# WJE

# PERSONNEL QUALIFICATIONS

Robert Peggar | Senior Associate



## **EDUCATION**

- University of Wisconsin-Platteville
  - Bachelor of Science, Civil Engineering, 2012
- Iowa State University
  - Master of Science, Civil Engineering, 2014
  - Doctor of Philosophy, Civil Engineering, 2017

#### **PRACTICE AREAS**

- Structural Analysis
- Repair and Rehabilitation
- Failure/Damage Investigations
- Structural Evaluation
- Facade Assessment
- Facade Access and Fall Protection

## REGISTRATIONS

- Professional Engineer in WI
- Structural Engineer in IL

## **PROFESSIONAL AFFILIATIONS**

 American Wind Energy Association

# CONTACT

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# **EXPERIENCE**

Since joining WJE in 2017, Robert Peggar has participated in numerous projects involving structural condition assessments, field investigation of structures, and design and rehabilitation for a wide variety of structure systems and components as well as third-party peer review of structural designs. He has primarily worked with reinforced concrete, steel, aluminum, and wood elements for building systems, including facades, shear walls, structural framing, and foundations. He has evaluated and tested both new and existing facade access and fall protection systems per OSHA regulations.

Dr. Peggar also specializes in the assessment of utility scale wind turbine foundations for both new installations and repowering projects. His doctoral research involved the design of precast concrete wind turbine tower components.

# **REPRESENTATIVE PROJECTS** Structural Analysis

- Missouri State Capitol Jefferson City: Structural review of existing concrete and steel framing capacity to support scaffold loads
- High-Rise Office Building Chicago, IL: Analysis of steel bar joints and one-way concrete slab for increased live loads
- Public Transportation Windbreaks Chicago, IL: Analysis of windbreak glass and connection components to ensure adequate capacity

## **Repair and Rehabilitation**

- The Salvation Army, Various Buildings -Midwest U.S.: Condition assessment and repair recommendations of a variety of structure types
- Mercy Medical Parking Garage Assessment -Des Moines, IA: Condition assessment and repair recommendations
- Historic Residence Chicago, IL: Structural condition assessment of wood framing and repair recommendations

## Failure/Damage Investigations

- Muncie Fieldhouse Muncie, IN: Investigation of parapet collapse
- Carson's Retail Store Matteson, IL: Investigation of roof collapse
- Residential House Collapse Chicago, IL: Investigation of house wall and roof collapse
- Demolition of Damaged Wind Turbine Towers - IL, NE, TX: Development of safe demolition plans for damaged wind turbine towers

## **Structural Evaluation**

- Mesteno Wind Project TX and Frontier II Wind Project - OK: Independent review of new utility-scale wind turbine foundation designs
- Crystal Lake Wind Farm (IA) and Bobcat Bluff Wind Farm (TX): Independent review of existing utility-scale wind turbine foundations for repowering

#### Facade Assessment

- Field Building Chicago, IL: Limestone facade assessment and repair design
- Various Buildings Chicago, IL: Annual facade ordinance inspections

#### **Facade Access and Fall Protection**

- One Magnificent Mile Chicago, IL: Design and load testing of davit bases and structural anchorages
- Worcester House Chicago, IL: Load testing and design of new anchorage frames
- Low-Rise Office Building Naperville, IL: Load testing of atrium track system for glass skylight access
- Mid-Rise Condominiums Chicago, IL: Design and load testing of new anchorages mounted to historic structural framing
- Various High-Rise Office Buildings Chicago, IL: Load testing of existing anchorages

