

The Metropolitan Planning Organization for the Greater Kalamazoo Area



2020-2023

Transportation Improvement Program

Adopted: May 29, 2019

Kalamazoo Area Transportation Study

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KALAMAZOO AREA
TRANSPORTATION STUDY

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FY 2020 - 2023

Transportation Improvement Program

For the Kalamazoo Metropolitan Area

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Public notice of public involvement activities and time established for public review and comments on the Transportation Improvement Program (TIP) will satisfy the Program of Projects (POP) requirements for the following grantees: Kalamazoo Metro Transit, the Kalamazoo County Transportation Authority, the Central County Transportation Authority and Van Buren Public Transit.

Disclaimer: "The preparation of this report has been financed in part through grant[s] from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the Metropolitan Planning Program, Section 104(f) of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation."

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FY 2020-2023 Transportation Improvement Program for the Kalamazoo Metropolitan Area

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INTRODUCTION

The FY 2020 - 2023 Transportation Improvement Program (TIP) presents projects and programs selected for implementation in the Kalamazoo metropolitan area. The program has been developed and compiled using the cooperative and coordinated efforts between transportation agencies, the Michigan Department of Transportation (MDOT), the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) and the Kalamazoo Area Transportation Study (KATS) under the forum of the Metropolitan Planning Organization (MPO). Over 175 million dollars in highway project commitments will improve numerous miles of roadway over the life of the TIP. Funding commitments for transit operations and capital improvements total over 65 million dollars.

The TIP, as presented, has been recommended and approved by the following Kalamazoo Area Transportation Study Committees, with extensive public input throughout:

Transportation Improvement Program Subcommittee
Technical Committee
Policy Committee

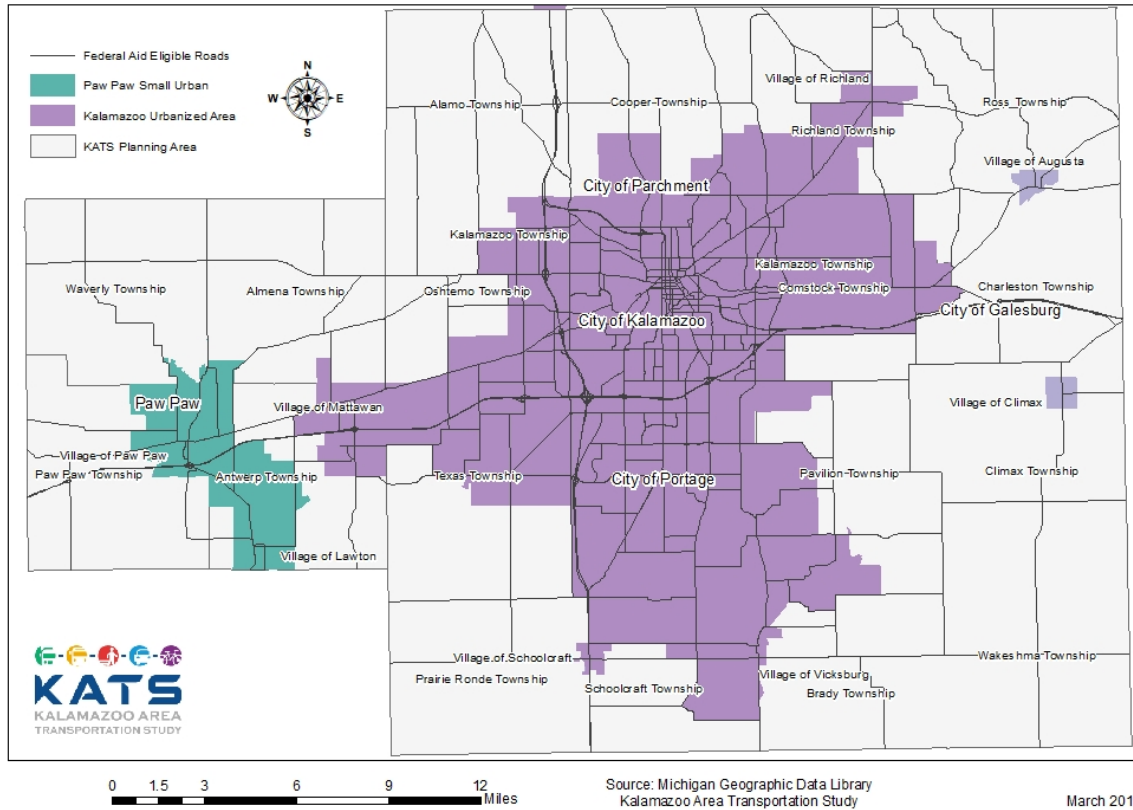
A copy of the committee(s) membership is included in this document for information purposes. The committees are, collectively, an extensive cross-section of both direct and indirect representatives of professional staffs and elected officials of the governmental units and transportation service providers in the KATS study area. Meetings during the Transportation Improvement Program development process were open to the public, and meeting notices and agendas were posted in accordance with the approved Kalamazoo Area Transportation Study Participation Plan. Copies of the draft Transportation Improvement Program were made available at numerous public offices (governmental) throughout Kalamazoo and Van Buren Counties. Information on the Transportation Improvement Program was also available on the KATS website www.KATSmpo.org.

The TIP, as required by federal regulations, addresses all projects proposed to use federal funding within the KATS Study Area. It includes both highway/roadway projects and public transportation operations and expenditures.

The Financial Constraint Analysis provides an overview of federal funds as they will be distributed to each road and transit agency. Available local funding for projects and programs contained in this program are based on agency projections. These numbers are also consistent with financial estimates of reasonably expected funding made in the approved 2045 Metropolitan Transportation Plan.

The Table of Contents provides a direct guide to reviewing the various project categories.

Map 1: Kalamazoo Area Transportation Study Urban, Rural and Small Urban Funding Areas



Policy Committee Voting Membership

Michigan Department of Transportation Bureau of Transportation Planning
Michigan Department of Transportation Kalamazoo Transportation Service Center

City of Kalamazoo
City of Parchment
City of Portage
City of Galesburg

Alamo Township
Almena Township
Antwerp Township
Brady Township
Climax Township
Cooper Charter Township
Comstock Charter Township
Kalamazoo Charter Township
Oshtemo Charter Township
Pavilion Township
Prairie Ronde Township
Richland Township
Ross Township
Schoolcraft Township
Texas Charter Township

Village of Augusta
Village of Climax
Village of Lawton
Village of Mattawan
Village of Paw Paw
Village of Richland
Village of Schoolcraft
Village of Vicksburg

Central County Transportation Authority
Kalamazoo County Board of Commissioners
Kalamazoo County Transportation Authority
Road Commission of Kalamazoo County
Van Buren County Board of Commissioners
Van Buren County Road Commission
Van Buren Public Transit

Western Michigan University

Technical Committee Voting Membership

(Indicates more than 1 individual representing the organization)

Michigan Department of Transportation Bureau of Transportation Planning
MDOT Kalamazoo Transportation Service Center Southwest Region Office

City of Galesburg

City of Kalamazoo

Department of Public Services (3)

Department of Economic Development & Planning

City of Parchment

City of Portage

Transportation and Utilities (3)

Community Development

Kalamazoo County Planning and Community Development

Road Commission of Kalamazoo County (2)

Van Buren County

Van Buren County Road Commission

Van Buren Public Transit

Comstock Charter Township

Oshtemo Charter Township

Texas Charter Township

Village of Augusta

Village of Lawton

Village of Mattawan

Village of Paw Paw

Village of Schoolcraft

Village of Vicksburg

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PROGRESS ON THE FY 2017 - 2020 TRANSPORTATION IMPROVEMENT PROGRAM MAJOR PROJECTS

The FY 2017 - 2020 Transportation Improvement Program (TIP) was adopted on June 29, 2016. The FY 2017 - 2020 TIP was developed under the Moving Ahead for Progress in the 21st Century Act (MAP-21) legislation, then adopted under the Fixing America's Surface Transportation (FAST) Act. Under CFR 23, Section 450.326, the Transportation Improvement Program should . . . "List major projects from the previous TIP that were implemented and identify any significant delays in the planned implementation of major projects."

All major projects that were regionally significant in the FY 2017 – 2020 TIP are completed, underway, or have been moved to the FY 2020-2023 TIP:

Completed Major Projects

- I-94 Repaving in Van Buren County
- US-131 Repaving from Milham Avenue to M-43

Projects Moved to FY 2020-2023 TIP (Delayed from original planned year)

- US-131 over KL Avenue and Amtrak
- I-94 between Lovers Lane and Sprinkle Road

PERFORMANCE MANAGEMENT AND THE TRANSPORTATION IMPROVEMENT PROGRAM

A key feature of the Fixing America's Surface Transportation (FAST) Act is the establishment of a performance and outcome based program, originally introduced through the Moving Ahead for Progress in the 21st Century (MAP-21) Act. The objective of a performance-based program is for states and MPOs to invest resources in projects that collectively will make progress toward the achievement of national goals. 23 CFR 490 outlines the seven areas in which performance goals are required, these include: Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement, Environmental Sustainability, and Reduced Project Delivery Delay.

Performance Targets

State Targets

Within one year of the United States Department of Transportation (US DOT) final rule on performance measures, States are required to set performance targets in support of those measures. States may set different performance targets for urbanized and rural areas. To ensure consistency each State must, to the maximum extent practicable:

- Coordinate with an MPO when setting performance targets for the area represented by that MPO; and
- Coordinate with public transportation providers when setting performance targets in an urbanized area not represented by an MPO. [§1202; 23 USC 135(d)(2)(B)].

The Statewide Transportation Improvement Program (STIP), State asset management plans under the National Highway Performance Program (NHPP), and State performance plans under the Congestion Mitigation and Air Quality Improvement program are required to include performance targets. Additionally, State and MPO targets should be included in Statewide transportation plans. 23 CFR 450.326 (c) and (d) require that (c) the TIP shall be designed such that once implemented, it makes progress toward achieving the performance targets established under §450.306(d) and

(d) the TIP shall include, to the maximum extent practicable, a description of the anticipated effect of the TIP toward achieving the performance targets identified in the metropolitan transportation plan, linking investment priorities to those performance targets.

MPO Targets

Within 180 days of States or providers of public transportation setting performance targets, MPOs are required to set performance targets in relation to the performance measures (where applicable). To ensure consistency, each MPO must, to the maximum extent practicable, coordinate with the relevant State and public transportation providers when setting performance targets. MPO Metropolitan Transportation Plans (MTPs) and TIPs are required to include State and MPO targets.

Table 1: National Transportation Performance Measures

Area	Measures	Target Setting Status
Safety Performance	Number of fatalities; Rate of fatalities; Number of serious injuries; Rate of serious injuries; Number of non-motorized fatalities and non-motorized serious injuries	Approved adoption of statewide 2019 Targets: November 2018
Pavement & Bridge Asset Management	Percent NHS Bridges in good and poor condition; Percent Interstate pavement in good and poor condition; Percent Non-Interstate NHS pavement in good and poor condition	Approved adoption of statewide targets: August 2018
System Performance & Freight	Interstate travel time reliability; Non-Interstate travel time reliability; Truck travel time reliability	Approved adoption of statewide targets: August 2018
Congestion Mitigation & Air Quality*	Peak hour excessive delay per capita; Percent of non-single occupancy vehicle travel; Total emissions reduction	Approved adoption of statewide targets: May 2018
Public Transportation	State of Good Repair Targets; Public Transportation Agency Safety Plan: <ul style="list-style-type: none"> • Rolling Stock • Equipment • Facilities • Infrastructure 	State of Good Repair Targets reported TAM Report, October 2018. Reaffirmed for CY 2019

***Congestion Mitigation & Air Quality no longer applies to the KATS area, listed for information only.**

KATS is currently working with the Michigan Department of Transportation, Federal Highway Administration, and the Federal Transit Administration to continue the implementation of a performance based approach to carrying out the Federal Highway program.

Current TIP Procedures for Selecting/Programming Projects and Addressing Performance Measures

Although specific federal guidance on performance measures had not been established at the time the 2045 MTP was developed. KATS has made every effort to include Transportation Performance Measures in the planning process for the FY 2020-2023 Transportation Improvement Program. Through the KATS Prioritization Process, funding has been assigned that generally targets the performance measure areas specified through legislation. Like other MPOs statewide, KATS has and continues to face limitations in funding resources at the local, state, and federal levels and has established goals and objectives in the MTP, particularly in the Financial Plan document to guide project selection.

During the TIP Call for Projects, road agencies are required to submit a TIP application to be considered

for funding. TIP applications are scored and prioritized on how well they address and incorporate pavement conditions, local and economic development elements, safety, and area-wide impacts. The 2020-2023 TIP application was revised to better emphasize a refined performance-driven project selection process. KATS will also continue to gather data for the development of performance measures such as pavement and bridge conditions, traffic volumes, level of congestion, freight data, air quality, emissions reductions, and crash data.

Table 2: Prioritization Factors Related to Performance Measures

Area	Measures	Prioritization Factor
Safety Performance	Number of fatalities; Rate of fatalities; Number of serious injuries; Rate of serious injuries; Number of non-motorized fatalities and non-motorized serious injuries	<ul style="list-style-type: none"> • Crashes per MVMT/MEV • Project corrects identified safety issues and has correctable MVMT/MEV crash rate of 3 or higher • Project (or corridor) identified in Regional Safety Plan
Pavement & Bridge Asset Management	Percent NHS Bridges in good and poor condition; Percent Interstate pavement in good and poor condition; Percent Non-Interstate NHS pavement in good and poor condition	<ul style="list-style-type: none"> • Pavement Surface Evaluation and Rating
System Performance & Freight	Interstate travel time reliability; Non-Interstate travel time reliability; Truck travel time reliability	<ul style="list-style-type: none"> • ADT/1000 rounded • National Functional Classification • Operational Improvements
Congestion Mitigation & Air Quality	Peak hour excessive delay per capita; Percent of non-single occupancy vehicle travel; Total emissions reduction	<ul style="list-style-type: none"> • Congestion Management Process • CMAQ Funding • Operational Improvements
Public Transportation	State of Good Repair Targets; Public Transportation Agency Safety Plan: <ul style="list-style-type: none"> • Rolling Stock • Equipment • Facilities • Infrastructure 	<ul style="list-style-type: none"> • State of Good Repair Targets • Transit Asset Management Plan • Project located on Line Haul Transit Route (stop improvements)

*Additional information on Prioritization in Project Prioritization Process Chapter

KATS will begin to analyze progress toward the performance goals in fiscal years 2019 and 2020 using the annual listing of obligated projects and forthcoming Annual Performance Report to illustrate spending in each category (including bridges, safety, road restoration, non-motorized facilities, etc.) and status on performance. Obligated/completed projects will be evaluated to determine whether they contribute towards each performance goal. KATS will begin to fully implement these performance goals during the life of the 2020-2023 TIP. Furthermore, staff will also continue to work with other MPOs on best practices for performance-based programming of projects and analysis of performance measure data.

Public Transportation National Performance Goals

Federal legislation also mandated the Federal Transit Administration (FTA) to develop a rule establishing a strategic and systematic process of operating, maintaining, and improving public capital assets effectively through their entire life cycle. The Transit Asset Management (TAM) Final Rule 49 CFR part 625 became effective Oct. 1, 2016 and established four performance measures. The performance management requirements outlined in 49 CFR 625 Subpart D are a minimum standard for transit operators. Providers with more data and sophisticated analysis expertise are allowed to add performance measures and utilize those advanced techniques in addition to the required national performance measures.

1. Rolling Stock - means a revenue vehicle used in providing public transportation, including vehicles used for carrying passengers on fare-free services
2. Equipment - means an article of non-expendable, tangible property has a useful life of at least one year
3. Facilities - means a building or structure that is used in providing public transportation
4. Infrastructure - means the underlying framework or structures that support a public transportation system

A full analysis and in depth discussion of targets will be done during the development of the next Metropolitan Transportation Plan which will take place in 2020, with adoption planned for April 2021.

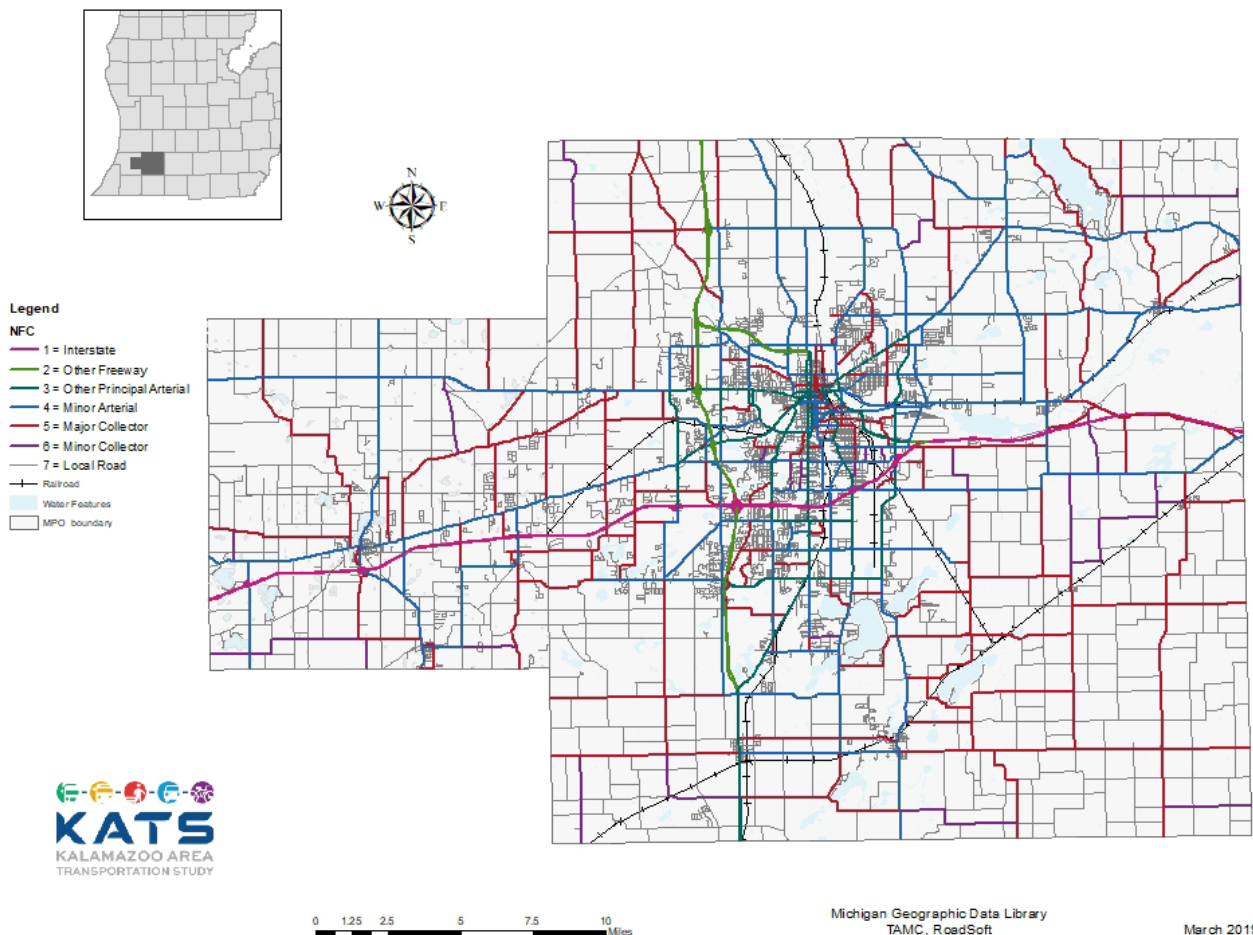
Performance-Based Planning in the Kalamazoo Area Transportation Study

The KATS has several systems in place to address the mandated performance measures and targets. KATS maintains a traffic count program which has been integrated into a traffic count database system. This system improves data collection and analysis for the travel demand model with forecasts future traffic congestion. The MDOT sponsored collection of pavement condition data on federal-aid eligible roadways, through the statewide Asset Management program, provides KATS with data (both current and historic) to address the status of pavement conditions in the KATS area. MDOT also collects data through the Highway Performance Monitoring System (HPMS). KATS has access to detailed traffic crash data for its area through the Crash Facts program of the Michigan State Police/Office of Highway Traffic Safety and RoadSoft.

Most of the performance targets are directed at the National Highway System, which is primarily under the jurisdiction of MDOT in the KATS area. Therefore, KATS will coordinate with MDOT (as set forth in the federal regulations) in the development of targets for roadways in the KATS area subject to the NHS-based performance. Any roadways designated as NHS which are under local jurisdiction are to be assessed in conjunction with the responsible local road agency, but separate targets are not expected to be established.

In the process of developing future Metropolitan Transportation Plans and Transportation Improvement Programs as new targets are established, KATS will assess the impact of any proposed projects on the performance measure areas (and targets), as noted at the beginning of this section. This will be done using the best available data at the time of assessment. Projects projected to provide a high level of benefit in meeting identified performance targets will be considered for priority in programming.

Map 2: National Functional Classification for the KATS MPO Boundary



MPO TARGET SETTING

Safety

The first performance measure for which specific targets were required is the safety category. On August 31, 2017, the Michigan Department of Transportation (MDOT) reported to Michigan's metropolitan planning organizations (MPOs) that it had set safety targets for calendar year 2018. MDOT and Michigan's MPOs had been meeting prior to this announcement over a period of several months to discuss the setting of these performance measures. The state establishment of safety targets set in motion the clock for MPOs to decide upon their MPO safety targets within 180 days after that date, or by February 27, 2018. On January 24, 2018, the KATS Policy Committee voted to exercise its option to "support the state targets" for the 5 categories of safety information. Safety targets are required to be developed by the state and responded to by the MPOs each year. KATS continued this process, by continuing their support of the state targets for the Calendar Year 2019 State Safety Targets on November 28, 2018

Table 3: Michigan Crash Trends; 2013-2017

	2013	2014	2015	2016	2017
Fatalities	947	901	963	1064	1028
Serious Injuries	5283	4909	4865	5634	6084
Non-Motorized Fatalities & Serious Injuries	743	687	755	736	797

Table 4: Michigan State Safety Targets - Calendar Year 2019

Safety Performance Measure	Baseline through Calendar Year 2017	Calendar Year 2019 State Safety Target
Fatalities	981.4	1023.2
Fatality Rate	1.00	1.02
Serious Injuries	5355.0	5406.8
Serious Injury Rate	5.47	5.41
Non-Motorized Fatalities & Serious Injuries	743.6	759.8

Michigan State Safety Targets are based on a five year rolling average from calendar year 2013 to 2017. KATS has limited access to federal safety funds provided to the state, as the state manages safety funds through a statewide grant pool. However, through the KATS Prioritization process, projects that address identified traffic safety issues receive additional points towards the likelihood of funding through other funding sources.

A regional traffic safety plan was completed for a five county region of southwest Michigan by a consultant retained by MDOT. One result of the Southcentral Regional Traffic Safety Plan was the recommendation that safety projects target certain emphasis areas of traffic safety. The identification of the emphasis areas was based on an analysis of regional and local safety conditions, historical trends, and stakeholder input. The four highest priority emphasis areas were: lane departure, intersection safety, pedestrian and bicycle safety, and drivers age 24 years and younger. The results of the regional review were reported by county. KATS was able to break-out the data individually for the provided data set for Kalamazoo County, however, it is not possible to break-out the four township area of Van Buren County. KATS will evaluate the identification of potential high risk areas, segments, and intersections identified in the appendices of the Plan as locations needing further evaluation.

In the Southcentral Regional Traffic Safety Plan, the consultant identified intersection and segment data that had an excess of “expected” fatal and injury crashes on an annual basis when examining the 2010-2014 crash data. The locations were ranked as low, medium, and high for this criteria. The number of excess crashes to be expected for each of the categories was identified as: high = greater than 5, medium = 3 to 5, and low = 1 to 3.

Table 5: Local Safety Funding in FY 2020-2023 TIP

2020 Total Revenue	2021 Total Revenue	2022 Total Revenue	2023 Total Revenue
\$1,158,000	Not Programmed	Not Programmed	Not Programmed

Pavement

Federal regulations require that states measure, monitor, and set goals for pavement performance based upon a composite index of metrics. The four pavement condition metrics are: International Roughness Index (IRI), Cracking Percent, Rutting, and Faulting as reported by each state to the Highway Performance Monitoring System (HPMS) database. IRI and cracking percent are metrics for all road types. Rutting is only applicable to asphalt pavements and faulting is only measured for jointed concrete pavements. The rule applies to the entire National Highway System (NHS), which includes Interstate and Non-interstate NHS. MDOT is responsible for approximately 6,079.7 through-lane miles of interstate in Michigan, as of 2017. The Non-Interstate portion of the system includes MDOT trunkline routes (M-routes) (about 12,081 miles in 2017) and local government owned non-trunkline roads (about 4,270 miles in 2017). Local agencies are responsible for roughly 19% of the NHS route mileage in Michigan.

Table 6: 2017 NHS Inventory (miles of through lanes of pavement)

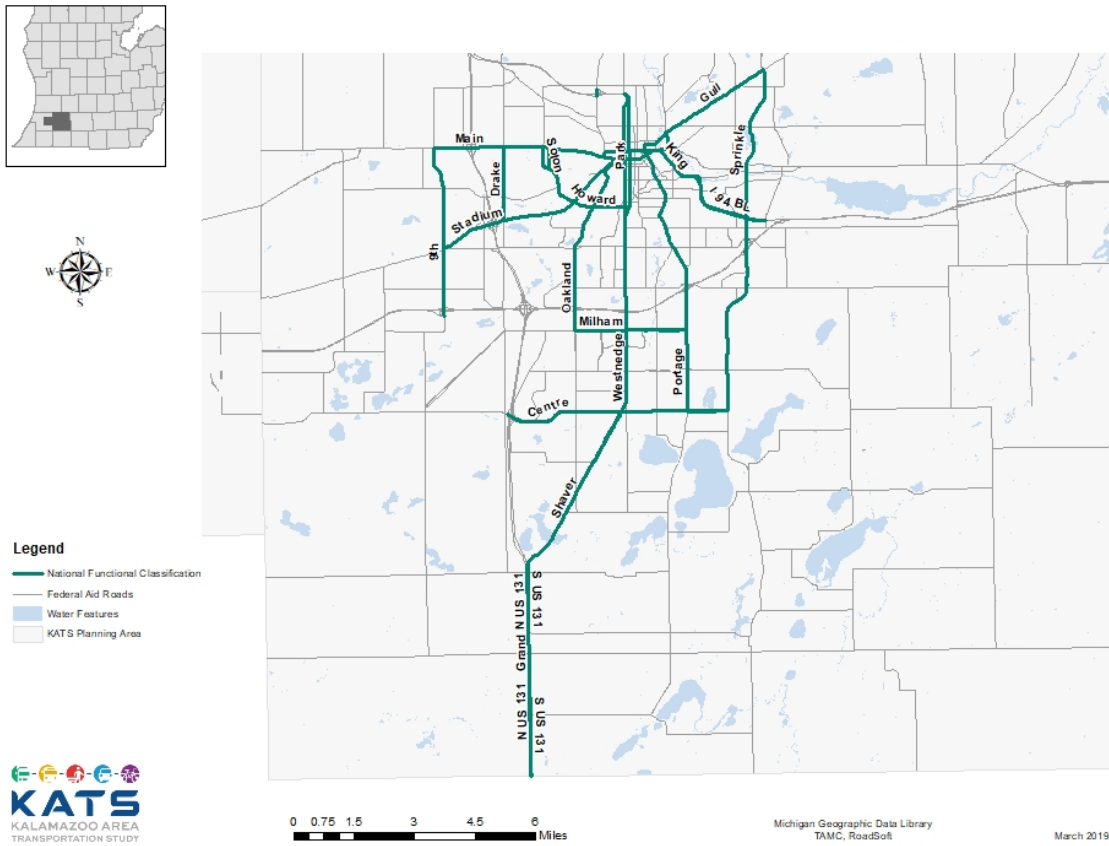
	Interstate	Non-Interstate	Trunkline Non-Interstate	Non-Trunkline Non-Interstate	Total NHS Miles
KATS MPO	157.49	378.89	215.09	163.79	536.38
Statewide	6,079.70	16,352.27	12,081.56	4,270.71	22,431.97

Table 7: 2017 Non-Interstate NHS IRI

	Good	Fair	Poor
KATS MPO	33.4%	44.3%	22.3%
Statewide	49.7%	31.6	18.6%

In May of 2018, MDOT established 2-year and 4-year targets for a 4-year performance period for pavement condition on the National Highway System (NHS) in response to the federal regulations. The 4-year performance period includes January 1, 2018 to December 31, 2022. In addition, biennial progress reports are to be submitted to FHWA. There are a total of three progress reports due within the 4-year performance period: a Baseline Performance Report due October 1, 2018; a Mid-Performance Period Progress Report due October 1, 2020; and a Full Performance Period Progress Report due October 1, 2022. FHWA will determine if significant progress has been made from report to report. Based on the metrics described above and the rating of roads along a metric value range, there are four measures that will be used to assess pavement condition: % of Interstate road pavement in “Good” condition; % of Interstate road pavement in “Poor” condition; % of Non-interstate NHS pavement in “Good” condition; and % of Non-interstate NHS pavement in “Poor” condition.

