

Additionally, BPAG will support related efforts such as the annual Street Smart safety program and emerging Complete Streets projects. BPAG will review the bicycle and pedestrian counts that are collected at select activity centers as well as work to institute a uniform approach to data collection and maintenance by all parties.

PRODUCTS/MILESTONES	SCHEDULE
Staff Bicycle and Pedestrian Advisory Group	Bi-Monthly
Coordinate B2WD events	3rd & 4th Quarters

BUDGET: **$80,000**

TASK: **FREIGHT MOBILITY PLANNING**

PURPOSE: To incorporate freight movement into the regional transportation planning process by bringing together public and private sector freight stakeholders and providing data and analytical tools that help prioritize freight investments.

During Fiscal Year (FY) 2014, the Freight Movement Task Force (FMTF) met quarterly to discuss various topics of regional significance such as the Maryland primary freight network, the Delmarva freight study, overnight parking along I-83, etc. Staff from the U.S. Department of Transportation (DOT) freight office provided an update on Moving Ahead for Progress in the 21st Century (MAP-21) requirements, analysis tools and data that are available to states and metropolitan planning organization's to help with freight analysis and project prioritization.

In addition, staff supported the newly formed Freight Regional Oversight Group (FROG) commissioned by the Baltimore Regional Transportation Board (BRTB) to develop freight projects for inclusion in long-range plans and other funding opportunities. A consultant team was hired on a three-year on-call basis to support freight studies in support of the FMTF and the FROG. They are currently assisting the team in collecting overnight truck parking count data along I-83 between I-695 and the Pennsylvania State line.

In FY 2015, the FMTF will continue to meet quarterly. The FMTF serves as an advisory committee to the BRTB. Its function is to provide a voice for public and private freight transportation stakeholders in the metropolitan planning process. The Task Force includes representatives from rail (CSX and Norfolk Southern), highway (Maryland Department of Transportation (MDOT), State Highway Administration (SHA)), water (Maryland Port Administration and Port of Baltimore), trucking (Maryland Motor Truck Association) as well as local economic development, traffic and planning representatives.

Staff will work with the FMTF and as hoc groups to incorporate freight needs from water to rail to trucks, for a safe and efficient regional freight network.

The following are some of the technical activities that are anticipated to be carried out: Development of an online Geographic Information Systems (GIS) database for freight facilities in the region; Develop Local Economic Activity Corridors (LEAC); Coordinate with MDOT/SHA on freight performance measures to be included in the update to the long range plan; Coordinate with state/local offices of economic development; and Support the FROG with data and analytical support.

PRODUCTS/MILESTONES	SCHEDULE
Freight Movement Task Force Meetings	Quarterly
Baltimore Freight Finder – online GIS tool (pending funding availability)	Throughout Fiscal Year
Collaborate with state and local agencies	Throughout Fiscal Year

BUDGET: **$120,000**

TASK: **TRANSIT AND HUMAN SERVICE TRANSPORTATION COORDINATION**

PURPOSE: Develop recommendations and strategies to (1) improve transit service in the Baltimore region, (2) improve transit access to employment and services, (3) address transportation needs of the elderly, individuals with disabilities, and low-income residents in conjunction with ongoing transit, paratransit, and community-based transportation planning activities, (4) promote economic development opportunities, and (5) reduce dependence on single-occupant vehicles.

During Fiscal Year (FY) 2014, Baltimore Metropolitan Council (BMC) staff worked with the Maryland Transit Administration (MTA) to monitor performance measures for gauging transit system effectiveness relative to the regional goal of improving mobility.

Regional Transit Analysis - BMC staff continued to work with the ad hoc committee GO-TRAN (Group Overseeing Transit Analysis) to conduct a regional transit analysis. This has included staff analysis and presentation of population and employment density data in selected candidate corridors as well as further development of indices to aid in analysis of corridors (i.e., Transit Propensity Index and Transit Service Index). Also, GO-TRAN members selected a consultant to conduct transit analysis work. Under a task-order contract, the consultant work began on Task 1: develop profiles of the locally operated transit service (LOTS) agencies. The consultant team began work on Task 2: analysis of best practices for project evaluation and selection criteria (to aid in project evaluation and selection for the long-range transportation plan and the Transportation Improvement Program (TIP)).

BMC staff served on the steering committee for MTA's Bus Network Improvement Project (BNIP). The intent of this project is to engage the public, transit operators, and other agencies to identify and make improvements to MTA's core bus service.

Coordination with Transit Providers - Coordination continued with state, local and private transit operators as well as local jurisdictions and stakeholders to improve transit service performance and utilization. This included maintaining the working agreement with the MTA and LOTS agencies to ensure appropriate involvement in the regional transportation planning process.

BMC staff prepared and distributed (on average once every two months) the On Transit e- newsletter. The intent of this newsletter is to inform regional transit stakeholders about transit- related news and developments of regional and national interest, transit-related publications and resources, and upcoming transit-related events.

Human Services Transportation Coordination – BMC staff participated on the Motor Vehicle Administration (MVA) steering committee that organized the 2013 Maryland Older Driver Safety Symposium (MODSS). Additionally, staff attended the Maryland Senior Rides Program (SRP) Review Committee meeting at MTA to select grant recipients. Staff also conducted a survey of transportation providers serving elderly and the disabled residents in the region.

In FY 2015, staff will continue to work on the regional transit analysis (GO-TRAN), in particular Phase 1, comprised of information gathering; identification of current transit system users and user needs, system assets, service areas and service gaps, and barriers to coordination; and development of short-term, cost-effective strategies to improve service. Phase 2, the detailed analyses of corridors considered for expansion of existing transit service and/or establishment of new service, will also continue, as directed by the GO-

TRAN committee. Work will begin on Task 3: Analysis of best practices for site development and zoning standards to ensure optimal rider access to transit stations and stops.

Staff will assist MTA with data needs relative to the BNIP project and continue to serve on the BNIP Steering Committee to help MTA implement core bus service changes. In addition, staff will provide technical and procedural support to the Red Line planning process.

Staff will also review recommendations of key state and local transit and comprehensive plans to ensure consistency in goals, priorities, and performance criteria; foster dialogue and information sharing to better serve transit planners and operators in the region, possibly via electronic newsletter format; and continue to participate in Human Services Transportation Coordination (HSTC) programming for the elderly and disabled with MTA, MVA, and other regional partners.

Staff will update the 2010 Baltimore Area Coordinated Public Transit-Human Services Transportation (CPT-HST) Plan, and will collaborate with the Opportunity Collaborative on plans to enhance transportation for low and moderate income workers and link that to affordable housing and workforce development efforts.

PRODUCTS/MILESTONES	SCHEDULE
Analyze best practices for site development and zoning standards to ensure optimal rider access to transit stations and stops.	1st Quarter
Analysis of short-term opportunities to improve service	Throughout fiscal year
Analysis of potential transit corridors	Throughout fiscal year
Assist MTA with data needs relative to the BNIP project. Continue to serve on the BNIP Steering Committee to help MTA implement core bus service changes.	Throughout fiscal year
Review state and local transit plans for consistency	Throughout fiscal year
Produce Transit e-newsletters	Periodically
Participate in HSTC programming for the elderly and disabled.	Throughout fiscal year
Update 2010 Baltimore Area CPT-HST Plan.	3rd Quarter

BUDGET: **$220,000**

TASK: **EMERGENCY PREPAREDNESS PLANNING**

PURPOSE: To increase the safety and security of the transportation system through enhanced coordination, communication, and cooperation of the region's emergency responders. Emergency planning work supports the Baltimore Regional Transportation Board (BRTB) as well as the Baltimore Urban Area Homeland Security Work Group (UAWG).

During Fiscal Year (FY) 2014, staff supported the ongoing activities of the regional Transportation & Public Works (T&PW) Committee, which provides input to both the BRTB as well as the UAWG. Staff also continued to support the Disaster Debris Planning Task Force as well as emergency preparedness planning efforts of the State and local jurisdictions. Highlights include: Completion of Evacuation Traffic Management Support Document; Hurricane Sandy Information Exchange Forum sponsored by the T&PW Committee; and Evacuation Facilitated Discussion sponsored by the T&PW Committee.

In FY 2015, staff efforts will focus on: Supporting Baltimore Metropolitan Council (BMC)/BRTB emergency preparedness committees and Coordination with and Support of Emergency Preparedness Partners.

Supporting BMC/BRTB emergency preparedness committees

Transportation & Public Works Committee – The T&PW Committee pursues daily operations and public works topics as well as supports homeland security/emergency preparedness planning. (Refer to Operations section for Operations Planning activities). Staff will continue to support quarterly T&PW Committee meetings and projects. This Committee submits annual project funding requests to the UAWG. BMC staff has taken and will continue to take the lead in preparing the T&PW project proposal submissions to the UAWG. The T&PW Committee will continue to oversee emergency preparedness projects supported through funds from the UAWG. Projects will focus on evacuation planning and coordination.

BMC issued a task order contract for evacuation planning support. The contract will continue through FY 2016, and BMC staff will continue to serve as project manager on the homeland security-funded projects.

Disaster Debris Planning Task Force – The Disaster Debris Planning Task Force, which is a subcommittee of the T&PW Committee, meets quarterly to address coordination issues related to disaster debris planning and removal. In past years, this group held four disaster debris-focused exercises / forums to identify, discuss, and resolve coordination issues, the most recent being in late FY 2013. In FY 2015, staff will continue to work with the Task Force to address action items identified in the exercises and forum. Staff continues to update a list of Resolved Issues of the Task Force. This group will also continue to meet quarterly. BMC staff will continue to provide support to this Task Force and act as project manager for its projects. If additional Urban Area Security Initiatives (UASI) funds are allocated to the Task Force, staff will continue in the role of grant administrator.

Coordination with and Support of Emergency Preparedness Partners

Staff also supports other regional emergency preparedness planning efforts through membership in the UAWG and its other subcommittees. Staff regularly attends the UAWG and Emergency Planner Committee meetings to provide a transportation perspective on emergency preparedness planning.

PRODUCTS/MILESTONES	SCHEDULE
Committee meeting minutes	Throughout Fiscal Year
Address issues identified in the tabletop exercise focused on the transportation aspects of evacuation	Throughout Fiscal Year
Address issues identified in previous Disaster Debris Tabletop Exercise	Throughout Fiscal Year
Support the UAWG and its subcommittees as needed	Throughout Fiscal Year

BUDGET: **$90,000**

TASK: **TRANSPORTATION EQUITY PLANNING**

PURPOSE: To ensure equitable decision-making in the regional transportation planning process.

During Fiscal Year (FY) 2014, staff developed to 90% completion the general requirements specified in chapter III of *Circular 4702.1B: Title VI Requirements and Guidelines for Federal Transit Administration Recipient.* In particular, staff drafted updates for both the *Public Involvement Plan*, and *Limited English Proficiency Plan*. In addition, staff designed initiated and completed a process to determine the racial composition of all transit-related, non-elected planning boards, advisory councils or committees, or similar bodies. Also, staff initiated activities to facilitate and ensure sub recipient Title VI compliance.

Staff also continued activities to meet the requirements of *Circular 4703.1: Environmental Justice Policy Guidance for Federal Transit Administration Recipients.* Staff completed a second phase of activities to locate concentrations of EJ populations in the region, engaging local jurisdictions and regional stakeholders to field check the data collected and maps developed in FY 2013, and to guide refinements in order to maximize usefulness of the information at both the regional and local levels.

In FY 2015, staff will complete metropolitan planning organization-specific requirements specified in chapter VI of *Circular 4702.1B: Title VI Requirements and Guidelines for Federal Transit Administration Recipient.* In particular, staff will develop and complete a demographic evaluation and develop the data needed to locate Title VI populations in the region.

Staff will complete a regional environmental justice analysis as specified in *Circular 4703.1: Environmental Justice Policy Guidance for Federal Transit Administration* in order to identify disproportionately high and adverse effects of the regional transportation planning process on environmental justice (EJ) populations.

PRODUCTS/MILESTONES	SCHEDULE
Complete Regional Title VI Plan	2nd Quarter
Complete Regional EJ Evaluation	4th Quarter
Facilitate Title VI and EJ Planning Activities in the Region	Throughout

BUDGET: **$80,000**

DATA DEVELOPMENT AND MODEL ENHANCEMENTS

THIS PAGE LEFT BLANK INTENTIONALLY.

PROJECT: **DATA COLLECTION (INCLUDES THREE TASKS)**

TASK: **DEVELOPMENT MONITORING**

PURPOSE: To track new land development patterns in the region by type (residential, non-residential, mixed-use etc), location, and timing. Tracking development activity is important to the transportation planning process to determine the placement of household and employment growth and associated impacts and demands on the region's transportation network. Ongoing contact with state and local agencies provides data needed for this activity.

During Fiscal Year (FY) 2014, Baltimore Metropolitan Council (BMC) staff continued to collect and process building permits from each of the local jurisdictions, bringing them into one common system. The *Building Permit Data System (BPDS)* at the BMC has been serving the region with various products and services: (1) statistical summary reports of planned building activity across the Baltimore region is compiled on a monthly basis from the building permits received and processed by BMC; (2) the reports include analysis of regional trends, supported by maps and charts highlighting notable development activity, as well as a comparison with the national trend during the reporting period; and (3) BPDS Online allows users to search the building permit files and to retrieve those items directly online through subscription.

BMC staff reviewed new development patterns in the region to determine their consistency with the objectives of Maryland's Smart Growth Initiatives and Priority Funding Areas as well as locally designated priority funding areas. Three principal monitoring activities were carried out: (1) compiled development announcements from regional/local media, local economic development agencies, State Highway Administration (SHA) project reports, and other sources within the local planning/development community; (2) analyzed actual residential development relative to existing and proposed water and sewer service areas and created a report documenting development activity; and (3) prepared monthly, quarterly, and special reports of construction plans derived from the BPDS. BMC staff also made formal presentations on these development monitoring activities to the Technical Committee and to the Baltimore Region Geographic Information Systems Committee.

