MARK A. COGGIN, P.E., LEED AP

Senior Principal

Summary

Mr. Coggin is a structural engineer with more than 30 years of experience in the design and management of a variety of projects that includes commercial, institutional, industrial and residential facilities. He joined Thornton Tomasetti in 1992 and has been working with architects, owners and contractors to develop constructible, creative solutions for challenging projects. He also specializes in the evaluation and rehabilitation of structures, including historic buildings and monuments.

Areas of Technical Expertise

- Forensic Structural Engineering
- Structural Engineering
- Emergency Response
- Building Envelope—Investigation and Repair

Education

- B.S.C.E, 1990, Drexel University

Registrations

- Licensed Professional Engineer in AL, DC, DE, KY, MD, MO, NC, NJ, PA, SC, VA, and WV
- LEED-Accredited Professional

Professional Activities

- Member, Carpenters' Company of the City and County of Philadelphia

Select Project Experience

Forensic Structural Engineering

Bardstown Warehouse, Bardstown, KY. Investigation of alleged deficiencies in the design and construction of a 1-story 175,000-square-foot pre-engineered metal building. Services included field assessment, wind load code review and analysis, analysis of roof wind pressures, review of construction logs and documentation, and finite element analysis of foundation elements under wind uplift conditions.

Confidential Resort, St. John, USVI. Damage assessment following Hurricanes Irma and Maria at a large vacation resort with claimed loss in excess of $75 million. The resort contained over 150 residential units, restaurants, amenity buildings and back-of-house facilities.

Dulles Jet Center Investigation, Herndon, VA. Structural investigation of three engineered metal hangars that collapsed during a record-breaking snowfall. Included field investigation, forensic analysis and evidence preservation during demolition.

Structural Engineering

Comcast Technology Center, Philadelphia, PA. Structural design of a 59-story; 1,121-foot tower with 1.5 million square feet of space comprised of an office, hotel, retail and public concourse. Significant features include an asymmetrical split structural core, 3-story atriums, 2-story amenity spaces and a glass-enclosed hotel lobby located at the top of the building.

American Water Corporate Headquarters, Camden, NJ. Structural engineering services for a 5-story, 220,000-square-foot office building that will house more than 600 employees. The steel-framed building has an articulated metal panel façade and features a 4-story atrium, innovation center, indoor and outdoor dining areas, rooftop terrace, traveling stair and dual 50-foot water features. The project will pursue LEED Platinum Core and Shell certification.

MARK A. COGGIN, P.E., LEED AP

evo Philly at Circa Centre South, Philadelphia, PA. Structural design of a 1,100-bed student housing tower that extends 120 feet over active rail lines. The 430-foot tower will have 30 residential floors, a rooftop pool and common space, retail at the Chestnut Street viaduct level and two levels of service area below the viaduct level. Transfer trusses at the viaduct level, used to relocate columns and avoid rail lines, have been incorporated into the design as a significant architectural feature.

Children's Hospital of Philadelphia—CHOP, Schuylkill Avenue Campus, Roberts Center for Pediatric Research, Philadelphia, PA. Structural design of a 21-story, 480,000-square-foot research and office tower with a 188,000-square-foot, 3-story plinth structure that includes parking and a public realm. The project is located adjacent to the Schuylkill River and the plinth structure encompasses a public realm that features significant green space, a river-view promenade, and pedestrian bridge crossing CSX tracks that links with Schuylkill River Trail recreational path.

University of Delaware, Warner Hall Renovations, Newark, DE. Renovation of an existing residence hall, which will be converted into office space. Existing construction is typically wood joists framing to interior columns and exterior masonry bearing walls. Structural renovation includes new elevator shaft and overrun, new mechanical shaft, addition of new east terrace and replacement of existing west terrace deck.

Main Post Office Renovation, Philadelphia, PA. Structural design of the complex renovation and conversion of an 880,000-square-foot historic post office building for office use. The project included a seismic assessment of the existing building, removal of several interior bays to create an interior atrium, design of a glass atrium roof and preservation of the retail corridor. The project achieved LEED Gold certification.

The Ayer, Philadelphia, PA. Structural engineering services for the conversion of a historic art-deco building into condominiums. The project included seismic evaluation of the entire structure for consideration of a 3-story vertical expansion, insertion of a 13th floor mezzanine, and the addition of basement parking.

Emergency Response

Tropicana Parking Garage Collapse, Atlantic City, NJ. Emergency response and forensic engineering services, structural peer review, and continuous on-site presence following a collapse during construction that caused four fatalities. Scope included a review of nonlinear finite element models produced by other investigators.

Distribution Center Collapse, Suffolk, VA. Emergency response related to collapse of partially erected 5-story steel frame structure. Forensic analysis and emergency response including cause and origin analysis and engineering support for removal of debris. Scope included preparing preservation of evidence protocol and on-site tracking of building components.

Building Envelope—Design, Investigation and Repairs

Weston Lakes, Cary, NC. Investigation of failed exterior doors and exterior adhered veneer system in support of contractor. Services included preparation of testing protocol, observation of field testing, observation of removal of doors and failed veneer, structural analysis of structure supporting veneer, and expert report documenting findings.

