July 2022

Transportation Improvement Program (TIP) for Southeast Michigan FY 2023-2026

SEMCOG | SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS

SEMCOG *. . . Developing Regional Solutions*

Mission

SEMCOG, the Southeast Michigan Council of Governments, is the only organization in Southeast Michigan that brings together all governments to develop regional solutions for both now and in the future. SEMCOG:

- Promotes informed decision making to improve Southeast Michigan and its local governments by providing insightful data analysis and direct assistance to member governments;
- Promotes the efficient use of tax dollars for infrastructure investment and governmental effectiveness;
- Develops regional solutions that go beyond the boundaries of individual local governments; and
- Advocates on behalf of Southeast Michigan in Lansing and Washington

Transportation Improvement Program (TIP) for Southeast Michigan FY 2023-2026

Cover photo: The City of Rochester Hills' Auburn Road and Brookends District Redevelopment was designed to transform the corridor into a more walkable business district, providing a safe and attractive place for vehicles and pedestrians alike.

Abstract

The *Transportation Improvement Program (TIP) for Southeast Michigan, FY 2023-2026* describes how approximately $4.28 billion will be invested to support the region's transportation system. It is a schedule of specific projects from the 2045 Regional Transportation Plan (2045 RTP) that implements the policies of the plan. These projects are recommended by cities, villages, county road agencies, transit providers, and the Michigan Department of Transportation (MDOT) over a four-year period. The TIP is responsive to the many new realities in the region, state, country, and world. Actions described in this document are needed to improve the quality and reliability of the transportation system for all users, support economic prosperity, maintain fiscal sustainability, broaden access to core services, make communities more desirable, and protect the environment. More information on the FY 2023-2026 TIP and related plans can be viewed online at www.semcog.org.

Preparation of this document is financed in part through grants from and in cooperation with the Michigan Department of Transportation with the assistance of the U.S. Department of Transportation's Federal Highway Administration, Federal Transit Administration; and other federal and state funding agencies as well as local membership contributions and designated management agency fees.

SEMCOG
Southeast Michigan Council of Governments
Information Center
1001 Woodward Avenue, Suite 1400
Detroit, MI 48226-1904
313-961-4266 • fax 313-961-4869
www.semcog.org • infocenter@semcog.org

Table of Contents

List of Data Displays

Figures

Tables

Introduction

A multi-modal transportation system is vital to the mobility and economic prosperity of Southeast Michigan. This complex system of highways, transit, rail, ports, trails, and airports knit the region together, connecting people to jobs, businesses, services, and amenities. These networks link the region's residents to jobs, housing, services, and recreation. They allow goods and materials to flow into the region and finished products to be exported around the county and world.

The Transportation Improvement Program (TIP) is a four-year schedule of specific projects from the Regional Transportation Plan (RTP) that implement the policies of that plan. Through the TIP, Southeast Michigan elected officials and stakeholders develop projects that reflect regional priorities. In addition to the TIP project list, this document describes the processes followed to assess the TIP for compliance with federal and state requirements, and demonstrates how the TIP takes steps toward achieving the policies of the *2045 Regional Transportation Plan for Southeast Michigan*.

Figure 1
SEMCOG Region

The FY 2023-2026 TIP contains a list of capital and operational projects that will maintain and improve the transportation system in Southeast Michigan. SEMCOG implements the policies of the 2045 Regional Transportation Plan by scheduling both major projects and smaller, more routine projects. The TIP schedules all projects with federal-aid highway and transit funding that will be obligated (have federal-aid funding officially reserved) in the next four fiscal years (a federal fiscal year runs from October 1 through September 30). The FY 2023-2026 TIP contains 779 projects representing an investment of approximately $4.28 billion in the region's highway and transit systems. The projects are balanced across a variety of primary work types.

Projects must be part of the TIP in order to use federal funds. A full list of FY 2023-2026 TIP projects can be found on SEMCOG's website at: https://semcog.org/transportation-improvement-program-tip

Developing the FY2023-2026 TIP

The TIP is developed through a cooperative process involving stakeholders throughout the region, including the Michigan Department of Transportation (MDOT), the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Regional Transit Authority for Southeast Michigan (RTA), county road agencies, cities, villages, and public transit agencies. As described in the SEMCOG *Public Participation Plan*, the general public is provided opportunities to comment on the TIP prior to approval. SEMCOG ensures that both elected officials and the general public have a voice in project selection.

Projects in the TIP are reflective of the 2045 RTP's guiding principles. These principles cover the breadth of transportation's impact in Southeast Michigan, developed from data analysis, public outreach, and SEMCOG's vision. These six guiding principles express the underlying regional values that set the framework for developing planning activities, policies, transportation projects, and performance management:

- **Provide planning solutions** that support this unique and diverse region
- **Drive** a dynamic, talent-rich economy
- **Steward** environmental and cultural resources
- **Connect** people safely to jobs and essential services
- **Promote** coordinated and effective public services
- **Educate** and engage local leaders and residents

The region is challenged by complex factors requiring careful analysis and decisive action. Three specific challenges have the opportunity to drastically impact the future of Southeast Michigan. These challenges, described in detail in the 2045 RTP, are summarized here:

- **Advanced technology** – Technological advances, including connected and automated vehicles (CAVs), provide many opportunities and challenges. In the transition stage to CAV environment, we need to plan carefully for vehicles will interact with human drivers and the wider driver environment. For transportation planning, we need to prepare to accommodate new technologies and understand the potential impact on travel patterns, land use, and urban design. SEMCOG is well positioned with data and key stakeholders to understand the impacts of this new technology and incorporate into transportation planning and policy development.
- **Socioeconomic changes** – In the next 25 years, Southeast Michigan's population will be similar to what it is now. The difference moving forward is that the demographic composition of the region will be altered dramatically. Investment in transportation systems and other infrastructure need to consider significant changes: an aging population, increased elderly mobility needs, a significant labor shortage, and shifting workforce.
- **Transportation funding** – For years, Michigan has not invested enough to preserve and rebuild roads, enhance public transit, manage stormwater runoff, and provide for a multimodal system. While Michigan has made gains in recent years, Michigan ranks 38 out of the 50 states in investing in its road system on a per capita basis. Similarly, Southeast Michigan has lagged behind peer regions in funding transit. Implementing any new service requires additional capital and operating funds.

The 2045 RTP incorporated guiding principles, regional challenges, data analysis, public outreach, and agency consultation to examine all aspects of the regional transportation system. This resulted in the adoption of ten policies that inform implementation actions. These policies are:

- **Preserve Infrastructure** through fiscally-responsible, data-driven asset management practices.
- **Increase Safety** for all travelers, regardless of mode.
- **Increase Access** to jobs and core services, regardless of race, gender, ethnicity, national origin, age, physical ability, or income.
- **Utilize Technology** to cost-effectively improve the transportation system.
- **Integrate Environmental Protection** into the transportation system, enhancing community health and increasing the overall resiliency of infrastructure.
- **Support the Regional Economy** through the reliable movement of goods, efficient trade connections, expanded labor mobility, and support for tourism and local placemaking.
- **Educate and Collaborate** with local governments, transportation agencies, utility providers, and residents to improve understanding and operation of the transportation system.
- **Increase Funding and Expand Local Options** to provide resources that are sufficient to meet regional transportation needs.
- **Anticipate the Socioeconomic Challenges of an Aging Region,** including sustaining mobility for all ages and mitigating labor shortages.
- **Measure Transportation System Performance** to facilitate strategic investment through developing, collecting, analyzing, and disseminating data.

The TIP is the implementation tool for the RTP. SEMCOG's Federal Aid Committees (FACs), Transportation Coordinating Council (TCC), and Executive Committee develop, propose, and approve projects that are consistent with the RTP, contribute to the achievement of federal Transportation Performance Measure (TPM) targets, and meet all federal requirements.

To be eligible for inlclusion in the TIP, projects must address RTP policies. Eligible projects are reviewed for consistency with the 2045 RTP's outcomes and performance measures. All projects that change roadway capacity by adding or reducing lanes or are determined to be regionally significant must be specifically listed in the 2045 RTP. Doing so allows SEMCOG to ensure that both the TIP and the RTP remain in conformance with the Clean Air Act.

SEMCOG, in coordination with the Michigan Department of Transportation (MDOT) and Metropolitan Planning Organizations (MPO) across Michigan, developed a transportation performance management process that tracks a nationally-uniform set of transportation measures, sets attainable performance targets; aligns plans, policies, and investments to achieve targeted performance; and evaluates the effectiveness of plans, policies, and investments in supporting target attainment. The 2045 RTP infrastructure investments are programmed through the FY 2023-2026 TIP, which lists projects by year, and includes the primary performance area to which each project contributes. This process will evolve over time as additional data are collected and trends become clear.

Projects included in the TIP are analyzed in various ways and made available for public comment. These steps ensure the TIP is compliant with all federal and state laws and regulations and also ensure that stakeholders and the public have an opportunity to comment on the projects. TIP projects are also subject to analysis that demonstrates that they are fully funded by reasonably available financial resources, conform to Clean Air Act requirements, and that the costs and benefits of the projects are evenly distributed throughout the region.

SEMCOG develops a Transportation Improvement Program covering four federal fiscal years (FYs). This FY 2023-2026 TIP replaces the FY 2020-2023 TIP. There is an overlapping fiscal year (2023) that ensures continuous federal funding during the transition between TIPs. The TIP covers all projects that will use federal-aid highway and transit funds, in whole or in part, for highway and transit projects in Southeast Michigan over the four-year period. In addition, all transportation projects considered to be "regionally significant," even if they do not use federal funding, are shown.

Project Selection and Approval Process

Southeast Michigan is a large, diverse area, covering 4,600 square miles. The region has a population of 4.8 million people. Communities vary from rural to small town to suburban to highly urbanized, with economic activities that are equally as varied. Southeast Michigan's multi-modal transportation system is owned and operated across many public entities, including the State of Michigan, counties, cities, and public transit agencies. The following describes how the owners of the transportation system select projects to be consistent with regional planning priorities and federal regulations.

Federal-Aid Committees (FACs) – In order to link SEMCOG's regional view with local knowledge in developing and prioritizing projects, SEMCOG partnered with its member local governments to establish Federal-Aid Committees (FACs). There are eight FACs, one for each of SEMCOG's seven counties and one for the City of Detroit. FAC membership is drawn from local officials and staff of the county, city, and village governments within the FAC area. These are the transportation professionals whose agencies own the transportation assets and know the local transportation conditions and needs the best. Each FAC is responsible for recommending a list of projects for the four-year TIP period based on federal performance measures, regional policies, local needs, and funding constraint targets.

