

State of California  
Seismic Safety Commission

Memo

To: Seismic Safety Commission

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Subject: **Update on Ad Hoc Committee on Collapse-Prone Buildings**

The Committee, consisting of Chairman Randy Goodwin, Commissioners Fuad Sweiss and Kit Miyamoto, has met three times by phone since it was formed at the November 14<sup>th</sup> Commission hearing. It is refining the attached outline and text that will be proposed to the full Commission for an online guide that will provide local governments and building owners with information about managing the risks of buildings that are prone to collapse in severe shaking.

The Committee is also exploring the possibility of hiring a consultant to repackage and condense the major recommendations of the guidebook for specific audiences such as local government policymakers and regulators as well as building owners and the general public.

The Committee is also considering reaching out over the next year to stakeholders including local governments and organizations that have major research and development efforts underway.

The Committee meets again by phone on Tuesday January 14<sup>th</sup> at 9 am, so Commissioner Goodwin and I will report on additional progress on the 15<sup>th</sup> and ask other Commissioners for informal feedback.

**Staff Recommendation**

The staff recommends that Commissioners review the attached outline and be prepared to provide informal comments or ask questions to Commissioner Goodwin and staff at the January 15<sup>th</sup> hearing in Northridge.

## **Proposed Outline for a Guidebook to Identify & Manage the Risks of Collapse-Prone Buildings**

**Alternate Title: Safe with Earthquakes: A Guide to Eliminate Collapse and Promote Resilience**

### **Alternate Title: Guide to Ensure Earthquake-Resilient Buildings**

#### **1. Introduction**

- a. Background and Intended Audience for this Guidebook
- b. Types of Collapse-Prone Buildings (implying those types not covered)
- c. Summary of the Guidebook's contents

#### **2. Why Should Commercial, Institutional and Industrial Building Owners Address this Issue Including Limiting Factors**

#### **3. Why Should Governments Consider Getting Involved in this Issue Including Limiting Factors**

#### **4. Nexus for Public/Private Partnerships to Manage Collapse Risks**

#### **5. Steps to Managing the Seismic Risk of Collapse-Prone Buildings**

- a. Step One: Develop a Process that Includes an Effective Public/Private Communication Campaign and Participation
- b. Step Two: Estimate the Size and Nature of Risks Posed by Collapse-Prone Buildings
- c. Step Three: Consider and Develop Options for Mitigating the Risk
  - i. Option One: Rely on Current Triggers for Alterations in Building Code
  - ii. Option Two: Develop an Inventory of Collapse-Prone Buildings and analyze casualty risks to understand the size of the issues
  - iii. Option Three: Develop Seismic Performance Options
  - iv. Option Four: Undertake Rapid Seismic Screenings or Evaluations
  - v. Option Five: Require Detailed Seismic Evaluations and/or Ratings
  - vi. Option Six: Encourage Voluntary Seismic Retrofits or Replacements
  - vii. Option Seven: Require Seismic Retrofits or Replacements
  - viii. Considering Model Ordinances\* and Other Approaches Adopted by Local Governments
    1. Success Stories
    2. Benefits and Pitfalls of Typical Approaches
  - ix. Ranges of Current Costs for Building Owners and Occupants\*
  - x. Ranges of Current Costs to Local Governments\*
  - xi. Typical Current Benefit-Cost Comparisons\*
  - xii. Social Implications of Risk Management Alternatives – Social vulnerability in collapse-prone buildings

- xiii. Incentives
  - 1. Federal and State Financial Incentives, including tax incentives
  - 2. Local Financial and Zoning Incentives, including tax incentives and removal of disincentives
  - 3. Adaptability and Sustainability of Incentives
  - 4. Life cycle Returns on Investments as Incentives
  - 5. Market-Driven Incentives to Attract Tenants and Obtain Loans
- xiv. Other Management Considerations
  - 1. Including Seismic Objectives in Other Planning, Zoning and Development Initiatives
  - 2. Earthquake Insurance as a Tool to Transfer Liability
  - 3. Management by Metrics
  - 4. Historical Buildings Preservation
  - 5. Emergency Preparedness
  - 6. Evaluation, Stabilization, and Repair of Damaged Buildings
- d. Step Four: Implementing Effective Risk Management Programs
  - i. Adopting Long-term Perspectives and Commitments
  - ii. Building Department Personnel Qualifications and Training
  - iii. Monitoring Progress, Maintaining Inventories, Sharing Progress with State
  - iv. Reevaluating Progress Periodically, Especially after Future Earthquakes
  - v. Planning for Future Adjustments to Risk Management Programs

## **6. Reference Material**

- a. Applicable State Laws
- b. Liability Considerations for Building Owners, Governments, Contractors and Design Professionals
- c. Incentives
- d. Risk Communication Guidance
- e. Advantages and Secondary Benefits for Building Owners and Governments
- f. Ordinances and progress summaries in agencies with existing programs
- g. Recommended Model Ordinance(s)
- h. Bibliography