

■ 5.0 Linking Maryland's STIP to SAFETEA-LU

This section contains additional information about the development and content of Maryland's STIP in order to demonstrate compliance with SAFETEA-LU. The following information is organized according to 23 CFR § 450.216 subsections (a) – (m).

(a) Federal STIP Update Guidelines: MDOT updates its STIP on an annual basis as requested by the Governor. Given that SAFETEA-LU only requires an update every four years, MDOT's annual update is well within this boundary.

(b) MPO Coordination and Air Quality Attainment: Each MPO creates a metropolitan TIP that reflects local needs, priorities, and available funding in coordination with local transit providers, local government officials, citizens, users, and other stakeholders. Each of these agencies has a documented and approved public involvement process that is used in support of developing their plans and TIPs. Once each TIP is approved by the MPO, it is inserted into the STIP without modification.

The Clean Air Act Amendments of 1990 stipulate that projects listed in a TIP cannot lead to any further degradation in a regions' air quality, but instead should begin to improve the air quality and contribute to the attainment of a region's emission budget. The Environmental Protection Agency (EPA) has developed three categories regarding the status air quality: Non-Attainment, Maintenance, and Early Action Compact. Definitions for each of these categories and the jurisdiction within Maryland that these fall under are listed below:

1. Non-Attainment: Represents a locality where air pollution levels exceed National Ambient Air Quality Standards.
 - a. Ozone – Frederick, Montgomery, Prince George's, Charles, Calvert, Anne Arundel, Howard, Carroll, Baltimore, Harford, Cecil, Kent, and Queen Anne's Counties as well as Baltimore City.
 - b. Particulate Matter (PM) 2.5 – Washington, Frederick, Montgomery, Prince George's, Charles, Anne Arundel, Howard, Carroll, Baltimore, and Harford Counties as well as Baltimore City.
2. Maintenance: This is a locality where an approved air quality improvement plan has been implemented with the goal of re-designating it as an attainment area.
 - a. Carbon Monoxide – portions of Montgomery and Prince George's Counties as well as portions of Baltimore City.
3. Early Action Compact (EAC): These localities will take immediate action to begin reducing air pollution one to two years earlier than required by the Clean Air Act.
 - a. Ozone – Washington County submitted its Early Action Compact (EAC) to the EPA on March 25, 2004 and the plan was approved for implementation on April 15, 2004. Washington County met all of the required EAC milestones and

submitted an attainment demonstration (based on 2005, 2006 and 2007 air quality data) before the December 31, 2007 deadline. The attainment demonstration was accepted by the EPA. The EPA issued a final rule, published in the Federal Register on March 27, 2008, designating Washington County as attainment of the 8-hour ozone standard, effective April 15, 2008. The EAC plan was successfully implemented due to cooperation between Washington County, MDE and MDOT.

Air quality conformity tests and Federal conformity findings are conducted for the Baltimore and Washington metropolitan TIPs for both ozone and PM 2.5. The WILMAPCO TIP is tested for Ozone and the HEMPO TIP is tested for PM 2.5. Additionally, all MPO TIPs have been properly certified regarding air quality conformity in order to permit projects to be included in the STIP. This certification is included within each MPO TIP and in this report as Appendix A.

Areas outside of an MPO are also required to properly certify air quality conformity before including projects in the STIP. In areas that are not represented by an MPO, the certification process is coordinated between the county, MDOT, and MDE. Currently only Queen Anne's and Kent Counties reside outside of an MPO and are categorized as maintenance areas for eight-hour ozone. Both have been tested for conformity by MDOT and approval was given by FHWA on April 11, 2007.

(c) Non-Metropolitan Area Coordination: Development of the STIP is not complete until the needs and priorities of non-metropolitan areas are included. MDOT has developed the "Non-metropolitan Area Consultative Process" in order to comply with Federal transportation planning requirements. This policy provides a process for non-metropolitan areas and non-metropolitan elected officials to be involved in Statewide transportation planning that spans across all modes. Section 4.0 also described the annual CTP/STIP Fall Tour, a key component of Maryland's outreach to non-metropolitan areas and other coordination efforts with non-metropolitan areas pursued by MDOT. Process details can be found on MDOT's website: <http://www.mdot.state.md.us/Planning/STIPandTIP/STIPandTIP>. In 2006, the Maryland legislature reintroduced and passed legislation (Senate Bill 281) to establish a Commission to study Southern Maryland Transportation Needs. MDOT is currently supporting this study and coordinating with the Tri-County Council that represents the tri-county region of Charles, Calvert, and St. Mary's Counties.

