GRAND VALLEY METROPOLITAN COUNCIL

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POLICY COMMITTEE MEETING

Wednesday, November 17, 2021
9:30 AM
The Rapid Central Station Conference Room
250 Grandville Ave SW
Grand Rapids, MI 49504

AGENDA

I. ROLL CALL AND INTRODUCTIONS

II. APPROVAL OF MINUTES—ACTION: Policy Committee meeting minutes dated September 15, 2021.
Please refer to Item II: Attachment A

III. OPPORTUNITY FOR PUBLIC COMMENT

IV. TIP AMENDMENTS—ACTION: On behalf of MDOT, KCRC, The Rapid, and the City of Grand Rapids amendments/modifications to the FY2020-2023 TIP are being requested.
Please refer to Item IV: Attachment A

V. 2022 SAFETY TARGETS—INFORMATION/DISCUSSION/ACTION: GVMC staff will present the state's safety targets for 2022 and will provide GVMC data for comparison and discussion. The committee may choose to take action if desired.
Please refer to Item V: Attachment A

VI. THE RAPID SAFETY PLAN AND TARGETS—INFORMATION/ACTION: The Committee will be asked to take action to acknowledge the receipt of The Rapid's Safety Plan and support their safety targets.
Please refer to Item VI: Attachment A

VII. ELECTION OF OFFICERS

VIII. OTHER BUSINESS

- Special Studies Update

IX. ADJOURNMENT

GVMC

GRAND VALLEY METROPOLITAN COUNCIL

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POLICY COMMITTEE MEETING

Wednesday, September 15, 2021
9:30 AM
The Rapid Central Station Conference Room
250 Grandville Ave SW
Grand Rapids, MI 49504

Schweitzer, Chair of the Policy Committee, called the September 15, 2021, meeting to order at 9:36 am.

I. ROLL CALL AND INTRODUCTIONS

Voting Members Present

Mark Bennett		Tallmadge Charter Township
Scott Conners	*Proxy for*	City of Walker
	Darrel Schmalzel	City of Walker
Dennis Kent	*Proxy for*	MDOT-Grand Region
	Mike Burns	City of Lowell
Melissa LaGrand		Kent County
Greg Madura		Alpine Township
Josh Naramore, *Vice Chair*		City of Grand Rapids
Terry Schweitzer, *Chair*		City of Kentwood
Casey Ries		GRFIA
Rick Sprague	*Proxy for*	KCRC
	Steve Warren	KCRC
	Mike DeVries	Grand Rapids Township
	Robert DeWard	Gaines Township
Jeff Thornton		Village of Caledonia
Cameron Van Wyngarden		Plainfield Township
Luke Walters	*Proxy for*	MDOT-Statewide Planning
	Jeff Franklin	MDOT
Kevin Wisselink		The Rapid

Staff and Non-Voting Guests Present

Andrea Faber	GVMC
Laurel Joseph	GVMC
Tyler Kent	MDOT-Grand Region
Aman Pannu	GVMC

Mike Zonyk	GVMC

Voting Members Not Present

Terry Brod	Cannon Township
Mike Burns	City of Lowell
Dan Burrill	City of Wyoming
Jamie Davies	City of Rockford
Michael DeVries	Grand Rapids Charter Township
Robert DeWard	Gaines Charter Township
Adam Elenbaas	Allendale Township
Karyn Ferrick	City of Grand Rapids
Jeff Franklin	MDOT
Shay Gallagher	Village of Sparta
Kevin Green	Algoma Township
Jerry Hale	Lowell Township
Bryan Harrison	Caledonia Charter Township
Jim Holtvluwer	Ottawa County
Ken Krombeen	City of Grandville
Doug LaFave	City of East Grand Rapids
Matt McConnon	Courtland Township
Jim Miedema	OCRC
Tom Noreen	Nelson Township
Rob Postema	City of Wyoming
Darrel Schmalzel	City of Walker
Dan Strikwerda	City of Hudsonville
Julius Suchy	Ada Township
Ben Swayze	Cascade Charter Township
Don Tillema	Byron Township
Laurie Van Haitsma	Jamestown Township
Steve Warren	KCRC
Rod Weersing	Georgetown Township
Mike Womack	City of Cedar Springs

II. APPROVAL OF MINUTES

Schweitzer entertained the following motion:

MOTION by Naramore, SUPPORT by LaGrand to approve the May 5, 2021, Policy Committee minutes and July 21, 2021, Policy/Technical Committee minutes. MOTION CARRIED UNANIMOUSLY.

III. PUBLIC COMMENT

No public comments.

IV. TIP AMENDMENTS

Referring to Item IV: Attachment A, Joseph introduced the following amendments/modifications to the FY2020-2023 TIP that were described in the agenda package. They are as follows:

- MDOT is requesting the amendments/modifications to the TIP project list in the attached pending projects and GPAs summary. One of these additions triggered a GPA threshold increase for the FY2022 Trunkline Traffic Operations and Safety GPA. MDOT is also requesting committee review of the S/TIP exempt project list, which has been modified to show only the projects that have undergone changes since the last committee meeting. Joseph also added that work from one project has also been diverted to another project.
- The Rapid is requesting to modify the FY 2020 and 2021 Transportation Improvement Program (TIP). Joseph added that the Rapid has received some COVID relief funding that is not legally required to be in the TIP, and the Rapid is requesting committee acknowledgment and use of the committee public involvement process to satisfy their section 5307 public involvement requirements. This will not be included in the TIP, but it is going to be programmed in JobNet and will appear in the S/TIP exempt list for committee review each month.

D Kent explained the MDOT amendments and S/TIP exempt project list changes in further detail. He noted that there was a phase abandonment on one of the ITS Applications projects where the EPE phase was combined with the PE phase. The bridge replacement project on I-196 over the Grand River and Market Avenue expected a significant budget increase due to the use of an old estimate, and the construction would be complete in 2023. M-6 WB over Miller Drain rehabilitation project had significant damage due to a crash which demanded emergency repair that is programmed for this year, but the construction will start next year. The Active Traffic Management System project on US-131 from I-96 north to Post drive will use the shoulder as a separate lane during peak hours, similar to the shoulder-use on US-23 by Ann Arbor. Another project that will start soon is a repair project on M6 that had damages due to a crash followed by a fire.

Thornton asked for the purpose of the shoulder use on US-131. D Kent answered that the shoulder use will be helpful in dealing with the congestion on US-131 during peak traffic hours.

LaGrand asked D Kent if there have been any successful results from the shoulder use on US-23 in Ann Arbor in managing congestion. D Kent replied that the project has been successful; however, there have been some enforcement issues

regarding people violating the rules and using the lane when they are not open to use in non-peak hours. D Kent added that the department is looking to develop more projects like this in the future especially in southeast Michigan. Partial shoulder use is a less impactful way to deal with peak hour congestion and is less extensive than adding a full lane. The shoulder use is limited to peak hours due to safety concerns regarding a small shoulder space.

Thornton added that the public perception of this project is that it is ridiculous and a waste of money because it is legal to ride at peak times and not legal to ride at non-peak times. If there is a safety concern during peak times, adding more cars on that stretch of road and allowing that lane to be used will create more safety concerns. If a car breaks down during the peak time, one will have the same challenges if the lane is open for travel in non-peak periods. As said earlier, enforcement will be another issue regarding this project due people not observing the hours for which the lane use is permitted.

D Kent added that all the comments listed by Thornton are some challenges that have been discussed internally. He added that using the shoulder does not take up as much real estate as adding another permanent lane, because the addition of another lane would also demand for a larger shoulder. He added that the shoulder use is not a perfect situation; however, it gives us the ability to deal with some of the congestion at peak hours.

Schweitzer asked if this project will be programmed in FY 2022. D Kent replied that the PE phase will be 2021-2022. The project is obligated in 2025 and is expected to be completed in 2026. Schweitzer added that the comments about this project can be taken into consideration during the PE phase at MDOT.

MOTION by Naramore, SUPPORT by LaGrand, to approve the TIP amendments requested by MDOT and The Rapid. MOTION CARRIED UNANIMOUSLY.

V. FY2023-2026 TIP DEFICIENCIES MAP APPLICATION

Referring to Item V: Attachment A, Zonyk explained that, in preparation for programming of the FY2023-2026 TIP, GVMC staff has completed the deficiencies analysis and compiled all the information in an online application.

This application will help identify possible candidates for road improvements. The entire federal aid road network was included in the data minus the MDOT routes. Zonyk shared his screen and demonstrated the use of the application live and answered any questions regarding its functionality. A splash page will pop up that explains the general functionality of the map. This page will open each time the link is opened so it can be referred to again. To use the application, the user will have to

accept the liability statement located at the end of the splash page. The layer list is displayed on the right side that includes the general deficiencies data layer in blue along with other supplemental information like condition deficient information, congestion deficient information, etc. Multiple layers can be turned on to see the areas that carry data from both layers. These layers also include environmental justice and urban area data as well. Other filters are located on the left side of the website page that can help narrow down the results by jurisdiction, government unit, etc. PASER ratings, condition deficient, level of service severity, fatal accident, bike/pedestrian fatality, bike/pedestrian serious or fatal crash, and safety deficient are some of the other filters that can be turned on and off; they are also located on the left of the application. At the bottom center, the table is located that can be minimized to better view the map, and the table can also be exported into a CSV file that contains all the data shown in the map with the different filters turned on or off. Staff has also included three map widgets on the upper left corner of the map. The M widget tells the user how many miles have been selected through the different layers; the select and export to GeoJSON file widget lets you export the data into a shapefile, and the measurement widget lets the user measure the number of miles of a section of the road in a certain layer. Zonyk asked if there were any questions or comments regarding this application.

Sprague asked about the difference between condition deficient and PASER rating. Zonyk answered that condition deficient rating goes up to seven because you can have reconstruction 3 and below.

Tyler Kent added that the map application is a very useful tool.

Ries asked about the triggers that identify as condition deficient or safety deficient and their definitions. Joseph responded that the definitions are listed in the Policies and Practices for Programming Projects document that was updated within the last few months to prepare for this analysis. Zonyk added that federal performance measures also steered some of the deficiency's determinations.

VI. OTHER BUSINESS

- Joseph gave an update on the Airport Access Study RFP. She stated that GVMC received proposal submissions for the airport access study. A total of four submissions have been received that will be reviewed and sent to the board at their November meeting. The TDM RFP is slightly delayed because the state legislature has not taken any action regarding the release of the COVID funds. Hence, we cannot advertise the project until we are sure about the funding. Joseph explained that the funding does not need to be spent all in one fiscal

year, and that the funds can be carried onto the next fiscal year. Joseph also added that the election of officers will take place in November and asked the members to think about nominations.

- Faber shared her screen and introduced the two new PSAs for the Safety Education and Outreach Program and the Clean Air Action Program. Both were played during a recent Tigers game promotion.

- Dennis added that MDOT is planning to have a construction update twice a year, which will involve conversations with different agencies about coordinating projects in the next couple years, and it will take place on October 20th at the Grand Rapids Transportation Service Center office at 9:30am. An official announcement will be sent later through email.

- Joseph reminded the committee that project submittals are due on September 24th.

- Schweizer asked the timing of when I-196 and the S-curve will be open for public use. Dennis responded that the I-196 EB bridge over the Grand River project is scheduled to complete towards the end of September or early October this year. And the project on E Beltline is proposed to complete in November or December. The S curve project needed an emergency repair to the overhead sign. There were also issues with the foundation impacting the storm sewer lines and is proposed to be completed at the end of fall.

VII. ADJOURNMENT

Schweitzer, Committee Chair, adjourned the September 15, 2021, Policy Committee meeting at 10:12 am.

GVMC

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MEMORANDUM

DATE: November 10, 2021

TO: Policy Committee

FROM: Laurel Joseph, Director of Transportation Planning

RE: **FY2020-2023 Transportation Improvement Program**

On behalf of MDOT, KCRC, Grand Rapids, and The Rapid the following amendments/modifications to the FY2020-2023 TIP are being requested. Here are the specific requests:

- MDOT is requesting the amendments/modifications to the TIP project list in the attached pending projects and GPAs summary. Two of these changes have triggered a GPA threshold increase for the FY2022 Trunkline Traffic Operations and Safety GPA (shown in the summary attachment). MDOT is also requesting committee review of the S/TIP exempt project list, which has been modified to only show the projects that have undergone changes since the last Committee meeting. MDOT staff may highlight a few of note during the meeting (please see attachments).

- KCRC is requesting several changes to the FY2022 TIP, including adding a bridge project, moving a project to FY2022 from FY2023, moving an illustrative project into FY2022, removing a project from FY2022, and replacing it with a project from the illustrative list (please see attachment).

- The City of Grand Rapids has received funding for a FY2023 safety project and is requesting approval to add it to the TIP. This has triggered a GPA threshold increase for the FY2023 Local Traffic Operations and Safety GPA (please see attachments).

- Staff on behalf of The Rapid is requesting a technical correction to a FY2022 Rapid project that needed to be moved from one GPA to another, triggering a

GPA threshold increase to the FY2022 Transit Operating GPA (please see pending projects attachment).

If you have any questions, please do not hesitate to contact me at (616) 776-7610.

