



EDUCATION

- Princeton University
 - Bachelor of Science, Civil and Environmental Engineering, 2011
- Georgia Institute of Technology
 - Master of Science, Civil Engineering, 2013
 - Doctor of Philosophy, Civil Engineering, 2016

PRACTICE AREAS

- Construction Materials
- Laboratory Evaluations
- Durability Assessment
- Service Life Modeling
- Corrosion

PROFESSIONAL AFFILIATIONS

- American Ceramic Society (ACerS) - Cements Division
- American Concrete Institute (ACI)

TECHNICAL COMMITTEES

- ACI 201 - Durability

CONTACT

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EXPERIENCE

Since joining WJE in 2016, Elizabeth Nadelman has been involved in a variety of projects involving the field, laboratory, and analytical investigation of reinforced concrete materials and structures. Her background and interests include durability of concrete materials, service life analysis of reinforced concrete structures, and development and testing of construction materials. In addition to concrete, Dr. Nadelman's experience also includes evaluation of grout, mortar, masonry, and polymeric construction materials.

Prior to joining WJE, Dr. Nadelman conducted research at the Georgia Institute of Technology focused on the early-age properties and long-term durability of concrete made with portland limestone cement. She has presented, published, and lectured on her work relating to chemical and autogenous shrinkage, physical salt attack, and transport properties of cement-based materials.

REPRESENTATIVE PROJECTS

Construction Materials

- Montana Department of Transportation: Condition surveys of concrete bridge deck damage and analysis of causes of transverse and map cracking
- Bridge Deck Joint Strengthening and Overlay - NY: Laboratory analysis of concrete and polymer concrete materials at various temperatures
- Mass Concrete Modeling - Multiple Locations: Thermal modeling and development of thermal control plan; instrumentation and monitoring of mass concrete elements
- Assessment of Type II Cements for Transportation Applications - Atlanta, GA: Laboratory evaluation of early shrinkage and transport properties of portland limestone cement-based materials*

Laboratory Evaluations

- UHPC Development - Northbrook, IL: Development, testing, and troubleshooting of ultra-high performance concrete for precast applications
- Performance-Based Specifications for Concrete Structures - Atlanta, GA: Laboratory evaluation of concrete durability and development of performance testing guidelines*

Service Life Modeling

- Iowa Department of Transportation: Service life modeling and life-cycle cost analysis for polymer overlays and bridge deck sealers
- Ohio River Bridge East End Crossing - KY: Corrosion service life modeling and durability assessment of bridge elements designed to achieve a one-hundred-year service life

Corrosion

- Ferry Hall Bridge - Lake Forest, IL: Condition assessment and corrosion evaluation of bridge approach columns
- Corrosion Test Methods Primer: Summary document on principles and techniques for corrosion resistance testing of reinforcing steel

** Indicates work performed while at the Georgia Institute of Technology*