PERSONNEL QUALIFICATIONS

Wilson Nguyen | Associate II

EDUCATION

- University of California, Berkeley
  - Bachelor of Science, Civil and Environmental Engineering, 2010
  - Master of Science, Civil and Environmental Engineering, 2011
  - Doctor of Philosophy, Civil and Environmental Engineering, 2017

PRACTICE AREAS

- Concrete Structures
- Construction Materials
- Corrosion
- Nondestructive Evaluation
- Laboratory Evaluations
- Design
- Litigation Consulting

PROFESSIONAL AFFILIATIONS

- International Concrete Repair Institute (ICRI)
  - Northern California Chapter, board member
- Structural Engineers Association of Northern California (SEAONC)

CONTACT

WNguyen@wje.com
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EXPERIENCE

Wilson Nguyen is experienced in the structural design and damage characteristics of construction materials. His professional background includes the seismic design of buildings, nondestructive evaluation of reinforced concrete, and litigation support.

Prior to joining WJE, Dr. Nguyen completed his doctoral studies at the University of California, Berkeley, where he pursued a multidisciplinary research program related to the structural and durability behaviors of reinforced concrete. His diverse experimental approach included microscale 3D X-ray imaging of materials and large-scale seismic testing of bridge columns. Dr. Nguyen has published in several peer-reviewed journals, including *Engineering Structures*, *Composite Structures*, *Corrosion Science*, and *Electrochimica Acta*.

REPRESENTATIVE PROJECTS

Concrete Structures

- Research - Berkeley, CA: Large-scale seismic testing of a fiber-reinforced concrete bridge column detailed for accelerated bridge construction*

Construction Materials

- Research - Berkeley, CA: Evaluation of fiber-reinforced concrete for structural and durability applications*

Corrosion

- Research - Berkeley, CA: Multi-year monitoring of corrosion activity in reinforced concrete using linear polarization, Tafel polarization, and electrochemical impedance spectroscopy*

Nondestructive Evaluation

- Reinforced Concrete Cathedral - Oakland, CA: Evaluation of reinforced concrete slabs using ground-penetrating radar and floor-level survey
- Water Treatment Plant - San Francisco, CA: Evaluation of concrete cover depth using ground-penetrating radar
- Pacific Gas & Electric Remediation - San Francisco, CA: Preconstruction surveys of existing residential buildings

Laboratory Evaluations

- Research - Berkeley, CA: X-ray radiography and computed tomography for internal 3D imaging of concrete materials*
- Research - Berkeley, CA: Determination of rebar rust characteristics using X-ray diffraction, Raman spectroscopy, and nanoindentation*

Design

- Performance Arts Venue - Santa Rosa, CA: Design of timber structure after fire damage
- College Building - San Diego, CA: Evaluation of buckling-restrained braced frames (BRBF) as the lateral force resisting system*
- Hospital - San Diego, CA: Seismic anchorage of medical equipment and machines*

Litigation Consulting

- High-Rise Office Building - San Francisco, CA: Review of design and construction documents in support of damage claim

**Indicates work at previous appointments*