Chapter VI Performance Measures and Project Selection

Performance-Based Planning

A key feature of MAP-21/FAST Act is the establishment of a performance- and outcome-based program. The objective of this program is for the investment of resources in projects that collectively make progress toward the achievement of national goals. National performance goals for the Federal-aid highway program must be established in seven areas: safety, infrastructure condition, congestion reduction, system reliability, freight movement, environmental sustainability, and reduced project delivery delays.

Performance Measures

The US DOT Secretary, in consultation with states, MPOs, and other stakeholders, will establish performance measures for:

- Fatalities and serious injuries—both number and rate per vehicle mile traveled- on all public roads
- Pavement condition on the Interstate System and on the remainder of the National Highway System
- Performance of the Interstate System and the remainder of the NHS
- Bridge condition on the NHS
- Traffic congestion
- On-road mobile source emissions
- Freight movement on the Interstate System

Performance Targets

State Targets

Within one year of the 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. Any new TIP document or

amendment must comply with performance reporting requirements beginning on May 27, 2018.

MAP-21 also mandated—and in 2015, the FAST Act reauthorized—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. Targets must be established for rolling stock, equipment, facilities, and infrastructure, which are detailed in this section under Transit Performance.

MPO Targets
Within 180 days of states or providers of public transportation setting performance targets, MAP-21/FAST Act requires MPOs 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.

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

In an effort to clearly define and document the process by which projects are programmed into the TIP, staff at GVMC outlined before the TPSG Committee the tools used by local jurisdictions, MDOT and ITP to show how a project evolves from the preliminary stages to being programmed into a TIP. (See Appendices E, F, H, I & J.) From this effort, the TPSG, Technical and Policy Committees met on several occasions to develop one document to be used as a guide for programming projects by all entities. This guide, named “Policies and Practices for Programming Projects,” (a continually updated and revised document) lays out procedures that conform to the revised planning process and attempts to unify the three processes into one. This document also employs a guide for programming projects that leads to relieving roadway congestion deficiencies, pavement condition deficiencies, improving transit, and developing improved non-motorized facilities in the area. (See Appendix K).

Like other MPOs statewide, GVMC has and continues to face limitations in funding resources at the local, state, and federal levels, which means that system needs remain unmet in spite of our best efforts. Because of funding shortages, GVMC has historically funded the greatest percentage of projects that are deficient due to pavement condition as these projects tend to benefit the largest number of system users and the system as a whole. It also becomes more expensive to fix a pavement deficient project as time goes on, so choosing pavement deficient projects has helped to stretch the limited dollars we receive.

Before the development process for the FY2017-2020 TIP began, GVMC ran a deficiency analysis on pavement condition and congestion and generated a list of deficient projects through that process. Once this list was developed, we asked jurisdictions to submit projects to be considered for programming in the TIP which created a non-fiscally constrained pool of projects. Staff then added each project to a spreadsheet along with corresponding data gleaned from the Congestion Management

(CMS) and Pavement Management (PaMS) systems, including information related to level of service, the current PASER rating, crash data and traffic counts. This effort produced a list of facilities in need of either congestion relief (taken directly from the 2040 MTP) or pavement condition improvements. Non-motorized projects were ranked and scored according to five criteria outlined in our Non-Motorized Plan before they were brought through our Committee structure for consideration: (1) mode shift, (2) connectivity/continuity, (3) safety/ADA, (4) regional vs. local facility, and (5) high use/social equity.

Staff from local jurisdictions were then asked to develop a list of projects from these deficiency lists that could be implemented by the years 2017 through 2020. These potential projects were collected by staff and a pool of projects was developed. The Transportation Programming Study Group evaluated all of the projects based on the provided data as well as policies and restraints in place in light of the available funding and used that information to determine which projects were funded.

The final step in the development of the TIP list of projects involved the MPO members prioritizing a financially constrained project list as required by federal regulations. In January 2016, the TPSG Committee met and selected projects from the TIP pool of projects. The TIP project selection process included factors such as deficiency (condition, safety or capacity), regional equity, air quality improvement, and connectivity. Using this approach, it can be assured that all of the projects programmed in the FY 2017-2020 TIP will improve an identified transportation system deficiency. While the FY2017-2020 TIP and 2040 Metropolitan Transportation plan were developed before requirements for performance-based planning and programming took effect, GVMC was still able to collect data for and address several performance measure areas (i.e., condition, safety or capacity) in our project selection process. The result of that programming effort is reflected in the proposed FY 2017-2020 Projects List. The list comprises all of the projects recommended and approved (Local, ITP and MDOT) by the TPSG, Technical and Policy Committees for inclusion in the FY 2017-2020 Transportation Improvement Program.

