



**Meeting Agenda**  
**Wednesday, December 4, 2019 @ 1:00 PM**  
**Aeronautics Building – 2<sup>nd</sup> Floor Commission Room**  
**2700 Port Lansing Rd., Lansing, MI**

Meeting Telephone Conference Line: 1-877-336-1828 Access Code: 8553654#

Web Meeting Access Link: <http://michigandot.adobeconnect.com/rhmmflbr4514/>

- 1. Welcome - Call to Order – Introductions**
- 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 Item)**
  - 4.1. Approval of the November 6, 2019 Meeting Minutes (*Attachment 1*)
  - 4.2. TAMC Financial Report (*Attachment 2*)
- 5. Correspondence & Announcements**
  - 5.1. Update on MDOT Michigan Mobility 2045 Stakeholders Group – *Bolt/Mekjian*
- 6. Michigan Infrastructure Council Update – *Johnson***
  - 6.1. X-Council Meeting Update
  - 6.2. Regional Summit Update
- 7. Presentation**
  - 7.1. Bridge Forecast & Statewide Bridge Investment Strategy – *Curtis (slides provided at meeting)*
- 8. Old Business**
  - 8.1. 2020 TAMC Meeting Schedule – *Belnap (Memo, Action Item & Attachment 3)*
  - 8.2. 2019 TAMC Annual Report Preparations – *Jennett*
- 9. Committee Review & Discussion Items**
  - 9.1. Bridge Committee – *Curtis/Bolt/Wieferich***
    - 9.1.1. Culvert Pilot Data Request – *Holmes/Belnap (Memo, Action Item & Attachment 4)*
    - 9.1.2. Culvert Pilot Effort - Next Steps
  - 9.2. ACE Committee – *Start***
    - 9.2.1. TAMC Conferences
    - 9.2.2. TAMC Bylaws
    - 9.2.3. TAMC FY2021 Budget Planning
  - 9.3. Data Committee – *McEntee***
    - 9.3.1. Status of 2019 Pavement Surface Evaluation and Rating (PASER) Data Collection (*Attachment 5*)
    - 9.3.2. Pavement Forecast & Statewide Investment Strategy
    - 9.3.3. Creation of TAMC Glossary for TAMC Website
    - 9.3.4. 3-year Planned Improvements & MDOT Job Net-State Transportation Improvement Program (STIP) Integration with TAMC IRT
  - 9.4. Michigan Center for Shared Solutions – *Surber/Holmes/Granger***
    - 9.4.1. Activities Update & Priorities

9.4.2. Framework Base Map Update

9.4.3. Upcoming Training Schedule for Investment Reporting Tool

**9.5. Michigan Technological University/Technical Assistance – Colling**

9.5.1. 2019 Local Agency Asset Management Implementation Report (*Attachment 6*)

9.5.2. Monthly Training Report (October 2019) (*Attachment 7*)

9.5.3. TAMP Template Update & Training Feedback

**10. Public Comments**

**11. Member Comments**

**12. Adjournment**

*Next meeting January 2020 (Date & Time to be Determined)*

**TRANSPORTATION ASSET MANAGEMENT COUNCIL**

November 6, 2019 at 1:00 p.m.

MDOT Aeronautics Building, 2<sup>nd</sup> Floor Commission Room

2700 Port Lansing Road

Lansing, Michigan

**MINUTES**

**\*\* Frequently Used Acronyms List attached**

**Members Present:**

Christopher Bolt, MAC  
Joanna Johnson, CRA/RCKC – Chair  
Gary Mekjian, MML  
Jonathan Start, MTPA/KATS  
Jennifer Tubbs, MTA

Derek Bradshaw, MAR/GLS Region V  
Bill McEntee, CRA – Vice-Chair  
Robert Slattery, MML  
Rob Surber, DTMB/CSS  
Brad Wieferich, MDOT

**Support Staff Present:**

Niles Annelin, MDOT  
Roger Belknap, MDOT  
Cheryl Granger, DTMB/CSS  
Tim Lemon, MDOT  
Craig Newell, MDOT  
Mike Toth, MDOT

Jim Ashman, MDOT  
Tim Colling, MTU/LTAP, via Telephone  
Mark Holmes, DTMB/CSS  
Kyle Nelson, MDOT  
Gloria Strong, MDOT

**Public Present:**

None

**Members Absent:**

Todd White, MDOT

**1. Welcome – Call-To-Order:**

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

**2. Changes or Additions to the Agenda (Action Item):**

None

**3. Public Comments on Non-Agenda Items:**

None

**4. Consent Agenda (Action Item):**

**4.1. – Approval of the August 7, 2019 Meeting Minutes (Attachment 1)**

**Motion:** D. Bradshaw made a motion to approve the meeting minutes with the amendments as presented by J. Johnson; J. Start seconded the motion. The motion was approved by all members present.

**4.2. – TAMC Financial Report (Attachment 2)**

R. Belknap provided a copy of the November 1, 2019 TAMC Budget Expenditure Report.

**Motion:** J. Start made a motion to approve the consent agenda; B. McEntee seconded the motion. The motion was approved by all members present.

## **5. – Correspondence & Announcements:**

### **5.1. – Recap of October 30, 2019 Fall TAMC Conferences – G. Strong/R. Belknap**

The TAMC 2019 Fall Conference was held October 30, 2019, at the Holiday Inn of Marquette. The Central Upper Peninsula Planning and Development (CUPPAD) region and the Michigan Infrastructure Council (MIC) held a MIC Regional Asset Management Summit in collaboration with the TAMC Conference. Other than minor issues, such as the food being undercooked, it was felt that the conference was well received and went very well. The hotel renovations were found to be exceptional and the presentations were good. The Council would like to try to get the attendance count up at the next conference and suggested that support staff reach out to potential attendees earlier and look for other potential attendees in the private sector.

G. Mekjian informed the Council that the American Public Works Association (APWA) had signed a two-year contract with TreeTops Resort and will hold their conference there again this year to fulfill that contract. He does not recommend that TAMC collaborate with APWA next May 2020 as the location and accommodations were not well received last May 2019 and there was not enough room at the resort to hold both the conferences together. G. Strong agreed with G. Mekjian and felt it would be best to hold the TAMC conference at a different location in May 2020. She recommended Grand Rapids, Detroit, or Ann Arbor; somewhere in the lower peninsula in order to allow those agencies in that area a chance to attend the conference without having to travel so far up to the upper peninsula. The Council agreed and would also like the conference to be held earlier in the month of May 2020; preferably, the first two weeks of May. The last spring conference was held May 22, 2019 in Gaylord, Michigan. The Council agreed with the ACE Committee that Grand Rapids would be a good location to hold the Spring 2020 TAMC Conference. G. Strong will look into finding a venue in Grand Rapids, Michigan the early part of May 2020.

**Action Item:** G. Strong will look for a venue in Grand Rapids, Michigan to hold the May 2020 Spring TAMC Conference.

### **5.2. –Update on MDOT Michigan Mobility 2045 Stakeholders Group – C. Bolt/G. Mekjian**

Nothing new to update.

## **6. Michigan Infrastructure Council Update – J. Johnson:**

### **6.1. – X Council Meeting Update**

Nothing new to update.

### **6.2. – Regional Asset Management Summits Update**

MIC staff has sent out a survey monkey to agencies in order to set up their next set of summits. The next summit is possibly on December 12, 2019. Once the dates are set, they will be available on the MIC Website. More details will come in the near future.

## **7. Old Business:**

### **7.1. – 2019 TAMC Appointments Confirmed by State Transportation Commission**

Jessica Moy, Executive Director for the MIC, informed J. Johnson that there were no changes within the legislation when TAMC was placed under the MIC, that stated that the MIC must approve appointed TAMC Council members. The appointment of TAMC Council members is still under the STC. However, if a Council member is being recommended for removal from the Council, that will be handled by the MIC. R. Belknap attended the October 17, 2019, and those that are currently Council members and any new Council members were approved at that meeting. R. Belknap gave an update on Public Act 325 regarding the submission of asset management plans. He also provided in a packet to the Commission a copy of the TAMC September 2019 correspondence letter sent to local agencies regarding Public Act 325 and the asset management plan training schedule.

**7.2. – 2020 TAMC Meeting Schedules – R. Belknap (Memo, Attachment 3, Action Item)**

R. Belknap informed the Committee that the two TAMC Council Members – Todd White and B. Wieferich have a scheduling conflict with the TAMC meetings each month due to MDOT Leadership meeting held at the same date and time. They requested that the TAMC full Council meetings be scheduled to either a different time on the first Wednesday of the month or a different day each month in order for them to continue attending the meetings. R. Belknap suggested that the full Council meetings be moved up to 10:00 am on the same day that it is usually held each month; the first Wednesday each month. The TAMC ACE Committee would then need to be moved to another day; it was suggested ACE be moved to the morning of TAMC Data Committee meetings. This would provide more preparation time between ACE Committee meetings and full Council meetings, as well as limit added travel for members who are on both the Data and ACE committees. R. Belknap suggested that the meeting schedules for TAMC full Council and its committees be approved each year in December. G. Strong requested that the schedule for the meeting dates approvals stay in September as other administrative staff are scheduling their meetings and there is a chance TAMC would lose their regular Aeronautics Commission Conference Room location and it would be more difficult to also secure the telephone conference lines. The Council agreed to keep the approval of TAMC meetings schedules in September.

The Council felt it would be too much of a lift to move the meetings around to accommodate the two MDOT Council members. They requested that G. Strong add the full Council regular meeting dates to their calendars in order to secure the conference room and conference telephone line. The Council also switched the April 1, 2020 meeting date to April 15, 2020 in order to accommodate the various school spring breaks and the September 2, 2020 meeting date to September 9, 2020 in order to accommodate the Labor Day holiday.

The Council would like time to think about the time change and check their schedules. They also would like the ACE Committee to review their schedules and inform the Council if they want to change their meeting schedule as suggested before Data Committee and get back to the Council at the next meeting on December 4, 2019. The Council would like a poll sent out to each Council member right away giving them four (4) date and time change options for their consideration in order to check against each of their personal schedules. They will send back their responses to R. Belknap and he will provide the results at the December 4, 2019 Council meeting. Two of the four options should be 1) continue to hold the TAMC full Council meetings on the first Wednesday of each month at 1:00 p.m. and 2) hold the meeting on the first Wednesday of each month at 10:00 am instead of 1:00 p.m. R. Belknap will need to add two more options for the Councils consideration.

**Motion:** J. Tubbs made a motion to approve the 2020 TAMC Full Council meeting dates as presented for Option 1, with the amended dates of April 1, 2020 to April 15, 2020 and September 2, 2020 to September 9, 2020. And, the TAMC support staff will submit a poll to the full Council with four options as requested that will be discussed at the December 4, 2019 meeting for finalization; J. Start seconded the motion. The motion was approved by all members present.

**Action Item:** G. Strong will add the TAMC Full Council 2020 meetings to the calendar to secure the Aeronautics conference room and telephone line. She will also change the April 1, 2020 meeting date to April 15, 2020 and the September 2, 2020 meeting date to September 9, 2020.

**Action Item:** R. Belknap will send a poll to each Council member right away giving them four (4) date and time change options for their consideration in order to check against each of their personal schedules. They will send back their responses to R. Belknap and he will provide the results at the December 4, 2019 Council meeting.

### **7.3. – 2019 TAMC Annual Report Preparations Update – B. McEntee/R. Belknap**

D. Jennett is currently working on the table of contents. He will be making changes as he goes to the various committees. At a past meeting, B. McEntee provided a very informative comparison PowerPoint presentation “Understanding PASER Rating: Bringing Conversations Home.” It is a comparison of upkeep of an average home to the upkeep of roads to simplify road issues and upkeep for the average citizen. It is a presentation that was felt would be good to share with the public and legislation. B. McEntee would like to include a couple of these comparisons in the annual report. D. Jennett is working with staff to clean up some of the IRT data. A snapshot of gravel roads and bridge condition forecasting is also being considered for the report. D. Jennett is also looking to possibly do a YouTube video regarding the TAMC Annual Report. The cut-off date for data from local agencies is the first week in December.

## **8. Committee Review and Discussion Items:**

### **8.1. – Bridge Committee – B. Wieferich**

#### **8.1.1 – Bridge Forecast and Statewide Bridge Investment Strategy**

Bridge Committee will be putting together a four-year trend report similar to the PASER trend report completed by B. McEntee from the IRT data. At the last Bridge Committee meeting D. Jennett had shared that there were projects in the IRT with cost estimates of \$0 or \$1 and may have some data integrity issues. He will be contacting agencies to get those issues resolved. Other issues with the data were in the area of reconstruction that showed culverts, the size of the culverts looked incorrect. Some agencies reported dust remediation projects in the IRT, and that information was found valuable; this helps with surface ratings by type. The Committee also talked about the new Culvert subgroup and the Committee requested that a subgroup meeting be held prior to the November 21, 2019 Bridge Committee meeting.

M. Holmes received two data requests: one from the Michigan State University (MSU) culvert pilot project hydrography focus group to look at hydrography data sets and show culvert locations. They would like to use TAMC culvert pilot project data to assist them in their research. The second request was from the Michigan Department of Natural Resources (DNR). They are doing an update on their land and stream crossing and they also want to use TAMC culvert data - mainly location and culvert size. In the future, MDOT, TAMC, and DNR would like to pull together all of the culvert data they each hold into one location, a Michigan geographic data hub. The Bridge Committee recommended that TAMC allow these agencies to use the culvert data, but with a disclaimer stating that TAMC has not done a data check on our culvert data. The final reports that MSU and DNR create from their projects may be information that the TAMC Culvert Pilot subgroup can use in the future.

Council members had concerns that the TAMC Data Sharing Policy was not followed with these requests. Support staff will need to be sure to review and adhere to the policy. The original requests from MSU and DNR were not provided to the Council and is not on the agenda as an action item today. For all data requests, the Council would like to see the original requests. M. Holmes and R. Belknap will provide the requests at the December 4, 2019, full Council meeting and the Council will address the requests at that time. The Council would also like MSU and DNR to reciprocate and share their culvert data with TAMC. Working together with MDOT, MSU, and DNR will also help stop duplication of efforts.

**Action Item:** R. Belknap and M. Holmes will review the TAMC Data Sharing Policy to assure it is followed and will provide the Council with a copy of the original data requests at the December 4, 2019 meeting.

#### **8.1.2 – Culvert Pilot Effort – Next Steps**

This was addressed under agenda item 8.1.1.

### **8.2. – ACE Committee – J. Start**

#### **8.2.1. – Update on the TAMC Articles in the Local Technical Assistance Program’s “The Bridge” and the American Public Works Association “Great Lakes Reporter” Newsletters**

The next article for “The Bridge” newsletter was due mid-September however, MTU had computer issues and was unable to do their newsletter. When MTU gets their computer issue resolved, TAMC support staff will provide an article to them. The last article was going to be on Public Act 325, which includes the Transportation Asset Management Plan Template.

TAMC support staff received a request from APWA to include an article in their “Great Lakes Reporter” newsletter. The ACE Committee felt it was a good idea to place an article in their newsletter similar to that provided to MTU on Public Act 325. However, APWA informed support staff that their newsletter is now full and will consider adding the TAMC article in their next newsletter to be released next spring.

**Action Item:** Dave Jennett, MDOT support staff, will work with APWA to place an article in their newsletter by their next designated deadline for their spring newsletter.

#### **8.2.2. – TAMC Bylaws**

R. Belknap reviewed and highlighted areas for the ACE Committee’s review that he updated with current happenings, Public Act 325, and support needed from the regions and MDOT support staff.

#### **8.2.3. – Other Discussed Items at ACE Committee**

TAMC 2020 Spring Conference – see agenda item 5.1. above.

The ACE Committee is starting to make plans for the 2021 budget. The Committee will get some ideas of what should be included in the budget. Items discussed were looking at another way of doing forecasting conditions, how we plan to use the culvert pilot project funds, a project portal, and reducing duplication of efforts. The Committee will also review the distribution of funds to regions and Metropolitan Planning Organizations (MPOs). Some regions have money left on the table at the end of the fiscal year and others could use additional funds to cover their expenses. The Committee feels the size of a region and the MPO needs to be reviewed to determine their allocations. The 2021 TAMC budget needs to be presented to the MIC in January 2020 for their approval.

#### **8.2.4. – MTU and CSS Training Needs and Changes – T. Collins/C. Granger (Action Item)**

Training changes were discussed for MTU’s asset management template training by doing two webinars on the compliance document and getting Council members involved in that training. These will be held between October 1-10, 2019. This will give an opportunity to showcase the template and talk about expectations. The asset management template consists of a compliance document and appendices for pavement and bridges. MTU also does training for both pavement and bridge asset management plans. They would only be changing the deliverables so the training changes would stay within their current budget.

CSS recommends doing four onsite trainings in Washtenaw (Ann Arbor) or Jackson, Saginaw, Gaylord, and Marquette, and one additional Webinar. The change would be one less onsite training. The ACE Committee recommended that CSS provide the training in Jackson. CSS would be moving from doing five on-site trainings to four. CSS is also discussing doing training with the MDOT ADARS Act 51 training team. The training changes would stay within their current budget.

**Motion:** B. McEntee made a motion to approve the changes in the MTU and CSS training programs; J. Tubbs seconded the motion. The motion was approved by all members present.

### **8.3. – Data Committee – B. McEntee**

#### **8.3.1. –Status of 2019 Pavement Surface Evaluation and Rating (PASER) Data Collection (Attachment 4)**

A map of reported progress on PASER data collection through November 1, 2019, was shared with the Council. There are also efforts going on to collect the non-federal aid data. The map was briefly reviewed and data collections are in the same place as last year, which is good. There will be a region coordinators teleconference next week for agencies to weigh in on their data collection status.

