WJE

Francisco J. Peña | Senior Associate

EDUCATION
- Universidad del Valle
  - Bachelor of Science, Civil Engineering, 2011
- Purdue University
  - Master of Science, Civil Engineering, 2015
  - Doctor of Philosophy, Civil Engineering, 2019

PRACTICE AREAS
- Historic Preservation
- Difficult Access and Drone Survey
- Structural Analysis/Computer Applications
- Failure and Damage Investigation
- Structural Load Testing
- Condition Evaluation
- Construction Observation and Troubleshooting
- Instrumentation and Monitoring/Seismic Engineering

REGISTRATIONS
- FAA Licensed Remote Pilot
- Professional Engineer in IN

PROFESSIONAL AFFILIATIONS
- American Society of Civil Engineers
- Indiana Structural Engineers Association, secretary

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Indicates with previous firm

EXPERIENCE
Since joining WJE in 2018, Francisco Peña has gained experience in the investigation and analysis of a variety of structures and building components. Dr. Peña is a certified drone pilot who has been involved with numerous projects that include historic preservation, facade investigation, structural investigation, analysis, and repair. He has experience with many construction materials including wood, concrete, steel, single-ply roofing, built-up roofing, and waterproofing. Dr. Peña's responsibilities have included condition assessments of existing buildings, drone surveys, water testing, structural testing, developing reports, designing repairs, and performing construction period services.

REPRESENTATIVE PROJECTS

Historic Preservation
- Indiana War Memorial - Indianapolis: Building limestone facade and waterproofing evaluation and repair
- Indiana War Memorial Commission - Indianapolis: Facility assessment for maintenance, preservation, and capital improvement needs

Difficult Access and Drone Survey
- Indiana War Memorial - Indianapolis: Drone survey for facade assessment
- Best Brands Warehouse - Nashville, TN: Tornado damage investigation
- First Horizon Park - Nashville, TN: Tornado damage investigation
- Roof Investigations - Multiple Locations, IN and FL: Hurricane, tornado, and hail damage investigations
- NorthCap Center - Nashville, TN: Facade assessment with Gigapan high-definition imagery

Structural Analysis/Computer Applications
- Kentucky Utilities Company - Ghent, KY: Fire damage investigation
- Purdue University, Mackey Arena - West Lafayette, IN: Structural analysis for new scoreboard
- Scripps Building - Cincinnati, OH: Floor capacity evaluation and travel path design for heavy equipment installation

Failure and Damage Investigation
- Lee High School - Wyoming, MI: Evaluation of structural members after roof collapse
- East Penn Facility - Whitehall, OH: Pallet rack collapse
- Structure Evaluation of Tornado Damage - Nashville, TN: First Horizon Park, Best Brands Warehouse, Stoner Creek Elementary School; and Dayton, OH: Dayton Phoenix Facility, Brookville High School, Grafton Kennedy Elementary, and Woodland Hills Apartments

Structural Load Testing
- Capital Center Building - Indianapolis, IN: Design, evaluation, and certification of existing and new dedicated roof anchorages for facade access equipment
- BMO Plaza - Indianapolis, IN: Testing and certification of existing dedicated roof anchorages for facade access equipment

Condition Evaluation
- City of Dayton Facilities - Dayton, OH: Tornado damage investigation
- Purdue University, Ross-Ade Stadium - West Lafayette, IN: Steel grandstand structure assessment
- Indiana University, Jordan Hall - Bloomington: Building enclosure and greenhouse assessment
- The Salvation Army, Various Buildings – Midwest U.S.: Structure and building enclosure assessment

Construction Observation and Troubleshooting
- Ford Motor Company Building - Indianapolis, IN: Construction observation for building rehabilitation
- Indiana War Memorial - Indianapolis: Construction observation for facade rehabilitation

Instrumentation and Monitoring/Seismic Engineering
- Dynamic identification of structures *
- Sensor deployment and data acquisition *
- Design and implementation of control devices (passive, semiactive, and active) *
- Real-time hybrid simulation *

WJE | ENGINEERS ARCHITECTS MATERIALS SCIENTISTS