

## CHAPTER XV

# FINANCIAL PLAN

### INTRODUCTION

The function of the MTP Financial Plan is to represent available federal-aid highway and transit resources as related to planned future transportation improvements. Specifically, the Financial Plan details:

1. Available highway and transit funding (federal, state and local)
2. Fiscal constraint (cost of projects cannot exceed the reasonably expected funding to be available)
3. Expected rate of change in available funding (unrelated to inflation)
4. Year of Expenditure (YOE) factor (to adjust costs for predicted inflation)
5. Estimate of Operations and Maintenance (O&M) costs for the federal-aid highway system (FAHS)

The May 27, 2016 FHWA final planning rules, which implement the MAP-21/FAST Act legislation, provide guidelines for the continuing requirement that all long range transportation plans be financially constrained documents. The MAP-21/FAST Act legislation continue the requirements of the prior legislation, SAFETEA-LU, relative to the requirements for a planning process that is realistic in terms of the financial resources available to carry out the plan. The regulations regarding establishing a financial plan are as follows:

- (i) For purposes of transportation systems operations and maintenance, the financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain Federal-aid highways (as defined by 23 U.S. C. 101(a)(5)) and public transportation (as defined by title 49 U.S.C. Chapter 53).
- (ii) For the purpose of developing the metropolitan transportation plan, the MPO, public transportation operator(s), and State shall cooperatively develop estimates of funds that will be available to support metropolitan transportation plan implementation, as required under Sec. 450.314(a). All necessary financial resources from public and private sources that are reasonably expected to be made available to carry out the transportation plan shall be identified.
- (iii) The financial plan shall include recommendations on any additional financing strategies to fund projects and programs included in the metropolitan transportation plan. In the case of new funding sources, strategies for ensuring their availability shall be identified. The financial plan may include an assessment of the appropriateness of innovative finance techniques (for example, tolling, pricing, bonding, public private partnerships, or other strategies) as revenue resources for projects in the plan.
- (iv) In developing the financial plan, the MPO shall take into account all projects and strategies proposed for funding under title 23 U.S. C., title 49 U.S.C. Chapter 53 or with other Federal funds; State assistance; local sources; and private participation. Revenue and cost estimates that support the metropolitan transportation plan must use an inflation rate(s) to reflect "year of expenditure dollars," based on reasonable financial principles and information, developed cooperatively by the MPO, State(s), and public transportation operator(s).
- (v) For the outer years of the metropolitan transportation plan (i.e., beyond the first 10 years), the financial plan may reflect aggregate cost ranges/cost bands, as long as the future funding source(s) is reasonably expected to be available to support the projected cost ranges/cost bands.
- (vi) For non-attainment and maintenance areas, the financial plan shall address the specific financial strategies required to ensure the implementation of TCMs in the applicable SIP.

- (vii) For illustrative purposes, the financial plan may include additional projects that would be included in the adopted transportation plan if additional resources beyond those identified in the financial plan were to become available.
- (viii) In cases that the FHWA and the FTA find a metropolitan transportation plan to be fiscally constrained and a revenue source is subsequently removed or substantially reduced (i.e., by legislative or administrative actions), the FHWA and the FTA will not withdraw the original determination of fiscal constraint; however, in such cases, the FHWA and the FTA will not act on an updated or amended metropolitan transportation plan that does not reflect the changed revenue situation.

BCATS' development of this financial plan chapter is based on the outlined requirements from the regulations. The revenue and expenditure projections are presented in cost adjusted/inflated dollars, termed "year-of-expenditure" dollars. The previous 2035 MTP was also developed using this process. Past practice, historic data, and already committed funds are the major factors considered in establishing future funding estimates.

Since the majority of the funding for transportation improvements comes from federal and state dollars, actions at both these levels will impact the actual future funding available for projects at the local level. The future of both of these funding sources for the life of the 2040 Plan can not be predicted with much level of certainty at this time. Therefore, lacking any definitive information to the contrary, future estimates are based on a continuation of the historic experience with these sources and statewide standards for developing future funding estimates.

