PERSONNEL QUALIFICATIONS

Tiffany A. Szeles | Senior Associate

EDUCATION

- Rowan University
  - Bachelor of Science, Civil Engineering, 2014
- The Pennsylvania State University
  - Doctor of Philosophy, Civil Engineering, 2019

PRACTICE AREAS

- Concrete Structures
- Facade Assessment
- Instrumentation and Monitoring
- Repair and Rehabilitation

REGISTRATIONS

- Professional Engineer in NY

PROFESSIONAL AFFILIATIONS

- American Concrete Institute
- American Institute of Steel Construction
- International Concrete Repair Institute

CONTACT

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EXPERIENCE

Tiffany Szeles performs field and analytical investigations, condition assessments, instrumentation and monitoring, repair design, and consulting on various structures and facades. Her expertise includes the assessment of various building typologies and facades containing distressed concrete, precast, and masonry elements.

Before joining WJE, Dr. Szeles was a university graduate fellow and research assistant at The Pennsylvania State University, where she developed alkali-silica reaction mitigating admixtures for use in concrete. Her research has been published in peer-reviewed journals, including *Transportation Research Record* and *Cement and Concrete Composites*. Dr. Szeles has presented at several technical conferences, including the American Concrete Institute and Transportation Research Board.

REPRESENTATIVE PROJECTS

Concrete Structures

- Upper East Side Residential High-Rise Building - New York, NY: Investigation of concrete distress resulting from embedded bentonite waterstop
- Paulus Hook Condominium - Jersey City, NJ: Investigation, structural analysis, and strengthening design of flat plate floor structure
- Central Plaza Shopping Center - Yonkers, NY: Investigation and structural analysis to determine the structural capacity of pile-supported cast-in-place reinforced concrete slab
- Bridgeport Bridge - OK: Condition assessment and nondestructive evaluation of substructure for historic bridge along Route 66

Facade Assessment

- Cornell University, Herbert F. Johnson Museum of Art - Ithaca, NY: Investigation, condition assessment, and repair design and development of I.M. Pei-designed, cast-in-place reinforced concrete facade
- The Dylan - New York, NY: Facade survey and repair and construction administration of 35-story residential tower comprised of floor-to-ceiling height windows and exposed cast-in-place, reinforced concrete slab edges
- 2 Lincoln Square - New York, NY: Condition assessment and repair of facade comprised of brick masonry and exposed concrete slab edges

Instrumentation and Monitoring

- Midtown East Residential Tower - New York, NY: Investigation and acoustic monitoring of wind-induced noises at metal stud interior partitions for new construction
- Lincoln Square Residential High-Rise Building - New York, NY: Acoustic monitoring of thermal-induced noises at curtain wall
- New York Public Library - NY: In-situ instrumentation and data analysis per ASTM C1155 for fourteen libraries with various wall assemblies, including brick masonry, mass masonry, concrete, and cladding to predict thermal resistance (R-value)

Repair and Rehabilitation

- Multimodal Transportation Center - New York, NY: Evaluation of post-tensioned elevated deck system, corrosion service life modeling, and rehabilitation/repair design
- Palace Theatre - New York, NY: Consultation on building monitoring plan, focusing on condition evaluation and preservation of historic plaster; lift and restoration as part of TSX Broadway
- Taino Towers - New York, NY: Consulting services for four 35-story residential towers, including repair design of fire-damaged precast concrete spandrel beam, materials investigation of cast-in-place concrete, facade surveys, and construction administration services