



Title: Principal Mechanical Engineer, LEED AP BD+C, CPD

Education: Bachelor of Science ➤ Master of Science ➤ Mechanical Engineering
➤ University of Nevada, Reno

Licenses: Professional Engineer, Nevada: #021194, California: #M36909, Texas: #121301, Arizona: #68221, Utah: #11136957-2202, Oregon: #94338PE, New Mexico: #25454

Professional Affiliations: American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), American Society of Plumbing Engineers (ASPE), Society of Fire Protection Engineers (SFPE), International Ground Source Heat Pump Association (IGSHPA)

Experience & Qualifications: Alison has over 13 years of experience in HVAC and Plumbing design, Geothermal Exchange design, and building energy modeling. Alison has been a principal of the firm since 2018.

The focus of Alison's education has been in the Thermal Sciences.

Alison also has experience in the area of energy analysis and measurement and verification of high-efficiency equipment performance as well as continuing education with AutoCAD MEP and Revit software and building energy modeling.

As a design engineer, Alison has performed thorough energy analyses on buildings of various sizes using energy analysis software including Carrier HAP, Energy Pro, Energy Plus, and DOE-2's eQUEST.

Alison is responsible for HVAC and plumbing system design and oversight, geothermal exchange design, building energy modeling, report writing, specification writing and construction administration.

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13 YEARS OF
EXPERIENCE IN
HVAC, PLUMBING,
GEOHERMAL
EXCHANGE DESIGN
AND BUILDING
ENERGY MODELING.

PROJECTS:

UNIVERSITY OF NEVADA, RENO
UNIVERSITY ARTS BUILDING

UNIVERSITY OF NEVADA, RENO
PALMER ENGINEERING
RENOVATION

UNIVERSITY OF NEVADA, RENO
SOUTH CAMPUS CHILLED WATER
INTERCONNECT

Alison was the Lead Mechanical Engineer for this new Fine Arts Building on the UNR Campus. The building houses a recital hall, practice rooms, art gallery, fabrication lab, and various offices and support spaces. The HVAC system consists of custom rooftop air handling units that serve VAV boxes with hot water reheat. The recital hall is served by a displacement ventilation system serving slightly warmer temperature air at a very low velocity from diffusers located under the seats. This building has very stringent acoustic requirements and ductwork and HVAC systems had to be designed accordingly.

Alison was the Lead Mechanical Engineer for a complete renovation of the historic Palmer Engineering building, which was originally constructed in the early 1940s. A new four-pipe fan coil system was designed for this building to provide the new laboratory and classroom spaces individual temperature control that they did not previously have.

Alison was the Lead Mechanical Engineer for this large utility project at the University of Nevada Reno campus that connected 27 existing buildings into a new South Campus Chilled Water system. This system combines four existing chillers with a new, standalone Modular Chilled Water Plant adjacent to the campus Central Heat Plant to distribute chilled water to 27-plus buildings on campus. A comprehensive energy model of all 27 connected buildings was created to understand campus block and peak loads. The plant was sized to serve future buildings on the University of Nevada, Reno campus.