Map 3: Local National Highway System for the KATS MPO Boundary



MPOs are required to establish four-year targets for these measures. As with the other performance measures, there is the option to agree to plan and program projects that support MDOT’s targets, or establish their own targets for their Metropolitan Planning Area (MPA). KATS adopted to “support” the statewide targets on August 29, 2018.

Table 8: Michigan State Pavement Targets

	Baseline Condition Calendar Year 2017	2-Year Targets	4-Year Targets
% Interstate Pavement in Good Condition	56.8%	N/A	47.8%
% Interstate Pavement in Poor Condition	5.2%	N/A	10%
% Non-Interstate NHS in Good Condition	48.7%	46.7%	43.7%
% Non-Interstate NHS in Poor Condition	18.6%	21.6%	24.6%

The KATS Prioritization process emphasizes the proper maintenance and repair of the system through Asset Management principles. Projects that address identified pavement condition issues receive additional points towards the likelihood of funding.

Bridge

The federal performance measures require that state DOT's establish 2-year and 4-year targets for a 4-year performance period for the condition of infrastructure assets. State DOT's established their first statewide targets by May 20th, 2018. As with the pavement condition reporting, state DOTs are required to submit three performance reports to FHWA within the 4-year performance period: a Baseline Performance Report by October 1, 2018; a Mid- Performance Period Progress Report by October 1, 2020; and a Full Performance Period Progress Report by October 1, 2022. The two performance measures for assessing bridge condition are: % of National Highway System (NHS) bridges in "Good Condition"; and % of NHS bridges in "Poor Condition".

As part of the Full Performance Period Progress Report, the MPOs will report their established targets, performance, progress, and achievement of the targets to MDOT in a manner that is agreed upon by both parties and documented in the Metropolitan Planning Agreement. MPOs are not required to report separately to FHWA.

In May, 2018 MDOT adopted a set of bridge performance measures for the NHS bridges in the state. KATS supports the maintaining of NHS and local bridges within its area. However, bridge funding is administered at the state level by MDOT. MDOT evaluates bridges on interstate and state trunkline routes for necessary projects and funding. A statewide Local Bridge Advisory Board allocates funds for the Michigan Local Bridge Program based on available funds and weighted ratios. In 2016, only 89 of 363 submitted local bridge projects could be funded due to budget constraints. As of June, 2017, approximately 2 million square feet of locally owned bridges in Michigan have deck area in poor, serious, or critical condition. This translates to the local agencies in Michigan having 17% of NHS bridge deck area under their jurisdictions in poor condition. This exceeds the penalty threshold of no more than 10% of NHS bridges, measured by deck area, being classified as structurally deficient. MDOT's NHS bridge condition by deck area is only slightly under the 10% threshold, at 9% poor condition.

MDOT is projecting "condition improvement" for the NHS bridges in the state based on projects programmed through the MDOT and local bridge programs described above. Deterioration is estimated based on comparing network wide deterioration rates to the age and condition of each major component of each structure.

The targets are highly dependent on the deck area of bridges that fall to poor, and so the smaller the inventory considered, the higher potential for a single bridge to skew results. The statewide targets are assumed to be less variable than for an individual MPO.

On August 29, 2018, KATS adopted to "support" the statewide targets for the Bridge performance measures.

Table 9: Michigan State Bridge Targets

	Baseline Condition Calendar Year 2017	2-Year Targets	4-Year Targets
% NHS Deck Area in Good Condition	32.7%	27.2%	26.2%
% NHS Deck Area in Poor Condition	9.8%	7.2%	7.0%

System Reliability

Federal regulations require states and MPOs to use three performance measures for assessing travel time reliability. Travel time data used to calculate each measure is purchased by the Federal Highway Administration and made available for use by states and MPOs. This vehicle probe data set used for the federally required measures is called the National Performance Management Research Data Set (NPMRDS). The data is processed through an analytical software tool known as the Regional Integrated Transportation Information System (RITIS). The travel time reliability measures, as defined in the federal rule are:

- Level of Travel Time Reliability on the Interstate: % of person-miles traveled on the Interstate that are reliable
- Level of Travel Time Reliability on the Non-Interstate National Highway System (NHS): % of person-miles traveled on the Non-Interstate NHS that are reliable
- Freight Reliability Measure on the Interstate: Truck Travel Time Reliability Index

The 2017 and 2018 data shows that Michigan’s Interstate highways and Non-Interstate NHS highways have been between 85and 86% reliable, meaning that greater than 85% of the person-miles traveled on the NHS system are meeting the reliability thresholds established by the federal regulations. For Trucks, due to the higher federal threshold of comparing the 95th percentile to the 50th percentile, the overall truck travel time index on the Interstates has remained near 1.5.

MDOT set targets in May, 2018 for these measures for the first reporting cycle as shown below. On August 29, 2018 KATS adopted to “support” the statewide reliability targets.

Table 10: Michigan State Reliability Targets

<i>Performance Area</i>	<i>Measure</i>	<i>Baseline Condition from January 2017 to May 2018</i>	<i>2-Year Targets</i>	<i>4- Year Targets</i>
Reliability	Level of Travel Time Reliability of the Interstate	2017 85.2% 2018 84.9%	75.0%	75.0%
	Level of Travel Time Reliability of the Non-Interstate NHS	2017 86.1% 2018 85.7	N/A	70.0%
	Freight Reliability Measure on the Interstate	2017 1.38 2018 1.50	1.75	1.75

The KATS Prioritization Process places additional emphasis on projects that address facilities that carry the largest volumes of traffic, including commercial traffic (freight). KATS also coordinates Congestion Mitigation and Air Quality funding towards projects that improve congestion and increase reliability through ITS.

Transit Performance Measures and Targets

There are two transit providers in the KATS area. Metro is a direct recipient of funds from the Federal Transit Administration. As such, Metro is identified as a Tier II recipient under the current federal legislation and had developed state of good repair targets. The Metro 2018 state of good repair targets are as follows:

Table 11: Metro State of Good Repair (SGR) Performance Targets and Measures

Asset Category	Asset Class	SGR Target Description	2019 SGR Target
Revenue Vehicles	Fixed Route Buses	ULB Benchmark 14 Years	10% exceed ULB
Revenue Vehicles	Medium Duty Buses (Metro Connect)	ULB Benchmark 10 Years	12% exceed ULB
Revenue Vehicles	Medium Duty Buses	ULB Benchmark 12 Years	10% exceed ULB
Revenue Vehicles	Vans (Metro Connect)	ULB Benchmark 6 Years	10% exceed ULB
Revenue Vehicles	Vans (Metro Share)	ULB Benchmark 9 Years	10% exceed ULB
Service Vehicles		ULB Benchmark 10 Years	10% exceed ULB
Facilities			15% 2 or below on FTA TERM Scale

*Useful Life Benchmark (ULB)

Also required is a Transit Asset Management (TAM) Plan and a Transit Agency Safety Plan. Metro completed its TAM Plan by the October 1, 2018 deadline. The federal rulemaking for the transit safety plans is expected to be released no later than April 25, 2018, after which time, state and local steps will be taken to comply with those rules. The Metro Transit TAM Plan is available on the KATS website.

The other transit agency in the KATS area is located in Van Buren County. Van Buren Public Transit follows state TPM guidance for sub-recipients. Conditions and targets are based on the Useful Life Benchmark (ULB) set by the Federal Transit Agency (FTA).

Table 12: Rural State of Good Repair Targets for 2019

(For MDOT Section 5311 and 5310 sub-recipients)

Asset Class	Current Condition	2019 Target	Plus
Revenue vehicles: small bus and van class	2% past ULB	Not more than 5% will meet or exceed the ULB	Not more than 25% of each agency's fleet will meet or exceed the ULB
Revenue vehicles: large bus class	6% past ULB	Not more than 10% will meet or exceed the FTA ULB	Not more than 25% of each agency's fleet will meet or exceed the ULB
Service vehicles	54% past ULB	100% may exceed the ULB	
Facilities-passenger	0% past ULB	Not more than 1% will exceed ULB	
Facilities – admin/maintenance	5% past ULB	Not more than 5% will exceed ULB	

Congestion Management Process

The Congestion Management Process (CMP) for the Kalamazoo Area Transportation Study is a regionally accepted, systematic approach for managing congestion. It is a multi-modal approach to assess alternative strategies for congestion management and move these strategies into the funding and

implementation stages. The Congestion Management Process is a tool used by road and transit agencies to determine what level of capacity improvement is most suitable for a corridor and uses data from the KATS Travel Demand Model, verified and supported by real world data, to analyze submitted capacity improvement projects.

The KATS Congestion Management Process identifies four objectives based off the Goals identified in the 2045 KATS Metropolitan Transportation Plan:

Objective 1: Decrease model based Vehicle Hours Traveled (VHT) by 5% by 2040.

Objective 2: Promote an increase in non-motorized commuting by increasing the access (mileage) to non-motorized facilities by 10% by 2040.

Objective 3: Increase or upgrade the number of corridors by 10% on the CMP network using modern Intelligent Transportation Systems (ITS) by 2040 to improve intersection performance.

Objective 4: Improve average on-time (real world) performance for transit routes located on the CMP network by 10% by 2040.

KATS works with local communities as they implement congestion mitigation strategies in their project development. Congestion solutions range from low cost education campaigns and travel demand management strategies to high cost travel lane expansion.

Congestion is often a subjective determination; it can be recurring (rush hour traffic) or event-driven (a traffic crash). Transportation planners use metrics such as level of service to evaluate the efficiency of a road or intersection. In the KATS Metropolitan Area, congestion is most significant in the morning and evening periods as people commute to and from work. The congestion issues in the KATS Metropolitan Area are largely caused by the amount of single occupant vehicles on the road, not by the amount of people traveling along a corridor. Efficient use of previous and future investments requires a focus on moving the greatest number of people in the least amount of space. This concept is demonstrated in the image below where the space required for 60 people to travel is compared by mode.



Improvements that address congestion should consider multiple options before increasing automobile capacity, per the KATS Congestion Management Process. Alternative congestion management techniques include transportation demand management, creating attractive transportation options, and traffic operations improvements. While alternative transportation improvements may not completely alleviate congestion, they do provide travelers a real choice between sitting through heavy traffic while in a car or moving along via bicycle or enhanced transit, all while helping alleviate congestion issues. A

more detailed look at Congestion and the goals associated with its management can be found in the KATS Congestion Management Process document.

National Highway System (NHS) Asset Management Plan

MDOT is required to develop an Asset Management Plan for the NHS that includes:

- Pavement and bridge inventory and conditions on the NHS
- Objectives and measures
- Performance gap identification
- Life-cycle cost and risk management analysis
- Financial plan
- Investment strategies

The USDOT has set minimum standards for states to use in developing and operating bridge management systems and pavement management systems.

A Metropolitan System Performance Report is required in the long range Metropolitan Transportation Plan (MTP). The next update of the KATS MTP is scheduled to commence in FY 2020, with Policy committee approval planned by April 2021.

PROJECT PRIORITIZATION PROCESS

Projects are included in the Transportation Improvement Program (TIP) based on local agency capital programs. These local agency capital programs are developed using a variety of local methods, including extensive public involvement.

The TIP development process starts with a call for projects, in which eligible agencies apply for federal transportation dollars based off the needs established in their capital programs. KATS then assembles the proposed projects into the TIP using the KATS Project Prioritization Process. Federal funding is assigned to projects determined to be most important in the Kalamazoo Metropolitan Area through the TIP Subcommittee, the Technical Committee, and the Policy Committee. Further information regarding the Prioritization Process can be found on www.katsmpo.org. A summary of the Prioritization Process scoring is below.

Prioritization Process Factors

Factor	Measure	Measure Scoring	Points Available
ADT (Average Daily Traffic)	ADT / 1000, rounded		Up to 15
Freight Condition- PASER	Percent of Commercial Traffic, Rounded PASER (Pavement Surface Evaluation and Rating)		Up to 5
	1-2	10 points	Up to 25
	3-4	20 points	
	5-6	15 points	
	7-10	0 points	
100% Preserve	+5 points		
Local Planning and Economic Development	Identified in Local Planning Efforts 5 points will be assigned for a plan that the project supports		Up to 5
Environmental Justice	Project located in identified EJ area		10

Safety	3 or more crashes per MVMT/MEV	5 Points	Up to 5
	Less than 3 crashes per MVMT/MEV	3 Points	
	Project corrects the above identified safety issues and has a correctable MVMT/MEV crash rate of 3 or higher		5
National Functional Classification	Project (or corridor) identified in Regional Safety Plan		5
	Interstate/Other Highway	10 Points	10
	Minor Arterial	8 Points	
	Major Collector	6 Points	
	Minor Collector	2 Points	
Operation Improvements	Project includes operation improvements		5
Multiple Funding Sources	Projects uses Multiple Federal Funding Sources		5
Transit Coordination	Project located on line haul transit route		5
		Total:	100

Transportation Control Measures in the Transportation Improvement Program

Within the Transportation Improvement Program, any Transportation Control Measures are to be identified. Transportation Control Measures:¹

1. Are specifically identified and committed to in State Implementation Plans (SIPs); and
2. Are either listed in Section 108 of the Clean Air Act (CAA), or will reduce transportation-related emissions by reducing vehicle use or improving traffic flow.

Examples include:

- Improved public transit,
- Traffic flow improvements and high-occupancy vehicle lanes,
- Shared-ride services,
- Bicycle/pedestrian facilities, and
- Flexible work schedules.

Within the FY 2020 - 2023 Transportation Improvement Program, there are no identified Transportation Control Measures in the State Implementation Plan (SIP) for the Kalamazoo Metropolitan Area. However, KATS uses Congestion Mitigation and Air Quality (CMAQ) funding to implement projects that directly impact traffic in the area. Those projects are listed below.

2020 Projects

- W. North St, Village of Paw Paw: Replace and upgrade traffic signals
- Drake Road: W. Main to Parkview, Signal optimization
- Metro Vanpool to Work Program

2021 Projects

- M-43 at G Avenue: Construct Roundabout
- M-43 at Sprinkle Road: Construct dual left turn lanes
- W. Milham Avenue, Signal Interconnect
- Metro Vanpool to Work Program

¹ <http://www.fhwa.dot.gov/environment/tcm/index.htm>

2022 Projects

- W. Mosel Avenue: Signal Interconnect
- Metro Vanpool to Work Program

2023 Projects

- N. Westnedge Avenue: Signal Interconnect

CONNECTION BETWEEN THE TRANSPORTATION IMPROVEMENT PROGRAM AND THE METROPOLITAN TRANSPORTATION PLAN

The Transportation Improvement Program is the short range plan that implements the long range Metropolitan Transportation Plan. This results in the Transportation Improvement Program being tied directly to the Metropolitan Transportation Plan (MTP). The connections include:

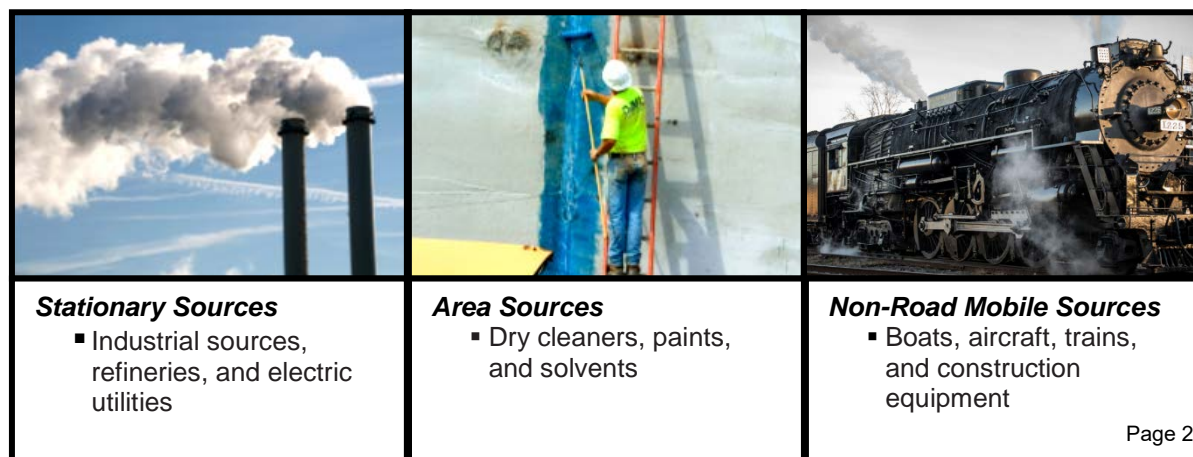
- All capacity improvement projects in the TIP must be included in the Metropolitan Transportation Plan regardless of funding source. KATS reviews capacity projects within the Transportation Improvement Program to determine whether the project is listed and if not, amends the current Transportation Plan to reflect the addition of the project and to adjust for financial constraint.
- The early years of the Metropolitan Transportation Plan include anticipated preservation projects contained in the capital programs of the local agencies. Local capital programs are revised annually to reflect changes in funding, conditions, and/or priorities. These changes do not allow for an exact match between the TIP and the Transportation Plan.
- The TIP Prioritization Process is directly connected to the MTP Goals and Objectives and the MTP Project Ranking Process.

AIR QUALITY-TRANSPORTATION CONFORMITY

The Clean Air Act (CAA) was established to improve the air, protect public health, and protect the environment. The CAA has been amended over the years, most significantly in the 1990s. The act requires the U.S. Environmental Protection Agency (EPA) to set, review, and revise the National Ambient Air Quality Standards (NAAQS) periodically. There are six NAAQS pollutants: ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), lead (Pb), sulfur dioxide (SO₂), and particulate matter (PM). PM is subdivided into particulate sizes, less than 10 micrometer in diameter (PM₁₀) and less than 2.5 micrometer in diameter (PM_{2.5}).

Generators of air pollution are classified into four main types: stationary sources, area sources, non-road mobile sources, and on-road mobile sources. Example of generators by source category are shown in Figure 1.

Figure 1: Air Pollution Sources



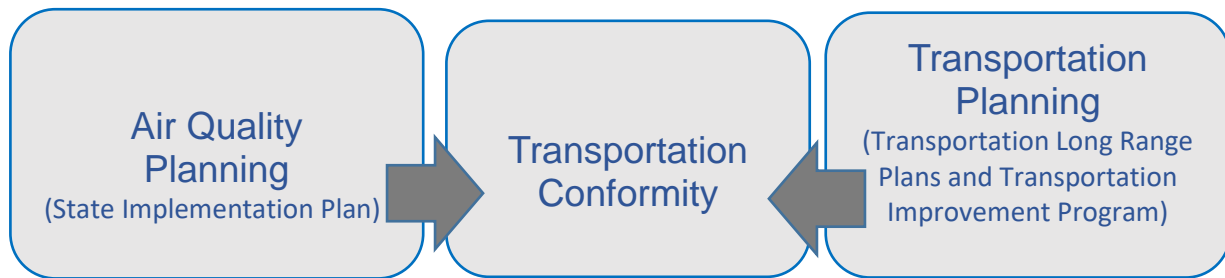


On-Road Mobile Sources

- Commuter rail and vehicles expected to be on roadways such as cars, trucks, and buses

Source: MDOT Photography Unit

The CAA links together air quality planning and transportation planning through the transportation conformity process. Air quality planning is controlled by Michigan’s State Implementation Plan (SIP) which includes the state’s plans for attaining or maintaining the NAAQS. The main transportation planning tools are the long range transportation plan (LRTP) and the transportation improvement program (TIP) at both the metropolitan and state level. Transportation conformity ensures that federal funding and approval are given to highway and transit activities that are consistent with the SIP and that these activities will not affect Michigan’s ability to achieve the NAAQS.



Transportation activities that are subject to conformity are LRTPs, TIPs, and all non-exempt federal projects that receive Federal Highway or Federal Transit Administration funding or approval. The conformity process ensures emissions from the LRTP, TIP, and STIP projects, are within acceptable levels specified within the SIP and meet the goals of the SIP.

Transportation conformity only applies to on-road sources and transportation related pollutants:

- ozone,
- particulate matter at 2.5 and 10,
- nitrogen dioxide, and
- carbon monoxide.

In addition to emissions that are directly emitted, regulations specifically require certain precursor pollutants to be addressed. Precursor pollutants are those pollutants which contribute to the formation of other pollutants. For example, ozone is not directly emitted, but created when nitrogen oxides (NOx) and volatile organic compounds (VOC) react with sunlight. Shown in Table 13, are the transportation pollutants and associated precursors. Pollutants can be both directly emitted and also formed due to precursors. Not all precursors are required to be analyzed for a pollutant; it depends on what is causing the pollutant to form in an area.

Table 13: Transportation Pollutants and Precursor Emissions

Transportation Pollutant	Direct Emissions	Precursor Emissions			
		Nitrogen Oxides	Volatile Organic Compounds	Ammonia	Sulfur Dioxide
Ozone		X	X		
Particulate Matter 2.5	X	X	X		
Particulate Matter 10	X	X	X	X	X
Nitrogen Dioxide		X			
Carbon Monoxide	X				

The Michigan Department of Environmental Quality (MDEQ) uses monitors throughout the state to measure pollutant levels and then to determine if concentrations exceed the NAAQS. For each pollutant, an area is classified as either: attainment (under the standard), nonattainment (area has more pollutant than allowed), unclassifiable/attainment (insufficient information to support an attainment or nonattainment classification; the conformity requirements are the same as for an attainment area) or maintenance (an area was nonattainment, but is now under the standard and has been for a determined time). Transportation conformity is required for areas designated nonattainment or maintenance. Currently the Kalamazoo Area Transportation Study is in attainment for all transportation pollutants. However, due to *South Coast Air Quality Management District v. EPA*, KATS is required to make a conformity demonstration on the FY 2020-2023 TIP (See Kalamazoo-Battle Creek Conformity Analysis for more information).

Transportation conformity requires Metropolitan Planning Organizations (MPOs) to make a determination that the LRTP, TIP, and projects conform to the SIP based on the findings of a regional emissions analysis. The determination affirms the regional emissions will not negatively impact the region's ability to meet the NAAQS. Conformity has a two-step approval process. First, the MPOs must make a formal conformity determination through a resolution that the findings of a conformity analysis conform to the SIP; thus, emissions are at or below the budgets found in the SIP. Then FHWA, jointly with the FTA, after consultation with the EPA, issues a letter of concurrence with the determination.

Michigan areas that are currently designated as nonattainment for the 2015 ozone NAAQS (2015 ozone Standard) are shown in Appendix H. These areas were designated in August 2018 with an initial conformity requirement of August 2019.

On April 23, 2018 the Federal Highway Administration, complying with the court's decision in *South Coast Air Quality Management District v. U.S. EPA*, started requiring areas in the country to conduct conformity that were both maintenance for the 1997 ozone standard and attainment for the 2008 ozone standard when the 1997 ozone standard was revoked. This was changed on September 17, 2018 to allow areas until February 16, 2019 to have LRTPs and TIPs, and rural conformity areas conformed. These areas are not considered traditional maintenance areas because the 1997 ozone standard was revoked but they must fulfill their obligation to conduct conformity and develop and satisfy their second maintenance plan requirement. This requirement impacted 25 counties in Michigan as shown in Appendix H.

Many of Michigan's nonattainment, maintenance, or conformity area geographic boundaries include both counties within MPOs and non-MPO areas (rural). Having projects in both overlapping areas requires conformity to be joint between MPO TIP (urban) and the STIP (rural). The Michigan Transportation Conformity Interagency Workgroup (MITC-IAWG) reviewed the projects in the 2020-2023 S/TIPs and determined if a new conformity analysis was required. See Appendix H for more information.

TRANSPORTATION IMPROVEMENT PROGRAM FINANCIAL PLAN

Introduction

The function of the TIP Financial Plan is to manage available federal-aid highway and transit resources in a cost-effective and efficient manner. Specifically, the Financial Plan details:

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

Available Highway and Transit Funding

The majority of federal highway and transit funding is derived from federal motor fuel taxes, currently 18.4 cents per gallon on gasoline and 24.4 cents per gallon on diesel. These funds are deposited in the Highway Trust Fund (HTF). A portion of these funds is retained in the Mass Transit Account of the HTF for distribution to public transit agencies and states. In recent years, the HTF has seen large infusions of cash from the federal General Fund, due to declining collections from motor fuel taxes. This is mostly due to increased fuel efficiency in conventionally-powered vehicles, as well as a growing number of hybrid and fully-electric vehicles that require little to no motor fuel.

There are a number of federal highway programs serving different purposes. Appendix A contains a list of these programs. Federal highway funds are apportioned to the states (apportionment means distribution of funds according to formulas established by law) and then a portion is allocated to local agencies based on the population in each region. Local agencies within the KATS region receive approximately \$4.2 million in federal-aid highway funding each year. In addition, the Michigan Department of Transportation (MDOT) spends approximately \$25 million annually for capital needs on state-owned highways in the region (I-, US-, and M- roads).

Like the highway programs, there are a number of federal transit programs, the list of which can also be found in Appendix A. Transit funds are distributed according to a complex set of distribution formulas. Public transit agencies within the KATS region receive approximately \$3.4 million in federal-aid transit funding each year.

State funding for transportation comes from vehicle registration fees and motor fuel taxes. Funding from motor fuel taxes and registration fees (but not the sales tax on fuel) is deposited in the Michigan Transportation Fund (MTF), which is analogous to the federal HTF. The Comprehensive Transportation Fund (CTF) within the MTF is used for transit.

Local funding is much more difficult to predict. There is a patchwork of transportation millages, special assessment districts, downtown development authorities, and other funding mechanisms throughout the region. Therefore, this Financial Plan does not attempt to quantify current non-federal funding or forecast future non-federal funding revenues, except for MTF and CTF.

Fiscal Constraint and Project Selection

The most important financial consideration when creating and/or maintaining a S/TIP is fiscal constraint. This means that each year's list of projects cannot exceed the amount of funding reasonably expected to be available in the fiscal year. Funding is considered "reasonably expected to be available" if the federal, state, and local funding amounts are based on amounts received in past years, with rates of change developed cooperatively between MDOT, transportation planning agencies, and public transportation agencies. Note that these rates of change are *not* the same as inflation; rather, they are forecasts of the amount of funding that will be made available by the federal, state, and local governments. In Michigan, this cooperative process is facilitated by the Michigan Transportation Planning Association (MTPA),

whose members include the aforementioned agencies, plus the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). The MTPA has determined that recent federal transportation funding shortfalls make it prudent to hold federal funding levels at a two percent annual rate of increase for all four years of the FY 2020-FY 2023 TIP (see Appendix B).

In the KATS region, a robust Prioritization System identifies projects that best meet the goals and objectives of the KATS Metropolitan Transportation Plan.

Year of Expenditure (YOE)

When KATS programs projects, costs are calculated using year of expenditure (YOE) dollars. YOE simply means that project costs have been adjusted for expected inflation. This is not the same as expected rates of funding change (see previous section).

Summary: Resources Available for Capital Needs on the Federal-Aid Highway System

Table 14 contains a summary of the predicted resources that will be available for capital needs on the federal-aid highway system in the KATS Area over fiscal years 2020 through 2023. The only local (i.e., non-federal) funding included is funding required to match federal-aid funds. This is usually about 20 percent of the cost of each project. This provides a minimum level forecast for capital needs on the federal aid system.

Table 14: Forecast of Resources Available for Capital Needs on the Federal-Aid Highway System in the KATS Metropolitan Area

2020	2021	2022	2023
\$8,769,908	\$5,827,424	\$5,841,049	\$5,646,549

Estimate of Operations and Maintenance Costs for the Federal-Aid Highway System

Almost all federal-aid highway funding is restricted to capital costs; i.e., the cost to build and maintain the actual physical assets of the federal-aid highway system (essentially, all I-, US-, and M- designated roads, plus most public roads functionally classified as “collector” or higher). Operations and maintenance (O and M) costs, such as snow and ice removal, pothole patching, rubbish removal, electricity costs to operate streetlights and traffic signals, etc. are the responsibility of MDOT or local road agencies, depending on road ownership. Nevertheless, federal regulations require an estimate of O and M costs on the federal-aid highway system over the years covered by the TIP. This estimate takes into account the Public Act 51 MTF Distributions to local agencies across the entire MPO area that are not attributable to construction. Table 15 contains a summary O and M cost estimate for roads on the federal-aid highway system in the KATS region. These funds are not shown in the TIP, because most highway operations and maintenance costs are not eligible for federal-aid. The amounts shown are increased by the agreed-upon estimated YOE (i.e., inflation) factors (see Appendix B).

