Financial Introduction

The Financial Plan summarizes the process used to develop transportation revenue projections, identifies the costs of operating and maintaining the transportation system, and lists planned project and program commitments. This chapter demonstrates financial constraint in the urbanized area by showing that planned commitments do not exceed available annual revenue for both highway and transit funding in the Macatawa Area Coordinating Council (MACC) planning area.

Revenue Projections

Operations and Maintenance Costs

Funding Currently Committed to Projects

Federal requirements of the Fixing America's Surface Transportation (FAST) Act and the U.S. Code of Federal Regulations [23 CFR Part 450.322] require that the MACC 2045 Long Range Transportation Plan (LRTP) be constrained by the amount of revenue available to transportation providers. The estimated cost of the projects and programs offered in this plan to meet the future transportation system needs have been constrained to revenue projections over the length of the plan. Revenue and cost estimates have also been developed to reflect "year of expenditure" dollars, accounting for inflation. This chapter is intended to provide the reader with an understanding of the sources and amounts of available revenue, planned expenditures and how this LRTP meets the financial constraint requirement noted above.

Sources of Transportation Funding

The basic sources of transportation funding are motor fuel taxes and vehicle registration fees. Both the federal government and the State of Michigan tax motor fuel, the federal government at $0.184 per gallon on gasoline and $0.244 per gallon on diesel and Michigan at $0.263 per gallon on gasoline and diesel. Michigan also charges sales tax on motor fuel, but this funding is not applied to transportation infrastructure. The motor fuel taxes are excise taxes, which means they are a fixed amount per gallon. The amount collected per gallon does not increase when the price of gasoline or diesel fuel increases. Over time, inflation erodes the purchasing power of the motor fuel tax.

The State of Michigan also collects annual vehicle registration fees when motorists purchase license plates or tabs. This is a very important source of transportation funding

for the state. Currently, roughly half of the transportation funding collected by the state is in the form of vehicle registration fees.

Cooperative Revenue Estimation Process

Estimating the amount of funding available for the 2045 LRTP is a complex process that relies on a number of factors:

- ∇ Economic conditions
- ∇ Miles traveled by vehicles nationwide and in Michigan
- ∇ Federal and state transportation funding received in previous years

Revenue forecasting relies on a combination of data and experience and represents a "best guess" of future trends. The revenue forecasting process is a cooperative effort. The Michigan Transportation Planning Association (MTPA), a voluntary association of public organizations and agencies responsible for the administration of transportation planning activities throughout the state, formed the Financial Working Group (FWG) to develop a statewide standard forecasting process. The Financial Working Group is comprised of members from the Federal Highway Administration (FHWA), the Michigan Department of Transportation (MDOT), transit agencies, and metropolitan planning organizations (MPOs), including the MACC. It represents a cross-section of the public agencies responsible for transportation planning in our state. The revenue assumptions in this financial plan are largely based on the factors formulated by the FWG and approved by the MTPA.

Federal Funding Sources – Highways

Federal transportation funding comes from motor fuel taxes (mostly gasoline and diesel). Receipts from these taxes are deposited in the Highway Trust Fund (HTF). Funding is then apportioned to the states. Apportionment is the distribution of funds through formulas in law. The current law governing these apportionments is the FAST Act. Under this law, Michigan receives approximately $1.1 billion in federal transportation funding annually. This funding is apportioned through a number of programs designed to accomplish different objectives, such as road repair, bridge repair, safety, and congestion mitigation. A brief description of the major funding sources follows.

National Highway Performance Program (NHPP): This funding is used to support condition and performance on the National Highway System (NHS) and to construct new facilities on the NHS. The National Highway System is the network of the nation's most important highways, including the Interstate and US highway systems. In Michigan, most roads on the National Highway System are state trunk lines (i.e., "I-," "US-," and "M-"roads), but can also include principal arterials whether state or locally-owned. These funds are currently not available to local road agencies in the MACC area, only MDOT roads within the MACC, even though the Ottawa County Road Commission and City of Holland have

several routes (e.g. River Avenue, Douglas Avenue, Lakewood Boulevard, State Street) that are eligible for NHPP funds.

