PERSONNEL QUALIFICATIONS

Noah J. Fehrenbacher | Associate Principal

EDUCATION

- Rose-Hulman Institute of Technology
  - Bachelor of Science, Civil Engineering, 2004
- University of Illinois at Urbana-Champaign
  - Master of Science, Civil Engineering, 2005

PRACTICE AREAS

- Structural Evaluation
- Structural Analysis
- Construction Documents and Repair Design
- Construction Observation
- Building/Facade Assessment
- Failure Investigation
- Load Testing
- Stadiums and Arenas

REGISTRATIONS

- ATC-20 Postearthquake Evaluation Certification
- Professional Engineer in IN
- Structural Engineer in IL

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers - Committee on Adaptation to a Changing Climate
- Indiana Model Building Code Adoption Committee
- Structural Engineers Association of Indiana, president

CONTACT

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EXPERIENCE

Noah Fehrenbacher joined WJE in 2006. His areas of expertise include repair design, building assessments, and structural analysis. Mr. Fehrenbacher has extensive experience in evaluating, analyzing, and designing repairs for parking garages, masonry facades, concrete, steel structures, fiber-reinforced polymer (FRP), and tent and membrane structures. His work with FRP has included inspection and analysis, as well as materials and load testing.

Mr. Fehrenbacher has been involved with evaluating local building codes throughout the country. He has more than sixteen years of experience working on stadiums and arenas throughout the United States. He also assesses, evaluates, and presents on tall-mast light poles. In addition, Mr. Fehrenbacher analyzes concrete, steel, wood, glass, and membrane structures.

REPRESENTATIVE PROJECTS

Structural Evaluation

- City Market and Old City Hall - Indianapolis, IN: Assessment of historic masonry structures
- Tall-Mast Light Poles - Multiple Locations, U.S.: Assessment of steel and concrete tall-mast light poles
- St. Vincent Parking Garage - Indianapolis, IN: Assessment of precast concrete parking garage

Structural Analysis

- Allen County War Memorial Coliseum - Fort Wayne, IN: Time-history analysis of concrete frame and steel roof truss
- UniverSoul Circus - Various Locations, U.S.: Nonlinear analysis of tent membrane and analysis of bleachers for assembly occupancy
- Chase Tower - Chicago, IL: Analysis for changes in loading and framing

Construction Documents and Repair Design

- Indianapolis International Airport Parking Garage - IN: Repairs to precast concrete connections
- Polk Place - Indianapolis, IN: Repairs to early 1900s era concrete and steel structure
- Palmer Elementary School - Chicago, IL: FRP and concrete repairs to 1920s-era reinforced concrete school

Construction Observation

- Indianapolis Heliport - IN: Repairs to reinforced concrete parking garage
- Ford Building - Indianapolis, IN: Conversion of reinforced concrete manufacturing facility to residential
- 1401 South State Street - Chicago, IL: High-rise reinforced concrete residential tower
- Chicago Midway Airport - IL: Reinforcement of existing parking garage structure using FRP

Building/Facade Assessment

- Indiana World War Memorial - Indianapolis: Historic landmark limestone memorial
- Marina Towers - Chicago, IL: High-rise reinforced concrete residential tower

Failure Investigation

- Woodland Hills and Catalpa Apartments - Dayton, OH: Investigation of tornado damage to wood-framed apartment buildings
- Ghent Generating Station - Ghent, KY: Investigation of fire damage to steel structure at a coal-fired power generating station
- Manufacturing Facilities - Bridgeview, IL: Investigation of wind damage to masonry and steel joist, single-story structures

Load Testing

- Chicago Public Schools - IL: Testing of reinforced concrete structures prior to FRP strengthening

Stadiums and Arenas

- Guaranteed Rate Field - Chicago, IL: Construction observation and structural analysis
- Soldier Field - Chicago, IL: Inspection and construction observation
- Louisiana State University, Tiger Stadium - Baton Rouge: Investigation of construction claims
- Great American Ballpark - Cincinnati, OH: Materials testing
- Gainbridge Fieldhouse - Indianapolis, IN: Roof wind uplift calculations