



PERSONNEL QUALIFICATIONS

Ariel Suselo | Associate III



EDUCATION

- Bandung Institute of Technology
 - Bachelor of Science, Civil Engineering, 2011
 - Master of Science, Civil Engineering, 2012
- University of Texas at San Antonio
 - Doctor of Philosophy, Civil Engineering, 2021

PRACTICE AREAS

- Nondestructive Evaluation
- Condition Assessment
- Structural Analysis/Computer Modeling
- Construction Troubleshooting
- Failure/Damage Investigation
- Bridges and Civil Infrastructure

REGISTRATIONS

- ACI Nondestructive Testing Specialist - Concrete Strength
- NHI Course 130055 - Safety Inspection of In-Service Bridges

PROFESSIONAL AFFILIATIONS

- American Concrete Institute (ACI)
- American Society of Civil Engineers (ASCE)
- Structural Engineers Association of Texas (SEAoT)

TECHNICAL COMMITTEES

- ACI 369 Sub-Committee C Frames

CONTACT

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EXPERIENCE

Since joining WJE, Ariel Suselo has been involved in various condition assessments, evaluation, and repair/rehabilitation designs of existing structures, including concrete, steel, and wood structures. Dr. Suselo specializes in the application of nondestructive evaluation (NDE) technologies, including but not limited to mechanical wave/vibration, electromagnetic, and electrochemical-based techniques utilizing multimethod approaches.

Prior to joining WJE, Dr. Suselo worked as a research assistant at the University of Texas at San Antonio, where he contributed to several sponsored research projects, including the calibration of concrete column nonlinear behavior, low-cycle fatigue test of high-strength reinforcing bars, and image-based analysis for concrete column damage assessment. Prior to and during his graduate studies, he accumulated more than five years of experience in engineering and laboratory services, including the application of NDE technologies, performance-based structural analysis and design, load testing, instrumentation, vibration analysis, and construction material testing.

REPRESENTATIVE PROJECTS

Nondestructive Evaluation

- Elementary Schools - Fort Worth, TX: Cover survey of concrete slab on ground
- Bridge Deck - Humble, TX: Concrete cover/thickness/void surveys
- ITS Pole Foundation - Humble, TX: Pile integrity testing of foundations
- Breakwater Structures - Galveston, TX: Cover survey of concrete slab and walls
- Parking Garage - Biloxi, MS: Assessment of post-tensioned tendon layout of elevated slab
- Tilt-Up Warehouse - Houston, TX: evaluation of precast wall panel damage due to impact
- Tank Foundation - OK: Reinforcing bar layout/void surveys
- Port Structure - Bali, Indonesia: Concrete homogeneity and resistivity, reinforcing bar layout, and corrosion potential *
- Cooling Tower and Bucket Elevator - Sulawesi, Indonesia: Post-fire inspection of metal hardness/coating thickness damage *

Condition Assessment

- Parking Garages - Houston, TX: Visual condition assessment on precast and composite structures
- The Westmore Condominium - Houston, TX: Evaluation of fire-damaged concrete
- George Bush Intercontinental Airport Utility Tunnel - Houston, TX: Visual condition assessment and crack mapping
- Apartment Complex - Houston, TX: Visual assessment and relative elevation measurements of wood-framed structures

Structural Analysis/Computer Modeling

- Electrical Vault Cover - Houston, TX: Modeling, analysis, and code review of as-built concrete structure
- High-Rise Buildings - Jakarta, Indonesia: nonlinear modeling of concrete frames/walls, analysis, and performance-based design *
- Air Navigation Tower - Jakarta and Sumatra, Indonesia: steel-truss modeling and analysis *

Construction Troubleshooting

- Tilt-Up Warehouse - Bryan, TX: Fiber-reinforced, concrete slab-on-ground joint consulting; reinforcing bar/dowel layout
- Aquatic Training Facility - San Antonio, TX: Dowel misplacement for crawlspace walls

Failure/Damage Investigation

- Tilt-Up Warehouse - Baltimore, MD: Assessment of steel joist handling damage
- Tank Terminals - New Orleans, LA: Damage assessment of tank terminals facilities

Bridges and Civil Infrastructure

- US59/69 - Cleveland, TX: Evaluation of deck with low-strength concrete
- Various In-Service Bridges - Houston, TX: Routine inspections

Instrumentation/Load Testing

- University of Houston Hub Buildings - TX: Vibration monitoring
- In-Service Bridges - Sumatra/Kalimantan, Indonesia: Static load test, dynamic/vibration analysis, and instrumentation *

* Indicates with the previous firm