



Meeting Agenda
Wednesday, April 6, 2022 @ 1:00 PM
MDOT Aeronautics Bldg., 1st Floor Auditorium
2700 Port Lansing Road, Lansing, Michigan

A meeting of the Transportation Asset Management Council (TAMC), [A Michigan Public Body](#), will take place at the time and location listed above. Accommodations can be made for persons who require mobility, visual, hearing, written, or other assistance for participation. Large print materials, auxiliary aids or the services of interpreters, signers, or readers are available upon request. Please contact Orlando Curry at [517-335-4381](tel:517-335-4381) or complete [Form 2658 for American Sign Language \(ASL\)](#). Requests should be made at least five days prior to the meeting date. Reasonable efforts will be made to provide the requested accommodation or an effective alternative, but accommodations may not be guaranteed.

Public Comment for non-agenda items is available at the beginning and ending of the meeting, typically limited to 3 minutes. Public comment on agenda items is also available with each item when called upon by the TAMC Chair.

Meeting Telephone Conference Line: +1 248-509-0316 Access Code: 831 066 359 #

Web Meeting Access Link: [Click here to join the meeting](#)

- 1. Welcome - Call to Order**
- 2. Changes or Additions to the Agenda (*Action Item as needed*)** *Any items under the Consent Agenda may be moved to the regular agenda upon request of any Council member, member of the public or staff member.*
- 3. Public Comments on Non-Agenda Item**
- 4. Consent Agenda (*Action Items*)**
 - 4.1. Approval of the March 2, 2022 Meeting Minutes (*Attachment 1*)
 - 4.2. TAMC Financial Report (*Attachment 2*)
- 5. Presentation**
 - 5.1. 2021 Annual Report (*Attachment 3*)
- 6. ACTION ITEMS (*Action Items*)**
 - 6.1. 2021 Annual Report (*Attachment 3*)
 - 6.2. Transportation Asset Management Plans (*Attachment 4*)
- 7. Old Business**
 - 7.1. TAMC Schedule of Activities & Training 2022 (*Attachment 5*)
 - 7.2. TAMC Coordinator Update
- 8. New Business**
 - 8.1. State Transportation Commission Meeting April 21, 2022
 - 8.2. Citizens Research Council of Michigan Article (*Attachment 6*)
- 9. Committee Review & Discussion Items**
 - 9.1. **Bridge Committee Update** – *Curtis/Jones/Wieferich*
 - 9.2. **ACE Committee Update** – *Bradshaw/Mekjian*
Celebration and Conference
 - 9.3. **Data Committee Update** – *McEntee/Tubbs*
- 10. Public Comments**

11. Member Comments

12. Adjournment

Next Meeting, May 5, 2022 1 PM – 3 PM
MDOT Aeronautics Bldg., 2700 Port Lansing Road, Lansing, Michigan

TRANSPORTATION ASSET MANAGEMENT COUNCIL MEETING
March 2, 2022 at 1:00 p.m.
MEETING MINUTES

This meeting was held via hybrid with Microsoft Teams and at the Michigan Department of Transportation Aeronautics Building Auditorium, 2700 Port Lansing Road, Lansing, Michigan. Below are meeting minutes as provided under Act 267 of the Public Acts of 1976 as amended, or commonly referred to as the Open Meetings Act. Accommodations can be made for persons who require mobility, visual, hearing, written, or other assistance for participation. Large print materials, auxiliary aids or the services of interpreters, signers, or readers are available upon request. Please contact Orlando Curry at [517-335-4381](tel:517-335-4381) or complete [Form 2658 for American Sign Language \(ASL\)](#). Requests should be made at least five days prior to the meeting date. Reasonable efforts will be made to provide the requested accommodation or an effective alternative, but accommodations may not be guaranteed.

**** Frequently Used Acronyms List attached**

Members Present:

Derek Bradshaw, MAR, Lansing, MI
Joanna Johnson, CRA, Lansing, MI – Chair
Bill McEntee, CRA, Lansing, MI – Vice-Chair
Robert Slattery, MML, Lansing, MI
Brad Wieferich, MDOT,

Ryan Buck, MTPA, Lansing, MI
Kelly Jones, MAC, Lansing, MI
Gary Mekjian, Lansing, MI
Jennifer Tubbs, MTA, Lansing, MI

* Via Microsoft Teams

Support Staff Present:

Tim Colling, MTU/LTAP
Cheryl Granger, DTMB/CSS
Gloria Strong, MDOT

Eric Costa, MDOT
Rob Green, MDOT
Mike Toth, MDOT

Public Present:

Ed Hug, SEMCOG
Larry Steckelberg, MIC

Members Absent:

Rob Surber, DTMB/CSS
Todd White, MDOT

1. Welcome – Call-To-Order:

The meeting was called-to-order at 1:05 p.m.. Everyone introduced themselves and were welcomed to the meeting.

2. Changes or Additions to the Agenda (Action Item, as needed):

Motion: R. Slattery made a motion to add a request made by R. Green to discuss additional fund requests and documentation from BCATS, SATA, and SEMCOG under agenda item 5.1. and a request from J. Johnson adding the MIC update as agenda item 6.3.; G. Mekjian seconded the motion. The motion was approved by all members present.

3. Public Comments on Non-Agenda Items:

None

4. Consent Agenda (Action Item):

4.1. – Approval of the January 5, 2022 Meeting Minutes (Attachment 1)

4.2. – Approval of the October 6, 2021 Meeting Minutes (Attachment 2)

4.3. – TAMC Financial Report (Attachment 3)

R. Green provided an updated copy of the TAMC Budget Financial Report as provided by Roger Belknap, former TAMC Coordinator, who resigned in February 2022.

