NEVADA STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS

Interim Board Meeting
April 09, 2026
Virtual

1. Meeting Call to Order

2. Public Comment

3. NRS 625
Waiver Requests

WAIVER REQUESTS
Thursday, April 09, 2026

APPLICANTS REQUESTING WAIVER OF NRS 625.183 (4)(B)			
NAME	**DISCIPLINE**	**TO:**	**GRANT?**
1. Omar Abdelmoniem Etman	ME	Karen Purcell, PE	
2. Jared Walker	ME	Karen Purcell, PE	

NRS 625.183, ITEM 4, PART B, "TWO OF THE 4 YEARS OF ACTIVE EXPERIENCE MUST HAVE BEEN COMPLETED BY WORKING UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER WHO IS LICENSED IN THE DISCIPLINE IN WHICH THE APPLICANT IS APPLYING FOR LICENSURE, UNLESS THAT REQUIREMENT IS WAIVED BY THE BOARD."

4. Non-Appearance Applications for Initial Licensure

NEVADA STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS EDUCATION CREDIT GUIDELINES

DEGREE	YEARS CREDIT (MAX)	YEARS ACCEPTABLE EXPERIENCE REQUIRED
Undergraduate (BS): ABET/EAC accredited	4	4
Undergraduate (BS): ABET/ETAC accredited	4	4
Undergraduate (BS Engineering): Washington Accord	4	4
Undergraduate (BS Engineering): Non-ABET/non-Washington Accord (must meet NCEES education standard, any deficiencies to be considered by board)	4	4
Undergraduate (BS Construction Management): ABET accredited	4	4
Undergraduate (BS Construction Management): Not ABET accredited but institution has ABET accredited engineering programs	4	4
Engineering Masters: US Masters with non-US BS and/or non-Washington Accord in Engineering	6	2
Engineering Doctorate: US Doctorate with non-ABET/non-Washington Accord/foreign BS+MS in Engineering	6	2

Civil

WAZHMA BAHRAMAND (12-547-95)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/09/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
12 years, 4 months

Total Engineering Experience
12 years, 4 months

Experience under licensed engineer
12 years, 4 months

Disciplinary Action
None reported

ABET EAC

FE EXAM

PE EXAM

4+

EDUCATION

Associates in Arts/Science
American River College
January 2002–August 2007

Bachelors in Civil Engineering (EAC)
California State University, Sacramento
September 2006–January 2010

Masters in Civil Engineering
California State University, Sacramento
January 2013–January 2016

EXAMS

Fundamentals of Engineering (FE)
California
December 2024

Principles and Practice of Engineering (PE)
Civil
Nevada
November 2025

LICENSES

Additional Licenses
None

WAZHMA BAHRAMAND (12-547-95)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Department of Water Resources
California (United States)
Student Assistant
February 2012—October 2015

Verified by
Larry Lopez
Larry.Lopez@water.ca.gov

Experience Summary
Part-Time
Engineering: 1 year, 10 months (50%)
Post EAC degree: 1 year, 10 months (50%)
Experience under licensed engineer: 1 year, 10 months

TASKS

As a Student Assistant, working under the direct supervision of a licensed professional engineer, my role involved performing engineering support tasks for the State Water Project. These duties required responsibility for data accuracy and making engineering judgements that fed into the larger project decisions made by engineering team.
I was responsible for conducting engineering reviews of As-built plans for numerous State Water Project O&M facilities. I performed on-site inspections with the lead engineer, collected and documented field data related to O&M building conditions. During inspections, my engineering decisions involved correctly classifying the type and severity of observed deficiencies to ensure the data I provided for the inspection reports was accurate and reliable. Following inspections, I was responsible for assisting the senior engineer in developing formal inspection reports by compiling and presenting the technical data I had collected.
During this time, I was pursuing my master's degree in civil engineering (Water Resources).

REPRESENTATIVE PROJECTS

Project: State Water Project (SWP)
Location: California
Role: Student Assistant
Feb 2012 – Oct 2015
I was part of a team that performed the O&M inspections of State Water Project facilities. I performed engineering reviews of As-built plans for multiple State Water Project Operation & Maintenance (O&M) facilities. My responsibility was to interpret the technical drawings to verify existing conditions against the original design documentation. I performed on-site inspections with the lead engineer to collect filed data on O&M building conditions. This engineering task involved visually assessing and documenting the conditions of the buildings and updating the facilities database. Following the field inspections and plan reviews, I was responsible for assisting the team for developing formal inspection reports. These documents described findings on building conditions, noted discrepancies and provided data for future maintenance and repair schedules.

WAZHMA BAHRAMAND (12-547-95)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

US Army Corps of Engineers
California (United States)
Technical Lead - Civil Engineer
September 2015—March 2026

Verified by
William Phil Woodward
Phil.Woodward@usace.army.mil

Experience Summary
Full-Time
Engineering: 10 years, 6 months
Post EAC degree: 10 years, 6 months
Experience under licensed engineer: 10 years, 6 months

TASKS

Hydraulic Engineer

As a hydraulic engineer, I performed a variety of tasks related to the analysis and modeling of water and riverine systems. In this role, I made critical engineering judgements by selecting the appropriate 1D or 2D hydraulic modeling approach for each study's complexity to ensure analytical accuracy and documenting all findings and assumptions in associated technical reports. I also calibrated hydraulic models with available historic data such as using high-water marks or other field collected data to validate their predictive capabilities.

Technical Lead/Civil Engineer

As the technical lead and engineer in responsible charge, I made engineering decisions, which included initiating new field investigations to resolve data gaps and developing scopes of work for design modifications. I was responsible for providing essential design inputs and effectively communicating client priorities to the broader engineering team to ensure alignment.

I performed key design calculations such as wind wave analysis and erosion protection for the embankment's downstream slope. I authored Division 1 of the specifications and was responsible for reviewing engineering drawings and specifications developed by the AE firm to ensure accuracy and constructability. I performed comprehensive review of previous construction documents such as As-builts, Periodic Assessment reports, annual inspection reports and O&M manuals to identify critical data gaps and subsequent need for subsurface investigations to verify that existing conditions are similar to those stated in the As-builts, and the embankment materials are filter compatible.

During construction, I conducted site inspections and material testing verification for placements of various elements such as concrete, rebar, riprap, rock slope protection and compaction activities, ensuring compliance with project specifications. I also responded to contractor's Requests for Information (RFI) and other inquiries and conducted the final review of all responses prepared by the technical team to ensure compliance with the design intent.

REPRESENTATIVE PROJECTS

Project 1 - Stanislaus River Floodplain Mapping and Analysis
Location: Stanislaus River, California
Structure Type: Riverine System/Dam Release Impact Analysis
Role: Hydraulic Engineer
Dates of Involvement: Sep 2017 – Sep 2018

Scope: The scope of this project was to determine the floodplain inundation extents resulting from an 8,000 cfs release from Goodwin Dam. This analysis provided the Stanislaus River Park jurisdiction with the critical data needed to understand and manage the associated flood risks.

As a hydraulic engineer, I developed and calibrated a 1-D steady-state hydraulic model for Stanislaus River using HEC-RAS software to determine the floodplain extents based on an 8,000 cfs release from Goodwin Dam. I calibrated the model using highwater marks from the 2017 flood event. I performed sensitivity analyses on the model by varying key parameters such as the

Manning's roughness coefficient to assess their impact on the results. I exported the final model results from HEC-RAS into ArcGIS and developed inundation maps. I also wrote the technical report for these analyses documenting the sources of data, key assumptions and the final results of the hydraulic model.

Project 2 - Folsom Dam Raise, Dikes 1-6 Design Phase
Location: Placer County, California
Structure Type: Earthen Embankments
Dates of Involvement: 2018 – 2023

Scope: This project involved raising the crest elevation of the earthen embankments at Folsom Dam by 3.5 feet, achieved through either downstream toe-to-crest raise or by constructing a reinforced L-shaped concrete floodwall on the upstream hinge of the embankment. The primary objective was to increase flood storage capacity within Folsom Lake and reduce downstream flooding risk for the surrounding communities.

I served as the technical lead for Folsom Dam Raise project Dikes 1-6, guiding the multidisciplinary PDT throughout its design phase from 2018 to its successful completion and certification in 2023. I authored and reviewed available engineering documents such as As-builts, engineering reports and previous studies to identify data gaps and develop a list for new field investigations program. I then drafted scopes of work for both design modifications and targeted geotechnical investigations to support AE's design work, for instance, installing piezometers to enable groundwater monitoring and potholing to locate unmarked existing utilities near dikes 2 and 3.

I performed key design calculations, including wind wave analysis and erosion protection for the embankment's downstream slope. I authored Division 1 specifications, and reviewed AE firm engineering drawings and specifications for integrations and constructability. I identified, analyzed and communicated engineering risks to senior leadership and developed the design completion briefings that led to the project's final certification approval by Jan 2023.

Project 3 - Folsom Dam Raise, Dikes 1-6 Solicitation & Award Phase
Location: Placer County, California
Structure Type: Earthen Embankments
Dates of Involvement: Feb 2023 – May 2023

Scope: Folsom Dam Raise, Dikes 1-6 design which was developed by the AE was advertised and solicitated and awarded between the periods of Feb 2023 and May 2023.

During the solicitation phase of the Dikes 1-6, I responded to contractor RFIs and other inquiries and conducted the final review of all responses prepared by the technical team to ensure compliance with the design intent. I managed and processed project amendments. Subsequently, I coordinated preparation of and delivered a conformed set of specifications and drawings to the Contracting Officer for final action. The project was successfully awarded on May 1, 2023, to the lowest bidder.

Project 4 - Folsom Dam Raise, Dikes 1-6 Construction Phase
Location: Placer County, California
Structure Type: Earthen Embankments with Reinforced Concrete Floodwall/Toe-to-Crest Raise
Dates of Involvement: 2023 – 2026

Scope: Folsom Dam Raise project entered its construction phase from May 2023 to current date, focusing on raising the Dikes 3.5 feet by using a reinforced concrete floodwall on the upstream hinge point or downstream toe-to-crest raise.

During construction phase, I conducted essential field inspections and made timely engineering decisions that prevented construction delays while upholding safety and design standards. I conducted site inspections and material testing verification for

placement of concrete, rebar, riprap, rock slope protection and compaction activities to ensure compliance with project specificatnions. I also responded to contractor RFIs and other inquiries. I conduct frequent site visits to monitor construction progress, track ongoing issues and provide directions to resolve technical challenges.

.

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
May 2000	December 2001	During this period, working outside the home was not feasible due to family responsibilities that required my full-time attention.
February 2010	January 2012	Took a planned family leave to focus on early childcare and family responsibilities before entering the workforce.

ALIREZA GHASEMI (24-116-73)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/31/2026

Citizenship
Iran

SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
2 years, 11 months

Experience under licensed engineer
2 years, 11 months

Disciplinary Action
None reported

EDUCATION

Meets NCEES Engineering Education Standard

Bachelors in Civil Engineering
Islamic Azad University
September 2006–February 2013

Masters in Civil Engineering - Earthquake
Islamic Azad University
September 2012–August 2019

Non-degree
West Virginia University (West Virginia, United States)
January 2023–December 2025

Non-degree
Islamic Azad University - Lamerd Branch
November 2024–January 2025

EXAMS

Fundamentals of Engineering (FE)
West Virginia PE
March 2025

Principles and Practice of Engineering (PE)
Civil
Michigan PE
January 2026

LICENSES

Additional Licenses
None

ALIREZA GHASEMI (24-116-73)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Nimrokh
Tehrān (Iran)
Construction Engineer
August 2019—July 2022

Verified by
Meysam Bayat
b.bayat.meysam@gmail.com

Experience Summary
Full-Time
Engineering: 2 years, 11 months
Experience under licensed engineer: 2 years, 11 months

TASKS

I verified that excavation activities complied with engineering design requirements and construction specifications. I determined the required excavation elevation based on design requirements and site conditions. I calculated excavation volumes using foundation dimensions and geotechnical soil investigation reports.

I prepared quantity takeoffs for structural materials by reviewing structural drawings and construction plans. Based on calculated material quantities and consideration of project budgets, crew availability, and productivity, I estimated labor, material, and equipment costs to support project budgeting. I developed construction schedules for structural activities based on crew productivity and project sequencing.

I inspected reinforcement placement and concrete placement operations to verify compliance with engineering drawings and specifications. I performed field quality control testing and monitored concrete pouring and curing processes to ensure proper strength development and durability. I also evaluated shoring and reshoring requirements for floor systems and determined appropriate timing for formwork removal based on structural loading conditions and construction standards.

I evaluated construction equipment requirements and was responsible for researching and selecting appropriate equipment based on project budget, productivity requirements, and site limitations. This included selecting suitable excavators, haul trucks, cranes, and concrete placement machinery to support structural construction activities and maintain efficient construction workflow.

I calculated masonry material quantities for interior and exterior wall construction based on architectural drawings and construction plans. I reviewed construction safety practices including fall protection systems, scaffolding safety, excavation protection, and other site safety requirements to ensure compliance with applicable safety standards.

I designed the retaining wall on sloped terrain. Using geotechnical soil investigation data, I calculated active and passive earth pressures and evaluated surcharge loads from the building. I performed stability analyses, and determined the appropriate wall dimensions and reinforcement details to ensure structural safety.

REPRESENTATIVE PROJECTS

Project: Amirkabir Residential Buildings Construction
Location: Tehran, Iran
Dates: Aug 2019 – September 2020
This project involved the construction of five-story reinforced concrete buildings, including excavation, foundation construction, structural framing, and floor systems.
During the excavation phase of the project, I reviewed structural drawings and project documentation to identify the ground reference elevation, which was defined based on the adjacent road elevation shown in the plans. Based on these drawings, I determined the required excavation elevation for the site. I calculated the excavation volume for both the foundation section and the embankment above it in bank cubic yards. Based on geotechnical soil investigation reports, I also estimated the corresponding volume of excavated soil in loose cubic yards. I evaluated equipment requirements and determined the appropriate number of haul trucks required for excavation operations. Based on these calculations, I selected suitable excavators for the excavation work.
During the structural construction phase of the project, I calculated quantity takeoffs for structural materials including reinforcing steel, concrete, and formwork required for foundations, columns, slabs, beams, and girders. Based on these quantities and the productivity of crew compositions and equipment, I developed the project schedule and determined the Critical Path Method (CPM) for the construction activities.

Project: Marsoos Parking Lot Buildings Construction

Location: Karaj, Iran
Dates: September 2020 – November 2021
This project involved the construction of a seven-story parking structure with a total area of 30,000 m².
During the structural construction phase of the project, prior to concrete placement, I verified reinforcement installation, including the spacing of reinforcing bars (rebar), stirrups, and lap splice lengths, to ensure compliance with structural drawings. I inspected formwork installation and verified that the spacing between reinforcement and formwork satisfied the required concrete cover. I also verified that reinforcement bars were properly wetted with water before concrete placement.
During concrete placement, I performed and reviewed field quality control testing, including slump tests, to evaluate the workability and consistency of the concrete mixture. I inspected the use of mechanical vibrators to ensure proper consolidation throughout each concrete section.
During the curing stage, I monitored curing procedures, including the use of wet coverings such as cotton mats for columns and water sprinkling for slabs, to maintain adequate moisture. I also measured dimensional tolerances of reinforced concrete columns to verify that constructed components met allowable deviations specified in engineering codes.
During different stages of the project, I was responsible for construction equipment planning. Due to site constraints, including narrow access roads and nearby buildings that limited the use of large machinery, I reviewed available crane specifications and evaluated crane load capacity and maximum operating radius to select appropriate cranes for structural construction activities.
During concrete placement in slabs, beams, and columns, I evaluated equipment requirements and selected appropriate concrete placement machinery to support efficient construction operations.

Project: Nikan Residential Buildings Construction
Location: Damavand, Iran
Dates: November 2021 – July 2022
This project involved the construction of a three-story residential complex with a total area of 350 m², located on sloped terrain that required earth retention to ensure structural stability and safe site development.
I was responsible for the engineering design of the retaining wall system required to support the building and surrounding soil. Based on the geotechnical investigation report provided by the soil laboratory, I calculated the lateral earth pressures acting on the retaining structure, including active and passive earth pressures, and evaluated the additional surcharge loads imposed by the building and surrounding structures.
I performed stability analyses of the retaining wall, including checks for sliding, overturning, and bearing capacity, and determined the required dimensions and reinforcement details to ensure structural safety and compliance with engineering design standards.

KENNETH HICKENBOTTOM (22-275-23)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/24/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
2 years

Experience under licensed engineer
2 years

Other Experience

Disciplinary Action
None reported

FE EXAM

PE EXAM

EDUCATION

Bachelors in Wildlife Ecology and Conservation
University of Nevada, Reno
August 2012–May 2018

Doctorate in Civil and Environmental Engineering
University of Nevada, Reno
January 2019–December 2023

EXAMS

Fundamentals of Engineering (FE)
Nevada
February 2022

Principles and Practice of Engineering (PE)
Civil
California
April 2025

LICENSES

Additional Licenses
None

KENNETH HICKENBOTTOM (22-275-23)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Nevada Division of Environmental Protection
Nevada (United States)
Environmental Scientist
October 2018—July 2019

Verified by

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor:
None

DESCRIPTION

KENNETH HICKENBOTTOM (22-275-23)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

DOWL
Nevada (United States)
Design Engineer
February 2024—October 2025

Verified by
Alex Stodtmeister
AStodtmeister@dowl.com

Experience Summary
Full-Time
Engineering: 1 year, 8 months
Experience under licensed engineer: 1 year, 8 months

TASKS

Water Resources Design Engineer: Performed calculations with engineering concepts such as Bernoulli's principal and equation, and used modeling software to analyze water and reclaimed wastewater distribution system hydraulics. Review and plan distribution system hydraulic improvements. Designed pump stations and and pipe networks and specified final design criteria for planning purposes.
Process Engineer: Create piping and instrumentation diagrams for water treatment plants. Quality control on plan sets. Design water treatment train, piping, and chemical feed layouts. Prepare cost estimates. Communicate with state regulatory agencies. Draft engineering reports and formulate design alternatives. I designed the following treatment components: vessel size, booster pump and lift station pump sizing, filter backwash systems, and facility sewer routing. I calculated treatment vessel bed size based on empty bed contact time and surface loading rates, and calculated chemical dosing and contact time requirements for sodium bisulfite dechlorination.

REPRESENTATIVE PROJECTS

2024-2025- TRI General Improvement District Water and Reclaimed Water Expansion Master Plans Clark, Nevada, United States. Utility Planning and Distribution System Design:
I worked on a team that designed the expansion of water and reclaimed effluent distribution systems for a general improvement district. I produced adraft of the reclaimed effluent master plan a general improvement district. I made engineering decisions related to the routing of the system, pipe sizing, and creation of the new system's pressure zones. I used Nevada State Administrative Code to guide pipe sizing decisions to not exceed maximum velocities while not over-sizing pipes. I used my knowledge of the general improvement district's design and operation standards to size and place pumps and pressure-reducing valves to not exceed maximum pressures and maintain minimum pressure.

2024-2025- Plumas-Eureka Community Service District Arsenic Treatment Plant Plumas-Eureka, California, United States. Water Treatment Plant Design:
I was a project engineer for a 0.86 million-gallon-per-day arsenic treatment plant. I worked as a Design Engineer under the supervision of a licensed and registered professional engineer. As I became more familiar with the project, I began making design decisions with less oversight. I made engineering decisions on treatment system sizing, pump sizing, treatment and chemical system layout, site grading, and backwash system design. I used 10-years of the system's water demands to size the arsenic treatment vessels to meet the maximum daily flow requirements. I sized the treatment plant's booster pump system based on hydraulic analysis of the distribution system. I decided where chemical injection should occur to meet contact time and adjusted the plant's interior piping to meet this requirement. I made decisions on how to route and where to place the holding vessels, and how to grade the site for the backwash cycle, along with the sizing of the holding vessels. This was based on the application of engineering principles such as orifice flow, and manning's equation.

2024-2025- Canyon General Improvement District PFAS Treatment Pilot Lockwood, Nevada, United States. Water Treatment Plant Design:
I was a project engineer for a pilot PFAS treatment system for 0.24 million-gallon-per-day water treatment plant. I designed the following treatment components: vessel size, chemical metering pump sizing, and system discharge. I coordinated with vendors for the treatment vessels and chemical supply, EPA engineers, and analytical laboratories. I performed cost estimates for treatment options for full-scale treatment for the Preliminary Engineering Report. I worked as a Design Engineer under the supervision of a licensed and registered professional engineer. As I became more familiar with the project, I began making design decisions with less oversight. I made engineering decisions on treatment system sizing, chemical metering pump sizing, treatment and chemical system layout, and pilot start-up. I decided where chemical injection should occur to meet contact time and adjusted the plant's interior piping to meet this requirement. I made decisions on which chemical metering pump, injection equipment, and mixing equipment to use. This was based on engineering principles such as pump curves, hydraulic retention time, and chemical dosing stoichiometry. I also decided and implemented solutions to operational issues involving backwashing and other flow issues

by applying engineering concepts such as particle settling, head-loss, and Bernoulli's equation.

KENNETH HICKENBOTTOM (22-275-23)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Jacobs
Nevada (United States)
Water/Wastewater Engineer
November 2025—March 2026

Verified by
Dylan Menes
Dylan.Menes@jacobs.com

Experience Summary
Full-Time
Engineering: 4 months
Experience under licensed engineer: 4 months

TASKS

Project engineer: Create piping and instrumentation diagrams for water treatment plants. Quality control on plan sets. Design water treatment train and chemical feed layout. Prepare cost estimates. Review and plan distribution system hydraulic improvements. Communicate with state regulatory agencies. Draft engineering reports and formulate design alternatives.

REPRESENTATIVE PROJECTS

2025-July 2027: NTPUD National Avenue Water Treatment Redesign- Project Engineer
2025-September 2026: TMWRF Dewatering- Project Engineer
2025-May 2026: Gold Country PER- Project Engineer

For the NTPUD National Avenue Water Treatment Redesign, I designed treatment train layout of a UV disinfection system and associated piping for a 0.86 MGD water treatment plant. I created piping and instrumentation diagrams for the UV and chemical systems.

For the TMWRF Dewatering Project, I created a maintenance of plant operations and construction sequencing plan for a dewatering facility. I performed quality control on 30% planset submittal.

For the Gold Country PER, I performed site visits and inspections on a drinking water distribution system for 500 residents. I formulated alternatives to solve pressure, water quality, and operations problems and drafted a PER to acquire funding. I developed cost takeoffs for each alternative.

CHEYENNE LAWRENCE (17-867-83)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/06/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
8 years, 3 months

Total Engineering Experience
8 years, 3 months

Experience under licensed engineer
7 years, 9 months

Other Experience

Disciplinary Action
None reported

EDUCATION

Bachelors in Geological Engineering (EAC)
University of Nevada, Reno
August 2012–May 2017

EXAMS

Fundamentals of Engineering (FE)
Nevada
October 2021

Principles and Practice of Engineering (PE)
Civil
Nevada
June 2023

LICENSES

Additional Licenses
None

CHEYENNE LAWRENCE (17-867-83)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Ross Stores, Inc.
Nevada (United States)
Stock Worker
June 2017—November 2017

Verified by

Experience Summary
Part-Time
Other: (0%)
Experience under licensed surveyor: None

DESCRIPTION

CHEYENNE LAWRENCE (17-867-83)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

State of Nevada - Division of Water Resources
Nevada (United States)
Staff II, Associate Engineer
December 2017—March 2026

Verified by
Keith William Conrad
kconrad@water.nv.gov

Experience Summary
Full-Time
Engineering: 8 years, 3 months
Post EAC degree: 8 years, 3 months
Experience under licensed engineer: 7 years, 9 months

TASKS

I have been in my current role at the Nevada Division of Water Resources - Dam Safety from January 2022 to present. I review submittals and applications for new dam construction or alteration. I conduct in-depth reviews of the designs, including reviewing the soil strength parameters for the required slope stability modeling to confirm they are sound given the laboratory testing, ensuring the proposed design adheres to statutory requirements and the current state-of-practice. I am also responsible for reviewing as-built documentation and drawings to ensure construction meets the design intent. Specifics include comparing as-built drawings to the approved plans, reviewing daily construction logs, and confirming test results meet the specifications. Upon satisfactory review and after any comments have been addressed, I issue an Authorization to Impound so the applicant may begin storing water or tailings behind the structure.
Further, I conduct approximately 100-150 dam inspections each year across the state of Nevada. Inspections range from small stock water dams to large tailings storage facilities at mine sites and stormwater detention basins in municipalities. Inspections typically consist of a comprehensive review of the existing documentation prior to the inspection to gauge any deficiencies in the structure. Following the inspection, I draft a report summarizing the findings and issuing a condition rating so the owner has direction on deficiencies and repairs. I must prioritize the findings of the inspection from critical (immediate) actions to standard maintenance items.
In my current role, I also oversee water rights permitting for certain hydrographic basins in the state. I review new water right applications to ensure water availability using best available science and must assess their potential hydrologic impact to nearby river systems and wells.

