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 # *TPF-5(482)*	**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: Development and Evaluation of Roadside Safety System for Motorcyclists		
Name of Project Manager(s): Martin Dassi	**Phone Number:** 512-416-4747	**E-Mail** Martin.Dassi@txdot.gov
Lead Agency Project ID:	**Other Project ID (i.e., contract #):**	**Project Start Date:** 2021
Original Project End Date: 2024	**Current Project End Date:** 2025	**Number of Extensions:**

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
$900,000	$724,399	80.5%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
$14,161.54; 2%	$14,151.64	83.3%

Project Description:
The objective of this pooled fund study is to provide a cooperative approach to conducting research to address roadsi safety issues specifically related to improving motorcyclist safety. Furthermore, the study is intended to provide participating states collaborative opportunities to stay abreast of best practices, new regulatory issues, risk managem strategies, and other research pertaining to roadside safety improvements for motorcyclists. Research activities will in identification, development, and evaluation of strategies and devices for mitigating the frequency and severity of road departure motorcyclist crashes.

Progress This Quarter (includes meetings, work plan status, contract status, significant progress, etc.):
The following tasks were completed in this quarter:

Task 1. Project Management

- Virtual annual meeting was held on October 18th. During the meeting, presentations were made that provided updated on the ongoing and completed research projects. New problem statements were discussed for the FY25 research program. A voting poll was distributed to the contributing state members. Two projects were selected for conduct during the FY 25 program.

Task 2. Analyze Motorcycle Roadside Safety Issues

- Project 7. Development of Safety Standards for Testing of Motorcycle Helmets for Use in Roadside Safety System Crashworthiness Evaluation
    - The reporting for this project was completed and a report deliverable was submitted on October 15th, 2024
- Project 8. Feasibility Study to Investigate Roadway Elements Design Characteristics and Their Effects on Motorcycle Safety through BikeSim Computer Simulations
    - This project was initiated in this quarter period after voting was conducted at the virtual annual meeting.
    - A literature review was performed to identify research related to curb, crosswalk, drop-off, and other roadway geometric effects on motorcycle safety. Some key findings are the following:
        - Raised crosswalks are typically 3 to 6 inches above the roadway level. Shapes for the slope can include circular, sinusoidal, parabolic, straight, and others. Width is typically 10 ft
        - Roundabouts vary in number of lanes and overall size. Depending on the design, different entry design speeds are recommended.
- Project 9. Further Development and Refinement of the Anchor Cap for the Motorcycle Rub Rail System.
    - This project was initiated in this quarter period after voting was conducted at the virtual annual meeting.
    - Brainstorming was performed to identify design alternatives for terminating the rubrail component on the Motorcycle Rub Rail System. The objective was to terminate the rubrail behind a guardrail post to protect the blunt end. This brainstorming included a review of concepts identified by TxDOT and UDOT
    - A total of four concepts were identified. This included two variations of a bent plate concept that would maintain similar components to the current rubrail design and attachment. It would require a complex bent plate for attachment to the back of a guardrail post. Two variations included modified bracket attachments and splice plates.

Anticipated Work Next Quarter:
Task 1. Project Management

- It is anticipated that a virtual midyear meeting will be conducted to update the state members on ongoing research activities.

Task 2. Analyze Motorcycle Roadside Safety Issues

- Project 8. Feasibility Study to Investigate Roadway Elements Design Characteristics and Their Effects on Motorcycle Safety through BikeSim Computer Simulations
    - Initiate BikeSim computer simulations and build models of the motorcycle vehicles and the geometric features.
    - Perform preliminary simulations to verify the numerical accuracy of the models.
- Project 9. Further Development and Refinement of the Anchor Cap for the Motorcycle Rub Rail System.

- Finalize 3D SolidWorks models for the four concepts. Review the concepts with the primary tech reps and select two concepts for computer simulations.
- Conduct preliminary simulations with the two design alternatives and evaluate performance with vehicle crashworthiness.

Significant Results:

Deliverable was submitted for Project 7 documenting the results and testing performed for motorcycle helmets.

Potential Implementation: