PERSONNEL QUALIFICATIONS

Isaac J. Mulder | Associate III

EDUCATION

- University of Michigan
  - Bachelor of Science, Civil Engineering, 2018
  - Master of Science, Civil Engineering, 2019

PRACTICE AREAS

- Facade Access
- Concrete Structures
- Structural Analysis
- Repair and Rehabilitation
- Structural Metals
- Wood Structures
- Facade Assessment

CONTACT

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EXPERIENCE

Isaac Mulder joined WJE in 2019 and has been involved in numerous projects related to structural engineering, including condition assessments, field investigations, structural evaluations, and the repair and rehabilitation of existing structures. He has primarily worked with structural systems consisting of reinforced concrete, steel, wood, and masonry.

Mr. Mulder has experience with evaluating and testing existing facade access and fall protection systems and designing new systems installed as a retrofit to existing structures.

REPRESENTATIVE PROJECTS

Facade Access

- 515 North State Street - Chicago, IL: Design and load testing of supplemental rooftop anchorages for facade access and fall protection
- Various High-Rise Office Buildings - Chicago, IL: Load testing of existing davit bases and anchorages for facade access
- Northwestern Memorial Healthcare - Chicago, IL: Annual OSHA-required visual inspection of certified facade access equipment for various buildings

Concrete Structures

- High-Rise Condominium Building - Surfside, FL: Structural condition assessment of post-tensioned concrete building and below-grade parking structure
- Soldier Field - Chicago, IL: Annual condition assessment of historic concrete structure
- Ryan Field - Evanston, IL: Condition assessment and repair design for concrete structure

Structural Analysis

- Mid-Rise Apartment Building - Wilmette, IL: Analysis of wood-laminated veneer lumber header beams exhibiting excessive deflection under service loads
- Chicago Transit Authority, Irving Park Transit Station - IL: Analysis of existing steel canopy framing for temporary rigging loads during replacement of existing escalators

Repair and Rehabilitation

- The Salvation Army - Midwest U.S.: Condition assessment and repair recommendations for various structure types
- Mid-Rise Condominium Building - Skokie, IL: Design and implementation of structural and architectural repairs for steel-framed exterior balconies
- The Salvation Army Adult Rehabilitation Center - Davenport, IA: Condition assessment and repair of fire-damaged precast wall panels

Structural Metals

- H Kramer & Co. Foundry - Chicago, IL: Analysis and design of reinforcement for existing structural steel elements due to severe deterioration
- Low-Rise Office Building - Milwaukee, WI: Analysis and design of reinforcement for open-web, cold-formed steel joists to support new mechanical loading

Wood Structures

- Wood-Framed Fertilizer Storage Domes - QC, Canada: Investigation of roof collapse and condition assessment of remaining domes
- Mid-Rise Apartment Building - Kansas City, MO - Condition assessment and repair recommendations for wood-framed balconies
- St. Anne Catholic Church - Dixon, IL: Analysis of fractured double-tapered curved glulam beams

Facade Assessment

- Various Buildings - Chicago, IL: Annual facade ordinance inspections