## TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Date: 6/10/2019

Lead Agency (FHWA or State DOT): Washington State 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 #		Transportation Pooled Fund Program - Report Period:	
TPF-5(343) Roadside Safety Research for MASH Implementation		□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:			
MASH Implementation  Name of Project Manager(s):  Phone Number:  E-Mail:			
Mustafa Mohamedali	360-704-6307		mohamem@wsdot.wa.gov
Lead Agency Project ID:	Other Project ID (i.e., contract #): GCB		Project Start Date: 2016
N/A			2010
Original Project End Date:	Current Project End Date: 2020		Number of Extensions:
	2020		
Project schedule status:			
✓ On schedule ☐ On revised schedule ☐ Ahead of		Ahead of schedule	☐ Behind schedule
Overall Project Statistics:			
Total Project Budget	Total Cost to Date for Project		Percentage of Work Completed to Date
\$3,215,000	\$2,783,000		
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Quarterly Project Statistics:			
Total Project Expenses	Total Amount of Funds		Total Percentage of
and Percentage This Quarter	Expended This Quarter		Time Used to Date
\$1,247,000	\$13,047		

## **Project Description:**

The Roadside Safety Research for MASH Implementation program is designed to conduct research on roadside safety priorities for research projects aligned with the MASH implementation completion schedule. The compliance dates for MASH roadside safety hardware are:

- December 31, 2017: W-beam barriers and cast-in-place concrete barriers
- June 30, 2018: W-beam tangent terminals
- December 31, 2018: Crash cushions
- December 31, 2019: Bridge rails, transitions, all other longitudinal barriers (including portable barriers installed permanently), all other terminals, sign supports, other breakaway hardware, cable barriers, cable barrier terminals
- Also, temporary work zone devices, including portable barriers, manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH.

Washington State Department of Transportation is the lead agency for this pooled fund study. Texas A&M Transportation Institute (TTI) is the lead Principal Investigator and crash test site. A website is available to those interested in completed and ongoing research as well as the work plan for new inquiries. https://www.roadsidepooledfund.org/

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

The following tasks were completed in these quarters:

- The Fall 2019 Roadside Safety Pooled Fund Annual Meeting was held in College Station, TX on September 24-25, 2019. During this meeting, the 2020 projects for testing and evaluation at TTI were discussed and prioritized.
- The following projects were prioritized and proposals are being developed for the following:
  - 1. Design and Testing of a Thrie-Beam System at Fixed Object
  - 2. Design and Testing of a MASH TL-3 Thrie-Beam for Roadside and Median Applications
  - 3. Length of Need for Unanchored Guardrail
  - 4. Evaluating TL-3 Thrie-Beam Retrofit Option
- The following new Task Orders were issued this quarter:
  - 1. T4541-DL: A Study of Guardrail Placement on 6:1 Slope
  - 2. T4541-DM: 2019 Administrative Support
  - 3. T4541-DN: MASH TL-4 Testing and Evaluation of a Concrete Median Barrier with Fence Mounted on Top
  - 4. T4541-DO: Shorter TL-3 MASH W-Beam Transition
  - 5. T4541-DP: Review and Investigation of W-Beam Guardrail Terminals with Curbs
  - 6. T4541-DQ: 2019 MASH Coordination Effort
  - 7. T4541-DR: Engineering Support Services and Recommendations for Roadside Safety Issues/Problems for Member States
  - 8. T4541-DS: 2019 Travel and Meeting Assistance
  - 9. T4541-DT: Determination of the Length-of-Need for Guardrail without Anchorage: Phase 1
- Work continued on the following projects:
  - 1. T4541-CR: Placement of Guardrail on Slopes Phase IV: MASH TL-3 Testing of Guardrail
  - 2. T4541-CU: 2018 MASH Coordination Effort
  - 3. T4541-CV: Testing and Evaluation of the MGS System with Maximum Flare at MASH Test
  - 4. T4541-CW: Testing of Midwest Guardrail Systems with Reduced Post Spacing for MASH Compliance
  - 5. T4541-CZ: Thrie/W-Beam/Tubular Barrier Gap Rail for MASH TL-3
  - 6. T4541-DA: Administrative Support
  - 7. T4541-DG: MASH TL-4 Investigation and Testing of the Critical Flare Rate for Cast-in-Place Single Slope 42" Concrete barrier Flaring Around a Fixed Object
  - 8. T4541-DI: Determination of Pedestrian Rail Offset Requirements to Eliminate Vehicle Interaction
  - 9. T4541-DJ: Testing and Evaluation of Large Signs Slipbase Support on Slope at MASH TL-3 Impact Conditions
- Work was completed on the following projects:
  - T4541-DB: Engineering Support Services and Recommendations for Roadside Safety Issues/Problems for Member States

Additional project information and project activities is available by visiting the pooled fund web site:
https://www.roadsidepooledfund.org/.

Anticipated work next quarter:

Continue carrying out the research plan for testing projects approved at the September 2018 Roadside Safety Pooled Fund Annual Meeting.
Begin work on the 7 proposals that are currently awaiting executed Task Orders from the September 2018 Meeting.
Continue to plan the logistics, agenda, etc. of the Fall 2019 Roadside Safety Pooled Fund Meeting.

Significant Results:
TBD

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).

No issues at this time.