**Action Item:** TAMC MDOT support staff will check with CSS on December 15, 2019 to get an update on data collected.

#### **8.3.2. – Pavement Forecast and Statewide Investment Strategy – J. Ashman (Memo and Action Item)**

The TAMC Data Committee made a recommendation to the full Council to consider contracting out forecasting and analysis of TAMC data. A decision needs to be made regarding whether or not to contract out the data analysis or maintain status quo with MDOT staff continuing to perform this task. If it is decided to contract out data forecasting and analysis, additional funding would need to be allocated to TAMC to cover the added expenses. Currently, MDOT provides the labor expense for TAMC forecasting.

J. Ashman gave a presentation giving background on efforts for TAMC with MDOT. Pavement Condition Forecasting System (PCFS) and IRT updates have been made in order to fulfill the request from Data Committee. They have completed a revised PCFS model used to forecast PASER portion and it is ready to use. They have also completed a set of forecasts generated to show comparison of mix-of-fixes. They formatted issues in the IRT to assure IRT accuracy, such as export shifted to fiscal year to match the model, updated the work type classification crosswalk table, omission of I-75 modernization was done for normalization, and lastly, costs increased to account for Right-of-Way and PE phases post export. MDOT also did an automated crosswalk and pulled their information into the IRT for rehab, reconstruction, heavy CPM, and light CPM for modeling.

MDOT has been doing a massive rewrite in order to complete TAMC forecasting requests. Current items that MDOT is working on for TAMC are a special request from Data Committee to do a forecast based on a mix-of-fixes rather than dollar amounts. The other task assigned to them was to provide results of, if there is an increase in funding but based upon the current mix-of-fixes in the National Functional Classification (NFC) system. J. Ashman plans to present his findings to the Data Committee at their November 20, 2019 meeting and to the full Council at their December 4, 2019 meeting.

The Council would like a written process of how MDOT does the forecasting for TAMC. There was concern about the different methods that are being used each year to do the



forecasting. If there are added costs to this, TAMC will need to get this in the budget now for 2021. In the past G. Chesbro has used the Markovian process. Inputs to the model has changed over time for forecasting and the Council wants a clear process with clear inputs. TAMC and the data collected have evolved and continues to evolve which causes the forecasting method to change over time. Before a decision is made on whether or not to bid out TAMC data forecasting analysis, the Council needs to know what they are doing and what they are asking the contractor to do. The Council would like historical data for the past three years to show the possible contractor how past results were reached.

Gil Chesbro's former position as TAMC Data Analyst has been posted and MDOT plans to fill the position by the end of the year if they find a good candidate. It is hoped to roll this position to coordinate closely with other PASER workers at MDOT.

**Motion:** J. Tubbs made a motion that the Council be provided the formal written process of how MDOT does the TAMC modeling data forecasting at the January 2020 TAMC meeting. Including the data and spreadsheets of what has been done in the last three years; J. Start seconded the motion. The motion was approved by all members present.

**Motion:** A second motion was made by J. Tubbs to postpone the Data Committee's motion made at the September 18, 2019 meeting recommending that TAMC consider bidding out forecasting data analysis tasks; B. McEntee seconded the motion. The motion was approved by all members present.

**Action Item:** MDOT support staff will create a formal written process showing how MDOT does the modeling data forecasting for TAMC, including the data and spreadsheets of what has been done in the last three years. This information should be provided to the Council at their January 2020 meeting.

### **8.3.3. – Creation of a TAMC Glossary for the TAMC Website**

At a MIC meeting it was requested that a glossary of Council terms and acronyms be provided on the MIC and TAMC Websites. The Data Committee is working to provide the list. T. Colling provided an updated glossary used in the Transportation Asset Management Plan for possible inclusion to the list.

### **8.3.4. – 3-Year Planned Improvements and MDOT JobNet/State Transportation Improvement Program (STIP) Integration with the TAMC IRT – Cheryl Granger**

Meetings were held between CSS and CSS developers on transferring STIP Planned Projects to CSS for inclusion in the TAMC interactive maps. A decision needs to be made regarding if large projects that are not using federal funds should be included. They need to know what items are needed by the Council. They are thinking about creating user stories and holding smaller sessions to discuss this issue. Anything that comes out of these meetings and sessions will go to the Data Committee prior to being presented to the full Council.

## **8.4. - Michigan Center for Shared Solutions – C. Granger/M. Holmes**

### **8.4.1. – Activities Update and Priorities**

CSS has released version 213 of TAMC applications and needs MDOT to review traffic data.

### **8.4.2. – Framework Base Map Update – M. Holmes**

CSS has been working on the redesign since September. They are currently making corrections and will be testing for the next couple of weeks. They are scheduled to be in production in mid-December if all goes well. The full data processing will be done in the

fall. MDOT, CSS, and MTU are in discussions regarding ESRI. MDOT's end-of-year data will be provided to CSS by December 31, 2019. CSS will then forward the information to MTU by the end of January 2020. CSS feels everything will be ready by the next data collection, which is April 2020.

#### **8.4.3. – Upcoming Training Schedule**

The training schedule is currently in the process of being developed. Council members will be asked to participate. CSS will provide the schedule to the Council as soon as it is finalized.

### **8.5. – Michigan Technological University/Technical Assistance Reports – T. Colling**

#### **8.5.1. – Monthly Activities Report (August 2019) (Attachment 5)**

MTU is currently doing Bridge Asset Management Plan Workshops and Pavement Asset Management Plan Workshops. The workshops are going well and has a large count of city and county attendees, and a couple of consultants.

MTU is also doing a Compliance Plan training webinar. They have 121 people currently registered to participate in the Webinar.

#### **8.5.2. – Monthly Training Report (August 2019) (Attachment 6)**

A copy of the Activities Report for the reporting period of August 2019, was provided to the Council.

#### **8.5.3. – TAMP Template Update**

Nothing new to report.

#### **8.5.4. – Upcoming Training Schedule**

Trainings will be held October – December 2019. December 3-5, 2019 is the final workshops for the asset management plans. The IRT and PASER training schedules will be available in January 2020. J. Johnson would like the training schedules as soon as possible to allow Council members a chance to check their schedules in order to attend and participate in the trainings on behalf of TAMC.

### **9. Public Comments:**

None

### **10. Member Comments:**

C. Bolt informed the Council that the Michigan Mobility Meeting will be held November 19, 2019.

J. Johnson informed the Council that there are a couple of legislative bills presented pertaining to TAMC. If any Council member is contacted for comment, let them know that TAMC has not been contacted and we as a council have not taken a position on the bills. If they want to know what TAMC does, any Council member can answer those questions. J. Johnson should be the point person if they need someone to talk to regarding the bills. There are currently 61 bills dealing with transportation issues.

### **11. Adjournment:**

The meeting adjourned at 3:13 p.m. The next full Council meeting is scheduled for December 4, 2019 at 1:00 p.m., MDOT Aeronautics Building, 2700 Port Lansing Road, 2<sup>nd</sup> Floor Conference Room, Lansing, Michigan.

## TAMC FREQUENTLY USED ACRONYMS:

<b>AASHTO</b>	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
<b>ACE</b>	ADMINISTRATION, COMMUNICATION, AND EDUCATION (TAMC COMMITTEE)
<b>ACT-51</b>	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.
<b>ADA</b>	AMERICANS WITH DISABILITIES ACT
<b>ADARS</b>	ACT 51 DISTRIBUTION AND REPORTING SYSTEM
<b>BTP</b>	BUREAU OF TRANSPORTATION PLANNING (MDOT)
<b>CFM</b>	COUNCIL ON FUTURE MOBILITY
<b>CPM</b>	CAPITAL PREVENTATIVE MAINTENANCE
<b>CRA</b>	COUNTY ROAD ASSOCIATION (OF MICHIGAN)
<b>CSD</b>	CONTRACT SERVICES DIVISION (MDOT)
<b>CSS</b>	CENTER FOR SHARED SOLUTIONS
<b>DI</b>	DISTRESS INDEX
<b>ESC</b>	EXTENDED SERVICE CONTRACT
<b>FAST</b>	FIXING AMERICA’S SURFACE TRANSPORTATION ACT
<b>FHWA</b>	FEDERAL HIGHWAY ADMINISTRATION
<b>FOD</b>	FINANCIAL OPERATIONS DIVISION (MDOT)
<b>FY</b>	FISCAL YEAR
<b>GLS REGION V</b>	GENESEE-LAPEER-SHIAWASSEE REGION V PLANNING AND DEVELOPMENT COMMISSION
<b>GVMC</b>	GRAND VALLEY METRO COUNCIL
<b>HPMS</b>	HIGHWAY PERFORMANCE MONITORING SYSTEM
<b>IBR</b>	INVENTORY BASED RATING
<b>IRI</b>	INTERNATIONAL ROUGHNESS INDEX
<b>IRT</b>	INVESTMENT REPORTING TOOL
<b>KATS</b>	KALAMAZOO AREA TRANSPORTATION STUDY
<b>KCRC</b>	KENT COUNTY ROAD COMMISSION
<b>LDC</b>	LAPTOP DATA COLLECTORS
<b>LTAP</b>	LOCAL TECHNICAL ASSISTANCE PROGRAM
<b>MAC</b>	MICHIGAN ASSOCIATION OF COUNTIES
<b>MAP-21</b>	MOVING AHEAD FOR PROGRESS IN THE 21 <sup>ST</sup> CENTURY (ACT)
<b>MAR</b>	MICHIGAN ASSOCIATION OF REGIONS
<b>MDOT</b>	MICHIGAN DEPARTMENT OF TRANSPORTATION
<b>MDTMB</b>	MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
<b>MIC</b>	MICHIGAN INFRASTRUCTURE COMMISSION
<b>MITA</b>	MICHIGAN INFRASTRUCTURE AND TRANSPORTATION ASSOCIATION
<b>MML</b>	MICHIGAN MUNICIPAL LEAGUE
<b>MPO</b>	METROPOLITAN PLANNING ORGANIZATION
<b>MTA</b>	MICHIGAN TOWNSHIPS ASSOCIATION
<b>MTF</b>	MICHIGAN TRANSPORTATION FUNDS
<b>MTPA</b>	MICHIGAN TRANSPORTATION PLANNING ASSOCIATION
<b>MTU</b>	MICHIGAN TECHNOLOGICAL UNIVERSITY
<b>NBI</b>	NATIONAL BRIDGE INVENTORY
<b>NBIS</b>	NATIONAL BRIDGE INSPECTION STANDARDS
<b>NFA</b>	NON-FEDERAL AID
<b>NFC</b>	NATIONAL FUNCTIONAL CLASSIFICATION
<b>NHS</b>	NATIONAL HIGHWAY SYSTEM
<b>PASER</b>	PAVEMENT SURFACE EVALUATION AND RATING
<b>PNFA</b>	PAVED NON-FEDERAL AID
<b>PWA</b>	PUBLIC WORKS ASSOCIATION
<b>QA/QC</b>	QUALITY ASSURANCE/QUALITY CONTROL

<b>RBI</b>	ROAD BASED INVENTORY
<b>RCKC</b>	ROAD COMMISSION OF KALAMAZOO COUNTY
<b>ROW</b>	RIGHT-OF-WAY
<b>RPA</b>	REGIONAL PLANNING AGENCY
<b>RPO</b>	REGIONAL PLANNING ORGANIZATION
<b>SEMCOG</b>	SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS
<b>STC</b>	STATE TRANSPORTATION COMMISSION
<b>STP</b>	STATE TRANSPORTATION PROGRAM
<b>TAMC</b>	TRANSPORTATION ASSET MANAGEMENT COUNCIL
<b>TAMCSD</b>	TRANSPORTATION ASSET MANAGEMENT COUNCIL SUPPORT DIVISION
<b>TAMP</b>	TRANSPORTATION ASSET MANAGEMENT PLAN
<b>TPM</b>	TRANSPORTATION PERFORMANCE MEASURES
<b>UWP</b>	UNIFIED WORK PROGRAM

S:/GLORIASTRONG/TAMC FREQUENTLY USED ACRONYMS.08.22.2019.GMS

DRAFT





Michigan  
Transportation Asset  
Management Council

# Memo

**To:** TAMC Council & TAMC ACE Committee Members  
**From:** Roger Belknap, TAMC Coordinator  
**Date:** November 27, 2019  
**Re:** 2020 TAMC & ACE Committee Meeting Schedules

---

**Recommendation for the TAMC**

Staff is requesting TAMC take action to adopt 2020 Meeting Schedules for TAMC meetings and provide guidance for scheduling the ACE Committee meetings.

**Background**

At the November 6 TAMC meeting, staff was asked to send out a poll of members for their availability for 2020 TAMC meetings. There were four options presented as an effort to accommodate member's schedules. Also, TAMC advised that the April 2020 meeting should be held on the third week to avoid Spring Break conflicts and for the September 2020 meeting to be held in the second week to avoid conflicts with the Labor Day holiday.

**Attachments with Agenda Packet**

Attachment 4 is the results of the Doodle Poll on members' availability for 2020 meetings.

Poll "2020 TAMC Meeting Schedule"

<https://doodle.com/poll/snanu5778cv2zdw9>

	Option 1 - 1st Wednesday's- 1 PM Jan 8 / Feb 5 / Mar 4 / Apr 15 / Jun 3 / Jul 1 / Aug 5 / Sept 9 / Nov 4 / Dec 2	Option 2 - 1st Wednesday's- 10 AM Jan 8 / Feb 5 / Mar 4 / Apr 15 / Jun 3 / Jul 1 / Aug 5 / Sept 9 / Nov 4 / Dec 2	Option 3 - 2nd Wednesday's- 1 PM Jan 15 / Feb 12 / Mar 11 / Apr 15 / Jun 10 / Jul 8 / Aug 12 / Sept 9 / Nov 10 / Dec 9	Option 4 - 1st Thursday's- 1 PM Jan 9 / Feb 6 / Mar 5 / Apr 16 / Jun 4 / Jul 2 / Aug 6 / Sept 10 / Nov 5 / Dec 3
MDOT TAMC				
Mekjian	OK			
Joanna	OK	OK		
Start	OK	OK	OK	OK
Todd		OK		OK
Brad		OK		OK
Derek	OK		OK	OK
Bob	OK		OK	
Count	5:0:3	4:0:4	3:0:5	4:0:4

Comments

<https://doodle.com/poll/snanu5778cv2zdw9>

**Joanna**  
Thursday, November 21, 2019  
3:35:39 PM GMT

option 1 is the current schedule



Michigan  
Transportation Asset  
Management Council

# Memo

**To:** TAMC  
**From:** Roger Belknap, TAMC Coordinator  
**Date:** November 27, 2019  
**Re:** TAMC Culvert Data Request

---

## **Recommendation for the TAMC**

Staff is requesting TAMC take action to adopt 2020 Meeting Schedules for TAMC meetings and provide guidance for scheduling the ACE Committee meetings.

## **Background**

Last month, staff reported that there has been a request for data sharing of the 2018 TAMC Culvert Pilot Data in a Geographic Information Systems format to Michigan State University and the Department of Natural Resources (MDNR). Mark Holmes has been the point person in communicating this request, and he advised staff with a background on these requests.

1. Michigan State University – MSU is working with CSS and other state agencies to perform a pilot project to improve the accuracy of the GIS mapping for river, streams and other water features in the State using the latest elevation data models that exist. MSU would use the culverts to help hydro-enforce the flow of re-adjustment water channels in the maps. In other words, the location of the culverts help to create the flow models to improve the maps. MSU knows this was a pilot and is not completed statewide but every GIS-based culvert location helps with these pilot studies.
2. Michigan Department of Natural Resources – MDNR is working on a stream crossing project and having reference to other culvert information will help them in their project as a reference point. Again, MDNR understands that the TAMC culvert project was not complete statewide and they are not sure if the TAMC data would be in the same areas that they are working on some of their lands but they would like to review it to see if it would be a good reference point in some areas.

## **Attachments with Agenda Packet**

Attachment 4 contains the written requests from these agencies addressed to Mark Holmes.



**MICHIGAN STATE**  
UNIVERSITY

Joanna I. Johnson  
Chair  
Transportation Asset Management Council

Ms. Johnson,

My group, RS&GIS, is a research and outreach group within the Department of Geography, Environment and Spatial Sciences at Michigan State University. We are requesting culvert data collected as part of the 2018 Transportation Asset Management Council (TAMC) pilot project, including geo-referenced line features and attributes relating to size, material and other physical characteristics. We would prefer data be provided in Esri file format (e.g., shapefile or file geodatabase feature class).

RS&GIS has been working closely with the State of Michigan Department of Technology, Management and Budget (DTMB) through the hydrography working group to develop methodologies for re-positioning statewide hydrography data. Culvert data is useful to numerous agencies, including MDOT, and is a key dataset in the hydrography repositioning process. The TAMC culvert data, if provided, will be used to model water flow across the landscape. While my group has been using culvert data from the State of Michigan open data portal up to this point, that data is limited to trunklines only. By supplementing that data with TAMC culvert data, my group will be able to improve methodologies, which will likely result in increased efficiency and final State of Michigan hydrography data accuracy.

Thank you for considering my request.

**RS&GIS**

**REMOTE SENSING  
& GIS RESEARCH  
AND OUTREACH  
SERVICES**

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Michigan  
Transportation Asset  
Management Council

# Memo

**To:** TAMC

**From:** Roger Belknap, TAMC Coordinator

**Date:** November 27, 2019

**Re:** Status of 2019 Pavement Surface Evaluation and Rating (PASER) collection

As you may recall, significant improvements to the PASER file uploading process has been made in the TAMC Investment Reporting Tool (IRT) application. Staff, as well as regional data collection coordinators and others that have an IRT account, have the ability to view the status of file uploads on a map as well as receive summary information regarding the number of miles surveyed, percent of roads collected and other helpful information to ensure all intended data has been collected and reported to TAMC.

