

Memorandum

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a California Way of Life.*

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

Date: August 28, 2023

File: Division of Construction
CPD 23-6



From: RAMON HOPKINS, Chief
Division of Construction

Subject: **TIE WIRES IN DOWEL BAR ASSEMBLIES**

This directive provides information to California Department of Transportation (Caltrans) resident engineers about revisions to Section 40-1.03D "Dowel Bar Placement," of the *Standard Specifications* for the 2024 edition of the specifications.

Section 40-1.03D requires that the tie wires for dowel bar assemblies in concrete pavement be cut. The primary reason for cutting tie wires is to avoid interference when taking measurements using magnetic tomography-type systems such as the MIT-SCAN2. However, Caltrans does not specify taking measurements using this kind of equipment.

Dowel bar assemblies, which are also called dowel baskets or cages, are manufactured with tie wires for improved stability during shipping and installation. The FHWA has recommended leaving the tie wires intact throughout the paving operation and subsequent life of the concrete pavement. The intact tie wires will reduce the likelihood of misaligning the dowel bar assemblies, which would affect long-term pavement performance.

The revised Section 40-1.03D allows contractors the option to request use of the updated specification for ongoing projects before the *2024 Standard Specifications* are published. Leaving tie wires intact will require less labor from contractor staff and improve long-term performance of the concrete pavement, to the benefit of Caltrans and the traveling public.

Contractors may request use of the revised Section 40-1.03D specification for ongoing projects by submitting a no-cost change order request to the resident engineer.

Attached to this directive are a sample change order memorandum, sample change order, and the revised Section 40-1.03D specification. 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.

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If you have questions or comments regarding this directive, contact 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 Section 40-1.03D, "Dowel Bar Placement," of the *Standard Specifications*