

Transportation  
Safety & Mobility

FEBRUARY 2022

Project Title:  
Evaluation of Low Cost Safety  
Improvements TPF-5(317)

Task Number: 2913

Start Date: March 1, 2005

Completion Date: Open Ended

Task Manager:  
Nathan Loeb  
Transportation Engineer  
nathan.loeb@dot.ca.gov

## Research study to encompass safety-effectiveness evaluations of priority strategies from the NCHRP Report 500 Guidebooks

Develop reliable estimates of the safety effectiveness of safety improvements identified as strategies in the NCHRP Report 500 Guidebooks through scientifically rigorous "Before"- "After" (B/A) evaluations of sites within the U.S. where these strategies are being implemented.

### WHAT IS THE NEED?

In order to achieve a national goal shared by the US Department of Transportation (USDOT), American Association of State Highway Transportation Officials (AASHTO), and Governor's Highway Safety Association (GHSA) to reduce the fatality rate and save lives annually, the safety improvement strategies will need to be appropriately implemented.

### WHAT ARE WE DOING?

The scope of the Evaluations of Low Cost Safety Improvements Pooled Fund Study (ELCSI-PFS) is to conduct a research project of the priority strategies in the NCHRP Report 500 Guidebooks. Originally, a target of 20 strategies totaling \$4.38 million over 5 years was planned for ELCSI-PFS studies in four phases. Currently, this study has outperformed its original goals, and has added many extra goals. To provide much needed reliable measures for effectiveness of various low-cost safety improvements, this study's performance period has been extended beyond 2017.



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## WHAT IS OUR GOAL?

The goal of this research is to develop reliable estimates of the effectiveness of the safety improvements that are identified as strategies in the National Cooperative Highway Research Program (NCHRP) Report 500 Guides. These estimates are determined by conducting scientifically rigorous before-and-after evaluations at sites in the United States where these strategies are being implemented.

## WHAT IS THE BENEFIT?

The Department can potentially benefit from the outcome of this research by implementing the resulting recommendations and potential solutions from the transportation pooled fund (TPF) study, TPF-5(317).

The public may benefit from the implementation of the results of this research which have the potential to improve the effectiveness in reducing the number and severity of crashes.

## WHAT IS THE PROGRESS TO DATE?

### July 1, 2021 - September 30, 2021

This pooled fund study has contributed over 800 CMFs to the CMF Clearinghouse, and this effort is on-going.

Significant Results for this quarter:

**WORKSHOPS FOR FOCUS CRASH AND FACILITY TYPES (FCFT) (COMPLETED)**

This task was awarded in June 2021, and completed in 12/2021. These are the highlights for this task:

1. Received, reviewed, and provided comments for final presentations (2) (10/05).
2. Practitioners\_ Focus Crash and Facility Type

Workshop for 50 State DOTs and FHWA Stakeholders was conducted (November 3, 2021).

3. Researchers\_ Focus Crash and Facility Types Workshop for ASA, Transportation Statistics Interest Group, academia, University Transportation Centers, and Researchers was conducted (November 15, 2021).
4. Worked with the TFHRC's publication office for editorial of technical presentations (2) and their approval by the Office of Public Affairs (HPA) (10/21 to 11/21).
5. Task Order Closeout: Documents were prepared, final invoice and PR was submitted for FOCUS CRASH AND FACILITY TYPES WORKSHOPS T(12/21).

### ELCSI-PFS, PHASE XIII

Due to the TFHRC, Office of Safety R&D's IDIQ's new contract award in February of 2022, the award of Phase XIII task order is delayed till March/April of 2022. The fund (FHWA and ELCSI-PFS) has been secured. Here are some updates:

1. Conducted feasibility study, coordinated efforts with Cathy Satterfield (FHWA, Office of Safety) and Dick Albin (FHWA, Office of Safety) of Roadway Departure Team for safety evaluations of: 1) Curve Enhanced Delineation (CED), 2) Alternative Rumble Strip (ARS), and 3) Fixed Objects Delineation of (FOD).
2. The FHWA, Office of Safety, Roadway Departure (RwD) Roadmap has contributed fund and technical resources for partnership in the Phase XIII studies for RwD safety evaluations (12/2021).
3. The Statement of Work (SOW), and Independent Government Cost Estimates (IGCE) are completed (12/2021) for following evaluations:
  - i. Turning Lane Treatments
  - ii. Rectangular Rapid Flashing Bacons.
  - iii. Sinusoidal Rumble strips.
  - iv. Curve delineation.
  - v. Fixed Objects delineation.

## ELCSI-PFS, PHASE XII

Innovative Intersection Retrofit Design for Pedestrian and Bicycle Safety completion Date is October 30, 2022. The phase is active. These are highlights of activities:

1. Meeting was conducted for drone data collection at intersections (01/26/22).
2. Data analysis was started (12/21).
3. Distributed a brochure for the INNOVATIVE INTERSECTION DESIGNS FOR PEDESTRIANS AND BICYCLISTS. This brochure is HPA approved and will be published on FHWA website soon. This brochure was sent out to the 50 State DOTs (01/26/22)