

### Brian Hill | Senior Associate



#### EDUCATION

- Georgia Institute of Technology
  - Bachelor of Science, Civil Engineering, 2005
  - Master of Science, Structural Engineering, 2006

#### PRACTICE AREAS

- Bridge Engineering
- Failure Investigation
- Repair and Rehabilitation Design
- Structural Analysis/Computer Modeling
- Structural Evaluation
- Testing and Instrumentation

#### REGISTRATIONS

- Professional Engineer in GA and MO
- Structural Engineer in GA

#### PROFESSIONAL AFFILIATIONS

- Precast/Prestressed Concrete Institute

#### CONTACT

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#### EXPERIENCE

Brian Hill joined WJE in 2007 and has participated in various structural investigations, analyses, and repair designs. His experience includes project work related to bridges, parking structures, and commercial and residential structures. Mr. Hill works on post-tensioned, precast, and conventionally reinforced concrete systems, masonry systems, and structural steel systems.

From 2011 to 2012, Mr. Hill served as a course instructor for National Highway Institute Course 130099, Bridge Inspection Nondestructive Evaluation Showcase, and demonstrated nondestructive evaluation technologies for use in bridge inspection. Prior to joining WJE, Mr. Hill worked as a teaching assistant for the Georgia Institute of Technology's Civil Engineering Materials course. As part of the weekly instruction for the course laboratories, he demonstrated a variety of standard testing procedures, including compressive testing of concrete cylinders and tensile testing of various metals and polymers.

#### REPRESENTATIVE PROJECTS

##### Failure Investigation

- Atlanta Botanical Gardens Canopy Walkway - GA: Structural investigation of collapsed pedestrian bridge structure
- Fifteen-Story Office Building - Tulsa, OK: Structural evaluation of failed connections related to partial collapse of curtain wall

##### Repair and Rehabilitation Design

- Hartsfield-Jackson Atlanta International Airport - GA: Evaluation, analysis, and repair of tunnel roof slab using external post-tensioning
- Wildwood Parking Structure - Atlanta, GA: Evaluation and repair of distressed post-tensioned concrete slab and installation of retrofit barrier cable system

##### Structural Analysis/Computer Modeling

- Central Artery/Tunnel Project (Big Dig) - Boston, MA: Computer modeling and staged-construction analysis of post-tensioned concrete viaducts using LARSA 4D
- Fifteen-Story Residential Tower - Sarasota, FL: Computer analysis of punching shear failure of two-foot-thick transfer slab using SAP2000

##### Structural Evaluation

- Ten-Story Residential Tower - Miami, FL: Evaluation of localized shear failure in post-tensioned concrete slab
- Water Treatment Plant - Atlanta, GA: Evaluation of cracking in reinforced concrete walls of ozonated water filtration tanks
- Leonard P. Zakim Bunker Hill Bridge - Boston, MA: Investigation of deformed stay cable anchor plates

##### Testing and Instrumentation

- Nondestructive Evaluation of Bridges - Oklahoma City, OK: Location and investigation of grout voids inside post-tensioning ducts of post-tensioned concrete box girder bridges