TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): __Iowa DOT_____

Transportation Pooled Fund Program Project # *(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* TPF-5(480)	Transportation Pooled Fund Program - Report Period: ☐ Quarter 1 (January 1 – March 31) ☐ Quarter 2 (April 1 – June 30) ☐ Quarter 3 (July 1 – September 30) ☒ Quarter 4 (October 1 – December 31)

TPF Study Number and Title: Building Information Modeling (BIM) for Infrastructure		
Lead Agency Contact: John Wilkerson & Abhishek Bhargava, BIM Launch Alliance	**Lead Agency Phone Number:** 517-610-6736	**Lead Agency E-Mail:** john.wilkerson@mbakerintl.com; Abhishek.Bhargava@wsp.com
Lead Agency Project ID:	**Other Project ID (i.e., contract #):**	**Project Start Date:** 4/12/2023
Original Project Start Date: 12/31/2027	**Original Project End Date:** 12/31/2027	**If Extension has been requested, updated project End Date:** 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	$934,358(incl. Work in Progress)	35.9

Quarterly Project Statistics:

Total Project Budget And Percentage This Quarter	Total Funds Expended This Quarter	Total Percentage of Time to Date
	$219,125	35.9

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
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Plan and run BIM Week as the In-Person Meeting

Area C Monthly Industry Liaison Meetings
Organized and attended Monthly Project Sprint Meetings
Deliverable Status:
Guidebook converted to Clearinghouse Knowledge Platform.

Deliverable	Area	Status	Comment
Task 0 Project Coordination	PM	65% Complete	In-Person Mid-Year Meeting
Task 1 Program Engagement Tasks	PM	15% Complete	5 Year Roadmap 90% Complete
Task 2 Initiation and Planning IDM Development	Area A	80% Complete	Task 2 Initiation and Planning IDM Development
Task 3 BIM Process Design and Information Architecture	Area A/B	66% Complete	Task 3 BIM Process Design and Information Architecture
Taks 4 IDM Development and Integration	Area B	0% Complete	Taks 4 IDM Development and Integration
Task 5 IDM Testing, Finalization, and Documentation	Area B/C	0% Complete	Task 5 IDM Testing, Finalization, and Documentation
D05 – BLA Website with Clearinghouse	Area C	100% Complete	Launch Site to Public with Posted Deliverables
D09 – Engaging Stakeholders in Digital Workflow	Area C	100% Complete	To be used for TPF planning
D29 – Collaboration with Resource Agencies	Area C	100% Complete	To be used for TPF planning
D34 - BIMfI Guidebook	Area D	80% Complete	Reworked into Knowledge Platform

Anticipated work next quarter:
COORDINATION AND OUTREACH ACTIVITIES
BIM TPF winter in-person and collaboration meeting

Deliverable	Area	Expected Completion	Comment
Task 0 Project Coordination	PM	75% Complete	
Task 1 Program Engagement Tasks	PM	40% Complete	Develop draft of first round of videos and flyers
Task 2 Initiation and Planning IDM Development	Area A	100% Complete	
Task 3 BIM Process Design and Information Architecture	Area A/B	90% Complete	
Taks 4 IDM Development and Integration	Area B	0% Complete	
Task 5 IDM Testing, Finalization, and Documentation	Area B/C	0% Complete	
D34 – BIMfI Guidebook	Area D	100% Complete	Continue Training Knowledge Platform

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.
BLA Website – This will house the project deliverables and the Clearinghouse.
State DOT Tools Report and Field Tools/Resources – Highlights the tools currently in use by actor and phase of the asset lifecycle.
Workflow for Digital Delivery – Explains the Digital Workflow Infographic and how it can be used to move toward a BIM based digital workflow.
IDM for a Digital Workflow – Provides the process to be used to develop a US based data dictionary and IDM based on the ISO standards.
Enterprise-wide Asset Inventory – Provides guidance on how to establish and maintain a data driven asset inventory.
Digital Information for Design to Construction/Fabrication – Provides a process to gather the information required for roadway items from Design to Construction/Fabrication. Working with the pooled fund states consensus was reached for the majority of the information requirements for this exchange.
Data Governance and GIS in BIM – Explains how to leverage ISO 19650 to establish data governance.
BIM4I Clearinghouse Knowledge Platform in Draft: https://bimclearinghouse.com/clearinghouse/

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).
The BIM for Infrastructure Guidebook was originally planned to go through balloting with the AASHTO COD JTCEES. Due to the need for the Guidebook to by dynamic to allow for the continuing evolution of BIM for Infrastructure and to make it a web-based document the conventional AASHTO Publication process cannot be used. The TPF-5(480) Executive team is coordinating with AASTHO COD to determine a path forward.

Task 2 Initiation and Planning IDM Development has been delayed to December 2024 as establishing 4 of the 7 discipline/functional areas took longer than expected. The other 3 discipline/functional areas have proceeded to Task 3 activities so the efforts will run in parallel to minimize the delay.
Task 3 BIM Process Design and Information Architecture has been delayed to early 2025 as noted above in Task 2.

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.
bimclearinghouse.com