REPRESENTATIVE PROJECTS

Carson Valley Groundwater Pumpage Inventory – Minden-Gardnerville, NV: This was a comprehensive review, field work, and report-writing project that determined total groundwater usage in the Carson Valley Hydrographic Basin for a given water year.
Dates: September 2018 to April 2019 (2018 Water Year), I also drafted the final reports for Water Years 2019 and 2020.
I reviewed all active underground water rights within the basin for accuracy in their amounts, calculated total combined duties (TCDs) of multiple water rights, and reviewed our existing water rights database for inaccuracies or changes that would be pertinent to that water year's inventory. I then undertook a month's worth of field work going to each well site and recording data from measuring devices. I often used engineering judgment to gauge water usage based on the numbers of apparent acres irrigated and crop type. Following the field work, I calculated the usage for that water year and incorporated any estimations I had made for those sites that did not have a measuring device. This information was compiled into a published report where usages were compared to the commitments within the basin to determine how much groundwater was pumped from the basin for that water year.

Dam Inspections – Statewide: This project entails 200-300 dam inspections throughout the state each year, of which I personally conduct approximately 100-150.
Dates: January 2022- February 2026. Recurring as part of full-time employment - 6 weeks of inspections annually.
I conduct comprehensive engineering evaluations of each dam, including review of design and as-built documentation, performance trends, and historical records of maintenance. I analyze all documentation to gauge potential failure modes inherent within the structure. In conducting inspections, I observe field conditions such as seepage, settlement, slope instability, and spillway deterioration, evaluating the dam for overall structural integrity, hydrologic/hydraulic capacities of appurtenances, and conformance to regulatory criteria. I use engineering judgment to assign the dam a condition rating and compile an inspection report to the owner, providing recommendations for further investigations or maintenance. If necessary, I also recommend administrative or enforcement actions, such as reservoir restrictions, to the Division authority.

Echo Dam Spillway Incident – Lincoln County, NV: This project involved reviewing design documentation and providing on-site technical support for Echo Dam in response to a partial spillway failure due to flooding from a rain-on-snow event.

Dates: March 2023
I reviewed pertinent geotechnical and as-built documentation for the spillway and calculated the maximum flow rate of the low-level outlet in response to an emergency at Echo Dam near Panaca, NV. I then traveled to the site to provide technical guidance and briefings to Incident Command in Panaca, where I clarified aspects of the spillway design which aided in decision-making should the spillway operate again and further damage occur.

South Fork Dam Engineering and Technical Support – Spring Creek, NV: This project involves technical and engineering support for the operation and maintenance of South Fork Dam.
Dates: October 2023 – February 2026
I provide technical analysis and engineering support for South Fork Dam including an ongoing capital improvement project (CIP) to replace the low-level outlet sluice gates and repair the spillway roller gate. As the Nevada Division of Water Resources owns and operates this dam, I solicit and manage maintenance contracts related to the dam, conduct regular detailed inspections, analyze monitoring data to gauge the health of the dam, and recommend needed improvements for the structure. Specific duties relating to the ongoing CIP have included real-time observation of deficiencies in the low-level sluice gates and spillway gate, reviewing all prior maintenance records and as-builts, and presenting the projects to the State Public Works Board for funding. I provide technical and engineering guidance to support the project on an as-needed basis.

Smith Creek Dam Toe Drain and Filter Design Review-Smith Creek, NV: This project involved a review of a new filter/toe drain design for dam rehabilitation.
Dates: Mid - 2025 – February 2026
I personally reviewed a proposed buttress and toe drain design for a dam rehabilitation project. I provided the Engineer of Record with guidance on current state-of-practice designs for toe drains and reviewed the filter compatibility calculations, providing comments and confirming the chosen filter materials meet the design intent.

SAL LIMBU (19-376-78)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/31/2026

Citizenship
Nepal

SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
6 years, 8 months

Experience under licensed engineer
6 years, 8 months

Disciplinary Action
None reported

EDUCATION

Meets NCEES Engineering Education Standard

Bachelors in Civil Engineering
Tribhuvan University
September 2006–November 2010

EXAMS

Fundamentals of Engineering (FE)
Utah
February 2019

Principles and Practice of Engineering (PE)
Civil
Nevada
October 2025

LICENSES

Additional Licenses
None

SAL LIMBU (19-376-78)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Design Point Pvt. Ltd.
Bāgmatī (Nepal)
Civil Design Engineer
December 2010—November 2015

Verified by
Sal Limbu (Self)

Experience Summary
Full-Time
Engineering: (0%)
Experience under licensed engineer: None

TASKS

- Analyzed site conditions and data.
- Performed design task related with water supply and distribution system.
- Prepared design drawings using AutoCAD and Civil 3D.
- Perform floodplain encroachment analysis

REPRESENTATIVE PROJECTS

- Identified natural drainage pattern and appropriate natural path for discharge point, analyzed other site conditions, and then designed roadways, street gutter, storm drain inlet, and underground pipeline system for storm drain.
• Performed design tasks related with intake, sedimentation tank, and water storage tank including design for main and distribution pipelines from source to target points for gravity water supply and distribution system.
• Prepared design drawings (plans, cross sections, profiles, and details) including specification and cost estimations using Civil 3D and AutoCAD for many projects related with roadways, storm drainage, sewer drainage, and water supply and distribution systems. Also, assisted senior engineer to prepare preliminary calculation and design of sanitary sewer.
• Performed floodplain encroachment analysis of open channel flow for several projects.

SAL LIMBU (19-376-78)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Utah State University
Utah (United States)
Graduate Research Assistant
January 2016—May 2019

Verified by
Sal Limbu (Self)

Experience Summary
Part-Time
Engineering: (0%)
Experience under licensed engineer: None

TASKS

- Performed continuous rainfall-runoff modeling including snowmelt using HEC-HMS for Red Butte Creek watershed located in Salt Lake City.
- Established a new hybrid method for calculating missing parameter values.
- Compared different storm water model results.

REPRESENTATIVE PROJECTS

• Estimated and predicted surface and groundwater flows contribution from snow dominated Red Butte watershed to Salt Lake City, Utah using HEC-HMS for present and Global Climate Model predicted future climate scenarios; A part of EPA Stormwater Green Infrastructure Project.
• Established a new hybrid method (Artificial Neural Network – ANN and empirical approaches) for imputation of missing meteorological parameters value.
• Compared two Stormwater Management (SWM) models, Source Loading and Management Model for Window (WinSLAMM) and Stormwater Load Analysis Tool (SLAT), results in aspect of surface water quantity and quality.
• Revealed the excel based SLAT program algorithm and replicated the algorithm into C#.

WORK EXPERIENCE

Horrocks Engineers Inc.
Nevada (United States)
Water Resources Engineer (EIT)
July 2019—October 2025

Verified by
David Benjamin Clark
David@advantagecivil-nv.com

Experience Summary
Full-Time
Engineering: 6 years, 3 months
Experience under licensed engineer: 6 years, 3 months

TASKS

- I reviewed prior approved studies to identify relevant hydrologic (offsite flows) and hydraulic (drop inlet and storm model) factors affecting the project site and corrected any errors in assumptions or calculations before applying them for the project site.
- I performed hydrologic analysis for both offsite and onsite areas using SCS method wihtin HEC-1 and rational method.
- I designed hydraulic elements—such as drop inlets, storm drains, culverts, channels, and detention basins—using tools like FlowMaster, WSPG, HY-8, and Hydraulic Toolbox to protect the site from flooding and meet local requirements.
- I prepared drainage study reports and technical memoranda summarizing site conditions, scope, hydrology, hydraulics, impacts, and conclusions, and developed drainage exhibits using Civil 3D.
- I prepared Addendum#1 and 2 for approval of technical drainage studies.
- I guided and monitored entry-level engineers, coordinated with supervisors, managers, designers, and external firms, and reviewed improvement plans with drainage-related comments.

REPRESENTATIVE PROJECTS

Centennial Heights Townhomes
- I assisted with hydrologic analysis using HEC-1 to estimate peak flows for offsite and onsite areas.
- I assisted in performing hydraulic analysis (normal depth calculations for streets and channels) in Flowaster.
- I assisted with preparing drainage basin exhibits in Civil 3D.
- I assisted in preparing Addendum#1 and 2 package by addressing some of the city comments and drafting response letters

Nevada State Drive Phase 2 (Compassion Street to Conestoga)
- I reviewed previous approved studies and identified significant offsite flow impacting the site from the south.
- I delineated basins, performed hydrologic analysis using HEC-1, and determined peak flow rates at key locations (e.g., culvert upstream).
- I analyzed three 8'x4' reinforced concrete boxes (RCB) at Nevada State Dr. which is an existing regional facility labeled as C1BH 0250 under proposed condition flowrate using HY-8. I performed drop inlet analysis in flow master and modeled the proposed storm drain system along Nevada State Drive and Conestoga Way using WSPG.
- I prepared preliminary report for memorandum and drainage exhibits for existing and proposed conditions using Civil 3D.

Emergency Action Plan Update
- I reviewed basin delineations and hydrology for 19 detention basins in Las Vegas Valley and three outside the valley and compared them with current conditions.
- I coordinated with my supervisor and manager on findings and challenges and assisted with providing mitigation strategies and recommendations.
- I assisted to prepare the update package including text.

Rainbow Boulevard – Blue Diamond Road to CC-215 Beltway
- I reviewed 50+ approved studies along Rainbow Boulevard (Blue diamond to CC-215 Beltway), extracted pertinent hydrologic and hydraulic information for each study, identified discrepancies between two or more studies, and determined the most appropriate study to use.
- I re-analyzed hydrology as needed using rational method with a 5-minute time of concentration, based on current conditions.
- I updated the existing drop inlet and storm drain sizes per updated hydraulic analysis while meeting the local requirements and suggested removing or plugging unnecessary structures.
- I coordinated with roadway designer, reviewed plans, provided comments, and prepared memorandum for the study.

Tropical and Walnut
- I guided an entry-level engineer on researching approved studies, performing hydrologic analysis (including curve number and lag time calculations), and conducting hydraulic analysis using FlowMaster and WSPG.
- I guided an entry-level engineer to prepare existing, interim, and ultimate conditions basin maps and report preparation.
- I coordinated with grading designer and directed the entry-level engineer to update hydrology, hydraulics, maps, and report per the grading changes.
- I reviewed the entire package and made necessary corrections for submission.
- I worked on addressing city comments and prepared addendum 1 and addendum 2

SAL LIMBU (19-376-78)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Wood Rodgers Inc.,
Nevada (United States)
Flood and Drainage Engineer
October 2025—March 2026

Verified by
Abhusan Achhami
aachhami@WoodRodgers.com

Experience Summary
Full-Time
Engineering: 5 months
Experience under licensed engineer: 5 months

TASKS

- I reviewed prior approved studies to identify relevant hydrologic and hydraulic factors affecting the project site.
- I performed hydrologic analysis using HEC-1.
- I designed hydraulic elements—such as drop inlets, storm drains, and channels using FlowMaster and WSPG
- I coordinated with designers, reviewed plans and provided comments, prepared drainage study reports and exhibits using ArcGIS Pro.
- I prepared Addendum#1 for approval of technical drainage studies.

REPRESENTATIVE PROJECTS

Ensworth & Richmar
- I reviewed the relevant approved studies, analyzed offsite and onsite hydrology, and identify existing and proposed peak flow rates for project area.
- I performed normal depth calculations for streets, channels, and onsite area using Flowmaster.
- I coordinated with designer, reviewed plans and provided comments, prepared drainage study reports, and exhibits using ArcGIS Pro.
- I coordinate with city engineer on their comments, prepared addendum#1 for approval.

Red Rock Communication Center:
- I examined pertinent approved studies, performed offsite and onsite hydrology, and determined existing, interim, ultimate conditions peak flow rates for the project area.
- I performed normal depth calculations for streets & channels and drop inlet calculations using Flowmaster. WSPG is used for hydraulic analysis of existing 54” RCP conveying 207 cfs.
- I collaborated with the designer, evaluated plans and offered feedback, and prepared drainage study reports and exhibits using ArcGIS Pro.

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
August 2002	August 2006	I have done three years diploma in civil engineering after my 10th grade during this period and one year was taken for entrance preparation class to join bachelor in civil engineering.

MARISSA LOMELI (15-989-12)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/26/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
3 years, 9 months

Total Engineering Experience
3 years, 9 months

Experience under licensed engineer
3 years, 9 months

Other Experience

Disciplinary Action
None reported

ABET EAC

FE EXAM

PE EXAM

EDUCATION

Bachelors in Civil Engineering (EAC)
California State University, Long Beach
August 2012–December 2016

Masters in Civil Engineering
California State University, Long Beach
January 2017–May 2020

EXAMS

Fundamentals of Engineering (FE)
California
June 2016

Principles and Practice of Engineering (PE)
Civil
California
October 2024

LICENSES

Additional Licenses
None

WORK EXPERIENCE

Kumon Learning Center
California (United States)
Tutor
March 2010—February 2014

Verified by

Experience Summary
Part-Time
Other: (0%)
Experience under licensed surveyor: None

DESCRIPTION

MARISSA LOMELI (15-989-12)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

City of Los Angeles - Harbor Department
California (United States)
Student Engineer I-III
February 2014—October 2016

Verified by
Marissa Lomeli (Self)

Experience Summary
Part-Time
Engineering: (0%)
Experience under licensed engineer: None

TASKS

As a Testing Laboratory Student Engineer: Responsibilities included performing Nuclear Gauge Tests, Soil Compaction Tests, Concrete Strength Tests, Asphalt Sieve Analysis, Sieve Analysis on Various Soils, Water Quality Testing including operating a CTD probe and obtaining samples in the field for DO and Turbidity Tests, and samples for BOD (to be performed in the lab), Data Analysis Reports for each Collection of Tests, Training and Supervision of new Employees, and Regular professional communication with Inspectors.

As a Construction Management Team Student Engineer: Responsibilities include developing and organizing Change Management Documentation, maintaining As-Built Documentation, creating and maintaining a Submittal Verification Log, posting Requests for Information (RFI's), performing Bid Item Quantity Verification, taking and organizing Job Site Progress Photos, daily monitoring of Environmental Compliance Plan (ECP) and Storm Water Pollution Prevention Plan (SWPPP), providing Engineering and Field Support as required, and working in conjunction with Construction Management Consultants and Coordinate Design.

REPRESENTATIVE PROJECTS

I reviewed Submittals and RFIs in a supporting role on the Construction Management Team for the Automated Terminal Project.

I audited Change Orders for Construction Management Team on Berth 132 Project.

I performed soils tests and nuclear gauge tests on the Wilmington Grade Separation Project and Berth 200 Rail Yard.

I aided in asphalt testing, concrete testing, and soils testing on the Berth 132, 136 and Wilmington Grade Separation Projects.

WORK EXPERIENCE

B.A. Sims Engineering, Inc.
California (United States)
Lead Associate Civil Engineer
October 2016—May 2022

Verified by
Marissa Lomeli (Self)

Experience Summary
Full-Time
Engineering: (0%)
Experience under licensed engineer: None

TASKS

Administrative Responsibilities included Training New Employees (Assistant Engineers and/or Interns) in the work noted under representative projects, Managing/Scheduling Employees' workload, Reviewing/Coordinating Employees' Work to ensure quality; Printing/Sending Wet-Signed Documents; Meeting with Clients/City Plan Checkers/Architects; and Maintaining a Positive, Innovative, and Productive Work Environment.

REPRESENTATIVE PROJECTS

Engineering Responsibilities included the following: Civil Design (Drainage, Grading, Low Impact Development (LID), Erosion Control, Retaining Wall, Sewer, Storm Drain) often for residential, commercial, and mixed-use construction; Shoring Design for Residential Projects (primarily Basement Shoring) and Public Works Projects (Utility Installations/Supports/Protections) often within Roadways (or near Railways); and Coordination with Clients (Contractors, Architects, Developers, Private Owners), Public Agencies (during Plan Check and/or during Inspection) and other Consultants (including Architects, Surveyors, Geotechnical Engineers, Contractors, Mechanical Electrical Plumbing Engineers).

MARISSA LOMELI (15-989-12)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

United States Army Corps of Engineers
California (United States)
Senior Civil Engineer
June 2022—March 2026

Verified by
Emily Katherine Greene
emily.k.greene@usace.army.mil

Experience Summary
Full-Time
Engineering: 3 years, 9 months
Post EAC degree: 3 years, 9 months
Experience under licensed engineer: 3 years, 9 months

TASKS

I performed routine inspections of flood risk management projects consisting of levees, channels, pumping plants, floodwalls, and interior drainage facilities based on U.S. Army Corps guidance and prepared inspection reports; I performed inspections of newly constructed flood risk management projects constructed by USACE and prepared inspection reports; I performed Design Reviews for developing construction projects; I inspected Sacramento River banks and levees for critical storm damage (erosion, slips, seepage), collected field data, and made recommendations to prioritize future repairs; I made revisions to existing O&M manuals for federally authorized civil works projects.

I evaluated new construction project's documentation (plans, design reports, close-out documentation, as-bulits, O&M Manuals, etc.) and ability to bid, construct, operate, and environmental and sustainability factors, ensured they were in accordance with applicable laws, regulations, and policies, and provided comments and recommendations to the lead designer; I made final decisions when actively performing field work including ensured conformance with plans & specs, evaluated the general condition of the levee from an O&M perspective, identified conditions that could negatively impact the levee during the next flood event, etc. and provided decisions to other teams (internally and externally) including to request addt'l information and kept record of all in Inspection Reports and O&M Manuals.

REPRESENTATIVE PROJECTS

I inspected Wadsworth Canal Sutter ByPass Levee System (Sutter, CA, USA) in 2022.

I inspected and developed the inspection report for RD 0501 - Ryer Island Levee System (Walnut Grove, CA, USA) in 2022.

I inspected, developed the inspection report, and communicated directly to the client for American River Flood Control District Dry Creek Levee System (Rio Linda, CA, USA) in 2022.

I inspected Maintenance Area 5 Unit 2 Levee System (Chico, CA, USA) in 2024.

I reviewed As-Builts, prepared Notice of Completion Inspection reports for three phases of the Marysville Ring Levee Project (Marysville, CA, USA) in 2024-2026. I also inspected the City of Marysville Levee System after the work was completed, developed the inspection report, and communicated directly to the client in 2025-2026

I reviewed As-Builts for over 33 levee repair projects and incorporated more than 57 levee repair projects into the O&M Manual for Sacramento River Flood Control Project (Greater Sacramento Area, CA, USA) from 2022-2026.

LUIS ROCHER NERI (22-898-31)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/26/2026

Citizenship
Mexico

SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
4 years, 11 months

Experience under licensed engineer
3 years, 2 months

Other Experience
2 years

Disciplinary Action
None reported

EDUCATION

Meets NCEES Engineering Education Standard

Bachelors in Civil Engineering
ITESM, Campus Estado de Mexico
August 2013–May 2018

Masters in Civil and Environmental Engineering
University of Nevada, Reno
January 2021–December 2022

EXAMS

Fundamentals of Engineering (FE)
Nevada
June 2022

Principles and Practice of Engineering (PE)
Civil
Nevada
February 2026

LICENSES

Additional Licenses
None

LUIS ROCHER NERI (22-898-31)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Rocher Ingenieria S.A. de C.V.
México (Mexico)
Engineer
June 2018—March 2020

Verified by
Jose Luis Rocher Perez
jlrocher@rocheringenieria.com

Experience Summary
Full-Time
Engineering: 1 year, 9 months
Experience under licensed engineer: None

TASKS

I performed construction engineering and quality control activities for large-scale civil infrastructure projects, focusing on earthwork, drainage systems, and temporary roadway construction. I reviewed construction plans and technical specifications and verified field compliance through daily inspections, including compaction testing, grading tolerance checks, and embankment construction control. I calculated earthwork quantities, verified contractor progress measurements, and reviewed monthly pay estimates to confirm accuracy and contractual compliance.

I monitored project schedules by comparing planned versus actual progress and identified potential delays affecting critical path activities. I evaluated construction sequencing and resource allocation to ensure adherence to approved work plans and technical standards. I documented field observations, non-conformance issues, and corrective actions to maintain compliance with project specifications and environmental requirements.

REPRESENTATIVE PROJECTS

Texcoco Lake Ecological Project (PELT)
State of Mexico, Mexico (2019–2020)
I supported construction coordination for civil infrastructure works associated with the Texcoco Lake Ecological Project, which involved large-scale earthwork and hydraulic control improvements. I monitored planned versus actual construction progress and evaluated schedule deviations to identify potential impacts to critical activities. I calculated executed quantities and verified contractor pay estimates based on field measurements and contract documents. I reviewed construction documentation and coordinated technical clarifications to ensure compliance with approved specifications and environmental performance requirements.

New International Airport of Mexico City – Temporary Infrastructure Works
State of Mexico, Mexico (2018–2019)
I performed field inspections for temporary infrastructure constructed to support large-scale earthwork and site development at the New International Airport of Mexico City. I verified embankment construction, subgrade preparation, and compaction levels in accordance with project specifications and geotechnical requirements. I inspected installation of temporary drainage systems, regulation lagoons, and access roads to confirm compliance with grading tolerances and hydraulic design criteria. I documented field conditions, identified non-conforming work, and required corrective measures to ensure quality control standards were met for high-volume construction operations.

LUIS ROCHER NERI (22-898-31)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

University of Nevada Reno
Nevada (United States)
Research Assistant
January 2021—January 2023

Verified by
Adam J Hand
adamhand@unr.edu

Experience Summary
Full-Time
Other: 2 years
Experience under licensed surveyor: None

TASKS

As Research Assistant in the Western Regional Superpave Laboratory (WRSL), I contributed to advancing pavement engineering through hands-on laboratory work, data analysis, and technical reporting. I conducted asphalt and aggregate testing, analyzed test data, and assisted with research projects aimed at improving asphalt pavement performance. In addition, I assisted my advisor with the laboratory portion of an undergraduate course.

REPRESENTATIVE PROJECTS

Thesis for Master's in Civil Engineering. Accurate Stockpile Material Inventory for Maintenance Activities (2021-2022)
I conducted research on improving the accuracy of aggregate stockpile quantification for maintenance activities using innovative technologies. My work began with an extensive literature review of technologies employed by transportation departments across the United States for stockpile measurement. In the next phase, I performed laboratory testing on sampled aggregates to evaluate their physical properties and establish a correlation with unit weight. Finally, I conducted a comparative analysis between the current methodology used by the Nevada Department of Transportation (NDOT) and a proposed alternative, focusing on measurement accuracy, data collection efficiency, and the ease of user adaptation to new technology.

CEE 377 - Construction Materials Engineering and Testing laboratory teaching (2021-2022)
I supported course instruction by preparing lab materials, maintaining equipment, conducting lab sessions with students, reviewing lab reports and homework. In addition, I assisted the instructor in teaching some classes when he was absent and leaded study sessions for students.

LUIS ROCHER NERI (22-898-31)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Nichols Consulting Engineers (NCE)
Nevada (United States)
Staff Engineer II
January 2023—April 2025

Verified by
Jeffrey Stempihar
jstempihar@ncenet.com

Experience Summary
Full-Time
Engineering: 2 years, 3 months
Experience under licensed engineer: 2 years, 3 months

TASKS

I assist in pavement design projects for the Regional Transportation Commission (RTC) in Reno, applying AASHTO standards and methodologies to develop effective solutions. I analyze extensive traffic speed deflection (TSD) data for various DOT agencies using various backccalculation software such as EVERCALC or PerRoad, focusing on flexible, rigid, and composite pavements. I participate in statewide and national research initiatives aimed at improving pavement performance and durability. Additionally, I contribute to the development of Pavement Management Programs for multiple cities in Southern California using StreetSaver, ensuring data-driven recommendations for maintenance and rehabilitation strategies.

REPRESENTATIVE PROJECTS

TSD/GPR Analysis for Mississippi DOT (Mississippi, 2023 – Present)
I analyzed approximately 600 miles of Traffic Speed Deflection (TSD) data to evaluate pavement conditions at both network and project levels using EVERCALC. I also improved in-house TSD analysis procedures by developing custom Python and MATLAB scripts, increasing the accuracy and efficiency of data processing.

Pavement Management Program Updates (Southern California, 2023 – present)
I have developed Pavement Management Program (PMP) reports for cities including Redondo Beach, Yorba Linda, Thousand Oaks, Baldwin Park, and Hawaiian Gardens. My work involves updating their maintenance costs, running multiple budget scenarios in StreetSaver and preparing the final report with the findings.

Pembroke Drive Capacity & Safety (Reno, NV, 2023 – 2024)
I participated in the pavement design for a 1.1-mile street segment, ensuring compliance with RTC and AASHTO design standards. My work included analyzing subgrade conditions, calculating pavement thickness, and preparing design specifications tailored to enhance roadway capacity and safety.

WORK EXPERIENCE

Nichols Consulting Engineers (NCE)
Nevada (United States)
Staff Engineer II
April 2025—March 2026

Verified by
Nicholas Dean Weitzel
NWeitzel@ncenet.com

Experience Summary
Full-Time
Engineering: 11 months
Experience under licensed engineer: 11 months

TASKS

I perform pavement structural design and evaluation in accordance with the AASHTO 1993 Guide for Design of Pavement Structures and applicable RTC and state DOT standards. I calculate pavement layer thicknesses, effective structural number (SNeff), remaining service life, and load transfer efficiency (LTE) using Falling Weight Deflectometer (FWD) and Traffic Speed Deflectometer (TSD) data. I backcalculate pavement layer moduli using EVERCALC and reconcile measured deflection basin parameters (D0, SCI, BDI) with mechanistic-empirical design assumptions, applying temperature corrections and material characterization principles.

I integrate Ground Penetrating Radar (GPR) thickness data with deflection testing results to define representative pavement layer configurations for flexible, rigid, and composite systems. I evaluate subgrade support conditions, assess structural capacity deficiencies, and recommend rehabilitation strategies based on calculated structural demand and projected traffic loading.

