

Memorandum

*Flex your power!
Be energy efficient!*

To: ALL STAFF

Date: August 6, 2009

From: KEVIN THOMPSON
Deputy Division Chief
Structure Design
Division of Engineering Services

JAMES E. DAVIS
Deputy Division Chief
Structure Design Services & Earthquake Engineering
Division of Engineering Services

DOLORES VALLS
Deputy Division Chief
Geotechnical Services
Division of Engineering Services

Subject: Implementation of Caltrans 2009 Seismic Design Procedure

Effective September 30, 2009, all projects without previous Type Selection approval shall be designed in accordance with the 2007 Caltrans Fault Data Set and the 2009 Caltrans Seismic Design Criteria (SDC). Designers may begin using the new Fault Data Set and revised SDC now.

The 2007 Caltrans Fault Database and Map were developed primarily from California Geological Survey (CGS) and United States Geological Survey (USGS) databases. California Geological Survey and USGS geologists as well as other geologists, both in the public and private sectors made recommendations regarding what faults to include and their parameters. Since the fault data set is considered dynamic in nature, comments from the scientific community and practicing professionals are routinely reviewed and considered for inclusion.

The 2009 SDC (version 1.5) Appendix B explains the new seismic design requirements and philosophies, which are based on the recently developed Next Generation Attenuation (NGA) ground motion prediction equations (GMPE). These new design methods incorporate both deterministic and probabilistic seismic hazards to produce the Design Response Spectrum. These GMPE were the result of efforts led by the PEER-Lifelines Program, co-funded by Caltrans, Pacific Gas and Electric (PG&E), and the NGA partner developer teams, to develop state-of-the-art ground motion prediction models incorporating data from thousands of earthquake records.

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Contact Martha Merriam, Caltrans Fault Data Set Coordinator, at (916) 227-7135 if there are any questions regarding the fault database and map (see attached). Contact Mark Mahan for any questions regarding the SDC at (916) 227-8404 and Tom Shantz at (916) 227-7245 for any questions regarding Appendix B of the SDC (see attached).

Attachments

c: TAbbott, Division of Design
DAnbiah, Division of Local Assistance
LOrcutt, Division of Research and Innovation
BNewton, Structure Maintenance and Investigation
MMahan, DES/SDSEE
MMerriam, DES/GS
TShantz, DRI

Memorandum

*Flex your power!
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To: KELLY A. HOLDEN
Chief
Structure Office Engineer
Structure Design Services &
Earthquake Engineering
Division of Engineering Services

Date: August 5, 2009

From: JAMES E. DAVIS
Deputy Division Chief
Structure Design Services &
Earthquake Engineering
Division of Engineering Services



Subject: Confirmation and Delegation of Authority to Kelly Holden

Consistent with the authority delegated to me by the Chief of the Division of Engineering Services, you are hereby delegated my full authority on August 6-16, 2009 to act and to approve documents on my behalf. Please attach this memorandum to any documents that you sign or initial.