FY 2020-2023 Transportation Improvement Program

November 2021 Amendments/Modifcations

Fiscal Year	Job#	GPA Type	Agency	Project Name	Limits	Length	Primary Work Type	Project Description	Phase	Fed Amount	State Amount	Local Amount	Total Amount	Federal Amend Type
2022	207817	Transit Operating	The Rapid	Transit Operating	Areawide	0.00	SP1702-ozone action	FY22 CMAQ - Free Rides on Clean Air Action Days	NI	$ 80,000	$ 20,000	$ -	$ 100,000	GPA over or over 25% - technical correction (moved from one GPA to another)
2022	214079	Local Road	Kent County	68th St SE	Eastern Avenue to Kalamazoo Avenue	1.00	Road Rehab	Asphalt Milling and Paving	CON	$ 731,000	$ -	$ 182,750	$ 913,750	Moved from Illustrative
2022	132524	S/TIP Line items	MDOT	regionwide	Regionwide - Grand	0.00	ITS Applications	2022 West Michigan TOC Control Room Operations	EPE	$ 1,156,397	$ 256,428	$ -	$ 1,412,825	Budget increase
2022	132525	S/TIP Line items	MDOT	Regionwide	Various routes in Grand Region	0.00	ITS Applications	2022 ITS maintenance & operations	EPE	$ 470,638	$ 104,363	$ -	$ 575,000	Budget increase
2022	213954	S/TIP Line items	MDOT	Leonard St NE	TSC - major PR	26.06	Traffic Safety	Non-freeway signing upgrade	PE	$ -	$ -	$ -	$ -	Phase Added
2022	206572	Trunkline Traffic Operations And Safety	MDOT	TSC wide	Various Locations - Grand Rapids TSC	0.00	Traffic Safety	Modernize signalized intersections	CON	$ 2,157,920	$ -	$ -	$ 2,157,920	GPA over or over 25%
2022	213557	Trunkline Traffic Operations And Safety	MDOT	Front Ave NW	Kent County	0.00	ITS Applications	2022 Safety Service Patrol Operations - Grand Region	OPS	$ 294,660	$ 65,340	$ -	$ 360,000	GPA over or over 25%

FY 2020-2023 Transportation Improvement Program

November 2021 Amendments/Modifcations

2023	214068	Local Traffic Operations And Safety	Grand Rapids	Burton Street	Burton Street from Clyde Park Ave to Eastern Ave, city of Grand Rapids	1.98	Traffic Safety	Signal modernization, pavement markings, pedestrian refuge island	CON	$ 396,000	$ -	$ 44,000	$ 440,000	GPA over or over 25%
2023	214069	S/TIP Line items	Kent County	84th St SE	84th Street at Kalamazoo Avenue, Kent County	0.65	Traffic Safety	Roundabout	CON	$ 600,000	$ -	$ 678,054	$ 1,278,054	Phase Added
2023	213928	Trunkline Traffic Operations And Safety	MDOT	Leonard St NE	TSCWIDE	13.63	Traffic Safety	Non-freeway signing upgrade	PE	$ 32,250	$ -	$ -	$ 32,250	GPA over or over 25%

November 2021 - Pending GPAs

Fiscal Year	MPO	Job Type	GPA Name	GPA Status	Last Fed Approved Threshold	Total Usage Amount
2022	GVMC	Trunkline	Trunkline Traffic	Proposed	$3,778,588	$5,325,254
2022	GVMC	Transit	Transit Operating	Proposed	$150,000	$250,000
2023	GVMC	Local	Local Traffic Operations	Proposed	$1,160,000	$1,820,000

STIP Exempt Projects Report
November 2021 (Changes since last meeting)

Fiscal Year	Job#	Responsible Agency	Project Name	Limits	Length	Primary Work Type	Project Description	Phase	Phase Status	S/TIP Cycle	S/TIP Status	Fed Estimated Amount	State Estimated Amount	Local Estimated Amount	Total Estimated Amount	Cost To Date	Fund Source	CR Approved
2023	211694	MDOT	US-131	From I-96 north to Post Drive	6.185	Active Traffic Management	Active Traffic Management Systems	EPE	Programmed	20-23	Approved	$0	$1,900,000	$0	$1,900,000	$0	M	10/13/2021
2023	212533	MDOT	M-11	2 structures	0.000	Bridge CPM	Scour	CON	Programmed	20-23	Approved	$0	$355,355	$0	$355,355	$0	M	10/07/2021
2022	213054	Kent County Community Action	Transit Operating	areawide	0.000	6410-5310 Projects	FY22 5310 CRRSAA Operating assistance	NI	Programmed	20-23	Approved	$788	$0	$0	$788	$0	CR11	10/04/2021
2022	213055	Hope Network, Inc.	Transit Operating	areawide	0.000	6410-5310 Projects	FY22 5310 CRRSAA Operating assistance	NI	Programmed	20-23	Approved	$83,535	$0	$0	$83,535	$0	CR11	10/04/2021
2022	213056	United	Transit	areawide	0.000	6410-5310	FY22 5310	NI	Programmed	20-23	Approved	$2,893	$0	$0	$2,893	$0	CR11	10/04/2021
2022	213081	Georgetown Seniors, Inc.	Transit Operating	areawide	0.000	6410-5310 Projects	FY22 5310 CRRSAA Operating assistance	NI	Programmed	20-23	Approved	$28,115	$0	$0	$28,115	$0	CR11	10/04/2021
2022	213493	Interurban Transit Partnership	Transit Operating	Interurban Transit Partnership/ Areawide	0.000	SP05-Local Bus Operating	FY22 Local Bus Operating	NI	Active	20-23	Approved	$0	$15,015,362	$0	$15,015,362	$2,502,560	CTF	10/04/2021
2022	213814	Interurban	Transit	areawide	0.000	SP09-	FY22	NI	Programmed	20-23	Approved	$0	$542,369	$0	$542,369	$0	CTF	10/04/2021
2023	200196	MDOT	M-21	From Bennett Street east to Valley Vista Drive	6.079	Road Rehabilitation	Two Course Asphalt Resurfacing	PE	Programmed	20-23	Approved	$0	$500,000	$0	$500,000	$0	M	10/03/2021
2023	204773	MDOT	I-196	at the 32nd	0.000	New	Construct	PE	Abandoned	20-23	Approved	$0	$20,000	$0	$20,000	$0	M	10/03/2021
2023	204773	MDOT	I-196	at the 32nd Avenue Interchange	0.000	New Facilities	Construct new carpool lot.	ROW	Abandoned	20-23	Approved	$0	$48,000	$0	$48,000	$0	M	10/03/2021
2022	207873	MDOT	Grand	Grand	0.000	Road	FPVS HMA	PE	Programmed	20-23	Approved	$0	$10,000	$0	$10,000	$0	M	10/02/2021
2022	208525	MDOT	I-296/US-131 NB	From Bridge Street north to Richmond Street	1.343	Road Rehabilitation	Concrete Inlay	PE	Programmed	20-23	Approved	$0	$1,315,000	$0	$1,315,000	$0	M	10/02/2021
2022	210063	MDOT	M-37	From 92nd Street north to 76th Street	2.875	Road Rehabilitation	Crush and Shape, Widening	PE	Programmed	20-23	Approved	$0	$2,500,000	$0	$2,500,000	$0	M	10/02/2021
2022	210063	MDOT	M-37	From 92nd	2.875	Road	Crush and	ROW	Programmed	20-23	Approved	$0	$1,500,000	$0	$1,500,000	$0	M	10/02/2021
2022	210818	MDOT	I-96	Whitneyville Avenue east to the Kent/Ionia County Line	8.346	Road Capital Preventive Maintenance	Full Depth Concrete Pavement Repair	PE	Programmed	20-23	Approved	$0	$75,000	$0	$75,000	$0	M	10/02/2021

STIP Exempt Projects Report
November 2021 (Changes since last meeting)

2022	211211	MDOT	M-45	The Grand River east to the Ottawa/Kent County Line	4.628	Road Capital Preventive Maintenance	Paver Placed Surface Seal	PE	Programmed	20-23	Approved	$0	$50,000	$0	$50,000	$0	M	10/02/2021
2022	211212	MDOT	M-45	West of	4.207	Road	Cold Mill	PE	Programmed	20-23	Approved	$0	$50,000	$0	$50,000	$0	M	10/02/2021
2023	213068	MDOT	US-131 S	US-131 SB over Grandville Ave	0.000	Bridge CPM	Epoxy Overlay	PES	Programmed	20-23	Approved	$0	$249,085	$0	$249,085	$0	M	10/01/2021
2023	212929	MDOT	US-131 NB	US-131 NB	0.000	Bridge CPM	Epoxy	PE	Programmed	20-23	Approved	$0	$53,607	$0	$53,607	$0	M	10/01/2021
2023	212929	MDOT	US-131 NB	US-131 NB over Grandville Ave	0.000	Bridge CPM	Epoxy Overlay	PES	Programmed	20-23	Approved	$0	$330,942	$0	$330,942	$0	M	10/01/2021
2023	212524	MDOT	US-131 N	3 structures	0.000	Bridge CPM	Pin and	CON	Programmed	20-23	Approved	$0	$1,448,375	$0	$1,448,375	$0	M	10/01/2021
2022	204378	MDOT	US-131	over West River Drive	0.000	Bridge Rehabilitation	Deep Overlay	PE	Programmed	20-23	Approved	$0	$65,971	$0	$65,971	$0	M	10/01/2021
2022	204378	MDOT	US-131	over West	0.000	Bridge	Deep	PES	Programmed	20-23	Approved	$0	$463,006	$0	$463,006	$0	M	10/01/2021
2022	212534	MDOT	I-196 E	44th Street over I-196, M-37 over Nash Creek	0.000	Bridge Rehabilitation	Bearing Realignment, Joint Replacement, Pavement Relief Joints	CON	Programmed	20-23	Approved	$0	$452,513	$0	$452,513	$0	M	09/17/2021

Kent County Road Commission

October 26, 2021

Ms. Laurel Joseph
Grand Valley Metro Council
678 Front Ave., NW, Suite 200
Grand Rapids, MI 49504

Re: 2020 – 2023 TIP Amendment

Dear Laurel:

The Kent County Road Commission (KCRC) hereby requests the 2020 - 2023 TIP be amended to include the following projects in the 2022 TIP:

Plainfield Township Bridges
Work: Bridge Preservation (Joint Replacement)
Location: 3 Bridges
Length: 500 Feet
Federal Bridge Funds = $273,750 (Local Bridge Funds)
Total Bridge Estimate = $365,000
Local Share = $91,250

100th Street (JN 206874) – (Move From 2023 to Backfill)
Work: Reconstruction
Location: Hanna Lake Ave to East Paris Ave
Length: 1 Mile
Federal STP Rural = $913,000 (JN 206873 100th St. Moved to 2021)
Local Match = $487,000
Total Cost = $1,400,000

Northland Drive (Rural Illustrative)
Work: Resurfacing
Location: Cedar Springs Limits to Ritchie Ave
Length: 2.7 Miles
Federal STP Rural: Federal $808,000 (Purchased from Montcalm CRC)
Local Match: $542,000
Total Cost = $1,350,000

Due to recent improvements to Kalamazoo Avenue between 68th St. and 60th St., the Kent County Road Commission is requesting to remove the following 2022 project from the TIP:

Kalamazoo Avenue- (205561)
Location: 68th St.to 60th St.
Work Type: Asphalt Milling & Paving
Federal NHPP Funds = $731,000
Local Match = $182,750
Total Project Cost = $913,750

We request moving the following Illustrative list project to backfill the 2022 Kalamazoo Avenue project:

68th Street (Urban Illustrative)
Location: Eastern Avenue to Kalamazoo Avenue
Work Type: Asphalt Milling & Paving
Length: 1 Mile
Federal NHPP Funds = $731,000
Total Project Cost = $913,750

Please call me at (616) 242-6914 if you have any questions or need any additional information regarding this request.

Sincerely,

Wayne A. Harrall, P.E.
Deputy Managing Director – Engineering

CITY OF GRAND RAPIDS

September 9, 2021

Laurel Joseph, Transportation Planning Director
Grand Valley Metro Council
678 Front Avenue NW, Suite 200
Grand Rapids, MI 49504

Ms. Joseph:

The City of Grand Rapids is requesting the following FY 2023 Highway Safety Improvement Program (HSIP) project is added to the regional Transportation Improvement Program (TIP):

Project Name:	Burton Street SE/SW
Project Limits:	Clyde Park Avenue SW to Eastern Avenue SE
Project Estimate:	$450,000
Federal Amount:	$396,000
Local Match:	$44,000 (construction)
Work Description:	Traffic signal improvements at Buchanan Ave SW, Jefferson Ave SE, Madison Ave SE and Eastern Ave SE; traffic signal timing optimization at Clyde Park Ave SW; signal preemption for emergency vehicles and transit throughout project corridor limits; pavement marking changes to remove southbound Buchanan Ave right turn lane; construct raised median refuge island with rapid flashing beacons at Lafayette Ave SE.

Please let us know if you have any questions. Thank you for your assistance.

Sincerely,

Kristin Bennett

Kristin Bennett, AICP
Transportation Engineering Project Manager

cc: Andrea Anderson, John Bartlett, Justin Kimura, Josh Naramore, Jon Re (Mobile GR Department)
Tim Burkman, Rick DeVries (Engineering Department)
Eric DeLong, Karyn Ferrick (Office of City Manager)

Local Agency HSIP Program FY 2023
Revised 9/8/2021

No.	Lead Agency	Project Name	Project Limits	Work Type	Project Est	Federal HSIP	Fed HSIP - PE	Local (Construction)
SELECTED SAFETY PROJECTS								
1	Arenac County	North Forest Lake RSA	Yarish Road, Kindig Road , Alger Road area	Road Safety Audit	$ 20,000.00	$ -	$ 16,000.00	$ -
2	Barry County	Guardrail	7 Locations throughout Barry County	Guardrail installation	$ 338,695.00	$ 270,956.00	$ -	$ 67,739.00
3	Genesee County	Beecher Road	Beecher Road from Graham Road to Ballenger Highway	Road Diet (4 lane to 3 lane conversion), cold milling and resurfacing, guardrail upgrades if necessary, possible signal removal at Beecher/Calkins intersection	$ 800,000.00	$ 600,000.00	$ -	$ 200,000.00
4	Genesee County	Linden Road	Linden Road from Hill Road to Linden Creek Parkway	HMA microsurface, road diet (4 lane to 3 lane conversion), drain structure and curb repairs	$ 250,000.00	$ 225,000.00	$ -	$ 25,000.00
5	Genesee County	Morrish Road at Lennon Road	Morrish Road at Lennon Road	Construct a Roundabout	$ 850,000.00	$ 600,000.00	$ 42,500.00	$ 250,000.00
6	Grand Traverse County	N. Long Lake Road at Strait Road	N. Long Lake Road at Strait Road	Road Safety Audit	$ 20,000.00	$ -	$ 16,000.00	$ -
7	Grand Traverse County	N. West Silver Lake Road at Secor Road	N. West Silver Lake Road at Secor Road	Road Safety Audit	$ 20,000.00	$ -	$ 16,000.00	$ -
8	Hillsdale County	Bankers Road, Moscow Road, Territorial Road	Bankers Road from Branch County Line to the Hillsdale south City Limits; Moscow Road from Sterling Road to Masker Road;Territorial Road from Cope Road to US-127	Centerline (Moscow Road and Territorial Road) and shoulder rumble strips (Bankers Road), and recessed wet reflective pavement markings	$ 500,000.00	$ 450,000.00	$ -	$ 50,000.00
9	Houghton County	Guardrail	9 Roadways throughout Houghton County	Guardrail upgrades	$ 482,555.00	$ 386,044.00	$ -	$ 96,511.00
10	Ingham County	Meridian Road at Grand River Avenue	Meridian Road at M-43 (Grand River Avenue)	Construct a center left turn lane on north approach in advance of MDOT signal installation	$ 450,000.00	$ 360,000.00	$ -	$ 90,000.00
11	Ingham County	Lake Lansing Road	Lake Lansing Road from Abbot Road to Hagadorn Road	Geometric improvements at the intersection with Birch Row Drive/Towar Avenue to remove the existing slip lane and change intersection to a signalized T-intersection with ped crossings on all three legs, road diet (4 to 3 lane conversion) along entire project length.	$ 1,100,000.00	$ 600,000.00	$ -	$ 500,000.00
12	City of Jackson	Crosswalk Enhancements at 5 locations	Denton Road at Kibby Road; Hickory Avenue at Fourth Street (west and north legs); Prospect Street at the MLK Equality Trail; and West Avenue at Fourth Street	Sidewalk ramps, LED bordered pedestrian crossing signs, continental style pavement markings, pushbutton pedestals, crosswalk lighting (Prospect Street location)	$ 328,537.83	$ 257,398.26	$ -	$ 71,139.57
13	Jackson County	Horton Road (S. Jackson Road) RSA	Horton Road (S. Jackson Road) from Ferguson Road to Weatherwax Drive	Road Safety Audit	$ 20,000.00	$ -	$ 16,000.00	$ -
14	Jackson County	Moscow Road RSA	Moscow Road at Hanover Road, at Hatch Road, at Sears Road, at Horton Road/Mathews Road	Road Safety Audit	$ 20,000.00	$ -	$ 16,000.00	$ -
15	Kalamazoo County	Parkview Avenue	Parkview Avenue at 11th Street and at 12th Street	Construct a mini-roundabout at both intersections	$ 694,800.00	$ 600,000.00	$ -	$ 94,800.00
16	Kalamazoo County	TU Avenue at 23rd Street	TU Avenue at 23rd Street	Construct mini-roundabout	$ 350,000.00	$ 315,000.00	$ -	$ 35,000.00
17	city of Grand Rapids	Burton Street SW/SE	Burton Street from Clyde Park Avenue to Eastern Avenue	Signal improvements at Buchanan Ave SW, at Jefferson Avenue, at Madison Avenue, at Eastern Avenue and signal timing optimization at Clyde Park Avenue, signal preemption for emergency vehicles and transit throughout the corridor, pavement marking changes to remove southbound Buchanan Avenue right turn lane, and RRFB and pedestrian refuge island at Lafayette Avenue	$ 440,000.00	$ 396,000.00	$ -	$ 44,000.00
18	Kent County	84th Street at Kalamazoo Avenue	85th Street at Kalamazoo Avenue	Construct a Roundabout	$ 1,278,054.00	$ 600,000.00	$ -	$ 678,054.00
19	City of Brighton	Main Street Ped Crossing Signs	Main Street from N. First Street to S. West Street	Install LED border pedestrian crossing signs	$ 211,200.00	$ 190,080.00	$ -	$ 21,120.00
20	Livingston County	Grand River Avenue at St. Joseph Mercy Health Center B	Grand River Avenue at St. Joseph Mercy Health Center Brighton	Signal modernization, advance dilemma zone detection, eastbound protected left turn phase	$ 184,000.00	$ 165,600.00	$ -	$ 18,400.00
21	Macomb County	6 Intersections (northern part of County)	23 Mile Road at Napi Drive, 23 Mile Road at Romeo Plank Road, 24 Mile Road at North Avenue, 25 Mile Road at Schoenherr Road, 26 Mile Road at North Avenue, Gratiot Avenue at Carriage Way Drive	Signal modernization including box span at two intersections, backplates at three intersections, left turn phasing at one intersection, delimma zone detection at all six intersections, removal of night flash at one location	$ 661,442.00	$ 595,297.80	$ -	$ 66,144.20
22	Macomb County	5 Intersections	26 Mile Road at Stoney Creek Metropark entrance, 14 Mile Road at Garfield Road, 14 Mile Road at Kelly Road, Harper Avenue at Quinn Road, Utica Road at Monvian Drive	Signal modernization including box span and backplates at three intersections, protected left turn phasing at two intersections, dilemma zone detection at all five intersections	$ 668,747.00	$ 600,000.00	$ -	$ 68,747.00
23	City of North Muskegon	Fleming Street	Fleming Street from Ruddiman Drive to Moulton Avenue	Construct curb along east side to create vertical separation between the roadway and sidewalk, remove bump out, upgrade ADA ramps	$ 402,300.00	$ 321,840.00	$ -	$ 80,460.00
24	City of Pontiac	Non-motorized Crossing Improvements	Auburn Avenue at Hill St/Center St, at Paddock St, at Sanford St, and at MLK Blvd; Auburn Avenue from Hill St/Center St to Carriage Circle Drive	Full signal modernization at Hill Street, other intersections will receive signal backplates, ADA ramps, countdown pedestrian signals, signing, and pavement markings, four RRFBs betweeen Hill Street and Clifford Street, HAWK signal between Midland Drive and Carriage Cirlce Drive, removal of existing overhead pedestrian bridge.	$ 683,793.00	$ 600,000.00	$ -	$ 83,793.00

