



## 20-1 SEISMIC REFERENCES

### Index to Seismic Related Memos

There are several memos and manuals that contain seismic related material. The following list is provided to assist the engineer in locating all seismic information and design data.

#### Memo to Designers

<i>Chapter</i>	<i>Description</i>
5-1	Abutments
5-2	Diaphragm Abutments
6-1	Column Analysis Considerations
6-5	Pier Walls
9-3	Widening Existing Bridges
20-1	Seismic Design Methodology
20-2	Seismic Criteria for Stage Construction
20-3	Restrainers at Hinges and Bearings
20-4	Earthquake Retrofit Guidelines for Bridges
20-5	Seismic Design Load
20-6	Design Criteria for Seismic Strength of Superstructures
20-7	Use of Ductility Procedure and Tools in the Seismic Retrofit of Bridges
20-8	Site Seismicity for Existing Bridges and Bridge Widening
20-9	Splices in Bar Reinforcing Steel
20-10	Surface Fault Rupture Displacement Hazard Investigation
20-11	Establishing Bridge Seismic Design Criteria
20-12	Site Seismicity for Existing and Temporary Bridges Carrying Public Vehicular Traffic
20-13	Tsunami Hazard Guidelines



20-14	Quantifying the Impacts of Soil Liquefaction and Lateral Spreading on Project Delivery
20-15	Soil Liquefaction and Lateral Spreading Analysis Guidelines
20-16	Seismic Safety Peer Review

### Caltrans Seismic Design Criteria (SDC)

The SDC can be viewed and downloaded from the following internet address:

<http://tresp.dot.ca.gov/earthquake/engineering/oe.html>

### Bridge Design Aids

<i>Chapter</i>	<i>Description</i>
14-1	Hinge Restrainer Design Method
14-1A	Restrainer Material Properties and Design
14-2	Steel Column Casing Design and Details
14-3	Fiber Reinforced Polymer (FRP) Composites Column Casing Systems
14-4	Joint Shear Modeling Guidelines for Existing Structures
14-5	Example Seismic Retrofit Details

### **American Association of State Highway and Transportation Officials (AASHTO) LRFD Bridge Design Specifications with California Amendments**