

# University of California

## Seismic Safety Policy Overview & Compliance Webinars August & September 2017

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# Presenters

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# Agenda

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- UC's overall seismic oversight program and the 3 elements of the methodology as adopted by the Seismic Mitigation Task Force
  - Element 1- Seismic Risk Model
  - Element 2- Seismic Advisory Board
  - Element 3- Seismic Safety Policy
- Overview of the Policy
- Factors for Prioritization for retrofit
- Details of applicability of seismic ratings to different transactions
- Provisional Use for certain leased spaces and Waivers

# Methodology to manage UC's Seismic Program

- One purpose – Enabling operations in furtherance of UC's mission while managing life safety
- Three key elements

## Element 1

### **Seismic Risk Model (SRM)**

The SRM, focusing on life safety, analyzes buildings rated V (Poor) or VI (Very Poor).

## Element 2

### **Seismic Advisory Board (SAB)**

SAB advises the UC system, starting from the SRM results, on reducing its seismic risk.

## Element 3

### **Seismic Safety Policy (SSP)**

Lays out factors and rules for managing seismic risk in existing buildings and for adding new buildings to UC's inventory

# The Seismic Risk Model (SRM)\*

## Component 1

### Hazard

Strength of ground motion  
 - Soil condition  
 - Distance from the fault line

## Component 2

### Damage

Vulnerability of the building  
 - Seismic rating of the building  
 - Structural/construction type

## Component 3

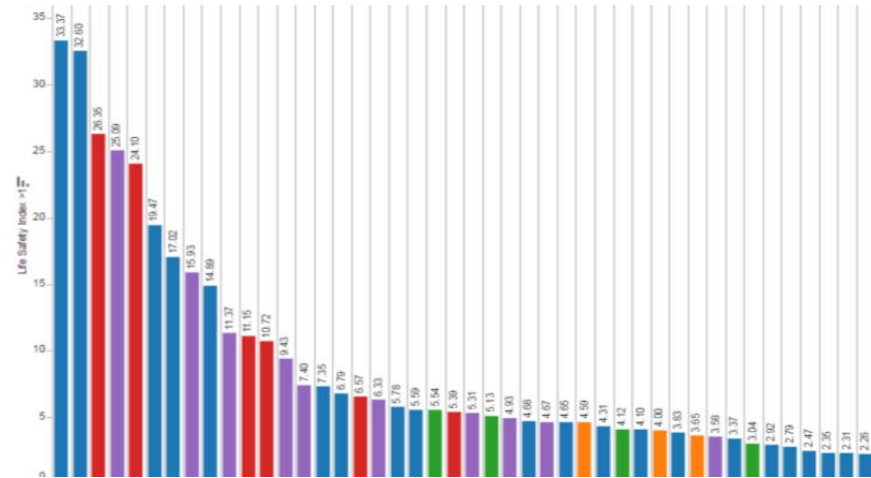
### Consequence

Life Safety Index  
 - Relative to newly designed building

Campus	ZIP	CAAN	Building Name	Built	Retrofit	Demo	Rating After	Rating Before	Occupancy	MBT
1										

What we collect for the SRM

What the SRM does



Ordered list by Life Safety Index

UNIVERSITY OF CALIFORNIA \* SRM is a HAZUS based Model

- FEMA developed HAZUS (HAZard USa) to manage hazards including floods, hurricanes, and earthquakes
- HAZUS has capabilities to identify other consequences or loss such as down time and capital loss. SRM focused on life safety

# Seismic Advisory Board (SAB)

- Provides technical advise to UC
- Reviews and advises on the output of the Seismic Risk Model
- Reviews and comments on campus prioritization plans

## Structural Engineers Assigned to Campuses

- I. **Ron Hamburger**, *Simpson Gumpertz & Heger (UCR & UCI)*
- II. **Joe Maffei**, *Maffei Structural Engineering (UCD & UCSC)*
- III. **Holly Razzano**, *Degenkolb (UCSF& UCM)*
- IV. **Tom Sabol**, *Englekirk (UCSB & UCSD)*
- V. **Mason Walters**, *Forell/Elsesser Engineering (UCB) – Chair of the SAB for year 1*
- VI. **Nabih Youssef**, *Nabih Youssef Associates (UCLA)*