Once this list of recommended projects is prepared, it is reviewed and analyzed by SEMCOG staff, forwarded to SEMCOG's Transportation Coordinating Council (TCC) for consideration and recommendation, and then presented to SEMCOG's Executive Committee for approval. Once the TIP is approved by SEMCOG and MDOT, it is reviewed by the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the United States Environmental Protection Agency (USEPA) for concurrence with federal regulations. Once the federal agencies concur, projects in the TIP become eligible for federal funding.

Changes to scheduling, estimated costs, scoping, and anticipated budgets occur as projects move towards implementation. To address these changes, SEMCOG holds three amendment periods per year to address major changes (e.g. scope changes, cost changes equal to or more than 25% of total project cost, and moving the project into or out of the years covered by the TIP). Minor changes can be handled through the administrative modification process, which is ongoing throughout the year. FACs are responsible for recommending changes to be reviewed by SEMCOG and addressed through either the administrative modification or amendment process.

State of Michigan – SEMCOG receives the State of Michigan's priorities for the state-owned portion of the regional transportation system through MDOT's rolling Five-Year Plan. The current Five-Year Plan covers fiscal years 2022-2026. The projects in the Five-year Plan that are within the four-year TIP period are added to SEMCOG's TIP during the development process and managed through the amendment and administrative modification processes, as appropriate. As with local projects, the state trunkline projects are not official until approved by SEMCOG's Executive Committee. Once all state and local projects are approved in the new TIP by SEMCOG, MDOT, FHWA, and FTA, the TIP is then incorporated by reference into the State Transportation Improvement Program (STIP), and project implementation can begin.

Transit – Public transit agencies select TIP projects based on their analyses of capital and operations needs over the four-year TIP period. These projects are prioritized internally by each agency and transmitted to SEMCOG for inclusion in the recommended TIP project list.

For more information about SEMCOG's TIP development process and how to become more involved in the regional transportation planning process, please refer to SEMCOG's *Public Participation Plan*.

The FY 2023-2026 TIP reflects SEMCOG's adopted guiding principles and policies identified in the 2045 RTP. Performance-Based Planning is integrated throughout SEMCOG's planning and programming process. The 2045 RTP incorporates policies and actions detailed in subject matter plans and processes such as:

- Southeast Michigan Traffic Safety Plan;
- Bicycle and Pedestrian Mobility Plan for Southeast Michigan;
- SEMCOG Region Congestion Management Process;
- SEMCOG Region ITS Regional Architecture Plan;
- Asset Management Guide for Local Agencies in Michigan; and
- Administration of the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

The 2045 RTP sets a regional investment direction that focuses available resources on pavement and bridge asset management preservation while implementing infrastructure, operational, and educational strategies from the safety and congestion management components of the plan.

SEMCOG maintains detailed data used to track the condition of the regional transportation system. These data sources, as well as transportation performance targets, were provided to road and transit agencies for use in developing the FY 2023-2026 TIP. They include:

- Condition of roads
- Condition of bridges
- Traffic counts
- Current and future demographic data
- Forecasted travel
- Traffic safety data
- Highway travel speeds
- Planned and existing pedestrian and bicycle facilities
- Location of sensitive environmental resources
- Intermodal connectivity
- International border crossing volumes
- Access to core services

SEMCOG's 2045 RTP details the analyses that use these data. These analyses informed decision-making for policies, actions, and project selection. Together with the transportation performance targets adopted by SEMCOG, these policies were used to structure the formal call for projects for the FY 2023-2026 TIP. Creating, tracking, and analyzing performance measures over time will hone the process to balance and maximize available resources in order to improve regional transportation system performance.

Regional Conditions and Performance Measures

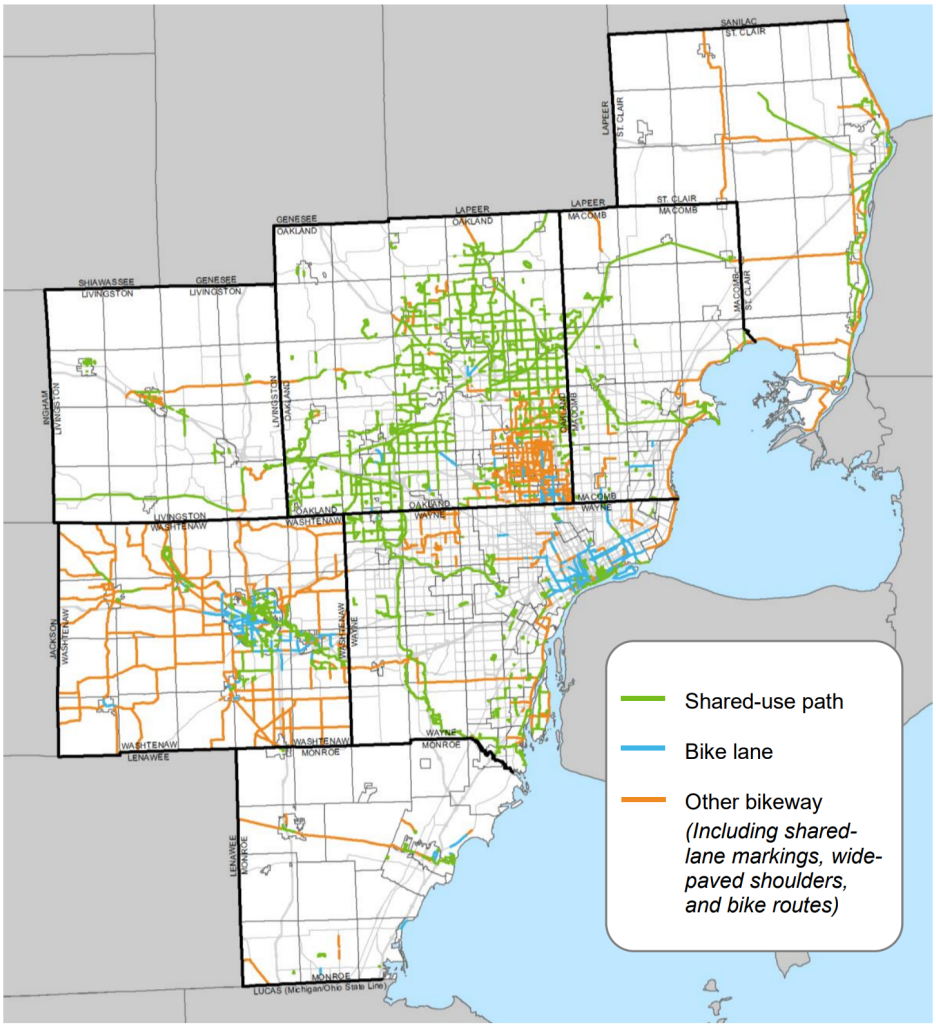
The selection of TIP projects is informed by a series of outcomes identified in the 2045 RTP. SEMCOG developed performance measures from available data sources that reflect regional progress towards the RTP outcomes.

Regional Conditions

Bicycle and Pedestrian

Bicycle and pedestrian travel is a vital component of Southeast Michigan's transportation system. Almost every trip, including those made by automobile and transit, likely begins or ends with walking or biking. Communities across the region desire additional bicycle and pedestrian facilities to improve residents' quality of life.

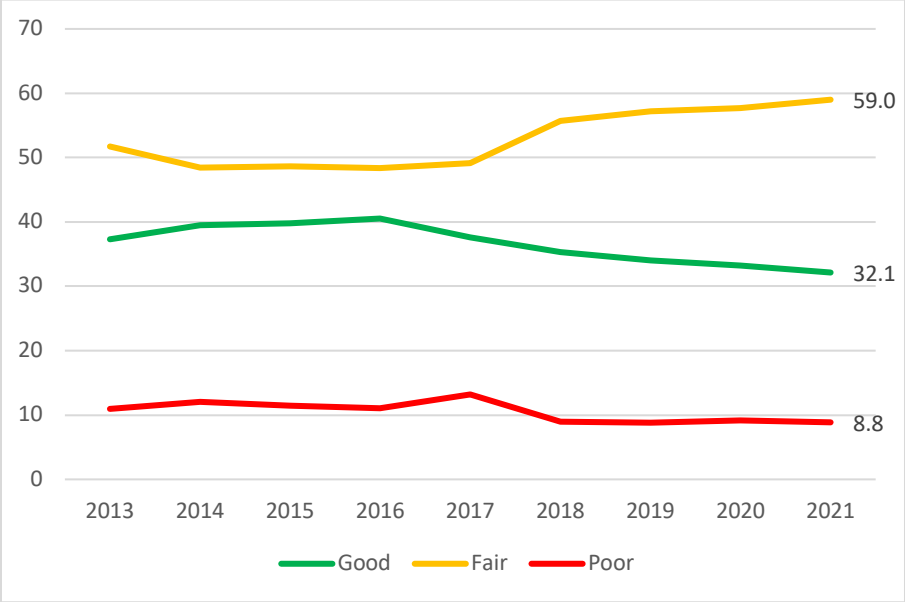
Figure 2
Bicycle and Pedestrian Mobility Network



Bridges

SEMCOG uses information from the Michigan Department of Transportation's (MDOT) Michigan Structure Inventory and Appraisal (MSIA) database to track bridge conditions. The numbers of bridges in good, fair, and poor condition have remained fairly consistent over the last decade.

Figure 3
Bridge Condition 2013-2021, Southeast Michigan

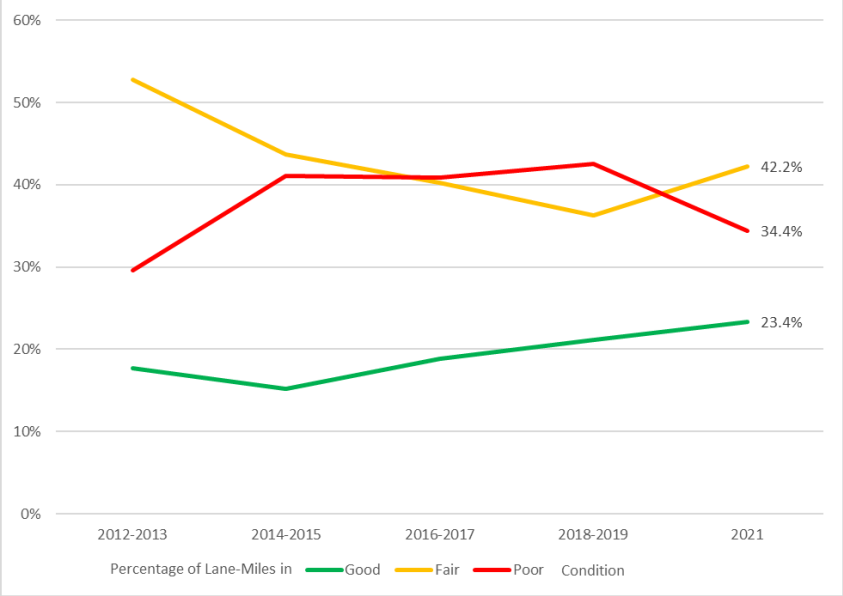


Pavement

Pavement conditions in Southeast Michigan are beginning to improve after several years of decline. Lane-miles of roadway in Good or Fair condition declined from 70.4% in 2012/2013 to 57.4% in 2018/2019. About the same time that state laws enacted in 2015 to increase transportation funding began to take effect and yield higher revenues, the percentage of lane-miles in Good and Fair condition began to increase once again, up to 65.6% in 2021. With additional revenues available because of the state's Rebuilding Michigan initiative, as well as the new federal Infrastructure Investment and Jobs Act (IIJA), there is momentum building to further increase the percentage of lane-miles in Southeast Michigan in Good and Fair condition over the next few years.