Table 15: Forecast of Operations and Maintenance Costs on the Federal-Aid System in the KATS Metropolitan Area

2020	2021	2022	2023
\$41, 627,000	\$42,459,540	\$43,308,730	\$44,174,905

Summary: Resources available for capital needs of Public Transit Agencies

Transit agencies receive their funding from a variety of sources: federal, state, and local. Federal funding is distributed, in large part, according to the population of the urbanized area and/or state. For example, Section 5307 (Urbanized Area Formula Grant) is distributed directly to large transit agencies located within the KATS Metropolitan Area. For areas under 100,000 population, the state can generally award funding at its discretion.

Other sources of funding are more specialized, such as Section 5310 (Transportation for Elderly and Persons with Disabilities) and Section 5311 (for rural areas). See Appendix A for more information on federal transit resources.

The State of Michigan, through the MDOT Office of Passenger Transportation (OPT), also distributes CTF funding to match federal-aid, for job access reverse commute (providing access to available employment for persons in low-income areas), and for local bus operating (LBO). LBO funds are very important to the agencies as federal-aid funding for transit, like federal-aid funding for highways, is almost entirely for capital expenses.

Local funding can come from farebox revenues, a community’s general fund, millages, and other sources. As with local highway funding, local transit funding can be difficult to predict. Therefore, this chapter will only include federal and state resources available for transit.

Table 16 contains a summary of the predicted resources that will be available for capital needs (and some operational needs, depending on the program) for public transit agencies in the KATS Metropolitan Area during fiscal years 2020 through 2023. Federal funding reasonably expected to be available is included. CTF funding expected to be distributed by the MDOT Office of Passenger Transportation to public transit agencies in the KATS Metropolitan Area is also included.

Table 16: Forecast of Resources Available for Public Transit Needs in the KATS Metropolitan Area

2020	2021	2022	2023
\$9,323,782	\$8,870,500	\$8,884,000	\$8,898,000

Demonstration of Financial Constraint, FY 2020 through FY 2023

After determination of resources available for federal-aid highway and transit capital needs in the KATS Metropolitan Area from FY 2020 through FY 2023, and matching those available resources to specific needs, a four-year program of projects is created within the context of the region’s transportation policies as contained in the 2045 Metropolitan Transportation Plan. The list must be adjusted to each year’s YOY factor and then fiscally constrained to available revenues. Table 17 contains a summary of the cost of highway and transit projects programmed over the four-year TIP period, matched to revenues available in that same period. This table shows that the FY 2020 through FY 2023 TIP is fiscally constrained.

Table 17: Demonstration of Local Fiscal Constraint, FY 2020 through FY 2023 TIP

	2020	2021	2022	2023
Highway Funding	\$8,769,908	\$5,827,424	\$5,841,049	\$5,646,549
Highway Programmed	\$8,769,908	\$5,827,424	\$5,841,049	\$5,646,549
Transit Funding	\$9,323,782	\$8,870,500	\$8,884,000	\$8,898,000
Transit Programmed	\$9,323,782	\$8,870,500	\$8,884,000	\$8,898,000
Total Funding	\$18,093,690	\$14,697,924	\$14,725,049	\$14,544,549
Total Programmed	\$18,093,690	\$14,697,924	\$14,725,049	\$14,544,549
Difference	\$0	\$0	\$0	\$0

Demonstration of fiscal constraint for the entire FY 2020-2023 TIP can be found in Appendix I.

Note: Operations and maintenance costs of the federal-aid highway system are included in the text of this chapter. However, these costs are not included in the TIP itself, as nearly all highway operations and maintenance costs are ineligible for federal-aid funding.



TRANSPORTATION IMPROVEMENT PROGRAM

Fiscal Year(s) : 2020, 2021, 2022, 2023

Date: 04/01/2019

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Fiscal Year	Job Type	Job #	MPO	County	Responsible Agency	Project Name	Limits	Length	Primary Work Type	Project Description	AC/ACC	ACC Year(s)	Phase	Phase Status	S/TIP Cycle	Fed Estimated Amount	State Estimated Amount	Local Estimated Amount	Total Estimated Amount	Fund Source	Total Job Cost	MPO/Rural Approval Date	FHWA Approval Date	FTA Approval Date	Schedule Obligation Date	Actual Obligation Date	Schedule Let Date	Actual Let Date	Federal Amendment Type	Comments	S/TIP Status		
S/TIP Line items																																	
2021	Trunkline	105885	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94	East of Lovers Lane to East of Portage Road	1.248	Major Widening	Road Reconstruction and Widen			CON	Programmed	20-23	\$41,741,733	\$9,125,497	\$130,612	\$50,997,840	NH	53,647,840				N/A	10/09/2020		12/04/2020			Phase Added	Pending	
2021	Trunkline	105886	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94	Portage Road to Sprinkle Road	1.182	Major Widening	Road and Bridge Reconstruction			CON	Programmed	20-23	\$27,878,171	\$6,181,903	\$0	\$34,060,074	NH	36,735,074				N/A	10/09/2020		12/04/2020			Phase Added	Pending	
2023	Trunkline	122664	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	US-131	Over Amtrak and KL Avenue	0.000	Bridge Replacement	Bridge Replacement			CON	Programmed	20-23	\$9,249,051	\$2,050,951	\$0	\$11,300,000	NH	12,215,000	03/27/2019			N/A	10/07/2022		12/02/2022				Pending	
2021	Trunkline	129068	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	M-43	M-43 at G Avenue, Comstock Township, Kalamazoo Co.	0.688	Traffic Safety	Construct Roundabout			CON	Programmed	20-23	\$2,533,258	\$561,743	\$0	\$3,095,000	CM	4,075,000				N/A	11/04/2020		12/04/2020			Phase Added	Pending	
2021	Trunkline	129071	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	M-43	M-43 at 28th St, Richland Township, Kalamazoo Co.	0.957	Traffic Safety	Add Left turn Lanes and Intersection Realignment			CON	Programmed	20-23	\$963,099	\$107,011	\$0	\$1,070,110	HSIP	1,320,692				N/A	10/20/2020		12/04/2020			Phase Budget over 24%	Pending	
2020	Local	129837	Kalamazoo Area Transportation Study (KATS)	Van Buren	Van Buren County	Red Arrow Highway	26th Street to 28th Street	1.274	Road Rehabilitation	Mill of existing HMA 2 inches, install fabric, rep	ACC	2020	CON	Programmed	17-20	\$556,887			\$556,887	STL	950,000	01/29/2016	02/10/2016		N/A	04/12/2019		06/07/2019				Approved	
2021	Trunkline	129887	Kalamazoo Area Transportation Study (KATS)	Van Buren	MDOT	I-94	under 32nd Street (CR 653)	0.000	Bridge Rehabilitation	Shallow Overlay, substructure repairs			CON	Programmed	20-23	\$1,059,300	\$117,700	\$0	\$1,177,000	BOI	1,358,000				N/A	12/15/2020		02/05/2021				Pending	
2020	Local	130143	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	U Avenue	29th St to 32nd St	1.505	Road Rehabilitation	Resurface			CON	Programmed	17-20	\$549,243	\$0	\$1,150,757	\$1,700,000	STL	1,700,000	09/26/2018	10/10/2018		N/A	10/01/2019		06/05/2020				Approved	
2020	Local	130803	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Portage	Shaver Rd	W. Centre to S. Westnedge	0.181	Road Rehabilitation	HMA mill and resurface			CON	Programmed	17-20	\$300,000	\$0	\$168,000	\$468,000	STU	468,000	06/29/2016	07/20/2017		N/A	10/01/2019		12/06/2019				Approved	
2020	Local	130804	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Portage	Westnedge Ave	Shaver to Romence Rd	0.729	Road Rehabilitation	Mill and resurface, ADA upgrades			CON	Programmed	17-20	\$900,000	\$0	\$525,000	\$1,425,000	STU	1,425,000	06/29/2016	09/30/2016		N/A	10/01/2019		12/06/2019				Approved	
2020	Local	130824	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Drake Rd	KL to M-43	1.253	Road Capital Preventive Maintenance	Resurface			CON	Programmed	17-20	\$457,000	\$0	\$193,000	\$650,000	NH	1,500,000	03/23/2017	03/23/2017		N/A	02/07/2020		02/07/2020				Approved	
2020	Local	130824	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Drake Rd	KL to M-43	1.253	Road Capital Preventive Maintenance	Resurface			CON	Programmed	17-20	\$543,000	\$0	\$307,000	\$850,000	STU	1,500,000	03/23/2017	03/23/2017		N/A	02/07/2020		02/07/2020				Approved	
2020	Local	131000	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Portage	Centre Ave	Portage Rd to Sprinkle Rd	2.005	Road Rehabilitation	HMA mill and resurface			CON	Programmed	17-20	\$433,947	\$0	\$837,053	\$1,271,000	STU	1,271,000	05/22/2017	07/10/2017		N/A	10/01/2019		12/06/2019				Approved	
2020	Local	131001	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo	Oakland Dr	Parkview Ave to Howard St	1.129	Road Rehabilitation	Cold mill and resurface			CON	Programmed	17-20	\$860,000	\$0	\$200,000	\$1,060,000	STU	1,060,000	06/29/2016	07/18/2017		N/A	10/01/2019		12/06/2019			Funding changes to Approved Federal and Local funding amounts.		
2020	Local	131004	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Central County Transportation Authority	Rose St	Areawide Rideshare	0.001	Operation Improvements	Community Rideshare Marketing			PE	Abandoned	17-20	\$51,408	\$0	\$0	\$51,408	CMG					N/A	10/01/2019		12/06/2019			Phase Already determined Abandoned	Pending	
2020	Local	131018	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Drake Rd	W. Main St. to Parkview-9 Signals	0.932	Traffic Safety	Traffic Signal Optimization			CON	Programmed	17-20	\$924,477	\$0	\$164,523	\$1,089,000	CM	1,089,000	05/22/2017	05/22/2017		N/A	10/01/2019		12/06/2019			Determined eligible March, 2015.	Approved	
2020	Trunkline	132617	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94BL	between 11th Street and Seneca, Kalamazoo	0.763	Traffic Safety	Install Traffic Responsive Signal Technology			CON	Programmed	17-20	\$625,000	\$0	\$0	\$625,000	CMG	935,000	03/27/2019				N/A	10/11/2019		12/06/2019			Phase Budget over 24%, Rollup Changes, Scope Construction Length Change	Pending
2020	Local	132931	Kalamazoo Area Transportation Study (KATS)	Van Buren	Van Buren County	CR 653	Red Arrow Highway South to I-94	0.458	Road Rehabilitation	Resurfacing			CON	Programmed	17-20	\$417,435	\$0	\$92,565	\$510,000	STUL	510,000	07/11/2018	07/11/2018		N/A	10/01/2019		10/04/2019				Approved	
2020	Trunkline	200366	Kalamazoo Area Transportation Study (KATS)	Cass	MDOT	M-60 E	US131 @ U AVE (6 pole) US131BR (PARK) @ PATERSON	0.000	Traffic Safety	Traffic Signal Modernizations ; connected vehicle installations.			CON	Programmed	17-20	\$428,080	\$0	\$0	\$428,080	STG	2,618,400	08/31/2017	08/31/2017		N/A	04/10/2020		06/05/2020				Approved	
2022	Trunkline	200641	Kalamazoo Area Transportation Study (KATS)	Van Buren	MDOT	M-40	72nd Street to south of Lagrave Street	3.402	Road Rehabilitation	Mill and Two Course Hot Mix Asphalt Overlay			ROW	Programmed	20-23	\$170,174	\$37,736	\$0	\$207,910	ST	11,241,145				N/A	11/01/2021		02/03/2023				Pending	
2023	Trunkline	200641	Kalamazoo Area Transportation Study (KATS)	Van Buren	MDOT	M-40	72nd Street to south of Lagrave Street	3.402	Road Rehabilitation	Mill and Two Course Hot Mix Asphalt Overlay			CON	Programmed	20-23	\$8,042,970	\$555,822	\$1,227,683	\$9,826,475	ST	11,241,145				N/A	12/09/2022		02/03/2023				Pending	



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2022	Trunkline	200693	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	E Kilgore Rd	US131 @ U AVE M43 (W MAIN) @ KENDALL M96 @ 35TH (SHAFTER RD) US131 NB @ SHAVER RD	0.000	Traffic Safety	Installation of detection for actuation			CON	Programmed	20-23	\$110,571	\$12,286	\$0	\$122,857	HSIP	500,000				N/A	10/08/2021		12/03/2021			Pending	
2021	Trunkline	201119	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	M-43	M-43 at Sprinkle Road in Kalamazoo County	0.340	Minor Widening	Construct Dual Left Turn Lanes			PE	Programmed	20-23	\$147,330	\$32,670	\$0	\$180,000	CM	1,855,000				N/A	10/01/2020		12/02/2022		Phase Added	Pending	
2021	Trunkline	201119	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	M-43	M-43 at Sprinkle Road in Kalamazoo County	0.340	Minor Widening	Construct Dual Left Turn Lanes			ROW	Programmed	20-23	\$32,740	\$7,260	\$0	\$40,000	CM	1,855,000				N/A	12/01/2020		12/02/2022		Phase Added	Pending	
2023	Trunkline	201119	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	M-43	M-43 at Sprinkle Road in Kalamazoo County	0.340	Minor Widening	Construct Dual Left Turn Lanes			CON	Programmed	20-23	\$1,338,248	\$296,753	\$0	\$1,635,000	CM	1,855,000				N/A	10/07/2022		12/02/2022		Phase Added	Pending	
2022	Trunkline	201967	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94 W	I-94 between I-94 Business Route and 40th Street	6.812	Traffic Safety	Roadside Fixed Object Removal			PE	Programmed	20-23	\$47,552	\$5,284	\$0	\$52,835	HSIP	477,050				N/A	10/01/2021		12/02/2022		Phase Added	Pending	
2023	Trunkline	201967	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94 W	I-94 between I-94 Business Route and 40th Street	6.812	Traffic Safety	Roadside Fixed Object Removal			CON	Programmed	20-23	\$381,794	\$42,421	\$0	\$424,215	HSIP	477,050				N/A	10/07/2022		12/02/2022		Phase Added	Pending	
2021	Trunkline	201979	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	M-43	At G Avenue.	0.050	New Facilities	Construct new carpool lot.			CON	Abandoned	20-23	\$69,573	\$15,428	\$0	\$85,000	ST					N/A	10/09/2020		12/04/2020		Phase Abandoned	Pending	
2022	Trunkline	201985	Kalamazoo Area Transportation Study (KATS)	Van Buren	MDOT	I-94 E	West of M-51 to 40th Street	2.792	Road Rehabilitation	Hot Mix Asphalt Overlay			CON	Programmed	20-23	\$7,740,000	\$860,000	\$0	\$8,600,000	IM	9,300,000				N/A	11/12/2021		01/07/2022			Pending	
2021	Trunkline	201994	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	E Kilgore Rd	Intersections located in Cass, Branch and Calhoun Counties	0.000	Traffic Safety	Rural intersection warning system			PE	Programmed	20-23	\$69,300	\$7,700	\$0	\$77,000	HSIP	796,100				N/A	04/01/2021		11/04/2022		Phase Added	Pending	
2023	Trunkline	201994	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	E Kilgore Rd	Intersections located in Cass, Branch and Calhoun Counties	0.000	Traffic Safety	Rural intersection warning system			CON	Programmed	20-23	\$647,190	\$71,910	\$0	\$719,100	HSIP	796,100				N/A	10/03/2022		11/04/2022		Phase Added	Pending	
2020	Local	202433	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	S 29th St	29th Street over Portage River, Str# 4625, Kalamazoo County	0.000	Bridge CPM	Miscellaneous Bridge Capital Preventative Maintenance			CON	Programmed	17-20	\$87,200	\$16,350	\$5,450	\$109,000	BO	109,000	12/27/2017	02/14/2018		N/A	11/15/2019		01/10/2020			Approved	
2020	Local	202434	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Countywide	Countywide, Kalamazoo County	0.000	Bridge CPM	Miscellaneous Bridge Capital Preventative Maintenance			CON	Programmed	17-20	\$80,000	\$15,000	\$5,000	\$100,000	BHT	227,000	01/24/2018	02/14/2018		N/A	12/13/2019		02/07/2020			Approved	
2020	Local	202434	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Countywide	Countywide, Kalamazoo County	0.000	Bridge CPM	Miscellaneous Bridge Capital Preventative Maintenance			CON	Programmed	17-20	\$42,400	\$7,950	\$2,650	\$53,000	BHT	227,000	01/24/2018	02/14/2018		N/A	12/13/2019		02/07/2020			Approved	
2020	Local	202434	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Countywide	Countywide, Kalamazoo County	0.000	Bridge CPM	Miscellaneous Bridge Capital Preventative Maintenance			CON	Programmed	17-20	\$59,200	\$11,100	\$3,700	\$74,000	BHT	227,000	01/24/2018	02/14/2018		N/A	12/13/2019		02/07/2020			Approved	
2020	Trunkline	202651	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	US-131 N	Various in Kalamazoo County	68.189	Traffic Safety	Non-freeway Signing			PE	Programmed	17-20	\$250,000	\$0	\$0	\$250,000	STG	1,207,005	08/29/2018	09/11/2018		N/A	10/01/2019		12/04/2020			Approved	
2021	Trunkline	202651	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	US-131 N	Various in Kalamazoo County	68.189	Traffic Safety	Non-freeway Signing			CON	Programmed	20-23	\$957,005	\$0	\$0	\$957,005	STG	1,207,005				N/A	10/09/2020		12/04/2020			Pending	
2020	Multi-Modal	203137	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Central County Transportation Authority	Transit Operating	Areawide	0.000	SP10-State Match urban	Operating			NI	Programmed	17-20	\$1,700,000	\$5,200,000	\$8,000,000	\$14,900,000	5307	14,900,000	03/27/2019				N/A	09/30/2020			Phase Added	Pending	
2020	Trunkline	203643	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94 W	Van Buren/Kalamazoo County Line to Ninth Street	5.869	Road Capital Preventive Maintenance	Mill and One Course Hot Mix Asphalt Overlay			CON	Programmed	17-20	\$4,634,068	\$514,897	\$0	\$5,148,965	IM	5,336,200	09/26/2018	10/10/2018		N/A	12/13/2019		02/07/2020			Approved	
2020	Trunkline	203698	Kalamazoo Area Transportation Study (KATS)	Berrien	MDOT	M-139	Various Crack Seal Locations	33.301	Road Capital Preventive Maintenance	Overband Crack Fill			CON	Programmed	17-20	\$177,273	\$38,913	\$0	\$216,186	ST	527,000	03/27/2019				N/A	12/13/2019		02/07/2020		Phase Budget over 24%, Rollup Changes, Scope Construction Length Change	Pending



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2020	Trunkline	204423	Kalamazoo Area Transportation Study (KATS)	Berrien	MDOT	Various	Signing Update, Signing Updates	0.357	Traffic Safety	Cantilevers Replacement Project			CON	Programmed	17-20	\$270,538	\$0	\$0	\$270,538	STG	880,538	02/20/2019	03/12/2019	N/A	10/11/2019		12/06/2019		Phase Added	Pending	
2022	Trunkline	204668	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Various (14 Cantilevers in Kalamazoo TSC)	Signing Update	1.450	Traffic Safety	Signing Replacement			CON	Programmed	20-23	\$135,000	\$0	\$0	\$135,000	STG	1,414,968			N/A	10/08/2021		12/03/2021			Pending	
2022	Trunkline	204791	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94 W	I-94 Westbound between Westnedge and 12th Street in Kalamazoo County	3.012	Road Capital Preventive Maintenance	Diamond Grinding Concrete Pavement			PE	Programmed	20-23	\$96,188	\$10,688	\$0	\$106,876	HSIP	930,214			N/A	01/03/2022		12/01/2023		Phase Added	Pending	
2020	Local	204954	Kalamazoo Area Transportation Study (KATS)	Van Buren	Paw Paw	W North St	Intersection of North St. and Hazen St.	0.589	Traffic Safety	Replace Traffic Signal			OPS	Programmed	17-20	\$199,999	\$0	\$0	\$199,999	CMG	199,999	02/20/2019	03/12/2019	N/A	07/10/2020		07/10/2020			Approved	
2021	Trunkline	205077	Kalamazoo Area Transportation Study (KATS)	Van Buren	MDOT	I-94	I-94 VanBuren County east, I-94 eastern limits of VanBuren County	38.481	ITS Applications	Variable Advisory Speed Limit System along I-94 in VanBuren Co.			CON	Programmed	20-23	\$1,426,493	\$313,133	\$0	\$1,739,625	NH	4,701,078			N/A	12/11/2020		02/05/2021		Phase Added	Pending	
2020	Multi-Modal	205102	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1404-computers (hardware and software)	5307 Capital			NI	Programmed	17-20	\$160,000	\$40,000	\$0	\$200,000	5307	1,749,503	03/27/2019	N/A		07/01/2020				Phase Added	Pending	
2020	Multi-Modal	205102	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1409-administrative vehicle	5307 Capital			NI	Programmed	17-20	\$32,000	\$8,000	\$0	\$40,000	5307	1,749,503	03/27/2019	N/A		07/01/2020				Phase Added	Pending	
2020	Multi-Modal	205102	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1105-van replacement, any size with or without lift	5307 Capital			NI	Programmed	17-20	\$53,000	\$13,250	\$0	\$66,250	5307	1,749,503	03/27/2019	N/A		07/01/2020				Phase Added	Pending	
2020	Multi-Modal	205102	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1203-admin/maintenance facility improvements	5307 Capital			NI	Programmed	17-20	\$268,000	\$67,000	\$0	\$335,000	5307	1,749,503	03/27/2019	N/A		07/01/2020				Phase Added	Pending	
2020	Multi-Modal	205102	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1103-35-39 foot replacement bus with or without lift	5307 Capital			NI	Programmed	17-20	\$886,602	\$221,651	\$0	\$1,108,253	5307	1,749,503	03/27/2019	N/A		07/01/2020				Phase Added	Pending	
2020	Multi-Modal	205175	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1103-35-39 foot replacement bus with or without lift	5339 Capital			NI	Programmed	17-20	\$313,398	\$78,349	\$0	\$391,747	5339	391,747	03/27/2019	N/A		07/01/2020				Phase Added	Pending	
2020	Multi-Modal	205195	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1105-van replacement, any size with or without lift	5310 Capital			NI	Programmed	17-20	\$196,026	\$49,006	\$0	\$245,032	5310	245,032	03/27/2019	N/A		07/01/2020				Phase Added	Pending	
2021	Local	205408	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	E R Ave	36th Street to East County Line	6.003	Road Rehabilitation	Cold Milling & HMA Overlay (<2 inches)			CON	Programmed	20-23	\$0	\$236,967	\$0	\$236,967	EDD	900,000			N/A	11/13/2020		01/08/2021			Pending	
2021	Local	205408	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	E R Ave	36th Street to East County Line	6.003	Road Rehabilitation	Cold Milling & HMA Overlay (<2 inches)			CON	Programmed	20-23	\$541,000	\$0	\$122,033	\$663,033	STL	900,000			N/A	11/13/2020		01/08/2021			Pending	
2021	Multi-Modal	205409	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Areawide	0.000	SP10-State Match urban Agency	van purchase			NI	Programmed	20-23	\$103,000	\$25,750	\$0	\$128,750	STL	128,750			N/A	07/01/2021				Phase Added	Pending	
2022	Local	205411	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	E S Ave	29th Street to 34th Street	2.534	Reconstruction	Reconstruction			CON	Programmed	20-23	\$552,000	\$0	\$488,000	\$1,040,000	STL	1,040,000			N/A	11/12/2021		01/07/2022		Phase Added	Pending	
2022	Multi-Modal	205412	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP10-State Match urban Agency	van purchase			NI	Programmed	20-23	\$105,000	\$26,250	\$0	\$131,250	STL	131,250			N/A	07/01/2022				Phase Added	Pending	
2023	Local	205414	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	S 36th St	36th Street T Avenue to PQ Avenue	3.497	Road Rehabilitation	Crush and Shape and Asphalt Resurfacing			CON	Programmed	20-23	\$0	\$157,978	\$0	\$157,978	EDD	682,978			N/A	11/10/2022		01/06/2023			Pending	
2023	Local	205414	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	S 36th St	36th Street T Avenue to PQ Avenue	3.497	Road Rehabilitation	Crush and Shape and Asphalt Resurfacing			CON	Programmed	20-23	\$525,000	\$0	\$0	\$525,000	STL	682,978			N/A	11/10/2022		01/06/2023			Pending	



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2023	Multi-Modal	205416	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Kalamazoo Metro	0.000	SP10-State Match urban Agency	Bus Purchase			NI	Programmed	20-23	\$145,000	\$36,250	\$0	\$181,250	STL	181,250			N/A	09/29/2023					Phase Added	Pending
2020	Trunkline	206006	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Pvmr Mrkg Retro Readings	All of KATS MPO	3.199	Traffic Safety	Pvmt mrkg retroreflectivity readings on trunklines in Southwest Region			CON	Programmed	17-20	\$2,052	\$228	\$0	\$2,280	HSIP	12,000	03/27/2019		N/A	10/01/2019					Phase Added	Pending
2023	Local	206256	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo	Whites Rd	Whites Rd-City of Kalamazoo	1.061	Road Rehabilitation	Resurface and Road Diet			CON	Programmed	20-23	\$920,000	\$0	\$230,000	\$1,150,000	STU	1,150,000			N/A	01/06/2023		03/03/2023			Phase Added	Pending
2023	Local	206257	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Portage	Portage Rd	Portage Rd in City of Portage	1.048	Road Rehabilitation	Roadway Rehabilitation-Mill and resurface			CON	Programmed	20-23	\$750,000	\$0	\$335,000	\$1,085,000	STU	1,085,000			N/A	01/06/2023		03/03/2023			Phase Added	Pending
2023	Local	206258	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Portage	Shaver Rd	Shaver Rd-City of Portage	2.002	Road Rehabilitation	Roadway Rehabilitation-Mill and Resurface			CON	Programmed	20-23	\$1,200,000	\$0	\$1,330,000	\$2,530,000	STU	2,530,000			N/A	01/06/2023		03/03/2023			Phase Added	Pending
2023	Local	206259	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo	S Westnedge Ave	Westnedge Ave-	0.958	Road Rehabilitation	Roadway Rehabilitation-Mill and Resurface			CON	Programmed	20-23	\$371,000	\$0	\$92,750	\$463,750	STU	1,575,299			N/A	01/06/2023		03/03/2023			Phase Added	Pending
2023	Local	206259	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo	S Westnedge Ave	Westnedge Ave-	0.958	Road Rehabilitation	Roadway Rehabilitation-Mill and Resurface			CON	Programmed	20-23	\$485,000	\$0	\$121,250	\$606,250	NH	1,575,299			N/A	01/06/2023		03/03/2023			Phase Added	Pending
2023	Local	206259	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo	S Westnedge Ave	Westnedge Ave-	0.958	Road Rehabilitation	Roadway Rehabilitation-Mill and Resurface			CON	Programmed	20-23	\$505,299	\$0	\$0	\$505,299	CMG	1,575,299			N/A	01/06/2023		03/03/2023			Phase Added	Pending
2023	Local	206261	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Douglas Ave	Douglas Avenue- City of Kalamazoo Limits to G Avenue	1.577	Road Rehabilitation	HMA Mill and resurface			CON	Programmed	20-23	\$245,000	\$0	\$61,250	\$306,250	STU	306,250			N/A	01/06/2023		03/03/2023			Phase Added	Pending
2020	Local	206262	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Parchment	Commerce Ln	City of Parchment-Commerce Lane	0.377	Road Rehabilitation	Roadway Rehabilitation-Mill and Resurface			CON	Programmed	17-20	\$130,141	\$0	\$28,859	\$159,000	HIPU	159,000	03/27/2019		N/A	01/10/2020		03/06/2020			Phase Added	Pending
2020	Local	206263	Kalamazoo Area Transportation Study (KATS)	Van Buren	Mattawan	N Main St	Main Street in Mattawan: Payne Creek Crossing	0.065	Reconstruction	Remove box culvert, resurface			CON	Programmed	17-20	\$170,248	\$0	\$37,752	\$208,000	HIPU	208,000	03/27/2019	03/12/2019	N/A	01/10/2020		03/06/2020				Approved
2021	Local	206264	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Portage	W Milham Ave	Milham Ave in City of Portage	2.905	Road Rehabilitation	Roadway Rehabilitation and Signal Interconnect			CON	Programmed	20-23	\$450,000	\$0	\$294,701	\$744,701	CMG	3,620,000			N/A	01/08/2021		03/05/2021			Phase Added	Pending
2021	Local	206264	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Portage	W Milham Ave	Milham Ave in City of Portage	2.905	Road Rehabilitation	Roadway Rehabilitation and Signal Interconnect			CON	Programmed	20-23	\$1,455,299	\$0	\$1,420,000	\$2,875,299	STU	3,620,000			N/A	01/08/2021		03/05/2021			Phase Added	Pending
2021	Local	206265	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Sprinkle Rd	Sprinkle Rd: Milham Ave to N Ave	1.234	Road Rehabilitation	HMA Mill and resurface			CON	Programmed	20-23	\$466,000	\$0	\$116,500	\$582,500	NH	1,500,000			N/A	01/08/2021		03/05/2021			Phase Added	Pending
2021	Local	206265	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Sprinkle Rd	Sprinkle Rd: Milham Ave to N Ave	1.234	Road Rehabilitation	HMA Mill and resurface			CON	Programmed	20-23	\$534,000	\$0	\$383,500	\$917,500	STU	1,500,000			N/A	01/08/2021		03/05/2021			Phase Added	Pending
2021	Local	206266	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo	Parkview Ave	City of Kalamazoo: Parkview Ave	1.757	Road Rehabilitation	Roadway Rehabilitation-Mill and Resurface			CON	Programmed	20-23	\$720,000	\$0	\$180,000	\$900,000	STU	900,000			N/A	01/08/2021		03/05/2021			Phase Added	Pending
2021	Local	206267	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Solon St	Solon Ave	0.509	Road Rehabilitation	HMA Mill and resurface			CON	Programmed	20-23	\$144,000	\$0	\$36,000	\$180,000	STU	180,000			N/A	01/08/2021		03/05/2021			Phase Added	Pending
2022	Local	206269	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo	Stadium Dr	Stadium Drive, City of Kalamazoo	2.483	Road Rehabilitation	Roadway Rehabilitation-Mill and Resurface			CON	Programmed	20-23	\$1,600,000	\$0	\$400,000	\$2,000,000	STU	2,000,000			N/A	01/07/2022		03/04/2022			Phase Added	Pending
2021	Local	206271	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	N Nichols Rd	Nichols Rd	1.206	Road Rehabilitation	Roadway Rehabilitation-Mill and Resurface			CON	Programmed	20-23	\$448,000	\$0	\$112,000	\$560,000	STU	560,000			N/A	01/08/2021		03/05/2021			Phase Added	Pending
2022	Local	206273	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Sprinkle Rd	Sprinkle Rd	2.181	Road Rehabilitation	Roadway Rehabilitation-Mill and Resurface			CON	Programmed	20-23	\$153,000	\$0	\$42,000	\$195,000	STU	785,000			N/A	01/07/2022		03/04/2022			Phase Added	Pending
2022	Local	206273	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Sprinkle Rd	Sprinkle Rd	2.181	Road Rehabilitation	Roadway Rehabilitation-Mill and Resurface			CON	Programmed	20-23	\$475,000	\$0	\$115,000	\$590,000	NH	785,000			N/A	01/07/2022		03/04/2022			Phase Added	Pending
2022	Local	206275	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Portage	S Westnedge Ave	City of Portage: Westnedge Ave	0.938	Road Capital Preventive Maintenance	Microsurface			CON	Programmed	20-23	\$200,000	\$0	\$50,000	\$250,000	STU	250,000			N/A	01/07/2022		03/04/2022			Phase Added	Pending



