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The first ten days: emergency response and protection strategies for the preservation of historic structures

MILFORD WAYNE DONALDSON [¶]

The majority of all decisions for the disposition of earthquake-damaged historic structures are made within the first ten days of a declared national emergency. The devastating effects of the 17 January 1994 Northridge Earthquake on historic buildings showed once again that strategies for the preservation of these unique resources are at the mercy of local, state and federal agencies. Alternative preservation strategies are needed to complement the post-disaster public safety recovery and reconstruction methods already in place during the disaster period. The declared emergency may last from thirty to ninety days.

Following the declaration of emergency by the President of the United States upon request by the Governor of the State, there is a myriad of federal, state and local laws, codes, ordinances and policies that are implemented within two to three days that set the stage for decision-making. Although local agencies begin search and rescue methods to protect life, the greatest threat to historic structures are policies set by the Federal Emergency Management Agency (FEMA) and the State Office of Emergency Services.

The Applied Technology Council-20 red 'unsafe' placards, the suspension of protection under the California Environmental Quality Act, conservative attitudes of liability-conscious

[¶] Architect, Milford Wayne Donaldson and Associates,530 Sixth Street, Suite 100, San Diego, CA 92101, USA. E-mail: 73410.2250@compuserve

assessment volunteers unfamiliar with historical or older building construction, the rush to secure the 'limited' FEMA funds for demolition and the unfortunate interpretation of 'imminent threat' to bodily harm or damage to adjacent property continue to destroy historic buildings. In the case of historical structures, where damage following a moderate seismic event will always be present, the attitude is that a damaged building is dangerous and should be demolished. Many damaged historical buildings are torn down to be replaced with a 'replica'. Unfortunately, the concept of replication is becoming popular, even amongst the preservation community.

For federally funded projects, the Section 106 process does not become effective until after thirty days of the declaration of an emergency. The administration time required by the State Historic Preservation Officer (SHPO) is overwhelming and the staff cannot service the number of requests. In the case of the Northridge Earthquake, SHPO contracted with a private firm to oversee and review over 2,000 applications under Section 5028 of the State of California Public Resources Code. However, the determination of 'imminent threat' continues to be made at the local level and usually within five to seven days the decision to remove the threat has been finalized.

Throughout the last twelve years, there has been a great deal of effort and understanding for the preservation of historic buildings of the various local, state and federal agencies. However, the greatest protection comes from education and preparedness of the local decision makers. Since there are few historic structures noted on local, state or national registers within California, it may be possible to predetermine the disaster response methodology far in advance of the event. At the very least, the local city or county disaster ordinance should identify the procedures of dealing with historic buildings and be prepared with an updated list of the historic structures within the region.

The emergency response and protection strategies that should be implemented within the first ten days following a seismic event for the preservation of historic buildings are the following:

1. A knowledgeable team consisting of a preservationist, structural engineer and preservation architect familiar with older construction methods should be 'on-line' and aware of the locations of the historic resources on a regional basis. The structural engineer and architect should be registered as a Disaster Service Worker with the Office of Emergency Services. This team should be in addition to the County's Department of General Services Historic Resources Team.

2. Permission should be obtained to assess the damage to the historic structure from the local agency in charge of disaster recovery and the assessment team should be allowed to report directly to the owner the recommendations for restoration or stabilization and provide cost estimates.
3. Informational brochures should be available for local disaster personnel describing policies, laws and ordinances applicable to historical buildings. Recommended information should be at least the following:

    - National Historic Preservation Act, Section 106 process;

- Programmatic Agreements (if available) between FEMA, Office of Emergency Services, SHPO and the National Advisory Council for Historic Preservation;

- Joint FEMA/Office of Emergency Services Section 406 (Stafford Act) Hazard Mitigation Policy Statement;

- State Historical Building Code and the State Historical Building Safety Board's jurisdiction and appeal process;

- Section 5028 of the California Public Resources Code and related California Environmental Quality Act issues;

- California Seismic Safety Commission's *Retrofit Incentives for Local Government*;

- The Local Disaster Response Ordinance with emphasis on historic buildings;

- The Secretary of the Interior's Standards and Guidelines for the Rehabilitation of Historic Buildings.

4. All decisions regarding demolition, partial demolition or repair methods resulting in a significant loss of historic fabric to the historical resource should receive a qualified second opinion.

5. Promote the shoring and stabilization of 'imminent hazards' by initiating a working collaboration with the Urban Search and Rescue Team through the US Army Corps of Engineers and Office of Emergency Services. FEMA provides reimbursement of engineering fees and material costs for temporary measures. Attempt to salvage *all* historic fabric and store in the resource, including loose or fallen pieces.

6. Promote the transfer of sale to an interested party if an owner does not want to restore his/her historic building. Unfortunately, the State Building Seismic Program recommends replacement of a historical building when the retrofitted cost exceeds the Benefit Cost Ratio of 120% of the new cost. Although this percentage is much better than the 60% normal building profile, many of the retrofit cost estimates are not made by knowledgeable persons with extensive experience in retrofitting historic buildings. For state-owned historic buildings, the Division of the State Architect and the SHPO must be involved in the review process.

7. A separate and distinct damage assessment placard for historic resources should be provided. Recommendations should always include permanent protection from inclement weather and potential aftershocks. With publicly-owned historic buildings, the process to initiate repair may take as long as twelve to sixteen months.

8. During the discussion of the retrofit methodology, the engineer should note that the objective of the program is to reduce hazard to life. Damage during a moderate seismic event should be expected at definite locations within most historic and older structures.

9. Establish a detailed response repair ordinance for the historic buildings within the region, including permanent seismic strengthening methods to mitigate 'imminent threats' to life safety and damage to adjacent properties.

10. Provide guidance for the sensitive mitigation of hazardous materials during the disaster assessment. The removal of asbestos-containing materials, lead-based paints, pigeon dung, bat guano and other health hazards have resulted in the removal of the historic fabric during the 'clean-up' phase.

In summary, during the 'crisis management' phase following a seismic event, the preservation of historic resources becomes the lowest priority of disaster-related activities for local, state and federal agencies. The programmatic responses and mandated processes are intact and generally not subject to change. The best way to implement preservation programs is to become part of the process and quickly provide educational information and qualified assessment personnel within the first ten days following the disaster.

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