

**TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT**

Lead Agency (FHWA or State DOT): Michigan DOT

INSTRUCTIONS:

Lead Agency contacts should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # (i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)) TPF-5(490)	Transportation Pooled Fund Program - Report Period: ☒ Quarter 1 (January 1 – March 31) ☐ Quarter 2 (April 1 – June 30) ☐ Quarter 3 (July 1 – September 30) ☐ Quarter 4 (October 1 – December 31)	
TPF Study Number and Title: TPF-5(490) ENTERPRISE-Phase III (Phase II Continuation)		
Lead Agency Contact: Michigan Department of Transportation	Lead Agency Phone Number: 517-636-0036	Lead Agency E-Mail SpinksM@michigan.gov
Lead Agency Project ID: OR22-204	Other Project ID (i.e., contract #): 2024-0826	Project Start Date: 3/6/2023
Original Project Start Date: 3/6/2023	Original Project End Date: 9/30/2028	If Extension has been requested, updated project End Date: Click or tap to enter a date.

Project schedule status:

☒ On schedule	☐ On revised schedule	☐ Ahead of schedule	☐ Behind schedule
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Overall Project Statistics:

Total Project Budget	Total Funds Expended This Quarter	Percentage of Work Completed to Date
\$1,286,145.00	\$42,708.12	62%

Project Description:

TPF-5(490) is a continuation of TPF-5(359) led by the Michigan Department of Transportation. This pooled fund federal project originated under the project titled "ENTERPRISE Group" that was established in 1991. Each year, partner members contribute funds in support of ITS projects of mutual interest.

Selected research studies/projects typically involve private sector partners contracted to work with designated member agencies. An administrative contract, currently with CTC & Associates LLC, covers project management, meeting planning, website and other tasks. Over time ENTERPRISE has grown into a multi-national consortium dedicated to the advancement of ITS. The consortium provides a focus for coordinating ITS developments and sharing results within and outside the ENTERPRISE program.

Primary Focus:

To enhance innovation in highway operations and intelligent transportation systems through research and technology transfer, as well as to continue assessing transformational technologies and their impact on the transportation industry.

Objectives: The Board initially selected 13 research projects for this phase of the pooled fund study. Additionally, the Board amended the Athey Creek contract and added

Remaining projects from original round

10. Defining and Advancing Digital Infrastructure

12. Alternate Methods of Traffic Data Analysis

14. Documenting Current Road Weather Information Systems (RWIS) Technologies Related to ITS and Operations

New projects for second round

15. ITS Simple Solutions – Phase 2

16. Information Technology Support Models for ITS

17. Evaluation Process for ITS Systems

18. Deterrents for Rodents Chewing into Fiber and Cabinets

19. ITS Device Communications Using WiFi Connections

20. Leveraging Video from Snowplow Cameras for Innovative DOT Uses

21. Lease Agreements for ITS Services Using Transportation Agency Assets

22. Engaging Mapping Companies

Progress this Quarter

(includes meetings, work plan status, contract status, significant progress, etc.):

Board teleconferences held on January 21, February 18 and March 18, 2026. CTC & Associates developed the agenda, documented the meeting, and finalized, distributed and posted meeting minutes.

CTC & Associates completed the reimbursements for the hybrid in-person/virtual Board meeting in Naperville, IL from October 15-16, 2025.

CTC & Associates continued the planning for a hybrid in-person/virtual Board meeting in Bloomington, MN from April 14-16, 2026. Tasks included setting up the virtual platform, agenda finalization, booking flights, securing a hotel and meeting logistics.

CTC & Associates assisted MDOT with members' pooled fund commitments and transfers.

CTC & Associates updated the website with current information. (<http://enterprise.prog.org>)

CTC & Associates assisted Athey Creek with activities related to individual research projects.

Research projects

Project 12: Alternate Methods of Traffic Data Analysis

- Task 3: Draft Report – Completed draft report.
- Task 4: Final Report – Incorporate comments on draft report and prepared final report.

Project 15: ITS Simple Solutions – Phase 2

- Task 1: Review and Prioritize Three Innovations to Advance for Implementation – Developed and executed a prioritization approach
- Task 2: Continue to Gather Examples of ITS Innovations – Continued to gather and document innovations.

Project 16: Information Technology Support Models for ITS

- Task 1: Conduct Research – Continued to schedule, contact and summarize interviews with ENTERPRISE members.

Project 17: Evaluation Process for ITS Systems

- Kicked off project in January 2026.
- Task 1: Define ENTERPRISE Member Evaluation Test – Conducted Literature Search on project focus: Wrong Way Driving Alert Systems, DMS, Over-height Detection Warning Systems, and Ramp Meters. Documented evaluation impacts and measures.

Project 18: Deterrents for Rodents Chewing into Fiber and Cabinets

- Kicked off project in January 2026.
- Task 1: Online Search – Conducted and documented an online search to identify deterrents for rodents that cause damage to fiber and cabinets.

Project 19: ITS Device Communications Using Wi-Fi Connections

- Prepared for April 2026 Project Kickoff.

