San Francisco’s Earthquake Safety Program
San Francisco: Built World Snap Shot

- Total Population: 825,863
- Buildings in San Francisco: 147,979
- Noticed Buildings Soft Story Program: 6,381
Here Today—Here Tomorrow:
The Road to Earthquake Resilience in San Francisco
A Community Action Plan for Seismic Safety
Earthquake Safety Implementation Program
The Soft Story Ordinance

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<th>Compliance Tier</th>
<th>Submission of Screening Form and Optional Evaluation Form</th>
<th>Submittal of Permit Application with Plans for Seismic Retrofit Work</th>
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<tr>
<td>I</td>
<td>1</td>
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<td>II</td>
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<td>IV</td>
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Ordinance 66-13: a 23-yr history

- Loma Prieta, Northridge – LABC Div 93, GSREB, IEBC A4
- Berkeley (2005)
- CAPSS
- Newsom Exec. Directive (7/08)
- SPUR (2/09)
- ATC 52-3 (2009)
- 2010: AB-094, Prop A (63.2%)
- April 18, 2013
It Takes a Village

- Mayor’s Office – Formation of ESIP
- Office of the City Administrator
- Board of Supervisors
- Department of Building Inspection
: It Takes a Village

- SF Planning Department
- SF Fire Department
- Department of Public Works
- Office of Small Business
- OEWD
- General Services Agency (311, Repro)
This Chapter shall apply to existing buildings, including mixed-occupancy buildings, that are Type V (wood-frame) construction of three or more stories or two stories over a basement or underfloor area that has any portion extending above grade, and containing five or more dwelling units and for which a permit for construction of a new building was applied for before January 1, 1978 or which is determined by the Department to have been originally constructed before January 1, 1978.

- Material: Type V (wood-frame) construction
- Stories: 3+ or 2 over basement
- Units: Five or more dwelling units
- Age: Pre-1978
3406B.2: Engineering criteria

1. FEMA P-807
2. ASCE 41-13
3. ASCE 41-06
4. ASCE 31-03 (evaluation only)
5. 2012 IEBC A4 (retrofit only)
6. Other rational methods

First story retrofit
NEES Testing – San Diego, CA
3404B.2: Screening Form

• Purpose
  – Quickly exempt buildings outside intended scope
  – Confirm buildings within intended scope
  – If in, assign Compliance Tier

• Need to account for odd cases of
  – Structural material
  – Number of stories
  – Number of units
  – Age
# Screening Form

- **Preamble**
  - Instructions
  - Pre-populated data

- **Section 1**
  - Administrative
  - Condo units
  - Re-submittal?
• Section 2
  – Exemption for previous retrofits

• Section 3
  – Scope check

• Section 4
  – Compliance Tier
Screening Form

- Section 5
- Stamp and signature
- Owner statement
- DBI use
• Exemption for previous retrofits
• AB-094?
  – If yes, skip to Section 5.2
• Other
  – Per 3402B
  – Requires Optional Evaluation Form
Screening Form Section 3

- Scope check
- 4 questions
- If any No, exempt. Skip to Section 5
- See instructions:
  - Story count
  - Type V “Target Stories”
Screening Form Section 4

- Compliance Tier
- Purpose
  - Prioritize highest life safety risk
  - Give more time for complex cases
  - Control DBI workflow
- Definitions: 3404B.3
3404B.3: Compliance Tiers

1. Tier I: Buildings that contain a Group A, E, R-2.1, R-3.1 or R-4 occupancy on any story.

2. Tier II: Buildings containing 15 or more dwelling units, except for buildings assigned to Tier I or Tier IV.

3. Tier III: Buildings not falling within the definition of another tier.

4. Tier IV: Buildings that contain a Group B or M occupancy on the first story or in a basement or underfloor area that has any portion extending above grade, and buildings that are in mapped liquefaction zones, except for buildings assigned to Tier I.

