Genesee County 2040 LRTP Financial Plan

GCMPC
GENESEE COUNTY METROPOLITAN PLANNING COMMISSION

Genesee County
2040 Long Range Transportation Plan
GeneSEE the Future: Mobility 2040

GENESEE COUNTY METROPOLITAN ALLIANCE

GENESEE COUNTY 2040 LRTP Financial Plan

Introduction

The Genesee County 2040 Long Range Transportation Plan (LRTP) lists road and transit projects that communities and agencies plan to implement through 2040. The list is required to be fiscally constrained; that is, the cost of projects programmed in the LRTP cannot exceed the amount of funding "reasonably expected to be available" during that time. The financial plan is the section of the LRTP that documents the method used to calculate funds reasonably expected to be available and compares this amount to proposed projects to demonstrate that the LRTP is fiscally constrained. The financial plan also identifies the costs of operating and maintaining the transportation system in Genesee County.

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 $0.19 per gallon on gasoline and $0.15 per gallon on diesel. Michigan also charges sales tax on motor fuel, but this funding is not applied to transportation. 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 LRTP is a complex process. It relies on a number of factors, including economic conditions, miles travelled 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 GCMPC. It represents a cross-section of the public agencies responsible for transportation planning in our state. The revenue assumptions in this financial plan are based on the factors formulated by the FWG and approved by the MTPA. They are used for all LRTP financial plans in the state.

Part I. Highway Funding Forecast--Federal

Sources of Federal Highway Funding

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 Moving Ahead for Progress in the 21st Century (MAP-21). Under this law, Michigan receives approximately $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 (NH): 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). , However, MAP-21 expanded the NHS to include all principal arterials (the most important roads after freeways), whether state- or locally-owned. As a result of this change, Genesee County will receive approximately $33.20 million in NH between FY 2015 and FY 2040.

Surface Transportation Program (STP) Local – STU, STL, & Flex; MDOT – ST & STG): Funds 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. Genesee County will receive approximately $234.63 million in Local STP funds between FY 2015 and FY 2040 which will be used by cities, villages, and the Genesee County Road Commission. STP can also be flexed (transferred) to transit projects.

Congestion Mitigation and Air Quality Improvement (CMAQ – CM & CMG): Intended to reduce emissions from transportation-related sources. MAP-21 has placed an emphasis on diesel retrofits, but funds can also be used for traffic signal retiming, actuations, and interconnects; installing dedicated turn lanes; roundabouts; travel demand management such a ride share and vanpools; transit; and nonmotorized projects that divert non-recreational travel from single-occupant vehicles. The State of Michigan has allocated funding to Genesee County based on population. MDOT uses half of the funding for CMAQ-eligible projects on the state trunk line system; the other half, or Local CMAQ, is distributed by GCMPC to eligible projects based on a scoring system. Traditionally, GCMPC has divided the local funding as follows: 40% for road projects; 40% for transit projects; 15% for non-motorized projects; and 5% for Ridesharing, vanpooling and carpooling programs. Changes brought about by MAP-21 may require a reexamination of the distribution formulas. Genesee County will receive approximately $53.24 million in Local CMAQ funds between FY 2015 and FY 2040.

Transportation Alternatives Program (TAU): Funds can be 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. The funding received by the State of Michigan will be split, 50 percent being retained by the state and 50 percent to various areas of the state by population, much like the STP distribution. Genesee County will receive approximately $15.30 in Local TAU funding between FY 2015 and FY 2040.

Base and Assumptions Used in Forecast Calculations of Federal Highway Funds

Each year, the targets (amount Genesee County 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 fiscal year 2013, as provided by MDOT, are used as the baseline for the forecast for locally administered funding. FY 2014-2017 Transportation Improvement Program (TIP) funding levels were used to estimate locally administered funding between FY 2014 and FY 2017. The Financial Work Group of the MTPA developed revenue growth rates for various years out to the year 2040 as a basis for projecting future revenues. A rate of 2.39% growth is used for the 2015 to 2040 fiscal years. A flat 0% growth rate is used for years prior. Financial Work Group rates were used unless more accurate rates were available. While these rates are less than the five percent growth rate over the past 20 years, the decrease in motor fuel consumption (due to less driving and higher-MPG vehicles) and the economic downturn and restructuring experienced by the nation in general and Michigan in particular made assumptions based on long-term historical trends unusable. Table 1 contains the federal transportation revenue projections for the 2040 LRTP plan period.

