

RUPA M. PATEL, P.E., LEED AP BD+C

Vice President



Summary

Rupa Patel has 19 years of experience investigating and designing structures for a wide variety of building types, including commercial, mixed-use, educational, healthcare, hospitality and residential. Rupa's projects have included forensics investigations, new design and construction, renovations, additions, repositionings, tenant fitouts, strength and load analyses, building strengthening, and property loss investigations. She is currently responsible for forensic investigations, structural analysis and design, preparation of project drawings and specifications, construction administration, composition of technical reports and structural narratives, and project coordination.

Areas of Technical Expertise

- Forensic Engineering
- Emergency Response
- Structural Engineering

Education

- M.S., Civil Engineering, 2003, University of Virginia
- B.S., Civil Engineering, 2000, University of Virginia

Registrations

- Licensed Professional Engineer in DC, FL, GA, MD, NC, SC, TN, VA and WV
- LEED Accredited Professional BD+C

Awards

- Construtech Women in Construction, 2021

Select Project Experience

Forensic Engineering

Confidential Bridge Investigation, VA. Litigation support for investigation into potential construction defects

Confidential Bridge Investigation, VA. Litigation support for investigation into potential design and construction defects regarding bridge support structure and retaining walls.

One Center Plaza, Baltimore, MD. Condition assessment of concrete parking garage to evaluate observed distress in concrete slabs and beams.

Grandview Ave., Wheaton, MD. Condition assessment of an existing building to evaluate potential damage associated with adjacent construction.

Sibley Memorial Hospital, Washington, DC. Vibration investigation of existing building.

8201 Eastgate Blvd., Nashville, TN. Damage assessment and restoration of distribution facility damaged by tornado.

Seneca Meadows Parkway Garage Investigation, Germantown, MD. Investigation of cause and origin of cracks in the double tee beams of a precast garage.

Confidential Bridge Investigation, VA. Litigation support regarding standard of care for bridge repairs.

Confidential Crane Collapse, VA. Investigation into the cause of a crane collapse.

Property Loss Consulting

CentrePort Limited, Wellington, NZ. Provided engineering services to evaluate earthquake damage and provide repair scopes for 100+ assets at the Port of Wellington. Assets included buildings, wharves, seawalls, and pavements.

Matua Winery, Blenheim, NZ. Evaluated wine tanks for earthquake damage and repair scopes.

*Denotes work performed with previous employer.

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Explosion Building Assessments, Nashville, TN. Assessment of multiple buildings affected by the December 2020 explosion downtown.

Project Sherlock, Christchurch, NZ. Cost allocation assessments consisting of reviewing available documents to allocate costs to multiple earthquake events.

CAT Laura, Delta, Sally, Zeta Building Assessments, LA and AL. Assessments of multiple properties damaged by wind and rain.

Tornado Response, Nashville, TN. Multiple building assessment to evaluate tornado related damage and prepare conceptual scopes of work.

Pavilion on the Park, Alexandria, VA. Investigation of structural, architectural, mechanical, electrical, and plumbing systems of a high rise concrete residential building to evaluate scope of damage due to a fire.

Fairfield Inn, Alexandria, VA. Investigation of a 7-story building's structural, architectural, mechanical, electrical, plumbing systems to evaluate scope of damage due to a fire.

Grace Memorial Baptist Church, Baltimore, MD. Investigation of the structural elements of a historic church to evaluate extent of damage due to fire.

Bluewater Properties, Panama City, FL. Investigation to determine extent of hurricane related damage to the structural, architectural, mechanical, electrical, and plumbing systems of a 2-story commercial office building.

Hurricane Michael, Confidential Residential Development, Lynn Haven, FL. Investigation to determine extent of hurricane related damage to a multi building residential development.

Cold Store-CenterPort, Wellington, NZ. Investigation to determine the extent of earthquake damage to a cold storage facility.

Confidential Bridge Pier Investigation, WV. Investigation of ground movement and sliding bridge pier during construction.

Design Experience

SCBI, Front Royal, VA. Renovation of existing historic building.

10001 New Hampshire Ave., Silver Spring, MD.* Structural engineering design services for a new 4-story structural steel office building.

1522 K Street, NW, Washington, DC.* Structural engineering services for the renovation of a 12-story, conventionally reinforced concrete building, converted from an office building to a hotel.

1700 New York Ave., Washington, DC. Structural engineering services for an 8-story, post-tensioned concrete addition to the existing gallery building, LEED Gold certified.

Rockville Town Square, Rockville, MD.* Structural engineering design services for five new mixed-use buildings consisting of three stories of below-grade reinforced concrete parking garage, with concrete transfer slab supporting five levels of light gage/Hambro joists.

Constitution Square Office Building Three, Washington, DC.* Structural engineering design services for a new 12-story commercial office building with post tensioned concrete slabs, a plaza/retail level at the ground floor, and a 3-story below grade parking garage, project modeled in REVIT. The project is LEED certified.

Founders Square (GSA), Arlington, VA.* Structural engineering design services for a new government office building. The building is a 12-story office building with post-tensioned concrete slabs and a 3-story below grade conventionally reinforced concrete parking garage. The project incorporates vibration considerations, progressive collapse and blast resistant design requirements, and is LEED Gold Certified.

8711 Georgia Avenue, Silver Spring, MD*. Structural engineering design services for a new 4-story, post-tensioned concrete residential building with three stories of below grade parking.

FBI Academy, Marine Corps Base, Quantico, VA.* Renovation and strengthening of an existing 4-story concrete joist framed building, including the addition of four steel egress stairs supported by helical piers and shallow foundations.

Litigation

Clarendon Regency IV, LLC v. Equinox Clarendon, Inc., involving issues related to appropriateness of structural design documents for a potential fitness center in Arlington, VA. U.S. District Court, Eastern District of Virginia. March 2022.

Select Papers, Lectures and Publications

- Lecture (one session), University of Virginia, CE 3330 - Introduction to Structural Design, Instructor: Dr. Jose Gomez, Spring 2022 (presenter)
- "The New DC: The Atrium at 300 New Jersey Avenue," Structure Magazine, January 2011 (co-author)

CONTACT

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