In FY 2015, staff will prepare monthly and quarterly reports of plans for new residential and non-residential development. There will also be an analysis of building permit activity by water and sewer service areas and priority funding areas. Following this, staff will prepare residential growth "hot spots" report. Staff will also institutionalize the new reporting for semi-annual reports on "green" construction activity. "Green" refers to the Addition/Alteration/Repair permit category that contains features directed toward energy conservation. This is accomplished through the search of the permit descriptions for one of several key words (including solar, voltaic, panel, thermal, turbine, wind).

In order to maintain a well-functioning system there will be continuing efforts to develop and implement applications for capturing and reporting special building permits.

PRODUCTS/MILESTONES	SCHEDULE
Reports on residential/non-residential development plans	Monthly/Quarterly
Reports on "green" construction activity	Semi-annual
Report on residential hot spots	4th Quarter
Analyses/Maps of residential building permit activity by water and sewer service areas and Priority Funding Areas	4th Quarter

BUDGET: **$210,000**

TASK: **MONITORING SYSTEM PERFORMANCE AND RELIABILITY**

PURPOSE: To monitor travel conditions throughout the Baltimore region for a multitude of planning needs such as inputs to the regional travel demand model, air quality data, the Congestion Management Process (CMP) and the long-range transportation plan (LRTP) process.

During Fiscal Year (FY) 2014, staff completed activities in four areas:

Traffic Counts: The Baltimore Metropolitan Council (BMC) sent out a Request For Proposals (RFP) to enter into a multi-year contract with a vendor to perform screenline traffic counts. Staff explored and developed a pedestrian and bicycle count Geographic Information Systems (GIS) data sharing method within the ArcGIS online platform. Work continued in collecting and tabulating traffic count data from various sources loading it into on online traffic count map and database for use in the travel demand model.

Speed and Travel Time Collection: Quarterly Congestion Analysis Reports were produced throughout FY 2014 showing the top 10 bottlenecks in the region making use of vehicle probe data from INRIX. This third party probe data has been made available by a grant from the I-95 Corridor Coalition through the University of Maryland's Center for Advanced Transportation Technology (CATT) Lab to monitor conditions on the region's freeways and arterials and incorporating it into the regional CMP. In-house GPS data collection was used to monitor regional arterials where probe data coverage was not available.

Activity Centers: During the spring months of March to May, BMC staff conducted occupancy and classification data including transit bus passenger numbers at the six activity centers of Annapolis; Columbia; Fort Meade; Hunt Valley; Owings Mills and Towson. This is the continuation of the regional activity data collection program that has been ongoing since 1987 that includes the twelve activity centers that are counted on a three-year cycle. (The other two cycles include the following activity centers: Baltimore City central business district, Bel Air, Thurgood Marshall Baltimore Washington (BWI) International Airport, Westminster, White Marsh, and Woodlawn/Social Security). Fiscal Years 2013-2015 complete the typical three-year cycle of data collection during the morning peak travel time done during the spring months at 107 total locations of all twelve activity centers. At the request of the Baltimore Regional Transportation Board (BRTB), BMC staff will explore studies on special activity centers such as ports, airports or hospitals.

Trip Generation: Staff initiated an analysis on trends in vehicle travel growth rates. State and local planners are responsible to review and evaluate developer-generated travel impact analyses, which identify existing and forecasted background traffic along with impacts of proposed development. This analysis concentrated on the assumptions used to forecast background traffic by evaluating completed analysis comparing assumed growth projection with collected traffic counts. A cross class analysis was performed to examine location and other characteristics that have contributed to differences in assumed traffic growth rates and traffic counts.

In FY 2015, staff will engage in these four areas:

Traffic Counts: A selected vendor will perform volume counts at 79 or more screenline locations as part of BMC's regular 3-year cycle. An RFP will be issued for bicycle and pedestrian counts at locations where vehicle occupancy studies are being conducted by BMC staff. The interactive online traffic count map will be maintained in ArcGIS Online.

Speed and Travel Time Collection: Quarterly Congestion Analysis Reports showing the top ten bottlenecks in the region will continue to be produced. New advanced performance measures will be included in accordance with Moving Ahead for Progress in the 21st Century (MAP-21) guidelines when they become finalized. In house Global Positioning System (GPS) data collection will be available for localized arterial studies by request of BRTB membership or for any coverage gaps in the INRIX/Vehicle Probe Project (VPP) suite.

Activity Centers: During the spring months of March to May, BMC staff will conduct occupancy and classification data including transit bus passengers' numbers in the Baltimore City Central Business District. This activity center has 38 locations.

Trip Generation: BMC will research new potential Origin Destination Survey Data technologies (cellular apps, AirSage, Tom Tom and other commercial products) to support projects such as continuous Household Travel Surveys and to potentially assist the Maryland Transit Administration (MTA) with On-Board and State Highway Administration (SHA) with Add-On.

PRODUCTS/MILESTONES	SCHEDULE
Highway and arterial traffic counts, vehicle occupancy and vehicle mix data	Throughout Fiscal Year
Travel data products to support the CMP	Throughout Fiscal Year
Update Online Traffic Count Map	4th Quarter
Presentation and documentation materials	4th Quarter
Activity Center Vehicle Occupancy/Classification summary	4th Quarter
Pedestrian and Bicycle GIS database and sharing process	4th Quarter

BUDGET: **$160,000**

TASK: **DATABASES AND TRAVEL SURVEYS**

PURPOSE: To review, analyze and develop relevant transportation planning products from data released by agencies relevant agencies such as the U.S. Department of Commerce and the U.S. Census Bureau; and to evaluate the uses, feasibility, and timing of a future household travel survey.

During Fiscal Year (FY) 2014, staff completed the following:

Databases – A system of Community Profiles was updated using data from the 2008 American Community Survey (ACS). The U.S. Census Bureau released its first small area summaries of the ACS in late calendar 2010. The ACS has replaced the U.S. Census Bureau's decennial long-form questionnaire and provides small area data on an annual basis. The 2010 Master Establishment File (MEF) was completed, utilizing the North American Industrial Classification System (NAICS) codes. The MEF is an inventory of businesses and organizations operating in the Baltimore region. Staff conducted analysis on the Census Transportation Planning Package (CTPP) and its utility for use in travel demand modeling and also developed a web application to visualize CTPP commuting data.

In FY 2015, staff will work on these activities:

Staff will update the Community Profiles using population and travel behavior data from the 2012-2013 ACS and the new MEF. Staff will then enhance the way demographic data is available online with expanded web maps and data profiles. Staff will analyze the usability and reliability of 5-year ACS products by comparing it with existing census data and data from the five-year (2008-2012) ACS product by small area. Data from the ACS will be compiled and analyzed to assist in Environmental Justice equity analyses as needed.

As part of a re-evaluation of data collection at the agency, Baltimore metropolitan Council (BMC) staff will analyze the uses, feasibility, and timing of a future household travel survey. Staff will also consider alternate surveys and research methods that could supplement or replace the household travel survey and will develop a survey plan. Research methods will include the use of Global Positioning System (GPS) and other smart phone applications to reduce survey burden on participants, increase accuracy, and improve the efficiency of survey processing.

PRODUCTS/MILESTONES	SCHEDULE
Analyze the uses, feasibility, and timing of a future household travel survey and develop survey plan	2nd Quarter
Analysis of quality, reliability, and usability of 2008 – 2012 ACS data	3rd Quarter
Publication of Community Profiles using new data	4th Quarter
Improve access to data with interactive online maps and profiles.	Throughout Fiscal Year

BUDGET: **$120,000**

PROJECT: **DATA DEVELOPMENT AND ANALYSIS (INCLUDES FOUR TASKS)**

TASK: **GIS ACTIVITIES**

PURPOSE: To continue to develop and refine the Baltimore Metropolitan Council (BMC) Geographic Information System (GIS) that will allow BMC staff to spatially organize, update, analyze, disseminate, and graphically depict demographic, socio-economic, and travel information.

During Fiscal Year (FY) 2014:

A major accomplishment was the creation of a system for local jurisdictions to share updated street centerline and address point data with BMC. This is part of a larger project to create a seamless regional addressing system for use in BMC projects as well as supporting Moving Ahead for Progress in the 21st Century (MAP-21) requirements.

BMC set up a new GIS-web infrastructure that utilizes both ArcServer and ArcGIS online for organizations. Several prototype web applications have already been developed.

in FY 2015, work includes:

GIS staff will develop tools based on the local addressing data for internal use. A web application is being developed to allow jurisdictions to access the regional data for their emergency management systems. Staff will coordinate with State Highway Administration and the Maryland Department of Information Technology to create a system for the local jurisdictions to share addressing data with the state through BMC.

BMC intends to expand the organization's web presence significantly with web mapping applications to assist in public outreach and in the creation of planning and analysis tools that will be available to both professionals and the general public.

Work with the Baltimore Regional Geographic Information System Committee (BRGISC) will continue with ongoing coordination of the combined addressing and centerline project, advocacy for regional interests at the state level, and by providing networking and training opportunities for GIS staff from our member jurisdictions. BMC also has a leadership role in the Maryland State Geographic Information Committee (MSGIC) Executive Committee as head of the Regional Caucus. As the interests of BRGISC and the Regional Caucus are similar, there will be opportunities for the work of each committee to inform and enhance the work of the other.

BMC staff will provide ongoing GIS maintenance and technical support for various transportation planning activities including analysis for the Long Range Plan, the Transportation Improvement Program, the Opportunity Collaborative, freight movement, and the congestion management system.

PRODUCTS/MILESTONES	SCHEDULE
GIS mapping and geospatial analysis for BMC projects	Throughout Fiscal Year
Manage, update, and maintain an enterprise GIS database system	Throughout Fiscal Year
Coordinate regional GIS projects	Throughout Fiscal Year
Create derivative products based on regional addressing data	Throughout Fiscal Year
Develop a web application for sharing data between local jurisdictions	1st Quarter
Participate in BRGISC and MSGIC	Throughout Fiscal Year
Create educational and professional development opportunities for BRGISC members	2nd Quarter
Develop new mapping applications and GIS web services	Throughout Fiscal Year

BUDGET: **$320,000**

TASK: **DEMOGRAPHIC AND SOCIOECONOMIC FORECASTING**

PURPOSE: To develop and maintain population, household, and employment forecasts for the Baltimore Metropolitan region. The cooperative forecasts, developed by the local jurisdictions with the support of the Baltimore Metropolitan Council (BMC) staff, serve as a key input to the regional travel demand forecasting process and the development of the Long Range Transportation Plan. Generally, local planning agencies that comprise the Cooperative Forecasting Group (CFG) develop their own estimates and projections based upon local comprehensive plans, adopted zoning maps and regulations, and an inventory of available residential holding capacity.

During Fiscal Year (FY) 2014, the CFG continued to meet on a bi-monthly basis. The most significant achievement was the completion of the Round 8 cooperative forecasts that were subsequently endorsed by the Baltimore Regional Transportation Board (BRTB) on August 27, 2013. Other undertakings of the group included the monitoring and reporting of recent Census data releases for the region, receiving status reports from local jurisdictions regarding significant development activity, hosting presentations from Maryland State Data Center staff regarding *Plan Maryland* and its connection to the cooperative forecasting process, participating in the Long Range Plan update process, and working on the development of the Round 8-A socioeconomic forecasts.

In FY 2015, the CFG will continue to meet on a bi-monthly basis. The group will complete the Round 8-A socioeconomic forecasts and submit them to the Technical Committee for review prior to submission to the BRTB for endorsement. Additionally, the CFG will continue to monitor the release of Census data that pertains to population, households, and employment, document the proceedings of the Cooperative Forecasting Group meetings, document comparisons between Round 8 and Round 8-A long-range population household, and employment forecasts, provide small area residential and employment estimates and forecasts to local jurisdictions on request, continue data compilation, data development, and technical assistance to BMC partners, and coordinate joint meetings to continue discussions on bi-regional growth assumptions with the Metropolitan Washington Council of Governments (MWCOG) and Wilmington Area Planning Commission (WILMAPCO).

PRODUCTS/MILESTONES	SCHEDULE
Complete Round 8-A socioeconomic forecasts	1st Quarter
Monitor and review relevant Census data releases	Throughout Fiscal Year
Document proceedings of the CFG	Throughout Fiscal Year
Provide data to local jurisdictions upon request	Throughout Fiscal Year
Provide data compilation, data development, and technical assistance	Throughout Fiscal Year

BUDGET: **$210,000**

TASK: **ANALYSIS OF REGIONAL DATA AND TRENDS**

PURPOSE: To identify regional travel trends and related policy issues, using existing Baltimore Metropolitan Council (BMC) datasets and outside resources where available. The results of the analysis will be communicated to local officials and the public.

During Fiscal Year (FY) 2014 the following activities were completed:

Regional Indicators - The scope of the Regional Indicators task reflects the broad social and economic forces that influence, and are influenced by, the policies and programs of the Baltimore Regional Transportation Board (BRTB). BRTB policy goals and program initiatives are articulated in documents such as *Plan It 2035*, the region's long-range transportation plan.

The Regional Indicators task will be an opportunity to re-evaluate and consolidate data collection activity at BMC. It may encompass data on land use and economic development, the environment, the condition of transportation infrastructure, measures of access and mobility, transportation system safety and security, and other data as necessary.

Major sub-tasks will be selection, analysis, synthesis, and dissemination of regional indicators. Staff will work with subject area specialists at BMC to develop indicators, while also drawing on best practice from other metropolitan planning organizations and subject area literature reviews.

