

# Memorandum

*Making Conservation  
a California Way of Life.*

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

Date: March 31, 2022

File: Division of Construction  
CPD 22-6



From: TIM GREUTERT, Acting Chief  
Division of Construction

Subject: **USE OF MATURITY TO DETERMINE OPENING TO TRAFFIC CONCRETE STRENGTH**

This directive provides information to Department resident engineers about revised Sections 40-1.03L, "Use of the Maturity to Determine Opening to Traffic Concrete Strength"; 40-1.03J, "Protecting Concrete Pavement"; and 40-1.03O, "Smoothness and Friction Correction," of the *Standard Specifications* which became effective October 15, 2021.

The optional use of the maturity method under ASTM C1074, "Standard Practice for Estimating Concrete Strength by the Maturity Method," estimates the flexural strength or equivalent compressive strength of concrete pavement as a function of time and temperature. Maturity monitors the real-time strength development in concrete pavement. Benefits include time and money savings through earlier traffic opening, and also reduced impacts to the traveling public. Refer to the Engineering Workbench website to find ASTM C1074:

<https://ihsmarkit.com/products/engineering-workbench-platform.html>

For projects advertised before October 15, 2021, or that do not include the revised specifications, the contractor may request use of the revisions for ongoing projects by submitting a no-cost change order request to the resident engineer. The change order must be approved before fabricating test specimens to develop the strength-maturity relationship.

Attached to this directive are a sample change order memorandum, sample change order, and revised Sections 40-1.03L, 40-1.03J, and 40-1.03O of the *Standard Specifications*. This directive serves as delegation of authority from the Division of Construction for change order approval, except when change order language is altered.

DEPUTY DISTRICT DIRECTORS, Construction et al.

March 31, 2022

Page 2 of 2

If you have questions or comments regarding this directive, contact Deborah Yost, Division of Construction, at [Deborah.Yost@dot.ca.gov](mailto: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 Sections 40-1.03L, "Use of the Maturity to Determine Opening to Traffic Concrete Strength"; 40-1.03J, "Protecting Concrete Pavement"; and 40-1.03O, "Smoothness and Friction Correction," of the *Standard Specifications*