Surface Transportation Program (STP): This funding is used for construction, reconstruction, rehabilitation, resurfacing, restoration, preservation, or operational improvements to federal-aid highways and replacement, preservation, and other improvements to bridges on public roads. Michigan's STP apportionment from the federal government is evenly split, half to areas of the state based on population and half that can be used in any area of the state. STP can also be flexed (transferred) to transit projects.

Highway Safety Improvement Program (HSIP): This funding is used to correct or improve a hazardous road location or feature or address other highway safety problems. Projects can include intersection improvements, shoulder widening, rumble strips, improving safety for pedestrians, bicyclists, or disabled persons, highway signs and markings, guardrails, and other activities. The State of Michigan retains all Safety funding and uses a portion on the state trunkline system, distributing the remainder to local agencies through a competitive process.

Congestion Mitigation and Air Quality Improvement (CMAQ): This funding is intended to reduce emissions from transportation-related sources. There is currently an emphasis on certain projects that reduce particulate matter (PM), but funds can also be used for traffic signal retiming, actuations, and interconnects; installing dedicated turn lanes; roundabouts; travel demand management such as rideshare and vanpools; transit; and non-motorized projects that divert non-recreational travel from single-occupant vehicles. The State of Michigan has allocated funding to the MACC area based on population. MDOT uses half of the funding for CMAQ-eligible projects on the state trunkline system; the other half is distributed by the MACC to eligible projects.

Transportation Alternatives Program (TAP): This funding is used for a number of activities to improve the transportation system environment, including (but not limited to) non-motorized projects, preservation of historic transportation facilities, outdoor advertising control, vegetation management in rights-of-way, and the planning and construction of projects that improve the ability of students to walk or bike to school. Funds are split between the state and various larger urbanized areas based on population.

Base and Assumptions Used in Forecast Calculations of Federal Highway Funds

Each year, the targets (the amount the MACC area is expected to receive) are calculated for each of these programs, based on federal apportionment documentation and state law. Targets can vary from year to year due to factors including how much funding was actually received by the Highway Trust Fund, the authorization (the annual transportation funding spending ceiling), and the appropriation (how much money is actually approved to be spent). Targets for the fiscal year 2018, as provided by MDOT, were used as the baseline for the forecast. The Financial Work Group of the MTPA developed a two percent annual increase in federal-aid

highway funds for the first 10 years (2018-2027) of the forecast, then a 2.3 percent annual increase for the remainder of the forecast (2028-2045).

State Funding Sources – Highways

There are two main sources of state highway funding, the state motor fuel tax, and vehicle registration fees. The state law governing the collection and distribution of state highway revenue is Public Act 51 of 1951, commonly known as "Act 51." All revenue from these sources is deposited into the Michigan Transportation Fund (MTF). Act 51 contains a number of complex formulas for the distribution of the funding, but essentially, once funding for certain grants and administrative costs are removed, 10 percent of the remainder is deposited in the Comprehensive Transportation Fund (CTF) for transit. The remaining funds are then split between the State Trunkline Fund, administered by MDOT, county road commissions, and municipalities in a proportion of 39.1 percent, 39.1 percent, and 21.8 percent, respectively.

Major changes to state transportation revenue collection have occurred since the last LRTP update. A package of bills was enacted in Fall 2015 to:

- ∇ Increase the motor fuel tax to $0.263/gallon (for both gasoline and diesel) from $0.19/gallon (gasoline) and $0.15/gallon (diesel);
- ∇ Raise vehicle registration fees by an average of 20 percent, effective January 1, 2017;
- ∇ Transfer $150 million from the state's General Fund to highways in fiscal year (FY) 2019;
- ∇ Transfer $325 million from the state's General Fund to highways in FY 2020;
- ∇ Transfer $600 million from the state's General Fund to highways in FY 2021 and subsequent years; and
- ∇ Adjust the motor fuel tax for inflation by up to five percent annually, starting in January 2022.

These changes are estimated to increase MTF funding at least one-third over 2015 levels by 2021.

MTF funds are critical to the operation of the road system in Michigan. Since federal funds cannot be used to operate or maintain the road system (items such as snow removal, mowing grass in the right-of-way, paying the electric bill for streetlights and traffic signals, etc.), MTF funds are local communities' and road commissions' main source for funding these items. Most federal transportation funding must be matched with 20 percent non-federal revenue. In Michigan, most match funding comes from the MTF for state trunkline projects. Finally, federal funding cannot be used on local public roads, such as subdivision streets. Here again, MTF is the main source of revenue for the maintenance and repair of these roads.