Federal regulations require the TIP to be financially constrained by fiscal year. The TIP must demonstrate that there is enough money available each year to fund projects listed in the TIP for the year. The purpose of the table (see Appendix A) is to demonstrate financial constraint. The table compares estimated revenues and expenditures by funding source and indicates how much revenue total it is estimated will be available each year from federal, state, and local sources.

In regards to Environmental Justice, GVMC, after consultation with MDOT and the Federal Highway Administration (FHWA) officials, has chosen to address environmental justice by identifying ethnicity, low income, and those areas with concentrations of traditionally underserved populations. Chapter IV further explains how staff accomplished the task of Environmental Justice analysis.

Individual Performance Measure Tracking

At this time, Safety, Transit, Pavement and Bridge Condition, and System Performance/Freight performance targets have been established. New sections will be added to this document as additional targets are determined. GVMC will be posting data related to these performance measures on our website.

Safety Performance
Federal regulations require the use of a five year rolling average for each of the five safety performance measures shown below:

1. Number of fatalities
2. Rate of fatalities per 100 million VMT
3. Number of Serious Injuries
4. Rate of Serious Injuries per 100 million VMT
5. Number of Non-motorized Fatalities and Non-motorized Serious Injuries

MPOs were required to establish safety targets by either

1. Agreeing to plan and program projects so that they contribute to the accomplishment of the State DOT safety targets for the performance measures; or
2. Committing to a quantifiable target for the performance measures for their metropolitan planning area

MPOs are required to establish targets no later than 180 days after the state DOT established the state safety targets. MDOT published its most recent set of safety targets on August 31, 2018, included below:

Michigan Safety Targets for 2019

Safety Performance Measure	Baseline Condition (2013-2017)	2019 Safety Target
Fatalities	981.4	1023.2
Fatality Rate (per 100 million VMT)	1.00	1.02
Serious Injuries	5355.0	5406.8
Serious Injury Rate (per 100 million VMT)	5.47	5.41
Non-Motorized Fatalities and Serious Injuries	743.6	759.8

GVMC completed an analysis of crash data in our area in 2018, some of which is included below, to help the Committees make an informed decision about whether to support State safety targets for the initial 2018 performance period, which they did. At the January 2019 Committee meetings, the Technical and Policy Committees, again,

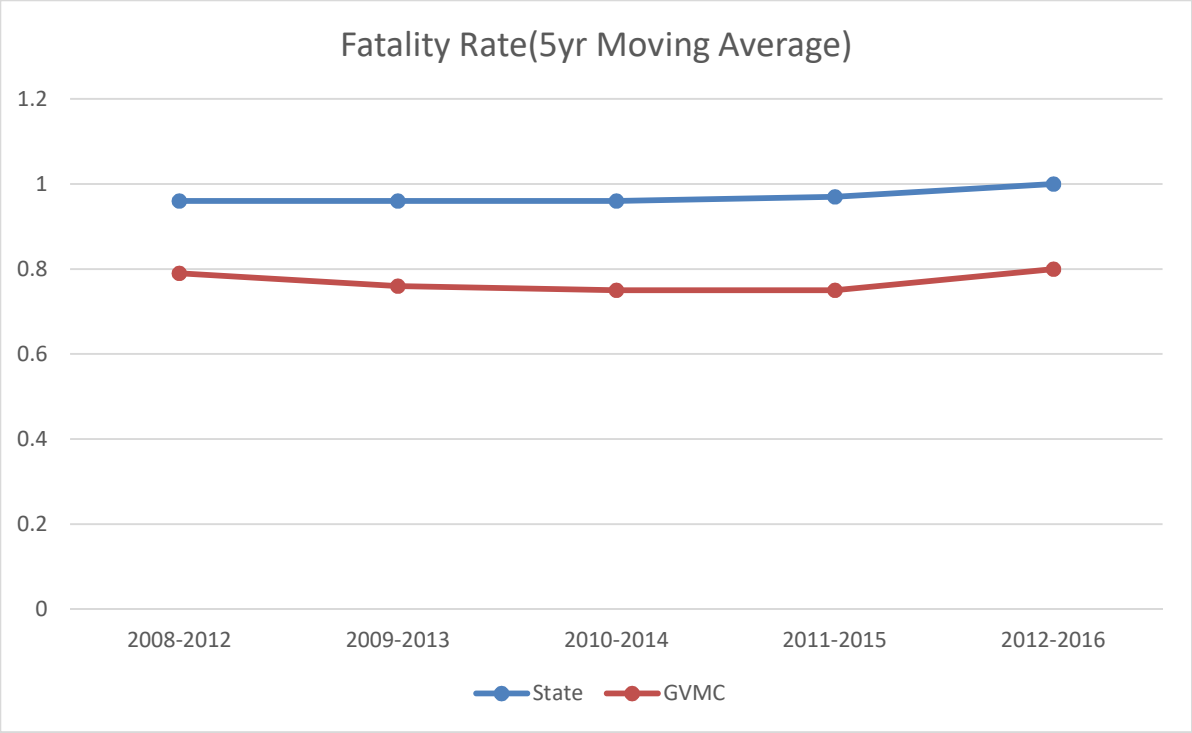
resolved to support State Safety targets. While crash trends have indicated increases recently in fatalities and nonmotorized serious injuries, and declines in other serious injuries, GVMC is committed to striving to improve safety conditions and slow the growth of negative safety outcomes through supporting the statewide safety targets.