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2022	Local	206294	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Sprinkle Rd	Sprinkle Rd	0.779	Road Rehabilitation	HMA Mill and Resurface			CON	Programmed	20-23	\$368,000	\$0	\$92,000	\$460,000	STU	460,000			N/A	01/07/2022		03/04/2022		Phase Added	Pending	
2022	Local	206297	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	W Mosel Ave	Mosel Avenue	1.626	Traffic Safety	Traffic Signal Interconnect			CON	Programmed	20-23	\$60,000	\$0	\$20,000	\$80,000	STU	850,000			N/A	01/07/2022		03/04/2022		Phase Added	Pending	
2022	Local	206297	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	W Mosel Ave	Mosel Avenue	1.626	Traffic Safety	Traffic Signal Interconnect			CON	Programmed	20-23	\$445,000	\$0	\$325,000	\$770,000	CMG	850,000			N/A	01/07/2022		03/04/2022		Phase Added	Pending	
2022	Local	206298	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Barney Rd	Barney Rd	1.320	Road Rehabilitation	HMA Mill and Resurface			CON	Programmed	20-23	\$200,000	\$0	\$52,000	\$252,000	STU	252,000			N/A	11/12/2021		01/07/2022		Phase Added	Pending	
2022	Local	206299	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Portage	Lovers Ln	Lovers Lane	2.038	Road Rehabilitation	HMA Mill and Resurface			CON	Programmed	20-23	\$750,000	\$0	\$325,000	\$1,075,000	STU	1,075,000			N/A	12/10/2021		02/04/2022		Phase Added	Pending	
2020	Local	206301	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Stadium Ave	Stadium Drive- Non Motorized	0.423	New Facilities	Roadside Facility			CON	Programmed	17-20	\$259,913	\$0	\$358,522	\$618,435	TAU	618,435	03/27/2019		N/A	01/10/2020		03/06/2020		Phase Added	Pending	
2022	Multi-Modal	206304	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	Transit capital	Kalamazoo Metro Transit	0.000	SP1105-van replacement, any size with or without lift	Van Replacement			NI	Programmed	20-23	\$87,000	\$21,750	\$0	\$108,750	STU	108,750	03/20/2019		N/A	09/30/2022					Phase Added	Pending
2020	Local	206305	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Portage	S Westnedge Ave	South Westnedge Avenue	0.440	Road Rehabilitation	HMA Mill and Resurface			CON	Programmed	17-20	\$0	\$375,000	\$139,934	\$514,934	EDF	725,000	02/20/2019	03/12/2019	N/A	01/10/2020		03/06/2020			Approved	
2020	Local	206305	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Portage	S Westnedge Ave	South Westnedge Avenue	0.440	Road Rehabilitation	HMA Mill and Resurface			CON	Programmed	17-20	\$168,053	\$0	\$42,013	\$210,066	STU	725,000	02/20/2019	03/12/2019	N/A	01/10/2020		03/06/2020			Approved	
2020	Trunkline	206546	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Longitudinal Pavement Marking	All of KATS MPO	2.372	Traffic Safety	Longitudinal pavement marking application on trunklines in Southwest Region			PE	Programmed	17-20	\$855	\$95	\$0	\$950	HSIP	1,825,000	03/27/2019		N/A	10/01/2019		02/07/2020		Phase Added	Pending	
2020	Trunkline	206546	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Longitudinal Pavement Marking	All of KATS MPO	2.372	Traffic Safety	Longitudinal pavement marking application on trunklines in Southwest Region			CON	Programmed	17-20	\$311,220	\$34,580	\$0	\$345,800	HSIP	1,825,000	03/27/2019		N/A	01/06/2020		02/07/2020		Phase Added	Pending	
2020	Trunkline	206547	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Special Pavement Markings	All of KATS MPO	3.756	Traffic Safety	Special pavement marking application on trunklines in Southwest Region			PE	Programmed	17-20	\$855	\$95	\$0	\$950	HSIP	455,000	03/27/2019		N/A	10/01/2019		04/03/2020		Phase Added	Pending	
2020	Trunkline	206547	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Special Pavement Markings	All of KATS MPO	3.756	Traffic Safety	Special pavement marking application on trunklines in Southwest Region			CON	Programmed	17-20	\$76,950	\$8,550	\$0	\$85,500	HSIP	455,000	03/27/2019		N/A	03/02/2020		04/03/2020		Phase Added	Pending	
2020	Trunkline	206566	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94 W	East of Lovers Lane to west of Sprinkle Road	2.495	Major Widening	Road and Bridge Reconstruction			CON	Programmed	17-20	\$4,658,771	\$1,033,069	\$0	\$5,691,840	NH	6,200,040	03/27/2019		N/A	12/13/2019		02/07/2020		Phase Added	Pending	
2021	Multi-Modal	206648	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1203-admin/maintenance facility improvements	5307 Capital			NI	Programmed	20-23	\$340,000	\$85,000	\$0	\$425,000	5307	1,250,000			N/A	07/02/2021				Phase Added	Pending	
2021	Multi-Modal	206648	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1103-35-39 foot replacement bus with or without lift	5307 Capital			NI	Programmed	20-23	\$660,000	\$165,000	\$0	\$825,000	5307	1,250,000			N/A	07/02/2021				Phase Added	Pending	
2021	Multi-Modal	206651	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP3000-operating except JARC and New Freedom	5307 Operating			NI	Programmed	20-23	\$1,700,000	\$5,200,000	\$8,000,000	\$14,900,000	5307	14,900,000			N/A	07/02/2021				Phase Added	Pending	
2021	Multi-Modal	206652	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1203-admin/maintenance facility improvements	5339 Capital			NI	Programmed	20-23	\$119,000	\$29,750	\$0	\$148,750	5339	437,500			N/A	07/02/2021				Phase Added	Pending	
2021	Multi-Modal	206652	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1103-35-39 foot replacement bus with or without lift	5339 Capital			NI	Programmed	20-23	\$231,000	\$57,750	\$0	\$288,750	5339	437,500			N/A	07/02/2021				Phase Added	Pending	



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2021	Multi-Modal	206653	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1502-JARC mobility management	5310 Capital			NI	Programmed	20-23	\$39,200	\$9,800	\$0	\$49,000	5310	245,000				07/02/2021					Phase Added	Pending
2021	Multi-Modal	206653	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1105-van replacement, any size with or without lift	5310 Capital			NI	Programmed	20-23	\$156,800	\$39,200	\$0	\$196,000	5310	245,000				07/02/2021					Phase Added	Pending
2021	Multi-Modal	206654	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP3000-operating except JARC and New Freedom	5311 Operating			NI	Programmed	20-23	\$30,400	\$7,600	\$0	\$38,000	5311	38,000				07/02/2021					Phase Added	Pending
2022	Multi-Modal	206656	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP3000-operating except JARC and New Freedom	5307 Operating			NI	Programmed	20-23	\$1,700,000	\$5,200,000	\$8,000,000	\$14,900,000	5307	14,900,000				07/01/2022					Phase Added	Pending
2023	Multi-Modal	206657	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP3000-operating except JARC and New Freedom	5307 Operating			NI	Programmed	20-23	\$1,700,000	\$5,200,000	\$8,000,000	\$14,900,000	5307	14,900,000				07/03/2023					Phase Added	Pending
2022	Multi-Modal	206662	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1203-admin/maintenance facility improvements	5307 Capital			NI	Programmed	20-23	\$340,000	\$85,000	\$0	\$425,000	5307	1,250,000				07/01/2022					Phase Added	Pending
2022	Multi-Modal	206662	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1103-35-39 foot replacement bus with or without lift	5307 Capital			NI	Programmed	20-23	\$660,000	\$165,000	\$0	\$825,000	5307	1,250,000				07/01/2022					Phase Added	Pending
2023	Multi-Modal	206663	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1203-admin/maintenance facility improvements	5307 Capital			NI	Programmed	20-23	\$340,000	\$85,000	\$0	\$425,000	5307	1,250,000				07/03/2023					Phase Added	Pending
2023	Multi-Modal	206663	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1103-35-39 foot replacement bus with or without lift	5307 Capital			NI	Programmed	20-23	\$660,000	\$165,000	\$0	\$825,000	5307	1,250,000				07/03/2023					Phase Added	Pending
2022	Multi-Modal	206665	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1203-admin/maintenance facility improvements	5339 Capital			NI	Programmed	20-23	\$121,312	\$30,328	\$0	\$151,640	5339	446,000				07/01/2022					Phase Added	Pending
2022	Multi-Modal	206665	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1103-35-39 foot replacement bus with or without lift	5339 Capital			NI	Programmed	20-23	\$235,488	\$58,872	\$0	\$294,360	5339	446,000				07/01/2022					Phase Added	Pending
2023	Multi-Modal	206666	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1203-admin/maintenance facility improvements	5339 Capital			NI	Programmed	20-23	\$123,760	\$30,940	\$0	\$154,700	5339	455,000				07/03/2023					Phase Added	Pending
2023	Multi-Modal	206666	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1103-35-39 foot replacement bus with or without lift	5339 Capital			NI	Programmed	20-23	\$240,240	\$60,060	\$0	\$300,300	5339	455,000				07/03/2023					Phase Added	Pending
2022	Multi-Modal	206669	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1502-JARC mobility management	5310 Capital			NI	Programmed	20-23	\$40,000	\$10,000	\$0	\$50,000	5310	250,000				07/01/2022					Phase Added	Pending
2022	Multi-Modal	206669	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1105-van replacement, any size with or without lift	5310 Capital			NI	Programmed	20-23	\$160,000	\$40,000	\$0	\$200,000	5310	250,000				07/01/2022					Phase Added	Pending
2022	Multi-Modal	206672	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP3000-operating except JARC and New Freedom	5311 Operating			NI	Programmed	20-23	\$30,400	\$7,600	\$0	\$38,000	5311	38,000				07/01/2022					Phase Added	Pending
2023	Multi-Modal	206673	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1105-van replacement, any size with or without lift	5310 Capital			NI	Programmed	20-23	\$160,000	\$40,000	\$0	\$200,000	5310	255,000				07/03/2023					Phase Added	Pending
2023	Multi-Modal	206673	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1502-JARC mobility management	5310 Capital			NI	Programmed	20-23	\$44,000	\$11,000	\$0	\$55,000	5310	255,000				07/03/2023					Phase Added	Pending



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2023	Multi-Modal	206675	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP3000-operating except JARC and New Freedom	5311 Operating			NI	Programmed	20-23	\$30,400	\$7,600	\$0	\$38,000	5311	38,000		N/A		07/03/2023					Phase Added	Pending
2020	Local	207188	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	Multiple Routes, Kalamazoo County	Multiple Routes, Various Locations, Kalamazoo County	0.000	Traffic Safety	Upgrade Stop and Stop Ahead signs			CON	Programmed	17-20	\$247,500	\$0	\$27,500	\$275,000	HSIP	275,000	03/27/2019		N/A	01/10/2020	03/06/2020				Phase Added	Pending
2020	Local	207248	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	S Avenue	S Avenue from west of 34th Street to 36th Street, Kalamazoo County	1.103	Traffic Safety	Construct center left turn lane, vertical curve modification, pave shoulder			CON	Programmed	17-20	\$495,000	\$0	\$55,000	\$550,000	HRRR	550,000	03/27/2019		N/A	01/10/2020	03/06/2020				Phase Added	Pending
2020	Local	207249	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo County	G Avenue	G Avenue from 2nd Street to 6th Street, Kalamazoo County	1.989	Traffic Safety	Construct paved shoulder, remove trees, upgrade guardrail, edgeline marking			CON	Programmed	17-20	\$299,700	\$0	\$33,300	\$333,000	HRRR	333,000	03/27/2019		N/A	01/10/2020	03/06/2020				Phase Added	Pending
2021	Multi-Modal	207269	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1110-van expansion, any size with or without lift	Vanpool Program			NI	Programmed	20-23	\$55,299	\$0	\$0	\$55,299	CMG	55,299			N/A	07/02/2021					Phase Added	Pending
2022	Multi-Modal	207271	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1110-van expansion, any size with or without lift	Vanpool Program			NI	Programmed	20-23	\$60,299	\$0	\$0	\$60,299	CMG	60,299			N/A	07/01/2022					Phase Added	Pending
2021	Trunkline	207293	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Longitudinal Pavement Marking	All of KATS MPO	2.372	Traffic Safety	Longitudinal pavement marking application on trunklines in Southwest Region			PE	Programmed	20-23	\$1,710	\$190	\$0	\$1,900	HSIP	2,090,000			N/A	10/01/2020	04/02/2021				Phase Added	Pending
2021	Trunkline	207293	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Longitudinal Pavement Marking	All of KATS MPO	2.372	Traffic Safety	Longitudinal pavement marking application on trunklines in Southwest Region			CON	Programmed	20-23	\$355,680	\$39,520	\$0	\$395,200	HSIP	2,090,000			N/A	03/05/2021	04/02/2021				Phase Added	Pending
2021	Trunkline	207295	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Special Pavement Markings	All of KATS MPO	2.747	Traffic Safety	Special pavement marking application on trunklines in Southwest Region			PE	Programmed	20-23	\$1,710	\$190	\$0	\$1,900	HSIP	370,000			N/A	10/01/2020	03/05/2021				Phase Added	Pending
2021	Trunkline	207295	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Special Pavement Markings	All of KATS MPO	2.747	Traffic Safety	Special pavement marking application on trunklines in Southwest Region			CON	Programmed	20-23	\$61,560	\$6,840	\$0	\$68,400	HSIP	370,000			N/A	02/05/2021	03/05/2021				Phase Added	Pending
2020	Multi-Modal	207304	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP3000-operating except JARC and New Freedom	5311 Rural Operating			NI	Programmed	17-20	\$30,000	\$7,500	\$0	\$37,500	5311	37,500	03/27/2019		N/A	07/01/2020					Phase Added	Pending
2021	Trunkline	207313	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Retroreflectivity Readings	All of KATS MPO	1.389	Traffic Safety	Pvmt Marking Retroreflectivity Readings on trunklines in Southwest Region			CON	Programmed	20-23	\$1,881	\$209	\$0	\$2,090	HSIP	11,000			N/A	12/01/2020					Phase Added	Pending
2022	Trunkline	207328	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Longitudinal Pavement Marking	All of KATS MPO	1.309	Traffic Safety	Longitudinal pavement marking application on trunklines in Southwest Region			PE	Programmed	20-23	\$1,710	\$190	\$0	\$1,900	HSIP	2,140,000			N/A	10/01/2021	02/04/2022				Phase Added	Pending
2022	Trunkline	207328	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Longitudinal Pavement Marking	All of KATS MPO	1.309	Traffic Safety	Longitudinal pavement marking application on trunklines in Southwest Region			CON	Programmed	20-23	\$364,230	\$40,470	\$0	\$404,700	HSIP	2,140,000			N/A	01/07/2022	02/04/2022				Phase Added	Pending



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Fiscal Year	Job Type	Job #	MPO	County	Responsible Agency	Project Name	Limits	Length	Primary Work Type	Project Description	AC/ACC	ACC Year(s)	Phase	Phase Status	S/TIP Cycle	Fed Estimated Amount	State Estimated Amount	Local Estimated Amount	Total Estimated Amount	Fund Source	Total Job Cost	MPO/Rural Approval Date	FHWA Approval Date	FTA Approval Date	Schedule Obligation Date	Actual Obligation Date	Schedule Let Date	Actual Let Date	Federal Amendment Type	Comments	S/TIP Status
2022	Trunkline	207329	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Special Pavement Markings	All of KATS MPO	2.829	Traffic Safety	Special pavement marking application on trunklines in Southwest Region			PE	Programmed	20-23	\$1,710	\$190	\$0	\$1,900	HSIP	470,000			N/A	10/01/2021		04/01/2022		Phase Added	Pending	
2022	Trunkline	207329	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Special Pavement Markings	All of KATS MPO	2.829	Traffic Safety	Special pavement marking application on trunklines in Southwest Region			CON	Programmed	20-23	\$78,660	\$8,740	\$0	\$87,400	HSIP	470,000			N/A	03/04/2022		04/01/2022		Phase Added	Pending	
2022	Trunkline	207341	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Retroreflectivity Readings	All of KATS MPO	1.645	Traffic Safety	Pavement mrkg retroreflectivity readings on trunklines in Southwest Region			CON	Programmed	20-23	\$1,881	\$209	\$0	\$2,090	HSIP	11,000			N/A	12/01/2021				Phase Added	Pending	
2023	Trunkline	207365	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Longitudinal Pavement Mrkgs	All of KATS MPO	0.978	Traffic Safety	Longitudinal pavement marking application on trunklines in Southwest Region			PE	Programmed	20-23	\$1,710	\$190	\$0	\$1,900	HSIP	2,140,000			N/A	10/03/2022		03/03/2023		Phase Added	Pending	
2023	Trunkline	207365	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Longitudinal Pavement Mrkgs	All of KATS MPO	0.978	Traffic Safety	Longitudinal pavement marking application on trunklines in Southwest Region			CON	Programmed	20-23	\$364,230	\$40,470	\$0	\$404,700	HSIP	2,140,000			N/A	02/03/2023		03/03/2023		Phase Added	Pending	
2023	Trunkline	207367	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Special Pavement Markings	All of KATS MPO	1.191	Traffic Safety	Special pavement marking application on trunklines in Southwest Region			PE	Programmed	20-23	\$1,710	\$190	\$0	\$1,900	HSIP	570,000			N/A	10/03/2022		02/03/2023		Phase Added	Pending	
2023	Trunkline	207367	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Special Pavement Markings	All of KATS MPO	1.191	Traffic Safety	Special pavement marking application on trunklines in Southwest Region			CON	Programmed	20-23	\$95,760	\$10,640	\$0	\$106,400	HSIP	570,000			N/A	01/06/2023		02/03/2023		Phase Added	Pending	
2023	Trunkline	207378	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	Southwest Regionwide Retroreflectivity Readings	All of KATS MPO	1.721	Traffic Safety	Pvmt marking retroreflectivity readings on trunklines in Southwest Region			CON	Programmed	20-23	\$1,881	\$209	\$0	\$2,090	HSIP	11,000			N/A	12/01/2022				Phase Added	Pending	
2022	Trunkline	207433	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94 E	I-94, US-131 Existing DMS	0.000	ITS Applications	Install seventeen (17) CCTV cameras on existing DMS.			PE	Programmed	20-23	\$20,325	\$4,461	\$0	\$24,786	NH	411,723			N/A	10/01/2021		12/02/2022		Phase Added	Pending	
2023	Trunkline	207433	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94 E	I-94, US-131 Existing DMS	0.000	ITS Applications	Install seventeen (17) CCTV cameras on existing DMS.			CON	Programmed	20-23	\$98,833	\$21,695	\$0	\$120,528	NH	411,723			N/A	10/07/2022		12/02/2022		Phase Added	Pending	
2021	Multi-Modal	207497	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	N Rose St	Metro Transit	0.000	SP1105-van replacement, any size with or without lift	Van Replacement			NI	Programmed	20-23	\$49,700	\$12,425	\$0	\$62,125	STU	62,125			N/A	10/01/2020				Phase Added	Pending	
2021	Multi-Modal	207498	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Kalamazoo Central County Transportation Authority	Transit Capital	Metro Transit	0.000	SP1105-van replacement, any size with or without lift	Van Replacement			NI	Abandoned	20-23	\$87,000	\$21,750	\$0	\$108,750	STU				N/A	09/30/2021				Phase Abandoned	Pending	
2021	Local	207723	Kalamazoo Area Transportation Study (KATS)	Van Buren	Mattawan	South Main Street	South Main Street over Amtrak Railroad, Str# 10803, Village of Mattawan	0.000	Bridge Rehabilitation	Miscellaneous Bridge Rehabilitation			CON	Programmed	20-23	\$1,464,000	\$274,500	\$91,500	\$1,830,000	BHT	1,830,000			N/A	01/08/2021		03/05/2021		Phase Added	Pending	
2020	Multi-Modal	207812	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	Central County Transportation Authority	Transit Capital	areawide	0.000	SP1701-rideshare	FY 2020 CMAQ - Community Rideshare Marketing			NI	Programmed	17-20	\$51,408	\$0	\$0	\$51,408	CMG	51,408			N/A	09/30/2020				Phase Added	Pending	

GPA Type Subtotals: S/TIP Line items \$156,231,664 \$45,933,202 \$44,571,357 \$246,736,214



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Fiscal Year	Job Type	Job #	MPO	County	Responsible Agency	Project Name	Limits	Length	Primary Work Type	Project Description	AC/ACC	ACC Year(s)	Phase	Phase Status	S/TIP Cycle	Fed Estimated Amount	State Estimated Amount	Local Estimated Amount	Total Estimated Amount	Fund Source	Total Job Cost	MPO/Rural Approval Date	FHWA Approval Date	FTA Approval Date	Schedule Obligation Date	Actual Obligation Date	Schedule Let Date	Actual Let Date	Federal Amendment Type	Comments	S/TIP Status	
2022	Trunkline	201111	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	M-331	M-331 at the intersection of Whites Road	0.075	Traffic Safety	Intersection Improvement, Add Center and right turn lanes			CON	Abandoned	20-23	\$389,964	\$86,473	\$0	\$476,437	CM				N/A	10/08/2021		12/03/2021				Pending	
2021	Trunkline	201968	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94BL W	I-94BL, Michigan and Kalamazoo Avenue	0.459	Traffic Safety	Intersection Improvements			PE	Abandoned	20-23	\$152,648	\$14,841	\$2,120	\$169,609	HSIP				N/A	10/01/2020		02/03/2023				Pending	
2023	Trunkline	201968	Kalamazoo Area Transportation Study (KATS)	Kalamazoo	MDOT	I-94BL W	I-94BL, Michigan and Kalamazoo Avenue	0.459	Traffic Safety	Intersection Improvements			CON	Abandoned	20-23	\$666,389	\$64,787	\$9,256	\$740,432	HSIP				N/A	12/09/2022		02/03/2023				Pending	
GPA Type Subtotals:		Trunkline Traffic Operations And Safety														\$1,209,001	\$166,101	\$11,376	\$1,386,478													
Grand Total:																\$157,440,665	\$46,099,303	\$44,582,733	\$248,122,692													

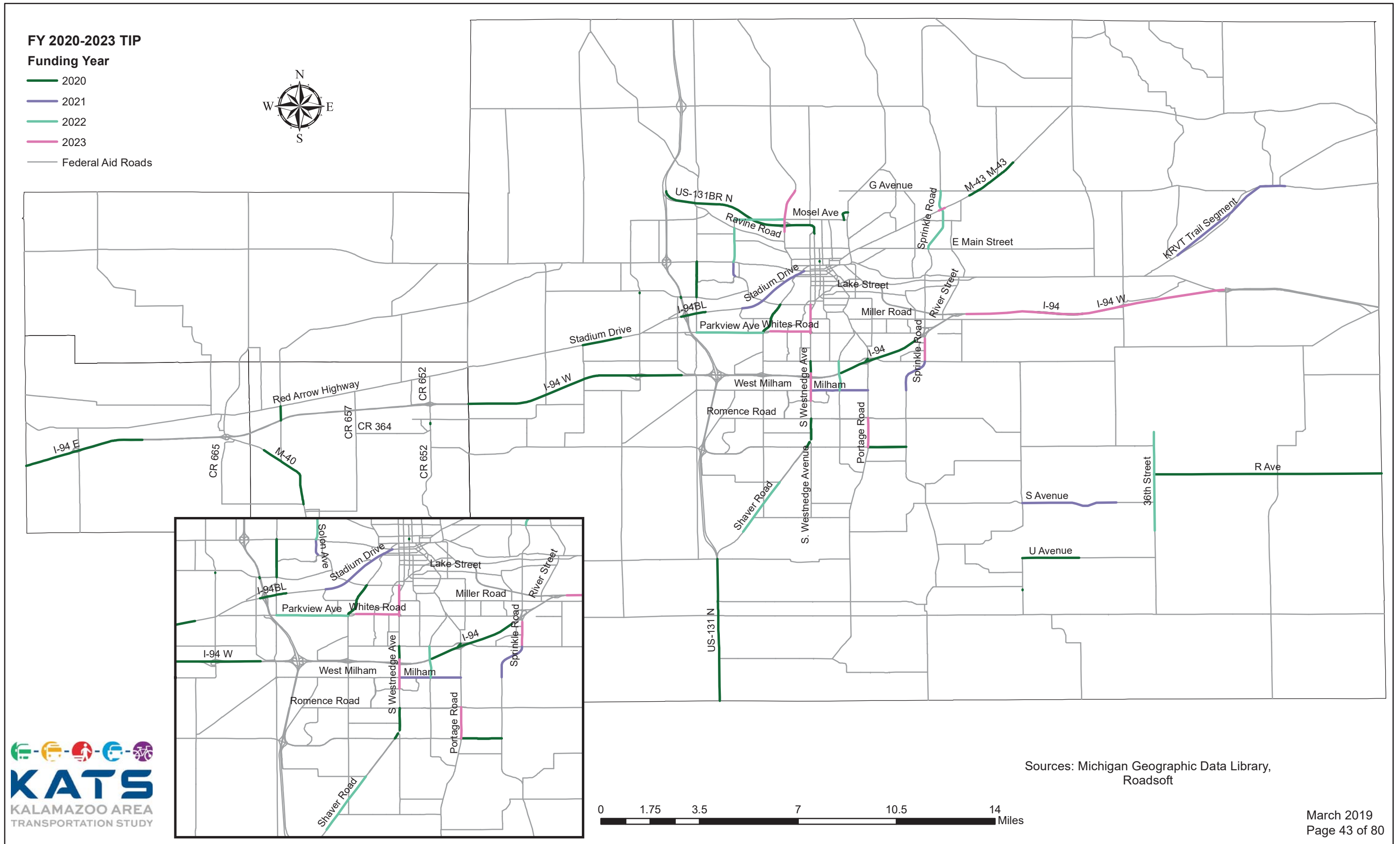
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Illustrative Project Listing

Through the KATS Prioritization Process, all projects not assigned funding are to be considered Illustrative Projects. These projects are included in the FY 2020 - 2023 TIP for public comment so that any additional revenues identified can be added to the funded portion of the TIP in the future through the KATS Administrative Modification Policy. The illustrative project list is not reflected in the financial constraint analysis tables listed previously. The full list of Illustrative Projects can be found in Appendix G.