I develop and update pavement management programs using PAVER™ and StreetSaver®, where I validate PCI data, adjust decision trees, update treatment unit costs, and calculate long-term budget scenarios. I generate multi-year performance forecasts and funding analyses to support capital improvement planning and asset management decisions.

REPRESENTATIVE PROJECTS

Statewide TSD/FWD Structural Evaluation Program
South Carolina (7 Counties, 105+ Roads) (2025–2026)
I'm cureently analyzing large-scale Traffic Speed Deflectometer (TSD) data covering more than 100 roadway segments across seven counties. I'm correlating TSD-derived slope and deflection parameters with FWD-based structural properties and calculated effective structural numbers and subgrade moduli at both network and project levels for flexible, rigid, and composite pavements. For this analysis, I've used the AASHTO 1993 Guide for Design of Pavement Structures and EVERCALC software for the pavement analysis. Furthermore, I've developed data filtering and denoising procedures using Python and statistical and mechanistic criteria to improve structural reliability.

FWD Structural Evaluation – NJ-3, I-295, NJ-38
New Jersey (2025–2026)
I performed structural evaluations of flexible and composite pavements on interstate and state highways using Falling Weight Deflectometer (FWD) testing data. I backcalculated asphalt concrete, base, and subgrade moduli using EVERCALC and calculated effective structural numbers (SNeff) for comparison with required structural demand. I evaluated deflection basin shapes and applied engineering judgment to adjust layer assumptions to achieve physically realistic modulus combinations. These projects included high-volume corridors designed under AASHTO standards for interstate-level traffic loading.

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
April 2020	December 2020	My last project in Mexico concluded in 2020. I then began applying and preparing for a Master at UNR, Reno. Concurrently, COVID significantly reduced construction activity and project availability in Mexico.

BANDANA SHRESTHA (22-782-21)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/19/2026

Citizenship
Nepal

SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
2 years, 5 months

Experience under licensed engineer
2 years, 5 months

Other Experience

Disciplinary Action
None reported

FE EXAM

PE EXAM

EDUCATION

Bachelors in Civil Engineering
Pokhara University
August 2007–November 2011

Masters in Interdisciplinary Water Resource management
Pokhara University
February 2014–February 2017

Doctorate in Civil and Environmental Engineering
University of Nevada, Las Vegas
January 2020–May 2024

EXAMS

Fundamentals of Engineering (FE)
Nevada
May 2024

Principles and Practice of Engineering (PE)
Civil
Nevada
January 2026

LICENSES

Additional Licenses
None

BANDANA SHRESTHA (22-782-21)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Department of Urban Development and Building Construction
Bāgmatī (Nepal)
Civil Engineer
March 2012—January 2014

Verified by
Bandana Shrestha (Self)

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor:
None

TASKS

Cost estimation and quantity take offs
Prepare plans and site supervision

REPRESENTATIVE PROJECTS

Health offices and Birthing centers construction

BANDANA SHRESTHA (22-782-21)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Nepal Electricity Authority
Bāgmatī (Nepal)
Civil Engineer
March 2017—December 2019

Verified by

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor: None

DESCRIPTION

BANDANA SHRESTHA (22-782-21)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Nevada Department of Transportation (NDOT)
Nevada (United States)
Staff I- Associate Engineer
May 2023—April 2025

Verified by
Baillie Keach
bkeach@dot.nv.gov

Experience Summary
Full-Time
Engineering: 1 year, 11 months
Experience under licensed engineer: 1 year, 11 months

TASKS

•Experience as Staff I- Associate Engineer :- Prepared preliminary plans and specification of construction contracts, drafted contract documents, and assisted in contractor selection process by facilitating quote agreements.
• Estimated material quantities and prepared cost estimates.
• Inspected construction sites to monitor progress and ensured conformance to engineering plans, specifications and safety standards.
• Reviewed vendor invoices and processed payments.
• Coordinated with internal divisions to ensure all project-specific requirements were addressed in the contract.

Experience as Engineering Technician IV: • Prepared inspection reports to report construction progress and project updates to the Resident Engineer.
• Assisted in project acceptance testing operations for construction projects.
• Monitored project contracts and change orders through AASHTOWare Project (AWP) to ensure compliance with budget and cost requirements.
• Conducted contract audits for federally funded projects managed by local public agencies to ensure construction and project compliance.
• Analyzed and reviewed job mix formula (JMF) designs to ensure compliance with project specifications and material requirements.
• Operated Trimble base and rover systems for precise real-time kinematic (RTK) surveys.

Experience as Public service intern: • Estimated quantities and prepared cost estimates for highway maintenance projects.
• Produced detailed highway plans and profiles using MicroStation.
• Designed traffic signs using Open Roads Sign CAD.
• Reviewed traffic impact studies for conformance to NDOT Access Management System and Standards (AMSS).
• Conducted inspections of stormwater structures using Stormwater Asset Management (SAM 2.1).
• Prepared comprehensive Request for Proposals (RFP).

REPRESENTATIVE PROJECTS

1. NDOT Betterment projects, NDOT Traffic study projects, Location- NDOT District I/Las Vegas, Nevada. I worked in NDOT Betterments department as a Public Service Intern from May 2023-December 2023 and as a Staff I-Associate Engineer from October 2024-April 2025.My responsibilities within this time frame includes:
• Estimated quantities and prepared cost estimates for highway maintenance projects.
• Produced detailed highway plans and profiles using MicroStation.
• Designed traffic signs using Open Roads Sign CAD.
• Reviewed traffic impact studies for conformance to NDOT Access Management System and Standards (AMSS).
• Conducted inspections of stormwater structures using Stormwater Asset Management (SAM 2.1).
• Prepared comprehensive Request for Proposals (RFP).
Prepared preliminary plans and specification of construction contracts, drafted contract documents, and assisted in contractor selection process by facilitating quote agreements.
• Reviewed vendor invoices and processed payments.
• Coordinated with internal divisions to ensure all project-specific requirements were addressed in the contract.

2.Local public agency projects like Laughlin Bridge, Grand Teton overpass project, I-215-Decatur bridge and Various Right turn improvement project, NDOT Mill and Fill project and Searchlight survey project, Location - Las Vegas/ Laughlin/ Searchlight/ Hawthorne, Nevada. I worked in NDOT construction department from January 2024-October 2024. My responsibilities within this time frame includes:

• Prepared inspection reports to report construction progress and project updates to the Resident Engineer.
• Assisted in project acceptance testing operations for construction projects.
• Monitored project contracts and change orders through AASHTOWare Project (AWP) to ensure compliance with budget and cost requirements.
• Conducted contract audits for federally funded projects managed by local public agencies to ensure construction and project compliance.
• Analyzed and reviewed job mix formula (JMF) designs to ensure compliance with project specifications and material requirements.
• Operated Trimble base and rover systems for precise real-time kinematic (RTK) surveys.

BANDANA SHRESTHA (22-782-21)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Construction Testing Services
Nevada (United States)
Staff Engineer
August 2025—February 2026

Verified by
Rodel Acuna Alvidera
ralvidera@cts-1.com

Experience Summary
Full-Time
Engineering: 6 months
Experience under licensed engineer: 6 months

TASKS

1. Reviewed daily field inspection reports from inspectors to verify compliance with Clark County Building Department and Public Works guidelines
2. Prepared pad certifications and final inspection reports in accordance with CCBD agency inspection agreements,
3. Prepared geotechnical reports summarizing site investigations, laboratory test data, soil conditions, and engineering recommendations for foundations, earthwork, and related subsurface design considerations
3. Acted as Assistant Radioactive Safety Officer (RSO) ensuring regulatory compliance, maintaining records and ensuring safe use of radioactive materials as per state requirements

REPRESENTATIVE PROJECTS

1. Athletics Las Vegas Ballpark, Location-Las Vegas, Nevada. I have worked in Athletics Las Vegas Ballpark project from August 2025-Present. I have reviewed daily field inspection reports from inspectors to verify compliance with Clark County Building Department (CCBD). I have prepared pad certifications and partial grading reports to submit to CCBD.
2. City of Henderson Animal Protection Services Building Addition , Location- Henderson, Nevada. I have worked in this project from November 2025 to January 2026. I performed drilling inspections and collected samples for laboratory testing. I have prepared Geotechnical report summarizing site investigations, laboratory test data, soil conditions, and engineering recommendations for foundations, earthwork, and related subsurface design considerations for submission to City of Henderson.

MOGAN TENG (22-933-94)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/30/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
2 years, 9 months

Total Engineering Experience
2 years, 9 months

Experience under licensed engineer
2 years, 9 months

Other Experience

Disciplinary Action
None reported

ABET EAC

FE EXAM

PE EXAM

EDUCATION

Bachelors in Civil Engineering (EAC)
University of California, Davis
September 2017–June 2021

Masters in Civil and Environmental Engineering
University of California, Berkeley
August 2023–May 2024

EXAMS

Fundamentals of Engineering (FE)
California
June 2022

Principles and Practice of Engineering (PE)
Civil
California
April 2025

LICENSES

Additional Licenses
None

WORK EXPERIENCE

University of California, Davis
(Professor Veronica Morales)
California (United States)
Student Research Assistant
February 2021—September 2021

Verified by

Experience Summary
Part-Time
Other: (0%)
Experience under licensed surveyor:
None

DESCRIPTION

WORK EXPERIENCE

Geo-Engineering Solutions, Inc.
California (United States)
Staff Engineer
June 2022—July 2023

Verified by
Eric J Swenson
eswenson@geo-eng.net

Experience Summary
Full-Time
Engineering: 1 year, 1 month
Post EAC degree: 1 year, 1 month
Experience under licensed engineer: 1 year, 1 month

TASKS

Perform geotechnical engineering analyses for civil infrastructure projects including solar panel support structures, multi-story buildings, public school facilities, and commercial developments under the supervision of a Civil Engineer licensed in California. Responsibilities include interpreting subsurface data, performing engineering calculations, conducting geotechnical investigations, monitoring civil construction activities, and preparing engineering reports and technical documentation supporting geotechnical design recommendations.

Perform geotechnical analyses and calculations including settlement analysis, liquefaction triggering and liquefaction-induced settlement analysis, and foundation bearing capacity to support foundation and earthwork design recommendations. Prepare geotechnical reports and technical memoranda documenting subsurface conditions, engineering analyses, and design recommendations.

Conduct geotechnical investigations including logging exploration borings, interpreting cone penetration testing (CPT) and boring log data, assigning laboratory testing programs for collected soil samples, and interpreting laboratory test results to develop subsurface profiles and estimate engineering soil parameters.

REPRESENTATIVE PROJECTS

4-Story Apartment Development with Basement
Pleasant Hill, California
July 2022 – July 2023
I evaluated performance of excavation support and ground improvement systems including deep soil mixing (DSM) walls, tiebacks, micropiles, and rakers. I performed calculations to evaluate the effects of surcharge loads from construction equipment and excavated soil on retaining wall systems. I interpreted field testing results and construction observations to assess system performance and verify compliance with geotechnical design recommendations.

Sand Creek Sports Complex
Brentwood, California
October 2022 – February 2023
I performed subsurface investigations including logging exploration borings and assigning laboratory testing programs to collected soil samples. I interpreted laboratory testing results to estimate engineering soil properties and characterize subsurface conditions. I performed settlement, bearing capacity, and liquefaction analyses to support foundation, earthwork, and pavement design recommendations. I prepared geotechnical report documenting analysis results and design recommendations.

8-Story Building with 3-Story Basement Excavation Evaluation
Burlingame, California
January 2023 – February 2023
I interpreted subsurface data to estimate engineering soil properties and evaluate ground response during excavation. I performed settlement analyses to assess ground movement associated with deep excavation and dewatering. I prepared geotechnical memorandum documenting analysis results and design recommendations.

10-Story Residential Building
San Jose, California
February 2023 – May 2023
I interpreted subsurface exploration and laboratory testing data to estimate engineering soil properties. I performed settlement and bearing capacity analyses to evaluate foundation performance for a 10-story residential structure. I prepared geotechnical report

providing foundation and earthwork design recommendations.

Solar Infrastructure Development Projects
Boston Scientific Campus (Valencia, CA); Ventura County Credit Union (Ventura, CA); McAdam Park (Palmdale, CA)
April 2023 – July 2023
I interpreted subsurface exploration and laboratory testing data to estimate engineering soil properties. I performed settlement and bearing capacity analyses to evaluate foundation performance of solar panel support structures. I performed liquefaction triggering analyses to evaluate liquefaction potential and estimate liquefaction-induced settlement. I determined allowable bearing pressures and prepared geotechnical reports providing foundation design recommendations.

San Leandro School District Improvements
San Leandro, California
June 2022 – July 2023
I interpreted subsurface exploration and laboratory testing data to estimate engineering soil properties for multiple project sites. I performed consolidation and settlement analyses to evaluate foundation performance for school buildings and solar panel support structures. I performed liquefaction triggering analyses to evaluate liquefaction potential and estimate liquefaction-induced settlement. I prepared geotechnical reports providing foundation and earthwork design recommendations.

WORK EXPERIENCE

Geo-Engineering Solutions, Inc.
California (United States)
Senior Staff Engineer
June 2024—April 2025

Verified by
Eric J Swenson
eswenson@geo-eng.net

Experience Summary
Full-Time
Engineering: 10 months
Post EAC degree: 10 months
Experience under licensed engineer: 10 months

TASKS

Perform geotechnical engineering analyses and evaluations for civil infrastructure projects including multi-story buildings, solar panel support structures, public school facilities, and commercial developments under the supervision of a Civil Engineer licensed in California. Responsibilities include interpreting subsurface data, performing and reviewing engineering calculations, monitoring civil construction activities, conducting geotechnical investigations, and preparing engineering reports and technical documentation supporting geotechnical design recommendations.
Perform geotechnical analyses and calculations including settlement analysis, liquefaction triggering and liquefaction-induced settlement analysis, foundation bearing capacity, evaluation of pier and pile foundations, and pavement evaluations to develop foundation and earthwork design recommendations. Prepare geotechnical reports and technical memoranda documenting subsurface conditions, engineering analyses, and design recommendations.
Conduct geotechnical investigations including logging exploration borings, interpreting cone penetration testing (CPT) and boring log data, assigning laboratory testing programs for collected soil samples, and interpreting laboratory test results to develop subsurface profiles and estimate engineering soil parameters.

REPRESENTATIVE PROJECTS

Eel River Bridge Falsework Foundation Design
Mendocino County, California
June 2024 – August 2024
I performed foundation analyses using LPILE and AllPile software to evaluate pile capacity for bridge falsework foundation systems during construction. I developed design recommendations for cast-in-drilled-hole (CIDH) pile foundations based on subsurface conditions and loading requirements.

Cuernavaca Field – Turf Sports Field Investigation
Burlingame, California
August 2024 – January 2025
I performed infiltration testing and calculated infiltration rates from field data to evaluate drainage performance of turf field and underlying permeable aggregate layers. I interpreted results and prepared technical memorandum documenting infiltration performance. I developed drainage design recommendations to support field performance and long-term functionality.

Solar Infrastructure Development Projects
Yuba City School District (12 sites/campuses, Yuba City, California)
City of Norwalk (6 sites, Norwalk, California)
Oceanside School District (3 campuses, Oceanside, California)
September 2024 – February 2025
I interpreted subsurface exploration and laboratory testing data to estimate soil engineering properties. I performed settlement analyses, bearing capacity calculations, and liquefaction triggering analyses to evaluate proposed foundation design of solar panel support structures. I prepared geotechnical reports providing foundation design recommendations.

Pavement Investigation and Design Recommendations
Monterey Peninsula Unified School District Office (Monterey, CA)
Mary Casey Black Elementary School (Brentwood, CA)
January 2025 – March 2025
I performed engineering evaluation of pavements including interpretation of subsurface and laboratory testing data to estimate subsurface material properties. I developed pavement design recommendations based on evaluation of existing conditions and anticipated loading.

Building Foundation Design Peer Review
Brooklyn, New York
February 2025 – April 2025
I performed liquefaction triggering analysis to evaluate liquefaction potential and assess its effects on the proposed foundation system. I reviewed geotechnical reports and proposed foundation design. I prepared technical memorandum documenting analysis assumptions, methods, results, and evaluation of foundation recommendations.

WORK EXPERIENCE

GFT
California (United States)
Senior Designer
May 2025—March 2026

Verified by
Justin Christopher Beutel
jbeutel@gftinc.com

Experience Summary
Full-Time
Engineering: 10 months
Post EAC degree: 10 months
Experience under licensed engineer: 10 months

TASKS

Perform geotechnical engineering analyses and evaluations for levee and dam infrastructure projects under the supervision of a Civil Engineer licensed in California. Responsibilities include performing engineering calculations, interpreting subsurface data, and preparing technical documentation supporting geotechnical design and performance evaluations.
Perform geotechnical characterization of subsurface conditions using field exploration data, laboratory testing results, and groundwater observations. Interpret subsurface information to estimate engineering soil properties and develop geotechnical parameters used in engineering analyses. Perform geotechnical analyses including settlement, liquefaction triggering, and liquefaction-induced settlement for shallow and deep foundations. Prepare geotechnical reports documenting analysis methods, assumptions, liquefaction analysis results, pavement recommendations, and foundation design recommendations.
Perform static and seismic slope stability analyses and seismic slope deformation analyses for levee and dam embankments. Conduct seismic evaluations to assess embankment performance under design earthquake loading and prepare geotechnical technical memoranda documenting analysis methods, assumptions, results, and engineering recommendations.
Conduct ground motion time-history spectral matching as part of site-specific seismic hazard assessments for dam projects. Select representative ground motion records based on earthquake magnitude, source mechanism, fault type, and geographic conditions, and spectrally match the motions to target response spectra derived from probabilistic and deterministic seismic hazard analyses. Estimate shear wave velocity profiles and soil dynamic properties from available field and laboratory data for use in seismic analyses.

REPRESENTATIVE PROJECTS

Lower San Joaquin Levee Geotechnical Evaluations
Stockton, California
October 2025 – Present
Perform liquefaction triggering analyses for two reaches of the Lower San Joaquin Levee as part of a seismic hazard assessment. Interpret field exploration data including borings and cone penetration testing and review laboratory testing results to develop subsurface profiles. Estimate engineering soil properties and groundwater conditions to develop geotechnical parameters used in levee slope stability and seismic performance evaluations.

Nevada Irrigation District (NID) Dams Seismic Slope Deformation Assessments
Bowman North Dam, Dutch Flat Afterbay Dam, Dutch Flat Forebay Dam, Faucherie Lake Dam, French Lake Dam, Jackson Meadows Dam, Rollins Dam, Sawmill Dam, Scotts Flat Dam
Nevada County, California
December 2025 – January 2026
Review geotechnical investigation data and historical geotechnical reports for nine dam embankments. Estimate engineering material properties and shear wave velocity profiles of rockfill and embankment materials to develop parameters for seismic analyses. Perform seismic slope deformation analyses using design earthquake loading derived from deterministic seismic hazard analyses. Evaluate predicted embankment deformation and dam performance under design earthquake loading and verify results satisfy project performance criteria.

Fordyce Dam Slope Stability Evaluation
Lake Fordyce, California
August 2025 – October 2025
Perform slope stability analyses of the Fordyce Dam embankment to evaluate the effects of increased surcharge loading on the dam crest during construction activities. Estimate engineering soil parameters and analyze potential failure surfaces to determine factors of safety under modified loading conditions. Prepare a geotechnical technical memorandum documenting engineering assumptions, analytical methods, material properties, and evaluation results.

Mossyrock Dam Ground Motion Selection and Spectral Matching
Lewis County, Washington
June 2025 – August 2025
Select representative earthquake ground motion records from the NGA-West 2 database based on project location, fault mechanisms, earthquake magnitude, and ground motion characteristics. Perform spectral matching using the RSPMATCH algorithm to match target response spectra derived from probabilistic seismic hazard analyses. Provide spectrally matched ground motions for use in structural dynamic analyses of the dam.

Wahiawa Dam Geotechnical Data Review and Ground Motion Development
Honolulu, Hawaii
June 2025 – December 2025
Review and interpret geotechnical investigation data including borings, cone penetration testing, and laboratory testing results to characterize subsurface conditions. Estimate groundwater conditions and engineering soil properties for use in deformation analyses. Select and spectrally match earthquake ground motion records from the NGA-West 2 and Center for Engineering Strong Motion Data databases. Prepare technical memorandum documenting ground motion selection, spectral matching procedures, spectrally-matched ground motions, and seismic hazard evaluation results.

Battery Energy Storage System (BESS) Foundation Recommendations
Chula Vista, California
El Cajon, California
May 2025 – July 2025
Interpret geotechnical investigation data including borings, cone penetration testing, and laboratory testing results to characterize subsurface conditions. Estimate engineering soil properties and groundwater levels to develop parameters for foundation analyses. Perform liquefaction triggering analyses and evaluate liquefaction-induced settlement to assess impacts to foundation systems. Prepare geotechnical report documenting subsurface conditions and providing recommendations for deep foundations (micropiles and H-piles), shallow mat foundations, pavement design, and liquefaction analysis results.

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
October 2021	May 2022	Taking a break/time-off after earning Bachelor's Degree in Civil Engineering. Work on personal coding projects. Prepared and took the Fundamentals of Engineering (FE) exam.

HENRY WALSH (21-696-82)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/13/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years, 9 months

Total Engineering Experience
4 years, 9 months

Experience under licensed engineer
4 years, 9 months

Disciplinary Action
None reported

EDUCATION

Associates in Science
Great Basin College
August 2016–May 2018

Bachelors in Civil Engineering (EAC)
University of Nevada, Reno
August 2018–May 2021

EXAMS

Fundamentals of Engineering (FE)
Nevada
June 2021

Principles and Practice of Engineering (PE)
Civil
Nevada
April 2023

LICENSES

Additional Licenses
None

HENRY WALSH (21-696-82)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

NewFields Mining Design and Technical Services
Nevada (United States)
Staff Engineer II
June 2021—March 2026

Verified by
Andrew Alan Hanson
ahanson@newfields.com

Experience Summary
Full-Time
Engineering: 4 years, 9 months
Post EAC degree: 4 years, 9 months
Experience under licensed engineer: 4 years, 9 months

TASKS

I have worked for NewFields MDTS since I graduated college. I specialize in geotechnical engineering and civil engineering.

My office duties includes the civil design of mining related structures such as heap leach pads, tailings storage facilities, haul roads, waste rock storage facilities and stormwater management structures. I utilize Civil 3D to produce professional level construction design drawings. In other areas of office work, I assisted in the writing of technical reports and putting together appendices. I assisted in the writing of technical specifications for different construction materials used in our projects. I utilize Microsoft Excel and work with spreadsheets to calculate material takes offs and other calculations.

In the field, my duties include geotechnical investigations. I have coordinated geotechnical investigations such as test pitting. I logged the soil strata using the Unified Soils Classification System (USCS). I have done other field tests that include percolation testing, Dynamic Cone Penetrometer (DCP) testing, and geophysics.

I worked in a AASHTO and ASTM accredited materials testing lab. I performed soils test that include Sieve Analysis (ASTM D6913), Atterberg limits (ASTM D4318) and lab compaction (ASTM D1557)

In the field, my other responsibilities include construction quality assurance and quality control (CQA/CQC) of earthwork materials and geosynthetic materials. I ensured that the construction project met the design specifications and regulatory requirements. I did this by performing density tests using a nuclear density gauge. I worked at an on-site soils lab and performed the soils tests listed above to ensure the material being used met the specification. I communicated with the general contractor if the specification were not being met and ensured the contractor made adjustments to their method in order to be compliant. I worked with HDPE/LLDPE geomembranes and worked alongside the contractor and ensured that they were being installed correctly.

REPRESENTATIVE PROJECTS

Haile Gold Mine Project; Construction Oversight; Lancaster County, South Carolina; May 2021 to October 2021

As an entry level engineer, I acted as a resident engineer assistant responsible for construction oversite of one Tailings Storage Facility (TSF) raises and construction of two Potentially Acid Generating (PAG) rock storage facilities. I kept track of construction activities and tracking of 3rd party Quality Assurance (QA) soil and geomembrane testing. I provided record keeping and reporting produced in both daily reports, sent to the owner, and weekly reports sent to the State Regulator (DHEC).

Spring Valley Project; Stormwater Management Detailed Design; Pershing County, Nevada; October 2021 to September 2022

I was part of the design team for the Phase 1 Detailed Site Stormwater Design. My role was to assist in designing the stormwater management plan for all the mine facilities. I designed stormwater diversion channels using Civil 3D software. I calculated estimated runoff from a 24hr 100 year storm using HEC-HMS software. I calculated channel hydraulics using Flowmaster software. I calculated riprap D50 sizes using HEC-15 methodology. I produced professional level construction drawings using Civil 3D software.

Cripple Creek and Victor Gold Mine project; QA/QC; Teller County
Colorado; May 2023 to October 2023

I performed QA/QC services for the construction of VLF 2 Phase 2 and Phase 3 at the Cripple Creek and Victor gold mine. I effectively communicated with the general contractor. I supervised and documented geosynthetics installation. I performed soils testing such as sieve gradations, Atterberg limits and compaction (proctor) tests. I inputted data in Excel spreadsheets. I assisted

in preparing the Record of Construction report to be submitted to the state.

