# PERSONNEL QUALIFICATIONS



# James A. Mahaney | Principal



# **EDUCATION**

- University of California, Berkeley
  - Bachelor of Science, Structural Engineering, 1975
  - Master of Science, Structural Engineering, 1976

# **PRACTICE AREAS**

- Construction Documents and Specifications
- Earthquake Damage Assessment
- Fire Damage Investigation
- Litigation Consulting
- Repair and Rehabilitation Design
- Seismic Repair and Retrofit Design
- Structural Evaluation
- Wood Structures

# **REGISTRATIONS**

- Civil Engineer in CA and NV
- Professional Engineer in MI
- Structural Engineer in CA, MA, NV, and WA

### **PROFESSIONAL AFFILIATIONS**

- American Society of Civil Engineers (ASCE)
- Earthquake Engineering Research Institute (EERI)
- Structural Engineers Association of Central California (SEAOCC)

### CONTACT

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#### **EXPERIENCE**

James Mahaney has expertise in the investigation of existing structures and the design of new structures, having completed more than five hundred investigation, evaluation, and design projects since joining WJE in 1986. Mr. Mahaney has evaluated the structural performance of existing buildings, taking into account in-place conditions and materials. He has designed structural modifications with special regard to code conformance, structural performance, architectural form and function, and construction costs.

Mr. Mahaney's experience also includes new building designs, seismic upgrades, failure investigations, fire-related damage investigations, and performance evaluations. He has written numerous technical papers and has received a California Preservation Foundation Design Award for the Alcatraz Cellhouse seismic retrofit. Prior to joining WJE, Mr. Mahaney served as a principal of an engineering-architectural firm, where he provided a variety of design services for property and business owners, developers, and governmental agencies.

# REPRESENTATIVE PROJECTS

# **Construction Documents and Specifications**

- Placer County Water Agency Auburn, CA:
  Occupancy conversion of historic woodframed building with stone foundation
- Recology Transfer Facility Auburn, CA: Modifications to existing tilt-up-wall, steelframe building to accommodate new transfer system
- Ridgeview Office Complex Auburn, CA:
  Design development for steel- and woodframed buildings
- Twenty-Story Tower Sacramento, CA:
  Conceptual design of tower with underground parking for feasibility study

# **Earthquake Damage Assessment**

- Twelve-Story Concrete Shear-Wall Building -Burlingame, CA: Damage survey, analysis, and repairs
- Twelve-Story Concrete Moment-Frame Building - Guam: Damage survey and analysis with concept repairs
- 1930s Reinforced Concrete Buildings Napa,
  CA: Condition assessment

# **Fire Damage Investigation**

- High-Rise, Steel-Frame Office Complex Los Angeles, CA: Evaluation and repair recommendations
- Coking Facility Rodeo, CA: Concrete damage assessment, repair design, and construction observation
- Motel South Lake Tahoe, CA: Masonry wall and wood-frame damage assessment

# Repair and Rehabilitation Design

- California State University Sacramento CA: Evaluation and strengthening of scaffoldtype bleachers
- Mertz Office Building Auburn, CA: Seismic upgrade and supplemental roof for major facade remodel
- 4417 Oakport Street Oakland, CA:
  Modifications to existing steel and woodtruss buildings and design and construction of new office building

# Seismic Repair and Retrofit Design

- Alcatraz Island Cellhouse San Francisco,
  CA: Seismic evaluation and upgrade
- 155 Filbert Street Oakland, CA: Evaluation and upgrade design for an unreinforced masonry building
- Presidio Building 314 San Francisco, CA:
  Upgrade of three-story reinforced-concrete building to "essential" facility seismic performance level

# **Structural Evaluation**

- Wood-Framed Structures CA: Field testing, analysis, and repair recommendations
- Balcony Investigation Marysville, CA:
  Analysis and ACI-load test of cantilevered concrete balcony
- Modesto Irrigation District CA: Structural analyses, material testing, condition surveys

# **Wood Structures**

- Wind-Damaged Roof System Yuba City, CA: Investigation, analysis, and repair design
- CUREE Wood Frame Project Richmond, CA: Testing of 50+ shear walls with a variety of sill plate anchors

# **TECHNICAL COMMITTEES**

 American Wood Council - Wood Design Standards Committee