Staff will provide a demonstration of these reporting capabilities in the IRT at the December 4, 2019 TAMC meeting.

**Attachments with Agenda Packet**

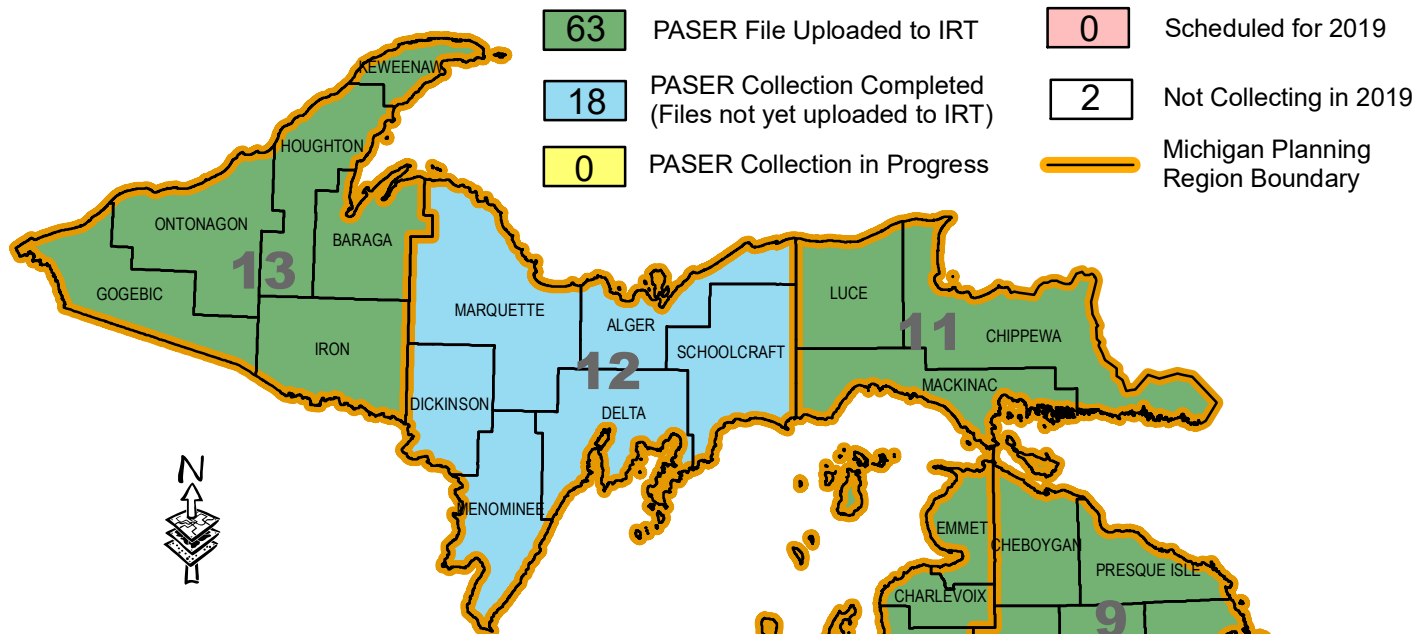
Attachment 5 contains statewide maps of 2019 and 2018 PASER Status Reporting for comparing the progress of the two data collection years and status of file uploads.



www.Michigan.gov/TAMC

# 2019 - PASER Status by County

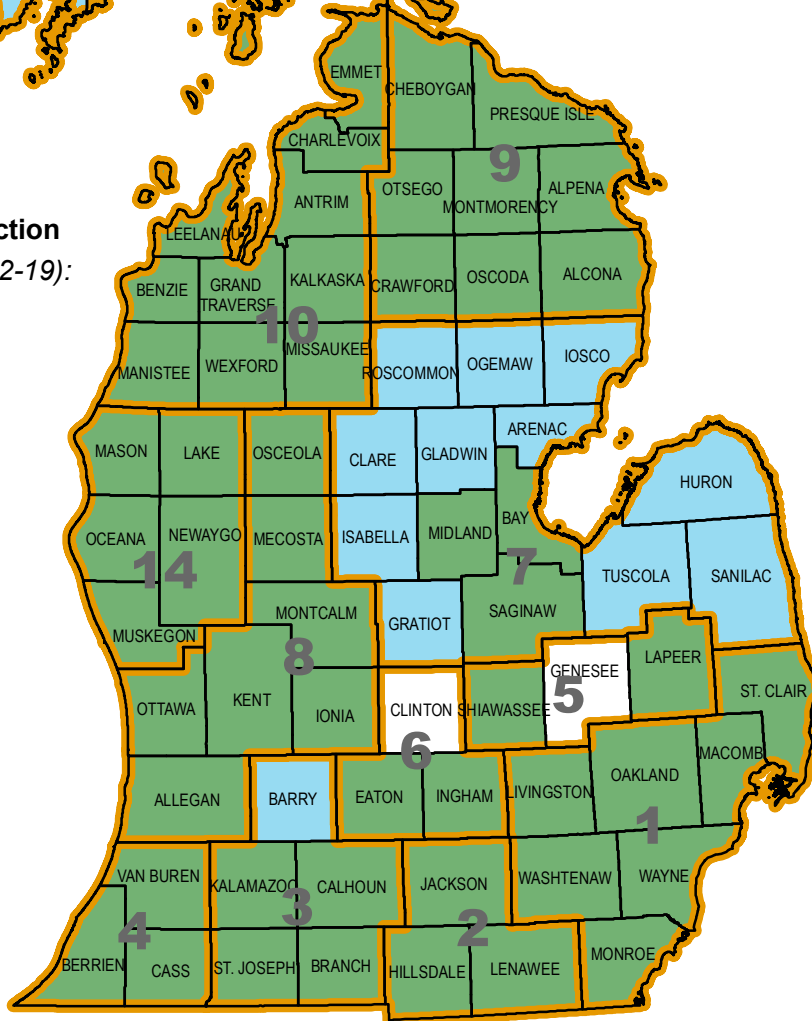
Map indicates completion status of TAMC sponsored Federal Aid PASER Data Collection as reported by Regional Planning Agency and Metro Planning Organization Coordinators. Data also includes updates from previous calls and from quarterly reports found with invoices and IRT files uploaded up through 11-22-19.



## Status of Non-Federal Aid (NFA) Data Collection

NFA Data Files Uploaded to IRT (through 11-22-19):

- Bay County
- Berkley
- Berrien County
- Center Line
- Dearborn
- Grosse Pointe Farms
- Hamtramck
- Houghton County (& Cities/Villages within)
- Inkster
- Kent County (& Cities/Villages within)
- Lake Orion
- Lathrup Village
- Luce County
- Melvindale
- Midland County
- Northville
- Ottawa County
- Pontiac
- Richmond
- Shelby Twp. - Macomb Co.
- Van Buren County
- Washtenaw County
- Ypsilanti

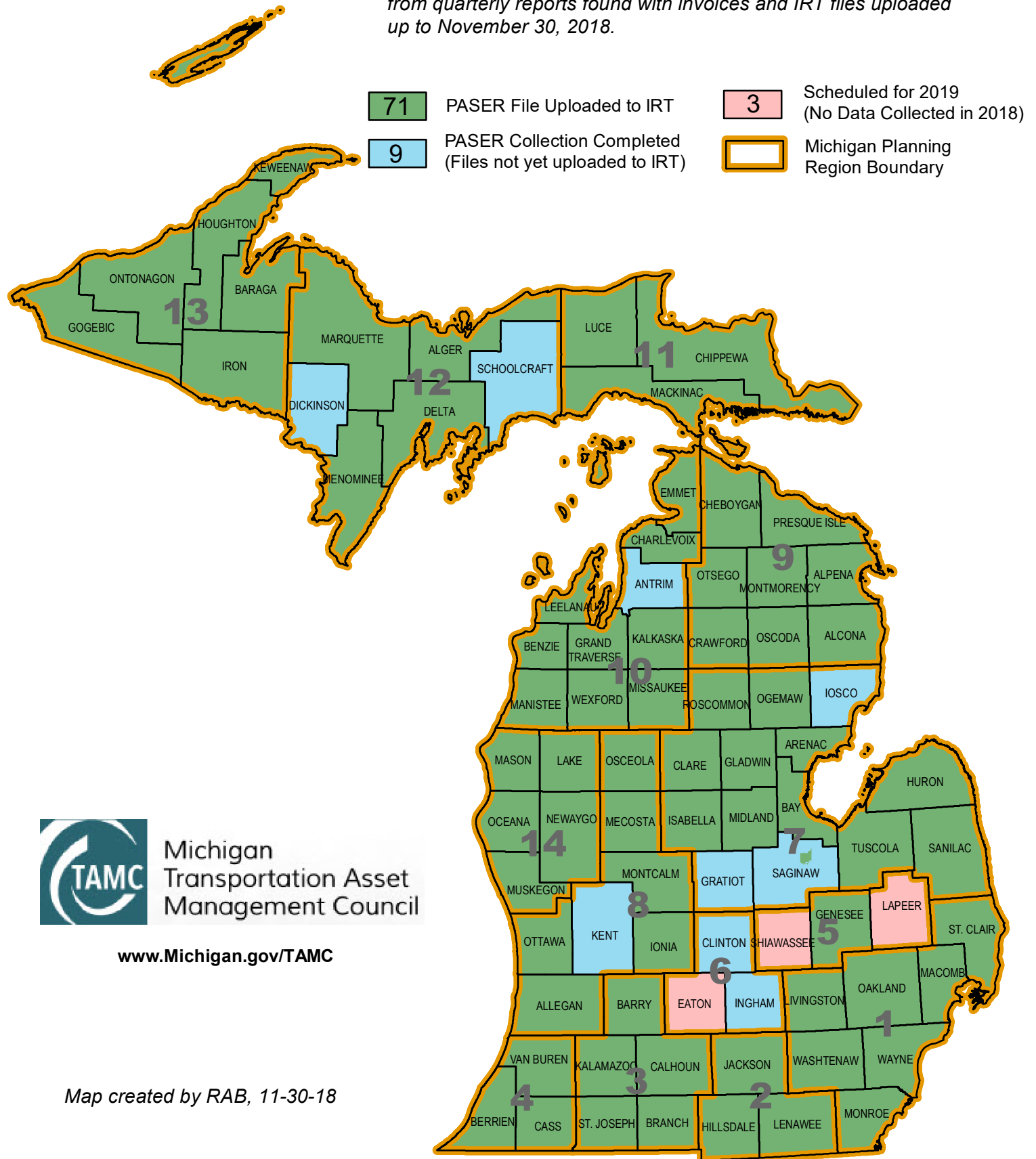


Note: There may be segments of NFA Data included with the Federal Aid Data files that have been uploaded as part of the County Reporting.



# 2018 - PASER Status by County As of November 30

Map indicates completion status of TAMC sponsored Federal Aid PASER Data Collection as reported by Regional Planning Agency Coordinators. Data also includes updates from previous calls and from quarterly reports found with invoices and IRT files uploaded up to November 30, 2018.



Michigan Transportation Asset Management Council

## 8<sup>th</sup> Annual Michigan Local Agency Transportation Asset Management Implementation Survey Report

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November 21, 2019



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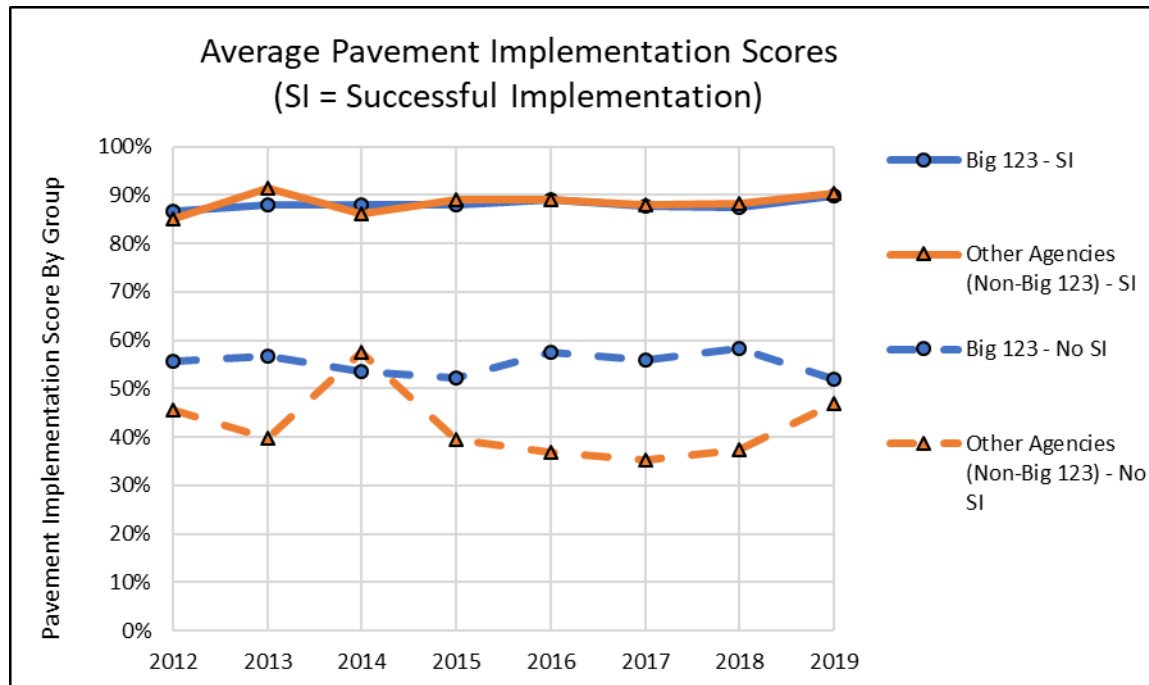
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## EXECUTIVE SUMMARY

Each year, the Michigan Transportation Asset Management Council (TAMC) conducts a survey to gauge the success of asset management implementation by Michigan’s road-owning local agencies. This survey measures implementation practices on pavements and bridges independently in the following categories: Policy Decisions, Identification of Candidate Projects and Treatments, Effective Data Collection, and Use of Pavement Management Results. The TAMC has set a target score for the survey responses of 70% or higher for the respondent to be considered “successfully implementing” asset management principles. This target percentage sets a high bar for local agencies and indicates the across-the-board implementation of best management practices. It should be noted that, of the responding local agencies that did not achieve a 70% score (i.e., considered “successfully implementing”) in 2019, all agencies are engaging in asset management practices to some extent.

Participants receive the implementation survey while attending Pavement Surface Evaluation and Rating (PASER) Training sessions, which road-owning local agencies are required to attend each year. Ten of these sessions are held across Michigan each year. Surveys are filtered so data reflects one set of responses per agency with the most knowledgeable person in the survey area (i.e., pavement, bridge) responding.

For the 2019 pavement portion of the survey, 101 surveys provided usable implementation information. These surveys indicate that 77% of responding local agencies were “successfully implementing” asset management principles on pavement assets (according to TAMC’s target). The 77% successful implementation rate for all local agencies represents a decrease of 5% from last year. Participants from small local agencies—that is, agencies outside of the “Big 123”—decreased by 3%. The “Big 123” local agencies along with the Michigan Department of Transportation own over 92% of the public road system in Michigan and have the greatest influence on the transportation network.



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Historically, the Big 123 agencies that are above the 70% threshold have had very stable and steady average scores while smaller local agencies have been more volatile based on sample size. The chart above compares the historical average of the scores above and below 70% successful implementation for the two agency types.

For the 2019 bridge portion of the survey, 44 surveys provided usable implementation information. These surveys suggested that 48% of responding local agencies were “successfully implementing” asset management principles. This is a 13% increase in the rate of successful implementation from 2018, which had a rate of 35%. Small agencies, accounting for only 2% of the participants, did not have a significant impact on the bridge survey results. The lag in bridge implementation scores relative to pavement implementation scores is to be expected given the changes in education and administrative rules relating to asset management, which first focused on pavements and only recently began focusing on bridges.

The results from the survey are proving to be consistent for both pavement and bridge sections. It is recommended to keep the survey questions the same for 2020 so that results are comparable to historical data.



## **INTRODUCTION**

Each year, the Michigan Transportation Asset Management Council (TAMC) conducts an annual Michigan local agency asset management implementation survey. The survey consists of 21 questions (Appendix D) that measure implementation of pavement and bridge asset management by Michigan local agencies. Survey questions query background information about the participant (1-3, 15, 20), solicit open-ended feedback for TAMC (14, 21), assess the implementation of asset management on pavements (4-13), and gauge the use of asset management on bridges (16-19). The survey's design follows guidance from "Asset Management Implementation Survey" (Colling & Kueber-Watkins, 2011), a report that recommends using key assessment factors based on the self-assessment chapter of AASHTO's Transportation Asset Management Guide (AASHTO, 2002). These factors are:

- Policy Decisions
- Identification of Candidate Projects and Treatments
- Effective Data Collection
- Use of Pavement Management Results

The intent of the survey is to measure Michigan's road- and bridge-owning local agencies' implementation of asset management principles to provide a year-to-year comparison of results. Over the years, the survey has seen only one change: a new background question, added to the fourth annual survey, that determines whether the person filling out the survey feels qualified to answer the bridge implementation questions. Concerns over varying responses to bridge implementation questions in past years both raised questions over the validity of responses and prompted the addition of this background question. As a result, comparison or trend analysis of the bridge implementation responses between the fourth through eighth editions should be more comparable (see *Discussion of Bridge Implementation Results* section).