Terronera Mine, Waste Rock Storage Facility Design; Jalisco, Mexico; June 2024 to October 2024

I assisted with the redesign of stormwater diversions and the contact water pond for the Portal #2 Waste rock storage facility. I made a site visit to familiarize myself with the topography of the area. I designed stormwater diversion channels using Civil 3D software. I designed the contact water pond using Civil 3D software. I calculated estimated runoff from a 24hr 100 year storm using HEC-HMS software. I calculated channel hydraulics using Flowmaster software. I produced professional level construction drawings using Civil 3D software.

Gold Bar Mine; Phase 2 Barren Distribution Pipeline detailed design; Euerka County, Nevada. September 2025 to November 2025.

I was responsible for the design of the barren pipe distribution for the Phase 2 expansion. I made a site visit to familiarize myself with the existing pipe network and collect data from the client. I utilized WaterCAD software to create a model for the existing pipe network and created a new model for the proposed pipe network. I ensured pipe pressures were adequate throughout the system when testing the model. I produced professional level construction drawings for the Phase 2 barren pipeline. I assisted in writing the Barren Pipeline section in the Engineering Design report.

Thacker Pass Project; CTFS Stage 1 Construction; Humboldt County, Nevada; February 2026 to Present

I am serving as the resident engineer and providing QA/QC services for the first stage of construction of the Clay Tailings Filter Stack (CTFS). I represent the Engineer of Record in the field. I ensure that the construction project is meeting the design specifications and the regulatory requirements. I communicate effectively with the general contractor and ensure that their methods of building the project are meeting the design intent. I operate a nuclear density gauge to test the density and moisture in the compacted fill. I perform soils testing such as sieve gradations, Atterberg limits and compaction (proctor) tests at an on-site lab. I provide record keeping and produce daily progress reports sent to the client everyday. I enter data into excel spreadsheets. I provide construction oversight and provide the contractor with guidance when a challenge arises. I effectively communicate with the Engineer of Record on a daily basis. Ultimately I will write the Record of Construction report that will be sent to the regulators for final review and acceptance.

MATTHEW WEBER (17-016-95)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/24/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
6 years, 8 months

Total Engineering Experience
8 years, 2 months

Experience under licensed engineer
8 years, 2 months

Disciplinary Action
None reported

EDUCATION

Bachelors in Civil Engineering (EAC)
University of Nevada, Reno
August 2013–December 2017

EXAMS

Fundamentals of Engineering (FE)
Nevada
November 2017

Principles and Practice of Engineering (PE)
Civil
Nevada
April 2021

LICENSES

Additional Licenses
None

MATTHEW WEBER (17-016-95)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Nevada Department of Transportation
Nevada (United States)
Public Service Intern
May 2016—April 2017

Verified by
Jae Edward Pullen
JPullen@dot.nv.gov

Experience Summary
Full-Time
Engineering: 11 months
Experience under licensed engineer: 11 months

TASKS

1. Prepare traffic reports that include traffic analysis and traffic engineering recommendations for future events.
2. Calculate highway clear zones and ensure NDOT infrastructure, new and existing is compliant.
3. Design traffic signs and make installation recommendations to NDOT maintenance crews.
4. Review and make recommendations to contractor's traffic control plans.
5. Confirm proposed traffic control plans conform to the NDOT Standard Plans and the MUTCD.

REPRESENTATIVE PROJECTS

Traffic Impact Analysis Report – Night in the Country
June 2016 – August 2016
The Night in the Country Music Festival is a 3-day event located in Yerington, NV every year at the end of July. The event attracts large volume of patrons to a rural community on Northern Nevada. The surrounding roadway infrastructure is impacted by the high traffic volumes. As a Public Service Intern working for the Nevada Department of Transportation's District 2 Traffic Office, I was tasked with gathering data, compiling a traffic report, and making engineering recommendations for future events. The process required the deployment of tubular traffic counters, weeks in advance of the event to establish baseline traffic counts. The normal traffic volumes were then compared to the volumes during the event. The report summarized findings based on data collected and field observations.

Traffic Impact Analysis Report – Burning Man
August 2016 – September 2016
The Burning Man Festival is a week-long event located in the Black Rock Desert every year around Labor Day weekend. The event attracts extremely large volume of people down a rural highway north of Reno, NV. As a Public Service Intern working for the Nevada Department of Transportation's District 2 Traffic Office, I was tasked with gathering data, compiling a traffic report, and making engineering recommendations for future events. The process required the deployment of tubular traffic counters, weeks in advance of the event to establish baseline traffic counts. The normal traffic volumes were then compared to the volumes during the event. The report summarized findings based on data collected and field observations.

MATTHEW WEBER (17-016-95)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Granite Construction Company
Nevada (United States)
Project Engineer I
May 2017—January 2020

Verified by
Shawn Robert St. Jacques
Shawn.St.Jacques@gcinc.com

Experience Summary
Full-Time
Engineering: 2 years, 8 months
Post EAC degree: 2 years, 1 month
Experience under licensed engineer: 2 years, 8 months

TASKS

1. Execute accurate material takeoffs utilizing the plans and specifications.
2. Perform basic engineering calculations to support estimating and field operations.
3. Conduct specification review and interpretation for projects.
4. Provide technical engineering and cost information to ensure construction work complies with engineering standards.
5. Coordinate between professional disciplines.
6. Recommend resolutions to drawing interpretation problems, conflicts, and errors.
7. Execute project reports and project communications.
8. Track construction progress for efficient payment quantification and certification.
9. Implement the construction Storm Water Pollution Prevention Plan.
10. Inspection of site drainage and sedimentation control.
11. Design and control construction operations for environmental hazards.

REPRESENTATIVE PROJECTS

Elko Sports Complex
The City of Elko and Granite Construction completed construction of the first phase of the Elko Sports Complex from 2018 to 2019. The first phase included three baseball fields, one concession stand, and a multiuse field area constructed in a wetland area adjacent to the Humboldt River.

April 2018 – Spring 2019
I served as the project engineer for the Elko Sports Complex project. My responsibilities were heavily focused on environmental reporting and compliance. I was responsible for ensuring compliance for the following environmental programs: Storm Water Pollution Prevention Plan, DeMinimis Discharges, and Army Corps of Engineers 401 and 404 Permits. The construction site required work to take place within waterways of the United States and adjacent to designated historical areas. Due to this, it was my responsibility to design and ensure proper sediment controls were utilized throughout the duration of the project. The installation of the underground utilities required de-watering operations. For this reason, I was required to measure and sample groundwater discharged during the DeMinimis Discharge period. In addition to my environmental responsibilities, I was also responsible for performing general construction inspections to ensure compliance with design. I also completed materials takeoffs and worked with the City of Elko to produce true and accurate pay applications.

NDOT 3702 Kietzke PED Improvements
The Nevada Department of Transportation and Granite Construction constructed contract NDOT 3702 during the Spring and Summer of 2019. The project included ADA safety improvements, storm drain improvements, and asphalt re-surfacing on a 1.1 mile stretch of Kietzke Lane in Reno, NV. Kietzke Lane is a heavily traveled arterial road in Reno that receives all forms of traffic (pedestrian, bicycles, and vehicles).

March 2019 – August 2019
I was a project engineer on the Kietzke Pedestrian Improvements Project. I designed the layout for the construction laydown yard. I also created and managed the Stormwater Pollution Prevention and Protection Plan. I developed a strong knowledge of the project's plans and specifications and effectively communicated the requirements to the field personnel. In addition to field communication, I brought conflicts and design issues to the attention of the owner and engineer. Due to the project's high traffic volumes, most of the construction occurred at night. I designed the project's traffic control plans and ensured they were properly implemented by working directly with the ATSSA Certified Traffic Control Supervisor. Finally, I performed frequent construction inspections to ensure compliance with the design.

MATTHEW WEBER (17-016-95)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Granite Construction Company
Nevada (United States)
Project Engineer II
January 2020—January 2021

Verified by
Shawn Robert St. Jacques
Shawn.St.Jacques@gcinc.com

Experience Summary
Full-Time
Engineering: 1 year
Post EAC degree: 1 year
Experience under licensed engineer: 1 year

TASKS

1. Execute accurate material takeoffs utilizing the plans and specifications.
2. Perform basic engineering calculations to support estimating and field operations.
3. Conduct specification review and interpretation for projects.
4. Provide technical engineering and cost information to ensure construction work complies with engineering standards.
5. Coordinate between professional disciplines.
6. Recommend resolutions to drawing interpretation problems, conflicts, and errors.
7. Execute project reports and project communications.
8. Track construction progress for efficient payment quantification and certification.
9. Implement the construction Storm Water Pollution Prevention Plan.
10. Inspection of site drainage and sedimentation control.
11. Design and control construction operations for environmental hazards.
12. Analyze historical production data to accurately estimate and budget construction costs.
13. Design and optimize project schedule.
14. Coordinate, compile, and process change orders.
15. Review various trades technical shop drawings and verify conformity to design and specifications, when required.
16. Complete cost and revenue forecasting.
17. Perform preliminary engineering review and make recommendations regarding constructability, VEP opportunities, schedule, and public safety.
18. Ensure adherence to contract plans and specifications by direct supervision of construction activities.
19. Design temporary traffic controls plans.
20. Maintain engineering documentation and records (i.e.: As-built Drawings, BIM Modeling, etc.)

REPRESENTATIVE PROJECTS

Project Mustang STY
This project was part of the first phase of a planned 600MW data center facility owned by Google. Granite was originally contracted as the onsite grading contractor. The grading package included roughly 1.4M CY of cut/fill mass earthwork on approximately 300 acres of the site, subgrade for building pads and roads, and miscellaneous drainage improvements. Later Granite was awarded a change order to install all the onsite and offsite utilities, two NDOT permitted entrances, all hardscapes' improvements, and a natural gas line.

January 2020 – January 2021
I was on a team of Project Engineers on the Mustang STY Project. My main responsibilities included all of the on-site utility scope, BIM Coordination, and one of the offsite entrances. On this project I gained real world knowledge of a gambit of utility installations: domestic water, fire water, electric, fiber optic, sewer, storm drain, and gas lines. I also was Granite's lead engineer in charge of the BIM coordination between Granite's scope and the other trades on the project. For Granite, this mainly meant 3D modeling of planned utilities and as-built modeling of actual installation. It also meant I evaluated utility conflicts and revised layouts to maintain required clearances and constructability was achieved. Finally, I was responsible for one of the NDOT permitted entrances that included box culverts, median concrete, and paving. This project was fast-paced and gave me an opportunity to see and deliver on a wide range of civil construction scope in a short period of time.

WORK EXPERIENCE

Granite Construction Company
Nevada (United States)
Project Engineer III
January 2021—August 2024

Verified by
Shawn Robert St. Jacques
shawn.st.jacques@gcinc.com

Experience Summary
Full-Time
Engineering: 3 years, 7 months
Post EAC degree: 3 years, 7 months
Experience under licensed engineer: 3 years, 7 months

TASKS

1. Performed professional level construction engineering functions under the supervision of licensed Professional Engineers, applying engineering judgment to resolve design conflicts and constructability challenges on complex public infrastructure projects.
2. Interpreted contract plans, specifications, and standard details to identify discrepancies, ambiguities, and conflicts; developed engineering solutions and coordinated formal RFIs with the Engineer of Record.
3. Completed detailed quantity calculations and material takeoffs using contract documents to support payment verification, cost control, and change order development.
4. Conducted preliminary engineering reviews of construction staging, drainage sequencing, utility installation, and traffic control to evaluate impacts on safety, constructability, and schedule.
5. Designed temporary traffic control plans in accordance with MUTCD requirements and project specific constraints; coordinated implementation and field adjustments with traffic control supervisors and inspectors.
6. Implemented and managed Storm Water Pollution Prevention Plans (SWPPP), including the design, inspection, and adjustment of erosion and sediment control measures based on site conditions, weather events, and construction phasing.
7. Inspected drainage systems, sediment controls, and environmental protection measures to verify compliance with permit conditions and contract requirements.
8. Reviewed shop drawings, technical submittals, and means and methods proposals to verify conformance with design intent, specifications, and constructability requirements.
9. Analyzed historical production data and current field performance to assist with schedule optimization, cost forecasting, and resource planning.
10. Coordinated, quantified, and processed change orders by evaluating engineering scope changes and associated impacts to cost and schedule.
11. Served as the front line technical representative coordinating between the contractor, subcontractors, owners, inspectors, and design engineers to ensure engineering requirements were accurately communicated and implemented.
12. Provided direct field engineering oversight to verify constructed work complied with approved plans, specifications, and engineered changes.
13. Maintained engineering documentation, including quantity records, change documentation, and as built information.

REPRESENTATIVE PROJECTS

City of Reno Roberts/Wilson Rehab
This project involved the rehabilitation of an urban roadway corridor, including pavement reconstruction, curb and gutter, sidewalks, driveways, pedestrian ramps, storm drain infrastructure, pavement striping, and traffic control.

On this project, I served as the sole Project Engineer responsible for engineering coordination, quantity verification, and field compliance. I reviewed plans and specifications to resolve design conflicts encountered during demolition and reconstruction, coordinated drainage and concrete sequencing to maintain pedestrian access, and verified constructed work met ADA and municipal standards. I evaluated traffic control staging and adjusted construction sequencing to maintain safe vehicle and pedestrian circulation through the project limits.

Reno Stead Airport Taxiway A and Apron Reconstruct – Phase 2
This project included demolition and reconstruction of asphalt pavement sections, installation of new drainage infrastructure, airfield electrical systems, pavement striping, and supporting utility and fencing improvements.

I served as the Project Engineer responsible for engineering review of airfield pavement construction, drainage improvements, and electrical coordination. I reviewed technical specifications related to airfield pavement sections and lighting systems, coordinated

sequencing to minimize impacts to airport operations, and verified construction conformed to approved plans and standards. I also performed quantity verification and supported change management related to field conditions and phasing constraints.

TMWA/RTC California Ave
This combined utility and roadway improvement project included water main relocations, roadway rehabilitation, ADA upgrades, pedestrian and bicycle improvements, and intersection reconfiguration.

I acted as the primary Project Engineer responsible for engineering coordination between utility work and roadway reconstruction. I reviewed design documents to identify conflicts between existing utilities and proposed improvements, coordinated field adjustments with the design engineer, and verified that utility installations and roadway features met project specifications. I evaluated traffic staging, pedestrian, and bicyclist routing to maintain safety and access through a constrained urban corridor.

RTC Sparks Boulevard Improvement Project – South Phase
This bid build roadway widening project included storm drain improvements, ITS and fiber infrastructure, PCCP placement and maintenance, asphalt paving, traffic signal relocation, and multimodal improvements.

I worked with one other Project Engineer, with my role focused heavily on field engineering and coordination. I evaluated construction staging and traffic control requirements to support a traffic intensive delivery schedule. I served as the front line technical representative coordinating between Granite Construction, subcontractors, the Owner, and the Engineer, resolving design conflicts and constructability issues as they arose. I verified that PCCP, paving, and drainage work complied with contract plans and specifications.

NDOT 3948 Pyramid Highway Widening
This major roadway widening project expanded SR 445 from four to six lanes and included earthwork, retaining walls, sound walls, storm drain, utilities, paving, structures, electrical and signal work, and multimodal improvements.

I worked on a team of four Project Engineers and served as the lead Project Engineer for structures work, steel and electrical subcontractor coordination, and scheduling. I reviewed structural plans and specifications to support construction sequencing, coordinated shop drawings and submittals, and evaluated schedule impacts related to structural and electrical work. I applied engineering judgment to resolve conflicts between structural elements, utilities, and roadway geometry, coordinating approved solutions with the Engineer of Record.

WORK EXPERIENCE

Granite Construction Company
Nevada (United States)
Project Manager
August 2024—March 2026

Verified by
Matthew Weber (Self)

Experience Summary
Full-Time
Engineering: (0%)
Experience under licensed engineer: None

TASKS

1. Continued to perform professional level engineering functions while assuming overall project responsibility, applying engineering judgment to evaluate constructability, resolve design conflicts, and manage technical risk.
2. Conducted detailed reviews of contract plans and specifications to identify design conflicts, constructability issues, and scope gaps prior to and during construction.
3. Evaluated engineering solutions to address field conditions and design discrepancies; develop RFIs and coordinate approved resolutions with the Engineer of Record and Owner representatives.
4. Performed engineering evaluations related to construction sequencing, traffic staging, utility installation, and drainage improvements to minimize impacts to public safety, adjacent properties, and ongoing operations.
5. Designed and approved temporary traffic control plans in accordance with MUTCD requirements and project specific standards; verified proper implementation in the field.
6. Managed compliance with environmental permits including SWPPP, temporary discharge permits, and work in waterway requirements through technical interpretation and field implementation of permit conditions.
7. Designed, inspected, and adjusted erosion and sediment control measures to maintain compliance with environmental permits and project specifications throughout construction.
8. Analyzed historical production data and current field performance to develop project schedules, evaluate time impacts, and prepare recovery schedules when engineering changes affected critical path activities.
9. Evaluated the engineering impacts of design changes on cost, schedule, constructability, and public safety; incorporate findings into change order development and negotiations.
10. Reviewed technical shop drawings and submittals from multiple trades to verify conformity with design intent, specifications, and construction feasibility.
11. Provided engineering oversight to ensure constructed work complied with approved plans, specifications, and documented engineering changes.
12. Verified quantities and maintained engineering records to support accurate payment certification and as built documentation.
13. Led and mentored Project Engineers by delegating tasks while maintaining technical oversight to ensure engineering decisions were accurate, compliant, and properly implemented in the field.

REPRESENTATIVE PROJECTS

NDOT 3948 Pyramid Highway Widening
This bid build roadway widening project expanded SR 445 from four to six lanes and included earthwork, retaining walls, sound walls, storm drainage, utilities, paving, electrical and signal work, structures, and multimodal improvements.

I was promoted to Project Manager on this project after previously serving as the lead Project Engineer. As Project Manager, I continued to perform engineering evaluations related to constructability, sequencing, and design coordination. I reviewed plans and specifications to resolve conflicts between structural elements, utilities, and roadway geometry, and coordinated approved engineering solutions with NDOT.

I evaluated traffic staging and construction sequencing to maintain public safety and traffic flow on a high volume corridor. I assessed schedule and cost impacts resulting from design changes and field conditions, developed recovery strategies, and incorporated approved engineering changes into project execution. I provided technical oversight to ensure constructed work met NDOT standards and contract requirements.

SVGID Highland Ranch Parkway Water Transmission Main
This privately funded utility project included approximately 6,400 linear feet of 12 inch and 16 inch ductile iron water main, a jack and bore crossing within a 30 inch steel casing, construction of a new access road, and pavement and concrete restoration.

On this project, I served as the sole Project Manager and primary engineering lead. I reviewed utility plans and specifications, evaluated installation methods, and coordinated sequencing to address site constraints and minimize impacts to surrounding infrastructure. I applied engineering judgment to resolve conflicts encountered during utility installation, coordinated technical clarifications with the Owner and Engineer, and verified construction conformed to approved design and specifications.

Carson City East William Street Complete Streets Project
This project involved the reconstruction of a 1.5 mile urban corridor, including water and sewer replacement, new storm drain infrastructure, sidewalk and driveway replacement, multi use paths, bicycle lanes, traffic signal upgrades, street lighting, and landscaping.

As Project Manager, I perform engineering reviews of roadway, utility, and traffic elements to support constructability and sequencing. I evaluate conflicts between proposed utilities and existing infrastructure, coordinate engineering solutions with the design team, and ensure pedestrian, bicycle, and vehicular safety were maintained throughout construction. I provide engineering oversight to ensure work is executed in accordance with design intent and municipal standards.

ARIAHNA WOLF (22-016-83)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/27/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years, 2 months

Total Engineering Experience
4 years, 4 months

Experience under licensed engineer
4 years, 4 months

Disciplinary Action
None reported

ABET EAC

FE EXAM

PE EXAM

4+

EDUCATION

Bachelors in Civil Engineering (EAC)
University of Nevada, Reno
August 2017–December 2021

EXAMS

Fundamentals of Engineering (FE)
Nevada
August 2021

Principles and Practice of Engineering (PE)
Civil
Nevada
December 2024

LICENSES

Additional Licenses
None

ARIAHNA WOLF (22-016-83)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Kimley-Horn and Associates, Inc
Nevada (United States)
Intern (Please note that my Full Time position as a Civil Analyst is under a different experience)
May 2021—December 2021

Verified by
Christopher Francis Waechter
chris.waechter@kimley-horn.com

Experience Summary
Part-Time
Engineering: 2 months (25%)
Experience under licensed engineer: 2 months

TASKS

I interned full time over the summer of 2021 (2.5 months) on our Land Development team at Kimley-Horn and then part time (approximately 8 hours/week) from September to December. Please note that I later joined as a full-time civil analyst and this is added as a different work experience.
As an intern, I prepared exhibits, addressed redlines on construction drawings, prepared plot plans, helped prepare submittals and submittal documents for site improvement permits and an entitlement, and learned water, sewer, and storm design. I also went on construction observation site visits and delivered submittals to Douglas County and Nevada Division of Environmental Protection.

REPRESENTATIVE PROJECTS

Clear Creek Tahoe - Douglas County, NV - (May 2021 - December 2021 as an intern)
As an intern, I mainly worked on Clear Creek Tahoe, a 384-lot Single Family Luxury Residential development spread over approximately 1,500 acres and located in Douglas County. I helped modify the Specific Plan for a Minor Modification, prepared exhibits, prepared plot plans, implemented redlines for Unit 6 construction drawings, went on site visits, and delivered submittals.

Industrial Project at Tahoe Reno Industrial Center (project name withheld due to Non-Disclosure Agreement) - Storey County, NV - (May 2021 - August 2021 as an intern)
For a large industrial project located in Storey County, I worked on redlines on construction drawings for the industrial building and I prepared exhibits.

ARIAHNA WOLF (22-016-83)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Kimley-Horn and Associates, Inc
Nevada (United States)
Civil Analyst/Engineer in Training
January 2022—March 2026

Verified by
Christopher Francis Waechter
chris.waechter@kimley-horn.com

Experience Summary
Full-Time
Engineering: 4 years, 2 months
Post EAC degree: 4 years, 2 months
Experience under licensed engineer: 4 years, 2 months

TASKS

I have worked in Land Development full-time for the last 4 years as a Civil Analyst at Kimley-Horn. I have worked on various civil engineering projects, ranging from single family and multi-family residential, to small site commercial and data center projects. I designed and implemented civil engineering infrastructure, wrote technical reports, prepared plans and submittal documents, and coordinated with contractors and subconsultants. I also worked as a Task Manager, tracking overall project/task completion and budgets.
To expand on my design experience, I performed hydrologic analysis using the Rational and SCS Methods to analyze pre- and post-development conditions and designing storm water infrastructure to mitigate runoff. I designed and implemented detention ponds and storm water pipe networks, regularly consulting the Truckee Meadows Regional Drainage Manual and other local criteria. I prepared Technical Drainage Reports and Storm Water Pollution Prevention Plans. Additionally, I designed domestic water conveyance systems, typically to Truckee Meadows Water Authority's standards. I prepared Sanitary Sewer Memorandums, determining capacity and sizing and designing sanitary sewer conveyance systems. As well, I designed site layouts for residential and industrial projects. I graded roadways using corridors, graded intersections, detention basins, and site improvements such as parking lots with retaining walls and some residential lots.
I regularly used AutoCAD Civil 3D, Autodesk Construction Cloud, Infraworks, FlowMaster, PondPack, StormCAD, and HY-8 softwares. Additionally, I evaluated many potential project sites and wrote due diligence reports, which included analysis of existing utilities, zoning, easements, fault lines, floodplains, waters of the US, soils, and existing terrain. I also prepared entitlement submittals for zoning changes and planned development amendments. I coordinated with architects, MEP engineers, dry utility companies, contractors, clients, and geotechnical engineers. Most of my public agency submittals have been with Douglas County, Washoe County, City of Sparks, City of Reno, and NDEP.
(100% Engineering)

REPRESENTATIVE PROJECTS

• Clear Creek Tahoe - Douglas County, NV - (May 2021 – 2026)
- Clear Creek Tahoe is a 384-lot single-family luxury residential planned development with multiple residential phases and a golf course. The development spans approximately 1,500 acres and is in the Sierra Nevada mountains, east of Lake Tahoe. I worked on various sub-projects at Clear Creek Tahoe throughout the years, including residential phases, public and private roadways, parking lots and office buildings, and entitlements. Initially, I implemented redlines for two residential phases and prepared Plot Plan and Homesite diagrams for individual lots. Later on, I prepared Record Drawings, designed water pipes, sanitary sewer pipe networks, and realigned a section of existing non-potable reclaimed water. I also designed the Additional Clubhouse Parking Lot and Summit Camp Parking Lots, preparing and coordinating the submittals, analyzing the drainage, coordinating with the client, geotechnical engineer, and the contractor, performing construction observation site visits, and preparing Record Drawings. For the Emergency Access Road, I helped grade the roadway corridor and intersections, performed the hydrologic analysis, including designing the culverts and detention ponds, and prepared the plans and Site Improvement Permit submittals. For the Zone 1 Water Tank project, I prepared the construction drawings for the roadway, coordinated with the contractor during construction, and helped conduct site visits. Most recently, for the Unit 5 phase, I worked on site layout redesign, graded the road, and designed the sanitary sewer and water systems. I also analyzed the hydrologic pre- and post- conditions for the 25-year and 100-year storms, proposing mitigations and designing culverts and the detention pond, and wrote the technical drainage report. For Unit 5, I also prepared the Minor and Major Modifications for the Specific Plan (Planned Unit Development handbook) and a zoning change. I also worked on a few other Clear Creek projects including: implementing redlines and preparing Record Drawings for the Office and Parking and for the Maintenance Facility and Parking; redesigning the site layout for the Schneider Ranch phase; and grading for two individual custom lots. All improvements and submittals were designed to the standards of Douglas County, Nevada Division of Environmental Protection, and the TR-55 Drainage Manual.
• Chocolate Drive - Washoe County, NV - (January 2022 – 2026)
- The Chocolate Drive project is a multi-family residential project located next to a hillside in Washoe County and proposes 20 12-

unit apartment buildings, amenities, a new public road, and a public trailhead. Chocolate Drive required several rounds of entitlement, site plan and grading redesign, and is now in the construction drawings phase. Early on, I prepared exhibits for the Master Planning and Regulatory Zone Amendment and learned about these processes. Later, I helped prepare the Administrative Permit and Special Use Permit submittals. During this stage, I prepared the preliminary construction drawings; designed the site plan, road, and trailhead; designed the preliminary sewer and water utilities; helped analyze the pre- and post-storm water conditions and graded and implemented the preliminary storm mitigations. As time progressed, I helped prepare an Amendment of Conditions and new Special Use Permit. I closely monitored and implemented code updates; redesigned the site plan, and prepared revised preliminary site, utility, and grading drawings; helped write the project narratives; and prepared the submittals. Throughout the project, I coordinated with Washoe County Planning, Engineering, Parks and Recreation, the architect and MEP, subconsultants, and the surveyor; I also attended neighborhood meetings and public board meetings. After this entitlement process and most recently, I have revised the site plan and reviewed and helped prepare the construction drawings for the 80% submittal. This project was designed in accordance with Washoe County, NDEP, Truckee Meadows Regional Drainage Manual, and Sun Valley General Improvement District.