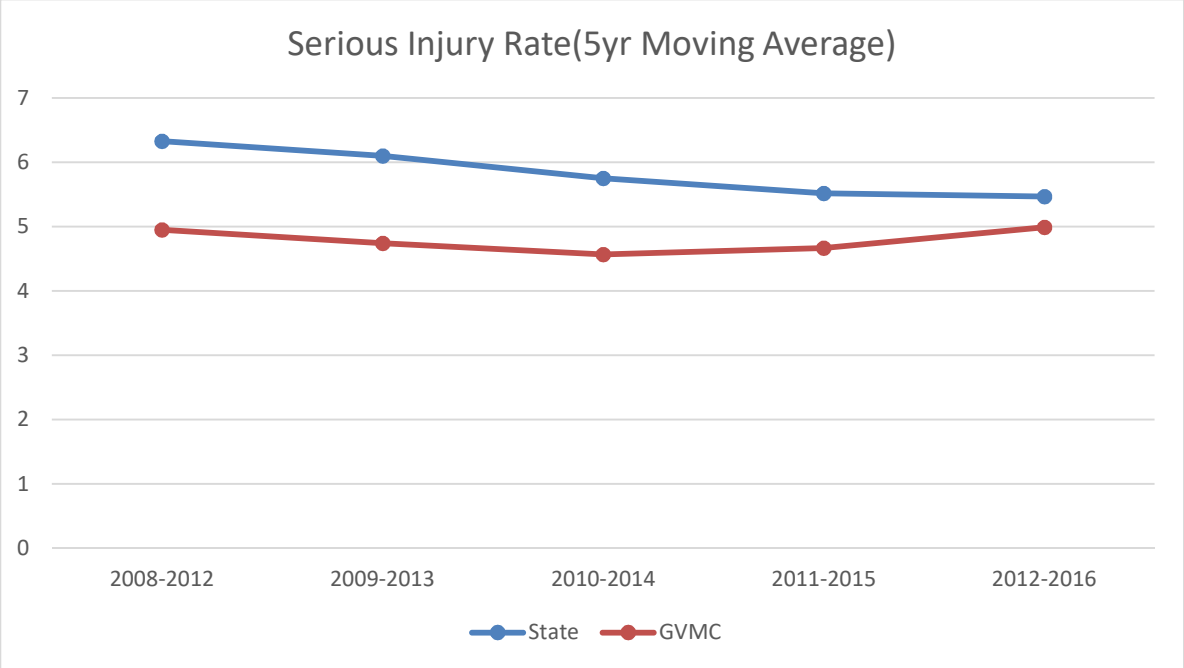
Below are the statewide trends in crashes during the past 5-year period:

Michigan Crash Trends, 2012-2016

	2012	2013	2014	2015	2016
Fatalities	936	951	876	963	1,064
Serious Injuries	4,540	4,311	4,045	3,939	4,565
Non-Motorized Fatalities & Serious Injuries	666	714	668	709	704

GVMC Safety Performance Data											
Year	Fatality	Serious Injury	5yr Moving Average		VMT	Fatality Rate	Serious Injury Rate	5yr Moving Average		Bike Ped Fatality/ Serious Injuries	Bike Ped Fatality/ Serious Injuries 5yr MA
			Fatality	Serious Injuries				Fatality Rate	Serious Injury Rate		
2008	60	387			69.94	0.86	5.53			51	
2009	60	353			70.50	0.85	5.01			40	
2010	68	327			71.07	0.96	4.6			52	
2011	43	346			71.36	0.6	4.85			43	
2012	49	340	56	350.6	71.65	0.68	4.75	0.79	4.95	58	48.8
2013	50	324	54	338	71.94	0.7	4.5	0.76	4.74	61	50.8
2014	58	298	53.6	327	72.23	0.8	4.13	0.75	4.57	47	52.2
2015	71	370	54.2	335.6	72.53	0.98	5.1	0.75	4.67	72	56.2
2016	62	471	58	360.6	72.82	0.85	6.47	0.8	4.99	64	60.4
2016 Michigan State								1.00	5.47		
2018 State Target								1.02	5.23		





While the FY2017-2020 TIP was developed before the safety performance measure took effect, GVMC did program projects in the document with safety in mind, and safety projects received 13% of the available funding. The Grand Valley Metro Council also encourages its members to apply for Federal funding using local safety funds. GVMC endorses local safety projects before submitting them to MDOT for funding

consideration. These projects are not prioritized in any order. Eligible projects may include replacement, installation or elimination of guardrail; traffic signal installation and upgrades; horizontal and vertical curve corrections; sight distance and drainage improvements; bridge railing replacement or retrofit; approach guardrail; and roadway intersection improvements to improve safety and/or capacity. The Michigan Department of Transportation accepts applications for local safety programs on a yearly basis. However, not all projects are funded.