Figure 4

Pavement Condition 2012-2021, Southeast Michigan

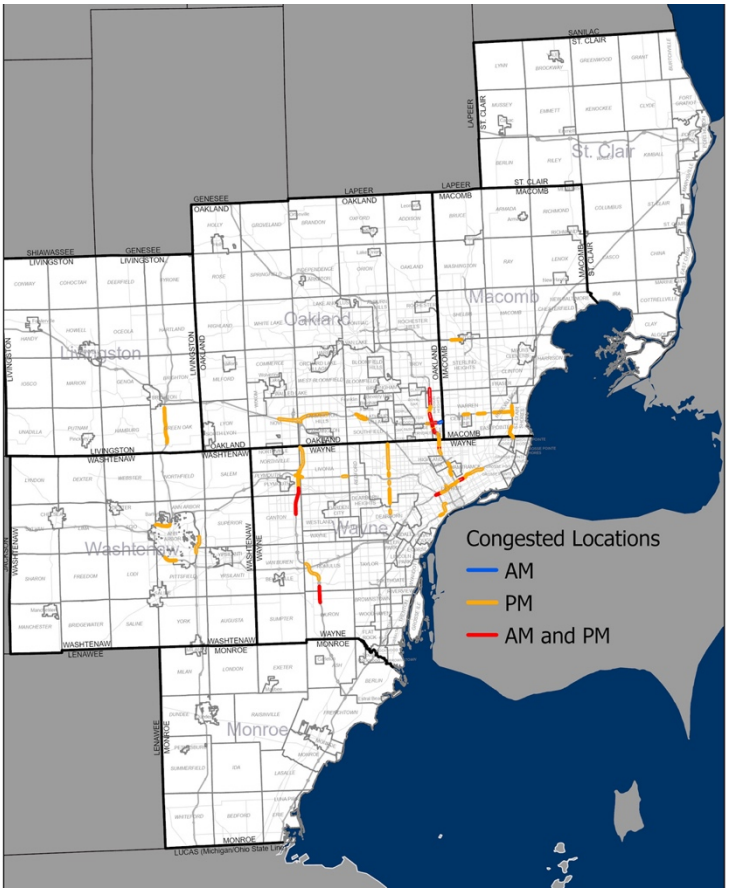


Congestion

As the region's economy continues on a trend of modest, steady growth, the use of the transportation system has increased along with peak hour congestion. As more people head to work and school alongside increases in the amount of goods moving into, within, though, and from the region, the frequency and duration of travel delays are expected to continue to increase.

Figure 5

Congested Freeway Locations 2021, Southeast Michigan



Traffic Safety

After traffic crashes steadily decreased in Southeast Michigan between 2017 and 2019, they dropped by more than 25% between 2019 and 2020. At the height of the COVID pandemic stay-at-home order in April 2020, traffic volumes decreased by as much as 75% from those in February 2020. Fewer people traveling and shorter trips contributed to the lower number of crashes. Although the number of crashes dropped significantly from 2019 to 2020, traffic crash fatalities actually increased by over 24% in the same time period, while traffic crash injuries were almost unchanged. Multiple factors could have contributed to the increase in fatalities, including speeding; disregard for traffic controls; driver impairment; and decreased seat belt and helmet use.

Table 1
Traffic Crashes 2011-2020, Southeast Michigan

Southeast Michigan Traffic Crashes, 2011-2020

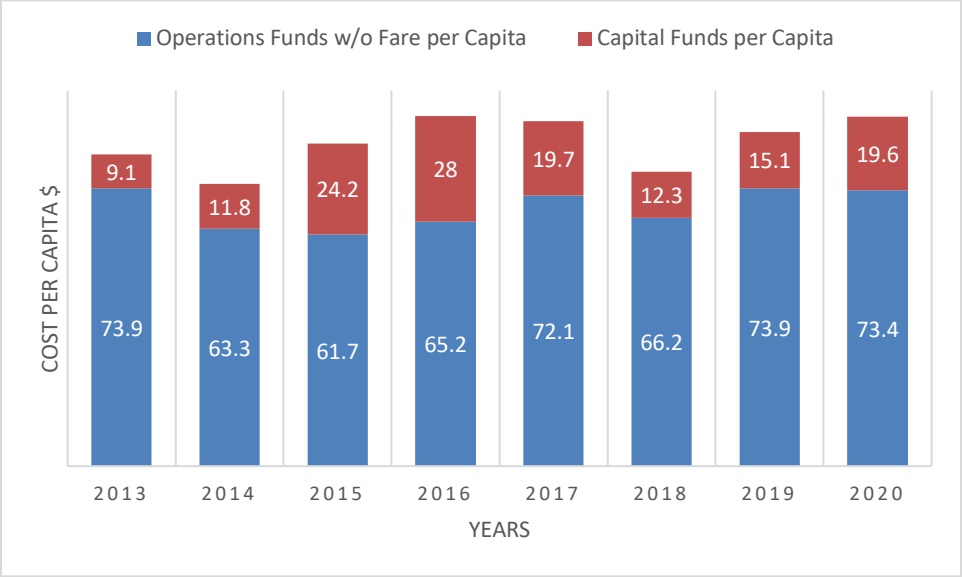
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10-Year Trend
Crashes	124,527	122,832	128,088	136,636	138,710	145,510	145,427	144,104	141,390	105,485	
Fatalities	340	361	363	371	387	430	369	356	364	452	
Serious Injuries	2,263	2,267	2,145	2,002	1,913	2,076	2,235	2,069	2,031	2,036	

Transit

Changes in ridership generally follow the productivity measures for revenue miles (miles in which buses are in active service), which, since 2014, has moderately increased. There was a decrease in 2020 revenue miles, which can be directly attributed to the effects of the Covid-19 pandemic. As service providers continued to implement service improvements and upgrade vehicles and facilities, ridership remained steady before a decline in 2020 due to the pandemic.

Funding remains a major challenge for transit. Maintaining and improving services, including new and expanded services and modernizing equipment requires additional capital and operating funds. Capital and operating funding in the region has remained relatively steady since 2016. Yet, regional financial support for transit remains lower than nearly every other U.S. region of similar size and economy. Additionally, large portions of the region have opted-out of funding transit creating a patchwork network of services. Quality transit requires additional investments to meet the mobility needs of Southeast Michigan's residents.

Figure 6
Capital and Operation Costs, per Capita



Performance Measures and Targets

The following is a snapshot of the SEMCOG Transportation Performance Measure baseline conditions and adopted targets. SEMCOG performance targets are periodically reviewed and updated in partnership with MDOT, road commissions, and planning partners in accordance with federal rules. To view the most recently adopted targets and trends, visit SEMCOG's website (https://semcog.org/performance-measures).

Federal transportation legislation establishes a performance-based planning framework and target setting requirements for states and Metropolitan Planning Organizations (MPOs), like SEMCOG. These are designed to focus the federal-aid program on national goals. The goal areas include safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays.

Performance measure targets are recommended by SEMCOG's Transportation Coordinating Council and approved by the Executive Committee with the participation of all road and transit agencies. These performance measure targets inform and are considered throughout the project selection process.

Traffic Safety Performance

The Highway Safety Improvement Program (HSIP) final rule (23 CRF Part 490) requires States and MPOs to establish targets for calendar year 2019, and annually thereafter, for five safety performance measures based on five-year rolling averages for:

- Number of Fatalities,
- Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT),
- Number of Serious Injuries,
- Rate of Serious Injuries per 100 million VMT, and
- Number of nonmotorized fatalities and nonmotorized serious injuries.

Table 2 shows the statewide baseline measures and targets supported by SEMCOG for 2022.

Table 2
Safety Performance Measure Targets, State of Michigan

Safety Performance Measure	Baseline (2016-2020)	Calendar Year 2022 Target
Fatalities	**1,028.2**	**1,065.2**
Fatality Rate (per 100 Million VMT)	**1.051**	**1.098**
Serious Injuries	**5,673.2**	**5,733.2**
Serious Injury Rate (per 100 Million VMT)	**5.778**	**5.892**
Nonmotorized Fatalities & Serious Injuries	**762.8**	**791.6**

Bridge and Pavement Asset Management

Federal rules on performance management measures for pavement and bridge require establishment of two- and four-year performance targets to be achieved beginning in 2018 for the following performance measures:

Bridge

- Percent National Highway System (NHS) Deck Area in Good Condition
- Percent NHS Deck Area in Poor Condition

Pavement

- Percent of Interstate Pavement in Good Condition
- Percent of Interstate Pavement in Poor Condition

- Percent of Non-Interstate NHS in Good Condition
- Percent of Non-Interstate NHS in Poor Condition

The SEMCOG pavement and bridge two- and four-year targets were established in coordination with other MPOs within the state, MDOT, FHWA, and FTA. SEMCOG will continue coordination with federal, state, and local road agencies to plan and implement projects that contribute to meeting the targets.

Table 3 shows the statewide baseline measures and targets supported by SEMCOG.

