



## PERSONNEL QUALIFICATIONS

### Raymond H. R. Tide | Principal



#### EDUCATION

- University of Manitoba
  - Bachelor of Science, Civil Engineering, 1961
- Lehigh University
  - Master of Science, Civil Engineering, 1966
- Washington University in St. Louis
  - Doctor of Science, Civil Engineering, 1971

#### PRACTICE AREAS

- Failure Investigation
- Condition Assessment
- Connection/Bolting/Welding
- Fatigue and Brittle Fracture Studies
- Load Testing
- Metal Structures
- Repair and Rehabilitation Design
- Structural Evaluation

#### REGISTRATIONS

- Professional Engineer in AR, AB, BC, FL, IA, LA, MB, MN, MO, MS, NE, ON, SD, and SK
- Structural Engineer in IL

#### CONTACT

rtide@wje.com  
847.272.7400  
www.wje.com

#### EXPERIENCE

Since joining WJE in 1982, Raymond Tide has been involved in the investigation of steel structures. Projects include collapses, material deterioration, fatigue, brittle fracture, welding, mill-rolling defects, fire exposure, and structural damage. He has conducted load tests on bridges, industrial structures, and commercial buildings. He has directed laboratory tests on building components. Dr. Tide was involved in the FEMA-sponsored SAC Joint Venture seismic investigations concerning fractures of welded connections.

Prior to WJE, Dr. Tide worked for the American Institute of Steel Construction (AISC), and as Manager of Engineering for a steel fabricator responsible for design, fabrication, and quality control. He served for three years as an officer in the Canadian Army Corps of Engineers.

#### REPRESENTATIVE PROJECTS

##### Failure Investigation

- Warsaw, IN: Warehouse rack structures
- University of Washington - Seattle: Stadium addition
- Sunshine Bridge - Tampa, FL: Gantry crane

##### Connections/Bolting/Welding

- Convention Center - Los Angeles, CA: Addition
- Assembly Plant - Detroit, MI: Roofing trusses

##### Fatigue and Brittle Fracture Studies

- Amusement Park Ride - Gurnee, IL
- Dana-Farber Cancer Institute - Boston, MA: Addition

##### Load Testing

- 1892 Railroad Bridge - Rock Island, WA
- Coal Gasification Plant Structure - Beulah, ND
- Clinton Avenue Bridge - Frankfort, KY
- Jacob Javits Convention Center - New York, NY

#### Repair and Rehabilitation Design

- Foundry Press - Sparta, WI: Support structure
- Hydraulic Press - Atlanta, GA: Support frame
- Poplar Street Bridge Complex - East St. Louis, IL: Rehabilitation plan review

#### PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- American Welding Society
- Canadian Society of Civil Engineers
- Research Council on Structural Connections
- Structural Engineers Association of Illinois

#### TECHNICAL COMMITTEES

- AISC - Committee on Specifications
- ASCE - Design Loads on Structures During Construction
- ASCE - Structural Connections Committee, past chair
- AWS - Structural Welding Code - Steel
- RCSC - past chair

#### AWARDS

- Lifetime Achievement Award, American Institute of Steel Construction, presented at North American Steel Construction Conference, Toronto, Canada, March 2014