## **HISTORY OF TRANSPORTATION FINANCING**

The development and maintenance of the transportation system has been, and still is, primarily financed by user fees. However, local funding, both public and private has become an increasing contributor to transportation improvements in recent years. At the state level, user fees include a per gallon tax on gasoline and diesel fuel and a per vehicle registration fee based on vehicle value. The state gas tax has been \$0.19 per gallon since it was raised from \$0.14 per gallon in 1997. A gas tax increase was passed in Michigan in 2015 that phases in not only an increase of \$0.073 per gallon of gasoline as of January 1, 2017 (\$0.11 per gallon of diesel fuel), but as of 2022, both gasoline and diesel fuel tax rates will be indexed for inflation. However, as vehicles become more fuel efficient, and alternative fuel use increases, the revenue generated from these taxes diminishes significantly. Gasoline and diesel fuels are also taxed \$0.184 per gallon at the federal level. Some revenue for transportation at the state level is also generated from the sales tax on vehicle related consumer purchases, but much of this tax revenue is directed to other areas of the state budget, notably the School Aid fund and revenue sharing to local units of government.

## **SOURCES OF TRANSPORTATION FUNDING**

Collection and distribution of gasoline and diesel fuel taxes in Michigan is regulated under State Act 51 of 1951 (commonly referred to a "Act 51"). Michigan's fuel tax is collected at the refinery and deposited into the Michigan Transportation Fund (MTF). Federal taxes are placed into the Federal Highway Trust Fund, with the exception of one cent of the tax, which is dedicated to the clean-up of underground fuel storage tanks. Most of the tax

revenues, at the federal and state levels, are earmarked to fund highway, mass transit, safety, and non-motorized improvements. The state’s MTF dollars are distributed to MDOT, the county road commissions, the cities and villages, and the Comprehensive Transportation Fund (CTF). The CTF was established to fund public transit improvements. In addition to the funding from the MTF, the CTF has received funding from the state’s general fund in the past.

Most states have vehicle registration fees that are earmarked for transportation improvements as well. In Michigan, the registration fees for automobiles and trucks are also deposited in the MTF. There is no federal passenger vehicle registration fee.

County and city allocations from the MTF generally represent for over half of locally available transportation revenues. Local units of government may provide additional funding for transportation. Typical sources for such funds include a community’s general fund, property tax millage, general obligation bonds, income tax revenues, contributions from other units of government, tax increment financing, and special assessments. Bonding for transportation improvements can also occur, with the pay back of the bonds becoming an on-going obligation. Revenue can also result from accumulated interest on unspent MTF funding that has been distributed to the local road agencies.

County road commissions/departments receive funding from their member townships for improvements to non-primary roads as county road commissions/departments are not allowed to pay for more than 50% of such improvements. Some counties, as well as cities, generate revenue by entering into maintenance agreements with MDOT to complete work on state trunkline facilities. Revenue is also sometimes generated from developers who will pay for the construction of access drives, roads, or other necessary improvements serving new developments.

At the federal level, MAP-21/FAST Act contains a myriad of programs available to fund transportation improvements. The state utilizes the Interstate and National Highway System (NHS) program for high level facilities like interstate highways. The Surface Transportation Program (STP) provides funds to the state and to local urban, small city, and rural areas for transportation improvements. A separate safety component was established under SAFETEA-LU to address projects in this category. The Transportation Alternatives Program (TAP) (formerly the Enhancement Program) includes beautification, historic preservation, and non-motorized types of projects. There are also bridge and Congestion Mitigation Air Quality (CMAQ) categories of funding that have continued under current federal legislation. All of these, as well as smaller federal highway related programs are listed in Figure XV -1, below.