(d) Indian Tribal Government Coordination: There are no Indian Tribal governments in the State of Maryland.

(e) Federal Lands Highway Program (FLHP) TIP: The STIP includes all FLHP projects that have been approved by FHWA without modification (see Table 5.1).

Table 5.1 Federal Lands Highway Program Projects

STATE	AWARD FY	PROJECT	APPLICANT	DESCRIPTION	COUNTY	FUND SOURCE	TOTAL PROGRAM AMOUNT
MD	2010	BAWA 1A27	National Parks Service, Baltimore Washington Memorial Parkway	Replace/Relocate Light Poles SB BW Parkway near Route 50	PRINCE GEORGES	Park Roads and Parkways	\$1,200,000
MD	2010	PRR 14(2) 16(2)	U.S. Fish and Wildlife Service, Patuxent Research Refuge	Rehabilitation of Bald Eagle Drive, Visitor Center Entrance Road and Wildlife Loop, Phase II.	ANNE ARUNDEL	SAFETEA-LU High Priority Funds/ Others	\$3,600,000
MD	2010	ANTI 300(1),900(2)	National Park Service, Antietam National Battlefield	Mill and overlay approximately 5 miles of four loop roads within the National Battlefield, including parking areas. Rehabilitate approximately 2 miles of paved walking trails.	WASHINGTON	ARRA - Park Roads and Parkways and Title 16	\$4,570,000 (PRP ARRA) \$730,000(Title 16 ARRA)
MD	2011	BAWA 1E19	National Park Service, Baltimore Washington Parkway	Rehabilitate Springfield Road	ANNE ARUNDEL/ PRINCE GEORGES	Park Roads and Parkways	\$1,790,000
MD	2012	BAWA 1A26, E20	National Park Service, Baltimore Washington Parkway	Rehabilitate walls along Baltimore Washington Parkway near Rt 193	ANNE ARUNDEL/ PRINCE GEORGES	Park Roads and Parkways	\$650,000
MD	2010	FOMC	National Park Service, Fort McHenry National Monument and Historic Shrine	Pavement Management Projects	CITY OF BALTIMORE	Park Roads and Parkways	\$720,000
MD	2010	HAMP	National Park Service, Hampton National Historic Site	Pavement Management Projects	BALTIMORE	Park Roads and Parkways	\$1,050,000
MD	2012	ASIS	National Park Service, Assateague Island National Seashore	Pavement Management Projects	WORCESTER	Park Roads and Parkways	\$209,000
MD	2013	ASIS	National Park Service, Assateague Island National Seashore	Pavement Management Projects	WORCESTER	Park Roads and Parkways	\$478,000
MD	2013	ASIS	National Park Service, Assateague Island National Seashore	Repair Beachroad Bridge	WORCESTER	Park Roads and Parkways	\$1,050,000
MD	2011	GREE 11(1)	National Parks Service, Greenbelt Park	Repair culvert within the park	PRINCE GEORGE'S	Park Roads and Parkways	\$100,000
MD	2010	Blackwater	U.S. Fish and Wildlife Service, Blackwater National Wildlife Refuge	Resurface Wildlife Loop	DORCHESTER	Refuge Roads	\$400,000

(f) Public Comment: The STIP is developed within an inclusive, accessible, and responsive public involvement process. As mentioned under “(b) MPO Coordination and Air Quality Attainment,” each TIP is been subject to its own public comment process and review period. Several public outreach attributes of the STIP development process (e.g., CTP Fall Tour) were described in Section 4.0.