MICHELLE YEH (21-280-80)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/09/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years, 9 months

Total Engineering Experience
4 years, 9 months

Experience under licensed engineer
4 years, 9 months

Disciplinary Action
None reported

ABET EAC · FE EXAM · PE EXAM · 4+

EDUCATION

Bachelors in Civil Engineering (EAC)
California State Polytechnic University, Pomona
September 2017–May 2021

EXAMS

Fundamentals of Engineering (FE)
California
July 2021

Principles and Practice of Engineering (PE)
Civil
California
September 2024

LICENSES

Additional Licenses
None

MICHELLE YEH (21-280-80)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

RS&H
California (United States)
Airfield Engineer I
June 2021—March 2026

Verified by
Phillip Leung
Phillip.Leung@rsandh.com

Experience Summary
Full-Time
Engineering: 4 years, 9 months
Post EAC degree: 4 years, 9 months
Experience under licensed engineer: 4 years, 9 months

TASKS

I prepared plans including disciplines related to civil design (horizontal/vertical control plans, phasing plans, demolition plans, geometry plans, grading plans, marking plans). I also helped reissue plans to fix issues that arose during construction. All tasks were done using applicable FAA Advisory Circulars (geometry, marking layout, pavement design), and when necessary would evaluate project specific conditions and compare non-standard options.

REPRESENTATIVE PROJECTS

Assisted in the production of LAX STTR from December 2024 - June 2025. Project included the reconstruction of multiple taxiways and taxilanes at LAX. I designed the Utility Protection Plans, Paving Plans, Geometry Plans, Existing Conditions Plans. I reviewed the pavement design against existing utilities and incorporated methods of protecting structures rather than having to propose new, more expensive alternatives. I also developed geometry plans that complied with current FAA standards for airports.

Assisted in the production of LGB TLN K & U Rehabilitation from August 2023 - January 2024. I designed the the phasing, paving, grading, and marking plans. I developed these plans in accordance to the various FAA standards but also took into consideration the current limitations of the project. One major design challenge involved the grading of the surface to comply with FAA standards and having to design the surface to to drain to existing inlets as well as proposing necessary improvements.

Assisted in the production of LAX TAFR from September 2025 - February 2026. I designed the phasing plans which involved evaluating elements of the paving, geometry, and demolition to be feasible for construction. For example, the limits of paving required evaluation of the designed pavement section and making sure that the limits shown on the plans provide enough space for planes to pass by but also would include enough space for the contractor to place forms for construction.

Assisted in the production of LAX TW D design from summer 2021 - September 2024. Helped develop phasing plans that incorporated all aspects of constructability including but not limited to paving, demolition, and markings. Also helped evaluate field surveyed data during construction and compared the grades to the design grades and figured out whether the pavement elevations were within tolerance and if they conformed to the requirements in the specifications. Also helped develop plans to be reissued during construction for various change orders. One major change was the incorporation of the NAET project to ours in the middle of construction due to constructability constraints. One major challenge in incorporating the separate project into ours was making sure that the water would drain between the two combined surfaces, and also figuring out a limit that would not encroach the RSA and interrupt the runway operations. This involved taking a look at the proposed jointing layout, and the typical section tie-in to existing to figure out where the best limit could be drawn.

WYATT ZEIGLER (22-063-51)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/11/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years

Total Engineering Experience
4 years

Experience under licensed engineer
4 years

Disciplinary Action
None reported

EDUCATION

Bachelors in Environmental Engineering (EAC)
University of Florida
June 2017–December 2021

EXAMS

Fundamentals of Engineering (FE)
Florida PE
January 2022

Principles and Practice of Engineering (PE)
Civil
Nevada
June 2023

LICENSES

Additional Licenses
None

WYATT ZEIGLER (22-063-51)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Kimley-Horn
Nevada (United States)
Civil Analyst
March 2022—March 2026

Verified by
Stephen Hughey
stephen.hughey@kimley-horn.com

Experience Summary
Full-Time
Engineering: 4 years
Post EAC degree: 4 years
Experience under licensed engineer: 4 years

TASKS

Description of Engineering Tasks & Duties:
- Designed detention ponds and systems to mitigate increased runoff and convey 5-year and 100-year storm events for various projects.
- Performed site grading to maintain minimum slopes for roadways, sidewalks, landscape areas, - and parking to ensure proper drainage, site access, and circulation.
- Designed sanitary sewer systems to convey building flows to existing infrastructure.
- Designed fire loops and domestic water connections.
- Designed private roadways incorporating required safety improvements (guardrail, AC dike, striping) and appropriate crowning/superelevation for drainage.
- Designed hydrant layouts and site configurations to support fire department circulation and provide hydrant access outside building collapse zones.
- Prepared design drawings for industrial warehouse and data center projects in Storey County, Nevada, including grading, site, and utility design.
- Provided construction administration services, providing design solutions to contractors questions regarding drainage, fire access, and utility design.
- Completed utility design and permitting for residential projects in the City of Reno.
- Coordinated site permitting, design questions, and plan revisions with multiple jurisdictions.
-Designed site grading for a multitude of sites
-Designed drainage system including, Pond sizing, Storm sewer, and drainage channels for a multitude of sites

REPRESENTATIVE PROJECTS

Projects:
- Dermody Phase 1 Building 2, Sparks/Nevada/US, Industrial Warehouse (2022 - 2025)
I designed the On-Site Domestic water system, On-Site Sanitary Sewer System, On-site Storm Water system, and the Offsite domestic water system and irrigation branch of the public water system which was designed and dedicated to TWMA to ensure our development had a Domestic water and irrigation connection.
- Dermody Phase 2 Building 1, Sparks/Nevada/US, Industrial Warehouse (2022-2024)
I designed the On-Site Domestic water system, On-Site Sanitary Sewer System, On-site Storm Water system, and the Offsite domestic water system and irrigation branch of the public water system which was designed and dedicated to TWMA to ensure our development had a Domestic water and irrigation connection.
- Pure 1.0, Storey County/Nevada/US, Industrial Warehouse (2022-2023)
I designed ,the On-Site Domestic water system, On-Site Sanitary Sewer System, On-site Storm Water system, and the Offsite domestic water system and On-site Fire line. I performed the rational method drainage calcs and sized the ponds for the site using ICPR and Pond Pack.
- Pure 2.0, Storey County/Nevada/US, Industrial Warehouse (2022-2024)
I designed ,the On-Site Domestic water system, On-Site Sanitary Sewer System, On-site Storm Water system, and the Offsite domestic water system and On-site Fire line. Additionally, I played a large role during construction administration answering and providing solutions for grading changes, and material substitutions for several catch basins on site.
- Pure 3.0, Storey County/Nevada/US, Industrial Warehouse (2022-2024)
I played a large role during construction administration answering and providing solutions for grading changes,and improvements to our drainage system to accommodate the 100 year 24 hour storm event.
- Pinyon Apartments, City of Reno/Nevada/US, Multifamily development (2022-2026)
I designed ,the On-Site Domestic water system, On-Site Sanitary Sewer System, On-site Storm Water system, and the Offsite domestic water system and On-site Fire line. I designed an underground storage system for on-site stormwater. Late in the design

process I made significant design changes to the grading to accommodate client site layout changes.
- Autosavvy Reno, City of Reno/Nevada/US, Commercial Development (Small Scale) Used Car Dealership Site Improvements (2022-2024)
I designed and proposed pavement rehabilitation for the site, ensured ADA accessibility and designed the driveway to conform with city standards.
- Tesla Autobody, CIty of Reno/Nevada/US, Commercial Development (Small Scale) (2022-2024)
Designed site utilities, Domestic water, sanitary sewer, and storm sewer
- ABTC Site Improvements, Storey County/Nevada/US, Industrial Storage (2023-2025)
I designed a storage area housing acid, and base chemicals to conform with NDEP standards.
- STY 3A, Storey County/Nevada/US, Data Center (2024)
I designed the Sanitary sewer system for the site.
- STY Mass Grading Pads, Storey County/Nevada/US, Pad used for construction staging (2024)
I graded 2 large pads meant for construction staging, I ensured positive drainage and included improvements to the drainage ditch which ran adjacent to my pads.
- TRIC 688 Building 2, Storey County/Nevada/US, Industrial Warehouse (2022-2023)
I designed the sanitary sewer and storm sewer for the site.
- TRIC 688 Building 3, StoreyCounty/Nevada/US, Industrial Warehouse (2022-2023)
I designed the sanitary sewer and storm sewer for the site.
- Battery West, Storey County/Nevada/US, Roadway (2022-2023)
I designed the posted speeds based on AASHTO standards, proposed guardrail locations, designed lane widths and transitions from a crown roadway to a superelevated roadway.
- Battery East, Storey County/Nevada/US, Roadway (2023-2025)
I designed the posted speeds based on AASHTO standards, proposed guardrail locations, designed lane widths and transitions from a crown roadway to a superelevated roadway.
- Innovation Way, Storey County/Nevada/US, Roadway (2022-2023)
I designed water, sanitary sewer and storm sewer for innovation way.
- C3 East Building 6, Storey County/Nevada/US, Industrial Warehouse (2024-2026)
I designed the storm sewer, sanitary sewer, and domestic water for building 6. Additionally I made grading improvements to the site.
- Well 7 Waterline Relocation, Storey County/Nevada/US, Public Utility Relocation (2024-2026)
I designed the water system for the Well 7 waterline relocation

Chemical

CECIL MERITT (17-862-09)

All work experience reviewed by two licensed professionals

DISCIPLINE: CHEMICAL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/22/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
7 years, 10 months

Total Engineering Experience
8 years, 1 month

Experience under licensed engineer
8 years, 1 month

Other Experience

Disciplinary Action
None reported

EDUCATION

Bachelors in Chemical Engineering (EAC)
University of Houston
August 2013–May 2017

EXAMS

Fundamentals of Engineering (FE)
Texas
May 2017

Principles and Practice of Engineering (PE)
Chemical
Nevada
February 2026

LICENSES

Additional Licenses
None

CECIL MERITT (17-862-09)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Albemarle Corporation
Nevada (United States)
Engineering Intern
May 2016—August 2016

Verified by
Jeffrey John Mueller
jjmule17@gmail.com

Experience Summary
Full-Time
Engineering: 3 months
Experience under licensed engineer: 3 months

TASKS

I measured and Analyzed Yield Losses within our Lithium Carbonate Plant.
I updated the Plant's P&ID's, Material Balances, and Equipment documentation.
I formulated solutions to minimize the difference between first time pass yield and overall recoveries.
Took part in plant operational meetings and to be available for downtimes if assistance was needed.

REPRESENTATIVE PROJECTS

I took samples from various parts of the process and had them analyzed in the lab to define mass flowrates of varying salts/metals. From this, I determined where the specific losses of metals (specifically Lithium) occurred. This helped us target specific pieces of equipment/processes to focus on for process improvements.

In addition to process improvements, I updated the overall material balance for the plant.

I updated the all plant P&ID's to new revisions with updates. This was part of an overall initiative to bring this dated plant (from the 70's) to more robust, modern documentation standards.

CECIL MERITT (17-862-09)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Albemarle Corporation
Nevada (United States)
Process Engineer II
May 2017—March 2020

Verified by
Jeffrey John Mueller
jjmule17@gmail.com

Experience Summary
Full-Time
Engineering: 2 years, 10 months
Post EAC degree: 2 years, 10 months
Experience under licensed engineer: 2 years, 10 months

TASKS

My tasks and duties as a Process Engineer I and II were:
- I reviewed of production recoveries/runtime/throughput/OEE performance and made key decisions as to how to run the Lithium Carbonate and Anhydrous Lithium Hydroxide Plant. This included 24/7 production/process support/troubleshooting. I Supplied Mass/Energy balances, Technical Support, Vendor Correspondence, Process parameters/properties, Commissioning support, for any improvement projects associated with the Lithium Carbonate plant and Anhydrous Lithium Hydroxide Plants. I coordinated changes through the plants by administrating the management of change (MOC) process for all plants for the Silver Peak Site. I was responsible redlining and updating the outdated site P&ID's/PFD's.

REPRESENTATIVE PROJECTS

SP 60023 MCC & PLC Automation Project (2017-2019) Silver Peak, NV
I formulated functional requirements and control narratives for every portion project which was the entirety the Lithium Carbonate Plant. I provided process parameters/setpoints to the process integration team for how the plant was to be operated. I verified process integration completion via factory acceptance testing of the control narratives I provided. I was also process lead for commissioning the plant post installation, which includes field testing of interlocks, control loops/loop checks, loop tuning, and sequence testing.

SP 1732 Rotary Dryer Project (2017-2019) Silver Peak, NV
I provided mass and energy balances for the rotary dryer process design. I wrote the control narrative and identified interlocks associated with plant sequencing around the rotary dryer outside of NFPA 86 requirements. I was responsible for process side factory acceptance procedures/tests to confirm adherence to company specifications. For startup and commissioning of the rotary dryer, I formulated startup checklists, facilitated pre-start---up safety reviews, tuned the burner management system for temperature control, tested all interlocks associated with process and said burner managements system (NFPA 86 related), and trained operations on how to operate said rotary dryer.

SP 1745 Tempered Water System Project (2019-2020) Silver Peak, NV
I assessed site layout to provide eye wash station counts throughout the entirety of the Silver Peak site. This count informed piping layout. I provided head loss/hydraulic calculations for the system which informed 3rd Party tempered water skid designers to design their skid to. I ensured the system addressed OSHA standards/compliance (such as flow rate and temperature requirements) and accounted for any hazardous areas throughout the Silver Peak Site.

SP 1609-1610 Heat Exchanger Upgrade (2017-2018) Silver Peak, NV
I provided flow rates and stream compositions for the replacement of all shell and tube heat exchangers within the Silver Peak Site. I provided process support for commissioning said heat exchangers which include hydro-pressure testing, instrument/loop checks for instrumentation replaced, and confirmed adequate heat exchange once running via flow rates and temperature readings.

SP 1602 Filter Press Improvement Project (2017-2018) Silver Peak, NV
I provided flow rates and stream compositions for the replacement of (2) filter presses within the Silver Peak Site. I provided process support for commissioning and startup of said filter presses. This included hydro-pressure testing of all equipment and piping, instrument/loop checks for instrumentation replaced, and training of operations as to how to operate. Once running, I assessed filter press performance by sampling filter feed, filtrate, and filter cake for moisture and filtrate clarity/Solid %.

CECIL MERITT (17-862-09)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Panasonic Energy of North America
Nevada (United States)
Manufacturing Engineer
March 2020—March 2021

Verified by
Nora Bodie
nora.bodie@us.panasonic.com

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor: None

DESCRIPTION

CECIL MERITT (17-862-09)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Albemarle Corporation
Nevada (United States)
Process Technology Engineer
March 2021—June 2022

Verified by
Jeffrey John Mueller
jjmule17@gmail.com

Experience Summary
Full-Time
Engineering: 1 year, 3 months
Post EAC degree: 1 year, 3 months
Experience under licensed engineer: 1 year, 3 months

TASKS

50% Production Supervisor
This portion is not engineering related, operations related. I supervised production for the Lithium Carbonate and Anhydrous Lithium Hydroxide Plants. This included calculating daily yield/recoveries and assessing plant performance. I assessed plant operating parameters with statistical process control elements to keep quality and production on target daily.

50% Process Technology Engineer
In this role I supported improvement projects designated for the Lithium Carbonate and Anhydrous Lithium Hydroxide Plants. I provided process stream characteristics/evaluations to vendors and design firms for equipment design. For said equipment specifically used with Lithium Brines, I recommended materials of construction to ensure longevity with costs in mind. I also provided additional process support for said plants if needed along with commissioning support for any projects starting up on site.

REPRESENTATIVE PROJECTS

Plant Automation/Cyclone Improvement Project (2021-2022)
I provided process parameters and design for Hydrocyclone Tub improvement for the Silver Peak Lithium Carbonate Plant. I calculated venting requirements for the area to ensure no condensation/salt would affect the surrounding area (area was deteriorated due to excess moisture/salt accumulation). I calculated hydraulic head losses to ensure the changes to the piping arrangement would not adversely affect cyclone performance. I provided control narrative/functional requirement to automate the acid cleaning process of the Silver Peak Plant

Lime Improvement Project (2021-2022)
I provided feed rates, feed magnesium chloride concentration and expected magnesium chloride discharge concentration for a project to replace a Brine Liming plant at the Silver Peak Brine field. I gave input and reviewed critical documentation for the new plant provided by 3rd Party such as control narratives, process models, design, CAD drawings, pump selection, and P&ID's.

WORK EXPERIENCE

Redwood Materials
Nevada (United States)
Staff Chemical Engineer
June 2022—March 2026

Verified by
Michael Douglas McDaniel
mike.mcdaniel@redwoodmaterials.com

Experience Summary
Full-Time
Engineering: 3 years, 9 months
Post EAC degree: 3 years, 9 months
Experience under licensed engineer: 3 years, 9 months

TASKS

Senior Engineer:
Hydrometallurgy Plant Design:
I wrote operating manuals and troubleshooting guides for the hydromet plant. This also included confined space entry plans and trained operations on said troubleshooting/operations units as well. I wrote commissioning plans for the hydrometallurgy plant and trouble shot the controls system ahead of time prior to plant startup. I executed commissioning plans to safely and efficiently startup the hydro1 plant. I assessed equipment performance upon startup by confirming head loss calculations on pumps, separation achieved by centrifuges, and evaporation rates for mechanical vapor recompression systems.

Staff Engineer
Tasks/Duties
I formulated designs of experiments and ran said experiments to determine the best Liquid/Solid separation for different streams within the Hydromet plant. This included running black mass slurry, mixed metal sulfate slurry, and lithium sulfate slurries through Peeler, Decanter, and Pusher Centrifuges. This included measuring the impact of solid % within feed and feed rates to the dryness of the solid product/clarity of centrate.
I routinely supported operations with engineering support post commissioning of the hydrometallurgy plant. I supported small project design and improvements that would typically include head loss calculations for pumps, materials of construction selection, and instrument selection.

Cathode Front End Design Tasks:
I led/supported Process Design Lead for Rotary Kilns/Roller Hearth Kiln. I supplied and reviewed P&ID's for the Overall project. I supported the process side of HAZOP safety reviews for Rotary Kilns/Roller Hearth Kilns. I created and simulated process models for all equipment within the Cathode Plant. I also ran optimization studies to minimize Oxygen/utility Consumption for Rotary Kilns and Roller Hearth Kilns.

REPRESENTATIVE PROJECTS

Hydrometallurgy Battery Recycling Facility Design/Commissioning/Startup (2022 - 2024) McCarran, NV
I Produced/developed commissioning plans for water/chemical introduction into the facility. Led engineering teams and provided guidance for the team during commissioning. I was responsible for implementing a design change to solve a flaw found in original filter press process to incorporate a filter aid to the black mass feed to improve cake drop and reduce cake moisture. I was responsible for improving uptime and pump performance for two slurry pumping ring-main systems. I assessed poor pump performance via historical data and determined the correct materials of construction for the pumps. I facilitated vendor discussions and provided hydraulic calculations for proper specification. I was responsible for implementing a flowsheet design change to simplify the hydrometallurgy plant process post commissioning to reduce the circuit to have 1 filtration step rather than 2. This simplification allowed for more throughput and a reduction in shipping costs. I developed DOE's for Peeler, Decanter, and Pusher centrifuges to assess which unit would provide driest Lithium Sulfate product with the most throughput. I ran the experiements in field and ultimately determined the most effective unit for the hydrometallurgy process.

Cathode Active Material Plant Design (2024 - 2026) McCarran, NV
I developed and published oxygen specifications and standards that dictated how the oxygen systems for the plant were designed. All of which referenced multiple engineering documents from NFPA, CGA, AIGA, and ASME. I provided process design parameters for inhouse-designed rotary kilns and coolers intended to operate with oxygen enriched atmospheres. This included transient style calculations to determine bed temperatures that ensured the equipment allowed for full reaction given the allowed residence time/temperature was attained. I drew and reviewed all P&ID's for the Cathode Plant (AutoCAD) and guided other junior engineers with best practices around drawing etiquette. I simulated (Metso HSC Software) and optimized oxygen consumption for

pre-sintering and coating kilns (oxidative atmospheres) via high temperature gas recirculation of Oxygen. I specified and reviewed PSV's for all process equipment within the Cathode Plant. I wrote the process control narrative for our in-house designed Rotary Kilns (above) and reviewed with maintenance/operations/engineering/safety.

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
May 2009	July 2013	I spent one year in Germany where I attended Werner Heisenberg Gymnasium (German end of High School). For the remaining time I returned to Texas and went to community college at the Lonestar Community College for base credits.

Control Systems

JEYRAJ PICHAMURTHY (14-847-05)

All work experience reviewed by two licensed professionals

DISCIPLINE: CONTROL SYSTEMS

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/26/2026

Citizenship
Canada

SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
14 years, 8 months

Experience under licensed engineer
7 year, 3 months

Disciplinary Action
None reported

EDUCATION

Meets NCEES Engineering Education Standard

Bachelors in Electrical & Electronics Engineering
Anna University
July 2004–April 2009

Bachelors in Petroleum Engineering Technology
Southern Alberta Institute of Technology Polytechnic
January 2012–November 2013

EXAMS

Fundamentals of Engineering (FE)
APEGA
December 2016

Principles and Practice of Engineering (PE)
Control Systems
APEGA
April 2025

LICENSES

Additional Licenses
None

WORK EXPERIENCE

Barani Hydraulics India Pvt Ltd.
Tamil Nadu (India)
Control System Engineer - Trainee
July 2009—December 2009

Verified by
Hariprasad Devaraj
hariprasad.devaraj@bmw.de

Experience Summary
Full-Time
Engineering: 5 months
Experience under licensed engineer: None

TASKS

1. I verified panel and field wiring against approved electrical schematics by checking terminations, continuity, labelling, and grounding to confirm compliance with electrical and safety requirements.

2. I performed control system functional testing by validating limit switches, pressure transmitters, interlocks, alarm circuits, and emergency stop circuits prior to system energization.

3. I executed factory acceptance testing (FAT) procedures by operating hydraulic press systems, recording pressure readings and cycle times, and comparing performance results against specified design criteria.

4. I analyzed signal responses during testing to identify wiring discrepancies, incorrect I/O assignments, and control logic faults, and I implemented corrective adjustments under engineering review.

5. I monitored hydraulic system performance during trial runs by evaluating operating pressures, response times, and overall system stability to verify functional integrity.

6. I reviewed electrical panel layouts and I/O assignments to confirm that control devices were correctly mapped to field instrumentation.

7. I validated instrument calibration settings and verified that control setpoints aligned with specified operational ranges and safety requirements.

8. I documented test data, inspection findings, and corrective actions in FAT records and commissioning checklists to provide traceable engineering documentation.

9. I evaluated system readiness prior to dispatch by confirming that testing deficiencies were resolved and that the machine met functional and safety acceptance criteria.

REPRESENTATIVE PROJECTS

Project 1: Hydraulic Press Systems for Titan India

I supported the manufacturing and testing of hydraulic press systems supplied to Titan, used for forming and assembly operations. These presses were typically medium-capacity machines in the range of approximately 400 tons, designed for continuous industrial use. My role focused on controls and operational verification during manufacturing and pre-dispatch stages. I assisted with the inspection and validation of control panel wiring and field wiring to confirm proper terminations, continuity, and compliance with approved electrical schematics. During system testing, I supported control logic verification, including sequencing checks, sensor validation, and safety interlock testing. I participated in factory acceptance testing (FAT) by monitoring machine cycles, recording hydraulic pressures and cycle times, and documenting test results. When deviations were observed, I assisted senior engineers with troubleshooting activities and supported re-testing after corrective actions. Through this project, I developed a stronger understanding of how large-capacity hydraulic machines are functionally validated for safe and reliable operation before shipment.