BMC staff developed a preliminary plan to re-evaluate and consolidate data collection at the agency. As a first step, an index of current data sources was compiled. A common format for the index, which has to list many different data types, was also agreed upon. The index was then updated to the common format.

New Transportation Services and Technology Transfer – New transportation services such as Carma (ridesharing) and Hertz 24/7 (car sharing) are redefining driving and car ownership, and are already expanding transportation choices for residents of the region. In addition, they demonstrate the potential of ubiquitous mobile technology and low-cost software, including location apps, messaging services, mobile payment systems, trip planners, scheduling software, and cloud services, to add value to transportation operations.

The goals of the project are twofold: 1) Understand the markets for new transportation services, and 2) Identify applications for the technology, especially in the non-profit sector. The results will be published in a summary document.

In FY 2015, staff will work on these activities: identify set of regional performance measures; analyze/synthesize current data; identify set of regional indicators; produce a summary document; and produce State of the Region Report.

PRODUCTS/MILESTONES	SCHEDULE
Identify set of regional performance measures.	1st Quarter
Analyze/Synthesize current data.	2nd Quarter
Identify set of regional indicators.	3rd Quarter
Produce a summary document.	3rd Quarter
Produce State of the Region Report	4th Quarter

BUDGET: **$90,000**

TASK: **TECHNICAL ANALYSIS IN SUPPORT OF STATE INITIATIVES**

PURPOSE: To provide Maryland agencies, including the modal administrations of the Maryland Department of Transportation (MDOT) and other state agencies (such as the Maryland Department of the Environment (MDE) or the Maryland Department of Planning) special technical assistance in transportation planning activities related to the Baltimore region.

During Fiscal Year (FY) 2014, Baltimore Metropolitan Council (BMC) staff continued providing technical assistance to state agencies. The use of regionally-generated data ensures the inclusion of regional growth and development goals and forecasts, as well as regional priorities for transportation improvements. BMC staff continues to assist by providing and supporting regional simulation tools, analysis of data, development of tools, and providing simulation results. Work activities involve meetings with participating agencies to discuss proposed/new projects, development of monthly progress reports, budgetary reporting, and technical quality control.

BMC staff attended the State Highway Administration (SHA) Maryland Statewide Transportation Model (MSTM) Peer Review providing comments on recommended actions. BMC and SHA modeling staff continue to discuss ways of coordinating statewide and regional modeling efforts, looking for opportunities to combine efforts that will benefit both agencies in achieving their goals and objectives. There are efforts to coordinate modeling approaches related to Transit Oriented Development (TOD) and highway loading through the use of Dynamic Traffic Assignment. A joint freight truck modeling grant application through the Strategic Highway Research Program (SHRP2) was awarded for the development of an urban tour based model along with a statewide supply-chain model framework. A Geographic Information System (GIS) data viewer tool allowing quick and easy viewing regional demographic data, Census results, and model output at Transportation Analysis Zone (TAZ) was built.

BMC staff provided data analysis and the development of tools in supporting Maryland Transit Administration (MTA) decision making. BMC developed and built a transit service index, measuring service coverage, frequency and duration, which was then displayed in thematic maps of relative service differences at various levels of geography. The index allows users to develop scenarios testing changes in service effecting geographic results that can be compared between alternatives.

BMC staff assisted MDOT and MDE in the development of the Federal Highway Administrations (FHWA) Energy and Emissions Reduction Policy Analysis Tool (EERPAT). BMC staff, working with an FHWA-supplied contractor, calibrated the scenario tool at the statewide level. BMC staff conducted a training session for state and local planners providing instruction on model setup, execution, and result interpretation.

In FY 2015, BMC staff will continue the discussion and support of MTA data collection efforts. BMC will support MTA's On-Board Transit Survey providing review and comment on design plan, methodology, and implementation. Revealed data from an On-Board Transit Survey provides the ability to learn how the region's transit system is being used and offers a dataset for simulation model validation. The opportunity to coordinate data needs allows the region to maximize data collection efforts. BMC will continue its work with MTA as the latter develops a real-time customer information system.

BMC and SHA staff will continue coordinating improvements in modeling simulation tools. BMC and SHA

will be engaged in analyzing data and developing an urban based tour model that will later be extended to the statewide model. MDOT has identified TOD sites within the region and staff is developing modeling methods to capture the effects of land use patterns on transportation choices. The Activity Based Model under development will incorporate parcels to provide enhanced capabilities, and BMC is assisting SHA in researching tools such as Land Use and Transportation Scenario Analysis and Micro-simulation (LUTSAM) for consideration.

PRODUCTS/MILESTONES	SCHEDULE
State Data Collection Support/Meetings, Memos	Throughout Fiscal Year
Technical Tool Coordination – Dynamic Traffic Assignment and Freight Modeling	Throughout Fiscal Year
Data Analysis/Memos, Charts/Graphs/Tabulations, Documentation	Throughout Fiscal Year

BUDGET: **$200,000**

PROJECT: **REGION'S TRAVEL SIMULATION TOOLS (INCLUDES TWO TASKS)**

TASK: **CURRENT SIMULATION TOOLS**

PURPOSE: Updating, Maintaining, and Applying the Region's Travel Simulation Tools in Support of policy decisions.

During Fiscal Year (FY) 2014, Baltimore Metropolitan Council (BMC) staff developed, maintained and applied simulation tools to achieve a better understanding the region's travel demand, motor vehicle emissions, and location choice decisions. Tools were maintained and developed, incorporating new data or estimating/modifying methods simulating travel choices. The simulation tools were applied at the project level, measuring changes in accessibility: corridor level for analysis of commuter flow; and at the regional level in determining air-quality conformity.

The region's aggregate trip based model (Version 4.3) was updated incorporating the 2010 Census Transportation Analysis Zones (TAZs), the Round 8 demographic data, updates to PopGen-BMC (synthetic population generation process), and validation to the year 2010. The input highway network is maintained using a customized Geographic Information Systems (GIS) application, where transportation capacity improvements can be are coded. Other spatial databases (traffic counts, INRIX speed data) have been joined to the representative network providing observations for model validation. The region's synthetic population generation process was updated, incorporating the 2010 Public Use Microdata Sample (PUMS) database. Simulation of regional travel demand from the version 4.3 model was used in the air quality conformity determination of the FY 2014-2017 Transportation Improvement Program (TIP) and amendments to the long-range plan. Horizon year simulated link volumes based on the Round 8 demographics are combined with MOtor Vehicle Emission Simulator (MOVES), (U.S. Environmental Protection Agency (EPA's) mobile source emission model) in order to estimate on-road motorized vehicle emissions as a result of implementation of plans and programs. The region's trip-based model was used to analyze work and non-work travel supporting the Group Overseeing Transit Analysis (GO-TRAN) transit corridor improvement investigation. Measures of simulated transit accessibility were developed to support the Opportunity Collaborative effort to better connect citizens with jobs and other opportunities.

BMC technical staff supported Maryland Department of Transportation (MDOT) in the development and evaluation of a Federal Highway Administration (FHWA) tool – Energy and Emissions Reduction Policy Analysis Tool (EERPAT). BMC staff identified and gathered needed input data and supported the calibration process. BMC staff conducted sensitivity tests and developed two test scenarios. A training class with MDOT, Maryland Department of the Environment (MDE) and FHWA staff on EERPAT providing instructions on scenario preparation, and output interpretation was held. Also, BMC staff used the integrated the Production, Exchange and Consumption Allocation System (PECAS) model to analyze location choice decisions as a result of accessibility changes due to the construction of a suburban highway. Four scenarios were developed in understanding demand for residential space within the corridor. Results were shared with county and state highway planners.

In FY 2015, BMC staff will continue the maintenance of the aggregate trip based model with efforts focused on updating the representative highway and transit networks and incorporating Round 8-A. When requested staff will provide state and local planners with latest inputs and working model code and support model applications. BMC staff will review and revise the development of auxiliary trip tables (Baltimore

Washington International (BWI) airport, medium and heavy truck, commercial vehicles, and through trips) for incorporation.

BMC staff will apply the trip-based model in support of the development of the region's long range transportation plan. The technical scoring criteria in coordination with the Technical Committee will be reviewed and revised. Developed scoring criteria for each candidate projected will be measured using output from the trip based model. The transportation model networks will be revised per the Baltimore Regional Transportation Board (BRTB) recommendations to reflect the preferred alternative and horizon year trip based model simulations will be performed. Preferred alternative trip-based model simulated output will be analyzed documenting network performance in meeting plan goals and objectives. An Environmental Justice analysis documenting any adverse impacts on the region's population along with an air quality conformity determination of the preferred alternative will need to be performed. Other analysis on the preferred alternative related to transit or transit level of service) and freight movement will be coordinated with related working groups of the BRTB.

BMC staff, partnering with state and local agencies, will apply simulation tools and perform analysis within regional corridors. The wide variety of regional simulation tools will allow analysis of horizon year demand using the trip based model, supply using mesoscopic/microscopic transportation loading simulation software, mobile source emissions using emission factor models, and location choice using integrated econometric modeling. Following documentation of existing corridor conditions, alternatives analysis can be developed to maximize regional resources in developing a consensus on policies and solutions meeting regional endorsed performance measures.

PRODUCTS/MILESTONES	SCHEDULE
Maintenance of Aggregate Trip Based Model/Memos, Scripts, Input Datasets	Throughout Fiscal Year
Support State/Local Model Applications/Emails, Meetings, Phone Support	Throughout Fiscal Year
Long-Range Plan Technical Support/Memos, Spreadsheets, Networks, Documentation	Throughout Fiscal Year
Regional Corridor Support/Memos, Meeting Notes, Networks, Documentation	Throughout Fiscal Year

BUDGET: **$300,000**

TASK: **EXPANDING THE REGION'S TOOLSET**

PURPOSE: To develop and investigate emerging travel simulation tools to further the region's ability to understand regional travel and test emerging/evolving traffic operation/behavior policies.

During Fiscal Year (FY) 2014, staff with consultant support initiated a multiyear effort in the development of an Activity Based Model (ABM). The disaggregate travel model allows simulation of travel behavior at the household level representing travel using "trip tours." The disaggregate model provides greater capabilities in evaluating emerging regional policy questions using scenario analysis. The project focused on data identification, collection and review, as well as an ABM development plan. Existing regional data sets such as the 2007 Household Travel Survey, hourly traffic counts, INRIX speed data, parcel database from the Maryland Department of Planning (MDP) property view, employment data from the Master Establishment File (MEF) and InfoUSA, and parking locations and fees were assembled and provided to the consultant team. Due to the proprietary nature of the point record employment data (MEF), staff performed spatial buffer analysis on participants locations captured in the household travel survey. Year one model development focused on the creation of a model design plan outlining the model structure and specification of model components. With financial travel assistance from the Travel Model Improvement Program (TMIP), the Baltimore Metropolitan Council (BMC) convened an expert advisory panel to review the sufficiency of the proposed ABM design plan in providing the technical analysis capabilities to meet the region's locally identified policy questions and concerns.

The consultant team produced a plan to enhance staff capacity. The capacity enhancement plan identifies model estimation, development, calibration, validation, and application tasks that BMC staff will complete with the oversight/coach of consultant expert team members. The capacity enhancement plan will provide staff with the capabilities of applying, maintaining, and updating the ABM. This plan is crucial for making a smooth transition from Trip-Based Aggregate Modeling to micro-simulation models, allowing staff to apply the new tool to policy questions, determining air quality conformity, and scenario testing in preparation of future long range plans. The region's technical tools are share with state and local staff. An annual project review was held. The annual review workshop highlighted accomplishments in the current fiscal year and outlined tasks for the coming FY 2015. The workshop is designed to keep public and consultant staff informed while soliciting feedback on the project progress.

In FY 2015, BMC staff will continue development of the ABM. With model design plan and data identification and preparation completed, BMC and consultant staff will initiate the process of estimating discrete choice models capturing household long term choices, tour generation, tour-level choices, and stop/trip-level choices. Estimated models will be individually documenting identifying input variables and discrete choice model structure. Application software options of using current modeling software (Cube) and Cambridge Systematics TourCast will be evaluated, with BMC staff selecting application software that provides flexibility, simulation management, and ease of use in generating output of interest. With application software selection complete the process of application software development, incorporating estimated discrete choice models and the model framework identified in the model design plan. Following recommend best practices, model calibration and validation will commence as each ABM component is completed. Application software development and final model calibration/validation will be completed in FY 2016. BMC-PopGen population synthesizer will be reviewed and to estimate/forecast needed

household/population variables incorporated in the model estimation process to allow for scenario testing of regional demographic shifts. An annual project review workshop of public and private sector technical staff will be held soliciting input of fiscal year accomplishments and direction on FY 2016 objectives/tasks.

National sponsored research and other areas have developed tour-based freight models and incorporated mesoscopic (Dynamic Traffic Assignment) and microscopic highway loading. Regional freight related planning decisions would benefit from enhanced fright modeling technical analysis capabilities in planning for increase port activity as a result of Panama Canal Expansion, double stacking capabilities of the National Gateway project and intermodal transfer facility, and diesel truck nitrogen oxides (NOx) emissions impact on environmental issues of the health of the Chesapeake Bay and regional ozone areas. In cooperation with State Highway Administration (SHA), the region has prepared and submitted a Freight Demand Modeling pilot application. If awarded a pilot project, the BMC and SHA staff will obtain consultant services in the development of a tour-based freight model estimated from demographic and economic variables. Policy board members have identified the need to incorporate operation planning and Transportation System Management within the metropolitan planning process. The current regional modeling process uses time period static highway loading, thus limiting BMC staff's analysis capabilities in measuring system performance and user reliability. Corridor analysis of efficient low cost alternatives for improving operations would be supported with the adoption of new highway/transit loading procedure. BMC staff will continue to monitor advancements in urban freight modeling and highway/transit loading participating in activities such as TMIP webinars.

