TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Texas 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 (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.

Transportation Pooled Fund Program Project # *(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* **TPF-5(508)**	**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)	
Project Title: Concrete Bridge Engineering Institute (CBEI)		
Name of Project Manager(s): Darrin Jensen	**Phone Number:** 512-416-4657	**E-Mail** darrin.Jensen@txdot.gov
Lead Agency Project ID: 9-1532	**Other Project ID (i.e., contract #):**	**Project Start Date:** 6/21/2023
Original Project End Date: 5/31/2027	**Current Project End Date:** 5/31/2027	**Number of Extensions:** 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
$5,313,706.25	$ 1,336,287.61	21.9%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
$ 908,451.27 (17.1% of budget)	$ 908,451.27	19.8%

Project Description:

The Concrete Bridge Engineering Institute (CBEI) is the center of concrete bridge related research, education, and training at the University of Texas at Austin in the Cockrell School of Engineering. CBEI ' s mission is to serve the concrete bridge community and profession on the most pressing issues encountered in concrete bridges across the nation.
The objective of this pooled fund is for CBEI to become a national resource for innovative workforce development programs and implementation of new technologies in the field of concrete bridges. CBEI will work with bridge stakeholders (primarily state and federal transportation agencies) and seek input from industry groups representing the concrete bridge community to develop pioneering, practical, and effective programs that will have national impact with the goal of addressing issues encountered in concrete bridges and implementing plans to work toward ensuring resiliency expectations for concrete bridges. Three specific needs have been identified to be addressed by the pooled fund. There will be a curriculum developed for each of the three initial components, all of which will include both classroom and hands-on training.
-Deck Construction Inspection Program to meet the need of ensuring proper initial construction of concrete bridge decks utilizing full-scale hands-on components. Bridge deck construction techniques utilizing precast deck panels and associated technologies will be included in this program. The Deck Construction Inspection Program will look to implement the information in the upcoming FHWA document State-of-the-Practice Report for Partial Depth Precast Deck Panels and building in problems alongside the correct installation into the full-scale bridge components.
-Concrete Materials Program for Bridges to provide guidance on the proper selection and use of constituent materials to improve the service life of concrete bridges, sustainability of concrete construction, and provide hands-on examples of what happens when these are not considered.
- Post-tensioning (PT) Laboratory (aka PT Academy) to provide hands-on training for field installers and inspectors as well as test and verify promising post-tensioning technologies.

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

Task 1 Project Management: Quarterly Progress Report 3 was submitted. Preparation and execution of the Change Request to incorporate all the changes to the original project agreement (budget decreases/increases, additional participating States, Inverted T Cap testing, and mixed reinforcement technical report. Travel meetings and survey conducted to facilitate travel support for training programs for TPF member States.
Task 2 Initial Planning and Conceptual Development: Finalized conceptual overall plan for stations of different programs.
Task 3 Site Preparation: Site drawings developed in conjunction with task 2. Contractors provided preliminary estimates on slab. Site preparation and moving specimens. Site topographic survey performed.
Task 4 Infrastructure Buildout: Worked on development of draft drawings and detailed description for Bridge Deck Construction Inspection specimen. Revision to Concrete Materials for Bridges demos and site preparation for classes.
Task 5 Course Development: First course (Concrete Materials for Bridges) held on January 3-4, 2024. Other courses advertised through Q1-2025. Next Concrete Materials for Bridges course on April 30-May 1, 2024. Task group for Bridge Deck Construction Inspection established and initial meeting held on February 20, 2024. Continued to revise curriculum for Bridge Deck Construction Inspection. Review and minor revisions to Concrete Materials course content.
Task 7 Concrete Solutions Center Setup: Worked on Concrete Solutions Center program draft.
Task 9: Work on subtasks 9.1 and 9.2 including literature review, identification of Test Specimens, developing plans for test specimens, and procurement.
Task 10: Establish and conduct initial meeting of working group - working group meeting scheduled for April 22, 2024. Develop plan and finalize agenda for June meeting with task group. Initial planning with task group members.

Anticipated work next quarter:

Task 1 Project Management: Facilitate efforts of the project team. Provide quarterly report. Schedule task group meetings. Provide monthly reports. Finalize travel options and travel plans together with TPF members.
Task 2 Initial Planning and Conceptual Development: Finalize conceptual plan and obtain feedback.
Task 3 Site Preparation: Advance site preparation construction activities and work on design of site support components (slabs, drilled shafts, access).
Task 4 Infrastructure Buildout: Refine drawings and schedule next working meeting for task group on the bridge deck main specimen.
Task 5 Course Development: Continue work and planning for course on Concrete Materials for Bridges training program. Engage task group on syllabus. Work on draft syllabus for Bridge Deck Construction Inspection course. Conduct next course (Concrete Materials for Bridges). Next Concrete Materials for Bridges course on April 30-May 1, 2024.
Task 6 Level 1 Workshops: No work anticipated with this task.
Task 7 Concrete Solutions Center Setup: Finalize plan for the overall program.
Task 8 Concrete Solutions Center: Facilitate meetings and responses as needs arise.
Task 9: Continue work on subtasks 9.2 and 9.3 including construction of reaction beam and test specimens, and procuring materials, equipment, and subcontractors. Extract cores in field and analyze core samples.
Task 10: Kick-off meeting for mixed reinforcement meeting to be held in June 2024 in Luzanne, CH. Initial outline and draft to be created. Preparation of materials for meeting to be developed.

Significant Results:

First course completed January 2024 - Concrete Materials for Bridges.
Second Concrete Materials for Bridges course scheduled on April 30, 2024.
Topographic site survey completed on CBEI site. Site preparation for specimen construction.
Initial Bridge Deck Construction Inspection task group meeting held.

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).

A contract amendment was executed to add the states which have joined since the original contract as well as additional scope for inverted T bent caps and a technical report on mixed use reinforcement.

Potential Implementation:

Nothing identified at this time.