TRAFFIC OPERATIONS POLICY DIRECTIVE

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DATE ISSUED
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EFFECTIVE DATE
12/01/2005

DISTRIBUTION
☑ All District Directors
☑ All Deputy District Directors - Traffic Operations
☑ All Deputy District Directors - Maintenance
☑ All Deputy District Directors - Construction
☑ All Deputy District Directors - Design
☑ All Deputy District Directors - Transportation Planning
☑ Chief, Division of Engineering Services
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☑ Publications (California Supplement Website)
http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/index.htm
☑ Headquarters Division Chiefs for:
  Maintenance, Construction, Design & Engineering Services

DOES THIS DIRECTIVE AFFECT OR SUPERSEDE
ANOTHER DOCUMENT? ☑ YES ☐ NO

IF YES, DESCRIBE
This supersedes TOPD #00-05 which covered
category 1 & 2 work zone devices.

WILL THIS DIRECTIVE BE INCORPORATED IN THE
MUTCD 2003 CALIFORNIA SUPPLEMENT? ☑ YES ☐ NO

IF YES, DESCRIBE
Part 6 Temporary Traffic Control, Chapter 6F,
Section 6F.01 Types of Devices

DIRECTIVE

In accordance with three Federal Highway Administration (FHWA) memoranda, one dated July 25, 1997 and, two
dated August 28, 1998, work zone temporary traffic control devices shall be crashworthy as defined by National

Temporary traffic control devices are divided into four categories, with each having its own level of testing requirements and
compliance dates. FHWA requires all state and local agencies to meet NCHRP Report 350 criteria for work zone traffic control
devices used on the National Highway System (NHS) routes within their jurisdictional boundaries. This directive supersedes
Traffic Operations Policy Directive (TOPD) #00-05, issued November 21, 2000, which established the California Department
of Transportation (Department) policy for Category 1 & 2 traffic control devices. This directive expands the Department's policy
to include Category 3 temporary traffic control devices.*

The Department shall implement NCHRP 350 criteria for crashworthy temporary traffic control devices in work
zones on all state highways. Crashworthiness of temporary traffic control devices shall be substantiated. When no
longer needed, temporary traffic control devices shall be removed from the work zone.

* Category 4 temporary traffic control devices are not covered by this policy directive. These will be addressed when FHWA
develops crash test requirements for Category 4.
IMPLEMENTATION

Crashworthiness of temporary traffic control devices shall be substantiated as follows:

Standard:

Category 1 devices purchased after October 1, 1998 shall be employed based on the vendor's self-certification. Self-certification shall be based on crash testing, crash testing of similar devices, or years of demonstrable safe performance.

Category 2 devices shall be on FHWA's list of Acceptable Crashworthy Category 2 Hardware for Work Zones which meet NCHRP Report 350 criteria for crashworthiness. Category 2 devices that have not received FHWA acceptance and were purchased before October 1, 2000, shall not be used. Category 2 devices in use that have received FHWA acceptance shall be labeled with the FHWA acceptance letter number and the name of the manufacturer by the start of the project. The label shall be readable and permanently affixed by the manufacturer. Category 2 devices without a label shall not be used in highway work zones.

Category 3 devices shall be crash tested in accordance with NCHRP Report 350 criteria. The Department shall include Standard Special Provision (SSP) 12-000, Standard Plans and construction details in all contract documents.

Support:

For Category 3, the compliance date was October 1, 1998 for truck mounted attenuators and work zone crash cushions. The compliance date for other Category 3 devices was October 1, 2002.

Option:

Type III barricades may be used as sign supports if the barricades have been successfully crash tested as one unit with a construction area sign attached.

DELEGATION

Standard:

This Traffic Operations Policy Directive update is published with a Standard Special Provision (SSP) update for SSP 12-000 that will be included in all contract construction and maintenance rehabilitation projects to include Temporary Traffic Control Device Categories 1, 2 & 3 as specified by the FHWA. Authority to implement this policy is delegated to each District Director and the respective Deputy District Directors over the Design, Construction, Maintenance and Traffic Operations activities within each District (or Region). This policy shall be added to the Manual on Uniform Traffic Control Devices 2003 California Supplement, Part 6, Temporary Traffic Control, to specify Department policy and implementation.

District (or Region) Traffic Design Engineers who prepare Plans, Specifications and Estimates shall include the updated SSP 12-000 in all projects wherein temporary traffic control devices and other traffic handling equipment are used.