• Highest risk: Assembly, School, Assisted living
• Complex cases: Businesses, liquefaction areas
Liquefaction Areas

- ZORI map
- Block/lot lookup

Your block 1177 and lot 010 has not been found in the database.
Optional Evaluation Form

- Not required for
  - AB-094 retrofit per 3402B.2
- Required for
  - Retrofit per 3402B.1
  - Other retrofit
  - Claim of compliant building
Outreach

Target Audience:

• Design Professionals
• Contractors
• Financial Partners
  • Financing/Compliance
• Tenants
  • Hardship Reform
Outreach Events

BUILDINGS AT RISK EARTHQUAKE LOSS REDUCTION SUMMIT
A PRECURSOR TO THE GREAT CALIFORNIA SHAKEOUT

STATE OF CALIFORNIA SEISMIC SAFETY COMMISSION

ASIAN AMERICAN CONTRACTORS ASSOCIATION

AIA

Chinatown Community Development Center

華協中心

STRUCTURAL ENGINEERS ASSOCIATION CALIFORNIA
Earthquake Retrofit Fair

January 28, 2014
3pm-7pm
Bill Graham Civic Auditorium
99 Grove Street

Design Professionals | Contractors | Banks | Building Owners

To participate in this event please contact
Jeno Wilkinson at (415) 554-4925 or
Jeno.Wilkinson@sfgov.org
Building Private Industry Relationships
Summer Interns and Fellowships
The EPICENTER is a pop-up collaborative space for earthquake policy research and development. The center, a project of the San Francisco City Administrator’s Earthquake Safety Implementation Program (ESIP), is aimed at engaging the public, working directly with design professionals, and the hands-on development of effective and innovative public policy aimed at reducing the impacts of earthquakes on San Francisco.

At our South of Market location, The EPICENTER strives to promote an effective, well-managed public sector and nurture a climate of civic engagement (SPUR, Good Government) by connecting professionals, policy makers, and the community in one space to ask the question: How can we make San Francisco safer from earthquakes tomorrow than it is today? Our mission, then, is simple: to collaborate, to innovate, and to educate.
The EPICENTER Opening Event
Earthquake Safety Implementation Program

Some Current Tasks

Private Schools
Voluntary Cripple Wall Retrofits
Façade Maintenance
Private Schools

- Private schools are currently not required to meet the same standards as public schools
- Approximately 1/3 of SF children attend private schools
- Public expectation does not reflect reality
- Collapse or extensive damage to even a few schools can result in many deaths or injuries to children
- Schools are an essential part of the City’s post-disaster recovery efforts.

1933 Long Beach Earthquake killed 115 people and damaged several schools leading to the passage of the Field Act.
Private Schools

- Policy working group established in early 2012
- Outreach to every private school administrator for participation
- Examined and discussed all policy options at length
Final policy recommendations to Mayor Lee in early 2014

Policy recommendations will be for mandatory structural evaluations of all San Francisco private schools within 3 years.

Ordinance development underway and introduction is expected next month.
Façade Maintenance Program

Façade programs exist in the following cities:

- New York
- Boston
- Chicago
- Columbus
- Detroit
- Milwaukee
- Philadelphia
- Pittsburg
- St. Louis

San Francisco will be the first west coast city to adopt a façade ordinance.
Façade Maintenance Program

Program Requirements

• Working group policy analysis underway

• Periodic inspection of façade by engineer of the owners choosing

• Reports submitted to the Department of Building Inspection

• Requires mitigation of unsafe conditions
Voluntary Cripple Wall Retrofits

California Residential Mitigation Program

- Provides a $3,000 rebate for retrofits done in accordance with CEBC Appendix A3
- In process of local SFBC Administrative Bulletin for implementation
Voluntary Cripple Wall Retrofits

- CEBC Appendix A3 is a prescriptive method of retrofit for cripple walls 4’ or less
- Exception allows for larger cripple walls when recommended by an engineer
Get Involved!

Working Groups  |  Facebook  |  Website  |  Visit EPICENTER

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www.sfcapss.org

245 Third St.
SF, CA 94103