



Professional Profile

CESAR VILLAGRANA-HERRERA
ENGINEERING TECHNICIAN
cherrera@btc.expert

Cesar Villagrana-Herrera is an Engineering Technician at Building Technology Consultants, Inc.



CERTIFICATIONS

- Construction Infection Control Training Institute Certified Healthcare Manger (**CCHM**)
- **OSHA** 10-Hour Construction Safety Certification
- **Troxler Electronic Laboratory** Nuclear Gauge Operator and Hazmat Certification

PROFESSIONAL EXPERIENCE

Prior to joining Building Technology Consultants, Inc. in 2018, Cesar Villagrana-Herrera was a Power Distribution Designer with UC Synergetic in Raleigh, North Carolina from March 2018 to June 2018. Prior to working for UC Synergetic, he worked as an Engineering Field Technician for Summit Engineering, Laboratory, and Testing in Charlotte, North Carolina from June 2017, to April 2018. Cesar also worked as an Assistant Project Engineer Intern for Rentenbach Constructors Inc. in Greensboro, North Carolina during the summer of 2016.

His professional experience includes:

- Assisting in the investigation of deterioration, **water leakage** issues, and construction deficiencies in **building envelopes**;
- Assisting in performing **condition assessments** for **building envelopes** and parking garages;
- Construction **observation** and **documentation**;
- Assisting in the preparation and drafting of drawings; and
- Nondestructive testing;

EDUCATION

Cesar Villagrana-Herrera earned his **Bachelor of Science** degree in Architectural Engineering with a structural emphasis from the **North Carolina Agricultural & Technical State University (NCAT)** at Greensboro, North Carolina in 2017.

During his formal education, Cesar attended numerous seminars and symposia related to architectural engineering and construction management including the 2016 and 2017

American Society of Civil Engineers Carolinas Conference. Cesar has also organized several company information sessions, student chapter board meetings, conference meetings, and general body meetings through the North Carolina Agricultural & Technical State University ASCE Student Chapter.

PROFESSIONAL ACTIVITIES

- American Society of Civil Engineers (**ASCE**)
 - President of the NCAT Student Chapter from 2016 to 2017
- PAE Architectural Engineering Honor Society (**PAE**)
 - Member from 2016 to 2017
- Society of Hispanic Professional Engineers (**SHPE**)
 - Vice-President of the NCAT Student Chapter from 2016-2017

AWARDS

- Letter of Honorable Mention for the 2016 North Carolina Agricultural & Technical State University ASCE Student Chapter Annual Report, Greensboro, North Carolina, 2017

REPRESENTATIVE PROJECTS

Pointe at Lincoln Park – Chicago, Illinois

Responsible for assisting with **contract administration** services at this 153-condominium unit development. Services during contract administration included site visits for review of facade repairs. Facade repairs included repointing of deteriorated mortar joints, routing and sealing of cracks, and application of a water repellent.

The Moorings of Arlington Heights – Arlington Heights, Illinois

Responsible for the assisting with drafting of drawings for the proposed locations for **fall arrest roof anchor**. Services also included a site visit to verify that proposed anchor locations did not interfere with the rooftop mechanical equipment.

The Moorings of Arlington Heights is a retirement community that includes a 5-story concrete-framed building with two 4-story wings. The building construction includes clad brick masonry, exposed cast-in-place concrete balconies, and aluminum flamed windows. The roof construction consists of a modified bitumen roof membrane over tapered insulation and a 7-inch thick post-tensioned concrete slab.

The Diplomat of Des Plaines – Des Plaines, Illinois

Responsible for assisting with **contract administration services**. Services during contract administration included performing an initial review of **facade deficiencies** and marking proposed repair locations. Final reviews were performed after the repairs were completed to verify conformance with the contract documents. Repairs of facade included **repointing** of deteriorated mortar joints, brick replacement, through-wall flashing installation, and deteriorated sealant replacement.

The Diplomat Condominium Building is a 6-story residential community that consists of 43 residential units. The wall construction consists of **brick masonry cladding** over concrete masonry units (CMU) back-up. Brick masonry piers extend the full height of the building on each side of the building. **Cement board cladding spandrel panels** are located at each floor line between windows. The main slow-slope roof consists of a modified bitumen roofing system with masonry parapet walls around the perimeter of the main roof.

SoNo Condominium Building – Chicago, Illinois

Responsible for assisting in the investigation of water infiltration through multiple windows. The investigation showed that gaskets were deteriorated, and corners of the window frame were improperly sealed.

La Grange Tower Condominiums – La Grange, Illinois

Responsible for assisting in the evaluation of the building facade. Services also included preparing and drafting masonry repair drawings for identified building facade deficiencies. Proposed repairs of facade included **repointing** of deteriorated mortar joints, brick replacement, through-wall flashing installation, expansion joint sealant replacement, and deteriorated sealant replacement.

La Grange Tower Condominiums is a 10-story residential building constructed in the 1960s. The building's wall constructions consist of brick veneer and 4-inch-thick concrete masonry unit (CMU) back-up walls. Structural frames and floor/roof slabs consist of cast-in-place reinforced concrete.

474 North Lake Shore Drive – Chicago, Illinois

Responsible for assisting in the evaluation of the parking garage of the 63-story condominium building. The parking garage consists of the first 15 stories of the building combined with an adjacent 15 story structure. Services included locating concrete deterioration on horizontal, vertical, and overhead services, and providing concrete repair quantities.