For the 2009 – 2014 CTP, MDOT elected to create additional visualization and public outreach materials. MDOT also created a CTP Website to provide information about the CTP process and about how planning at MDOT is conducted as well as information about the following “Hot Topics”: Base Realignment and Closure (BRAC), Innovative Finance,

Transit Oriented Development (TOD), Freight Transportation, & Intermodal Connections. Also posted on the website was the 2008 Fall Tour schedule and directions for interested parties wishing to attend a CTP Fall Tour. The website also highlighted transportation plans that needed to be developed as a result of SAFETEA-LU, including a Statewide Highway Safety Plan and a Coordinated Public Transit Human Services Plan.

Finally, a notable challenge facing the transportation field is communicating to the public the time required to conceptualize, plan, and build transportation projects. To address this challenge, the CTP website included a webpage titled "Project Delivery Timeframe" (see Figure 5.1⁴) to better communicate these ideas. The 2009 – 2014 CTP website provided an ideal venue through which the project process could be further clarified both visually and through explanatory text.

Figure 5.1 Annual CTP Fall Tour Project Delivery Timeframe Webpage



⁴ Posted on MDOT website during 2008 Fall Tour.

(g) Capital and Non-Capital Project for Specific Federal Funds: The CTP separately lists bicycle and pedestrian projects programmed annually and can be found on page A-29. In addition, MDOT tracks a set of bicycle and pedestrian performance measures identified in the Maryland Bicycle and Pedestrian Master Plan and will continue to document progress in the AR. Appendix B contains an annual list of projects for which funds have been obligated in the previous year.

(h) Regionally Significant Projects: The 2010 STIP includes projects of regional significance. For example, the CTP includes a section on transportation improvements related to the U.S. Department of Defense's BRAC process.

(i) Project / Phase Summary Reports: For each project to be included in the STIP, MDOT creates a summary Project Information Form (PIF), which is a summary of information for each project (see illustration below):

Figure 5.2 Project Information Form (PIF) Illustration

Maryland Transit Administration -- Line 27

CONSTRUCTION PROGRAM

PROJECT: CCTV Improvements

DESCRIPTION: The CCTV system will provide effective surveillance of MTA stations and maintenance facilities. Sites are prioritized on a systemwide threat vulnerability assessment. This is a Revenue Increase project.

JUSTIFICATION: Improvements to the CCTV system will enhance safety and security at key MTA locations.

SMART GROWTH STATUS:
 Project Not Location Specific or Location Not Determined
 Project Within PFA
 Grandfathered
 Project Outside PFA; Subject to Exception
 Exception Approved by BPWMDOT

ASSOCIATED IMPROVEMENTS: None.

STATUS: Installation of cameras at Phase I locations is underway.

SIGNIFICANT CHANGE FROM FY 2007 - 12 CTP: Moved from the Minors program. \$6.3 million is Revenue Increase funds.

POTENTIAL FUNDING SOURCE:
 SPECIAL FEDERAL GENERAL OTHER

PHASE	TOTAL		CURRENT YEAR	BUDGET YEAR	PROJECTED CASH REQUIREMENTS FOR PLANNING PURPOSES ONLY					SIX YEAR TOTAL	BALANCE TO COMPLETE
	ESTIMATED COST (\$000)	EXPEND THRU YEAR			2009	2010	2011	2012	2013		
Planning	0	0	0	0	0	0	0	0	0	0	0
Engineering	1	1	0	0	0	0	0	0	0	0	0
Right-of-way	0	0	0	0	0	0	0	0	0	0	0
Construction	22,800	4,670	3,416	4,100	3,831	0	6,783	0	16,130	0	
Total	22,801	4,671	3,416	4,100	3,831	0	6,783	0	16,130	0	
Federal-Aid	13,096	3,097	2,849	2,535	2,708	0	1,907	0	9,099	0	

FEDERAL FUNDING OBLIGATIONS BY YEAR

PROJECT PHASE	FFY	FUND CATEGORY	FEDERAL FUND AMOUNT
CO	2008	5307	1,297
CO	2009	5307	1,815
CO	2010	5307	2,708
CO	2011	5307	594
CO	2012	5307	1,313

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- 1) Description of the work, project length, and phase (if applicable);
- 2) Estimated total project cost or cost range (some projects may extend beyond the timeframe of the STIP);
- 3) Amount of Federal dollars obligated over the years needed to implement the project; and
- 4) Name of the agency or agencies responsible for project or phase implementation.

