# TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Federal Highway Administration (FHWA)

#### **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.

Transportation Pooled Fund Program Project # TPF-5(470)		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: TPF-5(470): Traffic Signal Change and Clearance Interval Pooled Fund Study					
Lead Agency Contact: Jamie Mackey	Lead Agency Phone Number: 385-831-4262		Lead Agency E-Mail jamie.mackey@dot.gov		
Lead Agency Project ID:	Other Project ID (i.e., contract #): 693JJ322A000005_693JJ323F00330N		Project Start Date: 09/22/2023		
Original Project Start Date: 09/22/2023	Original Project End Date: 09/21/2026		If Extension has been requested, updated project End Date: N/A		
Project schedule status:  ☐ On schedule	dule □ A	shead of schedule	☐ Behind schedule		
Overall Project Statistics:	,				

## Overall Project Statistics:

Total Project Budget	Total Funds Expende To Date	ed	Percentage of Work Completed to Date
\$1,036,655.77	· ·	318,000 \$18,823	40%

## **Project Description:**

Define a sound, data-driven, research approach and work plan to address the current limitations and challenges in the determination and assessment of traffic signal change and clearance intervals (CCI). Conduct research based on statistically valid data and robust methods to establish a defensible and practical methodology for agencies to use for assessing and making CCI decisions. Provide a report, companion data, and materials to support review and understanding of the findings, including presentation slides, factsheets, practical documented summary examples, to facilitate building awareness among traffic signal operators.

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

- Continued data collection and analysis of BSM/CV, video, historical crash, and LiDAR data.
- Conducted technical panel meeting #3 (TPM3).
- Conducted external webinar #2.
- Used TPM3 and external webinar #2 feedback to update the research work plan document.

#### Anticipated work next quarter:

- Continue data collection and analysis of BSM/CV, video, historical crash, and LiDAR data.
- Possibly expand data collection and analysis of BSM/CV data to multiple research teams.
- Develop safety risk functions and extract driver behavior performance measures.

# Significant Results:

- Preliminary analyses of CV and LiDAR data indicate certain kinematic equation and extended kinematic equation assumptions are questionable.
- Gained access to one month of commercially available telematics data.
- Expanded collection of historical crash data to include intersections from Utah.
- Expanded collection of LiDAR data to include one more intersection from Utah.
- Improved accuracy of estimating turning movement trajectories for the CV data investigation.

# 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).

In Q2, the research team requested a contract modification to transfer a portion of the available equipment/materials and travel funding to labor, to improve the sample size of data collection/analysis that will be needed to address the top-priority research questions. Since FHWA has not yet approved this contract mod, a portion of the team may run out of data collection/analysis funding in Q4 and may need to pause work until the contract mod is approved. This contract mod also included a schedule modification request to provide an additional three months of data collection and analysis, pushing most subsequent due dates back by approximately three months.

#### **Potential Implementation:**

The research team will turn its focus to implementation considerations (e.g., developing a practical new CCI methodology and field validation method) in approximately the Spring of 2025, following the initial months of data collection and analysis.

Task	Deliverable	Complete?
1	Kick-off Meeting	Y
1	Project Management - Final Work Plan	Y
2	Technical Panel Meeting 1	Υ
2	Feasibility and Gaps White Paper	Υ
2	Technical Panel Meeting 2	Υ
2	Final Project Research Work Plan	Υ
3	Final White Paper on Survey Results	Υ
3	SQL Database and Dashboard	Υ
4	Data Collection and Analysis*	Ongoing
4	Technical Panel Meeting 3**	Υ
5	Technical Panel Meeting 4	Fall 2025
5	Final White Paper - Final Methodology	Summer 2025
6	Project Report Annotated Outline	Summer 2025
6	Final Project Report	Fall 2025
6	Technical Panel Meeting 5	Fall 2025
7	Final Outreach Plan Report	Fall 2025
7	Final Outreach Plan Materials	Fall 2025
7	External Webinar 1	Y
7	External Webinar 2	Y
7	External Webinar 3	Fall 2025
8	Travel Estimate Log	Y
8	Detailed Travel Reimbursement Log	Fall 2025

<sup>\*</sup> Monthly time and materials (T&M) payments.

<sup>\*\*</sup> No milestone payment for Technical Panel Meeting 3.