Summary of Potential Sources of Revenue for Plan Development

*Federal Funding*

see Figure XV-1 below

*State Funding*

- Motor Vehicle Tax (Act 51) Distribution
- Comprehensive Transportation Fund Distribution
- Transportation Economic Development Funds (TEDF)
- Other state

*Local Funding*

- General Fund Contributions (cities)
- Township Contributions
- Street Improvement Assessments
- Road Improvement Bonds
- Tax Increment Financing
- Special Assessment Districts
- Dedicated Millage
- Service Contracts
- Fare Box Revenues
- Private Industry Contributions
- Foundation Contributions
- In-kind Contributions
- Other local

**FIGURE XV-1**

**List of Available Federal-Aid Highway Revenues**

(This is not intended to be an exhaustive list of all potential resources or eligible activities, but rather the most likely used revenues and types of activities)

**Federal Highway Resources**

<b>Source</b>	<b>Purpose</b>	<b>Examples of Eligible Activities</b>
Surface Transportation Block Grant Program	Maintain and improve the federal-aid highway system	Construction, rehabilitation, or reconstruction of highways, bridges, and tunnels; transit capital projects; ITS projects, highway and transit safety projects, non-motorized projects
Highway Safety Improvement Program (HSIP)	Decrease highway deaths and injuries	Intersection safety improvements; pavement and shoulder widening; rumble strips or other warning devices; improvements for pedestrian or bicyclist safety; improvements for safety of person with disabilities; traffic calming features; elimination of roadside hazards; highway signage and pavement marking projects; roadside safety audits
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	Reduce emissions from transportation sources	Installation of dedicated turn lanes; signal re-timing, interconnection, or actuation; construction of roundabouts; diesel retrofits; projects to reduce single-occupant vehicle travel; transit vehicle replacement; transit new or reduced-headways routes
National Highway Performance Program (NHPP)	Maintain & improve the National Highway System (NHS) (ie, the subset of the federal-aid highway system that includes roads classified as principal arterials and above)	Construction, rehabilitation, or reconstruction of highways, bridges, and tunnels; transit capital projects; ITS projects, highway and transit safety projects, non-motorized projects - all on the NHS system
National Highway Freight Program (NHFP)	Infrastructure improvements that increase economic competitiveness and productivity; reduce congestion on the NHFP; improve safety, efficiency, and reliability of that network	Construction, reconstruction, rehabilitation, real property and equipment acquisition, and operational improvements directly related to system performance; ITS improvements; rail/highway grade separation; geometric improvements to interchanges and ramps; truck-only lanes; climbing and runaway truck lanes; adding/widening shoulders; truck parking facilities

**DEVELOPING REVENUE FORECASTS**

**State and Local Revenues (for the local system (not including transit))**

Local revenue projections were made utilizing the experience of the three local road agencies for the period of 2013 to 2015 as the base. The Act 51 reports submitted to the state by the agencies provided revenue and expenditure data for making future projections. The Act 51 reports break down revenues and expenditures between the major/primary road system and the minor/local road system. BCATS deals with funding for projects on the federal-aid eligible system, which mirrors almost completely the major/primary road system. Therefore,

although reviewed, the information for the local street/secondary road system is not used into addressing either costs or revenues for this financial assessment.

**Table XV-1  
Average Per Year Major Street/Primary Road Revenues  
for the Time Period 2013-2015**

REVENUES	City of Battle Creek	Cal. Co. Rd. Comm. (60% of County totals)	City of Springfield	Total
MI Transport. Fund	\$3,864,677	\$3,608,531	\$302,463	\$7,775,671
MI Econ. Dev. Fund	\$0	\$92,304	\$0	\$92,304
Federal funding*	\$0	\$678,236	\$0	\$678,236
Local funding	\$1,265,865	\$0	\$16,936	\$1,282,801
Operating Transfers	(\$1,518,176)	(\$730,832)	(\$66,666)	(\$2,315,674)
Metro Act & Misc.	\$472,435	\$487,269	\$19,507	\$979,211
<b>TOTAL</b>	<b>\$4,084,801</b>	<b>\$4,135,508</b>	<b>\$272,240</b>	<b>\$8,492,549</b>

