#### PERSONNEL QUALIFICATIONS



# Andrew E. N. Osborn | Senior Principal



## **EDUCATION**

- Cornell University
  - Bachelor of Science, Civil Engineering, 1975
- University of Illinois at Urbana-Champaign
  - Master of Science, Structural Engineering, 1976

## **PRACTICE AREAS**

- Insurance Investigation
- Litigation Support
- Collapse/Structural Failure Investigation
- Concrete Investigations
- Bridges and Tunnels
- Instrumentation and Testing
- Vibration Studies
- Finite Element Analysis
- Research

#### **REGISTRATIONS**

- Professional Engineer in CT, DE, MD, ME, NH, NJ, NY, PA, RI, and VT
- Structural Engineer in IL and MA

## **PROFESSIONAL AFFILIATIONS**

Prestressed Concrete Institute

# **TECHNICAL COMMITTEES**

PCI - Prestressing Steel
 Committee, Research and
 Development Council, Industry
 Handbook Committee

#### CONTACT

aosborn@wje.com 617.946.3400 www.wje.com

#### **EXPERIENCE**

Since joining WJE in 1978, Andrew Osborn has participated in more than three thousand projects. He has conducted a wide range of investigations, repair designs, and load tests of buildings, bridges, water retaining structures, parking garages, tunnels, stadiums, and a lighthouse. These structures have been made of reinforced and prestressed concrete, masonry, steel, and wood. Since 1993, Mr. Osborn has developed expertise conducting investigations for, or on behalf of, insurance companies. He is also often designated as an expert in litigation matters. Prior to WJE, Mr. Osborn was a project engineer at DeLeuw Cather and Company (now Parsons Infrastructure), where he designed over twenty-five post-tensioned box girder bridges for the Kuwait Motorway System.

#### **REPRESENTATIVE PROJECTS**

## **Insurance Investigation**

- World Trade Center New York, NY: Investigation of WTC complex and thirty surrounding buildings following 9/11
- Rancocas Bridge NJ: Capsizing investigation
- Bahamas Electric Corp. Power Station: Investigation of hurricane damage
- 287 Broadway New York, NY: Stabilize leaning building

# **Litigation Support**

- 16 Sutton Square New York, NY: Expert opinion regarding vibration effects on residence
- 222 Grove Street New Haven, CT: Expert opinion regarding masonry collapse

### **Collapse Investigation**

- 3000 Jerome Avenue Bronx, NY: Steel frame collapse investigation
- South Avenue Garage Rochester, NY: Posttensioned concrete helical ramp collapse investigation
- David L Lawrence Convention Center, PA:
  Steel frame collapse investigation
- Pedestrian Bridge Marcy, NY: Steel U-girder collapse while under construction

# **Concrete Investigations**

- University at Albany NY: Investigation and repair design of historic exposed concrete
- Patapsco Wastewater Treatment Plant -Baltimore, MD: Investigation, analysis, repair design, and leak remediation

# **Bridges and Tunnels**

- Verrazano-Narrows Bridge New York, NY:
  Deck cracking investigation
- 149th Street Bridge Queens, NY: Deck cracking investigation and expert witness
- Brooklyn Battery and Queens Midtown Tunnels – New York, NY: Nondestructive testing
- Tren Urbano Tunnels Leakage investigation
- Central Artery/Tunnel (Big Dig) Boston, MA: Structural evaluation and leakage investigation
- East Side Access and South Ferry Transit Facilities- New York, NY: Leakage investigation

# Instrumentation/Testing/ Monitoring/Vibration

- Cape Hatteras Lighthouse Outer Banks, NC: Extensive instrumentation system to monitor lighthouse during move
- University of Buffalo Arena Roof NY: Longterm monitoring of roof snow loads
- LaGuardia Airport Over-Water Runway
  Extension New York, NY: Multiple load and laboratory tests of scale models
- Tropicana Garage Atlantic City, NJ: Ten major load tests

# Finite Element Analysis (FEA)

- 535 4th Avenue Brooklyn, NY: FEA of punching shear failure
- New Stanton, PA: FEA of reinforced concrete sewage tank
- New York, NY: FEA of spun aluminum luminaire enclosure

## Research

- NSF: Shear testing of precast concrete wall connections
- FHWA: Testing of full-depth precast/prestressed concrete deck replacements
- NCHRP 10-62: Testing for surface characteristics of prestressing strands
- PCI: Testing and analysis of flange-to-flange connectors
- WJE: Testing of L-shaped anchor bolts