FY	STU	Flex	STL	NH	CMAQ CM & CMG	TAU	TOTAL
2015	$4.89	$1.19	$0.58	$0.94	$0.94	$0.43	**$9.61**
2016	$4.99	$1.21	$0.59	$0.96	$0.94	$0.44	**$9.77**
2017	$5.09	$1.24	$0.60	$0.98	$0.94	$0.45	**$9.93**
2018	$5.21	$1.27	$0.62	$1.00	$0.97	$0.46	**$10.17**
2019-2025	$40.14	$9.76	$4.76	$7.73	$7.43	$3.56	**$78.34**
2026-2035	$70.18	$17.06	$8.32	$13.52	$12.99	$6.23	**$136.95**
2036-2040	$41.81	$10.16	$4.96	$8.06	$7.73	$3.71	**$81.60**
TOTAL:	**$172.31**	**$41.88**	**$20.44**	**$33.20**	**$31.94**	**$15.30**	**$336.37**

Table 1: Federal Highway Transportation Revenue Projections for FY 2015-2040 – Genesee County Locally Administered Funds (Millions of Dollars).

Part II. Highway Funding Forecast—State Funding

Sources of State Highway Funding

There are two main sources of state highway funding, the state motor fuel tax and vehicle registration fees. The motor fuel tax, currently set at 19 cents per gallon on gasoline and 15 cents per gallon on diesel, raised approximately $937.5 million in fiscal year 2011.[1] Like the federal motor fuel tax, this is also an excise tax that doesn't increase as the price of fuel increases, so over time, inflation erodes the purchasing power of these funds. Approximately $855.9 million in additional revenue is raised through vehicle registration fees when motorists purchase their license plates or tabs each year. The state sales tax on motor fuel, which taxes both the fuel itself and the federal tax, is not deposited in the Michigan Transportation Fund. Altogether, approximately $1.9 billion was raised through motor fuel taxes, vehicle registrations, heavy truck fees, interest income, and miscellaneous revenue in FY 2011.

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.[2]

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. Finally, federal funding cannot be used on local public roads, such as subdivision streets. Here again, MTF is the main source of revenue for 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 funding is the FY 2011 distribution of MTF funding as found in MDOT Report 139. This report details distribution of funding to each

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[1] Michigan Dept of Transportation, *Annual Report, Michigan Transportation Fund, Fiscal Year Ending September 30, 2011* (MDOT Report 139), Schedule A.

[2] Act 51 of 1951, Section 10(1)(j).

eligible Act 51 agency in the state. Adding all of the distributions to cities, villages, and the Genesee County Road Commission in Genesee County provides an overall distribution total for the region. That amount was just over $33.1 million in FY 2011.

The Financial Work Group predicted an increase of 0.4% in state revenues for fiscal years 2015 through 2018, increasing to 2.16% annually during the FY 2019 to FY 2040 time period. Table 2 shows the amount of MTF funding cities, villages, and the road commission in Genesee County is projected to receive between FY 2015 and FY 2040, based on the agreed-upon rates of increase.

FY	Amount
2015	$33.68
2016	$33.81
2017	$33.95
2018	$34.68
2019-2025	$264.69
2026-2035	$453.89
2036-2040	$266.02
TOTAL:	**$1,120.72**

Table 2: Projected MTF Distribution to Act-51 Agencies for Highway Use, FY 2015 through FY 2040 (Millions of Dollars)

State funding is projected to grow much more slowly than federal funding during the 25-year plan period. This will have two effects on the region's highway funding: First, available funding for operations and maintenance of the highway system will most likely not keep pace with the rate of inflation, leaving less money for a growing list of maintenance work. Secondly, the federal highway funding will grow at a greater rate than non-federal money to match it. For those federal transportation sources requiring match, this means that some funding will go unused, despite the demand.

Part III. Highway Funding Forecast—Hybrid State/Federal funding

Sources of Hybrid State/Federal Funding

Michigan has a number of programs that use both state funding and federal funding. These programs are collectively known as the Transportation Economic Development Fund (TEDF). The TEDF is split into a several categories, depending on what that particular category is designed to accomplish. These are:

- TEDF Category A: Highway projects to benefit targeted industries;
- TEDF Category C: Congestion mitigation in designated urban counties (including Genesee County);
- TEDF Category D: All-season road network in rural;
- TEDF Category E: Forest roads; and
- TEDF Category F: Roads in cities that are located in rural counties.

TEDF Category B no longer exists. Categories A and F are awarded on a competitive basis, and Categories D and E are not awarded in Genesee County. Therefore, this discussion will be limited to Category C.