Table 3
Bridge and Pavement Performance Measure Targets, State of Michigan

Performance Area	Measures	Baseline Condition 2017	2-Year Target 2020	4-Year Target 2022
Bridge	Percent National Highway System (NHS) Deck Area in Good Condition	32.7%	27.2%	26.2%
	Percent NHS Deck Area in Poor Condition	9.8%	7.2%	7.0%
Pavement	Percent of Interstate Pavement in Good Condition	56.8%	N/A	47.8%
	Percent of Interstate Pavement in Poor Condition	5.2%	N/A	10.0%
	Percent of Non-Interstate NHS in Good Condition	49.7%	46.7%	43.7%
	Percent of Non-Interstate NHS in Poor Condition	18.6%	21.6%	24.6%

System Performance

The federal rules on performance management measures for travel time reliability require establishment of two- and four-year performance targets to be achieved beginning in 2018 for the following performance measures:

- Level of Travel Time Reliability of the Interstate
- Level of Travel Time Reliability of the Non-Interstate NHS
- Freight Reliability Measure of the Interstate

The level of travel time reliability for the NHS, both Interstate and non-Interstate, measures the percentage of person-miles traveled that are considered to be reliable. The roads are considered reliable when the difference between normal travel time and congested travel time is below 50 percent. Baseline data from 2017 and 2018 reveal that Michigan's NHS Interstate and non-Interstate highways are approximately 85 percent reliable, meaning 85 percent of person-miles traveled are meeting the federally-established

thresholds. The freight reliability measure looks at the same data, however the threshold for reliability is calculated using the 95th percentile of travel time.

The SEMCOG reliability two- and four-year targets were established in coordination with MDOT, other regions, the FHWA, and the FTA. SEMCOG will continue coordination with state, federal, and local road agencies to plan and implement projects that contribute to meeting the targets.

Table 4 shows the statewide baseline measures and targets supported by SEMCOG.

Table 4
System Performance Targets, State of Michigan

Measures	Baseline Condition 2017	2-Year Target 2020	4-Year Target 2022
Level of Travel Time Reliability of the Interstate	85.1%	75.0%	75.0%
Level of Travel Time Reliability of the Non-Interstate NHS	85.5%	N/A	70.0%
Freight Reliability Measure of the Interstate	1.38	1.75	1.75

This measure is an assessment of the Congestion and Air Quality Improvement (CMAQ) Program through measurement of total emissions reduction of on-road mobile source emissions.

This Transportation Performance Management Target applies to areas designated as nonattainment or maintenance for ozone, carbon monoxide, or particulate matter. SEMCOG and MDOT established separate targets for each of these criteria pollutants and applicable precursors. SEMCOG is designated as nonattainment or maintenance for carbon monoxide (CO) and particulate matter ($PM_{2.5}$). Targets reflect the anticipated cumulative emissions reduction to be reported in the CMAQ Public Access System.

Table 5 shows the statewide baseline measures and targets supported by SEMCOG.

Table 5
CMAQ Performance Measure Targets, State of Michigan

Measure	Baseline Performance (2014-2017)	2-Year Target 2020	4-Year Target 2022
Peak Hour Excessive Delay	18 hours 30 minutes	N/A	22 hours
On-Road Mobile Source Emissions for Carbon Monoxide (CO kg/day)	87,665 (21,916 average annual)	32,969 (16,484 average annual)	65,938 (16,484 average annual)

On-Road Mobile Source Emissions for Particulate Matter (PM2.5 kg/day)	653 (163 average annual)	417 (208 average annual)	835 (208 average annual)
NOx (kg/day) *Precursor for PM2.5 measure	N/A	N/A	15,856,100
Non-Single Occupancy Vehicle Travel (Percent of Total Workers)	16.0%	14.4%	14.4%

Public transit providers must develop Transit Asset Management (TAM) plans that track the asset conditions of rolling stock, equipment, and facilities while creating routines for systemically managing operations, maintenance, and capital investments. Since transit providers vary widely with the type and scale of assets, each transit agency must individually create TAM plans identifying assets and condition evaluation approaches that best fits its individual asset profile.

Initial targets for fiscal year 2017 were set by individual transit providers. SEMCOG coordinated with transit agencies across Southeast Michigan to collect preliminary targets and used them to set preliminary regional targets, which are shown in Table 6. These are the regional baseline measures and targets for Transit Asset Management Plans aggregated by SEMCOG.

SEMCOG will continue to coordinate with transit providers to implement TAM plans and update TAM targets, incorporating capital expenditures that leverage federal funding into the TIP.

Table 6
Transit Asset Management Plan Targets, Southeast Michigan

Asset Category	Performance Measure	2019 Target
Rolling Stock e.g., buses	Age: Percentage of revenue vehicles that have met or exceeded their Useful Life Benchmark (ULB)	20%
Equipment e.g., non-revenue vehicles and maintenance equipment	Age: Percentage of equipment that has met or exceeded their Useful Life Benchmark (ULB)	25%
Facilities e.g., administrative buildings and bus shelters	Condition: Percentage of facilities with a condition rating adequate or below on the FTA Transit Economic Requirements Model Scale	5%

FY 2023-2026 TIP Project List Summary

The FY 2023-2026 TIP is a schedule of 779 projects that will invest approximately $4.28 billion in Southeast Michigan's transportation system over four fiscal years. These projects are consistent with the policies and needs articulated in the *2045 Regional Transportation Plan for Southeast Michigan*, addressing local and state priorities. These projects will contribute to the attainment of statewide targets for federal Transportation Performance Measures by investing in projects that will:

- **Sustain pavement and bridge conditions** through replacement, rehabilitation, and capital preventative maintenance projects that are consistent with asset management practices;
- **Increase traffic safety** through implementing the *Southeast Michigan Traffic Safety Plan*;
- **Improve transportation system performance** through expanding the capabilities and reach of Intelligent Transportation Systems, preparation for connected and automated vehicles, and adding or subtracting travel lanes;
- **Maintaining buses** and other transit equipment and facilities in a state of good repair.

The FY 2023-2026 TIP Project List includes a column that identifies the primary Federal Performance Area to which the project contributes. While projects can address several of these performance areas at the same time (e.g., a road reconstruction project that includes installation of buffered bike lanes and modernization of traffic signals), identifying the primary area gives a sense of how much of the program is contributing to performance gains in each Federal Performance Area.

Table 7
2023-2026 TIP Investment by Federal Transportation Performance Area

Federal Performance Area	Amount (Millions)	Percent
Pavement	$ 2,279.6	53.3%
N/A*	$ 516.1	12.1%
Bridge	$ 501.9	11.7%
Transit Asset Management	$ 417.6	9.8%
System Performance	$ 316.8	7.4%
Safety	$ 248.6	5.8%
Grand Total	$ 4,280.5	100.0%

** N/A – includes Transit Operating, Trail, Border, and others*

The FY 2023-2026 TIP contains five major projects that exceed $100 million in total cost. These projects are generational changes to portions of the transportation system and have been developed over many years to reconstruct pavement and bridges, improve safety conditions for all users, create connections for pedestrians and bicyclists, encourage carpooling, and improve travel reliability. The following is a brief description of these major projects.

The reconstruction of **I-94 from Burns Street to Barrett Street (JN 202543)** is part of the I-94 Modernization Project. This project will reconstruct the I-94 freeway in Detroit from east of the I-96/I-94 interchange to east of Conner Avenue. The project includes 67 bridges and two major interchanges at M-10 (Lodge) and I-75 (Chrysler) freeways. This project will rebuild this portion of freeway, changing the connections to other freeways to improve traffic safety. The I-94 Modernization project has been modified in the course of its development to constrain the footprint of the freeway and expand local connections through the use of city streets and multimodal bridges.

I-696 from Lahser Road to Dequindre Road (JN 204305) is a complete reconstruction of this segment of the freeway. This is part of the State's Rebuilding Michigan initiative, which has made possible a complete fix of this part of I-696 now, rather than a series of smaller, short-term fixes over the next decade to address deteriorating infrastructure issues.

The **Blue Water Bridge Plaza (JN 211792)** project will construct a new customs plaza for the Port Huron-Sarnia international border crossing. The new plaza, which will be located west of the City of Port Huron, will reduce congestion caused by freight traffic at this vital crossing.

US-23 from M-14 to I-94 (JN 211155) will make road system and operational improvements to this segment of the freeway, which experiences frequent congestion. The exact parameters of this project will be defined through the environmental assessment process.

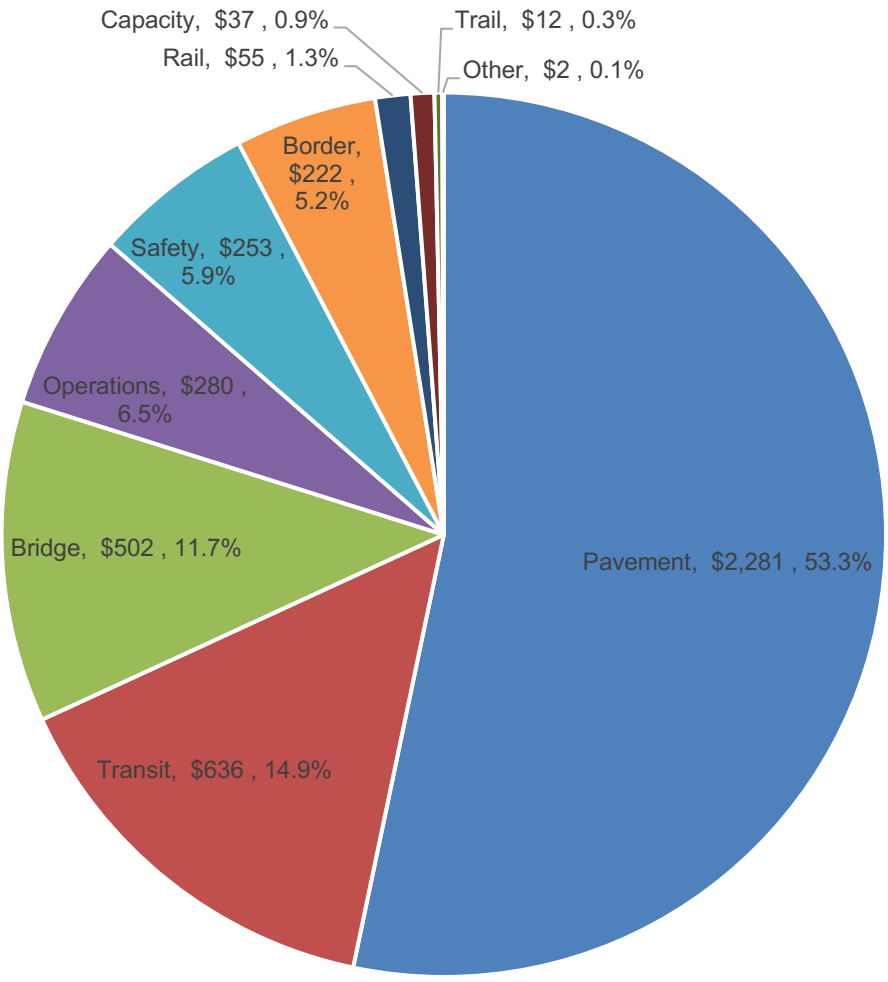
US-23 from south of M-36 to one mile north of Spencer Road (JN 210068) is an extension of the US-23 Flex Route into Livingston County that is currently in operation in Washtenaw County. Flex routes are designed to open the shoulders of the freeway as extra through-traffic lanes during times of peak congestion, improving travel times, reducing fuel consumption, and improving safety and air quality.