Safety/ADA was considered during the project evaluation process for non-motorized projects currently listed in the current Non-Motorized Plan as well. This includes if the projects help to eliminate conflict points between vehicles and forms of non-motorized travel. Such projects should minimize the incidents of crashes, injuries, and fatalities as well.

Since projects using STP-safety funds are programmed yearly (FY2018 & 2019 projects are already selected), staff can only address safety performance measures moving forward (FY2019 and beyond). It is unlikely that GVMC will deviate significantly from the current process to select STP-safety projects. GVMC has maintained a safety plan or safety management system for many years. Currently, this plan lists the top 25 intersections ranked by the following safety criteria:

1. Intersections Rank by Expected Excess Fatal and Injury Crash
2. Intersections Ranking by Total Crash （2012-2016）
3. Intersections Ranking by Fatal and Serious Injury Crash (2012-2016)
4. Freeway Segments Ranking by Expected Excess Fatal and Injury Crash
5. Non-Freeway Segments Ranking by Expected Excess Fatal and Injury Crash
6. Segments Ranking by Total Crash (2012-2016)
7. Segments Ranking by Fatal and Serious Injury Crash (2012-2016)
8. Intersection Ranking by Expected Excess Fatal and Injury Pedestrian Crash
9. Intersection Ranking by Pedestrian Crash (2012-2016)
10. Intersection Ranking by Expected Excess Fatal and Injury Bicycle Crash

With the update to this plan, staff meets regularly with jurisdictions, provides crash data and additional relevant information upon request. Jurisdictions that desire to address a safety deficiency in their area can also submit project proposals to MDOT for consideration. GVMC will continue to maintain a safety plan and will provide jurisdictions crash data for projects they wish to submit to MDOT for funding consideration. GVMC will also continue to program projects using all sources of funding that target identified intersections and corridors with high crash rates as well as intersections and corridors with high fatalities and serious injuries, which we hope will support MDOT’s safety targets.

Furthermore, the MPO has revised its Policies and Practices for Programming Projects document and will revise the process for ranking and selecting non-motorized projects to incorporate safety targets and the remaining performance measures in the project

selection process for the development of the FY2020-2023 TIP. The MPO will also continue to work with other MPOs on best practices for performance-based programing of projects and analysis of performance measure data.

Pavement and Bridge Condition Performance

The federal rule for pavement and bridge condition performance, "Assessing Pavement Condition and Bridge Condition for the National Highway Performance Program Final Rule," (49 CFR part 490) became effective on February 17, 2017 and requires the establishment of targets for two- and four-year intervals for the following measures:

- Percent of Interstate pavement in good condition
- Percent of Interstate pavement in poor condition
- Percent of Non-Interstate NHS pavement in good condition
- Percent of Non-Interstate NHS pavement in poor condition
- Percent of NHS bridges in good condition
- Percent of NHS bridges in poor condition

While the FY2017-2020 TIP was developed before the pavement and bridge performance measures took effect, GVMC emphasized pavement condition preservation and rehabilitation heavily in the program of projects with pavement preservation projects receiving 53% of the available funding programmed originally. Additionally, it is typical that other categories of roadway projects – e.g. congestion deficiencies – also have pavement condition deficiencies and address both in their project scope.

For many years, GVMC has tracked pavement condition on all federal aid roads using the PASER system. GVMC staff coordinates with MDOT and the local jurisdictions to collect this data annually and then publishes a yearly pavement condition report. As stated above, these condition ratings serve as the primary basis for project eligibility.

GVMC supports efforts to meet statewide bridge condition targets by encouraging local agencies to apply for local bridge funds, which are administered by MDOT, and including selected projects (along with MDOT bridge projects) in the TIP. Local and MDOT bridge projects received over $25 Million in funding when the FY17-20 TIP was originally programmed.

