

**TRANSPORTATION POOLED FUND PROGRAM  
QUARTERLY PROGRESS REPORT**

Lead Agency (FHWA or State DOT): Iowa 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.

<b>Transportation Pooled Fund Program Project #</b> <i>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)</i> TPF-5(523)	<b>Transportation Pooled Fund Program - Report Period:</b> <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input checked="" type="checkbox"/> Quarter 4 (October 1 – December 31)	
<b>TPF Study Number and Title:</b> Building Information Modeling (BIM) for Bridges and Structures – Phase II		
<b>Lead Agency Contact:</b> Khyle Clute	<b>Lead Agency Phone Number:</b> --	<b>Lead Agency E-Mail</b> Khyle.Clute@iowadot.us
<b>Lead Agency Project ID:</b> --	<b>Other Project ID (i.e., contract #):</b> --	<b>Project Start Date:</b> 2/1/2024
<b>Original Project Start Date:</b> 2/1/2024	<b>Original Project End Date:</b> 1/31/2025	<b>If Extension has been requested, updated project End Date:</b> 3/31/2026

**Project schedule status:**

<input checked="" type="checkbox"/> On schedule	<input type="checkbox"/> On revised schedule	<input type="checkbox"/> Ahead of schedule	<input type="checkbox"/> Behind schedule
---	--	--	--

**Overall Project Statistics:**

Total Project Budget	Total Funds Expended This Quarter	Percentage of Work Completed to Date
\$926,156	\$153,140	85%

## Project Description:

The AASHTO Committee on Bridges and Structures has been working on a comprehensive plan to advance the use of BIM specifically for bridges and structures. In 2017, the TPF-5(372) BIM for Bridges and Structures project provided the primary funding mechanism for developing the foundational elements to implement open data exchange standards to support BIM for bridges and structures in the U.S. This multi-year effort focused on developing the open standards for enabling digital data exchange from design to construction for workhorse bridges using the Industry Foundation Classes (IFC) schema. A significant amount of progress was accomplished through this effort, which resulted in an implementable AASHTO guide specification to exchange 3D model-based information for workhorse bridges to execute construction. The published IDM was used as a basis for related work products that will allow for further data exchange standards to be implemented into software products and utilized at the agency level.

The current pooled fund effort, TPF-5(523) BIM for Bridges and Structures – Phase II, was created for the purpose of developing additional technical solutions for delivering 3D bridge models and other digital data in an open, non-proprietary format. The Phase II effort will expand upon the Phase I work and undertake additional exchanges in the bridge lifecycle beyond the design-to-construction data exchange. The objectives for TPF-5(523) BIM for Bridges and Structures - Phase II project are to:

1. Develop additional technical solutions to enable the use of IDM requirements specific to IFC exchanges for multiple ways of using bridge models (or model use cases), continue software vendor engagement efforts, and assist State DOTs with piloting and adoption of future IDS.
2. Establish an Industry Advisory Group to enhance engagement with industry stakeholders, especially contractor and construction-related groups, and to obtain direct input from these stakeholders on the additional technical solutions to be developed under Phase II.
3. Help State DOTs implement the standards developed during TPF-5(372) through pilot projects selected by individual pooled fund members to produce, export, and validate IFC deliverables to support bidding, construction, and fabrication.

To achieve these objectives, the team will carry out the following tasks, with current percent complete shown:

	% Complete
Task 1: Development of National Open Data Standards	85%
Task 1.1 Methodology Development	
Task 1.2 Evaluation and Final Selection of Exchanges	
Task 1.3 Open Data Standard Development	
Task 1.4 Software Vendor Engagement	
Task 2: State DOT Pilot Project Support	50%
Task 3: External Stakeholder Collaboration Activities	90%
Task 3.1 Update Stakeholder Communication and Engagement Plan	
Task 3.2: Prepare Presentations and Educational Videos	
Task 3.3 Industry Advisory Group Collaboration	
Task 4: Client Communication	90%
Task 5: Project Management and Internal Coordination	90%
Task 6: BIM Week (in-person collaboration meetings)	100%

*Note: The percentage completion values shown correspond to the percent complete for the current contract year. The project is anticipated to last through January 2028 with contract renewals at the end of each year.*

## Progress this Quarter

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

### Q4 2025

- Task 1.1 Methodology Development
  - Task is complete.
- Task 1.2 Evaluation and Final Selection of Exchanges
  - Task is complete.
  - Per TPF member preference, the next data exchange to be developed is the fabrication detail exchange.
- Task 1.3 Open Data Standard Development
  - Completion of internal and pooled fund member technical reviews of the US Bridge IFC mapping table and data dictionary workbook
  - Updates to US data dictionary template
  - Preparation of IDS template for additional exchanges
  - Updates to design-to-construction IDM
- Task 2 State DOT Pilot Project Support
  - Coordination with State DOT pilot projects on use of TPF-5(372) outcomes
  - Collection of feedback to refine design-to-construction data exchange standards
- Task 3 External Stakeholder Collaboration Activities
  - Finalized setup of Technical Working Group
  - Planning for kickoff meeting for the Technical Working Group to support Task 1.3 activities
  - Coordination with leadership of the FHWA Digital Delivery Stakeholder Group and TPF-5(480) BIM for Infrastructure on formation of the Industry Advisory Group
- Task 6 BIM Week (in-person collaboration meetings)
  - Prepared, attended, and facilitated sessions as assigned at BIM Week 2025, November 3-7, 2025

## Anticipated work next quarter:

- Task 1.3 Open Data Standard Development
  - Submittal of the updated IDM, IFC mapping table, and data dictionary workbook for the design-to-construction exchange
  - Migration of data dictionary workbook to the bSDD service
  - Kickoff of the Technical Working Group
  - Initiate development of IFC mapping table and data dictionary workbook for the fabrication detail exchange
- Task 2 State DOT Pilot Project Support
  - Provide advisory support to State DOT pilot projects on use of TPF-5(372) outcomes
- Task 3 External Stakeholder Collaboration Activities
  - Participation in the FHWA Digital Delivery Stakeholder Group virtual meeting in January 2026
  - Coordination with leadership of the FHWA Digital Delivery Stakeholder Group and TPF-5(480) BIM for Infrastructure on the Industry Advisory Group
- Other
  - Planning activities for 2026
  - Roadmap Infographic updates

**Significant Results:**

None at this time

**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 at this time

## Potential Implementation:

The outcomes of TPF-5(372) are being implemented by software vendors and deployed by DOTs via pilot projects.