PRODUCTS/MILESTONES	SCHEDULE
Activity Based Model Estimation/Memos, Spreadsheets, Documentation	3rd Quarter
Activity Based Model Calibration/Validation/Memos, Graphs/Charts, Documentation	3rd Quarter
Activity Based Model Annual Project Review/Meeting Notes	4th Quarter
Population Synthesizer (PopGen-BMC) Review/Update/Documentation, Revised Scripts	4th Quarter
Research on Freight Modeling and Network Loading/Webinars, Memos	Throughout Fiscal Year

BUDGET: **$280,000**

SHORT-RANGE TRANSPORTATION PLANNING

THIS PAGE LEFT BLANK INTENTIONALLY

PROJECT: **TRANSPORTATION IMPROVEMENT PROGRAM**

PURPOSE: To assemble a comprehensive listing of requests for federal funds in support of state and local transportation investments planned over the next four-year period. Coordinate the Baltimore Regional Transportation Board (BRTB) Transportation Improvement Program (TIP) process to ensure member transportation projects fulfill all related federal requirements.

During Fiscal Year (FY) 2014, web-based software was used in the development of the TIP that enabled jurisdictions and agencies to submit, view and edit their TIP projects online. The software also provided the public an opportunity to review and comment on the TIP projects online in a user-friendly format. During FY 2014, development of a new web-based online TIP system progressed to the testing phase and will be used to process TIP changes to the 2014 – 2017 TIP. Development of the 2014-2017 TIP was completed in October 2014, with BRTB approval at the end of November 2014. Amendments to the 2014-2017 TIP will be reviewed and coordinated with the region's conformity determination as appropriate. In keeping with current surface transportation legislation, a listing of projects with federally obligated funds from the previous year's TIP's annual element was published within ninety (90) days after the end of FY 2014.

In FY 2015, 2014– 2017 TIP changes will be processed as requests are submitted by project sponsors. Training on the new web-based TIP system will be provided to project sponsors and those interested in preparation for the development of the 2016 – 2019 TIP. Due to the increase in state revenue projections delaying approval of the 2014 – 2017 TIP until early FY 2014, the 2014 – 2017 TIP will be active for two years. The development of the 2016 – 2019 TIP will begin in mid FY 2015 with an approval near the end of FY 2015. The new web-based TIP system has many new tools that will be implemented and shared with the public. Ways to best implement these tools will be explored and incorporated into the TIP process throughout FY 2015. A listing of projects with federally obligated funds from the previous year's TIP's annual element will be published within ninety (90) days after the end of FY 2015.

PRODUCTS/MILESTONES	SCHEDULE
New TIP System Training	1st Quarter
FY 2016 – 2019 TIP	3rd Quarter
FY 2014 Obligated Listing Development	4th Quarter

BUDGET: **$90,000**

THIS PAGE LEFT BLANK INTENTIONALLY.

ENVIRONMENTAL PLANNING

THIS PAGE LEFT BLANK INTENTIONALLY

TASK: **ENVIRONMENTAL PLANNING**

PURPOSE: To coordinate and facilitate the continuing relationship between planning for mobile emissions and transportation planning in the Baltimore region. To coordinate with state and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation as part of the long-range transportation planning process.

During Fiscal year (FY) 2014 the following activities were completed:

LRP: Staff began the process of preparing for development of goals, strategies, and performance measures of the next long range transportation plan. Staff reviewed the Maryland Department of Transportation (MDOT) Attainment Report to understand the measures related to natural and cultural resources that the State is tracking progress on and will work with advisory committees to determine whether these measures are appropriate for the next long-range transportation plan in accordance with Moving Ahead For Progress in the 21st Century (MAP-21) requirements. Staff researched information on climate change and transportation asset management, and the eco-logical approach.

Interagency Consultation Group (ICG): The ICG met six times to discuss topics such as the Conformity Determination of the FY 2014-2017 TIP and Amended Plan It 2035, enhanced air quality communications, modeling of transportation-related greenhouse gas emissions, new CMAQ Interim Guidance, and SIP planning updates. Presentations were provided on electric vehicle-related initiatives, the Maryland Department of the Environment (MDE) air monitoring program, and BMC activity based model development. At their November meeting, the ICG recommended Baltimore Regional Transportation Board (BRTB) approval of the Conformity Determination of the FY 2014-2017 TIP and Amended *Plan It 2035*.

"How Far Can We Get?" Study: Staff initiated the "How Far" study, an 18-month work activity in coordination with MDOT and MDE. The intention behind the study is to develop a better understanding of regional air quality issues and to potentially be a guide for the next long range transportation plan. This analysis will include development of disaggregate MOtor Vehicle Emission Simulator (MOVES) emissions output, creation of a transportation emission reduction measure (TERM) policy catalog, several rounds of emission reduction policy analyses, and a final report. The disaggregate emissions output, the TERM policy catalog and the first round of policy analysis was completed.

Air Quality Outreach: In FY 2015, staff will continue to support the bi-regional Clean Air Partners Program and the work activities associated with the Clean Commute public awareness initiative. Efforts will include working with major employers to promote commute alternatives, organizing both inter- and intra-regional conferences, and conducting outreach at local festivals, special events, and Bike to Work Day. Staff will continue to publish *Environmental News Briefs*, a periodic e-newsletter that highlights news of transportation-related environmental issues.

CMAQ: Staff coordinated two rounds of the CMAQ competitive selection process. Assistance was provided to project sponsors as they developed their applications as well as coordinating with State Highway Administration (SHA) to move the sponsors through the federal application process in order to begin activity. Staff also tracked projects that were awarded funding in prior years and have periodically invited sponsors to the ICG to report on progress.

During FY 2015:

ICG: The ICG is the primary forum for the BRTB to initially address transportation-related air quality issues in the Baltimore region. Voting members of the ICG include MDE, MDOT, and the BRTB; non-voting members include federal partners, such as the U.S. Environmental Protection Agency (EPA), the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA).

The ICG will meet approximately six times, and will address upcoming issues including air quality planning related to the next long range transportation plan. The ICG will also coordinate on the conformity determination of the next long range plan and TIP. Additionally, the State Implementation Plan (SIP) addressing the 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS) for the Baltimore region will be in the process of development over this period.

"How Far Can We Get?" Study: Staff will complete the additional round of policy analysis and will develop a final report.

Air Quality Outreach: Staff will continue to support the bi-regional Clean Air Partners Program and the work activities associated with the Clean Commute public awareness initiative. Efforts will include working with major employers to promote commute alternatives, organizing both inter- and intra-regional conferences, and conducting outreach at local festivals, special events, and Bike to Work Day. Staff will continue to publish *Environmental News Briefs*, a periodic e-newsletter that highlights news of transportation-related environmental issues.

CMAQ: Pending funding availability, staff will coordinate the CMAQ competitive selection process. Staff will track the progress of projects chosen in previous rounds of CMAQ project selection.

PRODUCTS/MILESTONES	SCHEDULE
Support ICG meetings	Approx. Bi-Monthly
Monitor new air quality initiatives, policies, and guidance	Throughout Fiscal Year
Complete the last 6 months of the 18 month "How Far" Study	1st & 2nd Quarter
Conduct air quality outreach for the entire metropolitan area	Throughout Fiscal Year
Continue coordinating environmental and long range planning	Throughout Fiscal Year
Research changes to environmental requirements in transportation planning as necessary and update/educate committees	Throughout Fiscal Year
Provide staff support and planning for the CMAQ competitive selection process (Pending funding availability)	TBD

BUDGET: **$315,000**

TASK: **AIR QUALITY CONFORMITY ANALYSIS**

PURPOSE: To conduct a technical and public policy analysis of emissions associated with the Transportation Improvement Program (TIP) and long range plan. To work with state agencies, local jurisdictions, and private stakeholders to develop a coordinated program of emission reduction strategies as an effective means of meeting the National Ambient Air Quality Standards (NAAQS) and reducing traffic congestion.

Transportation plans and programs are required by the federal Clean Air Act (CAA) to demonstrate that mobile source emissions generated in designated horizon years are less than or equal to the motor vehicle emission budgets established in the State Implementation Plan (SIP). These emission budgets are set for criteria air pollutants for which the region has been designated "non-attainment." The Baltimore Regional Transportation Board (BRTB) is required to show that implementation of the Plan or TIP will not delay timely attainment of the NAAQS in the Baltimore region.

During Fiscal Year (FY 2014), staff, in coordination with the Maryland Departments of Environment (MDE) and Transportation (MDOT), developed and evaluated horizon year emissions estimates using the U.S. Environmental Protection Agency (EPA) MOtor Vehicle Emissions Simulator (MOVES) model. These emissions estimates were utilized in the Conformity Determination of the 2014-2017 TIP and Amended *Plan It 2035*.

In FY 2015, staff, in coordination with MDOT and MDE will be preparing for the conformity determination of the 2016-2019 TIP and 2015 Plan. Working through the Interagency Consultation Group (ICG) process and its members, staff will conduct these conformity determinations using methodologies for 8-hour ozone, fine particulate matter, and carbon monoxide, which have been approved by EPA.

Through the ICG Working Group, staff will continue to coordinate with MDE mobile source modeling staff and MDOT to share and verify model inputs and parameters, and to evaluate the interface between the region's travel demand model and the EPA MOVES model to ensure conformity determinations can be conducted and verified by both Baltimore Metropolitan Council (BMC) and MDE staff.

Also, MDE will be in the process of preparing the motor vehicle emission budgets for the 2008 8-hour ozone SIP. Staff will provide technical assistance to coordinate BRTB feedback into this emissions budget development process.

PRODUCTS/MILESTONES	SCHEDULE
Begin conformity analysis of the 2016-2019 TIP and 2015 Plan	3rd & 4th Quarters
Prepare memorandums on Plan and TIP amendments	Throughout Fiscal Year
Provide technical support to the BRTB, to assist in coordination with MDE and MDOT in the development of motor vehicle emission budgets for the 2008 8-hour ozone SIP	1st & 2nd Quarters

BUDGET: **$100,000**

THIS PAGE LEFT BLANK INTENTIONALLY.

APPENDIX A

FY 2015 BUDGET DETAILS

THIS PAGE LEFT BLANK INTENTIONALLY.

FY 2015 UPWP BUDGET

SOURCES

	FHWA	FTA	MDOT	LOCAL	TOTAL
Unencumbered Balance	$516,109	$194,548			$710,657
FY 15 Appropriations	$3,341,039	$1,186,056	$512,000	$797,016	$5,836,111
FY 15 Funds Available	$3,857,148	$1,380,604	$512,000	$797,016	$6,546,768

USES

BMC Staff	$4,375,000
Consultants	$745,000
BMC Total	$5,120,000
City of Annapolis	$22,700
Anne Arundel County	$219,830
Baltimore City	$306,595
Baltimore County	$160,660
Carroll County	$180,815
Harford County	$342,740
Howard County	$191,740
Local Total	$1,425,080
TOTAL USES	$6,545,080

FY 2015 WORK PROGRAM BY TASK & FUND SOURCE
($)

	FHWA	FTA	MDOT	LOCAL	TOTAL
UPWP Management	424,224	151,776	62,000	82,000	720,000
Public Participation & Comm. Outreach	94,272	33,728	16,000	16,000	160,000
Professional Consultant Services	438,954	157,046	74,500	74,500	745,000
Long-Range Planning	88,380	31,620	15,000	15,000	150,000
Opportunity Plannning	41,244	14,756	7,000	7,000	70,000
Congestion Management Process	88,380	31,620	15,000	15,000	150,000
Operations Planning	70,704	25,296	12,000	12,000	120,000
Safety Planning and Analysis	70,704	25,296	12,000	12,000	120,000
Bicycle and Pedestrian Planning	62,850	22,486	8,000	13,334	106,670
Freight Mobility Planning	88,380	31,620	12,000	18,000	150,000
Transit and Human Service Transportation Coordination	150,246	53,754	22,000	29,000	255,000
Emergency Preparedness Planning	53,028	18,972	9,000	9,000	90,000
Transportation Equity Planning	47,136	16,864	8,000	8,000	80,000
Development Monitoring	123,732	44,268	21,000	21,000	210,000
Monitoring System Perform. & Reliability	94,272	33,728	16,000	16,000	160,000
Databases and Travel Surveys	70,704	25,296	12,000	12,000	120,000
GIS Activities	199,350	71,322	32,000	35,668	338,340
Demographic and Socioeconomic Forecasting	341,268	122,096	21,000	94,841	579,205
Analysis of Regional Data and Trends	53,028	18,972	9,000	9,000	90,000
Technical Analysis in support of State Initiatives	117,840	42,160	20,000	20,000	200,000
Current Simulation Tools	176,760	63,240	30,000	30,000	300,000
Expanding the Region's Toolset	164,976	59,024	28,000	28,000	280,000
Transportation Improvement Program	68,857	24,635	9,000	14,373	116,865
Environmental Planning	185,598	66,402	31,500	31,500	315,000
Air Quality Confomity Analysis	58,920	21,080	10,000	10,000	100,000
Subarea Analysis (Local)	482,555	172,645	0	163,800	819,000
Total	3,856,361	1,379,703	512,000	797,016	6,545,080

The total budget column reflects a combination of funds for BMC tasks as described throughout the main body of the document, as well as funds for local jurisdictions as described in Appendix B.