Category C funding is a blend of state and federal funding. Act 51 specifies that $36.8 million of each year's MTF receipts be directed to the Transportation Economic Development Fund. The federal portion of TEDF was formerly derived from the Equity Bonus program, but this was discontinued under MAP-21. The State of Michigan has instead funded the TEDF Category C and D program with additional Surface Transportation Program funding. Genesee County receives only TEDF Category C state funds.

Base and Assumptions Used in Forecast Calculations of Hybrid State/Federal Highway Funds

The base year used to calculate the TEDF Category C funding is FY 2013 and is a fixed amount set in Act 51. The forecast assumes no change in Act 51 during the LRTP period, so the state portion is not increased. Table 3 provides a summary of expected TEDF funding over the FY 2015-2040 LRTP period.

FY	TEDF – C (EDC)	TOTAL
2015	$0.99	**$0.99**
2016	$0.99	**$0.99**
2017	$0.99	**$0.99**
2018	$0.99	**$0.99**
2019-2025	$7.57	**$7.57**
2026-2035	$12.98	**$12.98**
2036-2040	$7.61	**$7.61**
TOTAL	**$32.12**	**$32.12**

Table 3: Projected Transportation Economic Development Funds, Category C, FY 2015 through FY 2040 – Genesee County Locally Administered Funds (Millions of Dollars).

Part IV. Highway Funding Forecast—Local Funding

Sources of Local Highway Funding

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 for roads in Genesee County. Additionally, special assessment districts and millages generally have finite lives, so an accurate figure for local transportation funding would require knowledge of what millages and special assessment districts were in force in each year of the TIP period. Given that there are 33 local units of government in Genesee County, this level of accuracy is difficult to achieve.

Base and Assumptions Used in Forecast Calculations of Local Highway Funds
The current TIP covers fiscal years 2014 through 2017. The previous TIP (FY 2011 through 2014) was queried along with FY 2010 from the FY 2008-2011 TIP for all projects with funding codes indicating that local funding was or will be used.[3] Local funds programmed by transit agencies were removed, as were advance construct funds. Advance construct (AC) means the agency uses its own money to build the project, then pays itself back in a future year with federal funding. Because of the way AC projects are shown in the TIP, counting them exaggerates the amount of local funding actually used. When this was done, the five-year annual average of local funding totaled about $4.06 million. It's highly unlikely that there will be increases in local funding over the four-year TIP period, so the actual programmed figure for FY 2014 was used, and then $4.06 million was used for each year through FY 2017. A total of $16.24 million in local funding is expected to be available over the four-year TIP period. However, it is nearly impossible to predict the amount of local funding available over the entire 2015 to 2040 period, so these funds are not included in this analysis.

Part V. Highway Funding Forecast—Michigan Department of Transportation (MDOT)

The State of Michigan maintains an extensive network of highways across the state and within Genesee County. All highways with an "I," "M," or "US" designation, such as I-75, US-23, or M-15, is part of this network, which is known as the State Trunkline System. The portion of the State Trunkline System in Genesee County is comprised of over 803 lane-miles of highway, hundreds of bridges and culverts, signs, traffic signals, safety barriers, soundwalls, and other capital that must be periodically repaired, replaced, reconstructed, or renovated. The agency responsible for the State Trunkline System is the Michigan Department of Transportation (MDOT). The amount of funding projected by MDOT to be available for system preservation activities (such as road repaving, rehabilitation, or reconstruction) and bridge work is shown in Table 4.

Base and Assumptions Used by MDOT in its Highway Funding Forecast
MDOT Statewide Transportation Planning Division analyzed historical state highway revenue and historical federal obligations. State revenue and federal obligation growth rates were calculated. The revenue growth used in the long range revenue forecast for the near term has virtually flat rates to reflect the current economic conditions. For several years, the state forecast assumes additional revenue to match federal aid. In order to take a conservative approach with the federal and state revenue forecasts beyond the near term, 90% of the historic growth rates were used. The resulting rates beyond the near term are: federal 2.39% annual growth, and state 2.16% annual growth.

Total estimated federal revenue: $27.1 Billion
Total estimated state revenue: $25.1 Billion

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[3] These are City, County, Township, and Village funds; DDA funds; General Fund; Local Bond; Local Tax; Millage; Other Local Funds, and Private funds.

Revenue available for Capital outlay
Debt service, non-capital uses and routine maintenance are deducted from the estimate federal and state revenue. The resulting FY 2014-2040 total estimated revenue available for highway capital outlay is $31.9 billion.