Project 2: Wheel Hub Assembly Press for Hyundai India

I also supported a Wheel Hub Assembly hydraulic press manufactured for Hyundai, intended for automotive component assembly operations requiring precise control and repeatability. This machine is involved in the coordinated operation of hydraulic, electrical,

and PLC-based control systems. My responsibilities included assisting with controls-related wiring checks, functional testing of sensors, limit switches, and safety circuits, and verifying correct sequencing during trial runs. I supported acceptance testing activities by documenting operational performance and assisting with troubleshooting signal or logic issues under supervision. I also provided commissioning and pre-dispatch support, helping ensure that testing records, inspection checklists, and quality documentation were complete and aligned with customer requirements before handover.

WORK EXPERIENCE

Tata Consultancy Services
Tamil Nadu (India)
Assistant Systems Engineer
December 2009—August 2011

Verified by
Saikalyan Ramachandruni
kalyan.ramachandruni@tcs.com

Experience Summary
Full-Time
Engineering: 1 year, 8 months
Experience under licensed engineer: None

TASKS

1. I applied computer and electrical engineering principles to design, develop, and validate enterprise software systems for industrial and engineering clients.
2. I analyzed functional and technical requirements and translated them into detailed software specifications aligned with operational and manufacturing needs.
3. I developed customized software modules supporting Product Lifecycle Management (PLM), Manufacturing Execution Systems (MES), and virtual instrumentation tools.
4. I wrote and maintained application code using Java (J2EE) following structured software development lifecycle (SDLC) methodologies.
5. I performed unit testing, integration testing, and system testing to validate functional performance and software reliability.
6. I developed TCL-based automation scripts to execute regression testing and verify system workflows under multiple operating scenarios.
7. I analyzed software defects, identified root causes, and implemented corrective code changes to resolve functional and integration issues.
8. I configured enterprise application platforms including JBoss, WebSphere, and WebLogic for deployment in controlled production environments.
9. I validated data integrity and system traceability to ensure compliance with engineering documentation and manufacturing record requirements.
10. I prepared technical documentation, test reports, and configuration records to support quality audits and controlled software releases.

REPRESENTATIVE PROJECTS

Project 1: PLM Systems for Subsea Engineering Equipment – Kongsberg / FMC Technologies

(Dec 2009 – Oct 2010)

I configured and customized PLM software to control engineering documentation, product configurations, and manufacturing traceability for subsea equipment including blowout preventers, manifolds, and subsea trees. I developed automation scripts in TCL to validate revision control workflows, approval sequences, and release processes within the PLM system. I analyzed Manufacturing Record Book (MRB) data structures and configured traceability links to ensure inspection and test records complied with operator requirements for Statoil ASA and EnQuest plc.

Project 2: MES Integration – General Electric Oil & Gas

(Nov 2010 – Aug 2011)

I integrated GE Proficy Historian with Distributed Control Systems (DCS) to enable real-time acquisition, storage, and validation of manufacturing and operational process data. I developed and configured system interfaces to map control system signals to historian tags and performed system integration testing to validate data accuracy and communication reliability. I analyzed system performance following deployment and implemented corrective configuration adjustments to improve data consistency and operational reporting reliability.

WORK EXPERIENCE

Tekarra Project Services Ltd
Alberta (Canada)
Junior Instrumentation Specialist
June 2013—August 2015

Verified by
Vincent Chao
VChao@tekarraprojects.com

Experience Summary
Full-Time
Engineering: 2 years, 2 months
Experience under licensed engineer: None

TASKS

Engineering Intern (Jun 2013 – Dec 2013)

1. I developed engineering and project management tools using Excel/VBA and Microsoft Access, incorporating embedded engineering logic for scope definition, cost estimation, and document control.

2. I created and maintained a piping line list database incorporating validation rules to enforce compliance with ASME B31.3 and ASME B16.5.

3. I prepared technical documentation for pressure piping registration including AB-31, AB-31B, and AB-96 forms for submission to regulatory authorities.

4. I analyzed existing control system drawings and calculated required I/O points for brownfield instrumentation additions.

5. I evaluated technical bid submissions and provided technical recommendations based on installation feasibility and operational performance.

Junior Instrumentation Specialist (Jan 2014 – Aug 2015)

1. I designed instrumentation and control systems for conventional and heavy oil facilities applying principles of measurement, control theory, thermodynamics, and process control.

2. I modified P&IDs in accordance with ISA 5.1, incorporating instrument tagging, control logic, and shutdown philosophy updates.

3. I prepared instrument specification sheets per ISA-20 and performed control valve, flow meter, and relief device sizing calculations.

4. I performed I/O allocation and developed alarm and trip setpoint schedules in accordance with ISA-18.2.

5. I analyzed operational data during plant turnarounds and implemented instrumentation modifications to improve reliability.

6. I configured master meter setup, calibration, and proving in accordance with AER Directive 017.

7. I evaluated hazardous area classification drawings and selected instruments with appropriate hazardous location ratings.

REPRESENTATIVE PROJECTS

Project: Connacher Oil & Gas Ltd – Great Divide Facility (Jun 2013 – May 2015)

(MOC & Sustaining Projects Program)

I designed instrumentation and control systems for SAGD well pads, infill wells, and EOR facilities, including development of P&IDs, instrument datasheets, loop drawings, and shutdown key (SDK) documentation. I performed I/O allocation, prepared control narratives, and developed the I&C portions of construction work packages. I analyzed operational deficiencies in central processing facility units and implemented instrumentation modifications to improve process reliability and regulatory compliance. All work was verified by a professional engineer.

Project: Laricina Energy Ltd – Germain Facility

(Nov 2014 – Aug 2015)
(GCDP Diluent Recovery System)

I designed instrumentation and control systems for a produced gas compressor skid, including instrument selection, datasheet preparation, and installation detail development. I performed control valve and flow measurement calculations and validated system configuration during factory acceptance testing. I evaluated commissioning test results and implemented corrective adjustments to ensure compliance with design specifications. All work was verified by a professional engineer.

WORK EXPERIENCE

Drakken Inc
Alberta (Canada)
Instrumentation Engineer
September 2015—November 2018

Verified by
Edgar Alexander Delgado Pabon
edelgado@liveigc.com

Experience Summary
Full-Time
Engineering: 3 years, 2 months
Experience under licensed engineer: None

TASKS

Instrumentation Specialist / EIT (Sep 2015 – May 2018)

1. I performed electrical and control system design under the supervision of a licensed professional engineer for industrial and hydrocarbon facilities.

2. I prepared engineering calculations, technical scopes, and design deliverables in accordance with ISA, CSA, and IEC standards.

3. I developed and modified P&IDs in accordance with ISA 5.1 and prepared instrument datasheets per ISA-20.

4. I performed control valve sizing, flow measurement calculations, and relief device sizing using ISA-75, API MPMS 14.3.3, and API-520.

5. I configured Basic Process Control Systems (BPCS) and Safety Instrumented Systems (SIS) logic in accordance with ISA-106 and IEC-61511.

6. I designed electrical cabling, grounding, and termination layouts and validated system performance during FAT and SAT.

Instrumentation Engineer, P.Eng. (May 31, 2018 – Nov 2018)

1. I designed electrical and control systems for industrial and hydrocarbon facilities applying control theory, electrical power principles, and functional safety engineering.

2. I developed control system architectures, PLC/DCS I/O assignments, panel layouts, loop diagrams, and cable schedules in compliance with ISA, IEC, and CSA standards.

3. I performed electrical load calculations including control panel power demand, breaker sizing, heat dissipation analysis, and UPS capacity verification in accordance with CSA C22.1 and IEC 61131-3.

4. I developed Safety Requirements Specifications (SRS) and designed Safety Instrumented Systems (SIS) including safety integrity allocation in accordance with IEC 61508 and IEC 61511.

5. I evaluated vendor submittals, approved technical documentation, and validated system performance during FAT, SAT, and SIT in accordance with IEC 62381.

6. I analyzed field nonconformances, performed root cause analysis, and implemented corrective engineering actions to validate as-built system performance.

REPRESENTATIVE PROJECTS

Petronas D18 Water Injection Platform – Offshore Sarawak, Malaysia

(Sep 2015 – May 2016)

I designed the electrical, control, and safety systems for an offshore water injection platform, including PLC/DCS integration

(Allen-Bradley PLC with DeltaV DCS). I developed control system architectures, power distribution drawings, loop diagrams, and SIL-2 Safety Instrumented System designs in accordance with IEC 61511. I performed power consumption, breaker sizing, processor loading, and heat dissipation calculations and validated system performance during FAT, SAT, and SIT.

ST1 Nordic & Strada Energy – Geothermal Well Drilling Handling System, Finland

(Jun 2016 – Dec 2016)

I designed the control system, Siemens SIMATIC PLC panel, VFD integration, MCC interface, and process instrumentation for a containerized geothermal drilling-mud-handling system. I developed panel layouts, I/O architectures, electrical bulk material takeoffs, and multi-cable transit (MCT) designs to segregate control, intrinsically safe, and power circuits. I performed system integration engineering between centrifuge and pump packages and validated control system performance during commissioning by calibrating instrumentation and tuning control valves.

DNO Tawke Field – Wellhead, CPF & Refinery Instrumentation Upgrades

(Jan 2017 – Apr 2017)

I evaluated existing instrumentation at wellhead, central processing facility, and refinery units and recalculated sizing to confirm compliance with revised process conditions. I developed decommissioning and upgrade plans, prepared installation drawings, and generated material take-offs to support field execution. I analyzed SIS and Fire & Gas system upgrade requirements and provided engineering recommendations to align with safety and operational standards.

Seven Generations Inc / GLE – Gold Creek GCU Dew Point Facility

(May 2017 – Sep 2017)

I designed instrumentation and control systems for a gas dew point control unit, including temperature, pressure, and flow measurement devices and associated control loops. I performed control valve sizing calculations and developed loop diagrams and interlock logic to maintain hydrocarbon dew point specifications. I validated IFC documentation for compliance with applicable gas processing standards prior to construction release.

AltaGas – Ridley Island Propane Export Terminal

(Jul 2017 – Mar 2018)

I designed instrumentation systems for propane storage and export facilities including custody transfer metering, pressure control, and overfill protection. I prepared cause-and-effect matrices to verify safe loading and unloading operations controls. I validated electrical and instrumentation IFC deliverables to ensure code compliance prior to fabrication.

Keyera – Wapiti Gas Plant Amine Sweetening & Condensate Stabilizer

(Mar 2018 – Nov 2018)

I designed instrumentation and control systems for amine sweetening and condensate stabilization units including analyzer integration and temperature control loops. I performed sizing calculations for flow, pressure, and relief devices and developed safety interlock schemes. I verified that IFC deliverables were compliant with ISA and CSA standards prior to construction.

WORK EXPERIENCE

Spartan Controls
Alberta (Canada)
Team Lead, Engineering
November 2018—December 2024

Verified by
Marcos Armando Villalobos
villalobos.marcos@spartancontrols.com

Experience Summary
Full-Time
Engineering: 6 years, 1 month
Experience under licensed engineer: 6 years, 1 month

TASKS

Instrumentation Engineer (Nov 19, 2018 – Mar 31, 2021)

1. I designed electrical, instrumentation, and control (E, I&C) systems for oil & gas, petrochemical, power generation, and utility facilities.

2. I performed instrument sizing, control valve sizing calculations, and low-voltage electrical load calculations to determine appropriate device selection and system capacity.

3. I developed detailed engineering design documents such as P&ID, Instrument Datasheets, loop sheets, control narratives and Electrical Drawings in compliance with IEC, ISA, CSA, NEC, API, and ASME standards.

4. I designed Safety Instrumented Systems (SIS) including SIL-rated instrumentation selection and interlock logic in accordance with IEC 61511.

5. I evaluated vendor submittals and technical specifications to confirm compliance with project and safety requirements.

6. I resolved field technical issues during FAT, installation, and commissioning by analyzing system behavior and implementing corrective engineering adjustments.

7. I designed Burner Management Systems (BMS), High Integrity Pressure Protection Systems (HIPPS), fuel gas systems, and analyzer sampling systems for industrial facilities.

Team Lead, Engineering (Apr 1, 2021 – Dec 31, 2024)

1. I provided technical engineering direction for multidisciplinary E, I&C, automation, and process design projects.

2. I reviewed engineering calculations, control system architectures, and safety system designs to confirm compliance with applicable codes and standards.

3. I designed and verified BMS upgrades in accordance with CSA B149.3 and NFPA 85 requirements and HIPPS systems in accordance with IEC 61511, including valve closure time validation and redundancy verification.

4. I approved analyzer sampling system designs, metering skid instrumentation, and renewable natural gas (RNG) station control systems.

5. I evaluated complex control strategies and safety system architectures to ensure functional integrity.

6. I served as an APEGA Responsible Member under the firm’s Professional Practice Management Plan (PPMP) and approved professional engineering work to verify adherence to engineering processes and quality control procedures.

REPRESENTATIVE PROJECTS

Coal-to-Gas Conversion – 1400 MW Power Generation Facility

(Nov 2018 – Aug 2020)

I designed gas inlet High Integrity Pressure Protection Systems (HIPPS), pressure regulation stations, line heaters, and odorization systems for the conversion of a 1400 MW coal-fired power plant to natural gas. I performed FEED and detailed engineering calculations including valve sizing, setpoint determination, and safety verification in accordance with applicable codes. I evaluated commissioning test data and implemented engineering adjustments to ensure safe integration into an operating power facility.

SIL-3 Burner Management System – Hydrogen Reformer (250 MMBtu/hr)

(Apr 2020 – Oct 2021)

I designed and integrated a SIL-3 Burner Management System (BMS) and fuel train for a 250 MMBtu/hr hydrogen reformer. I performed instrumentation and control valve sizing calculations, developed the Safety Instrumented System architecture in accordance with IEC 61511, and prepared cause-and-effect matrices and combustion control narratives. I analyzed HAZOP findings, implemented safety interlocks, and validated system performance during FAT and commissioning to confirm compliance with SIL requirements.

Hydrogen Blending System – SoCal Gas Hydrogen Home Microgrid

(Aug 2021 – Jun 2022)

I designed the control and safety system architecture for a hydrogen blending system supporting a DOE-funded clean hydrogen initiative. I performed SIL verification calculations, developed control logic for blending ratio management, and validated pressure and flow protection strategies. I reviewed and approved final engineering deliverables and verified commissioning results to confirm safe and reliable system operation.

Asset Performance Monitoring (APM RAW Program) – Suncor Base Plant & Syncrude

(Apr 2022 – Mar 2023)

I developed the instrumentation installation scheme and physical positioning strategy for Emerson vibration sensors on rotating equipment and for pressure and temperature transmitters on the heat exchangers across extraction, upgrading, and processing units. I determined optimal sensor placement, mounting orientation, signal routing, and hazardous area considerations to ensure accurate data acquisition for predictive maintenance applications. I designed the wireless communication architecture by selecting and positioning Emerson wireless gateways to enable reliable transmission of field data through Plantweb infrastructure for Suncor's Asset Performance Management (APM RAW) program.

TransMountain Liquid FAST Auto-Sampling System – Custody Transfer

(Feb 2023 – Dec 2023)

I designed a liquid quality auto-sampling system for custody transfer applications, specifying analytical instrumentation, sampling hardware, and control system interfaces to meet pipeline quality measurement requirements. I performed engineering calculations to size sample conditioning components, determined appropriate sensor locations and flow paths to ensure representative samples, and developed control logic parameters to integrate the auto-sampler with the process control system. I prepared technical drawings, instrument datasheets, and validated system performance criteria to confirm that the design complied with industry standards and custody transfer accuracy requirements.

Startup Heater Upgrade – Nutrien Redwater F903 (20 MMBtu/hr, CSA B149.3 Compliance)

(Jan 2024 – Dec 2024)

I designed the Burner Management System (BMS) and fuel gas control modifications required to convert a 20 MMBtu/hr multiburner startup heater to a single-burner configuration in compliance with CSA B149.3. I performed fuel gas valve sizing calculations, combustion air-to-fuel ratio evaluations, and revised safety interlocks, purge timing, and flame supervision logic to achieve compliant ignition sequencing and overfire protection. I conducted HAZOP reviews, performed SIL determination (SIL-D) and SIL verification (SIL-V) calculations in accordance with IEC 61511, developed updated cause-and-effect matrices, and validated burner performance during commissioning by analyzing flame stability and safety shutdown response.

WORK EXPERIENCE

Amazon Web Services
Virginia (United States)
Controls Manager
January 2025—March 2026

Verified by
Ahsan Masud
ahsmasud@amazon.com

Experience Summary
Full-Time
Engineering: 1 year, 2 months
Experience under licensed engineer: 1 year, 2 months

TASKS

As one of the Controls Managers for AWS (AMER region), I direct and provide technical leadership to a team of Controls Engineers and Controls Technicians responsible for deploying, commissioning, and maintaining Building Management Systems (BMS) and Electrical Power Monitoring Systems (EPMS) across hyperscale data center facilities.

1. I implement and track controls project engineering across concurrent deployment projects, monitoring milestone progress and reporting project status, risks, and performance outcomes to senior leadership.

2. I interview and assess engineering candidates for controls, mechanical, and electrical competency, develop launch plans for new hires, and identify the team's technical needs to maintain consistent execution quality.

3. I direct and guide my team in verifying the installation, configuring, and troubleshooting of BMS and EPMS providing technical oversight to ensure implementations meet AWS Basis of Design specifications and approved design intent.

4. I serve as a key stakeholder in the vendor award process for controls scope of work, evaluating technical proposals and directing vendor execution to ensure deliverables align with project requirements and AWS standards.

5. I support technical reviews of low-voltage electrical & control design documents, and datacenter HVAC systems, guiding my team in diagnosing equipment-related failures and determining corrective actions.

6. I ascertain operational and customer requirements, directing my team in translating those needs into project scope, technical specifications, and executable engineering actions within established design constraints.

7. I guide the review and approval of technical specifications and installation compliance assessments, directing engineers to resolve non-conformances with applicable electrical, technical, and operational standards.

8. I oversee Controls Technicians performing inspections, functional testing, and commissioning of BMS and EPMS systems, approving system readiness for handoff.

9. I coordinate programmatic technical changes/ updates internally and externally with construction, commissioning, and vendor teams to ensure on-time completion of projects within budget.

REPRESENTATIVE PROJECTS

Controls Technician Resource Planning Improvement – AMER Region

(Jul 2025 – Jan 2026)

I analyzed the workload distribution of Data Center Controls Technicians across multiple data center builds and compared resource allocation models across AMER regions to identify inconsistencies in BMS and EPMS deployment coverage. I developed a standardized task breakdown and Level of Effort (LOE) estimate for a baseline data center build, quantifying technical activities required in Industrial Water Buildings, electrical rooms, data halls, and HVAC installation areas. I implemented a pilot planning model to improve forecasting accuracy and used execution data to refine LOE estimates and align resources with key construction milestones.

Technical Guidance – IAD Controls Deployments (Aug 2025 – Present)

I provide technical review and engineering guidance for BMS and EPMS deployments across multiple IAD data center builds, totalling approximately 12 MW of capacity. I review control system design documents, vendor proposals, and the Scope of Work to verify compliance with AWS technical specifications prior to field execution.

When a design issue was identified in the liquid cooling monitoring system, I evaluated the engineer's proposed wiring configuration, determined that the leak detection sensors required a parallel configuration, and approved the revised design to prevent false alarms and communication faults. I also reviewed the change-order technical justifications for system-integrator scope adjustments and validated that the cost reductions maintained the required system functionality and reliability.

Mechanical

OMAR ABDELMONIEM ETMAN (19-361-65)

All work experience reviewed by two licensed professionals

DISCIPLINE: MECHANICAL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/31/2026

Citizenship
Saudi Arabia

SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
8 years, 8 months

Experience under licensed engineer
None

Disciplinary Action
None reported

EDUCATION

Meets NCEES Engineering Education Standard

Bachelors in Mechanical Engineering
Alexandria University
September 2009–June 2014

Masters in Mechanical Engineering
Alexandria University
March 2018–November 2023

WAIVER REQUEST: NRS 625.183(4)(B) “TWO OF THE 4 YEARS OF ACTIVE EXPERIENCE MUST HAVE BEEN COMPLETED BY WORKING UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER WHO IS LICENSED IN THE DISCIPLINE IN WHICH THE APPLICANT IS APPLYING FOR LICENSURE, UNLESS THAT REQUIREMENT IS WAIVED BY THE BOARD.”

EXAMS

Fundamentals of Engineering (FE)
EES
December 2019

Principles and Practice of Engineering (PE)
Mechanical
SCE
February 2026

LICENSES

Additional Licenses
None

OMAR ABDELMONIEM ETMAN (19-361-65)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Egyptian LNG
Al Buḥayrah (Egypt)
Rotating Equipment Engineer
July 2017—November 2023

Verified by
Mohammed Ahmed Mohammed Moustafa
Mohammed.moustafa@siemens-energy.com

Experience Summary
Full-Time
Engineering: 6 years, 4 months
Experience under licensed engineer: None

TASKS

I have extensive engineering experience in the operation, maintenance, and reliability of thermal and fluid systems within a large facility in the Oil and Gas industry. My role involved applying mechanical, thermodynamic, and fluid mechanics principles to ensure the safe, reliable, and efficient operation of rotating and fluid-handling equipment.
I provided engineering leadership for a wide range of equipment including gas turbines, turbo-compressors, centrifugal process gas compressors, turbo-generators, pumps, blowers, air compressors, diesel engines, and hydraulic power units. I developed and applied preventive and predictive maintenance engineering programs based on equipment operating principles, load conditions, degradation mechanisms, and failure modes.
My responsibilities included engineering troubleshooting of chronic machinery problems through thermodynamic performance evaluation, pressure and flow analysis, and mechanical failure assessment. I performed failure investigations using structured methodologies such as Root Cause Analysis (RCA) and Failure Direct Cause Investigation (FDCI), and issued engineering repair strategies and technical work instructions.
I participated in gas turbine Long-Term Parts Inspections (LTPI) for MS5002D units, evaluating findings related to compressor blades, dry gas seals, bearings, and gearboxes, and assessing their impact on performance, reliability, and operational risk. I also conducted machinery inspections and evaluated equipment condition against engineering standards and acceptance criteria.
In addition, I calculated machinery and plant reliability metrics, including availability and performance indicators, to support engineering decisions and eliminate recurring problem equipment (“bad actors”). I supported alarm management engineering by calculating alarm KPIs and identifying nuisance alarms affecting system performance.
I actively participated in Management of Change (MOC) and Process Safety Reviews (PSR), assessing mechanical, thermal, and fluid system impacts of proposed changes. Overall, my role required independent engineering judgment, application of thermal and fluid systems principles, and accountability for mechanical integrity and operational reliability.

REPRESENTATIVE PROJECTS

I was involved in many tasks any projects including, but not limited to, the following two critical projects, from production and safety prospective:

Project 1 – Firewater Pumps Performance Investigation and Failure Analysis and upgrading– (LNG Plant) [Idku/Egypt] (2018–2020):

The project involved diagnosing repetitive failures of all-plant fire pumps vertical multistage submerged centrifugal firewater pump serving the jetty firefighting system during LNG bunkering operations and Onshore horizontal pumps, for the onshore facility. The pump was critical for emergency response and was designed in accordance with NFPA 20 and NFPA 25 requirements. Annual failure costs were approximately $200,000, prompting a detailed engineering investigation into hydraulic performance, vibration behavior, and system dynamics.

My engineering role:
I measured and generated the pump performance curve using pressure–flow readings at multiple operating points and compared it with the vendor curve to determine deviations from acceptable NFPA codes limits.
I calculated suction and discharge head losses from the strainer located 14 m below sea level through the entire piping system and analyzed how the new suction strainer altered the system curve and pump operating point relative to BEP.
I analyzed vibration and resonance behavior of the pumping system, correlating mass changes from the larger strainer to shifts in the pump’s natural frequency.
On the maintenance side, I identified the failure modes, estimated failure costs, specified spare parts, and developed a maintenance strategy in line with vendor manuals and API 610 requirements.

Project 2 – Air Screw Compressor Overtemperature Trip Investigation and Cooling System Upgrade (LNG Plant) [Idku/Egypt] (2021–2023):

This project focused on recurrent high-discharge-temperature trips of multiple oil-flooded screw air compressors operating in parallel servicing Plant Instrument Air Network (8 main compressors). The scope included evaluating compressor performance under extreme ambient heat conditions, assessing intercooler effectiveness, and determining whether air cooling remained viable under rising temperatures due to climate change.

My engineering role:

I analyzed historical alarm and performance trends (pressure, temperature, flow, and ambient data) to determine when and why trips occurred.
I conducted field performance testing during heat waves, recording compressors and intercooler parameters.
I calculated intercooler thermal approach and compared it to design values, identifying degradation in heat transfer performance.
I compared performance between parallel compressors in the same air network to benchmark healthy versus problematic units.
I supported maintenance by specifying spares, developing maintenance plans per vendor recommendations, and evaluating cooler performance after coolers cleaning and major overhauls.
I recommended converting from air cooling to water cooling and reducing discharge pressure, which lowered discharge temperature based on polytropic compression relationships and improved reliability in high ambient temperatures above 35°C.

