DRISI
CALTRANS DIVISION OF RESEARCH, INNOVATION AND SYSTEM INFORMATION
TRANSFORMING IDEAS INTO SOLUTIONS

Research Notes

Design

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Project Title:
CalBarrier Implementation Research

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Task Manager:
Azzeddine Benouar
Transportation Engineer (Electrical)
Azzeddine.Benouar@dot.ca.gov

CalBarrier Implementation Research

To provide training and help implement CalBarrier in the California Department of Transportation (Caltrans).

WHAT IS THE NEED?

The recently completed research project (Task ID 3848) developed an algorithm named "CalBarrier", which allows the life-cycle cost analysis for selecting proper barrier type (concrete barriers vs metal beam guardrails) for installation at different sites along the highway. The algorithm and associated method takes into account many factors including road geometry and the future maintenance resources required to maintain the barrier and the risks to Caltrans workers who are exposed to traffic during maintenance activities.

Despite the successful development of CalBarrier tool, it has yet to be incorporated into the Caltrans decision-support process for selecting the type of roadside barriers for installation. There is a need to help implement CalBarrier into Caltrans workflow. The optimal barrier type selection promises more efficient utilization of maintenance resources.

WHAT ARE WE DOING?

The planned activities in this project include reaching out to Caltrans Districts to identify key personnel involved in the decision making related to installing new or replacing old road barriers, provide them live training sessions and workshops on its usage, prepare recorded training materials, provide support for real-world usage, and document the use cases and impact of implementing CalBarrier.

WHAT IS OUR GOAL?

The goal of this project is to allow the research team from Advanced Highway Maintenance and Construction Technology (AHMCT) Research Center, UC Davis who developed CalBarrier, to work with Caltrans personnel to provide them training on CalBarrier tool and help integrate it in their decision-making workflow.

Caltrans

DRISI provides solutions and knowledge that improves California's transportation system.

WHAT IS THE BENEFIT?

CalBarrier can lead to significant cost savings for Caltrans, can benefit public via reduced highway maintenance closures and decreased potential losses due to highway accidents.

WHAT IS THE PROGRESS TO DATE?

The research team at UC Davis engaged with Caltrans HQ and DRISI personnel to identify a target audience for the CalBarrier software training sessions. The team developed training schedule and training materials, and hosted live training and software walkthrough to key Caltrans personnel. The research team provided technical support during CalBarrier usage by Caltrans, as needed.

IMAGES

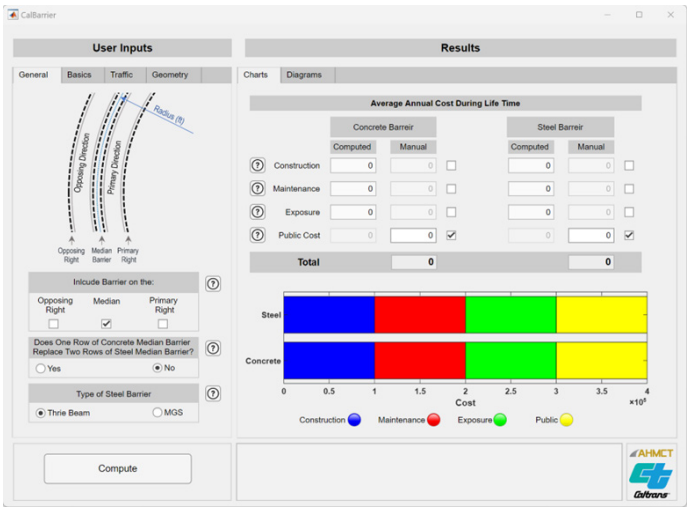

Image 1: CalBarrier