Motion: R. Buck made a motion to approve the Consent Agenda; G. Mekjian seconded the motion. The motion was approved by all members present.

5. Action Items – R. Green (Action Item):

5.1. - Consideration of Budget Amendments for Bay City Area Transportation Study (BCATS), Saginaw Area Transportation Agency (SATA), and Southeast Michigan Council of Government (SEMCOG) (Attachment 4)

BCATS, SATA, and SEMCOG all requested additional FY 2021 funds to cover expenses accrued from FY 2021 PASER data collection efforts. BCATS has requested an additional \$6,357.40, SATA has requested an additional \$17,322.21, and SEMCOG has requested an additional \$3,987.58. The total amount requested is \$27,667.19. BCATS and SATA sent an official letter requesting the additional funds and SEMCOG sent an email requesting additional funds. Saginaw County Road Commission, who had previously reported that they had overspent on their FY 2021 costs for PASER data collections, had thought they found a solution to stay within their 2021 budget. However, later discovered that they had in fact, went over their allotted amounts. R. Green suggested using the remaining funds from the MTU FY 2021 remaining funds balance, regional line-item funds from FY 2021, or remaining funds allocated to MDOT since MDOT did not use their funds for PASER data collection in FY 2021. MDOT was not able to collect their data in FY 2020 and FY 2021 due to department COVID restrictions. It is possible that data collection will look similar for MDOT for FY 2022. MDOT will have extra coordination with other regions for FY 2022. In FY 2021, some regions were willing to collect part of MDOT federal aid roads. One of the main reasons agencies are falling short financially is due to data collections not being conducted due to COVID in FY 2020 and the majority of agencies trying to make up for the lost year of PASER data collections in FY 2021 and collecting the entire system, federal aid, and non-federal aid. The Council needs to have written requests from each of the agencies explaining why they need the additional funds. Roger Belknap, former TAMC Coordinator, had sent out a notice to all agencies giving them a deadline to inform him if they require additional funds to cover their FY 2021 PASER data collection. SEMCOG requested additional funds after the deadline. The Council would like agencies to meet deadlines in the future, otherwise, their requests will be denied. Deadlines must be met for TAMC to manage their budget. The agencies need better training coordination and support networks. The Council would like to get back to regular Regional Coordinators calls. The Council may need to have an official policy regarding this matter in the future. The Council will also need to have further discussions on the two-person and three-person data collections, as well as other agencies collecting for other regions. There were two MDOT trunkline sections that the agencies were not able to collect, and Roger Belknap went out and assisted to get those areas PASER data collections completed. Communication was sent out to the regional partners across the state regarding the PASER data collections for MDOT to collect the state system. R. Green has heard from four or five of the seven MDOT regions and still waiting on a response from the other areas. Once he has heard from the seven MDOT regions, he will communicate this out to other regional partners.

Motion: D. Bradshaw made a motion to approve the additional funds/budget amendments for BCATS, SATA, and SEMCOG PASER data collections and the funds come from monies currently available in the FY 2021 and that be applied to the MDOT region participation state vehicle use; R. Buck seconded the motion. The motion was approved by all members present.

Action Item: For FY 2023 to review the data collection policy pilot including the dollars distributed to the regions for data collection.

5.2. – Unified Work Program for Planning Organizations – R. Green (Memo/Attachment 5):

R. Belknap provided a memo requesting the final approval from the Council for the revised UWP verbiage that was previously approved by the TAMC ACE Committee. This is a recommendation of approval from the ACE Committee. The two main items amending the UWP verbiage are the Non-federal MIRE Call for Projects and the culvert projects.

Motion: R. Buck made a motion to approve the revised UWP verbiage as presented; D. Bradshaw seconded the motion. The motion was approved by all members present.

5.3. – Consideration of Approval of Transportation Asset Management Plans for Groups A and B – G. Strong (Attachment 6):

Group A TAMPs

G. Strong provided a status update of TAMP submissions for Public Act 325 Group A and Group B agencies.

For Public Act 325, Group A, there are 41 agencies due under Public Act 325; 21 TAMPs were received by the October 1, 2020, deadline. A total of 34 TAMPs of the 41 TAMPs due have been received, and seven agencies did not submit a TAMP. One TAMP, City of Portage, was recently submitted, reviewed and approved on November 3, 2021, by the TAMC ACE Committee to go on to the Council for their review and possible approval.

G. Strong was recommending today to the ACE Committee approval of the following two Group B TAMPs: City of Romulus Department of Public Works and the City of Wyoming. However, due to lack of quorum at the TAMC ACE Committee meeting the ACE Committee meeting was cancelled. It was agreed by the Council to approve the two agencies at today's TAMC meeting.

J. Johnson, on behalf of County Road Association, reached out to the remaining county agencies and requested that they submit their TAMPs.

Action Item: G. Mekjian will reach out to the City of Jackson from Group A that have not submitted their TAMP to inquire if MML or TAMC can provide any assistance with the completion of their TAMP as required by PA 325.

Motion: D. Bradshaw made a motion to approve the above listed agencies from Group A as recommended by G. Strong as having met the requirements of Public Act 325; R. Slattery seconded the motion. The motion was approved by all members present.

Group B TAMPs

For Public Act 325, Group B, there are 41 agencies due; 15 TAMPs were received by the October 1, 2021, deadline. There has been 10 TAMPs received after the October 1, 2021 deadline. A total of 20 agencies have not submitted a TAMP as required by Public Act 325. G. Strong has

done a review of the submitted TAMPs where five TAMPs were found to need additional information.