## **SURVEY DATA COLLECTION AND FILTERING**

Participants completed and returned the survey before departing from the TAMC-sponsored PASER Training session, held on ten occasions in 2019 in various cities across Michigan. The PASER Training session provides access to an asset-management-aware population and, to a certain extent, a captive audience; thus, completion of the survey is included as part of the class. Attendees of the compulsory PASER Training may vary in occupation, but they possess similar responsibilities for collecting and/or managing pavement condition data (i.e., PASER) for their respective local agencies. They also likely have knowledge of other asset-management-related activities beyond PASER data collection within their agency. Thus, PASER Training sessions provide the best-known pool for accurately collecting survey data on asset management implementation among represented local agencies. While other options for soliciting survey responses exist, they would not be integrated with a compulsory training event, which ensures a good response rate.

The survey is intended to measure asset management implementation for road- and bridge-owning local agencies. This report does not include data from participants employed at consulting firms, state agencies, or other non-road-owning local agencies (e.g. townships). If the same local agency provided more than one survey, selecting the duplicate surveys for removal relied on a set of criteria for the pavement questions and a separate set of criteria for the bridge questions. Applying separate filter

## **8<sup>th</sup> Annual Michigan Local Agency Asset Management Implementation Survey Report**

criteria to the two pools—pavement and bridge—captured the responses of participants who would be the most knowledgeable in answering the pavement and bridge questions, respectively. Filter criteria are as follows:

### Pavement Questions Filter

- 1<sup>st</sup> - Select the duplicate agency surveys that have the least number of unsure or blank answers to questions 4 through 13.
- 2<sup>nd</sup> - Select the duplicate agency surveys by the expertise level of the respondent. For example, results from a participant with the title “County Engineer/Manager” would be used rather than an “Engineering Assistant” from the same agency. This relies on the assumption that the higher-ranking attendee has the best understanding of the use of asset management within their agency.

### Bridge Questions Filter

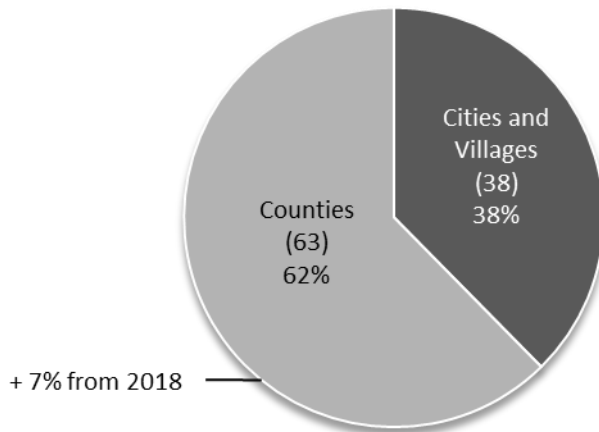
- 1<sup>st</sup> - Remove the agency surveys if they answered “No” to question 20. Starting with the 2016 survey, question 20 asked if the participant would consider themselves as a qualified person at their agency to answer the bridge questions. Question 15 then filtered out the local agencies with less than five bridges over twenty feet long.
- 2<sup>nd</sup> - Select the duplicate agency surveys that have the smallest number of unsure or blank answers to questions 15 through 20.
- 3<sup>rd</sup> - Select the duplicate agency surveys by the expertise level of the respondent.

## **RESULTS**

### **Results of Pavement Filtering**

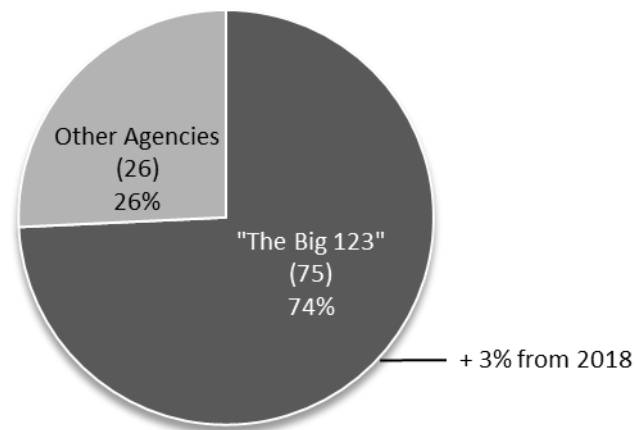
Following data filtering, 101 complete surveys provided usable data for pavements. These surveys represent 63 county agencies and 38 city and village agencies (see Figure 1). The percentage of the pool represented by Counties increased by 7%, from 55% in 2018 to 62% in 2019, while city and village representation (percentage of the pool) decreased by 7%, from 45% in 2018 to 38% in 2019.

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*Figure 1: Percentage (and number) of local agencies participating in the 2019 Pavement Implementation Survey data set*

The 63 counties and 12 of the cities present in the 2019 pavement response data pool—or 74% of the pavement survey pool—are part of “the Big 123” road-owning local agencies (Figure 2), which along with the Michigan Department of Transportation own over 92% of the public road system in Michigan. A full list of the Big 123 participating local agencies is included as Appendix C along with the historical participation rate by agency group. The use of asset management principles by the Big 123 agencies has the greatest impact on the transportation network since they manage the majority of public roads in the state. The high percentage of Big 123 agency respondents indicates that the survey is capturing its intended audience—the major road-owning local agencies in Michigan.



*Figure 2: Percentage (and number) of local agencies representing the "Big 123" and "Other Agencies" in the 2019 Pavement Implementation Survey data set. Big 123 representation in the 2019 Bridge Implementation Survey data set was 98%.*

Figure 3 charts the participation from counties and from cities and villages (Big 123 and non-Big 123) as well as the Big 123’s participation rates for each of the eight years of the survey. Counties make up the largest number of the survey responses, which is why the Big 123 participation follows the county participation very closely.

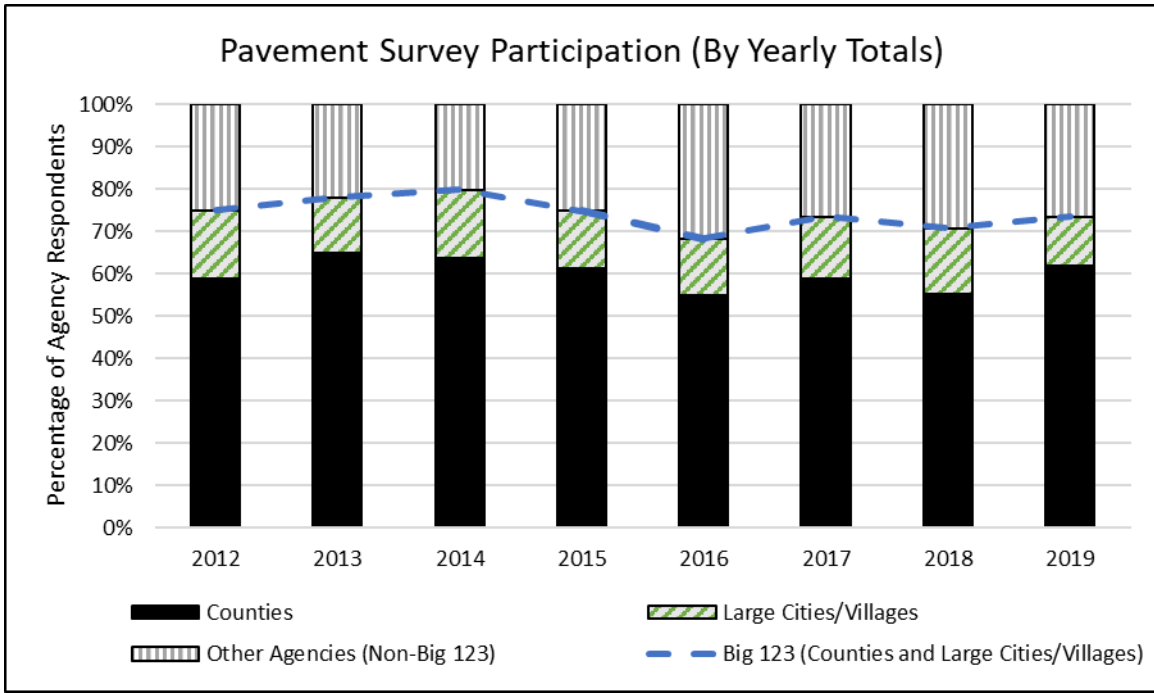


Figure 3: Historical pavement survey responses by agency type

### Results of Bridge Filtering

Forty-four complete surveys provided usable data after applying the bridge data filter. These survey records represent 42 county agencies and 2 city/village agencies. Forty-three of these road-owning local agencies—or 98% of the bridge survey pool—are part of the Big 123 agencies while one local agency was not.

## DISCUSSION OF RESULTS

### Interpreting the Successful Implementation Results

Based on their survey responses, each agency received an overall agency implementation score. Evaluating implementation scores for local agencies as a whole provides a measure of the implementation of asset management principles in Michigan. To calculate each agency’s implementation score, the multiple-choice answers from the survey received a designation as positive, negative, or neutral, with unanswered questions having a neutral assignment. By excluding neutral answers from the score calculation (see Equation 1), uncertainty on the part of the survey respondent does not adversely affect scores. Positive designation indicates steps toward asset management implementation and negative designation responses indicate a lack of implementation.

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Equation 1: Agency Implementation Score Calculation

$$\frac{\#Positive}{\#Total - (\#Unsure + \#Unanswered)} * 100$$

The TAMC determined that a 70% score is the minimum implementation score for an agency to be considered as “successfully implementing” asset management principles (see “Asset Management Implementation Survey”, Colling & Kueber-Watkins, 2011, for details).

Pavement and bridge questions earned separate implementation scores for each agency. Pavement implementation scores reveal that 77% of participating local agencies are successfully implementing asset management on pavement assets (Figure 4), which is a 5% decrease from 2018.

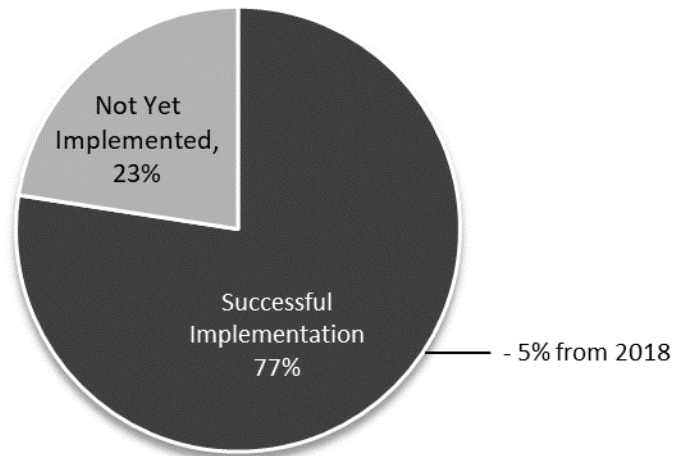


Figure 4: 2019 percentage of agencies polled implementing pavement asset management

Bridge implementation scores only include local agencies that reported owning more than five bridges (Appendix A-3). Of the 101 responding local agencies, 44 respondents indicated that they own more than five bridges and felt qualified to answer the bridge portion of the survey (the 2016 survey modified the question from “most qualified” to “qualified”). While 49 respondents felt qualified to complete the bridge questions in 2018, 44 respondents identified themselves as qualified in 2019—a decrease in the number of eligible surveys. Overall, the rate of local agencies owning five or more bridges that were considered to be “successfully implementing” asset management principles increased from 35% in 2018 to 48% in 2019 (Figure 5).

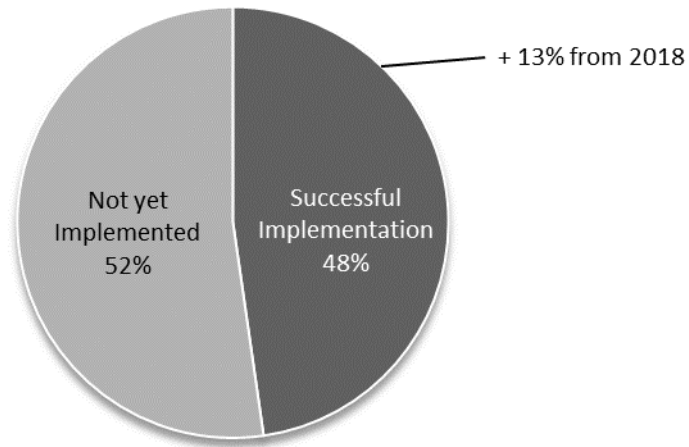


Figure 5: 2019 percentage of agencies polled implementing bridge asset management

### Historical Analysis of Successful Pavement Implementation

Analyzing historical implementation results can enable identification of trends in the survey data. There was an increase in the percentage of “successfully implementing” local agencies in the second (2013) and third (2014) year of the survey; then, the percentage of “successfully implementing” local agencies underwent a steady decline in the fourth and fifth years of the survey (2015 and 2016). The sixth and seventh years (2017 and 2018) exhibited increases in successful implementation (8% and 2%, respectively). Last year (2019) is showing a decrease of 5% of successful implementation for the agencies that participated in the survey. Figure 6 shows the successful implementation results of the Big 123 agencies and the non-Big 123 agencies: both large and small local agencies are increasing and decreasing together, which indicates that they are under the same pressures that impact implementation.

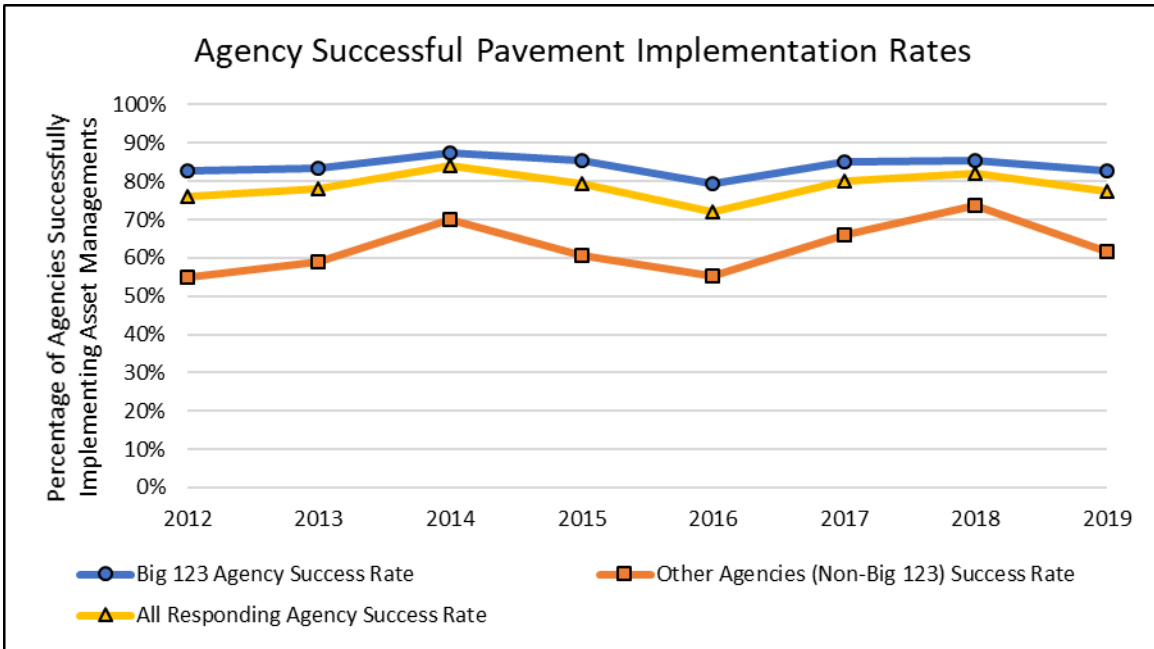


Figure 6: Historical agency successful pavement implementation rates

Figure 7 shows the successful implementation rate of all responding local agencies broken apart by agency type, which includes small cities and villages (non-Big 123 agencies), county agencies, and large cities (non-county Big 123 agencies). The county category’s successful implementation rate has increased every year of the survey with the exception of 2016 and 2019, where it exhibited decreases. Eleven of the 63 polled county agencies have not passed the TAMC’s target threshold to be considered “successfully implementing” in 2019. However, all of these “non-passing” county agencies are using asset management principles to some degree with an average score of 53%, even if they have not passed the TAMC’s 70% target. There was one fewer county respondent in 2019 compared to 2018 (63 vs. 64 respondents). The county agency group has produced less volatile results from 2012 to 2019 when compared to the large city agencies and the non-Big 123 agencies (Figure 7). In 2019, 76% (63 respondents) of the 83 county agencies in Michigan participated in the survey. This high participation rate reduces volatility because it is a large sample size of repeat agencies.

