



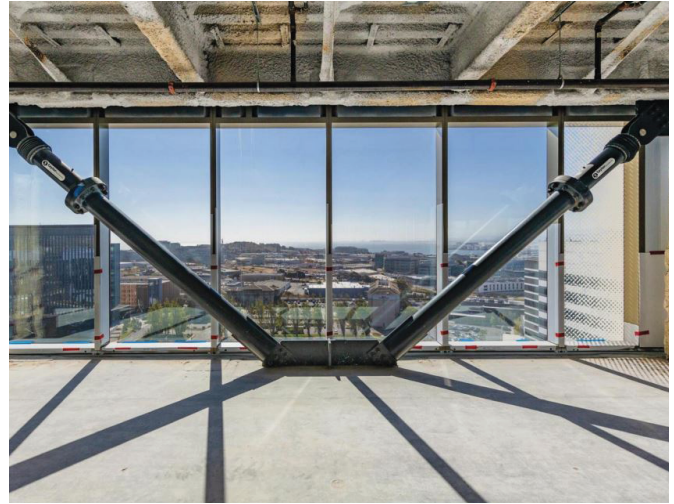
# SEISMIC EVALUATIONS AND RETROFITS

Seismic events can have catastrophic consequences, especially for older buildings with known vulnerabilities or those in tremor-prone locations. Knowing a building's potential issues in advance of an earthquake enables owners to make valuable upgrades to their assets, potentially staving off costly repairs, and greatly improving the safety of building occupants. IMEG's structural engineers are recognized for their expertise in seismic evaluation and design and are called upon to retrofit buildings to mitigate potentially hazardous conditions, to comply with state and local ordinances, or to maintain a certain level of operation after a seismic hazard. Achieving building compliance does not always necessitate modifications but when analysis indicates that it does, IMEG's team strives to develop creative, cost-efficient, and minimally disruptive solutions.

**IMEG's experts guide clients through the complex and often confusing process of seismic bracing and retrofitting of projects.**

IMEG addresses a variety of foundation and framing systems, including large-span, mid- and high-rise structures. Our experienced engineers apply specialized skills to seismically design or strengthen historic buildings in need of restoration, add to or expand existing buildings, replace non-structural components, or provide appropriate support for new construction. Our proven solutions achieve owners' goals by understanding complex project challenges while adhering to project costs and schedules, often while being at the forefront of seismic engineering innovation. For example, IMEG provided structural design for the first base-isolated building in the U.S., the Foothill Law and Justice Center in Rancho Cucamonga, CA. Additional achievements include:

- Extensive seismic evaluation and upgrade experience with thousands of seismic evaluation and/or upgrade projects for various jurisdictions and types of structures (wood, concrete, steel, masonry)
- Profound knowledge and practical ASCE 41 experience through evaluation/upgrade of hundreds of hospital buildings, school buildings, and commercial/mixed-use buildings
- Staff availability with relevant experience to review large campus or client portfolio projects simultaneously
- Thorough understanding and knowledge of state and local regulations as well as other applicable codes, municipal ordinances, and policies
- Extensive peer review and plan checking experience with large governmental and public agencies throughout the past 10 years (consistently ranked among top selected firms)
- Active participation and membership on national and local committees developing seismic regulations, including NCSEA, SEAOC, ASCE, FEMA, ATC, among others



## CODES AND STANDARDS

- Federal, State, and Local Ordinances/Mandates
- Senate Bill SB1953 (SPC-4D, NPC-3, 4D & 5)
- FEMA P-58
- ASCE 41 (Tier 1-3)
- VA H-18-8

## AREA OF EXPERTISE

- Performance-Based Design
- Mandatory and Voluntary Retrofits
- Pre- Northridge Moment Frame
- Soft Weak Open Front (SWOF) Structures
- Disaster Emergency Services
- Post-Event Occupancy Rating
- Accelerated Building Recovery (BORP/ABR)
- Historic Structures
- Adaptive Reuse
- Unreinforced Masonry (URM)
- Non-Ductile Concrete