G. Strong was recommending today to the ACE Committee approval of the following two Group B TAMPs: Kent County Road Commission and Montmorency County Road Commission. However, due to lack of quorum at the TAMC ACE Committee meeting, the ACE Committee meeting was cancelled. It was agreed by the Council to approve the two agencies at today's TAMC meeting.

At the January 5, 2022, and February 2, 2022, TAMC ACE Committee meetings, respectively, the Committee approved the following agencies to go on the Council for their approval:

1. City of Port Huron
2. Gogebic County Road Commission
3. City of Dearborn
4. Shiawassee County Road Commission
5. Missaukee County Road Commission

Motion: D. Bradshaw made a motion to approve the above listed agencies from Group B as recommended by G. Strong as having met the requirements of Public Act 325; G. Mekjian seconded the motion. The motion was approved by all members present.

6. Presentations:

6.1. – MTU Center for Technology and Training 2021 TAMC Training Report – T. Colling (Attachment 7)

In 2021 TAMC had their third highest training year on record, which is great especial because it was during the pandemic. There were 1,134 people trained. Also in 2021, there were 514 PASER Rating Training attendees, which is very high; also, third highest historically. There were 545 attendees in 2019 and 530 attendees in 2018. The attendees were from many different areas in Michigan and the distribution of training was very good. The TAMC Conference attendance had its highest attendance in 2020, in 2019 there were 166 attendees, however, there was a significant decrease to 136 attendees in 2021. The TAMP trainings attendance was at its highest in 2019 when the PA 325 templates were first introduced but has had a decrease in attendance the last two years. MTU is spending more time working one-on-one with people on more technical assistance with agencies for their TAMPs. MTU is going back to in-person attendance. There are currently also people who want to continue doing trainings remotely. MTU are getting the final details of the first round of trainings prepared and will be sharing that information in the near future.

Action Item: Add to annual report that TAMC had the third highest training in 2021.

Action Item: Put next TAMP trainings out on EGov Delivery and on TAMC website.

6.2. – PASER Data Collection and Forecast – E. Costa

E. Costa provided a presentation on the TAMC 2021 data analysis. There were 111,078 lanes miles collected for 2021, which is 96 percent of the federal aid system. This was quite an increase from past data collections. Agencies also collected 18 percent more for non-federal aid roads in 2021. This is the highest collection in the history of the program. A few of the other areas of the data that E. Costa also reviewed were gravel federal aid roads, PCFS investment strategies, and mix-a-fixes. More funds were spent on rehab and reconstruct due to them being more expensive. There was a significant increase in heavy and light CPM in the past and it is now fading away. In the last two forecasts they were seeing an increase in heavy and light CPM.

For the past year TAMC allowed the two-man team, there was more data collected and quality ratings were high. This demonstrates that TAMC heard the need, addressed it, and can now share this good news in the annual report. PASER data collection in 2022 will look similar to last year, but some MDOT regions / TSCs will be participating. For regions that will not be participating, vehicles will be made available again. MDOT trusted other people (road commissions, agencies, etc.) to collect their data without participating in the vehicle. TAMC supported this effort. It would be good to show agencies that did something different for their PASER data collection and place that in the annual report as an example.

There was a concern about the COVID-19 relief and infrastructure money being just a one-time shot. TAMC should think about how to explain this to the public and legislature. TAMC could look for an agency that has made significant good changes. The QC is plus or minus 2. TAMC may be able to use the QC. M. Toth reminded the Council that former Governor Snyder increased the gas tax in 2015 and it took a couple years to go through, so this could be a possible impact in permanent funding. M. Toth and his area use the PASER team ratings for HPMS and other things. TAMC approves them in March and releases this information in April, just prior to the annual report.

Areas that need to be reviewed by the Council were to go to agencies and ask what has changed for good and bad, check on the increase in gas tax and tie back the initial investments and where it went to in the IRT, find out where funds that the governor bonded for MDOT projects has went to, find out if there could be greater investments from local agencies, highlight the mix-a-fixes, and show if there is some connection with the TAMPs.

Action Item: The Council requested to know where funds were used and the type of treatments it went to. E. Costa stated he could compare year-by-year and do a year over comparison, which is significant. It would be good to tell the story and highlight the mix-a-fixes.

Action Item: The Council requested that E. Costa measure the change in non-federal aid data collection for the past three years.

6.3. – MIC Update – J. Johnson

The MIC has hired a new Executive Director, Ryan Laruwe. The MIC has started their new Champions Program.

7. New Business:

7.1. - TAMC Expectations (*Attachment 8*)

Roger Belknap, former TAMC Coordinator, resigned from his position last month. MDOT is currently reviewing ways to fill this position. J. Johnson has submitted in today's agenda packet characteristics of what TAMC will need from the next TAMC Coordinator such as, professionalism, support TAMC policies, help with recommendations for TAMC, timely completion of the annual report, distributions to other organizations and transportation partners, familiar with PASER and ratings, familiar with regions, etc. The TAMC coordinator must be dedicated 100 percent to the Council. G. Strong and D. Jennett's positions are shifted as needed. J. Johnson feels the position should be an Executive Director position like the person that assists the MIC. J. Johnson offered suggests if this person should be another MDOT employee or could it be contracted out. J. Johnson stated the Council has had a role in doing the past position description for the TAMC Coordinator. J. Johnson stated she will discuss TAMC needs and this position with Paul Ajegba, MDOT Director, and possibly request additional staff for the TAMC due to TAMC has acquired more responsibilities since its creation and with the changing dynamics, there may now be a need for the additional staff to assist with fulfilling the TAMC requirements as

