

Roger Nelson, P.E., LEED AP
Senior Associate

Professional Profile

Mr. Roger Nelson is a Senior Associate in Exponent's Construction Consulting practice. Mr. Nelson has 5 years experience in the construction management field, and his advanced degree from the University of Colorado at Boulder has provided him with a strong background in project cost controls, project scheduling, risk analysis, and construction contracting. Since then, he has been involved in commercial building through his work for general contractors in the United States and New Zealand. His project management experience has ranged from permitting, procurement, quality and safety, subcontract development, scheduling, submittal and RFI reviews, and change order development/negotiation, to project closeout. His graduate research was in the field of green building and sustainability and he remains active in the field, specializing in LEED and green building considerations/impacts for building construction. As an Exponent consultant, he has experience with change order entitlement & valuation, damage analysis, schedule/delay analysis, and engineering audits.

Academic Credentials and Professional Honors

M.S., Construction Engineering and Management, University of Colorado at Boulder, 2004
B.S., Civil Engineering, University of California at Berkeley, 2002

Licenses and Certifications

Registered Professional Civil Engineer, California, # 76435
LEED Accredited Professional

Prior Experience

Project Engineer, Skanska USA Building, 2005–2007

Project Engineer, Mainzeal Property and Construction, Auckland, New Zealand, 2005

Project Engineer Intern, McCarthy Builders Inc., 2004

Student Aide/Civil Engineer, Contra Costa County Public Works, 2002

Project Experience

Industrial

MAOP Validation – Year-long effort to assist a large gas utility company with the implementation of a plan to validate the Maximum Allowable Operating Pressure (MAOP) for its gas transmission lines. Tasks included:

- Searching and organizing records relating to pipeline installation and repair
- Development of pipeline features lists (PFLs) and QC methods for ensuring quality
- Performing QC activities for the PFLs
- Training contractors to provide a uniform work product

Utility Project Portfolio Support – Developed project schedule templates and resource loaded schedules for hundreds of transmission & distribution substation projects system-wide, aided the utilities project managers in creating and updating project schedules, reviewed and refined data gathered from utilities teams, identified and addressed data gaps. Objectives included improved management of engineering labor force, productivity improvements, and improved labor forecasting.

Wastewater Treatment Facility – Analyzed a general contractor delay claim on behalf of the design engineer on a \$104 million wastewater treatment plant in Phoenix, Arizona. Exponent services included as-built schedule development, critical path schedule delay analysis, contractor cost overrun analysis, and procurement/buyout process investigation.

Natural Gas Utility – Performed a system-wide engineering audit of a Northern California natural gas distribution system. The audit scope included personnel interviews of all related maintenance and supervisory staff responsible for gas regulation and emergency valve maintenance, detailed review of statistically relevant records, administration of a skills assessment exam to all maintenance staff, and field visits to gas regulator stations and emergency valves.

Civil

Wastewater Conveyance Tunnel – Analysis of a \$75MM differing site condition claim on a 13 mile tunnel boring machine (TBM) contract. Services included entitlement review, productivity/delay allocation analysis, evaluation of technical tunneling factors, document management, and project management assistance.

Light Rail Maintenance Facility – Defense of \$12MM claim against design firm for deficient drawings & specifications. Services included change order & RFI causation analysis, settlement damage analysis, and contractual culpability examination.

Commercial

Performing Arts Center –Assisted in the defense of a \$40M design errors & omissions claim against the design architect for cost overruns. Exponent services included change order entitlement & evaluation, contract analysis, schedule analysis, and damages analysis.

Urban Hotel – Performed schedule delay analysis in defense of claim against elevator subcontractor through the examination of project records, baseline schedules, and subsequent schedule updates. Prepared summary of findings, demonstrative slides, and graphics.

Professional Affiliations

- United States Green Building Council—USGBC
- AACE International
- Underground Construction Association of SME