One project over $100 million was in the FY 2020-2023 TIP, but is not in the FY 2023-2026 TIP is the **I-375 project in downtown Detroit**. The entire length of I-375 from I-75 to Jefferson Avenue will be reconstructed from a sunken freeway to a grade-level boulevard. This change, from limited access to arterial, sustains the needed profile to carry current and future vehicular traffic while improving multimodal access and land-use connections between downtown Detroit and surrounding neighborhoods. The construction phase of this project has been moved beyond FY 2026, and is thus anticipated to be part of the FY 2026-2029 TIP.

The FY 2023-2026 TIP follows investment priorities expressed in the 2045 RTP. The TIP invests just under two-thirds of available funding in pavement preservation and bridge projects. The TIP invests approximately 15.2% in transit, about two-thirds of which is transit capital about one-third of which is transit operations. The TIP contains five major projects described above, totaling $1.1 billion or one-quarter of the cost of the FY 2023-2026 TIP. Approximately $105.95 million (2.52%) is directed to arterial roadway capacity projects. The remainder of the TIP is rounded out with investments in traffic operations (6.81%), traffic safety projects (5.77%), border projects (5.29%), rail projects (1.32%), pedestrian and bicycle projects (0.40%), environmental projects (0.005%). Figure 7 shows TIP investment by project type and cost.

Figure 7

2023-2026 TIP Investment by Project Type, in Millions and as a Percentage of Total



Public Participation

Engaging SEMCOG members, stakeholders, and the general public is an important element in creating the FY 2023-2026 TIP. Valuable input helps inform plan development, allows us to better meet regional needs and build on our assets, and presents opportunities for coordination and collaboration. Public outreach helps ensure that our planning efforts are not done in isolation and that broader livability principles are embraced. Although the various transportation planning and programming activities are designed to impart long-term beneficial effects to communities, these activities may also have an adverse impact on some individuals. Therefore, it is important that citizens know what is being planned and be given every opportunity to provide input and present their views.

Outreach Activities

SEMCOG conducted public engagement activities and continued to share information and receive input until the FY 2023-2026 Transportation Improvement Program is adopted in July 2022. Following the activities outlined in SEMCOG's Public Participation Plan (2015), these efforts included, but are not limited to:

Public Meetings

At all SEMCOG meetings, events, and public outreach events, informational tip cards, videos, and presentations were used, as appropriate. All SEMCOG meetings and events are open to the public and publicized via news releases, SEMCOG's bi-weekly e-newsletter (*Regional Update*), on SEMCOG's website, social media pages, and blogs. The schedule of meetings included:

- Transportation Coordinating Council meetings
- SEMCOG Executive Committee meetings
- SEMCOG General Assembly meetings
- SEMCOG Task Force meetings
- Presentations to stakeholder organizations, including organizations whose membership may be traditionally underrepresented in the transportation decision-making process.

Other Public Meetings

County Federal-Aid Committees and Transportation Studies also encouraged public participation through their individual county processes. SEMCOG worked with state and local road and transit agencies to conduct local-level public outreach efforts prior to proposing projects for inclusion in FY 2023-2026 TIP. SEMCOG posted agency contact information and meeting dates online. Throughout development of the FY 2023-2026 TIP, various presentations and opportunity for public input and feedback were available during SEMCOG's Transportation Coordinating Council and Executive Committee meetings.

SEMCOG Website and Social Media

The draft FY 2023-2026 TIP document and project list were available on the SEMCOG website during the public comment period. SEMCOG also used Facebook, Twitter, and LinkedIn to post information and ask for input from the public on the FY 2023-2026 TIP.

Public Comment Period

The formal public comment period for the FY 2023-2026 TIP began on June 27**,** 2022 and ended with Executive Committee adoption on July 28, 2022. The public comment period and committee meeting dates were announced online, via public notice and media release, and on social media.

A summary of all the comments received during the public comment period was shared with TCC and SEMCOG's Executive Committee, and is available on SEMCOG's website.

Environmental Justice

Transportation investments have both positive and negative impacts that may be localized in a particular community or portion of a community. Environmental justice (EJ) requires that these impacts be distributed fairly among population groups. SEMCOG implements a process to assess the impacts of the transportation planning process on historically-disadvantaged and vulnerable target populations.

The target populations consist of minority populations (African-American, Asian-American, Native American, and Hispanic), low-income households, senior citizens, and households without cars. SEMCOG identified three principles to ensure environmental justice considerations were properly integrated into the transportation planning process:

- Provide adequate public involvement of target populations in regional transportation decision making;
- Assess whether there were disproportionately high and adverse impacts on any target populations resulting from federal programs (e.g., would these programs cause and increase in travel time for any target population?); and
- Ensure that the target populations receive an equitable share of the benefits of federal transportation investments.

Several quantitative measures were developed in order to assess the impacts of the plan. When applied at the regional level, the measures must indicate that the costs and benefits of the RTP and TIP are distributed throughout the region so that no one target population is disproportionately burdened with negative impacts from the federal-aid highway program. It is important to keep in mind that this analysis was done at a regional, system-wide level. Additional refinement will be made as individual projects are developed.

The full documentation of the Environmental Justice analysis is available on SEMCOG's website.

Air Quality Conformity

The federal Clean Air Act requires that federally-funded highway and transit projects contained in regional long-range transportation plans and Transportation Improvement Programs be consistent with the air-quality goals established in state air quality implementation plans (SIPs). The process for demonstrating this consistency is called Air Quality Conformity. The purpose of conformity is to ensure that projects in the plan will not cause new air quality violations, worsen any existing violations, or delay timely attainment of National Ambient Air Quality Standards (NAAQS).

The U.S. Environmental Protection Agency (EPA) has established NAAQS for six criteria pollutants: ground level ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), lead (Pb), sulfur dioxide (SO_2), and particulate matter (PM). EPA designates an area as either "attainment" or "nonattainment" for each of these pollutants based on whether local air monitoring data shows it is meeting or not meeting these standards. Areas that were initially designated as "nonattainment" for a particular standard but later attain that standard are termed "maintenance" areas for a period of twenty (20) years.

Pollutants Analyzed for Conformity in Southeast Michigan

Air quality conformity analysis is required for all areas currently designated as *nonattainment* or *maintenance*. Presently, Southeast Michigan is designated nonattainment for ground level ozone and maintenance for particulate matter. Southeast Michigan is in attainment for CO, NO_2, Pb, and SO_2.

Below is a summary of Southeast Michigan's current air quality status for each of these pollutants.

Fine particulate matter ($PM_{2.5}$)

The entire seven-county region was originally designated nonattainment for both the 1997 annual (15 $\mu g/m^3$) and 2006 24-hour (35 $\mu g/m^3$) $PM_{2.5}$ standards. However, since the implementation of Michigan's State Implementation Plan (SIP) for particulate matter, levels have declined significantly and all air monitors have been measuring levels well within standards since 2009. Consequently, the EPA redesignated the region in 2013 as *maintenance* for these two standards. In 2015, Southeast Michigan was designated as *attainment* for the tougher 2012 annual standard (12 $\mu g/m^3$) and the 1997 annual standard was revoked by the EPA in 2016. Thus, conformity analysis for this pollutant in Southeast Michigan is only required for the 2006 24-hour $PM_{2.5}$ standard.

Ozone

The entire region was originally designated *nonattainment* for the 1997 ozone NAAQS of 80 ppb. Following successful implementation of Michigan's State Implementation Plan for ozone, the region was redesignated as *maintenance* in 2009. In 2012, Southeast Michigan was designated as *attainment* for the 2008 ozone NAAQS of 75 ppb and the 1997 ozone NAAQS was revoked in April 2015. Due to a federal appeals court ruling in February 2018 regarding EPA's 1997 ozone NAAQS revocation, areas including SEMCOG are now required to demonstrate that transportation projects continue to conform with the 1997 ozone standard. In addition, the entire seven-county region was designated *marginal nonattainment* for the new, more stringent 2015 ozone NAAQS of 70 ppb by the EPA effective in August 2018. Therefore, the results of eight- hour ozone conformity analysis are included in this report.

SO2 – Sulfur Dioxide

The Southeast Michigan region currently has two (2) areas designated nonattainment for SO_2, one area in southwest Detroit and an area in southern St. Clair County. Both of these areas were designated nonattainment due to various active industry and energy utilities. Presently, EPA is developing a Federal

Implementation Plan for the Wayne County nonattainment area. The St. Clair county area was re-evaluated through a Clean Data Determination to demonstrate that that sources of SO_2 were emanating from areas outside of the region, primarily Canada. As a result, this this area will be undergoing a process of redesignation to attainment. Because transportation is not a source of SO_2, no transportation conformity is required.

Overview of Conformity Analysis Process

To analyze conformity, emissions generated by all vehicles on Southeast Michigan's roadway system are estimated using a set of computer models. The models estimate the expected change in these emissions due to the combination of:

- Anticipated growth in the region, and
- The implementation of regionally-significant transportation projects that either increase or decrease roadway capacity (e.g., building of new roads, adding or reducing the number of traffic lanes on existing roads). The impact of major transit projects is also included.

The full documentation of the air quality conformity analysis is available on SEMCOG's website.

Consistency with Regional Intelligent Transportation System (ITS) Architecture

ITS refers to technologies that help operators to better monitor and manage the system, respond to incidents more quickly, and disseminate traffic-related information to the public. Examples of ITS technologies include dynamic message signs, cameras that monitor traffic flow and incidents, and road sensors, which count and classify the vehicles on the highway system.

ITS enables collaboration, communication and cross-jurisdiction/agency system integration. ITS is a proven solution to reduce congestion, increase traffic flow, enhance safety, and improve air quality.

FHWA developed the national ITS architecture to provide a unifying framework for ITS infrastructure deployment. MDOT and SEMCOG maintain the regional ITS architecture as a framework for implementing ITS projects across multiple jurisdictions and agencies, and a regional ITS Deployment Plan, which provides an order/sequence for implementing the projects in the architecture. This Southeast Michigan Regional ITS Architecture identifies the organizations that provide ITS or those that have an interest in it. The Architecture defines the different operating systems, their functions, the information they exchange, and how that information is exchanged. Identifying the different types of technologies and interconnections helps one understand the existing systems. It helps detect any gaps related to the information exchange, or any agencies that could collaborate. The Architecture ensures that institutional agreements and technical integration for the implementation of ITS projects are in place. Its primary goal is to facilitate the efficient deployment and use of ITS equipment, networks, and management structures to create a safer and more efficient transportation system across jurisdictions. All ITS projects using federal funding must conform to the Regional ITS Architecture, which can be found on SEMCOG's website.

