

### Michael J. Fornek | Senior Associate



#### EDUCATION

- University of Illinois at Urbana-Champaign
  - Bachelor of Science, Civil Engineering, 2008
- Stanford University
  - Master of Science, Structural Engineering, 2009

#### PRACTICE AREAS

- Repair and Rehabilitation Design
- Failure/Damage Investigations
- Steel Structures
- Earthquake Damage Assessment
- Structural Design
- Concrete Structures
- Finite Element Analysis
- Litigation Support

#### REGISTRATIONS

- LEED Accredited Professional
- Professional Engineer in CA, IL, NY, PA, NJ
- Structural Engineer in IL

#### PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE)
- Structural Engineers Association of Illinois (SEAOI)

#### CONTACT

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\* Indicates with previous firm

#### EXPERIENCE

Michael Fornek specializes in the evaluation of complex structural systems and designs repairs for structural distress and serviceability problems in buildings, bridges, and other structures. His work background includes the analysis and design of long span bridges, high-rise structures, and the evaluation of earthquake damage in New Zealand. He has performed or managed high-level finite element analysis ranging from whole building models to highly detailed failure simulations.

Since joining WJE in 2018, Mr. Fornek has focused on structural analysis and forensic evaluation of existing structures. He has performed numerous condition assessments of existing structures, including parking garages, bridge inspections, and commercial buildings. Mr. Fornek leverages his previous design and construction experience to provide practical and constructible solutions to his clients. He also serves on the Board of Directors of SEAOI, promoting the structural engineering field and its impacts on society.

#### REPRESENTATIVE PROJECTS

##### Repair and Rehabilitation Design

- Evanston Garages - Evanston, IL: Repair of five concrete parking garages in the City of Evanston
- 400 East Randolph - Chicago, IL: Adaptive reuse design for extension of elevator shafts at residential high-rise building.
- Mississippi Terrace - Keokuk, IA: Design of post-tensioned and concrete repairs for seven-story residential structure
- 400 East Ohio - Chicago, IL: Repairs of post-tensioned concrete parking garage and façade repairs on high-rise tower
- 69 West Washington Street - Chicago, IL: Design of steel repairs for rooftop structural steel framing
- Baxter Healthcare - Deerfield, IL: Annual parking garage inspection, repair design, and construction administration
- 875 N. Michigan Avenue (Hancock Building) - Chicago, IL: Provide structural services for modifications to existing structure

##### Failure/Damage Investigations

- SR-91 - Corona, CA: Failure investigation of collapse involving temporary bridge falsework
- Honolulu Area Rapid Transit - HI: Forensic investigation into cause of cracking in large-scale concrete piers and repair recommendations
- The Address Hotel - Dubai, UAE: Structural damage assessment of sixty-five-story hotel that experienced severe fire damage \*

##### Steel Structures

- 70 West Madison Street - Chicago, IL: Design of roof fall protection system for existing building
- Willis Tower - Chicago, IL: Design of five-story podium structure around base of iconic tower \*

##### Earthquake Damage Assessment

- Multiple Projects - Christchurch, New Zealand: Damage assessments and repair schemes following 2011 earthquake \*

##### Structural Design

- Red Gate Road - St. Charles, IL: Design of cable-stayed pedestrian bridge underslung beneath a new river crossing \*
- Milwaukee Intermodal - WI: Design of new roof trusses for reconstruction of new train shed \*
- I-74 Bridge - Bettendorf, Iowa: Analysis and design of long span basket handle arch bridge \*

##### Concrete Structures

- Ka'ahakini Bridge Design - HI: Structural design of new concrete bridge replacement with complex site constraints
- Wacker Drive Reconstruction - Chicago, IL: Design of post-tensioned concrete deck slabs for elevated viaduct structure \*

##### Litigation Assistance

- Gaillard Center - Charleston, SC: Assistance with structural review of construction claim for new steel performance center
- LaGuardia Airport - Queens, NY: Ongoing litigation support for construction claim involving construction of new terminal headhouse