Methodology for MPO Allocation of Capacity Improvement/New Road Dollars
The Trunkline capacity improvement and new road (CI/NR) projects in the Long Range Revenue Forecast are in the 2014-2018 Five-Year Transportation Program, have earmarks or are on corridors of National Significance. They are under review. The revenue remaining after accounting for the CI/NR projects is available for the preservation program.

Anticipated Methodology for MPO Allocation of Highway Program Preservation Dollars
A ten-year history (2004-2013) of highway capital program investments (excluding CI/NR) was compiled. Each MPO's share was calculated by dividing the MPO investment by the total statewide investment over the ten year time frame. Next the FY 2015-2040 total estimated revenue for preservation was multiplied by each MPO share of historic investments. The result is FY 2015-2040 total estimated revenue for preservation for each MPO.

Based on this methodology, Genesee County will receive a total of $865.23 million in MDOT investment between 2015 and 2040. Projected resources available for highway preservation and bridge projects in the portion of the State Trunkline System in Genesee County, FY 2015 through FY 2040 are show in Table 4 below.

FY	Amount
2015	$3.49
2016	$21.21
2017	$27.85
2018	$13.10
2019-2025	$205.29
2026-2035	$366.24
2036-2040	$228.05
TOTAL:	**$865.23**

Table 4: Long-Range Preservation Revenue Forecast, 2015-2040 (Millions of Dollars).

Part VI. Discussion of Innovative Financing Strategies--Highway

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 "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.[4] 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. In Michigan, the maximum per-project loan amount is $2 million. The Michigan SIB had a balance of approximately $12 million in FY 2011.

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. The amount authorized for the TIFIA program in FY 2014 nationwide is $1.0 billion.

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 up front 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 bond and other debts be taken off the top before the distribution of

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[4] FHWA Office of Innovative Program Delivery. "Project Finance: An Introduction" (FHWA, 2012).

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.[5] Sometimes, as in the case of the Chicago Skyway and the Indiana Toll Road, governments grant exclusive concessions to private firms to operate and maintain already-existing facilities in exchange for an up-front payment from the firm to the government. The firm then operates, maintains, and collects tolls on the facility during the period of the concession, betting that it will collect more money in tolls then it paid out in operations costs, maintenance costs, and the initial payment to the government.

Part VII. Highway Operations and Maintenance

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* is 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. Operations and maintenance 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 operations and maintenance of the highway system. Since the LRTP only includes federally-funded transportation projects

[5] http://www.fhwa.dot.gov/ipd/p3/defined/design_build_finance_operate.htm.

(and non-federally-funded projects of regional significance), it does not include operations and maintenance projects. While in aggregate, operations and maintenance 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 FY 2015 through FY 2040 LRTP* period. This section of the Financial Plan provides an estimate for Genesee County and details the method used to estimate these costs.

According to *Michigan's FY 2011-2014 State Transportation Improvement Program*, approximately $599.3 million will be available statewide for operations and maintenance costs in FY 2014 for the state trunk line highway system (roads with "I-,", "US-," and "M-" designations).[6] About 2.63 percent of the lane miles in the state trunkline system are located in Genesee County. Assuming a roughly equal per-lane-mile operations and maintenance cost, MDOT should spend approximately $15.76 million in Genesee County on these activities in FY 2014. Since MDOT's operations and maintenance funding comes from state motor fuel taxes (the Michigan Transportation Fund), the agreed-upon rate of increase for state funds (0.4 percent annually) was applied to derive the operations and maintenance costs for FYs 2015, 2016, and 2017, increasing to 2.16 percent annually from 2019 through 2040.

Local communities and agencies were surveyed in order to determine the costs to operate and maintain their portions of the federal-aid highway system. Responses to this survey did not provide the expected results and thus an accurate estimate of the cost to operate and maintain the federal-aid highway system was difficult to obtain. The assumption in this case is that local communities and agencies are spending every available operations and maintenance dollar, so funds expended equal funds available. Much of local agencies' operations and maintenance funding comes from the Michigan Transportation Fund, so the agreed-upon rate of increase for state funds (0.4 percent annually) was applied to derive the operations and maintenance costs for FYs 2014 through 2017, increasing to 2.16 percent annually from 2018 to 2040. MDOT and local operations and maintenance funding available was then brought together for a regional total. This is summarized in Table 5.

FY	Estimate
2015	$49.50
2016	$49.70
2017	$49.90
2018	$50.98
2019-2025	$389.04
2026-2035	$667.13
2036-2040	$390.99
TOTAL	**$1,647.24**

Table 5: Projected Available Highway Operations and Maintenance (O&M) Funding, Federal-Aid Eligible Roads, FY 2015 through FY 2040 (Millions of Dollars).