Project 20: Leverage Video from Maintenance Vehicle Cameras for Innovative DOT Uses

- Prepared for April 2026 Project Kickoff.

The following research projects are complete, and the final report is posted to the ENTERPRISE PFS website:

- **Completed December 2023:** Project 1: State of the Art Roadway Sensors – Phase 1: <https://enterprise.prog.org/wp-content/uploads/ENT-Roadway-Sensors-Phase-1-Final-Report.pdf>
- **Completed March 2024:** Project 2: New Methods of Traffic Data Collection (Comparison of Emerging Traffic Data Collection Methods to Traditional Methods): <https://enterprise.prog.org/wp-content/uploads/ENT-Comparison-Traffic-Data-Collection-Methods-Final-Report.pdf>
- **Completed April 2024:** Project 5: Novel Uses of Unmanned Aerial Systems (UAS) in ITS: <https://enterprise.prog.org/projects/novel-uses-of-unmanned-aerial-systems-uas-in-its/>
- **Completed June 2024:** Project 4: Procurement Specification for Physical Security of ITS: (Posted to the ENTERPRISE members only website.)
- **Completed June 2024:** Project 6: State of the Art of Roadway Sensors – Phase 2: <https://enterprise.prog.org/projects/state-of-the-art-roadway-sensors-phase-2/>
- **Completed July 2024:** Project 3: Potential Approaches for Wrong-Way Driving Applications – Phase 2: <https://enterprise.prog.org/projects/potential-approaches-for-wrong-way-driving-applications-phase-2/>
- **Completed March 2025:** Project 11: Role of Artificial Intelligence in Intelligent Transportation Systems: <https://enterprise.prog.org/wp-content/uploads/ENT-AI-in-ITS-Final-Report-Mar-2025.pdf>
- **Completed April 2025:** Project 9: Uncontrolled Pedestrian Crossing ITS Countermeasures: <https://enterprise.prog.org/projects/uncontrolled-pedestrian-crossing-its-countermeasures/>
- **Completed April 2025:** Project 13: Truck Parking Technologies: <https://enterprise.prog.org/projects/truck-parking-technologies/>
- **Completed April 2025:** Documenting Current Road Weather Information System (RWIS) Technologies Related to ITS and Operations: <https://enterprise.prog.org/projects/documenting-current-road-weather-information-system-rwis-technologies-related-to-its-and-operations/>
- **Completed June 2025:** Project 7: Administration of Communications: <https://enterprise.prog.org/projects/administration-of-communications/>
- **Completed July 2025:** Project 8: ITS Simple Innovations

<https://enterprise.prog.org/projects/its-simple-innovations/>

- **Completed October 2025:** Project 10: Defining and Advancing Roadway Digital Infrastructure (RDI)
<https://enterprise.prog.org/projects/defining-and-advancing-digital-infrastructure/>
- **Completed February 2026:** Project 12: Alternate Methods of Traffic Data Analysis
<https://enterprise.prog.org/projects/defining-and-advancing-digital-infrastructure/>

Anticipated work next quarter:

The Board will hold teleconferences on May 20 and June 17, 2026. CTC & Associates will create agendas, take notes, and finalize, distribute and post meeting minutes for monthly Board meetings.

CTC will complete the planning and hold a hybrid in-person/virtual meeting taking place from April 14-16, 2026 in Bloomington, MN. Activities will include booking flights, finalizing meeting logistics and documenting the meeting. Post-meeting activities will include finalizing and posting meeting notes and member reimbursements.

CTC & Associates will assist MDOT with members' pooled fund commitments and transfers, including reaching out to members to request they make their FFY26 transfers to MDOT.

CTC & Associates will update the website with current information. (<http://enterprise.prog.org>).

CTC & Associates will monitor the research projects schedules and assist Athey Creek with activities related to individual research projects.

Research projects - Athey Creek (Project updates are presented at monthly Board meetings.)

Project 15: ITS Simple Solutions – Phase 2

- Task 1: Review and Prioritize Three Innovations to Advance for Implementation – Complete prioritization
- Task 2: Document Next Steps to Implement the Prioritized Innovations – Begin documenting next steps.
- Task 3: Continue to Gather Examples of ITS Innovations – Continuing gathering and documenting innovations.

Project 16: Information Technology Support Models for ITS

- Task 1: Conduct Research – Continue to conduct interviews with ENTERPRISE members, continue documenting interview summaries, and continue to review existing resources.
- Task 2: Draft Report – Begin draft report.

Project 17: Evaluation Process for ITS Systems

- Task 1: Define ENTERPRISE Member Evaluation Test – Continue to document evaluation impacts and measures.

Project 18: Deterrents for Rodents Chewing into Fiber and Cabinets

- Task 1: Online search – Complete online search.
- Task 2: Outreach – Conduct outreach to state DOTs through a survey to investigate practices for deterring rodents at fiber and cabinets.

Project 19: ITS Device Communications Using Wi-Fi Communications

- Task 1: Research Wi-Fi – Conduct research on Wi-Fi as an initial local communications tool (short-range communication)

Significant Results:

See Progress This Quarter section.

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

None

Potential Implementation:

None