

### Matthew E. Lewis | Senior Associate



#### EDUCATION

- Michigan Technological University
  - Bachelor of Science, Civil Engineering, 2002
  - Master of Science, Civil Engineering, 2003

#### PRACTICE AREAS

- Code Compliance Review
- Construction Observation
- Damage Assessment and Documentation
- Litigation Consulting
- Testing and Instrumentation
- Repair and Rehabilitation Design
- Structural Evaluation

#### REGISTRATIONS

- Professional Engineer in MI

#### PROFESSIONAL AFFILIATIONS

- American Institute of Steel Construction (AISC)
- Detroit Area Construction Association (DACA)

#### CONTACT

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#### EXPERIENCE

Matthew Lewis is experienced in the investigation of historic buildings, parking structures, stadiums, municipal structures and smokestacks, as well as retail, office and residential buildings. His projects involve field investigation, structural analysis, nondestructive testing and instrumentation, structural damage and failure assessment, preparation of construction documents and drawings, and building code investigation. Mr. Lewis also has experience as a Level 1 infrared thermographer through the Infrared Training Center (ITC) and is a Level 1 member of WJE's difficult access team.

As a graduate student at Michigan Technological University, Mr. Lewis performed research in fatigue analysis and evaluation of large steel overhead sign support structures. The result of his work was a comparative method for structures based on a combination of their economic and performance characteristics. This method was made available to state departments of transportation nationwide for use in the development of a stronger, more economic sign support structure.

#### REPRESENTATIVE PROJECTS

##### Construction Observation

- Conner Creek - Detroit, MI: Observation of extensive reinforced concrete repairs in a historic CSO facility
- Palo Verde Water Reclamation Facility - Palo Verde, AZ: Observation of concrete repairs for large water treatment structures at nuclear power plant

##### Damage Assessment and Documentation

- Cadillac Place - Detroit, MI: Causation investigation for partial collapse of historical plaster ceiling
- Joplin Schools - Joplin, MO: Structural assessment of tornado damage at multiple educational facilities

##### Litigation Consulting

- Center for Forensic Psychiatry - Ann Arbor, MI: Analysis of construction change order items related to project cost overrun and delay
- Criminal Justice Center - Huntsville, AL: Extensive field inspection and evaluation of construction documents for new correctional facility

##### Testing and Instrumentation

- Comerica 411 Building - Detroit, MI: Use of ground penetrating radar to locate post-tensioned tendons during repair and renovation construction
- M-25 Bridge Replacement - Caseville, MI: Condition surveys and construction vibration monitoring for historic buildings

##### Structural Evaluation

- Arkansas Public Schools - Little Rock and Morrilton: Field inspection of fire-retardant-treated truss structures
- Major Retail Store Chain - Various Locations Nationwide: Field inspection, structural analysis, repair recommendations, and design for large metal-frame buildings