

### Matthew C. Farmer | Principal



#### EDUCATION

- The University of Colorado
  - Bachelor of Science, Architectural Engineering (Structures), 1985
  - Bachelor of Environmental Design, 1985
- Cornell University
  - Master of Civil Engineering (Structures), 1989

#### PRACTICE AREAS

- Facade Assessment
- Due Diligence Surveys
- Repair and Rehabilitation Design
- Failure Investigation
- Structural Evaluation
- Testing and Instrumentation
- Historic Preservation
- Peer Review
- Litigation Consulting

#### REGISTRATIONS

- Professional Engineer in DC, MD, and VA

#### PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- ASTM International
- International Concrete Repair Institute
- The Masonry Society
- RCI, Inc.

#### CONTACT

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#### EXPERIENCE

Matthew Farmer first joined the New Jersey branch of WJE in 1986 and moved to the Washington, D.C. branch (located in Fairfax, Virginia) in 1990. He has served as principal investigator on numerous evaluations of concrete, steel, and timber structures as well as those involving clay, concrete, stone, and cast stone masonry. Mr. Farmer has concentrated his practice in the area of building enclosure systems engineering, design, investigation, analysis, and repair. He is frequently asked to consult on the design of specialized exterior wall cladding systems and as an expert witness for construction-related litigation. Projects have included institutional, commercial, and residential projects as well as numerous historic landmarks. Mr. Farmer served as the manager of the Washington, D.C. branch from 1994 until 2006, when he became a principal with WJE. Prior to joining the WJE branch in Fairfax, he was a structural engineer with Skidmore, Owings and Merrill in Washington, D.C.

#### REPRESENTATIVE PROJECTS

##### Facade Assessment

- Lincoln Center for the Performing Arts - New York, NY: Evaluation and repair of travertine facade
- State Farm Headquarters - Bloomington, IL: Review of exterior wall assembly and evaluation of lock strip gasket glazing system
- Washington, D.C. Temple of the Church of Jesus Christ of Latter-day Saints - Kensington, MD: Investigation and repair of deteriorated marble cladding

##### Repair and Rehabilitation Design

- Washington National Cathedral - Washington, D.C.: Assessment and repair of seismic damage
- Virginia Square - Arlington, VA: Investigation of stone anchorage failure and 100 percent recladding, reusing existing granite panels on reengineered truss system

##### Failure Investigation

- Fisher Place Parking Garage - Rockville, MD: Collapse investigation of garage under construction
- Union Station - Washington, D.C.: Failure of plaster due to seismic activity

- Cathedral of Mary Our Queen - Baltimore, MD: Investigation of nave stone arch failure, rehabilitation of the arch structures, and roof replacement

#### Structural Evaluation

- John F. Kennedy Center for the Performing Arts - Washington, D.C.: Investigation and strengthening of existing structure for new plaza loading
- Prince George's County Courthouse, Duvall Wing - Upper Marlboro, MD: Fire damage assessment and restoration of historic brick masonry, concrete, and steel structure

#### Testing and Instrumentation

- Jacob K. Javits Convention Center, New York, NY: Instrumentation and monitoring of roof space frame
- Washington Monument - Washington, D.C.: Instrumentation and investigation of stone cracking
- Washington Equestrian Monument - Richmond, VA: Load testing to determine statue stability and to evaluate alleged excessive deflection due to lateral loading

#### Historic Preservation

- John Marshall Hotel - Richmond, VA: Repair and adaptive reuse of historic hotel, involving brick, stone, and terra cotta restoration
- USS Maine Memorial - Arlington, VA: Assessment of historic monument integrity investigation of uncontrolled water penetration

#### Peer Review

- The Ascent - Tysons Corner, VA: Design review and construction period consulting for a thirty-story residential high-rise
- The Hine Project - Washington, D.C.: Design review and construction period consulting for multibuilding, mixed-use development

#### TECHNICAL COMMITTEES

- ASTM C18 - Dimension Stone
- ASTM C27 - Precast Concrete Products
- TMS - Construction Practices
- TMS - Existing Masonry Practices