mandated by legislation. If additional staffing is not available, TAMC may have to scale down on what the Council is doing. B. McEntee would like to see more data analysis. Once a decision is made as to how the TAMC Coordinator will be replaced, it is going to be difficult initially as usually for a year or so until the Coordinator get acclimated to TAMC responsibilities. In recent years, TAMC support staff has taken on a lot more responsibilities. A few Council members felt that there has been many staffing turn-overs for the TAMC and the Council needs to look at why they are having the turn-overs. Other Council members feel the Council has not had many turn-overs and it is a natural thing for staff to eventually seek advancement in their careers. There are currently three staff members assigned where the majority of their job responsibilities are working with the TAMC: the TAMC Coordinator (previously Roger Belknap, who has been in the position for six years), Gloria Strong, TAMC Departmental Technician (TAMC support for 12 years), and David Jennett, Transportation Planner (TAMC support at CSS prior to coming to MDOT/then hired at MDOT as a Planner in 2017). Other MDOT TAMC support staff such as the TAMC Data Analyst position, has had a few change overs in the past five years within the department. R. Green stated that the next steps at this time, the department is reviewing the position and determining which direction they want to go.

7.2. – TAMC Coordinator Next Steps – R. Green

R. Belknap unexpectedly resigned. His last day was February 18, 2022. He has been the TAMC Coordinator for six years. R. Green and MDOT leadership are currently reviewing the TAMC Coordinator position and discussions are being had on the best way to move forward.

8. Correspondence and Announcements:

8.1. – 2022 TAMC Schedule of Activities and Trainings (Attachment 9)

It is requested that TAMC members look at the attached schedule of activities and trainings and sign up to represent TAMC at those events that currently do not have representation. Please let R. Green and G. Strong know if you are able to provide coverage for any of those events.

It was also determined that due to a lack of TAMC support staff, TAMC will not have a booth at current events until further notice.

R. Green received a request from Crain’s Detroit wanting FY 2021 data. TAMC will not release that data until after the 2021 Michigan Roads and Bridges Annual Report is released May 2, 2022. If they need it prior to that date, they will need to send a Freedom of Information formal request to the Council.

9. Committee Review and Discussion Items:

9.1. – Bridge Committee Update – K. Jones

The Bridge Committee worked on the bridge conditions for the annual report. R. Green and Rebecca Curtis provided the bridge write-up for the annual report, which was discussed with the committee.

9.2. – ACE Committee Update – D. Bradshaw

9.2.1. – TAMC 20 Year Celebration and Conference Update – G. Strong

The TAMC 20 Year Celebration and Conference will be held September 28, 2022, at the Great Wolf Lodge in Traverse City, MI. The Conference Planning Committee has met, and good progress is being made on the event. G. Strong worked with MDOT graphics and created a Save-the-Date for the event which will be sent out in the near future along with a call for presenters. All members are encouraged to attend and participate in the conference planning committee.

9.2.2. - Draft 2021 Annual Report – R. Green

The ACE Committee meeting was cancelled today due to a lack of quorum. The ACE Committee meeting members will need to provide feedback by March 16, 2022, from R. Greens email regarding annual report text. R. Green provided a rough word draft of the annual report and received some feedback. He has also received a few local pictures from CRA. R. Green will be going through MDOT photos to check for photos that can be used in the annual report.

9.3. – Data Committee Update – B. McEntee

The majority of the last Data Committee meeting was reviewing E. Costa’s data analysis for the annual report.

10. Public Comments:

M. Toth requested to use the PASER data for HPMS. He informed the Council that the data will not be shared publicly. The Council approved his request however, J. Johnson requested that for future, he put this request in writing.

G. Strong informed the Council that Council pictures (group and individual) will be done on the second floor at the MDOT Aeronautics building prior to the April 6, 2022, TAMC meeting. Please be at Aeronautics at least an hour prior to the TAMC meeting for the photos.

11. Member Comments:

Derek Bradshaw’s, MAR, TAMC position will be up at the end of April 2022. D. Bradshaw has taken on added responsibilities at his job and will no longer be working with TAMC. MAR will be sending a formal request Jacob Hurt replace D. Bradshaw on the TAMC.

J. Johnson requested that TAMC support staff include former TAMC member, Jonathan Start, in the email when the TAMC Data Committee packets are sent out.

J. Johnson reminded the Council that photos will be taken prior to the April 6, 2022, TAMC meeting, and the meeting will be a longer meeting because the annual report will need to be discussed and reviewed for submission to the State Transportation Commission by May 2, 2022.

11. Adjournment:

The meeting adjourned at 3:44 p.m. The next meeting is scheduled for April 6, 2022, 1:00 p.m., MDOT Aeronautics Building Auditorium, 2700 Port Lansing Road, Lansing, Michigan. Group and individual TAMC pictures will be taken at 12:00 p.m., prior to this meeting.

TAMC FREQUENTLY USED ACRONYMS:	
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ACE	ADMINISTRATION, COMMUNICATION, AND EDUCATION (TAMC COMMITTEE)
ACT 51	PUBLIC ACT 51 OF 1951-DEFINITION: A CLASSIFICATION SYTEM DESIGNED TO DISTRIBUTE MICHIGAN’S ACT 51 FUNDS. A