GVMC

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MEMORANDUM

DATE: November 10, 2021

TO: Policy Committee

FROM: George Yang, Senior Transportation Planner

RE: **Safety Targets for Calendar Year 2022**

The Michigan Department of Transportation (MDOT) has established the 2022 traffic safety targets for the five federal performance measures based on five-year rolling averages as shown in the table below. Also included in the table is GVMC's baseline condition based on the five-year rolling average from 2016-2020.

Michigan State Safety Targets for Calendar Year 2022

Measure (5-year rolling average)	Michigan State Baseline Condition (2016-2020)	Michigan State 2022 Targets (2018-2022)	GVMC Baseline Condition (2016-2020)
Number of Fatalities	1,028.2	1,065.2	64
Rate of Fatalities per 100 million VMT	1.05	1.098	0.90
Number of Serious Injuries	5,673.2	5,733.2	457.2
Rate of Serious Injury per 100 million VMT	5.78	5.892	6.42
Number of Non-Motorized (Pedestrians and Bicycle) Fatalities & Serious Injuries	762.8	791.6	69.2

MDOT's safety performance targets are based on two models developed and maintained by the University of Michigan Transportation Research Institute (UMTRI). The UMTRI models depend on results of a research report titled Identification of Factors Contributing to the Decline of Traffic Fatalities in the United States, which was completed as part of the National Cooperative Highway Research Program project 17-67. The models, predicting the number of fatalities and the change in counts of fatalities, rely on the correlation between traffic crashes, vehicle miles traveled (VMT), and risk. UMTRI identified four factors that can influence the outcome: the economy, safety and capital expenditures, vehicle safety, and safety regulations. For both models, economic factors such as the Gross Domestic Product (GDP) per capita, median annual income, the unemployment rate among 16 to 24-year old's, and alcohol consumption had the greatest impact at approximately 85 percent.

MPOs are 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

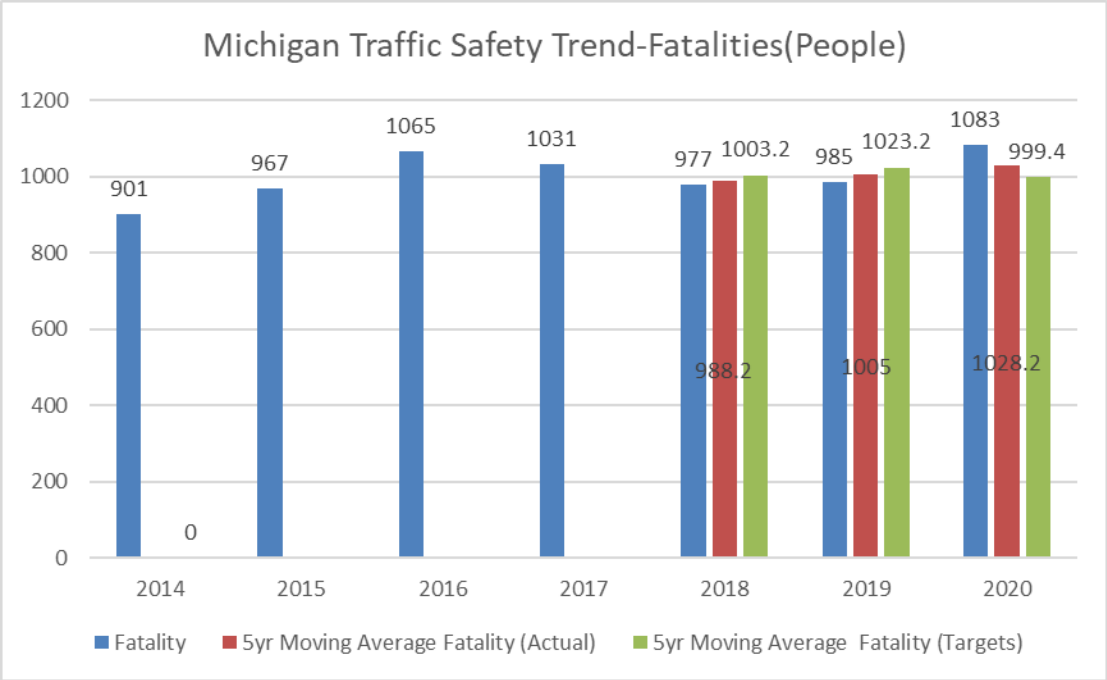
2. Committing to a quantifiable target for the performance measures for their metropolitan planning area

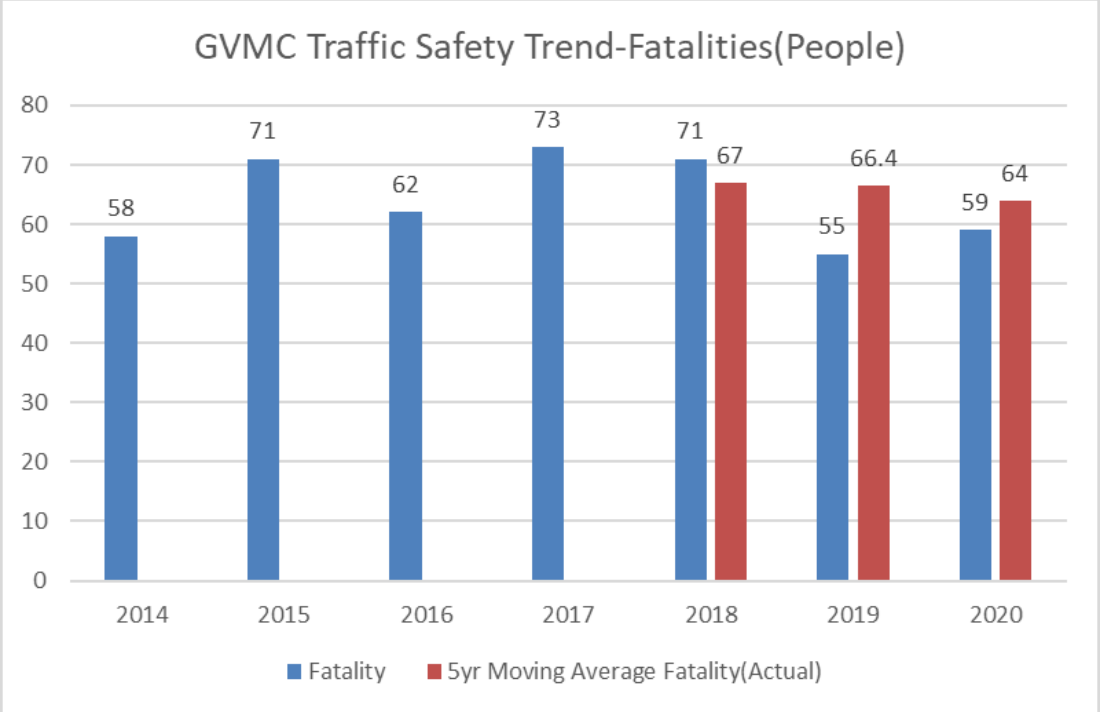
MPOs are required to establish targets no later than 180 days after the state DOT established the state safety targets. MDOT was required to report to FHWA its safety targets before August 31, 2021, and GVMC will therefore be required to decide on our MPO safety targets for calendar year 2022 no later than February 27, 2022.

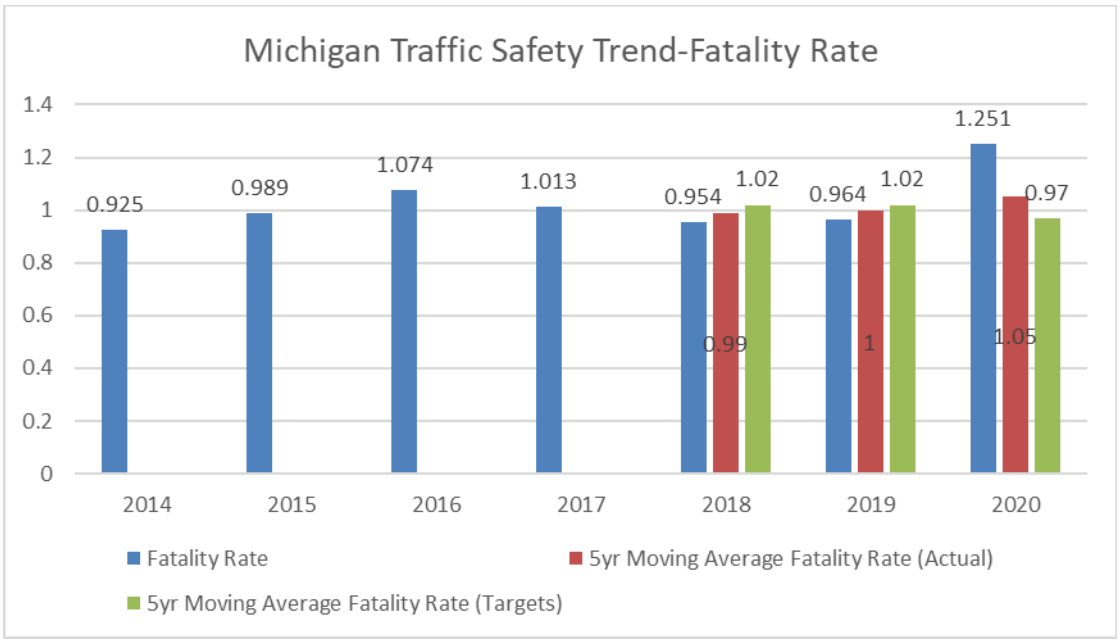
To aid in the discussion surrounding this topic, staff took a look at data related to GVMC's safety performance as well as the safety projects we've implemented and safety funding that has been spent in the region over the last five years.

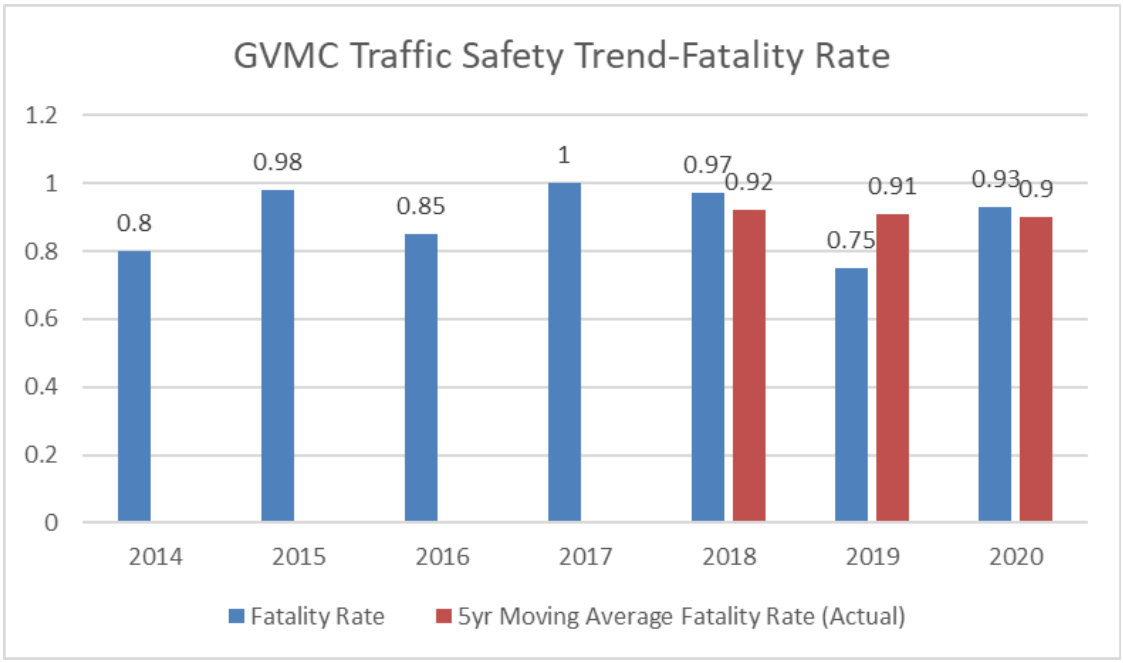
As shown in the charts below, while the average number of fatalities and the fatality rate has been going up the last few years statewide, GVMC's five-year moving average for both measures has been decreasing the last few years. GVMC's five-year moving average for serious injuries and rate of serious injuries, however, has increased the last few years, as they have statewide, and our serious injury rate is higher than the state's.

