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| **Roadside Safety Pooled Fund Program** **Research Problem Statement** | State:  Minnesota (MN-85) **DRAFT**  (TTI\_MN Problem Statement PCB Steel Cover Plate) |
| Title:  Portable Concrete Barrier  Steel Cover Plate for Large Open Joints | |
| Problem Statement:  Many states have an F-shape portable concrete barrier system that provides positive protection during roadway improvement projects. The length of these installations can become quiet long. This length often requires the need for an expansion joint somewhere along its length.  There is also a need for this type of connection to help with resetting the barrier after a crash.  It is also possible that such a connection could be used to traverse a bridge joint with significant longitudinal movement (e.g. finger joint). Without proper design, such movement may place excessive stresses on the deck pins or the pinned connections between the barrier units.  We also feel that such a device would help during staging of a project where access points could be accommodated without resetting the whole run of barrier. | |
| Objectives of the Study:  To develop a Portable Concrete Barrier steel connection plate. | |
| Expected Benefits:  The device would benefit construction staging and crash response time. | |
| Description of the Proposed Feature to be Tested: *(Be as detailed as possible. Include drawings and/or plans, if available.)*  Steel cover plate with an F-shape exterior with internal structural design able to withstand and transfer the crash loading to the adjacent barrier system. The design should be able to adjust for various spacing between the barrier segments, up to a few feet. Phase I would consist of engineering design and analysis and finite element simulation. Phase II would consist of full-scale crash testing. | |
| Estimated Cost *(of the feature per linear foot installed):* | Total Estimated Cost of Crash Test: |
| Contact Person: | Telephone: |