	ROADWAY MUST BE CLASSIFIED ON THE ACT 51 LIST TO RECEIVE STATE MONEY.	
ADA	AMERICANS WITH DISABILITIES ACT	
ADARS	ACT 51 DISTRIBUTION AND REPORTING SYSTEM	
BTP	BUREAU OF TRANSPORTATION PLANNING (MDOT)	
CFM	COUNCIL ON FUTURE MOBILITY	
CPM	CAPITAL PREVENTATIVE MAINTENANCE	
CRA	COUNTY ROAD ASSOCIATION (OF MICHIGAN)	
CSD	CONTRACT SERVICES DIVISION (MDOT)	
CSS	CENTER FOR SHARED SOLUTIONS	
DI	DISTRESS INDEX	
ESC	EXTENDED SERVICE CONTRACT	
ETL	Exchange, Transfer, and Load	
FAST	FIXING AMERICA'S SURFACE TRANSPORTATION ACT	
FHWA	FEDERAL HIGHWAY ADMINISTRATION	
FOD	FINANCIAL OPERATIONS DIVISION (MDOT)	
FY	FISCAL YEAR	
GLS REGION V	GENESEE-LAPEER-SHIAWASSEE REGION V PLANNING AND DEVELOPMENT COMMISSION	
GVMC	GRAND VALLEY METRO COUNCIL	
HPMS	HIGHWAY PERFORMANCE MONITORING SYSTEM	
IBR	INVENTORY BASED RATING	
IRI	INTERNATIONAL ROUGHNESS INDEX	
IRT	INVESTMENT REPORTING TOOL	
KATS	KALAMAZOO AREA TRANSPORTATION STUDY	
KCRC	KENT COUNTY ROAD COMMISSION	
LDC	LAPTOP DATA COLLECTORS	
LTAP	LOCAL TECHNICAL ASSISTANCE PROGRAM	
MAC	MICHIGAN ASSOCIATION OF COUNTIES	
MAP-21	MOVING AHEAD FOR PROGRESS IN THE 21 ST CENTURY (ACT)	
MAR	MICHIGAN ASSOCIATION OF REGIONS	
MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION	
MDTMB	MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET	
MIC	MICHIGAN INFRASTRUCTURE COMMISSION	
MITA	MICHIGAN INFRASTRUCTURE AND TRANSPORTATION ASSOCIATION	
MML	MICHIGAN MUNICIPAL LEAGUE	
MPO	METROPOLITAN PLANNING ORGANIZATION	
MTA	MICHIGAN TOWNSHIPS ASSOCIATION	
MTF	MICHIGAN TRANSPORTATION FUNDS	
MTPA	MICHIGAN TRANSPORTATION PLANNING ASSOCIATION	
MTU	MICHIGAN TECHNOLOGICAL UNIVERSITY	
NBI	NATIONAL BRIDGE INVENTORY	
NBIS	NATIONAL BRIDGE INSPECTION STANDARDS	
NFA	NON-FEDERAL AID	
NFC	NATIONAL FUNCTIONAL CLASSIFICATION	

NHS	NATIONAL HIGHWAY SYSTEM	
PASER	PAVEMENT SURFACE EVALUATION AND RATING	
PNFA	PAVED NON-FEDERAL AID	
PWA	PUBLIC WORKS ASSOCIATION	
QA/QC	QUALITY ASSURANCE/QUALITY CONTROL	
RBI	ROAD BASED INVENTORY	
RCKC	ROAD COMMISSION OF KALAMAZOO COUNTY	
ROW	RIGHT-OF-WAY	
RPA	REGIONAL PLANNING AGENCY	
RPO	REGIONAL PLANNING ORGANIZATION	
SEMCOG	SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS	
STC	STATE TRANSPORTATION COMMISSION	
STP	STATE TRANSPORTATION PROGRAM	
TAMC	TRANSPORTATION ASSET MANAGEMENT COUNCIL	
TAMP	TRANSPORTATION ASSET MANAGEMENT PLAN	
TPM	TRANSPORTATION PERFORMANCE MEASURES	
UWP	UNIFIED WORK PROGRAM	
WATS	WASHTENAW AREA TRANSPORTATION STUDY	

