



#### EDUCATION

- Oklahoma State University
  - Bachelor of Science, Civil Engineering, 2019
  - Master of Science, Structural Engineering, 2021

#### PRACTICE AREAS

- Bridges and Civil Infrastructure
- Structural Analysis/Computer Modeling
- Repair and Rehabilitation Design
- Failure/Damage Investigations

#### REGISTRATIONS

- NHI Course 130055 - Safety Inspection of In-Service Bridges
- NHI Course 130078 - Fracture Critical Inspection of Steel Bridges
- Professional Engineer in OK
- Society of Professional Rope Access Technicians - Level I

#### CONTACT

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#### EXPERIENCE

Caleb Bennett joined WJE in 2021 and has gained specialized experience through his involvement with the inspection, load rating, and rehabilitation of various steel and concrete structures. To support these efforts, he has also performed nondestructive testing and emergency repairs on in-service bridges. Mr. Bennett has participated in bridge inspections and load ratings involving many different bridge types across several US states. He has also participated in several special inspections requiring subsequent analysis, design, retrofit fabrication, and installation of components for bridge structures.

Before joining WJE, Mr. Bennett worked as a graduate research assistant and specialized in the behavior of steel connections with slip-critical bolts and longitudinal fillet welds in combination under direct tension and fatigue loading.

#### REPRESENTATIVE PROJECTS

##### Bridges and Civil Infrastructure

- I-74 Bridge over the Mississippi River - Davenport, IA: In-depth and fracture critical inspection of the twin-arch bridges and multigirder approach spans constructed in 2021
- KCSR Bridge 306.8 over the Arkansas River - Spiro, OK: In-depth bridge inspection of the multispans, single-cell, continuous box-girder interior framing members, and bearings
- Grant Marsh Bridge Over the Missouri River - Bismarck, ND: In-depth inspection of twin two-girder superstructures with fatigue-sensitive details
- Walter Hjelle Bridge Over the Missouri River - Bismarck, ND: In-depth inspection of two-girder superstructures with fatigue-sensitive details
- Prestressed Concrete Bent Caps - Dallas, TX: Visual assessment and map cracking of inverted tee bent caps
- Iowa 9 Over the Mississippi River - Lansing, IA: In-depth and fracture critical inspection of the two cantilevered trusses and center suspended span bridge constructed in 1931

- INDOT Bascule Bridge Inspections - Various Locations, IN: Fracture critical inspection of two bascule bridges
- SR 49 Over SR 2 - Valparaiso, IN: Special inspection of pinned hinges and rocker bearings prior to the development of retrofit designs
- Chicago Skyway - IL: Inspection of nearly three quarters of a mile of suspended walkway for structurally deficient items

##### Structural Analysis/Computer Modeling

- INDOT Bridge Load Ratings - Various Locations, IN: Load ratings of multiple steel, prestressed concrete, and reinforced concrete structures for new construction, rehabilitation, or deterioration
- Bridge Girder Erection Procedures - Various Locations, IL: Stability analysis and review of steel beam erection procedures
- ODOT Culvert Load Rating Refinement - Various Locations, OR: Load ratings of multiple concrete culverts

##### Repair and Rehabilitation Design

- Grant Marsh Bridge Over the Missouri River - Washburn, ND: Repair design of various steel connections to support elements observed to be inadequate in the in-depth inspection
- I-90 Indiana Toll Road Structures - Hammond: Load rating and repair design
- Grand Avenue Bascule - Chicago, IL: Calculation of bridge balance of all construction steps required for the rehabilitation of the two-leaf bascule bridge constructed in 1912

##### Failure/Damage Investigations

- I-35 Interchange - Kansas City, MO: Evaluation of fire damage on a two-girder steel bridge and assessment of hardness testing results