

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Iowa DOT

INSTRUCTIONS:

Project Managers and/or research project investigators 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 # TPF-5(438)	Transportation Pooled Fund Program - Report Period: X Quarter 1 (January 1 – March 31, 2025) Quarter 2 (April 1 – June 30) Quarter 3 (July 1 – September 30) Quarter 4 (October 1 – December 31)	
Project Title: Midwest Smart Work Zone Deployment Initiative		
Name of Project Manager(s): Brian Worrel	Phone Number: 515-23901471	E-Mail Brian.worrel@dot.iowa.gov
Lead Agency Project ID: Keith Knapp	Other Project ID (i.e., contract #): Addendum 733	Project Start Date: January 1, 2020
Original Project End Date: December 31, 2024	Current Project End Date: September 30, 2026	Number of Extensions: 7

Project schedule status:

On schedule
 On revised schedule
 Ahead of schedule
 Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Percentage of Work Completed to Date
\$1,300,000	\$1,165,227	95%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$19,721		2%

Project Description:

The Smart Work Zone Deployment Initiative (SWZDI) was initiated in 1999 as a Federal Highway Administration (FHWA) Pooled Fund Study intended to coordinate and promote research among the participating states related to safety and mobility in highway work zones.

The program is an ongoing cooperative effort between State Departments of Transportation, universities, and industry. The studies completed have consisted of evaluations of various work zone related products, various innovative topics, and several synthesis studies. Completed reports and descriptions of ongoing projects can be obtained at the Iowa State University's Institute for Transportation (InTrans) website (swzdi.intrans.iastate.edu) link to the Smart Work Zone Deployment Initiative. InTrans currently operates as the program manager of the pooled fund efforts and completes administrative tasks related to request for ideas and proposals, meetings, project files, quarterly reports, and recommending reimbursement.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):**Quarter Ending December 31, 2025 (Overall)**

During this quarter, work continued on two PY 2024 projects and another additional supplemental project for PY 2024. Other work continued under the new SWZDI funding number is summarized in another quarterly report.

The following is a summary of accomplishments provided by the project principal investigators for the October to December 2025 time period for their individual research projects underway with fund account TPF-5(438).

2024 Program Year Projects**Quarter Ending March 31, 2026 (Overall)**

During this quarter, work continued on two PY 2024 projects. Other work continued under the new SWZDI funding number is summarized in another quarterly report.

The following is a summary of accomplishments provided by the project principal investigators for the January to March 2026 time period for their individual research projects underway with fund account TPF-5(438).

2024 Program Year Projects

- Improving Work Zone Management and Safety through AI-Powered Connected Vehicle Data Analysis – Iowa State University, Anuj Sharma as PI (Meenakshi Sumeet Arya was the original PI, but has resigned).

We have done a final presentation to TAC and also made updates we got from the TAC.

This project was contracted to start on March 1, 2024 and end on June 30, 2025. However, an extension has been granted to the project until December 31, 2025. Another extension to June 30, 2026 was also requested and granted. This project is considered 100 percent by the PI but it has not yet been posted. The posting process is ongoing.

- Accommodation of Vulnerable Road Users – Wayne State University, Steven Lavrenz as PI.

During Q1 2026, the project team completed final revisions to the agency survey, refined and expanded the distribution list, and distributed the survey in March to state DOT and selected local agency contacts; some additional delay from the planned January distribution date was due to the large number of targeted

individuals who continue to transition out from federal agencies; additionally, the research team needed additional time to incorporate feedback received at the TRB Annual Meeting.

As Round 2 of the survey/Delphi process prepares to deploy, the team has begun organizing targeted follow-up outreach to support stronger participation and improve the usefulness of the survey results for subsequent project tasks. In parallel, the literature review document was further refined to better support the final guidance document, and the research team continued developing candidate case study categories, treatment groupings, and preliminary Delphi materials so that these activities can proceed efficiently as survey findings mature.

Overall, this quarter moved the project from survey preparation into active data collection and positioned the remaining tasks - case studies, gap analysis, guidance development, and final reporting - for completion under the revised schedule. We anticipate holding our next TAC meeting in May, to update the TAC on progress and collect input as we assemble the final materials.

This project was contracted to start on May 1, 2024 and end on April 30, 2025. An extension has been requested to October 31, 2025 and another to December 31, 2025. An additional extension was granted this quarter with an end date of June 30, 2026. This project has been reported as 60% complete.

Anticipated work next quarter: Work will continue on the completion of the two projects above. The first noted has only the post report to be completed. The second project is 60% complete according to the PI. It is currently anticipated that both of these projects will be done by the end of the next quarter and the process of closing out this pooled fund number can begin.

Significant Results: One project is near completion with only a posting of the documents remaining.

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, with recommended solutions to those problems).

Potential Implementation: