

## **Research Problem Statement**

Project Title:	MASH TL-4 Testing and Evaluation of Free-Standing (and Pinned ??) Portable Concrete Barrier (42") (2019-06-LCB)
Project Synopsis:	Please describe the proposed project synopsis within 200 words.  Evaluate and test a 42 inch tall, F-shape profile, free-standing Portable Concrete Barrier (PCB) in accordance with MASH. The PCB will be evaluated, including by computer simulation, to determine the critical tests required to certify MASH compliance at test level 4. (A different height/shape determined to be critical could be tested instead??).
Project Goal(s):	A Free-Standing Portable Concrete Barrier that is MASH compliant at test level 4.
Project Background:	The Oregon Department of Transportation designed a 42 inch portable concrete barrier and had it certified to Test Level 4 under NCHRP 350 criteria. Several states use this design or a similar design and many miles are in-service today. This project would certify that this design or a similar design meets Test Level 4 under MASH criteria.
Proposed Work Plan:	Please describe what work or test will be done and what the result will be TBD in coordination with TTI -

Deliverables:	A report providing details of the free-standing PCB, documentation of the evaluation and crash tests performed, the results of each crash test, and the assessment of the performance of the PCB according to MASH Test Level 4 specifications.
Urgency and Expected Benefit:	Several states use portable concrete barrier in a permanent installation. The major advantage of PCB is that, when used on a paved shoulder, or paved median with no embedment, it can be easily removed to accommodate pavement overlays and then replaced without damage. In Oregon, for example, PCB has been used as the standard barrier for narrow, paved medians. On facilities with high volumes and a high percentage of trucks, it is desirable to provide the additional protection of a TL-4 barrier.
Problem Funding and Research Period:	Please describe what are the estimated costs and time to complete the project - TBD in coordination with TTI -
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