Funding from the MTF is distributed statewide to incorporated cities, incorporated villages, and county road commissions, collectively known as "Act 51 agencies." The formula is based on population and public road mileage under each Act 51 agency's jurisdiction.

Base and Assumptions Used in Forecast Calculations of State Highway Funds

The base for the financial forecast of state MTF funds comes from MDOT's Estimated Distribution Schedule for Michigan Transportation Funding. This document shows the estimated revenues for the fiscal years 2020 and 2021 for Cities, Villages, and Counties. Adding all of the distributions to cities and county road commissions in the MACC area provides an overall distribution total for the region.

Local Funding Sources – Highways

Local highway funding can come from a variety of sources, including transportation millages, general fund revenues, and special assessment districts. Locally-funded transportation projects that are not of regional significance are not required to be included in the LRTP. This makes it difficult to determine how much local funding is being spent on roads in the MACC area.

Base and Assumptions Used in Forecast Calculations of Local Highway Funds

To estimate local revenue over the duration of the 2045 plan, the average local match throughout the current TIP cycle of fiscal years 2020-2023 was found. For consistency, the average dollar amount was then grown at the federal rate of 2% until 2027 and then 2.3% from 2028-2045. Local units of government in the MACC Area recognize the economic importance of preserving local transportation investments and have passed millages for use on primary and local roads.

Innovative Finance Strategies - Highways

A number of innovative financing strategies have been developed over the past two decades to help stretch limited transportation dollars. Some are purely public sector; others involve partnerships between the public and private sectors. Some of the more common strategies are discussed below.

Toll Credits: This strategy allows states to count funding they earn through tolled facilities (after deducting facility expenses) to be used as a "soft match," rather than using the usual cash match for federal transportation projects. States have to demonstrate "maintenance of effort" when using toll credits—in other words, they must show that the toll money is being used for transportation purposes and that they're not reducing their efforts to maintain the existing system by using the toll credit program. Toll credits have

been an important source of funding for the State of Michigan in the past because of the three major bridge crossings and one tunnel crossing between Michigan and Ontario. Toll credits have also helped to partially mitigate the funding crisis in Michigan since insufficient non-federal funding is available to match all of the federal funding apportioned to the state.

State Infrastructure Bank (SIB): Established in a majority of states, including Michigan. Under the SIB program, states can place a portion of their federal highway funding into a revolving loan fund for transportation improvements such as highway, transit, rail, and intermodal projects. Loans are available at 3 percent interest and a 25-year loan period to public entities such as political subdivisions, regional planning commissions, state agencies, transit agencies, railroads, and economic development corporations. Private and nonprofit corporations developing publicly owned facilities may also apply

***Transportation Infrastructure Finance and Innovation Act (TIFIA)*:** This nationwide program, significantly expanded under MAP-21, provides lines of credit and loan guarantees to state or local governments for development, construction, reconstruction, property acquisition, and carrying costs during construction. TIFIA enables states and local governments to use the borrowing power and creditworthiness of the United States to fund finance projects at far more favorable terms than they would otherwise be able to do on their own. Repayment of TIFIA funding to the federal government can be delayed for up to five years after project completion with a repayment period of up to 35 years. Interest rates are also low.

Bonding: Bonding is borrowing, where the borrower agrees to repay lenders the principal and interest. Interest may be fixed over the term of the bond or variable. The amount of interest a borrower will have to pay depends in large part upon its perceived credit risk; the greater the perceived chance of default, the higher the interest rate. In order to bond, a borrower must pledge a reliable revenue stream for repayment. For example, this can be the toll receipts from a new transportation project. In the case of general obligation bonds, future tax receipts are pledged.

States are allowed to borrow against their federal transportation funds, within certain limitations. While bonding provides money upfront for important transportation projects, it also means diminished resources in future years, as funding is diverted from projects to paying the bonds' principal and interest. Michigan transportation law requires money for the payment of bonds and other debts be taken off the top before the distribution of funds for other purposes. Therefore, the advantages of completing a project more quickly need to be carefully weighed with the disadvantages of reduced resources in future years.

