



## PERSONNEL QUALIFICATIONS

### Brent Chancellor | Associate Principal



#### EDUCATION

- University of Oklahoma
  - Bachelor of Science, Civil Engineering, 2005
  - Master of Science, Civil Engineering, 2007
- Lehigh University
  - Doctor of Philosophy, Structural Engineering, 2014

#### PRACTICE AREAS

- Failure/Damage Investigations
- Structural Evaluation and Rehabilitation
- Construction Engineering
- Seismic Evaluation and Retrofit
- Nonlinear Finite Element Analysis
- Tall Building Engineering
- Peer Review
- Space Structures

#### REGISTRATIONS

- Professional Engineer in CA, FL, NJ, NY, and PR

#### PROFESSIONAL AFFILIATIONS

- American Concrete Institute
- American Institute of Steel Construction
- American Society of Civil Engineers
- Council on Tall Buildings and Urban Habitat

#### CONTACT

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#### EXPERIENCE

Brent Chancellor joined WJE in 2019 with thirteen years of experience in structural engineering design, analysis, research, and testing. Dr. Chancellor's practice areas include investigating and fixing problems in existing structures, problem avoidance through peer reviews, and design consulting to develop high performance structural systems for unique conditions or to survive extreme events. He endeavors to bring value to clients through value engineering of structures and enjoys helping contractors navigate the process of construction by engineering solutions that speed erection times, create safer job sites, save money, and reduce effort.

Dr. Chancellor's experience spans many structure types, including tall buildings, aviation structures, mixed-use buildings, residential structures, office buildings, industrial buildings, and space structures. He has experience with many types of hazards including wind, seismic, and man-made threats.

#### REPRESENTATIVE PROJECTS

##### Failure/Damage Investigations

- Ten-Story Residential Building - Sarasota, FL: Investigation of and repair recommendations for distressed concrete columns, concrete masonry walls, and reinforced concrete slabs
- Three-Story Residential Building - Palm Coast, FL: Investigation of precast concrete lintel failure during construction
- Eight-Story Parking Garage - Boca Raton, FL: Load test instrumentation and observation of parking garage spandrel beams showing signs of significant distress

##### Structural Evaluation and Rehabilitation

- Alhambra Plaza - Coral Gables, FL: Rehabilitation, including concrete and post-tensioning repairs, of four-story parking post-tensioned structure
- Twenty-Five Story Hotel/Condo Building - Fort Lauderdale, FL: Evaluation of slab capacity with loss of post-tensioning

##### Construction Engineering

- Development of Fast-Track Construction Sequencing for Multiple Tall Buildings - Kuala Lumpur, Malaysia: Schematic design of up-down construction sequence to cut months off construction schedule \*

##### Seismic Evaluation and Retrofit

- Universidad Sagrado Corazon - San Juan, Puerto Rico: Initial seismic condition assessment of campus building to identify vulnerabilities and recommend structures for further evaluation and retrofit
- Lehigh University - Bethlehem, PA: Laboratory testing of four-story rocking steel braced frame under multiple earthquake scenarios, development of design procedure for structural system \*

##### Nonlinear Finite Element Analysis

- U.S. Embassy - Undisclosed Location: Evaluation of nonlinear response of structure under column removal scenarios \*
- Tall Building - New York, NY: Alternate load path study of tall building design for building more than seventy stories high \*

##### Tall Building Engineering

- Mega-Tall Building - Kuala Lumpur, Malaysia: Design of gravity and foundation systems (steel composite floor systems and reinforced concrete piled-raft foundation system) for more than six-hundred-meter-high building \*
- Super-Tall Building - Kuala Lumpur, Malaysia: Design of gravity, lateral, and foundation systems for a more than three-hundred-meter-high building \*

##### Peer Review

- 15 Hudson Yards - New York, NY: Structural engineering peer review services of eighty-eight-story concrete and steel building \*
- 2 World Trade Center (Bjarke Ingels Group's Design) - New York, NY: Structural engineering peer review services for steel more than eighty-story-high building \*

##### Space Structures

- NASA Langley Research Center, Mars Ice House, The Red Planet - Hampton, VA: Structural consultant to winning architecture team in NASA design competition; structure was pressurized fabric structure with water ice 3D printed on the interior to absorb gamma radiation \*

\* Indicates with previous firms