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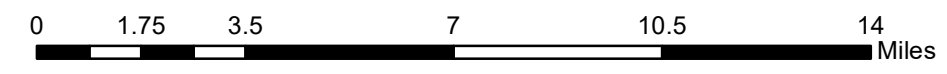
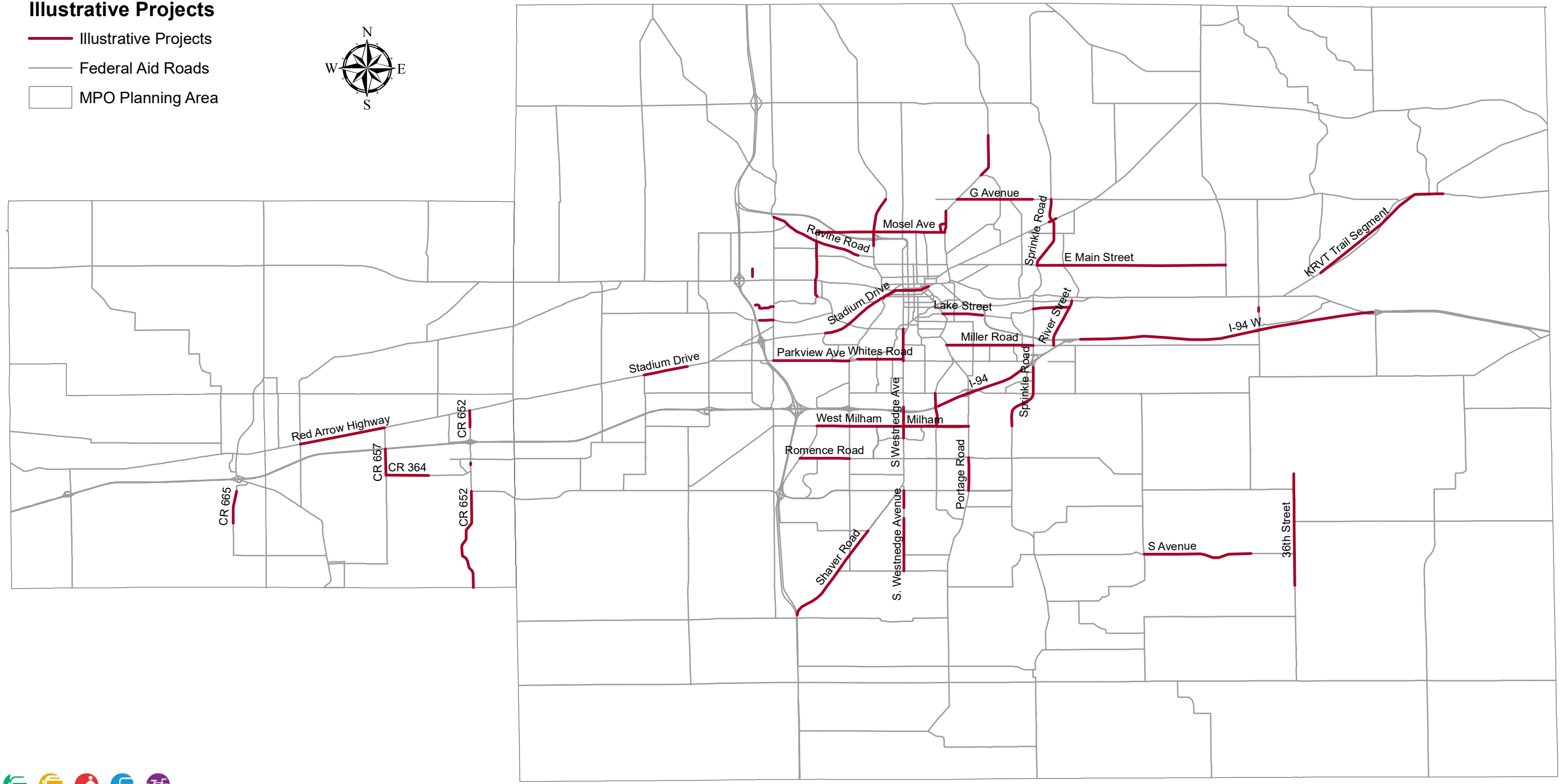
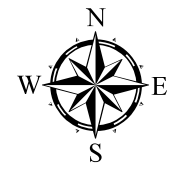
Map 4: Funded FY 2020-2023 Transportation Improvement Program



Map 5: FY 2020-2023 Illustrative Transportation Improvement Program Projects

Illustrative Projects

- Illustrative Projects
- Federal Aid Roads
- MPO Planning Area



Sources: Michigan Geographic Data Library, Roadsoft

PUBLIC INVOLVEMENT

The Kalamazoo Area Transportation Study (KATS) followed the procedures established in its adopted Public Participation Plan by providing public postings of all Technical Committee and Policy Committee meetings and by advertising and holding multiple public meetings on the proposed FY 2020 - 2023 Transportation Improvement Program (TIP). A summary of all public comments received throughout the planning process is available in Appendix C.

ENVIRONMENTAL JUSTICE

In 1964, the Civil Rights Act under Title VI was enacted and stated that “No Person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” The Civil Rights Restoration Act of 1987 broadened the scope of Title VI, clarified the intent, and expanded the definition of the terms “programs and activities” to include all programs and activities of Federal-aid recipients, sub-recipients and contractors, whether such programs are Federally assisted or not.

In 1994, an Executive Order (Number 12898) directed every Federal agency, including the U.S. Department of Transportation to identify and address the effects of all programs, policies, and activities on “minority populations and /or low-income populations.” This Order was consistent with Title VI in considering fundamental environmental justice principles affecting low income and minority populations. The three fundamental environmental justice principles are:

1. To avoid, minimize or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects on minority populations and low-income populations.
2. To ensure the full and fair participation by all potentially affected communities.
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

In 1997, the U.S. Department of Transportation issued an Order that summarized and expanded on environmental justice requirements, stating that the Order applies to all transportation planning policy decisions and activities undertaken, funded, or approved by the Federal Highway Administration, Federal Transit Administration, and Metropolitan Planning Organizations among other U.S. Department of Transportation components.

The Environmental Justice office of US Environmental Protection Agency defines Environmental Justice as: “...*the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.*”

The Kalamazoo Area Transportation Study, through its Environmental Justice analysis, uses the following process to identify and analyze Environmental Justice areas within the Planning Area:

1. Delineation and mapping of Minority Areas, Low Income Areas, and Aging Population Areas
2. Analysis of Impacts on Minority, Low Income, and Aging Population Areas

While requirements for Environmental Justice only include the analysis of Minority and Low Income Areas, KATS has included Aging Population Areas to further address issues identified through public comment on previous planning activities.

Delineation of Environmental Justice Areas

Environmental Justice (EJ) areas were identified to determine what areas could be impacted by projects identified in the 2045 Metropolitan Transportation Plan. In order to determine what areas are considered

low income, minority, or aging population areas in the Metropolitan Planning Area, Demographic Indicators in the Environmental Protection Agency's web based EJSCREEN were used.

For the analysis of the FY 2020-2023 TIP, KATS set a standard of the 50th percentile in each area of analysis through the EJSCREEN tool. While a more refined process used in the MTP was used in the KATS Prioritization Process, KATS Staff looked at a larger demographic range in the analysis of the selected projects. Through the entire planning process, it was felt that this standard provided the appropriate level of emphasis within the Planning Process while still reaching the defined EJ emphasis areas.

The EJSCREEN tool uses the following definitions for these categories:

Percent minority: Percent of individuals where minority is defined as all but Non-Hispanic White Alone. Calculated from the Census Bureau's American Community Survey 2011-2015.

Percent low-income: Percent of individuals whose ratio of household income to poverty level in the past 12 months was less than 2 (as a fraction of individuals for whom ratio was determined). Calculated from the Census Bureau's American Community Survey 2011-2015.

Aging Population: Percent of individuals over age 64 as a fraction of the population. Calculated from the Census Bureau's American Community Survey 2011-2015.

While the EJSCREEN tool provides a solid basis for decision making, KATS further analyzed the demographic data. Understanding the makeup of any community is the starting point for understanding its unique characteristics. Knowledge of the nature and makeup of the community will assist in fine tuning the importance of transportation projects in the MPO area and assessing their impact on EJ Populations.

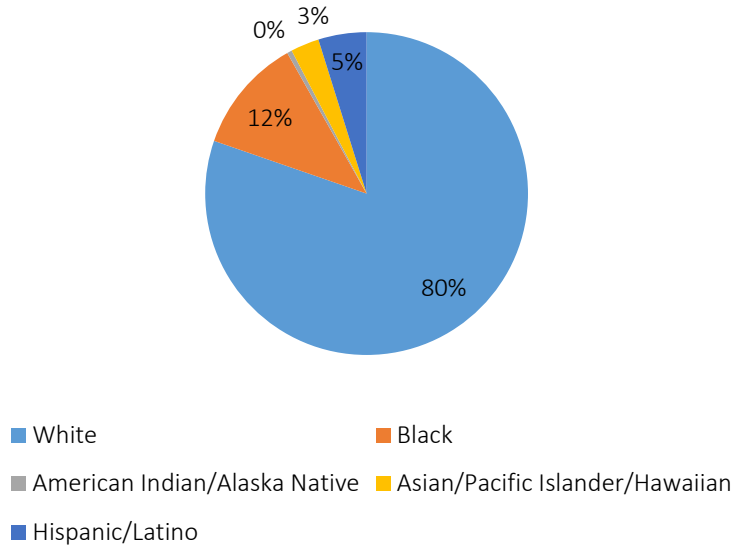
Being aware of age characteristics of the MPO area can also assist planning and funding decisions by indicating the specific economic, transportation, recreational, educational, and other community needs each age group will require. By examining the demographic mix of residents, the MPO and local agencies can better plan for transportation services and needs.

The Federal Office of Management and Budget's (OMB) 1997 Policy Directive 15, Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity, established five minimum categories for data on race. Therefore, to conduct the Minority EJ analysis, KATS used the following categories for race:

- White
- Black/African American
- American Indian and Alaskan Native
- Asian, Pacific Islander and Hawaiian
- Hispanic and Latino

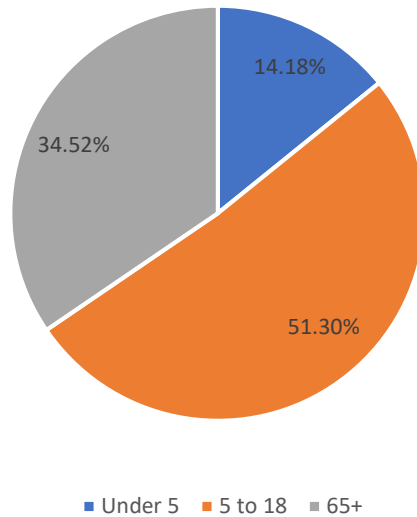
In order to determine the effects of any federal-aid transportation project, it was necessary to identify areas within the MPO in which met the above criteria for the identified population groups.

KATS Area Racial Characteristics (2017)

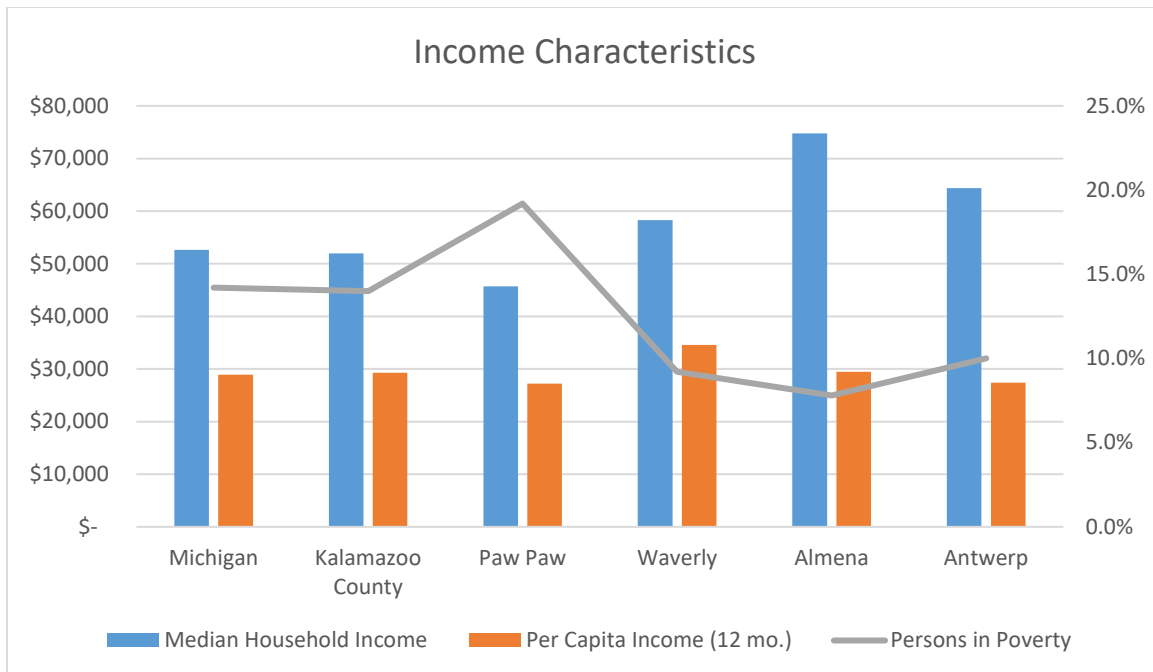


A breakdown of age groups within the Planning Area is useful when the age groups are broken into three main categories: under 5, 5 -18, and 65 and older. This provides a better sense of the needs and desires of the population, especially those that are unable to drive themselves. Less than 35% of the population within the KATS Planning Area is 65 or older.

KATS Area Age Distribution (2017)



Median household income, per capita income and percent poverty level for the KATS Planning Area have been collected from 201-2017 and is shown below in 2017 dollars. The data is compared to the average in Michigan to illustrate that the MPO area is within the average range in the state.



Maps of the identified locations follow this chapter, along with a summary table identifying TIP projects located in the Environmental Justice areas.

Analysis of Impacts on Minority, Low Income, and Aging Population Areas

Once Minority, Low Income, and Aging Population Areas were identified, KATS analyzed projects based on their implications to each group. In order to conduct the analysis, several assumptions were made:

Projects with Potentially Positive Neighborhood Impacts

- Pavement Preservation
- Reconstruction of Existing Roadways
- Signal Installation
- Transit Service Expansion
- Non-Motorized Projects

Projects with Potentially Negative Neighborhood Impacts

- Transit Service Reduction
- Road Widening
- New Roads
- Freeway Access Improvements

Furthermore, for purposes of this analysis, staff makes the assumption that the improvement of the condition of the transportation system through preservations projects, transit projects, non-motorized projects, and safety projects is improving the overall well-being of the community. KATS makes this

assumption, in part, because of the MPO’s adopted Complete Streets Policy’s requirements to address all users within project development.

Potential Positive Impacts

Throughout the EJ Analysis, staff considered a variety of improvement types and related impacts. Road preservation projects are the main project type in the TIP throughout the MPO area, including EJ areas. It is important to note that potential low levels of investment do not necessarily reflect unfair treatment, but may rather reflect that an area’s existing transportation system is complete and in good condition, or may need only minor investments to maintain the condition of the system. It is also possible that improvements are planned using non-federal revenue resources.

Since the Transportation Improvement Program is multi-modal in nature, it contains expenditures on road, transit, and non-motorized projects that, when built, will provide access to additional modes of transportation to the EJ Areas.

KATS also reviewed the public transportation fixed route service to determine if adequate coverage of the populations are being served. Maps showing the fixed bus routes and the EJ areas follow this chapter. With the recent creation of the Central County Transportation Authority (CCTA), increased transit frequency and service hours have occurred. This has directly benefited the service to public transit users within the EJ areas. In addition to fixed route services, demand response public transportation access is available throughout the EJ areas and the entire metropolitan planning area, called Metro Connect. Based on the current fixed public transportation system, areas that are typically used by these identified populations have access to public transportation.

Due to the dispersed nature of the aging population, demand response transit service plays a critical role. The 2045 Metropolitan Transportation Plan identifies continued support for demand response service across the MPO area to help address the needs of the aging population and assist their ability to age in place. In 2018, Metro Connect provided 165,848 rides to those not serviced by fixed route transit.

Analysis shows the Transportation Improvement Program includes a large percentage of identified “positive” improvements throughout the MPO area, many in or adjacent to EJ areas. The planned expansion of I-94 has already obtained the necessary right-of-way, and should have a positive impact on travel time for the corridor. All other roadway projects are planned to be contained within existing rights-of-way and foster improvements to non-motorized and transit accessibility. KATS will encourage the local road agencies to inform residents of upcoming projects through various sources, including public meetings, newsletters, and website information.

The following table shows the capacity projects in the identified EJ areas.

Table 18: Capacity Projects within Environmental Justice Areas

Project ID	Project	Limits	Description	Year
206566	I-94 W	East of Lovers Lane to West of Sprinkle Road	Road and Bridge Reconstruct	2020
105886	I-94	Portage Road to Sprinkle Road	Road and Bridge Reconstruct	2021
105885	I-94	East of Lovers Lane to East of Portage Road	Road Reconstruct and widen	2021

Environmental Justice Finding

The overall Transportation Improvement Program has a positive impact on the identified EJ Areas. Identified road projects have generally accepted benefits to all areas including the identified EJ Areas.

The only capacity expansion project that adds lanes is I-94, which is an existing facility with no right of way impacts on residential areas.

There have been no negative comments received from the EJ areas on the Transportation Improvement Program regarding its potential impact on the EJ population areas. In addition to the lack of comments, the analysis of impacts on residents in the Environmental Justice areas, as a result of implementing the 2020-2023 TIP, shows there is not a disproportionately negative impact in the Environmental Justice areas in regards to high and adverse health impacts, minimization of access to the transportation system; or any neglect, reduction, delay in the receipt of transportation benefits, or restriction of public access to public transit services. These findings demonstrate that implementing the projects contained in this TIP do no result in any violations of Executive Order 12898 and the overall principles of Environmental Justice.

The following funded road projects are identified within the defined Environmental Justice analysis areas:

FY 2020

- Drake Road: KL Avenue to M-43
- Drake Road: Signal Interconnect, various locations
- Stadium Drive: 11th Street to Academy Street
- US 131 BR: Westnedge Avenue to US 131

FY 2021

- Sprinkle Road: Milham Avenue to N Avenue
- Solon Street: City of Kalamazoo limit to W Main Street (M-43)
- CR 665: 64th Avenue to 60th Avenue





FY 2022

- Barney Road/Mosel: Nichols Road to Riverview Drive
- West KL Avenue: Drake Road to Concord Place Drive

FY 2023




- Lake Street: Portage Road to City of Kalamazoo Limits
- I-94 W: between I-94 Business Route and 40th Street
- US 131: SB over Amtrak and KL Avenue

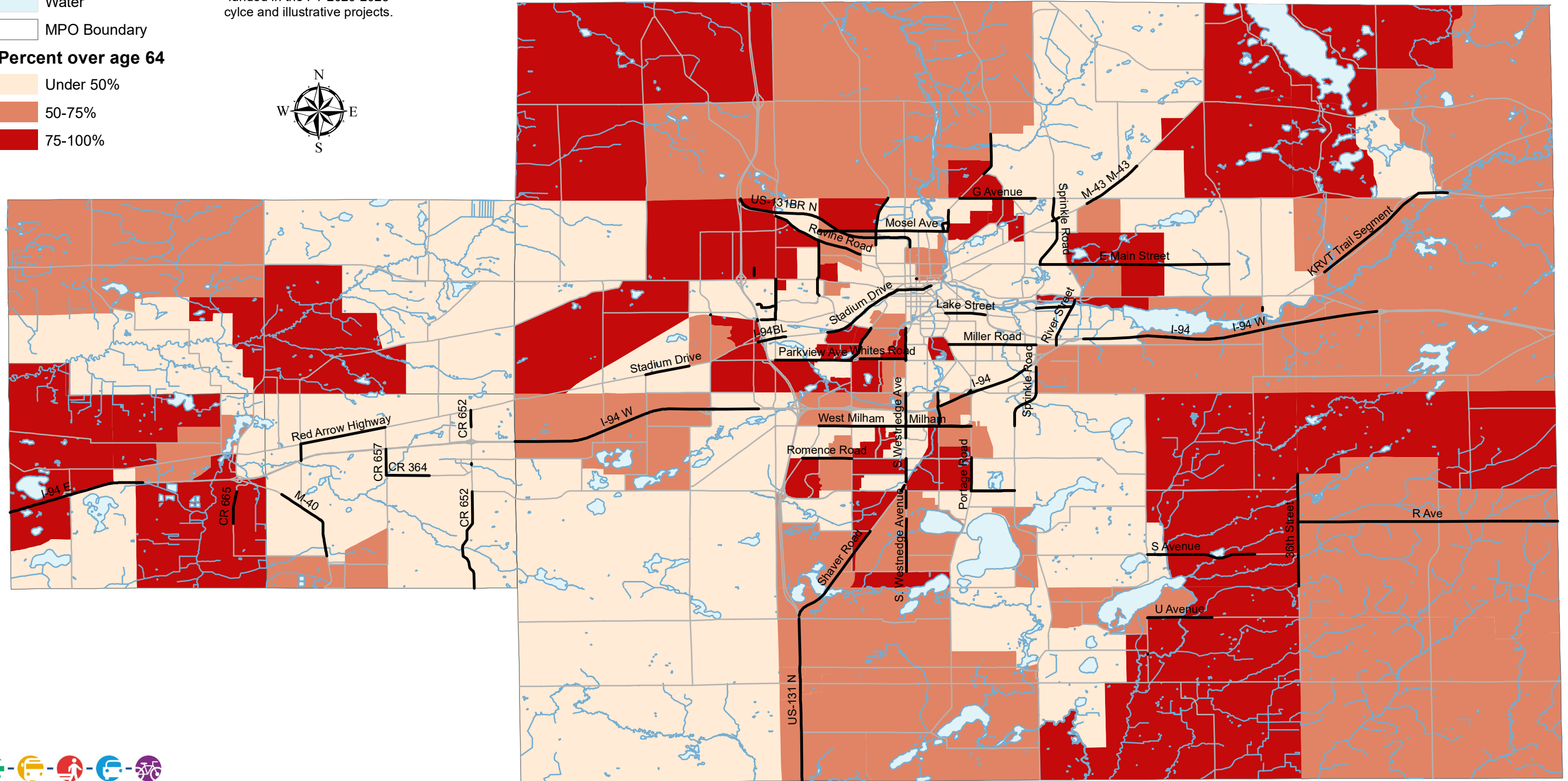
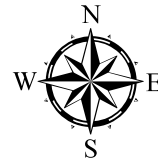
Map 6: FY 2020-2023 TIP Projects & Aging Populations

-  TIP Projects
-  Federal Aid Roads
-  Water
-  MPO Boundary








*TIP Projects include those funded in the FY 2020-2023 cycle and illustrative projects.

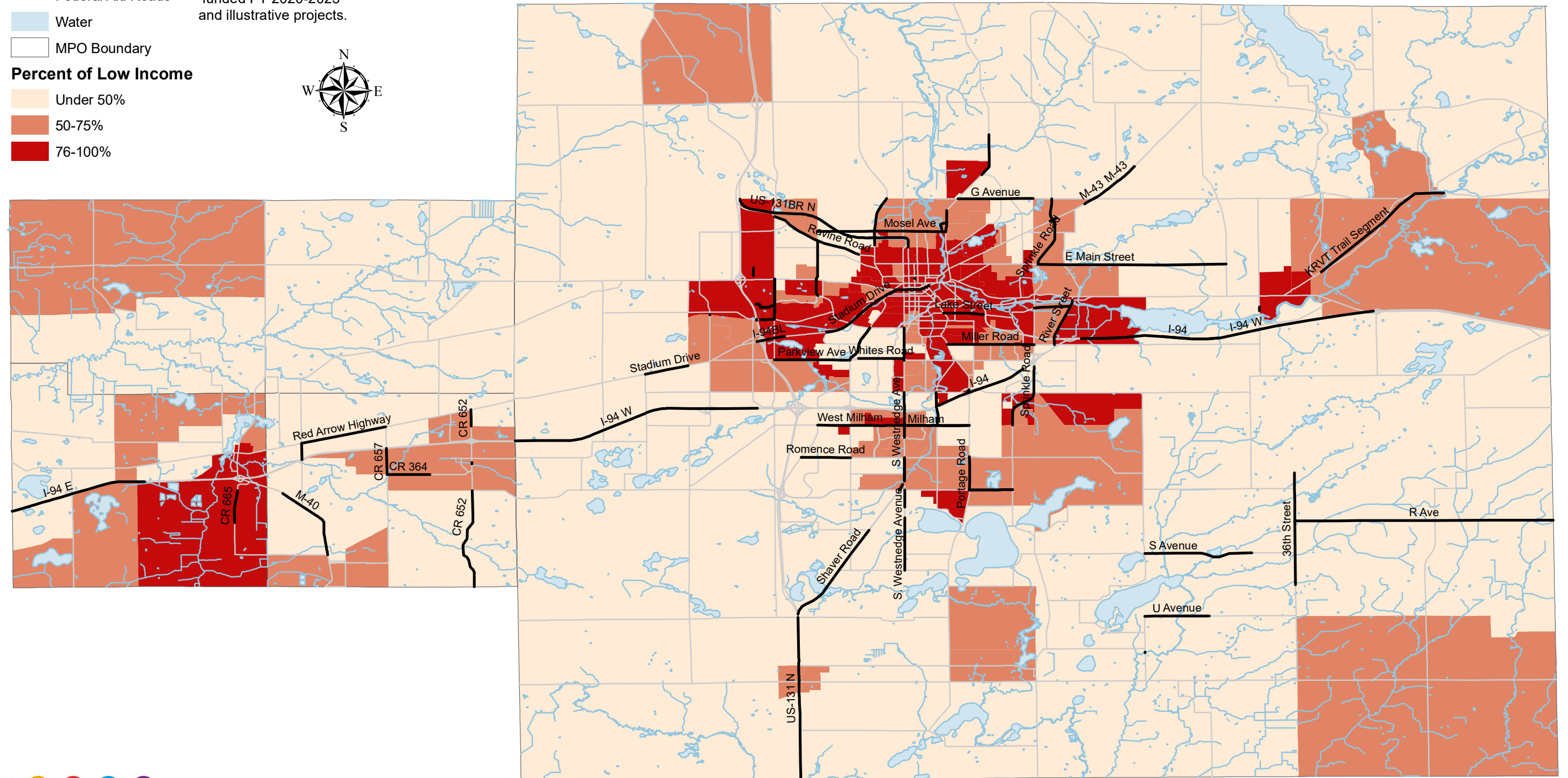
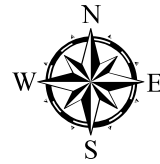
Percent over age 64