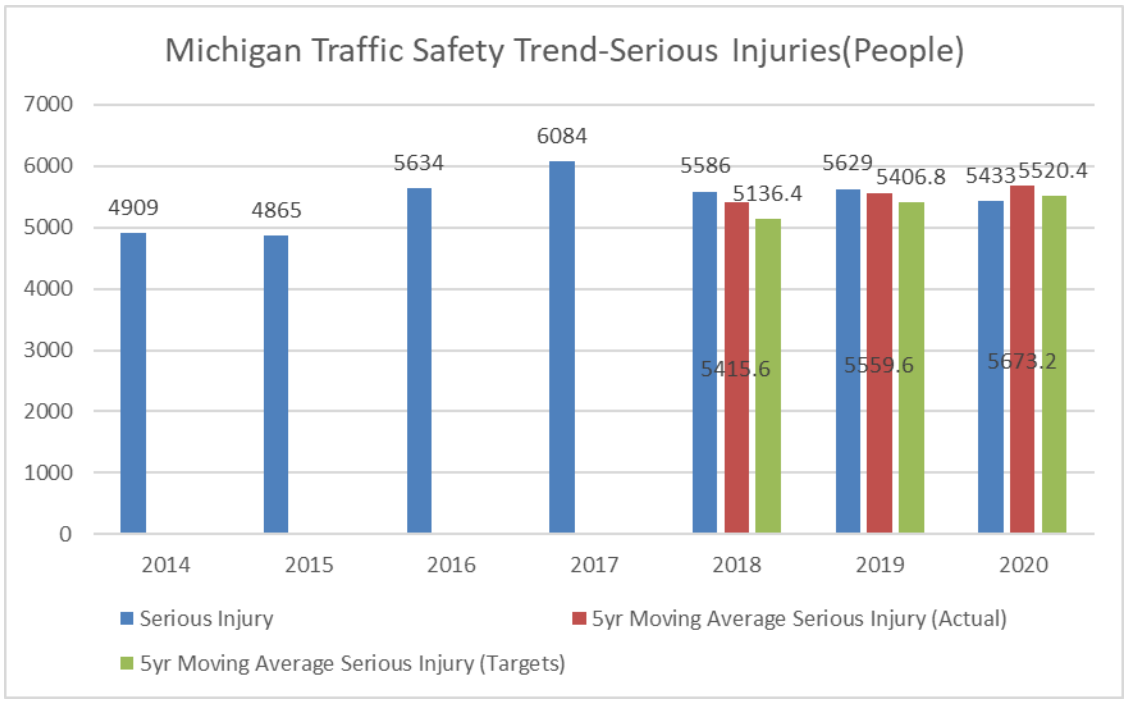
Additionally, our average number of bicycle and pedestrian fatalities and serious injuries remained more stable than the number for the entire state.

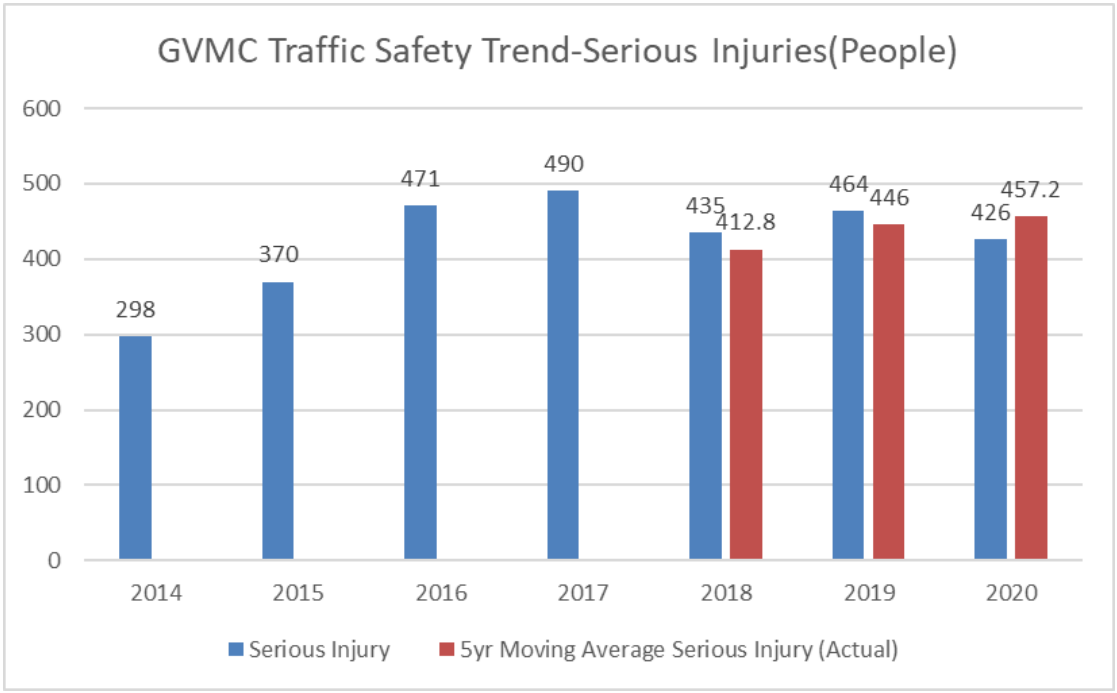


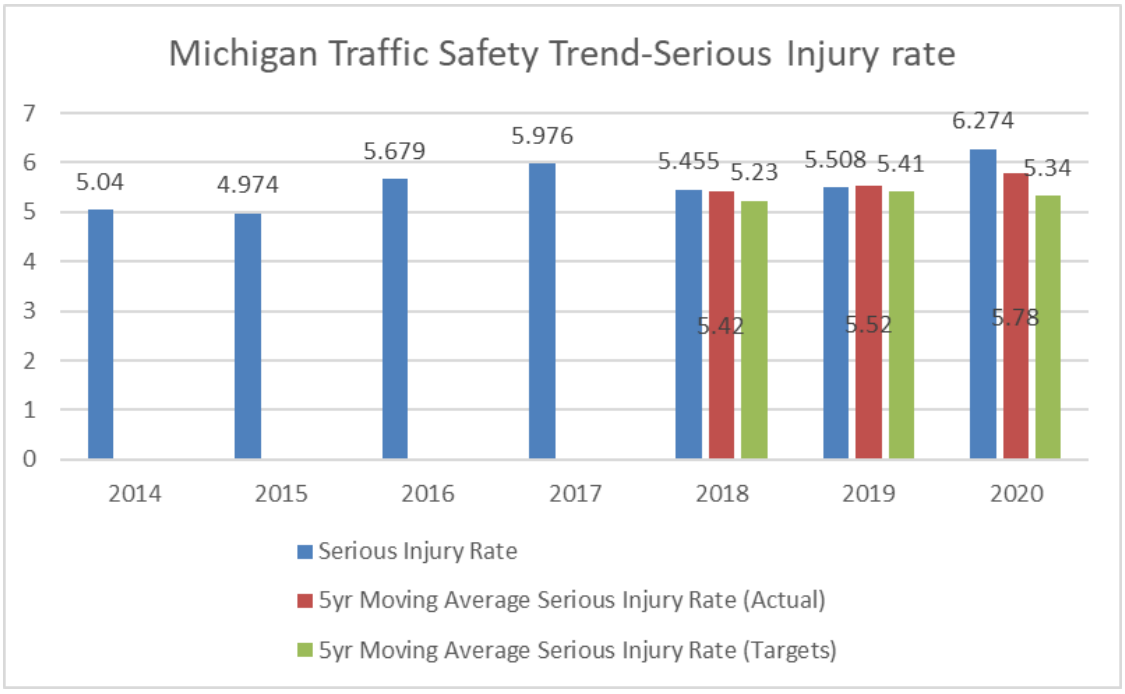


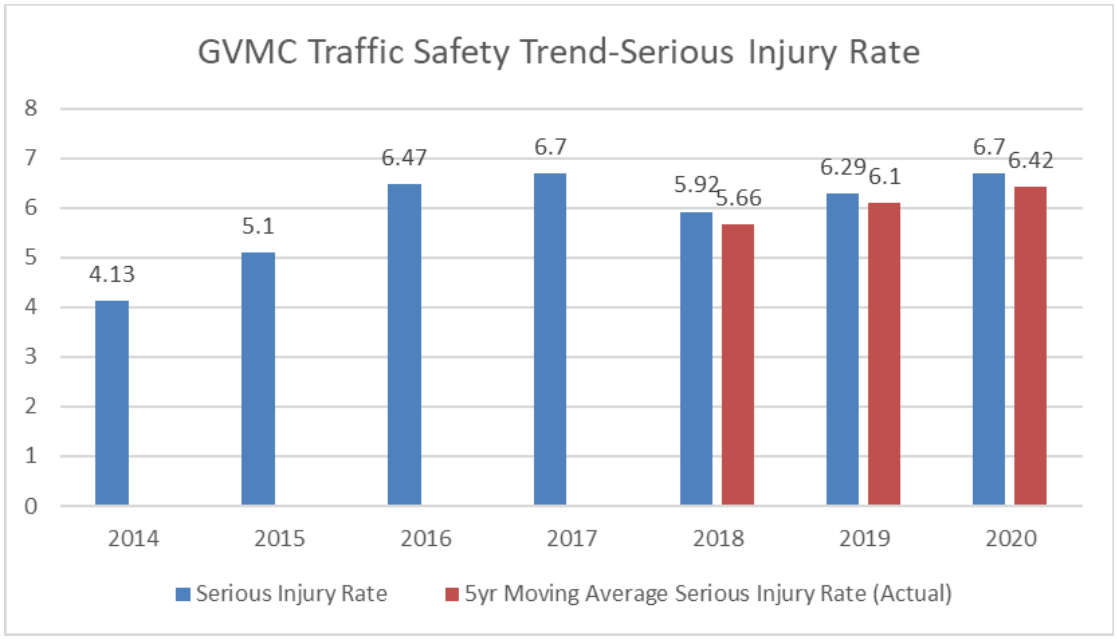

Michigan Traffic Safety Trend-Fatality Rate
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.925
0.989
1.074
1.013
0.954
0.99
1.02
0.964
1
1.02
1.251
1.05
0.97
2014
2015
2016
2017
2018
2019
2020
Fatality Rate
5yr Moving Average Fatality Rate (Actual)
5yr Moving Average Fatality Rate (Targets)

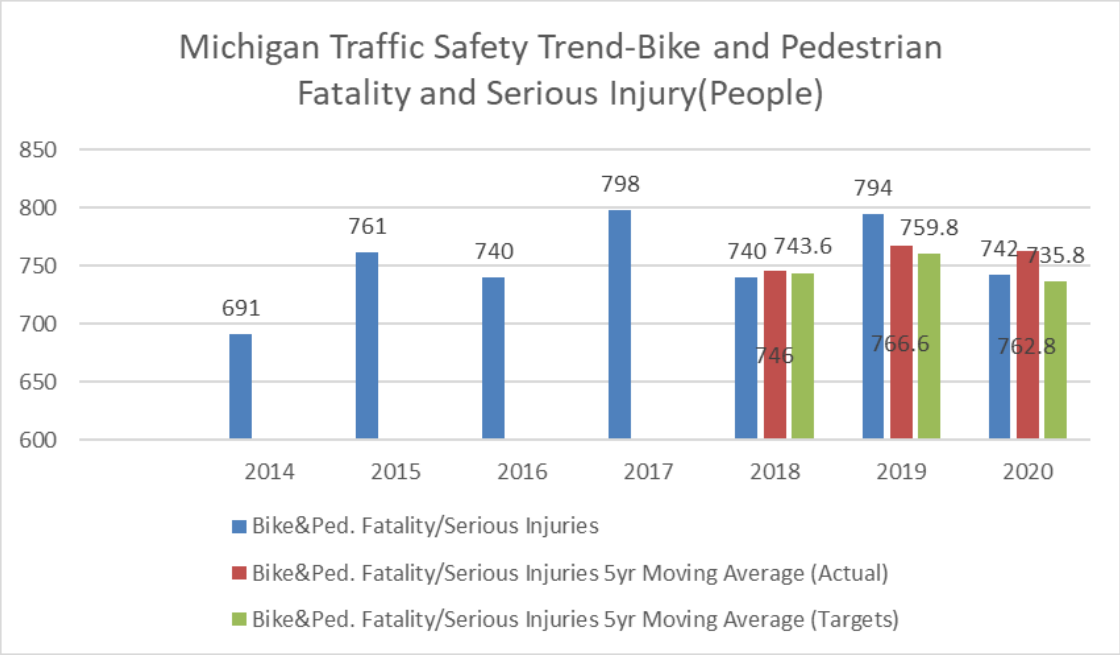

GVMC Traffic Safety Trend-Fatality Rate
1.2
1
0.8
0.6
0.4
0.2
0
0.8
0.98
0.85
1
0.97
0.92
0.75
0.91
0.93
0.9
2014
2015
2016
2017
2018
2019
2020
Fatality Rate
5yr Moving Average Fatality Rate (Actual)

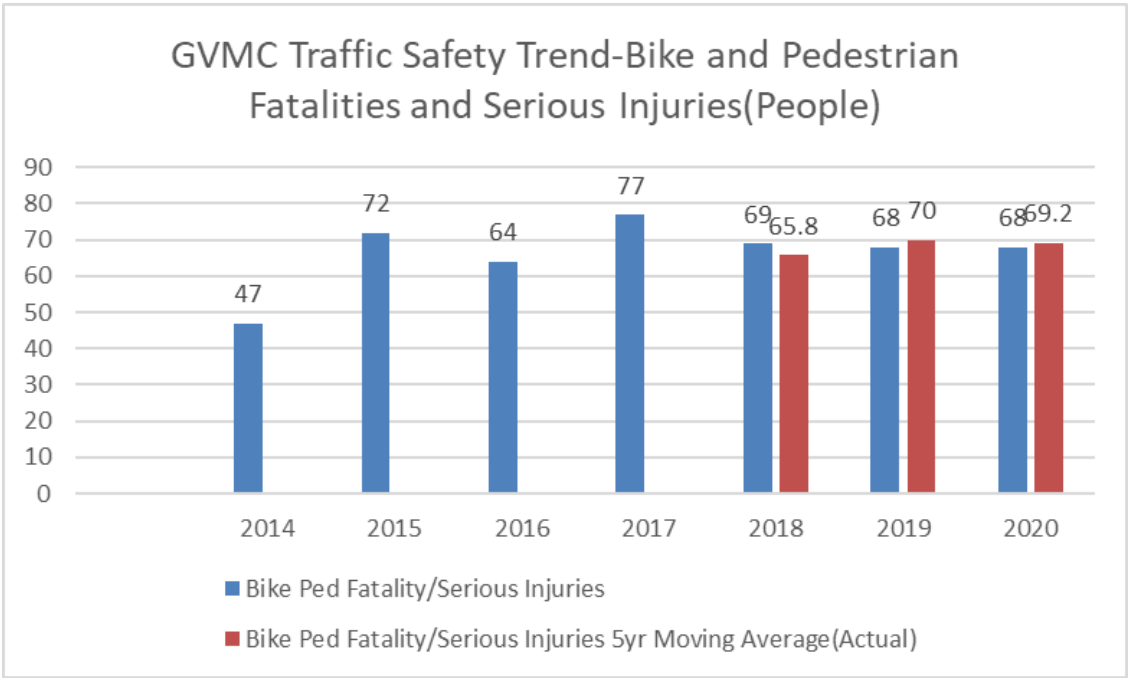

Michigan Traffic Safety Trend-Serious Injuries(People)
7000
6000
5000
4000
3000
2000
1000
0
4909
4865
5634
6084
5586
5136.4
5415.6
5629
5406.8
5559.6
5433
5520.4
5673.2
2014
2015
2016
2017
2018
2019
2020
Serious Injury
5yr Moving Average Serious Injury (Actual)
5yr Moving Average Serious Injury (Targets)


