



EDUCATION

- University of Manitoba
 - Bachelor of Science, Civil Engineering, 1991
 - Master of Science, Structural Engineering, 1994
- The University of Texas at Austin
 - Doctor of Philosophy, Structural Engineering, 1999

PRACTICE AREAS

- Bridges and Civil Infrastructure
- Research and Product Evaluation
- Construction Materials
- Precast/Prestressed/Post-tensioned Concrete
- Repair and Rehabilitation
- Instrumentation/Monitoring/Load Testing

REGISTRATIONS

- Professional Engineer in ON and TX

PROFESSIONAL AFFILIATIONS

- American Concrete Institute, Fellow (FACI)
- Precast/Prestressed Concrete Institute

TECHNICAL COMMITTEES

- ACI 130 - Sustainability
- ACI 222 - Corrosion
- ACI 224 - Cracking
- ACI 437 - Strength Evaluation of Existing Concrete Structures

CONTACT

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EXPERIENCE

Jeffrey West has more than twenty years of experience in structural engineering and materials research and consulting. His primary areas of expertise include the evaluation and strengthening of existing structures, structural testing, durability of concrete structures, post-tensioned (PT) structures, and concrete materials. Project experience includes buildings, bridges, parking structures, maritime structures, concrete tanks, and flood control channels throughout the United States.

Prior to joining WJE, Dr. West was a professor of civil engineering at the University of Waterloo in Canada for fifteen years. His research areas included modular systems and connections for steel-concrete composite bridges, concrete materials (fiber-reinforced concrete, use of recycled materials), the assessment, repair, and rehabilitation of existing structures, and the use of laser scanning and other technologies for tolerance measurement and progress tracking in construction. Dr. West has authored more than eighty technical publications in refereed journals and conferences.

REPRESENTATIVE PROJECTS

Bridges and Civil Infrastructure

- Port of Houston Authority - Houston, TX: Development of Facility Inspection and Condition Assessment Program (FICAP) for maritime asset management
- Flood Control Channel - Los Angeles County, CA: Channel wall corrosion and failure investigation, retrofit design**
- Regional Distribution Facility - Hershey, PA: Analytical evaluation of steel column design deficiencies and retrofit alternatives**

Research and Product Evaluation

- Structural Connections for Composite Bridges: Static and fatigue testing and computational assessment of shear stud and through-bolt connections in steel-precast concrete composite girders*
- Bond of Corroded Reinforcement in Partial Depth Repairs: Experimental evaluation of anchorage and lap splice bond in repairs*
- Reliability Assessment of ACI Test Load Magnitudes for Concrete Buildings:

Characterization of post-load test reliability using conditional probability*

- Reliability of Wood Utility Structures: Experimental and analytical evaluation of strength and reliability for wood power transmission and distribution structures*

Construction Materials

- Recycled Concrete as Aggregate: Assessment of recycled concrete aggregate properties, concrete mechanical and physical properties and reinforcement bond. Development of RCA classification system for use in concrete*
- Fiber-reinforced Concrete: Optimization of FRC mixtures using steel and synthetic fibers with post-cracking tensile properties suitable for structural use in bridges*

Precast/Prestressed/Post-Tensioned Concrete

- Mid-Bay Bridge - Destin, FL: Evaluation of external PT tendon corrosion**
- Pedestrian Bridge - Charlotte, NC: Collapse investigation of precast, pre-tensioned bridge**
- Campus Recreation Center - Atlanta, GA: Peer review of PT girder design for long-span elevated floor system**

Repair and Rehabilitation

- TTC Steeles West Subway Station - Toronto, ON: Concrete wall repair design
- Parking Garage - Falls Church, VA: PT beam end repair design**
- Mitigation of Stay Cable Vibrations - Baytown, TX: Design of hydraulic damper system for mitigation of rain/wind-induced bridge stay cable vibrations**

Instrumentation/Monitoring/Load Testing

- Seabrook Station Nuclear Power Plant - Seabrook, NH: Concrete strain and internal humidity monitoring system for equipment vault walls
- Parking Garage - Falls Church, VA: Load testing of PT beams**
- Wood Balcony Collapse Investigation - Charlottesville, VA: Balcony subassembly test to verify failure mechanism and collapse load analysis**

*Indicates with University of Waterloo

**Indicates with previous firm