\*most Federal funding is administered by MDOT and not reflected on Act 51 reports

**Table XV-2  
Average Per Year Local Street/Secondary Road Revenues  
for the Time Period 2013-2015**

REVENUES	City of Battle Creek	Cal. Co. Rd. Comm. (60% of County totals)	City of Springfield	Total
MI Transport. Fund	\$1,022,107	\$1,371,652	\$106,101	\$2,499,860
MI Econ. Dev. Fund	\$0	\$0	\$0	\$0
Federal funding*	\$0	\$283,906	\$0	\$283,906
Local funding	\$2,221,863	\$419,007	\$12,031	\$2,652,901
Operating Transfers	\$1,518,177	\$730,832	\$66,666	\$2,315,675
Metro Act & Misc.	\$56,590	\$892,079	\$21,950	\$970,619
<b>TOTAL</b>	<b>4,818,737</b>	<b>\$3,697,476</b>	<b>\$206,748</b>	<b>\$8,722,961</b>

\*most federal funding is administered by MDOT and not reflected on Act 51 reports

The estimates of future funding for local transportation needs on the major street/primary road system are based on the presumption, lacking any better evidence, that the current funding sources will continue to be available to fund future improvements with small increases due to the new state revenue package discussed earlier in this chapter. However, revenues are still not likely to be able to keep pace with inflation. An increase of 2.0% per year (first ten years) and 2.4% per year (remaining Plan years) is figured as the potential increase in federal STPU per an agreed upon statewide growth rates. State funding is expected to increase 3.7% (first ten years) and 2.3 %

(remaining Plan years), again per agreed upon statewide growth rates. No increase is applied to local funds available, as local agencies will likely not be increasing their contributions - due to decreasing state revenue sharing, shrinking local tax bases, and overall resistance to tax increases of any kind. However, there is a movement in the BCATS area to adopt local millages, or parcel fees, to fund transportation improvements in specific townships. Two townships have implemented local taxation, with two additional townships having a proposal on the November, 2016 ballot for similar measures. However, the taxes collected under these options are almost exclusively directed for improvement of local/secondary roadways that are not federal-aid eligible and not considered within the BCATS MTP or TIP.

Based on the Act 51 reports, it is estimated that the local agencies, as a group, will have revenues available for transportation investments for federal-aid eligible (major streets/primary roads) averaging the following from each of these categories (based on Table XV-1):

MI Transportation Fund (MTF) - starting with a combined average of \$7,775,671, increasing 3.7% per year through 2026 and then increasing 2.3% each year thereafter until 2040 to reach a total of approximately \$271,868,000 for the overall time period of 2017-2040.

State Economic Development Categories - starting with a combined average of \$92,304, carrying forward at the same level for 2017 to 2040 (if the category survives the on-going state budget realignment) will yield a total of approximately \$2,215,000 in the category.

Local Funding & Misc. - starting with a combined average of \$1,282,801 for local funding, with \$979,211 for the miscellaneous category, and carrying forward at the same level for 2017 to 2040 (due to restricted local budgets) this category will provide a total of approximately \$54,528,000 combined.

Operational Transfers - starting with a combined average of -\$2,315,674 being transferred out of the funding available for this category of roads, and carrying forward this same level of transfer over the life of the Plan, this category will reduce the funding available approximately by \$54,288,000 over the life of the Plan.

Net Total - The net funding available from state and local sources totals.

Once again, it should be noted that revenues and expenditures for local streets/secondary roads are not included in the calculations above, nor shown in the remainder of this chapter.

The calculation of the total revenues by the above categories is shown in the following Table XV-3:

**TABLE XV-3**  
**Cumulative Revenue Estimates for the Period of 2017-2040**  
**for State and Local Sources used by LOCAL AGENCIES**  
 (Source: Act 51) (\$ in 000's)

Year	MTF	Econ Dev.	Local + Misc.	Transfers
2017	7,776	92.3	1,283 + 979	-2,316
2018	8,064	92.3	1,283 + 979	-2,316
2019	8,362	92.3	1,283 + 979	-2,316
2020	8,671	92.3	1,283 + 979	-2,316
2021	8,992	92.3	1,283 + 979	-2,316
2022	9,325	92.3	1,283 + 979	-2,316
2023	9,670	92.3	1,283 + 979	-2,316

Year	MTF	Econ Dev.	Local + Misc.	Transfers
2024	10,028	92.3	1,283 + 979	-2,316
2025	10,399	92.3	1,283 + 979	-2,316
2026	10,784	92.3	1,283 + 979	-2,316
2027	11,032	92.3	1,283 + 979	-2,316
2028	11,285	92.3	1,283 + 979	-2,316
2029	11,545	92.3	1,283 + 979	-2,316
2030	11,810	92.3	1,283 + 979	-2,316
2031	12,082	92.3	1,283 + 979	-2,316
2032	12,360	92.3	1,283 + 979	-2,316
2033	12,644	92.3	1,283 + 979	-2,316
2034	12,935	92.3	1,283 + 979	-2,316
2035	13,233	92.3	1,283 + 979	-2,316
2036	13,537	92.3	1,283 + 979	-2,316
2037	13,848	92.3	1,283 + 979	-2,316
2038	14,167	92.3	1,283 + 979	-2,316
2039	14,493	92.3	1,283 + 979	-2,316
2040	14,826	92.3	1,283 + 979	-2,316
<b>2017 - 2040 Total</b>	<b>271,868</b>	<b>2,215</b>	<b>30,792 + 23,496</b>	<b>-55,584</b>
<b>NET TOTAL =</b>	<b>\$272,787 (\$000's)</b>			

### Federal Revenues [for the local system (not including transit)]

In addition to the categories reflected on the Act 51 report, BCATS programs the expenditure of funds in the following categories that are represented by projects in the Transportation Plan and the TIP (these projects are generally administered by MDOT, so the federal portion of the funding does not usually show up on the local agencies' Act 51 reports) :

#### Federal Funding

**STP Urban** funding levels are taken from the BCATS 2017-2020 TIP for those four years, followed by increasing the amount 2.0% per year up through 2026 and 2.4% thereafter to 2040, per the statewide adopted growth rates. This reaches a total \$57,345,000 available over the life of the Plan.

**CMAQ** funding through 2020 has been estimated by MDOT which is \$517,877 for each of the 2017, 2018, 2019 and 2020 years. After 2020, the same total has been held constant out to 2040. This is due to issues of new lower EPA standards for ozone and more local areas being designated as non-attainment. This will increase the pool of recipients and lessen the amount that the existing areas may receive, unless the total amount of funds for the CMAQ program is increased by Congress. Therefore, no increase (inflationary or otherwise) is built into this funding category. A similar level of federal funding for the state under this category will be referenced in the discussion of future state generated funding for state projects.

**Local Bridge** funding is now distributed by a regional bridge committee that assesses need within a multi-county area. MDOT is no longer provided estimates for a local bridge general program account. Therefore this category is not being estimated separately for future revenue projections and is being included with the several smaller funding categories noted below.

Revenue estimates for several smaller federal funding categories are being estimated together for the purposes of the 2040 Plan. The 2017 general program account figures for local rail crossing, local bridge, local safety, and the transportation alternatives program have been used to calculate this total. As with the larger federal STP category, this estimate is increased by the same agreed to state percentages as noted above. There may be additional funding available in other miscellaneous categories that BCATS will not count toward available revenue totals at this time.