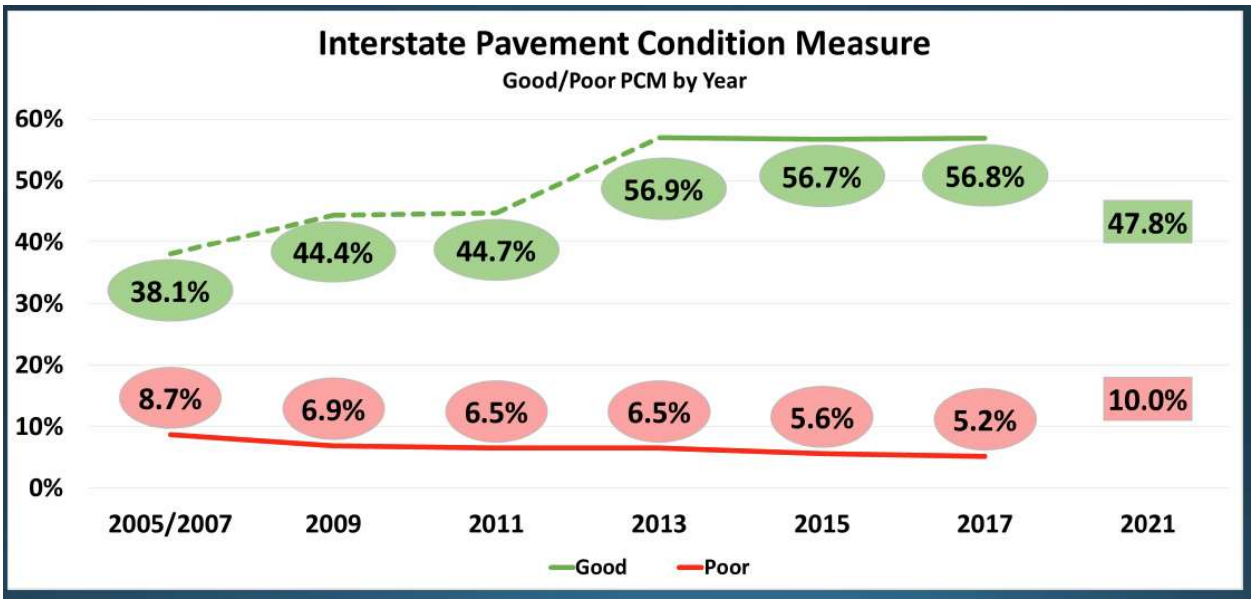
New pavement condition metrics were introduced in the federal rule on this performance area. They require the use of IRI (international roughness index), cracking, rutting, and faulting when determining whether a segment of NHS is in good, fair, or poor condition. MDOT collects this data and GVMC staff participated on the target coordination committee that collaboratively developed the State targets for pavement performance.

Staff was also involved in coordination meetings as the Bridge-specific performance measures were being developed.

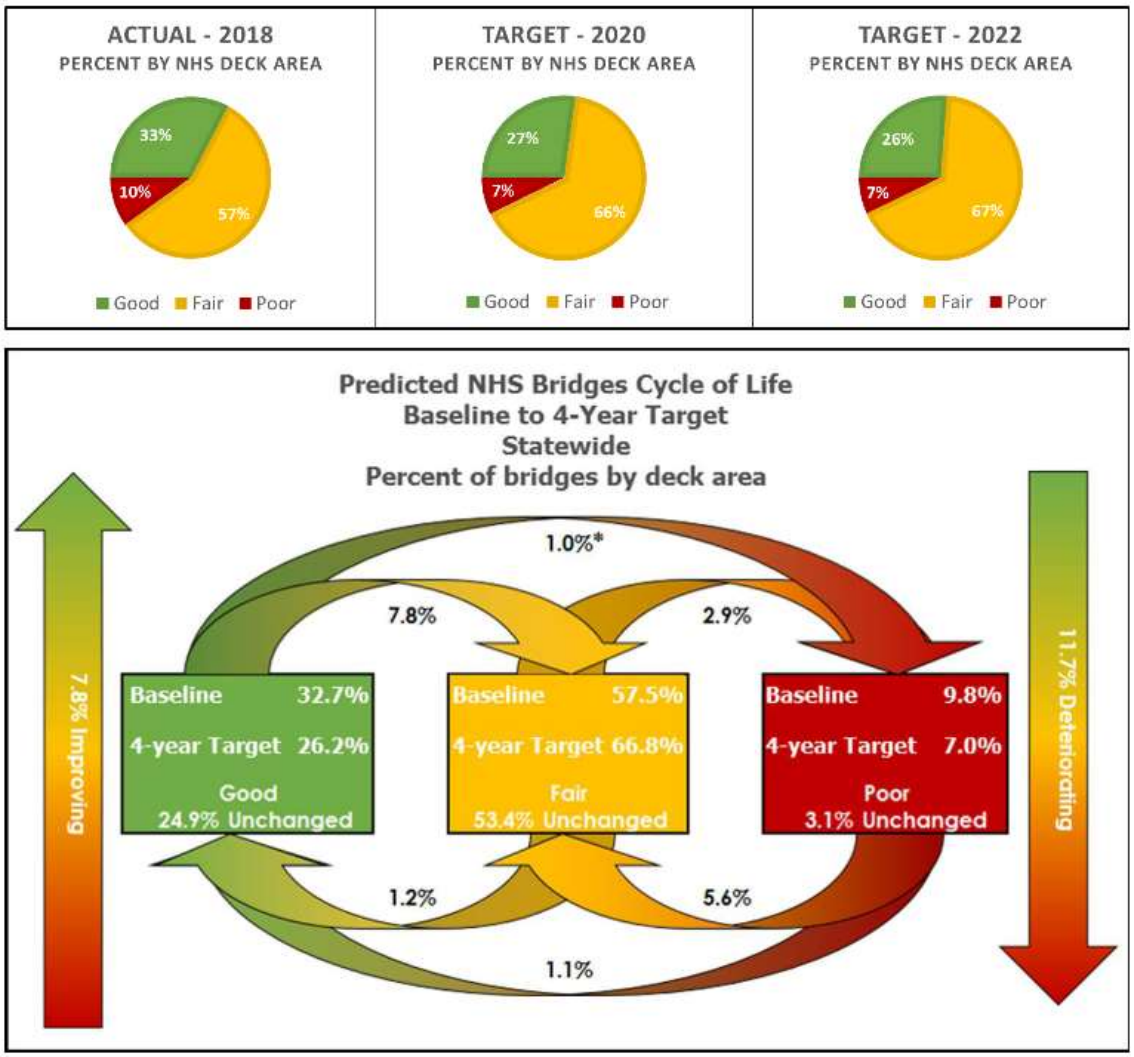
The measures shown in the table below, along with supporting information provided by MDOT and GVMC staff (examples below) were presented to the Technical and Policy Committees at their September, 2018 meetings. Both Committees moved to support State targets for the current reporting period.