Specific delegation to implement this directive by Division of Construction to District (or Region) Resident Engineers shall follow in a separate Division of Construction Policy Bulletin.

District Maintenance Engineers and Superintendents whose responsibility it is to administer maintenance projects with Department staff, or who perform routine roadway maintenance under contract shall observe the provisions and requirements contained in this policy directive.

District Traffic Operations staff who deploy temporary traffic control devices in the performance of their duties shall observe the provisions and requirements contained in this policy directive.
BACKGROUND

Support:

"Work Zone" and categories of temporary traffic control devices are defined as follows:

A work zone is an area of a highway with construction, maintenance, or utility work activities. A work zone is marked by signs, channelizing devices, barriers, pavement markings, and/or work vehicles. It extends from the first warning sign or rotating, flashing, oscillating or strobe lights on a vehicle to the END ROAD WORK sign or the last temporary traffic control device.

Category 1 temporary traffic control devices are small and lightweight (less than 45 kg) devices which have been in common use for many years. These devices are known to be crashworthy by crash testing, crash testing of similar devices, or years of demonstrable safe performance. Category 1 temporary traffic control devices include traffic cones, plastic drums, portable delineators, and channelizers. The Category 1 self-certification form can be obtained at the following intranet address: http://cefs.dot.ca.gov/. Click on "Forms" from the menu on the left side of the screen and type in form number "tr0030" to get a copy of the "Certificate of Crashworthiness" for Category 1 temporary traffic control devices (a copy of the blank form is attached for reference).

Category 2 temporary traffic control devices are small and lightweight (less than 45 kg) devices that are not expected to produce significant vehicular velocity change, but could cause potentially harmful reactions to impacting vehicles. Category 2 temporary traffic control devices include barricades and portable sign supports. Individual crash testing is required for Category 2 temporary traffic control devices. Category 2 devices are listed on the "Acceptable Crashworthy Category 2 Hardware for Work Zones" list maintained by FHWA and available at the following internet address: http://safety.fhwa.dot.gov/fourthlevel/hardware/listing.cfm?code=workzone and on the Department's internet address: http://www.dot.ca.gov/hq/traffops/signtech/signdel/pdf/Category2.pdf

Category 3 temporary traffic control devices consist of traffic-handling equipment and devices which weigh 45 kg or more and are expected to cause significant velocity changes to impacting vehicles. Temporary traffic-handling equipment and devices include stationary mounted and portable sign supports, crash cushions, truck mounted attenuators, temporary railing, temporary barrier, and end treatments for temporary railing and barrier. Category 3 temporary traffic control devices are shown in the Standard Plans, on project plans or listed on the Department's Highway Safety Features list at the following Internet address: http://www.dot.ca.gov/hq/esc/approved_products_list/HighwaySafe.htm

Category 4 temporary traffic control devices may be required to be crashworthy in the future to include traffic-handling equipment and devices, such as portable or trailer-mounted arrow displays, temporary traffic signals, area lighting supports, and portable changeable message signs. FHWA's determination of crash test requirement for Category 4 devices is anticipated to happen after October 1, 2006. FHWA continues to monitor the in-service crash performance of these devices and encourage the design and testing of crashworthy versions.
DEFINITIONS

When used in this Traffic Operations Policy Directive, the text shall be defined as follows:

1) **Standard** - a statement of required, mandatory, or specifically prohibited practice. All standards text appears in **bold** type. The verb **shall** is typically used. Standards are sometimes modified by Options.

2) **Guidance** - a statement of recommended, but not mandatory, practice in typical situations, with deviations allowed if engineering judgement or engineering study indicates the deviation to be appropriate. All Guidance statements text appears in **underlined** type. The verb **should** is typically used. Guidance statements are sometimes modified by Options.

3) **Option** - a statement of practice that is a permissive condition and carries no requirement or recommendation. Options may contain allowable modifications to a Standard or Guidance. All Option statements text appears in normal type. The verb **may** is typically used.

4) **Support** - an informational statement that does not convey any degree of mandate, recommendation, authorization, prohibition, or enforceable condition. Support statements text appears in normal type. The verbs **shall**, **should** and **may** are not used in Support statements.

ATTACHMENTS
### Category 1 temporary traffic control devices

Category 1 temporary traffic control devices are defined as those items that are small and lightweight (less than 45 kg) that have been in common use for many years and are known to be crashworthy by crash testing, crash testing of similar devices or years of demonstrable safe performance.

A vendor is defined as any person or organization (commercial or governmental) that designs, manufactures, sells, or deploys highway safety hardware or temporary traffic control devices.