

Memorandum

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

Date: May 27, 2021

File: Division of Construction
CPD 21-9



From: RAMON HOPKINS, Chief
Division of Construction

Subject: **REVISIONS TO CTM 540 IN ACCORDANCE WITH ASTM STANDARDS**

This directive provides information to California Department of Transportation (Caltrans) resident engineers about the revised procedure in California Test Method (CTM) 540, "Method of Test for Making and Curing Concrete Test Specimens in the Field," issued January 4, 2021. The goal is to make Caltrans' test methods consistent and compatible with American Society for Testing and Materials International (ASTM) standards.

The revised CTM 540 allows the use of 4- by 8-inch cylinder molds or 6- by 12-inch cylinder molds, in accordance with ASTM C31/C31M-19, "Standard Practice for Making and Curing Concrete Test Specimens in the Field." Refer to the [Engineering Workbench](#) website to find ASTM C31/C31M-19a.

The following are also required:

- The compressive strengths of 4- by 8-inch specimens must be determined without a correction factor.
- To determine the average compressive strength, either three 4- by 8-inch cylinders or two 6- by 12-inch cylinders must be tested. Trial batching still requires five cylinders of either cylinder size.

These changes were implemented statewide when the Section 90-1.01D(5)(a), "General," of the Revised *Standard Specifications* was published on April 16, 2021. For projects advertised before April 16, 2021, or that do not include the changes to CTM 540, the contractor may request use of the revised version of CTM 540 for ongoing projects by submitting a no-cost change order request to the resident engineer. The change order will need to be approved before placement of concrete on the project for which CTM 540 is requested to apply.

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

Adoption of 4- by 8-inch concrete cylinders does not apply to Section 28-4, "Lean Concrete Base Rapid Setting," of the *Standard Specifications*.

If you have questions or comments regarding this directive, contact Samir Ead, Division of Construction, at Samir.Ead@dot.ca.gov or (916) 764-9666 or Deborah Yost, Division of Construction, at Deborah.Yost@dot.ca.gov or (916)764-8011.

Attachments:

1. Sample Form CEM-4903, "Change Order Memorandum"
2. Sample Form CEM-4900, "Change Order"
3. Revised CTM 540, "Method of Test for Making and Curing Concrete Test Specimens in the Field"