GVMC Traffic Safety Trend-Serious Injuries(People)
600
500
400
300
200
100
0
298
370
471
490
435
412.8
464
446
426
457.2
2014
2015
2016
2017
2018
2019
2020
Serious Injury
5yr Moving Average Serious Injury (Actual)


Michigan Traffic Safety Trend-Serious Injury rate
7
6
5
4
3
2
1
0
5.04
4.974
5.679
5.976
5.455
5.23
5.42
5.508
5.41
5.52
6.274
5.34
5.78
2014
2015
2016
2017
2018
2019
2020
Serious Injury Rate
5yr Moving Average Serious Injury Rate (Actual)
5yr Moving Average Serious Injury Rate (Targets)

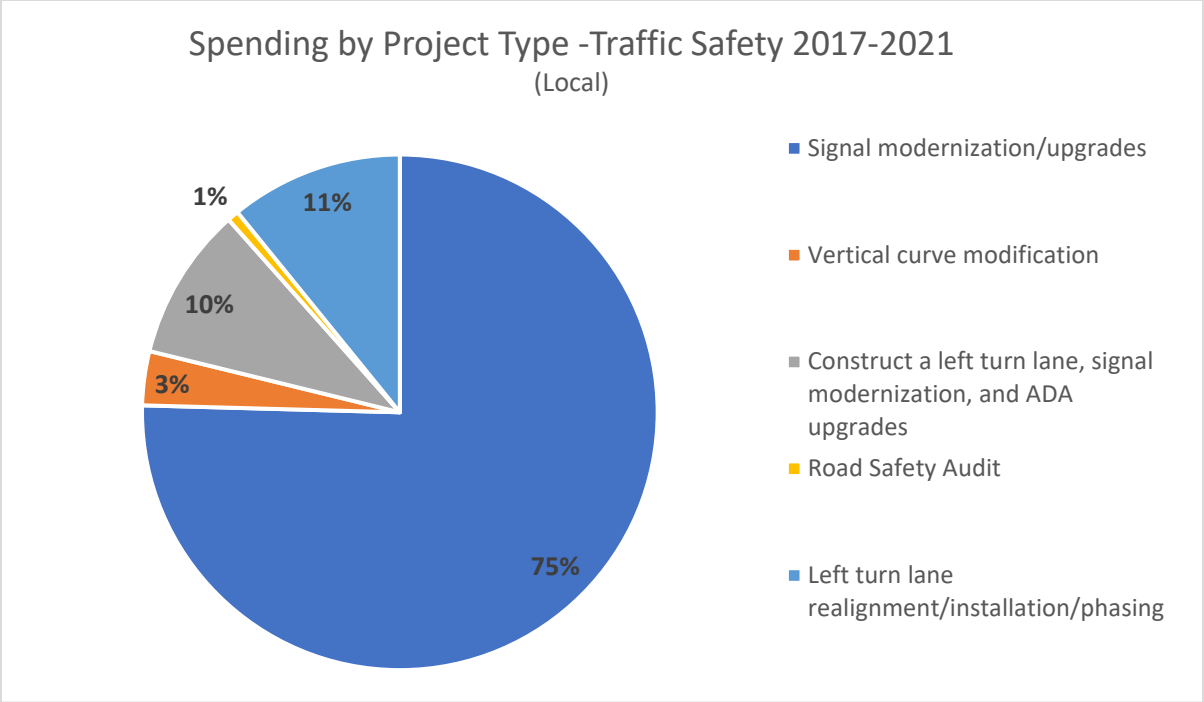

GVMC Traffic Safety Trend-Serious Injury Rate
8
7
6
5
4
3
2
1
0
4.13
5.1
6.47
6.7
5.92
5.66
6.29
6.1
6.7
6.42
2014
2015
2016
2017
2018
2019
2020
Serious Injury Rate
5yr Moving Average Serious Injury Rate (Actual)

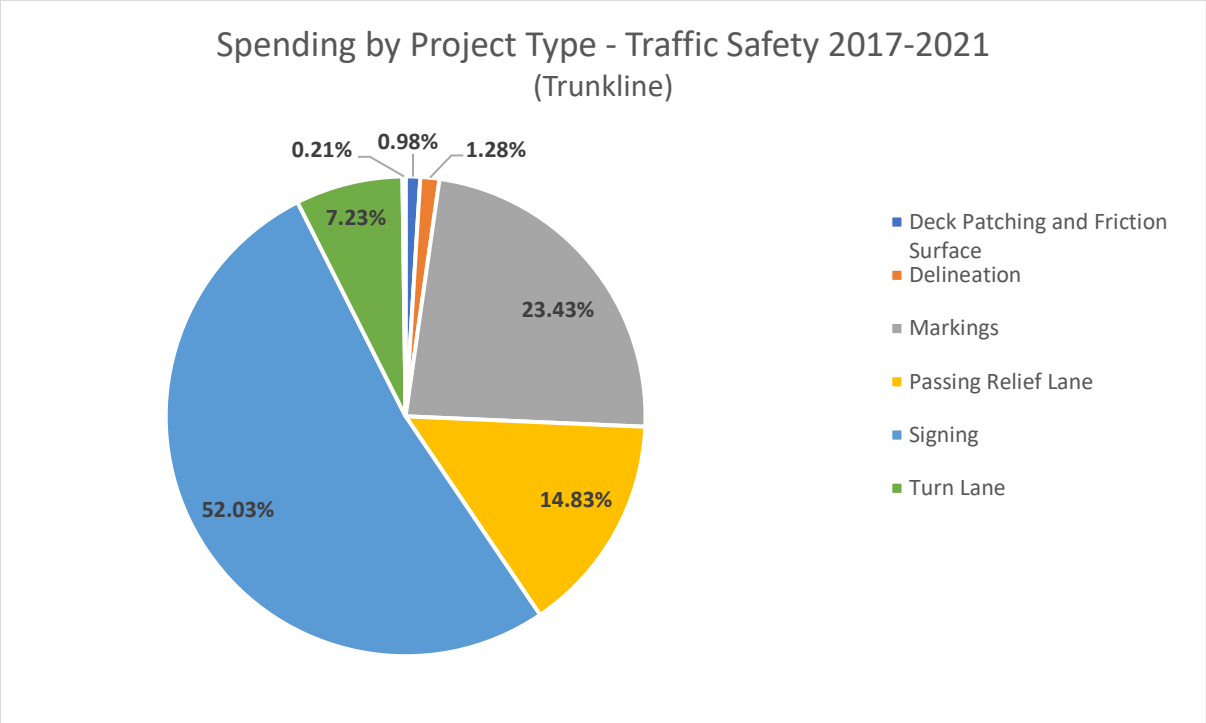




Comparing the last three years for which we have five-year moving average data (2018, 2019, and 2020) about 6.5% of the state's fatalities, 7.9% of the state's serious injuries, and 9% of the state's nonmotorized fatalities and serious injuries have occurred in the GVMC region. Meanwhile, our region has been able to secure roughly 9% of the federal local safety funding and about 11.6% of the total funding MDOT has spent in the safety templates over the last five years.

Shown in the charts below, three quarters of the safety funding our locals have been awarded the last five years has gone toward signal modernization projects, while about half of MDOT's safety spending has gone toward signing projects and a quarter to pavement marking projects in the region.





More analysis should be done to determine the impact implementing all these projects has had on regional safety, if additional project types could be more impactful, and how our region can position itself better to compete for more safety funding.

With all this information in mind, it is staff's recommendation that GVMC continues to support state safety *targets* while also establishing regional *goals* to improve upon GVMC's baseline condition for all safety performance measures. See summary table below. At their November meeting, the Technical Committee made the above recommendation. Final Committee action on these safety targets is required by February 27, 2022.

Measure (5-year rolling average)	**Michigan State Baseline Condition (2016-2020)**	**Michigan State 2022 Targets (2018-2022)**	**GVMC Baseline Condition (2016-2020)**	**Recommended Action on Safety *Targets***	**Recommended GVMC Regional Safety *Goals***
Number of Fatalities	1,028.2	1,065.2	64	Support State Target	Decrease regional number of fatalities
Rate of Fatalities per 100 million VMT	1.05	1.098	0.90	Support State Target	Decrease regional fatality rate
Number of Serious Injuries	5,673.2	5,733.2	457.2	Support State Target	Decrease regional number of serious injuries
Rate of Serious Injury per 100 million VMT	5.78	5.892	6.42	Support State Target	Decrease regional serious injury rate
Number of Non-Motorized (Pedestrians and Bicycle) Fatalities & Serious Injuries	762.8	791.6	69.2	Support State Target	Decrease regional number of nonmotorized fatalities and serious injuries

Like all our members, GVMC staff is committed to working to improve safety for all the users of our transportation system in any way we can. Please contact me with any comments or questions at (616) 776-7696.

GVMC

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CEDAR SPRINGS • COOPERSVILLE • COURTLAND TOWNSHIP • EAST GRAND RAPIDS • GAINES TOWNSHIP • GEORGETOWN TOWNSHIP • GRAND RAPIDS • GRAND RAPIDS TOWNSHIP • GRANDVILLE
GREENVILLE • HASTINGS • HUDSONVILLE • IONIA • JAMESTOWN TOWNSHIP • KENT COUNTY • KENTWOOD • LOWELL • LOWELL TOWNSHIP • MIDDLEVILLE • NELSON TOWNSHIP
OTTAWA COUNTY • PLAINFIELD TOWNSHIP • ROCKFORD • SAND LAKE • SPARTA • TALLMADGE TOWNSHIP • WALKER • WAYLAND • WYOMING

MEMORANDUM

DATE: November 10, 2021

TO: Policy Committee

FROM: Laurel Joseph, Director of Transportation Planning

RE: **The Rapid's Public Transportation Agency Safety Plan**

As part of federal performance-based planning requirements, The Rapid was required to develop and submit a public transportation agency safety plan (PTASP) by the end of July 2021 and provide it also to the MPO for their acknowledgement. As part of this acknowledgement the MPO should express its support for the transit agency safety targets that are included in this PTASP.

Attached for your review is The Rapid's PTASP. The Committee will be asked to take action to acknowledge its receipt and support the transit safety targets that are included in the plan.

If you have any questions, please do not hesitate to contact me at (616) 776-7610.

Interurban Transit Partnership

Public Transportation Agency Safety Plan

The Interurban Transit Partnership, aka The Rapid, is required to maintain a written safety plan along with supporting documents, including those related to program implementation and results from its safety management system as required in 49 CFR Part 673. The Rapid has existing documentation describing processes, procedures, and other information that are now incorporated into the Public Transit Agency Safety Plan (PTASP). If these documents are not a physical part of the PTASP, they are referenced by specifying the document names and locations within the appropriate sections of the plan.

1. Transit Agency Information

Transit Agency Name	Interurban Transit Partnership, AKA The Rapid			
Transit Agency Address	300 Ellsworth Ave SW, Grand Rapids, MI 49503			
Name and Title of Accountable Executive	Deb Prato, CEO			
Name of Chief Safety Officer	Stephan Luther, Manager of Safety and Training			
Modes of service covered by this plan	**MB DO:** Fixed Route Service, directly operated. **VP DO:** Van Pool, directly operated. **DR PT:** Paratransit, currently operated by MV Transit. **RB DO:** Bus Rapid Transit, directly operated		**FTA Funding Types**	5307 5339 CMAQ
Modes of service provided by the Transit Agency	**MB DO:** Fixed Route Service, directly operated. **VP DO:** Van Pool, directly operated. **DR PT:** Paratransit, currently operated by MV Transit. **RB DO:** Bus Rapid Transit, directly operated			
Transit services provided on behalf of another entity.	Yes X	No ☐	**Description of Arrangement**	The Rapid provides bus operators and maintenance services to the City of Grand Rapids to operate DASH service.
Name and Address of entity for which service is provided	City of Grand Rapids 300 Monroe Ave NW Grand Rapids, MI 49503			

2. Plan Development, Approval, and Updates

Name of person who drafted this plan	Stephan Luther, Manager of Safety and Training, The Rapid (CSO)	
Signature by the Accountable Executive	**Signature of Accountable Executive**	**Date of Signature**
	Deborah Prato	7/12/2021
Approval by the Board of Directors or an Equivalent Authority	**Name of Individual/Entity That Approved This Plan**	**Date of Approval**
	Mayor Stephen Kepley	12/13/2020
	Relevant Documentation (title and location)	
	Signed Board resolution (12/02/2020). Located in Exec. office	
Certification of Compliance	**Name of Individual/Entity That Certified This Plan**	**Date of Certification**
	Kevin Wisselink	12/11/2020
	Relevant Documentation (title and location)	
	Located in TrAMS	

Version Number and Updates

Record the complete history of successive versions of this plan.

Version Number	Section/Pages Affected	Reason for Change	Date Issued
001	All	Original Document	12/2/2020
002	All	Review and Revision	07/08/2021

Annual Review and Update of the PTASP

Annual review of this PTASP will occur near the beginning of each fiscal year. Each Manager will review their portion of the plan and will make revisions as needed. A draft plan will be submitted to the Accountable Executive for review, approval, and presentation to the Board of Directors. The updated plan will replace all previous plans and will be distributed to employees at the time of implementation. The Plan review and updates will occur between October 1 and December 31 annually.

3. Safety Performance Targets

Safety Performance Targets

The Rapid will provide safety performance targets for the upcoming year and compare them to actual safety performance during the previous year in this plan, beginning in FY 2019.

Safety performance targets are based on the measures established under the National Public Transportation Safety Plan.

- Fatalities: Total number of fatalities reported to NTD and rate per total vehicle revenue miles (VRM) by mode.
- Injuries: Total number of injuries reported to NTD and rate per total VRM by mode.
- Safety Events: Total number of safety events reported to NTD and rate per total VRM by mode.
- System Reliability: Mean distance between major mechanical failures by mode.

Annual Mileage	MB DO	RB DO	VP DO	DR PT
FY 2019/2020	4,625,964	324,728	N/A	1,603,081

Actual Reported FY 2019/2020 (based on performance measures)

Mode	Fatalities Reported to NTD		Injuries Reported to NTD		Safety Events Reported to NTD		Mean Distance Between Major Failures
	Total	Rate per 100,000 VRM	Total	Rate per 100,000 VRM	Total	Rate per 100,000 VRM	
MB DO	1	0.02	35	0.77	4	0.09	68,028.9
RB DO	1	0.3	6	1.85	2	0.043	81,182.0
VP DO	0	0	0	0	0	0	0.0
DR PT	0	0	1	0.022	0	0	320,616.2

Target FY 2020/2021 (based on performance measures)

Mode	Fatalities Reported to NTD		Injuries Reported to NTD		Safety Events Reported to NTD		Mean Distance Between Failures
	Total	Rate per 100,000 VRM	Total	Rate per 100,000 VRM	Total	Rate per 100,000 VRM	
MB DO	0	0.0	<30	<0.65	<4	<0.09	>69,000.0
RB DO	0	0.0	<5	<1.54	0	0	>82,000.0
VP DO	0	0.0	0	0	0	0	0
DR PT	0	0.0	0	0	0	0	>322,000.0

Safety Performance Target Coordination

At the beginning of each fiscal year, The Rapid communicates its safety performance targets listed above with the State of Michigan Department of Transportation and Grand Valley Metropolitan Council, our regional MPO. The Rapid reports fatality, injury, and event data to NTD on a monthly basis and conducts a CEO certification of the data in February of the following year. Safety Performance Indicators (SPI) and Safety Performance Targets (SPT) are reported to the Management Team, CEO and the Board on a regular basis throughout the year.