[6] Michigan Department of Transportation. *FY 2011-2014 State Transportation Improvement Program* (January 2012), p. 9.

Part VIII. Highway Commitments and Projected Available Revenue

The TIP must be fiscally constrained; that is, the cost of projects programmed in the TIP cannot exceed revenues "reasonably expected to be available" during the relevant plan period. Funding for core programs such as NH, STP, HSIP, and CMAQ are expected to be available to the region based on historical trends of funding from earlier, similar programs in past federal surface transportation laws. Likewise, state funding from the Michigan Transportation Fund (MTF) and the hybrid state/federal programs, Transportation Economic Development Fund Categories C and D, are also expected to be available between FY 2015 and FY 2040. Funds from other programs, are generally awarded on a competitive basis and are therefore impossible to predict. In these cases, projects are not amended into the TIP until proof of funding availability (such as an award letter) are provided. Funds from federal competitive programs are not included in the revenue forecast.

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*. As mentioned previously, 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 estimated 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 $100,000 in FY 2014 is expected to cost $104,000 in FY 2015, $108,160 in FY 2016, and $112,486 in FY 2017, and so on. Since the amount of federal funds available is expected to remain the same from 2014 through 2017, then increase by 2.39 percent per year thereafer, and state funds increase by only 0.4 percent per year from 2014 through 2017, then 2.16 percent annually thereafter, this means that less work can be done each year with available funding.

Table 6 is known as a fiscal constraint demonstration. The demonstration is provided to the Michigan Department of Transportation, Federal Highway Administration, and Federal Transit Administration in order to show that the cost of planned projects does not exceed the amount of funding reasonably expected to be available over the 25-year plan period. This is a summary.

Amount Available	Amount Programmed	Net Balance
$4082.54	$4082.54	$0

Table 6: Summary Highway Fiscal Constraint Demonstration for the FY 2015 through FY 2040 Plan Period (Millions of Dollars).

**Net Balance = Available funding less cost of programmed projects. A positive net balance means that available funding exceeds programmed project cost; a negative balance means* *that programmed project costs exceed available funding; and a zero net balance indicates that programmed project costs equal available funding.*

Part IX. Transit Financial Forecast—Federal

Sources of Federal Transit Funding

Federal Revenue for transit comes from federal motor fuel taxes, just as it does for highway projects. Some of the motor fuel tax collected from around the country is deposited in the Mass Transit Account of the Highway Trust Fund (HTF). As of the start of fiscal year 2012 (October 1, 2011), the balance of the federal Mass Transit Account was $7.32 billion.[7] Federal transit funding is similar to federal highway funding in that there are several core programs where 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. In Genesee County, the Flint Mass Transportation Authority receives the 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 5311, Non-Urbanized Area Formula Grant: Funds for capital, operating, and rural transit planning activities in areas under 50,000 population. Activities under the former JARC program (see Section 5307 above) in rural areas are also eligible. The state must use 15 percent of its Section 5311 funding on intercity bus transportation. The State of Michigan operates this program on a competitive 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 will receive $1.25 million, with the remaining funding apportioned to transit agencies based on various population and service factors.

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[7] http://www.fhwa.dot.gov/highwaytrustfund/index.htm.

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. In Genesee County, approximately 40% of each year's local CMAQ allocation is reserved for transit projects.

Base and Assumptions Used in Forecast Calculations of Federal Transit Funds
The federal portion of the transit financial forecast is based on the amount of federal funding the MTA has historically received. Based on uncertainty in past revenue projections and recent legislation changes, the MTA does not expect any increases in federal revenue. The MTA is allotted 40 percent of CMAQ funding over a 4-year TIP cycle however for the purpose of these estimates a yearly average is used. Table 7 shows the federal transit forecast for FY 2015 through FY 2040.

FY	Sec 5307	Sec 5310	Sec 5311	Sec 5339	CMAQ	Total
2015	$12.25	$0.38	$0.06	$0.77	$0.63	$14.09
2016	$6.82	$0.38	$0.06	$0.78	$0.63	$8.67
2017	$6.93	$0.39	$0.07	$0.79	$0.63	$8.81
2018	$7.04	$0.40	$0.07	$0.81	$0.64	$8.96
2019-2025	$55.99	$3.16	$0.53	$6.40	$4.95	$71.03
2026-2035	$109.06	$6.16	$1.03	$12.47	$8.66	$137.38
2036-2040	$71.21	$4.02	$0.67	$8.14	$5.16	$89.20
Total	**$269.30**	**$14.89**	**$2.49**	**$30.16**	**$21.30**	**$338.14**

Table 7: Federal Transit Revenue Projections for the 2015-2040 Plan (Millions of Dollars).