FY 2015 FUNDING BY TASK AND PROJECT SPONSOR

WORK TASKS	BMC SHARE	ANNAPOLIS SHARE	ANNE ARUNDEL COUNTY SHARE	BALTIMORE CITY SHARE	BALTIMORE COUNTY SHARE	CARROLL COUNTY SHARE	HARFORD COUNTY SHARE	HOWARD COUNTY SHARE	TOTAL
UPWP Management	620,000	10,000	15,000	15,000	15,000	15,000	15,000	15,000	$720,000
Public Part. & Comm. Outreach	160,000								$160,000
Professional Consultant Services	745,000								$745,000
Long-Range Planning	150,000								$150,000
Opportunity Plannning	70,000								$70,000
Congestion Management Process	150,000								$150,000
Operations Planning	120,000								$120,000
Safety Planning and Analysis	120,000								$120,000
Bicycle and Pedestrian Planning	80,000	3,810	3,810	3,810	3,810	3,810	3,810	3,810	$106,670
Freight Mobility Planning	120,000			10,000		10,000	10,000		$150,000
Transit and Human Service Transportation Coordination	220,000	5,000	10,000		10,000			10,000	$255,000
Emergency Preparedness Planning	90,000								$90,000
Transportation Equity Planning	80,000								$80,000
Development Monitoring	210,000								$210,000
Monitoring System Perform. & Reliability	160,000								$160,000
Databases and Travel Surveys	120,000								$120,000
GIS Activities	320,000	2,620	2,620	2,620	2,620	2,620	2,620	2,620	$338,340
Demographic and Socioeconomic Forecasting	210,000		37,400	65,000	76,230	38,115	76,230	76,230	$579,205
Analysis of Regional Data and Trends	90,000								$90,000
Technical Analysis in support of State Initiatives	200,000								$200,000
Current Simulation Tools	300,000								$300,000
Expanding the Region's Toolset	280,000								$280,000
Transportation Improvement Program	90,000	1,270	1,000	10,165	3,000	1,270	5,080	5,080	$116,865
Environmental Planning	315,000								$315,000
Air Quality Conformity Analysis	100,000								$100,000
Anne Arundel Co: Subarea Analysis			150,000						$150,000
Baltimore City: Subarea Analysis				200,000					$200,000
Baltimore County: Subarea Analysis					50,000				$50,000
Carroll County: Subarea Analysis						110,000			$110,000
Harford County: Subarea Analysis							230,000		$230,000
How ard County: Subarea Analysis								79,000	$79,000
TOTAL	5,120,000	22,700	219,830	306,595	160,660	180,815	342,740	191,740	6,545,080

FY 2015 SUBAREA ANALYSIS - LOCALS
PROJECTS & FUND SOURCE

WORK TASKS	FHWA	FTA	MDOT	LOCAL	TOTAL
Anne Arundel County Bus Rapid Transit and Premium Bus Alignment Study	$88,380	$31,620	$0	$30,000	$150,000
Baltimore City City Alternative Transportation Expansion Study	$117,840	$42,160	$0	$40,000	$200,000
Baltimore County Public Transit Feasibility Study	$29,460	$10,540	$0	$10,000	$50,000
Carroll County Transportation Study (MD 97 to MD 31 Connections) ($60,000) Analyze the Impacts of Roadway Improvements on Economic Development in the Finksburg Corridor ($50,000)	$64,812	$23,188	$0	$22,000	$110,000
Harford County MD 22/Business 1/MD 24 Corridor Study	$135,516	$48,484	$0	$46,000	$230,000
Howard County Bus Rapid Transit Project Development Study ($35,000) Complete Streets Regulations ($44,000)	$46,547	$16,653	$0	$15,800	$79,000
SUBAREA TOTALS	$482,555	$172,645	$0	$163,800	$819,000

COMPARISON OF FY 2015 AND FY 2014 BUDGETS

($)

	FY 2015	FY 2014	Change
UPWP Management	720,000	665,000	55,000
Public Participation & Community Outreach	160,000	150,000	10,000
Professional Consultant Services	745,000	745,000	0
Long-Range Planning	150,000	75,000	75,000
Opportunity Planning	70,000	60,000	10,000
Congestion Management Process	150,000	150,000	0
Operations Planning	120,000	120,000	0
Safety Planning & Analysis	120,000	120,000	0
Bicycle & Pedestrian Planning	106,670	106,670	0
Freight Mobility Planning	150,000	150,000	0
Transit Coordination		180,000	
Human Service Transportation Coordination		75,000	
Transit & Human Service Transportation Coordination	255,000		0
Emergency Preparedness Planning	90,000	80,000	10,000
Transportation Equity Planning	80,000	75,000	5,000
Development Monitoring	210,000	210,000	0
Monitoring System Performance & Reliabilty	160,000	160,000	0
US Census & ACS Monitoring & Analysis		120,000	
Databases & Travel Surveys	120,000	100,000	
GIS Activities	338,340	238,340	0
Demographic & Socioeconomic Forecasting	579,205	579,205	0
Analysis of Regional Data & Trends	90,000	60,000	30,000
Technical Analysis in Support of State Initiatives	200,000	200,000	0
Travel Demand Modeling		565,000	
Integrating Transportation & Land Use		130,000	
Current Simulation Tools	300,000		
Expanding the Region's Toolset	280,000		-115,000
Transportation Improvement Program	116,865	91,865	25,000
Mobile Emissions Planning		265,000	
Environmental Impact Mitigation		50,000	
Environmental Planning	315,000		0
Air Quality Conformity Analysis	100,000	80,000	20,000
Subarea Analysis Local	819,000	1,005,000	-186,000
Total	6,545,080	6,606,080	-61,000

CHART DEPICTING PARTICIPANTS WITH EACH TASK

FY 2015 WORK PROGRAM PARTICIPANTS

	Baltimore Metropolitan Council	City of Annapolis	Anne Arundel County	Baltimore City	Baltimore County	Carroll County	Harford County	Howard County	MDOT and Modes	MD Dept. of Planning	MD Dept. of Environment	Consultant Support	Public & Private Stakeholders
UPWP Management	x	x	x	x	x	x	x	x	o				
Public Participation & Community Outreach	x	o	o	o	o	o	o	o	o	o	o	o	o
Professional Consultant Services	o											x	
Long-Range Planning	x	o	o	o	o	o	o	o	o	o	o		o
Opportunity Planning	x								o	o			o
Congestion Management Process	x								o				
Operations Planning	x								o				
Safety Planning & Analysis	x								o				o
Bicycle & Pedestrian Planning	x	x	x	x	x	x	x	x	o	o			o
Freight Mobility Plan	x			x		x	x		o				o
Transit & Human Service TransportationCoordination	x	x	x		x			x	o				o
Emergency Preparedness Planning	x								o				
Transportation Equity Planning	x												o
Development Monitoring	x												
Monitoring System Performance & Reliability	x								o				
Databases & Travel Surveys	x								o				
GIS Activities	x	x	x	x	x	x	x	x					
Demographic & Socioeconomic Forecasting	x		x	x	x	x	x	x		o			
Analysis of Regional Data & Trends	x												
Technical Analysis in Support of State Initiatives	x								o				
Current Simulation Tools	x								o	o			
Expanding the Region's Toolset	x								o	o			
Transportation Improvement Program	x	x	x	x	x	x	x	x	o				o
Environmental Planning	x												o
Air Quality Confomity Analysis	x				o				o		o		
Subarea Analysis	o		x	x	x	x	x	x				x	

x = receives funding
o = helps to coordinate activity

APPENDIX B

LOCAL PARTICIPANTS: CORE & SUBAREA PROJECTS

CITY OF ANNAPOLIS

ANNE ARUNDEL COUNTY

BALTIMORE CITY

BALTIMORE COUNTY

CARROLL COUNTY

HARFORD COUNTY

HOWARD COUNTY

PROJECT: **UPWP MANAGEMENT**

PURPOSE: This task involves managing, coordinating, and guiding the various technical activities related to the UPWP and the regional transportation planning process. These work efforts are carried out through a variety of means including direct involvement in planning activities and support to the multi-disciplined and multi-agency committees essential to a coordinated process. These activities specifically include management of the current fiscal year work program and budget, preparation of detailed work programs, and preparation of quarterly progress reports.

FY 2015 PERFORMANCE OBJECTIVES:

1. Manage involvement of each local member of the BRTB in the local and regional transportation planning process.
2. Prepare quarterly reports and invoices.
3. Prepare the FY 2016 UPWP grant application and associated contracts in conjunction with all pertinent federal, state, and local agencies.
4. As necessary, participate in seminars, workshops, and short courses designed to develop technical skills and broader perspectives on transportation-related subjects.

PRODUCTS/ MILESTONES	SCHEDULE
Quarterly progress reports, invoices, audit preparation and other financial reports for the FY 2015 UPWP	Throughout Fiscal Year
Budget amendments for FY 2015	As Necessary
FY 2016 UPWP submittal by each local BRTB member	2nd Quarter
Completion of formal grant acceptance process for FY 2016	4th Quarter

PARTICIPANTS:	City of Annapolis	$10,000
	Anne Arundel County	$15,000
	Baltimore City	$15,000
	Baltimore County	$15,000
	Carroll County	$15,000
	Harford County	$15,000
	Howard County	$15,000
BUDGET:		**$100,000**

PROJECT: **BICYCLE AND PEDESTRIAN PLANNING**

PURPOSE: Provide local assistance in integrating bicycle and pedestrian considerations into the overall planning and programming processes of the state, regional and local jurisdictions.

Local jurisdiction members of the BRTB will assist the Bicycle and Pedestrian Advisory Group in the identification of appropriate opportunities to integrate bicycle and pedestrian travel options within a regional framework. The members will examine opportunities to incorporate bicycle and pedestrian uses along local roads, greenways and other non-motorized corridors. Promotional and educational efforts will also be used to increase awareness for bicycle and pedestrian opportunities and to promote safety and accessibility for non-motorized travelers, including those with disabilities.

FY 2015 PERFORMANCE OBJECTIVES:

1. Support Bicycle/Pedestrian Advisory Group in reviewing regional opportunities, monitoring regional progress, and sharing best practices and lessons learned.

2. Ensure that adequate pedestrian and bicycle accommodations are included in proposed TIP projects, and that pedestrian and bicyclist safety is considered in all phases of design.

3. Enhance planning for greenways and trails, including compliance with relevant federal and state design standards.

4. Support regional pedestrian and bicycle safety education programs, and implement coordinated education and enforcement activities at the local level.

PRODUCTS/MILESTONES	SCHEDULE
Joint activity on work programs and other efforts related to the regional bicycle/pedestrian plan	Throughout Fiscal Year
Other studies and analyses to support regional efforts	Throughout Fiscal Year

PARTICIPANTS:		
	City of Annapolis	$3,810
	Anne Arundel County	$3,810
	Baltimore City	$3,810
	Baltimore County	$3,810
	Carroll County	$3,810
	Harford County	$3,810
	Howard County	$3,810

BUDGET: **$26,670**

PROJECT: **DEMOGRAPHIC AND SOCIOECONOMIC FORECASTING**

PURPOSE: To generate socioeconomic and demographic data for the regional forecasting process. To provide technical input to the Cooperative Forecasting Group (CFG) that is responsible for reporting updates to changes in local land use patterns and associated developments in the region.

In FY 2007, the CFG developed population, household, and employment forecasts for each jurisdiction by small area for 2000 through 2035. These forecasts were used in the creation and testing of the 2011 Baltimore Region Long Range Transportation Plan. Local planning staffs will continue the development of these data during FY 2014 as part of Round 8-A Cooperative Forecasts, 2010 – 2040. They will report on their progress periodically to the CFG, the Technical Committee, and the BRTB.

FY 2015 PERFORMANCE OBJECTIVES:

1. Prepare updated socio-economic and demographic jurisdictional forecasts at the level of transportation analysis zones for 2010 – 2040.
2. Provide updates where necessary on major new developments or facilities that impact existing forecasts.
3. Prepare documentation on population, household and employment forecast methodologies.

PRODUCTS/MILESTONES	SCHEDULE
Review and report on forecasts for population, households and employment	2nd Quarter
Document methodologies used to generate forecasts	3rd. Quarter
Provide updates on major new developments that affect existing forecasts	Throughout Fiscal Year

PARTICIPANTS:	Anne Arundel County	$37,400
	Baltimore City	$65,000
	Baltimore County	$76,230
	Carroll County	$38,115
	Harford County	$76,230
	Howard County	$76,230
BUDGET:		**$369,205**

TASK: **GIS ACTIVITIES**

PROJECT: **REGIONAL GIS COORDINATION**

PURPOSE: To coordinate and assist with the various technical and outreach activities in conjunction with the Baltimore Region Geographic Information Systems Committee.

The Baltimore Region Geographic Information Systems Committee (BRGISC) was established in 2011 and is staffed by the BMC. Its membership consists of GIS managers of the Cities of Annapolis and Baltimore and the Counties of Anne Arundel, Baltimore, Carroll, Harford and Howard. The committee was formed to provide a forum for sharing communication among jurisdictions on national, state and local GIS applications and resources. The BRGISC has developed a data sharing protocol for delivering individual county/city level map resources among local governments.

The BRGISC meets bi-monthly to discuss topics that are pending with especially state and national agencies as well as utilities and private enterprises. The current work product underway is a Baltimore Metro Regional Routable Centerline and Address Point Project which with the approval of local GIS offices will allow BMC staff to access these data layers to geographic code transportation GIS data layers used in project planning and modeling. This data sharing protocol will allow various county agencies to share data across jurisdictional boundaries with comparable agencies.

FY 2015 PERFORMANCE OBJECTIVES:

1. Attend BRGISC Meetings.
2. Provide data and work efforts toward regional projects.
3. Review and comment on materials as presented.

PRODUCTS/MILESTONES	SCHEDULE
Attend BRGISC Meetings	Throughout Fiscal Year

PARTICIPANTS:	City of Annapolis	$2,620
	Anne Arundel County	$2,620
	Baltimore City	$2,620
	Baltimore County	$2,620
	Carroll County	$2,620
	Harford County	$2,620
	Howard County	$2,620
BUDGET:		**$18,340**

PROJECT: **TRANSPORTATION IMPROVEMENT PROGRAM**

PURPOSE: This project develops the annual component of the Transportation Improvement Program (TIP) for each local member of the BRTB. Additionally, members are responsible for revisions to their component of the TIP and to review and comment on the regional TIP. The task also includes review and comment regarding proposed TIP amendments during the fiscal year.