-  Under 50%
-  50-75%
-  75-100%










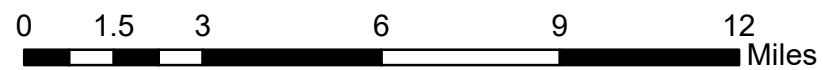
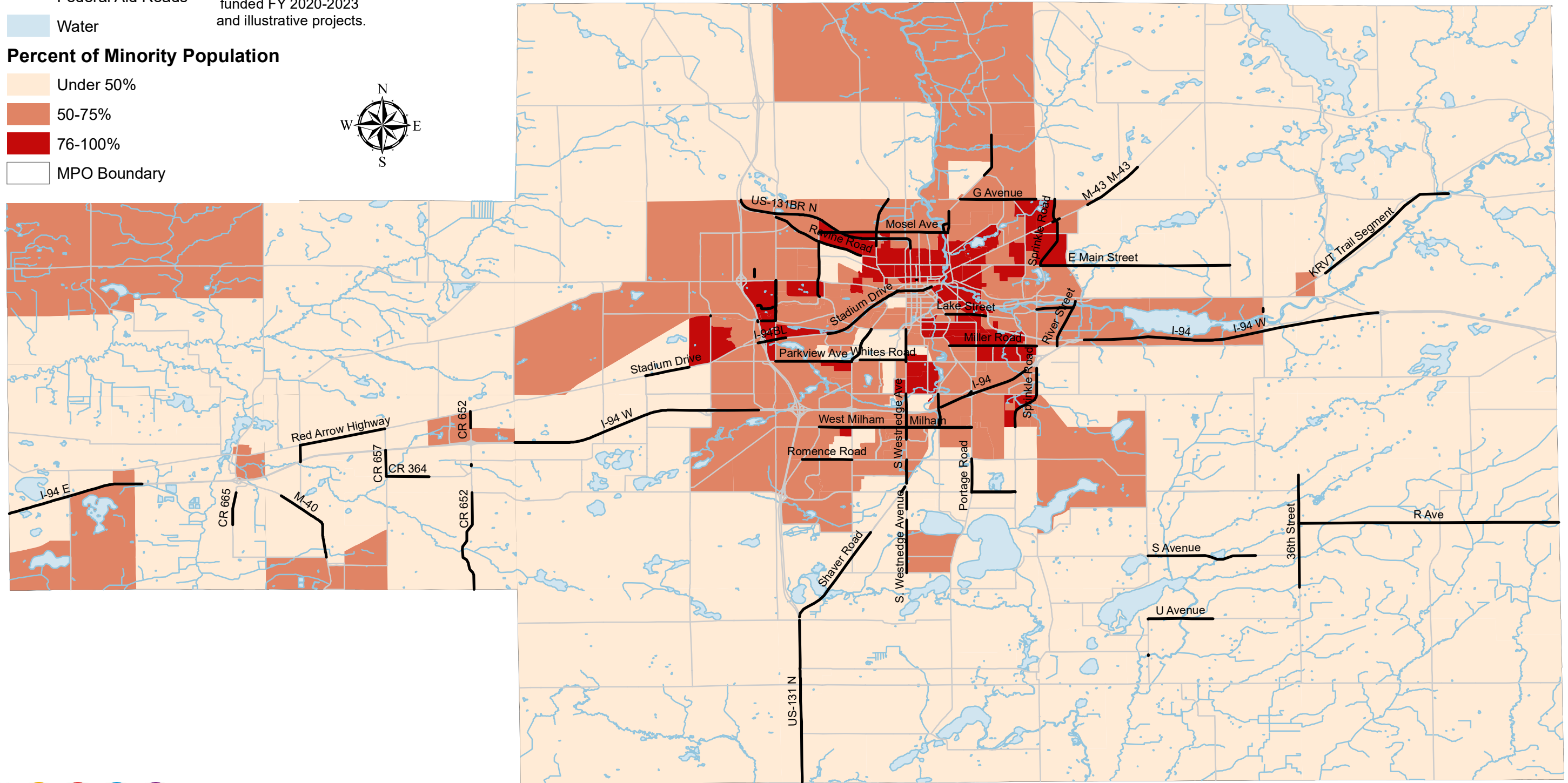
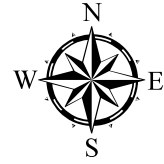
Map 7: FY 2020-2023 TIP Projects & Low Income Populations

-  TIP Projects
 -  Federal Aid Roads
 -  Water
 -  MPO Boundary
- *TIP Projects include funded FY 2020-2023 and illustrative projects.
- Percent of Low Income**
-  Under 50%
 -  50-75%
 -  76-100%



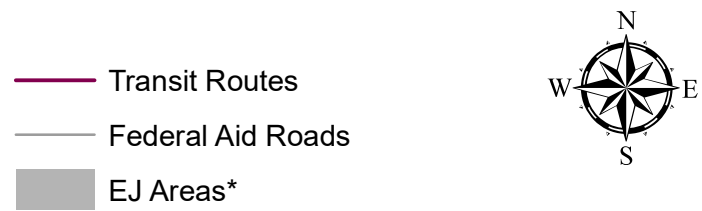
Map8: FY 2020-2023 TIP Projects & Minority Populations

-  TIP Projects
 -  Federal Aid Roads
 -  Water
 - Percent of Minority Population**
 -  Under 50%
 -  50-75%
 -  76-100%
 -  MPO Boundary
- *TIP Projects includes funded FY 2020-2023 and illustrative projects.

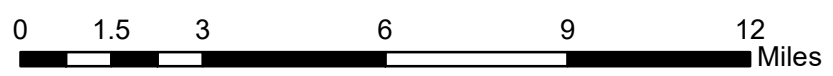
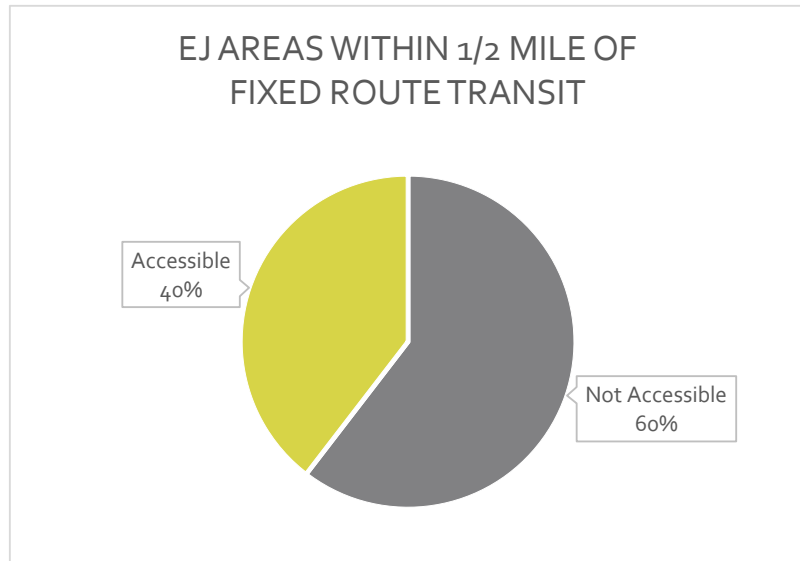
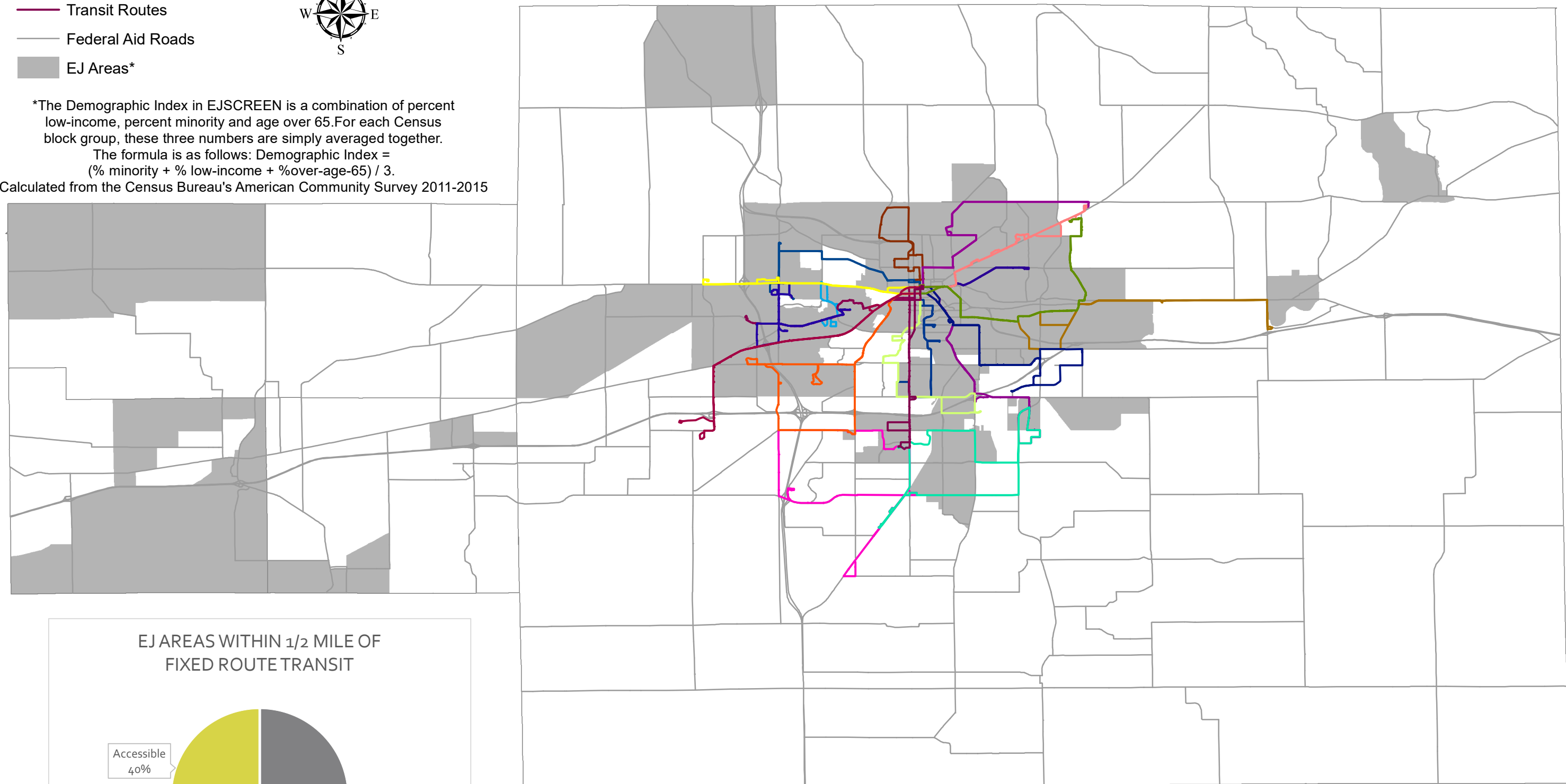


Source: ACS, EJ Screen, RoadSoft, Michigan Open Data

Map 9: FY 2020-2023 TIP Projects & Transit Mobility



*The Demographic Index in EJSCREEN is a combination of percent low-income, percent minority and age over 65. For each Census block group, these three numbers are simply averaged together. The formula is as follows: Demographic Index = $(\% \text{ minority} + \% \text{ low-income} + \% \text{ over-age-65}) / 3$.
 Calculated from the Census Bureau's American Community Survey 2011-2015



CONSULTATION

A total of 45 letters were mailed to various federal, state, tribal, and local agencies and organizations to consult on the FY 2020 - 2023 Transportation Improvement Program. The letter included a list of all projects proposed for the document by year and agency. KATS received no comments from our consultation process. KATS will continue to update and improve our contact list and strive to maintain an open dialogue throughout the life of the TIP with our consulting agencies.

The Kalamazoo Area Transportation Study also actively engages in consultation activities at various local meetings, including the Kalamazoo Chamber of Commerce Transportation Committee and the Kalamazoo County Planning Commission. KATS also participates and solicits local master plan updates so the Study can coordinate projects with the land use plans for Kalamazoo County.

AMENDING THE TRANSPORTATION IMPROVEMENT PROGRAM

The Kalamazoo Area Transportation Study will adopt the *KATS Administrative Policies & Procedures document on June 26, 2019*. The procedure for amending the Transportation Improvement Program is presented in detail within the document. The document can be found on the KATS webpage.

Due to the nature of the Transportation Improvement Program, projects that need to be amended into the document require timely action by both the Technical Committee and Policy Committee. Once action is taken by both committees and public input is received, the financially constrained amended document is sent to the Michigan Department of Transportation for approval by the Federal Highway Administration and Federal Transit Administration.

APPENDICES

Appendix A: List of Available Federal-Aid Highway and Transit Resources

Appendix B: Financial and Operations and Maintenance Assumptions

Appendix C: Public Involvement and Summary of Public Comment

Appendix D: Resolution Approving the FY 2017 - 2020 Transportation Improvement Program

Appendix E: Metropolitan Transportation Planning Process Certification

Appendix F: Prioritized Project List- Including Illustrative Projects

Appendix G: Illustrative Project List

Appendix H: Interagency Work Group Summary & Air Quality Conformity Maps

Appendix A: List of Available Federal-Aid Highway and Transit Resources²

Highway Resources

Source	Purpose	Examples of Eligible Activities
Surface Transportation Block Grant Program	Maintain and improve the federal-aid highway system.	Construction, rehabilitation, or reconstruction of highways, bridges, and tunnels; transit capital projects; infrastructure-based intelligent transportation systems (ITS) capital improvements; border infrastructure; highway and transit safety projects; traffic monitoring, management, and control facilities; nonmotorized projects (including projects eligible under the former Transportation Alternatives Program) and bridge scour countermeasures.
Highway Safety Improvement Program (HSIP)	Decrease highway deaths and injuries.	Intersection safety improvements; pavement and shoulder widening; rumble strips or other warning device; improvements for pedestrian or bicyclist safety or safety of persons with disabilities; Construction and improvement of a railway-highway grade crossing safety feature, including installation of protective devices; traffic calming features; elimination of a roadside hazard; and installation, replacement, and other improvement of highway signage and pavement markings, or a project to maintain minimum levels of retroreflectivity, that addresses a highway safety problem consistent with a State strategic highway safety plan; roadside safety audits.
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	Reduce emissions from transportation sources	Installing dedicated turn lanes; signal retiming, interconnection, or actuation; constructing roundabouts; diesel retrofits; projects to reduce single-occupant vehicle travel; new or reduced-headways transit routes.
National Highway Performance Program (NHPP)	Maintain and improve the National Highway System (NHS) (i.e., the subset of the federal-aid highway system that includes roads classified as principal arterials or above).	Construction, rehabilitation, or reconstruction of highways, bridges, and tunnels; transit capital projects on the NHS; infrastructure-based intelligent transportation systems (ITS) capital improvements on the NHS; highway and transit safety projects on the NHS; certain bicycle and nonmotorized activities; and Construction, rehabilitation, or reconstruction of highways, bridges, and tunnels on federal-aid highways not on the NHS, as long as they are within the same corridor as a segment of the NHS.
National Highway Freight Program	Infrastructure improvements that increase economic competitiveness and productivity; reduce congestion on the National Highway Freight Network; reduce shipping costs; and improve the safety, efficiency, and reliability of that network.	Construction, reconstruction, rehabilitation, real property and equipment acquisition, and operational improvements directly related to system performance; ITS improvements; rail/highway grade separation; geometric improvements to interchanges and ramps; truck-only lanes; climbing and runaway truck lanes; adding/widening shoulders; and truck parking facilities.

² Not intended to be an exhaustive list of all eligible activities.

Transit Resources

Source	Purpose	Examples of Eligible Activities
Sec. 5307 Urbanized Area Formula Grants	Funding for basic transit capital needs of transit agencies in urbanized areas.	Capital projects, transit planning, and projects eligible under the former Job Access Reverse Commute (JARC) program (intended to link people without transportation to available jobs). Some of the funds can also be used for operating expenses, depending on the size of the transit agency. One percent of funds received are to be used by the agency to improve security at agency facilities.
Section 5310, Elderly and Persons with Disabilities	Improving mobility options for seniors and disabled persons.	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.
Section 5311, Non-Urbanized Area Formula Grants	Improving mobility options for residents of rural areas.	Capital, operating, and rural transit planning activities in areas under 50,000 population.
Section 5337, State of Good Repair Grants	Maintaining fixed-guideway transit systems in a state of good repair.	Capital, maintenance, and operational support projects. Recipients develop and implement an asset management plan. Half of Section 5337 funding is distributed by a formula accounting for vehicle revenue miles and directional route miles; half is based on ratios of past funding received.
Section 5339, Bus and Bus Facilities	Funding for basic transit capital needs of transit agencies, including construction of bus-related facilities.	Replace, rehabilitate, and purchase buses and related equipment, and construct bus-related facilities.

Appendix B: Financial and Operations and Maintenance Assumptions

Funding Growth Rates

These rates are not Year of Expenditure (i.e., inflation). Funding growth rates are the forecast of what is expected to be apportioned and/or allocated to the state and the MPOs. These funds are not indexed for inflation: There is no “cost of living” adjustment. Assumptions are made based on information known at a given point in time. What we know as we develop our current estimates is:

1. Michigan has seen very little growth in its federal-aid highway apportionment over the past couple of decades. Over the past 18 fiscal years, the state’s apportionment has only increased, on average, 2.47 percent per year. In recent years the average annual change in apportionment has actually been negative, with the ten-year average at -0.30 percent and the five-year average at -1.21 percent.
2. On December 4, 2015, the FAST Act was signed into law. The FAST Act authorizes \$305 billion in federal funding for the nation’s surface transportation system over the next five years. The legislation breaks the cycle of short-term funding authorizations that have characterized the federal program for the past 10 years and, in covering nearly five full fiscal years, represents the longest surface transportation authorization bill enacted since 1998.
3. Reliance on non-transportation revenue to support investments in surface transportation is continued in the FAST Act. The FAST Act transfers \$70 billion from the federal General Fund into the federal Highway Trust Fund (HTF) to ensure that all investments in highways and transit during the next five fiscal years are fully paid for. This brings the total amount of non-transportation revenue that has supported investments from the HTF during the past seven years to nearly \$145 billion.

Although the FAST Act has increased funding stability over the next five fiscal years, funding increases are modest at best. In keeping with the modest increases outlined in the FAST Act, MDOT and MTPA are recommending two percent per year funding increases between FY 2020 and FY 2023.

Year of Expenditure (YOE) Rates

YOE is the expected inflation rate in the transportation agencies’ cost of doing business. YOE adjustments to project costs are essential to show the true relationship between costs and resources. In recent years, highway and transit agencies have been increasingly squeezed by this phenomenon, since the inflation rate on transportation costs has increased faster than funding growth rates. Due to the nature of the KATS program (capped federal dollars), local agencies are asked to apply for the expected federal revenue they determine is needed in the fiscal year applied for. KATS TIP Subcommittee then reviews those applications and makes adjustments at the committee level to assign the appropriately adjusted funding by FY.

Appendix C: Public Involvement and Summary of Public Comment

To encourage review of the Draft FY 2020-2023 Transportation Improvement Plan document, KATS staff mentioned the document's availability online to the KATS Citizen Advisory Committee, Technical and Policy Committees, Bike Friendly Kalamazoo meeting members, and members of the Metro Public Transit Human Services Committee. Postings regarding the document were made on the KATS website, Facebook and Twitter. The draft document was also included in public meeting notices for several months.

Announcement of the TIP Open House was made at several local meetings including Bike Friendly Kalamazoo, KATS Technical and Policy Committees.

The TIP Open House was held at KATS office and 21 citizens of the area visited to provide feedback. One such citizen was a Western Michigan University Student that took fixed route transit to the open house. Several comments were made by the student regarding transit services such as the MyStop mobile app using Google Maps with inaccurate bus route and timing information. It was also mentioned that not all transit stops were be equally maintained as it seemed low income areas were receiving priority when in fact transit stops in other areas needed more timely updates. The student also mentioned the gaps in sidewalks within the greater Kalamazoo area; giving a high priority to improving mobility for pedestrians.

Another citizen who attended the TIP Open House also used transit services as transportation to KATS office. Several comments were made regarding transit services including better airport connections by scheduling the fixed route to align with the flight schedules. It was also mentioned that crossing Vine and Walnut across Westnedge proved difficult for the visually impaired. Another pedestrian unfriendly area is the roundabout at Cork and Sprinkle. Other sidewalk improvements that were commented on was gaps on M-43 east of Monroe. Suggestions were made that Metro should consider partnering with Uber during fixed route off hours. Mention of facilitating more ridesharing through Metro's program was brought up as well.

OPEN HOUSE for the FY 2020-2023 Transportation Improvement Program

WHEN

**April 11, 2019
2:00pm to 6:00pm**

WHERE

KATS Office

**5220 Lovers Lane, Suite 110
Portage, MI 49002**



MDOT - Southwest @MDOT_Southwest · 2h

KATS open house 2-6 p.m. April 11 to discuss the 2020-23 Transportation Improvement Program. katsmpo.org MDOT staff will be there to discuss the State Long-Range

Transportation Plan. michigan.gov/mdot/0,4616,7-...



Stop by for a visit to learn about KATS Fiscal Year 2020-2023 Transportation Improvement Program (TIP).

The KATS office is accessible using the Metro #12 Duke Route. Visit www.kmetro.com for more information.

Light refreshments will be provided.

5220 Lovers Lane, Suite 110
Portage, MI 49002
269-343-0766
info@katsmpo.org
WWW.KATSMPO.ORG

THE METROPOLITAN PLANNING ORGANIZATION FOR THE GREATER KALAMAZOO AREA

**CONTINUING
COOPERATIVE
COMPREHENSIVE
TRANSPORTATION
PLANNING**



Appendix D: Resolution Adopting the Fiscal Year 2020-2023 TIP

RESOLUTION
Adopting the Fiscal Year 2020 - 2023 Transportation Improvement Program
for the Kalamazoo Metropolitan Area

WHEREAS, the Kalamazoo Area Transportation Study is the Metropolitan Planning Organization for Kalamazoo Metropolitan Area; and

WHEREAS, the Kalamazoo Area Transportation Study has identified projects for inclusion in the Fiscal Year 2020 - 2023 Transportation Improvement Program with assistance from the Michigan Department of Transportation, municipalities, Kalamazoo Metro, Van Buren Public Transit , and the Kalamazoo and Van Buren County Road Commissions; and

WHEREAS, the projects identified in the Fiscal Year 2020 – 2020 Transportation Improvement Program have been found to be financially constrained based on known information at the time of adoption; and

WHEREAS, during the development of the Fiscal Year 2020 - 2023 Transportation Improvement Program, the Kalamazoo Area Transportation Study took steps to ensure that the document is compliant based on current federal regulations; and

WHEREAS, the Kalamazoo Area Transportation Study Policy Committee has allowed for public comment on the Fiscal Year 2020 - 2023 Transportation Improvement Program and has held a public meeting to formally adopt the document.

NOW, THEREFORE, BE IT RESOLVED, that the Kalamazoo Area Transportation Study Policy Committee hereby adopts the Fiscal Year 2020 – 2023 Transportation Improvement Program, including the financial constraint analysis; and

BE IT FURTHER RESOLVED, that the Fiscal Year 2020 - 2023 Transportation Improvement Program will be transmitted to the Michigan Department of Transportation for inclusion in the Statewide Transportation Improvement Plan.

Randy Thompson, Chairperson
Kalamazoo Area Transportation Study Policy Committee

Date

This resolution was adopted by the Kalamazoo Area Transportation Study Policy Committee on May 29, 2019

Appendix E: Metropolitan Transportation Planning Process Certification

**METROPOLITAN TRANSPORTATION
PLANNING PROCESS CERTIFICATION**

In accordance with 23 CFR 450.336, the Michigan Department of Transportation and the Kalamazoo Area Transportation Study, the Metropolitan Planning Organization for the greater Kalamazoo area, Michigan urbanized area, hereby certify, as part of the Transportation Improvement Program submittal, that the transportation planning process is addressing the major issues in the metropolitan planning area and is being conducted in accordance with all applicable requirements of:

- I. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart;
- II. In nonattainment and maintenance areas, 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;
- III. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
- IV. 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
- V. 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;
- VI. 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
- VII. 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;
- VIII. 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;
- IX. Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
- X. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities.

Randy Thompson, Policy Committee Chairperson
Kalamazoo Area Transportation Study

Todd White, Director
Bureau of Transportation Planning

Date

Date

Appendix F: Prioritized Project List - Including Illustrative Projects

Illustrative Projects

Funded Projects

Rank	Project Location	Project Length	Project Limits	Work Type	Agency	Year	Project Description	Proposed Federal Cost	Proposed Total Project Cost
1	Michigan Avenue	1.927	Michigan Ave from Douglass Ave to Pitcher St	Restore & Rehabilitation	City of Kalamazoo	2022	Resurface, restore, and rehabilitate pavement on Michigan Ave, including new signage, new pavement markings. Install new traffic signal at intersection of Douglass Ave, install conduit and fiber optic cable, install video detection, and optimization of the Michigan Ave corridor.	2,000,000	2,500,000
2	East Milham Avenue	1.5	South Westnedge Avenue to Portage Road	Resurface	City of Portage	2021	Roadway rehabilitation consisting of HMA cold milling, HMA surfacing, concrete sidewalk and ramps, miscellaneous concrete curb and gutter, permanent pavement markings and signage, and slope restoration. Project also includes water main replacement from South Westnedge Avenue to Salem Lane and CMAQ project to include traffic signal replacement at Newport Street and Oregon Avenue intersections with extension of fiber network.	1,400,000	2,820,000
3	Westnedge Avenue	1.004	Howard Street to Cork	Resurface	City of Kalamazoo	2023	Resurface 1.004 miles of pavement, including new signage, pavement markings. Install conduit and fiber optic cable, add video detection for traffic signals, upgrade traffic signal equipment. Traffic signal work would be CMAQ funded and could be separated into a different project. Resurface project would be \$570,000 as a stand-alone project.	856,000	1,070,000
4	Sprinkle Road	1.234	Milham Ave to N Ave	Resurface	Road Commission of Kalamazoo County	2021	HMA mill and resurface, culvert replacement, ADA ramps and traffic signal upgrades.	1,000,000	1,750,000
5	Sprinkle Road	1.099	E Main St to G Ave	Resurface	Road Commission of Kalamazoo County	2022	HMA mill and resurface, ADA ramps and traffic signal upgrades.	316,000	500,000
6	Whites Road	1.245	Whites Road from Parkview to Westnedge	Resurface	City of Kalamazoo	2023	Resurfacing the roadway, converting 4 through lanes to 2 through lanes with center left turn lane, adding bike lanes, add new signage, construct ADA compliant ramps. Add traffic signal to intersection of Whites and Duke and upgrade traffic signal at Bronson Blvd. and add conduit and fiber optic cable to the existing infrastructure.	920,000	1,150,000
7	Stadium Drive	2.153	Stadium Drive from Rambling Road to Michigan Ave	Restore & Rehabilitation	City of Kalamazoo	2021	Resurface, restore, and rehabilitate 2.153 miles of pavement, including new signage and pavement markings.	1,600,000	2,000,000
8	Parkview Avenue	1.757	Parkview Ave from Drake Road to Oakland Drive	Resurface	City of Kalamazoo	2021	Resurface 1.757 miles of pavement, including new signage, pavement markings, replacement of guardrail.	720,000	900,000
9	South Westnedge Avenue	1.04	Mall Drive to Trade Center Way	Restore & Rehabilitation	City of Portage	2023	Microsurface South Westnedge Avenue from south of Mall Drive to north of Trade Center Way to include traffic control and permanent pavement markings. This project will also include updating this section of corridor with Integrated Control Systems.	200,000	250,000
10	Solon Ave	0.48	City of Kalamazoo limit to W Main St (M-43)	Resurface	Road Commission of Kalamazoo County	2021	HMA mill and resurface, ADA ramps and traffic signal upgrades.	144,000	220,000
11	Sprinkle Rd	0.8	N Ave to I-94	Resurface	Road Commission of Kalamazoo County	2023	HMA mill and resurface, ADA ramps and traffic signal upgrades.	129,000	217,000