***Advance Construct/Advance Construct Conversion*:** This strategy allows a community or agency to build a transportation project with its own funds (advance construct) and then be reimbursed with federal funds in a future year (advance construct conversion). Tapered match can also be programmed, where the agency is reimbursed over a period of two or more years. Advance construct allows for the construction of highway projects

before federal funding is available; however, the agency must be able to build the project with its own resources and then be able to wait for federal reimbursement in a later year.

***Public-Private Partnerships (P3)*:** Funding available through traditional sources, such as motor fuel taxes, are not keeping pace with the growth in transportation system needs. Governments are increasingly turning to public-private partnerships (P3) to fund large transportation infrastructure projects. An example of a public-private partnership is Design/Build/Finance/Operate (DBFO). In this arrangement, the government keeps ownership of the transportation asset but hires one or more private companies to design the facility, secure funding, construct the facility and operate it, usually for a set period of time. The private-sector firm is repaid most commonly through toll revenue generated by the new facility.

Federal Funding Sources – Transit

Federal revenue for transit comes from federal motor fuel taxes, just as it does for highway projects. Some of the motor fuel tax collected nationwide is deposited in the Mass Transit Account of the Highway Trust Fund (HTF). Federal transit funding is similar to federal highway funding as there are several core programs where the money is distributed on a formula basis and other programs that are competitive in nature. Here are brief descriptions of some of the most common federal transit programs.

Section 5307: This is the largest single source of transit funding that is apportioned to Michigan. Section 5307 funds can be used for capital projects, transit planning, and projects eligible under the former Job Access Reverse Commute (JARC) program (intended to link people without transportation to available jobs). Some of the funds can also be used for operating expenses, depending on the size of the transit agency. One percent of funds received are to be used by the agency to improve security at agency facilities. Distribution is based on formulas including population, population density, and operating characteristics related to transit service. Urbanized areas of 200,000 population or larger receive their own apportionment. Areas between 50,000 and 199,999 population are awarded funds by the governor from the governor's apportionment.

Section 5310, Elderly and Persons with Disabilities: Funding for projects to benefit seniors and disabled persons when service is unavailable or insufficient and transit access projects for disabled persons exceeding Americans with Disabilities Act (ADA) requirements. Section 5310 incorporates the former New Freedom program. The State of Michigan allocates its funding on a per-project basis.

Section 5339, Bus and Bus Facilities: Funds will be made available under this program to replace, rehabilitate, and purchase buses and related equipment, as well as construct

bus-related facilities. Each state receives a fixed amount, with the remaining funding apportioned to transit agencies based on various population and service factors.

In addition to these funding sources, transit agencies can also apply for Surface Transportation Program and Congestion Mitigation and Air Quality Improvement (CMAQ) program funds.

Base and assumptions used in forecast calculations of federal transit funds

Each year, funding targets (the estimated funding amount the MACC is anticipated to receive) are calculated for each of these programs, based on federal apportionment documentation and state law. Targets can vary from year to year due to factors including actual vs. estimated receipts of the Mass Transit Account of the Highway Trust Fund, the authorization (the annual transportation funding spending ceiling), and the appropriation (how much money is actually approved to be spent). The MACC works with MDOT's Office of Passenger Transportation (OPT) to develop transit funding targets.

State Funding Sources – Transit

The majority of state-level transit funding is derived from the same source as state highway funding – the state tax on motor fuels. Act 51 stipulates that 10 percent of receipts into the Michigan Transportation Fund (MTF), after certain deductions, are to be deposited in a sub-account of the MTF called the Comprehensive Transportation Fund (CTF). This is analogous to the Mass Transit Account of the Highway Trust Fund at the federal level. Additionally, a portion of the state-level auto-related sales tax is deposited in the CTF. Distributions from the CTF are used by public transit agencies for matching federal grants and also for operating expenses.

Base and Assumptions Used in Forecast Calculations of State Transit Funds

Calculations of state transit funds are based on historical data. MDOT OPT provides state operating targets for these funds. These funds, in addition to local funding, comprise nearly all of the operating funds (wages and salaries, vehicle maintenance, maintenance of facilities, etc.) necessary to keep MAX Transit functioning.

Local Funding Sources – Transit

Major sources of local funding for transit agencies include farebox revenues, general fund transfers from city governments, and transportation millages. The Macatawa Area Express (MAX) collects fares from riders. MAX also receives funds from a dedicated transportation millage and local operating support.

