



Jan Vosahlik, Ph.D.

ASSOCIATE

Dr. Vosahlik specializes in the development, characterization, and evaluation of concrete mixtures, with experience in conventional, self-consolidating, high-performance, and other specialty concretes. He is an expert in rheology of cement-based materials, fresh concrete properties optimization and troubleshooting, and concrete pumpability, and his technical work includes characterization of concrete air void system and assessment of freeze-thaw durability, implementation of new technology in concrete mixtures, and additive manufacturing with cement-based materials. At CTLGroup, Dr. Vosahlik's main focus is on design, development and troubleshooting of concrete mixtures, solving construction-related issues, deployment of new products in the construction industry, and research & development.

Industry Experience

3 Years with CTLGroup

5 Years with Other Firms

8 Years Industry Experience

Credentials

Ph.D. in Civil Engineering
Kansas State University, 2018

M.S. in Civil Engineering
Kansas State University, 2014

B.S. in Structural and
Transportation Engineering
Czech Technical University in
Prague, 2012

Affiliations

American Concrete Institute

RILEM

American Ceramic Society -
Cements Division

Contact Information

(847) 972-3082

JVosahlik@CTLGroup.com

Relevant Project Experience

Concrete Mixture Development and Optimization

- Assisted with material selection, proportions optimization and performance evaluation of various type of concrete mixtures for large infrastructure projects.

Pumpability Assessment and Evaluation

- Performed evaluation of rheological properties of high-performance concrete mixtures and assessed their influence on concrete pumpability.
- Developed and improved characterization techniques to evaluate properties of the lubrication layer during pumping operations.
- Provided consulting services to troubleshoot and optimize workability of fresh concrete mixtures.

New Product Development

- Conducted projects focused on assessment, development and implementation of new products in the construction industry.

Construction Materials Evaluation

- Carried out projects focused on evaluation of various types of construction materials according to ASTM and EN standards.

Air Void System Characterization

- Developed a method and tools for characterization of the air void system of cement-based materials using automated image analysis techniques.

Research & Development

- Managed and participated in various R&D projects in the areas of concrete durability, pumpability, alternative cementitious materials and internal curing of concrete mixtures.

Project Specifications

- Contributed to the development and assessment of performance specification for infrastructure and residential projects, and highway agencies.