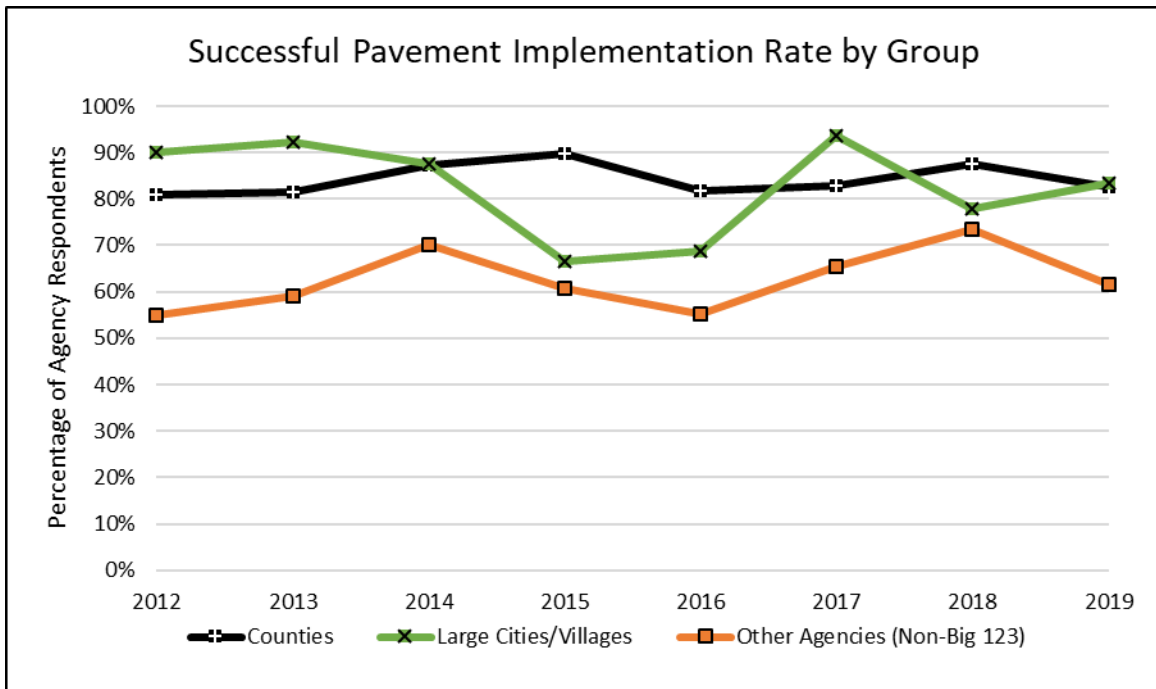


Figure 7: Historical pavement implementation results of all respondents broken down by agency type

Analyzing the data for large cities (non-county Big 123 agencies) in more detail revealed that large cities exhibited an increase in successful implementation from 2018 (78%) to 2019 (83%). The historical poll results for large cities are showing high volatility over the past five years. This is due mostly to the same large cities not participating every year. There was a decrease in the overall number of poll respondents from large city agencies in 2018 (18 respondents) to 2019 (12 respondents). There were ten large city agencies that participated in both 2018 and 2019. Of these ten agencies that participated in both years four exhibited an increase, four exhibited a decrease, and two had no change in implementation results from 2018 to 2019. In 2019, 30% (12 respondents) of the 40 large city agencies participated in the survey. This lower participation rate compared to county agencies has added to the volatility of the historical results for the large city agencies along with the same agencies not participating every year.

The remaining category of other local agencies (non-Big 123 agencies) exhibited a decrease in the percentage rate of implementation from 2018 (74%) to 2019 (62%). This category received eight fewer poll respondents in 2019 (26 total respondents) than in 2018 (34 total respondents). There were 19 respondents that took the poll in both 2018 and 2019. Of these 19 agencies that participated in both years, seven exhibited an increase, three exhibited a decrease, and nine had no change in implementation results from 2018 to 2019. In 2019, 5% (26 respondents) of the 493 non-Big 123 agencies participated in the survey. This represents a very small sample size and is contributing to some of the volatility of the survey results of these small agencies.

Of the 493 total non-Big 123 respondent pool, ten local agencies did not pass the criteria for successful pavement implementation; these local agencies make up 43% of the “unsuccessfully implementing” local agencies polled in 2019 and represent local agencies who appear to be starting out with asset management. These smaller local agencies are starting to use asset management principles as indicated in some of the written responses received (see Appendix E). Lack of successful implementation of asset



## 8<sup>th</sup> Annual Michigan Local Agency Asset Management Implementation Survey Report

management principles for these smaller local agencies may appear, at first, to be negative because their inclusion into the survey brings the overall pavement implementation rate down; however, the fact that these local agencies are present at PASER Training and are making the first steps toward implementing asset management principles should be taken as an extremely positive sign.

Figure 8 displays the average score of local agencies who were “successfully implementing” asset management principles from 2012 to 2019. The average scores are divided into local agencies who are part of the Big 123 and local agencies who are not part of the Big 123, and these are separated by scores above and below the 70% threshold. The average score for “successfully implementing” local agencies (i.e., agencies with scores over the 70% threshold) has been very stable. In fact, the “successfully implementing” Big 123 agencies exhibited a slight increase from 2012 (87% average score) to 2019 (90% average score), and the “successfully implementing” local agencies that are not part of the Big 123 also exhibited an increase from 2012 (85% average score) to 2019 (90% average score) although with slightly more volatility.

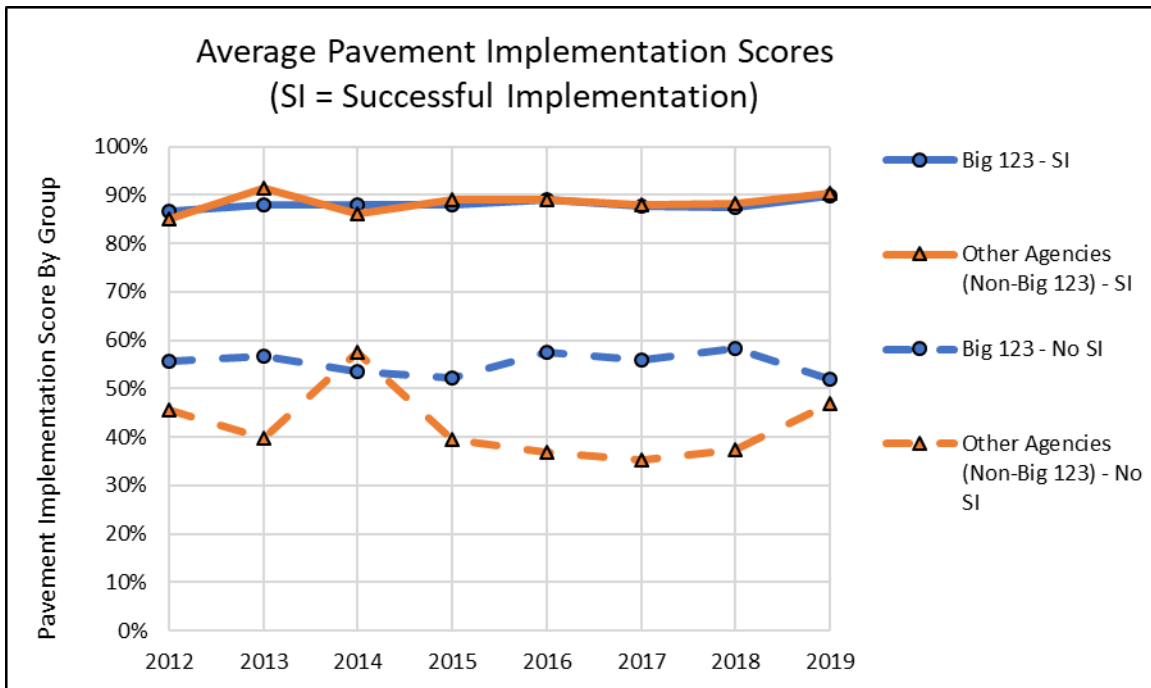


Figure 8: Average pavement implementation scores grouped by successfulness and agency type

Average scores for local agencies that were not “successfully implementing” (i.e., agencies with scores below the 70% threshold) displayed more volatility in the historical trends. The “unsuccessfully implementing” local agencies that are not part of the Big 123 exhibited a 1% increase in their average score from 2012 (46%) to 2019 (47%) with volatility in between; this is likely due to the same agencies not participating every year. The “unsuccessfully implementing” Big 123 agencies had some increases and decreases between each year of the time period being analyzed, but their average score decreased 4% from 2012 (56%) to 2019 (52%). Nonetheless, there is less volatility for “unsuccessfully implementing” Big 123 agencies’ average scores from one year to the next when compared to the average scores of the agencies that are not part of the Big 123.

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Figure 9 compares the change-in-implementation-score where the same agencies responded in a consecutive year in an attempt to limit the impact of sampling error due to different agencies being represented each year. Figure 10 shows the number of agencies that are included in Figure 9 along with a comparison to the total number of surveys analyzed each year.

Overall the average change-in-implementation-score increased every year for the aggregate “All Agencies” category (Figure 9), and although some agency categories decreased in a specific year, their overall net during this time period is positive, indicating an increase in average implementation score over time.

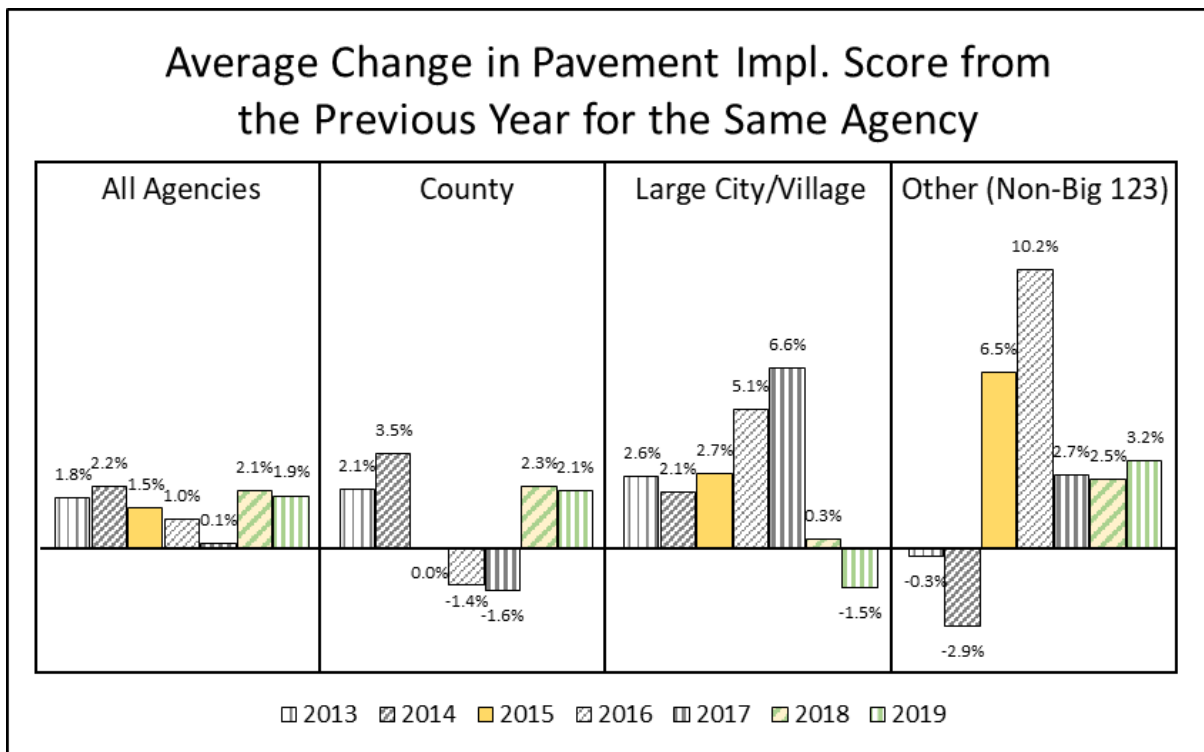


Figure 9: Average change in pavement implementation score for the same agency compared to the agencies previous year's score

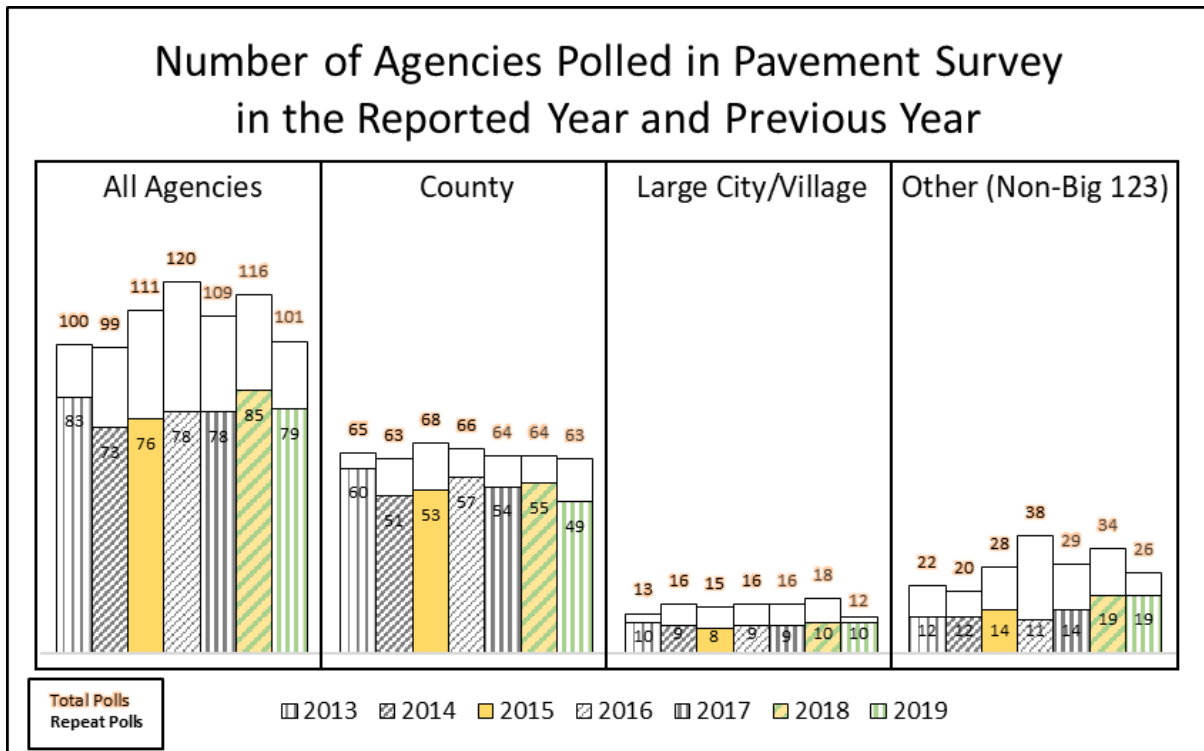


Figure 10: Number of agencies polled in the reported year and previous year of the Pavement Implementation Survey

### Historical Analysis of Successful Bridge Implementation

The historical successful bridge asset management implementation rate of all responding agencies can be seen in Figure 11. The percentage of agencies successfully implementing bridge asset management increased in 2013 and decreased in both 2014 and 2015. The responses grouped according to different agency categories yielded very volatile trends due to the small sample size, limited amount of bridge survey questions, and limited number of participants that are non-county agencies. Nonetheless, most respondents with five or more bridges were county agencies (see Appendix C-2.4). Due to the modification of the qualifying question (question 20) in 2015, the results prior to 2015 are not closely

comparable. Overall, all agencies show a steady increase in successful bridge implementation from 2015 to 2019.

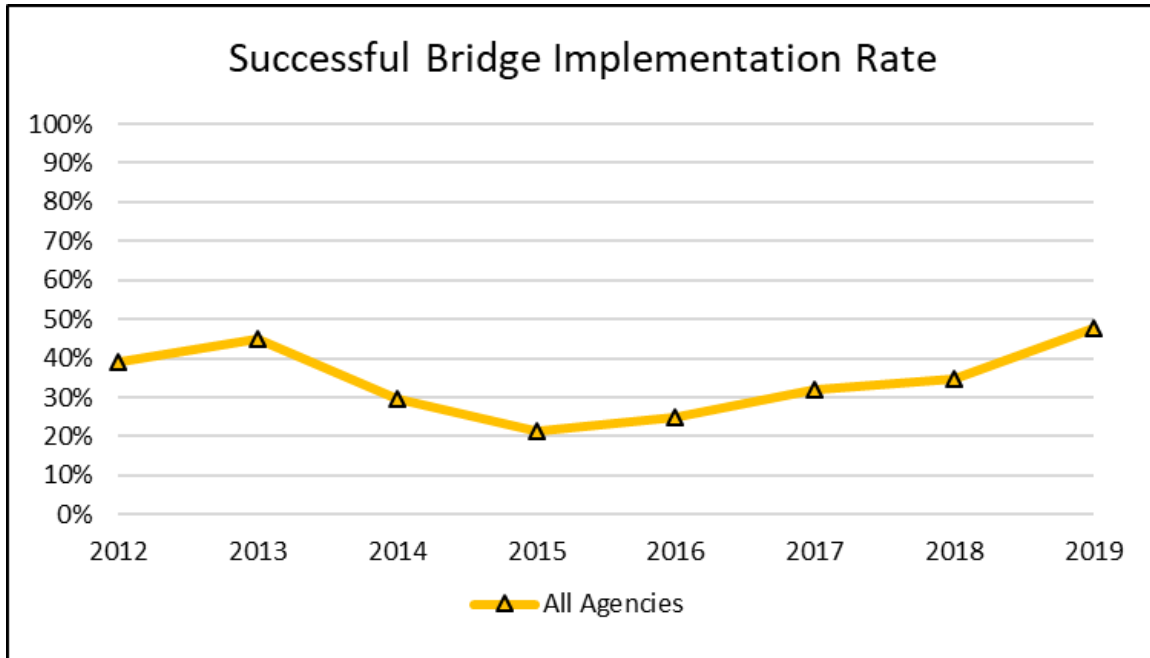


Figure 11: Historical Bridge Implementation Survey results of all responding agencies

### Analysis of Individual Pavement Implementation Questions

Survey responses from 2019 indicate that 77% of all local agencies were considered to be “successfully implementing” asset management principles for their pavements based on the TAMC’s criteria; this is a 5% decrease from the 2018 survey results (see Figure 4). Despite the decrease in overall pavement implementation scores, seven out of the ten pavement-related survey questions showed an increase or had the same percentage of positive answers in 2019 as compared to the results of the same questions from 2018 (see Appendix A1, which includes graphs showing responses to individual survey questions). Local agencies that have a written pavement management plan with a defined goal for pavement quality increased by 1% from 2018 to 2019; this question (question 4) has the highest rate of negative responses (46%) in 2019. The percentage of local agencies that use a computer or paper-based asset management system to guide decisions on their network went from 88% in 2018 to 90% in 2019 (question 9).