Part X. Transit Financial Forecast—State

Sources of State Transit Funding
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 MTF, after certain deductions, is to be deposited in a subaccount 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.[8] Distributions from the CTF are used by public transit agencies for matching federal grants and also for operating expenses. Approximately $157 million was distributed to the CTF in FY 2011.[9]

Base and Assumptions Used in Forecast Calculations of State Transit Funds
The base for calculations of state transit funds is the amount the MTA received in years past. The amount has not fluctuated much in recent years. The table below represents the amount of state-level funds the MTA can reasonably expect to receive for the FY 2015 through FY 2040 period. The state-level CTF distributions to the MTA are shown in Table 8.

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[8] Hamilton, William E. *Act 51 Primer* (House Fiscal Agency, February 2007), p. 4.
[9] MDOT Report 139 for 2011, Schedule A.

FY	Sec 5307	Sec 5310	Sec 5311	Sec 5339	Total
2015	$2.98	$0.06	$0	$0.19	$3.23
2016	$1.63	$0.06	$0	$0.19	$1.88
2017	$1.65	$0.06	$0	$0.20	$1.91
2018	$1.68	$0.06	$0	$0.20	$1.94
2019-2025	$13.33	$0.50	$0	$1.60	$15.43
2026-2035	$25.96	$0.97	$0	$3.12	$30.05
2036-2040	$16.95	$0.63	$0	$2.04	$19.62
Total	**$64.18**	**$2.34**	**$0**	**$7.54**	**$74.06**

Table 8: State Transit (CTF) Revenue Projections for the 2015-2040 Plan (Millions of Dollars).

Part XI. Transit Financial Forecast—Local

Sources of Local Transit Funding

Major sources of local funding for transit agencies include farebox revenues, general fund transfers from city governments, and transportation millages. The MTA collects fares from riders. This farebox funding totaled approximately $5.8 million in 2013. The MTA also receives funds from a dedicated transportation millage. In 2013, the MTA received $6.8 million from the millage. 2014 projections indicate a total of $13.13 for farebox and millage funding.

Base and Assumptions Used in Forecast Calculations of Local Transit Funds

The base amounts for farebox, general fund transfers, and millages are derived from the amount MTA received from these sources in FY 2013 and projections for 2014 taking into account millage renewals and increases. In addition, the agencies provide data on other miscellaneous funding, such as advertising and contracts.

These amounts form the basis of Tables 9. Since the MTA did not project any increases, it was assumed that the amount of local funding would remain stable throughout the FY 2015-40 LRTP period. Table represents the total amount of Local Transit Revenue from fare box projections and millage projections.

FY	Amount
2015	$13.13
2016	$13.13
2017	$13.13
2018	$13.13
2019-2025	$91.92
2026-2035	$131.32
2036-2040	$65.66
Total:	**$341.43**

Table 9: Local Transit Revenue Projections for 2015-2040 (Millions of Dollars).

Part XII. Discussion of Innovative Financing 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. Toll credits are earned on tolled facilities. 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.[10]

Part XIII. Transit Capital and Operations

Transit expenditures are divided into two basic categories, 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* refers 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 capital and operating costs were derived from the FY 2011-2014 TIP. The four-year average of the FY 2011-2014 TIP split is 52 percent capital and 48 percent operations for the MTA. It is assumed that this basic split will continue for the FY 2015-FY 2040 LRTP period. It is also assumed that the MTA is spending all available capital and operations funding, so that the amount expended on these items is roughly equal to the amount available. Table 10 shows the amounts estimated to be available for transit capital and operations during the FY 2015-FY 2040 LRTP period.

FY	Capital	Operations	Total
2015	$19.23	$17.75	$36.98
2016	$15.71	$14.50	$30.21
2017	$15.80	$14.58	$30.38
2018	$15.90	$14.67	$30.57
2019-2025	$117.02	$108.01	$225.03
2026-2035	$191.83	$177.08	$368.91
2036-2040	$109.89	$101.45	$211.34
Total:	**$485.38**	**$448.04**	**$933.42**

Table 10: Anticipated Amounts to be Expended on Transit Capital and Transit Operations for FY 2015 through FY 2040 (Millions of Dollars).