Base and Assumptions Used in Forecast Calculations of Transit Funds

MAX receives revenues from local sources (including passenger fares, transportation millage, local operating assistance, and interest from reserves. In FY 2018, for instance, MAX Transit generated approximately $1,524,723 from those sources.

Transit Capital and Operations

Transit expenditures are divided into two basic categories of capital and operations. *Capital* refers to the physical assets of the agency, such as buses and other vehicles, stations and shelters at bus stops, office equipment and furnishings, and certain spare parts for vehicles. *Operations* refer to the activities necessary to keep the system operating, such as driver wages and maintenance costs. Most expenses of transit agencies are operations expenses. Data on FY2020-2023 capital and operating costs were provided by MAX staff. MAX Annual Reports from 2017 and 2018 were also used to identify local revenue trends and track expenses.

MAX Financials

Financials for Fiscal Year 2018

Revenue	FY 2018	FY 2017	Change%
Passenger Fares	$284,923	$ 272,305	4.6%
Tax Levy	985,368	1,079,618	-8.7
Local Operating Assistance	166,936	103,525	61.3
State Assistance			
Operating & Planning	1,496,554	1,519,781	-1.5
Capital Grants	21,060	313,577	-93.3
Federal Assistance			
Operating & Planning	1,394,214	1,387,358	0.5
Capital Grants	84,239	966,114	-91.3
Interest & Other Reserves	87,496	111,521	-21.5
TOTAL	**$ 4,520,790**	**$ 5,753,799**	**-21.4%**

Figure 34: MAX Transit revenues as identified in their 2018 annual report

Innovative Finance Strategies – Transit

Sources of funding for transit are not limited to the federal, state, and local sources previously mentioned. As with highway funding, there are alternative sources of funding that can be utilized to operate transit service. Bonds can be issued (see discussion of

bonds in the "Innovative Financing Strategies—Highway" section). The federal government also allows the use of toll credits to match federal funds. Regulations allow for the use of toll revenues (after facility operating expenses) to be used as "soft match" for transit projects. Soft match means that actual money does not have to be provided—the toll revenues are used as a "credit" against the match. This allows the actual toll funds to be used on other parts of the transportation system, thus stretching the resources available to maintain the system.

Commitments and Projected Available Revenue

Estimating the amount of funding available for the LRTP planning period is a complex process. It relies on a number of factors, including economic conditions, miles traveled by vehicles nationwide and in the State of Michigan, and federal and state transportation funding received in previous years. Revenue forecasting relies on a combination of data and experience and represents a "best guess" of future trends.

The revenue forecasting process is a cooperative effort. The Michigan Transportation Planning Association (MTPA), a voluntary association of public organizations and agencies responsible for the administration of transportation planning activities throughout the state, formed the Financial Working Group (FWG) to develop a statewide standard forecasting process. FWG is comprised of members from the Federal Highway Administration (FHWA), the Michigan Department of Transportation (MDOT), transit agencies, and Metropolitan Planning Organizations, including MACC. It represents a cross-section of the public agencies responsible for transportation planning in our state. The revenue assumptions in this financial plan for federal and state dollars are based on the factors formulated by the FWG and approved by the MTPA.

Table 17: Annual Growth Rates for Federal, State, and Local Revenue Projections

2018-2027	**Annual Growth**
Federal	2.0%
State	2.0%
Local	2.0%
2028-2045	
Federal	2.3%
State	2.9%
Local	2.3%

Federal Funding Revenues

To determine federal funding by program, the MACC took funding allocations for FY2020-2023 directly from the FY2020-2023 Transportation Improvement Program (TIP). For 2024 and beyond, the MACC took the average federal funding amounts for STP

and CMAQ over the current TIP years and applied the approved federal growth rate of 2% up until 2027 and 2.3% for every year thereafter. Competitive programs, such as safety (HSIP funding), were not included in this analysis, as MDOT manages that program, and such grants are not guaranteed.

State Funding Revenues

State revenues were determined in the same way as federal funding, except after 2027, the state growth rate increases by 2.9% annually.