The FY 2023-2026 TIP is consistent with both the ITS Architecture and Deployment Plan. It includes a variety of ITS initiatives:

- Advanced transit fare collection systems, communications, and surveillance;
- Traffic signal retiming programs;
- Freeway and arterial management systems;
- Freeway Courtesy Patrol; and
- Continued operations and maintenance of existing ITS technologies.

Congestion Management Process

SEMCOG has primary responsibility for maintaining a regional congestion management process (CMP) and using the results to recommend congestion mitigation strategies for inclusion in the FY 2023-2026 TIP.

The CMP is developed in coordination with the Federal Highway Administration, Michigan Department of Transportation, and local implementing agencies. It identifies current and future congestion in the region and determines which mitigation strategies could be applied to those locations. Comparing the congestion mitigation recommendations from the CMP, consistency is confirmed. The FY 2023-2026 TIP includes a range of multimodal projects/strategies as identified in the 2045 RTP to minimize congestion and enhance the mobility of people and goods including, but not limited to, operational improvements (e.g., signal retiming and coordination, ITS, access management, and bottleneck reduction), travel demand management (e.g., telecommuting, flextime, transit, and car/vanpooling), policy approaches, and additions to capacity.

More information on the CMP and mitigation techniques can be found on SEMCOG's congestion webpage.

FY 2020-2023 Self Certification

For all Metropolitan Planning Areas, concurrent with the submittal of the entire proposed TIP to the FHWA and FTA as part of the STIP approval, the state and the MPO shall certify at least every four years that the metropolitan transportation planning process is being carried out in accordance with all requirements including:

1. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart;
2. Sections 174 and 176(c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506(c) and (d)) and 40 CFR part 93;
3. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
4. 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
5. Section 1101(b) of the FAST Act (Pub. L. 114-357) and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in DOT funded projects;
6. 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
7. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 *et seq.*) and 49 CFR parts 27, 37, and 38;
8. The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
9. Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
10. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities.

Major Projects Implemented

At the end of each fiscal year, SEMCOG surveys all projects obligated in that fiscal year to determine which were implemented (started construction). The most recent implementation data currently available are for FY 2021 When the previous 2020-2023 TIP was submitted, this section covered major projects implemented through FY 2020.

Summarized accomplishment information for all projects implemented during these two fiscal years, whether considered major projects or not, is shown in Table 8.

Table 8
Project Accomplishments for FY 2018-2020

Accomplishment	FY 2018	FY 2019	FY 2020	TOTAL
Cost (Millions)	$1,130.6	$986.3	$1,582.7	$3,699.6
Preservation (centerline miles)	259	224	258	741
Preservation (lane miles)	1,461	653	1,008	3,122
Capacity (centerline miles)	9	5	9	23
Capacity (lane miles)	18	8	19	45
Bridges	77	77	71	225
Large Buses	275	282	98	655
Small Buses	5	43	61	109
Non-Motorized Facilities (Miles)	29	13	10	52
ITS and Signals (Miles)	224	40	24	288

Project List FY 2023-2026 Transportation Improvement Program

Full complete Project List for the FY 2023-2026 Transportation Improment Program (TIP) is available on SEMCOG's website.

Financial Plan

The FY 2023-2026 Transportation Improvement Program (TIP) is a four-year scheduling document containing the projects that are planned to be obligated to implement the surface transportation policies contained in the 2045 Regional Transportation Plan (2045 RTP). The TIP project list is required to be *fiscally constrained*; that is, the cost of projects programmed in the FY 2023-2026 TIP cannot exceed the amount of funding reasonably expected to be available for surface transportation projects during the time period covered by the FY 2023-2026 TIP. This financial plan is the section of the TIP documenting the methods used to calculate funds reasonably expected to be available and compares this amount to proposed projects to demonstrate that the TIP is fiscally constrained. The financial plan also estimates the cost of operating and maintaining the transportation system in the seven-county SEMCOG region during the four-year period covered by the TIP.

Sources of Transportation Funding

The basic sources of transportation funding in Michigan are motor fuel taxes and vehicle registration fees. Motor fuel is taxed at both the federal and state levels, the federal government at 18.4¢ per gallon on gasoline and 24.4¢ per gallon on diesel fuel, and the State of Michigan at 26.3¢ per gallon on both gasoline and diesel fuel. The amount of federal taxes collected per gallon does not increase when the price of gasoline or diesel fuel increases, although the State of Michigan allows for an annual state motor fuel tax increase of up to five percent based on the Consumer Price Index. Michigan also charges sales tax on the cost of the motor fuel itself plus the Federal tax amount, but these proceeds are not applied to transportation.

The State of Michigan also collects annual vehicle registration fees when motorists purchase license plates or tabs. This is a crucial source of transportation funding for the state. Vehicle registration fees comprise approximately half of the transportation-related taxes collected by the state.

Cooperative Revenue Estimate Process

Estimating the amount of funding available for the FY 2023-2026 TIP is a complex process. It relies on a number of factors, including economic conditions, vehicle miles travelled (VMT) nationwide and in 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 metropolitan planning organizations (MPOs) and agencies responsible for the administration of Federally-funded highway and transit planning activities throughout the state, formed the Financial Work Group (FWG) to develop a statewide standard forecasting process. FWG is comprised of members from the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), the Michigan Department of Transportation (MDOT), transit agencies, and MPOs. It represents a cross-section of the public agencies responsible for transportation planning in our state. The revenue forecast in this financial plan in based on the factors formulated by the FWG and approved by members of MTPA, including SEMCOG, and are used for all TIP financial plans in the state.

Federal-aid surface transportation is divided into two parts: highway funding, which is administered by the Federal Highway Administration (FHWA); and transit funding, administered by the Federal Transit Administration (FTA).The following sections discuss each separately.

Highway Funding

Sources of Federal Highway Funding

Receipts from federal motor fuel taxes (plus some other taxes related to trucks[1]) are deposited in the Federal Highway Trust Fund (HTF). These funds are then apportioned to the states, being distributed through formulas set by law. The current law governing these apportionments is the Infrastructure Investment and Jobs Act (IIJA). Through this law, Michigan receives approximately $1.4 billion in Federal-aid highway funding annually. This funding is apportioned in the form of 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 trunklines (i.e., **I**-, **US**-, and **M**-roads), but certain locally-owned roads are also classified as principal arterials.

Surface Transportation Block Grant Program (STBG)

Funds construction, reconstruction, rehabilitation, resurfacing, restoration, preservation, and/or operational improvements to federal-aid highways and replacement, preservation, and other improvements to bridges on public roads. Michigan's STBG apportionment from the federal government is split, with approximately half allocated to areas of the state based on population and half that can be used throughout the state. In addition, seven of the eight federal-aid committees in Southeast Michigan also receive STBG-Rural funding, which can only be used on federal-aid roads in rural areas. STBG can also be flexed (transferred) to transit projects.

Highway Safety Improvement Program (HSIP)

Funds 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)

Funds are intended for projects that 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 (TDM) such as ride share and vanpools; transit; and non-motorized projects that divert non-recreational travel from single-occupant vehicles. SEMCOG also receives funding from a statewide set-aside for operation and maintenance of traffic operations centers (TOCs) in Macomb County, Oakland County, and the City of Detroit to quickly identify traffic bottlenecks, both expected (construction zones and rush hour traffic) and unexpected (crashes) and to apply resources to help alleviate them.

[1] Taxes specific to heavy vehicles: truck and trailer tax, use tax on certain vehicles, tires and tread rubber tax, and other taxes and fines. Together, these taxes and fines raised $6.3 billion for the Federal Highway Trust Fund (HTF) in 2018. That same year, $36.2 billion was raised through Federal motor fuel taxes. (Congressional Budget Office, "Federal Highway Spending and Revenues" (January 14, 2020 presentation to TRB's 99th Annual Meeting).

Transportation Alternatives Program (TAP)
Funds can be used for a number of activities to improve the transportation system environment, such as 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.

Carbon Reduction Program (CRP)
This is a new program authorized by IIJA. CRP provides funds for projects designed to reduce transportation carbon dioxide emissions from on-highway sources. Eligible projects include – but are not limited to – public transportation, truck stop electrification, non-motorized facilities, replacement of traffic signals and lighting with energy-efficient alternatives, and electric vehicle charging stations.

Other Federal-Aid Highway Funds
In addition to the core Federal-aid highway funds described above, there are other Federal-aid funds for highway infrastructure. With the exception of the Rail-Highway Crossings and National Highway Freight programs, which are apportioned to the states each year, the other programs are competitive funds that states or local agencies apply for directly from the U.S. Department of Transportation (USDOT). **Other Federal-Aid Highway Funds** include, but are not limited to:

- **Rail-Highway Grade Crossings**: Intended to reduce hazards at rail-highway grade crossings. MDOT selects and manages these projects statewide. These projects may be located on trunkline or local roads. Since this is a statewide program, individual MPOs cannot forecast the amount of Rail-Highway Crossings funding that will be used in their service area over the life of the FY 2023-2026 TIP.
- **National Highway Freight Program**: Intended to improve freight movement on the National Highway Freight Network (NHFN). Michigan works with its regional planning partners, including MPOs, to determine which highways will be included in the state's NHFN. Each state is required to have a State Freight Plan in order to use NHFP funding. This program is operated on a statewide basis by MDOT.
- **Better Utilizing Investments to Leverage Development (BUILD) Grant**: Previously known as Transportation Investment Generating Economic Recovery (TIGER) grants. This is a nationwide competitive program directly operated by the U.S. Department of Transportation (USDOT). Grants are intended for planning and capital investments in road, bridge, transit, rail, port or intermodal transportation projects with significant local or regional impact.
- **Community Project Funding (CPF)**: Congressionally directed funding that includes transportation projects selected by members of Congress and placed in Federal surface transportation and/or funding authorization bills. If these bills are enacted into law, funding for these projects is made available to states or local communities to implement the specific Community Project as described in the law.
- **Infrastructure For Rebuilding America (INFRA) Grant**: Also known as Nationally Significant Freight and Highway Projects, this is a nationwide competitive program directly operated by the U.S. Department of Transportation (USDOT). Grants are intended to support economic vitality at the national and regional level; leverage federal dollars with non-federal governmental and private resources; and deploy and encourage innovative technology, financing, and project delivery.

