



#### EDUCATION

- Lehigh University
  - Bachelor of Science, Civil Engineering, 2015
- University of Edinburgh and University of Glasgow
  - Master of Science, Structural Engineering and Mechanics, 2016

#### PRACTICE AREAS

- Facade Assessment
- Structural Analysis
- Failure/Damage Investigations
- Roofing and Waterproofing
- Repair and Rehabilitation
- Plazas and Terraces

#### PROFESSIONAL AFFILIATIONS

- Association for Preservation Technology International (APT)
- International Concrete Repair Institute (ICRI) - Pittsburgh chapter, board member
- Structural Engineers Association (SEA)

#### CONTACT

jhudson@wje.com  
412.316.9734  
www.wje.com

#### EXPERIENCE

Jamie Hudson joined WJE in 2016, bringing three years of academic research experience in structural health monitoring and structural intervention in building conservation. Since joining WJE, Ms. Hudson has worked on a variety of projects involving the evaluation of existing structures. Her work has included condition assessments, load capacity evaluations, water leakage testing, and on-site inspections.

While an undergraduate student at Lehigh University, Ms. Hudson assisted with research, developing a compressive sampling scheme for damage detection and localization for steel structures. Her graduate research at the Universities of Edinburgh and Glasgow involved the evaluation of the structural response of Gothic stone masonry vaults to differential settlement and the suitability of fiber reinforced polymers as an intervention technique.

#### REPRESENTATIVE PROJECTS

##### Facade Assessment

- University of Pittsburgh - PA: Facade ordinance inspections and condition assessment of over sixty buildings on the university campus, including inspections by drone and rope access
- The Pennsylvanian Rotunda Restoration - Pittsburgh, PA: Evaluation of terra cotta facade and rotunda arch construction
- Stephen Foster Memorial - Pittsburgh, PA: Water infiltration investigation of built-in copper gutters and Indiana limestone masonry walls
- Hanna Building at Playhouse Square - Cleveland, OH: Facade ordinance inspection and condition assessment
- Trimont Condominiums - Pittsburgh, PA: Evaluation of reinforced concrete facade construction, metal-framed fenestration, and exposed exterior concrete

##### Structural Analysis

- David L. Lawrence Convention Center - Pittsburgh, PA: Structural evaluation of ballroom slab construction
- City of Akron Retaining Wall - Akron, OH: Evaluation of the stability of masonry retaining wall

#### Failure/Damage Investigations

- Eby-Brown - West Mifflin, PA: Investigation and evaluation of damaged warehouse racking systems
- New Energy Solar Farm - Bladenboro, NC: Damage survey of solar panels using drones after a wind event

#### Roofing and Waterproofing

- Tepper School of Business - Pittsburgh, PA: Construction observation and quality assurance testing of fenestration system installations
- Hot Metal Flats - Pittsburgh, PA: Water infiltration investigation, repair observation, and quality assurance

#### Repair and Rehabilitation

- PNC Park Waterproofing Repairs - Pittsburgh, PA: Construction phase services for waterproofing repairs to stadium seating areas and concourses including sealant, surface sealer, and expansion joint repairs

#### Plazas and Terraces

- Tribute to Children - Pittsburgh, PA: Repair project involving waterproofing and cast-in-place topping slab replacement
- Pasquerilla Spiritual Center, Eisenhower Chapel, Frizzell Room - University Park, PA: Water infiltration investigation involving existing sheet membrane waterproofing installed over cast-in-place concrete

#### RESEARCH PUBLICATIONS

- Hudson, J., Theodossopoulos, D. 2017. Gothic Barrel Vaults under Differential Settlement: The Effects of Boundary Conditions and FRP on Structural Behaviour. Paper presented at the annual international conference on Mechanics of Masonry Structures Strengthened with Composite Materials, June 28-30, in Bologna, Italy.
- Yao R., Pakzad S.N., Hudson J.M. 2015. Iterative Spatial Compressive Sensing Strategy for Structural Damage Diagnosis as a BIG DATA Problem. Paper presented at the annual IMAC conference of the Society for Experimental Mechanics.