Pavement Performance Measures	
Performance Measure	**State Target**
% of pavements on the Interstate system in "Good" condition	4-year: 9% decrease to 47.8%
% of pavements on the Interstate system in "Poor" condition	4-year: 4.8% increase to 10%
% of pavements on the non-Interstate NHS in "Good" condition	2-year: 3% decrease to 46.7% 4-year: 6 decrease to 43.7%
% of pavements on the non-Interstate NHS in "Poor" condition	2-year: 3% increase to 21.6% 4-year: 6% increase to 24.6%
% of NHS bridges classified as in "Good" condition	26.2%
% of NHS bridges classified as "Poor" condition	7.0%

Statewide Interstate Pavement Condition Example



Stateside Bridge Data Example



To further support the state's targets, the MPO will periodically assess the program to determine if progress is being made locally and toward the statewide targets, based on the funding available, as outlined in our Policies and Practices document. If the MPO system is not within the parameters set by the statewide targets, the MPO will adjust pavement and bridge strategies to the extent feasible and practical. To the extent of the MPO's ability, decisions related to bridge project funding will be made in the context of federal bridge performance requirements and support regional bridge condition performance targets.

Though the FY2017-2020 TIP was developed before the pavement and bridge performance measures took effect, GVMC has taken steps to ensure these performance measure are incorporated into the project evaluation and programming process when the FY2020-2023 TIP is developed by including it as a factor for

determining project eligibility for NHS roadways in the Policies and Practices for Programming Projects document. The MPO will also continue to work with other MPOs on best practices for performance-based programing of projects and analysis of performance measure data.

System Performance/Freight Performance
The System Performance Final rule, effective as of May 20, 2017, establishes six measures:

- Two measures to assess reliability of system performance:
  - Percent of reliable person-miles traveled on the Interstate
  - Percent of reliable person-miles traveled on the non-Interstate NHS
- A measure that will assess freight movement on the Interstate by the percentage of Interstate system mileage providing for reliable truck travel time (Truck Travel Time Reliability Index)
- A measure that will assess total emissions reductions by applicable pollutants under the CMAQ program (not applicable to GVMC)
- Two measures that will assess traffic congestion under the CMAQ program
  - A measure that will assess annual hours of peak hour excessive delay per capita (not applicable to GVMC)
  - A measure that will assess modal share; specifically, the percent of non-single occupancy vehicle travel which includes travel avoided by telecommuting (not applicable to GVMC)

At the Technical and Policy Committee meetings on September 5 and 19, respectively, Staff recommended that the Committees support state targets. The GVMC area is currently performing well in these performance areas (see below), and thus could contribute to meeting State targets. The Committee members unanimously agreed to support state targets for the current performance period. The targets are listed in the table below.