WORK EXPERIENCE

John Crane, Saudi Arabia
Eastern Province (Saudi Arabia)
Technical Support Engineer
November 2023—March 2026

Verified by
Antony george Augustine
Antonygeorge.Augustine@johncrane.com

Experience Summary
Full-Time
Engineering: 2 years, 4 months
Experience under licensed engineer: None

TASKS

I provide technical engineering support for mechanical seals and associated auxiliary systems used in pumps, compressors, mixers, and agitators operating in thermal and fluid service. My responsibilities require the application of fluid mechanics, thermodynamics, heat transfer, and rotating equipment principles to ensure safe, reliable, and efficient operation.
I participate in the installation, commissioning, repair, and replacement of mechanical seals, providing engineering oversight to verify compliance with design requirements, operating envelopes, and applicable API standards. During major overhauls and shutdowns, I supervise seal installation activities and verify alignment, flushing arrangements, and auxiliary system functionality to ensure proper integration with the equipment and process.
I conduct site surveys to evaluate seal system performance and overall equipment condition, analyze operating data and field measurements, and identify deviations from design intent. Based on these evaluations, I recommend seal upgrades or design modifications to improve reliability, increase mean time between failures (MTBF), and reduce downtime.

I act as a technical liaison between end users and OEM engineering and design teams, translating operational challenges into engineering requirements and supporting design optimization. I support product selection, application engineering, and proposal development for seal retrofits by evaluating process conditions, pressures, temperatures, and fluid properties to recommend appropriate sealing solutions.
While investigating recurring (“bad actor”) mechanical seal failures, I perform detailed engineering calculations related to seal performance, including leakage rates, heat generation, and flushing and cooling requirements. This analysis is supported by field measurement and evaluation of pressure and temperature readings across the seal and auxiliary systems, along with a full assessment of the operating fluid properties. Based on these analyses, I evaluate and size the required auxiliary thermal and fluid systems to ensure proper pressure, flow, heat removal, and reliable seal operation.

REPRESENTATIVE PROJECTS

My professional experience includes multiple projects involving the performance assessment, troubleshooting, and retrofit design of thermal and fluid systems associated with rotating equipment. Two representative projects are summarized below to illustrate my progressive engineering responsibility and application of thermodynamics and fluid mechanics.

The first project involved investigating recurring mechanical seal failures across approximately sixty centrifugal pumps operating in hot service. A common failure pattern was observed, where seal damage occurred immediately after pump shutdown and during the cooldown period. An engineering investigation was initiated to assess the thermal and hydraulic behavior of the pumps, mechanical seals, and associated seal support systems during transient operating conditions.

The study focused on collecting and analyzing field data, including pressure, temperature, and flow measurements for the pump, mechanical seal, and seal support system shell-and-tube cooler during shutdown and cooldown. The objective was to evaluate whether the cooling water flow rate was sufficient to remove the combined heat load generated by seal face friction and heat transfer from the pumped process fluid. Analysis of the measured data indicated inadequate heat removal, as evidenced by rising cooling water outlet temperatures during the cooldown phase.

My role in this project included collecting site operating data and performing an engineering assessment of the shell-and-tube cooler performance. I measured inlet and outlet temperatures and pressures for both the process and cooling water sides and compared the actual thermal performance with allowable cooling water temperature rise limits. Based on the measured cooldown rate and operating conditions, I calculated the seal heat load and determined the required cooling water flow rate to maintain acceptable seal temperatures. I also evaluated fouling effects and recommended cleaning of the cooler to improve heat transfer efficiency. These engineering actions reduced seal failures and improved equipment reliability.

The second project involved retrofitting the mechanical seal systems of six “bad actor” pumps that experienced frequent seal failures. This project required a more advanced level of engineering involvement, including system redesign and implementation. I conducted a comprehensive field survey, measuring pump pressures, flows, and temperatures, and assessing the overall performance of the existing sealing and support systems.

Following evaluation of the operating conditions and failure mechanisms, I supported the selection of an alternative seal design suitable for the service. I performed engineering calculations to determine seal leakage rates, heat generation, required flushing flow, and required cooling capacity. Based on these calculations, I participated in the design of a new seal support system, including selection of a circulating pump, verification of required flow rate against pump performance curves, and sizing of the heat exchanger. Cooling options were evaluated, and either air or water cooling was selected based on calculated heat load and site conditions.

Finally, I defined the recommended operating pressure, temperature, and flow parameters required for reliable seal operation and supported implementation of the retrofit. Post-implementation monitoring confirmed improved seal performance and reduced failure frequency.

ADDITIONAL INFORMATION

TIME GAPS

Start Date	End Date	Explanation
July 2014	June 2017	In Egypt I had to go through a mandatory military service from October 2014 to March 2016. From March 2016 to July 2017, was consumed in many interviews and opportunities seeking which ended with a fulltime job in Egyptian LNG, my first employer.

ANASS HARMAL (23-980-75)

All work experience reviewed by two licensed professionals

DISCIPLINE: MECHANICAL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/13/2026

Citizenship
Morocco

SUMMARY

Engineering Experience after EAC degree

Total Engineering Experience
2 years, 7 months

Experience under licensed engineer
2 years, 7 months

Other Experience
4 years

Disciplinary Action
None reported

EDUCATION

Meets NCEES Engineering Education Standard

Bachelors in Civil Engineering
École nationale supérieure d'arts et métiers - ENSAM
September 2014–July 2019

Doctorate in Civil Engineering
Worcester Polytechnic Institute
August 2019–August 2023

EXAMS

Fundamentals of Engineering (FE)
Massachusetts
February 2025

Principles and Practice of Engineering (PE)
Mechanical
Nevada
February 2026

LICENSES

Additional Licenses
None

ANASS HARMAL (23-980-75)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Worcester Polytechnic Institute
Massachusetts (United States)
Research Assistant
August 2019—August 2023

Verified by
Tahar El-korchi
tek@wpi.edu

Experience Summary
Full-Time
Other: 4 years
Experience under licensed surveyor: None

TASKS

As part of my Ph.D., my role as a research assistant consisted of reviewing literature to determine the state of the art in structural composite design, formulate novel concepts to synthesize new composites. Once the concepts are reviewed, I proceeded to generate composites based on 3D printing and cast in place geopolymer. Following the composite cure, I tested the mechanical performance of the generated composites using a universal testing machine and tracked the deformation of the samples using a camera and computed the video to generate digital image correlation (DIC) strain graphs. I analyzed the results of the strength and strain results, then proceeded to select significant samples to analyze their microscopic features. I prepared the samples using grinding and polishing, then looked at the samples under an optical microscope. I tested the fracture of the samples at micro scale using a micro hardness indenter. Finally, I used the scanning electron microscope to analyze the micro scale at a higher depth of field and generate chemical distribution maps within the macroscope using the electron dispersive spectroscope. I have also experimented with X-ray methods such as XRD to determine the chemical composition of the elements of the composite as well as computed tomography to analyze the uniformity of the composite and the crack distribution within the core of the composite.
Additionally, I worked with computer methods to simulate the mechanical performance of the synthesized composites and explore large sets of new combinations, not economically feasible by experimentation alone. I used Abaqus, Ansys, MathLab, and a custom code using LAMMPS.

REPRESENTATIVE PROJECTS

I have contributed to two main projects geared towards developing high toughness geopolymer composites. Geopolymer is an ecofriendly alternative to traditional cements, reducing carbon emissions by up to 80%. It however suffers from low toughness. These two projects examined the state of the art in tough composites and aimed to generate the highest toughness possible. The first project, in which I was the main investigator, focused on looking at tough natural structures, such as seashells, trees, and bones, understanding the mechanisms that contributed to making them tough materials. Once I reviewed literature to examine the toughness mechanisms, I proceeded to use that knowledge in the synthesis of composites that had high probability of exceeding the baseline toughness as well as toughness of existing composites. I synthesized these composites by 3D printing a scaffold that I generated in CAD. These scaffolds were then cast in place. I conducted the investigation of their mechanical performance, chemical composition and micromechanical properties. This project generated composites almost three orders of magnitude tougher than the base material while preserving or increasing strength.
In the second project, I had contributed to reviewing and experimenting on geopolymer composites using microscopic fibers and cellulose nanocrystals. The fibers were added as a traditional addition to take most of the tension stresses. We discovered that adding the cellulose nanocrystals increased the reaction of the geopolymer, especially around fibers, which ended up generating composites two orders of magnitude tougher than the base material. In this project, I have tested the mechanical performance of the composites, reviewed my colleagues' work on the analysis of the collected data, and investigated the samples using optical and electron microscopes. These two projects have yielded two publications with 60 citations to date.

As part of my role, I also contributed to teaching structural engineering and project management classes to undergraduate students.

WORK EXPERIENCE

Simpson Gumpertz & Heger (SGH)
Massachusetts (United States)
Project Consultant
August 2023—March 2026

Verified by
Robert Andrew MacNeill
ramacneill@sgh.com

Experience Summary
Full-Time
Engineering: 2 years, 7 months
Experience under licensed engineer: 2 years, 7 months

TASKS

I currently hold a project consultant position at SGH, working in the engineering mechanics and infrastructure department. My tasks and duties include performing structural analyses, designing new structures and repairs of existing structures, conducting field inspections, taking part in research projects, and conducting engineering calculations using software. My job duties extend to participating in failure investigations, organizing and running laboratory investigations, using visual inspection, microscopy, spectroscopy, and mechanical testing to determine root causes of failure. I also participate in preparation of proposals, letters, reports, calculations, drawings, specifications, budgeting, scheduling, and client communication.

REPRESENTATIVE PROJECTS

- Corrosion research on offshore platforms, Waltham, MA. (09/2023 - 06/2024)
This large research project had the objective of generating a non-destructive mean of identifying high risk gratings on offshore platforms. Given the difficulty to obtain gratings from offshore platforms at uniform and varying degrees of corrosion, I was tasked with the generation of corroded grating assemblies and test them using a non-destructive approach at different levels of corrosion. I purchased gratings in line with the ones used in the offshore industry and formed assemblies using fasteners to wide beams to harness crevice corrosion similar to on-site conditions. I then focused on designing a corrosion chamber based on ASTM B-117 and contributed to fabricating a salt fog chamber with a pumping and misting system to simulate a highly corrosive marine environment. During the course of the project, I maintained the chamber, modified the misting setup to optimize its operation, periodically got the gratings out of the chamber and executed detailed thickness measurements to assess the extent of corrosion, then helped conduct non-destructive measurements to obtain the natural frequency of the gratings and compare to the as-built (non-corroded) gratings. I was able to attain approximately 25% section loss within the timeframe allowed for the project.

- Carbon Fiber Reinforced Polymer (CFRP) Composite Design and Implementation, ten pipelines across the US. (01/2024 - Present)
This is a set of projects consisting of assessing existing pipelines, studying non-destructive testing (NDT) results to determine their level of degradation (corrosion, wire break for prestressed concrete, impact damage), selecting areas in need of repair, designing and implementing CFRP repairs.
Based on as built drawings, NDT data, and on-site inspection, I generate CFRP design based on AWWA C305-24. If CFRP is the most convenient or most economical solution, I move forward with generating drawings for the required layup to satisfy the design calculations, I include special details for special parts of the pipeline such as manholes, outlets, reducers, and terminations. When the repair pipeline is dewatered, I inspect the initial condition, inspect the surface preparation (steel surface based on SSPC surface profile and concrete surface based on ICRI concrete surface profile), I keep track of material temperatures and pipeline temperatures during the layup, inspect the repair and prescribe modifications when applicable, and test final layer for cure using differential scanning calorimetry prior to releasing the repair pipeline to the owner.

- Failure investigation of Chlorinated Polyvinyl Chloride (CPVC) part (03/2025 - 01/2026), Waltham, MA.
This project was focused on the study of the unexpected failure of a specific connector in a CPVC piping system.
I have received multiple samples where the same part in different locations have failed. I have started by visually inspecting the samples, documenting the fracture surface and the surrounding area using a camera. I noted important information such as discoloration on the samples, date of manufacturing and other markings. I inspected the fracture surface using a stereomicroscope, selected areas of interest, then methodically documented details of the fracture surfaces using a digital microscope. I further inspected the fracture surfaces using a scanning electron microscope to get micrographs with better depth of field and more resolution at higher magnification and also obtained scans of chemical composition using energy dispersive spectroscopy (EDS). During this process, I took note of cracking locations and direction of cracks and fracture surface patterns. Following this documentation effort, I have ordered Fourier Transform InfraRed spectroscopy (FT-IR), gas chromatography-mass spectrometry (GC-MS). I assessed the results of these tests and was able to confirm the composition of the parts and identify potential chemicals that may have contributed to the failure. I further extracted samples (that have not failed) from the existing

system and was able to mechanically load them using hydrostatic pressure, torque test them using a calibrated torque wrench, and flatten test them using a universal testing machine. Following this testing, my team and I were able to analyze the results, Identify the failure mechanism, which was environmental stress cracking, and determine the likely chemical compounds that were responsible for the occurrence of this unexpected failure.

JONATHAN RAMIREZ-HERNANDEZ (19-647-10)

All work experience reviewed by two licensed professionals

DISCIPLINE: MECHANICAL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/10/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
7 years, 2 months

Total Engineering Experience
7 years, 2 months

Experience under licensed engineer
7 years, 2 months

Disciplinary Action
None reported

EDUCATION

Bachelors in Mechanical Engineering (EAC)
Minnesota State University, Mankato
August 2010–July 2018

EXAMS

Fundamentals of Engineering (FE)
Minnesota
November 2018

Principles and Practice of Engineering (PE)
Mechanical
Nevada
August 2025

LICENSES

Additional Licenses
None

JONATHAN RAMIREZ-HERNANDEZ (19-647-10)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Dunham Associates
Minnesota (United States)
Mechanical Engineer
January 2019—February 2025

Verified by
Thomas Erling Jackson
thomas.jackson@dunhameng.com

Experience Summary
Full-Time
Engineering: 6 years, 1 month
Post EAC degree: 6 years, 1 month
Experience under licensed engineer: 6 years, 1 month

TASKS

In the 6 years I spent at Dunham Associates as a mechanical engineer I was responsible for designing hvac, plumbing and hydronic systems. I worked on projects across multiple states, in commercial and healthcare buildings including offices, high rise buildings, hospitals, nursing homes, and workout facilities. My key tasks were as follows:
System design and load calculations:
-Performed heating and cooling load calculations to aid in determining system requirements
-Designed HVAC systems including air distribution systems, ductwork sizing, equipment selection, hydronic systems, and pipe sizing.

Code compliance:
-Ensured all designs and installations complied with relevant codes (ICC, IAPMO etc), and standards (ASHRAE 90.1, 62.1, 170, FGI)
-Prepared and submitted comprehensive design reports, calculations, and permit applications to local authorities for approval.

Project management:
-Maintained regular communication between architects, structural engineers and electrical engineers to ensure a coordinated design
-Reviewed and approved contractor submittals, shop drawings and material specification to ensure proper installation and compliance with the design intent.
-Communicated with client to provide project updates, technical advice and solutions to issues during system design and installation.

Surveying (less than 1% of time):
-Performed pre project site assessments to determine scope
-Performed site visits at construction milestones to ensure proper installation and compliance with design intent.

REPRESENTATIVE PROJECTS

Life Time Fitness, Chicago (2019-2020):
I worked on the HVAC system design for the Life Time Fitness facility in Chicago, IL, a 126,000-square-foot high-rise project spanning two floors of a mixed-use building. The facility included diverse spaces such as workout areas, a multi-use pool, a spa, a kitchen, a dining area, and office spaces, each with unique climate control and ventilation requirements. As an HVAC engineer, I was responsible for performing detailed load calculations to determine heating and cooling demands, selecting appropriate equipment to meet energy efficiency and performance goals, and designing air distribution and hydronic systems tailored to the complex layout. My work products included comprehensive design drawings, equipment specifications, and system layouts integrated through Building Information Modeling (BIM) to ensure seamless coordination with architectural and structural teams.

Minnesota Health Fairview (2020-2021)
I contributed to the renovation of a 10,000-square-foot hospital floor at Minnesota Health Fairview located in Minneapolis, MN, transforming the space into isolation rooms in response to the COVID-19 pandemic. As an HVAC and plumbing engineer, I was tasked with designing systems critical to maintaining safe and controlled environments for patient isolation. My responsibilities included verifying existing conditions of the floor to ensure accurate design integration, performing load calculations to determine heating, cooling, and ventilation needs, and designing both the air distribution, prioritizing negative pressure environments in isolation rooms to prevent cross-contamination, and hydronic systems to meet stringent health and safety standards.

Paramount Nickelodeon (2021-2022)

I served as the lead mechanical engineer for a tenant improvement project at Paramount Nickelodeon, located in Minneapolis, MN, focusing on the redesign of an office space to meet modern operational and comfort standards. My role encompassed verifying as-built conditions, conducting load calculations to assess HVAC demands, and designing air distribution, hydronic distribution, and plumbing systems tailored to the office layout, and tailoring the master specifications to this project. I also performed construction administration duties, including reviewing submittals and compiling the final punch list to ensure quality and compliance.

Sanford MOB (2021-2023)
I worked on the design of the Sanford Medical Office Building (MOB), located in Sioux Falls, SD, a multi-floor healthcare facility that included four floors of parking garage, requiring a sophisticated HVAC system to serve diverse medical and parking spaces. As an HVAC engineer, I designed the air distribution system, sized ductwork for optimal airflow, engineered the hydronic system, and determined piping sizes to support chillers, fan coil units (FCUs), variable air volume (VAV) systems, and finned tube radiation along the perimeter. I also selected FCUs and assisted in air handling unit (AHU) selections to ensure system efficiency and compatibility.

Westonka Library (2023-2025)
I contributed to the design of the Westonka Library located in Mound, MN, a new net-zero energy building that leveraged innovative technologies like ground source heat pumps and a dedicated outdoor air unit to achieve sustainability goals. As an HVAC and plumbing engineer, I performed load calculations to establish system requirements, designed the air distribution system for efficient airflow, and collaborated closely with the client and architect to create a layout that balanced technical needs with aesthetic considerations. I also designed the plumbing system, including drain tile for underground ductwork, selected fixtures, and sized and specified the water heater to meet facility demands.

JONATHAN RAMIREZ-HERNANDEZ (19-647-10)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Tesla, Inc
Nevada (United States)
Facilities Mechanical Design Engineer
February 2025—March 2026

Verified by
Drew Hulse
drhulse@tesla.com

Experience Summary
Full-Time
Engineering: 1 year, 1 month
Post EAC degree: 1 year, 1 month
Experience under licensed engineer: 1 year, 1 month

TASKS

The past year at Tesla as a facilities mechanical design engineer I was responsible for designing hvac, plumbing and hydronic systems. I worked on projects that helped sustain, operate, and optimize the battery facility. My key tasks are as follows:
-Perform heating and cooling load and ventilation calculations to aid in determining system requirements.
-Design HVAC systems including air distribution systems, ductwork sizing, equipment selection, hydronic systems, compressed air systems, and pipe sizing.
-Provide plumbing designs that involve an engineered vacuum waste system.
-Support facilities operational
-Manage high quality BIM (REVIT) models, engineering drawings, and PIDs for all mechanical systems
-Coordinate design with structural engineers, electrical engineers, controls engineers, architects and construction team.
-Collaborate with tool line owners to determine requirements.
-Develop project details, prepare selections, and adapt to alternatives
-Perform field walks, write field reports, answer RFIs and develop as-built drawings

REPRESENTATIVE PROJECTS

Bluebird Project (2025): I contributed to the Bluebird Project, a renovation of a 32,000-square-foot manufacturing space in Sparks, NV, to accommodate a new product line for Tesla. The project involved integrating several welding machines that required specialized exhaust systems, as well as sensitive equipment demanding precise temperature, humidity, and air quality control. As the mechanical engineer, I was responsible for verifying existing conditions of the area to ensure seamless design integration, performing detailed load calculations to assess heating, cooling, and ventilation requirements, and sizing and selecting fan coil units (FCUs) and exhaust fans, designing both air distribution and hydronic distribution systems. A critical contribution I made was addressing a construction oversight that threatened project timelines; I swiftly designed a temporary HVAC system to maintain operational continuity and subsequently redesigned the permanent system to adapt to the unexpected change in resources, preventing delays.

JARED WALKER (18-966-27)

All work experience reviewed by two licensed professionals

DISCIPLINE: MECHANICAL

GENERAL

Applying To
Nevada

Application Type
Initial - PE

Application Date
03/24/2026

Citizenship
United States

SUMMARY

Engineering Experience after EAC degree
4 years, 6 months

Total Engineering Experience
4 years, 6 months

Experience under licensed engineer
4 years, 6 months

Other Experience

Disciplinary Action
None reported

EDUCATION

Bachelors in Mechanical Engineering (EAC)
University of Nevada, Reno
August 2014–May 2018

EXAMS

Fundamentals of Engineering (FE)
Nevada
October 2022

Principles and Practice of Engineering (PE)
Mechanical
Nevada
February 2026

WAIVER REQUEST: NRS 625.183(4)(B) “TWO OF THE 4 YEARS OF ACTIVE EXPERIENCE MUST HAVE BEEN COMPLETED BY WORKING UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER WHO IS LICENSED IN THE DISCIPLINE IN WHICH THE APPLICANT IS APPLYING FOR LICENSURE, UNLESS THAT REQUIREMENT IS WAIVED BY THE BOARD.”

LICENSES

Additional Licenses
None

JARED WALKER (18-966-27)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

P J Becker & Sons Construction
Nevada (United States)
Jr. Superintendent
September 2018—September 2021

Verified by

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor: None

DESCRIPTION

WORK EXPERIENCE

The Accident Expert
Nevada (United States)
Engineering Analyst, EIT
September 2021—March 2026

Verified by
Gary Alan Presswood
crash@accidentexpert.com

Experience Summary
Full-Time
Engineering: 4 years, 6 months
Post EAC degree: 4 years, 6 months
Experience under licensed engineer: 4 years, 6 months

TASKS

Working under the direction of Dr. Gary A. Presswood, ScD, PE, I've performed forensic engineering analyses on various litigated matters across multiple states. Work includes investigating mechanical failures, vehicle collisions, premises liability, construction defects, structural issues, wrongful deaths, equipment-related incidents, etc. demonstrating the complexity and engineering judgment required in evaluating such incidents.

Responsibilities include conducting site and vehicle inspections, documenting/preserving evidence, performing engineering evaluations, generating 3D models/animations, and preparing reports and rebuttals for attorneys. Engineering principles such as statics, dynamics, and mechanics of materials are applied to evaluate incidents and identify causes of failure. Analyses often assess compliance with applicable laws, codes, and standards including the UBC, IBC, ASTM, ANSI, ADA and NRS.

Mechanical/Product Failure: Responsibilities include evaluating manufacturing defects, component and material failures, performing stress analyses, beam deflection and moment calculations, and combined loading evaluations. Failures of fasteners, welds, truss components, and load bearing products (e.g., chairs and ADA compliant wall-mounted shower seats) have been analyzed using engineering principles and load assumptions.

Accident Reconstruction: Applying engineering/physics principles to determine collision dynamics and crash severity are typical of my technical functions. This includes conducting vehicle and scene inspections, analyzing EDR data, performing conservation of energy and momentum calculations, determining pre-impact speeds, perception/reaction times, "skid to stop" calculations, time/distance analyses, and documenting traffic signal patterns.

Premises Liability: My technical duties include evaluating building, engineering and site plans, site design, ramp and stairway design/construction, inspection/maintenance procedures, code-compliance, slip-resistance testing, and illuminance measurements. Potential/kinetic energy calculations are often performed for falling objects such as bolts and signs.

My technical responsibilities have progressively increased from assisting with data collection/review, to independently conducting inspections, performing complex engineering analyses, preparing reports, providing sworn deposition testimony, and making engineering decisions regarding methodology, analytical approaches, and interpretation of results. Additionally, I often travel independently to conduct remote investigations.

REPRESENTATIVE PROJECTS

Since Sept. 2021, my responsibilities have increased significantly in performing forensic engineering analyses. The following select projects demonstrate the complexity of work I've performed, and the engineering judgment required in evaluating various litigated incidents.

Mechanical Failure Analysis (Las Vegas, Nevada, Feb 2026)

A chair failure at a casino was analyzed through inspection of exemplar units, the failed chair components, and fracture characteristics of the subject fasteners. Specified fastener grades were reviewed, and proof, yield, and ultimate load capacities were calculated using published mechanical properties. Stress analysis incorporating representative human loads indicated that properly torqued fasteners subjected to anticipated forces would not have exceeded allowable stresses.

Inspection revealed the subject chair had previous repairs, and contained Grade 5 bolts not included within manufacturer specifications. My analysis revealed improper torque of the bolts during post-repair assembly allowed the fasteners to experience bending and shear stresses, resulting in crack initiation and fatigue failure.

Engineering judgment and mechanics of materials principles were applied to evaluate whether the failure resulted from manufacturing defects, inadequate inspection/maintenance procedures, or improper installation.

Accident Reconstruction (Las Vegas, Nevada, Oct 2025)

A two vehicle collision was analyzed through a site inspection, documentation of traffic signal patterns, evaluation of sight obstructions, vehicle damage assessment, and review of GPS speed data. Police reports, scene measurements, and applicable Nevada Revised Statutes pertaining to right of way and driver conduct were incorporated into the analysis.

Perception/reaction time and stopping distance evaluations were performed in addition to “skid to stop” calculations. Time, distance, and speed relationships were used to validate vehicle positions. A technical expert report summarized methodology and calculations pertaining to collision dynamics and causation, which was supported by multiple photo exhibits illustrating vehicle positions, timing, and critical distances. A supplemental report addressed issues raised during deposition testimony, where I was subsequently deposed regarding methodology and calculations.

