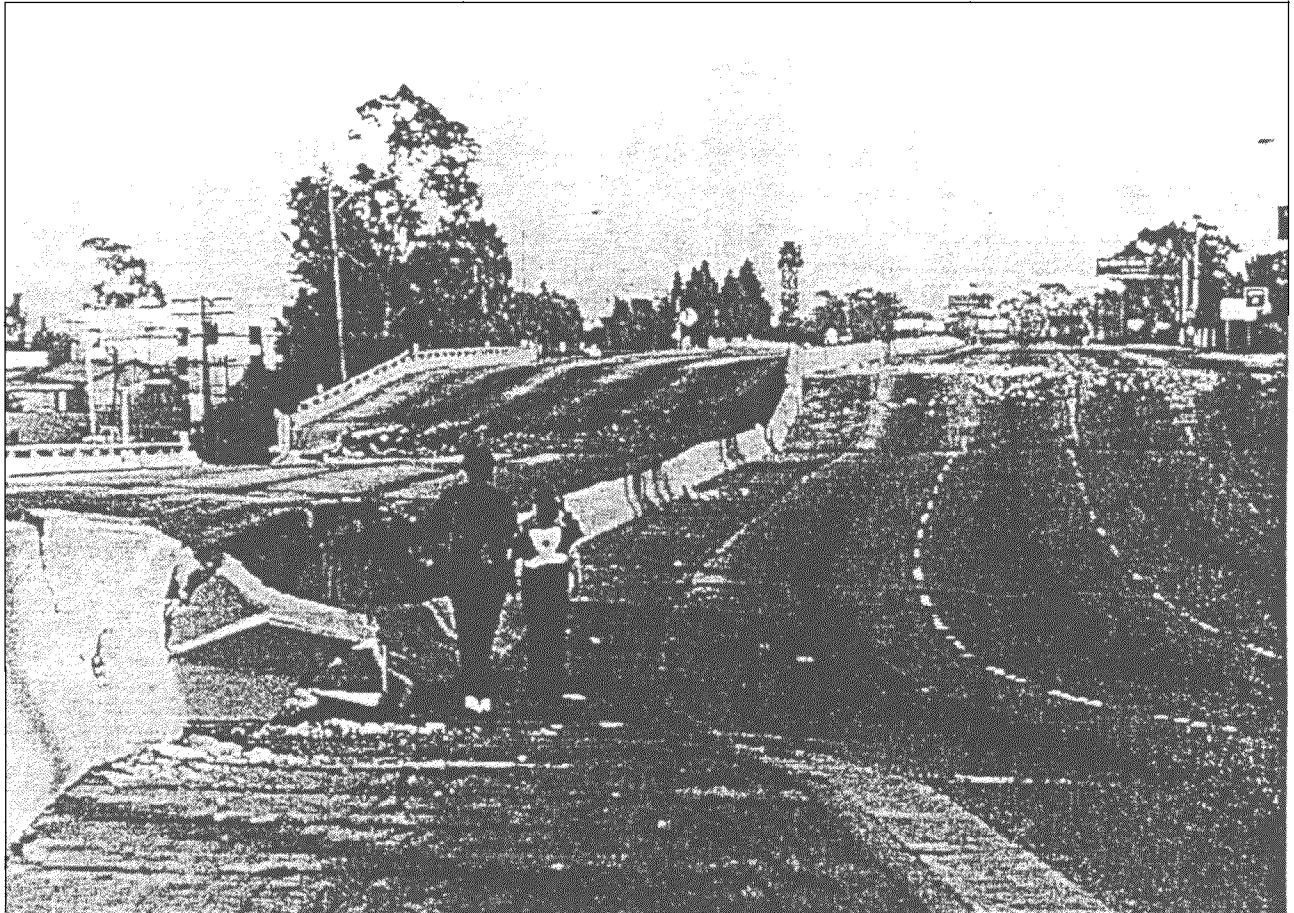


A Compendium of Background Reports on the Northridge Earthquake

(January 17, 1994)

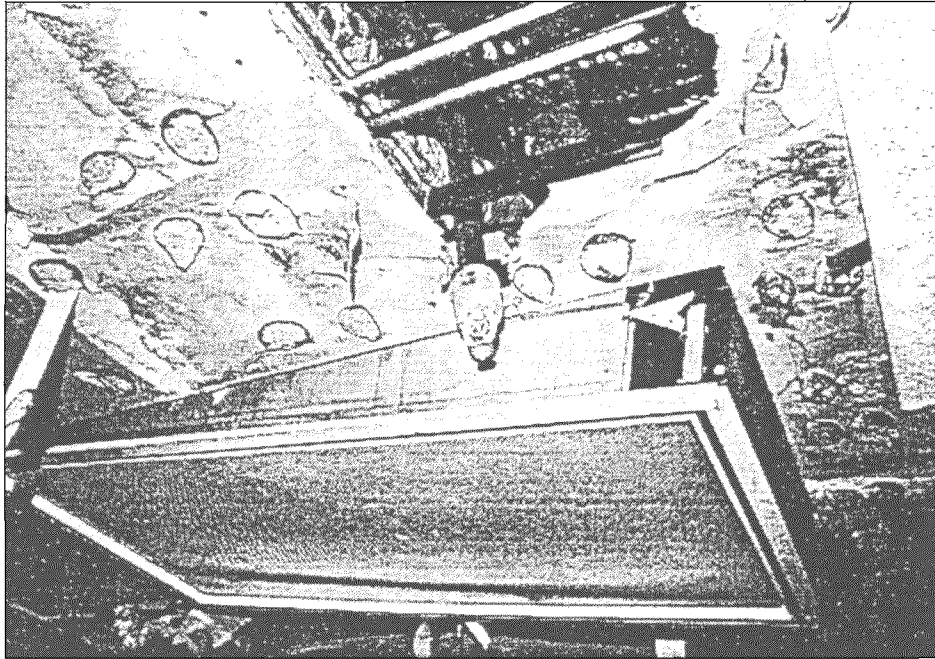
for Executive Order W-78-94



Seismic Safety Commission
State of California
March 2, 1995
SSC 94-08

Performance of Hospitals

State law recognizes the seismic performance of hospitals as especially important because they house patients who cannot take care of themselves and because hospitals are needed to serve the community following an earthquake. Was the seismic performance of hospitals in the Northridge earthquake acceptable? Is current law adequate to assure desirable performance? Is current law being implemented adequately?



PHOTOGRAPH B7.1: Break in Sprinkler Line (at Elbow Joint, Top of Photo)
Olive View Hospital *photo credit. Bob Reitherman, Earthquake Engineering Research Institute*

BACKGROUND

The 1971 San Fernando earthquake seriously damaged several medical facilities, including the brand-new Los Angeles County Olive View Hospital. Several of these facilities could not function after the earthquake, and some were later demolished. In response to the recognized need for superior seismic performance by hospitals, and spurred by these spectacular failures, the Legislature enacted the Hospital Seismic Safety Act (Hospital Act) in 1972. The intent of the act is clear:

...hospitals, which house patients who have less than the capacity of normally healthy persons to

protect themselves, and which must be reasonably capable of providing services to the public after a disaster shall be designed and constructed to resist forces generated by earthquakes. (Hospital Act 1972)

This expresses the dual rationale for special treatment of hospital buildings. First, they must be able to continue to treat their existing patients, particularly those under critical care who can't easily or safely be moved, and second, they will be needed to treat the injured after a damaging earthquake. These separate functions have not been well analyzed, and there is no detailed description of what would be necessary to fulfill ei-