Other important data may be included on the PIF, such as a map illustrating the location and size of a project, an image illustrating the type of project, project justification, other non-Federal funding sources, and Smart Growth Status (see Figure 5.2).

Of particular importance to federal regulators are the major phases in which federal funds are spent. The four phases included in the PIF are:

- Planning – once a proposal is funded for project planning, detailed studies and analyses are conducted to evaluate the need for the project and to establish the scope and location of proposed transportation facilities and obtain environmental approvals.
- Engineering – the next phase for funding is the engineering phase. These projects undergo additional environmental studies, preliminary, and final design. These projects, having been more thoroughly evaluated than those in Planning, are candidates for future addition to the Construction Program and are more likely to be built.
- Right-of-Way – this funding is approved at different points during the project to provide the necessary land for the project corridors for future projects.
- Construction – this last stage includes the costs of actually building the designed facility. Construction does not begin until a project receives the necessary environmental permits, the State of Maryland meets air quality requirements, and contracts are bid. Once a project is fully funded for construction, it is moved from the Development and Evaluation section of the CTP to the Construction section of the CTP.

Another example of visualization methods employed by MDOT is the maps provided by SHA at each county meeting during the Annual Consultation Process. A map is created for each District showing the location of each project, using different symbols to illustrate different types of projects, and includes a short description of each project. These are highly useful since the public can easily see where and how projects impact their daily lives.

(j) Grouped Projects: MDOT has the option to group projects that are not regionally significant. Most projects are not grouped together and have their own PIF page as described in Figure 5.2, however, some System Preservation Projects within the larger urban areas are grouped together by funding category. Projects located within smaller regions may be itemized at the discretion of the SHA district engineer.

(k) Consistency with State Long-Range Transportation Plan and MPO Long-Range Transportation Plans: The multimodal goals and objectives in the *2009 Maryland Transportation Plan (MTP)* provided policy guidance for the 2010 STIP development. The MTP in turn provides overall policy direction for Maryland's six MPO L RTPs which in turn provide overall policy direction for development of the TIPs.

(l) Financial Plan: In addition to project specific funding information, MDOT includes two financial sections in its CTP. The first section titled "Where the Money Comes From" (page 5 of the CTP) details the various inputs to the Transportation Trust Fund (TTF), which is Maryland's dedicated transportation revenue source. As Figure 3.1 illustrates, the TTF is supported by Federal aid, operating revenues, user fees, motor fuel taxes, vehicle titling taxes, registration fees, sales and use taxes, corporate income taxes, and bond proceeds. This source of funding is available to pay for operating, maintenance, and capital costs (including system preservation) associated with highways, transit, aviation, motor vehicle administration, and the Port of Baltimore.

The CTP contains all capital projects funded with the Maryland Transportation Trust Fund (TTF). The TTF assures there are no administrative barriers to combining or flexing State or Federal transportation funds to pay for the needs of a given project, within the constraints of statutory authority. Additionally, because transportation needs are not paid for using the State's general fund, transportation does not have to compete with other State programs and expenditures for funding.

The total projected Trust Fund revenues amount to \$13.5 billion for the four-year period covered by the FY 2010 STIP/2009 CTP. The TTF supports operation and maintenance of State transportation systems, MDOT administration, debt service, and capital projects. In addition, 30 percent of the Highway User Revenues credited to the TTF are shared with Maryland's counties and Baltimore City to support their transportation needs.

The Department maintains a six-year Financial Plan that is updated semi-annually. This plan forecasts revenues and expenditures using the latest economic estimates from two national forecasting companies. The revenue projections used in the latest update of the Trust Fund forecast are, in the short-term, based on a continuation of moderate growth in the national economy; and, in the long-term, expected to follow a normal cyclical pattern around an overall upward trend. User revenues are payments made by our customers for transportation infrastructure and services; and as such, their long-term growth follows the trend in state population.