Falling Object Analysis (Las Vegas, Nevada, Sept 2025)

In an incident involving various objects thrown from an elevated hotel guest room, projectile motion, potential and kinetic energy, and landing distances were evaluated relative to pedestrian areas below. Aerial site measurements and principles of dynamics were used to determine potential impact zones and assess foreseeable exposure to guests. Kinematics principles and engineering judgment were applied to evaluate risk pertaining to specified guest areas within the development.

Accident Reconstruction (Las Vegas, Nevada, Dec 2024)

A three vehicle collision was evaluated through inspection of subject vehicles, documentation of damage and crush deformation, and analysis of limited EDR data. A site inspection and LiDAR scanning were performed to record critical site elements. A decorative boulder involved in the collision was scanned to capture its dimensions and estimate its mass for use in momentum and energy calculations.

Police reports, photographs, scene measurements, and statements were reviewed. Perception/reaction time and braking distance analyses were performed, along with work energy and conservation of momentum calculations to estimate vehicle speeds based upon collision angles, friction, and post-collision rest positions. A technical report summarized findings, calculations, and conclusions regarding collision dynamics and causation, and an animation was generated to illustrate the sequence of events.

Coefficient of Friction Evaluation (Las Vegas, Nevada, Aug 2023)

A slip and fall incident during an event at a large arena was evaluated through a site investigation, which included an evaluation of the subject surface’s slip-resistant properties. A series of slip-resistance tests were performed in order to determine the static coefficient of friction of the floor, and results were compared to wet conditions. A technical report and subsequent supplemental report were prepared.

In order to evaluate the relative safety of the walkway, findings were compared to industry standards and widely accepted minimum values of slip-resistance. Physics principles and engineering judgment were applied in order to assess adequate pedestrian walkway conditions and foreseeable hazards.

Glass Door (Las Vegas, Nevada, Jan 2022)

A large shattered glass door at a casino was evaluated to determine whether expected forces from guests may have caused failure. Beam deflection and load calculations were performed and compared to pertinent material properties. Push/pull conditions, installation quality, and potential manufacturing defects were assessed. Mechanics of materials principles and engineering judgment were applied in order to evaluate the subject door, installation, and likely cause of failure.

5. NAC 522,
LCB File No. R052-25

STATE OF NEVADA
COMMISSION ON MINERAL RESOURCES
DIVISION OF MINERALS
400 W. King Street, Suite 106
Carson City, Nevada 89703
(775) 684-7040 • Fax (775) 684-7052
http://minerals.nv.gov/

JOE LOMBARDO
Governor

Las Vegas Office:
375 E. Warm Springs Rd. #205, Las Vegas, NV 89119
Phone: (702) 486-4343; Fax: (702) 486-4345

ROBERT GHIGLIERI
Administrator

NOTICE OF INTENT TO ACT UPON A REGULATION

Notice of Hearing for the Amendment of Regulations under the Commission on Mineral Resources, as proposed in LCB File No. R052-25

The Commission on Mineral Resources will hold a public hearing at 10:00 a.m., on the 19th day of February 2026, at the following locations:

Physical Location: **Legislative Counsel Bureau, Legislative Hearing Rooms**
7120 Amigo St.
LV Committee Room 3
Las Vegas, NV 89119

Virtual Meeting Access:
The meeting may be viewed electronically through an internet connection by accessing the following link:

https://www.youtube.com/watch?v=ASW1HdnKmOk
To provide comment, please dial by phone: 888-475-4499 Meeting ID: 850 1443 6220

Hearing Information:

The purpose of the hearing is to receive comments from all interested persons regarding the amendment of regulations that pertain to chapter 522 of the Nevada Administrative Code.

The following information is provided pursuant to the requirements of NRS 233B.0603:

1. **The need for and the purpose of the proposed regulation or amendment.**

   The need for and purpose of the proposed amendment is to update technical references that pertain to oil and gas well drilling and completion and streamline, clarify, reduce or otherwise improve oil and gas regulations.

2. **For a temporary regulation, the terms or the substance of the proposed regulation to be adopted, amended or repealed, or a description of the subjects and issues involved.**

   This regulation is not a temporary regulation; it is a permanent regulation.

3. **For a proposed regulation, a statement explaining how to obtain the approved or revised text of the proposed regulation.**

A copy of this notice and the regulation to be amended will be on file at the State Library, Archives and Public Records, 100 Stewart Street, Carson City, Nevada, for inspection by members of the public during business hours. Additional copies of the notice and the regulation to be adopted, amended, and/or repealed will be made available at the Nevada Division of Minerals, 400 W. King St. #106, Carson City, NV 89703, and at the Nevada Division of Minerals Las Vegas Office, 375 E. Warm Springs Rd. #205, Las Vegas, NV 89119, for inspection and copying by members of the public during business hours, and on our website at minerals.nv.gov.

4. **The estimated economic effect of the regulation on the business which it is to regulate and on the public.**

   There are no estimated immediate or long-term economic effects on regulated small businesses.

5. **The methods used by the agency in determining the impact on a small business.**

   The agency solicited comments on the potential effects of the regulation by emailed survey to oil and gas producers within the state and through public comment during a public workshop held on 8/26/25 at the Nevada State Legislature Building, 401 South Carson Street, Carson City, NV 89701.

6. **The estimated cost to the agency for enforcement of the proposed regulation.**

   There is no estimated additional cost to the agency for enforcement of the proposed regulation.

7. **A description of and citation to any regulations of other state or local governmental agencies which the proposed regulation overlaps or duplicates and a statement explaining why the duplication or overlapping is necessary. If the proposed regulation overlaps or duplicates a federal regulation, the notice must include the name of the regulating federal agency.**

   The proposed regulation does not overlap or duplicate any known federal, state or local government agency regulations.

8. **If the regulation is required pursuant to federal law, a citation and description of the federal law.**

   The proposed regulation is not required pursuant to federal law.

9. **If the regulation includes provisions which are more stringent than a federal regulation that regulates the same activity, a summary of such provisions.**

   The proposed regulation is not more stringent than any known federal regulation that regulates the same activity.

10. **Whether the proposed regulation establishes a new fee or increases an existing fee.**

    The proposed regulation does not establish a new fee or increase an existing fee.

11. For a temporary regulation, each address at which the text of the regulation may be inspected and copied.

This regulation is not a temporary regulation; it is a permanent regulation.

Persons wishing to comment upon the proposed action of the Commission on Mineral Resources may appear at the scheduled public hearing or may address their comments, data, views, or arguments, in written form, to Nevada Division of Minerals, 400 W. King St. #106, Carson City, NV 89703, or by email at ndom@minerals.nv.gov. Written submissions must be received by the Division of Minerals on or before 7:00 AM on the date of the public hearing. If no person who is directly affected by the proposed action appears to request time to make an oral presentation, the Division of Minerals may proceed immediately to act upon any written submissions.

A copy of this notice and the regulation to be adopted, amended, and/or repealed will be on file at the State Library, Archives and Public Records, 100 Stewart Street, Carson City, Nevada, for inspection by members of the public during business hours. Additional copies of the notice and the regulation to be adopted, amended, and/or repealed will be available at the Nevada Division of Minerals, 400 W. King St. #106, Carson City, NV 89703, and at the Nevada Division of Minerals Las Vegas Office, 375 E. Warm Springs Rd. #205, Las Vegas, NV 89119, for inspection and copying by members of the public during business hours, and on our website at minerals.nv.gov. This notice and the text of the proposed regulation are also available in the State of Nevada Register of Administrative Regulations, which is prepared and published monthly by the Legislative Counsel Bureau pursuant to NRS 233B.0653, and on the internet at http://www.leg.state.nv.us/. Copies of this notice and the proposed regulation will also be mailed to members of the public at no charge upon request.

Upon adoption of any regulation, the agency, if requested to do so by an interested person, either before adoption or within 30 days thereafter, shall issue a concise statement of the principal reasons for and against its adoption and incorporate therein its reason for overruling the consideration urged against its adoption.

This notice of hearing has been posted at the following locations:

- Nevada Division of Minerals, 400 W. King St. #106, Carson City, NV 89703
- Nevada Division of Minerals, 375 E. Warm Springs Rd. #205, Las Vegas, NV 89119
- Capitol Building, 101 North Carson Street, Carson City, NV 89701
- On the Internet at: http://minerals.nv.gov and https://notice.nv.gov

PROPOSED REGULATION OF THE

DIVISION OF MINERALS OF THE

COMMISSION ON MINERAL RESOURCES

LCB File No. R052-25

October 27, 2025

EXPLANATION – Matter in ***italics*** is new; matter in brackets **[**~~omitted material~~**]** is material to be omitted.

AUTHORITY: §§ 1-10, NRS 522.040.

A REGULATION relating to natural resources; adopting by reference certain specifications and standards relating to the drilling, casing and cementing of wells; eliminating the requirement that certain applications be accompanied by a location plat which satisfies certain criteria; specifying the period of time by which certain sample cuttings and splits of cores must be submitted to the Bureau of Mines and Geology of the State of Nevada for the approval of a drilling permit; revising certain duties of an operator of an oil or gas well; eliminating certain limitations on the use of gas from an oil well; revising requirements for the filing of certain surveys and reports; repealing unnecessary definitions; and providing other matters properly relating thereto.

Legislative Counsel's Digest:

Existing law: (1) requires the Division of Minerals of the Commission on Mineral Resources to adopt regulations to effectuate the purposes of chapter 522 of NRS, governing oil and gas; and (2) authorizes the Division to require certain persons to make and file reports, logs and surveys relating to oil and gas wells. Existing law also authorizes the Division to require the drilling, casing and plugging of wells in such a manner to prevent: (1) certain escapes of oil or gas; (2) certain water intrusions; (3) pollution of fresh water supplies; and (4) blowouts, cavings, seepages and fires. (NRS 522.040)

Section 1 of this regulation adopts by reference certain American Petroleum Institute specifications and standards relating to the drilling, casing and cementing of wells.

Existing regulations require a person to apply to and obtain a permit from the Division before any well is spudded in or drilled for oil or gas. Existing regulations require the application to be made on certain forms and accompanied by the required fee and a location plat prepared by a land surveyor licensed in Nevada. (NAC 522.210, 522.495) **Sections 2 and 7** of this regulation eliminate the requirement that an application be accompanied by a location plat that satisfies certain criteria.

Existing regulations require, as a condition for the approval of a drilling permit, certain sample cuttings and a split of any core taken to be submitted to the Bureau of Mines and Geology of the State of Nevada as soon as the drilling of a well is complete. (NAC 522.215)

Section 3 of this regulation requires the cuttings and any sample taken to be submitted to the Bureau not later than 90 days after the date on which the drilling of the well is complete.

Existing regulations impose certain duties on an operator of an oil or gas well. (NAC 522.232) **Section 4** of this regulation: (1) updates the editions of certain specifications prescribed by the American Petroleum Institute which must be met by casings; (2) eliminates a requirement that an operator of an oil or gas well must notify the Division if any casing or casing material has been previously used in a hydraulic fracturing operation or in any other oil or gas well; and (3) revises the address of an Internet website at which an operator may obtain information on the types of spills which must be reported to the Division of Minerals and the Division of Environmental Protection of the State Department of Conservation and Natural Resources.

Section 5 of this regulation changes the edition of the specifications prescribed by the American Petroleum Institute which must be met by well control and wellhead assemblies used in an oil or gas well.

Existing regulations limit the use of gas from an oil well to certain enumerated purposes. (NAC 522.345.) **Section 6** of this regulation eliminates such limitations.

Existing regulations require two copies of logging surveys run in a wellbore by an operator to be filed with the Division. (NAC 522.510) **Section 8** of this regulation authorizes a single electronic copy, in lieu of two paper copies, of the logging surveys to be filed with the Division.

Existing regulations require: (1) a report of the production and sales of all oil, gas and water to be filed in quadruplicate with the Division on or before the last day of the month following the month for which the report is made; and (2) two copies of the report to be filed with the State Treasurer with the remittance of the production tax. (522.515) **Section 9** of this regulation: (1) requires the filing with the Division of an electronic or paper copy; and (2) eliminates the requirement that two copies of the report be filed with the State Treasurer.

Section 10 of this regulation repeals definitions that are repetitive of statutes applicable to the provisions of certain existing regulations relating to natural resources. (Chapter 522 of NAC)

Section 1. Chapter 522 of NAC is hereby amended by adding thereto a new section to read as follows:

1. The Division hereby adopts by reference API Specification 5CT, "Casing and Tubing," Eleventh Edition, which is available from the American Petroleum Institute at the Internet address https://www.apiwebstore.org, for the price of $345.

2. The Division hereby adopts by reference API Specification 10A, "Cements and Materials for Well Cementing," Twenty-Fifth Edition, which is available from the American Petroleum Institute at the Internet address https://www.apiwebstore.org, for the price of $197.

3. The Division hereby adopts by reference API Standard 53, "Well Control Equipment Systems for Drilling Wells," Fifth Edition, which is available from the American Petroleum Institute at the Internet address https://www.apiwebstore.org, for the price of $195.

Sec. 2. NAC 522.210 is hereby amended to read as follows:

522.210 1. Before any well is spudded in or drilled for oil or gas, application must be made to and a permit obtained from the Division.

2. The application must be made on Form 2, properly completed and accompanied by Form 1 ~~[,]~~ ***and*** the required fee **.** ~~[and a location plat prepared by a land surveyor licensed in Nevada.]~~ Evidence of a federal bond for drilling on a federal lease must be included in the space provided on Form 2. The source and estimated volume of water required for drilling each well must be included with the application.

3. If the well is to be drilled on state or private land, Form 3 or 3a, properly completed, must accompany the application.

4. The Division will, upon the approval of an application for a permit to drill or a sundry notice (Form 4) for a permit to conduct a hydraulic fracturing operation, make a copy of the permit available on the Internet website maintained by the Division.

Sec. 3. NAC 522.215 is hereby amended to read as follows:

522.215 The taking of cuttings and the filing thereof is a condition for approval of the drilling permit, and this condition will be stated on the permit. A minimum of two 15-milliliter sets of cuttings per sampling interval must be cleaned, dried and placed in sample envelopes, and the cuttings and a split of any core submitted to the Bureau of Mines and Geology ~~[as soon as]~~ ***not later than 90 days after the date on which*** the drilling of the well is complete. The Bureau shall remove a 15-milliliter set and place the set in permanent storage. The rest of the cuttings

must be made available for public inspection and testing at that time or, if the records concerning the well are to be kept confidential pursuant to NAC 522.540, upon the expiration of the period of confidentiality. Destructive tests may be performed on the cuttings made available for public inspection and testing. The Administrator of the Division must be notified by the Bureau of any sample envelopes containing less than 5 milliliters of cuttings.

Sec. 4. NAC 522.232 is hereby amended to read as follows:

522.232 An operator of an oil or gas well shall:

1. Maintain a copy of the approved drilling permit at the site of the well during the operation of the well, including, without limitation, during the stages of drilling, hydraulic fracturing, reconditioning and completion.

2. Not less than 24 hours before a well is spudded for oil or gas, notify the Division by telephone or electronic mail.

3. Not less than 24 hours before installing or cementing casing, installing any equipment for the prevention of a blowout or conducting a formation integrity test, notify the Division by telephone or electronic mail.

4. Ensure that the casing installed in the well meets the minimum specifications for casing prescribed by the American Petroleum Institute in ***API*** Specification 5CT, ~~[“Specification for Casing]~~ ***“Casing*** and ~~[Tubing, Ninth Edition,”]~~ ***Tubing,” Eleventh Edition,*** or by its successor organization, or as may be otherwise prescribed by the Administrator.

5. ~~[Notify the Division if any casing or casing material has been previously used in a hydraulic fracturing operation or in any other oil or gas well.~~

~~6.]~~ Ensure that the cementing of each casing string meets the minimum specifications prescribed by the American Petroleum Institute in ***API*** Specification 10A, ~~[“Specification for~~

~~Cements]~~ ***"Cements*** and Materials for Well ~~[Cementing, Twenty-Fourth Edition,"]~~ ***Cementing," Twenty-Fifth Edition,*** or by its successor organization, or as may be otherwise prescribed by the Administrator.

~~[7.]~~ ***6.*** Store and contain all materials at the site of the well in a safe and orderly manner.

~~[8.]~~ ***7.*** Manage spills or releases in the manner prescribed by the Division of Environmental Protection pursuant to chapter 445A of NRS and chapter 445A of NAC.

~~[9.]~~ ***8.*** Except as otherwise provided in subsection 3 of NAC 522.728, contain all liquids that are returned to the surface and discharged from the wellbore in the manner prescribed by the Division of Environmental Protection pursuant to chapter 445A of NRS and chapter 445A of NAC. A reserve pit for drilling liquids must not subsequently be used for the discharge of wellbore liquids during the testing of the well without the prior approval of the Administrator.

~~[10.]~~ ***9.*** If an unintentional mechanical failure of the well or an uncontrolled flow or spill from the well site occurs, immediately notify:

(a) The Division at the telephone number of the Division.

(b) The Division of Environmental Protection at the spill reporting hotline maintained on its Internet website.

➥ An operator may obtain information on the types of spills which must be reported pursuant to this subsection at the Internet website ~~[http://ndep.nv.gov/BCA/spil_rpt.htm.]~~ ***https://ndep.nv.gov.***

Sec. 5. NAC 522.234 is hereby amended to read as follows:

522.234 1. An operator shall take all precautions which are necessary to keep wells under control and operating safely at all times. Well control and wellhead assemblies used in an oil or gas well must meet the minimum specifications for assemblies prescribed by the American

Petroleum Institute in ***API*** Standard 53, ~~[“Blowout Prevention]~~ ***“Well Control*** Equipment Systems for Drilling ~~[Wells, Fourth Edition,”]~~ ***Wells,” Fifth Edition,*** or by its successor organization, or as may be otherwise prescribed by the Administrator.

2. Equipment for the prevention of a blowout which is capable of shutting in the well during operation must be installed on the surface casing and maintained in good operating condition at all times. The equipment must have a rating for pressure greater than the maximum anticipated pressure at the wellhead. The equipment must include casing outlet valves with adequate provisions for mud kill and bleed-off lines of appropriate size and working pressure.

3. An operator shall test the equipment for the prevention of a blowout under pressure immediately after installing the casing and the equipment at the wellhead. A representative of the Division must observe the test in person or otherwise approve the results of the test before the operator drills the shoe out of the casing. An operator shall notify the Division not less than 24 hours before conducting a test pursuant to this subsection.

4. The operator shall submit to the Division the pressure data and supporting information for the equipment for the prevention of a blowout as soon as practicable after the conclusion of the test. The operator shall record the results of each test in the daily drilling log of the operator.

Sec. 6. NAC 522.345 is hereby amended to read as follows:

522.345 1. ~~[Gas from an oil well may be used for:~~

~~(a) Light or fuel;~~

~~(b) Efficient manufacture of chemicals;~~

~~(c) Reinjection to increase the ultimate recovery of hydrocarbons or for storage;~~

~~(d) The extraction of liquid hydrocarbons from the gas if the gas is not wasted; or~~

~~(e) The artificial lifting of oil from a pool if all gas returned to the surface is then used without waste.~~

~~2.]~~ No gas from a gas well may be permitted to escape into the air without the approval of the Division except:

(a) When required for safety;

(b) When required for initial testing of a well; or

(c) To lift oil artificially from a pool in cases of operational necessity if the escape is permitted for no more than 5 days within any 30-day period.

~~[3.]~~ ***2.*** The disposition of gas produced by each gas well must be reported each month on Form 7.

Sec. 7. NAC 522.495 is hereby amended to read as follows:

522.495 ~~[1.]~~ A person who desires to drill any oil or gas well must file Form 2, properly completed, with the Division.

~~[2. The location plat required by this section must be of convenient size, and must have the location of the proposed well within a 40-acre legal subdivision by an accurate course and distance tie to an established corner of a section or quarter section. The plat must contain a full description of the corner to which the tie is made, together with all markings thereon. Ties to offset section or quarter corners on township lines must also show the nearest corner of the adjoining township together with the offset distance. Lots within a lotted section must be shown and designated. The plat must indicate the method used in obtaining all bearings and must show the declination used for compass bearings and the source of the bearing if an angle is turned from a line of known bearing. The person who prepares the plat must note on the plat whether solar or polaris observations have been used.]~~

Sec. 8. NAC 522.510 is hereby amended to read as follows:

522.510 1. Form 5, the well completion report, must be filed for all wells drilled in Nevada within 30 days after drilling operations are completed. In the case of a dry hole, this report may accompany Form 4. If production will not begin within 30 days after drilling operations are completed:

(a) Form 5 is not required to include information regarding the production of the well; and

(b) An additional Form 5 must be filed with the Division within 30 days after production begins at the well that includes information regarding the production of the well.

2. ~~[Two]~~ ***Except as otherwise provided in this subsection, two paper*** copies of all logging surveys run in the wellbore by the operator must be filed with the Division. ***In lieu of filing two paper copies, a single electronic copy of the logging surveys may be filed with the Division.***

3. The Division will file ~~[one]~~ ***a copy*** of the ~~[sets]~~ ***of the logging surveys*** with the Bureau of Mines and Geology. The copy at the Bureau will be available for public inspection when the records are no longer confidential.

Sec. 9. NAC 522.515 is hereby amended to read as follows:

522.515 1. ~~[A]~~ ***An electronic or paper copy of a*** report of the production and sales of all oil, gas and water must be filed ~~[in quadruplicate]~~ with the Division on or before the last day of the month following the month for which the report is made. ~~[Two copies of the report must be filed with the State Treasurer with the remittance of the production tax. One copy must be retained by the producer.]~~

2. All wells on a production status or shut-in for any part of the month must be included in the monthly report.

Sec. 10. NAC 522.078 and 522.708 are hereby repealed.

TEXT OF REPEALED SECTIONS

522.078 "Division" defined. (NRS 522.040) "Division" means the Division of Minerals of the Commission on Mineral Resources.

522.708 "Hydraulic fracturing" defined. (NRS 522.040, 522.119) "Hydraulic fracturing" has the meaning ascribed to it in NRS 522.0275.

For NDOM Use Only
☐ Entered in Database
By:_____ Date:_____

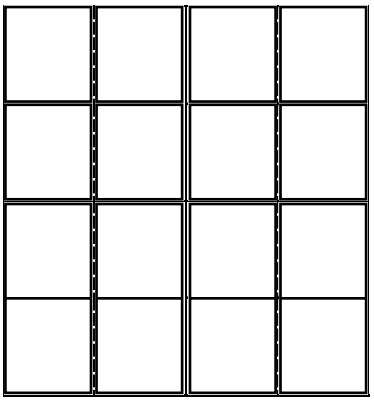
STATE OF NEVADA
COMMISSION ON MINERAL RESOURCES
DIVISION OF MINERALS
400 W. King Street, Suite 106
Carson City, Nevada 89703
(775) 684-7040 | Fax (775) 684-7052
http://minerals.nv.gov

APPLICATION FOR PERMIT TO DRILL AN OIL OR GAS WELL

(Application must be accompanied with permit fee. Submit proposed drilling program with this application.)

Company/Operator_____
Send permit to:
Street/PO Box _____
City _____ State_____
Zip _____ Telephone_____
Lease name _____ Split Estate? ☐ Yes ☐ No

WELL LOCATION



Section _____
Locate well correctly.

Well No. _____within the _____¼ of _____¼
Sec _____, T. _____,R._____M.D.B.M.
UTM Northing _____N; UTM Easting _____E (NAD83 Datum)
Field _____,
County _____
The well is _____feet from the ☐ **North** / ☐ **South** line and
and _____feet from the ☐ **East** / ☐ **West** line of the section.
(Give location from section line, cross out wrong directions.)
Distance and direction from nearest town _____

If patented land, Fee Owner is
_____
Fee Owner Address
_____

If government land, lease serial no. is _____
Land Type: ☐ Federal (BLM, USFS, etc.) ☐ Private ☐ State
Lessee is _____
Address _____
Is the proposed well being considered for unconventional well stimulation? ☐ Yes ☐ No
It is proposed to drill the well to a depth of _____ feet using a rotary rig.
The elevation is _____ feet above sea level.
The KB will be _____.

If this is a wildcat well, attach plat by licensed surveyor showing location.

The status of a bond for this well in conformance with NRS 522.230 of the Nevada Revised Statues is:
_____

If bond posted with U.S. Government, what is name of surety company?
_____
Bond number?_____

Please be advised: NAC 522.540 Confidentiality of well records. 1. Records concerning a well will not be kept confidential by the Division unless the owner of the well request's confidentiality in writing or marks "confidential" on the logs of an exploratory well. Upon receiving such a request or log, the Division will keep the records confidential for 1 year after their receipt unless the owner provides a written authorization for an earlier release.

I certify that I have personal knowledge of the facts above stated and that they are true, correct, and complete.

Signed _____

Name _____

Position _____

Date _____

Permit No. _____

API No. _____

Approval Date _____

By _____

CONDITIONS OF PERMIT

1. **Please send daily drilling reports to : Dustin Holcomb .....dholcomb@minerals.nv.gov and Crystal Cruson .....fluids@minerals.nv.gov**
2. **See attached "Conditions of Approval."**
3. **Additional Conditions/Comments (FOR DIVISION USE ONLY)**

A.	
B.	
C.	

This permit does not extend the permittee the right of ingress and egress on public, private, or corporate lands.

The issuance of this permit does not waive the requirements that the permit holder obtain other permits from State, Federal, and local agencies.

6. Public Comment

7. Adjournment