# WJE



# **EDUCATION**

- California State University, Chico
  - Bachelor of Science, Civil Engineering, 2007
- Stanford University
  - Master of Science, Structural Engineering, 2010

# **PRACTICE AREAS**

- Failure Investigation
- Structural Design
- Repair and Rehabilitation Design
- Historic Preservation

# REGISTRATIONS

- FHWA-NHI Trained Bridge Inspector
- Professional Engineer in CA
- Structural Engineer in CA and HI

# **PROFESSIONAL AFFILIATIONS**

- American Council of Engineering Companies of Hawaii (ACECH)
- Structural Engineers Association of Hawaii (SEAOH)

# AWARDS

 2007 ASCE Award for Professionalism

# CONTACT

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# PERSONNEL QUALIFICATIONS

# **Michael A. Greer** | Associate Principal and Unit Manager

# EXPERIENCE

Since joining WJE in 2014, Michael Greer has been involved in numerous structural failure investigations, including fire, flood, corrosion, earthquake, and volcano damage. He also has expertise in the design and retrofit of structures and condition surveys. He is proficient in the design of wood, concrete, masonry, and steel structures with retrofit design experience ranging in size and scope from single element to large custom fabrication solutions for entire structures. Mr. Greer has experience working with industrial, residential, commercial, and historic structures, and has project experience in Hawaii, California, Chile, El Salvador, and Guam.

# REPRESENTATIVE PROJECTS

# **Failure Investigation**

- Volcano Damage Puna, HI: Numerous investigations of reported damage due to effects of volcanic eruption
- Earthquake Damage Volcano, HI: Investigation of reported earthquake damage to personal residence
- Fuel Tank Collapse Anderson, Guam: Investigation of failure of on-grade steel fuel tank
- Power Plant Piti, Guam: Structural condition survey of fire and explosion damage
- Tilt-up Concrete Walls Kapolei, HI: Investigation, including laboratory testing of construction chemical performance failure
- Fire Damage Investigation Kahului, HI: Investigation of structural damage from fire to steel CMU and concrete structure
- Flood Damage Hanalei, HI: Investigation of flood damage to personal residence
- Diamond Head Ambassador Honolulu, HI: Water infiltration investigation

# **Structural Design**

- Ala Moana Ewa Expansion Honolulu, HI: Design of new stone facade anchors
- Ritz Carlton Residences Honolulu, HI: Design of new stone feature wall anchors
- VYNCKE Plant Mejillones, Chile: New construction of a large steel industrial structure in a very high-seismic region\*
- Garlinghouse Residence Atherton, CA: New construction of three-story wood custom home\*

Birch Plaza - Palo Alto, CA: New construction of four-story, multiuse building of wood, steel, and concrete construction\*

# **Repair and Rehabilitation Design**

- Queen Kapiolani Hotel Honolulu, HI: Design of repairs to concrete facade
- Hilo Federal Building Elevator Replacement -Hilo, HI: Design of structural supports for new elevators in existing structure with limited asbuilt information
- Hawaii State Capitol Honolulu: Investigation and structural design for replacement of fifth-level facades, upper roof, and fourth-floor lanais
- Kaka'ako Commerce Center Honolulu, HI: Parking deck corrosion investigation and repair design
- Banyan Tree Plaza Honolulu, HI: Window wall repair design due to walking glass

# **Historic Preservation**

 Basilica del Salvador - Santiago, Chile: Temporary seismic retrofit of partially collapsed unreinforced brick cathedral built in the 1800s\*

\*Indicates with previous firms

# PUBLICATIONS

- Greer, Michael et al. 2014. Retrofit, using seismic isolation, of the heavily damaged Basilica del Salvador in Santiago, Chile. Paper presented at the New Zealand Society for Earthquake Engineering Conference, Auckland, New Zealand
- Greer, Michael et al. 2014. Effects of the Seismic Vertical Component on Structural Behavior - An Analytical Study of Current Code Practices and Potential Areas of Improvement. Paper presented at the Tenth U.S. National Conference on Earthquake Engineering, Anchorage, AK