S:/GLORIASTRONG/TAMC FREQUENTLY USED ACRONYMS.03.15.2021.GMS

DRAFT

Date	Event	Council Member or TAMC Support Staff	Time & Location	TAMC Booth	Presentation	Comments and added Information / website / flyer
OCTOBER						No
10/27/21 - 10/28/21	Fall Transportation Asset Management Virtual Conference		9 AM - 1 PM Each Day	No	Yes	https://www.michigan.gov/tamc/0,7308,7-356-82157---,00.html
NOVEMBER						No
11/4/21	State Transportation Commission Meeting		MDOT Aeronautics & Web Meeting	No	No	
DECEMBER						No
12/9/21	MIC Meeting		1 PM - 4 PM - Web Meeting	No	No	
12/14/21	TAMC IRT Training	Roger Belknap/Dave Jennett	WEBINAR: 9 AM-Noon	No	Yes	
12/15/21	Roadsoft User's Conference - RUCUS	TAMC Support Staff	Mt. Pleasant - 8 AM-5PM	No	Yes	http://ctt.nonprofitsoapbox.com/component/events/event/1126
JANUARY						
1/25/22 - 1/27/22	PASER & IBR Training (Webinar)	Roger Belknap	WEBINAR: 8 AM-11 AM	No	Yes	http://www.ctt.mtu.edu/sites/ctt/files/flyers/2022tamc-paseribr.pdf
1/25/22	TAMC IRT Training	Joanna Johnson	WEBINAR: 9 AM-Noon	No	Yes	https://www.michigan.gov/documents/tamc/2022_TAMC_IRT_Training_Schedule_745738_7.pdf
FEBRUARY						
2/8/22 - 2/10/22	County Engineers Workshop	Joanna Johnson	Hybrid - Web & Shanty Creek	Maybe	No	http://ctt.nonprofitsoapbox.com/upcoming-events/event/1087
2/22/22	TAMC IRT Training	Bill McEntee	WEBINAR: 9 AM-Noon	No	Yes	https://www.michigan.gov/documents/tamc/2022_TAMC_IRT_Training_Schedule_745738_7.pdf
2/22/22	Culvert Asset Management Training	Kelly Jones	WEBINAR: 9 AM-11AM	No	Yes	http://ctt.nonprofitsoapbox.com/2022culvertfeb
2/23/22	PASER & IBR Training (On Site)	Joanna Johnson	Road Commission of Kalamazoo County, 3801 E Kilgore Rd, Kalamazoo, MI 49001 8 AM-12 PM	No	Yes	http://www.ctt.mtu.edu/sites/ctt/files/flyers/2022tamc-paseribr.pdf
2/24/22	PASER & IBR Training (On Site)	Joanna Johnson	Weber's Restaurant & Boutique Hotel, 3050 Jackson Ave, Ann Arbor, MI 48103 8 AM-12 PM	No	Yes	http://www.ctt.mtu.edu/sites/ctt/files/flyers/2022tamc-paseribr.pdf
MARCH						
3/1/2022	Culvert Asset Management Training	Kelly Jones	WEBINAR: 9 AM-11AM	No	Yes	http://ctt.nonprofitsoapbox.com/2022culvertmar
3/8/2022	TAMC IRT Training	Rob Surber	WEBINAR: 9 AM-Noon	No	Yes	https://www.michigan.gov/documents/tamc/2022_TAMC_IRT_Training_Schedule_745738_7.pdf
3/8/22 - 3/10/22	Annual CRA Highway Conference & Roadshow	Staff	Lansing Center, Lansing, MI	Yes	No	https://info.micountyroads.org/events/details/2022-highway-conference-and-road-show-576
3/10/2022	Transportation Asset Management for Local Officials Webinar		WEBINAR: 9 AM-Noon	No	No	http://www.ctt.mtu.edu/sites/ctt/files/flyers/2022tamlo-march.pdf
3/15/22-3/16/22	Michigan Municipal League Capital Conference	Staff	Lansing, TBD	No	No	
3/15/22 - 3/17/22	2021 Michigan Bridge Week Conference	Al Halbeison	Ann Arbor Marriott Ypsilanti at Eagle Crest 1275 S Huron Street, Ypsilanti, MI, 48197	No	Yes	http://ctt.nonprofitsoapbox.com/component/events/event/1090
APRIL						
4/12/22 - 4/14/22	PASER & IBR Training (Webinar)		WEBINAR: 8 AM-11 AM	No	Yes	http://www.ctt.mtu.edu/sites/ctt/files/flyers/2022tamc-paseribr.pdf
4/19/22	TAMC IRT Training		WEBINAR: 9 AM-Noon	No	Yes	https://www.michigan.gov/documents/tamc/2022_TAMC_IRT_Training_Schedule_745738_7.pdf
4/20/22	PASER & IBR Training (On Site)	Bob Slattery	Treetops Resort, 3962 Wilkinson Rd, Gaylord, MI 49735 8 AM-12 PM	No	Yes	http://www.ctt.mtu.edu/sites/ctt/files/flyers/2022tamc-paseribr.pdf
4/21/22	PASER & IBR Training (On Site)	Bob Slattery	Marquette Charter Township, 1000 Commerce Dr, Marquette, MI 49855 8 AM-12 PM	No	Yes	http://www.ctt.mtu.edu/sites/ctt/files/flyers/2022tamc-paseribr.pdf
4/26/22 - 4/27/22	2022 Highway Maintenance Conference		Shanty Creek Resort, 5780 Shanty Creek Rd, Bellaire, MI, 49615	No	No	http://ctt.nonprofitsoapbox.com/component/events/event/1089
MAY						
5/10/22	TAMC IRT Training	Brad Wieferich	WEBINAR: 9 AM-Noon	No	Yes	https://www.michigan.gov/documents/tamc/2022_TAMC_IRT_Training_Schedule_745738_7.pdf
5/24/22 - 5/26/22	APWA Great Lakes Expo		Boyne Mountain Resort - 1 Boyne Mountain Rd, Boyne Falls, MI 49713	No	Opportunity?	http://michigan.apwa.net/EventDetails/27280
JUNE						
6/15/22 - 6/17/22	PASER & IBR Training (Webinar)		WEBINAR: 8 AM-11 AM	No	Yes	http://www.ctt.mtu.edu/sites/ctt/files/flyers/2022tamc-paseribr.pdf
JULY						

Date	Event	Council Member or TAMC Support Staff	Time & Location	TAMC Booth	Presentation	Comments and added Information / website / flyer
7/26/22 - 7/29/22	MTPA Annual Conference	Ryan Buck	THE UNIVERSITY OF MICHIGAN-FLINT RIVERFRONT BANQUET CENTER & THE HILTON GARDEN INN FLINT	No	Yes	http://www.mtpa-mi.org/
AUGUST						
8/30/2022	Culvert Asset Management Training	Kelly Jones	WEBINAR: 9 AM-11AM	No	Yes	http://ctt.nonprofitsoapbox.com/2022culvertaug
SEPTEMBER						
9/28/2022	TAMC Conference	All Hands on Deck	Great Wolf Lodge, Traverse City, MI	Yes	Yes	

Michigan Should Embrace Best-practices in Transportation Asset Management

Summary

- With revenue challenges likely to continue, Michigan must take better care of its roads with the resources available.
- Michigan's statewide pavement management approach complies with state legislative requirements, but does not meet federal standards and is not designed to help road agencies make better investment decisions.
- The Federal Highway Administration has provided states with a coherent data-based framework for transportation asset management (TAM). Michigan can significantly improve pavement management and investment decisions by embracing this approach.

By: [Eric Paul Dennis, PE \(epdennis@crcmich.org\)](mailto:epdennis@crcmich.org)

It is well known that Michigan struggles to maintain its roads. Potholes are so common that the Michigan Department of Transportation (MDOT) provides [advice to drivers](#) for dealing with them. We are often told that [there just isn't enough money](#) to keep the roads in good condition. While additional revenue would be nice, road agencies should make the most with what they have. MDOT and Michigan's many local road agencies have an opportunity to use existing revenue more efficiently by adopting accepted best practices in asset management.

