

**TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT – Q4/2022**

Date: Jan 2023

Lead Agency (FHWA or State DOT): Washington State Department of Transportation (WSDOT)

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.

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| Transportation Pooled Fund Program Project # TPF-5(343) | | Report Period: <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input checked="" type="checkbox"/> Quarter 4 (October 1 – December 31) 2022 | |
| TPF Study Number and Title: Roadside Safety Research for MASH Implementation | | | |
| Lead Agency Contact: Mustafa Mohamedali, PE, PMP | Lead Agency Phone Number: 360-704-6307 | Lead Agency E-Mail: mohamem@wsdot.wa.gov | |
| Lead Agency Project ID: T4541 | Other Project ID (i.e., contract #): GCB | Date of Quarterly Report Submission: 1/31/2023 | |
| Project Start Date: 1/1/2016 | Original Project End Date: 12/31/2021 | If Extension has been requested, updated project End Date: 12/31/2023 | |

Project schedule status:

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|--------------------------------------|---|--|--|
| <input type="checkbox"/> On schedule | <input checked="" type="checkbox"/> On revised schedule | <input type="checkbox"/> Ahead of schedule | <input type="checkbox"/> Behind schedule |
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Overall Project Statistics:

| Total Project Budget (Contracted) | Total Funds Expended This Quarter | Percentage of Work Completed to Date |
|-----------------------------------|-----------------------------------|--------------------------------------|
| ** | \$537,851 | ** |

** As the program entered the final phase a number of states were still obligating their commitments so this figure was in a bit of flux at this time. Please see 2023/Q1 report for more reliable figures.

Project Description:

Project website: <https://www.roadsidepooledfund.org/> (members only)

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.

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

The following tasks were completed in this quarter:

- The following new Task Orders were issued this quarter:
 1. T4541-FB: MASH TL-3 Evaluation of a Median Guide Rail transition to Median F-Shape Concrete Barrier
 2. T4541-FC: Evaluation of a Four Bolt Slip Base for Breakaway Luminaire Supports with Various Pole Configurations
 3. T4541-FD: Portable Sign Supports for Aluminum Signs with Variations on Mounting Height
 4. T4541-FE: MASH Test Level 3 Evaluation of a Shorter Thrie-Beam Approach Transition
- Work continued on the following projects:
 1. T4541-DJ: Testing and Evaluation of Large Signs Slipbase Support on Slope at MASH TL-3 Impact Conditions
 2. T4541-DY: MASH TL-3 Transition Design with a Storm Drain Inlet
 3. T4541-DZ: Determination of the Length-of-Need for Guardrail without Anchorage: Phase 2
 4. T4541-EC: Develop Non-Proprietary MASH-Compliant Three-Pound and Four-Pound Post Systems
 5. T4541-EE: Exploration into Variations in Beam Guard Approach Transitions to Rigid Barrier
 6. T4541-EM: Multi-Directional Base Design for Steel Beam Non-Proprietary Large Sign Supports: Phase I
 7. T4541-EQ: 2022 Program Development and MASH Coordination Effort
 8. T4541-ER: Engineering Support Services and Recommendations for Roadside Safety Issues/Problems for Member States
 9. T4541-ES: MASH 4-12 Evaluation of a Fence Mounted System for Attachments to Concrete Bridge Barrier
 10. T4541-ET: MASH Testing of a Guardrail System on 1H:1V Slope
 11. T4541-EV: MASH Crashworthy Pedestrian and Small Traffic Signals
 12. T4541-EW: 2022 Administrative Support
 13. T4541-EX: Buried-in-Backslope Terminal Variations in Foreslope, Backslope, and Ditch Configurations
 14. T4541-EZ: 2022 Travel & Meeting Assistance
- Work was completed on the following projects:
 1. T4541-CV: Testing and Evaluation of the MGS System with Maximum Flare at MASH Test
 2. T4541-ED: Develop Guidelines for Attaching MASH-Compliant Thrie-Beam Transitions to Rigid Concrete Barriers Other than the Rigid Barrier Tested when Evaluating the Thrie-Beam Transition
 3. T4541-EG: 2021 Program Development and MASH Coordination Effort
 4. T4541-EK: Transition Between Guardrail and Tangent Anchored Portable Concrete Barriers
 5. T4541-EL: Testing Type III Barricades with Aluminum Panels and Mounted Signs

Anticipated work next quarter:

- Continue carrying out the research plan for testing projects approved at the Fall 2022 Roadside Safety Pooled Fund Annual Meeting.
- Plan the logistics, agenda, etc. of the Fall 2023 Roadside Safety Pooled Fund Meeting.

Significant Results:

Per progress report above.

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).

Potential Implementation:

Implementation ongoing following successful tests for MASH compliance.