12	Barney/Mosel	1.32	Nichols Rd to Riverview Dr	Resurface	Road Commission of Kalamazoo County	2023	HMA mill and resurface, ADA ramps, shoulder widening and traffic signal upgrades.	200,000	310,000
13	Portage Road	1	East Centre Avenue to Romence Road	Resurface	City of Portage	2023	Roadway rehabilitation consisting of HMA cold milling, HMA surfacing, concrete sidewalk and ramps, miscellaneous concrete curb and gutter, permanent pavement markings and signage, and slope restoration.	750,000	1,085,000
14	Lovers Lane	1.02	East Milham Avenue to Kilgore Road	Resurface	City of Portage	2022	Roadway rehabilitation consisting of HMA cold milling, HMA surfacing, concrete sidewalk and ramps, miscellaneous concrete curb and gutter, permanent pavement markings and signage, and slope restoration.	750,000	1,075,000
15	Shaver Road	1.99	South City Limits to Vanderbilt Avenue	Resurface	City of Portage	2022	Roadway rehabilitation consisting of HMA cold milling, HMA surfacing, concrete sidewalk and ramps, miscellaneous concrete curb and gutter, permanent pavement markings and signage, and slope restoration. Project also includes replacement of water main from West Osterhout Avenue to Vanderbilt Avenue.	1,200,000	2,530,000
16	Nichols Rd	1.206	W Main St (M-43) to Ravine Rd	Resurface	Road Commission of Kalamazoo County	2021	HMA mill and resurface, ADA ramps and traffic signal upgrades.	288,000	435,000
17	Douglas Ave	1.577	City of Kalamazoo limits to G Ave	Resurface	Road Commission of Kalamazoo County	2023	HMA mill and resurface, ADA ramps, shoulder widening and traffic signal upgrades.	230,000	345,000
18	Milham Avenue	2.013	Oregon Avenue to Portage Road	Traffic Operations	City of Portage	2021	Traffic signals need to be coordinated on this segment of Milham Avenue. Traffic signals at the intersections of Milham/Newport and Milham/Oregon need to be upgraded to achieve coordination and be tied to the traffic operation center. In addition, traffic signal timings will be revised to facilitate traffic flow. Fiber optic will be added from South Westnedge Avenue to Portage Road.	505,299	800,000
19	Miller Road	1.003	Miller Road from Portage Street to Sprinkle Road	Restore & Rehabilitation	City of Kalamazoo	2022	Resurface, restore, and rehabilitate Miller Road, upgrade sidewalk ramps to ADA compliant, drainage improvements, add new signage as needed. \$500,000 CMAQ	600,000	750,000
20	West Milham	1.507	Angling Road to Oregon Avenue	Traffic Operations	City of Portage	2023	Traffic signals need to be coordinated on this segment of Milham Avenue. Traffic signals at the intersections of Milham/Monticello and Milham/Angling need to be upgraded to achieve coordination and be tied to the traffic operation center. In addition, traffic signal timings will be revised to facilitate traffic flow. Fiber optic will be added from Angling Road to Oakland Drive.	505,299	1,100,000
21	Countywide Urban Chip Seal	0	Various	Other	Road Commission of Kalamazoo County	2023	Primary road chip seal at various locations throughout Kalamazoo County	80,000	100,000
22	G Ave	1.747	Riverview Dr to 24th St	Resurface	Road Commission of Kalamazoo County	2023	HMA mill and overlay, ADA ramps, left-turn lane, shoulder improvements and traffic signal upgrades.	259,000	390,000
23	Countywide Urban Chip Seal	0	Various	Other	Road Commission of Kalamazoo County	2021	Primary road chip seal at various locations throughout Kalamazoo County	80,000	100,000
24	Countywide Urban Chip Seal	0	Various	Other	Road Commission of Kalamazoo County	2022	Primary road chip seal at various locations throughout Kalamazoo County	80,000	100,000
25	Countywide Urban Chip Seal	0	Various	Other	Road Commission of Kalamazoo County	2023	Primary road chip seal at various locations throughout Kalamazoo County	80,000	100,000

26	Lake Street	0.928	Lake Street from Portage Street to City limits	Restore & Rehabilitate	City of Kalamazoo	2023	Resurface, restore, and rehabilitate 0.928 miles of pavement, including new signage, new pavement markings, and drainage improvements.	424,000	530,000
27	South Westnedge Avenue	0.52	Melody Avenue to East Centre Avenue	Resurface	City of Portage	2022	Roadway rehabilitation consisting of HMA cold milling, HMA surfacing, concrete sidewalk and ramps, miscellaneous concrete curb and gutter, permanent pavement markings and signage, and slope restoration.	365,000	520,000
28	Red Arrow Highway	2.01	CR 653 to 28th Street	Resurface	Van Buren County Road Commission	2021	Roadway widening and resurfacing including cold milling, trenching, HMA surfacing, gravel shoulders, driveway improvements, slope restoration, signing and pavement markings.	1,592,000	1,990,000
29	35th St	0	Battle Creek St intersections	Traffic Operations	Road Commission of Kalamazoo County	2023	Replacement of traffic signal, signal timing improvements, ADA ramps.	200,000	300,000
30	E Main St	4.366	Sprinkle Rd to 33rd St	Resurface	Road Commission of Kalamazoo County	2022	HMA mill and resurface, ADA ramps, and shoulder widening.	648,000	980,000
31	Riverview Dr	1.306	Mt Olivet Rd to E Ave	Resurface	Road Commission of Kalamazoo County	2023	HMA mill and overlay, and shoulder improvements.	190,000	290,000
32	Mosel Ave	1.673	Douglas Ave to Riverview Dr	Traffic Operations	Road Commission of Kalamazoo County	2022	Traffic signal replacement, upgrades, interconnection and timing improvements. Reconstruction of Traffic Signals at Mosel/Douglas and Mosel/Westnedge with updated corridor signal timings at four locations along Mosel Avenue. Updated detection at reconstructed signals for improved efficiency of performance. Signal interconnect with signals at Mosel/Burdick and Mosel/Riverview to be included in the project.	505,299	1,020,000
33	Countywide Urban Overhead Flashers	0	Up to 20 Intersections throughout Kalamazoo County	Traffic Operations	Road Commission of Kalamazoo County	2021	Replacement of Traffic Signal Flashers at up to 20 intersections throughout Kalamazoo County	80,000	100,000
34	Riverview Drive	0.649	Parchmount to G Ave	Resurface	City of Parchment	2022	0.65 miles of street improvements including HMA mill and placement of HMA pavement, structure adjustments, pavement markings, ADA sidewalk ramps and restoration on Riverview Drive in the City of Parchment.	373,600	467,000
35	Romance Road	1.13	Angling Road to Oakland Drive	Reconstruct	City of Portage	2023	Roadway rehabilitation consisting of HMA cold milling, HMA surfacing, concrete sidewalk and ramps, miscellaneous concrete curb and gutter, permanent pavement markings and signage, and slope restoration. Will include mid-block pedestrian/school crossings with RRFB treatment at multiple locations.	560,000	790,000
36	River St	1.479	ML Avenue to King Highway (M-96)	Traffic Operations	Road Commission of Kalamazoo County	2020	Project proposed for 2024. Traffic signal replacement, upgrades, interconnection and timing improvements. Reconstruction of Traffic Signals at River/ML and River/Comstock with updated corridor signal timings at four locations along River Street corridor. Updated detection at reconstructed signals for improved efficiency of performance. Signal interconnect to be included in the project.	505,299	768,000
37	Comstock Ave	0.844	Sprinkle Rd to River St	Resurface	Road Commission of Kalamazoo County	2023	HMA mill and resurface, ADA ramps, shoulder improvements and traffic signal upgrades.	144,000	220,000

38	Ravine Rd	2.36	Drake Rd to City of Kalamazoo limit	Resurface	Road Commission of Kalamazoo County	2023	HMA mill and resurface, ADA ramps, and shoulder improvements.	345,000	525,000
39	CR 652	0.52	Fench Road to Red Arrow Highway	Reconstruct	Van Buren County Road Commission	2022	Crush and shape, pave shoulders, signing and pavement markings	656,000	820,000
40	Nichols Rd		Grand Prairie Rd 0 intersection	Traffic Operations	Road Commission of Kalamazoo County	2021	Replacement of traffic signal, signal timing improvements, ADA ramps.	160,000	240,000
41	South Westnedge Avenue	1.588	Osterhout Avenue to Crocket Avenue	Reconstruct	City of Portage	2021	Roadway rehabilitation from Osterhout Avenue to South Shore Drive consisting of HMA cold milling, HMA surfacing, concrete sidewalk and ramps, miscellaneous concrete curb and gutter, permanent pavement markings and signage, and slope restoration. Project also includes renovation of South Westnedge Avenue lift station and forcemain replacement via trenchless methods from the lift station south of South Shore Drive to Crocket Avenue.	625,000	1,540,000
42	CR 652	3.15	72nd Ave to Robison Road	Resurface	Van Buren County	2020	Trench and widen, cold milling, HMA paving	1,160,000	1,450,000
43	CR 665	1	64th Avenue to 60th	Resurface	Van Buren County	2021	Trench and widen, crush and shape, HMA	976,000	1,220,000
44	Shaver Rd	1.591	US-131 to Portage City	Resurface	Road Commission	2022	HMA mill and resurface.	432,000	648,000
45	CR 364	0.99	CR 657 to Western Avenue	Reconstruct	Van Buren County	2022	Trench and widen, cold milling, HMA paving	1,104,000	1,380,000
46	Green	0.52	Drake Road to Dragonfly	Roadside	Oshtemo Township	2021	Construct 5-foot sidewalk on the south side of	-	427,700
47	Croyden	0.74	Croyden Ave from Drake	Roadside	Oshtemo Township	2022	Construct 5-foot sidewalk on both sides of	-	505,000
48	CR 657	0.82	CR 364 to I-94	Reconstruct	Van Buren County	2023	Trench and widen, cold milling, HMA paving,	780,000	975,000
TAP	West KL Ave	0.32	Drake Road to Concord Place Drive	Roadside Facility	Oshtemo Township	2022	Construct 10-foot shared use path along West KL Ave (north side) from Drake Road to Concord Place Drive	-	469,500
TAP	City of	4.37	M-96 and 37th St. in	Roadside	Road Commission	2021	Approximately 4.37 miles of 10 foot wide	1,510,000	3,593,800
TAP	City of	4.37	M-96 and 37th St. in	Roadside	Road Commission	2021	Approximately 4.37 miles of 10 foot wide	1,510,000	3,593,800
CATEG-ORY F	South Westnedge Avenue	0.416	Trade Center Way to Kilgore Road	Resurface	City of Portage	2021	Roadway rehabilitation consisting of HMA cold milling, HMA surfacing, concrete sidewalk and ramps, miscellaneous concrete curb and gutter, permanent pavement markings and signage, and slope restoration.	500,000	725,000
TAP	Main St. at Payne Creek crossing		On Main Street - 100 LFT North and 100 LFT South of	Reconstruct	Village of Mattawan	2020	Resurface 200 LFT of existing road surface on Main Street, remove existing box culvert and replace with CSP pipe arch in Payne Creek, and remove pedestrian bridge and replace with a shared use path over Payne Creek. Reconstruction of road includes addition of necessary gravel to the road base, asphalt paving, and road striping. Also, a traffic control plan will be included with the project.	166,400	208,000
TAP	M 40 Village	3.402	72nd Ave to South of	Reconstruct	MDOT	2023	Reconstruction of M 40 through downtown	400,000	500,000
TAP	Commerce	0.356	Mosel to Riverview Drive	Resurface	City of Parchment	2021	0.356 miles of street improvements including	127,200	159,000
TAP	Stadium Drive	1.95	East Boundary of Oshtemo	Roadside	Oshtemo DDA	2020	.4,423 lineal feet of 6-foot shared use path,		1,004,000

Project Location	Total Project Length	Limits	Agency	Year	Project Description	Proposed Federal Cost	Proposed Total Project Cost
Bus Stop Improvements	Transit Facility	Within Metro Fixed Route System	Metro	2021	Updates to bus stops and shelters to meet ADA requirements per bus stop and shelter plan. Includes limited sidewalk connections where necessary to meet ADA requirements.	96,000	120,000
Bus Stop Improvements	Transit Facility	Within Metro Fixed Route System	Metro	2022	Updates to bus stops and shelters to meet ADA requirements per bus stop and shelter plan. Includes limited sidewalk connections where necessary to meet ADA requirements.	96,000	120,000
Wheels to Work Transportation Service		FY 2020	Metro	2020	Implement Wheels to Work program where transportation is provided to employers who purchase seats in vehicle for workers to maintain employment. Use of 15 passenger vehicles owned and operated by Metro.	51,408	51,408
Wheels to Work Transportation Service		FY 2020	Metro	2021	Implement Wheels to Work program where transportation is provided to employers who purchase seats in vehicle for workers to maintain employment. Use of 15 passenger vehicles owned and operated by Metro.	55,000	55,000
Wheels to Work Transportation Service		FY 2020	Metro	2022	Implement Wheels to Work program where transportation is provided to employers who purchase seats in vehicle for workers to maintain employment. Use of 15 passenger vehicles owned and operated by Metro.	58,000	58,000
Wheels to Work Transportation Service		FY 2020	Metro	2023	Implement Wheels to Work program where transportation is provided to employers who purchase seats in vehicle for workers to maintain employment. Use of 15 passenger vehicles owned and operated by Metro.	60,000	60,000
Van Replacement	Transit Vehicle Addition/Replacements		Metro	2020	Up to two (2) vans as part of the Capital Improvement Plan and vehicle replacement plan (Funded in 2017-2020 TIP as of 10/22/18)	80,000	100,000
Van Replacement	Transit Vehicle Addition/Replacements		Metro	2021	Up to two (2) vans as part of the Capital Improvement Plan and vehicle replacement plan (Funded in 2017-2020 TIP as of 10/22/18)	96,000	120,000
Van Replacement	Transit Vehicle Addition/Replacements		Metro	2022	Up to two (2) vans as part of the Capital Improvement Plan and vehicle replacement plan (Funded in 2017-2020 TIP as of 10/22/18)	96,000	120,000
Van Replacement	Transit Vehicle Addition/Replacements		Metro	2023	Up to two (2) vans as part of the Capital Improvement Plan and vehicle replacement plan (Funded in 2017-2020 TIP as of 10/22/18)	96,000	120,000
Bus Replacement	Transit Vehicle Addition/Replacements		Metro	2020	Up to two (2) Fixed Route Vehicles over four year life of Transportation Improvement Program	800,000	1,000,000

	FY	Job Number	Phase	Route Name	Project Location	County	Project Description	Length	BMP	EMP	Proposed Let date	Total Project Cost	Total Phase Cost	Fed Cost	State Cost	Local Cost	Primary Work Type
Congestion Mitigation and Air Quality (CMAQ)	2020	127501	CON	I-94	EB at MM 83 and WB at MM 82, Comstock Township between 11th Street and Academy Street, Kalamazoo	KALAMAZOO	Parking Area Expansion	1.198	4.685	8.208	12/6/2019 0:00	\$ 693,091	\$ 581,291	\$ 475,787	\$ 105,504	\$ -	Roadside Facilities - Improve
	2020	132617	CON	STADIUM DR		KALAMAZOO	Signals-Traffic Flow Improvement	3.701	0	3.766	10/11/2019 0:00	\$ 1,910,000	\$ 1,600,000	\$ 1,600,000	\$ -	\$ -	Traffic Safety
	2021	129068	CON	M-43	M-43 at G Avenue, Comstock Township, Kalamazoo Co.	KALAMAZOO	Intersection Improvements	0.688	4.045	5.34	11/4/2020 0:00						Traffic Safety
	2021	129068	CON	N 27TH ST	M-43 at G Avenue, Comstock Township, Kalamazoo Co.	KALAMAZOO	Intersection Improvements	0.688	0	0	11/4/2020 0:00	\$ 3,100,000	\$ 2,120,000	\$ 1,735,220	\$ 384,780	\$ -	Traffic Safety
	2022	201111	CON	M-331	M-331 at the intersection of Whites Road	KALAMAZOO	Intersection Improvements	0.075	0.876	1.126	10/8/2021 0:00						Traffic Safety
	2022	201111	CON	WHITES RD	M-331 at the intersection of Whites Road	KALAMAZOO	Intersection Improvements	0.075	0	0	10/8/2021 0:00	\$ 1,011,470	\$ 776,437	\$ 389,964	\$ 86,473	\$ 300,000	Traffic Safety
	2023	201119	CON	M-43	M-43 at Sprinkle Road in Kalamazoo County	KALAMAZOO	Left Turn Lane	0.34	3.192	3.678	10/7/2022 0:00						Minor Widening
	2023	201119	CON	SPRINKLE RD	M-43 at Sprinkle Road in Kalamazoo County	KALAMAZOO	Left Turn Lane	0.34	0	0	10/7/2022 0:00	\$ 1,855,000	\$ 1,635,001	\$ 1,338,248	\$ 296,753	\$ -	Minor Widening
	2020	202025	CON	US-131BR N	Westnedge Avenue to US-131	KALAMAZOO	Concrete Pavement Repair	4.291	0	5.95	12/13/2019 0:00	\$ 2,500,000	\$ 2,400,000	\$ -	\$ 2,400,000	\$ -	Road Rehabilitation
	2020	203643	CON	I-94 W	Van Buren/Kalamazoo County Line to Ninth Street	KALAMAZOO	Milling & One Course Asphalt Overlay	5.869			12/13/2019 0:00	\$ 5,336,200	\$ 5,148,965	\$ 4,634,068	\$ 514,897	\$ -	Road Capital Preventive Maintenance
2020	105885	CON	I-94	East of Lovers Lane to East of Portage Road	KALAMAZOO	Additional lane(s) over 0.5 mile long	1.248			10/9/2019 0:00	\$ 53,647,840	\$ 50,997,842	\$ 41,741,733	\$ 9,256,109	\$ -	Major Widening	
2020	105886	CON	I-94	Portage Road to Sprinkle Road	KALAMAZOO	Additional lane(s) over 0.5 mile long	1.182			10/9/2019 0:00	\$ 36,735,074	\$ 34,060,074	\$ 27,878,171	\$ 6,181,903	\$ -	Major Widening	
2021	129887	CON	I-94	under 32nd Street (CR 653)	VAN BUREN	Overlay - Shallow	0	0	0	12/15/2020 0:00	\$ 1,358,000	\$ 1,177,000	\$ 1,059,300	\$ 117,700	\$ -	Bridge Rehabilitation	
2021	129071	CON	28TH ST	M-43 at 28th St, Comstock Township, Kalamazoo Co.	KALAMAZOO	Intersection Improvements	0.957	0	0	10/20/2020 0:00	\$ 933,646	\$ 683,065	\$ 614,758	\$ 68,307	\$ -	Traffic Safety	
2021	129071	CON	M-43	M-43 at 28th St, Comstock Township, Kalamazoo Co.	KALAMAZOO	Intersection Improvements	0.957	4.641	6.583	10/20/2020 0:00	\$ 933,646	\$ 683,065	\$ 614,758	\$ 68,307	\$ -	Traffic Safety	
2021	202651	CON	Various in Kalamazoo County	Various in Kalamazoo County	KALAMAZOO	Non-Freeway Sign Replacement	68.189			10/9/2020 0:00	\$ 1,207,005	\$ 957,005	\$ 957,005	\$ -	\$ -	Traffic Safety	
2022	201985	CON	I-94 E	West of M-51 to 40th Street	VAN BUREN	Three Course Asphalt Resurfacing				11/12/2021 0:00	\$ 9,300,000	\$ 8,600,000	\$ 7,740,000	\$ 860,000	\$ -	Road Rehabilitation	
2022	204668	CON	Various in Kalamazoo County	Various Cantilevers W089, W100, W118, W128, W130,	KALAMAZOO	Freeway Sign Replacement	1.45			10/8/2021 0:00	\$ 1,614,968	\$ 1,314,968	\$ 1,314,968	\$ -	\$ -	Traffic Safety	
2023	200641	CON	M-40	72nd Street to south of Lagrave Street	VAN BUREN	Milling and Two Course Asphalt Resurfacing	3.402	6.545	10.039	12/9/2022 0:00	\$ 11,241,145	\$ 9,826,475	\$ 8,042,970	\$ 555,822	\$ 1,227,683	Road Rehabilitation	
2023	201967	CON	I-94 W	I-94 between I-94 Business Route and 40th Street	KALAMAZOO	Remove Roadside Obstacles	6.812	0	11.513	10/7/2022 0:00	\$ 477,050	\$ 424,215	\$ 381,794	\$ 42,421	\$ -	Traffic Safety	
2023	201968	CON	I-94BL W	I-94BL, Michigan and Kalamazoo Avenue	KALAMAZOO	Intersection Improvements - Sidewalk	0.459	0	0.604	12/9/2022 0:00	\$ 910,041	\$ 740,432	\$ 666,389	\$ 64,787	\$ 9,256	Traffic Safety	



Appendix G: Illustrative Project List

Rank	Agency	Project Location	Limits	Total Project Length	Work Type	Project Description	Proposed Federal Cost	Proposed Total Project Cost	Proposed State Cost	Proposed Local Cost	Proposed Total Phase Cost
1	City of Kalamazoo	Michigan Avenue	Michigan Ave from Douglass Ave to Pitcher St	1.927	Restore & Rehabilitate	Resurface, restore, and rehabilitate pavement on Michigan Ave, including new signage, new pavement markings. Install new traffic signal at intersection of Douglass Ave, install conduit and fiber optic cable, install video detection, and optimization of the Michigan Ave corridor.	2,000,000	2,500,000	0	500,000	0
2	Oshtemo Township	West KL Ave	Drake Road to Concord Place Drive	1,693 feet	Roadside Facility	Construct 10-foot shared use path along West KL Ave (north side) from Drake Road to Concord Place Drive	0	469500	0	469500	469500
3	City of Portage	Milham Avenue	Oregon Avenue to Portage Road	2.013	Traffic Operations	Traffic signals need to be coordinated on this segment of Milham Avenue. Traffic signals at the intersections of Milham/Newport and Milham/Oregon need to be upgraded to achieve coordination and be tied to the traffic operation center. In addition, traffic signal timings will be revised to facilitate traffic flow. Fiber optic will be added from South Westnedge Avenue to Portage Road.	505299	800000	0	294701	800000
4	City of Kalamazoo	Miller Road	Miller Road from Portage Street to Sprinkle Road	1.003	Restore & Rehabilitate	Resurface, restore, and rehabilitate Miller Road, upgrade sidewalk ramps to ADA compliant, drainage improvements, add new signage as needed. \$500,000 CMAQ	600,000	750,000	0	150,000	0
5	City of Portage	West Milham	Angling Road to Oregon Avenue	1.507	Traffic Operations	Traffic signals need to be coordinated on this segment of Milham Avenue. Traffic signals at the intersections of Milham/Monticello and Milham/Angling need to be upgraded to achieve coordination and be tied to the traffic operation center. In addition, traffic signal timings will be revised to facilitate traffic flow. Fiber optic will be added from Angling Road to Oakland Drive.	505299	1100000	0	594701	1100000
6	Road Commission of Kalamazoo County	Countywide Urban Chip Seal	Various	0	Other	Primary road chip seal at various locations throughout Kalamazoo County	80000	100000	0	20000	100000
7	Road Commission of Kalamazoo County	G Ave	Riverview Dr to 24th St	1.747	Resurface	HMA mill and overlay, ADA ramps, left-turn lane, shoulder improvements and traffic signal upgrades.	259000	390000	0	65000	324000
8	Road Commission of Kalamazoo County	Countywide Urban Chip Seal	Various	0	Other	Primary road chip seal at various locations throughout Kalamazoo County	80000	100000	0	20000	100000
9	Road Commission of Kalamazoo County	Countywide Urban Chip Seal	Various	0	Other	Primary road chip seal at various locations throughout Kalamazoo County	80000	100000	0	20000	100000
10	Road Commission of Kalamazoo County	Countywide Urban Chip Seal	Various	0	Other	Primary road chip seal at various locations throughout Kalamazoo County	80000	100000	0	20000	100000
11	MDOT	M 40 Village of Lawton	72nd Ave to South of Lagrave Street	3.402	Reconstruct	Reconstruction of M 40 through downtown Lawton. Replacement of sidewalks. Install handicap curbs and construct pedestrian crosswalks. Install pedestrian bump outs. Replace existing light poles with decorative poles. Project cost \$11 Million total.	400000	500000	0	100000	500000
12	City of Kalamazoo	Lake Street	Lake Street from Portage Street to City limits	0.928	Restore & Rehabilitate	Resurface, restore, and rehabilitate 0.928 miles of pavement, including new signage, new pavement markings, and drainage improvements.	424,000	530,000	0	106,000	0
13	City of Portage	South Westnedge Avenue	Melody Avenue to East Centre Avenue	2,750 feet	Resurface	Roadway rehabilitation consisting of HMA cold milling, HMA surfacing, concrete sidewalk and ramps, miscellaneous concrete curb and gutter, permanent pavement markings and signage, and slope restoration.	365000	520000	0	155000	520000
14	Van Buren County Road Commission	Red Arrow Highway	CR 653 to 28th Street	2.01	Resurface	Roadway widening and resurfacing including cold milling, trenching, HMA surfacing, gravel shoulders, driveway improvements, slope restoration, signing and pavement markings.	1592000	1990000	0	398	0
15	Road Commission of Kalamazoo County	35th St	Battle Creek St intersection	0	Traffic Operations	Replacement of traffic signal, signal timing improvements, ADA ramps.	200000	300000	0	50000	250000
16	Road Commission of Kalamazoo County	E Main St	Sprinkle Rd to 33rd St	4.366	Resurface	HMA mill and resurface, ADA ramps, and shoulder widening.	648000	980000	0	162000	810000
17	Road Commission of Kalamazoo County	Riverview Dr	Mt Olivet Rd to E Ave	1.306	Resurface	HMA mill and overlay, and shoulder improvements.	190000	290000	0	47500	237500
18	Road Commission of Kalamazoo County	Countywide Urban Overhead Flashers	Up to 20 Intersections throughout Kalamazoo County	0	Traffic Operations	Replacement of Traffic Signal Flashers at up to 20 intersections throughout Kalamazoo County	80000	100000	0	20000	100000
19	City of Parchment	Riverview Drive	Parchmount to G Ave	3430 feet	Resurface	0.65 miles of street improvements including HMA mill and placement of HMA pavement, structure adjustments, pavement markings, ADA sidewalk ramps and restoration on Riverview Drive in the City of Parchment.	373600	467000	0	93400	467000
20	City of Portage	Romance Road	Angling Road to Oakland Drive	5,950 feet	Reconstruct	Roadway rehabilitation consisting of HMA cold milling, HMA surfacing, concrete sidewalk and ramps, miscellaneous concrete curb and gutter, permanent pavement markings and signage, and slope restoration. Will include mid-block pedestrian/school crossings with RRFB treatment at multiple locations.	560000	790000	0	230000	790000
21	Road Commission of Kalamazoo County	River St	ML Avenue to King Highway (M-96)	1.479	Traffic Operations	Project proposed for 2024. Traffic signal replacement, upgrades, interconnection and timing improvements. Reconstruction of Traffic Signals at River/ML and River/Comstock with updated corridor signal timings at four locations along River Street corridor. Updated detection at reconstructed signals for improved efficiency of performance. Signal interconnect to be included in the project.	505299	768000	0	134701	640000
22	Road Commission of Kalamazoo County	Comstock Ave	Sprinkle Rd to River St	0.844	Resurface	HMA mill and resurface, ADA ramps, shoulder improvements and traffic signal upgrades.	144000	220000	0	36000	180000
23	Road Commission of Kalamazoo County	Ravine Rd	Drake Rd to City of Kalamazoo limit	2.36	Resurface	HMA mill and resurface, ADA ramps, and shoulder improvements.	345000	525000	0	87000	432000
24	Van Buren County Road Commission	CR 652	Fench Road to Red Arrow Highway	0.52	Reconstruct	Crush and shape, pave shoulders, signing and pavement markings	656000	820000	0	164000	0



Illustrative Project List

25	City of Portage	South Westnedge Avenue	Osterhout Avenue to Crocket Avenue	1.59	Reconstruct	Roadway rehabilitation from Osterhout Avenue to South Shore Drive consisting of HMA cold milling, HMA surfacing, concrete sidewalk and ramps, miscellaneous concrete curb and gutter, permanent pavement markings and signage, and slope restoration. Project also includes renovation of South Westnedge Avenue lift station and forcemain replacement via trenchless methods from the lift station south of South Shore Drive to Crocket Avenue.	625000	1540000	0	215000	840000
26	Van Buren County Road Commission	CR 652	72nd Ave to Robison Road (60th Ave)	3.15	Resurface	Trench and widen, cold milling, HMA paving and pavement markings	1160000	1450000	0	290000	0
27	Road Commission of Kalamazoo County	City of Galesburg and Village of Augusta	M-96 and 37th St. in Galesburg to west edge of Fort Custer Recreation Area in Augusta	4.37	Roadside Facility	Approximately 4.37 miles of 10 foot wide HMA non-motorized path, including several sections of boardwalk. Kalamazoo River Valley Trail Segment 7a begins at Galesburg-Augusta High School and continues to Fort Custer Recreation Area.	1510000	3593800	300000	1783800	3593800
28	Road Commission of Kalamazoo County	City of Galesburg and Village of Augusta	M-96 and 37th St. in Galesburg to west edge of Fort Custer Recreation Area in Augusta	4.37	Roadside Facility	Approximately 4.37 miles of 10 foot wide HMA non-motorized path, including several sections of boardwalk. Kalamazoo River Valley Trail Segment 7a begins at Galesburg-Augusta High School and continues to Fort Custer Recreation Area.	1510000	3593800	300000	1783800	3593800
29	Van Buren County Road Commission	CR 665	64th Avenue to 60th Avenue	1	Resurface	Trench and widen, crush and shape, HMA paving, restoration, and pavement markings	976000	1220000	0	244000	0
30	Road Commission of Kalamazoo County	Shaver Rd	US-131 to Portage City limit	1.591	Resurface	HMA mill and resurface.	432000	648000	0	108000	540000
31	Van Buren County Road Commission	CR 364	CR 657 to Western Avenue	0.99	Reconstruct	Trench and widen, cold milling, HMA paving and pavement markings	1104000	1380000	0	276000	0
32	Oshtemo Township	Green Meadow Drive	Drake Road to Dragonfly Road (south side) and Drake Road to Round Hill Road (north side)	0.52	Roadside Facility	Construct 5-foot sidewalk on the south side of Green Meadow Drive from Drake Road to the first entrance to the Canterbury Apartment (Dragonfly Road) and on the north side of Green Meadow Drive from Drake Road to Round Hill Road.	0	427700	0	427700	427700
33	Oshtemo Township	Croyden Ave/Maple Hill Drive	Croyden Ave from Drake Road to Maple Hill Drive and Maple Hill Drive from Croyden Ave to Vintage Lane	0.74	Roadside Facility	Construct 5-foot sidewalk on both sides of Croyden Ave from Drake Road to Maple Hill Drive. Construct 5-foot sidewalk on the east side of Maple Hill Drive from Croyden Ave to Vintage Lane.	0	505000	0	505000	505000
34	Van Buren County Road Commission	CR 657	CR 364 to I-94	0.82	Reconstruct	Trench and widen, cold milling, HMA paving, drainage, guardrail, signage, and pavement markings	780000	975000	0	195000	0

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Appendix H: Interagency Work Group Summary & Air Quality Conformity Maps

Summary of Meeting

Michigan Transportation Conformity Interagency Workgroup (MITC-IAWG)

Kalamazoo-Battle Creek Conformity Area

(Calhoun, Kalamazoo and Van Buren counties)

For

New 2020-2023 TIPs and STIP

April 12, 2019

MITC-IAWG was conducted via an email. The MITC-IAWG determined all projects in the new 2020-2023 Transportation Improvement Program (TIP) for the Kalamazoo Area Transportation Study (KATS), Battle Creek Area Transportation Study (BCATS) and State Transportation Improvement Program (STIP) projects in Calhoun, Van Buren, and Kalamazoo counties were all exempt or had previously been modeled. No new conformity analysis is required. The projects evaluated can be found in the Kalamazoo Battle Creek Area Air Quality Conformity Analysis document online (https://katsmpo.files.wordpress.com/2019/02/kalamazoo_battle-creek-conformity-analysis-2019_01_22_v1.pdf) or available upon request.

