PERSONNEL QUALIFICATIONS

Michael J. Koob | Senior Principal

EDUCATION

- University of Illinois at Urbana-Champaign
  - Bachelor of Science, Civil Engineering, 1976
  - Master of Science, Structural Engineering, 1977

PRACTICE AREAS

- Bridge Engineering
- Failure Investigation
- Fatigue and Fracture Analysis
- Nondestructive Testing
- Repair and Rehabilitation Design
- Steel Structures
- Structural Investigation
- Instrumentation and Field Testing

REGISTRATIONS

- General Engineering Contractor in CA
- Professional Engineer in IA and OR
- Structural Engineer in IL

TECHNICAL COMMITTEES

- TRB AFF10(1) - Traffic Structures Subcommittee
- TRB AFF20 - Steel Bridges Committee
- TRB AFF40 - Field Testing and Nondestructive Evaluation of Transportation Structures Committee
- TRB AFH70 - Fabrication and Inspection of Metal Structures Committee

EXPERIENCE

Since joining WJE in 1977, Michael Koob has been involved in structural investigations of many bridge structures, buildings, and mechanical equipment. His work has included evaluation and repair of deteriorated or distressed structures, foundation repairs, investigations of all types of bridge collapses, and structural failures. In addition, many projects have included field testing of structural components.

Mr. Koob has gained unique field experience in the inspection, instrumentation, and evaluation of details in steel structures, particularly relating to fatigue and fracture problems. This experience includes numerous bridges, buildings, and cranes. He has also been responsible for the development of structural modifications to retrofit welded connections and structural components to correct cracking, control problems and/or strengthen connections. Mr. Koob has gained extensive experience in the construction area working on many projects for contractors and serving as a contractor's engineer.

REPRESENTATIVE PROJECTS

Bridge Engineering

- Chicago Skyway - Chicago, IL: Deck truss member replacement under traffic
- Hamakua Coast Steel Trestle Bridges - Hilo, HI: Structural Investigation and load testing
- Green River Bridge - Asheville, NC: Inspection and redundancy retrofitting

Failure Investigation

- I-35W Bridge Over the Mississippi River - Minneapolis, MN: Collapse investigation
- I-280 Maumee River Crossing - Toledo, OH: Gantry crane collapse
- Morgantown Energy Associates - Morgantown, WV: Collapse of coal silo
- New York State Thruway Authority - Albany: Schoharie Creek Bridge collapse
- National Transportation Safety Board - Calverton, NY: Reconstruction of TWA Flight 800
- State of Tennessee - Clifton: Collapse of the State Route 69 Bridge over the Tennessee River

Fatigue and Fracture Analysis

- Martin Olav Sabo Cable-Stayed Pedestrian Bridge - Minneapolis, MN: Cable connection plate fracture and installation of eighteen pylon connection plates
- Fremont Bridge - Portland, OR: 2,200-foot, three-span, tied-arch fatigue assessment and retrofitting
- Siouxland Bridge - Sioux City, IA: Tie-girder fracture
- I-80 Bridge Over the Missouri River - Council Bluffs, IA: Fatigue assessment and retrofitting
- I-480 Bridge Over the Missouri River - Omaha, NE: Fatigue assessment and retrofitting
- I-680 Benicia-Martinez Bridge - Benicia, CA: Fatigue life study and retrofitting
- Poplar Street Bridge Approaches -East St. Louis, IL: Fatigue assessment and retrofitting

Instrumentation and Field Testing

- Lansing Bridge Over the Mississippi River - Lansing, IA: Remaining fatigue life study
- Site 300 Contained Firing Facility - Livermore, CA: Structural instrumentation
- CTA Elevated Structures - Chicago, IL: Several representative spans on various lines
- Steel Bridges - Various Locations, IA: Remaining fatigue life studies

PROFESSIONAL AFFILIATIONS

- American Institute of Steel Construction (AISC)
- American Welding Society (AWS)
- Structural Engineers Association of Illinois (SEAOI)
- Transportation Research Board (TRB)

NATIONAL HIGHWAY INSTITUTE TRAINING

- FHWA-NHI-130053 - Safety Inspection Refresher Training
- FHWA-NHI-130078 - Fracture Critical Inspection Techniques for Steel Bridges

CONTACT

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