



## PERSONNEL QUALIFICATIONS

### Steven S. Michael | Senior Specialist



#### EDUCATION

- College of Lake County

#### PRACTICE AREAS

- Inspection and Rehabilitation of Structures
- Instrumentation and Field Testing
- Nondestructive Testing
- Structural Instrumentation

#### REGISTRATIONS

- AWS Welder Certification, all positions
- Commercial Driver's License in IL

#### CONTACT

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#### EXPERIENCE

Since joining WJE in 1985, Steven Michael has worked on a variety of projects associated with instrumentation, welding, and steel repairs. He has developed practical skills in the installation of strain gages and strain gage instrumentation as well as other field and laboratory measurement equipment. He has used these skills in a variety of projects, including the load testing of buildings and bridges.

His laboratory experience includes serving as lead technician for the fabrication and operation of an earthquake motion simulator used to test full-scale utility and building connections for a California medical center building addition.

In addition, Mr. Michael's training and experience as a welder has involved him in numerous projects requiring structural fabrication using steel, stainless steel, and aluminum base metals. His welding skills include the shielded metal arc (stick), gas metal arc (MIG), and flux core welding processes as well as oxyacetylene and plasma cutting.

#### REPRESENTATIVE PROJECTS

##### Inspection and Rehabilitation of Structures

- Central Avenue Bridge - Stickney, IL: Inspection of fatigue sensitive details
- Chicago Skyway Bridge - Chicago, IL: Field verification of as-built truss member dimensions for rehabilitation project
- Elm Tree Road Pedestrian Bridge - Lake Forest, IL: Special construction services for structural rehabilitation
- Gavin Elementary School - Ingleside, IL: Repair and strengthening of steel roof trusses
- I-80 Bridge over the Missouri River - Omaha, NE: Weld peening retrofit to upgrade lateral gusset plate weld terminations
- I-280 Maumee River Crossing - Toledo, OH: Implementation of structural modifications to gantry support assembly
- I-435 Bridge over the Missouri River - Kansas City, MO: Retrofitting of fatigue sensitive details

- I-480 Bridge over the Missouri River - Omaha, NE: Retrofitting of fatigue sensitive lateral gusset plate connections
- Inspection of plate connected wood trusses in retail buildings throughout the United States

##### Instrumentation and Field Testing

- CNIC Railroad Bridge over I-57 - Cairo, IL: Strain and displacement monitoring
- I-435 over the Missouri River - Kansas City, MO: Strain and displacement monitoring
- I-480 over the Missouri River - Omaha, NE: Strain and displacement monitoring
- Juniper Canyon Bridge over the Columbia River - Umatilla, OR: Strain and displacement monitoring
- Mississippi River Bridge - Muscatine, IA: Strain monitoring under live load

##### Nondestructive Testing

- Congress Parkway Bascule Bridges - Chicago, IL: Ultrasonic and visual inspection of bridge trunnions
- Mundelein Seminary Boat House - Mundelein, IL: Concrete delamination survey
- MWRD of Chicago - Hodgkins, IL: Ultrasonic testing of steel pressure piping
- Oak Forest Hospital - Oak Forest, IL: Ultrasonic testing of steel pressure piping and valve assemblies
- Overhead Sign and Lightpole Inspection: More than two hundred property locations of national retail chain