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[10] FHWA Office of Innovative Program Delivery at http://www.fhwa.dot.gov/ipd/finance/tools_programs/federal_aid/matching_strategies/toll_credits.htm.

Part XIV. Transit Commitments and Projected Available Revenue

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 25 year plan period. Funding for core programs such as Section 5307, Section 5339, Section 5310, and Section 5311 are expected to be available to the region based on historical trends of funding from earlier, 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 FY 2015 through FY 2040 LRTP period. Funds from other programs are generally awarded on a competitive basis and are therefore impossible to predict. In these cases, projects are not amended into the LRTP until proof of funding availability (such as an award letter) are provided. Funds from federal competitive programs are not included in the revenue forecast.

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*. As discussed previously, 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 LRTP period. This means that a project costing $100,000 in FY 2014 is expected to cost $104,000 in FY 2015, $108,160 in FY 2016, and $112,486 in FY 2017. Since the amount of federal and state matching funds available are only expected to increase by 0% (FY 2014-2015), 1.65% (FY 2016-2019), and 3.68% (FY(2020-2042) percent per year in their respective years, and state operating funds by 0% (FY 2014-2019) and 0.37% (FY 2020-2040) per year in their respective years over the LRTP period, this means that funding will barely keep pace with inflation.

Table 11 shows the summary financial constraint demonstration for transit. The demonstration is provided to the Michigan Department of Transportation, Federal Highway Administration, and Federal Transit Administration in order to show that the cost of planned projects does not exceed the amount of funding reasonably expected to be available over the FY 2015 through FY 2040 LRTP period.

Amount Available	Amount Programmed	Net Balance
$933.42	$933.42	$0

Table 11: Summary Transit Fiscal Constraint Demonstration (for FY 2015 through FY 2040 (Millions of Dollars).

Part XV. Analysis of Funding and Needs

While the previous tables have shown fiscal constraint; i.e., that programmed funds do not exceed available revenues, the fact remains that the needs of the transportation system substantially outweigh the funding available to address them. A brief discussion of highway funding illustrates the problem.

On a statewide basis, a study headed by Michigan Rep. Rick Olson found that approximately $1.4 billion was needed annually through 2015 just to maintain the existing highway system. This could be expected to increase in future years to approximately $2.6 billion annually by 2023.[11] Michigan currently receives about $1 billion from the federal government for transportation and raises an additional $2 billion through the MTF. After MTF deductions for administrative services and the Comprehensive Transportation Fund (transit), the state is left with approximately $1.8 billion in state funds, so there is a total of $2.8 billion for highways and bridges. If an additional $1.4 billion is required to keep the system at a minimally acceptable level of service, this indicates that the state only has about two-thirds of the funding necessary *just to maintain the existing infrastructure*. Any new facilities would, of course, increase the costs of the system to higher levels.

The Genesee County 2035 and 2040 Long Range Transportation Plan also analyzed this issue and concluded that it would take three times as much funding as Genesee County currently receives to realize even a slight improvement in the overall condition of the road network. The way the road network is currently funded there is not enough funding to maintain the road network at reasonable level let alone improve the condition. We have seen a slight increase in pavement conditions in recent years, however, these are temporary spikes as the majority of the Genesee County road network requires structural improvements rather than preventative maintenance that is often provided. The result is that over the long term our road network continues to deteriorate. This is a well-known issue that requires action at the state and federal legislative levels. Whether the solution involves restructuring the existing tax formulas for roads or new tax or revenue sources, it is clear more funding is needed for our road systems.

Part XVI. Analysis of 2035 LRTP Spending Policy Performance

The transportation planning process is an expansive, far reaching process and is limited by the amount of funding the Flint-Genesee County area receives for the various modes of travel. The Federal-Aid system has many funding categories that are used for different types of transportation and transportation categories. In an effort to optimize the federal transportation funds Genesee County

11 Rick Olson, State Representative, 55th District. *Road and Bridge Funding Recommendations*. Link in story in the *Ann Arbor News* entitled "Rick Olson hopeful Michigan Legislature will address $1.4B road funding gap in 2012," 29 December 2011.

receives, a category spending policy is developed. The policy for the previous 2035 Long Range Transportation Plan is as follows:

2035 LRTP Spending Policy	
Program Type	**25 Year Goal**
Congestion Relief	10%
Preservation	55%
Safety	5%
Transit	17%
Bridge Repair	7%
Non-Motorized	5%
Studies	1%
Total	**100%**

These percentages are based upon a 25-year goal, and include all federal, state and local transportation funding. To measure the performance of attaining these spending goals, a survey of transportation spending for a five year period between 2008 and 2012 was performed.