Local Funding Revenues

The local program funds consist of local Act 51 revenue estimates which are often supplemented with other local funds, such as general funds, transportation millages, municipal bonds, and special assessments. Agencies that receive Act 51 funding, also sometimes referred to as MTF funds, include road agencies such as the Allegan and Ottawa County Road Commissions and the cities of Holland and Zeeland. To forecast the amount of local revenue over the life of the 2045 LRTP, the average local commitment throughout the current TIP was used and then grown at the same rate as federal revenues (2.0% until 2027 and 2.3% from 2028-2045).

Trunkline System Revenues

All highways with an "I," "M," or "US" designation, such as I-96 and US-131 in the MACC area are part of a network known as the State Trunkline System. While both federal and state funds go towards maintaining the trunkline system, the main agency responsible for the system is the Michigan Department of Transportation (MDOT). The amount of funding projected to be available for system preservation activities (such as road repaving, rehabilitation, or reconstruction) is shown in the following Trunkline Revenue Forecast table which represents funding totals that were provided by MDOT. Note that this table shows predicted funding for critical infrastructure needs and pavement preservation and that the funds listed are not to be used for capacity improvements, new roads, or trunkline modernization.

Table 18: Trunkline Revenue Forecast

Years	Federal (80%)	State (20%)	Total (100%)
2020-2023	$31,449,341.60	$7,862,335.40	$39,311,677.00
2024-2025	$16,070,890.40	$4,017,722.60	$20,088,613.00
2026-2035	$99,694,961.60	$24,923,740.40	$124,618,702.00
2036-2045	$146,564,685.60	$36,641,171.40	$183,205,857.00
	$293,779,879.20	**$73,444,969.80**	**$367,224,849.00**

Operations & Maintenance Revenues

Construction, reconstruction, repair, and rehabilitation of roads and bridges are only part of the total cost of the highway system, it must also be operated and maintained. Operations and Maintenance (O&M) are defined as those items necessary to keep the highway infrastructure functional for vehicle travel, other than the construction, reconstruction, repair, and rehabilitation of the infrastructure. O&M includes items such as snow and ice removal, pothole patching, rubbish removal, maintaining the right-of-way, maintaining traffic signs and signals, clearing highway storm drains, paying the electrical bills for street lights and traffic signals, and other similar activities, and the personnel and direct administrative costs necessary to implement these projects. These activities are as vital to the smooth functioning of the highway system as good pavement.

Federal transportation funds cannot be used for O&M of the highway system. Since the LRTP only includes federally-funded transportation projects (and non-federally-funded projects of regional significance), it does not include O&M projects. While in aggregate, O&M activities *are* regionally significant, the individual projects do not rise to that level. However, federal regulations require an estimate of the amount of funding that will be spent operating and maintaining the federal-aid eligible highway system over the period of the 2045 LRTP. This section of the Financial Plan provides an estimate for the MACC area and details the method used to estimate these costs.

MDOT produced Operation and Maintenance revenue estimates going out to the year 2045 for each MPO throughout the state based on highway lane miles. Out of a total of around 31,360 lane miles, the MACC represents only 0.8% or 248 lane miles.

Local Act51 road agencies (county road commissions, incorporated cities, and incorporated villages) are responsible for operating and maintaining the roads they own, including those roads they own that are designated as part of the federal-aid system. In the MACC, that would be the Allegan County Road Commission, the Ottawa County Road Commission, the City of Holland, and the City of Zeeland. To estimate local funding contributions to O&M, the MACC used Act 51 allocation estimates for 2020 and 2021. A 2% inflation factor was applied from 2022-2027 and then 2.3% from 2028-2045. Once the funds were projected out to 2045, 1/3 of the annual revenue was used to predict O&M allocations, since, for many agencies, O&M costs are, on average, around 1/3 of their Act51 funding total.

