

# CAROLINE ZENNIE DUPOUX, P.E.

## Senior Associate



### Summary

Caroline Zennie Dupoux joined Thornton Tomasetti in 2023, and has over 10+ years of Civil and Structural Engineering experience, varying from new building design to existing building assessments and Construction Quality Assurance/Quality control, with an emphasis on seismic design and evaluations of low-rise reinforced concrete buildings. She is highly skilled in providing guidance to owners and developers and providing engineering consulting and oversight through all stages of projects.

### Areas of Technical Expertise

- Engineering Consulting and Project Management
- Structural Assessments of Existing Buildings
- Forensic Engineering

### Education

- M.S., Civil Engineering, 2008, Columbia University
- B.S., Civil Engineering, 2006, University of Virginia

### Registrations

- Licensed Professional Engineer in FL, VA
- LEED AP

### Professional Activities

- Member, American Society of Civil Engineers
- Member, College National des Ingenieurs et Architectes Haitiens

### Select Project Experience

#### Engineering Consulting and Project Management

**Aragon of Boca Raton**, Boca Raton, FL. Construction administration of building envelope restoration and roof restoration projects for a 10-story residential condominium building. Scope of work includes terrace restorations, waterproofing, pool deck, and pools.

**El Rancho Development Project**, Petionville, HTI. \* Lead engineering consultant and quality assurance supervisor for the design and construction of a 600 space multistory parking garage, convention center, and a commercial village with a movie theater and amphitheater.

**Center for Disease Control Foundation Biological Specimen Storage Facility**, Delmas, HTI. \* Structural engineering services for a one-story, 2,000-square-foot biological specimen storage facility. Scope of work included cost estimating, bidding, and quality control throughout the construction of the facility.

**DELIMART Supermarket**, Port-au-Prince, HTI. \* Structural engineering services for a supermarket development in the capital. Scope of work included cost estimates, and leading quality assurance field teams.

**US Department of State Jails Petit-Goave and Cabaret**, Petit-Goave and Cabaret, HTI. \* Structural engineering services for the construction of two US Department of State funded jails. Scope of work included peer review of documents, and performed regular audits of the sites to confirm the conformity of construction.

**Mairie de Petit-Goave Petit-Goave City Hall**, Petit-Goave, HTI. \* Structural engineering services for a four-story, 16,000-square-foot city hall building in Petite-Goave. Scope of work included structural design, and geotechnical recommendations for the building. Lateral load analysis was performed using ASCE 7 standards and equivalent lateral force method.

\*Denotes work performed with previous employer.

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**Club E11even**, Miami FL. Provided engineering consulting and support services throughout concrete quality review and evaluation, and review of column repair and strengthening details by others.

### Structural Assessments of Existing Buildings

**Modera Skylar**, Miami, FL. Condition assessment of 4-story parking garage and peer review of proposed structural repairs for beams supporting the pool structure. This visual assessment is part of HASTA Capital's due diligence process.

**275 Fontaine Parc**, Miami FL. Existing structural assessment for a 7-story residential building and adjacent parking garage structure. Scope of work included condition assessment and non destructive testing.

**Nissan Dealership Show Room**, Port-au-Prince, HTI.\* Post blaze structural investigation, provided structural assessment services for a steel structure with CMU envelope to determine if the structural components involved in the fire were still adequate and met the design intent.

### Forensics Engineering

**Palazzo del Sol / Della Luna**, Fisher Island, FL. Forensic investigation, provided litigation support regarding alleged construction defects, including deficiencies at balconies and building envelope defects, in a post-tensioned concrete structural slab.

**Fort Lauderdale International Airport Terminal 3 Bumpout**, Fort Lauderdale, FL. Forensic investigation, provided expert support regarding construction defects observed at curtain wall and joint sealants, and proposed remedial protocol.

**Florida National University**, Miami FL. Forensic investigation, provided litigation support regarding alleged construction defects, investigating facade and stucco deficiencies in particular.

**Faena Forum**, Miami Beach, FL. Forensic investigation, provided expert services and expert report regarding construction defects, including parking garage reinforced concrete structural slab and building envelope defects.

**RIVA Condominium**, Fort Lauderdale, FL. Provided litigation support services regarding alleged construction defects, including roofing, waterproofing, building envelope and pool shell defects.

**2000 Ocean**, Hallandale Beach FL. Forensic investigation, provided expert services and expert reports regarding construction defects, including building envelope, concrete frame, expansion joint, waterproofing, and roofing defects.

**The Villages Charter School**, The Villages, FL. Provided litigation support services in a construction insurance claim.

## CONTACT

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