

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Iowa Department of Transportation

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 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 (435)	Transportation Pooled Fund Program - Report Period: Quarter 1 (January 1 – March 31) Quarter 2 (April 1 – June 30) X Quarter 3 (July 1 – September 30) Quarter 4 (October 4 – December 31)
Project Title: Aurora Program – Addendum 731	
Project Manager: Tina Greenfield	Phone: 515-233-7746 E-mail: tina.greenfield@dot.iowa.gov
Project Investigator: Zach Hans	Phone: 515-294-8103 E-mail: zhans@iastate.edu
Lead Agency Project ID:	Other Project ID (i.e., contract #): Addendum 731
Project Start Date: January 1, 2020	Project End Date: December 31, 2021
Original Project End Date: December 31, 2021	Current Project End Date: 12/31/2026
Number of Extensions:	

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	Total Percentage of Work Completed
\$2,425,000	\$2,157,434	87%

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$62,667	N/A	3%

Project Description:

The Aurora Program is a consortium of public agencies focused on collaborative research, evaluation, and deployment of technologies for detailed road weather monitoring and forecasting. Members seek to implement advanced road weather information systems (RWIS) that fully integrate state-of-the-art roadway and weather forecasting technologies with coordinated, multi-agency weather monitoring infrastructures; ultimately lessening adverse impacts of inclement weather.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.). These efforts are identified below.

Program Administrative Activities:

Reviewed financial details.

Facilitate Meetings and Conference Calls:

2023-02 An Intelligent Human-Centric Communication System for Adverse Weather and Road Conditions [University of Iowa]

- Held final project meeting on July 2, 2025.

2022-10 Automating Variable Speed Limits Using Weather, Traffic, and Friction Data [NCAR, WTI, Rutgers]

- Held meeting with research team on July 18, 2025 to discuss expectations of final report.
- Held final project meeting on July 31, 2025.

2023-04 Standardized Framework for Winter Weather Road Condition Indices

- Held project update meeting on September 18, 2025 during the Fall 2024 Board meeting in Bloomington, MN.

2024-01 Roadway Friction Forecasting using Stationary and Mobile Friction Data

- Held project update meeting on September 18, 2025 during the Fall 2024 Board meeting in Bloomington, MN.

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

N/A

Project-Specific Activities:

Addressed project invoices.

Reviewed and approved invoices and submitted to the Iowa DOT for payment.

Tracked project status and prepared a summary for recently completed and active projects.

Distributed reports to project teams and requested reports from researchers if/when not provided.

Current active projects include the following.

2022-10 Automating Variable Speed Limits Using Weather, Traffic, and Friction Data [NCAR, WTI, Rutgers]

- Held meeting with research team on July 18, 2025 to discuss expectations of final report.
- Held final project meeting on July 31, 2025.
- Coordinated with research team, project team and InTrans publications regarding review and feedback on the final report and technical transfer documents.
- Coordinated with InTrans publications regarding final editing and publications of the final report and technical transfer, which are anticipated early next quarter.

2023-02 An Intelligent Human-Centric Communication System for Adverse Weather and Road Conditions [University of Iowa]

- Held final project meeting on July 2, 2025.
- Coordinated with research team, project team and InTrans publications regarding review and feedback on the final report and technical transfer documents as well as user guide.
- A series of instructional videos available as a YouTube playlist ([URL](#)).
- The CARWIS platform is available for demonstration and continued evaluation at <https://r-uihilab01.ecn.uiowa.edu/lab/carwis/>. Worked with the research team to extend availability of demonstration from October 31, 2025 to December 31, 2025 to allow for some possible winter weather events.
- Coordinated with InTrans publications regarding final editing and publications of the final report and technical transfer, which are anticipated early next quarter.
- Reached out to Iowa DOT regarding feedback regarding user guide publication.

2023-04 Standardized Framework for Winter Weather Road Condition Indices

- Held project update meeting on September 18, 2025 during the Fall 2024 Board meeting in Bloomington, MN.
- Received revised Task 3 report from the research team and shared with the Aurora project team.
- Received Task 5 report from the research team and shared with the Aurora project team.
- Processed a no cost extension until December 31, 2025.
- Shared Aurora project champion and team member information with the research team.

2024-01 Roadway Friction Forecasting using Stationary and Mobile Friction Data

- Distributed quarterly report.
- Held project update meeting on September 18, 2025 during the Fall 2024 Board meeting in Bloomington, MN.

Anticipated work next quarter:

Program Administrative Activities:

Manage budget.

Facilitate Meetings and Conference Calls:

Schedule and host project meetings for existing projects.

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

N/A

Project-Specific Activities:

Track project status and timelines.

Request quarterly reports from research teams.

Distribute project materials/updates to project teams.

Maintain list of project champions and team members.

For all current projects continue the following.

- Facilitate project activities as needed.
- Continue to receive and distribute project updates.
- Coordinate updates, if necessary.
- Review invoices.

2022-10 Automating Variable Speed Limits Using Weather, Traffic, and Friction Data [NCAR, WTI, Rutgers]

TPF Program Standard Quarterly Reporting Format

- Publish final report.

2023-02 An Intelligent Human-Centric Communication System for Adverse Weather and Road Conditions [University of Iowa]

- Publish final report.

2023-04 Standardized Framework for Winter Weather Road Condition Indices [Iowa State University]

- Track project progress.
- Hold final project meeting.
- Coordinated with research team, project team and InTrans publications regarding review and feedback on the final report and technical transfer documents

2024-01 Roadway Friction Forecasting using Stationary and Mobile Friction Data [NCAR]

- Track project progress.
- Hold project update meeting as necessary.

Significant Results:

- Held final project meetings for 2022-10 and 2023-02.
- Completion of 2022-10 and 2023-02, with publication of final reports and technical transfers anticipated early next quarter.
- Sharing of pertinent documents for 2023-04 with the Aurora project teams.
- Held project update meetings for 2023-04 and 2024-01.
- General project tracking, support and coordination of pertinent progress updates.

Circumstance affecting project or budget: