2018 Pilot Bicyclist Collision Monitoring Program

PURPOSE

The purpose of this Pilot Monitoring Program is to identify and address bicyclist related high collision concentration locations (HCCLs) and corridors, with the long-term goal of substantially reducing bicyclist fatalities and injuries on the California State Highway System.

Program framework based on research results!


Accident Analysis and Prevention

Dynamic programming-based hot spot identification approach for pedestrian crashes

Aditya Medury*, Offer Grembek

BACKGROUND

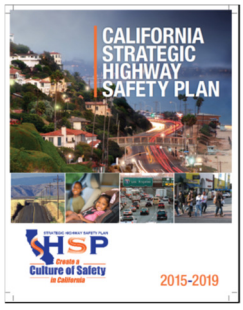
This Pilot Monitoring Program addresses Action 2.5 of California Strategic Highway Safety Plan's Bicycling Challenge Area.

In addition, this pilot program addresses the following targets and objectives:

- 2015-2020 Caltrans Strategic Management Plan Goal 1: Safety and Health
  - Strategic Objective: Reduce user fatalities and injuries by adopting a "Toward Zero Deaths" practice
  - *Target:* 10% reduction in number of bicyclist fatalities in a calendar year
- 2017 Traffic Operations Strategic Plan, Targets T1.2.3, T1.2.6, T3.1.1
- Caltrans Mode Share Action Plan 1.0, Tasks 1.5, 2.3, 3.5

PRIORITY

Safety is the Department's highest priority. The improvements initiated by the Pilot Monitoring Program are included in the category of 010 – Safety Improvement Projects.



CRITERIA

- Collision Date Range: Most recent five calendar years of data
- Statewide TASAS Selective Accident Retrieval (TSAR) selection criteria:
  - all collisions that include bicyclists, and
  - all collisions that include fatalities or injuries.
- Network Screening Methods
  - HCCLs were identified using dynamic programming, and
  - corridors were identified using a spatial density calculation, which used the variance of inter-crash spacing.

Source: CA MUTCD Figure 4D-112 (CA)

Source: SF Streetsblog

Traffic safety investigations are being conducted at 156 bicyclist related HCCLs and 96 corridors on the State Highway System to determine probable cause and to identify potential countermeasures to reduce collisions involving bicyclists.

TRAINING

Bicyclist safety training was held for statewide traffic safety staff. Workshop training outcomes included:

- ✓ Describe core bicyclist safety concepts
- ✓ Bicyclist traffic control devices
- ✓ Distinguish between various bicyclist facilities
- ✓ Identify innovative design features to enhance bicyclist safety
- ✓ Relate national objectives and priorities to improve bicycle travel
- ✓ Identify means of assessing quality of bicyclist facilities
- ✓ road safety guidelines, and
- ✓ Caltrans objectives and targets to improve bicyclist safety and increase travel by bicycle.

Version 1 (October 31, 2018)

Bicyclist Collision Monitoring Program Timeline	
Date (Month/Year)	**Milestone**
4/2018	Pilot 2018 Bicyclist Collision Monitoring Program released
10/2018	Tracking Pilot 2018 Bicyclist Collision Monitoring Program investigations continues.
4/2019	Pilot 2018 Bicyclist Collision Monitoring Program (HCCLs & corridors) investigations anticipated to be completed.
1/2020	Bicyclist Collision Monitoring Program (HCCLs & corridors) criteria to be revised with the help of the Traffic Safety Steering Committee members from Districts 2, 4, 5 and 6.
1/2020	Bicyclist Collision Monitoring Program (systemic) criteria to be developed with the help of the Traffic Safety Steering Committee members from Districts 2, 4, 5 and 6.
3/2020	Update HSIP Guidelines to reflect revised criteria.
5/2020	2019 Bicyclist Collision Monitoring Program (HCCLs & corridors) anticipated to be released.
5/2020	Pilot 2019 Bicyclist Collision Monitoring Program (systemic) anticipated to be released.
11/2020	2019 Bicyclist Collision Monitoring Program (HCCLs & corridors) investigations anticipated to be completed.
11/2020	Pilot 2019 Bicyclist Collision Monitoring Program (systemic) investigations anticipated to be completed.
1/2022	Bicyclist Collision Monitoring Program (HCCLs, corridors & systemic) criteria to be revised with the help of the Traffic Safety Steering Committee members.
5/2022	2021 Bicyclist Collision Monitoring Program (HCCLs, corridors & systemic) investigations anticipated to be released. Biennial Bicyclist Safety Monitoring Program begins.