

## 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> TPF-5(480)	<b>Transportation Pooled Fund Program - Report Period:</b> <input checked="" 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 type="checkbox"/> Quarter 4 (October 1 – December 31)	
<b>TPF Study Number and Title:</b> Building Information Modeling (BIM) for Infrastructure		
<b>Lead Agency Contact:</b> John Wilkerson & Abhishek Bhargava, BIM Launch Alliance	<b>Lead Agency Phone Number:</b> 517-610-6736	<b>Lead Agency E-Mail:</b> john.wilkerson@mbakerintl.com; Abhishek.Bhargava@wsp.com
<b>Lead Agency Project ID:</b>	<b>Other Project ID (i.e., contract #):</b>	<b>Project Start Date:</b> 4/12/2023
<b>Original Project Start Date:</b> 12/31/2027	<b>Original Project End Date:</b> 12/31/2027	<b>If Extension has been requested, updated project End Date:</b> 0

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
\$2,600,000	\$470,695(incl. Work in Progress)	18.0

Quarterly Project Statistics:

Total Project Budget And Percentage This Quarter	Total Funds Expended This Quarter	Total Percentage of Time to Date
	\$117,674	18

**Project Description:**

Activities that advance the short and medium term goals of the BIM National Strategic Work Plan will be prioritized and carried out by the pooled fund participants. Meetings will serve as a forum to facilitate knowledge sharing among participants. Proposed activities include:

- Develop BIM foundational use cases and workflows. Highlight more effective digital exchange of information (e.g. survey to design, design to construction, construction to asset management, etc.). This kind of exchange will increase collaboration and automation, reduce duplication of effort and avoid errors.
- Establish BIM Processes (e.g. Develop contract model language to guide BIM procurements.)
- Identify and Execute Capacity-Building Activities (e.g. Establish project selection criteria for BIM implementation; Identify project types and use cases for early pilot projects phase).
- Enhance Skills and Collaboration (e.g. Establish workforce training curriculum to set expectations about required BIM qualifications. Understand organizational roles and responsibilities to connect data silos).
- Deploy Standards-Based Data Management Tools and Techniques (e.g. Develop catalog of information model requirements to define what data should be created and why. Develop standard information delivery specifications for data exchange between systems).
- Lessons Learned - Identify issues with current implementation efforts and share potential solutions to help move toward to greater BIM maturity.
- Research Priorities - Identify short-term and long-term research needs and strategically prioritize the needs so the most urgent and impactful opportunities are addressed first.
- Information Exchange - Establish a forum/expert hub for practitioners in the highway industry to understand the various tools and technologies being used, promote the common modeling formats and share experiences.

The objective will be to increase the BIM maturity of each state by one as it relates to the FHWA BIM NSWP. This will be accomplished by publishing artifacts (living and evidence based versions) through the BIM Implementation Guidebook and creating BIM Deployment Tools related to openBIM data exchanges. The BIM Clearinghouse will be the hub for agencies to access these useful tools to help the mature on their journey toward BIM for Infrastructure.

**Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):**

**COORDINATION AND OUTREACH ACTIVITIES**

Attended TRB and participate in the National Digital Delivery Leadership Meeting

Weekly Area A Meetings to develop Information Requirements

Area C Monthly Industry Liaison Meetings

Organized and attended Monthly Project Sprint Meetings

Deliverable Status:

