

# Memorandum

*Making Conservation  
a California Way of Life.*

To: DEPUTY DISTRICT DIRECTORS, Construction  
DEPUTY DISTRICT DIRECTORS, Design  
DEPUTY DIVISION CHIEF, Structure Construction  
CONSTRUCTION MANAGERS  
SENIOR CONSTRUCTION ENGINEERS  
RESIDENT ENGINEERS

Date: March 15, 2021

File: Division of Construction  
CPD 21-4

  
From: RAMON HOPKINS, Chief  
Division of Construction

Subject: **WORK ZONE POSITIVE PROTECTION**

This directive provides new guidance on use of positive protection in construction work zones for ongoing projects that are in construction. Safety, Caltrans' No. 1 goal, is accomplished by providing a safe transportation system for highway workers and users of the State Highway System. Uniform application of positive protection devices in work zones enhances the safety of highway workers and the traveling public, and it supports Caltrans' safety goal. Increased use of positive protection devices was identified by Caltrans and industry partners at the 2020 Caltrans Safety Summit as a strategy to improve work zone safety.

Resident engineers and contractors should evaluate whether work zone positive protection devices on ongoing projects would reduce the likelihood of preventable injuries and deaths to highway workers and the traveling public. As part of the evaluation, the resident engineer must consult with the project engineer for input on the effect of inclusion of additional positive protection may have on the safety considerations included in the design. Work zone positive protection devices contain or redirect vehicles and meet the crashworthiness evaluation criteria contained in the *Manual for Assessing Safety Hardware* (MASH) from the Federal Highway Administration and association of state departments of transportation or the *NCHRP Report 350* of the National Research Board.

Positive protection devices should be considered in work zone situations that place workers at increased risk from motorized traffic, and where positive protection devices offer the potential for increased safety for workers and road users, such as:

1. Work zones that provide workers no means of escape from motorized traffic, such as tunnels or bridges
2. Work operations of two weeks or longer with substantial worker exposure to motorized traffic

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3. Work zones with posted speeds of 55 mph or faster, especially when combined with high traffic volumes
4. Work operations that place workers close to open traffic lanes
5. Roadside hazards, such as drop-offs or unfinished bridge decks, that will remain in place overnight or longer

Positive protection devices include:

- Impact attenuator vehicles
- Temporary concrete barriers
- Temporary steel barriers
- Moveable barrier systems
- Mobile barrier systems

Guidelines for typical use, relative costs, benefits, and other considerations for the use of positive protection devices are available at:

<https://construction.onramp.dot.ca.gov/bid-item-guidelines>

When a project evaluation identifies that positive protection is beneficial, implement the positive protection by change order. New specifications and plans for stationary impact attenuator vehicles, mobile barrier systems, and movable barrier systems are attachments to this directive for use by change order.

Attachments to this directive include a sample change order memorandum and a sample change order to implement positive protection. This directive serves as delegation of authority from the Division of Construction for change order approval, except when change order language is altered.

If you have questions or comments regarding this directive, contact Chuck Suszko, Division of Construction, at [Chuck.Suszko@dot.ca.gov](mailto:Chuck.Suszko@dot.ca.gov) or (916) 798-6029.

Attachments:

1. Sample Form CEM-4903, "Change Order Memorandum"
2. Sample Form CEM-4900, "Change Order"
3. Positive Protection Specifications
4. T24 and T25, "Mobile Barrier System Construction Detail Sheet"