



EDUCATION

- Drexel University
 - Bachelor of Science, Architectural Engineering, 2010
 - Master of Science, Civil Engineering, 2010
- Purdue University
 - Doctor of Philosophy, Civil Engineering, 2013

PRACTICE AREAS

- Structural Analysis/Computer Applications
- Seismic
- Failure/Damage Investigations
- Structural Metals
- Wood Structures
- Concrete Structures

REGISTRATIONS

- Civil Engineer in CA
- Structural Engineer in CA

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE)
- American Wood Council (AWC)
- Earthquake Engineering Research Institute (EERI)
- Structural Engineering Institute (SEI)

CONTACT

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EXPERIENCE

Jeffrey Dowgala is experienced in designing, researching, assessing, and analyzing a variety of commercial and residential structures. His background includes hands-on experience in vibration instrumentation and experimentation. Dr. Dowgala has a working knowledge of modeling, which includes work on the three-dimensional model of a forty-eight-story reinforced-concrete building. He is also skilled in the field and has performed numerous condition assessments.

Prior to joining WJE, Dr. Dowgala studied at Purdue University, where he received his doctoral degree. His primary academic research focused on using earthquake response data to extract an empirical capacity curve for buildings, as a means to quickly quantify the global structural system damage sustained.

REPRESENTATIVE PROJECTS

Structural Analysis/Computer Applications

- High-Rise Commercial Building - Las Vegas, NV: Time-history analysis of a three-dimensional model for a forty-eight-story reinforced concrete building
- I-80 Bridge - Des Moines, IA: Three-dimensional, nonlinear analysis for conversion from a seven-span, simply supported bridge into a continuous, jointless bridge

Seismic

- Napa County Jail - Napa, CA: Evaluation of post-earthquake damage of a three-story, concrete and reinforced masonry building
- Grace Bakery - Richmond, CA: Design for new equipment and anchorage to address seismic demands
- Pedestrian Bridge - Emeryville, CA: Compilation of characteristic ground motions for a time-history analysis of a structural model
- Twelve-Story Hotel - San Francisco, CA: Evaluation of potential seismic hazard from terra cotta lintels on a 1920s-era building

Wood Structures

- Various Residential Homes - Bay Area, CA: Construction condition assessments of residential buildings
- Large Apartment Complex - San Jose, CA: Wood-structure assessment for moisture damage
- Century 21 Movie Theater - San Jose, CA: Current condition assessment of historic, domed movie theater

Failure/Damage Investigation

- Crystal Ice Warehouse - Sacramento, CA: Fire damage assessment of historic 1920s-era warehouse
- Shoring Collapse - San Francisco, CA: Evaluation and analysis of concrete shoring collapse

Structural Metals

- Commercial Building - Mumbai, India: Development of repairs using structural steel and observations of welding per AWS D1.1 requirements
- The Clorox Building - Oakland, CA: Design of a steel staircase and evaluation of its addition to the existing steel-framed, 1970s-era building

Concrete Structures

- Parking Garages - Stanford, CA: Condition assessment of various post-tensioned, multi-level parking garage structures
- Parking Garage - Walnut Creek, CA: Condition assessment of post-tensioned strands exposed to moisture
- Commercial Building - Mumbai, India: Condition assessment of reinforced-concrete and post-tensioned strands for chloride contamination
- High-Rise Commercial Building - San Francisco, CA: Investigation of reinforced concrete, load-bearing elements
- Commercial Building - San Francisco, CA: Observation of epoxy dowel installation into unreinforced masonry walls