



PERSONNEL QUALIFICATIONS

Zane A. Lloyd | Senior Associate



EDUCATION

- Oklahoma State University
 - Bachelor of Science, Civil Engineering, 2017
 - Master of Science, Civil Engineering, 2019

PRACTICE AREAS

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

REGISTRATIONS

- AWS Certified Welding Inspector
- NHI Course 130055 - Safety Inspection of In-Service Bridges
- NHI 130078 - Fracture Critical Inspection Techniques for Steel Bridges
- Professional (Civil) Engineer in OR
- Society of Professional Rope Access Technicians - Level I

CONTACT

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EXPERIENCE

Zane Lloyd joined WJE in 2019 and has gained specialized experience through his involvement with the inspection and retrofit of various steel, concrete, and timber bridge structures. To support these efforts, he has performed nondestructive testing in both the laboratory and on in-service bridges. Mr. Lloyd has participated in inspections involving many different bridge types across several states. Inspections also include the use of specialized rope access techniques when appropriate. His recent projects have included computer analyses and load ratings of simple and complex bridge structures. Mr. Lloyd has also participated in several field retrofit projects that required investigation, analysis, efficient retrofit design, retrofit fabrication, and installation of supplemental components for bridge structures.

Prior to joining WJE, Mr. Lloyd worked as a graduate research assistant specializing in the performance of concrete mixtures containing high volumes of alternative cementitious materials and the performance of innovative concrete curing methods.

REPRESENTATIVE PROJECTS

Bridges and Civil Infrastructure

- Indiana Department of Transportation Special Bridge Inspections - Fort Wayne: Inspection and repair of welded elements for a cable-stayed pedestrian bridge
- I-64 Sherman Minton Bridge Over the Ohio River - New Albany, IN: Fracture critical inspection of double deck-through arch bridge using rope access techniques
- Port of Houston Facilities Inspection and Condition Assessment Program - TX: Element-level inspection of multiple wharf assets
- Coos Bay Rail Line - Coos Bay, OR: Routine inspection of numerous timber, steel, and concrete railroad bridges

Structural Analysis/Computer Applications

- Culvert Load Rating Refinement - OR: Analysis of six concrete culverts using computer applications and/or the use of advanced structural analysis for load rating refinement
- Bridge Load Rating Refinement - OR: Structural analysis and computer modeling for load rating refinement of historical concrete slab, through-deck girder, and concrete deck steel girder bridges; field investigation of the as-built condition and material sampling for further refinement

Repair and Rehabilitation

- Perrine Memorial Bridge - Twin Falls, ID: Inspection, retrofitting, and development of rehabilitation considerations for steel arch end posts
- St. John's Bridge - Portland, OR: Installation of strengthening retrofits for stiffening trusses on cable-stayed suspension bridge
- U.S. 101 Upmqua Swing Span Bridge - Reedsport, OR: Repair and rehabilitate truss struts on truss swing span bridge
- Albany Ellsworth Bridge - Albany, OR: Repair and rehabilitation of in-service steel truss members

Failure/Damage Investigations

- Chemtech Services - Lockport, IL: Inspection of steel structure for fire-related distortions and instability