<b>Deliverable</b>	<b>Area</b>	<b>Status</b>	<b>Comment</b>
D01 – Digital Workflow Infographic	Area A	100% Complete.	Approved by TPF. Ready to be posted on website
D30 – Current Practices for MALD (L)	Area A	100% Complete.	Approved by TPF. Ready to be posted on website
D20 – Pilot Project Strategies (L)	Area D	100% Complete.	Approved by TPF. Ready to be posted on website
D15 – Sign and Seal Model (L)	Area A	100% Complete.	Approved by TPF. Ready to be posted on website
D06 – BIM State of Practice – Legal Issues	Area A	100% Complete.	Delivery Date: Oct. 16th
D03 – IFC and Role in BIM	Area B	100% Complete	Comments Addressed. Final Version Delivery: Feb 4th
D05 – BLA Website with Clearinghouse	Area C	80% Complete	Launch Site to Public with Posted Deliverables: Target January 30th
D18 – Field Tools/Resources	Area A	90% Complete.	Submitted for TPF review: February 5th
D07 – State DOT Tools Report	Area A	90% Complete.	Submitted for TPF review: February 5th
D09 – Engaging Stakeholders in Digital Workflow	Area C	75% Complete	Delivery Date: March 15th
D29 – Collaboration with Resource Agencies	Area C	75% Complete	Delivery Date: March 15th
D16 – Workflow for Digital Delivery (L)	Area A	90% Complete.	Delivery Date: March 15th
D17 – IDM for Digital Workflow	Area B	90% Complete	Submitted for TPF review: March 1st
D26 – Enterprise-wide Asset Inventory (L)	Area B	90% Complete	Submitted for TPF review: March 1st
D23 – Digital Info. For Design to Construction/Fab	Area A	90% Complete	Delivery Date: March 15th
D04 – Data Governance and GIS in BIM	Area B	90% Complete	Delivery Date: March 15th

**Anticipated work next quarter:****COORDINATION AND OUTREACH ACTIVITIES**

Finalize Year 1 deliverables

Finalize Year 1 Overview

Finalize Year 2 Workplan

<b>Deliverable</b>	<b>Area</b>	<b>Expected Completion</b>	<b>Comment</b>
D01 – Digital Workflow Infographic	Area A	100% Complete.	Approved by TPF. Ready to be posted on website
D30 – Current Practices for MALD (L)	Area A	100% Complete.	Approved by TPF. Ready to be posted on website
D20 – Pilot Project Strategies (L)	Area D	100% Complete.	Approved by TPF. Ready to be posted on website
D15 – Sign and Seal Model (L)	Area A	100% Complete.	Approved by TPF. Ready to be posted on website
D06 – BIM State of Practice – Legal Issues	Area A	100% Complete.	Delivery Date: Oct. 16th
D03 – IFC and Role in BIM	Area B	100% Complete	Approved by TPF. Ready to be posted on website
D05 – BLA Website with Clearinghouse	Area C	100% Complete	Launch Site to Public with Posted Deliverables: January 30th
D18 – Field Tools/Resources	Area A	100% Complete.	Delivery Date: May
D07 – State DOT Tools Report	Area A	100% Complete.	Delivery Date: May
D09 – Engaging Stakeholders in Digital Workflow	Area C	100% Complete	Delivery Date: May
D29 – Collaboration with Resource Agencies	Area C	100% Complete	Delivery Date: May
D16 – Workflow for Digital Delivery (L)	Area A	100% Complete.	Delivery Date: May
D17 – IDM for Digital Workflow	Area B	100% Complete	Delivery Date: May
D26 – Enterprise-wide Asset Inventory (L)	Area B	100% Complete	Delivery Date: May
D23 – Digital Info. For Design to Construction/Fab	Area A	100% Complete	Delivery Date: May
D04 – Data Governance and GIS in BIM	Area B	100% Complete	Delivery Date: May

**Significant Results:**

Deliverables completed are available for immediate use.

These include the Current Practices for MALD (L) that highlights the current practices used by State DOTs to deliver MALD with additional examples to be used in conjunction with the AASHTO JTCEES MALD Maturity Guidance. BIM State of Practice – Legal Issues that provides documentation on the legal issues related to implementing BIM for Infrastructure.

IFC and Role in BIM – Provides a high level understanding of how IFC can help state DOTs implement BIM4I.

**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).**

Project start was delayed to 4/12/2023 requiring adjustments to the schedule on some of the early deliverables.

Additional resources were utilized to be able to get back on the original schedule by Q3.

The following deliverables were delayed as noted in the executive meetings and the monthly sprint meetings.

D03 IFC and Role in BIM to January 30, 2024

D18 Field Tools/Resources to January 17, 2024

D07 State DOT Tools Report to January 30, 2024

D17 IDM for Digital Workflow to February 28, 2024

D26 Enterprise-wide Asset Inventory to February 28,2024

Anticipate short extension for Year 1 to allow more time for review of deliverables.

**Potential Implementation:**

Living draft materials as noted in the work completed this quarter are available to the pooled fund team through the project SharePoint Site and will become available for all state DOTs through the BIM for Infrastructure Website once launched.