Level of Travel Time Reliability – Person Miles Interstate

Geographic Area	2018	2017	2016	Target
Statewide	84.90%	85.20%	85.10%	75.00%
SEMCOG	75.00%	73.80%	74.20%	
GVMC - Grand Rapids	98.70%	96.70%	95.10%	75.00%

Level of Travel Time Reliability – Person Miles Non-Interstate NHS

Geographic Area	2018	2017	Target
Statewide	85.70%	86.10%	70.00%
SEMCOG	78.70%	78.70%	
GVMC - Grand Rapids	84.30%	84.90%	70.00%

Truck Travel Time Index

Geographic Area	2018	2017	2016	Target
Statewide	1.5	1.38	1.47	1.75
SEMCOG	1.92	1.80	1.96	
GVMC - Grand Rapids	1.56	1.51	1.61	1.75

MDOT Reliability Recommended Targets

Measure	Baseline from Jan 2017 to Apr 2018 (Source: NPMRDS – RITIS)	Recommended 2-Year Target(s) CYE 12/31/2019	Recommended 4-Year Target(s) CYE 12/31/2021
Interstate Travel Time Reliability	2017 - 85.2% 2018 – 84.9%	75%	75%
Non-Interstate NHS Travel Time Reliability	2017 - 86.1% 2018 – 85.7%	n/a	70%
Freight Reliability	2017 - 1.38 2018 – 1.50	1.75	1.75

The FY2017-2020 TIP was developed before this rule became effective. However, during the project selection process for this TIP, GVMC staff presented the Committee members with data on traffic volume and capacity, and projects were required to be either condition or capacity deficient to be eligible for funding. Generally, the program leans heavily toward preservation rather than capacity projects; however, over $9 Million was programmed for projects that could improve freight movement, and reduce traffic congestion and associated user delay cost.

In 2017, the MPO worked with MDOT to identify **Critical Urban and Rural Freight Corridors** within the MPO boundary, to support the **National Highway Freight Network.** Due to the limited mileage allowed for the Urban and Rural Freight Corridors in the FAST Act, the MPO worked with MDOT to identify candidate Freight routes, which serve critical local industries or provide connections to the formal Freight Network. These candidate routes could be formally designated if a project eligible for federal Freight funding is identified and proposed in the future. Freight related projects and funding will target the formal and candidate MPO Freight Network corridors and applicable performance measure targets.

GVMC has taken steps to ensure these new performance measures were considered in the project selection and programming process for the FY2020-2023 TIP by incorporating them in the updated Policies and Practices document. The revision of this document in September of 2018 allowed for an opportunity to reevaluate our project

selection process and determine how we can best meet federal performance measures and the state targets we have committed to supporting. In this document, we added reliability factors into our congestion criteria section and agree to allow the use of federal funds, where eligible, to address identified freight constrained intersections, roadways and corridors. The MPO will also continue to work with other MPOs on best practices for performance-based programing of projects and analysis of performance measure data.

Transit Asset Management

MAP-21 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, which include the following:

1. Rolling Stock - Percentage of revenue vehicles exceeding Useful Life Benchmark (ULB)
2. Equipment - Percentage of non-revenue vehicles exceeding ULB)
3. Facilities - Percentage of facilities rated under 3.0 on the Transit Economic Requirements Model (TERM) scale
4. Infrastructure - Percentage of track segments under performance restriction (only applies to rail fixed guideway systems – not applicable in GVMC region)

Though GVMC received agency-level State of Good Repair (SGR) targets from ITP-The Rapid in 2017 – which were approved and supported by the Technical and Policy Committees in September of 2017 – staff began the coordination process to cooperatively develop a single set of regional SGR targets in early 2018 when GVMC received updated targets from ITP-The Rapid, as well as targets from MDOT (applicable to MDOT Section 5311 and 5310 subrecipients) and Hope Network. Through coordination with the regional transit agencies the following region-level targets were developed and presented to the Technical and Policy Committees at the May, 2018 meetings where they were adopted.

GVMC MPO State of Good Repair Targets

Asset Class	Sub-Class	MPO Target
Rolling Stock	Revenue Vehicles: Large Bus	Not more than 15% will meet or exceed FTA ULB
	Revenue Vehicles: Small Bus and Vans	Not more than 10% will meet or exceed FTA ULB
	Revenue Vehicles: Sedan/SUV	Not more than 10% will meet or exceed FTA ULB
Equipment	Service Vehicles	Not more than 20% will meet or exceed FTA ULB
	Maintenance Equipment	Not more than 20% will be below 3.0 on TERM Scale
	Building Subsystems	Not more than 10% will be below 3.0 on TERM Scale
Facilities	All fixed facilities	Not more than 10% will be below 3.0 on TERM Scale

FY2017-2020 TIP Performance Measure Related Projects

Below is a listing of the total amount of money programmed in the original approved FY2017-2020 TIP that will make progress toward the performance measure categories listed below:

