PERSONNEL QUALIFICATIONS

# Jeffrey West | Associate Principal

## EDUCATION

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

## PRACTICE AREAS

- Bridges and Civil Infrastructure
- Structural Evaluation
- Instrumentation/Monitoring/ Load Testing
- Precast/Prestressed/ Post-Tensioned Concrete
- Research and Testing

## REGISTRATIONS

- PE in AB, MB, SK, ON, and TX

## PROFESSIONAL AFFILIATIONS

- American Concrete Institute, Fellow
- Precast/Prestressed Concrete Institute

## TECHNICAL COMMITTEES

ACI 222 - Corrosion
ACI 224 - Cracking
ACI 437 - Str. Evl./Ex. Concrete Str.
ACI 562 - Evaluation, Repair, and Rehabilitation of Concrete Struct.
ACI 563 - Spcs./Rpr Str. Conc. Bldgs

## 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 rehabilitation 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 U.S.

Prior to joining WJE in 2017, 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), and the assessment, repair, and rehabilitation of existing structures. Additionally, Dr. West has authored more than eighty technical publications in refereed journals and conferences.

## REPRESENTATIVE PROJECTS

### Bridges and Civil Infrastructure

- Bridgeport Bridge - OK: Condition assessment and rehabilitation recommendations of substructure
- Elevated Expressway - Dallas, TX: Field investigation and computational assessment of bridge substructure cracking
- Flood Control Tunnel - Austin, TX: Field investigation and reliability-based strength evaluation
- Woodhouse Terminal - Houston, TX: Assessment of existing grain elevator and associated structures and repair recommendations
- Barbours Cut Terminal Wharf 3 - La Porte, TX: Strengthening of container wharf to support new, larger STS cranes in hurricane region
- Port Tampa Berth 3 - FL: Evaluation of pile-to-pile cap connection design
- Port of Houston Authority - TX: Development of facility inspection and condition assessment program

### Structural Evaluation and Design

- University of North Texas (UNT), Life Sciences Building - Denton: Structural and corrosion evaluation and foundation repair design
- UNT, Sage Hall - Denton: Structural and geotechnical evaluation and foundation repair design
- Razorback Stadium - Fayetteville, AK: Concrete wall assessment and repair design
- TTC Steeles West Subway Station - Toronto, ON: Concrete wall repair design

### Instrumentation/Monitoring/Load Testing

- Northshore Austin - TX: Facade access equipment load testing and certification
- U.S. 181 Harbor Bridge - Corpus Christi, TX: Load testing of concrete beams with Grade 75, No. 20 headed bars
- Museum and Amusement Attraction - San Antonio, TX: Evaluation of structural vibrations and slab cracking
- Seabrook Station Nuclear Power Plant - Seabrook, NH: Concrete strain and internal humidity monitoring system development

### Precast/Prestressed/Post-Tensioned Concrete

- Northshore Austin - Austin, TX: PT slab assessment, repair design, and construction administration
- OBC Parking Garage - Austin, TX: Evaluation of double-tee beam dapped end construction defects and design
- Garage - Farmers Branch, TX: Evaluation of precast spandrel beam corbel failure
- Mid-Bay Bridge - Destin, FL: Evaluation of external post-tensioned tendon corrosion **
- Pedestrian Bridge - Charlotte, NC: Collapse investigation **

### Research and Testing

- Shear strength of unreinforced interfaces in partial-depth repairs and new construction
- Static and fatigue 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 *

** Indicates with University of Waterloo*
*** Indicates with previous firm*