Season's Greetings!

Michigan is now in the midst of "[pothole season](#)" and road maintenance crews across the state are playing pothole [whac-a-mole](#). In fact, Governor Whitmer just signed an [Executive Directive](#) ordering MDOT to "use all available resources to expedite repair of road surfaces, including overtime pay and contracted services." This annual spring tradition is the result of a failure in long-term planning. Pothole-filling is not supposed to be routine maintenance. The Federal Highway Agency (FHWA) provides information on [23 pavement preservation approaches](#), not one of which involves chucking cold-patch asphalt into watery holes. This practice, known as "[throw and go](#)" pothole repair, is [reactive maintenance](#); it is a temporary emergency patch. Pothole patching will keep roads passable, but is a very short-term fix, lasting only weeks or even days under some conditions.

When entire sections of road are riddled with tire-busting potholes, that pavement is in a state of failure and complete reconstruction is usually required. In a [recent commentary](#), MDOT Director Paul Ajegba stated, "We do all we can to patch potholes quickly, make lasting fixes when conditions allow, and build new roads that guard against new potholes." An additional, and critical, countermeasure is [routine inspection and maintenance](#). Building new roads without planning and provisioning for routine inspection and maintenance will quickly bring us back to where we started—dodging potholes.

A modern highway pavement is a complex engineered system. Just like a car occasionally need its fluids changed and brakes replaced, a pavement occasionally needs (for example) its surface renewed or expansion joints replaced. Ignoring such maintenance predictably reduces the service life of pavements, causing accelerated failure.

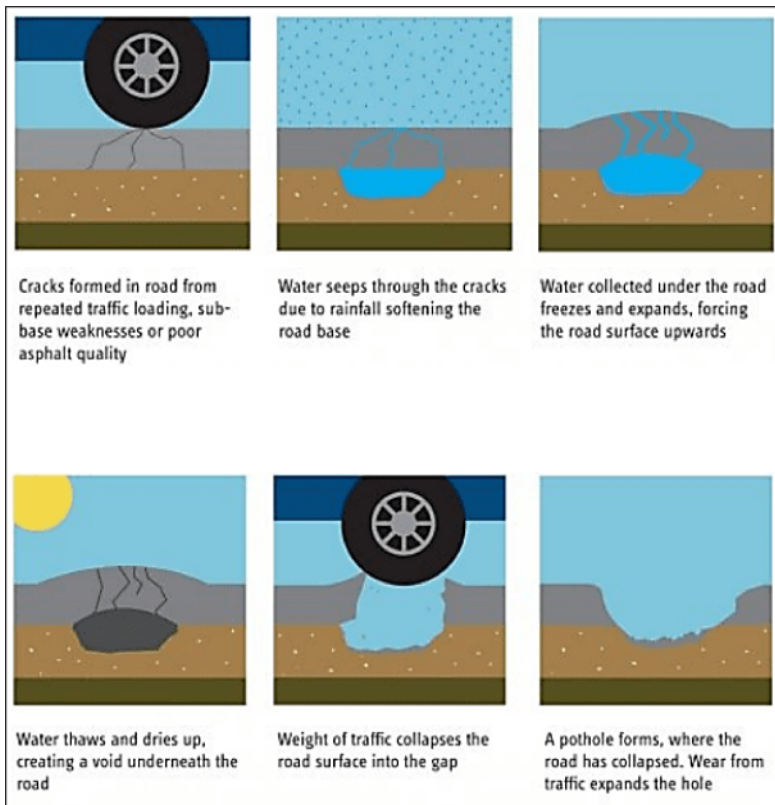
Director Ajegba continues, "the root cause [of potholes] is our aging infrastructure." This is an oversimplification, but accurately



routine inspection and maintenance will quickly bring us back to where we started—dodging potholes.

Potholes 101

The age of a pavement is *correlated* to pothole formation but is not a root cause. The root cause of potholes is generally a combination of sub-surface water, freeze-thaw cycles, and vehicle loading (especially heavy trucks). A properly engineered, constructed, and managed pavement will mitigate these factors and reach the end of its design life before it becomes practically un-drivable due to potholes.



Process of pothole formation (via surface infiltration and freeze cycling), source: [ABG Geosynthetics](#)

Michigan road agencies can improve pavement performance and better utilize resources by pursuing targeted maintenance projects that *prevent* potholes in the summer and fall, rather than filling them in the spring. MDOT and many Michigan road agencies frequently express this understanding, but it is not always reflected in policies and practices.

Michigan’s Existing Pavement Management Approach

Michigan’s legislature created the Transportation Asset Management Council (TAMC) in 2002 to implement a statewide pavement management program to better predict funding needs. This was no easy task. In addition to MDOT, there are 614 county and local road agencies in Michigan. In order to meet the statutory requirements of a statewide TAM system without excessive financial burden, the TAMC created an efficient low-cost system where road conditions are determined via “windshield survey.” Essentially, each agency has a “data-collection team” drive its road network and rate each segment on a 1-10 scale (1-4=poor, 5-7=fair, 8-10=good).

This rating is based on an approach called [Pavement Surface Evaluation and Rating \(PASER\)](#). However, the PASER metric was intended only for rural and small city pavement management systems and is not meant to be assessed entirely from behind a windshield at the speed of traffic. A few other states (e.g. Wisconsin) still allow local road authorities to report pavement conditions



conditions and distresses into a 1-10 score. However, even if road rating teams can reliably apply these guidelines, the numerical score cannot be disaggregated back to distresses. Thus, the 1-10 rating provides zero data regarding *why* roads are in poor condition, how best to fix them, or how to improve the design if and when they are to be reconstructed.

