TRAFFIC OPERATIONS POLICY DIRECTIVE

ROBERT COPP, DIVISION CHIEF (Signature)

SUBJECT:
Adoption of the Manual for Assessing Safety Hardware

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<tr>
<th>DATE ISSUED:</th>
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<td>04/18/2012</td>
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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
- Chief Counsel, Legal Division
- Publications (California MUTCD Website)
  www.dot.ca.gov/hq/traffic/signtech/mutcdsupp/ca_mutcd.htm
- Headquarters Division Chiefs for: Research and Innovation

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<th>DOES THIS DIRECTIVE AFFECT OR SUPERSEDE ANOTHER DOCUMENT?</th>
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<td>□ YES  ☒ NO</td>
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IF YES, DESCRIBE:

<table>
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<tr>
<th>WILL THIS DIRECTIVE BE INCORPORATED IN THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES</th>
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<td>□ YES  ☒ NO</td>
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IF YES, DESCRIBE:

DIRECTIVE

The Department adopts the Manual for Assessing Safety Hardware (MASH) crash testing guidelines for testing and evaluating new roadside safety hardware, bridge railings and barriers and appurtenances to those new highway safety features.
IMPLEMENTATION

- The Office of Safety Innovation and Cooperative Research, Roadside Safety Research Group (RSRG) maintains the Caltrans Dynamic Test Facility to MASH criteria.
- The RSRG evaluates new products submitted to the Department for approval that were developed after January 1, 2011, based on MASH criteria.
- The Division of Traffic Operations, Office of Traffic Safety Program (OTSP) prepares and maintains standard details and specifications for Department developed and crash tested roadside safety hardware.
- The OTSP approves roadside safety hardware that was crash tested to MASH criteria.
- The Division of Engineering Services, Office of Design and Technical Services (ODTS) prepares and maintains standard details for Department developed and crash tested bridge barriers and railings.
- The RSRG crash tests roadside safety hardware and bridge barriers and railings, and appurtenances to those devices to MASH criteria.

DELEGATION

No new delegations of authority are created under this policy.
**BACKGROUND**

The Federal Highway Administration (FHWA) currently requires that roadside safety hardware used on the National Highway System meet the crash testing criteria of National Cooperative Highway Research Program (NCHRP) Report 350 (or the latest crash test criteria adopted by FHWA). MASH was published by the American Association of State Highway and Transportation Officials on November 20, 2009, and supersedes NCHRP Report 350 for roadside safety hardware developed after January 1, 2011. The Department develops and crash tests roadside safety hardware for certain needs of projects, especially if the needs are regional and there are no suitable alternatives. The Caltrans Dynamic Test Facility has been accredited to conduct all versions of crash testing, which eliminates the need to execute a contract for testing roadside safety hardware developed by the Department.

The Department may continue to evaluate roadside safety hardware submitted for approval that used criteria contained in NCHRP Report 350, because FHWA determined that such hardware may remain in place and continue to be manufactured and installed. The decision to adopt MASH also impacts the ODT, which is responsible for standards for bridge barriers and railings. ODT has concurred with the recommendation to adopt MASH.

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**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 judgment 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 sometime 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

None.