FY 2015 PERFORMANCE OBJECTIVES:

1. Develop the annual submission of the TIP including assessment of all federally funded projects.
2. Review and comment on the Draft 2015-2018 TIP.
3. Revise and correct TIP submissions as needed.
4. Review and comment on all TIP amendments as submitted throughout the fiscal year.

PRODUCTS/MILESTONES	SCHEDULE
Review and comment on proposed TIP amendments	As Needed
Receive training for new TIP web-based software	1st Quarter
Submit local TIP component of 2015-2018 document	3rd Quarter
Revise local TIP component per comments and review draft TIP document	3rd Quarter
Final revisions to FY 2015-2018 TIP	4th Quarter

PARTICIPANTS:		
	City of Annapolis	$1,270
	Anne Arundel County	$1,000
	Baltimore City	$10,165
	Baltimore County	$3,000
	Carroll County	$1,270
	Harford County	$5,080
	Howard County	$5,080

BUDGET: **$26,865**

TASK: **FREIGHT MOBILITY PLANNING**

PROJECT: **REGIONAL FREIGHT ANALYSIS – LOCAL INPUT**

PURPOSE: To coordinate and assist with the various technical and outreach activities in an effort to better understand and plan for improvements to the regional freight network.

As an outgrowth of the *Imagine 2060* process, establishing a vision for the Baltimore region, feedback from a range of stakeholders led the BRTB to undertake a regional freight analysis to understand the transportation network supporting the movement of goods through and within the region as well as identify regional priorities to maintain and enhance the system. In 2012, the BRTB commissioned a Freight Regional Oversight Group (FROG) to coordinate and oversee regional freight analysis. FROG is made up of local jurisdiction representatives and state agencies.

In FY 2015, it is anticipated that local participation will be stepped up to help provide input in support of FROG activities and other freight related activities. Tasks will include access to data, meeting logistics, attendance and preparation/review of technical materials.

FY 2015 PERFORMANCE OBJECTIVES:

1. Identify appropriate data as requested, facilities, etc.
2. Review and comment on materials as presented.

PRODUCTS/MILESTONES	SCHEDULE
Identify data sets, locations, zoning as requested	Throughout Fiscal Year
Attend technical planning workshops	Throughout Fiscal Year

PARTICIPANTS:

Baltimore City	$10,000
Carroll County	$10,000
Harford County	$10,000

BUDGET: **$30,000**

TASK: **TRANSIT AND HUMAN SERVICE TRANSPORTATION COORDINATION**
PROJECT: **REGIONAL TRANSIT ANALYSIS – LOCAL INPUT**
PURPOSE: To assist with the various technical activities in the efforts to undertake a regional analysis of transit services and networks.

As an outgrowth of the regional transit analysis task, GO-TRAN members and BMC staff will solicit information from local jurisdictions and locally operated transit service agencies about their current transit systems and services. This will help committee members and staff identify and evaluate short- and long-term opportunities to improve transit systems and services, including inter-jurisdictional and inter-agency coordination among these systems and services.

Throughout FY 2015, local government staff will assist BMC staff and consultants in efforts to access both local (and, to the extent possible and appropriate, private sector) data and expertise. Tasks will include meeting logistics, meeting attendance, and preparation/review of technical materials.

FY 2015 PERFORMANCE OBJECTIVES:
1. Identify appropriate data as requested, facilities, etc.
2. Review and comment on materials as presented.

PRODUCTS/MILESTONES	SCHEDULE
Identify data sets, locations, zoning as requested	Throughout Fiscal Year
Attend technical planning workshops	Throughout Fiscal Year

PARTICIPANTS:	City of Annapolis	$5,000
	Anne Arundel County	$10,000
	Baltimore County	$10,000
	Howard County	$10,000
BUDGET:		**$35,000**

ANNE ARUNDEL COUNTY SUBAREA

PROJECT: **BUS RAPID TRANSIT OR PREMIUM BUS ALIGNMENT STUDY (BRPBAS)**

PURPOSE: The BRPBAS will be used by Anne Arundel County as a guidance document providing detail on the feasibility and preliminary impacts of building and operating Bus Rapid Transit along US 50/MD 301 from the proposed Annapolis-Parole Intermodal Center (APIC) to Washington, DC. The project was a recommendation that was developed in the *Corridor Growth Management Plan* (July 2012). The recommendation was based on modeling which identified reductions in peak period travel along the facility's connecting Annapolis to Washington DC.

FY 2015 PERFORMANCE OBJECTIVES:

1. Identify station locations, right-of-way and environmental constraints and opportunities to create travel time savings for BRT along US 50.
2. Modify the Anne Arundel County travel demand model (AATrvM) as needed to establish travel times in the base condition for the corridor and station locations for 2020.
3. Determine corridor constraints and opportunities, coding them into the corridors to understand time savings/penalties.
4. Build on typical section, land use and constraints data developed in the CGMP (July 2012) for the corridor, verifying or identifying additional impacts.
5. Recommend any modifications of land use, parking impacts, station impacts, or design of land development within a half-mile radius of the station locations.
6. Identify capital and operating costs for stations, parking lots, alignment treatments and rolling stock.
7. Prioritize alignments, and if necessary, minimal operating segments, for the corridor.
8. Conduct outreach meetings
9. Prepare Technical Memoranda, Preliminary and Final Reports.

PRODUCTS/MILESTONES	SCHEDULE
Revised travel model zone structure and network detail	1st & 2nd Quarters
Identify corridor constraints and opportunities	1st & 2nd Quarters
Refined 2020 and 2035 travel forecasts	2nd & 3rd Quarters
Develop station and land use impact assessment	3rd & 4th Quarters
Prioritize segments	3rd & 4th Quarters
Public outreach	Throughout
Establish operating and capital costs	4th Quarter
Preliminary and Final Reports	4th Quarter

BUDGET: **$150,000**

BALTIMORE CITY SUBAREA

PROJECT: **CITY ALTERNATIVE EXPANSION STUDY**

PURPOSE: Emissions from the transportation sector makes up 15.6 percent of Baltimore City's Green House Gas (GHG) inventory. The majority of these emissions come from the use of the privately owned car (commonly called vehicle miles traveled (VMT). Strategic reductions in VMT contributes to decreased congestion and better air quality for all citizens of Baltimore City. This project is designed to develop a strategic approach for providing alternatives to the single occupancy vehicle trips that are attractive and compelling for citizens choosing alternative transportation.

This study will establish a data base analysis of potential expansion of the Charm City circulator and Bike share services outside of the central business district to connect these transit services city-wide. The study goal is to create a strategic expansion master plan to offer alternative transportation choice to Baltimore citizens to reduce the number of vehicles on the transportation systems during peak hours.

FY 2015 PERFORMANCE OBJECTIVES:

1. Establish the demand for the Charm City Circulator and Bikeshare throughout the City.
2. Evaluate existing transportation operations, traffic congestion along commuter and gateway corridors where demand for Charm City Circulator and Bikeshare are evident.
3. Assessment of current and potential demand for Charm City Circulator and Bikeshare.
4. Recommend changes and expansion of Charm City Circulator and Bikeshare.
5. Create expansion master plan including regional connections and cost estimates.

PRODUCTS/MILESTONES	SCHEDULE
Establish the demand for the Charm City Circulator and Bikeshare throughout the City. Evaluate existing transportation operations, traffic congestion along commuter and gateway corridors where demand for Charm City Circulator and Bikeshare are evident.	1st & 2nd Quarter
Assessment of current and potential demand for Charm City Circulator and Bikeshare.	2nd Quarter
Recommend changes and expansion of Charm City Circulator and Bikeshare.	3rd Quarter
Create expansion master plan including regional connections and cost estimates. Final Report and recommendations	4th Quarter

BUDGET: **$200,000**

BALTIMORE COUNTY SUBAREA

PROJECT: **BALTIMORE COUNTY PUBLIC TRANSIT FEASIBILITY STUDY**

PURPOSE: The Maryland Transit Administration (MTA) provides public transit service to most of the urban core of Baltimore County. There are however many areas that are not served or not served adequately by public transit. Some of these areas are not served because residents do not wish to see public transit extended into their neighborhoods and some areas are not served because it has proven to be economically unviable for the MTA to provide them with service. Due to its own financial constraints the County has also chosen not to provide these areas with transit service. The purpose of this study is to identify potential areas and routes that could be served by a transit provider and to identify innovative financing schemes that would not require a County contribution.

FY 2015 PERFORMANCE OBJECTIVES:

1. Use census data to develop an inventory of potential neighborhoods that could benefit from new transit service.
2. Identify existing and former bus routes that serve or could potentially serve these neighborhoods. Develop an inventory of potential new services.
3. Conduct an assessment of innovative transit financing mechanisms in this Country and around the world that use minimum amounts of local investment to provide public transit services.
4. Synthesize findings into a draft and then a final report.

PRODUCTS/MILESTONES	SCHEDULE
Inventory census and associated data	1st & 2nd Quarters
Identify potential service areas	2nd & 3rd Quarters
Inventory innovative financing mechanisms	2nd & 3rd Quarters
Prepare reports	4th Quarter

BUDGET: **$50,000**

CARROLL COUNTY SUBAREA

PROJECT: **TRANSPORTATION CONNECTOR STUDIES PART 1**

PURPOSE: The Transportation Study will focus on alternatives to connecting three state highways (MD 97, MD 27, and MD 31) in the area generally located south of Westminster's corporate limits. Key objectives in the development of recommended roadway improvements/extension include: preserve existing communities, maintain acceptable levels-of-service on local roadways, promote the efficient use of land resources, and minimize environmental impacts. It is anticipated that the scope of work could include: developing preliminary concepts/alignments and determining their engineering feasibility, assessing the associated community and environmental impacts, evaluating right-of-way requirements, and estimating preliminary costs of construction.

August of 2013 the Carroll County Board of County Commissioners Adopted a resolution to take out the planned major street of Kate Wagner Extended out of the *2007 Westminster Environs Community Comprehensive Plan.* This change to the Plan left the County with a gap in the planned road network. The intention of Kate Wagener Road extended was to connect two major State roadways, MD 32 and MD 97. The purpose of this sub-area plan is to seek out feasible and appropriate alternative(s) to make this desired connection.

FY 2015 OBJECTIVES:

1. Define specific scope of study area and gather existing inventory and data
2. Conduct assessment of issues and "missing links"
3. Engage community to help identify key destinations and desired connections and any safety issues or community issues associated with them.
4. Prepare a list of appropriate and feasible alternatives that combines results of the inventory and desired community connections into a strategic plan for developing a cohesive road network south of the City of Westminster corporate limits.

PRODUCTS/MILESTONES	SCHEDULE
Inventory and data collection	1st Quarter
Community outreach	2nd Quarter
Refinement of strategies	3rd & 4th Quarters
Develop appropriate and feasible scenarios	4th Quarter

BUDGET: **$60,000**

CARROLL COUNTY SUBAREA

PROJECT: **ANALYZE THE IMPACTS OF ROADWAY IMPROVEMENTS ON ECONOMIC DEVELOPMENT IN THE FINKSBURG CORRIDOR**

PURPOSE: Provide funding for a study that will look at Old Westminster Pike (OWP) as a cohesive project that will serve to alleviate traffic congestion and promote vehicular safety to both residential and commercial property owners. This grant would identify those properties that currently have access to MD 140, OWP or both highways spanning from the Baltimore County line to MD 91. This information, in addition to looking at redevelopment potential within the Finksburg Corridor, will help County staff shape the overall plan for the area. In the future, it is unclear how access points and medians will change the transportation landscape of MD 140. One of the goals of the *Finksburg Corridor Plan* is to improve the conveyance and circulation of traffic on MD 140 and the adjacent roads. Providing a secondary access to commercial properties from OWP will not only achieve this goal, but will also change the overall transportation pattern for the corridor as a whole, making it safer and more attractive for properties to develop and/or redevelop. In addition, as part of the implementation of the *Finksburg Corridor Plan,* a social revitalization study will be completed focusing on the OWP corridor as a commercial and community center servicing the area's residential population and the future commercial needs of the neighborhood. This transportation analysis needs to be completed prior to the social revitalization study that identifies available options are for economic growth in this area.

FY 2015 OBJECTIVES:

1. Gather existing inventory and data
2. Conduct assessment of issues facing the conveyance and circulation of traffic on MD 140 and the adjacent roads and how providing a secondary access to commercial properties from Old Westminster Pike will not only achieve this goal, but will also change the overall transportation pattern for the whole corridor making it safer and more attractive for properties to redevelop.
3. Engage the community to help identify key issues and barriers to economic development improvements.
4. Prepare a list of appropriate and feasible scenarios into a strategic plan for developing a "Main Street" like corridor for the Finksburg area.

PRODUCTS/MILESTONES	SCHEDULE
Inventory and data collection	1st Quarter
Community outreach	2nd Quarter
Refinement of strategies	3rd & 4th Quarters
Develop appropriate and feasible scenarios	4th Quarter

BUDGET: **$50,000**

HARFORD COUNTY SUBAREA

PROJECT: **MD 22/BUSINESS US 1/MD 24 CORRIDOR STUDY**

PURPOSE: Perform traffic and safety analysis on MD Route 22 (Churchville Road) from MD Route 543 (Fountain Green Road) to MD 924 (Main Street), on Business US 1 from MD 924 (Main Street) to Tollgate Road and on MD 24 from MacPhail Road to the US 1 Bypass.

