



#### EDUCATION

- Swarthmore College
  - Bachelor of Science, Engineering, 1997
- Cornell University
  - Master of Engineering, Structural Engineering, 1998

#### PRACTICE AREAS

- Collapse Investigation
- Structural Investigation
- Disaster Response
- Litigation Consulting
- Nondestructive Testing
- Construction Documents and Specifications
- Parking Structures

#### REGISTRATIONS

- Professional Engineer in PA

#### PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE)

#### CONTACT

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#### EXPERIENCE

Nicholas Lehmann is an expert in the field of structural investigation of existing infrastructure. He has investigated, analyzed, and designed repairs for hundreds of steel, concrete, timber, and masonry structures. After the events of September 11, 2001, Mr. Lehmann investigated several buildings at and around the World Trade Center site for debris impact damage.

Mr. Lehmann has specific experience in the investigation and design of repairs to parking structures. He has designed, specified, and observed the installation of concrete and steel repairs, expansion joint systems, and traffic-bearing waterproofing membranes. Mr. Lehmann also has experience in the investigation of in-ground swimming pools. He has investigated dozens of pools that have experienced both structural and material failures.

#### REPRESENTATIVE PROJECTS

##### Collapse Investigation

- World Trade Center Buildings 1, 2, 4, and 5 - New York, NY: Debris spread analysis and glass breakage analysis
- 1100 Race Street Garage - Philadelphia, PA: Investigation of partial collapse of exterior wall due to vehicle impact

##### Disaster Response

- World Trade Center - New York, NY: On-site engineering related to debris removal following September 11, 2001 terrorist attack
- Hurricane Katrina - New Orleans, LA: Investigation of hundreds of structures with flood and wind damage

##### Nondestructive Testing

- Brooklyn Battery Tunnel - Brooklyn, NY: Measurement of five thousand half-cell potentials on the underside of the roadway slab
- Walt Whitman and Benjamin Franklin Bridges - Philadelphia, PA: Nondestructive evaluation of steel rocker/hanger pins
- City of Chester Water Storage Tanks - Chester, PA: Corrosion potential survey of reinforced concrete water storage tanks

##### Construction Documents and Specifications

- Community Medical Center Parking Garage - Scranton, PA: Investigation and design of repairs including concrete and steel repairs, expansion joint replacement, sealant replacement, and waterproofing membrane
- Fashion Center Parking Deck - Paramus, NJ: Investigation and design of parking deck renovation, including concrete repairs, expansion joint replacement, waterproofing, and asphalt paving
- Holiday Inn Historic District Hotel Parking Garage - Philadelphia, PA: Investigation and design of repairs to tendons in post-tensioned floor slabs

##### Structural Investigation

- Municipal Water Tower - Roosevelt, NJ: Investigation and design of repairs to seventy-five-year-old steel water tower
- Drexel Armory Building - Philadelphia, PA: Structural condition survey of steel-trussed roof framing