University of Delaware, East Campus Residence Hall Complex, Newark, DE. Building envelope consulting services for the 5-story residence halls containing 880 beds. Project involved review of architectural drawings and details pertaining to flashing, anchorage, glazing and watertightness of the window and curtain wall, waterproofing for the basement and foundation wall, and preliminary design of the roofing system.

Howard R. Young Correctional Institution, Wilmington, DE. Investigation and design services for the exterior masonry wall restoration of a 2-story correctional facility built in 1970. Project involved evaluation of existing conditions, preparation of construction drawings and construction administration for the replacement of the existing exterior veneer concrete masonry units with a new system based on the latest design standards.

Port of Wilmington, Warehouse Building C, Wilmington, DE. Cause and origin investigation of wind-induced roofing membrane failure. Scope included coordination of the re-roofing of a 150,000-square-foot, single-story refrigeration facility constructed in 1980. Services consisted of surveying existing damaged roof system, documenting roof replacement, designing parapet replacement and roof drain reinstallation.

Sworn Testimony

Deposition and Trial, Wardman Tower Residential Condo. Ass'n v. Nash Wardman, et al. Dispute related to exterior wall repairs in condominium conversion. March 27, 2024. February 4, 5 and 10, 2026. District of Columbia Superior Court.

Trial, Mitchell Commons v. H.C. Pody, Inc. Dispute related to construction of apartment building. City of Philadelphia Civil Court. January 15, 2026.

Deposition, Belfor USA Grp. v. Eng'g Specialties Co., Inc. and Dyke Indus., Inc. Dispute related to manufactured door assemblies and water intrusion. January 24, 2024.

Deposition, Blanton v. Travelers Ins. Dispute related to failure of Masonry Stabilized Earth retaining wall. October 15, 2021.

MARK A. COGGIN, P.E., LEED AP

Arbitration and Deposition, CBI v. Certain Insurers at Lloyds. Dispute related to hurricane damage at Caribbean resort. December 16, 2020; December 15, 2020; May 22, 2020.

Deposition, Marina Bay Towers Urban Renewal II v. Cont'l Ins. Co. Dispute related to value of and damage to senior housing resulting from Super Storm Sandy. March 3, 2017; December 7, 2016.

Trial, Ernest Bock & Sons v. Philadelphia Int'l Airport. Dispute regarding alleged contractor claims involving the construction of fire walls and the performance of escalators. City of Philadelphia Civil Court, January 16, 2017.

Trial, U.S. District Court, Civista Medical Center, et al. v. Travelers Prop. Casualty Co. Dispute related to earthquake damage to masonry building components. July 15, 2015.

Deposition, Ploschansky v. Harmon Cove Towers I Condominium, et. al. Dispute related to defective design and repairs of deteriorated concrete slab extensions. April 14, 2014.

Deposition, Reeves v. Michael Graves & Assoc. Dispute related to construction manager claim for additional cost due to claimed defective design. November 14, 2013.

Arbitration and Deposition, Rales v. Gwathmey Siegel & Assoc. Architects. Dispute related to premature failure of French limestone cladding. April 12, 2013; January 9, 2013.

Deposition, Crest by the Sea Condo. Assoc. v. Crest by the Sea, LLC. Dispute related to defective construction of 10-unit condominium structure. August 27, 2012.

Deposition, Nutley v. Global Constr. Dispute related to alleged failure of aluminum windows. December 12, 2011.

Deposition, Pettinaro Enter. v. Cont'l Casualty Ins. Co. Dispute related to value of and damage to deteriorated historic mill building. May 20, 2010.

Deposition, AC Moore Roof Collapse, Blackwood, NJ. Collapse of roof structure due to ponding of rain. February 6, 2007.

Litigation

Ploshchansky v. Harmon Cove Towers, regarding alleged defective repairs to the masonry façade and exposed concrete slab edges of a condominium building.

Jones v. Intech Constr., regarding shoring failure of large granite blocks that resulted in injury to iron worker.

Dockside Assoc., Pier 30, LLP v. Keating Bldg. Co., dispute related to alleged construction defects resulting in moisture intrusion and cantilever concrete balconies at an apartment building.

Bock & Sons v. Philadelphia Int'l Airport, dispute regarding alleged contractor claims involving the construction of fire walls and the performance of escalators.

Alternative Dispute Resolution

Arbitration and Testimony, Bethworks Now v. Sands Bethworks, Dispute involving facility maintenance budgets. May 15, 2013.

Arbitration, including Testimony, Samuel Grossi and Sons v. Shoemaker Constr., Dispute related to extended project general conditions resulting from delays due to steel fabrication. March 26, 2010.

Select Papers, Lectures and Publications

"Exploring the Performance of Pompignan Limestone as Exterior Cladding and Pavers in the Mid-Atlantic Region of the United States," 13th International Congress on the Deterioration and Conservation of Stone, Paisley, Scotland, September 10, 2016 (co-author).

CONTACT

Mark A. Coggin
1700 Market Street, Suite 1750
267.238.4007
MCoggin@ThorntonTomasetti.com
www.ThorntonTomasetti.com