When evaluating responses from only the Big 123, six questions had a decrease in positive responses from 2018 to 2019 (questions 5, 6, 9, 10, 11, and 13). The remaining four questions had a 0% to 7% increase in positive responses from 2018 to 2019.

### Discussion of Bridge Implementation Results

The “successfully implementing” local agencies owning five or more bridges increased from 35% in 2018 to 48% in 2019. Three of the four bridge-related survey questions showed increased positive responses when compared with the 2018 results. The parameter pertaining to use of preventative maintenance treatments for bridges (question 17) had the only decrease from 65% in 2018 to 48% in 2019. The parameter pertaining to using asset management systems for maintenance histories exhibited the

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largest increase from 44% in 2018 to 64% in 2019 (question 18). The remaining two bridge questions are in Appendix A-3. There is a large number of respondents to the bridge questions over the last two years that are very close to passing the 70% threshold for bridge asset management as shown in Appendix B-2. In 2019, 23% (10 respondents) of the 44 respondents are one question away from being considered successfully implementing asset management.

There was only one agency (2% of respondents) that was not part of the Big 123. The bridge data was not broken into these smaller categories because of the small sample size.

### **Discussion of Written Responses**

Written responses for the two open-ended feedback questions (questions 14 and 21) had central themes pertaining to funding and education, which is similar to previous years (see Appendix E). Responses indicated that proper implementation of asset management principles require more funding. In addition to funding, respondents indicated a need for continued education of elected officials and legislatures about asset management principles.

## **RECOMMENDATIONS**

The pavement portion of the Implementation Survey appears to be producing consistent and stable results for the eighth consecutive year of the survey. The delivery of the survey at PASER Training events is collecting responses from a large number of local agencies that are part of the Big 123. The results of this portion of the survey do not suggest a need for survey changes at this time. If the percent of non-Big 123 agencies increase next year, it will be worthwhile to continue to analyze separately or to weigh results by lane miles to reduce the affect that the small local agencies have on the overall results.

The results from the bridge portion of the survey appear to be producing consistent data by using only the data from respondents who feel qualified to answer the bridge questions (question 21). It is recommended to keep next year's bridge implementation survey consistent with 2019 so future survey data will be comparable. Further classification questions relating to the bridge portion of the survey may indicate a need for seeking another venue to deliver the bridge portion of the survey. Any increase in the number of survey questions is likely to reduce the number of complete surveys received.

## **REFERENCES**

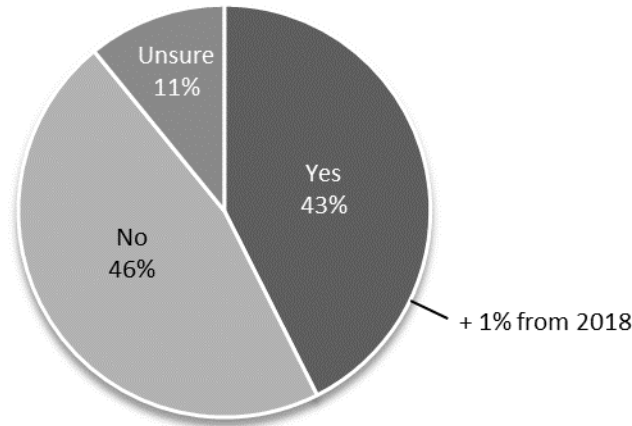
AASHTO. (2002). *Transportation Asset Management Guide*. Washington D.C.: American Association of State Highway and Transportation Officials.

Colling, T., & Kueber-Watkins, M. (2011). *Asset Management Implementation Survey Recommendation*. Houghton, Michigan.

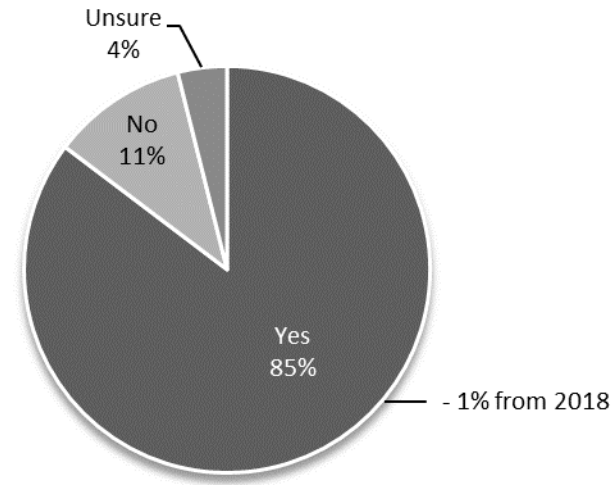
## APPENDIX A – SURVEY QUESTION RESULTS

### A-1 Pavement Answers (out of 101 responses)

Q4. Does your agency have a written pavement asset management plan with a defined goal for pavement quality?



Q5. Can your agency use its current rating and inventory data to show elected officials and the public the impact of increases or decreases in your agency's budgets on future pavement quality?



Responses

2018 vs. 2019

Q4

Yes:  
42% vs. 43%

No:  
44% vs. 46%

Unsure:  
13% vs. 11%

No Answer:  
1% vs. 0%

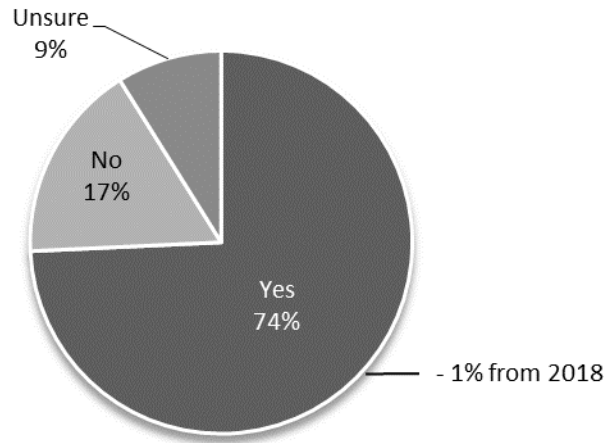
Q5

Yes:  
86% vs. 85%

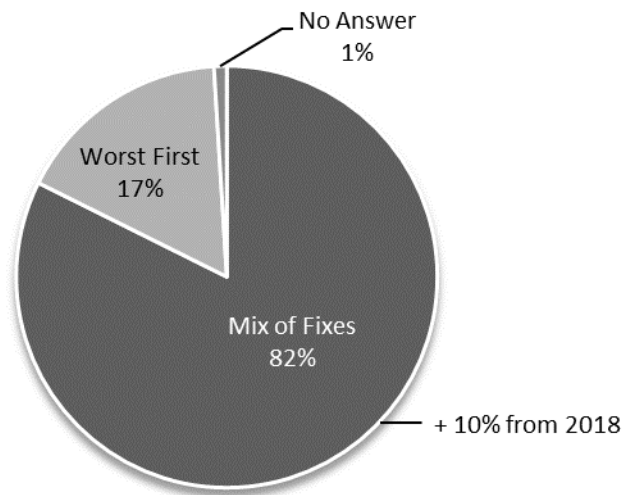
No:  
9% vs. 11%

Unsure:  
5% vs. 4%

**Q6. Does your agency periodically assess the benefit (years of life gained) of pavement treatments such as overlays, chip seals, crack seals, etc. with respect to their cost?**

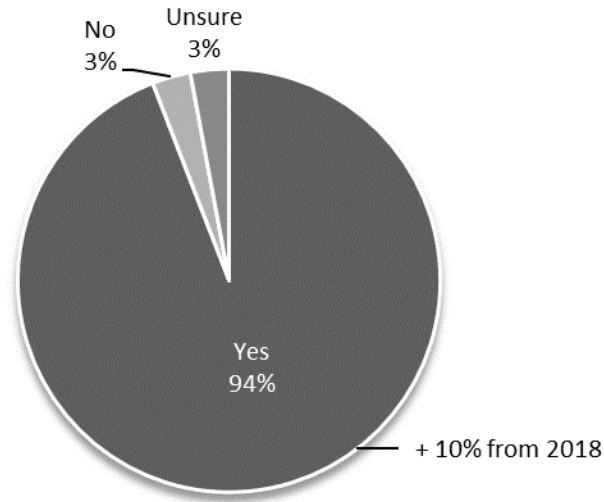


**Q7. Which method best describes how your agency selects pavement treatment projects?**



Responses	
2018 vs. 2019	
Q6	Yes: 75% vs. 74%  No: 16% vs. 17%  Unsure: 9% vs. 9%
Q7	Mix of Fixes: 72% vs. 82%  Worst First: 25% vs. 17%  No Answer: 3% vs. 1%

**Q8. Does your agency consider PASER or other distress ratings when deciding on an appropriate fix for a specific section of road?**



Responses  
2018 vs. 2019

Q8

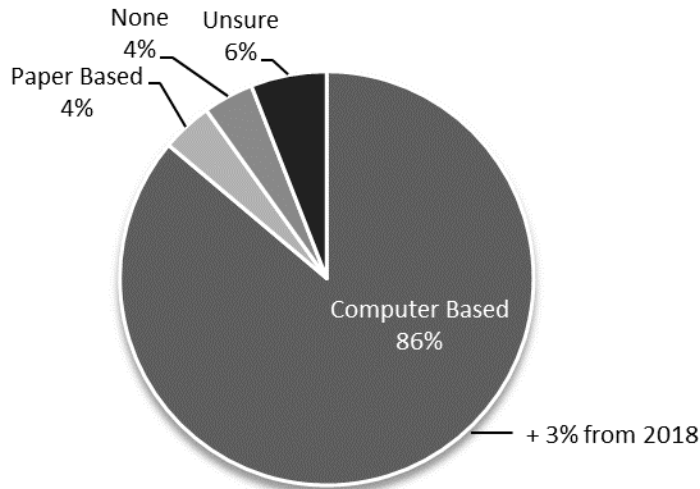
Yes:  
84% vs. 94%

No:  
7% vs. 3%

Unsure:  
8% vs. 3%

No Answer:  
1% vs. 0%

**Q9. Does your agency use a computer based asset management system (such as Roadsoft, Micropaver) or a paper based asset management system (such as the National Center for Pavement Preservation's Quick Check, etc.) to guide decisions on your road network?**



Q9

Computer Based:  
83% vs. 86%

Paper Based:  
5% vs. 4%

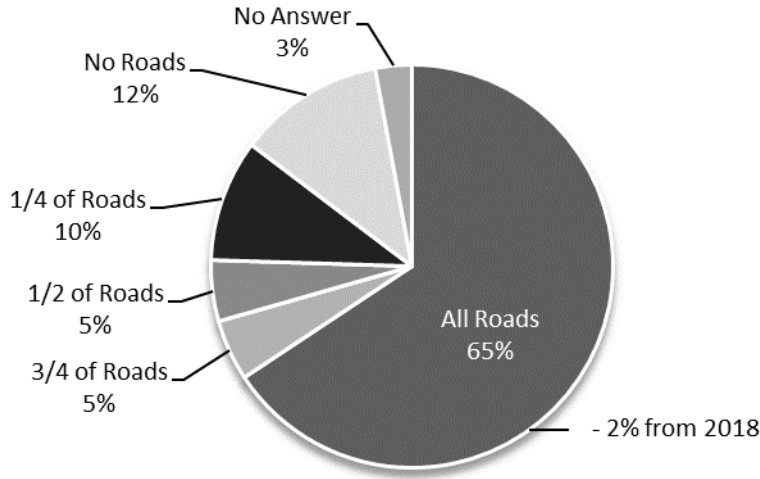
None:  
6% vs. 4%

Unsure:  
5% vs. 6%

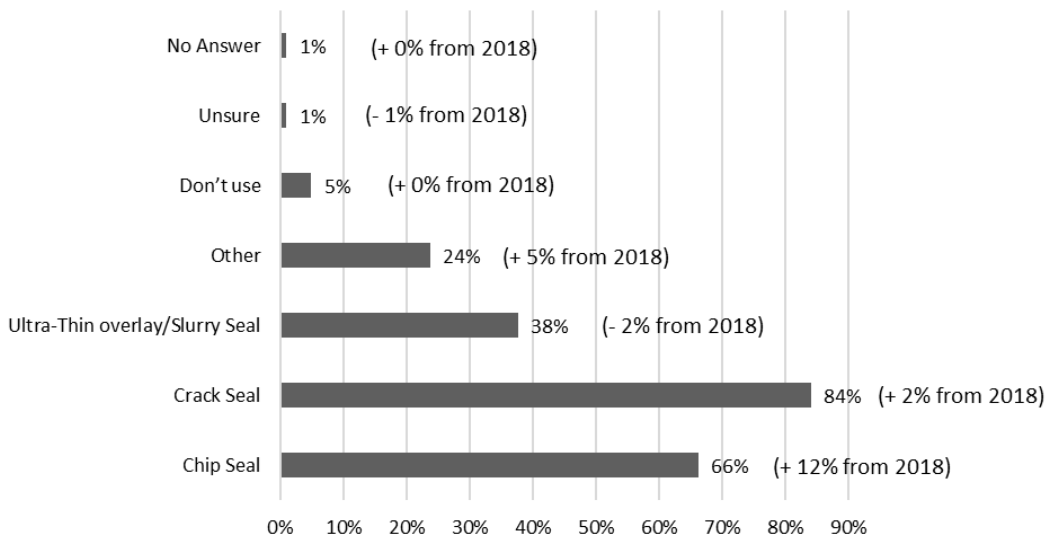
No Answer:  
1% vs. 0%



**Q10. On how much of your non-federal-aid, paved road network does your agency routinely (at least once every 3 years) collect distress rating data (PASER or other similar system) and inventory data (pavement type, number of lanes etc.)?**



**Q11. Which preventive maintenance treatments does your agency routinely use as part of their regular pavement management program? (select all that apply)**



Responses

2018 vs. 2019

Q10

All roads:  
67% vs. 65%

1/4 of Roads:  
4% vs. 5%

1/2 of Roads:  
11% vs. 5%

3/4 of Roads:  
4% vs. 10%

No Roads:  
8% vs. 12%

No Answer:  
6% vs. 3%

Q11

No Answer:  
1% vs. 1%

Unsure:  
2% vs. 1%

Don't use:  
5% vs. 5%

Other:  
19% vs. 24%

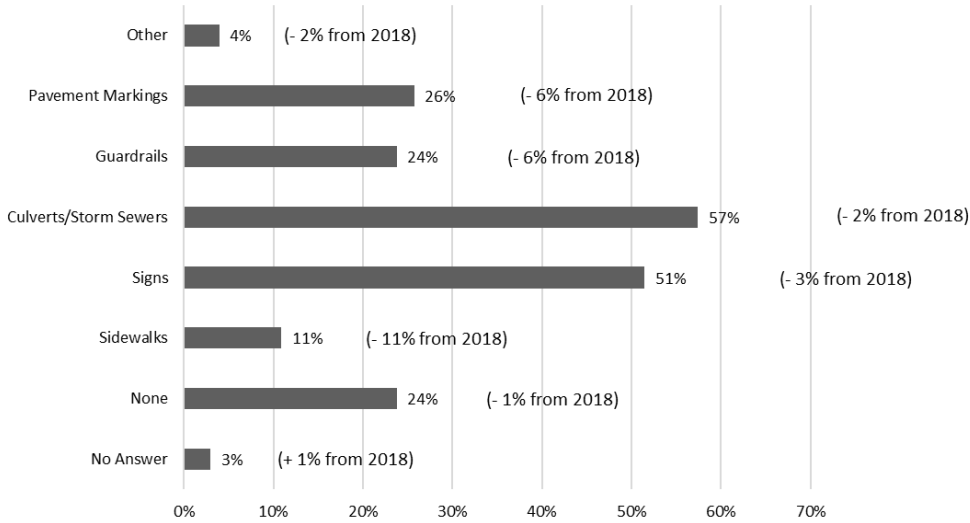
Ultra-Thin overlay/Slurry Seal:  
40% vs. 38%

Crack Seal:  
82% vs. 84%

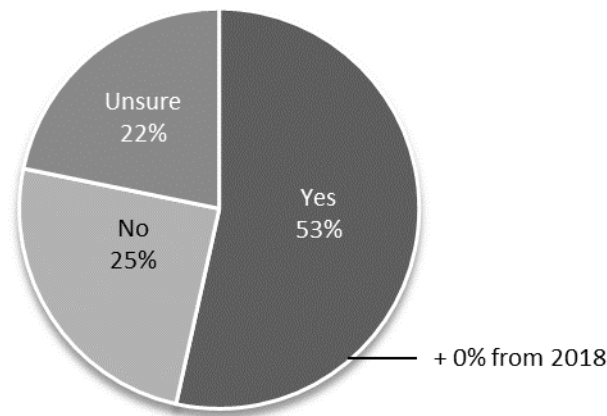
Chip Seal:  
54% vs. 66%

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Q12. On what other roadside assets does your agency routinely collect inventory or rating data for asset management? (select all that apply)



Q13. Does your agency have a method in place for ensuring that the quality of your asset management data is sufficient for its intended use?