Base and Assumptions Used in Forecast Calculations of Federal Highway Funds

At least every two years, allocations are calculated for each of these programs, based on federal apportionments and rescissions[2] and on state law. Targets can vary from year to year due to factors including actual vs. estimated receipts of the Highway Trust Fund, authorization (the annual transportation funding spending ceiling), and the appropriation (how much money is actually approved to be spent). Allocations for fiscal years 2023 through 2026, as released by MDOT early in 2022, are used for the FY 2023-2026 TIP financial forecast. The Financial Work Group of the MTPA developed an assumption, for planning purposes, that the amount of Federal-aid highway funds received will increase by 2% each year during the FY 2023-2026 TIP period.

Sources of Highway Funding Generated at the State Level

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 simply as **Act 51**. All revenue from the motor fuel tax and vehicle registration fees 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, approximately ten percent of the remainder is deposited in the Comprehensive Transportation Fund (CTF) for transit.[3] Remaining funds are split between the Michigan Department of Transportation (MDOT), county road commissions, and municipalities (incorporated cities and villages) in a proportion of 39.1 percent, 39.1 percent, and 21.8 percent, respectively.[4]

The State of Michigan enacted major changes to its transportation revenue collection system in 2015. These changes included:

- Increasing the motor fuel tax to 26.3¢/gallon from 19¢/gallon (gasoline) and 15¢/gallon (diesel), effective January 1, 2017;
- Raising vehicle registration fees by an average of 20%, effective January 1, 2017;
- Transferring $150 million from the state's General Fund to highways in fiscal year (FY) 2019;
- Transferring $325 million from the state's General Fund to highways in FY 2020;
- Transferring $600 million from the state's General Fund to highways in FY 2021 and subsequent years; and
- Adjusting the motor fuel tax for inflation by up to 5% each year, starting in January 2022.

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 rights-of-way, and electricity costs for streetlights and traffic signals), MTF funds usually are local

[2] Rescission is the cancellation of budget authority previously provided by Congress (2 U.S.C. 17B Subchapter II § 683).

[3] The ratio of funding deposited in the CTF as a proportion of funding deposited in the MTF was changed by the November 2015 transportation funding laws.

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

communities' and county road agencies' largest source for funding these items. Most Federal transportation funding must be matched so that each project's cost is a maximum of approximately 80% Federal-aid funding and a minimum of 20% non-Federal matching funds. In Michigan, most match funding comes from the MTF. Finally, federal funding cannot be used on local public roads, such as subdivision streets, or other roads not designated as Federal-aid eligible. 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 Calculation of State-Generated Highway Funds

State-generated funding for highways (i.e. MTF funding) only needs to be shown in the TIP if it is in a project that also contains Federal-aid funding, or is in a non-federally funded project of regional significance. Therefore, most state-generated funding for highways that is distributed to MDOT and to the counties, cities, and villages of the state through the Act 51 formulas is not shown in the TIP. The total amount of MTF funding available each year can be projected. As long as the amount of MTF funding for highways shown in the TIP does not exceed the total projected MTF funding available, it is assumed that state-generated funding shown in the FY 2023-2026 TIP is constrained to reasonably available revenues.

State Administrated Programs that Use both Federal-Aid and State Funding

Michigan has two programs that use both state funding and Federal funding. These programs are Transportation Economic Development Fund (TEDF) Category C and TEDF Category D. The state money in these programs is separate from the state MTF money that is distributed to the cities, villages, and county road commissions each year. These funds are distributed to urban and rural counties as defined in Act 51. In the SEMCOG region, the distribution of each funding source is:

- TEDF Category C: Congestion mitigation in designated urban counties. The designated urban counties in the SEMCOG region are Macomb, Oakland, and Wayne.
- TEDF Category D: All-season road network in rural counties. In the SEMCOG region, the designated rural counties are Livingston, Monroe, St. Clair, and Washtenaw.

Four additional TEDF categories (A, B, E, and F) are 100% state-funded programs that are competitively awarded by the state. Projects using these funds do not have to be in the TIP unless they are being supplemented with Federal-aid highway funding by the awardee, or the project is considered regionally significant.

Local Bridge is another important program with both Federal and state funding components. It is funded through a portion of the state motor fuel tax and supplemented with Surface Transportation Block Grant Program (STBG) funding retained by the state. The Local Bridge program is competitive, with funds awarded by seven Local Bridge Councils.

Base and Assumption Used in Forecast Programs with Combined Federal and State Funding

Funding targets for TEDF Category C and Category D funds (both Federal and state) for fiscal years 2023 through 2026 were released by MDOT at the same time that federal-aid targets were released

(see previous section). TEDF Category C and Category D projects programmed in the TIP are constrained to the targets provided, plus any carryforward of the state portion of these programs (the federally-funded portion does not carry forward).

Since the Local Bridge program is competitively-awarded, only those Local Bridge projects that have already been awarded for use in fiscal years 2023 through 2026 are shown. Therefore, Local Bridge projects are fiscally self-constrained.

Rebuilding Michigan Program

Rebuilding Michigan is a program to rapidly improve the condition of the state trunkline highway system throughout Michigan. Initiated by Gov. Whitmer's administration in January 2020, it contains a bonding component and an acceleration component. The $3.5 billion bonding component, funded through sales of bonds on the market, will finance 49 projects to rebuild or replace roads and bridges throughout the state. The $954.4 million acceleration component, made possible through the bonding component's freeing up of previously-programmed federal-aid highway funding, allows 73 scheduled projects on the trunkline system to be moved up, completed years before they otherwise would have been. In the SEMCOG region, funds in the Rebuilding Michigan program's bonding component are noted in the project list.

Sources of Locally-Generated 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 TIP. This makes it difficult to determine how much local funding is being spent for roads in the SEMCOG region. Additionally, special assessment districts and millages generally have finite lives, so an accurate figure for local transportation funding would require knowledge of all millages and special assessment districts in force during each year of the TIP period, which is difficult to achieve. It is therefore assumed that locally-generated funding shown in the FY 2023-2026 TIP is constrained to reasonably available revenues.

State Trunkline Funding

The State of Michigan maintains an extensive network of highways across the state and within the SEMCOG region. Each highway with an **I**-, **M**-, or **US**- designation (e.g. I-75, US-23, M-1) is part of this network, which is known as the **State Trunkline System**. The portion of the State Trunkline System in the SEMCOG region is comprised of thousands of lane-miles of highway, hundreds of bridges and culverts, signs, traffic signals, safety barriers, sound walls, and other capital assets that require periodic repair, replacement, reconstruction, or renovation. The agency responsible for the State Trunkline System is the Michigan Department of Transportation (MDOT). MDOT has provided SEMCOG with a list of projects planned for the portion of the trunkline system within the SEMCOG region over the FY 2023-2026 TIP period. As a matter of standard operating procedure, it is assumed that the trunkline project list provided to SEMCOG (and similar lists provided to the other MPOs in other areas of the state) is constrained to reasonably available revenues.

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 shortfalls 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 many states, including Michigan 5. Under the SIB program, states can place a portion of their Federal-aid highway funding into a revolving loan fund for highway, transit, rail, and intermodal improvement projects. Loans are available at 3% interest with a 25-year loan period to public entities such as 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 credit 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

A government bond represents debt that is issued by a government and sold to investors to support government spending. The bond issuer is then obligated to repay lenders (bondholders) the principal and an agreed-upon rate of interest over a specified period. The amount of interest a bond issuer (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 can borrow against their Federal-aid 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 that could otherwise pay for future projects must instead be reserved for paying the bonds' principal and interest. Michigan's Act 51 requires that funding for the payment of bond and other debts be taken off the top of motor fuel tax and vehicle registration receipts collected before the distribution of funds for other transportation purposes. Therefore, the advantages of completing a project more quickly need to be carefully weighed with the disadvantages of reduced resources in future years. See the section on the **Rebuilding Michigan** program for details on Michigan's largest current bond program to improve the state's highway infrastructure.

Advance Construct/Advance Construct Conversion

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

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.

Operations and Maintenance of the Federal-Aid Highway System

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* includes those items necessary to keep the highway infrastructure functional for vehicle travel, other than the construction, reconstruction, repair, and rehabilitation of the infrastructure. Examples include, but are not limited to, snow and ice removal, pothole patching, rubbish removal, maintaining rights-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-aid highway funds cannot be used for operations and maintenance. Since the TIP only includes federally-funded capital highway projects (and non-federally-funded capital highway projects of regional significance), it does not include operations and maintenance expenses. 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 2023-2026 TIP period. This section of the Financial Plan provides an estimate of the cost of operations and maintenance in the SEMCOG region and details the method used in the estimation.

MDOT Metro Region estimates that its operations and maintenance costs were approximately $15,107 per lane-mile in FY 2018. Using this estimate as a baseline, costs were increased 4% per annually through FY 2026 to adjust for inflation (also known as year of expenditure adjustment—see **Year of Expenditure (Inflation) Adjustment for Project Costs** section below) to provide a total of $389.3 million estimated operations and maintenance costs on the state trunkline system in the SEMCOG region from FY 2023 through FY 2026.

Local Act-51 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 designated as part of the Federal-aid system. The main source of revenue available to these agencies to operate and maintain the roads is the Michigan Transportation Fund (MTF). The estimate of available funding is based on the assumption that each lane-mile of road in the system has an approximately equal operations and maintenance cost. There are 14,750 lane miles of locally-owned road on the Federal-aid network in the SEMCOG region. Therefore, applying the per-lane-mile cost of maintenance derived from MDOT Metro Region's FY 2018 estimate to the number of lane-miles of

locally-owned Federal-aid eligible road in the SEMCOG region yields a total of approximately $1.2 billion for locally-owned roads on the federal-aid system over the life of the FY 2023-2026 TIP, adjusted for year of expenditure.

Finally, adding together the trunkline and locally-owned per-lane mile costs yields a total of approximately $1.6 billion in operations and maintenance costs for the entire system over the life of the FY 2023-2026 TIP, adjusted for year of expenditure.

SEMCOG certifies that sufficient funding is being programmed to adequately maintain the Federal-aid highway system in the SEMCOG region.

Highway Commitments and Projected Available Revenue

The FY 2023-2026 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. MDOT issued each MPO in the state, including SEMCOG, a local program allocations table covering the years of the FY 2023-2026 TIP. These allocations specify what is reasonably expected to be available to local agencies in the Surface Transportation Block Grant (STBG)—Urban and –Rural Program, National Highway Performance Program, Transportation Economic Development (TEDF) Category C Program (federal and state), and the TEDF Category D Program (federal and state). Projects using these funds are constrained to the amounts in the allocations table, plus any funding from the *state* portion of the TEDF Category C or Category D Programs (the Federal portion of these programs does not carry forward).