Targets Transmitted to the State	**State Entity Name and Address**	**Date Targets Transmitted**
	Michigan Department of Transportation Office of Passenger Transportation State Transportation Building 425 W. Ottawa St. P.O. Box 30050 Lansing, MI 48909	07/15/2021
Targets Transmitted to the Metropolitan Planning Organization(s)	**Metropolitan Planning Organization Name and Address**	**Date Targets Transmitted**
	Grand Valley Metropolitan Council 678 Front Ave. N.W. Ste. 200 Grand Rapids, MI 49504 (616) 776-3876	07/15/2021
Statement of Compliance	This PTASP addresses all applicable requirements and standards as set forth in FTA's Public Transportation Safety Program and the National Public Transportation Safety Plan.	

4. Safety Management Policy

SAFETY MANAGEMENT POLICY STATEMENT

The management of safety and security are core business functions. The Rapid is committed to developing, implementing, maintaining, and improving processes that ensure the highest practical level of safety and security performance in all our transit service delivery and organizational activities.

All employees are accountable for following safe work behaviors, understanding safety and security standards, and encouraging safe performance from coworkers and patrons, starting with the CEO, and spreading throughout the agency.

***The Rapid* is committed to:**

- Supporting the management of safety and security through the provision of adequate and appropriate resources, resulting in an organizational culture that fosters safe practices.
- Including safety and security input, reviews, and certification, in the planning and design of new and remodeled buildings, systems, processes or equipment.
- Encouraging effective employee safety and security reporting and communication.
- Devoting the same high level of attention to safety and security as is demonstrated in its provision of exceptional transportation service.
- Integrating the management of safety among the primary job descriptions and responsibilities of all employees.
- Establishing and operating hazard identification, hazard analysis, and safety risk evaluation activities, including an employee safety reporting program as a fundamental source for identifying safety hazards and concerns.
- Establishing a program to track near miss events to identify and mitigate potential hazards before accidents, incidents or injuries occur.
- Ensuring that no action will be taken against employees who disclose safety or security concerns unless disclosure reveals an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures.
- Meeting or exceeding legislative and regulatory requirements.
- Ensuring that sufficiently skilled and trained personnel are available to administer the safety and security management processes.
- Ensuring that employees are provided with sufficient safety and security information and training to safely perform assigned jobs or tasks.
- Establishing and measuring safety performance targets against realistic data-driven safety performance indicators.
- Improving safety performance through management processes that ensure appropriate safety management action is taken and is effective.
- Ensuring that subcontractors, third party systems and contracted services conform, and can demonstrate continued conformance, to our safety performance standards.

Safety Management Policy Communication:

The Safety Management Policy is communicated directly to The Rapid's leadership, management and to each employee at the beginning of their employment, in periodic refresher training, and as an addition to the Employee Handbook and Operations Policy and Procedures Manual. It is also posted on the Vista and Blink sites as part of Safety communication. The policy statement is also shared with The Rapid's contractors or directly to the contractors' employees working onsite.

Authorities, Accountabilities, and Responsibilities	
Accountable Executive	The authorized Accountable Executive is the CEO of The Rapid. They have responsibility to ensure that SMS and all safety activities are accomplished under their authority. The CEO has ultimate accountability and responsibility for: • Directing the implementation and maintenance of SMS at The Rapid. • Directing the implementation and maintenance of the *Transit Asset Management (TAM)* plan. • Ensuring the allocation of the human and capital resources needed to develop and maintain SMS and TAM. • Ensuring transparency in safety management priorities for both the Board of Directors and the agency's employees. • Establishing guidance on the acceptable level of safety risk for The Rapid; and • Ensuring that the safety management policy statement is appropriate and communicated throughout the agency. • Ensuring that The Rapid's Safety Management System is effectively implemented, and action is taken to address substandard performance of the program.
Chief Safety Officer or SMS Executive	The Chief Safety Officer (CSO) is the Manager of Safety and Training. He is adequately trained in safety management, is responsible for day-to-day implementation and operation of the SMS reports directly to the Accountable Executive regarding safety. He is responsible for: • Managing the safety programs under SMS. • Directing hazard identification and safety risk evaluation and/or analysis. • Reviewing designs, plans, processes, procedures and/or equipment to ensure safety. • Monitoring mitigation activities. • Providing periodic reports on safety performance. • Certifying safety critical elements of new or remodeled construction. • Maintaining safety documentation; and • Organizing the content of safety management training (not technical skills training) • Collecting and analyzing safety data. • Acting as a conduit for communicating safety from and to departmental/operational managers, front-line employees, and executive management, as necessary. • Reviewing, revising, maintaining, and communicating The Rapid's safety plans and programs. • Acting as a subject area expert and advisory resource in local, state, and federal safety regulations and standards. • Providing safety information and intelligence to line managers and front-line employees. • Monitoring safety performance. • Advising senior management on safety matters. • Conducting safety audits, inspections, and investigations; and • Maintaining safety documents and records. The CSO, along with managers, supervisors, and employees, has the authority to stop any activity or process that puts The Rapid's employees, guests, and/or patrons at risk of

	immediate death or injury. The CSO reports directly to the Accountable Executive for safety critical items.
Board of Directors and Agency Leadership	The Board of Directors will have free access to the PTASP and will be informed of any plan changes. A copy of the annual plan review will be presented to the Board as part of the first Board meeting of each fiscal year.
Key Staff	**TAM Manager:** The position of TAM Manager is delegated to the Grants and Capital Projects Manager. He or she is responsible for: • Creating and maintaining the Transit Asset Management (TAM) plan for The Rapid. • Creating and maintaining documents and records related to asset management at The Rapid. • Coordinating with the Maintenance Manager, Facilities Manager and SMS Manager to establish benchmarks for a state of good repair to include safety assessments and evaluations. **Security Manager:** The Security Manager reports to the COO and, in times of threat or disaster, to the CEO. They are responsible for: • Managing security threats and vulnerabilities through both human and capital resources as needed. • Directing threat and vulnerability identification, analysis, evaluation, and mitigation. • Collecting and analyzing security data. • Acting as a conduit for communicating security from and to departmental/operational managers, front-line employees, and executive management, as necessary. • Acting as liaison between The Rapid and local, state, and Federal law enforcement. • Reviewing, revising, maintaining, and communicating The Rapid's security and emergency response plans and programs. • Acting as a subject area expert and advisory resource in local, state and federal security regulations and standards. • Providing security information and intelligence to line managers and front-line employees • Security performance monitoring. • Advising senior management on security matters. • Stopping processes in situations that are immediately dangerous to life and health. • Conducting security audits, inspections, and investigations; and • Maintaining security documents and records. **Transportation Manager:** The Transportation Manager has a duty to support and communicate SMS principles, policies and procedures to supervisors, front-line bus operators and staff. The Transportation Manager is responsible for: • Communicating safety and security initiatives, processes and practices to supervisors, bus operators, department staff and ridership. • Forwarding reports of hazards from supervisors and bus operators, both real and potential, to the appropriate department. • Participating in and delegating authority to the investigation of accidents, incidents and occurrences using SMS principles and providing written data for later analysis.

- Participating in safety and security meetings and training.
- Directing the collection and storage of accident and incident reports for analysis.
- Stopping processes in situations that are immediately dangerous to life and health.
- Encouraging safe and secure behaviors; and
- Monitoring, evaluating, and providing feedback concerning safety behaviors to supervisor and bus operators.

Transportation Supervisors: Transportation supervisors have a responsibility to support and communicate SMS principals, policies and procedures to front-line bus operators and are responsible for:

- Communicating safety and security initiatives, processes and practices to operators, dual-class staff, and ridership, as necessary.
- Reporting hazards, both real and potential, to management.
- Forwarding reports of hazards from bus operators and ridership, both real and potential, to management.
- Investigating accidents, incidents and occurrences using SMS principles and producing written data for later analysis.
- Participating in safety and security meetings and training.
- Stopping processes in situations that are immediately dangerous to life and health.
- Encouraging safe and secure behaviors; and
- Monitoring, evaluating, and providing feedback concerning safety behaviors to personnel.

Facilities Manager: As one of the keys to SMS success, the Facilities Manager works closely with the Safety Department to remove or reduce hazards in the workplace, especially when it involves facilities, grounds, or infrastructure. The Facilities Manager is responsible for:

- Assisting the agency with personnel and materials in support of SMS.
- Participating in safety committees and initiatives.
- Encouraging safe and secure behaviors.
- Directing the collection and storage of accident and incident reports for analysis.
- Maintaining facility-related TAM policies, procedures, and records.
- Monitoring, evaluating, and providing feedback concerning safety behaviors to personnel.
- Stopping processes in situations that are immediately dangerous to life and health.
- Communicating and enforcing safety initiatives, policies and/or procedures as necessary; and
- Responding to employee safety concerns and providing feedback.

Fleet Maintenance Manager: The Fleet Maintenance Manager and maintenance supervisors are responsible for:

- Aiding the agency with personnel and materials in support of SMS.
- Participating in safety committees and initiatives.
- Encouraging safe and secure behaviors.
- Directing the collection and storage of accident and incident reports for analysis.
- Maintaining vehicle/equipment-related TAM policies, procedures, and records.
- Monitoring, evaluating, and providing feedback concerning safety behaviors to personnel.

- Stopping processes in situations that are immediately dangerous to life and health.
- Communicating and enforcing safety initiatives, policies and/or procedures as necessary; and
- Responding to employee safety concerns and providing feedback.

Department Managers: All department managers are responsible for:

- Helping the agency with personnel and materials in support of SMS.
- Participating in safety initiatives.
- Communicating and enforcing safety initiatives, policies and/or procedures, as necessary.
- Responding to employee safety concerns and providing feedback.
- Stopping processes in situations that are immediately dangerous to life and health.
- Determining the human and financial needs for each department to provide safe and secure work environments for employees and agency patrons; and
- Allocating human and financial resources related to SMS to department staff.

Bus Operators, Maintenance Technicians, Facilities Technicians and Administrative Staff: Front-line employees are the eyes and ears of the organization and are the most likely to identify specific hazards and safety risks in the workplace. Employee activities include:

- Reporting hazards, both real and potential, to supervisors, managers and safety personnel.
- Performing safety functions diligently.
- Participating in safe work behaviors.
- Stopping processes in situations that are immediately dangerous to life and health.

Safety Committee: Employee-driven to identify and report hazards. Membership includes personnel from Transportation, Maintenance, Facilities, Planning/Scheduling, Administration, Security and Safety. Activities include:

- Reporting accidents, incidents, near miss events, injuries from employee groups.
- Directing employee safety reports to the appropriate committee or department for review and mitigation.
- Providing feedback to employee work groups; and
- Recommending safety mitigations as needed.

Accident/Incident Review Committee: The Accident/Incident Review Committee is intended to review accident/incident reports to determine causation and recommend mitigation. This committee does not determine accident preventability but looks at other factors that may affect safety. Activities include:

- Reviewing accident, incident, injury and near miss reports to determine causation.
- Analyzing reports to determine human and organizational factors leading to accidents, incidents, and injuries, both real and potential; and
- Recommending methods to mitigate safety risk at the agency.

Contractors and Contractors' Employees: Contractors and their employees play an integral role in safety at The Rapid. Contractors are responsible for ensuring that the same

	degree of safety protections and training are supplied to their employees as is afforded to The Rapid's personnel. Copies of The Rapid's programs, including the PTASP and other appropriate safety programs are made available to the contractors. If contractors have safety programs and plans, a copy will be made available to The Rapid.

Employee Safety/Hazard Reporting Program

All employees are encouraged and expected to report real or potential safety hazards, accidents, injuries, other incidents and near misses to The Rapid using one or more of the following methods:

Verbal Report: An employee may report a safety hazard, accident, or incident directly to their supervisor, manager, or safety officer who will then report it to the Safety and Training Department for tracking and resolution.

Written Operator Report: For accidents and incidents involving a transit vehicle, a written *Operator Report* is completed and turned into the supervisor's office before or at the end of the day on which the accident or incident occurred. The report is written by the operator involved in the incident and is included in the finished accident packet for scanning and storage.

Written Supervisor Report: A supervisor is assigned to each accident/incident and completes a written *Supervisor/Investigator Report* after compiling photos, video, operator, bus rider and witness reports. It becomes part of the finished accident packet.

Blink Report: Close calls and near misses can voluntarily be reported by following a link on Blink or by using a QR code distributed through posters and handouts.

All reports are tracked and collated to determine the types of events that may lead to accidents, property damage or injuries. The data is used to determine hazard trends and resources will be applied to reducing or mitigating the risk. If a near miss report describes a risk of greater concern, it can be added to the Hazard Log for assessment and tracking.

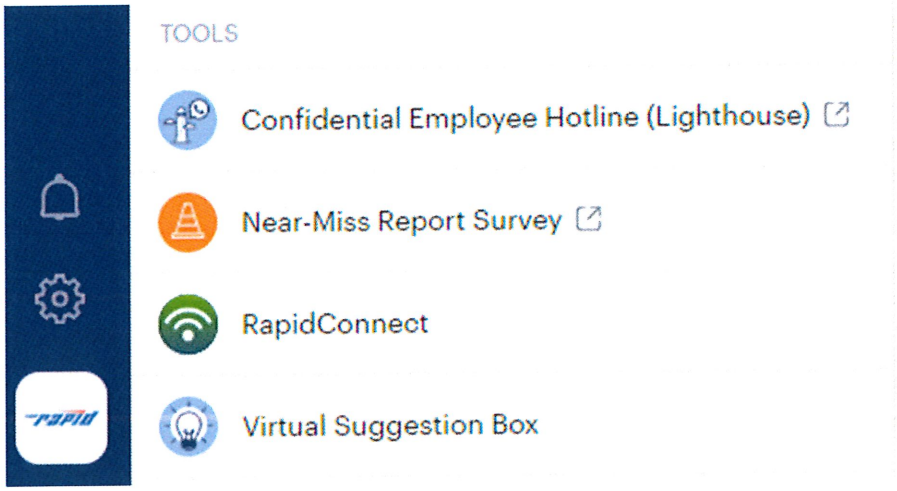
Employee Near Miss Reporting Program

The National Safety Council describes a near miss as "an unplanned event that did not result in injury, illness or damage – but had the potential to do so." When an employee experiences a close call, or near miss, they can report it voluntarily and anonymously, if they wish, using the Near Miss Report. Under normal circumstances, employees who report a near miss will not be subject to potential discipline related to the event unless:

- The employee's actions were the result of a willful violation of law or policies.
- The employee's actions contributed directly or indirectly to an injury, illness or damage.
- The employee was impaired by alcohol or illegal drugs (including marijuana) at the time of the event.
- Facts related to the event were proven to have been omitted; statements were falsified, or reports were exaggerated to put the employee in a better light.