Responses

2018 vs. 2019

Q12

Other:

6% vs. 4%

Pavement Markings:

32% vs. 26%

Guardrails:

30% vs. 24%

Culverts/Storm Sewers:

59% vs. 57%

Signs:

54% vs. 51%

Sidewalks:

22% vs. 11%

None:

25% vs. 24%

No Answer:

2% vs. 3%

Q13

Yes:

53% vs. 53%

No:

18% vs. 25%

Unsure:

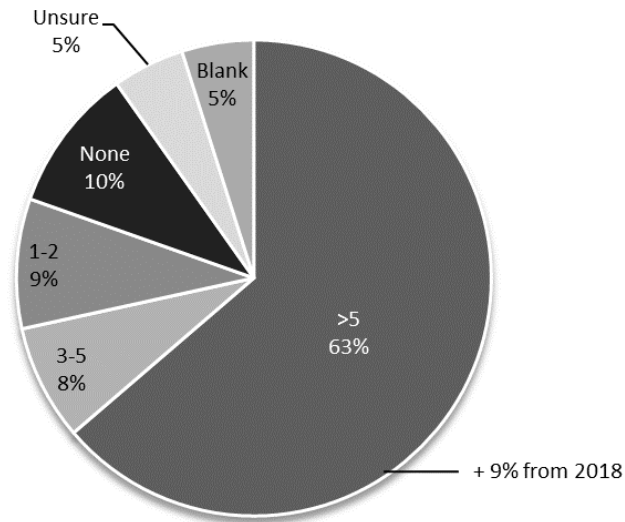
28% vs. 22%

No Answer:

1% vs. 0%

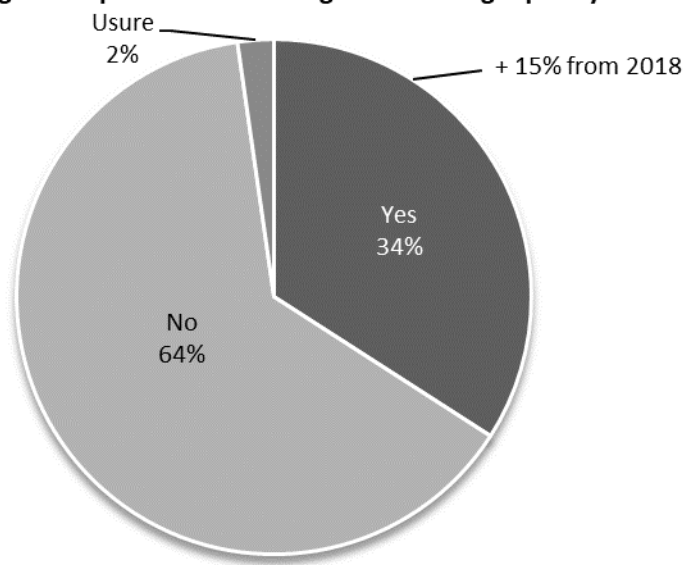
**A-2 Local Agencies' Number of Bridges (out of 101 responses)**

Q15. How many bridges with a span of over 20 feet does your agency own?



**A-3 Bridge Answers (out of 44 responses)**

Q16. Does your agency have a written bridge asset management plan with defined goals for bridge quality?



Responses

2018 vs. 2019

Q15

>5:

54% vs. 63%

3-5:

15% vs. 8%

1-2:

9% vs. 9%

None:

15% vs. 10%

Unsure:

4% vs. 5%

Blank:

3% vs. 5%

Q16

Yes:

19% vs. 34%

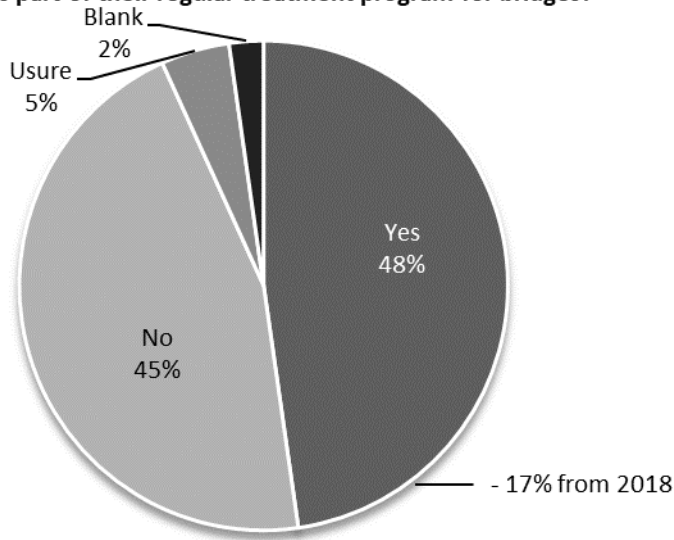
No:

67% vs. 64%

Unsure:

14% vs. 2%

**Q17. Does your agency use preventive maintenance treatments such as painting, cleaning expansion joints, cleaning/lubricating bearings, etc., as part of their regular treatment program for bridges?**



Q17

Responses  
2018 vs. 2019

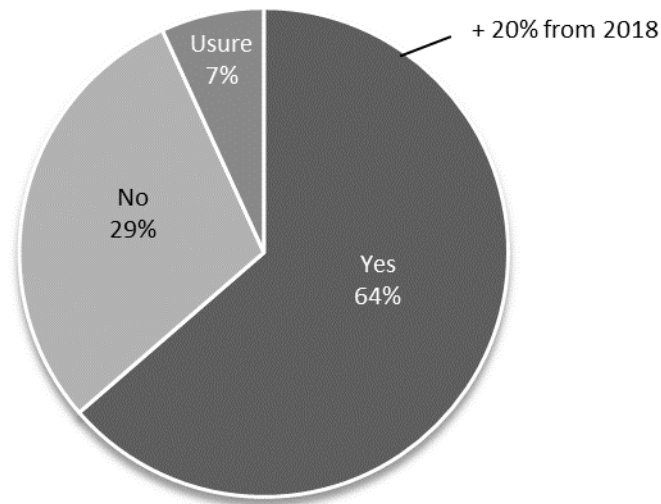
Yes:  
65% vs. 48%

No:  
35% vs. 45%

Unsure:  
0% vs. 5%

Blank:  
0% vs. 2%

**Q18. Does your agency use a management system like Roadsoft to access NBI data and keep up-to-date bridge maintenance histories for the majority of its bridges over 20 feet?**



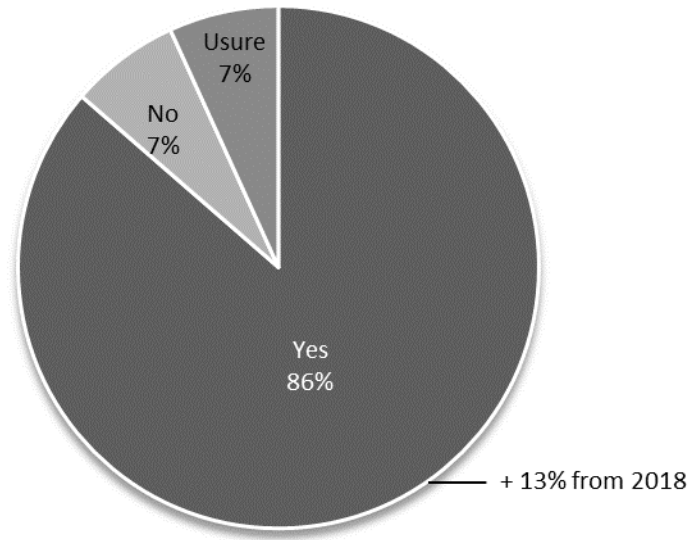
Q18

Yes:  
42% vs. 64%

No:  
58% vs. 29%

Unsure:  
0% vs. 7%

Q19. Does your agency use bridge condition data to make decisions regarding bridge maintenance and rehabilitation?



Responses  
2018 vs. 2019

Q19

Yes:  
73% vs. 86%

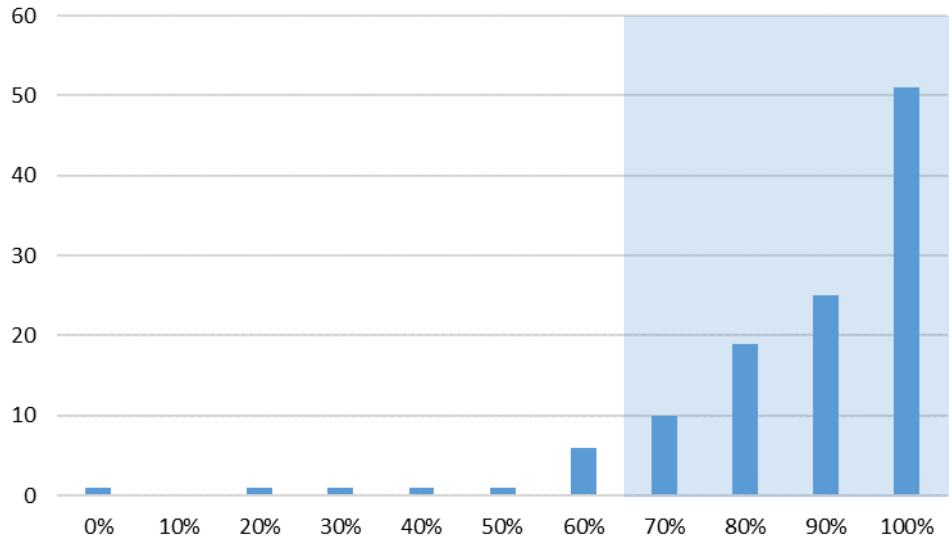
No:  
25% vs. 7%

Unsure:  
2% vs. 7%

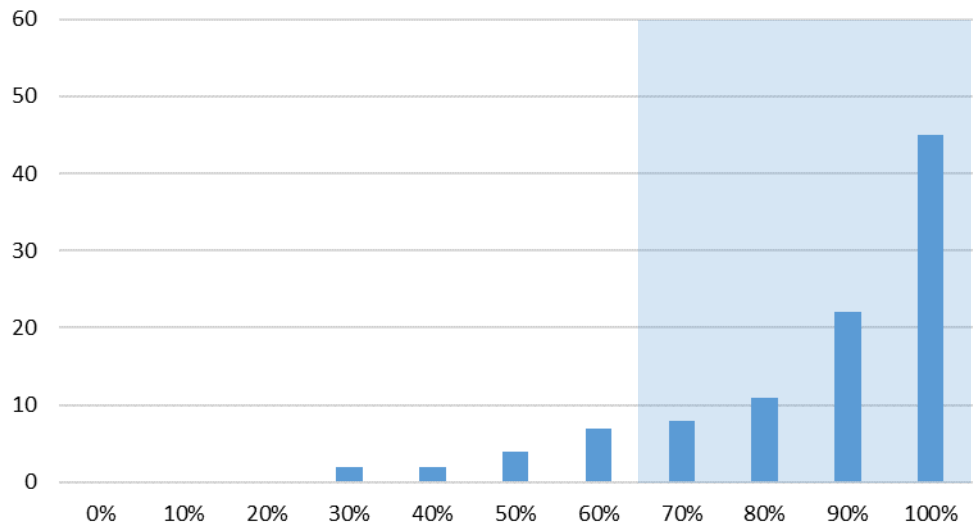
## APPENDIX B – IMPLEMENTATION SCORE FREQUENCIES

### B-1 Pavement Implementation Score Frequencies

2018	
Range	Frequency
0%	1
10%	0
20%	1
30%	1
40%	1
50%	1
60%	6
70%	10
80%	19
90%	25
100%	51

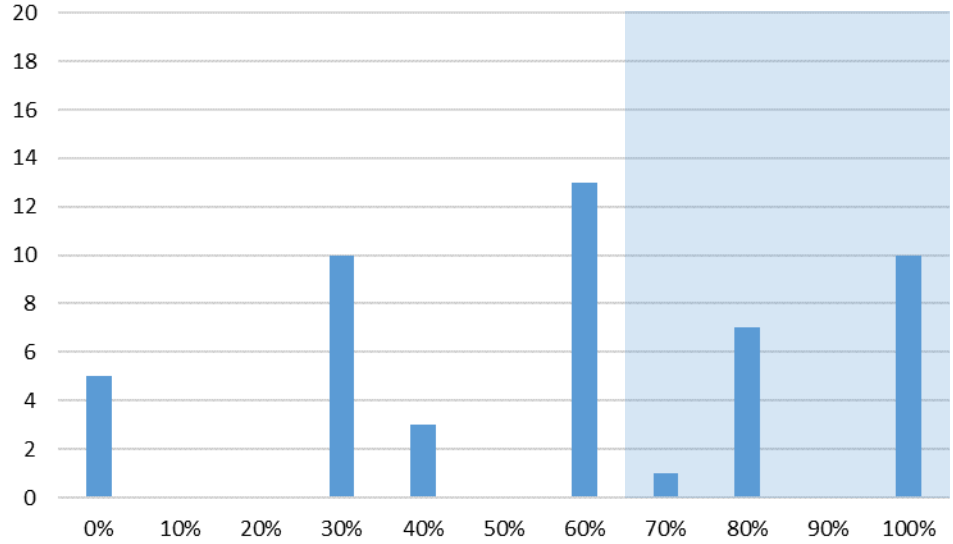


2019	
Range	Frequency
0%	0
10%	0
20%	0
30%	2
40%	2
50%	4
60%	7
70%	8
80%	11
90%	22
100%	45

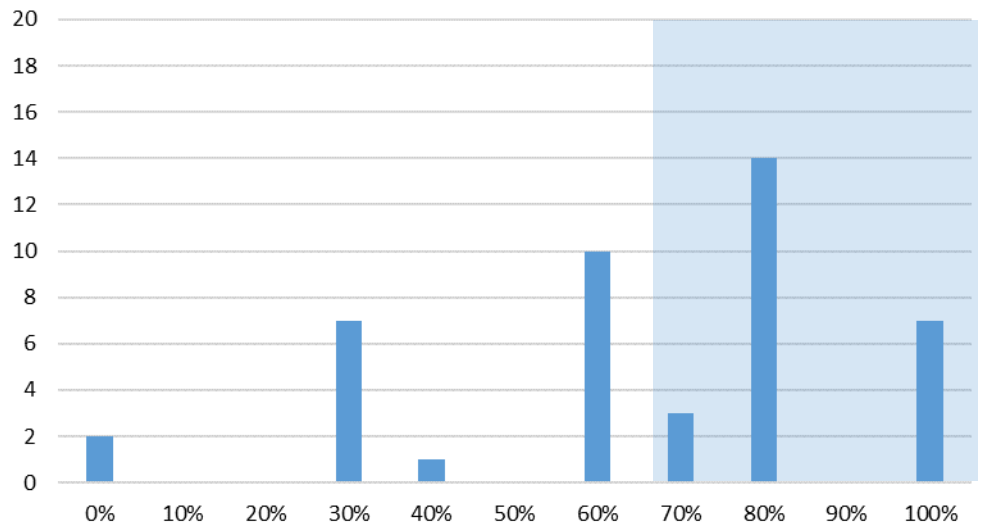


**B-2 Bridge Implementation Score Frequencies**

2018	
Range	Frequency
0%	5
10%	0
20%	0
30%	10
40%	3
50%	0
60%	13
70%	1
80%	7
90%	0
100%	10



2019	
Range	Frequency
0%	2
10%	0
20%	0
30%	7
40%	1
50%	0
60%	10
70%	3
80%	14
90%	0
100%	7



## APPENDIX C – PARTICIPATING AGENCIES

### C-1.1 Participating Michigan Counties (63 Counties of the “The Big 123”)

Alcona County Road Commission	Leelanau County Road Commission
Allegan County Road Commission	Lenawee County Road Commission
Alpena County Road Commission	Livingston County Road Commission
Baraga County Road Commission	Luce County Road Commission
Barry County Road Commission	Mackinac County Road Commission
Bay County Road Commission	Macomb County Department of Roads
Berrien County Road Department	Manistee County Road Commission
Calhoun County Road Department	Marquette County Road Commission
Cass County Road Commission	Mason County Road Commission
Charlevoix County Road Commission	Mecosta County Road Commission
Cheboygan County Road Commission	Midland County Road Commission
Chippewa County Road Commission	Missaukee County Road Commission
Clare County Road Commission	Monroe County Road Commission
Clinton County Road Commission	Montcalm County Road Commission
Dickinson County Road Commission	Montmorency County Road Commission
Eaton County Road Commission	Muskegon County Road Commission
Emmet County Road Commission	Oceana County Road Commission
Genesee County Road Commission	Ogemaw County Road Commission
Gogebic County Road Commission	Osceola County Road Commission
Grand Traverse County Road Commission	Ottawa County Road Commission
Gratiot County Road Commission	Presque Isle County Road Commission
Houghton County Road Commission	Roscommon County Road Commission
Huron County Road Commission	Saginaw County Road Commission
Ionia County Road Commission	Saint Clair County Road Commission
Iosco County Road Commission	Saint Joseph County Road Commission
Iron County Road Commission	Sanilac County Road Commission
Isabella County Road Commission	Schoolcraft County Road Commission
Jackson County Department of Transportation	Shiawassee County Road Commission
Kent County Road Commission	Tuscola County Road Commission
Keweenaw County Road Commission	Van Buren County Road Commission
Lake County Road Commission	Wayne County Dept of Public Services
Lapeer County Road Commission	



**C-1.2 Participating “Top 40 Michigan Cities” (12 Cities of “The Big 123”)**

City of Battle Creek
City of Bay City
City of Detroit
City of Grand Rapids
City of Holland
City of Lansing
City of Livonia
City of Midland
City of Portage
City of Rochester Hills
City of Saginaw
City of Warren

**C-1.3 All Other Participating Michigan Agencies (26 of the 493 Small Agencies)**

City of Adrian	City of Owosso
City of Alpena	City of Petoskey
City of Auburn	City of Richmond
City of Bessemer	City of Saline
City of Big Rapids	City of Sandusky
City of Dowagiac	City of St. Johns
City of East Grand Rapids	City of St. Louis
City of Escanaba	City of Sturgis
City of Hillsdale	City of Traverse City
City of Howell	City of Walker
City of Iron Mountain	City of Wixom
City of Marquette	Village of Dundee
City of Marshall	Village of Mackinaw City

