



EDUCATION

- University of Vermont
 - Bachelor of Science, Civil Engineering, 1980

PRACTICE AREAS

- Concrete Deterioration
- Durability and Corrosion Protection Plans
- Concrete Rehabilitation
- Value Engineering Studies
- Construction Troubleshooting
- Corrosion Protection
- Research, Testing, and Quality Control Audit Programs
- Service Life Modeling
- Materials Investigation
- Precast Concrete and Pipe
- Repair and Rehabilitation Design
- High-Performance Concrete
- Instruction and Training

REGISTRATIONS

- Civil Engineer in CA
- Professional Engineer in MT

PROFESSIONAL AFFILIATIONS

- American Concrete Institute (ACI)
- American Concrete Pipe Association (ACPA)
- ASTM International (ASTM)

CONTACT

pkrauss@wje.com
847.272.7400
www.wje.com

EXPERIENCE

Paul Krauss's consulting activities at WJE extensively cover concrete construction and rehabilitation. His experience includes field investigations and laboratory research into construction failures and problems involving concrete, steel, polymer concrete, coatings, and sealers. He performs peer reviews of designs for major bridges to improve durability and participates in value engineering studies to improve service life expectations and reduce project costs. Mr. Krauss uses structural instrumentation, nondestructive testing, and laboratory techniques to solve complex materials problems and he is relied upon as a subject matter expert in litigation consulting.

Mr. Krauss has been the project manager for many landmark research projects involving solutions for bridge deck cracking, corrosion-resistant steel, and concrete durability. These studies were conducted for many notable organizations, including the National Cooperative Highway Research Program (NCHRP), Concrete Reinforcing Steel Institute (CRSI), and Federal Highway Administration (FHWA).

Mr. Krauss joined WJE after working with the California Department of Transportation (Caltrans). As chief of the Concrete and Structures Branch of the Transportation Laboratory, he supervised testing and research for concrete structures and pavements.

REPRESENTATIVE PROJECTS

Durability and Corrosion Protection Plans

- Hastings Bridge - MN
- Wacker Drive Reconstruction - Chicago, IL
- Lewis and Clark Bridge - Louisville, KY
- Gordie Howe Bridge - Detroit, MI
- Chicago Transit Authority, Red and Purple Lines - IL
- Chesapeake Bay Bridge and Tunnel
- I-64 Hampton Roads Bridge-Tunnel

Concrete Rehabilitation

- Martin Marietta: Manual for repair materials and techniques for concrete structures in nuclear power plants
- U.S. Army Corps of Engineers: Evaluation of injection materials for repair of deep cracks in concrete structures

Value Engineering Studies

- Queensboro Bridge - New York NY
- Riverside Drive - New York NY
- 49th Street Bridge - New York NY
- FDR Promenade - New York NY
- West Tremont Bridge - New York NY

Corrosion Protection

- Numerous research and field investigations into the corrosion resistance of epoxy-coated, stainless, and other steel exposed to deicer and marine environments
- FHWA Research: Evaluation of new breeds of corrosion-resistant reinforcing steel for seventy-five to one-hundred-year service life

Research and Testing

- NCHRP Report 380: "Transverse Cracking in Newly Constructed Bridge Decks"
- Project 20-07/Task 234: "Guidelines for Selection of Bridge Deck Overlay, Sealers, and Treatments"
- Project 20-07/Task 235: "Testing Protocols for Surface Applied Concrete Sealers"
- Project 20-007/Task 319: "Evaluating Applicability of the Dual-Ring Test Procedures for Assessing the Cracking Tendency of Repair Materials"
- Caltrans: New materials and techniques for the repair of concrete structures

Quality Control Audit Programs

- Development and management of quality control audit programs for ACPA, CRSI, and National Precast Concrete Association

Instruction and Training

- National Highway Institute course: DTFH61-05-R-63055 "Bridge Rehabilitation Evaluation and Design Course"
- ACI seminar series: "Troubleshooting Concrete Construction" and "Slab-on-Grade"

TECHNICAL COMMITTEES

- ASTM 13.03 - Concrete Pipe Durability
- Strategic Highway Research Program - ETG: C101 - Assessment of Physical Condition of Concrete Bridges, C103 - Rapid Repair Techniques for Bridge Decks, and C202 - Eliminating or Minimizing Alkali-Silica Reactivity