Funds for projects that are competitively awarded are considered to be reasonably expected to be available only after they have been officially awarded. This includes all Safety, CMAQ, TAP, and Bridge projects. The only projects using these funds in the TIP are those already awarded. Therefore, these projects are self-constrained to available revenue.

Year of Expenditure (Inflation) Adjustment for Project Costs

Federal regulations require that, before being programmed in the TIP, the cost of each project is adjusted to the expected inflation rate (known as year of expenditure, or YOE) in the year in which the project is programmed, as opposed to the cost of the project in present-day dollars, as mentioned in the section entitled **Operations and Maintenance of the Federal-Aid Highway System**, above. As with the projection of available funding, the projected rate of inflation is determined in a cooperative process between MDOT and the MTPA. All local road agencies use the same 4% annual inflation rate as MDOT to determine YOE costs. As an example, if a project costs $750,000 in the first year of the TIP, the same project is projected to cost $843,648 in the fourth year of the TIP, at a 4% YOE rate. This is done in order to provide a more realistic estimate of a project's cost at different points in time. Because of the constant pressure of inflation on all goods and services in the economy, it is preferable to build a project as close to the present day as possible; thus the attraction of bonding as a funding strategy (see the **Innovative Financing Strategies—Highway** section). This also demonstrates the fundamental problem facing infrastructure funding—the rate of inflation (standardized at 4% for MDOT and local agencies) is higher than the expected growth in tax revenues (standardized at 2%). Transit projects have a different inflation rate that reflects the costs of goods and services necessary to operate transit systems.

Transit Funding

Sources of Federal-Generated Transit Funding

Federally-generated revenue for transit comes from federal motor fuel taxes, just as it does for highway projects. Some of the federal motor fuel tax collected nationwide is deposited in the Mass Transit Account of the Highway Trust Fund (HTF). Federal-aid transit funding is similar to Federal-aid 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-aid transit programs.

Section 5307

This is the largest single source of transit funding that is apportioned to transit agencies in Michigan. Section 5307 funds can be used for capital projects (such as bus purchases and facility renovations), 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. Of funds received, 1% 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. Urbanized areas in Southeast Michigan with populations over 200,000 (the Ann Arbor, Detroit, and Toledo Urbanized Areas) receive an apportionment of Sec. 5310 funding directly from the federal government. The State of Michigan allocates funding in remaining areas of the region 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 5337, State of Good Repair Grants

Funding to state and local governmental authorities for capital, maintenance, and operational support projects to keep fixed guideway systems in a state of good repair. Recipients will also be required to develop and implement an asset management plan. Of Section 5337 funding, 50% is distributed via a formula accounting for vehicle revenue miles and directional route miles; 50% is based on ratios of past funding received. The Detroit Transportation Corporation (People Mover) is currently the only recipient of Section 5337 funding in Southeast Michigan.

Section 5339(a), Formula Grants, 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.

Flex Funding

Transit agencies can also apply for Surface Transportation Block Grant (STBG) and Congestion Mitigation and Air Quality Improvement (CMAQ) program funds. If a transit agency is awarded STBG or CMAQ funding, that funding must be flexed (transferred from the Federal Highway Administration to the Federal Transit Administration). Once flexing has occurred, the money from STBG and/or CMAQ follows the eligibility and accounting rules of the transit program to which it has been transferred.

Other Federal-Aid Transit Funds

In addition to the core Federal-aid transit funds described above, there are other Federal-aid funds for transit. These other programs are competitive funds that local public transit agencies apply for directly from the Federal Transit Administration (FTA) U.S. Department of Transportation (USDOT). **Other Federal-Aid Transit Funds** include, but are not limited to:

- BUILD program: (See information in Part A: Highway Funding)
- Grants for Buses and Bus Facilities (Section 5339(b)): Intended for capital investments in public transportation systems to replace, lease, and purchase buses and related equipment and to construct bus-related facilities, including upgrades or innovations to modify low- or no-emission vehicles or facilities.
- Low or No Emission Vehicle (Section 5339(c)): Intended for purchase or lease of low- or no-emission buses (including those with a leased power source), construction or lease of facilities and equipment for low- or no-emission buses, and new facilities or rehabilitation of existing facilities to accommodate these buses.
- New Starts/Small Starts (Section 5309): New Starts projects are limited to new fixed-guideway systems or extensions of existing fixed-guideway systems with a total estimated capital cost of $300 million or more, or that are seeking $100 million or more in Section 5309 funds. Small Starts projects are limited to new fixed-guideway systems or extensions of existing fixed-guideway systems with a total estimated capital cost less than $300 million, or that are seeking less than $100 million in Section 5309 funds.

Base and Assumption Used in Forecast Calculation of Federal Transit Funds

Each year, the Federal Transit Administration (FTA) issues funding apportionments for states, urbanized areas, and/or individual transit agencies, depending on the regulations for the Federal-aid transit funding source in question. Transit agencies use this apportionment information to estimate the amount of Federal-aid funding they will receive in a given year, under the general oversight of MDOT's Office of Passenger Transportation (OPT). Current statewide procedures are to consider the federal amounts programmed into the FY 2023-2026 TIP by each transit agency to be constrained to reasonably-expected available revenues.

Sources of State-Generated 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% of receipts into the MTF, after certain deductions, are 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. Distributions from the CTF are used by public transit agencies for matching federal grants and also for operating expenses.

Base and Assumption Used in Forecast Calculations of State Transit Funds

MDOT OPT provides each transit agency with estimates of how much CTF funding it will receive and specifies the purpose(s) for which it can be used. For example, some distributed funds are used for local bus operating, while others are used to match federal funding, and yet other CTF funds can be used for a variety of other purposes. In keeping with the general procedures for federal transit funds, the state-generated transit funding amounts programmed into the FY 2023-2026 TIP by each agency are considered to be constrained to reasonably-expected available revenues.

Sources of Locally-Generated Transit Funding

Major sources of locally-generated funding for transit agencies include farebox revenues, general fund transfers from city governments, and transportation millages. All transit agencies in Southeast Michigan collect fares from riders.

Base and Assumptions Used in Forecast Calculations of Local Transit Funds

Locally-generated transit funding amounts programmed into the FY 2023-2026 TIP by each agency are considered to be constrained to reasonably-expected available revenues.

Innovative Financing Strategies - Transit

Sources of funding for transit are not limited to the federal, state, and local sources previously discussed. As with highway funding, there are alternative sources of funding that can be utilized for transit capital and operating costs. 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-aid funds. Toll credits are earned at tolled facilities, such as the Blue Water Bridge in Port Huron. 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.[6]

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 running, such as driver wages and maintenance costs. The majority of transit agency expenses are usually operations expenses, which average around 84% of total transit expenses. As with highway operations, almost all transit operating costs do not have to be in the FY 2023-2026 TIP, and full transit operations expenses are not reflected in the TIP project list itself.

Summary of Fiscal Constraint Tables for FY 2023-2026 TIP

This financial plan is required to show that the cost of transit projects in the FY 2023-2026 TIP does not exceed the amount reasonably expected to be available to fund those projects. This is known as *demonstration of fiscal constraint*. The following tables A through D of this financial plan compare the amount of funding from each of the federal, state, and local transit funding sources programmed in

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

TIP transit projects to the amount of funding reasonably expected to be available in each year of the FY 2023-2026 TIP period. Tables A through D demonstrate that the FY 2023-2026 TIP is fiscally constrained—the amount programmed using each funding source does not exceed the amount reasonably expected to be available from that funding source in any of the four years of the TIP.

Table 9
FY 2023-2026 TIP: Federal Aid Highway Funding

Funding Type	Programmed (Millions)	Available (Millions)
Bridge	$212.95	$212.95
Congestion Mitigation & Air Quality Improvement	$225.37	$225.37
Combined Federal Funding*	$316.42	$316.42
Federal-Aid Funding for the Interstate System	$214.09	$214.09
High Risk Rural Roads	$1.07	$1.07
Highway Infrastructure Program	$10.01	$10.01
Highway Safety Improvement Program	$44.59	$44.59
INFRA Grant Program	$22.73	$22.73
National Highway Performance Program	$806.18	$806.18
Surface Transportation Block Grant	$440.61	$440.61
Transportation Alternatives Program	$12.94	$12.94
Total:	**$2,306.96**	**$2,306.96**

**Multiple Federal-aid funding sources combined in a single project phase.*

Table 10
FY 2023-2026 TIP: Federal-aid Transit Funding

Funding Type	Programmed (Millions)	Available (Millions)
Section 5307	$231.00	$231.00
Section 5310	$6.77	$6.77
Section 5311	$6.34	$6.34
Section 5337	$1.80	$1.80
Section 5339	$24.74	$24.74
Total:	**$270.65**	**$270.65**

Table 11
FY 2023-2026 TIP: State Funding

Funding Type	Programmed (Millions)	Available (Millions)
Used for Highway	$1,268.22	$1,268.22
Used for Transit	$177.19	$177.19
Total:	**$1,445.41**	**$1,445.41**

Table 12
FY 2023-2026 TIP: Local Funding

Funding Type	Programmed (Millions)	Available (Millions)
Used for Highway	$114.38	$114.38
Used for Transit	$138.96	$138.96
Total:	**$253.34**	**$253.34**

Total of Tables 9 through 12:

- Programmed (Millions) – $4,276.36
- Available (Millions) - $4,276.36

Conclusion

The Transportation Improvement Program for Southeast Michigan, FY 2023-2026 is a vital part of implementing the 2045 Regional Transportation Plan for Southeast Michigan through translating the analysis, policies, and available funding into a detailed programmed list of transportation projects that will be constructed in the plan's near term. The TIP is a four-year schedule of projects that are the highest priorities for transportation agencies and local governments in the region. The TIP complies with all federal and state regulations. Full versions of project analysis for Air Quality Conformity, Environmental Justice, and other related information can be found in appendices attached to this document.

SEMCOG Officers
2022-2023

Chris Barnett
Chairperson
Supervisor,
Orion Township

Pauline Repp
First Vice Chairperson
Mayor,
Port Huron

Mandy Grewal
Vice Chairperson
Supervisor,
Pittsfield Township

Laura Kropp
Vice Chairperson
Mayor,
Mount Clemens

Gwen Markham
Vice Chairperson
Commissioner,
Oakland County

Eric Sabree
Vice Chairperson
Treasurer,
Wayne County

Donald Hubler
Immediate Past Chair
Secretary,
Macomb Intermediate
School District

Amy O'Leary
Executive Director