Total Category Spending (2008-2012)	Amount	Percent
Congestion Relief	$10,305,189	3.76%
Preservation	$88,707,422	32.40%
Safety	$9,411,619	3.44%
Transit	$79,872,242	29.17%
Bridge Repair	$77,807,256	28.42%
Non-Motorized	$6,186,853	2.26%
Studies	$1,519,989	0.56%
Total	**$273,810,570**	**100%**

From 2008-2012 Genesee County performed fairly well in attaining the spending goals laid out in the 2035 LRTP for most of the spending categories. Generally, the actual spending percentages are aligned with the proposed policies. However, it should be noted that these percentages can rise and fall in any given year due to large capital projects being implemented at the state or local level and varying levels of grants and discretionary funds awarded. While these spending policies are set for all transportation funds and the majority of the funding is for state highway and transit projects, there is a subset of local funds controlled by Metro. The decisions on how and where to spend this money (Surface Transportation Program – Urban and Rural, National Highway, Transportation Alternatives, Congestion Mitigation and Air Quality, and State Economic Development Category) is solely at the discretion of Metro. The

Congestion Mitigation and Air Quality (CMAQ) funding in Genesee County also has funding priorities that are set by Metro. These priorities outline the types of projects Metro wishes to see the funding used for. Specifically, these priorities allow for up to 40% of the allocation to fund road projects, 40% for transit projects, 15% for non-motorized projects, and 5% for ridesharing and vanpooling projects. These percentages are also flexible depending on proposed projects and yearly allocations.

It should also be noted that of the spending categories listed below, the majority of funds available for bridge, safety and non-motorized programs are administered at the state level. When federal funds are transferred to the Michigan Department of Transportation for dispersal throughout the state, a certain percentage of funds are set aside to fund the safety, bridge and non-motorized grant programs. These programs are competitive on a statewide level. Below is the 2035 LRTP category spending policy for Metro controlled funding:

2035 LRTP Metro Spending Policy	
Program Type	**25 Year Goal**
Congestion Relief	12%
Preservation	77%
Safety	1%
Transit	4%
Bridge Repair	0%
Non-Motorized	5%
Studies	1%
Total	**100%**

A survey of Metropolitan Alliance controlled spending for the same five year period between 2008 and 2012 was also performed and showed the following percentages:

Metro Category Spending (2008-2012)	**Amount**	**Percent**
Congestion Relief	$ 8,343,078	8.80%
Preservation	$70,332,374	74.18%
Safety	$ 5,759,207	6.07%
Transit	$ 4,086,519	4.31%
Bridge Repair	$0.00	0.00%
Non-Motorized	$ 4,771,797	5.03%
Studies	$ 1,519,989	1.60%
Total	**$176,854,874**	**100%**

Part XVII. 2040 Category Spending Goal

Since the development of the previous 2035 LRTP, there have been a number of changes in transportation policy at the state and federal level with the new legislation, Moving Ahead for Progress in the 21st Century (Map 21). With the development of new plans and policies, the category spending policies were re-evaluated.

The goals developed for the 2040 LRTP were intended to represent investment from a county-wide, system-oriented approach. The policy was developed to not specifically target projects, but rather emphasize areas where dollars should be invested to achieve system-wide improvement goals.

Based on the 5-year review of spending in Genesee County and taking into account the proposed allocations set forth by Map-21, the category spending goals were adjusted. The Flint Mass Transportation Authority has been receiving more funding than is shown by the category spending policy in the 2035 LRTP and has been adjusted for the 2040 LRTP in the table below.

2040 LRTP Spending Policy	
Program Type	**25 Year Goal**
Congestion Relief	10%
Preservation	40%
Safety	5%
Transit	32%
Bridge Repair	7%
Non-Motorized	5%
Studies	1%
Total	**100%**

The above category spending policy for Genesee County more accurately reflects the amount of transit funds received when compared to actual spending for the 5 year time period reviewed. Based on the 5 year period examined, Metro category spending, which represents funds more closely controlled by the Genesee county Metropolitan Alliance, was relatively close to the spending policy goals of the 2035 LRTP. The 2040 Metro Spending Policy goals vary slightly from the 2035 goals and are as follow:

2040 LRTP Metro Spending Policy	
Program Type	**25 Year Goal**
Congestion Relief	15%
Preservation	71%
Safety	1%
Transit	6%
Bridge Repair	0%
Non-Motorized	6%
Studies	1%
Total	**100%**