**C-2.1 Participating Michigan Counties with more than 5 Bridges (42 Counties of “The Big 123”)**

Allegan County Road Commission	Lake County Road Commission
Alpena County Road Commission	Lapeer County Road Commission
Baraga County Road Commission	Livingston County Road Commission
Barry County Road Commission	Luce County Road Commission
Bay County Road Commission	Manistee County Road Commission
Berrien County Road Department	Marquette County Road Commission
Calhoun County Road Department	Mason County Road Commission
Cheboygan County Road Commission	Mecosta County Road Commission
Clinton County Road Commission	Midland County Road Commission
Dickinson County Road Commission	Monroe County Road Commission
Eaton County Road Commission	Montcalm County Road Commission
Emmet County Road Commission	Montmorency County Road Commission
Genesee County Road Commission	Muskegon County Road Commission
Gogebic County Road Commission	Oceana County Road Commission
Grand Traverse County Road Commission	Ogemaw County Road Commission
Gratiot County Road Commission	Osceola County Road Commission
Ionia County Road Commission	Ottawa County Road Commission
Iosco County Road Commission	Roscommon County Road Commission
Iron County Road Commission	Saint Joseph County Road Commission
Isabella County Road Commission	Shiawassee County Road Commission
Kent County Road Commission	Van Buren County Road Commission

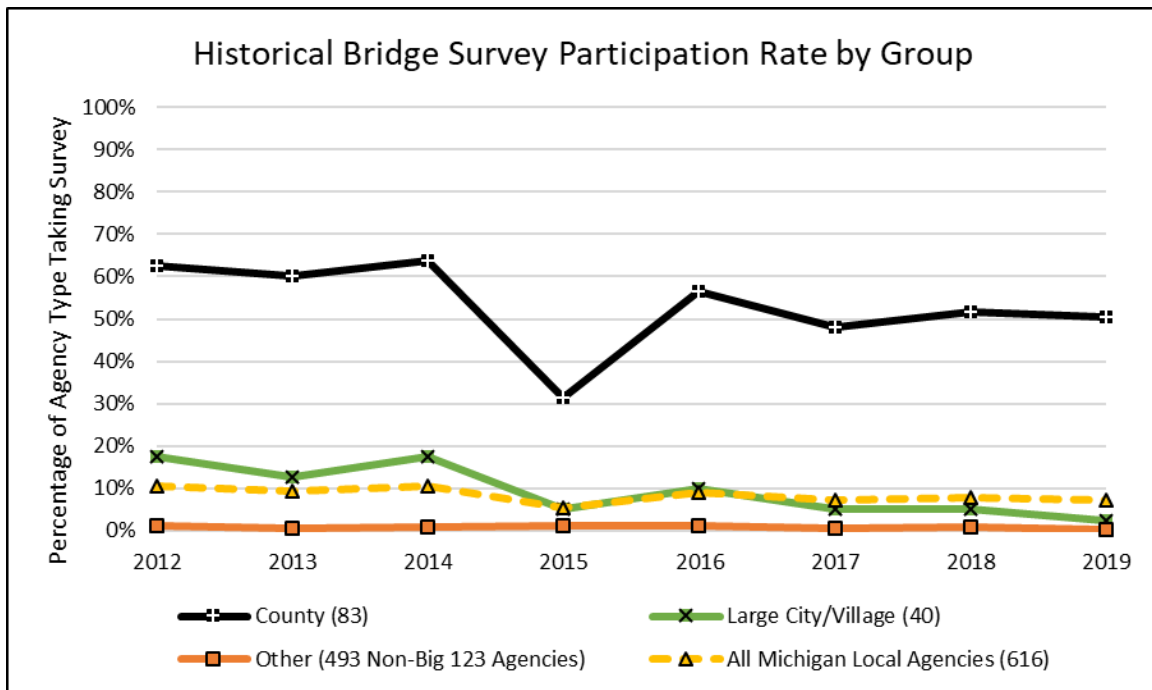
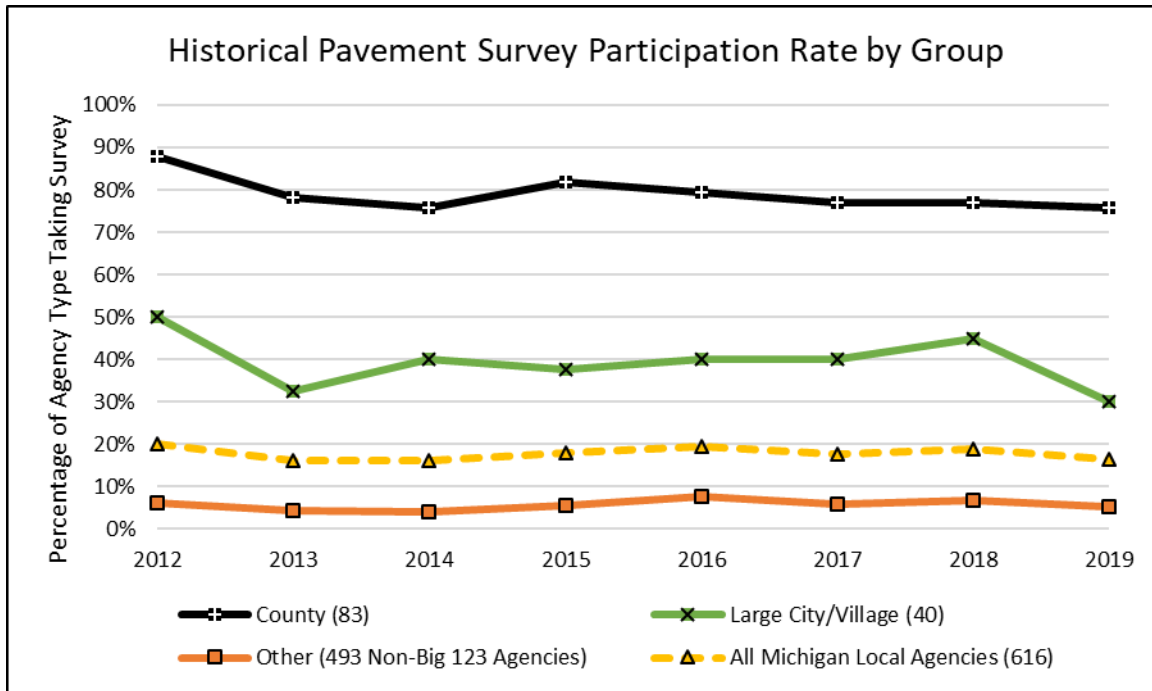
**C-2.2 Participating “Top 40 Michigan Cities” (1 City of “The Big 123”) with more than 5 Bridges**

City of Battle Creek
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**C-2.3 All Other Participating Michigan Agencies with more than 5 Bridges (1 of the 493 Small Agencies)**

City of Adrian
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C-2.4 Historical Participation Rate by Group



## **APPENDIX D – SURVEY QUESTIONS**

### **Local Agency Asset Management Survey Questions – 2019 PASER Training**

The Michigan Transportation Asset Management Council (TAMC) is interested in determining how Michigan's local transportation agencies are progressing with implementation of asset management. This survey will assist TAMC with their future efforts to promote asset management.

#### **Transportation Asset Management**

1. Your name: \_\_\_\_\_
2. Your position or title: \_\_\_\_\_
3. Local agency name : \_\_\_\_\_
4. Does your agency have a written pavement asset management plan with a defined goal for pavement quality?
  - a. Yes
  - b. No
  - c. Unsure
5. Can your agency use its current rating and inventory data to show elected officials and the public the impact of increases or decreases in your agency's budgets on future pavement quality?
  - a. Yes
  - b. No
  - c. Unsure
6. Does your agency periodically assess the benefit (years of life gained) of pavement treatments such as overlays, chips seals, crack seals, etc. with respect to their cost?
  - a. Yes
  - b. No
  - c. Unsure
7. Which method best describes how your agency selects pavement treatment projects?
  - a. A "worst first" basis-- reconstructing and rehabilitating failed roads first, then doing preventive maintenance as budget allows
  - b. A "mix of fixes" basis-- using preventive maintenance treatments to gain low cost pavement life for good pavements first, then reconstructing or rehabilitating as funding is available
8. Does your agency consider PASER or other distress ratings when deciding on an appropriate fix for a specific section of road?
  - a. Yes
  - b. No
  - c. Unsure
9. Does your agency use a computer based asset management system (such as Roadsoft, Micropaver) or a paper based asset management system (such as the National Center for Pavement Preservation's Quick Check, etc.) to guide decisions on your road network?
  - a. Computer based
  - b. Paper based
  - c. We don't have an asset management system
  - d. Unsure

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10. On how much of your non-federal-aid, paved road network does your agency routinely (at least once every 3 years) collect distress rating data (PASER or other similar system) and inventory data (pavement type, number of lanes etc.)?
- a. 100%
  - b. 75%
  - c. 50%
  - d. 25%
  - e. 0%
11. Which preventive maintenance treatments does your agency routinely use as part of their regular pavement management program? (select all that apply)
- a. Chip seal
  - b. Slurry seal
  - c. Crack seal
  - d. Ultra-thin overlay
  - e. Other: \_\_\_\_\_
  - f. We don't routinely use any preventive maintenance treatments
  - g. Unsure
12. On what other roadside assets does your agency routinely collect inventory or rating data for asset management? (select all that apply)
- a. None
  - b. Signs
  - c. Guardrails
  - d. Pavement Markings
  - e. Culverts
  - f. Storm Sewers
  - g. Sidewalks
  - h. Other \_\_\_\_\_
13. Does your agency have a method in place for ensuring that the quality of your asset management data is sufficient for its intended use?
- a. Yes
  - b. No
  - c. Unsure
14. What is one thing that TAMC should do to advance transportation asset management in Michigan?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Bridge Survey Questions:**

15. How many bridges with a span of over 20 feet does your agency own?
- a. None (skip questions 16 - 19)
  - b. 1 - 2 bridges
  - c. 3 - 5 bridges
  - d. > 5 bridges
  - e. Unsure

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- 16. Does your agency have a written bridge asset management plan with defined goals for bridge quality?
  - a. Yes
  - b. No
  - c. Unsure
  
- 17. Does your agency use preventive maintenance treatments such as painting, cleaning expansion joints, cleaning / lubricating bearings, etc., as part of their regular treatment program for bridges?
  - a. Yes
  - b. No
  - c. Unsure
  
- 18. Does your agency use a management system like Roadsoft to access NBI data and keep up-to-date bridge maintenance histories for the majority of its bridges over 20 feet?
  - a. Yes
  - b. No
  - c. Unsure
  
- 19. Does your agency use bridge condition data to make decisions regarding bridge maintenance and rehabilitation?
  - a. Yes
  - b. No
  - c. Unsure
  
- 20. Would you consider yourself qualified to answer the Bridge Survey Questions portion of this survey for your agency?
  - a. Yes
  - b. No

**General**

- 21. Is there anything else you would like to tell us regarding asset management implementation?

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## APPENDIX E – WRITTEN COMMENTS

### E-1 Pavement Asset Management Survey Question 14

<b>What is one thing that TAMC should do to advance transportation asset management in Michigan?</b>
Increase <b>budget</b> for collection
<b>Get more public officials to understand</b> and use.
More help geared toward small cities + villages
Add minor collectors
Provide cost/ln-mi data. I was not aware of 2018 study until this class.
More asset management <b>training</b>
Keep having <b>trainings</b>
<b>More info</b> on how to create strategy in Roadsoft
<b>More education</b> for politicians
Other than keeping PASER training up to date
<b>More money</b> for collecting other assets
TAMC can increase awareness of other feature inventory systems beyond just the PASER system
Improve Roadsoft program to be more user friendly. Should be able to recognize difference between Asphalt/Gravel/Sealcoat when determining mix of fixes
<b>Public Education</b>
Methods of maintain the data base once initial data is collected. How often is the data updated due to replacement or additions to the inventory?
Keeping making <b>funding</b> available for collecting data
Get rid of township supervisors that don't listen
Create a bridge asset management template that automatically creates an asset management plan similar to the road asset management template.
Keep up on <b>training and seminars</b> - they are very helpful
<b>More training</b> on other roadside assets i.e. guardrail, pavement markings. Our agency is starting to collect culvert and guardrail inventory now, and we would find additional training to be helpful
STOP giving us busywork/paper work to fill out showing us that our road conditions are deteriorating instead of allowing us time to plan and fix our roads.
Examples of asset management plan expectations for upcoming deadline
<b>Educate</b> legislature of the need for more funding
Find <b>funding</b> for the collection of data. Provide raters for counties that can't afford data collection.
Asset management is a good tool as it is. Should not expend addition resources to report items vs actually maintaining the system
<b>Funding</b> to help pay for collecting inventory info on signs/culvert, pavement marking, etc. Small RC like us cannot afford to spend days/weeks collecting these items. Short staffed!
Continue <b>training</b> + software development
Communicate mission statement & results to public in a clear/ concise manner
<b>\$\$</b>
Help the agencies that don't have the staff or capabilities of creating an asset management plan due to the data analysis
Give counties more <b>money</b> to do what is being preached
<b>Train</b> council members and department heads! They make the determinations
Focus on [and] <b>teach/show</b> [PASER] 3 - 4 -5
Get more <b>funding</b>

**8<sup>th</sup> Annual Michigan Local Agency Asset Management Implementation Survey Report**

<b>More funding</b>
<b>More funding</b>
Get lawmakers to appropriate <b>more funding</b>
Provide suggestions for county agencies on how to divide roads
Provide links to the final reports to everyone who attends PASER training.
Keep up the good work
<b>Additional funding</b> assistance - particularly for communities classified as disadvantaged
More inventory! Bridges + Rate



## E-2 Pavement Asset Management Survey Question 21

Is there anything else you would like to tell us regarding asset management implementation?
5 yr. plan in place for all primary rds. 5 yr. plan for all 16 twps. Q4 - in the process
Q6 - Don't know how building inventory
Q9 - We use PASER to help decide road improvements Q10 - Every year I use PASER rating system when evaluating local roads but there not in the Roadsoft system
Clarify what is partial depth for concrete Q15 - 122
I appreciate the <b>educational</b> resources that TAMC/MTU-CTT offers my local agency.
SCRC will have a detailed asset management plan submitted in 2021 (mandatory)
Q9 - Sometimes it's a mixture Q13 - We are working on getting our asset stuff inventoried on Roadsoft Q16 - We have a plan on what bridge we are going to do through grants we apply for with our contracting engineers
As questions 16-20 deal with bridge asset management, our agency does not have any plan for bridges, but any <b>training</b> on bridge asset management would be beneficial.
The continuing efforts to tell the state about our Asset Management plans for all utilities (roads, sanitary, water) without any <b>funding</b> is truly an unfunded mandate local governments cannot afford.
Have attended training and use a board decision to help manage but will develop for others in future.
Q9 - a and b
We are still in the infancy stages; I have less than one year at the county
long term certification for raters
Reduce conference expense to increase data collection reimbursements
Need to get assets up to a managerial level before you can really do P.M. (catch-up needed)
We are in the process of putting together an asset management plan that will implement all areas of this survey, but we are only in the beginning stages
Q5 - But we don't, politically not something we share Q7 - c. politics Q8 - yes when engineering selects no if board selects Q12 - d. - collect, but not A.M.
I've only been at my job for 1 year, still learning a lot, not proficient enough to answer asset management questions yet.
It would be nice to have a field example lesson to rate a few road sections after the classroom course.
Q4 - Not a specific Plan, but we have info in LRTP Q5 - We are planning on incorporation in future Q6 - Believe the road commission does similar work Q7 - Road commission + city responsible for this Q10 - Every three year at least, we will rate the local system for one of our counties, and the switch to the other county. So in a way, it's 100%

Reporting Period: Oct. 1 – 31, 2019

## Monthly Project Progress Report

# TAMC Training 2019

**November 20, 2019**

Project Manager: Roger Belknap

MDOT Contract 2018-0057 Authorization Z4

Contract Dates: 01/01/2019 – 12/31/2019

Contract Amount: \$219,311



**Michigan  
Technological  
University**



Michigan Technological University  
1400 Townsend Drive  
Houghton, MI 49931

<b>Task</b>	<b>% of Budgeted Dollars Spent</b>	<b>Notes</b>
Assist Coordinating the MI Transportation Asset Management Conferences	93%	Completed Spring & Fall AM Conference TASK COMPLETED
Conduct MI Transportation Asset Management Workshops	34%	Task Converted to TAMC compliance webinar and PA325 webinar series
Conduct Introduction to Transportation Asset Management for Local Officials Training or Gravel Road Basics for Local Officials	46%	Completed two TAM for LO training sessions.  Completed one GRB for LO training session.
Conduct TAMC PASER Training	89%	Completed four PASER webinars and ten on-site PASER Trainings. TASK COMPLETED
Conduct Inventory Based Rating Training	38%	Completed three IBR Training webinars. TASK COMPLETED
Conduct Michigan Bridge Asset Management Workshop	43%	Completed two Part 1 & Part 2 webinars. TASK COMPLETED  Completed one on-site Bridge AM Workshop
Creating Asset Management Plan Workshops	61%	
Project Management and Reporting	79%	

### Tasks Completed

Finalized and printed the materials for the fall conference, participated in the final conference call meetings, loaded equipment and materials, traveled to Marquette, set-up A/V, helped run the event, returned and began conference closeout; built presentation slides for the TAMC Compliance Plan webinar, set up webinar room and presented webinar; scheduled a TAM for LO session and a Gravel Road Basics session, created flyers, posted and opened registration; discussed concrete PASER and reviewed the TAMC PASER data collection process; conducted BAM webinars, part 1 & 2, worked on proofing and revisions to AMP workbook; worked on

Reporting Period: Oct. 1 – 31, 2019

editing and reworking the instruction guide for compliance plan, tested templates and built training slides; created instructions for creating the annual TAMC training report, completed the September reporting and general project management.

**Project's Financial Summary**

October Expense Reimbursement Submitted	\$15,210
Total Project Expenses to Date	\$168,999
Contract Balance Available	\$50,312