

## 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.*

<b>Transportation Pooled Fund Program Project #</b> TPF-5 (435)		<b>Transportation Pooled Fund Program - Report Period:</b> Quarter 1 (January 1 – March 31, 2022) Quarter 2 (April 1 – June 30, 2022) Quarter 3 (July 1 – September 30, 2022) X Quarter 4 (October 4 – December 31, 2022)	
<b>Project Title:</b> Aurora Program			
<b>Project Manager:</b> Tina Greenfield		<b>Phone:</b> 515-233-7746	<b>E-mail:</b> tina.greenfield@dot.iowa.gov
<b>Project Investigator:</b> Zach Hans		<b>Phone:</b> 515-294-8103	<b>E-mail:</b> zhans@iastate.edu
<b>Lead Agency Project ID:</b>	<b>Other Project ID (i.e., contract #):</b> Addendum 731	<b>Project Start Date:</b> January 1, 2020	
<b>Original Project End Date:</b> December 31, 2021	<b>Current Project End Date:</b> 12/31/2022	<b>Number of Extensions:</b>	

Project schedule status:

X 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
\$1,475,000	\$692,621	

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$62,948	N/A	

## **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:

- Managed Aurora website.
- Managed Aurora email list. In some cases, states requested multiple individuals be included in Aurora-related correspondence.
- Addressed question regarding acknowledging Aurora in project presentation.
- Updated the FOA list, including reaching out to possible interested companies at board member request.
- Facilitated refinement of projects selected for funding during 2022.
- Welcomed new Ohio DOT representative, coordinated virtual Fall meeting attendance and scheduled meeting for additional introduction to Aurora.
- Prepared financial summary for the Fall meeting.
- Responded to request(s) regarding idea submission results.
- Prepared and presented three Aurora Board members (two recently retired and one retiring) with "Lee Smithson Distinguished Member" plaques.
- Shared the new "Applying TSMO to Rural Areas" report with the Board, which has a chapter pertaining to "Application of TSMO Strategies to Rural Road Weather Management".
- Provided a list of Aurora project to Virginia DOT.
- Prepared an Aurora update for presentation at MDSS Pooled Fund meeting.
- Shared former New York Aurora contacts.
- Addressed request for a letter of support from Aurora regarding an application.
- Distributed a Bridge Deck Warning System/RWIS Survey for Michigan DOT Research Project.
- Prepared draft scope of work and budget for Board consideration of continued administrative support.
- Initiated a no cost extension of administrative support.

### Facilitate Meetings and Conference Calls:

- Organized and held the Fall 2022 meeting. The meeting included field trips to MnDOT, University of Minnesota and DTN, a one-day joint meeting with Friends of Aurora (FOA) and FOA reception. Organized presentations by FHWA and SICOP. Prepared and distributed meeting minutes.
- Facilitated or participated in all project-related meetings.
- Hosted Board member 60-Minute monthly conference calls on the following dates. Notes were distributed for the August meeting for those unable to attend.
- Monthly Board Meetings
  - November – Project Updates, Fall 2022 Meeting Debrief, Other Action Items, Open Discussion
  - December – Project Updates, Administration Renewal, Other Action Items, Open Discussion

### Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- Arranged travel for Board members attending the Fall 2022 meeting in-person.
- Provided travel during first day of Fall 2022 meeting.

- Processed all travel reimbursement requests and meeting expenses associated with the Fall 2022 meeting.

#### Project-Specific Activities:

- Tracked project status and prepared a summary for recently completed and active projects.
- Distributed quarterly reports.
- Reviewed and approved invoices, per guidance established during Fall meeting, and submitted to the Iowa DOT for payment.
- Prior to contracting, facilitated additional investigation and research team input of an approved project. Ultimately, the Board decided to not proceed with the project.
- Coordinated with Iowa DOT regarding contracting of projects selected for 2022 funding.
  - 2022-07 "Evaluation and/or Modification of SLR Removal Protocols"
  - 2022-08 "Integration of Connected Vehicle and RWIS Technologies"
  - 2022-10 "Automating Variable Speed Limits Using Weather, Traffic, and Friction Data"
- 2020-02 "Roadway Ice/snow Detection using a Novel Infrared Thermography Technology".
  - Organized a meeting with the PI to discuss project status with respect to remaining budget.
- 2020-03 Roadway Friction Modeling
  - Distributed draft report to project team for review and approval.
  - Reviewed draft report and provided feedback.
  - Provided draft report to Publications for editing.
  - Reviewed Publications edits, comments and tech transfer.
  - Provided updated report to research team for review and feedback.
- 2021-06 Automated Extraction of Weather Variables from Imagery
  - Distributed quarterly report.
  - Coordinated no cost project extension.
  - Scheduled and held final project meeting.
- 2021-05 Optimal RWIS Sensor Density and Location Ph IV
  - Distributed quarterly reports.
- 2022-07 Evaluation of Spring Load Restriction Removal Protocols
- 2022-08 "Integration of Connected Vehicle and RWIS Technologies"
  - Scheduled and held project kick off meeting.

#### **Anticipated work next quarter:**

#### Program Administrative Activities:

- Continue Aurora website updates.
- Manage budget.
- Track new solicitation contributions.
- Update the Aurora Charter, Work Plan and Associate Members, as needed.

#### Facilitate Meetings and Conference Calls:

- Continue monthly Board meeting calls to generate research ideas, discuss important issues and have vendor presentations.
- Begin planning for Spring 2023 meeting, including identifying dates, city, venue and preparing draft agenda.
- Have discussion regarding Peer Exchange.

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#### Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- Begin booking flights for Spring 2023 meeting.
- Arrange surface transportation for Spring 2023 meeting.
- Sign contract with venue for Spring 2023 meeting.

#### Project-Specific Activities:

- Solicit project ideas for Spring 2023.
- Provide project ideas to Board for ranking and discussion during the Spring 2023 meeting.
- Track project status and timelines.
- Request quarterly reports from research teams.
- Distribute project materials/updates and invoices (for approval) to project teams.
- Schedule and host project meetings.
- Maintain list of project champions and team members.
- For all current projects:
  - Facilitate project activities as needed.
  - Continue to receive and distribute project updates.
  - Coordinate updates, if necessary.
  - Review invoices.
- 2020-02 “Roadway Ice/snow Detection using a Novel Infrared Thermography Technology”.
  - Assess project status.
  - Schedule final project meeting, if possible.
  - Coordinate receipt, project team review, editing and publication of final report.
  - Publish final report, if possible.
- 2020-03 “Roadway Friction Modeling”
  - Publish final report and tech transfer document.
- 2021-06 Automated Extraction of Weather Variables from Imagery
  - Coordinate receipt, project team review, editing and publication of final report.
- 2021-05 Optimal RWIS Sensor Density and Location Ph IV
  - Schedule project update meeting.
- 2022-10 “Automating Variable Speed Limits Using Weather, Traffic, and Friction Data”
  - Schedule project kick off meeting.

#### **Significant Results:**

- Held Fall 2022 meeting which included Friends of Aurora participation. Processed all travel reimbursement requests and meeting expenses.
- Updated FOA list.
- Facilitated refinement of projects funded in 2022.
- Continued monthly Board meeting calls.
- Held project-related meetings and tracked projects.
- Facilitated project kick-off meeting for 2022-08 “Integration of Connected Vehicle and RWIS Technologies”
- Facilitated final project meeting for 2021-06 Automated Extraction of Weather Variables from Imagery.

#### **Circumstance affecting project or budget:**

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