The calculation of these categories of funds over the life of the 2040 Transportation Plan is shown in Table XV-4 below:

**TABLE XV-4**  
**Cumulative Revenue Estimates for the Period of 2017-2040**  
**for FEDERAL Revenue Sources Used by Local Agencies (\$ in 000's)**

Year	Federal STP	CMAQ Local	Other Misc. Federal
2017	1,170	518	100
2018	1,138	518	102
2019	1,161	518	104
2020	1,184	518	106
2021	1,208	518	108
2022	1,232	518	110
2023	1,256	518	113
2024	1,281	518	115
2025	1,307	518	117
2026	1,333	518	120
2027	1,365	518	122
2028	1,398	518	125
2029	1,432	518	128
2030	1,466	518	131
2031	1,501	518	135
2032	1,537	518	138
2033	1,573	518	141
2034	1,612	518	144
2035	1,650	518	147
2036	1,690	518	151
2037	1,730	518	155
2038	1,772	518	158
2039	1,815	518	162
2040	1,858	518	166
<b>TOTAL</b>	<b>34,669</b>	<b>12,432</b>	<b>3,098</b>



## Federal and State Revenues (for state system)

MDOT has provided revenue estimates for its program for the time frame of the 2040 Plan. The estimates are divided by the major programming categories used by MDOT: preserve vs. increase capacity/new roads. A breakdown by multi-year groupings has been provided by MDOT for the entire Plan period. MDOT has also provided estimates for the "Transit Revenue" section, below.

Revenues that go toward operations and maintenance are not included in the figures provided by MDOT. However, the costs for this type of work for MDOT are included in the discussion regarding operations and maintenance, which is dealt with following the discussion of transit revenues.

MDOT Planning provided the revenue forecasts in "future dollars" as required by the current federal regulations. New revenue forecasts for use in developing long range plans are pending from MDOT, but were not available for use in BCATS' 2040 MTP.

BCATS has also included the state portion of CMAQ funding in Table XV-5. The same methodology was used for the state's CMAQ revenue as for the local CMAQ revenue (Table XV-4), which was to include no increase from the static 2017-2020 figure in the TIP.

**Table XV-5  
Revenues Available for State Facilities (in thousands \$000's)**

<b>MDOT</b>	<b>Preserve</b>	<b>Capacity Improve and New Roads</b>	<b>State CMAQ</b>
2017-2020	16,638	0	2,072
2021-2025	25,882	0	2,590
2026-2030	29,112	0	2,590
2031-2035	31,787	0	2,590
2036-2040	37,920	0	2,590
<b>TOTAL BY CATEGORY</b>	<b>141,339</b>	<b>0</b>	<b>12,432</b>
<b>TOTAL STATE FACILITIES =</b>	<b>\$153,771 (\$000's)</b>		

## Transit Revenues

A variety of revenue sources are available to support public transit services into the future. The federal government, through the Federal Transit Administration (FTA), makes funds available for both operating and capital transit expenditures with an annual allocation by formula to the local transit operator (see Figure XV-2 below). The state also makes available funds to support the operating and capital portions of the transit budget. The federal government provides discretionary funding on a sporadic basis for the purchase of major capital items, such as large fixed-route buses.

Federal funding from sources under the Federal Highway Administration (FHWA) can be "flexed" for transit use, for example STP-Urban funding. CMAQ funds can also be used for transit projects. The local government (the City of Battle Creek) provides dollars from its general fund to support some of the operating costs of the transit

system (since the operator, Battle Creek Transit, is a city department). Revenues are garnered from fares paid by users of the transit service and a modest amount of revenue is recorded as income from sources like advertising.

Table XV-6 lists the estimated revenues for transit over the life of the 2040 Transportation Plan. The federal and state revenues have been provided by MDOT, which provided revenue figures by multi-year groupings, the same as for the road categories. Total funding available for transit (not including some discretionary categories) is anticipated to be approximately \$120.3 million over the life of the Plan.

The “local, farebox, & other” category is modestly increased at 2% per year over the life of the Plan. Farebox receipts have not been increasing significantly in recent years.