The study will include an existing conditions analysis, a no build analysis, a future conditions analysis based on several scenarios designated to address improved vehicular mobility and safety, improved transit, bicycle and pedestrian facilities along the corridors including the ability and benefits of providing dedicated bicycle lanes and sidewalks. The study will assess Complete Streets and include a roadway safety audit and an origin-destination report. The study will include a look at providing alternate access to existing communities.

FY 2015 PERFORMANCE OBJECTIVES:

1. Provide a comprehensive roadway safety and operations analysis for the MD 22/Business US 1 and the MD 24 corridors that builds on the 2012 MD 22 Multimodal Corridor Study.
2. Provide the groundwork for transportation systems management and operation improvements and geometric improvements to transportation facilities along the corridor and vicinity including possible transit upgrades, bike lanes, pavement markings, traffic controls, sidewalks, ADA ramps, lighting and other streetscaping and Complete Streets elements.

PRODUCTS/MILESTONES	SCHEDULE
Existing Conditions Analysis and simulation	1st Quarter
Future Conditions Analysis and simulation	2nd & 3rd Quarter
Final report with recommendations	4th Quarter

BUDGET: **$230,000**

HOWARD COUNTY SUBAREA

PROJECT: **BUS RAPID TRANSIT PROJECT DEVELOPMENT**

PURPOSE: Coordinate with MTA, SHA and the Howard County Office of Transportation Services to develop a Bus Rapid Transit preliminary engineering study for Howard County based on MDOT FY 2014-2019 Consolidated Transportation Program funding.

The FY 2014-2019, MDOT Consolidated Transportation Program programmed $2.0 million dollars for preliminary engineering for a Howard County Bus Rapid Transit (BRT) System. This project will provide coordination and support in developing preliminary engineering for a Howard County Bus Rapid Transit (BRT) system with connections to the Washington region. A network of feeder buses, BRT stations and potential changes in land uses will be tested in conjunction with the BRT system development. Engineering considerations will be addressed and preliminary costs will be developed.

FY 2015 PERFORMANCE OBJECTIVES:

1. Provide support and input for the development of a scope of services for BRT preliminary engineering study.
2. Provide GIS support to project stakeholders.
3. Provide transit ridership, economic and land use data as needed to support preliminary engineering analysis.
4. Work with stakeholders to identify and asses BRT feeder bus systems and potential BRT stations, park and ride locations and pedestrian links.
5. Work with stakeholders to provide modal split analysis and cost analysis for refined BRT corridor(s). Ascertain congestion reduction impacts on future transportation networks.
6. Determine most cost effective BRT solutions including phasing using express buses and signal prioritizations.
7. Develop an alternative land us scenario and test the BRT corridors and potential land use and transportation impacts.
8. Support and participate in Preliminary Engineer Alternatives Analysis and development of final report.

PRODUCTS/MILESTONES	SCHEDULE
Support and provide Input for stakeholders to define and develop a preliminary engineering State of Work.	1st Quarter
Provide GIS support, transit data, land use data and concepts for BRT stations, park and rides and feeder bus system.	2nd Quarter
Support development of preliminary engineering alternatives and test BRT corridor concepts and potential BRT land use scenarios.	2nd & 3rd Quarter
Final BRT alternatives recommendations planning costs and next steps.	4th Quarter

BUDGET: **$35,000**

HOWARD COUNTY SUBAREA

PROJECT: **COMPLETE STREETS REGULATIONS**

PURPOSE: Evaluate and update county subdivision codes and design manual to achieve complete streets standards.

This project will assess the County's subdivision and design manual in light of making recommendations that will provide complete street policies and changes to the subdivision and design manual.

FY 2015 PERFORMANCE OBJECTIVES:

1. Determine issues in the County's subdivision and capital project process that do not adequately provide bicycle and pedestrian facilities and do not meet complete street criteria.
2. Coordinate with Howard County Public Works, SHA and MTA to develop policies and standards.
3. Develop complete street policies for County capital projects including consideration for nutrient and stormwater run-off. Produce a complete streets manual for County Capital Projects.
4. Determine complete street policies for County land development procedures.
5. Develop modifications to the County subdivision regulations and Design Manual specifications that will achieve the complete street policies.
6. Develop Complete Streets policy report.
7. Coordinate with the County Administration and develop subdivision and design manual recommendations to the County Council for adoption.

PRODUCTS/MILESTONES	SCHEDULE
Advertise and select consultant. Develop a scope of work.	1st Quarter
Coordinate with stakeholders and determine complete street issues for capital budgeting and land development policies and regulations	2nd Quarter
Develop complete street policies, recommendations and report.	2nd & 3rd Quarter
Develop subdivision and design manual changes and submit to the Howard County Administration and County Council for adoption.	4th Quarter

BUDGET: **$44,000**

APPENDIX C

PUBLIC REVIEW PROCESS

FLYER
WEB SITE
PRESS RELEASE
COMMENTS
RESPONSE TO COMMENTS

THIS PAGE LEFT BLANK INTENTIONALLY.

OPEN FOR PUBLIC REVIEW

BRTB
Baltimore Regional Transportation Board

FY 2015 Annual Budget & Work Program

Comments Welcome through March 17

Every year, the Baltimore Regional Transportation Board (BRTB) develops a work program and budget for the coming fiscal year (July 1, 2014 to June 30, 2015). The BRTB is welcoming comments on the draft FY 2015 Unified Planning Work Program.

What is in this Draft Work Program and Budget?

The annual budget and work plan, called the Unified Planning Work Program (UPWP) for Transportation Planning, details projects, studies, and other activities to be completed by BRTB members, including: the City of Annapolis, Anne Arundel, Baltimore, Carroll, Harford and Howard counties, Baltimore City, the Maryland Departments of Planning, Environment, and Transportation, and the Maryland Transit Administration. This also includes funding for staff of the Baltimore Metropolitan Council (BMC), which does work on behalf of the BRTB.

The draft UPWP includes both local and region-wide activities. Highlights include:

- Assess Howard County's subdivision and design manual for recommendations to include Complete Street policies.
- Develop *Maximize 2040: A performance-based transportation plan for the Baltimore region,* with key stakeholders and the public.
- Explore impact of Bus Rapid Transit along US 50/MD 301 from Annapolis to Washington.
- Evaluate potential expansion of Charm City Circulator and Bikeshare outside of downtown Baltimore City.
- Perform traffic and safety analysis on MD 22 (from MD 543 to MD 924) in Harford County, including a Complete Street assessment of the corridor.
- Provide demographic data online with expanded web maps and data profiles.

Download the draft FY 2015 UPWP at www.baltometro.org or view a print copy in the Regional Information Center at BMC (address below).

Share Your Comments

The public is invited to share their thoughts on the proposed regional transportation planning activities from **Tuesday, February 18 through Thursday, March 20, 2014**.

Please send all comments in writing to: The Baltimore Regional Transportation Board, Offices @ McHenry Row, 1500 Whetstone Way, Suite 300, Baltimore, MD 21230; Fax: 410-732-8248; or E-mail: comments@baltometro.org.

Comments may also be shared in person during the Public Comment Opportunity at the BRTB meetings at 9 a.m. on February 25 & March 25 or 4 p.m. on April 29 (tentative vote).

For more information, contact Regina Aris at raris@baltometro.org or 410-732-9572.

Baltimore Metropolitan Council

Open for Public Review:
Baltimore Regional Transportation Board
2015 Budget & Work Program

Comments welcome on annual budget and work priorities

Every year, the Baltimore Regional Transportation Board (BRTB) develops a work program and budget for the coming fiscal year (July 1, 2014 to June 30, 2015).

The BRTB is welcoming comments on the draft FY 2015 UPWP through **March 20, 2014**.

What is in this Draft Work Program and Budget?

The work program, called the UPWP – Unified Planning Work Program for Transportation Planning – details projects, studies and other activities to be completed by BRTB members, including: cities of Annapolis and Baltimore, Anne Arundel, Baltimore, Carroll, Harford and Howard counties, the Maryland Departments of Planning, Environment, and Transportation, and the Maryland Transit Administration. This also includes funding for staff of the Baltimore Metropolitan Council (BMC) which undertakes work on behalf of the BRTB.

The draft UPWP includes both local and region-wide activities. Highlights include:

- Work on *Maximize 2040: A performance-based transportation plan for the Baltimore region*, including: financial forecasts, performance measures, solicit projects from members and invite public comment on various steps in the process.
- Evaluate feasibility and impacts of building and operating Bus Rapid Transit along the US 50/MD 301 corridor from the Annapolis-Parole Intermodal Center to Washington, D.C.
- Study the potential expansion if the Charm City Circulator and bikeshare services outside of the Central Business District.
- Identify potential areas and routes that could be served by a transit provider along with innovative financing schemes for Baltimore County.
- Consider feasible and appropriate connection between MD 32 and MD 97 south of the City of Westminster.
- Perform traffic and safety analysis on MD 22 from MD 543 to MD 924, including an assessment of Complete Street concepts along the corridor in Harford County.
- Assess Howard County's subdivision and design manual for recommendations to include Complete Street policies.
- Continue developing the regional activity based travel demand model.
- Provide demographic data online with expanded web maps and data profiles.

Download the draft FY 2015 UPWP using the link below or visit the Regional Information Center at BMC (address below) to view a print copy.

>> Download the draft FY 2015 UPWP

(/downloadables/UPWP/FY2015_Draft.pdf)

>> View our Frequently Asked Questions about the FY2015 Work Program
(/downloadables/UPWP/FY2015_FAQ.pdf)

You are invited to share your comments

The public is invited to share their thoughts on these proposed regional transportation planning activities from **Tuesday, February 18 through Thursday, March 20, 2014.**

Please send all comments in writing to:

BRTB Annual Budget & Work Program

Comments Welcome through March 17

Email: comments@baltometro.org (mailto:comments@baltometro.org)

Twitter: @baltometroco (https://twitter.com/BaltoMetroCo) or @bmoreinvolved (https://twitter.com/bmoreinvolved) #BRTBlistens

Mail:

The Baltimore Regional Transportation Board
Offices @ McHenry Row
1500 Whetstone Way, Suite 300
Baltimore, MD 21230

Fax: 410-732-8248

>> Download a flyer (/downloadables/UPWP/FY2015_Flyer.pdf)

All mailed comments must be received no later than 3 days after the end of the comment period.

Comments may also be shared during the Public Comment Opportunity at the following BRTB meetings:

- February 25 at 9 a.m.
- March 25 at 9 a.m. or
- April 29 at 4 p.m.(tentative vote)

For more Information: Regina Aris, raris@baltometro.org (mailto:raris@baltometro.org) or 410-732-9572

Last Updated on Tuesday, 18 February 2014 23:15

© 2014 Baltimore Metropolitan Council

Baltimore Metropolitan Council
1500 Whetstone Way, Suite 300
Baltimore, MD 21230
410-732-0500
fax: 410-732-8248

Trouble viewing this e-mail? View it online

You are receiving this e-mail because you registered on our web site or have previously indicated an interest in the work of the Baltimore Regional Transportation Board (BRTB) and/or Baltimore Metropolitan Council (BMC). If you have not done so already, click to confirm your continued interest in receiving email from us.

You may unsubscribe if you no longer wish to receive our emails.

Like

Baltimore Metropolitan Council

FOR IMMEDIATE RELEASE

Contact: Laura Van Wert, 410-732-9564

BALTIMORE REGIONAL TRANSPORTATION BOARD SEEKS PUBLIC COMMENTS FOR THE FISCAL YEAR 2015 UNIFIED PLANNING WORK PROGRAM

BALTIMORE, MD (February 19, 2014) - A draft of the Baltimore Regional Transportation Board (BRTB)'s Unified Planning Work Program (UPWP) is open for public comment for the next month as the organization plans for Fiscal Year 2015.

The UPWP details projects, studies and other activities to be completed by BRTB members in the upcoming fiscal year, which runs July 1, 2014 through June 30, 2015. Those BRTB initiatives represent the transportation needs in the City of Annapolis, Baltimore City, Anne Arundel, Baltimore, Carroll, Harford and Howard counties. This document also includes funding for BMC staffers who undertake work on behalf of the BRTB.

The public comment period on the UPWP is open from February 18, until Thursday, March 20. Those who would like to make a comment may do so through email at comments@baltometro.org; on Twitter @baltometroco or @bmoreinvolved, using #BRTBlistens; by fax at 410-732-8248; or by mail at:

The Baltimore Regional Transportation Board
Offices @ McHenry Row
1500 Whetstone Way, Suite 300
Baltimore, MD 21230

From: Phyllis Fung
Sent: Sunday, March 16, 2014 10:04 AM
To: comments@baltometro.org
Subject: BALTIMORE REGION UPWP FY 2015 UNIFIED PLANNING WORK PROGRAM

Flag Status: Flagged

I am providing comments on the proposed work program for 2015.

I am glad to see that you are planning on studying the expansion of both the Circulator and the bikeshare programs. However, I think that the study should consider in its scope the MTA bus system and other transit alternatives, such as rideshare, Zipcar and the Red Line.

Since this work is slated for 2015, hopefully we will have a locked down Red Line effort so this planning will account for the long-term.

As for the MTA bus system, my experiences riding it (in comparison with the DC and NYC buses) have been poor. I do not understand how people can hold jobs relying on the MTA buses. They often seem to be late or do not come at all. The routes, which are based on the old trolley lines, are obsolete.

A regional transit plan that does not evaluate the MTA buses is incomplete. I would propose moving some of the moneys slated for Harford County toward making the Baltimore City effort more comprehensive.

Phyllis Fung
Baltimore, MD

From: Mirfi
Sent: Wednesday, March 12, 2014 12:24 PM
To: comments@baltometro.org; kmurphy283@aol.com
Subject: The Baltimore Regional Transportation Board - Comments

Hello,

Thank you for allowing input and will try to be brief.

