PERSONNEL QUALIFICATIONS

Derek R. Hibner | Associate III

EDUCATION

- Michigan State University
  - Master of Science, Structural Engineering, 2017
  - Bachelor of Science, Civil Engineering, 2016
- Alpena Community College
  - Associate of Applied Science, Concrete Technology, 2009

PRACTICE AREAS

- Damage Assessment
- Failure Investigation
- Repair, Retrofit, and Rehabilitation Design
- Structural Evaluation
- Code Assessment/Code Review
- Testing and Instrumentation

REGISTRATIONS

- Professional Engineer in MI
- Construction Document Technologist (CDT)

PROFESSIONAL AFFILIATIONS

- American Concrete Institute
- American Society of Civil Engineers
- ASTM International
- Structural Engineers' Association of Michigan

TECHNICAL COMMITTEES

- ASTM C09.64 - Concrete and Concrete Aggregates: Nondestructive and In-Place Testing
- ASTM C09.97 - Concrete and Concrete Aggregates: Manual of Testing

EXPERIENCE

Since joining WJE in 2017, Derek Hibner has been involved with numerous structural engineering and architecture projects. His experience extends to peer review of design documents, design and construction period services for repair projects, field investigation, structural analysis, structural and architectural repair design, nondestructive testing and instrumentation, code analysis and review, and structural damage/failure assessments.

As a graduate student at Michigan State University, Mr. Hibner performed research on the residual axial capacity of fire exposed reinforced concrete columns. The results of his research have led to a better understanding of how much axial capacity a concrete column retains after being exposed to realistic fires. Prior to graduate school, Mr. Hibner worked at a construction consulting company where he was responsible for performing various construction materials testing and field inspection tasks, including compaction testing of backfilled soils, asphalt testing, concrete testing, structural steel inspection, fireproofing inspection, floor flatness/levelness testing, deep foundation installation inspection, and geotechnical engineering investigation.

REPRESENTATIVE PROJECTS

Damage Assessment

- 1905 S. Washington - Lansing, MI: Assessment of extent of structural damage caused by vehicle impact
- Hurricane Harvey-Related Water Damage - Houston, TX: Water infiltration testing and condition surveys to assess the type and extent of damage
- Meridian Magnesium - Eaton Rapids, MI: Assessment of extent of fire and explosion damage; design of structural steel and concrete repairs
- PT Tech - Fraser, MI: Assessment of extent of structural damage caused by fire and explosion; emergency wall bracing and shoring design

Failure Investigation

- Battle Creek City Hall - Battle Creek, MI: Investigation and repair recommendations for historic terra cotta cladding failure
- Holiday Inn Express and Suites - Southgate, MI: Investigation of cause of break in fire suppression line
- Auto-Owners Headquarters - Lansing, MI: Investigation of cause of displaced precast concrete panel cladding

Repair, Retrofit, and Rehabilitation Design

- 50955 S. 94 Service Drive - Belleville, MI: Structural repair design for fire-damaged, wood-framed structure
- Fairview Food Market - Fairview, MI: Architectural repair design for vehicle impact damage
- Village Club Apartments - Royal Oak, MI: Architectural repair design for water damaged buildings

Structural Evaluation

- Grand Circus Parking Garage - Detroit, MI: Concrete condition assessment and repair design; construction period services
- Cass Avenue Parking Garage - Detroit, MI: Concrete condition assessment and repair design

Code Assessment/Code Review

- 345 Joan Drive - Fairfield, CT: Code evaluation for minimum code requirements for repairing damage to residential home
- Godfrey-Lee High School - Wyoming, MI: Code evaluation for minimum code requirements related to fire suppression system upgrades

Testing and Instrumentation

- REO Town Power Plant - Lansing, MI: Mass concrete temperature sensor installation and monitoring, structural steel inspection, and construction materials testing; floor flatness testing *
- Advance Building Parking Structure - Southfield, MI: Use of ground penetrating radar technology to locate prestressing tendons in precast concrete members

** Indicates project at other firms*

CONTACT

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