Project Category	Amount Programmed	Percentage of Available funding	Impact on Condition
Safety/Non-Motorized	$66,510,328	13%	Reduce potential for motor vehicle crashes and non-motorized crashes, injuries and fatalities
Pavement Preservation	$273,726,854	53%	Improve surface condition and IRI, eliminate issues with cracking, rutting and faulting
Transit	$136,539,544	27%	Reduce percentage of vehicles, equipment and facilities that are past useful life benchmark
Bridges	$25,183,928	5%	Reduce the number of

			structurally deficient and functionally obsolete bridges
System Performance/Congestion	$9,038,980	2%	Improve freight movement, reduce traffic congestion and associated user delay cost
Total funding	$510,999,634	100%	

Summary Chart of Performance Measures and Target Adoption Status

Below is a summary of the remaining performance measure areas and the current or anticipated implementation status.

Area	Measures	Target Setting Status
Safety Performance	• Number of fatalities • Rate of fatalities per 100 million VMT • Number of Serious Injuries • Rate of Serious Injuries per 100 million VMT • Number of Non-motorized Fatalities and Non-motorized Serious Injuries	Approved support of statewide targets (January 2018)
Pavement and 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 Support of statewide targets (September 2018)
System Performance and Freight	• Interstate travel time reliability • Non-Interstate travel time reliability • Truck travel time reliability	Approved Support of statewide targets (September 2018)
Public Transportation	• Transit Asset Management (TAM) Plans (rolling stock, equipment facilities, infrastructure); • Public Transportation Agency Safety Plan (Fatalities, Injuries, Safety events, System reliability)	Regional State of Good Repair Targets adopted (May 2018)

2040 MTP Transportation Performance Tracking and Investment Strategy

Determination of Highest Priority

The highest priority system needs are determined using various approaches during the MTP development. Taking into account all of the data that is available and public perception of need, the various committees developed a list of needs for the transportation system as a whole. When all of the needs were identified, the GVMC Technical and Policy Committees, with input from the MTP Steering Team, formed to guide the development of the MTP, developed a list of identified transportation investment priorities. Transportation investment priorities identify areas where future available transportation funds should be allocated. This allocation of funds determines future specific priorities that are included within the MTP Project List. After a thorough review of all available funding, it was determined that approximately $505 million is available over the life of the 2040 MTP for discretionary projects. In other words, the MPO may use these funds for projects deemed to be of the highest priority for the region as a whole. GVMC has determined that the highest priority for all available flexible funding is for projects that contribute to the improvement of the regions' system pavement condition. Data in recent years has shown that pavement conditions in the region are falling and as time passes without funding to address these deficiencies, the system will only continue to deteriorate and the solutions will become increasingly more costly.

The MTP Project List was developed to address the deficiencies identified in the plan and reflect this priority, but is limited by estimated future available revenues. The first four years (2014–2017) of the MTP Project List are equivalent to the Transportation Improvement Program (TIP) project list and demonstrate the short-term transportation projects identified for funding in this region. Other individual projects listed in the MTP Project list reflect projected transportation capacity deficiencies with preferred alternatives identified. Identified Need and Illustrative Vision

Identified Need and Illustrative Vision

Throughout the development of this MTP, efforts were made to establish a basic vision of what we collectively would like our transportation system to be in the year 2040. Issues related to the condition of the pavement, to the reliability of travel times, to the convenience of the local transit system, to the availability of alternate means of transportation, and the efficiency of moving freight throughout the system were all analyzed. The results of this analysis concluded that in order to greatly improve pavement condition from 64% good/fair up to 80% an additional $665 million in dedicated funding would be necessary through the year 2040. To reduce the percent of congested non-trunkline roadways by 80% an additional $30 million would be needed. To realize a completed non-motorized network, an additional $25 million would be required. To fully implement the ITP Master Plan an additional $206 million would be needed. To fully implement the needs identified in the GVMC Safety Plan an additional $37 million is necessary. All tolled the illustrative list for local federal aid in the region totals $963 million over and above the needs listed for area trunklines. GVMC and its member communities are dedicated to focusing future planning efforts in an effort to

develop a strong vision of the future conditions of the transportation system in the region. The chart below depicts these needs.

Element	Identified Need	Dedicated Funding	Illustrative Balance
Congestion Mitigation	$70,805,000.00	$40,460,000.00	-$30,345,000.00
Non-Motorized	$56,704,125.00	$31,532,500.00	-$25,171,625.00
Pavement Condition	$1,170,000,000.00	$505,000,000.00	-$665,000,000.00
Safety	$54,840,000.00	$18,075,000.00	-$36,765,000.00
Transit	$1,114,000,000.00	$908,000,000.00	-$206,000,000.00
TOTAL	$2,466,349,125.00	$1,503,067,500.00	-$963,281,625.00