Further, as should be expected from a subjective “windshield survey,” there [is wide variance in the reported values](#). TAMC reports that [25 percent of PASER ratings vary from an independent quality control rating \(considered ground truth\) by 2 points or more](#). This may not matter much if the variance is distributed evenly, but if there is a consistent skew one way or another this could give a very biased assessment of the entire network. There is reason to believe that such a skew exists; when PASER ratings are compared to more objective metrics, [roads are consistently rated in significantly poorer condition](#).

Fortunately, there is a better way.

Michigan’s transportation asset management system meets statutory obligations, but is not useful in decision support for effective pavement investments.

Best Practices in Transportation Asset Management

In 2012, the federal highways program funding bill, *Moving Ahead for Progress in the 21st Century* (MAP-21), introduced a national effort under the Federal Highway Administration (FHWA) to implement a [performance-based](#) approach to transportation investment decision-making using meaningful objective pavement condition metrics.

MAP-21 requires state departments of transportation (DOTs) to submit a *Transportation Asset Management Plan* (TAMP) for their statewide federal aid highway system. The TAMP was to include specific and objective pavement performance measures (i.e., rutting, cracking, faulting, and international roughness index). This performance-based approach provides data that allows specific distresses to be linked to specific failure mechanisms, enabling agencies to continually optimize maintenance, rehabilitation, and reconstruction investment decisions.

Additionally, the federal TAMP requirements integrate with a modern data-based approach to pavement engineering known as [mechanistic-empirical pavement design \(MEPD\)](#). Between the TAMP requirements and MEPD guidance, FHWA has provided state DOTs with an excellent turn-key framework that allows for continual evidence-based improvements in transportation investment decisions.

MDOT’s Construction Field Services Division has [implemented MEPD design](#) to some extent, but this approach has not been embraced department-wide. Without appropriate metrics as would be collected in a contemporary TAM system, MDOT’s pavement engineers cannot take advantage of the data-based MEPD approach.

MDOT and TAMC have been inexplicably resistant to adopting TAM best practices as recommended by both FHWA and the American Association of State Highway and Transportation Officials (AASHTO).

MDOT’s core pavement condition rating is based on a “windshield survey” rather than accepted engineering metrics.

Michigan’s 2019 Transportation Asset Management Plan

The finalized state TAMPs were due to FHWA in 2019 (seven years after DOTs were informed they would have to do so and two



MDOT's metrics are *not* performance based; MDOT has no way to link investment strategies to better or worse outcomes. All MDOT can do is assume that the outcomes that it has seen in the past per dollar of investment is the outcome that it will see in the future per dollar of investment. There is no accommodation for any ability to learn and improve over time, or to take advantage of any improvements in materials or construction methods.

Even worse, this history-based forecasting and planning approach disincentivizes preventive maintenance. Specifically, MDOT uses pseudo-PASER and other internally-devised metrics to calculate a pavement's *remaining service life* (RSL). One core component of RSL is the pavement's *expected service life*, which is based on the history of other pavement investments in the state. Thus, if previous pavements were poorly maintained and had a shortened service life as a result, a new pavement's expected service life builds-in an expectation that the pavement will be poorly maintained and will fail prematurely. Routine maintenance budgets in Michigan are often entirely separate from reconstruction and rehabilitation project planning. When maintenance efforts are being considered, an agency may look at the RSL rating for a particular pavement and see that it is *expected* to fail soon, so not bother to invest in a maintenance project that could have extended its service life. If that pavement *does* fail prematurely, MDOT's TAM program is considered successful because it accurately predicted its premature failure.

This isn't how TAM is supposed to work.

We Can Do Better

MDOT can break this cycle of ineffectual asset management by simply embracing the performance-based TAM principles prescribed by FHWA. This will immediately improve investment decisions and allow MDOT's Construction Services Division to start iteratively optimizing pavement design using the data-based mechanistic-empirical approach. MDOT has been collecting the federal metrics for decades, they just haven't been using them for TAM. (FHWA has required these metrics to be reported to the federal Highway Performance Monitoring System for many years with the *expectation* that state DOTs would use them for asset management but only recently *required* state DOTs to use them.)

MDOT can improve pavement investment decisions by simply embracing the performance-based asset management approach prescribed by the Federal Highway Administration.

Once MDOT and TAMC have established a TAM program based on accepted best practices it can be disseminated to local road agencies. As performance-based asset management and mechanistic-empirical pavement design become standard practice in Michigan, every year will give us more data that will allow for continual improvement of investment decisions across a pavement's life-cycle, and eventually for the entire statewide transportation system. Perhaps one day, "pothole season" will be part of Michigan's storied past rather than an annual scourge.

Related CRC Publications

[Fix the Damn Road Funding Formula \(February 2022\).](#)

[To 'fix the damn roads,' the state should consider giving local governments more taxation options \(September 2019\).](#)

[Road funding is a local \(government\) problem. And it's worse than you think \(May 2019\).](#)

[On road infrastructure, panel states more funding is needed, but for now the status quo continues \(March 2018\). Public Act 51 – The 'Third Rail' of Michigan's Pothole Crisis \(March 2018\).](#)

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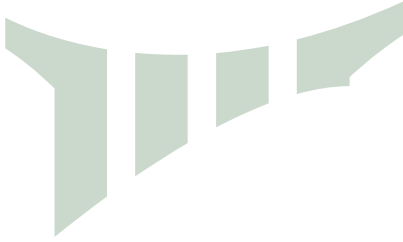
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