**Table XV-6  
Revenues Available for Transit Services, Vehicles and Facilities (\$ in 000's)**

Year	Federal Operating (Sec 5307)	State Operating (includes Specialized Services)	Federal & State Capital - Specialized Services (Sec 5310)	Other Federal & State Capital (Sec 5339)	Local, Farebox & Other* - Operating
2017-2020	4,373	5,694	348	514	5,355
2021-2025	6,342	7,217	505	745	7,319
2026-2030	7,599	7,351	605	893	8,080
2031-2035	9,103	7,488	725	1,070	8,920
2036-2040	10,906	7,628	868	1,282	9,929
TOTAL	38,323	35,378	3,051	4,504	39,603
Annual Average	\$ 1,597	\$ 1,474	\$ 127	\$ 188	\$ 1,650
GRAND TOTAL	\$120,859 (000's)				

\*Other includes City of Battle Creek General Fund contribution

**FIGURE XV-2  
List of Available Federal Transit Revenues**  
(This is not intended to be an exhaustive list of all potential resources or eligible activities, but rather the most likely used revenues and types of activities)

Source	Purpose	Examples of Eligible Activities
Sec. 5307 Urbanized Area Formula Grants	Funding for basic transit capital needs of transit agencies in urban areas, also operating funding for some transit agencies	Capital projects; transit planning; projects eligible under the former Job Access Reverse Commute (JARC) program; some of the funds can also be used for operating expenses, depending upon the size of the transit agency; one percent of funds received are to be used by the agency to improve security at agency facilities
Sec. 5310 Elderly and Person with Disabilities	Improving mobility options for seniors and those persons with disabilities	Projects to benefit seniors and those with disabilities when service is unavailable or insufficient; transit access projects for those with disabilities that exceed the Americans with Disabilities Act (ADA) requirements - incorporates the former New Freedom program

Sec. 5311 Non-Urbanized Area Formula Grants	Improving mobility options for residents of rural areas	Capital, operating, and rural transit planning activities in areas under 50,000 population
Sec. 5337 State of Good Repair Grants	Maintaining fixed-guideway transit systems in a state of good repair	Capital, maintenance, and operational support projects
Sec. 5339 Bus and Bus Facilities	Funding for basic transit capital needs of transit agencies, including construction of bus-related facilities	Replace, rehabilitate, and purchase of buses and related equipment; construction of bus-related facilities

## **OPERATIONS AND MAINTENANCE**

The continued effective operation and maintenance of the existing transportation system is a priority and goal of the BCATS process. Therefore, estimated costs for these aspects of the transportation system over the life of the 2040 Plan are taken into consideration and are applied against the total anticipated revenues before any improvements to the system are considered.

The Act 51 reporting data from the local agencies included detail on expenditures as well as revenues. Based on an average of the last three years of expenditures for the three local road agencies, the total cost to operate and maintain the existing major street/primary road system (non-heavy maintenance, routine maintenance, traffic services, winter maintenance, and administrative services) in the BCATS area, was approximately \$5.7 million per year. This includes the assumption that 60% of the Calhoun County Road Commission's total expenditures for operations and maintenance are in the BCATS area (this is the same % assumed for inclusion of revenues). BCATS covers an area which includes five of the twenty townships in Calhoun County. However, the more intense development in the BCATS area requires a significant portion of the road commission's budget. For the life of the Plan, this figure has been expanded by 2% per year (the average CPI was used since many of the components of this category of expense are more tied to personnel costs than to construction materials, and therefore the category is not inflated at the higher construction cost index used to develop the project list).

**Based on this methodology, the total cost for operations and maintenance of the major street/primary road system in the BCATS area by the local agencies over the 2017 to 2040 time period of the 2040 Transportation Plan is expected to be approximately \$173,557,000.**

MDOT has provided figures regarding its anticipated costs for operations and maintenance (O+M) of the state system within the BCATS area over the time period of the Plan. The costs include routine maintenance performed by the Transportation Service Center (TSC) staff, low level CPM repair work, maintenance contract costs with local road agencies and administration. As with the local estimate, this category was expanded by 2% per year, for the same reasons as noted in the paragraph above.