MdTA is independently funded through tolls, concessions, investment income, revenue bonds, and miscellaneous sources, thus its funding sources are separate from both the TTF and the State's General Fund. While there is no federal funding associated with any of the MdTA projects, the projects that MdTA constructs that are considered "Regionally Significant" can be found in the appropriate Metropolitan TIP. Please reference the TIPs for the project information: The I-95 projects are included in the BRTB TIP, the ICC project is included in the TPB TIP and the Nice Bridge is included in the TPB TIP.

The ICC Project is also funded by means other than tolls. The project will also use GARVEE bond funding and NHS funding, as detailed in both the TPB TIP on page M-3 and in Appendix D.

Another source of funding that is accounted for in the STIP includes local Congressional earmarks. Local earmarks can be found in the Minor Projects section of the SHA County PIF pages.

The CTP's second section titled "Where the Money Goes" (page 5 of the CTP) describes how the TTF supports the operation, maintenance, and preservation of State transportation systems as well as MDOT administration, debt service, and capital projects. As a dedicated funding source, the TTF provides maximum flexibility in financing transportation throughout the State to foster intermodal solutions. Additionally, because transportation needs are not paid for using the State's General Fund, transportation need not compete with other State programs and expenditures for funding.

The revenue and cost estimates for the CTP/STIP use an inflation rate to reflect "year of expenditure dollars" based on reasonable financial principles and information developed cooperatively by the State, MPOs, and public transportation operators. The CTP describes the economic trends and assumptions that were used to estimate MDOT's revenue and operating cost projections. The CTP also describes the assumptions used to estimate Federal-aid for highways, transit, WMATA and aviation (see CTP pages 2-5).

(m) Fiscal Constraint: Fiscal constraint is a requirement that dates back to the Intermodal Surface Transportation Efficiency Act of 1991. The purpose of fiscal constraint is to ensure that states have adequate funding available to implement projects identified in the STIP while also providing for the operation and maintenance of the existing transportation system. The 2010 STIP is financially constrained by revenues that are reasonably expected to be available through the four-year funding period of the STIP or project completion using year of expenditure dollars. The revenue and expenditure projections use the latest available economic estimates from two national forecasting companies.

Several specific requirements apply to the federal definition of fiscal constraint. They include:

- A STIP must be financially constrained by year and funding category.
- The STIP must clearly identify projects to be funded using current revenues and which projects are to be funded using proposed revenue sources.
- Proposed funding sources and strategies ensuring their availability shall be identified.
- Operation and maintenance funding must be programmed into the STIP.
- The State must have a process for estimating expected revenue from all funding sources over the time period of the STIP and furnish this information to MPOs for the development of their TIPS.

The 2010 STIP demonstrates fiscal constraint in the following ways. The CTP and TIPS specify funding sources (Federal, special, general, other) to be used for projects broken down by year and project phase (planning, engineering, right-of-way, and construction). Projects (or phases of projects) are listed only if full funding is anticipated to be available for the project (or appropriate project phase) within the time period established for its completion. All project and funding details in the STIP has been scrutinized and approved by the Maryland General Assembly and Governor through the annual budget process.

SHA uses Advance Construction (AC) procedures to manage its capital program. In general, all projects are placed in AC when advertised for construction. Conversion to regular federal funding occurs consistent with the cash flow required during each fiscal year. The cash flows used are the same as those carried in the Department's six-year CTP. Federally funded projects are added to the program only when there is sufficient obligation authority (OA) remaining after providing for projects already underway. For planning purposes, the OA is calculated at a rate of 80% - 93% of authorized appropriations. A detailed analysis of the use of OA is prepared for the draft and final CTP each year.

Additionally, SHA utilizes Toll Credits to manage the funding for highway improvements. Toll Credits for non-federal share are a provision in United States Code (USC) that allow states to take a credit for documented non-federal expenditures by a state toll authority on routes that carry interstate commerce. The credit takes the form of replacing the federal matching share, i.e. the state share, making a project (or at least the federal eligible portions of a project) 100% federally funded. Toll credits do not give a state any more federal aid to spend; they just allow a state to use federal funds in lieu of the state match portion, which provides flexibility to better manage the use of state and federal funds.

The STIP also includes fiscal constraint summary tables and explanation worksheets for SHA and for Statewide projects (see Appendix D and Appendix E).