### SRM Expert

Craig Comartin, *CDComartin, Inc.*

### OP Representative

Vini Bhargava

### Geotechnical Expert

Jonathan Bray, *JD Bray Consultants & UCB Faculty*

### OGC Representative

Norm Hamill

# Policy Overview

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1. Managing UC Owned Buildings
  - a. SRM and SAB oversight vs. Interim Use Plans
  - b. No occupancy beyond 2030 unless modified
  - c. Guidance on prioritizing retrofit based on several factors
  - d. As funds become available, include projects in the Capital Financial Plan
  - e. Incremental upgrades to continuously reduce seismic risk
  - f. Code compliance (with the California Building Code) for all retrofits
  
2. Entering into Leases
  - a. UC as lessee
  - b. Ground leases
  
3. Acquiring facilities/buildings/structures
  
4. Acquiring Businesses
  
5. Entering into licenses

# Applicability of Seismic Ratings for Different Transactions

	III (Good)	IV (Fair)	V (Poor)	VI (Very Poor)	VII (Red Tag)			
Existing UC Buildings	Undiminished continued use		<ul style="list-style-type: none"> <li>Provide building data to OP for the model, work with advisory board for prioritization following guidelines in policy</li> <li>No occupancy beyond 2030</li> </ul>		None in current UC building portfolio			
	Acquire/Lease and occupy?		Acquire/Lease?	Occupy?*	Acquire/Lease?	Occupy?	Acquire/Lease?	Occupy?
Acquisitions	Yes		Yes	Up to 24 months	Yes	No	Yes	No**
Leases	Yes		Yes	Up to 24 months	No	No	No	No
Business Acquisitions***	Yes		Yes	Up to 24 months	Yes	No	Yes	No

\*Occupancy of a leased or acquired V is allowed only for surge space while an existing UC owned V or VI is being retrofitted  
 \*\*Appropriate for a strategic land acquisition with a seismically deficient structure/building on it; structure/building to be demolished within 3 months  
 \*\*\*A lease is assumed by the University when it acquires a business (eg. a clinical practice)



# Some Factors for Prioritization after the SRM results

- Building collapse risk
- Logistics (staging & displaced occupants)
- Cost-benefit (replacement)
- Post-upgrade functionality (still fit?)
- Incremental seismic performance upgrades
- Mission criticality
- Building population and use (reduce use)
- Financial resources
- Business resumption after an event
- Special building features (historical)
- Adjacencies (risk to adjacent buildings)
- Ownership (UC's ability)

# Provisional Use and Waivers

## PROVISIONAL USE FOR CERTAIN LEASED FACILITIES

- Less than 3K sqft and no children
- One-story, wood-frame
- Trailer with no gas connection
- DSA or OSHPD

## WAIVERS

**UNIVERSITY OF CALIFORNIA** SEISMIC SAFETY POLICY WAIVER FORM

<b>Requestor:</b>	Click here to enter text.	<b>Date of Request:</b>	Click here to enter a date.
<b>Campus/Location:</b>	Choose location. If you select "Other," please indicate in "Property Address."	<b>Effective Date of Policy:</b>	Click here to enter text.
<b>Property Address:</b>	Click here to enter text.	<b>Section of Policy to Be Waived:</b>	Click here to enter text.
<b>Waiver Requested Until:</b>	Click here to enter text.		

**Reason for Waiver:**  
Click here to explain why you cannot comply with the Seismic Safety Policy.

**Attachments:**  
Click here to list attachments.

**Comments:**  
Click here to provide additional comments.

<b>Reviewed By:</b>	Click here to enter text.	<b>Date:</b>	Click here to enter a date.
<b>Last Updated By:</b>	Click here to enter text.	<b>Date/Time:</b>	Click here to enter text.
<b>Comments (OP/OGC):</b> Click here to enter text.			

**Approved**       **Denied**

<b>Waiver in Effect Until:</b>	Click here to enter text.		
<b>Approved By:</b>	Click here to enter text.	<b>Date:</b>	Click here to enter a date.

**Signatures:**

_____ Designated Campus Building Official (DCBO)	_____ Office of General Counsel (OGC)	_____ Office of the President (OP)
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# Questions?

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