**Based on the figures provided by MDOT, the statewide operations and maintenance cost in 2017 attributed to the portion of the state system in the BCATS area is \$5.3 million. Increasing that cost by 2% per year out to 2040 results in a total operations and maintenance cost estimated at \$160.8 million.**

NOTE: MDOT has not provided any revenue estimates for MTF dollars or other categories of funding that would support operations and maintenance expenditures for its facilities. Therefore, BCATS has presumed that MDOT has identified enough revenue to cover these expenses and the revenue has been made equal to expenditures for this category on the constraint table.

## SUMMARY

Summaries of estimated available revenues and estimated expenditures over the life of the 2040 Plan are shown in Tables XV-7 and XV-8:

**Table XV-7  
Summary of Available Revenues for the BCATS 2040 Transportation Plan**

Projected Capital Revenues	Total \$
Federal Transportation Funds for Construction of Local Roads	50,199,000
Federal and State Funding for State Controlled Roadways in BCATS area	153,771,000
Federal/State/Local Transit Funding (operating and capital)	120,292,000
State funding for Operations/Maintenance of State Controlled facilities	160,800,000
State and Local Funding for Construction and Operations/Maintenance of Local Major/Primary Roads	273,197,000
<b>TOTAL</b>	<b>758,259,000</b>

**Table XV-8  
Summary of 2040 Transportation Plan Operations/Maintenance and Capital Expenditures 2017-2040**  
(Individual Projects are described in a detailed listing in Chapter XVII)

Operations/Maintenance Expenditures for Local & State Roads	Total \$
Estimated Expenditures for Operations/Maintenance of Local Roads	173,557,000
Estimated Expenditures for Operations/Maintenance of State Roads	160,800,000
Planned Capital Expenditures	Total \$
<b>Local Road Projects</b>	
Improve/Expand (0 projects)	0
Preservation (17 projects)	33,389,026
Traffic Safety/Operations & Air Quality Improvements (9 projects)	1,891,284
Non-motorized (0 projects)	0
<b>Total</b>	<b>35,280,310</b>

<b>Transit Projects</b>	
Preservation (operating expense projects) (2 projects)	115,526,976
<del>Vehicle Replacement (total vehicles) (projects)</del>	0
<del>Vehicle Addition (total vehicle) (project)</del>	0
All Transit Capital (50 projects)	25,335,135
<del>Facility Project (projects)</del>	0
Security (annual) (1 project)	383,280
<b>Total</b>	<b>141,245,391</b>
<b>State Projects</b>	
Preservation (5 projects)	132,258,920
Traffic Safety/Operations & Air Quality Improvements (4 projects)	783,264
Bridges (7 projects)	37,281,000
<b>Total</b>	<b>170,323,184</b>
<b>TOTAL PLANNED CAPITAL EXPENDITURES*</b>	<b>346,848,885</b>
<b>Total Expenditures</b>	<b>681,205,885</b>

\*includes transit operations expenses as transit "preservation" capital

## DEMONSTRATION OF FINANCIAL CONSTRAINT

The total expenditures identified in the BCATS 2040 Transportation Plan are within the total federal, state, and local revenues estimated for the 2040 Transportation Plan. As shown in Table XV-9 below, there is projected to be adequate revenue available for capital expenditures as well as for operations and maintenance expenditures for the transportation system. **Therefore, the BCATS 2040 Transportation Plan is financially constrained.**

**Table XV-9**  
**Demonstration of Financial Constraint for the**  
**2040 Metropolitan Transportation Plan**  
**of the Battle Creek Area Transportation Study**

Total federal, state, and local revenues estimated to be available for road related construction, transit capital/operating and road related operations and maintenance of the major street/primary road system and state roadway system within the BCATS area	\$758,259,000
Expenditures for Operations/Maintenance of Local & State Roads	(\$334,357,000)
Expenditures for Local Road Improvement Projects	(\$35,280,310)
Expenditures for Transit Improvement Projects	(\$141,245,391)
Expenditures for State Improvement Projects	(\$171,323,184)
<b>REMAINING BALANCE</b>	<b>\$77,053,115</b>