



EDUCATION

- University of Texas at Austin
 - Bachelor of Science with Honors, Civil Engineering, 1983

PRACTICE AREAS

- Bridge Engineering
- Failure Investigation
- Structural Evaluation
- Materials Evaluation and Research
- Repair and Rehabilitation Design
- Condition Assessment
- Construction Troubleshooting

REGISTRATIONS

- NHI Course 130078 - Fracture Critical Inspection Techniques of Steel Bridges
- Professional Engineer in TX

PROFESSIONAL AFFILIATIONS

- American Concrete Institute (ACI) Strategic Development Council
- American Segmental Bridge Institute (ASBI)
- Associated General Contractors (AGC) of Texas
- Post-Tensioning Institute (PTI)

CONTACT

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EXPERIENCE

Brian Merrill joined WJE in 2013, bringing thirty years of experience as a civil/structural engineer in the area of bridge design, construction, and maintenance; construction materials; forensics; structural condition assessment; and structural repairs. His background includes ten years of bridge design work and nineteen years of bridge construction and maintenance experience.

Prior to joining WJE, Mr. Merrill spent twenty-seven years with the Texas Department of Transportation's (TxDOT) Bridge Division, serving the last thirteen years as the State Bridge Construction and Maintenance Engineer. While at TxDOT, he led their decade-long effort to address alkali-silica reaction (ASR), developed their standard specifications for bridge construction and maintenance, chaired their Structures Research Advisory panel, addressed issues related to post-tensioning and grouting, and represented TxDOT on a national level regarding ASR, grout for post-tensioning, and bridge maintenance.

REPRESENTATIVE PROJECTS

Bridge Engineering

- U.S. 183 Segmental Bridge - Austin, TX: Design team member*
- Intracoastal Canal Bridge - Surfside, TX: Design of three-span continuous steel box girder bridge*

Failure Investigation

- Queen Isabella Causeway - Port Isabel, TX: Bridge collapse after struck by barge*
- U.S. 84 Bridge over IH 20 - Roscoe, TX: Investigation of partial bridge collapse after truck impact*
- Rayse Creek Bridge Collapse - Mt. Vernon, IL: Investigation of steel H-piling failure

Structural Evaluation

- 201 N. Main - Taylor, TX: Assessment of 1911-era timber and steel-framed building
- Dyess Air Force Base, B-1B Conversion - Abilene, TX: Evaluation of existing facilities for conversion to new aircraft*

Materials Evaluation and Research

- ASR Research - TxDOT: Project director for five research projects related to ASR*
- Structural Research - TxDOT: Project director for eight projects*
- Product Evaluations - TxDOT: Responsibility for all structural product evaluations*

Repair and Rehabilitation Design

- San Antonio "Y" Pier Strengthening - TX: Severe cracking closed all levels of IH 10*
- Harbor Bridge Truss Retrofitting - Corpus Christi, TX: Inspection of bridge revealed critical deterioration in diagonal elements*

Condition Assessment

- Various Bridges - TX: Condition assessments on more than 150 bridges across Texas*
- St. David's Medical Center Garage No. 2 - Austin, TX: Assessment of distress in two-year-old facility

Construction Troubleshooting

- "High 5" Segmental Bridge - Dallas, TX: Troubleshooting of segment precasting and erection operations*
- Ramp T - Wichita Falls, TX: Investigation of erection issues and designed retrofit for curved plate girders*

**Indicates with other firms*

TECHNICAL COMMITTEES

- AASHTO - State Bridge Maintenance Engineers Group
- ASBI - Grouting Seminars, faculty
- ASBI - Grouting Committee
- FHWA - Expert Task Group for Grouting
- FHWA - Technical Working Group for ASR
- NCHRP Panel 10-59, panel member
- NCHRP Panel 12-73, chair
- NCHRP Panel 20-5 (Task 34-09), "Concrete Bridge Deck Performance – Synthesis"
- PTI - DC-40 - Bridges, chair
- PTI/ASBI - M50 - Bonded Post-Tensioning
- PTI - M55 - Grouting
- SHRP2 Project R06-A, panel member
- SHRP2 Project R07, panel member