

Memorandum

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To: ALL DES DEPUTIES
Division of Engineering Services

Date: March 26, 2013

From: BARTON NEWTON
Deputy Division Chief
Structure Policy and Innovation
Division of Engineering Services



Subject: Update to Memo to Designers 20-10: Fault Rupture

MTD 20-10: Fault Rupture was first published in January of 2007. An update is required because Caltrans' practice has changed to consider probabilistically-derived seismic hazards, and to be consistent with the requirements in the new **MTD 20-8: Analysis of Ordinary Bridges that Cross Faults**.

The update to **MTD 20-10** describes when a bridge must be evaluated for fault rupture hazards. It identifies the responsibilities of Caltrans staff for determining if the earth's movement on each side of the fault (called the offset) impacts a bridge. It describes how the size, direction, and location of this offset should be determined.

The update to **MTD 20-10** should be implemented for projects with a potential for fault rupture not yet type selected. There are over 200 Caltrans bridges in Alquist-Priola Zones. California seismologists predict there is a 70% probability that a major fault in the East Bay will rupture during the next 25 years. There are Caltrans bridges across every major fault in the East Bay.

For questions or concerns on applications to a specific project, consultants/local agencies should contact the Structure Liaison Engineer. Caltrans staff may contact Mark Yashinsky at (916) 227-8719.

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