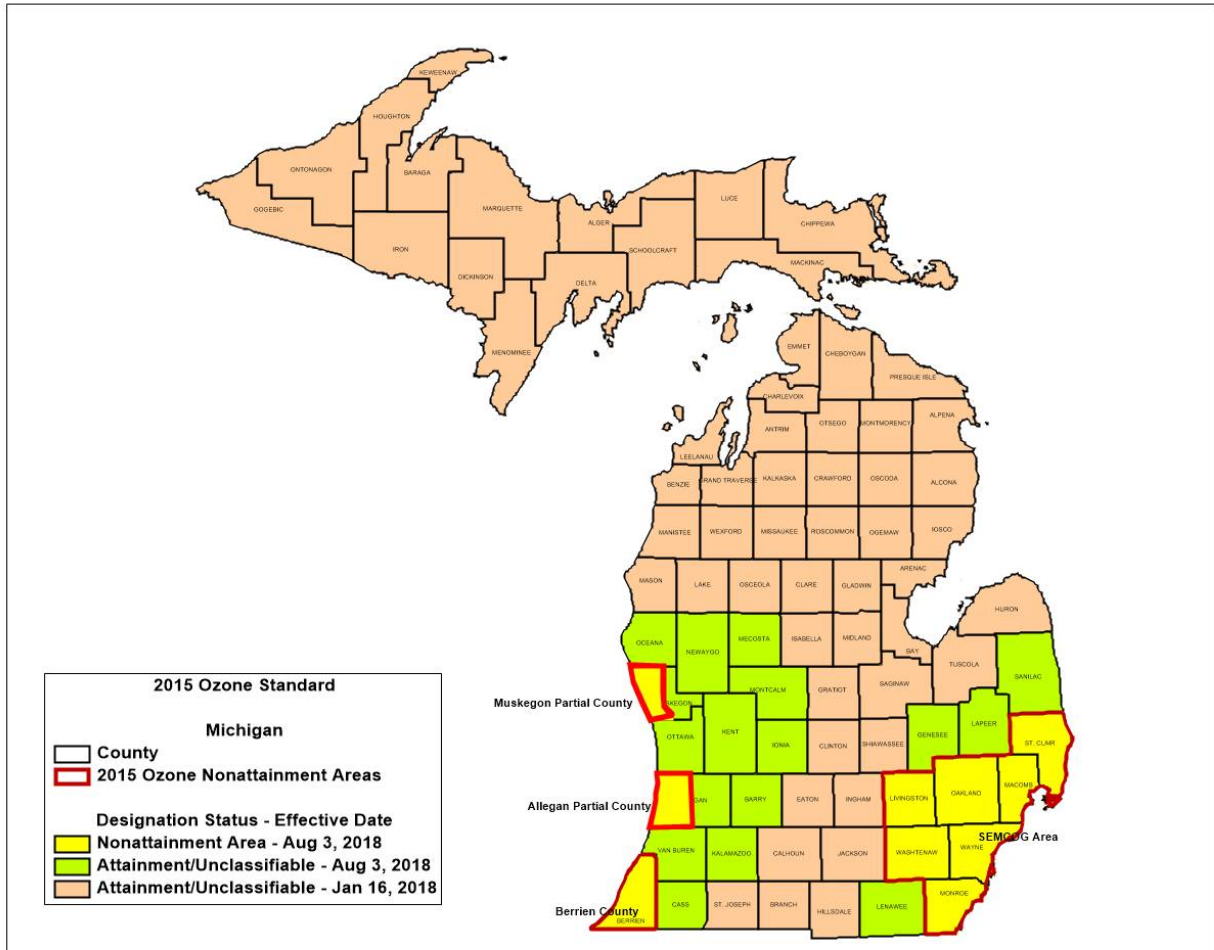
MITC-IAWG members and partners responding with concurrence:

Andrea Dewey (FHWA), Breanna Bukowski (MDEQ), Michael Leslie (EPA), David Fairchild (MDOT), Jeff Franklin (MDOT), Amy Lipset (MDOT), Pat Karr (BCATS), Megan Mickelson (KATS), Robert Maffeo (MDOT), Donna Wittl (MDOT)

Responses were not received from:

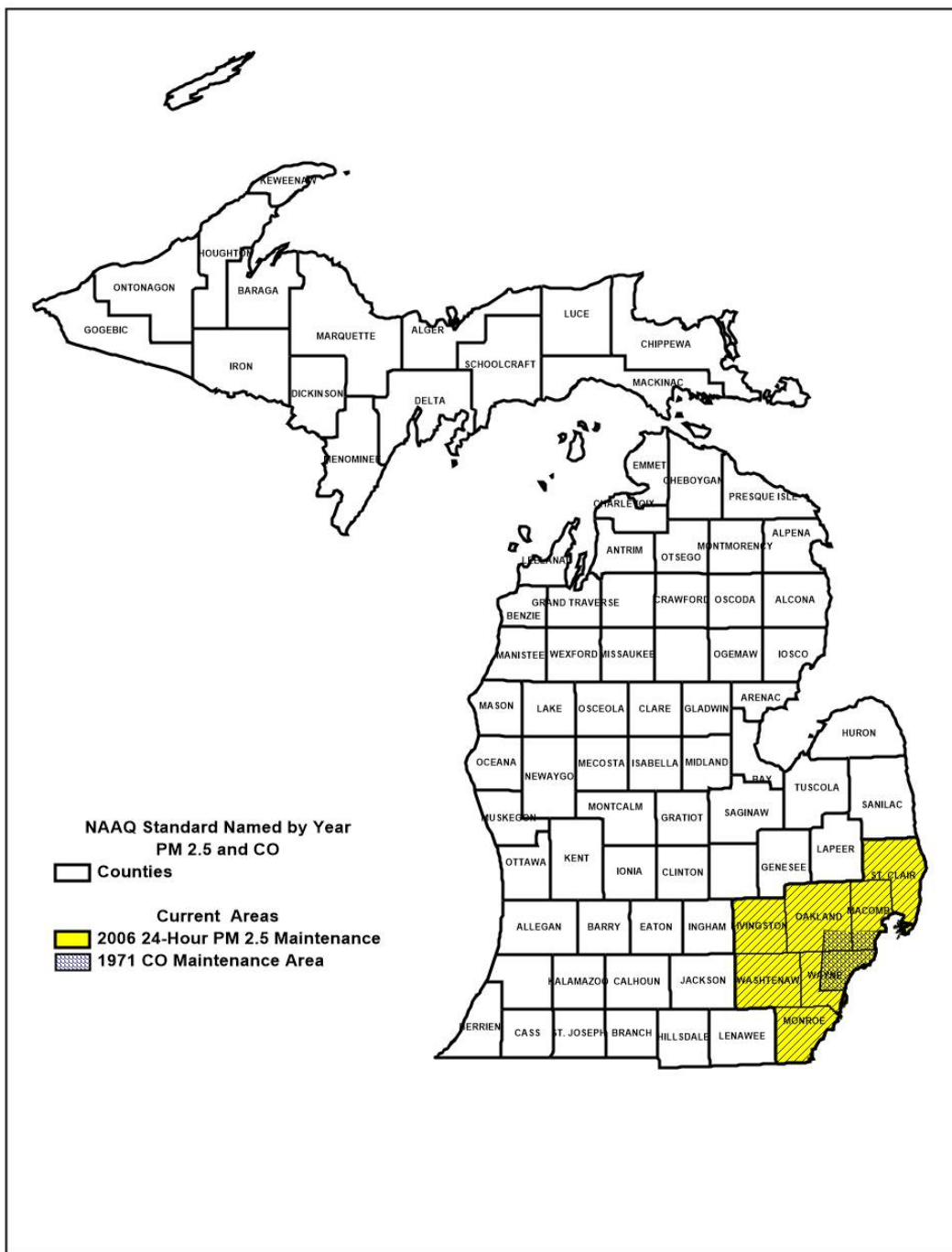
Angelica Salgado (FTA), Susan Weber (FTA), Mark Kloha (MDOT), Andy Tilma (BATS), Steve Stepek (KATS), Jon Start (KATS), Tyler Kent (MDOT), Ryan Gladding (MDOT), Brian Sanada (MDOT), Daniela Khavajian (MDOT)

Designations for the 2015 Ozone NAAQS in Michigan



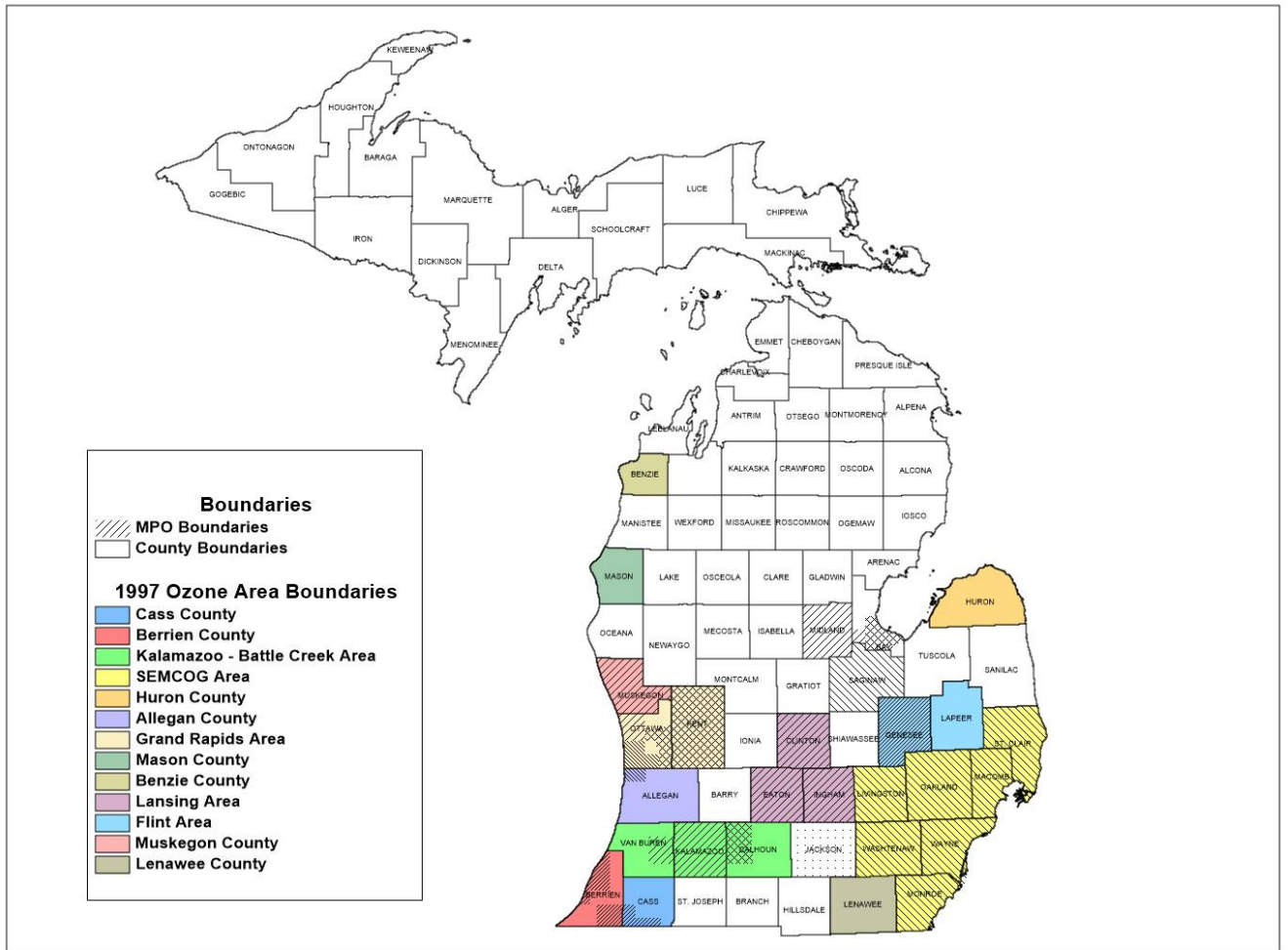
Prepared by the Statewide Transportation Planning Division, MDOT

Carbon Monoxide (CO) and Particulate Matter 2.5 (PM_{2.5}) Maintenance Areas in Michigan



Prepared by the Statewide Transportation Planning Division, MDOT

1997 Ozone Standard Conformity Area in Michigan



Prepared by the Statewide Transportation Planning Division, MDOT

Current or New Air Quality Conformity Analysis for 2020-2023 TIP/STIP

Air Quality Area	Current Conformity Determination Date	2020 - 2023 S/TIP Conformity Analysis
Allegan County	TBD pending	Reliance on previous analysis ¹
Benzie County	Rural county, all projects exempt	Rural county, all projects exempt
Berrien County	02/17/2019	Reliance on previous analysis ¹
Cass County	TBD pending	Reliance on previous analysis ¹
Flint (Genesee and Lapeer counties)	TBD pending	Reliance on previous analysis ¹
Grand Rapids (Ottawa and Kent counties)	TBD pending	New conformity analysis
Kalamazoo- Battle Creek Area (Van Buren, Kalamazoo, Calhoun counties)	TBD pending	Reliance on previous analysis ¹
Lansing – E. Lansing Area (Clinton, Eaton, Ingham counties)	TBD pending	Reliance on previous analysis ¹
Lenawee County	Rural county, all projects exempt	Rural county, all projects exempt
Mason County	Rural county, all projects exempt	Rural county, all projects exempt
Muskegon County	TBD pending	Reliance on previous analysis ¹
Detroit - Ann Arbor (SEMCOG counties Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, Wayne)	TBD pending	New conformity analysis possible

¹ Reliance on previous analysis per 40 CFR 93.122(g)

Appendix I: Demonstration of Fiscal Constraint



FISCAL CONSTRAINT DEMONSTRATION Fiscal Year 2020 - Fiscal Year 2023 Kalamazoo Area Transportation Study (KATS)

Date: 05/14/2019

Fund Source	Total Revenue	Federal Revenue	Federal Commitment	State Commitment	Local Commitment	Total Commitment
Fiscal Year - 2020						
Fiscal Year - 2020, Local MPO Based Constraint						
CMAQ	\$1,340,407	\$1,175,884	\$1,175,884	\$0	\$164,523	\$1,340,407
NHPP	\$650,000	\$457,000	\$457,000	\$0	\$193,000	\$650,000
STP - Small Urban	\$510,000	\$417,435	\$417,435	\$0	\$92,565	\$510,000
STP - TMA	\$5,678,166	\$3,532,489	\$3,505,389	\$0	\$2,145,677	\$5,651,066
Transportation Alternatives - TMA	\$618,435	\$259,913	\$259,913	\$0	\$358,522	\$618,435
FY 2020, Local MPO Based Constraint Total	\$8,797,008	\$5,842,721	\$5,815,621	\$0	\$2,954,287	\$8,769,908
Fiscal Year - 2020, Local RTF Based Constraint						
STP - Rural/Flexible	\$2,356,887	\$1,186,130	\$1,186,130	\$20,000	\$1,150,757	\$2,356,887
FY 2020, Local RTF Based Constraint Total	\$2,356,887	\$1,186,130	\$1,186,130	\$20,000	\$1,150,757	\$2,356,887
Fiscal Year - 2020, Local Projects from Statewide Sources						
Off-System Bridge	\$109,000	\$87,200	\$87,200	\$16,350	\$5,450	\$109,000
Safety	\$1,158,000	\$1,042,200	\$1,042,200	\$0	\$115,800	\$1,158,000
STP - Flexible (Bridge)	\$227,000	\$181,600	\$181,600	\$34,050	\$11,350	\$227,000
Other	\$514,934	\$0	\$0	\$375,000	\$139,934	\$514,934
FY 2020, Local Projects from Statewide Sources Total	\$2,008,934	\$1,311,000	\$1,311,000	\$425,400	\$272,534	\$2,008,934
Fiscal Year - 2020, MDOT Project Templates						
Road - Capital Preventive Maintenance	\$5,365,151	\$4,811,341	\$4,811,341	\$553,810	\$0	\$5,365,151
Road - Rehabilitation and Reconstruction	\$5,691,840	\$4,658,771	\$4,658,771	\$1,033,069	\$0	\$5,691,840



FISCAL CONSTRAINT DEMONSTRATION Fiscal Year 2020 - Fiscal Year 2023 Kalamazoo Area Transportation Study (KATS)

Date: 05/14/2019

Fund Source	Total Revenue	Federal Revenue	Federal Commitment	State Commitment	Local Commitment	Total Commitment
Fiscal Year - 2020						
Fiscal Year - 2020, MDOT Project Templates						
Traffic & Safety	\$2,009,098	\$1,965,550	\$1,965,550	\$43,548	\$0	\$2,009,098
FY 2020, MDOT Project Templates Total	\$13,066,089	\$11,435,662	\$11,435,662	\$1,630,427	\$0	\$13,066,089
Fiscal Year - 2020, Transit Project Categories						
5307	\$16,649,503	\$3,099,602	\$3,099,602	\$5,549,901	\$8,000,000	\$16,649,503
5310	\$245,032	\$196,026	\$196,026	\$49,006	\$0	\$245,032
5311	\$37,500	\$30,000	\$30,000	\$7,500	\$0	\$37,500
5339	\$391,747	\$313,398	\$313,398	\$78,349	\$0	\$391,747
FY 2020, Transit Project Categories Total	\$17,323,782	\$3,639,026	\$3,639,026	\$5,684,756	\$8,000,000	\$17,323,782
Fiscal Year - 2020 Grand Total	\$43,552,700	\$23,414,539	\$23,387,439	\$7,760,583	\$12,377,578	\$43,525,600
Fiscal Year - 2021						
Fiscal Year - 2021, Local MPO Based Constraint						
CMAQ	\$800,000	\$505,299	\$505,299	\$0	\$294,701	\$800,000
NHPP	\$582,500	\$466,000	\$466,000	\$0	\$116,500	\$582,500
STP - TMA	\$4,444,925	\$3,351,000	\$3,350,999	\$12,425	\$1,081,500	\$4,444,924
FY 2021, Local MPO Based Constraint Total	\$5,827,425	\$4,322,299	\$4,322,298	\$12,425	\$1,492,701	\$5,827,424
Fiscal Year - 2021, Local RTF Based Constraint						
STP - Rural/Flexible	\$791,783	\$644,000	\$644,000	\$25,750	\$122,033	\$791,783
TEDF Category D	\$236,967	\$0	\$0	\$236,967	\$0	\$236,967



FISCAL CONSTRAINT DEMONSTRATION
 Fiscal Year 2020 - Fiscal Year 2023
 Kalamazoo Area Transportation Study (KATS)

Date: 05/14/2019

Fund Source	Total Revenue	Federal Revenue	Federal Commitment	State Commitment	Local Commitment	Total Commitment
Fiscal Year - 2021						
FY 2021, Local RTF Based Constraint Total	\$1,028,750	\$644,000	\$644,000	\$262,717	\$122,033	\$1,028,750
Fiscal Year - 2021, Local Projects from Statewide Sources						
STP - Flexible (Bridge)	\$1,830,000	\$1,464,000	\$1,464,000	\$274,500	\$91,500	\$1,830,000
FY 2021, Local Projects from Statewide Sources Total	\$1,830,000	\$1,464,000	\$1,464,000	\$274,500	\$91,500	\$1,830,000
Fiscal Year - 2021, MDOT Project Templates						
Bridge Preservation	\$1,177,000	\$1,059,300	\$1,059,300	\$117,700	\$0	\$1,177,000
Road - Rehabilitation and Reconstruction	\$85,057,916	\$69,619,904	\$69,619,904	\$15,307,400	\$130,612	\$85,057,916
Traffic & Safety	\$2,573,605	\$2,411,945	\$2,411,945	\$161,660	\$0	\$2,573,605
Other	\$1,739,626	\$1,426,493	\$1,426,493	\$313,133	\$0	\$1,739,626
FY 2021, MDOT Project Templates Total	\$90,548,147	\$74,517,642	\$74,517,642	\$15,899,893	\$130,612	\$90,548,147
Fiscal Year - 2021, Transit Project Categories						
5307	\$16,150,000	\$2,700,000	\$2,700,000	\$5,450,000	\$8,000,000	\$16,150,000
5310	\$245,000	\$196,000	\$196,000	\$49,000	\$0	\$245,000
5311	\$38,000	\$30,400	\$30,400	\$7,600	\$0	\$38,000
5339	\$437,500	\$350,000	\$350,000	\$87,500	\$0	\$437,500
FY 2021, Transit Project Categories Total	\$16,870,500	\$3,276,400	\$3,276,400	\$5,594,100	\$8,000,000	\$16,870,500
Fiscal Year - 2021 Grand Total	\$116,104,822	\$84,224,341	\$84,224,340	\$22,043,635	\$9,836,846	\$116,104,821

Fiscal Year - 2022						
Fiscal Year - 2022, Local MPO Based Constraint						



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Fund Source	Total Revenue	Federal Revenue	Federal Commitment	State Commitment	Local Commitment	Total Commitment
Fiscal Year - 2022						
Fiscal Year - 2022, Local MPO Based Constraint						
CMAQ	\$830,299	\$505,299	\$505,299	\$0	\$325,000	\$830,299
NHPP	\$590,000	\$475,000	\$475,000	\$0	\$115,000	\$590,000
STP - Small Urban	\$1,100,000	\$375,000	\$375,000	\$0	\$725,000	\$1,100,000
STP - TMA	\$4,420,750	\$3,418,000	\$3,418,000	\$21,750	\$981,000	\$4,420,750
FY 2022, Local MPO Based Constraint Total	\$6,941,049	\$4,773,299	\$4,773,299	\$21,750	\$2,146,000	\$6,941,049
Fiscal Year - 2022, Local RTF Based Constraint						
STP - Rural/Flexible	\$1,171,250	\$657,000	\$657,000	\$26,250	\$488,000	\$1,171,250
FY 2022, Local RTF Based Constraint Total	\$1,171,250	\$657,000	\$657,000	\$26,250	\$488,000	\$1,171,250
Fiscal Year - 2022, MDOT Project Templates						
Road - Rehabilitation and Reconstruction	\$8,807,910	\$7,910,174	\$7,910,174	\$897,736	\$0	\$8,807,910
Traffic & Safety	\$915,559	\$837,502	\$837,502	\$78,057	\$0	\$915,559
Other	\$24,786	\$20,325	\$20,325	\$4,461	\$0	\$24,786
FY 2022, MDOT Project Templates Total	\$9,748,255	\$8,768,001	\$8,768,001	\$980,254	\$0	\$9,748,255
Fiscal Year - 2022, Transit Project Categories						
5307	\$16,150,000	\$2,700,000	\$2,700,000	\$5,450,000	\$8,000,000	\$16,150,000
5310	\$250,000	\$200,000	\$200,000	\$50,000	\$0	\$250,000
5311	\$38,000	\$30,400	\$30,400	\$7,600	\$0	\$38,000
5339	\$446,000	\$356,800	\$356,800	\$89,200	\$0	\$446,000



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Fund Source	Total Revenue	Federal Revenue	Federal Commitment	State Commitment	Local Commitment	Total Commitment
Fiscal Year - 2022						
FY 2022, Transit Project Categories Total	\$16,884,000	\$3,287,200	\$3,287,200	\$5,596,800	\$8,000,000	\$16,884,000
Fiscal Year - 2022 Grand Total	\$34,744,554	\$17,485,500	\$17,485,500	\$6,625,054	\$10,634,000	\$34,744,554
Fiscal Year - 2023						
Fiscal Year - 2023, Local MPO Based Constraint						
CMAQ	\$505,299	\$505,299	\$505,299	\$0	\$0	\$505,299
NHPP	\$606,250	\$485,000	\$485,000	\$0	\$121,250	\$606,250
STP - TMA	\$4,535,000	\$3,486,000	\$3,486,000	\$0	\$1,049,000	\$4,535,000
FY 2023, Local MPO Based Constraint Total	\$5,646,549	\$4,476,299	\$4,476,299	\$0	\$1,170,250	\$5,646,549
Fiscal Year - 2023, Local RTF Based Constraint						
STP - Rural/Flexible	\$706,250	\$670,000	\$670,000	\$36,250	\$0	\$706,250
TEDF Category D	\$157,978	\$0	\$0	\$157,978	\$0	\$157,978
FY 2023, Local RTF Based Constraint Total	\$864,228	\$670,000	\$670,000	\$194,228	\$0	\$864,228
Fiscal Year - 2023, MDOT Project Templates						
Bridge Replacement	\$11,300,002	\$9,249,051	\$9,249,051	\$2,050,951	\$0	\$11,300,002
Road - Rehabilitation and Reconstruction	\$9,826,475	\$8,042,970	\$8,042,970	\$555,822	\$1,227,683	\$9,826,475
Traffic & Safety	\$1,660,305	\$1,494,275	\$1,494,275	\$166,030	\$0	\$1,660,305
Other	\$120,528	\$98,833	\$98,833	\$21,695	\$0	\$120,528
FY 2023, MDOT Project Templates Total	\$22,907,310	\$18,885,129	\$18,885,129	\$2,794,498	\$1,227,683	\$22,907,310
Fiscal Year - 2023, Transit Project Categories						



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Fiscal Year - 2023						
Fiscal Year - 2023, Transit Project Categories						
5307	\$16,150,000	\$2,700,000	\$2,700,000	\$5,450,000	\$8,000,000	\$16,150,000
5310	\$255,000	\$204,000	\$204,000	\$51,000	\$0	\$255,000
5311	\$38,000	\$30,400	\$30,400	\$7,600	\$0	\$38,000
5339	\$455,000	\$364,000	\$364,000	\$91,000	\$0	\$455,000
FY 2023, Transit Project Categories Total	\$16,898,000	\$3,298,400	\$3,298,400	\$5,599,600	\$8,000,000	\$16,898,000
Fiscal Year - 2023 Grand Total	\$46,316,087	\$27,329,828	\$27,329,828	\$8,588,326	\$10,397,933	\$46,316,087

Since Jobnet is a live database, this Fiscal Constraint Demonstration represents a static moment in time when the report was generated.