Table 19: Operations and Maintenance Revenue Forecast

Years	Local	MDOT	Total
2020-2023	$20,881,630.17	$9,224,000	$30,105,630.17
2024-2025	$11,186,297.76	$4,896,000	$16,082,297.76
2026-2035	$65,221,092.54	$27,762,000	$92,983,092.54
2036-2045	$86,737,347.39	$34,146,000	$120,883,347.39
	$184,026,367.86	**$76,028,000**	**$260,054,367.86**

Financial Constraint

The LRTP must be fiscally constrained; that is, the cost of projects programmed in the LRTP cannot exceed revenues "reasonably expected to be available" during the 26-year LRTP period. Funding for core transit programs such as Section 5307, Section 5339 and Section 5310 are expected to be available to the area based on historical trends of funding from similar programs in past federal surface transportation laws. Likewise, state funding from the state's Comprehensive Transportation Fund (CTF), and local sources of revenue such as farebox, general fund transfers, and millages, are also expected to be available during the 26-year LRTP period. Funds from other programs are generally awarded on a competitive basis and are therefore impossible to predict. Funds from federal competitive programs are not included in the revenue forecast. Funding for core programs such as CMAQ or STP that may be used for highways is also expected to be available to the MACC area based on historical trends of funding from past federal surface transportation laws. Likewise, state funding from the Michigan Transportation Fund (MTF) is also expected to be available during the 26-year period.

All federally-funded projects must be in the LRTP. Additionally, any non-federally-funded but regionally significant project must also be included. In these cases, project submitters demonstrate that funding is available and what sources of non-federal funding are to be utilized. Projects programmed in the LRTP are known as *commitments*. Commitments cannot exceed funds reasonably expected to be available. Projects must also be programmed in year of expenditure dollars, meaning that they must be adjusted for inflation to reflect the expected purchasing power of a dollar in the year the project is expected to be built. The MTPA/Financial Work Group has decided on an annual inflation rate of 4% for projects over the plan period. This means that a project costing $1 million in FY 2020 is expected to cost $1.04 million in FY 2021, $1.082 million in FY 2022, and so on. Since the amount of growth in available funding, around 2%, is forecasted to be less than the growth rate of project costs, around 4%, this means that likely not enough funds will be available to keep up with the rising costs of projects over the 26 years of this plan. The list of projects can be found in chapter 10.

Revenue and Expenditures for Federal/State Funded Programs

Table 20: Estimates of Revenue and Expenditures for FY2020-2023

Federal/State Funded Programs (FY2020-2023/Current TIP Cycle)					
Anticipated Funding Source	**Estimated Federal Revenue**	**Estimated State Revenue**	**Local Commitment**	**Total Revenue**	**Total Proposed Commitments**
Local MPO Based Constraint					
CMAQ	$1,335,000	$163,250	$1,396,000	$2,894,250	$2,894,250
STP – Small Urban	$6,571,949	$0	$6,026,000	$12,597,949	$12,597,949
Local Projects from Statewide Sources					
Railroad Crossing Funds	$292,500	$32,500	$0	$325,000	$325,000
Safety	$56,530	$0	$0	$56,530	$56,530
STP – Flexible (Bridge)	$3,979,200	$553,600	$441,200	$4,974,000	$4,974,000
MDOT Project Templates					
Traffic & Safety	$1,778,895	$182,657	$0	$1,961,552	$1,961,552
Bridge Preservation	$8,445,683	$1,489,767	$0	$9,935,450	$9,935,450
Bridge Replacement	$830,777	$184,223	$0	$1,015,000	$1,015,000
Road Rehab & Reconstruction	$58,907,002	$7,384,132	$56,867	$66,348,001	$66,348,001
Other	$1,058,932	$234,816	$0	$1,293,748	$1,293,748
Transit Project Categories					
5307	$5,737,896	$6,843,614	$4,991,505	$17,573,015	$17,573,015
5310	$794,000	$56,000	$570,000	$1,420,000	$1,420,000
5339	$569,445	$142,361	$0	$711,806	$711,806
Total	**$90,357,809**	**$17,266,920**	**$13,481,572**	**$121,106,301**	**$121,106,301**
				CONSTRAINED	

Table 21: Estimates of Revenue and Expenditures for FY2024-2025

Federal/State Funded Programs (FY2024-2025)					
Anticipated Funding Source	**Estimated Federal Revenue**	**Estimated State Revenue**	**Estimated Local Commitment**	**Estimated Total Revenue**	**Estimated Total Proposed Commitments**
Local MPO Based Constraint					
STP – Small Urban	$3,385,210	$0	$12,662,032.76	$16,047,242.76	$16,047,242.76
CMAQ	$687,658.50	$84,089.04	$678,386.70	$1,450,134.24	$1,450,134.24
Total	**$4,072,868.50**	**$84,089.04**	**$13,340,419.46**	**$17,497,377**	**$17,497,377**
				CONSTRAINED	