:-)

This has to do with the traffic issues in the northeast corridor of Baltimore City. In the past few years, local self interest groups and neighborhood associations have successfully shut down two of the major commuter routes. These routes are Harford road and Walther Boulevard. Two parallel routes.

About eight years ago they added median strips to remove two lanes from Harford road and some of the traffic was diverted to Walther. So there was little impact on traffic and commute times. Walther is four lanes with a median and there were parking restrictions during rush hours, southbound and northbound, morning and evening, respectively.

Then about a year ago the Beverly Hills association put in a "bike lane" between Moravia and Argonne (will extend further). The stated purpose of the bike lane is to "calm traffic", but in reality is to remove the rush hour parking restriction(?!). The sad part is getting stuck in the daily traffic jams and seeing an entire lane is offlimits to the commuter and that no cyclist is using or will ever use,

Daily rush hour traffic is a mess, the hundreds (thousands?) of commuters have no options but to get stuck in trafiic, sit through multiple lights, increase commute times and waste gas.

But a couple families can and do benefit by leaving their cars on the street and not having to use their driveway.

A bike lane on Walther is a total farce, Walther is hilly and windy, built in the age on the auto (c.1931), Harford road is flat, straight and smooth built for the horse, carriages and the interurban. The cyclists are on Harford, not Walther. During the evenings you see 50 cyclists an hour on Harford, on Walther you see zero for a week (I live there and do not ride my bike there).

This bothers me on many levels but mainly because I am an avid cyclist(member of clubs, volunteer, bike party, etc) and the city is putting a bike lane where no one will ever bike. This bike lane will never benefit the cycling community. Also as a cyclist, nothing scares me more than riding next to parked cars. So, if they are serious about bike lanes, then do the right thing and restrict the parking.

So, take these bike lanes out of Walther Boulevard, stop putting in useless bike lanes, stop creating artificial congestion and please start allowing people to get to work.

Thank you for listening, even if it won't do any good, as the wants of the few are much more important than the needs of the many. ,

Kevin Murphy
21214

From: Jean Freidberg
Sent: Monday, March 24, 2014 6:43 AM
To: Monica Haines Benkhedda
Subject: UPWP

Recommend TSM and TDM studies on telework, rideshare, transit and operational improvements focused on the Fort Meade area.

#	Comment	Received From	Response
COMMENT			
1	A regional transportation trail plan is needed	B'More Bikes	The BRTB does not disagree with the value of a recreational trail plan; however funding provided by FHWA and FTA to MPOs does not cover trails. Staff will however, investigate the status of state and local planning efforts and provide recommendations if they relate to utilizing a trail as a connection to key transportation facilities.
2	Request for TSM and TDM studies focused on Fort Meade	Jean Friedberg	There are considerable efforts funded through a range of organizations that are addressing transportation needs for accessing the Fort Meade complex. Should additional studies be needed, a request should come from affected local jurisdictions for subarea planning funds
3	Consider the MTA system along with the proposed study of expanding the Circulator and Bikeshare program.	Phyllis Fung	Baltimore City operates the Charm City Circulator and the new Bikeshare program and has requested support to consider how to expand these programs to reduce air quality emissions in the City. During their assessment, the City will consider other transportation modes and does meet on a monthly basis with MTA. Please feel free to contact Ms. Veronica McBeth at veronica.mcbeth@baltimorecity.gov
4	Bike routes discussed on Walther Boulevard versus Harford Road	Kevin Murphy	Thank you for your comment regarding bicycle lanes in the Northeast quadrant of Baltimore City. Baltimore City DOT engages the entire community including neighborhoods, community associations, businesses, and stakeholders as transportation infrastructure is planned, designed and constructed. All modes of traffic are studied and final decisions on proposed facilities take into account data, opinion, and suggestions received from the public. Walther Avenue was in the 2006 Bicycle Master Plan and the 2013 Bicycle Master Plan update as a priority corridor for dedicated, on-street bicycle facilities. Bicycle lanes are being implemented on Walther Avenue. During implementation disruptions in traffic flow are expected and City DOT works to mitigate those impacts. City DOT continues to collect data and study the long term effects of changes made in the right-of-way to transportation infrastructure. City DOT appreciates comments from all stakeholders and will take them under advisement as upgrades to the transportation infrastructure in northeast Baltimore continue to be implemented. Please feel free to contact Ms. Kaitlin Doolin at kaitlin.doolin@baltimorecity.gov

5	Concerned about dated MTA routes and reliability of service	Phyllis Fung	The MTA is aware that, for that there are problems with on-time performance, reliability, crowding, lines that do not serve customer's needs, and low customer satisfaction. It has been over a decade since the last system-wide improvement study, and it is time to review and update the system to better serve the region. For that reason the MTA has initiated a process to update routes. This process is called the Bus Network Improvement Project (BNIP). BNIP is a focused, 8-month project to develop a plan for updating and improving MTA's bus service. BNIP is a key component of a larger effort called the Transit Modernization Program (TMP) which is working to modernize the entire MTA transit system throughout the state. BNIP aims to maximize service quality and transit access through an up-to-date analysis of ridership and regional land-use data and with the assistance of public input. This project will establish recommendations for implementation in August 2014 and provide the groundwork for a five (5) year, multi-phase improvement plan. See MTA Administrator, Robert L. Smith, as he introduces the project on the MTA YouTube channel. MTA will post updates to the project, with the next major milestone occurring in late April or May 2014 where 1st Year and 5-year plans will be published with a series of public meetings for comment.

APPENDIX D

ADDITIONAL PLANNING STUDIES

MDOT: Bicycle and Pedestrian Master Plan (BPMP): MDOT completed an update of the BPMP in January 2014. The Plan establishes a 20-year vision to support cycling and walking as modes of transportation in Maryland. The Plan also provides guidance and investment strategies to support cycling and walking, both on-road and off-road, as part of Maryland's multimodal transportation network.

The BPMP supports the Maryland Transportation Plan, or "MTP," and other key statewide planning efforts. It also addresses recently enacted federal transportation legislation, "Moving Ahead for Progress in the 21st Century."

MDOT engaged Maryland's citizens, governmental agencies, and interested organizations in the update process to ensure the Plan addresses the needs of all of Maryland's transportation stakeholders. Public input included three public meetings, an online survey, nearly 20 stakeholder meetings, and a project website. In addition, an Advisory Group including representatives of state agencies, Metropolitan Planning Organizations, local government as well as advocates and citizen representatives was engaged throughout the planning process.

The BPMP was updated on the same schedule as the Maryland Transportation Plan, in accordance with State law. Both plans were completed in January 2014.

MDOT: 2035 Maryland Transportation Plan (MTP): In January 2014, MDOT published its “2035 Maryland Transportation Plan: Moving Maryland Forward,” the statewide long range transportation plan, which presents Maryland’s 20-year vision for transportation. In developing the Plan, MDOT engaged residents, businesses, governmental agencies, and other stakeholders to ensure the MTP’s vision, goals, objectives and strategies reflected and responded to the needs of Maryland’s citizens and businesses. The MTP introduces a new, region-based context and framework for transportation planning across Maryland, and includes:

- Information about the extent and condition of Maryland’s transportation system and infrastructure,
- A summary of critical transportation challenges facing Maryland,
- Public input concerning the State’s transportation future,
- Overarching transportation goals and priorities to guide transportation policy, investments and decision-making,
- Specific strategies to be pursued by MDOT and its modal administrations in implementing the Plan, including illustrative projects in each region of the State, and
- Performance measures to assist MDOT in evaluating progress toward achieving the strategic goals.

By statute, the plan is updated every four-to-five years and is one component of the State Report on Transportation, which also includes the Consolidated Transportation Program (CTP) and the annual Attainment Report on Transportation System Performance (AR). Together, these documents set the course and the implementation steps for carrying-out the State's mission and vision for transportation.

I-795: Dolfield Boulevard Interchange: The purpose of the I-795 at Dolfield Boulevard Project Planning Study is to improve vehicular, pedestrian and bicycle accessibility along Dolfield Boulevard and provide safety and capacity improvements along I-795 while supporting existing and planned development in the area. I-795 provides commuters in the area with access to points east and west, including Baltimore City and Westminster in Carroll County. The enhancements to I-795 and Dolfield Boulevard would improve access, mobility, and safety for local, regional, and inter-regional traffic, including passenger and transit vehicles. Project Planning is fully funded with Baltimore County contributing $625,000 and State Highway Administration is contributing $1.875 million. SHA is currently working through the IAPA and NEPA and working on funding for subsequent phases.

MD 198: Laurel Fort Meade Road: A study to address capacity needs on MD 198 from MD 295 to MD 32 (2.66 miles). Bicycle and pedestrian access will be provided where appropriate. MD 198 is a key link to Fort Meade from points south and west. The area in and around Fort Meade will likely experience substantial growth as a result of BRAC. Project planning is underway and is expected to be completed in fall 2014. Anne Arundel County is contributing up to $3.5million to fully fund the planning phase.

PLANNING STUDIES INITIATED BUT NOW ON HOLD:

I-70 (Baltimore National Pike): A study to address current and future capacity needs on I-70 between US 40 and US 29 (6 miles). This project would ease increasing congestion and improve safety along this segment of I-70. Project planning was being conducted using State funding up until late fall 2008, when it was put on hold due to the economic downturn. The estimated total cost of the study is $3.0 million.

THIS PAGE LEFT BLANK INTENTIONALLY.

APPENDIX E

LIST OF ACRONYMS

THIS PAGE LEFT BLANK INTENTIONALLY.

ACRONYMS / ABBREVIATIONS	
3-C	Continuing, Cooperative and Comprehensive
ABM	Activity Based Model
ACS	American Community Survey
ADA	Americans With Disabilities Act
BRTB	Baltimore Regional Transportation Board
BMC	Baltimore Metropolitan Council
BPAG	Bicycle & Pedestrian Advisory Group
BPDS	Building Permit Data System
BRAC	Base Realignment and Closure
B-ROC	Baltimore Regional Operations Coordination Committee
BRT	Bus Rapid Transit
BRTB	Baltimore Regional Transportation Board
CAAA	Clean Air Act Amendments
CAC	Citizens Advisory Committee
CATT	Center for Advanced Transportation Technology
CBD	Central Business District
CFG	Cooperative Forecasting Group
CMAQ	Congestion Mitigation and Air Quality
CMP	Congestion Management Process
CSA	Combined Statistical Area
CTP	Consolidated Transportation Program
CTPP	Consolidated Transportation Planning Package
CTSP	Community Traffic Safety Program
DBE	Disadvantaged Business Enterprise
EAT	Emphasis Area Team
EPA	Environmental Protection Agency
ES-202	Employment Security Report 202
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	Fiscal Year
FMTF	Freight Movement Task Force
GHG	Greenhouse Gases
GPS	Global Positioning System
HPMS	Highway Performance Monitoring System
HUD	Housing and Urban Development
ICG	Interagency Consultation Group
ITS	Intelligent Transportation Systems
ISTEA	Intermodal Surface Transportation Efficiency Act
ITS	Intelligent Transportation Systems

ITS MD	Intelligent Transportation Society of Maryland
JARC	Job Access and Reverse Commute
LEHD	Longitudinal Employer-Household Dynamics
LEP	Limited English Proficiency
LOS	Level of Service
LRTP	Long Range Transportation Plan
M&O	Management & Operations
MAP-21	Moving Ahead for Progress in the 21st Century
MDE	Maryland Department of the Environment
MDOT	Maryland Department of Transportation
MDP	Maryland Department of Planning
MEF	Master Establishment File
MHSO	Maryland Highway Safety Office
MIEMSS	Maryland Institute for Emergency Medical Services Systems
MIIF	Major Intersections and Important Facilities
MLK	Martin Luther King
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MOVES	Motor Vehicle Emission Simulator
MPA	Metropolitan Planning Area
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MSGIC	Maryland State Geographic Information Committee
MSTM	Maryland Statewide Travel Model
MTA	Maryland Transit Administration
MWCOG	Metropolitan Washington Council of Governments
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industrial Classification System
NEPA	National Environmental Policy Act
NHTSA	National Highway Traffic Safety Administration
NSA	National Security Agency
P^3	Public Private Partnership
PECAS	Production and Exchange Consumption Allocation System
PIP	Public Involvement Plan
$PM_{2.5}$	Fine Particulate Matter
POPGEN	(Synthetic) Population Generator
PUMS	Public Use Microdata Sample
RFP	Request for Proposals
RPSD	Regional Plan for Sustainable Development

RTSMO	Regional Transportation Systems Management & Operations
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SDE	Spatial Database Engine
SHA	State Highway Administration
SHSP	Strategic Highway Safety Plan
SIP	State Implementation Plan
SOP	Standard Operating Procedures
SRTS	Safe Routes to School
STP	Surface Transportation Program
T&PW	Transportation & Public Works
TAP	Transportation Alternatives Program
TBM	Travel Based Model
TC	Technical Committee
TEA-21	Transportation Equity Act for the 21st Century
TIM	Traffic Incident Management
TIMBR	Traffic Incident Management (Committee) for the Baltimore Region
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TMIP	Travel Model Improvement Program
TOD	Transit Oriented Development
TPB	Transportation Planning Board
TOD	Transit Oriented Development
TCM	Transportation Control Measure
TDM	Transportation Demand Management
TTX	Tabletop Exercise
UASI	Urban Area Security Initiative
UAWG	Urban Area Work Group
UMB	University of Maryland Baltimore
U.S. DOT	United States Department of Transportation
UPWP	Unified Planning Work Program
VMT	Vehicle Miles Traveled
VPP	Vehicle Probe Project
WILMAPCO	Wilmington Area Planning Council
WIP	Watershed Implementation Plan
WMATA	Washington Metropolitan Area Transit Authority