Examples of a near miss includes:

- Loss of control on an icy road resulting in no accident or injury.
- An incident contributing to a close call involving a pedestrian.
- An operator almost passes up a customer at a stop.
- Someone slipping on an icy sidewalk resulting in no fall and no injury.
- An object falling off a shelf almost hits an employee.
- A bus left in neutral with the parking brake off rolls forward and comes to rest on a curb.



5. Safety Hazard Management

Safety Hazard Identification

General information regarding hazards, incidents, and injuries for all of The Rapid's employees, departments and contractors can be found through information from the FTA National Transit Database, Michigan's Department of Licensing and Regulatory Affairs, as well as other federal and state oversight agencies. This data is tracked, and in some cases reported to, for identifiable workplaces hazards and illnesses.

Internally, hazards are identified through employee observations and reporting or by means of periodic safety inspections and audits by a Safety Officer. Current records of inspection items and results are available from the Safety/Training Office. During the hazard assessment process, the potential consequences of unresolved hazards are highlighted.

The contracted paratransit service provider is expected to have its own hazard identification process as part of its safety plan or adopt The Rapid's plan as outlined in the PTASP.

Hazard Assessment

Hazard analyses may occur within an individual department, during one of the monthly Safety Team meetings, or through other meetings with small groups or individuals. The assessment should include a description of the hazard, supporting test results, documents and/or photos and recommendations for resolution.

When a hazard has been identified and analyzed, it is resolved by determining its risk value, using the Risk Assessment Matrix, or RAM, (figure 3) to compare a hazard's severity and probable frequency, assessing the appropriate response to the hazard, and then determining the best method for remediation. Hazards with higher risk values should be addressed as soon as practical, with those posing imminent danger being given immediate attention. Work stoppages may be necessary when an activity is deemed too hazardous to continue without additional support or proper equipment.

The Rapid looks at existing hazard mitigations to determine if they are effective and sufficient before replacing them or adding other measures. This is also true for The Rapid's contractors and vendors, each of which must provide copies of their mitigation methods and must allow The Rapid to inspect equipment

and review their safety programs.

The Risk Assessment Matrix (RAM) is used to determine risks to people, the environment, the agency's assets, and its reputation. The Rapid recognizes that the safety of the agency has a bearing on its employees and takes a holistic approach to determining risks.

This process is the same for The Rapid's paratransit service provider if they do not have separate, equally effective methods.

Safety Hazard Log and Issue Tracker

The Safety Hazard Log and Issue Tracker is designed to allow employees to follow identified hazards from the initial report to conclusion in a format that contains enough information to

SAFETY HAZARD LOG AND ISSUE TRACKER																		
NUMBER	CODE	LOCATION OR WORK GROUP	STATUS	RISK	TYPE	REPORTED B	HOW REPORTED	DATE ENTERE	DESCRIBE HAZARD, VULNERABILITY OR	RECOMMENDATIONS	RESPONSI BLE	ACTIONS TAKEN	RESULTS	RISK 2	DATE COMPLET	DAYS TO COMPLET	DOCUMENT LINKS	
HL2020-01	BNG	Maintenance Shop area	CLOSED	P-2D E-4E A-3D R-4E	Safety	Steve Luther	Site inspection	1/1/2020	An electrical outlet in the high-pressure spray wash area in mixing/air cover and doors don't appear to have been tested for GFCI protection.	Replace the broken outlet and test GFCI protection (1/1/20). Verify that GFCI protection covers both sides of the wall between the shop and the spray wash area (2/13/20)	Facilities	Re-inspected 2/10/2020. Both outlets have moisture cover installed and appear to be in good working order. Further inspection reveals a GFCI outlet on the wall opposite the spray wash area (2/13/20).	GFCI protection has been located and tested on the shop wall opposite the spray wash area (2/13/20).	P-4D E-4E A-4D R-4E	2/13/2020	43		
HL2020-03	MAINT	Fuel Lane	CLOSED	P-3D E-3D A-3D R-4E	Safety	Tony Williams	Verbal report/Site inspection	2/7/2020	The diesel exhaust fluid tank, liner and dispenser located in the Fuel Lane are not labeled and appear to need inspection, repair and/or replacement.	Label the DEF tank with a GHS approved label. Label the liner and dispenser with approved labels. Evaluate the equipment and repair or replace as needed.	Maintenance Parts Room	Reported to Maintenance 2/10/2020	Labels have been attached to the tank and each dispenser. The dispensers have been inspected and are working properly	P-3E E-3E A-3E R-4E	2/12/2020	5		
HL2020-04	BNG	Fuel Lane	CLOSED	P-2D E-4D A-4E R-4E	Safety	Tony Williams	Verbal report/Site inspection	2/7/2020	The eyewash station in the fuel lane is dirty and covered with debris.	Clean the station, replace the fluid regularly, add a clear plastic cover, inspect it weekly and ensure that everyone in the area is aware if its operation and maintenance.	Facilities	Reported to Facilities 2/10/2020. The station was cleaned a few times between 2/10 and 2/1.	More frequent inspection of the eyewash stations by Safety and scheduled cleaning by Facilities is recommended	P-2D E-4D A-4E R-4E	3/1/2020	23		
HL2020-05	BNG	Bus Garage	CLOSED	P-2D E-4E A-4E R-4E	Safety	Maintenance tech	Verbal report/Site inspection	2/13/2020	The AED near the shop door in the bus garage is frequently blocked by cleaning chairs and mops.	Clean the area and put high visibility tape on the floor to outline a clean zone.	Facilities	Reported to Facilities 2/13/2020.	E.G. clean the floor and put down warning tape	P-2E E-4E A-4E R-4E	2/18/2020	5		
HL2020-06	BRTLL	Stations-Lakes Line	OPEN	P-3D E-4E A-3D R-3D	Safety	Steve Luther	Site inspection	3/1/2020	The doors on the articulated buses do not open completely at the BRT stations.	Test the operation of the doors at BRT stations or they become available. Test the automatic adjustment capabilities of the bus. Discuss alternatives with Hou Flyer.	PM, BRT Rick Manager, Maint Manager	Testing has been ongoing during May-July.	The doors still do not open at all stations and a list of specific stations is being developed.	P-3D E-4E A-3D R-3D				
HL2020-07	BRTLL	Stations-Lakes Line	OPEN	P-3D E-4E A-4D R-4E	Safety	Steve Luther	Site inspection	3/1/2020	The ramp on the Hou Flyer buses cannot be deployed at the BRT stations with restricting the bus and the bus cannot deploy the ramp in the raised position.	Test the operation of the ramp on Hou Flyer buses and discuss options with Hou Flyer to make changes to the operation of the ramp in raised position.	PM, BRT Rick Manager, Maint Manager	Hou Flyer has been contacted and is working on a solution to the problem.	Have developed ongoing.	P-3D E-4E A-4D R-4E				
HL2020-08	BRTLL	Lanes	CLOSED	P-3D E-4E A-2D R-3D	Safety	Steve Luther	Site inspection	3/1/2020	The height of the overhead at GHS appears to be low and needs to be compared to the height of the Lakes Line bus.	Get height measurement of the overhang from GHS and measure the true height of the Lakes Line bus, then compare.	PM, BRT Rick Manager, Maint Manager	The height was reviewed by GVSU and Christmen.	The height will be adequate for buses to drive under with no problem.	P-F E-F A-F R-F	3/30/2020	29		

Figure 2: Safety Hazard Log and Issue Tracker

RISK ASSESSMENT MATRIX (RAM)			People: Multiple permanent injuries or a fatality Environment: Atmospheric or global effect Assets: Major loss to equipment or system Reputation: Permanent impact on ridership or national attention	People: Permanent or long-term injury Environment: Statewide effect Assets: Damage resulting in temporary loss of use Reputation: Temporary impact on ridership or statewide media attention	People: Injury requiring medical treatment away from work Environment: Regional or local area effect Assets: Minor damage to equipment or property Reputation: Minor impact to ridership or local media attention	People: Minor injury requiring first aid only Environment: Effect limited to immediate area Assets: Superficial damage to equipment or property Reputation: Minor impact to ridership with no media attention	Based on Military Standard 882E Last Revision: 07/06/2021
SEVERITY			1	2	3	4	RISK LEVELS:
LIKELIHOOD			CATASTROPIC	CRITICAL	MARGINAL	NEGLIGIBLE	HIGH: Requires immediate response and control to ALARP*. Written assessment and plan required.
May occur daily, weekly, or several times a month.	A	FREQUENT	HIGH	HIGH	SERIOUS	MEDIUM	
May occur monthly or several times a year.	B	PROBABLE	HIGH	HIGH	SERIOUS	MEDIUM	SERIOUS: Requires response and control to ALARP* Written assessment and plan required.
May occur a few times every year.	C	OCCASIONAL	HIGH	SERIOUS	MEDIUM	LOW	MEDIUM: Review and control to ALARP* Discussion and plan as needed.
Has occurred in the past or may occur periodically (once in every few years)	D	REMOTE	SERIOUS	MEDIUM	MEDIUM	LOW	LOW: Periodic review and assessment to ALARP.
May be possible or conceivable but is not likely to occur. Has not occurred in recent memory.	E	IMPROBABLE	MEDIUM	MEDIUM	MEDIUM	LOW	ELIMINATED: No action required. Periodic assessment recommended.
Cannot occur. (To be used cautiously.)	F	ELIMINATED	ELIMINATED				*ALARP: As low as reasonably practical.

Figure 3: Risk Assessment Matrix

Safety Risk Mitigation

Many hazards can be resolved through more than one means, but the general process for determining the best method should be by considering engineering controls, administrative work practices or employee protective equipment and training, in that order. A combination of methods to mitigate hazards may be necessary and both current methods and their effectiveness are to be considered during the decision-making process.

Accident Reporting, Investigation and Review

The ultimate purpose for providing in-house management and investigation of work-related accidents, injuries and incidents is to limit injury and damage, identify facts, establish causes, suggest methods for preventing recurrence, and eliminate or reduce safety risks for The Rapid's employees and customers.

Human Factors Analysis and Classification System, or **HFACS** (fig. 4), is a method for determining all factors related to an accident, incident, or event. HFACS considers both active and latent factors and attempts to discover factors beyond the employee's involvement.

The four main categories of HFACS are Physical Actions, Pre-Conditions, Supervision and Organizational Influences. Within each of these are sub-categories that are designed to consider other specific factors involved in an event.

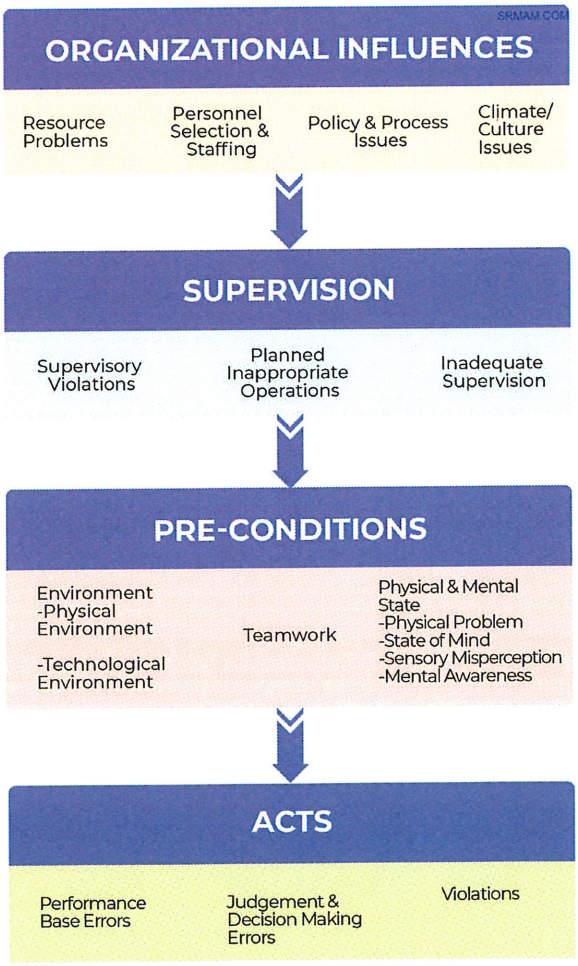


Figure 4: HFACS flowchart

Types of accidents include:

- Motor Vehicle Collisions
- Falls on the same or to a lower level.
- Getting caught in, on or between equipment or vehicles.
- Coming into contact with chemicals, electricity, heat, cold, or radiation.
- Bodily reaction from either voluntary or involuntary motion.
- Being struck against or by a moving, flying or falling object.
- Being rubbed or abraded by friction, pressure, or vibration.

Examples of incidents include:

- Acts of violence against an employee
- Acts of violence by an employee against a person or persons
- Reports of unsafe acts by employees or customers
- Bomb threats or other threats of violence
- Evacuations for life safety reasons

Employee Injury

Injuries are reported by the injured employee, or a witness, to Dispatch or his or her immediate supervisor as soon as possible. If the injured employee needs medical attention, the appropriate response by coworkers is to:

- Assess the injury.
- Call 911 if necessary.
- Call for assistance, if available.
- Begin emergency medical treatment, if willing and able.
- Continue treatment until emergency responders arrive.
- Contact the Safety/Training Officer and complete a written report as soon as practical.

As soon as possible, the injured employee must complete an Employee Injury Report for the Human Resources Department. In compliance with MIOSHA regulations, all reportable employee injuries will be recorded by a representative from the Human Resources Department and a summary will be posted from February 1 to April 30 each year for employee review.

The Safety/Training Office will investigate to determine the potential causes of the incident surrounding the injury and will issue a written report for review by the CEO, the Chief Operating Officer, department Manager and the Safety Team. Remedial recommendations may be issued by the Safety/Training Office or Safety Team and will follow normal channels of communication. Investigative resources will include the Employee Injury Report, eyewitness accounts, employee interviews, equipment testing and any other reasonable means to determine root causes. Injury reports will be kept on file for future analysis.

Vehicle Collisions

All vehicle collisions are reported to the Transportation Department by the operator while still at the scene. Bus Operators are instructed to contact Dispatch at the time of the incident. In most cases, the vehicle operator, and a Transportation Supervisor complete separate reports. When the collision is minor and does not involve a safety hazard, the vehicle operator may be instructed to continue in service. A written report is completed at the end of the Operator's work and may be accompanied by a Supervisor's and other reports. Reports are reviewed by the Transportation Manager, who determines preventability. Reports may also be reviewed by The Rapid's insurance carrier and the Safety/Training Office.

Copies of the accident/incident reports and a summary are kept for review and reporting, as necessary.

Safety Program (MIOSHA and Transit Specific) Management:

The Rapid's safety program consists of many different plans and programs. The list below is a sampling of the separate modules.

