

Aaron Sterns | Senior Associate



EDUCATION

- The University of Texas at Austin
 - Bachelor of Science, Civil Engineering, 2003
- University of Washington
 - Master of Science, Civil (Structural) Engineering, 2006

PRACTICE AREAS

- Structural Evaluation
- Failure/Damage Investigations
- Repair and Rehabilitation
- Structural Analysis/Computer Applications
- Construction Troubleshooting
- Bridges and Civil Infrastructure
- Difficult Access
- Facade Access

REGISTRATIONS

- Professional Engineer in AR, TX, OR, and WA
- Structural Engineer in AZ, OR, and WA
- AWS Certified Welding Inspector
- SPRAT Level II Rope Access Lead Technician
- Certified Safety Inspector of In-Service Bridges, NHI
- Certified Fracture Critical Inspector, NHI

CONTACT

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EXPERIENCE

Since joining WJE in 2006, Aaron Sterns has been involved with numerous projects related to the structural evaluation of existing structures. His projects have included buildings, bridges, piers, cranes, and a variety of construction materials including concrete, steel, wood, and masonry. Mr. Sterns has performed field inspections, developed recommendations for remediation, designed repairs, and prepared drawings and specifications.

Prior to joining WJE, Mr. Sterns conducted research on the structural analysis of wind turbines during his undergraduate studies at The University of Texas and as an intern with Sandia National Laboratories. He also performed research testing at The University of Texas involving the performance of steel bridge connections. During his graduate studies, Mr. Sterns conducted research on the seismic performance of reinforced concrete shear wall buildings.

REPRESENTATIVE PROJECTS

Structural Evaluation

- LBJ Building - Austin, TX: Investigation of distressed concrete sunshade beams
- Speedway Commerce Park - Las Vegas, NV: Investigation of distressed concrete slabs-on-grade
- TAMU Wind Tunnel - College Station, TX: Evaluation of distressed steel wind tunnel

Failure/Damage Investigations

- I-84/Robinson Road Bridge - Nampa, ID: Investigation of bridge collapse during construction
- Thermon Building - San Marcos, TX: Investigation of pre-engineered metal building collapse
- Tower 333 Crane - Bellevue, WA: Investigation, analysis, and modeling of tower crane collapse

Repair and Rehabilitation

- DKR Stadium - Austin, TX: Assessment of concrete deterioration and repair efforts
- Edinburg High School - Edinburg, TX: Repair designs for CMU construction deficiencies
- HMC Building - Lynnwood, WA: Design of fire damage structural repairs

Construction Troubleshooting

- 505 First Avenue - Seattle, WA: Shoring analysis, mock-up support and hoisting frame design
- Dunlap Dam - New Braunfels, TX: Repair recommendations for steel deterioration within 1920s-era operable dam
- Palo Verde Water Reclamation Facility - Tonopah, AZ: Construction observations of comprehensive concrete repair

Bridges and Civil Infrastructure

- Hylebos Bridge - Tacoma, WA: Analysis and modeling of double leaf bascule bridge for load rating
- Oklahoma Turnpike Authority - OK: Fracture critical inspections using difficult access methods
- San Antonio "Y" - TX: Investigation of deteriorated PT tendons within segmental elevated interstate bridge structure

Difficult Access

- Gateway Arch - St. Louis, MO: Exterior stainless steel assessment
- Soda Ash Silos - Green River, WY: Concrete and steel deterioration investigation
- Tribune Tower - Chicago, IL: Facade inspection

Facade Access

- ECJ Building - Austin, TX: Design of davit bases and anchors for facade access
- Equity Office and Hines Properties - WA and OR: Assessment, design, inspection, and testing of fall arrest anchors, davit bases, and carriage rails
- Safeco Field - Seattle, WA: Design of fall protection system for retractable roof access

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- Structural Engineers Association of Texas
- Texas Task Force One - Structures Specialist