Only STP and CMAQ funds are shown after 2023 (the current TIP cycle) since other forms of funding, such as HSIP safety funds, are awarded in a grant process and are not guaranteed every year. It is also important to point out that in order for funding to be constrained (revenues equaling project costs), the local STP match had to increase an additional $9,648,182.66 over the 2024-2025 time frame. The funding gap, as explained before, is due to project costs being grown at a rate of 4% annually while revenues are only grown at 2%. Similar to local revenues in table 21, local STP commitment had to be increased an additional $21,428,558.25 in 2026-2035 to prove fiscal constraint.

Table 22: Estimates of Revenue and Expenditures for FY2026-2035

Federal/State Funded Programs (FY2026-2035)					
Anticipated Funding Source	**Estimated Federal Revenue**	**Estimated State Revenue**	**Estimated Local Commitment**	**Estimated Total Revenue**	**Estimated Total Proposed Commitments**
Local MPO Based Constraint					
STP – Small Urban	$19,303,701	$0	$38,614,625.07	$57,918,326.07	$57,918,326.07
CMAQ	$3,921,278.28	$490,276.54	$3,868,407.11	$8,279,961.93	$8,279,961.93
Total	**$23,224,979.28**	**$490,276.54**	**$42,483,032.18**	**$66,198,288**	**$66,198,288**
				CONSTRAINED	

Table 23: Estimates of Revenue and Expenditures for FY2036-2045

Federal/State Funded Programs (FY2036-2045)					
Anticipated Funding Source	**Estimated Federal Revenue**	**Estimated State Revenue**	**Estimated Local Commitment**	**Estimated Total Revenue**	**Total Proposed Commitments**
Local MPO Based Constraint					
STP – Small Urban	$24,226,008.81	$0	$17,541,581.50	$41,767,590.31	$41,767,590.31
CMAQ	$4,921,176.62	$652,017.39	$4,854,823.68	$10,428,017.69	$10,428,017.69
Total	**$29,147,185.43**	**$652,017.39**	**$22,396,405.18**	**$52,195,608**	**$52,195,608**
				CONSTRAINED	

For the years 2036-2045, there was an additional $4,026,811.31 in estimated revenue, likely due to fewer projects being proposed since it can be hard to predict local needs so far into the future. The additional funding available was used to reduce the local STP match.

Forecast for Federal and State Transit Funds

For FY 2020-2045 the federal revenue growth rate was set to 2% for transit funds. For state match funds, the growth rate will be the same as the federal growth rates and for the state operating assistance, the annual growth rate for predicted funds has been set to 1.43%. On the following table, funds that are apportioned to the transit agency are listed (5307 and 5339), 5310 funding is not included, as the funds are apportioned to the state and then allocated based on annual applications. The information in table 24 was provided by MDOT's Office of Passenger Transportation.

Table 24: MACC Annual Growth Rates for Transit and Revenue Projections

	Federal (formula) 5307	Federal (formula) 5339	State Match	State Operating	Total
Growth Rate*	2.00%	2.00%	2.00%	1.43%	N/A
FY 2019 Base Amount	$1,434,474	$137,445	$62,859	$1,590,047	$3,224,825
FY 2020-2023	$6,030,586.30	$577,824.30	$264,261.76	$6,590,839.52	$13,463,511.88
FY 2024-2025	$3,199,225.92	$306,535.78	$140,190.86	$3,438,477.94	$7,084,430.50
FY 2026-2035	$18,042,509.26	$1,728,754.01	$790,627.15	$18,736,348.66	$39,298,239.08
FY 2036-2045	$21,993,718.11	$2,107,341.50	$963,770.08	$21,594,801.39	$46,659,631.08
	$49,266,039.59	**$4,720,455.59**	**$2,158,849.85**	**$50,360,467.51**	**$106,505,812.54**

*Based on average 2008 - 2019, see 2019 growth rates - federal and state SLRP

While the 2045 LRTP's project list does not identify specific projects past FY 2023 for transit, the MACC expects Federal and State funding, as well as local funding, to be available due to historic trends. The MACC and MAX Transit is fully committed to working together to ensure that the system is maintained and enhanced over the life of the plan (2020-2045).