- HVAC 608 and 609 Technician Certification
- Abrasive Wheel Program
- Accident Prevention
- Aerial Work Platform Licensing
- Automotive Operations Program
- Bloodborne Pathogen Program
- Confined Spaces Program
- CPR/AED Training Program
- Defensive Driving
- Drug and Alcohol Awareness
- Electrical Safety Plan
- Eyewash and Emergency Shower Maintenance Program
- Fall Protection Program
- Fire Protection Plan
- Hand and Foot Safety
- Hand Tool Safety
- Hazard Communication (Right to Know)
- Hearing Conservation
- Incident Investigation
- Job Safety Analysis
- Lockout/Tagout Program
- OSHA 10- and 30-Hour Training
- Overhead Cranes
- Portable Ladders
- Powered Industrial Truck Licensing
- Personal Protective Equipment Program
- Respiratory Protection
- Safety Meetings and Committees
- Safety Policy
- Snow Removal
- Spill Cleanup
- Underground Storage Tanks
- Walking/Working Surfaces
- Weather Safety
- Welding Safety

The Rapid's safety programs are regularly monitored, reviewed, and revised as needed. Program reviews include the safety department and other stakeholders involved in implementing and maintaining the program. The standard method for program reviews is as follows:

- The review for a specific program is scheduled and the current program is shared with stakeholders who review it individually.
- The stakeholders meet to discuss changes and a draft is produced.
- The draft is approved, and the revised program is dated and signed

6. Safety Assurance

Safety Performance Monitoring and Measurement

Members of the Safety and Training Department are responsible for monitoring and measuring safety programs, processes, and procedures at The Rapid. The results of monitoring activities are reviewed by the Safety and Training Department along with department managers, supervisors, and individual employees to determine potential consequences.

When encountering non-compliance or insufficiencies, the Safety and Training Department will work with affected employees to determine the best methods for improvement. The same applies to contractors and vendors. The Rapid will attempt to work directly with any affected employees and will actively elicit ideas and suggestions before determining the best course of action.

Information will be documented on the Hazard Log or, if the investigation is lengthy, a separate report will be generated and stored electronically in one of the Safety and Training Department folders. If contractors have a separate program, they will supply copies of any activities related to hazard monitoring, measurement, and mitigation.

To monitor and measure the success and quality of The Rapids' hazard management efforts, the methods below are used.

- **Safety Audits and Inspections:** Safety audits and inspections refer to on-site visual inspections of the physical environment. An audit refers to a broad, general inspection of a work area or vehicle, and an inspection is focused on a specific feature (i.e., the Maintenance Shop would undergo a safety audit and the eyewash station in the shop would be inspected).

- **HFACS Reviews:** HFACS reports are tracked on the HFACS Summary for analysis and review. Accident/Incident factors that may not be evident in the original reports may be highlighted through a closer look at other potential causes.

- **Operator Evaluations:** Evaluations of bus operator performance can determine errors occurring with the individual and with operators in general. As common errors are discovered, methods for mitigating the hazards can be implemented. Operator evaluations can be conducted by the Transportation or Safety departments.

- **Technician Evaluations:** Evaluations of technician performance can determine errors occurring with the individual and with technicians in general. As common errors are discovered, methods for mitigating the hazards can be implemented. Technician evaluations can be conducted by the Maintenance, Facilities, or Safety Departments.

- **Safety Compliance Reviews:** As safety program reviews are completed, a compliance review is conducted to ensure that employees continue to perform safely. Any changes in a safety program must be communicated to all affected employees.

- **Trend/Statistical Analyses:** Accident, injury, incident, or close call trends are analyzed monthly, risk levels are determined, and appropriate changes or mitigations are applied. Each affected department is notified.

- **Safety Program Reviews:** Periodic reviews of The Rapid's safety programs are conducted to determine their validity and effectiveness. If a safety program undergoes revision or updating, all affected employees must be informed through training or other appropriate means. Safety compliance is also reviewed.

- **MIOSHA CET Inspections:** Third party (particularly MIOSHA's CET Division) audits of The Rapid's safety program are periodically scheduled to discover any deficiencies, inefficiencies, or inappropriate applications. When reported, the Safety Department will determine the level of risk to the agency and begin mitigation.

- **Reviews of Potential Practical Drift:** Not all instances of practical drift have negative results. The purpose of reviewing instances of practical drift, or employee non-compliance, is to determine if a safety rule needs to be refreshed with the affected workgroup (i.e., the importance of wearing safety glasses) or perhaps revised to conform to a more appropriate safety rule.

Activities to Conduct Investigations of Safety Events to Identify Causal Factors

Organizational and Human Factors:

The Rapid views safety events from an organizational perspective and is expressed in terms of safety defenses and causal factors. Initial investigations are based on gathering data as reported in accident/injury/incident reports conducted by supervisors or department managers. The Safety and Training department uses these initial reports and applies its own techniques and procedures in discovering factors or causes based on a review using HFACS (see figure 5). The intent of each investigation is to compare the type of failures in each area of defense to apply effective mitigations or remedies. A failure in supervision, for example, cannot be fixed by retraining an individual employee.

Employee Incident HFACS	Name: Click here to enter text.		Today's Date: 10/15/2014
Accident/Incident Report No.: Click here to enter text.	Assessment by: Steve Luther		Incident Date: Click here to enter a date.
Incident Description: Click here to enter text.			
Type of Failure	**Category 1**	**Category 2**	**Category 3**	**Notes**
Latent	☐ Outside Influences	☐ Social		Click here to enter text.
		☐ Economic		
		☐ Other		
Latent	☐ Organizational Influences	☐ Resource Management		
		☐ Organizational Climate		
		☐ Organizational Process		
Latent	☐ Supervision	☐ Inadequate Supervision		
		☐ Planned Inappropriate Operations		
		☐ Failed to Correct Known Problem		
		☐ Supervisory Violations		
Active or Latent	☐ Preconditions	☐ Environmental Factors	☐ Physical Environment	
			☐ Technological Environment	
		☐ Operator Conditions	☐ Cognitive Factors	
			☐ Psycho-Behavioral Factors	
			☐ Adverse Psychological States	
			☐ Physical/Mental Limitations	
			☐ Perceptual Factors	
		☐ Personnel Factors	☐ Coordination, Communication, Planning	
			☐ Self-imposed Stress	
		☐ Condition of Vehicle		
Active	☐ Unsafe Acts	☐ Errors	☐ Skill-based Errors	
			☐ Judgment and Decision Errors	
			☐ Perceptual Errors	
		☐ Violations	☐ Routine	
			☐ Exceptional	

Figure 5 – HFACS Form

Data Review and Analysis:

Data collected by the Safety and Training Department is monitored through periodic reviews and analyses. It is used to determine the success and appropriateness of safety performance indicators and targets. If an indicator or target is determined to need adjustment, all stakeholders will be involved in review and revision if necessary. Safety indicators and targets are useful to determine when change is needed, and resources need to be redirected.

Areas for data monitoring include:

- Accident/Incident reports and summaries
- Injury reports and summaries
- Near Miss data
- NTD Safety data

Management of Change

Management of change is accomplished through the following:

- Retention and control of documents, blueprints, and floorplans
- Inserting safety certification in plans, designs, and documents.
- Review and recertification of changes in plans, designs, and documents.

Continuous Improvement

The process of continuous improvement is designed to identify potential or real deficiencies in the PTASP and to address them in a systematic and efficient manner. It is achieved through data collection, analysis, planning, designing and execution of safety programs and mitigations. As new technology, equipment, and techniques for working environments become available; the Safety Department will review, analyze and test them for inclusion at The Rapid. Safety rule testing is applied when appropriate to ensure that any risks from new hazards introduced by system improvements are reduced to the lowest level practical.

7. Safety Promotion

Competencies and Training

Safety Communication and Training

Information concerning workplace safety issues is provided to employees through company-wide or departmental meetings, Safety Team briefings, bulletin board postings, memos and other written communications.

All employees are encouraged to report hazardous conditions or safety concerns by completing an Unsafe Condition Report or Safety Suggestion Form and delivering it to the Safety/Training Office, a Safety Team Member, Dispatch, or the appropriate Supervisor. These reports form the foundation for Safety Team analyses, reviews and recommendations.

Workplace safety training is conducted under the direction of the Safety/Training Officer. The primary goal of safety training is to give employees the information and skills necessary to perform their assigned tasks without endangering themselves or others. The training complies with current State and federal standards and covers potential safety and health hazards as well as safe work practices and procedures to eliminate or minimize hazards.

Training records will be kept by the Safety/Training Officer and will include:

- Date of training

- Employee names
- Copies of training materials
- Training subject
- Employee sign-in sheets and/or course certification.
- The Human Resources Department will keep copies of individual training records.

All safety training is considered mandatory for affected employees. Other training, such as Basic First Aid and CPR, are considered voluntary and will be offered to employees as time and resources permit. All employees are encouraged to participate in community safety training and will receive credit for the classes as it applies to the work environment.

Safety Communication

The following processes and activities are used to communicate safety and safety performance information throughout The Rapid:

Safety Training: Safety training includes initial employee training, classroom style training for new employees, online courses for new and current employees, and recurring training as needed with individuals.

Safety Memos: Memos are issued by the Safety Department and include information regarding new or updated safety rules, policies or procedures, warnings about recognized hazards, or critical safety notices

Digital Communication Displays: The digital communication displays are used for transmitting the same information as issued in safety memos and includes periodic safety reminders.

Blink: The communication platform allows safety communication with occasional postings, surveys, access to elements of the safety program, electronic forms, employee chats, and critical safety notices.

Vista: The software, primarily used by the Human Resources Department, houses the chemical inventory and additional safety program material.

Agency Website: The agency website is used for communicating safety information to The Rapid's customers and the community at large.

Agency Social Media: The agency social media is used for communicating safety information to The Rapid's customers and the community at large in a similar way as the agency website.

Public Media: Personnel from the Communications Department are responsible for interacting with public media and can issue prepared statements, participate in interviews and share information as approved by management.

The Safety Committee: The Safety Committee is comprised of the C.E.O., C.O.O., and department managers, members from supervision, the union, and insurance providers to share information across the organization. The purpose of the Safety Committee is to identify and discuss possible mitigations for safety hazards, to promote safety education and to act as a conduit between the various work groups with safety concerns.

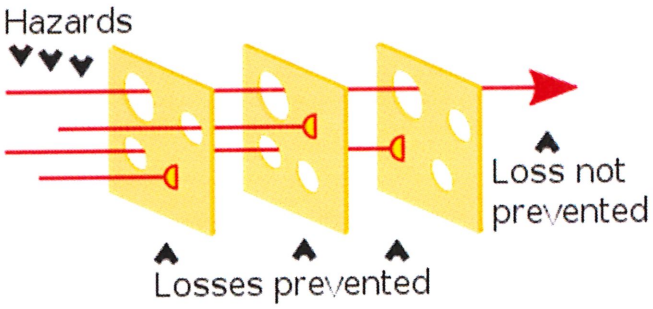
Additional Information

Supporting Documentation

- Military Standard 882E
- The Rapid Emergency Response Plan (ERP)
- The Rapid Security Plan
- Individual safety plans and programs
- Transit Asset Management Plan (TAM)

Definitions of Special Terms Used in the PTASP

Term	Definition
Accident	An unexpected event that causes injury, loss of life to a person, or damage to property and/or equipment. A collision is contact by a vehicle with another vehicle, pedestrians, bicyclists, animals, or objects.
Accountable Executive	Person at a transit agency responsible for ensuring that SMS and all safety activities are accomplished under their authority. The AE has ultimate responsibility for guaranteeing that adequate resources and personnel are available to provide safety.
Chief Safety Officer	Person at a transit agency responsible for management of SMS and the PTASP.
Event	Is an accident, incident or occurrence.
Hazard	Any real or potential condition that can cause injury, illness or death, damage to or loss of the facilities, equipment, rolling stock, or infrastructure, damage to the environment, public perception, or reputation of a public transit system.
Incident	An unexpected event that has the potential to cause but does not result in serious injury, and/or damage to property and/or equipment.
Military Standard 882E	The basis for Safety Management Systems in public transportation. This system safety standard practice identifies the Department of Defense (DoD) Systems Engineering (SE) approach to eliminating hazards, where possible, and minimizing risks where those hazards cannot be eliminated. This Standard covers hazards as they apply to systems / products / equipment / infrastructure (including both hardware and software) throughout design, development, test, production, use, and disposal. http://everyspec.com/MIL-STD/MIL-STD-0800-0899/MIL-STD-882E_41682/
Near Miss (also known as a Close Call)	An unplanned event that did not result in injury, illness or damage – but had the potential to do so.
Occurrence	An event without any personal injury in which any damage to facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of a transit agency.
Practical Drift	The slow uncoupling of practice from written procedure. It usually occurs to fit the needs of the individual but may indicate an undocumented improvement in procedures.
Root Cause	The basic condition that leads to an accident or incident. The root cause does not always produce accidents and injuries but does produce an environment where accidents and injuries become more likely to occur.
Safety	Freedom from conditions that can cause death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment. Safety is freedom from unintentional harm.
Safety Management	SMS is a comprehensive, collaborative approach to managing safety in the

System (SMS)	agency. It brings management and labor together to control risk better, detect and correct safety problems earlier, share and analyze safety date more effectively, and measure safety performance more precisely.
Security	Freedom from conditions that can cause death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment caused intentionally by others. Acts of vandalism, violence or terrorism are considered security events. Security is freedom from intentional harm.
Swiss Cheese Model of Accident Causation	As described by James Reason, organizations build defenses to reduce or eliminate safety risks. Each defense contains weaknesses or "holes" through which a hazard can move forward. If the holes in defenses line up, an accident, injury or catastrophic event can occur. 
Work Injury	Any injury, occupational disease or disability that arises out of, or in the course of any work-related activity and requires first aid or medical treatment. Worker's Compensation and MIOSHA related injuries are considered work injuries for the purposes of this policy.

List of Acronyms Used in the PTASP

Acronym	Word or Phrase
ADA	Americans with Disabilities Act
AED	Automated Electronic Defibrillator
APTA	American Public Transportation Association
CAP	Corrective Action Plan
CBA	Collective Bargaining Agreement
CCTV	Closed Circuit Television
CDL	Commercial Driver's License
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CFR	Code of Federal Regulations

CM	Change Management (aka Configuration Management)
CNG	Compressed Natural Gas
COO	Chief Operations Officer
COOP	Continuity of Operations Plan
CPTED	Crime Prevention Through Environmental Design
CPR	Cardiopulmonary Resuscitation
CSO	Chief Safety Officer
DOJ	Department of Justice
DOT	Department of Transportation
EEO	Equal Employment Opportunity
EEOC	Equal Employment Opportunity Commission
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
FMCSA	Federal Motor Carrier Safety Administration
FMLA	Family Medical Leave Act
FOIA	Freedom of Information Act
FTA	Federal Transit Administration
HFACS	Human Factors Analysis and Classification System
HIPAA	Health Insurance Portability and Accountability Act
HR	Human Resources
IT	Information Technology
MDT	Mobile Data Terminal
MIOSHA	Michigan Occupational Safety and Health Administration
MOA/MOU	Memorandum of Agreement/Memorandum of Understanding
MPO	Metropolitan Planning Organization

NFPA	National Fire Protection Association
NIMS	National Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NTD	National Transit Database
NTSB	National Transportation Safety Board
OEM	Original Equipment Manufacturer/Manufacturing
OHA	Operational Hazard Analysis
OSHA	Occupational Safety and Health Administration
PA	Public Address
PHA	Preliminary Hazard Analysis
PIO	Public Information Officer
PMP	Project Management Plan
PPE	Personal Protective Equipment
PTASP	Public Transit Agency Safety Plan
SMS	Safety Management System
SSI	Sensitive Security Information
SSMP	Safety and Security Management Plan
SSP	System Security Program
SSPP	System Safety Program Plan
TRB	Transportation Research Board
TSI	Transportation Safety Institute
TSSP	Transit Safety and Security Program (certificate)
TVA	Threat and Vulnerability Assessment
VIPR	Visible Intermodal Protection and Response Team
WMD	Weapons of Mass Destruction