
ROGER GRAVELLE

Title: Principal, LEED AP BD+C, CPD

Education: Bachelor of Science ➤ Education Mathematics ➤ University of Nevada, Reno, 2008.

Affiliations: American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), American Society of Plumbing Engineers (ASPE)

Experience & Qualifications: Roger has experience with mechanical design, primarily in the areas of Education and Healthcare Facility Design.

As a design engineer, Roger is responsible for HVAC and plumbing system design activities, as well as specification writing and construction administration.

Roger has over eleven years' experience with Computer Aided Drafting and Design software. He has experience with Building Information Modeling (BIM) and has applied design software such as Autodesk's Revit to model the mechanical and plumbing systems of buildings. Roger has been responsible for the calculations and documentation for mechanical related LEED credits on over 6 projects. He also has experience in the area of energy analysis and measurement and verification of high-efficiency equipment performance. Further, Roger has achieved his professional certifications for LEED BD+C as well as Certified Plumbing Designer.

ROGER HAS OVER
11 YEARS OF
EXPERIENCE IN
HVAC &
PLUMBING DESIGN
AND BUILDING
ENERGY MODELING

PROJECTS:

UNIVERSITY OF NEVADA,
PENNINGTON STUDENT
ACHIEVEMENT CENTER

NORTHERN NEVADA
CORRECTIONAL CENTER BOILER
AND UNDERGROUND PIPE
REPLACEMENT

UNIVERSITY OF NEVADA, RENO
PENNINGTON ENGINEERING
BUILDING

Roger was the lead mechanical designer for this new 70,000 square foot mixed use education building. The building houses classrooms, computer labs, and various educational support departments. The HVAC system consists of 3 custom rooftop air handling units that serve VAV boxes with hot water reheat. The building was designed and coordinated using Autodesk's Revit software.

Roger was the lead designer on this mechanical prime project that renovated the existing 24 MBTUh boiler plant. The project replaced over 6 miles of underground piping and included a new central domestic hot water plant to generate and distribute hot water to the numerous building's plumbing fixtures while consolidating maintenance to the boiler plant. The project was voluntarily designed using Autodesk's Revit software to develop a spatial understanding of the new plant.

Roger was the lead mechanical designer on this new 80,000 square foot state of the art laboratory building. The project included a mix of dry, wet, and teaching labs with stringent pressure relations; as well as a large classroom and several mixed-use graduate support spaces. The HVAC system consisted of 5 custom rooftop air handlers serving over 200 VAV boxes and venturi style airflow control valves for the labs. The mechanical design supported a large Clean Room component with make-up and exhaust air and HVAC for chemical storage. The building was designed and coordinated using Autodesk's Revit software.